GRANDMASTER KNOWLEDGE

A MATTER OF ENDGAME TECHNIQUE

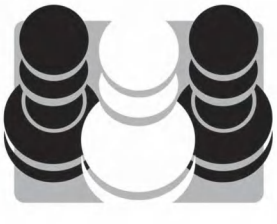
JACOB AAGAARD

QUALITY CHESS

A Matter of Endgame Technique

By

Jacob Aagaard



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A MATTER OF ENDGAME TECHNIQUE

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Suite 247, Central Chambers, 11 Bothwell Street,
Glasgow G2 6LY, United Kingdom
Phone +44 141 204 2073
e-mail: info@qualitychess.co.uk
website: www.qualitychess.co.uk

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Series Introduction

Welcome to the *Grandmaster Knowledge* series, which is going to be a series of books where various middlegame and endgame topics are explained in depth. The first overarching theme of the series will be an unapologetic attention to detail. The second is that the books will be textbooks, not workbooks, unlike the previous books I wrote in the *Grandmaster Preparation* series, which were predominantly workbooks.

The title of the series should not be understood in the same way as the series of videos Alex Yermolinsky once did, which were about what *Every Russian Schoolboy Knows*. While I think books that explain themes and ideas that are commonly known to grandmasters are great, and I do work on ideas for such books, there is an unquestionable need and desire for books that can teach even grandmasters something. Although it should be said that two of the all-time greats were not informed about the knowledge Yermolinsky considered common, as you can see on page 446.

Players rated 2300 and over are a smaller part of the market for instructional material, so based on sales to these players alone, this book is bound to be a commercial fiasco. But I hope this series will be accessible to players at an earlier stage of their progress as well. Although you are not the focus audience, a seat has also been reserved for you.

Although the material in this series will be advanced, the intention is to make it as accessible as possible. I am of the firm conviction that chess is a difficult game to play, but not too difficult to explain once you have analysed the games thoroughly.

The difference is that during a game, you will have competing rationales pulling you in different directions. In the analysis you work out which direction was preferable, leaving you with the task of explaining why one rationale was superior.

The first book in this series is really five or six books in one. This size is not going to be the model for the series as a whole, although I refuse to make any promises, despite threats from the publisher. A volume on middlegame technique will follow, although not as the next volume.

Jacob Aagaard
Glasgow, May 2022

Contents

	You don't have to read everything!	9
	Exercises to Chapter 1	**15**
	Chapter 1 – Endgame Elements	**27**
1	Promotion and underpromotion	27
2	Underpromotion	31
3	Unstoppable promotion	40
4	The importance of passed pawns	42
5	Using passed pawns as a distraction	44
6	Creating passed pawns	45
7	Protected passed pawn	52
8	Breakthrough	55
9	Distant passed pawns	58
10	Creating passed pawns	62
11	Spread passed pawns can be stronger than connected pawns	66
12	Eliminate all the pawns	68
13	King blocking the passed pawn	73
14	Attacking the pawns from behind	74
15	Pawns in the way	74
16	Zugzwang	82
17	Triangulation	86
18	Losing a tempo	90
19	Unnecessary pawn moves	94
20	Mutual zugzwang	99
21	Opposition	102
22	Distant opposition	103
23	Corresponding squares	110
24	Shouldering	113
25	Provoking weaknesses	119
26	Domination	121
27	Mate in the endgame	124
28	Defending against attacks on the king	138
29	Stalemate	138
30	Stalemate escapes	143
31	Shortest stalemate	148
32	Newest shortest stalemate	148

33	Perpetual rook	149
34	Perpetual check and pawn endings	153
35	Counterplay	154
36	Fortresses and passive defence	156
37	Positional draw	159
38	The 50-Move Rule	162
39	Activate the strongest piece first	164
40	King activity	166
41	King penetration	169
42	King flexibility	171
43	Cutting off the king	175
44	Checks	178
45	The king belongs in front of the passed pawn	179
46	Bishop on one diagonal	182
47	Bishop on two diagonals	183
48	The power of the two bishops	189
49	Knight paths	204
50	Knight in the corner	204
51	Kings are better than knights	206
52	The fourth phase	207
53	Simplifications in the fourth phase	218
54	Weaknesses	222
55	The principle of two weaknesses	223
56	Prophylaxis	226
57	The Shankland Rule	230
58	Schematic thinking	231
59	Fighting for key squares	234
60	Knowing when to act and when to squeeze	239
61	Timing	242
62	The importance of the critical moment	250
63	Anticipating the race	255
64	Active or passive defence	258
65	Capablanca shuffling	275
66	Winning without doing	277
67	Plus equal	280
68	Small details	283
69	Mechanical manoeuvre	290
70	The endgame is deeply tactical	294

71	Deep calculation	298
72	Deep resources	299
73	Miracle escapes	300
	Exercises to Chapter 2	**307**
	Chapter 2 – Lack of Technique	**311**
1	Opposition and triangulation	311
2	Being practical	317
3	Distractions	321
4	Pattern recognition – Knights and flank pawns	325
5	Basic principle of exchanges	327
6	Maximise your advantage before striking	347
7	Domination	348
8	Micro-domination	356
9	Cutting off the king	362
10	Shouldering	364
11	Allowing counterplay	367
	Exercises	400
	Solutions	402
12	Necessary and unnecessary complications	409
13	Overpressing	416
14	Passed pawns must be pushed	420
15	Losing control	424
16	Pushing passed pawns too far	428
17	Hanging on to material	431
18	Overestimating dynamics	433
19	Endgame theory	440
20	Surprising endgame theory	447
	Exercises to Chapter 3	**449**
	Chapter 3 – Fortresses	**451**
1	Types of fortresses	451
2	Fortress as a defensive strategy	452
3	Ways to break fortresses	453
4	Wrong bishop for the corner square	454
5	A shouldering fortress	458
6	A fortress that relies on counterplay	459
7	Fortress as a surprise defence	460
8	The role of pawns in breaking fortresses	466
9	Six fortress exercises	471
10	Solutions	473
11	Queen vs rook and pawn	479

12	Expanding on a generic fortress	480
13	Fortress in a complicated setting	481
14	Control over one colour of squares	486
15	A stalemate and restriction fortress	488
16	Fortress as a defensive strategy	489
17	Breaking down a fortress	494
18	Brute force to break down a fortress	500
19	Breaking a fortress slowly	502
	Five advanced examples	**505**
20	Blockade	505
21	Fighting to stay alive	509
22	A fluid fortress	514
23	A restriction fortress	527
24	Understanding fortresses	534
	Exercises to Chapter 4	**545**
	Chapter 4 – Rook vs Bishop	**547**
1	A fortress breaking – filmed backwards	547
	Symmetrical pawns	555
2	Symmetrical h-pawns on the 4th and 5th rank	555
3	Two symmetrical pawns	560
4	Three pawns on the same flank	563
5	f-pawns only	564
6	g-pawns in the middle	565
7	The game	568
8	Asymmetrical pawns	580
9	Flank pawns	583
10	Looking back...	586
11	Adjacent pawns	589
12	A few games in conclusion	594
13	A passed pawn each	615
	Exercises to Chapter 5	**621**
	Chapter 5 – Exchanges	**623**
1	Going deep	625
2	Comparing resulting endings	632
3	Same story – more or less	644
4	Guidelines for exchanges	646
5	A guideline with more value	646
6	Exchanging one set of rooks only	648

7	Transition into a winning ending	662
8	Exchanging queens	664
9	Pawn exchanges	668
10	Don't exchange your opponent's weaknesses	676
11	Transposing into pawn endings	677
12	Looking for the pawn ending	678
13	Broadening	681
14	Loss of flexibility	684
15	The transformation of advantages through exchanges	686
16	Exchanges/Prevention of counterplay	690
17	Clarity	691
18	Exchanging for penetration	699
19	Exchanges for king safety	701
20	On the other hand	702
21	A complex example	704
22	Exchanges from the defender's point of view	714
23	Exchanges to make a draw	716
24	Relying on strategic principles	721
	Exercises to Chapter 6	**731**
	Chapter 6 – Illustrative Games	**739**
1	An illustration of opening play	740
2	Fighting for key squares	745
3	Exploiting an advantage	762
4	The annoying small details	772
5	Fortress	779
6	Breaking a fortress	790
7	Plus equal	803
8	Exchanges and the flow of the game	814
9	Exchanges and clarity	828
10	Creating passed pawns	841
11	Rook vs two minor pieces	845
12	Rook vs two minor pieces – another example	856
13	The bishop pair	864
14	Attack in the endgame	872
15	Timing	878
	Name Index	890
	Bibliography	896

You don't have to read everything!

Looking at a nine hundred page book may be a daunting experience. On the one hand, it is a lot of information, but on the other, it is a big challenge as well. At our online academy, www.killerchesstraining.com, we have daily classes, leading to 40-50 hours of chess training available each month. If you are a teenager with a deep passion for chess, this may be the greatest thing ever. But if you are a working professional, you may feel you are missing out, because there is no way you can ever watch even half the classes. Most find their own rhythm quite fast, but some do struggle with the idea of zoning in on the few things that are of especial interest to them and not feeling that they are losing out. We always wanted the academy to be a way to pool our resources so that our students can get the training they need, always, at an affordable price, thus making it available to everyone.

This book follows the same principle. Rather than looking to maximise income, it seeks to convey as much information as possible. In the process of writing it, I decided to give up on the idea of what a chess book usually looks like and allowed it to be its own thing. I am trusting readers to understand that this book is many things, and you do not have to read all of it, simply stick to the sections that pique your interest.

The book contains only six chapters, all of which could have been published as individual volumes. It is a book about technical play in the endgame, in all its facets, with two notable exceptions. This is not a book about rook endings, although a few examples of rook endings are included, and it is not a book about endgame theory, although a few examples do discuss this topic as well.

The original idea of the book was to include only examples where people misplayed their good positions, but as I got deeper into the writing of the book, this constraint became obviously artificial. The book still contains the idea that the endgame is difficult, and these are the ways we mess up, but it is only one dimension.

The themes and examples in this book are meant to be multidimensional. To some readers, a lot of the themes and ideas will be new, while others will be reacquainting themselves with existing knowledge. Learning something new is always a good thing. But so is the reminder of existing knowledge, particularly through new examples. Those readers who are following top tournaments religiously may recognise a few examples, especially from the last chapter. But the explanations and thematic investigation should still make them fresh and revealing. I don't use famous games to explain chess ideas. When I see a book full of examples I already know, because they have been in many books already, I mentally turn off. I do not want this experience for you.

The examples are as important as the themes

Learning anything involves a lot of repetition and looking at it from different angles. Most will know the principle of two weaknesses. But seeing a new example explaining it will only expand your understanding of the theme. In chess nothing is absolute. We have a lot of ideas and concepts that can help our decision making during the game. Evaluating the strategic reach of them better is an important part of improvement. No verbal explanation can fully cover the themes, they only make sense in context. For this reason, this book contains a lot of examples. Hopefully some of them will help you bridge the abyss between understanding a concept and seeing how it works on the board.

How to deal with the deep analysis in this book

It is common for readers of chess books to prefer verbal explanations over lots of variations. Often analysis is disregarded with the contemptuous description of "computer analysis". Not always without justification. It is easy to press the space bar and fill the white spaces on the page.

This is not what has happened in this book. The variations are meant to be an illustration of possible play, or to explain the tactical or technical nuances of the games. I find that it is easy to make a statement and get the approval of the reader. Usually, those who read a book are willing to believe that you know what you are talking about and will accept the evaluations as valid. But I am not looking for approval. I am wishing for you to improve your game.

The variations and analysis in this book are thus illustrations and explanations and going through them will be a part of the educational process. The thematic explanation can be easy to follow conceptually, but without seeing what it means in practice, I doubt it will have any positive influence on your game. There are a few times where the variations will be quite extensive and if you want, you can skip them. The more experienced you are, the less this should be the case.

If you are a less experienced player and some variations seem overpowering, you should skip whatever you feel you need to skip. As with our academy, it is never the intention that everyone should understand everything, but that everyone will learn something.

If you can, I recommend that you go through the variations in your head. This is good for your training in visualisation in general and where chess should be played. If you need to play through the games on a board, I recommend that you still try to go through the variations in your head. Many strong players would never think of using a board when going through a book; others would not consider reading a book without it. Personally, I am somewhere in-between, depending on the book and my mood.

Why the games are truncated

A fellow author once explained to me his love of unannotated moves, as they reduced the need for him to work. This is probably one of the reasons I dislike them so much?

Bent Larsen said: "Save me from unannotated games!" So, if you are one of the few readers who at times ask us why we start the game halfway and don't include the first 30-40 moves?

The answer is: the parts of the games that are relevant for the topic of the book are included. If you want unannotated games, you can find them everywhere. If the first 30 moves were included, too many would believe that they had to play through these moves and would be wasting time they should spend improving their endgame technique.

The organisation of the book

The six chapters are organised like this:

1. Endgame Elements
There are many small themes in the endgame. In this chapter we shall deal with a lot of them. Over the six months of writing this book, these are the main topics I could think of. To a strong player, most of them will be familiar, which is where the freshness of the examples is important. To a less experienced player, there will be a lot of new information.

2. Lack of Technique
In this chapter we shall look at common ways for things to go wrong. The core of the chapter is the big section on *allowing counterplay*, but on top of this, some topics are repeated from Chapter 1 and some topics are considered from both angles, such as *hanging on to material* and *overestimating dynamics.*

3. Fortresses
A topic unique to endgames and difficult to understand for a lot of the players I have worked with. It requires a special type of thinking, as rarely are the games decided on a move by move basis, but rather on schematic thinking and a special sensibility for fortresses.

4. Rook vs Bishop
In this chapter we shall go deeper into an endgame that most of the time ends with fortresses. This chapter definitely goes from the simple to the advanced, with details that will stretch the imagination of any grandmaster. The cornerstone game, Aronian – Dubov, is close to impossible to understand fully. I have done my best to do so, and explain what I have understood, but certainly not every aspect of this six-piece ending has been uncovered.

5. Exchanges
When and what to exchange is a difficult topic in chess and no less so in the endgame. In this chapter we shall debate this topic in depth, and why the strategic concept I was taught when I was younger is debateable. In going deep into this topic, I hope I can rescue you from some of the disasters that befell my friends.

6. Illustrative Games
The final chapter includes a few recent games and two lesser-known games that feature big endgame battles. The concept is to show the endgame in its natural habitat and go deep. I enjoy both small clear examples with one-dimensional explanations, and deep analysis of complicated games that tries to address all the elements we encounter on the battlefield.

The book has been designed to be read in order. Start at Chapter 1 and progress through the book. However, there will be many times where you encounter a point explained again, yet explained as if seen for the first time. This is intentional. Repetition is good. There is a lot of information in this book and as said, you do not have to read everything to benefit from it. And at times I presume you have not done so.

However, I hope you will find the themes and explanations revealing and want to read on.

A few general truths about the endgame

Throughout this book you will be faced with a lot of thematic ideas: some known for a hundred years, some obvious, but never really written about, and perhaps a few that I have noticed first. Above them are some general truths about endgame play, which are well established.

Most games are won or lost incrementally

Throughout this book, you will find many examples where one side has a significant advantage already. Either they will win with accurate play, or the other side is facing their last chance(s) to save the game.

This is not how most endgames work. Usually, one side enters the endgame with a slight advantage. This simply means that the other side has more problems to solve. In the last few decades, defensive skills have increased, but the experience is still that a slightly better position will lead to more than average results.

A big part of modern chess is to play for this technical advantage. At the top level, the days of big novelties out of the opening leading to large advantages are behind us. If you get any advantage out of the opening, it is a cause for celebration. In my generation there were a lot of players who loved the opening more than anything else and dived deep, trying to win or draw straight from the opening. When I talk to these people today, some of them feel that chess has been played out to some extent, and all there is left is to attempt some "bluff". Chess changes throughout the ages and in our age technique is more important than it has been for a while.

Most blunders come from poor positions. So, if you want to rely on luck, you need to create it.

Throughout this book you will find examples where games are won slowly. One side manages to create a few problems for the opponent and keep up the pressure, until more mistakes occur.

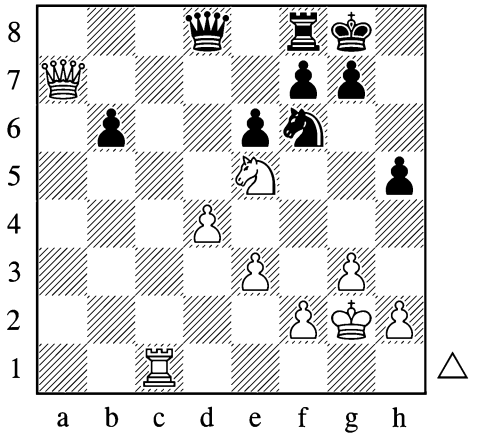
The zone of one mistake

This concept arises from Lev Psakhis and has become an important part of the thinking of Boris Gelfand, as we explained in *Technical Decision Making in Chess*. The idea is simple, yet powerful. What it focuses on, rather than looking for the objectively best line, or a forcing line leading to a win, is to get the opponent into an environment where he is likely to make fatal mistakes. This can be psychologically difficult, as those seeking control will tend to go for forcing lines. But, if you want your opponent to make mistakes, you need to give him enough rope to hang himself.

The following is an example of allowing the opponent to escape from the zone of one mistake.

Sam Shankland – Jorden van Foreest

Prague 2021



Sam played the timid:

27.h3?

The sort of move you make when you are disappointed with the outcome of your main intentions.

27...♕d5† 28.♔g1 ♘e4

Black has enough counterplay. The game took many twists and turns, before White won on move 62, but only because Black was trying to win the game along the way!

Stronger was:
27.♕b7!

This was the move Sam wanted to play on intuitive grounds. He was happy to continue squeezing after 27...♘d5, but was thinking that the intention behind Black's last move, 26...h5!?, was to be expansive on the kingside. He thus calculated the following variation:

27...g5!? 28.♖c7

28.♔g1! would be an additional option for White, keeping flexibility.

28...♕d5† 29.♔g1 ♕xb7 30.♖xb7 g4 31.♖xb6 ♘e4

The knight is aiming for g5. White is pressing, but Black will hold with decent defensive play.

But seeing this variation and to automatically extrapolate that the opponent was intending it and was confident in it, and that he would have defended the endgame well over the next 30 moves, was impractical. Better to allow the opponent to live in the zone of one mistake, than see your advantage die...

Depth of the analysis

This book has been deeply analysed and I have done the best I could to minimise mistakes. Please understand that there will never be such a thing as an error-free book and that the computers of 2030 will have a scope that cannot be matched by the computers of 2021. If you do find a mistake, please get in touch with the publisher and corrections will be made for future print editions – should there be any...

Using this book as an exercise book

I have written several exercise books and will write more in the years to come. Instead this is an instructional book and the positions are selected for their ability to explain the ideas and themes I want to cover.

However, there are those who will wish to use this book as an exercise book and I respect that. I do believe that "thinking" is the most important component in improving in this game of ours.

So, before each chapter I have created a list of exercises and marked them according to difficulty with a 1-5 assessment. As I have used many of the positions with my students, I hopefully have a realistic feeling for how difficult the exercises are...

With the inclusion of the stars and in an attempt not to make the book too long (I do get the irony of that) the idea of numbering the exercises has been abandoned. You can refer to them by their chapter number and page reference, if you need to remember where you were.

I should also say that the exercises are mixed. A lot of them require accurate play, but not all. There are positions with more than one reasonable way to play. There are positions where you should make a positional/technical decision, and there are positions you need to calculate. In some ways it simulates the experience of sitting at the board. You will not know how to approach the position. The only hint you are offered is how difficult it is. I offer this mainly because I know that some people will spend 20 minutes being confused, after seeing the solution in 30 seconds. And others will spend 30 seconds on positions that even seasoned GMs would need to take far more seriously.

Also, please accept that because this is not an exercise book, it is possible there are other sound ways to play than I have indicated in the text. Most often there will not be, but if you believe you have found an alternative solution, then check it and prepare to give yourself a pat on the back.

Exercises to Chapter 1

★☆☆☆☆ Easy. Based on a simple idea

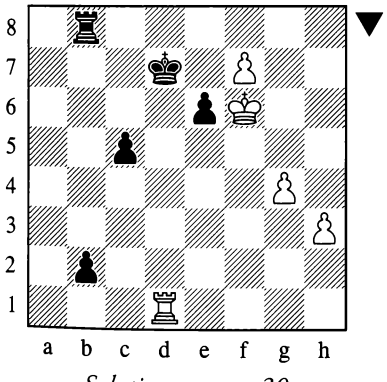
★★☆☆☆ Friendly. Can be solved by most

★★★☆☆ Mid-range. You need to think, but not too much

★★★★☆ Challenging. You will need to concentrate for these ones

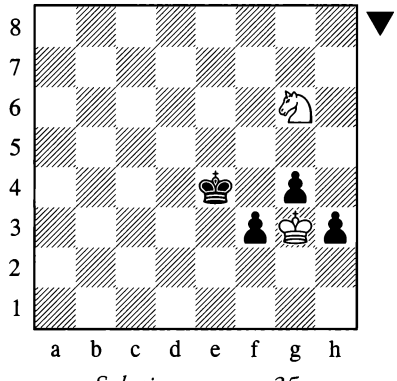
★★★★★ Brain crusher. After solving, see a neurologist...

★★★☆☆



Solution on page 30

★★★☆☆



Solution on page 35

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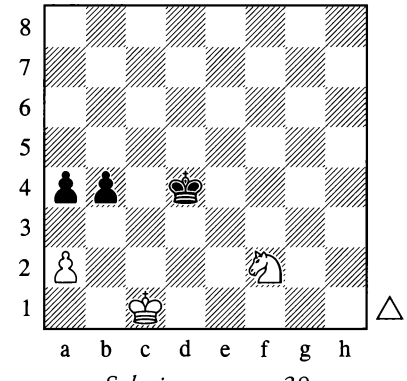

Solution on page 38

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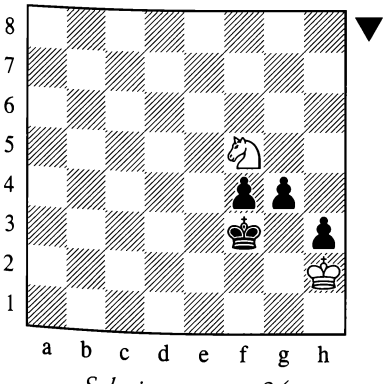

Solution on page 34

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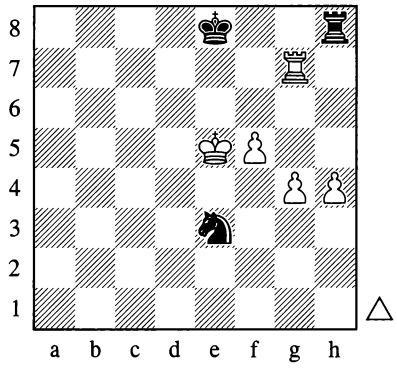

Solution on page 37

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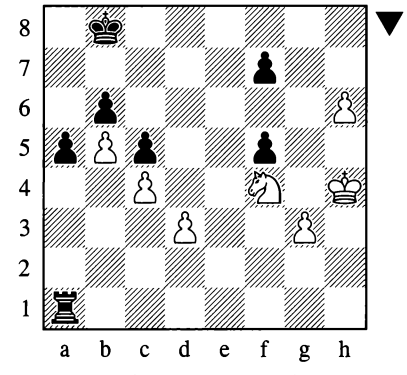

Solution on page 40

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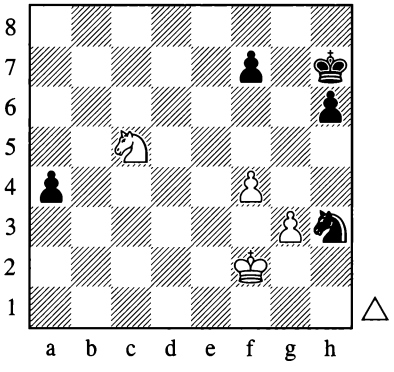
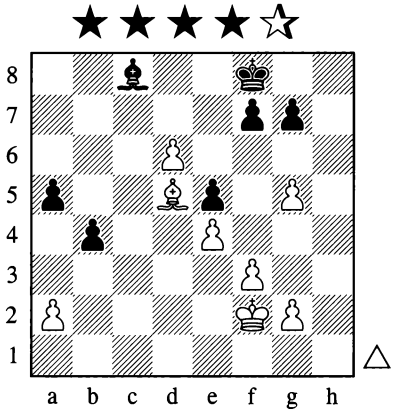


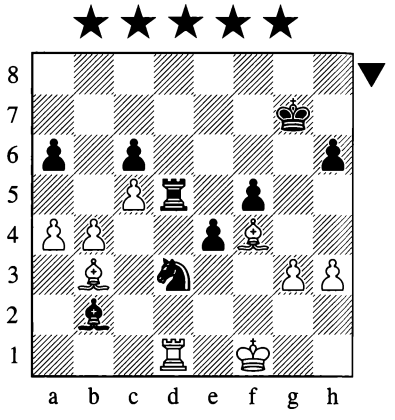
Solution on page 43

★★★★☆



Solution on page 50

★★★★★



Solution on page 57

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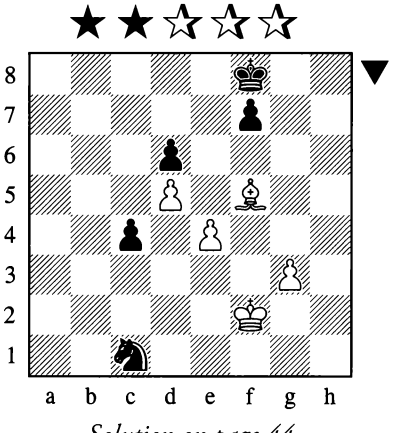
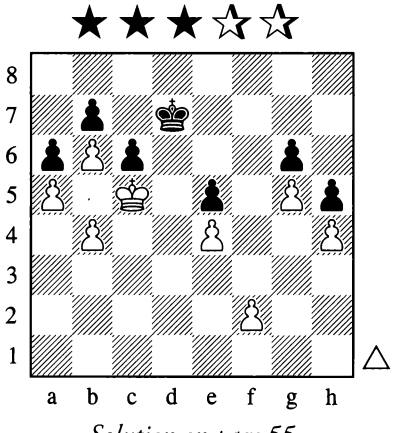


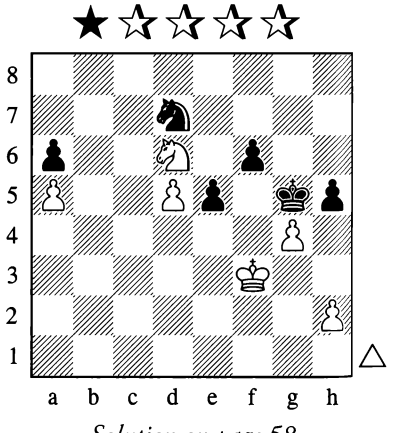
Solution on page 44

★★★☆☆



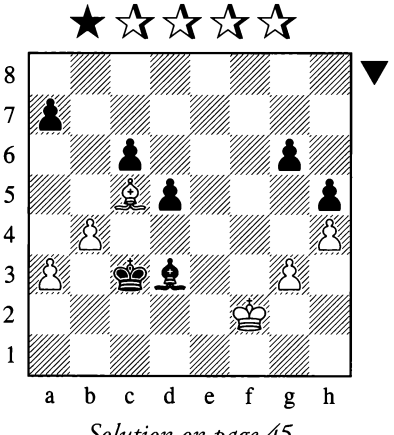
Solution on page 55

★☆☆☆☆



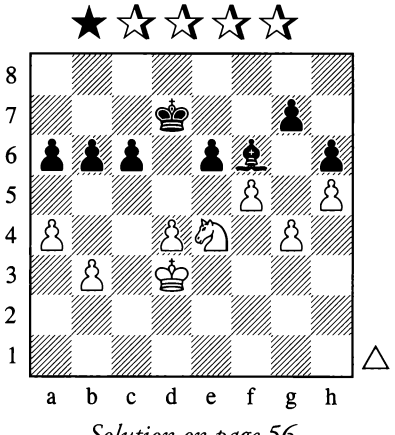
Solution on page 58

★☆☆☆☆



Solution on page 45

★☆☆☆☆



Solution on page 56

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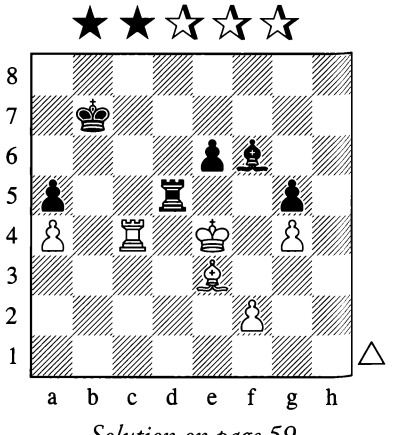

Solution on page 59

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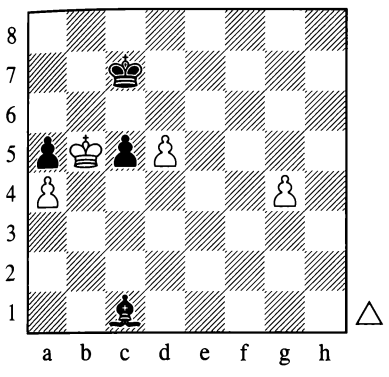

Solution on page 61

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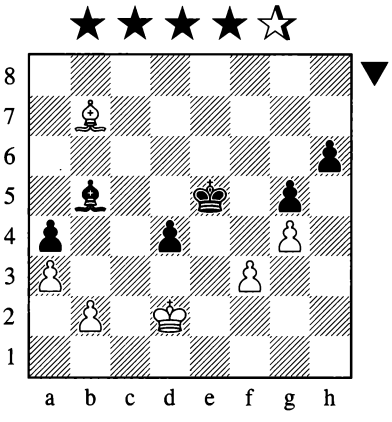

Solution on page 66

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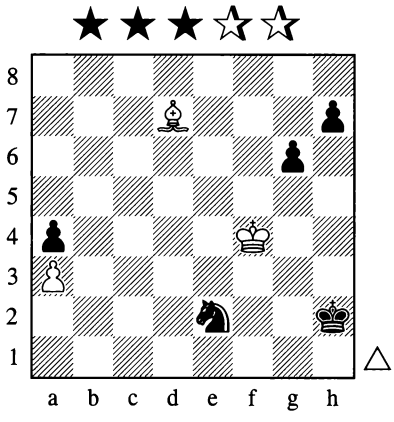

Solution on page 70

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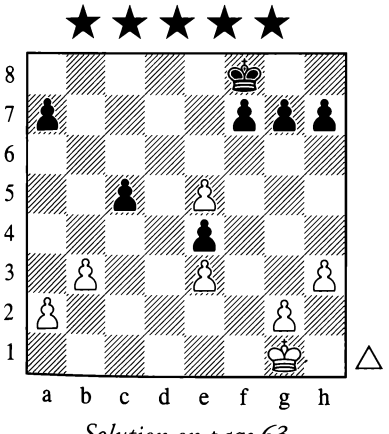

Solution on page 63

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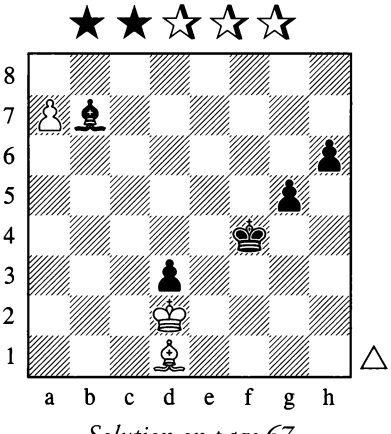

Solution on page 67

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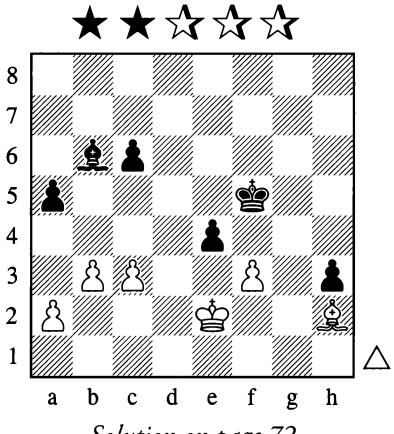

Solution on page 72

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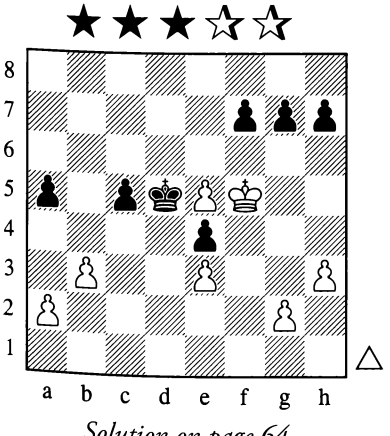

Solution on page 64

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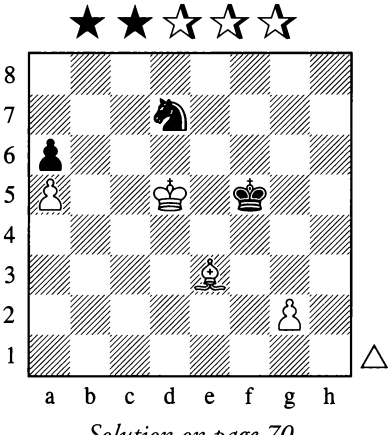

Solution on page 70

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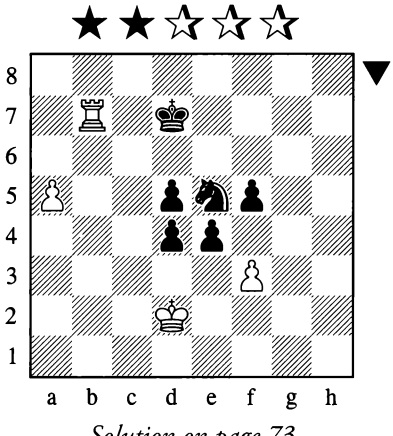

Solution on page 73

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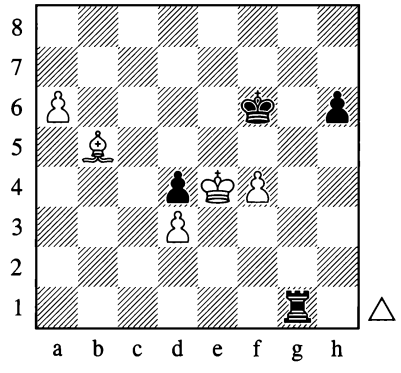

Solution on page 75

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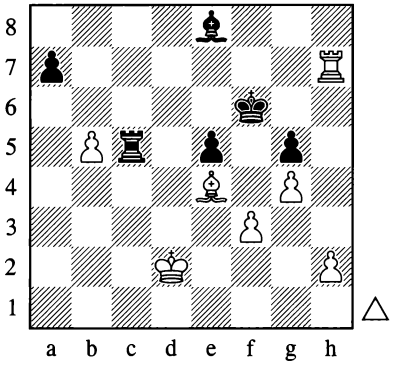

Solution on page 83

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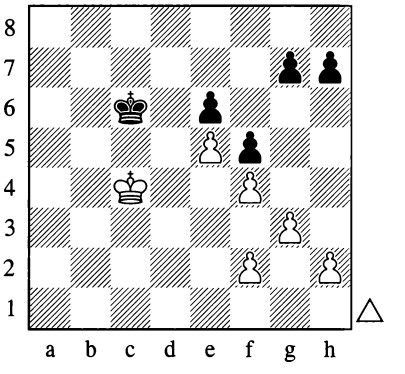

Solution on page 97

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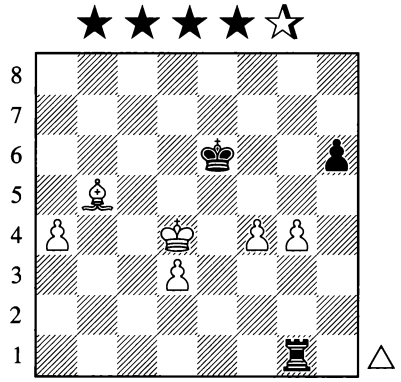

Solution on page 76

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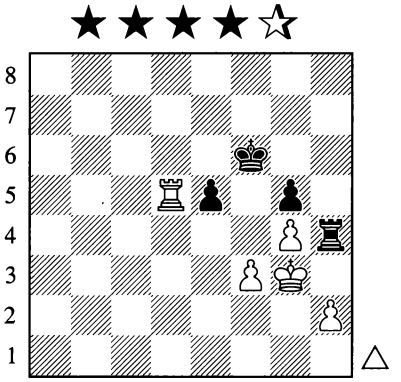

Solution on page 85

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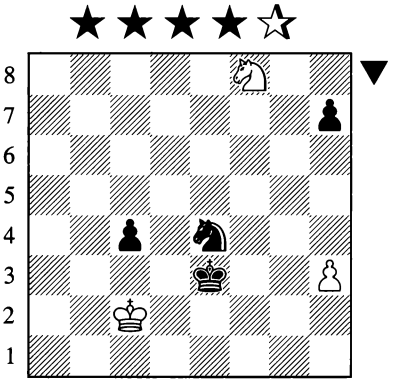

Solution on page 98

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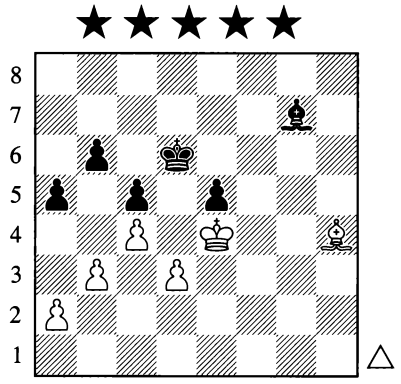

Solution on page 80

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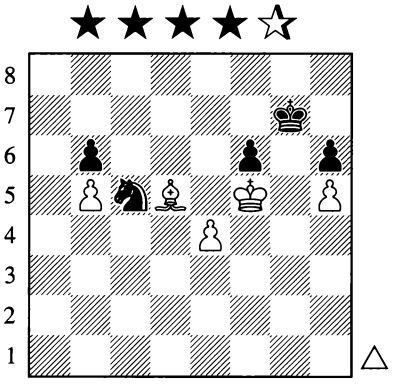

Solution on page 86

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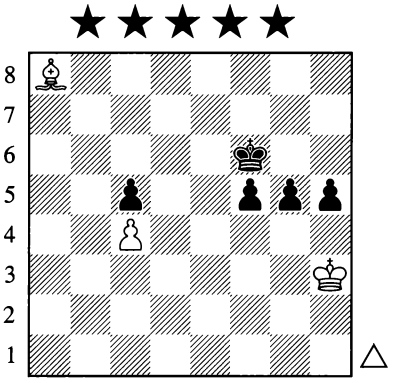

Solution on page 100

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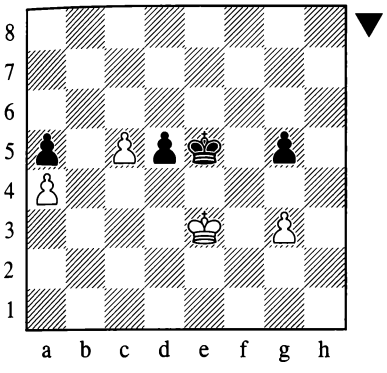

Solution on page 102

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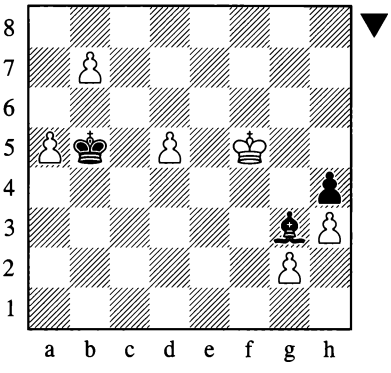

Solution on page 108

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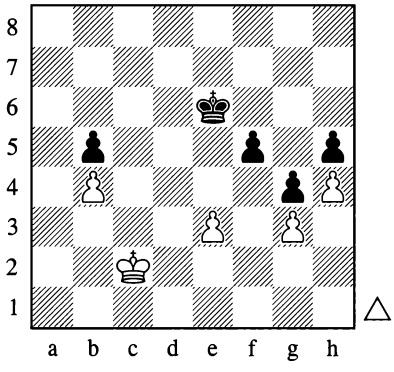

Solution on page 113

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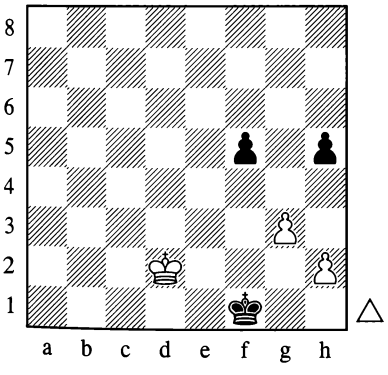

Solution on page 103

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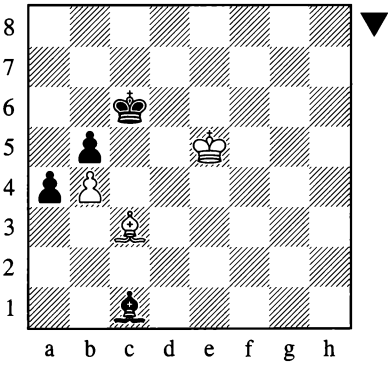

Solution on page 109

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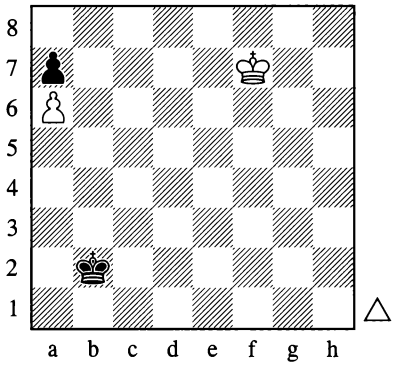

Solution on page 113

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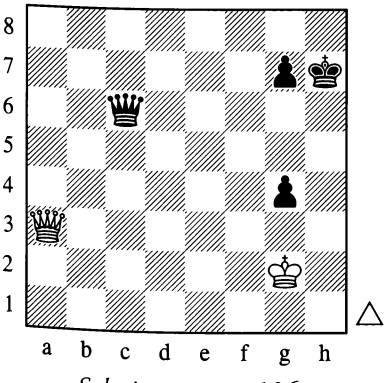

Solution on page 106

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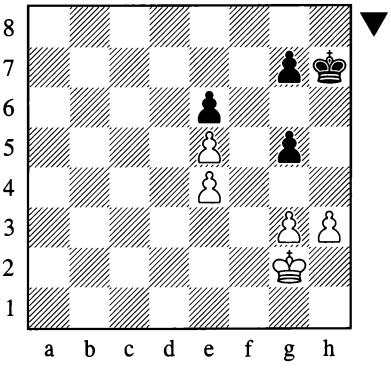

Solution on page 112

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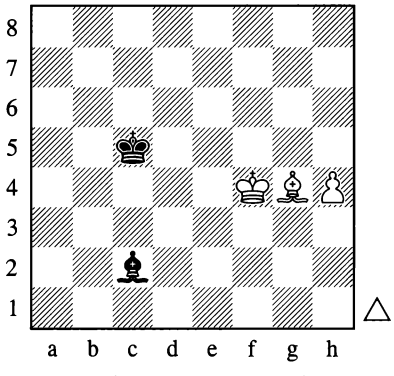

Solution on page 114

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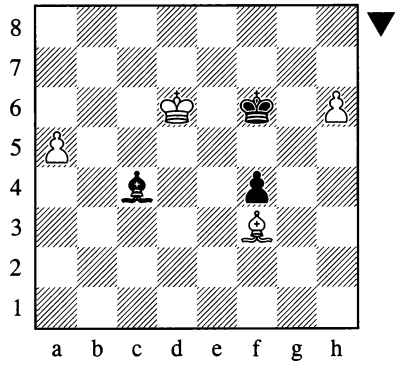

Solution on page 118

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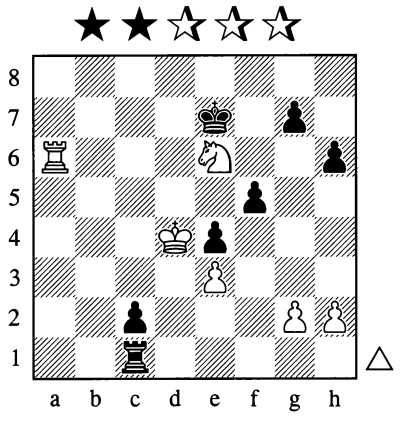

Solution on page 124

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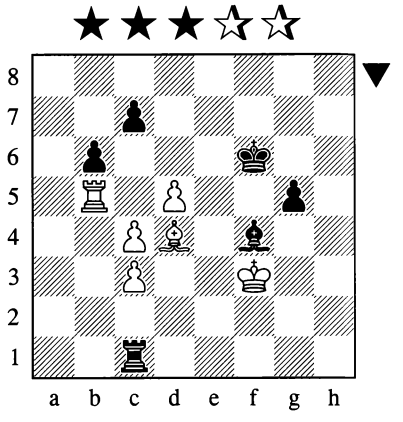

Solution on page 133

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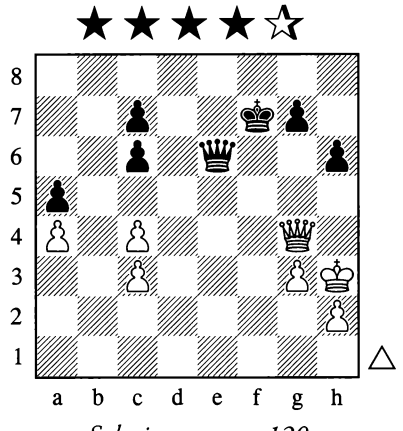

Solution on page 120

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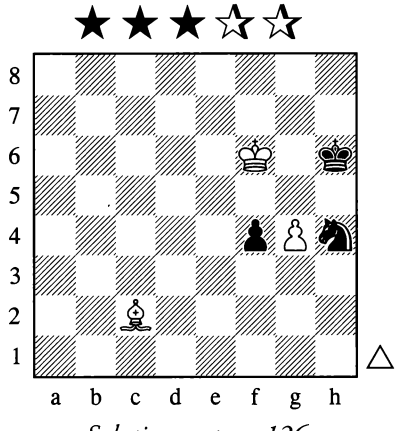

Solution on page 126

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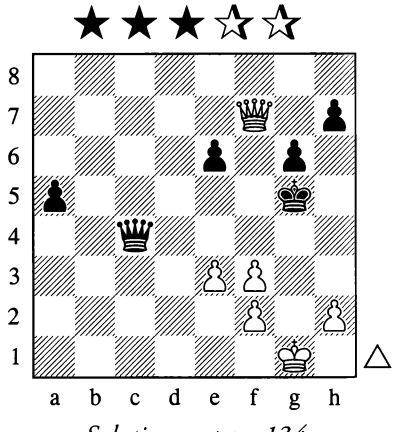

Solution on page 134

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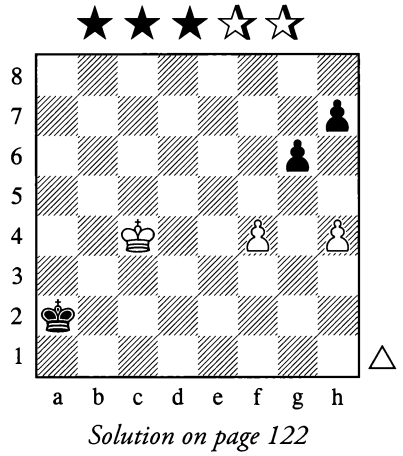

Solution on page 122

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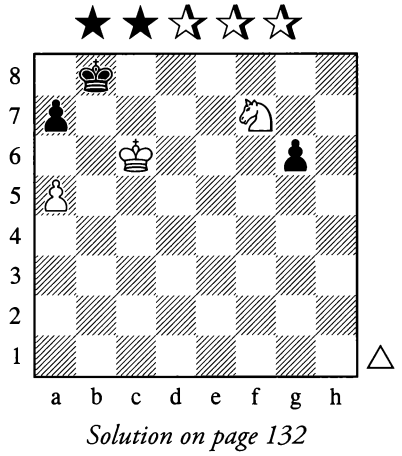

Solution on page 132

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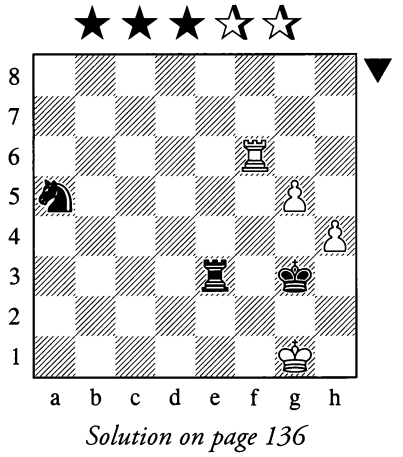

Solution on page 136

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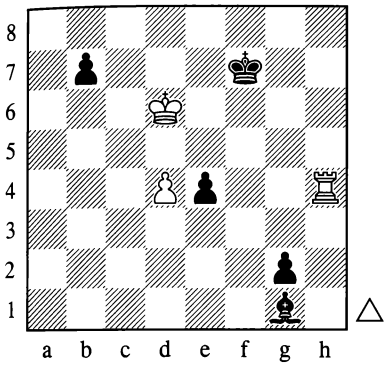

Solution on page 140

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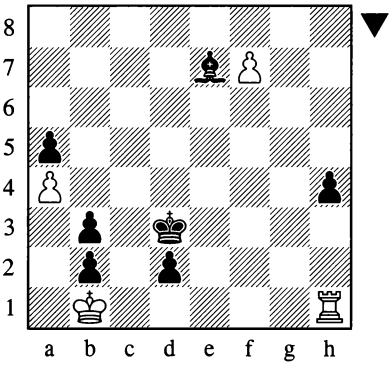

Solution on page 147

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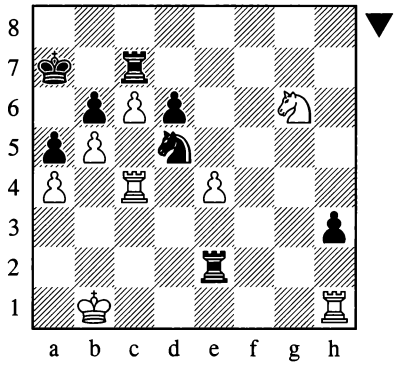

Solution on page 156

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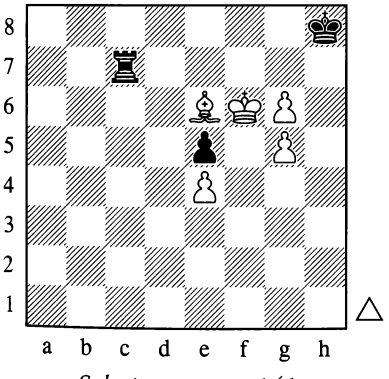
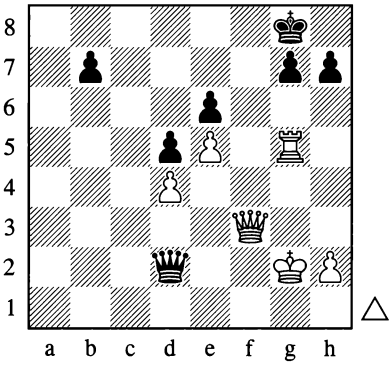


Solution on page 141

★☆☆☆☆



Solution on page 148

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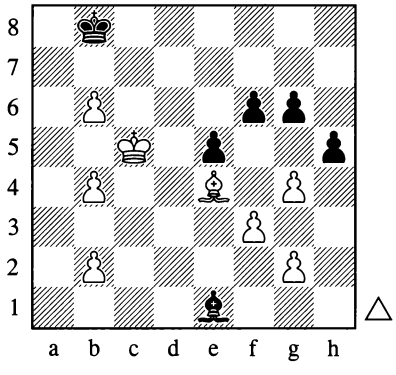

Solution on page 158

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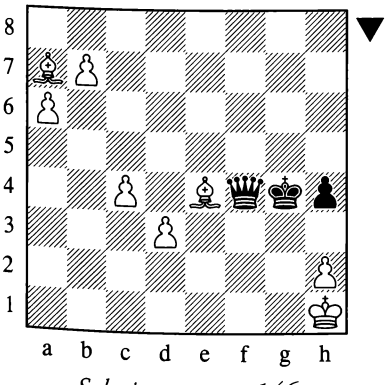
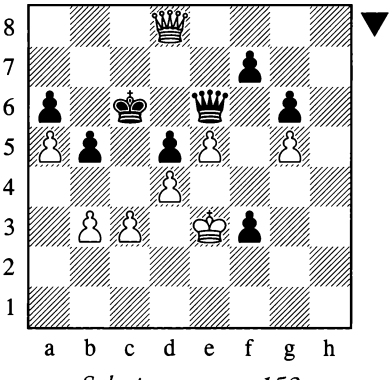


Solution on page 146

★★★☆☆



Solution on page 153

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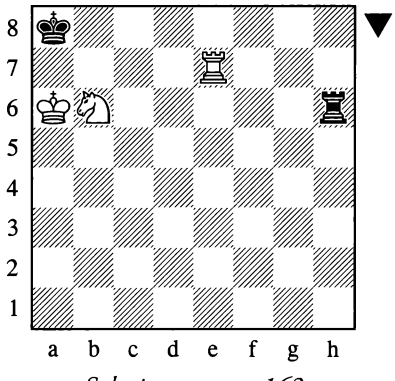
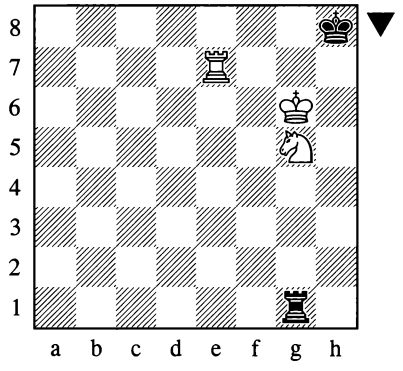


Solution on page 163

★☆☆☆☆



Solution on page 163

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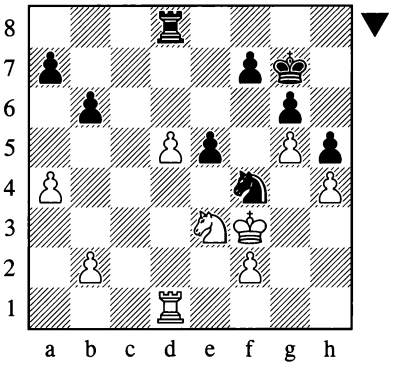

Solution on page 166

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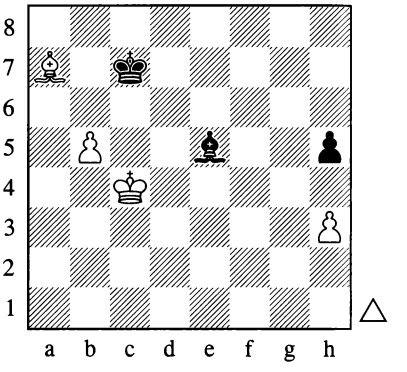

Solution on page 181

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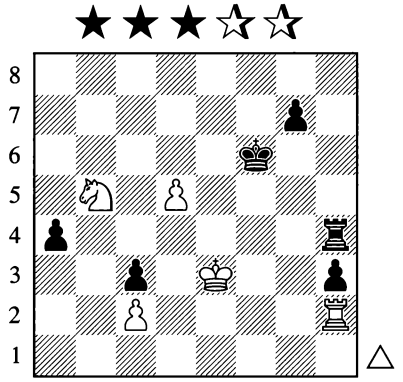

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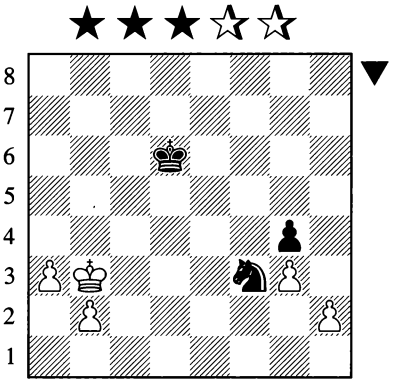

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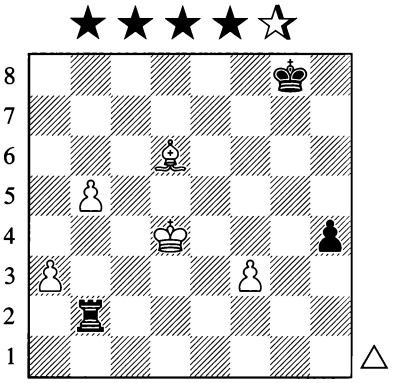

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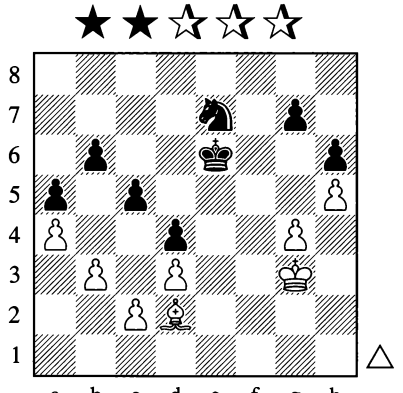

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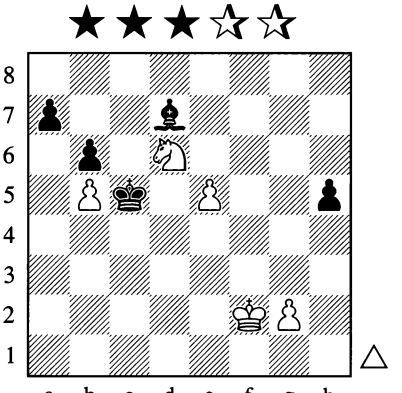

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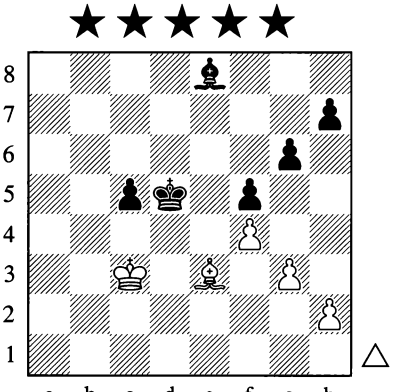

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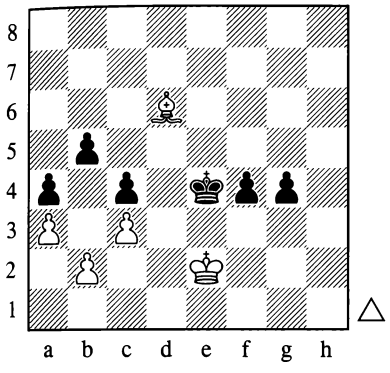

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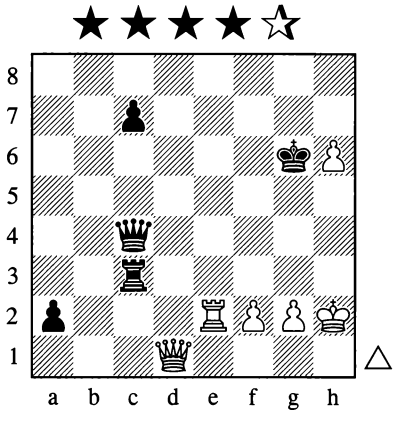

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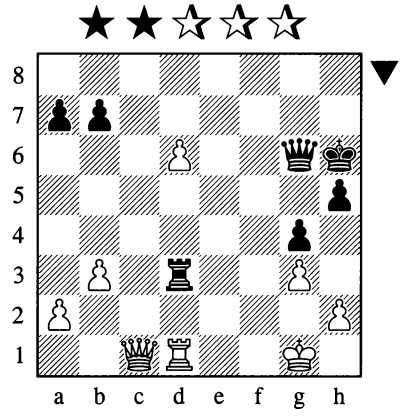

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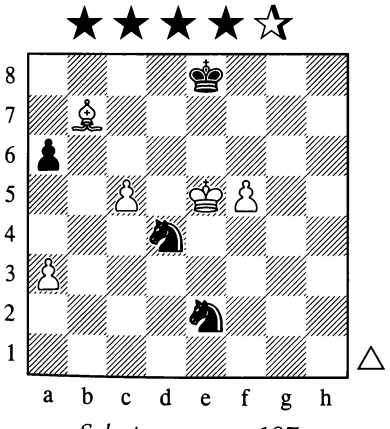

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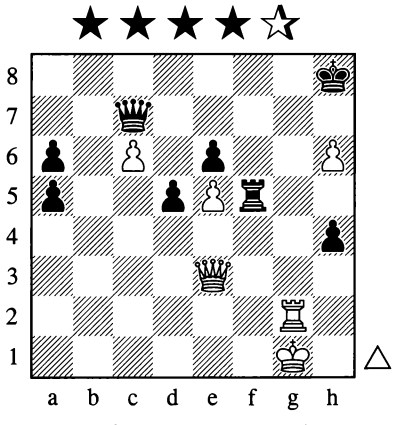

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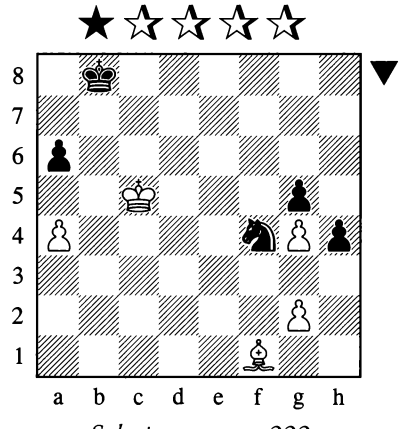

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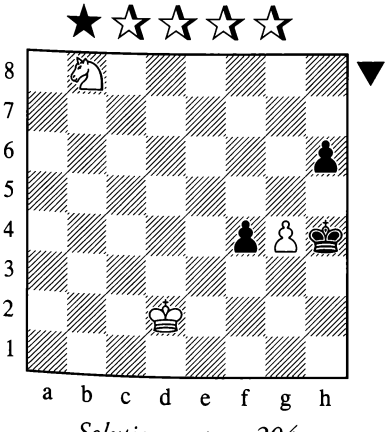

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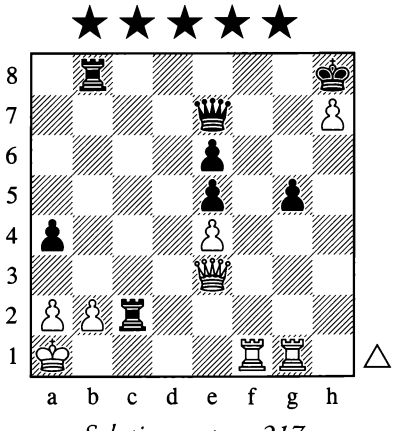

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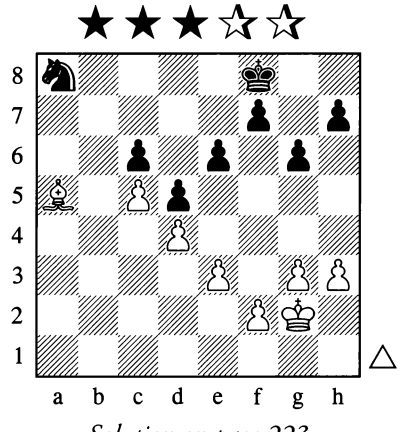

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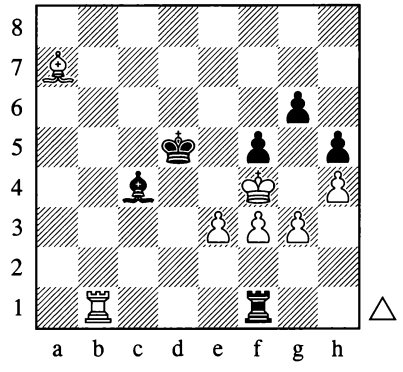

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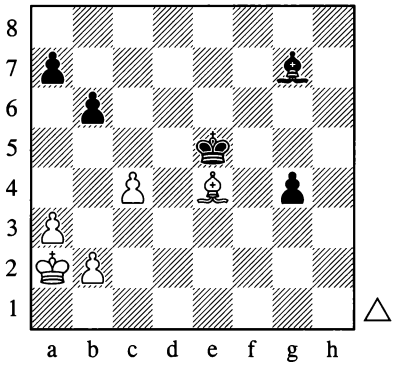

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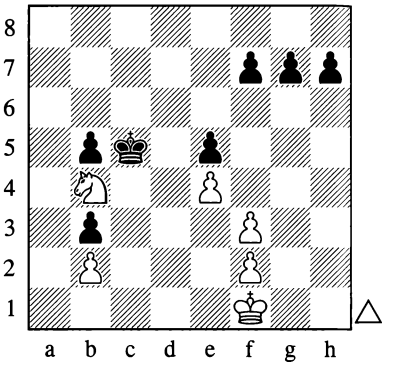

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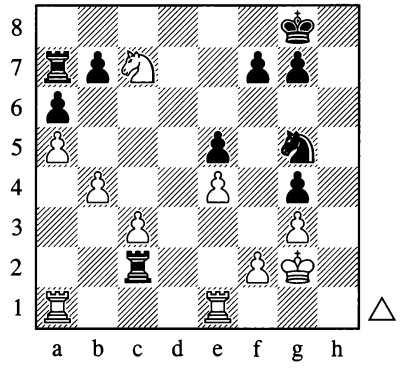

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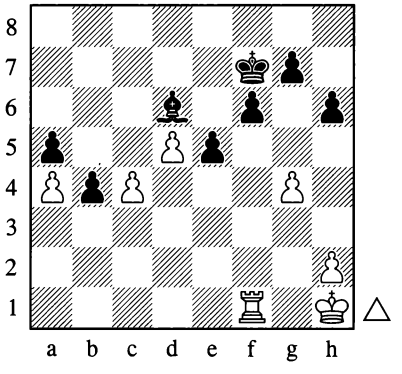

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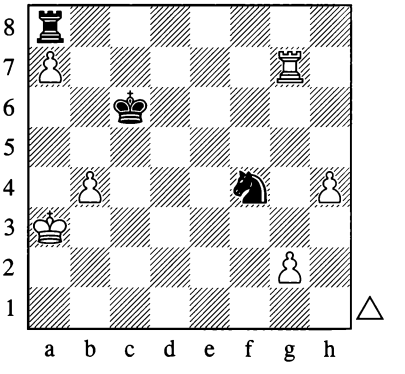

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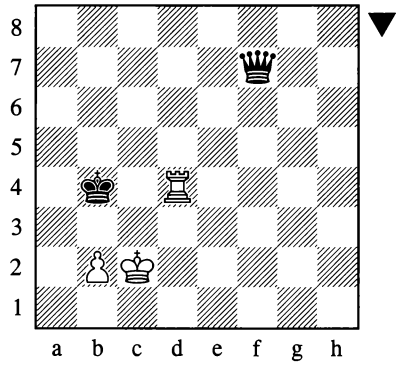

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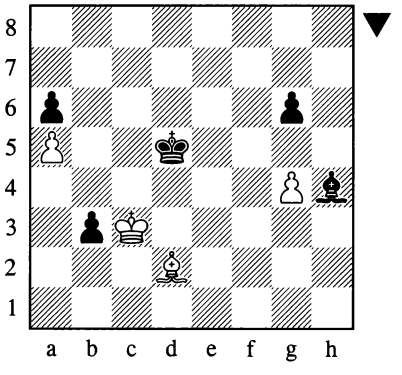

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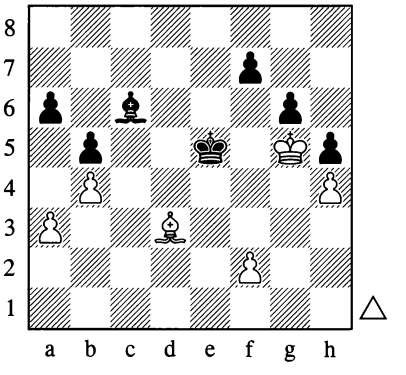

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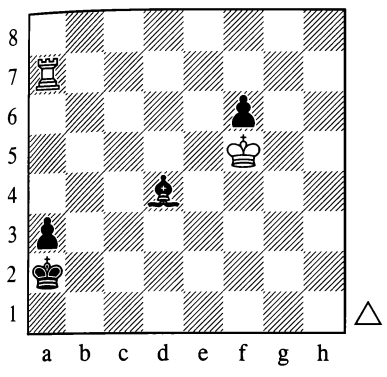

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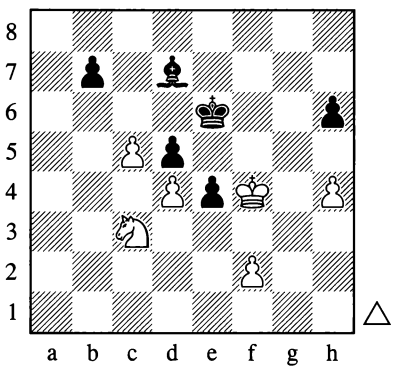

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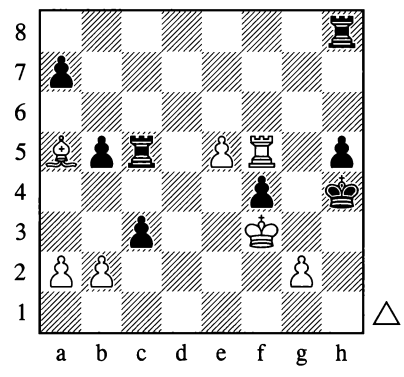

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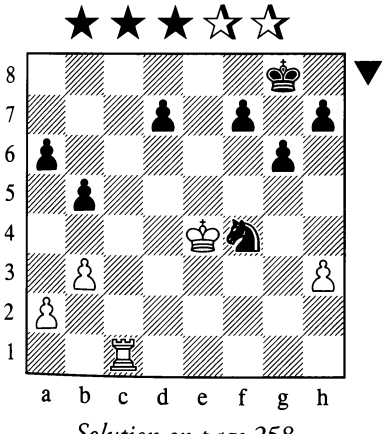

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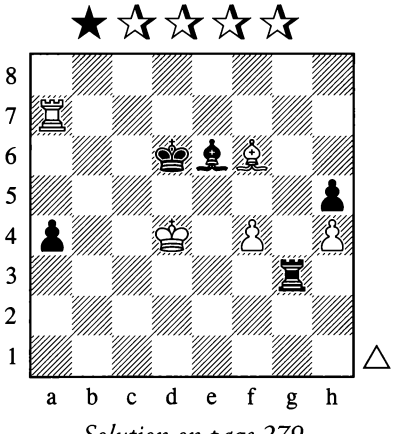

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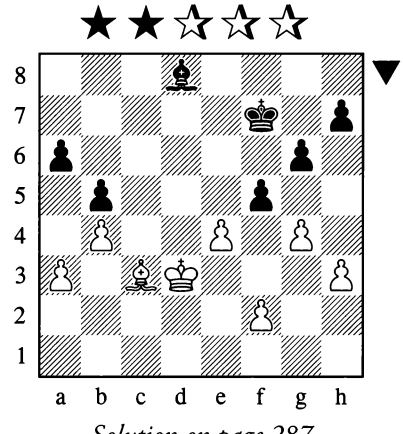

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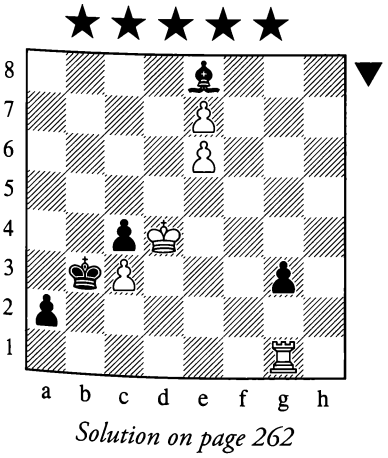

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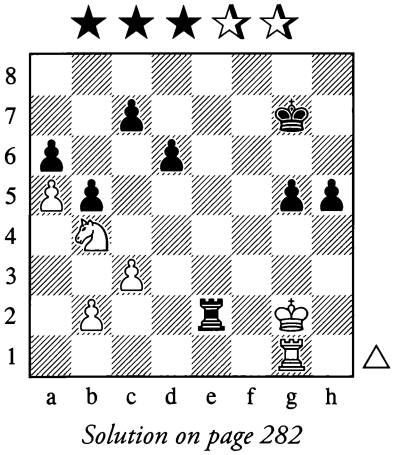

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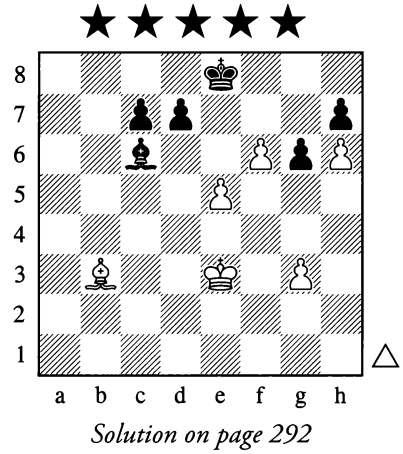

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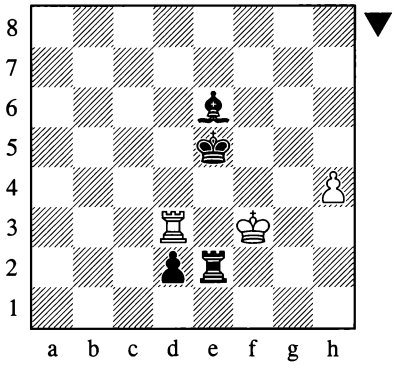

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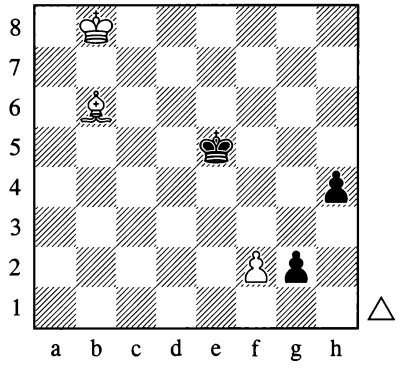

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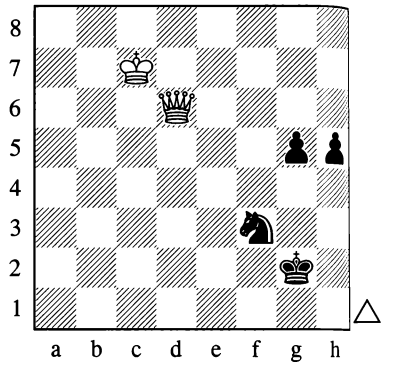

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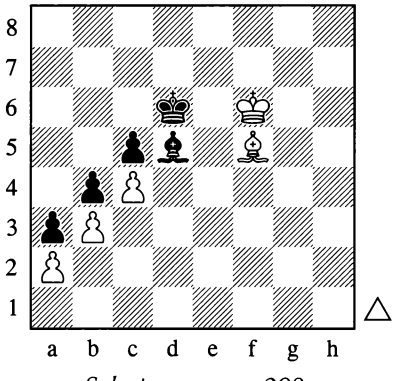

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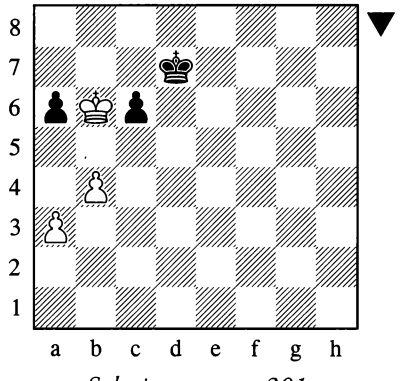


Solution on page 301

Chapter 1

Endgame Elements

Introduction

The topics within this book will come across as quite challenging, but hopefully also comprehensible. But before we dive into the great depths to follow, let's dip our toes in the water with a few basic observations about the endgame in chess.

A disclaimer: I will advance with the assumption that this is not the book where you first encounter the endgame. So, although some of what follows is explaining pretty basic things, the material is somewhat advanced and included because it felt interesting.

The endgame is characterised by a few commonly-agreed factors: the diminishing of the two armies through exchanges; playing for mate diminishing as a strategy; the king becoming an active piece and relatively safe; the importance of pawns increasing, especially with the view of advancing and promoting them. We are always talking about a sliding scale.

In this way chess mimics life, where there are transition stages between childhood and adulthood, and adulthood and old age. Laws aside, we all know that childhood ends at different ages for different people, as it is with the opening in chess. The same with the beginning of old age, and the end of the middlegame. You may feel the transition, but you were not aware of when it started and when it ended. Only one day you find yourself old and grey, with no pieces left and no ability to move.

There are many themes in the endgame which are hardly ever seen in the middlegame. This does not mean that they do not exist there. But just as mating attacks are far less frequent in the endgame, the promotion of pawns is far less common in the middlegame. It happens, but rarely. Even underpromotion happens. And our first theme is indeed those:

1. Promotion and underpromotion

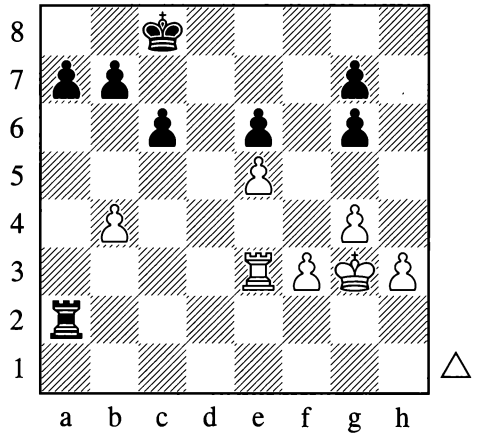
Although all successful endgame play ends with checkmate, the strategic path to achieving this is rarely "playing for mate". Rather, the goal of a large majority of endgame play is to promote a pawn or more. We all know this from our early days in chess, when you needed at least two queens to deliver checkmate!

Obviously, later in our career, we are simply hoping that the weakness will turn into an extra pawn, then a passed pawn and then, finally, winning a piece, which will then decide the game.

On the other end of the high-level spectrum, there is the scenario with multiple promotions, entering what Romanovsky called the Fourth Phase: an endgame with queens and rooks, with both passed pawns and attacks on the king. I cannot see a better way to start this book than a completely bonkers endgame involving plenty of promotions.

Michael Concio Jr – Tin Jingyao

Internet 2021



The first game is from one of the hybrid-zonal tournaments, providing spots for the 2021 World Cup in Sochi. The name was 3.3, which I believe covers the ASEAN region. White is a player from the Philippines, Black is from Singapore. Black was doing well earlier, but when we join the game, he is in trouble.

30.♔h4!

The king will eradicate the kingside, creating fast-moving passed pawns. Black has to react in kind.

30...a5 31.bxa5 ♖xa5 32.♔g5 b5 33.♔xg6 b4 34.f4!

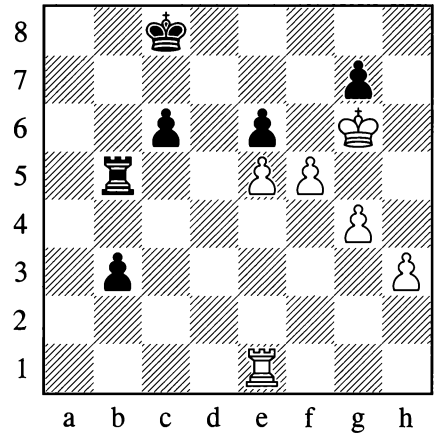
The most active move. White is making sure the passed pawns are pushed, keeping flexibility.

34.♔xg7 c5 gives Black a lot of counterplay. He is a pawn down, but his pawns are further along. If you go deep enough, you will find that all serious lines end in complicated draws.

34...♖b5 35.f5 b3!

Black was never going to lose a tempo with 35...exf5?, when 36.e6 wins on the spot.

36.♖e1



36...c5?

A common mistake. When you have an "equal" choice between pushing two different pawns, it is rare that the backward pawn is the one to push. If the white rook was on d1, we could imagine that a tempo could be won by ...c5-c4-c3-c2 later, although it is hard to see it working in a position where the white f-pawn is advancing so rapidly.

This mistake of pushing the wrong pawn, or even a completely random pawn, is a type of mistake I have noticed in several grandmaster games. If in doubt, I would push the most advanced pawn first, unless I could see something wrong with it. Ideally, I would

think deeply to work out the differences, but it is possible that Tin did not have this possibility.

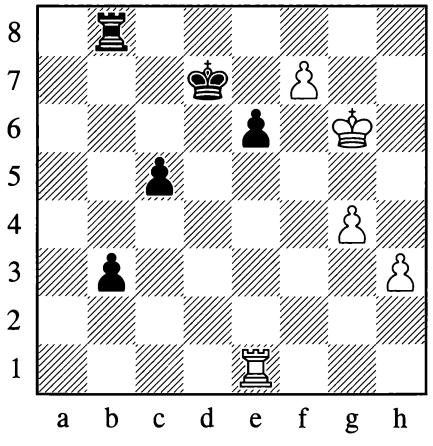
36...b2! 37.♖b1 exf5 38.gxf5 ♖xe5 39.♖xb2 ♖e3 40.♔xg7 ♖xh3 would have held.

37.f6!

It is quite likely that Black missed this move entirely. He probably expected White to take on g7, but this would not advance the f-pawn, only preserve the e5-pawn, which has limited value.

After 37.fxe6? ♖b7!, it would be Black who would win. The white pawns have lost all of their potential.

37...gxf6 38.exf6 ♔d7 39.f7 ♖b8



White has two ways to win the game. But neither is obvious, making it a difficult task to find on move 40.

40.♔f6?

40.♔g7 c4 41.♖b1!! is one way to win. Black cannot advance his queenside pawns, even though his rook is in principle better placed than the white one. The defining factor is of course the f7-pawn and the fact that it is ready to promote on the next move. 40.♖b1!? works in the same way.

40.♔g7 is not a preparation move, in the same way as 40.♔f6 or 40.♔h7 is, as White will be aiming to queen the f-pawn as quickly as possible.

40.g5!?

This is the thematic move, even if rather complicated. Once again we see the idea of moving the passed pawns forward without hesitation, rather than playing moves that prepare for it (40.♔f6?).

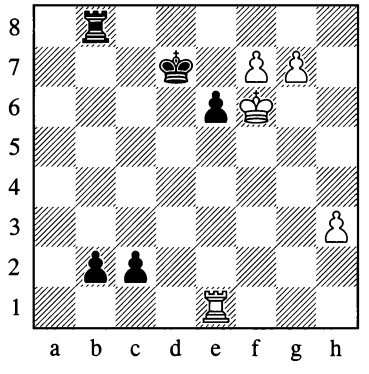
40...c4

40...b2 loses to both 41.♖b1 and 41.♔h7!?.

41.♔f6!?

This move works now. The flexibility needed on the previous move is no longer necessary. 41.♖b1! also works.

41...b2 42.g6 c3 43.g7 c2



44.f8=♕

Threatening the check on e7 is important.

44...♖xf8†

44...c1=♕ 45.♕e7† ♔c6 46.♖xe6† leads to a mating attack.

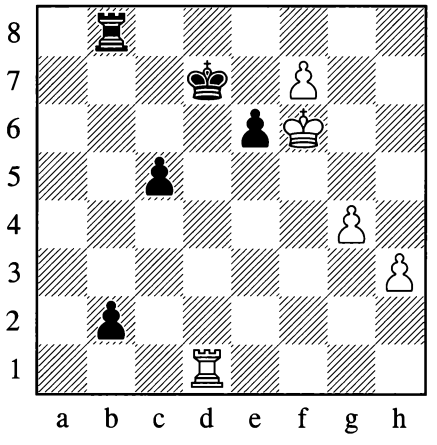
45.gxf8=♕ c1=♕ 46.♕e7† ♔c8 47.♕xe6† ♔c7 48.♕f7† ♔c6 49.♖e6†

White has a mating attack.

Another preparation move, 40.♔h7?, would fail to 40...♔e7 41.♔g7 c4, and the counterplay is quite significant. Also 41...♖f8! holds.

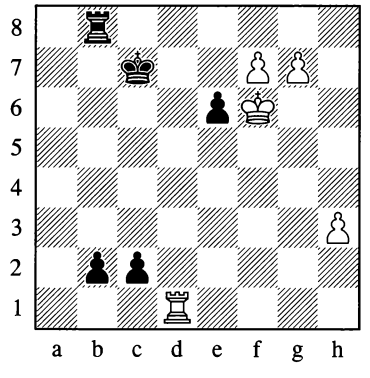
40...b2 41.♖d1†!

White would fall totally off the cliff with 41.♖b1? c4 42.♖xb2 ♖xb2 43.f8=♕ ♖f2† and Black wins.



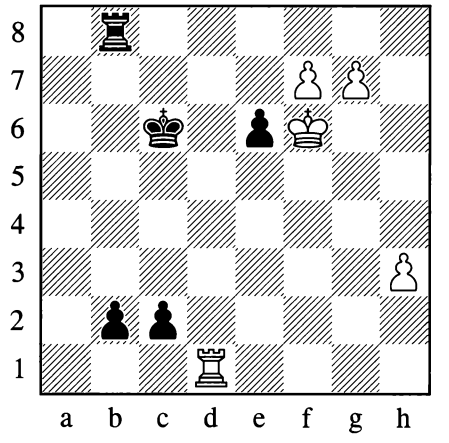
41...♔c6?

The game should have ended in a draw after 41...♔c7! 42.g5 c4 43.g6 c3 44.g7 c2.



A computer may say that this is a draw. In practice, all we would be able to see during a game is that Black has counterplay.

42.g5 c4 43.g6 c3 44.g7 c2

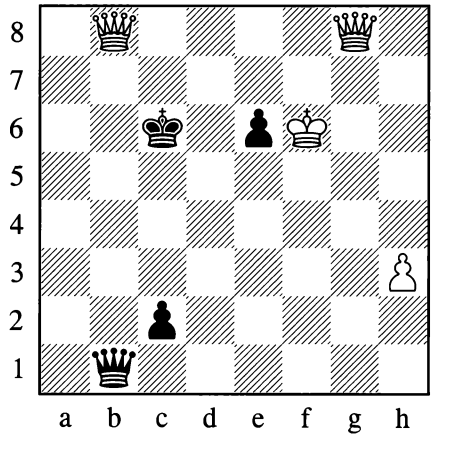


Almost the same position as earlier. But there is a slight difference.

45.♖d6†! ♔xd6

45...♔b5 46.f8=♕ ♖xf8† 47.gxf8=♕ c1=♕ 48.♕b8† ♔c4 49.♖c6† ♔d4 50.♕e5† ♔d3 51.♕b5† ♔d2 52.♖d6† also gives White a mating attack.

46.f8=♕† ♔c6 47.♕xb8 b1=♕ 48.g8=♕



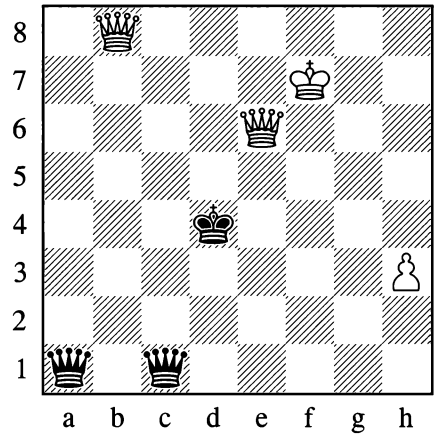
Black is completely lost.

48...♕a1†

48...♕xb8 49.♕xb8 c1=♕ 50.♕c8† wins trivially.

48...c1=♕ 49.♕gc8† ♔d5 50.♕e5# wins immediately.

49.♔f7 c1=♕ 50.♕gc8† ♔d5 51.♕xe6† ♔d4



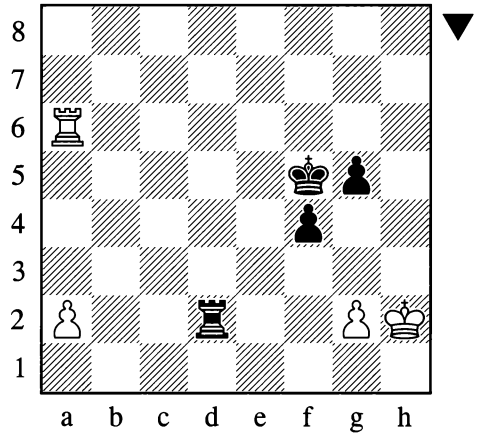
52.♕b4† ♔d3 53.♕ee4#
1–0

2. Underpromotion

One of the things that can be relevant in the endgame is underpromotion. Rather than taking a queen, we take a knight, bishop or rook. In practice this almost always means a knight. There are some famous studies where underpromotion is crucial, but in practice, underpromotion to a knight with check is what really matters. I probably had underpromotions in king and rook vs king and pawn several times in blitz and rapid, but the only underpromotion I remember from my own games was to a knight, forking a king and queen at the end of a simple tactic. The following tactic is more elegant.

Rauf Mamedov – Anton Korobov

Hengshui (blitz) 2019

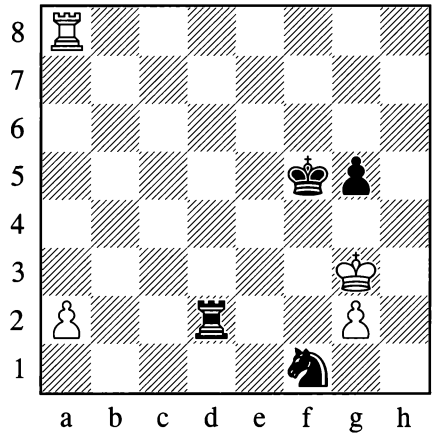


49...f3 50.♔g3 f2! 51.♖a8

Black would also win after 51.♖a5† ♔e4 52.♖a4† ♔d3 53.♖a3† ♔e2.

Taking a queen now would be a short lived pleasure after 52.♖f8†. Instead, Black played the not too surprising:

51...f1=♘†!



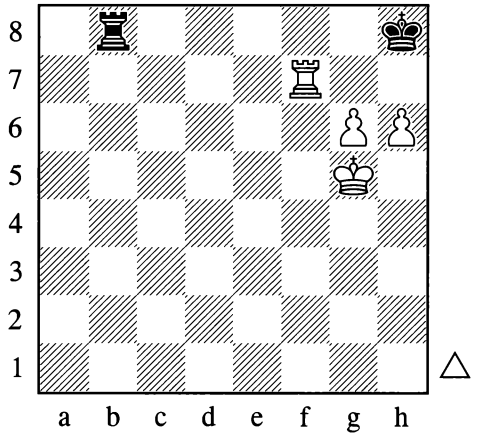
White resigned. 52.♔f3 g4# and 52.♔h3 ♖d3† 53.g3 ♖xg3# are both mate.
0–1

There are not many examples of promotion to bishops making sense outside composition. When they do, promotion to a knight is usually equally good, as the key idea is to avoid stalemate.

The following position wins slowly as well. White can play 81.h7, 82.♔h6 and mate is near.

Vitaly Sivuk – Adrian Martinez Fernandez

Lorca 2019



Instead, many choose to play:

81.♖f8† ♖xf8 82.g7† ♔h7 83.gxf8=♗!

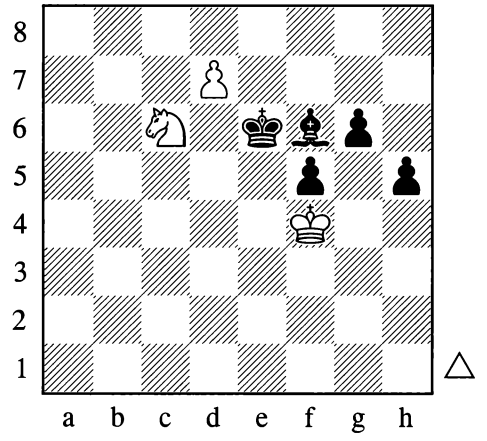
Taking a knight also works.

1–0

Most of the time underpromotion in tournament chess is meant as a joke. But there are also times (as in the king and rook vs king and pawn endgames), where underpromoting to a knight is meant to win a tempo by giving a check. In the following example, Narayanan gets away with this idea, even though his logic is all wrong.

Sunilduth Lyna Narayanan – Dmitry Andreikin

Internet 2020



83.d8=♘†??

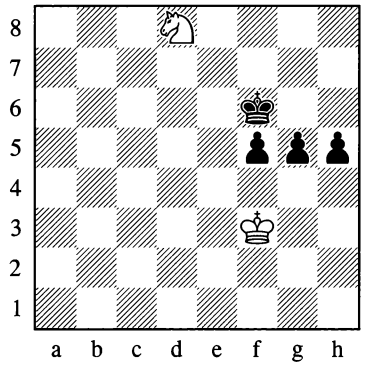
A silly mistake. But in online blitz you make silly mistakes, and get away with them, all the time. It does not make sense to analyse blitz games to understand more about chess. The Polish Grandmaster Krasenkow defines chess as "deep thinking" and describes faster forms of the game as "chess-like games".

This is certainly a controversial highbrow view. Whether you agree with it or not, Gelfand's point, that excellence in faster time controls is achieved through excellence in slower time controls, holds up.

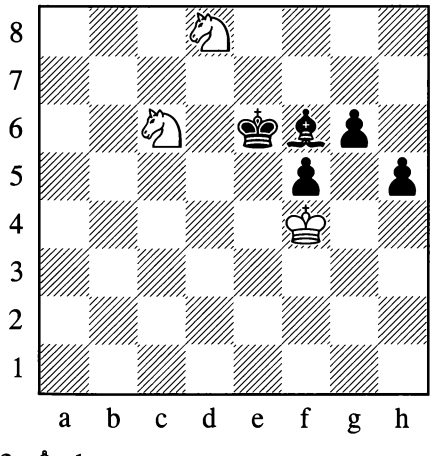
Improvement in any field is accelerated through slowing down enough so that you are in control of the process. Later, when it becomes second nature, you can do plenty of tasks on "instinct", which of course is pattern recognition and has nothing to do with primal programming. Analysing this game is entirely about analysing an interesting endgame.

White was right to promote the pawn, but it had to be anything but the knight. The most reasonable is of course to take a queen,

but even after 83.d8=♗!?, White is safe. The drawing position is quite instructive. 83...g5† 84.♔f3 ♗xd8 Not strictly forced here, but let's imagine it was a queen... 85.♘xd8† ♔f6



It is easy to understand why Narayanan was nervous about this position. But White makes a draw with accurate play. 86.♘c6! h4 (86...f4 87.♔e4 is not scary.) 87.♘b4! g4† 88.♔f4 h3 89.♘d3 White has managed to uphold the blockade and the draw is imminent.



83...♗xd8?

Black believes his opponent.

83...♔d7 would have won a knight. Even if White was to get the g6-pawn (which he won't), he would not be able to save the game.

84.♘xd8† ♔f6 85.♘c6

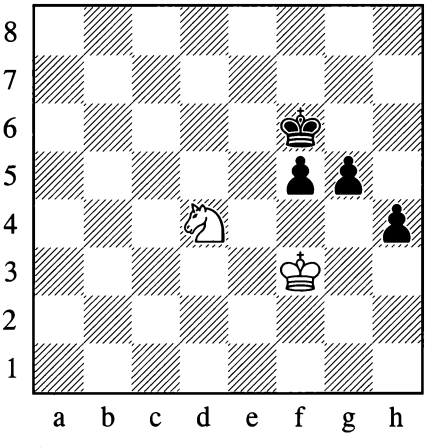
The game ended in a draw 25 moves later, so we could stop here. But these 25 moves are very interesting, so we should check them out.

85...h4 86.♔f3 g5

The following endgame is very instructive. The main point is that White needs to be able to play ♔f4. Black cannot be allowed to play ...♔e5 or ...♔g5, at least not without being checked away. And he cannot have ...h3-h2-h1=♕ without the knight catching the pawn.

87.♘d4?

87.♘b4! was correct, as established above. The knight will be on the right circuit to harass the black king.



87...♔e5?

Black misses his second chance.

87...h3! 88.♔g3 g4 89.♘e2 ♔g5 would allow Black to break the blockade. The main issue is that the knight cannot assist in stopping the h-pawn.

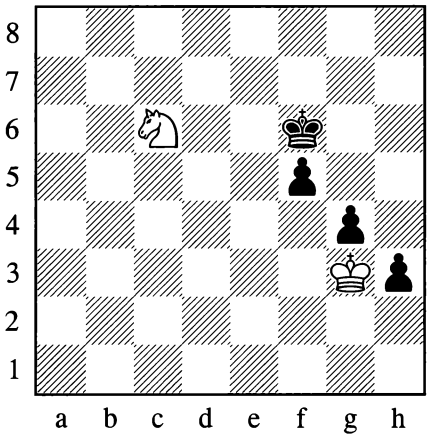
88.♘c6† ♔d6 89.♘d4 ♔e5 90.♘c6† ♔e6 91.♘d4†?

91.♘b4! once again is the move.

91...♔f6!

Typical micro-domination. The knight is unable to deal with the black king.

92.♘c6 g4† 93.♔f4 h3 94.♔g3



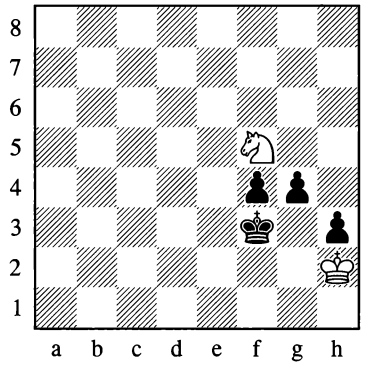
94...f4†

This is a clear sign that things are going wrong for White.

95.♔h2 ♔f5 96.♘e7† ♔e4

Black had another nice win, based on micro-domination, in:

96...♔e5 97.♘g8 ♔e4 98.♘h6 ♔f3 99.♘f5



99...♔e2!!

A great domination move.

99...♔f2 looks logical, but after 100.♘h6 Black has not made any progress. 100...♔f3 returns to the previous position (after 101.♘f5), as the attempt by White to go into a different circuit with the knight, 101.♘f7, would lose to: 101...g3† 102.♔xh3 ♔e2! 103.♘g5 f3 104.♘e4 g2

100.♔g1

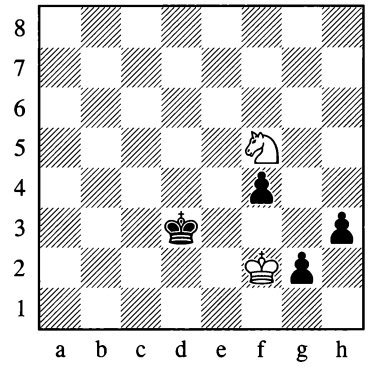
100.♘d4† ♔f2 and Black wins.

100.♘h6 does not work this time around. Black can promote the f-pawn after sacrificing the two other pawns. 100...g3†! 101.♔xh3 f3! 102.♔xg3 f2 Black wins.

100...g3

By now there are other winning moves. But this is the most human.

101.♘d4† ♔d3 102.♘f5 g2 103.♔f2



But Black has to show a little accuracy once again.

103...f3! 104.♔g1!

The only try.

104.♘h4 h2 This idea is there constantly, forcing the white king to stay on g1. Thus, the black king will be able to outmanoeuvre the white knight.

104...♔e4!

104...♔e2 105.♘d4† is not progress.

105.♘g7

After both 105.♘d6† ♔f4 and 105.♘h4 ♔f4 the black king comes to g3 and mate is served.

105...h2†

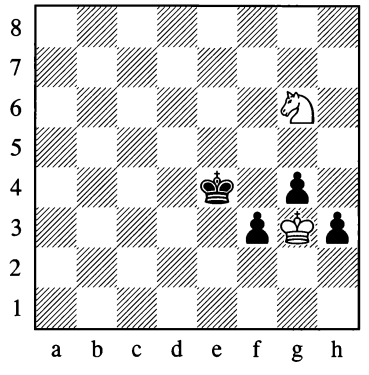
A typical diversion.

106.♔xh2 ♔e3 107.♘e6 ♔f2!

Black wins.

97.♘g6 ♔f5

Stronger was:
97...f3 98.♔g3



Black to play and win

98...♔d4!!

A fantastic example of domination. The white king is no less stuck on g3 than it was on g1 in the previous annotation. The knight does not have any good squares and Black is thus able to win using this triangulation manoeuvre.

99.♘e7 ♔e3

With the knight now on a worse square, Black wins routinely.

100.♘f5† ♔e2 101.♘d4† ♔f1

Black queens a pawn and wins. This win continues to exist going forward. But if you are not too familiar with the ideas of micro-domination and corresponding squares, it is impossible to find something like this. Blitz or not!

98.♘e7† ♔f6 99.♘d5† ♔g5 100.♘e7 ♔h5 101.♘d5 ♔g5 102.♘e7 ♔f6 103.♘d5† ♔e5 104.♘e7 ♔e4 105.♘g6 ♔e3

Black gets a final chance to win with: 105...f3 106.♔g3 ♔d4!

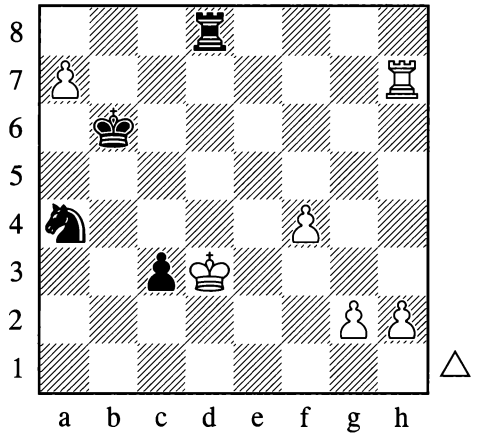
106.♘e5 g3† 107.♔xh3 f3 108.♔xg3 f2 109.♘g4† ♔e2 110.♘xf2

½–½

It is probably coincidence that a lot of the recent games in my files that included cool underpromotions are from blitz games. Whatever the reason, this is a really nice example with many interesting ideas.

Vladimir Potkin – Radoslaw Wojtaszek

Tallinn (blitz) 2016

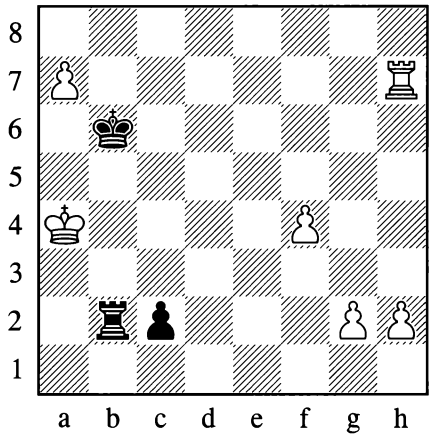


36.♔c2 ♖d2† 37.♔b3 ♖b2†?

A natural check, but also a mistake.

Black had a fantastic escape in 37...c2!! 38.a8=♕ ♘c5†, where White cannot allow Black to take a queen with check. So the draw happens with 39.♔b2 ♘d3† 40.♔b3 ♘c5†, with a perpetual.

38.♔xa4 c2



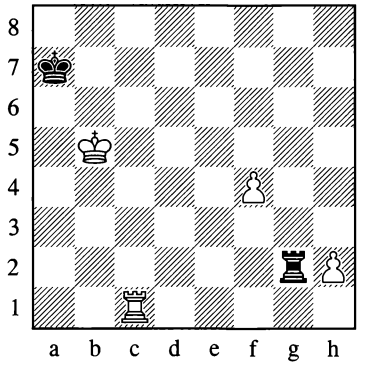
39.a8=♕?

Better, but not best, was:

39.♖h6† ♔xa7 40.♖c6

At first this looks winning, on account of:

40...c1=♕ 41.♖xc1 ♖xg2 42.♔b5!!

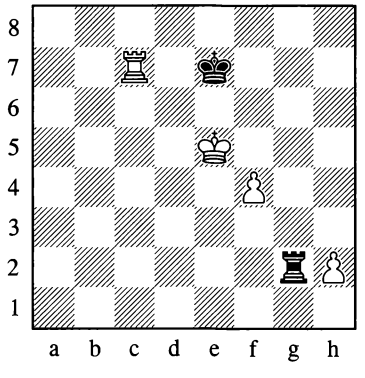


A fantastic dominating move. If White is allowed to play 43.♔c6, he will be able to cut off the black king, when the f-pawn will be unstoppable. (Probably the h-pawn too, but the corner pawns are always a bit harder to promote.)

42...♔b7 43.♔c5

Renewing the threat.

43...♔c7 44.♔d5† ♔d7 45.♔e5 ♔e7 46.♖c7†



White is completely winning. Some endgames with f- and h-pawns are drawn, mainly when the defender will be able to block the most advanced pawn with the king. This is not happening here.

A possible end could be:

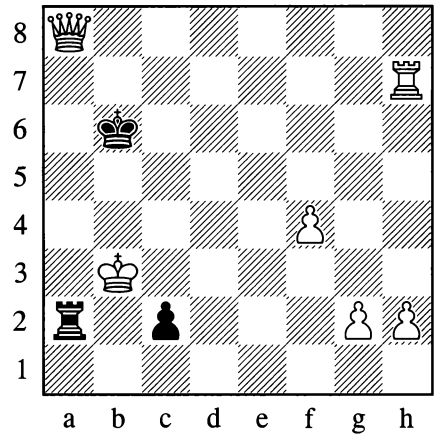
46...♔f8 47.h4 ♖h2 48.♔f6! ♔g8 49.h5 ♖xh5 50.♔g6

White wins.

But Black can win an important tempo with 40...♔b7!, which matters immensely in the variation just given. Black has time to scoop up a second pawn and bring the king to the defence. Black draws.

But the innocuous promotion to a knight with 39.a8=♘†! won immediately. Remember that you always have a right to stop the clock to find the piece you need, if it is not within reach.

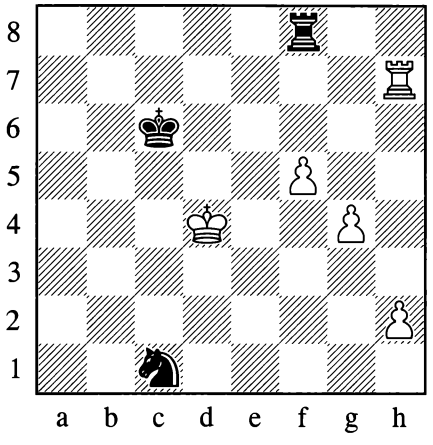
39...♖a2† 40.♔b3



40...c1=♘†!

Wojtaszek does not have the same problem.

41.♔c4 ♖xa8 42.f5 ♔c6 43.♔d4 ♖f8 44.g4



We have reached another ending with a knight against three connected kingside pawns. The rooks should favour Black's chances, as the white king's ability to roam is limited.

44...♔d6?!

44...♖e8!, cutting off the white king, would have been a better defensive move.

45.h4?!

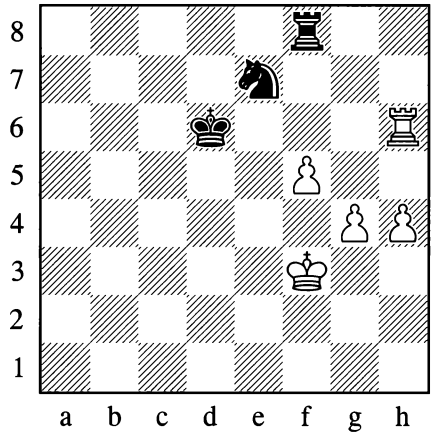
45.♖h6†! would be a tricky move. Black would have to play 45...♔d7! to hold the game. This looks shaky, but it does hold.

After 45...♔e7 46.♖e6†! ♔f7 47.g5 White is dominating. The black knight is out of play. There are ideas such as 47...♖d8† 48.♔e3! ♖d3† 49.♔f4 and White is on the winning track.

45...♘e2† 46.♔e4 ♘c3† 47.♔f4 ♘d5† 48.♔f3 ♘e7?

Black had another chance to hold the game without too much trouble. For example: 48...♔e5 49.♖h6 ♘f6! and the pawns are restrained.

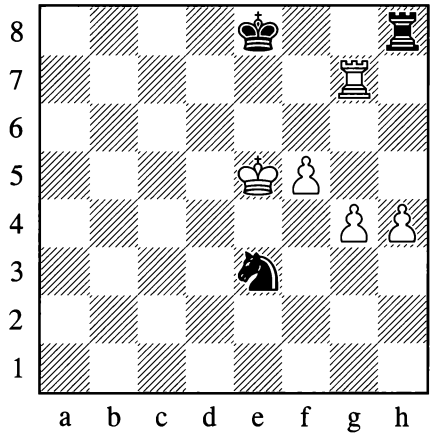
49.♖h6†



49...♔d7?

Black needed to be accurate in order to stop the pawns. The king needed to be ready to shadow the white pawns and keep the white king at bay. 49...♔d5! 50.♔f4 ♖a8! 51.♖h7 ♔d6 52.♔g5 ♖g8† 53.♔h5 ♘d5 54.g5 ♔e5 With a draw within reach.

50.♔f4 ♘d5† 51.♔e5 ♘e3 52.♖h7† ♔e8 53.♖g7 ♖h8



54.h5?

Had this not been a blitz game, Potkin would certainly have found 54.♔e6! ♘g2 55.f6 ♘xh4 56.♖a7 and White wins.

54...♘xg4†?

In turn Wojtaszek misses 54...♔f8 55.♖g6 ♘xg4† 56.♖xg4 ♖xh5, with an easy draw.

55.♖xg4 ♖xh5 56.♔e6

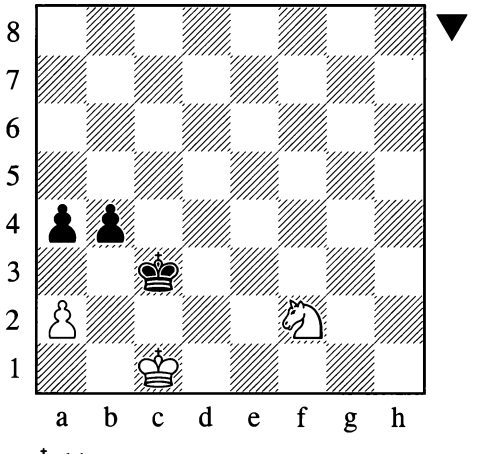
The extra tempo is all White needs to win.

56...♔f8 57.♖a4 ♖h1 58.♖a8† ♔g7 59.f6† ♔g6 60.♖g8† ♔h7 61.f7
1–0

And now follows another blitz game. This time where the players most definitely were long out of time. This does not make the endgame less instructive.

Wesley So – Maxime Vachier-Lagrave

Internet (blitz) 2020



99...♔d4?

MVL missed a chance to exchange White's last pawn immediately with 99...b3 100.a3 (100.♘d1† ♔b4) 100...b2† 101.♔b1 ♔b3 and the game is drawn.

It is easy to point to one moment, but we have to remember that the players will not be able to know at which moments these chances exist, without seeing them. And in blitz games, often you make moves with the hands, before the brain and eyes are even able to communicate with each other.

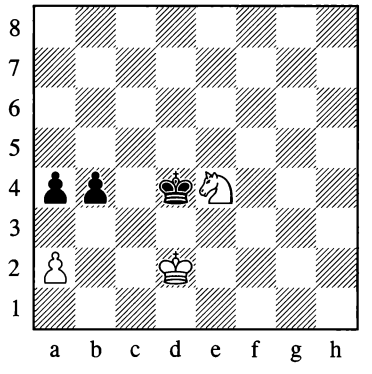
100.♘d1?

Wesley So equally has no chance to find the win. It is based on domination and slowly encroaching on the territory the black king can occupy.

The winning method is easy to understand when we see it. Black is trying to blockade the white king, as any pawn move would see the pawns weakened. White thus has to slowly take squares away from the black king. This can only happen by some clever manoeuvres with the knight. They are not obscure, just precise.

All the time White needs to be ready to meet ...b3 and ...b2 with a precise reaction.

100.♔d2! ♔c4 101.♘e4 ♔d4
101...b3 102.a3 b2 103.♘c3 ♔b3 104.♘b1 ♔a2 105.♔c2 ♔a1 106.♘c3 and White wins.



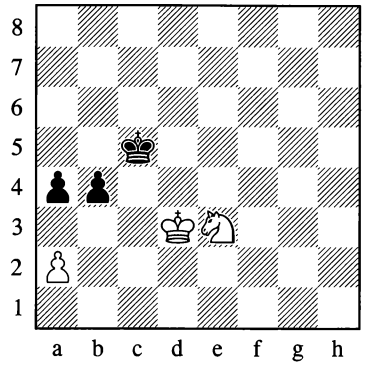
102.♘g3!

The knight needs to stay on the right circuit. It needs to be able to make it to c3 quickly.

102...♔c4 103.♘e2!

Black is pushed back.

103...♔c5 104.♔d3 ♔d5 105.♘f4† ♔c5 106.♘g2! ♔d5 107.♘e3† ♔c5



108.♘c4

The king can no longer go to d5, due to the check on b6.

108...a3 109.♘d2 ♔b5 110.♘b3 ♔a4 111.♘d4 ♔a5 112.♔c4 ♔a4

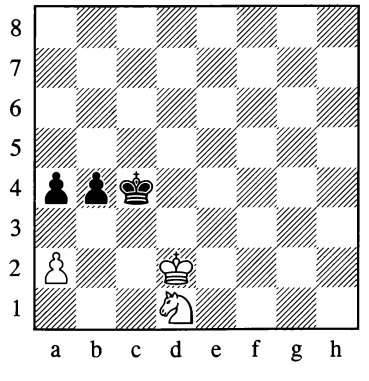
Finally, we have arrived at the end. 113.♘c2 wins easily, but all would play:

113.♘c6 b3 114.axb3#

100...♔c4?

The white knight is now on the wrong circuit. This gave Black a chance to draw with an idea based on corresponding squares.

100...♔c5!! 101.♔d2 ♔c4



This position is mutual zugzwang. Knights cannot lose a tempo, so there is no way for White to win.

102.♘e3† ♔d4 103.♘f5† ♔c4

Black draws, as there is no way for the white knight to come to e2, without allowing the black drawing resource. For example:

104.♘g3 b3! 105.a3 b2 106.♔c2 b1=♗† 107.♔xb1 ♔b3

With a draw.

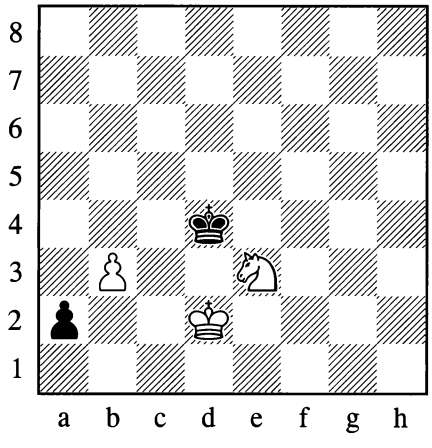
101.♔d2

This time the mutual zugzwang is not in Black's favour. The king has to step away from c4, which is where it needs to be in order for the ...b3-b2-b1 diversion to work. So White gets time for the knight to get back on the right circuit.

101...♔d4 102.♘b2?

The final chance. White could have returned the knight to the right circuit with 102.♘f2 ♔c4 103.♘e4!, and White wins as in the note to move 100.

102...a3 103.♘d1 b3! 104.axb3 a2 105.♘e3



Finally, the promised underpromotion. One of the most common situations is to give check or to avoid a knight fork.

105...a1=♘!

The only move. Black draws.

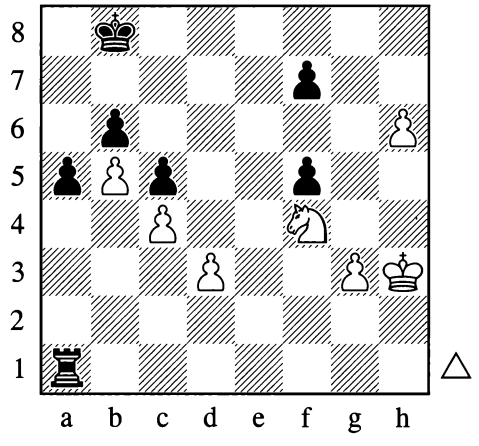
106.b4 ♘b3† 107.♔c2 ♘c5! 108.bxc5 ♔xc5 ½–½

3. Unstoppable promotion

When we are calculating in endgames, we constantly check who will queen first and who will queen with check. But there are times when he who comes last wins. It is important to have the imagination to see these often-surprising chances. The following example holds some beautiful details, including a pawn that cannot be stalled or stopped.

Duncan Suttles – Lubomir Kavalek

Sousse 1967



41.♔h4

I presume that this was the sealed move and a draw was agreed without resumption of play.

½–½

Whether the players agreed the draw at the board, or later in the evening at the hotel, will be a question for the historians. What I find interesting is Black's fantastic winning line.

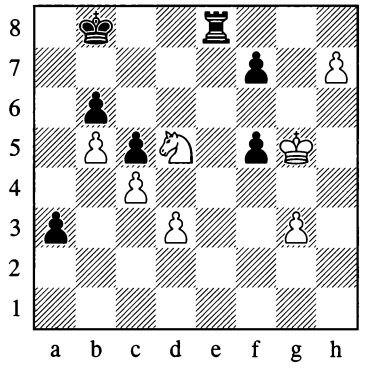
41...♖h1†!

Another important line is:

41...♖e1 42.h7 ♖e8 43.♔g5 a4 44.♘d5

This would see White be in time to stop the a-pawn and his king would eliminate the f-pawns, before trying to queen the h-pawn. Analysis shows that this should be a draw, which is not obvious to a human. It is possible that Kavalek analysed some lines like this and decided that a draw would be a decent outcome.

44...a3



45.♘e3!!

It is because of things like this that chess is truly a beautiful game.

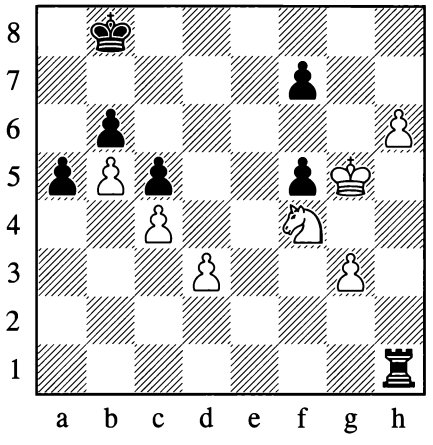
45.♘c3? ♔c7 46.♔f6 ♖h8! 47.♔g7 ♖xh7† 48.♔xh7 ♔d6 49.♔g7 ♔e5 would see Black winning by one tempo, as found by Sam Shankland. The king will take on d3 and c4, before kicking the white knight away from the path of the a-pawn.

45...a2 46.♘c2

White is making the draw, as the knight is successfully doing two jobs at once: keeping an eye on the a-pawn and preventing the black king from penetrating via e5-d4. It would be quite easy to load on a lot of long variations at this point. Black will play the king to e5 and play ...f4, and this time make the draw only by a tempo.

42.♔g5

42.♘h3 ♖e1 would stop the h-pawn. And now the a-pawn is very far away and very passed.



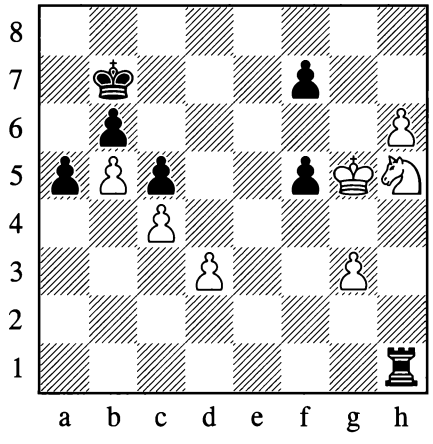
It looks as if Black's only move is to run with the a-pawn, but Black has another type of idea available. It is a sort of anticipation move, a prophylactic idea. The king gets off the back line, anticipating the check that will come when White queens his pawn. The extra tempo can be highly useful elsewhere. This prophylactic idea is a constant in all phases of the game and something all serious players should have in their arsenal.

42...♔b7!!

Comparison! Below we shall look at why the king would be worse placed on a7 and c7.

42...a4 43.♘h5 would lead to a forced draw after 43...♖e1 44.♘g7 ♖h1 45.♘h5, with a repetition.

43.♘h5



43...f4!!

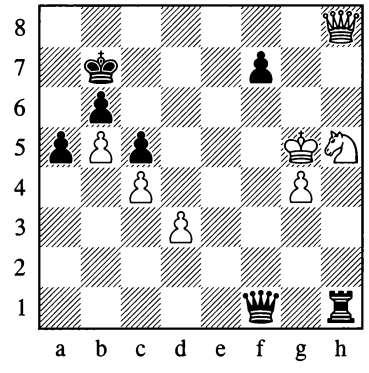
A strong breakthrough.

44.h7

44.gxf4 ♖g1† 45.♔f5 ♖g6 stops the h-pawn without problems.

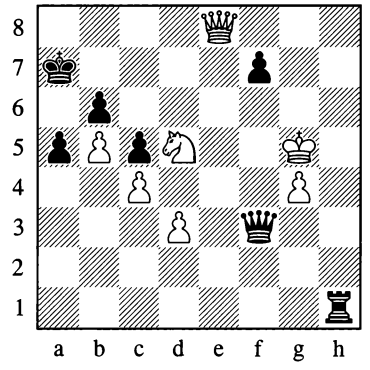
Black also wins trivially after 44.♘xf4 a4 45.♘h5 ♖e1 46.♘f6 a3 47.h7 a2 48.h8=♕ a1=♕.

It is a little more complicated after: 44.g4 f3 45.h7 f2 46.h8=♕ f1=♕



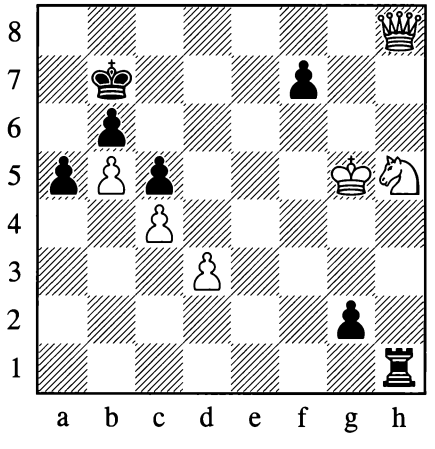
But still Black is winning. However, if the king was on a7, White would have 47.♕c8!, followed by a check on a6, creating enough counterplay to make a draw.

Now Black keeps control, for example after: 47.♕e8 ♕f3 48.♘f6 ♔a7! 49.♘d5



49...f6†! Not a difficult move. There is literally nothing else. But you have to see this in advance. 50.♘xf6 ♖f1 51.♘d5 ♕f7 The counterattack has been repelled and the extra material will decide the game.

44...fxg3 45.h8=♕ g2



The first key position for our theme. Black is seemingly arriving two tempos after White. But it does not matter. The pawn will queen, and it will queen with check. If the black king was on c7, White would be able to check a few times and pick up the g2-pawn.

46.♕e5 g1=♕† 47.♘g3

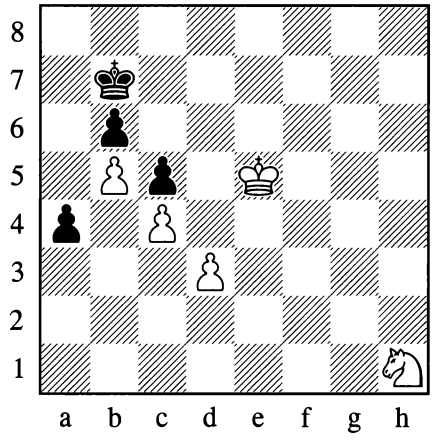
White is not going down without a fight. At this point Black has two winning moves:

47...♕g2!? is rather obscure, but once you see it, you can see that the idea is to bring the queen back to prevent a perpetual. More direct is:

47...f6†!! 48.♔xf6 ♕a1

48...♕d4 works in the same way.

49.♘xh1 ♕xe5† 50.♔xe5 a4



Once again, the promotion of the pawn is inevitable. The knight is once again on the wrong circuit and cannot make it to c2 or b3, which it would have been able to do from g1 or h2. Black wins. Thank you to Nikos Ntirlis for pointing out this example to me.

4. The importance of passed pawns

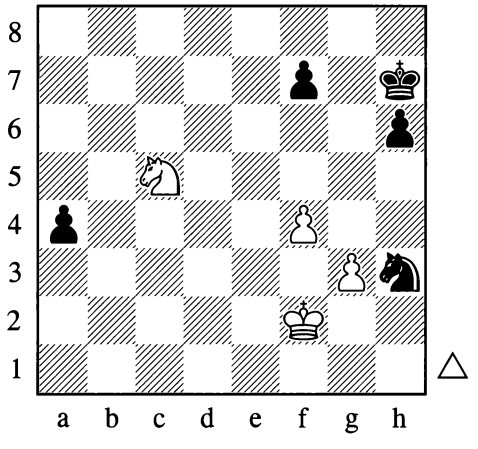
Often in endgames, the number of pawns is far less important than the presence of passed pawns. If you are bound to lose a pawn, but can avoid the opponent making it a passed pawn, more often than not, you should do so. The logic behind this, and most aspects of why passed pawns are superior to other pawns, is pretty straightforward. Passed pawns can make it on their own, without support.

Whether they are used as a distraction, or will actually win the game on their own, the clear path to the finish line is the determining factor.

In the next game, from the 2021 Icelandic Championship, White has the chance to win either the trapped black knight or the a-pawn. But it is a bit more complicated than this.

Vignir Vatnar Stefansson – Johann Hjartarson

Kópavogur 2021



52.♔g2!

White has to challenge the knight. This is a simple double threat.

52.♔f3

This would waste a tempo, in the attempt to avoid Black's intended tactic. The knight is still trapped, but it gives Black other options.

52...a3 53.g4 a2 54.♘b3

White's hope is to perpetually attack the black knight and force a repetition. But it is Black to play.

54...f5!

Not the only winning move, but certainly the simplest. Black creates a passed pawn.

55.gxf5 ♔g7 56.♔g4 ♘f2† 57.♔h5

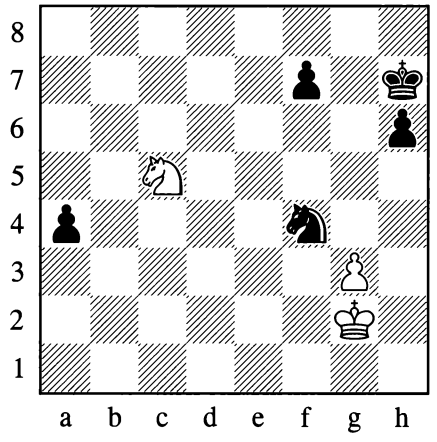
Black could win slowly, but there is also:

57...♔f6!?

This wins easily, as the king will scoop up the knight and eventually the a-pawn will queen.

52...♘xf4†

The only move that makes sense.



53.gxf4?

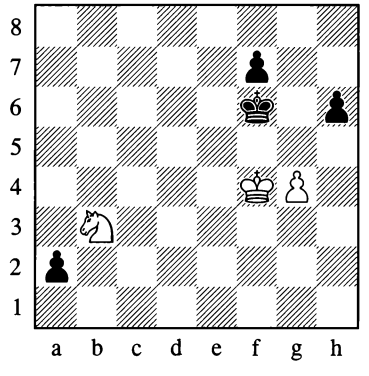
The natural move, but losing on the spot.

53.♔f3!!

This was the drawing move. Again, Black has no chance to win if he allows White to take the a-pawn, so White gets the chance to take the knight with the king.

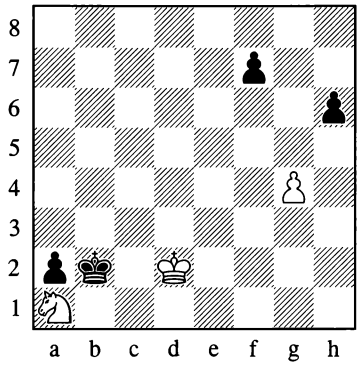
53...a3 54.♔xf4 a2 55.♘b3 ♔g6 56.g4 ♔f6

We have reached a curious blockade.



Black is not able to exchange one of his pawns for the g4-pawn fast enough to prevent the white king from returning to the queenside, in time to keep the black king trapped on a1. On the other hand, Black would win after: 57.♔e4? ♔g5 58.♔f3 f5! 59.gxf5 ♔xf5 Black wins, as the white king has to go to the h-file to pick up the black pawn.

57.♘a1! ♔e6 58.♘b3 ♔d5 59.♘a1 ♔c4 60.♔e4 ♔c3 61.♔e3 ♔b2 62.♔d2



White makes a draw. Black has no way to break the defence, as after 62...♔xa1?? 63.♔c1 it would be White who wins.

53...a3 54.♘b3 a2

Black wins easily. Due to the passed pawn, White will not be able to follow the black king to the queenside.

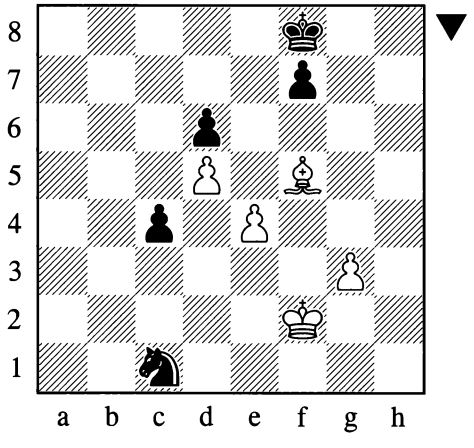
0–1

5. Using passed pawns as a distraction

It is easy to get too attached to our passed pawns. But it is important to use schematic thinking (see page 231) to visualise where the winning situations are.

Salome Khazhomia – Renier Castellanos

Sort 2006



In this endgame, Black has the advantage. But breaking through the defence is not trivial. He is likely to end up with two pawns against one, which could very well be a drawish scenario.

So, it is important that he organises it such that White ends up with the d-pawn and not the g-pawn. The d-pawn is much harder to defend and easier to attack.

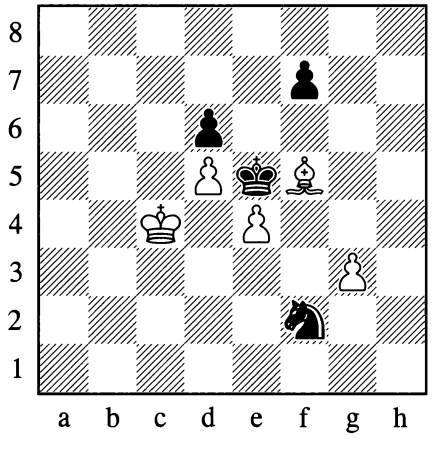
47...♔e7?

47...c3! would have won. 48.♔e3 c2 49.♔d2 (49.e5 ♘d3! is a nice trick) 49...♘e2 50.♔xc2 ♘xg3 Black will win the e-pawn as well. Black will be able to get the king to e5 and later nudge out the d5-pawn.

48.♔e3 ♔f6 49.♔d2?!

The easiest draw would be 49.♔d4 c3 50.g4!, when Black cannot hold on to the c-pawn. Even 50.♔xc3 holds the draw, but why give up the g-pawn, when it is not necessary.

49...♘d3 50.♔c3 ♔e5 51.♔xc4 ♘f2



White has entered the zone of one mistake, and it comes quickly.

52.♗d7?

The only path to a draw was 52.g4! ♘xe4 53.♔d3 ♘f6 54.♔e3 ♘xd5† 55.♔f3, when the position is holding, but many difficult

decisions await. It is better for White to keep the g-pawn. It is easier to defend.

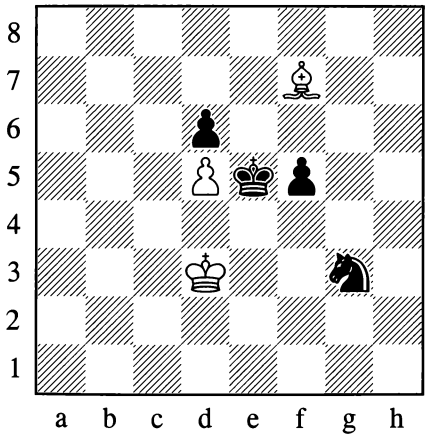
52...♘xe4

Black wins trivially.

53.♗e8

53.g4 ♘f6 54.♗f5 ♔f4! The g4-pawn falls and Black wins. (54...♘xd5? 55.♔d3! would allow the king to run to f3.)

53...f5 54.♗f7 ♘xg3 55.♔d3



Black wins easily by using the well-understood technique of putting the king in front of the passed pawn. The reason why this is so effective is that the battle for promoting a passed pawn is about controlling the squares in its path. The king goes in front of the pawn to secure the dominance of the important squares. If it did not, White might be able to block the squares. Not in this case, but in far too many to count.

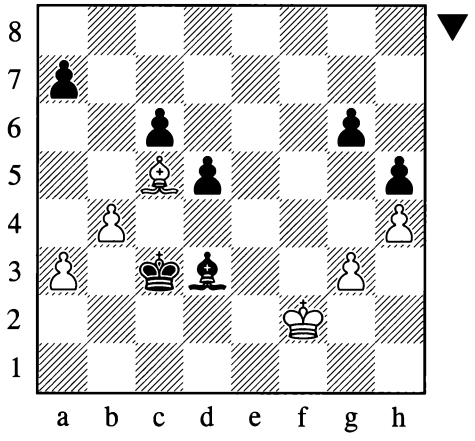
55...♔f4 56.♗g6 ♘e4 57.♔d4 ♘f6 58.♗f7 ♔g3 59.♗g6 f4 60.♗d3 f3 61.♔c4 ♔f4 62.♔d4 ♘g4 63.♔c4 ♘e5† 64.♔d4 ♘xd3 65.♔xd3 ♔g3
0–1

6. Creating passed pawns

Having quickly gone over the importance and utility of passed pawns, we can easily see the importance of creating passers. This is no less true in endings with opposite-coloured bishops. In these endgames the control of advancing squares for the pawns is paramount.

Luka Draskovic – Pranav Anand

Belgrade 2021



The younger Anand knew this and won by simple means.

61...a5!

Threatening to play ...a5-a4, after which the a3-pawn would be lost.

62.bxa5

This is therefore forced.

62...♗a6 63.♔e3 ♔c4

Black wins easily.

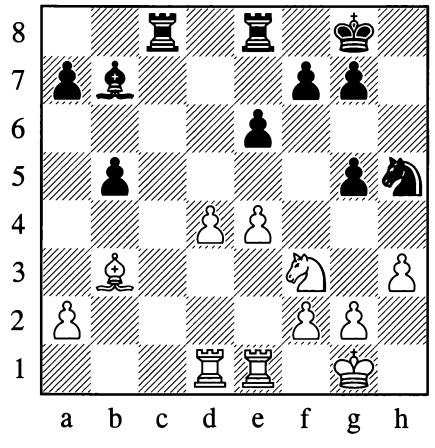
64.♗f8 c5 65.♔f4 d4 66.♔e5 d3 67.♗h6 ♔c3
0–1

The following top-level game is another great illustration of the importance of creating passed pawns.

Shakhriyar Mamedyarov – Ding Liren

Croatia 2019

1.d4 ♘f6 2.c4 e6 3.♘f3 d5 4.♘c3 c5 5.cxd5 ♘xd5 6.e4 ♘xc3 7.bxc3 cxd4 8.cxd4 ♗b4† 9.♗d2 ♗xd2† 10.♕xd2 0–0 11.♗c4 ♘d7 12.0–0 b6 13.♖ad1 ♗b7 14.♖fe1 ♖c8 15.♗b3 ♖e8 16.h3 ♘f6 17.♕f4 ♘h5 18.♕h2 h6 19.♘d2 b5 20.♕e5 ♕g5 21.♕xg5 hxg5 22.♘f3



22...g4?!

22...a5! would have equalised. 23.♖d2 f6 Although the pawn structure looks a bit weird on the kingside for Black, the knight will come back into the game. If in no other way, then with ...g6 and ...♘g7.

23.hxg4 ♘f6 24.♘g5!

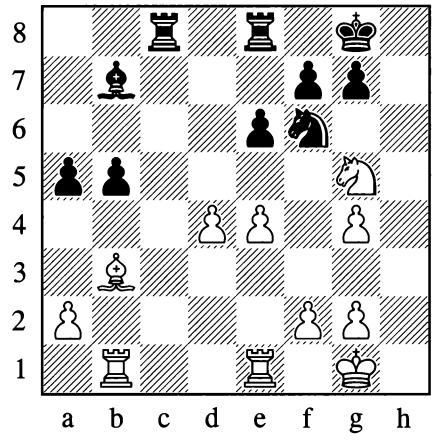
Mamedyarov is great at coordinating his pieces. Black struggles to win back his pawn.

24...a5!

Ding has been the World Number 3 player for some time now. Here he correctly judges that he needs to dislodge the bishop from its strong position.

24...♘xg4? 25.d5 exd5 26.exd5 would be catastrophic for Black. The d-pawn is powerful and f7 is as soft as melting butter.

25.♖b1



Black is already in difficulties.

25...♗c6?

25...♘xg4? 26.♗d1! would lose on the spot.

But Black had other resources. For example:

25...♗a6!? is a curious move. The key idea is that after 26.f3 a4 27.♗d1 ♖ed8, there is a lot of active counterplay. For example: 28.♖b4 e5 29.d5 ♖c1 30.♔f2 ♘d7, with a lot of compensation. This would be the solution for a truly dynamic player.

Ding Liren is more of a technical player and should probably have tried 25...♖cd8!, although White can still play for an advantage with 26.d5!?, or 26.♗a4 ♗xe4! 27.♖xb5 ♖xd4 28.♖xa5 ♖b8 29.♘xe4 ♘xe4, where the bishop and the distant passed pawn can annoy Black for a bit, but probably not cause real distress.

26.f3!

White is now a pawn up and we are entering the conversion phase.

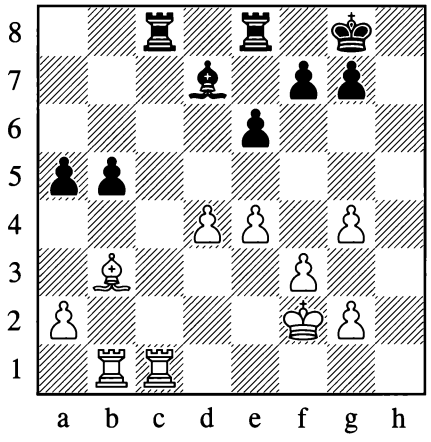
26...♘h7

Already it is a difficult position to play for Black.

On 26...a4, White now has 27.♗c2, when he is simply a clear pawn up.

26...b4!? was the best try for counterplay, but White remains a pawn up.

27.♘xh7 ♔xh7 28.♔f2 ♔g8 29.♖ec1 ♗d7



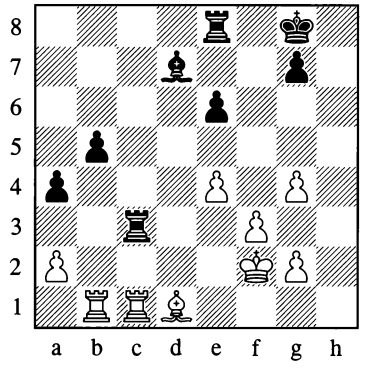
30.d5?!

My understanding of endgame conversion would be to diminish all counterplay. This could best be done by bringing the king in to deal with various issues. 30.♔e3! would have given White a cleaner path to victory.

30...e5?

This is a poor move.

More defensive resistance would have been offered by: 30...a4 31.dxe6 (31.♗d1 ♖xc1 32.♖xc1 exd5 33.exd5 ♖e5 34.♖c5 ♔f8! would allow Black to equalise by bringing the king to d6.) 31...fxe6 32.♗c2 ♖c3 33.♗d1

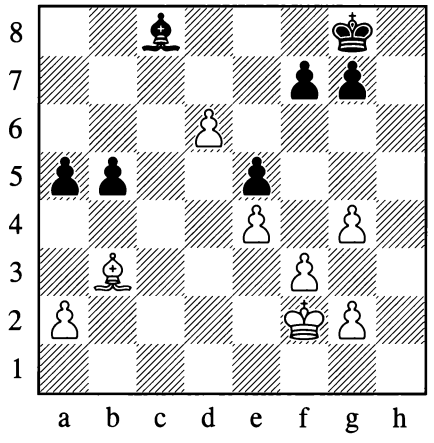


33...♖xc1 34.♖xc1 e5 The pawn majority on the kingside is far less mobile than White would have liked. The advantage is still real, but Black has serious drawing chances.

31.d6!

White is now ready to play ♗d5 and ♖c7. Black is desperate. I guess that Ding Liren did not feel he had any real choice other than to exchange the rooks.

31...♖xc1 32.♖xc1 ♖c8 33.♖xc8† ♗xc8



We have arrived at the critical moment in the game. Over the next three moves, Mamedyarov spent 26 minutes and 20 seconds, trying to work out the win. You cannot fault his feeling for the critical moment of the game.

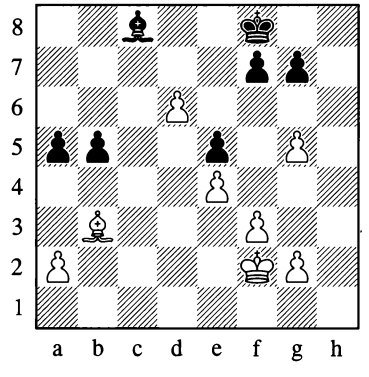
However, he did not manage to find the winning idea, which suggests that the right

approach might have been to spend most of the 26 minutes in one go, rather than to spread them out rather evenly on three moves. Chess is played move by move, but at the same time it is not...

34.♗d5

There is nothing wrong with this move in itself; it just delays the moment where White has to take firm action.

The first chance to win the game was to play:
34.g5! ♔f8



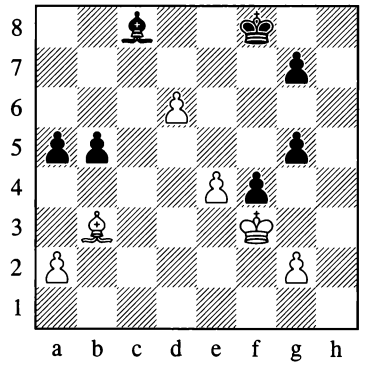
35.g6!!

After 35...f6, White has the strong move 36.♗f7!, trapping the black king, leaving White the freedom to do as he pleases.

35...fxg6

This, on the other hand, would be met strongly with:

36.f4! exf4 37.♔f3 g5



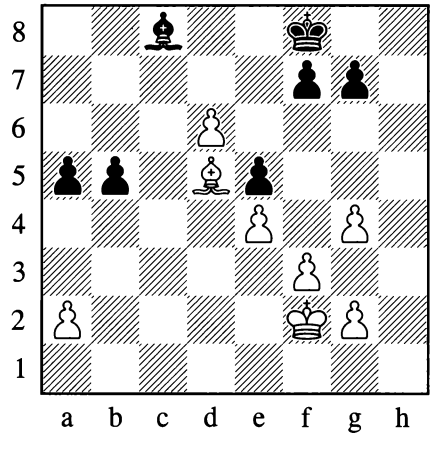
38.♗d5!

The dominance of the important light squares for the king to enter (via e4 and g4), combined with the two beautiful connected passed pawns, is entirely decisive. Black cannot create any significant counterplay on the queenside, as the white bishop is perfectly able to deal with any issues on b3 and a2, while supporting the e-pawn on e6. Later in this chapter, we shall look at the importance of having the bishop deal with all its responsibilities on one diagonal, and the freedom this brings.

38...b4 39.e5 ♗f5 40.e6 a4 41.e7† ♔e8 42.♗c4!

White is waiting. Black will run out of passing moves soon enough.

34...♔f8



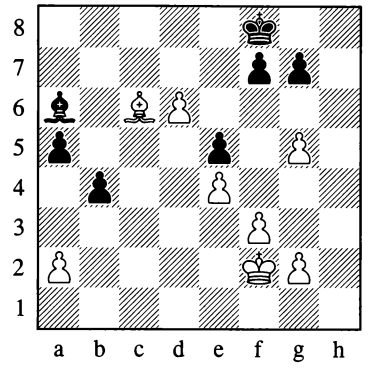
35.g5

Again, I prefer for White not to delay the moment of truth.

It was time to find:
35.♗c6!? ♗a6 36.g5!

The win is not as straightforward as it was on the previous move, but it is still there.

36...b4



37.♔e3

The most natural, although it makes sense to look for something more forcing as well. 37.♗d5 ♔e8 38.f4 exf4 39.e5 also wins.

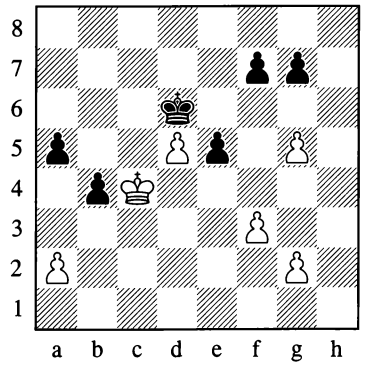
37...♗c4

White also wins with slow play. After 37...f6 38.gxf6 gxf6 39.g4, Black can enter lost pawn endings, or see White create the connected passed pawns with 39...♗c4 40.♗d5 ♗b5 41.f4 and later g4-g5. 41...♗d7 42.g5 ♔g7 is the only way to prevent this. But after 43.gxf6† ♔xf6 44.f5, White is winning all the same. His king is free to roam and once the black bishop moves, he is ready with ♗e6 and d6-d7, followed by an advance of the f-pawn.

38.♗d5!

The pawn ending wins with a slight margin.

38...♗xd5 39.exd5 ♔e8 40.♔d3 ♔d7 41.♔c4 ♔xd6



42.g3!

The tempo-efficient move. After:

42...g6 43.g4 ♔d7 44.♔b5

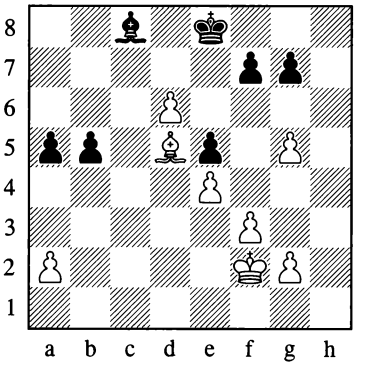
White wins.

35...b4

An interesting defensive try was to bring the king out.

35...♔e8

Once again, the winning path is narrow.

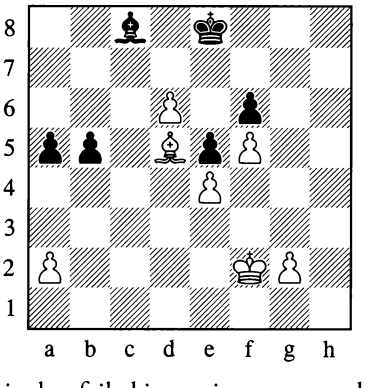


36.f4! f6

The only move.

36...exf4 would allow e4-e5, which may be followed by g5-g6 in some situations. White can choose to exchange the bishops first and secure a winning pawn ending, or win the bishop ending. The luxury!

37.gxf6 gxf6 38.f5!

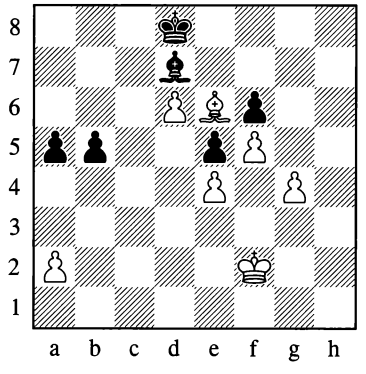


White has failed in getting connected passed pawns, but he has won important real estate in the black position. With the threat of

g4-g5 coming down the line, Black is under a lot of pressure.

38...a4

38...♔d7 39.♗e6† ♔d8 gives White the control he craves. There are many ways to win here. Just don't take on c8 immediately and it will be Black who wins! 40.g4! The most natural is to exploit the advantage on the kingside. White is now threatening to take on c8 and break through with g4-g5. 40...♗d7

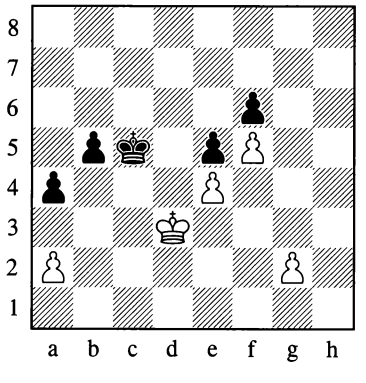


41.♔g3 b4 42.♔h4 a4 43.♔h5 White wins. The key point is that after 43...b3, he will play 44.♗xb3! and enjoy life with soon three passed pawns.

39.♗c6†!?

Entering the pawn ending is appealing, but not strictly necessary. White could also put the bishop on e6 and win slowly.

39...♗d7 40.♗xd7† ♔xd7 41.♔e2 ♔xd6 42.♔d3 ♔c5



43.g3!

A classic "Steinitz" pawn move. A pawn move is necessary, but we do not waste the chance to make another pawn move later.

43.g4? b4 would put White in zugzwang and allow Black to escape with a draw.

43...♔b6

43...♔c6 44.♔c3 ♔c5 45.g4 and White wins.

44.♔c3 ♔c5 45.g4! ♔c6

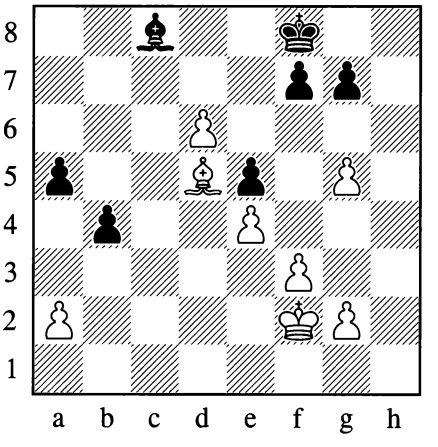
45...b4† 46.♔d3 would now put Black in zugzwang. After 46...♔b5 the king has left the promotion square for the white f-pawn and 47.g5 wins trivially.

46.♔b4

Black cannot leave the b5-pawn to its own devices. Nor can he leave the square of the f5-pawn.

46...♔b6 47.g5

White wins.



36.♔e3?

Finally throwing away the win:

36.g6!! f6

The connected passed pawns created after 36...fxg6 37.f4! exf4 38.♔f3 g5 39.e5 are worth more than any material. White has given up two pawns to get them, but will soon win them back with dividends.

37.♗f7!

The key move. The black king is kept out of play.

37...♗d7 38.♔e3 a4 39.f4!

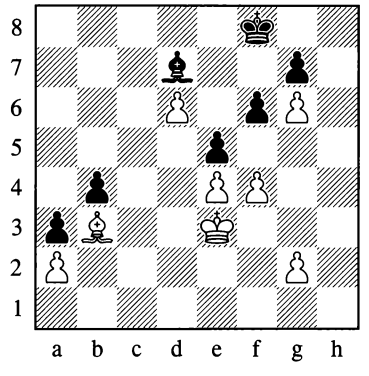
There is no time to waste.

39.g3 a3 40.♗b3 ♔e8 41.f4 ♗c6 sees Black emerge in time to attack the d6-pawn.

39...a3

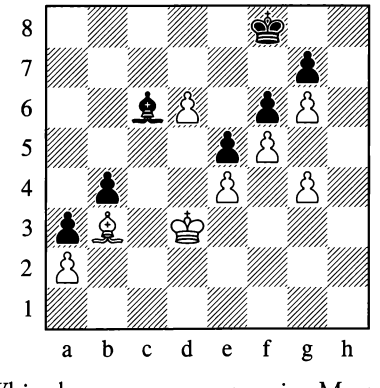
Threatening ...♗a4 and ...b3.

40.♗b3!



40...exf4†

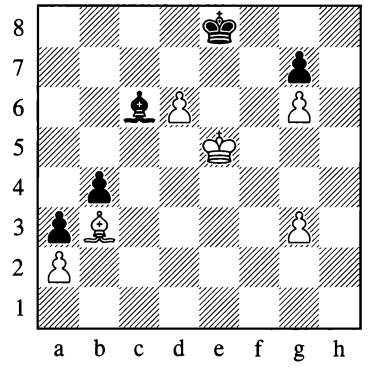
Black is also lost after 40...♗c6 41.f5 ♔e8 42.g4! and the threat of g4-g5 forces the black king to remain passive. 42...♗b5 43.♔d2 ♗c6 44.♔d3 ♔f8



White has many ways to win. Most players would calculate the direct break to see if it works: 45.♗e6 ♗a4 46.d7 ♔e7 47.g5! White wins, but narrowly. 47...b3 48.gxf6† gxf6 49.g7 b2 50.d8=♕† ♔xd8 51.g8=♕†

If I was uncertain about this line, I would probably play 45.♔c4 to scoop up the queenside. I prefer winning lines that do not rely on calculation and thus include the chance of miscalculation.

41.♔xf4 ♗c6 42.g3 ♔e8 43.e5 fxe5† 44.♔xe5



White wins slowly by keeping control of the black king and then eliminating the queenside pawns. In the end his extra pawns on dark squares will only need the bishop to run interference to stay safe.

44...♔d7 45.♗c2 ♗g2

45...♗b5 46.♔d5 is not much different.

46.♗a4† ♔d8 47.♔d4 ♗h3 48.♗b3 ♗f5 49.♔c5 ♗xg6 50.♔xb4 ♔d7 51.♔c5 ♗b1 52.♗d5 ♔d8 53.♗e6

White takes the a3-pawn and wins. Black can try several other things in this line that would require White to manoeuvre differently. But the result would be the same.

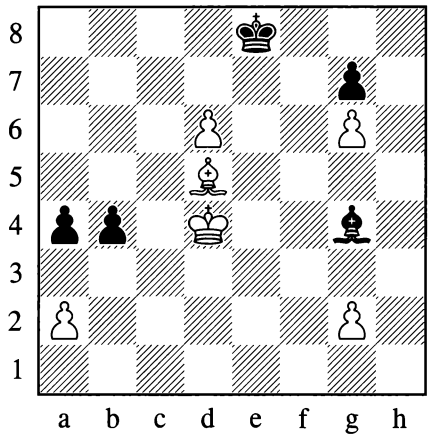
36...♔e8

With the king out in the open, Black is ready to play ...f6. White still has an arguable advantage, but the window for conversion has closed.

37.f4 exf4† 38.♔xf4 a4

Black has to play a few only moves. But they are not difficult to find.

39.g6 f6! 40.e5 fxe5† 41.♔xe5 ♗g4 42.♔d4



42...♗d1!

Black is in time with the counterplay.

43.♗c6† ♔d8 44.♔c4 b3 45.axb3 a3

The simplest, but already not the only way to hold.

46.♔c3 a2 47.♔b2 ♗xb3 48.♗b5 ♗d5 49.♔a1 ♗e6 50.♔b2 ♗d5 51.♔a1 ♗e6 52.♔b2

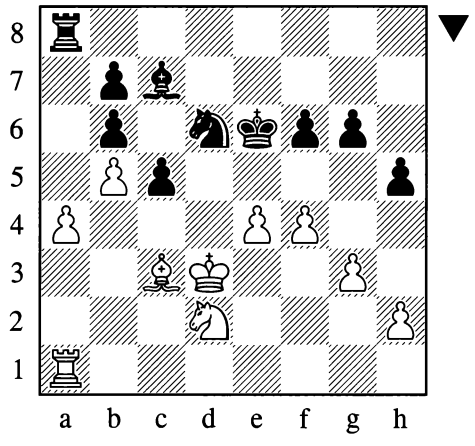
½–½

7. Protected passed pawn

One great asset that we all wish for is a protected passed pawn. Protected by another pawn, or a full pawn chain, it is a permanent thorn in the opponent's side.

Sam Shankland – Sergey Karjakin

Sochi (6.1) 2021



In the following game, Black had been under slight pressure all the way. Not big enough to see through the microscope of an engine, but real enough to frustrate.

Stockfish recommends 38...g5, but this is not an easy move to play. After 39.f5†, the f6-pawn is weak. It turns out not to matter, but with the time running out, this is not so easy to determine.

38...f5?

A grave strategic mistake, giving White a protected passed pawn. It still requires a lot of accuracy from White to pull through, but Shankland was up to the task.

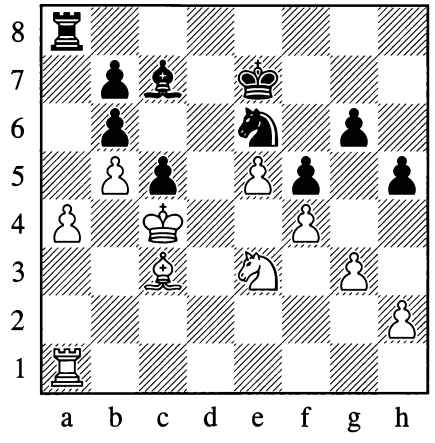
39.e5!

In everything that follows, no factor is as important as the strength of the protected passed pawn.

39...♘f7 40.♔c4!

Preparing to transfer the knight to d5.

40...♔e7 41.♘f1 ♘d8 42.♘e3 ♘e6



White has achieved the perfect set-up. There is no reason for him not to take immediate action.

43.a5! bxa5 44.b6!

Completely dominating the black pieces.

44.♘d5†!? ♔f7 45.♘xc7 ♘xc7 46.♔xc5 was also strong.

44...♗d8 45.♖d1 ♘d4

Black is also lost after 45...a4 46.♖d6! a3 47.♘d5† ♔f7 48.♖d7† ♔e8 49.♖xb7 and 50.♖a7, winning.

46.♘d5† ♔f7

Black is also lost after:

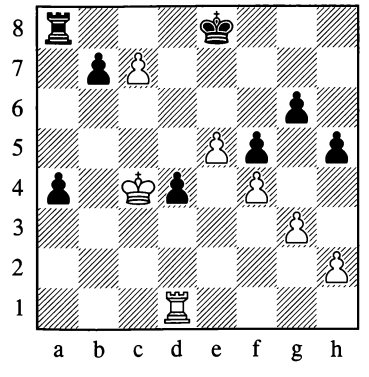
46...♔e8 47.♘c7†!

47.♗xd4 cxd4 48.♖xd4 also wins.

47...♗xc7 48.bxc7 a4

48...♖c8 49.♗xa5 does not work.

49.♗xd4 cxd4



50.♖b1!

The only accurate move needed.

50...a3 51.♖xb7 ♖c8 52.♔xd4 a2 53.♖a7 ♖xc7 54.♖xa2

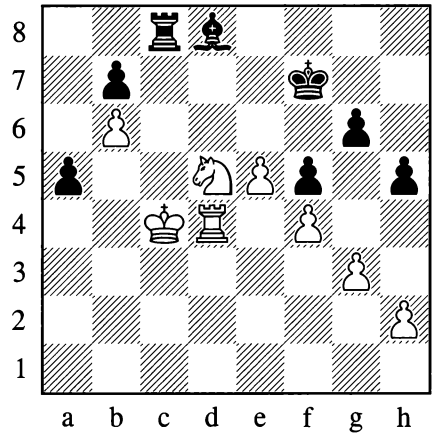
The extra pawn is the least of Black's problems. White wins easily.

47.♗xd4

Sam did not see what follows until this moment. But here he calculated better than the engines manage. The final destination is the pawn ending, where Black has no defence.

47...cxd4 48.♖xd4 ♖c8†

After the game, Sam said he had focused his calculations on 48...a4 49.♘c7 ♗xc7 50.bxc7 ♖c8 51.♖d7† ♔e6 52.♖g7 b5† 53.♔b4 g5 54.fxg5 ♔xe5 55.♔xb5 a3 56.♔c6 a2 57.♖e7†, where White wins.



49.♘c7!!

49.♔b5 ♖c6 50.♔xa5 would also win in the long run, but the game move wins by force.

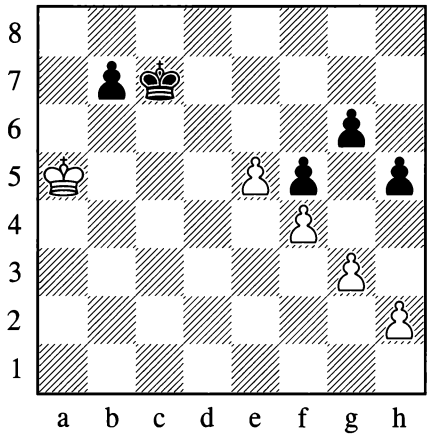
49...♗xc7

Black cannot avoid the pawn ending. After 49...♔e7 50.♔b5! ♗xc7 51.♖c4 the transposition is near.

50.♖d7† ♔e6 51.♖xc7 ♖xc7†

The rook ending after 51...♖b8 52.♔b5 would also have won easily for White.

52.bxc7 ♔d7 53.♔b5 ♔xc7 54.♔xa5



The pawn ending is the ultimate realisation of White's dream. The protected passed pawn is invincible, while Black will find it awkward to keep defending the b-pawn. At the right moment, White can send the e-pawn off as a distraction, leading to winning opposition.

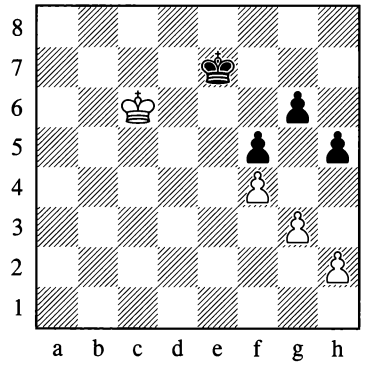
54...♔c6 55.♔b4 ♔b6

After:

55...b5

White could play 56.h4, but it is more likely that Sam would have preferred to keep this move in reserve. Eventually, the lines end up in the same place.

56.e6 ♔d6 57.♔xb5 ♔xe6 58.♔c6 ♔e7



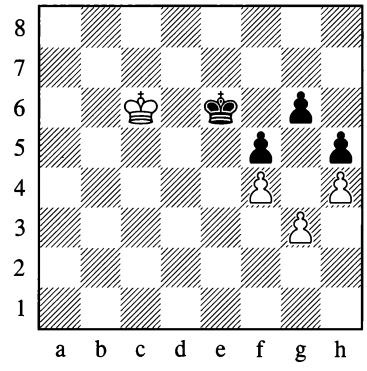
59.h3

White can still go astray. 59.♔c7 ♔e6 60.♔d8? would allow counterplay. After 60...h4 61.gxh4 ♔d5 62.♔e7 ♔e4 63.♔f6 ♔xf4 64.♔xg6 ♔e4! 65.h5 f4 66.h6 f3 67.h7 f2 68.h8=♕ f1=♕, the endgame is a theoretical draw, with fewer chances for White to win than with the other pawns.

59.h4?? ♔e6 60.♔c5 ♔e7 and Black has the opposition.

However, 59.♔d5 ♔f7 60.♔d6 ♔f6 61.h4 works in the same way.

59...♔e6 60.h4!

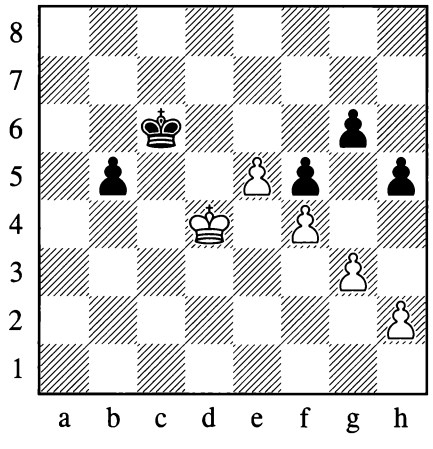


White has the opposition.

60...♔e7 61.♔c7 ♔e6 62.♔d8 ♔f7 63.♔d7 ♔f6 64.♔e8 ♔e6 65.♔f8 ♔f6 66.♔g8

White wins.

56.♔c4 ♔c6 57.♔d4 b5



58.h3

Obeying the Steinitz Rule of keeping another pawn move in reserve. Black resigned.

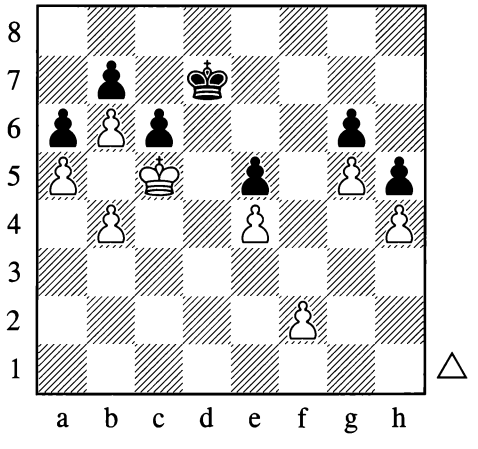
1–0

8. Breakthrough

A typical way to create a passed pawn is through a breakthrough. This can happen in all types of endgames, but the less pieces are on the board, the more common the breakthroughs seem to be. Thus, pawn endings are the most natural place to look at a breakthrough.

Jesper Thybo – Rahul Srivatshav

Warsaw 2017

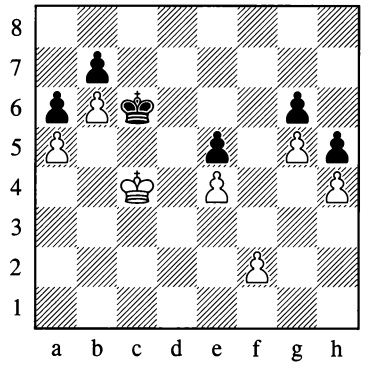


This example comes from a game by one of Denmark's newest grandmasters and rising stars.

56.b5!! axb5

White also wins after:

56...cxb5 57.♔d5 b4 58.♔c4 ♔c6 59.♔xb4 ♔d6 60.♔c4 ♔c6



61.f3!

61.♔d3 would lose a tempo to 61...♔b5.

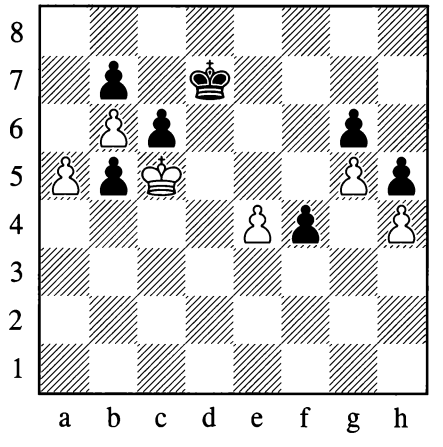
61...♔d6 62.♔d3 ♔c5 63.♔e3 ♔b4 64.f4

White creates a passed pawn. Black has no alternative to taking the queenside pawns.

64...exf4† 65.♔xf4 ♔xa5 66.e5 ♔xb6 67.e6 ♔c7 68.♔e5 ♔d8 69.♔f6 ♔e8 70.♔xg6 a5 71.♔f6

White wins.

57.f4! exf4



58.a6! bxa6 59.e5 f3 60.e6†!

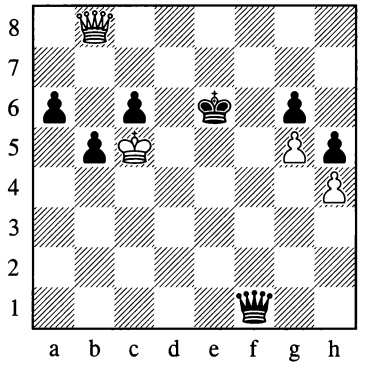
This check is essential. White will queen a pawn before Black can create counterplay. Black resigned.

1–0

60...♔xe6

60...♔e7 61.b7 f2 62.b8=♕ f1=♕ 63.♕d6† and White wins quickly.

61.b7 f2 62.b8=♕ f1=♕



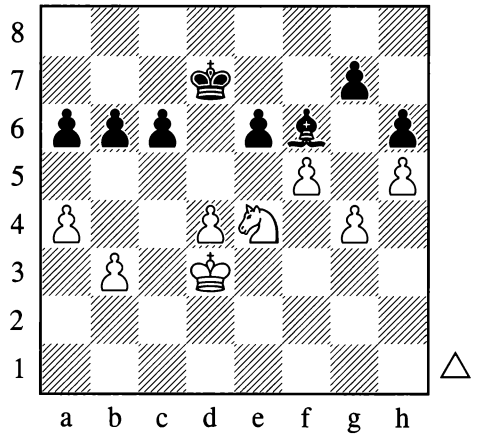
63.♕e8† ♔f5 64.♕f7†

White wins.

Breakthroughs happen in all endings. The more pieces that are on the board, the less likely they are to happen.

Ivan Martic – Dejan Zivkovic

Belgrade 2007



In the above position, White missed the chance to play:

36.g5!

In the game, White got nowhere with: 36.♔c4? exf5 37.gxf5 ♗e7 and a draw was later agreed. 38.d5 c5 39.♔d3 ♗f8 40.f6 gxf6 41.♘xf6† ♔d6 42.♔e4 b5 43.axb5 axb5 44.♘g4 c4 45.bxc4 bxc4 46.♘e3 c3 47.♔d3 ♔e5 ½–½

36...♗xg5

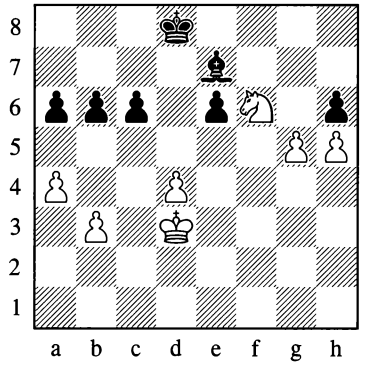
The core point is that 36...hxg5 37.♘xf6 wins easily.

Black can also try:

36...♗e7 37.f6 gxf6

37...♗f8 38.fxg7 ♗xg7 39.gxh6 would secure White a distant passed pawn, which will be enough for a win, if he plays with care going forward. Also 38.g6 is interesting.

38.♘xf6† ♔d8



39.♔e4! hxg5 40.♔e5

White wins. Next comes ♔xe6, ♘g4 and h5-h6, unless Black allows the h-pawn to march on without being stopped.

36...♗d8 37.f6 is similar.

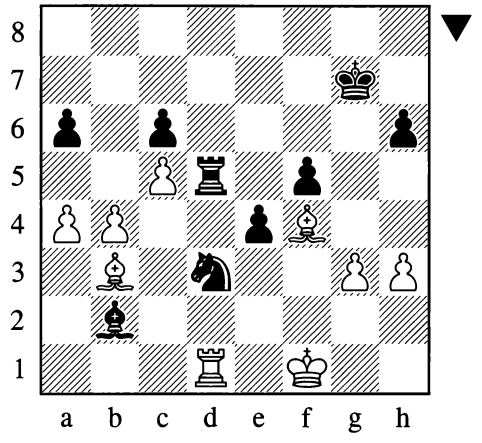
37.♘xg5 hxg5 38.f6! gxf6 39.h6

White wins.

But breakthroughs can even be a middlegame phenomenon. The following breakthrough is particularly beautiful.

Luis Engel – Matthias Bluebaum

Magdeburg 2021



Black is under pressure. White wants to play ♗c4 on the next move, attacking the a6-pawn.

50...♘xf4?

Black decided that he had been given a chance to win the game. Unable to see how it failed, he decided to grab the material.

50...♖d4! would have kept the balance.

51.♗xd5

51.gxf4? was not the plan. After 51...♖xd1† 52.♗xd1 ♗c1 Black would win.

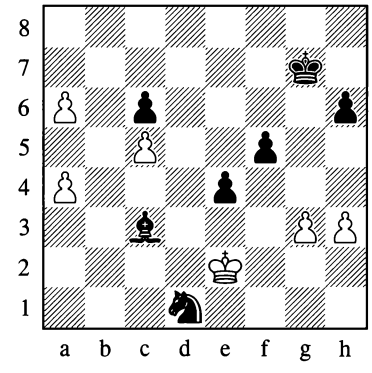
51...♘xd5 52.♖xd5!

The critical move.

52.b5? ♘e3† loses without too much fuss.

53.♔e2 ♘xd1 54.bxa6 ♘c3† and ...♘d5-c7 would stop the a-pawn.

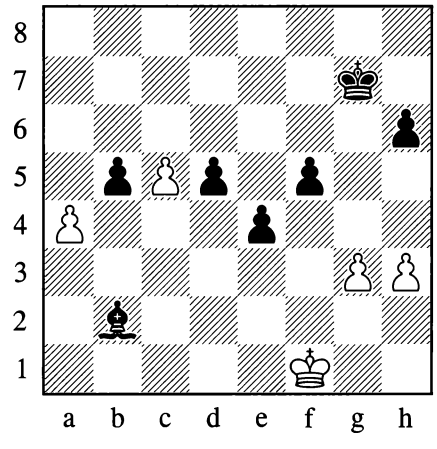
And after: 53.♔e1 ♗c3† 54.♔e2 ♘xd1 55.bxa6



Black is not able to stop the a-pawn, but will have plans of his own. 55...♗e5!! 56.a7 ♘c3† Black wins. If he can play ...e3† and ...♘d5† and ...♘c7, he will be able to stop the pawn. And otherwise, he will be able to push his own pawn forwards. 57.♔f1 e3 58.a8=♕ e2† 59.♔f2 ♗xg3† Black wins.

52...cxd5 53.b5 axb5

53...♗d4 54.c6 ♗b6 55.bxa6 and White wins.



54.a5!!

It is possible Bluebaum had missed only this move. The pawn cannot be stopped.

After 54.c6 ♗e5 55.a5 b4, Black would arrive after White. But with a check, winning the game quickly.

54...d4

Also after 54...b4 55.a6 and 54...♗a3 55.c6, White will end a queen up.

55.c6

Black resigned.

1–0

9. Distant passed pawns

One of the ideas I found hard to understand in my early years in chess is the concept of the distant passed pawn. I was able to understand that if the pawn cannot be caught and promotes, it is a good thing. But the influence it has on the other pieces, especially if no major pieces are on the board, was not intuitive to me.

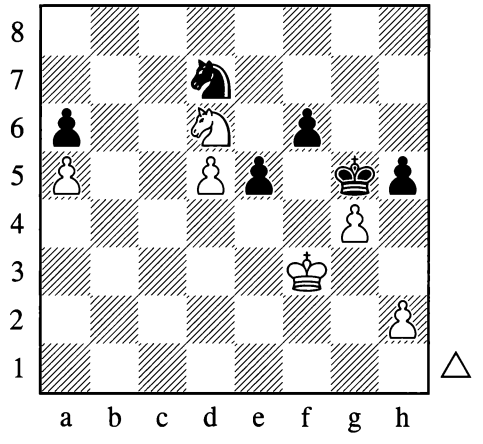
If you are having the same issue, I can only suggest that you pay attention to the many positions in this book (and beyond), where we have distant passed pawns and see how they influence the course of the game. See how they diminish the potential of the opponent's pieces, which are forced to always stay within their quadrant. There are examples of this everywhere. Even in the earlier example, Mamedyarov – Ding Liren, this was a factor in some lines. There the pawn would only become passed after a g4-g5 break. But the influence on the black king was the same nonetheless.

The following example is very typical of how it is difficult to understand in advance how powerful the distant passed pawn will be. It shows we can rely on the strategic concept of creating the distant passed pawn and see this as a small victory, on the path to eventual triumph.

The game ended in a draw after:

Panneerselvam Iniyan – Miguel Angel Soto

Internet 2020



41.h3? hxg4† 42.hxg4 ♘c5 43.♘e4† ♘xe4 44.♔xe4 ♔g6! 45.d6

45.g5!? fxg5!

45...♔f7 46.♔d5 ♔e8 47.g5 fxg5 48.♔xe5 ♔d7 49.♔f5 ♔xd6 50.♔xg5 ♔c5 51.♔f4 ♔b5 52.♔e3 ♔xa5 53.♔d2 ♔b4 54.♔c1 ♔b3 55.♔b1 a5 56.♔a1 a4 57.♔b1 a3 58.♔a1 a2

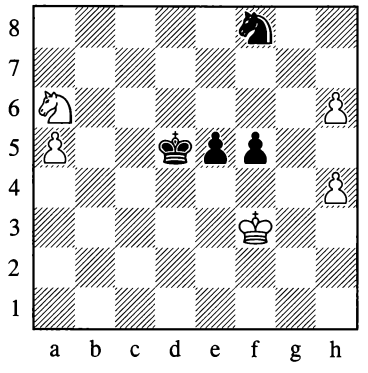
½–½

White's correct decision would have been to create an outside passed pawn and use it to occupy one of the black pieces, making it possible for the white knight to win on the other side of the board.

41.gxh5! ♔xh5

The most natural is for Black to recapture with the king and I believe this is what would have happened in the game. Still, it is worth checking what would have happened if Black had opted for a blockade on the kingside with the knight.

41...f5 42.h4† ♔f6 43.h6 ♘f8 44.♘e8† ♔e7 45.♘c7 ♔d6 46.♘xa6 ♔xd5



White has secured another distant passed pawn to occupy the attention of the black king. After 47.♘b8 ♔d6 (47...♔c5 48.♘d7†!) 48.a6 ♔c7 49.♘d7, White will break the blockade, include his king and win with the h-pawns. One would be enough, two makes it a breeze.

42.♘c4 ♔g6

42...♔g5 is no better. 43.♘b6 ♘c5 44.d6 f5 45.d7 ♘b7 46.♘a4 and 47.♘c5 wins.

43.h4 f5 44.d6 ♔f6 45.h5!

The distant passed pawn is used to distract the king.

45...♔g5 46.♘b6 ♘c5 47.d7 ♘b7 48.♘a4 ♔xh5 49.♘c5 ♘d8 50.♘xa6 ♔g6 51.♘c5 ♔f6 52.a6

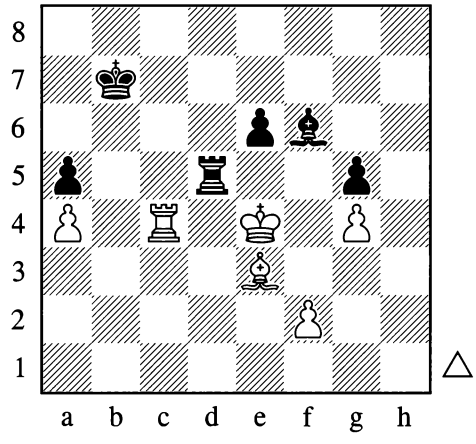
White wins by a tempo, kindly provided by the outside passed pawn.

The following game is not an example of perfect technique, but of strong tenacity. A curious story is that I somehow had the position as an exercise in one of the training camps in Glasgow that Jeffery participated in. He misremembered what he had played and at first found it hard to believe that he had not played the best move, as it seemed so obvious to him.

Sometimes we cannot fully understand the thought process that has led us to bad moves. At other times we cannot even reconstruct it!

Jeffery Xiong – Teddy Coleman

San Francisco 2019



49.♖c1?

White still has a serious advantage after this move, but converting the advantage is by no means easy.

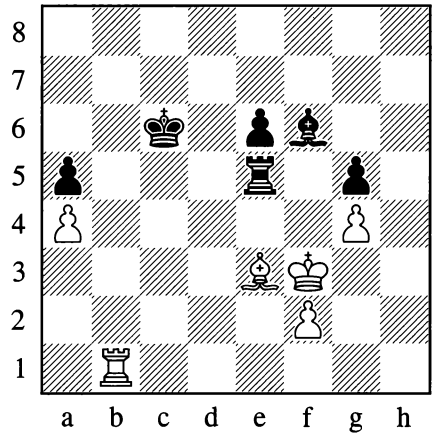
49...♖e5† 50.♔d3 ♖d5† 51.♔c4?!

51.♔e2! ♗e7 52.♖c4, with ♖d4-e4 and f2-f4 coming, would have preserved a lot of the advantage.

51...♔c6!

It was not obvious before, but now it is clear that Black should hold this endgame with decent play.

52.♖b1 ♖e5 53.♔d3 ♖d5† 54.♔e4 ♖e5† 55.♔f3



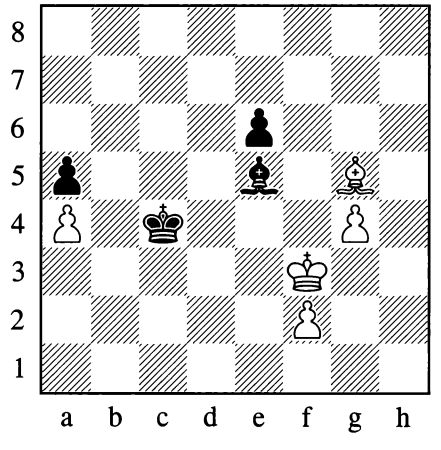
55...♔d5??

I suspect this was a straight-up blunder. Black could have held the game with 55...♖d5!, when for example 56.♖b6† ♔d7 is fine for Black.

56.♖b5† ♔c4

56...♔d6 loses a pawn after 57.♖xe5! ♔xe5 58.♗b6.

57.♖xe5 ♗xe5 58.♗xg5



White arrives in good time.

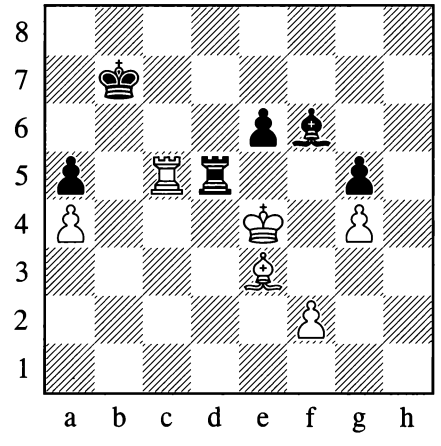
58...♔b4 59.♗d8 ♔xa4 60.g5 ♔b5 61.♔e4 ♗d6 62.g6 ♗f8 63.♗f6 ♔c4 64.g7 ♗xg7 65.♗xg7 a4 66.f4

1–0

White could have won the game comfortably with:

49.♖c5!

Removing all Black's counterplay.



49...♖xc5

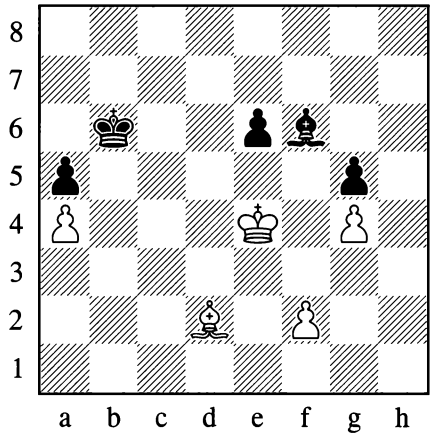
Avoiding the exchange will quickly drop a few pawns.

But with the rooks off, White is structurally winning, as he has the power to create a passed pawn on the g-file. All he must avoid is for Black to sacrifice the bishop for the g-pawn, which is easy to do.

50.♗xc5 ♔c6 51.♗e3

51.♗d4 ♗e7 52.♔e5 ♔d7 White wins in many ways. 53.♗e3 ♗d8 54.♗d2 with zugzwang is one of them.

51...♔c7 52.♗d2 ♔b6



53.f4

Creating a distant passed pawn.

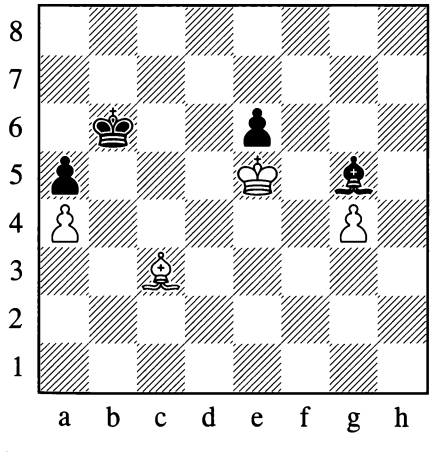
53...gxf4 54.♔xf4 ♔a6 55.♔e4 ♔b6 56.♗e1 ♔a6 57.♗f2

Black is in zugzwang.

57...♔b7 58.♗d4

White's mightiest weapon. The exchange of bishops wins, due to the distant passed pawn.

58...♗g5 59.♗c3 ♔b6 60.♔e5

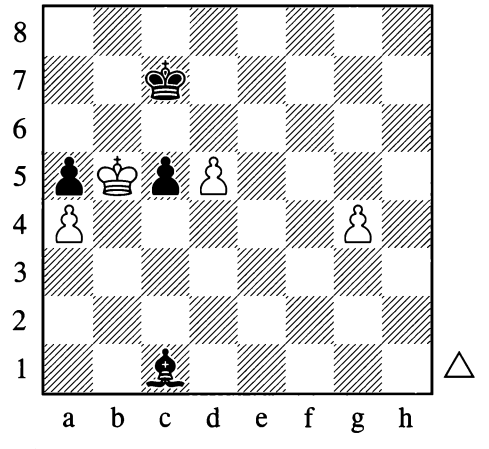


White will take the e6-pawn, put the king on f5, the bishop on f6, after which Black will have to run away from the exchange again.

The following position can be solved by calculation, but not all positions can, and in this position, White failed to do so. Since we are often short of time late in the game in modern chess, we cannot rely on calculation alone. Having a visual and sensory feeling for the position can help a lot, when we have to make decisions without having enough time. And when we do have enough time, it is a good thing to look in the right direction to start with.

Martin Niering – Alexander Belezky

Magdeburg 2021



70.♔xc5?

This loses by a tempo. Intuitively it seems natural, as taking the other pawn loses the d-pawn. The alternative has optical advantages. The white passed pawns will be further apart, making it harder for the king/bishop duo to deal with them. And as all White needs to do is to eliminate the black pawns, this is the natural way to approach the position for an endgame expert.

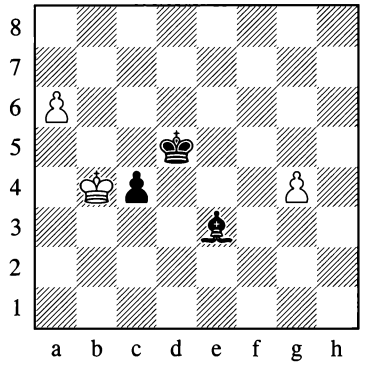
White needed to secure the outside passed pawn in order to make the draw.

70.♔xa5! ♔d6 71.♔b5 ♔xd5 72.a5! c4 73.a6

Below we will discuss the principle of bishops on one or two diagonals.

Here we see it in the flesh. The black bishop cannot stop both pawns, as they are on two different diagonals.

73...♗e3 74.♔b4



White draws, as Black will have to give up on the c-pawn in order to stop both of the white passers. The key point is that they are so far apart, making it a job for the bishop to stop one, and the king to stop the other.

70...♗d2!

A nice anticipation move. Black cannot do something active, so he prepares for White attacking the a5-pawn, which now no longer happens with a gain of tempo.

71.d6†

This is hopeless, but so is the position.

It is vital that after 71.♔b5 ♔d6 72.g5 ♔xd5 73.g6 ♔e6 Black is in time to stop the g-pawn with the king.

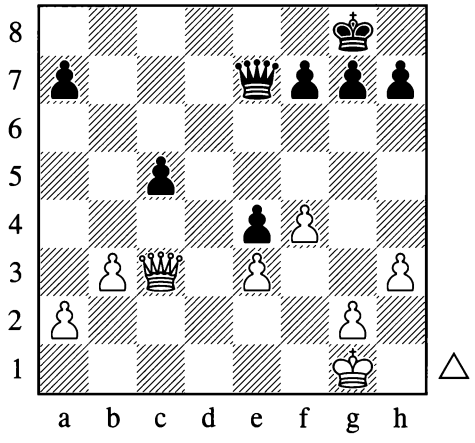
71...♔d7 72.♔d5 ♗f4 73.♔e4 ♗xd6 74.♔d5 ♗e7 75.♔e5 ♔c6 76.♔d4 ♗h4 77.♔c4 ♗f6
0–1

10. Creating passed pawns

Passed pawns are useful and come in various shapes and colours, as we have already determined. And so does the creation of passed pawns. Even for strong players, it is not always easy to spot how a pawn majority can be exploited. The following example illustrates this well.

Jonas Rosner – Oswald Gschnitzer

Baden 2021



The newly crowned German champion playing White, decided to enter a complex pawn ending, rather than playing safe with a move like 31.♔h2, with even chances.

31.♕e5?!

Objectively, this is a mistake, but it is hard to condemn a move which clearly won the game. At the end of an endgame lesson at www.killerchesstraining.com, Jonas suggested that we look at his game, which had been played that morning. We managed to see a lot of interesting variations, but did not come close to understanding that Black was actually winning after the exchange of queens.

31...♕xe5

Black has no alternatives.

32.fxe5 ♔f8?

During the game, Jonas was considering what would happen after:

32...g5?! 33.♔f2 ♔g7!

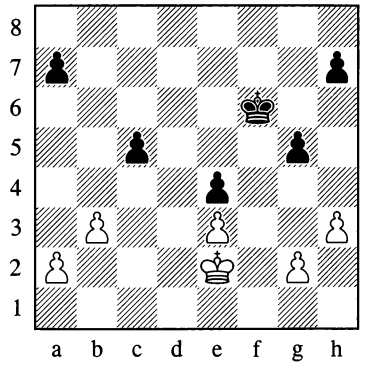
Keeping the king flexible.

It is too early to run for the centre: 33...♔f8? 34.♔g3! ♔g7 35.h4! and White would hold after a lot of complications, as shown below.

34.♔e2 f5?

34...h5! 35.♔d2 ♔f8!! would win like the variation below, even though Black has lost a tempo.

35.exf6† ♔xf6



At this point White would win with:

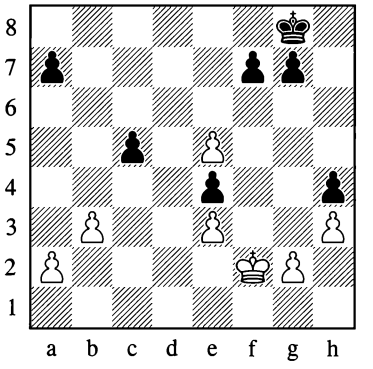
36.g3!!

After this Black cannot break through on the kingside, and White will win the battle on the queenside.

However, after 36.♔d2? g4!! 37.h4 g3 Black would be able to create counterplay on the kingside, eventually leading to a draw.

After we had finished analysing together, we turned on the engine and saw that Black had a nice way to win the game, based on exploiting the pawn majority to create a passed pawn on the kingside. Once you think about it, it is quite a logical thing. But without analysing the game ourselves first, I doubt the difficulty of this decision would have been obvious to us. Nor do I think the impact of the logic would have been as strong and instructive. Searching for the limitations of human abilities is an important part of growth in chess.

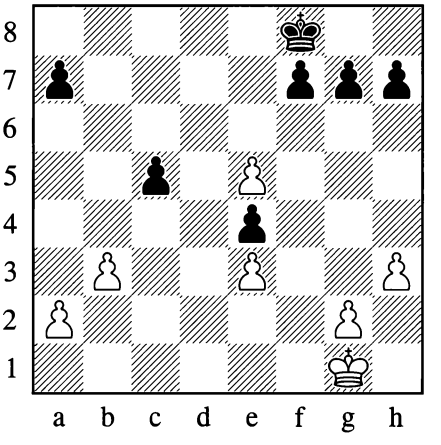
32...h5!! 33.♔f2 h4!



The kingside is paralysed.

34.♔e2 ♔f8 35.♔d2 ♔e7 36.♔c3 ♔e6 37.♔c4 ♔xe5 38.♔xc5 f5

Black wins. There is no way for White to compete with ...g5, ...f4 and ...f3.



33.♔f2?!

Objectively this move is not bad, but the path to the draw after Black's best play is long and winding.

Only after the training session did I come to understand that this too was a mistake. White had to play 33.♔h2!! g5 34.h4!, to create counterplay on the kingside. It is not too

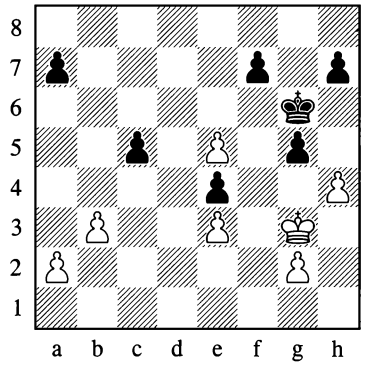
difficult to see that White will be OK here, so let's not obscure the clarity of this solution. We can see that the king needed to come out via the h-file, in case Black takes the pawn. If Black does not take it, the king will provide quick counterplay against the g-pawn. In the game the draw is much more difficult.

33...♔e7?

Another natural-looking move, but by now it was possible both to see how dangerous the ensuing pawn ending was for Black, and to look for alternative ideas.

Black again had the chance to play:
33...g5!

With the idea ...h5-h4. White would have to try:
34.♔g3!? ♔g7 35.h4! ♔g6



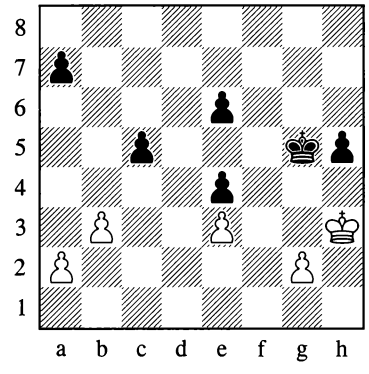
At this point he can hold a draw only by a complete miracle.
36.e6!!

The pawn is lost, so better to throw it away in a way that gives Black a doubled pawn and no chance to create a passed pawn. He will still be able to lose a tempo with it, and cover a few squares, but these are not deciding factors.
36...fxe6 37.♔g4 h5†

Pushing the king back is the only try.
38.♔h3!

38.♔g3? ♔f5 39.hxg5 ♔xg5 would lose the opposition.

38...♔f5 39.hxg5 ♔xg5



40.g3! a5 41.a4 e5 42.♔h2!

The only move, but by now even I would have been able to work it out.
42...♔g4 43.♔g2 h4 44.gxh4 ♔xh4 45.♔h2

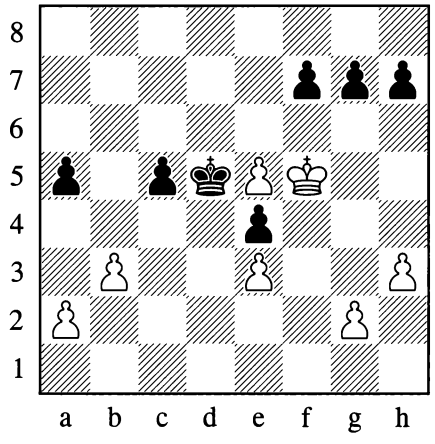
White holds the opposition and draws.

34.♔g3!

Unbeknownst to the players, the tables have turned. White will now win with accurate play, but the path is still far from obvious.

34...♔e6 35.♔f4 ♔d5 36.♔f5 a5

After 36...c4 37.bxc4† ♔xc4 38.♔xe4 ♔b4 39.♔d5! ♔a3 40.♔d6 White arrives first.



37.g4?

The only winning move was:
37.a4!

It is a matter of opposition. After 37.g4?, White will not be able to play ♔e4-d5, as he would have been after the text move.

37...c4

37...f6 38.exf6 gxf6 39.g4! and 37...h6 38.g4 would not help Black's chances.

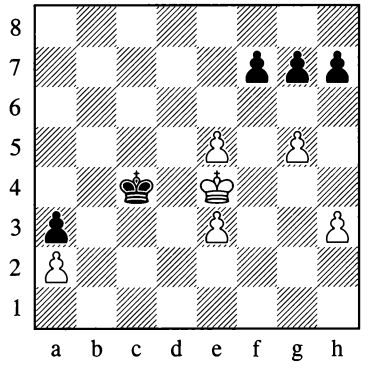
38.bxc4† ♔xc4 39.♔xe4 ♔b4 40.♔d5 ♔xa4 41.♔d6

Once again, White arrives first.

37...h6?

Black should have played:

37...a4! 38.g5 c4! 39.bxc4† ♔xc4 40.♔xe4 a3

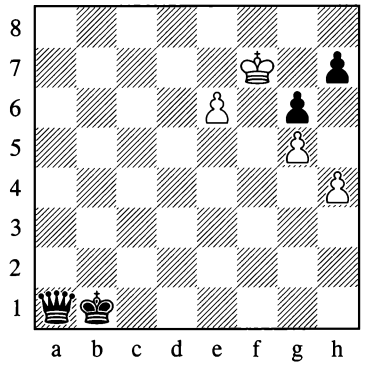


This position looks dangerous for White, not Black. There are several ways for White to hold the draw.

41.e6

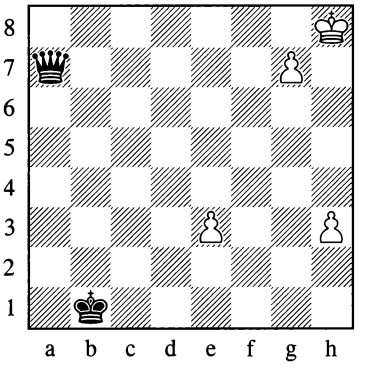
The most natural, leading to a fascinating position.

Another line leads to: 41.h4 g6 42.e6 fxe6 43.♔e5 ♔c3 44.♔xe6 ♔b2 45.♔f7 ♔xa2 46.e4 ♔b1 47.e5 a2 48.e6 a1=♕



49.e7, which is also leading to a draw. The key reason is that there is no ...♕f6†, if Black tries to come close with the queen. Without the g- and h-pawns, the position would lose for White for exactly this reason. 49...♕a2† 50.♔f8 ♕f2† 51.♔g7 ♕xh4 52.e8=♕ ♕xg5 53.♔xh7 A draw is arrived at through the vacuum method.

41...fxe6 42.♔e5 ♔c3 43.♔xe6 ♔b2 44.♔f7 ♔xa2 45.♔xg7 ♔b1 46.♔xh7 a2 47.g6 a1=♕ 48.g7 ♕a7 49.♔h8



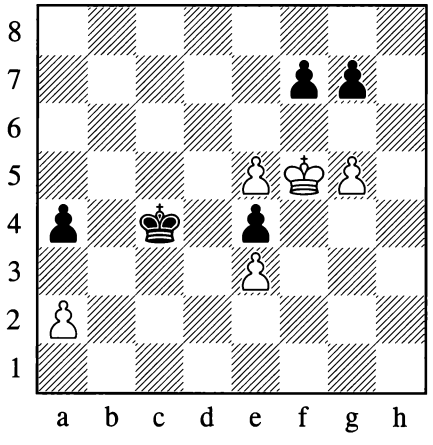
White makes a draw exclusively because the e3-pawn is preventing ...♕d4, pinning the g-pawn and giving Black a chance to get closer with the queen.

37...c4 38.bxc4† ♔xc4 39.♔xe4 a4! transposes.

38.h4 a4 39.g5 hxg5 40.hxg5 c4

Black is also lost after: 40...a3 41.e6! (41.♔f4? g6 would put White in zugzwang.) 41...fxe6† 42.♔g6 c4 43.bxc4† ♔xc4 44.♔xg7 White queens first, winning.

41.bxc4† ♔xc4



42.a3!!

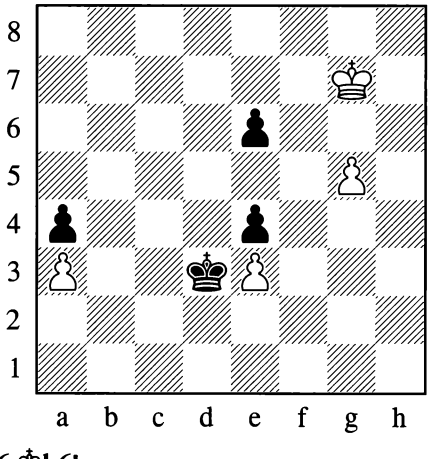
Great play by Jonas. Black is not allowed to get the pawn to the third rank easily.

After 42.g6 fxg6† 43.♔xg6 ♔d5 44.♔f5 a3!, White is lucky that he holds.

42...♔d5

42...♔b3 43.g6! and the e-pawn queens.

43.e6 fxe6† 44.♔g6 ♔c4 45.♔xg7 ♔d3



46.♔h6!

Avoiding the last mistake, a mistake I made in the analysis.

After 46.♔f7? ♔xe3 47.g6 ♔f2 48.g7 e3 49.g8=♕ e2 White has no checks.

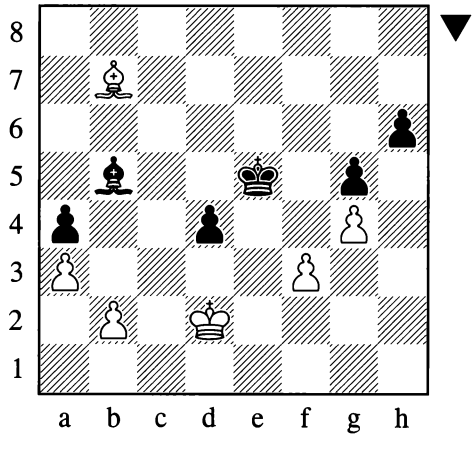
46...♔xe3 47.g6 ♔d2 48.g7 e3 49.g8=♕ e2 50.♕g5† ♔d1 51.♕g4 ♔d2 52.♕b4† 1–0

11. Spread passed pawns can be stronger than connected pawns

In Mamedyarov – Ding Liren, we saw the awesome power of two connected passed pawns mowing down everything in their path. But this does not mean that connected passed pawns are always the best option. In Iniyan – Soto, we saw the power of having a passed pawn as far away from the other events as possible.

Zhou Jianchao – Yu Yangyi

Xinghua 2015



The Iniyan – Soto example was clean cut with a- and h-pawns doing their best by staying as far away from each other as possible. But even with one or two files between them, pawns can be harder to deal with for a king or a minor piece than if they were nicely connected and adjacent.

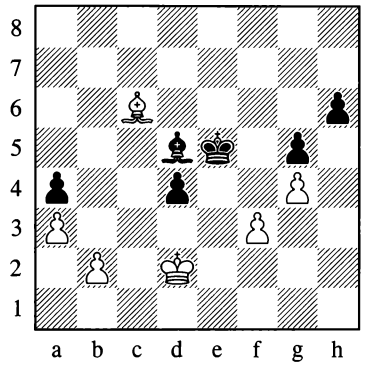
49...♔f4?

Black could have won by transferring the bishop to d5.

49...♗c4!

Black can fumble around a bit before deciding on this idea. But there is no reason to waste time.

50.♗c6 ♗d5



51.♗xa4

The pawn ending is utterly hopeless. Black will give up the d-pawn to take the two white queenside pawns. Once the white king is occupied looking after the distant passed pawn, the black king will go to the kingside and win there.

51...♗xf3 52.♗d7

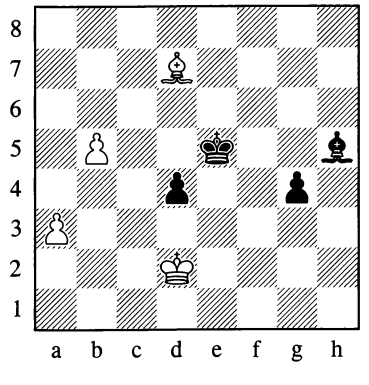
52.♗d1 ♗xd1 53.♔xd1 almost works. But Black is too quick: 53...h5! 54.gxh5 g4 55.h6 ♔f6 White cannot stop both pawns and his own are too slow.

52...h5!

Creating the second passed pawn.

53.gxh5 ♗xh5 54.b4 g4 55.b5

55.a4 g3 56.♗c6 ♗e8 works in the same way.



55...g3 56.♗c6 ♗e8!

Black wins, as the white bishop cannot work equally well on two diagonals.

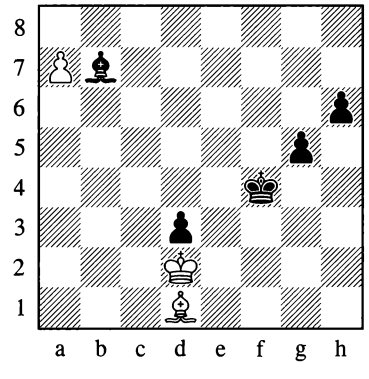
50.♗d5 ♔g3?!

You can argue whether this is the worse mistake. With the previous move the objective advantage is lost. With this move the practical advantage is lost.

50...♗d7!

This was the principled move, as it would force White to play some accurate moves.

51.b3 axb3 52.♗xb3 ♔xf3 53.♗d1† ♔e4 54.a4 d3 55.a5 ♗c8 56.♗b3! ♗xg4 57.a6 ♗c8 58.a7 ♗b7 59.♗d1 ♔f4



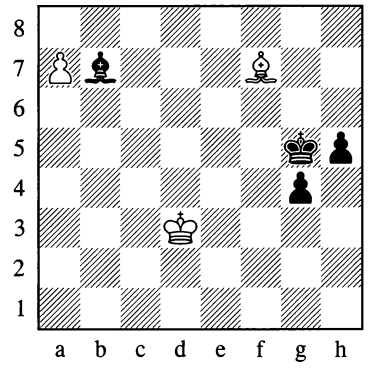
60.♗h5!!

The only move that prevents the h-pawn from advancing after ...g5-g4.

60...g4 61.♔xd3 ♔g5

61...g3 62.♔e2 and White is in control.

62.♗f7 h5



63.♔d4!

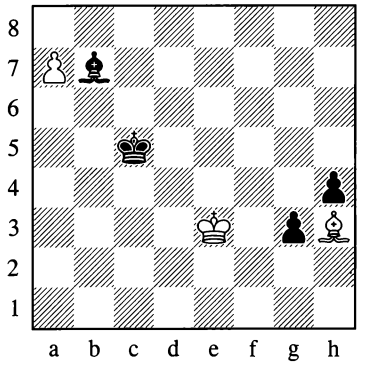
Forcing Black to advance the g-pawn, because of the threat of ♗f7-d5.

63.♔c4! g3 64.♗d5! g2 65.♗xb7 also leads to a draw. Maybe even more convincingly, but without showing some nice instructional images on the way.

63...g3 64.♔e3! h4 65.♗e6 ♔f6 66.♗h3

White has created an impenetrable barrier. Black can try to walk around it, but White can always force a draw.

66...♔e5 67.♗g4 ♔d6 68.♗h3 ♔c5



69.♔f4! g2 70.♗xg2 ♗xg2 71.♔g4 h3 72.a8=♕ ♗xa8 73.♔xh3

There are no pawns left...

51.b3!

White sacrifices his worst pawn to be able to exchange Black's most annoying pawn.

51...axb3 52.♗xb3 ♔xf3 53.♗d1† ♔f4 54.a4 ♗xa4!?

A reasonable try.

After 54...♗a6 55.♗e2 ♗b7 56.a5 White also makes a draw. He will put the pawn on a7 and Black will have to be careful not to allow White to exchange the bishops and remove the pawn's only obstacle.

55.♗xa4 ♔xg4 56.♔d3 ♔h3 57.♔xd4 g4 58.♔e3 h5 59.♔f4 g3 60.♗c6 h4 61.♔g5 g2 62.♗xg2† ♔xg2 63.♔xh4

½–½

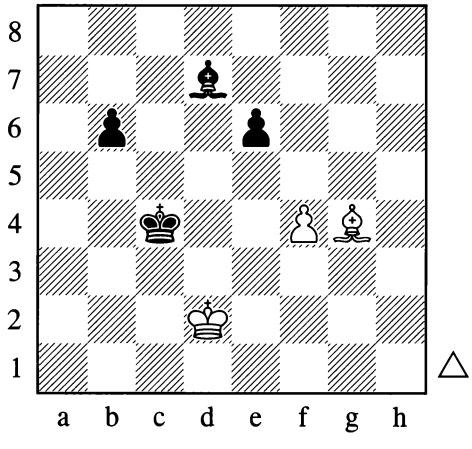
12. Eliminate all the pawns

One of the simplest drawing methods in chess is to eliminate all the opponent's pawns and leave him with an extra minor piece and unable to win. At times this leaves us with endgames like rook and bishop/knight vs rook, or queen and minor piece vs queen, with no other pieces remaining. These endings are not necessarily trivial, but commonly they hold good drawing chances. With just a minor piece involved, there is simply no way for the stronger side to deliver checkmate.

In the next example, White resigned in a drawn position according to the database (there is always a chance that something went wrong in the recording of the game). This has happened often in chess history and the way to avoid it is to play a few extra moves, and ignore those who will say that you played on for too long.

Merab Gagunashvili – Jacek Stopa

Kolkata 2013



64.♔c2!

The right move, ready to go to b3.

64...♔d4

There are no other ideas for Black.

64...♔b4 65.♔b2 and Black cannot make progress.

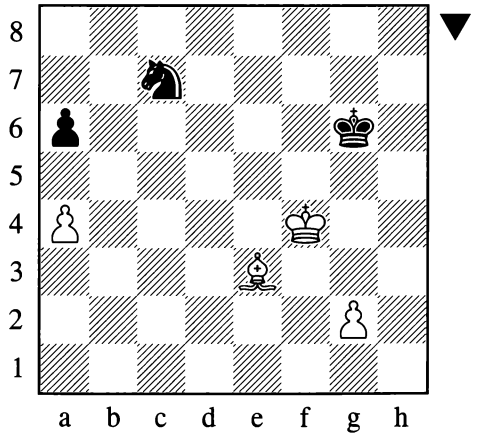
65.♔b3 ♔e4 66.♔c4 ♔xf4 67.♗xe6 ♗xe6† 68.♔b5

With a draw.

The next example is peculiar. It appeared that Black was heading in the right direction, but then got cold feet when it was time to commit to a simple drawing line. Later, White messed up in a not too difficult ending, suggesting a lack of technical awareness.

Dimitrios Mastrovasilis – Thies Heinemann

Internet 2021



61...♘d5†

61...♔f6? 62.♔e4 ♔e6 63.♔d4 ♘d5 64.♗d2 would allow White to keep everything under control. The g-pawn will act as a distant passed pawn that will distract the black king, while the white forces will be able to win on the queenside, without ever giving Black the chance to sacrifice the knight for the pawn.

62.♔e4

White could retreat with the king, but it would not lead anywhere.

62.♔f3 ♔f5!

This would eventually force White to give the check with the pawn.

62...♘c3? 63.♗d4! would win for White though. Black cannot take the pawn and suddenly it will take him a lot of time to attack the g-pawn.

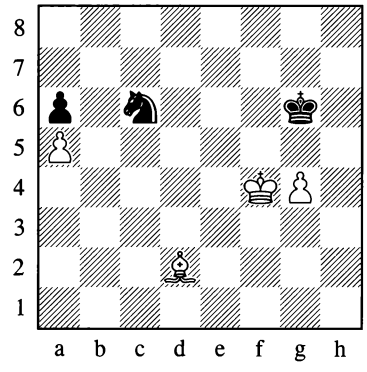
63.g4†

Necessary if White wants to make progress. With the king close to the g-pawn, Black will just sit and wait.

63...♔f6 64.a5 ♘e7

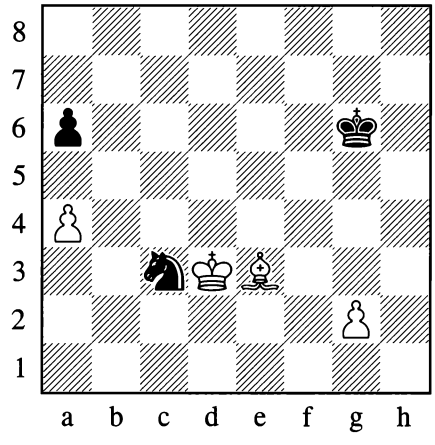
The simplest.

65.♔f4 ♘c6 66.♗d2 ♔g6



The moment the white king steps away, Black will take on a5.

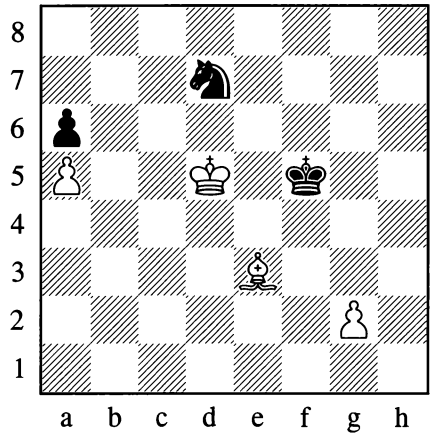
62...♘c3† 63.♔d3



63...♘d5?

A peculiar mistake. 63...♘xa4 64.♔c4 ♔f5 65.♔b3 ♔g4 arrives just in time. Black draws.

64.♔d4 ♘b6 65.a5 ♘d7 66.♔d5 ♔f5



67.♔c6?

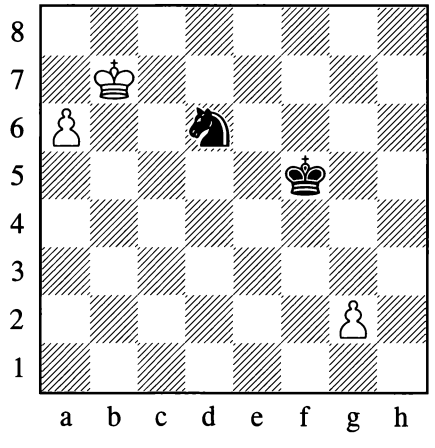
Mastering domination is an important part of developing good technique. At this point, the knight needed to be dominated.

After 67.♗d4!, followed by ♔c6, White will win easily.

67...♘e5† 68.♔b7?

68.♔d5!, getting the chance back, was better.

68...♘c4! 69.♔xa6 ♘xe3 70.♔b7 ♘c4 71.a6 ♘d6†



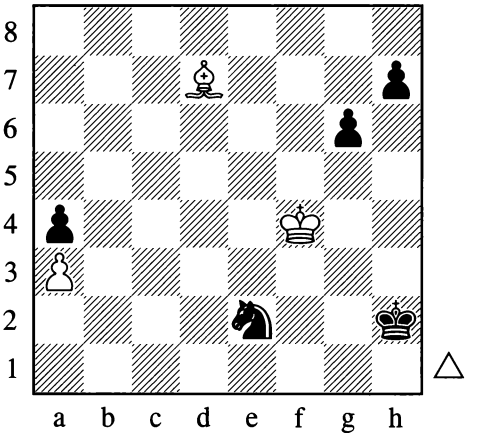
An important little image to have in your mind. The king cannot kick the knight away. It will stay on the circuit and prevent the a-pawn from queening.

72.♔c6 ♘c8 73.♔c7 ♘a7 74.♔b6 ♘c8† 75.♔b7 ♘d6† 76.♔b8 ♘b5 77.a7 ♘xa7 78.♔xa7 ♔g4 79.g3 ♔xg3
½–½

One more example!

Vassilios Kotronias – Pentala Harikrishna

Porto Rio 2014



White lost trivially after normal play:

50.♔g5? ♘c3 51.♔h6

51.♔g4 ♔g2 52.♗e8 ♔f2 would also win for Black. White has nothing better than to go for the h-pawn, now with a few tempos lost.

51...♔g3!

Coming back to assist the g-pawn.

52.♔xh7 g5 53.♔g6 ♔h4!

53...♔f4? 54.♔h5! would allow White to escape with a draw. Black cannot make progress. On top of that, he is in zugzwang.

White, on the other hand, would happily make a waiting move with the bishop.

54.♗c6

After 54.♔f5 g4 55.♔f4 ♘d5† the g-pawn cannot be stopped.

54...g4 55.♔f5 g3 56.♔f4 ♔h3

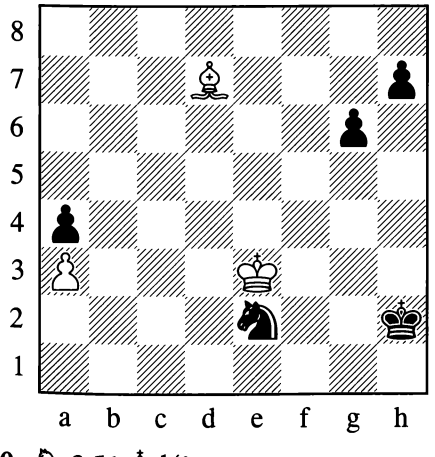
Black is ready to push the g-pawn, but would not do so until he has eliminated the a3-pawn, creating a second passer. White resigned.

0–1

White is able to make a draw with the obscure 50.♔g4, which keeps the black king away from helping the black pawns. This sort of abstract move is hard to find, particularly when you are two pawns down. If there was nothing else, perhaps. But as we saw, Kotronias went for a natural active idea, which just did not work. But another active idea does, which is based on eliminating the pawns on the queenside first.

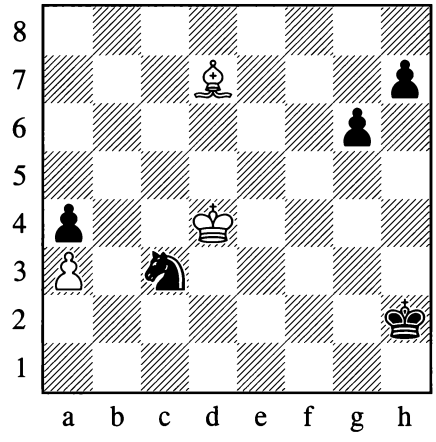
50.♔e3!

50.♔e5 works in the same way, if White does not get distracted and go for the kingside pawns again.



50...♘c3 51.♔d4!

51.♔f3!? also holds, but is rather obscure. No one would play it.



51...♘b1 52.♗xa4

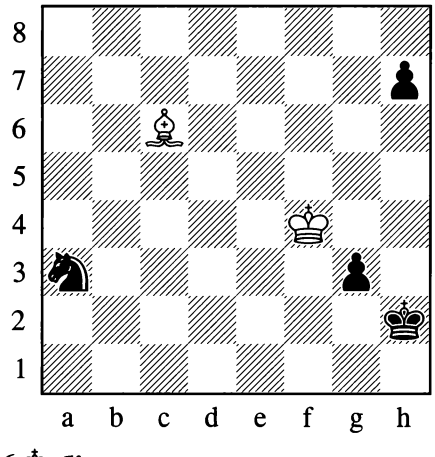
52.♔e5 ♘xa3 also works, if White does not mix up the move order and lose to 53.♔f6? ♘b5!.

52...g5!?

A winning attempt.

52...♘xa3 53.♔e5 would allow White to eliminate the last two pawns as well.

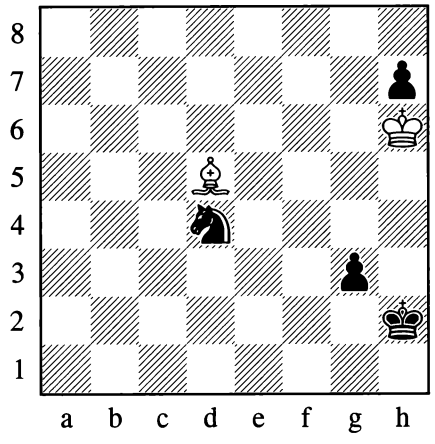
53.♔e5 g4 54.♗c6 ♘xa3 55.♔f4 g3



56.♔g5!

The bishop will take the g-pawn and the king the h-pawn.

56...♘b5 57.♔h6 ♘d4 58.♗d5



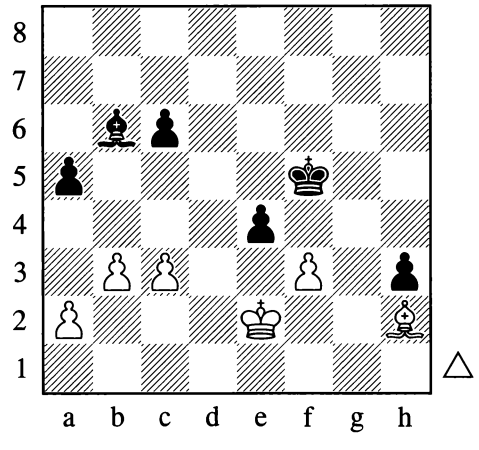
This endgame is always a draw.

58...♔g1 59.♔xh7 ♔f2 60.♗h1!
With a draw.

The following example sees the defensive idea of mass elimination of pawns displayed at the top level. At the time of writing, Van Foreest has won the 2021 edition of Wijk aan Zee in front of the world elite, and Ding Liren has confirmed his place as the number 3 player in the world by being the highest scoring player in the second half of the 2020-21 Candidates tournament. Even with such esteemed players, these basic ideas are important.

Jorden van Foreest – Ding Liren

Wijk aan Zee 2019



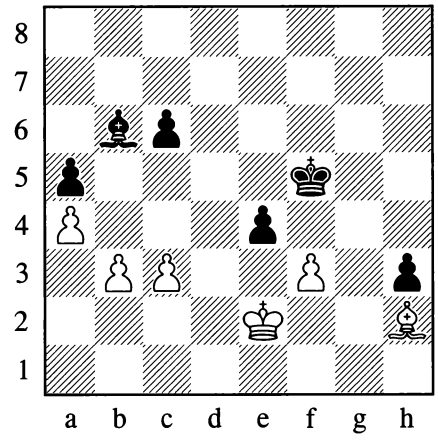
39.b4? a4! 40.c4
40.♗g3 is met with 40...♗g1, and the queenside is badly constructed for White. 41.fxe4† ♔xe4 42.♔f1 ♗e3 Black can win in many ways. One of them is ...♗f4, and then win the pawn ending on the queenside, but the main one is ...♔d3 and just do damage.

40...♗d4! 41.fxe4†
41.c5 exf3† 42.♔xf3 ♗c3 43.b5 cxb5 44.c6 ♔e6 and Black wins. He will slowly regroup the bishop to c7 via a5. 45.♔e4 b4 46.♔d3 ♗f6 47.♔c2 ♗e7

41...♔xe4 42.♔f1 ♔d3 43.b5 cxb5 44.cxb5 ♔c4 45.♔e2 ♔xb5 46.♔f3 ♔b4 47.♔g4 ♔a3 48.♔xh3 ♔xa2 49.♗d6 ♔b3 50.♔g2 ♗c3
0–1

Better play looks like this:

39.a4!



This idea was necessary to hold the draw. The a5-pawn is fixed as a weakness and can then either be taken by the bishop or exchanged away with b3-b4 later.

39...c5
Black has to do something against b3-b4 to retain winning chances.

The key reason why White had to play 39.a4 (or 39.fxe4† ♔xe4 40.a4) is that he would then be able to reply to 39...♗d8 with 40.b4!, when the draw is trivial.

After 39...♗c5 40.♗c7! Black has no clear way to make progress. One possible try is 40...♗f8, with the idea ...♗g7. Here it is important that White is ready to make his threat to the a-pawn real by playing 41.fxe4† ♔xe4 42.♔f2, when a vacuum cleaner is heading for the board. Another key point is 40...♗g1 41.fxe4† ♔xe4 42.♔f1 h2 43.♔g2 and White makes the draw easily.

40.fxe4† ♔xe4 41.♗d6!

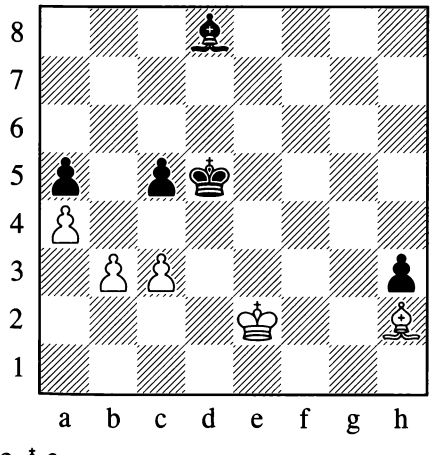
The only move, preventing the bishop from regrouping.

41...♔d5

41...♗d8 42.♔f2! and White will eliminate all the pawns.

42.♗h2 ♗d8

42...c4 43.bxc4† ♔xc4 44.♔f3 and White will take the h-pawn and give up the bishop for the a-pawn.



43.♔f3

The king will take care of the h-pawn and the bishop the two others.

43...♗f6 44.c4†! ♔d4 45.♗g1†

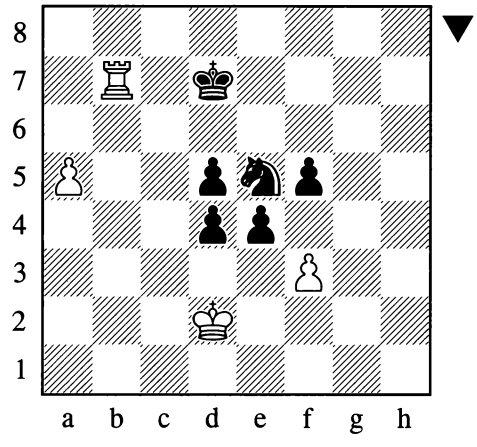
With a draw.

13. King blocking the passed pawn

One mistake I have seen committed again and again is defenders trying to deal with passed pawns from the side. Although there are positions where the defender can successfully deal with passed pawns from the side and the back, only in a few situations is this superior to blocking the pawn, as in the following example.

Nikola Nestorovic – Gellert Karacsonyi

Belgrade 2021



42...♔c6?

This looks active, but the king is just cut off.

42...♔c8! was quite safe. For example: 43.a6 ♘xf3† (43...e3†? 44.♔e2 f4 45.♖e7 would allow White to win a vital tempo.) 44.♔c1 e3 Black holds the draw. 45.♖b2! (45.♖e7? ♔b8 would see White unable to deal with the four black passed pawns.) 45...e2! 46.♖xe2 ♔b8 Black is in time to eliminate the last white passed pawn.

43.a6 e3†

43...♘xf3† 44.♔c1 e3 45.♖e7 would also win for White.

44.♔e2 ♘g6 45.♖b1 ♘f4† 46.♔d1
1–0

14. Attacking the pawns from behind

There are essentially three ways to deal with the opponent's passed pawns.

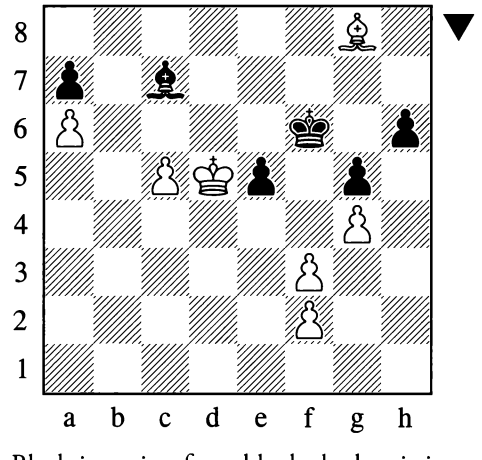
The first is to blockade them, which we have seen lots of examples of already and will continue to see throughout the book.

The second is to eliminate them, as just shown.

The third is to control them from behind. This is probably easy to understand in a rook endgame setting, where the rook is ideally placed far behind the passed pawn, limiting the possibilities to keep the pawn defended and to promote it at the same time. In minor piece endings this is also an important factor. There are various scenarios. Here we shall look at just one.

Renier Castellanos – Siem van Dael

Kragero 2020



Black is opting for a blockade, but it is not holding. The pawn on c5 restricts the black bishop, and the possibility to penetrate using the c6-square as a transit to the a7-pawn is a problem.

Black lost after:

61...♔e7? 62.♔c6 ♔d8 63.♔b7 ♗a5 64.c6 e4

A desperate move.

64...♗b6 does not allow a zugzwang, as after 65.♗d5 ♗a5 66.♔xa7? ♔c7 the white king is trapped in the corner and White cannot win.

Instead, 65.c7†! would force Black to take the pawn with the bishop, after which the king will be able to return to the b7-square and secure the win.

65.fxe4
1–0

But Black did not have to lose this game. If he had played 61...♗a5!, he would have been able to attack the c-pawn from behind with ...♗b4. White would not be able to play 62.c6, as 62...♗c7 would create the much desired blockade.

62.♔d6 or 62.♔c6 would, as said, both be met with 62...♗b4!, and we can see the difficulties for White to make progress. A draw is immediate.

15. Pawns in the way

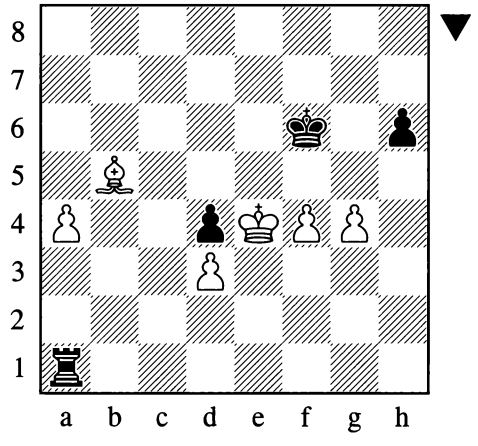
So far, we have treated pawns like royalty. But we should not be ignorant to the situations where their presence is a nuisance.

In the following example, the d4-pawn looks like a weakness for Black. But surprisingly, it is an obstacle to him instead, as can be seen from the annotations to move 61. Whenever something seems obvious in chess, there is always a variation or game where the

opposite is the case. This does not mean that understanding the basics is not useful; rather it is a demand on our imagination and intelligence.

Ian Nepomniachtchi – Anish Giri

Internet 2020



59...♖g1?

A natural move, but losing after a spectacular variation.

The drawing method for Black does not help us with our theme, but it is quite instructive all the same. Black should not allow the white king to penetrate.

59...♔e6 60.♔xd4 ♔d6! and the king is not able to cross the 5th rank. Black makes a draw.

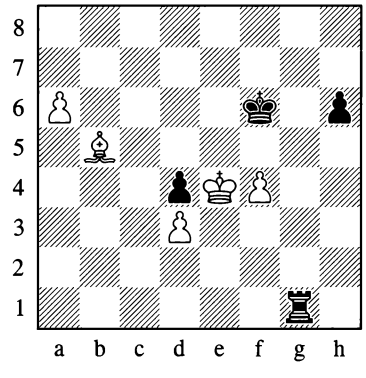
60...♖g1? was suggested as a defensive try by Renier Castellanos. The way to refute this suggestion involves a very beautiful bishop manoeuvre and although it is not the most spectacular thing I have ever seen in chess, it is still an original position and I decided to enter it into the FIDE World Cup as a study. You can argue that it is borderline if it is an endgame study or analysis of an endgame, because it lacks a composing element. And I would potentially agree with this. But as it did not happen in the game and is an original position, it is within the bounds of what is acceptable for submission. I still do not consider myself a composer. But I am a connoisseur of endgame beauty. Anyway, the study is on the next page.

Although we had no expectations for glory for the study, it felt good to enter. When I later saw that our study had not been processed correctly and our names were not on the list, I wondered if fate had protected us, or if we had been deprived of the failure of competing without hope – and success...

60.a5 ♖xg4 61.a6 ♖g7

Giri decides that the best practical chance for him is in a queen ending. It is an understandable decision, but as we can see below, there were no chances there. But, if he had chosen the alternative, we would have been able to say the same, had Nepomniachtchi found the win. Which in fairness, he probably would have.

61...♖g1

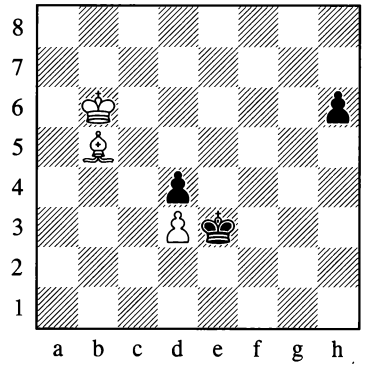


White to play and win!

a) It would be greedy and wrong to play: 62.♔xd4? ♔f5 63.♔c5 ♔xf4 64.a7 (64.d4 ♖a1 65.d5 ♔e5 66.d6 ♔e6 and Black holds.) 64...♖a1 65.♔b6 ♖xa7! 66.♔xa7 ♔e3 67.♔b6 ♔d4!! Shouldering! The white king cannot come to the rescue of the d3-pawn. And at

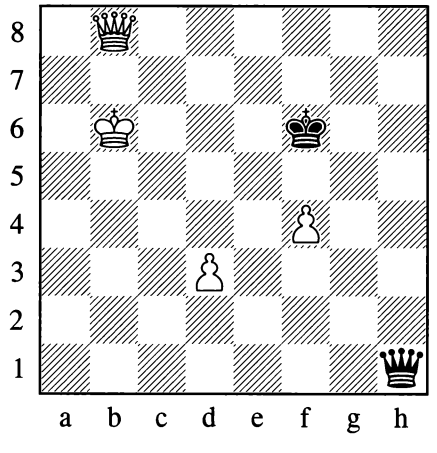
some point the bishop will have to stop the distant passed pawn, after which Black will draw by eliminating the last white pawn. All according to the programme.

b) But White can play more strongly. 62.♔d5!! ♔f5 63.♔c5 ♔xf4 64.a7 ♖a1 65.♔b6 Still threatening ♗b5-a6, so Black has to take the pawn. 65...♖xa7 66.♔xa7 ♔e3 67.♔b6



The difference. The black pawn on d4 is clearly not an asset. White wins trivially after 67...h5 68.♔c5 h4 69.♔c4 h3 70.♗c6 with a full tempo to spare.

62.♗c6 ♖a7 63.♗b7 h5 64.♔xd4 h4 65.♔c5 h3 66.♔b6 ♖xb7† 67.axb7 h2 68.b8=♕ h1=♕



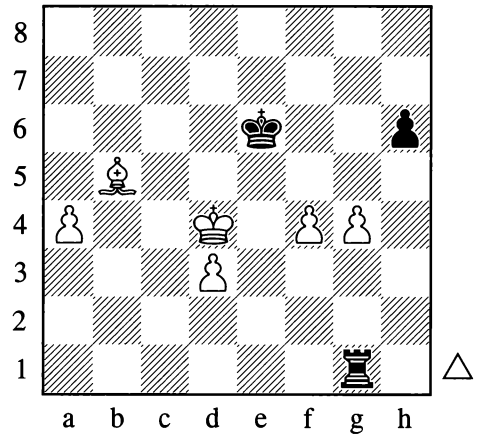
Two pawns extra is too much to deal with.

69.♕e5† ♔f7 70.♕e4 ♕h6† 71.♔c7 ♕g7 72.♕e5 ♕g3 73.d4 ♕b3 74.f5 ♕c4† 75.♕c5 ♕a4 76.♕d5† ♔f6 77.♕c6†
1–0

The study mentioned above looks like this:

Jacob Aagaard & Renier Castellanos

Original 2021

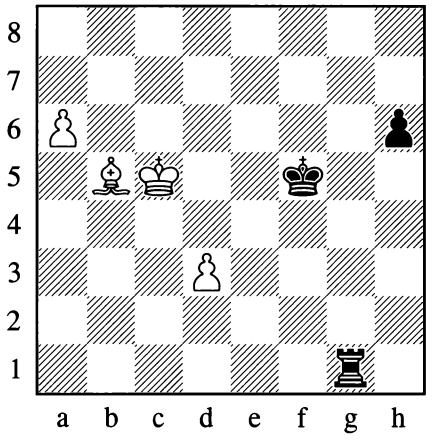


White's win is instructive as the a-pawn diverts the black rook, while the d-pawn, with suicidal assistance from the bishop, marches up the board. In the end, the bishop completes a rectangle to ensure the promotion of the pawns.

1.♔c5 ♖xg4 2.f5†!
Harassing the king.

2...♔f6
2...♔xf5 3.♗d7† would see the a-pawn arrive first.

3.a5 ♖g1 4.a6 ♔xf5
4...♖a1 5.d4 transposes. 5.♔b4! ♖b1† 6.♔a5 is however even simpler.



5.d4!

White needs both pawns to be active.

After 5.a7 ♖a1 6.♔b6 ♖xa7 7.♔xa7 Black draws by blocking the d-pawn and only then advancing the h-pawn. 7...♔e5! 8.♔b6 ♔d4 with a draw.

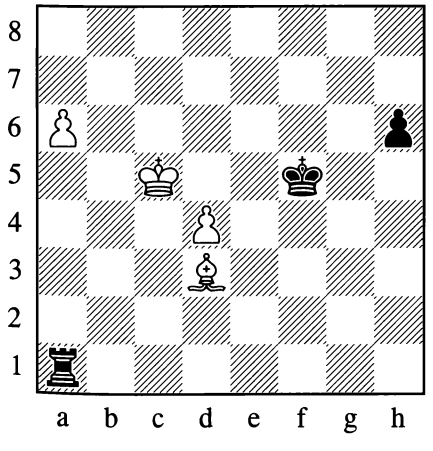
5...♖a1

The only reasonable try.

5...h5 6.♔b6, 5...♖g8 6.♗c6 and 5...♖c1† 6.♔b6 ♔e4 7.a7 ♖a1 8.♗a6 all win trivially for White.

6.♗d3†

6.♔b6? ♔e4 would drop the d-pawn.



6...♔f4!

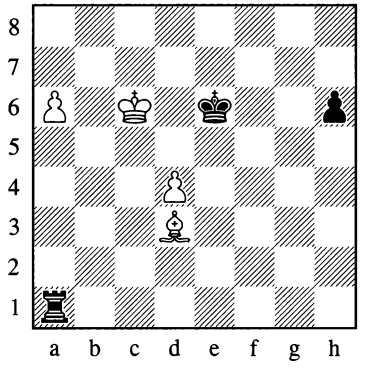
The trickiest defensive try.

6...♔e6

This would also require some accuracy for White to win.

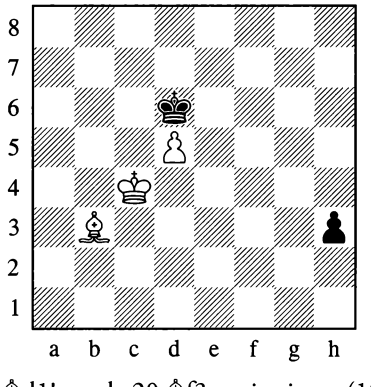
7.♔c6!

White wins with nice domination.



7...h5

7...♖c1† 8.♔b7 ♖c3 9.a7 ♖b3† 10.♔c7 ♖a3 11.♗c4†! An important little tempo gain. Now there is no check on b3. 11...♔f5 12.♔b6 Threatening ♗c4-a6. 12...♖xa7 13.♔xa7 ♔e4 14.d5 ♔e5 15.♔b6 ♔d6 16.♔b5 The king is just in time. 16...h5 17.♗b3 h4 18.♔c4 h3

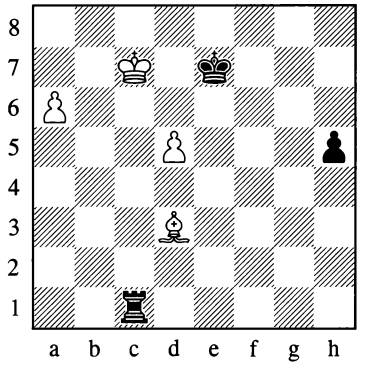


19.♗d1! and 20.♗f3, winning. (19.♗c2? ♔e5 would allow Black to escape with a draw.)

8.d5† ♔e7

8...♔e5 9.d6 ♖c1† 10.♔d7 ♖g1 11.♗c4! Building a shield on the c-line. Now ...♖c1 does not come with check. 11...♖c1 12.♔e7 White wins.

9.♔c7! ♖c1†



10.♔b8!

10.♔b7? ♔d6! and Black will escape with a draw.

10...♔d6 11.a7 ♖e1 12.♗f5! ♖a1 13.♗e4

White wins. The bishop can deal with everything on one diagonal.

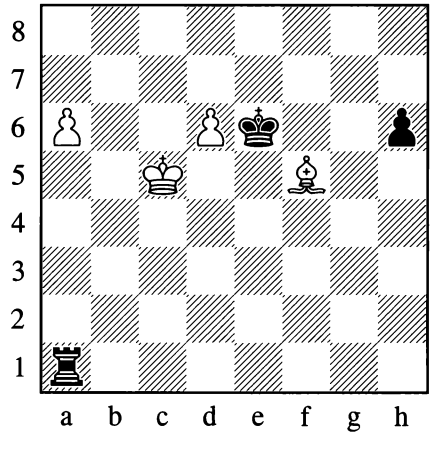
7.d5 ♔e5

7...♖a5† 8.♗b5 and 7...♖a3 8.d6 ♖xd3 9.a7 are both trivial wins for White.

8.d6 ♔e6

8...♖c1† 9.♗c4

9.♗f5†!



Not a deeply surprising move once we are here.

9...♔f6!?

This is trickier than accepting the sacrifice.

9...♔xf5 10.d7 ♖c1†

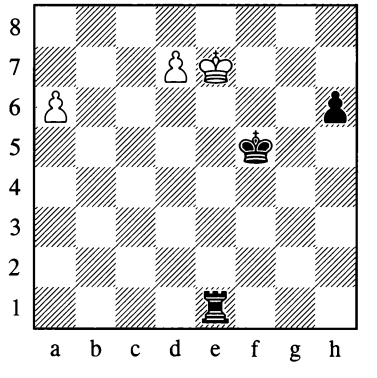
10...♖d1 11.a7 and one pawn queens.

11.♔d6!

The only place for the king to find solitude is on f8.

11.♔b4 ♖b1† 12.♔c3? ♖b8 would be a disastrous turn of events.

11...♖d1† 12.♔e7 ♖e1†



13.♔f8!

13.♔f7 ♖d1 would require White to repeat the position before heading in the right direction: 14.♔e7 ♖e1† 15.♔f8!

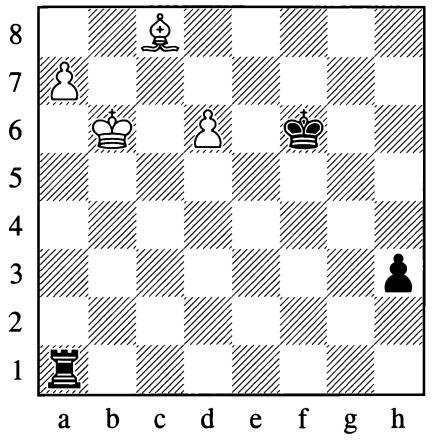
13...♖d1 14.a7!

White gets a queen and a theoretical winning endgame.

10.♔b6 h5 11.a7

11.♗c8 h4 12.a7 transposes.

11...h4 12.♗c8! h3



13.♗a6

The bishop has completed a nice manoeuvre from b5 to a6, via d3, f5 and c8, thus creating a rectangle.

13...h2 14.d7! ♔e7

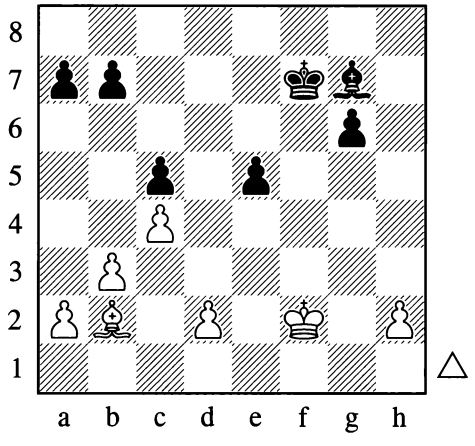
14...h1=♕ 15.d8=♕† and White will queen the other pawn on the next move, winning with the extra queen.

15.a8=♕ h1=♕ 16.d8=♕† ♔f7 17.♕g8† ♔f6 18.♕af8† ♔e5 19.♕g5† ♔d4 20.♕b4#

As we enter the next endgame, White is obviously slightly better, but there is no reason to believe that he can do anything too damaging to Black, if Black avoids doing anything stupid. Like putting all the pawns on the same colour as the bishop, for example.

Petr Velicka – Renier Castellanos

La Roda 2006



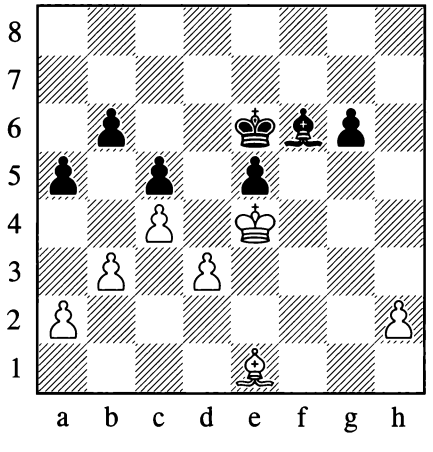
31.♔e3 ♔e6 32.♔e4 b6!?

Not really a mistake. Also, not an obvious requirement. But as long as the weak pawn is on a7, it will be hard to get to it.

33.d3 ♗f6 34.♗c3 a5?

Who would willingly put the pawns on the same square as their bishop in a bishop ending? Also, who would willingly transfer their weak point from a7 to b6? Renier would! This is a serious mistake, even though Black could still draw the game.

35.♗e1



35...g5!?

This is a move Black does not want to play and should be reluctant to play, but it is also a move that solves a lot of problems. White would like to manoeuvre the king to g4 and play ♗g5, after which Black should naturally worry if the pawn endgame is an easy draw or not. It is, but this is not something you would take as a given. The move does leave a bad impression, as Black has now managed to put all his pawns on the same colour as the bishop. But at this point, it makes sense.

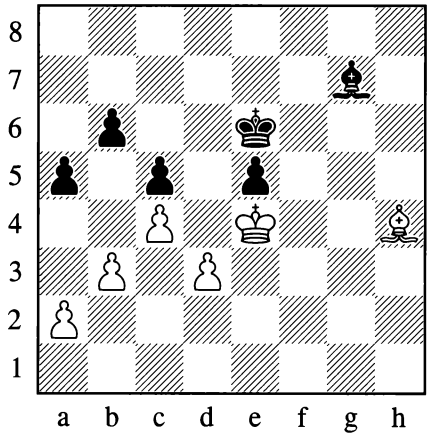
36.h3 ♗e7 37.♗f2 ♗f6 38.♗g3

Black is starting to see his options limiting.

38...♗g7 39.h4!

Exchanging the opponent's weakness is not usually something we want to do. But here it is needed in order to penetrate the position. This technique is called broadening and will also be covered on page 681.

39...gxh4 40.♗xh4



Quite fairly, Black is now under real pressure, just as he is facing the task of making his 40th move.

40...♔d6?

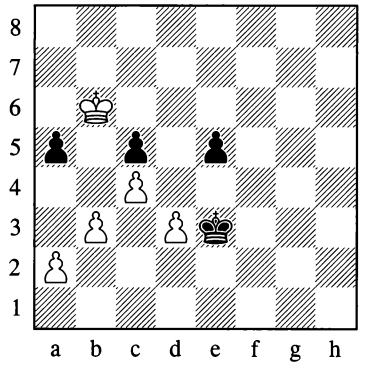
It is not easy to decide on entering a risky pawn ending at the best of times. Move 40 is not the ideal time to make such a decision.

However, Black would have made a draw after the exchange of bishops:

40...♗f6! 41.♗xf6

White could play 41.♗f2 and claim a slight edge. But it would be all it would ever be.

41...♔xf6 42.♔d5 ♔f5 43.♔c6 ♔f4 44.♔xb6 ♔e3



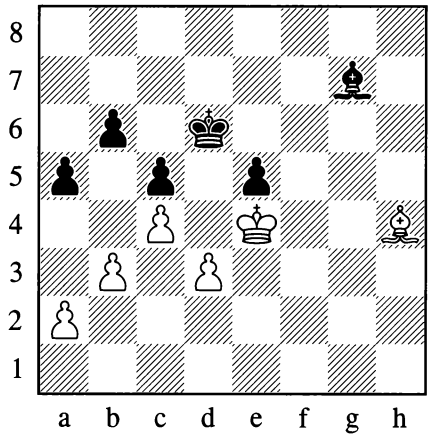
The e-pawn provides the much-needed counterplay.

45.♔xc5

45.♔xa5 ♔xd3 46.b4 ♔xc4 47.b5 e4 also leads to a draw.

45...♔xd3 46.♔d5 e4 47.c5 e3 48.c6 e2 49.c7 e1=♕ 50.c8=♕ ♕h1† 51.♔d6 ♕h2†

With a draw.



We have reached the beloved move 41, where we have a chance to regain composure after the always nervous crossing of the time control. It so happens that at this point, White has the chance to win in glorious style.

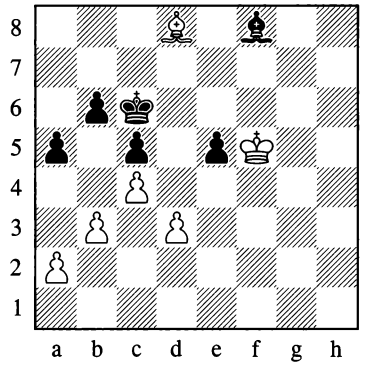
41.♔f5?

Missing the chance to play the following:

41.♗d8 ♔c6 42.♔f5 ♗f8

Black is forced to play a passive move.

42...♗h6 43.♗g5!! is an important nuance. The black bishop is to be dominated or exchanged. It is not allowed to escape the prison that has been created for it by its own pawns. 43...♗g7 44.♔e6 ♗f8 45.♔f7 ♗d6 46.♔e8 and White invades.



43.♔g6!

Domination. If the black bishop was able to join the world, the game would be a draw. But now zugzwang and the bad pawn on e5 (not to talk about all the other pawn on dark squares) limits his options. Black is not able to give away the pawn, as dxe4 would create a powerful passed pawn.

43.♔xe5? would transpose to the game.

43...♗d6

After 43...♔b7 White can play 44.♗g5 without allowing ...♔d7. Soon we will enter the main line or something akin to it.

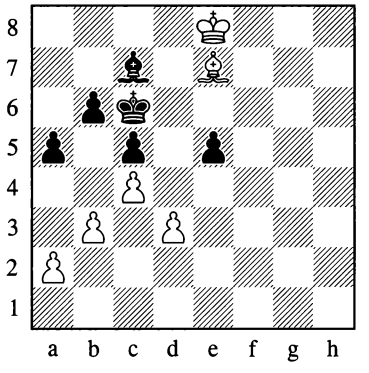
44.♔f7

Another zugzwang.

44...♔b7 45.♗e7

As all pawn endings are lost for Black, the threat of exchanging the bishop can be used with powerful effect.

45...♗c7 46.♔e8 ♔c6

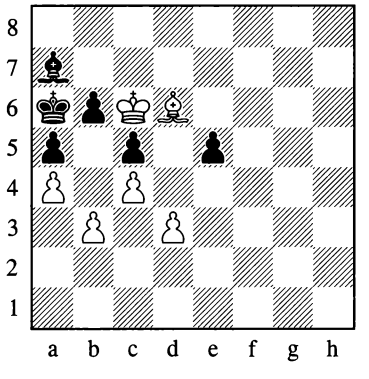


Note that if White somehow took the pawn on e5 without forcing the exchange of bishops, Black would draw in most cases.

47.a4

Domination and zugzwang is the name of the game.

47...♗b8 48.♔d8 ♔b7 49.♔d7 ♗a7 50.♗d6 ♔a6 51.♔c6



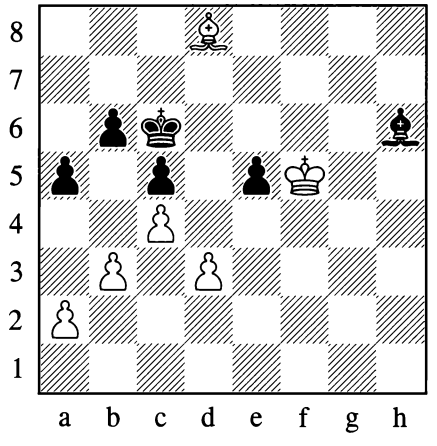
Black has avoided losing serious material and the exchange of bishops. But now he is only three moves from being checkmated.

41...♗h6?

41...♔d7! would have saved the game. White needs to be able to dominate the black pieces. This means putting the bishop on d8, or the

king on e6 and the bishop on g5. After Black's accurate move, that option would be gone.

42.♗d8 ♔c6



43.♔xe5??

This looks like the most natural move in the world – if you have never heard of a position being damaged by the existence of its own pawns.

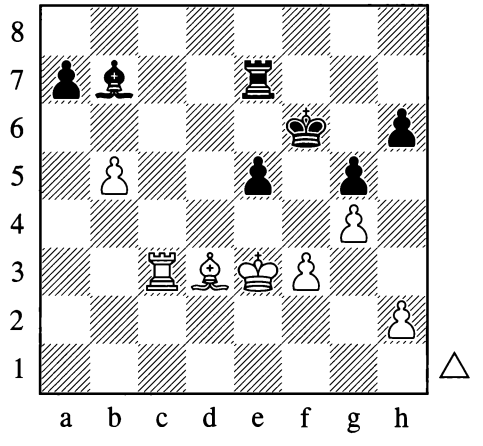
43.♗g5!! would still have won the game. The black bishop would not be able to escape and would be slowly squeezed. Now instead, the game ended in a draw after 110 moves. And it was potentially the most boring additional 67 moves seen in the history of chess, so I shall spare the reader the agony. It is enough that the players had to suffer them. In fairness, you can forgive White for believing that more chances would come, after the way Black played between move 30 and here.

16. Zugzwang

Zugzwang (move, forced to, in German) is one of the ultimate endgame themes. It is used to describe situations where a player cannot make a move without damaging his position. But as we do not have the option to pass on our move in chess, that pain can be ours.

Alexander Onischuk – Sam Shankland

St. Louis 2016



This game was a third loss in a row for Sam Shankland, who had not had this experience for quite a few years, nor since. It is a trademark victory by Alexander Onischuk, who rarely delivers a "big" game and outplays his opponents, but instead focuses on a solid technical performance without mistakes, ready to exploit the errors of the opponent, no matter how minor. We come in after the first-time control. Earlier in the game Black had a good opening and maybe even a small edge. But slowly his position worsened and by now, he has a tough defence in front of him.

Our main theme of zugzwang only comes into play at move 60, but the play up till that point is interesting and instructive, so I have included it.

41.♗f5

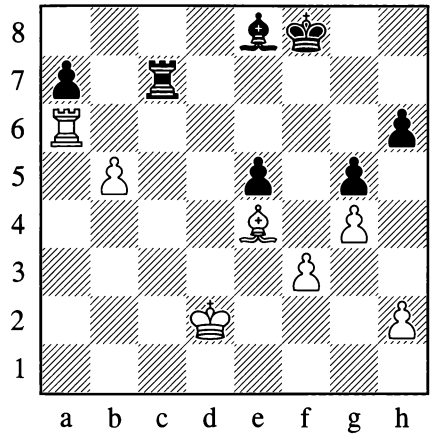
Decent technique by Onischuk. White is in no hurry to force matters, as no clear path to a win exists. It is better to keep Black under pressure and allow him to make mistakes in less forced play.

41.♗e4!? was possible, but after 41...♗xe4 42.♔xe4 ♖b7 43.♖c6† ♔g7 44.♖c5 ♖b6! 45.♔xe5 a6 Black manages to exchange away the weakest pawn and will make a draw, although with a bit of difficulty.

41...♔g7 42.♖a3 ♗d5 43.♖a6 ♖b7 44.♗d3 ♗f7 45.♔d2 ♗e8

Black has managed to organise his pieces well and is currently on the path to a draw.

46.♖a5 ♖c7! 47.♗e4 ♔f8 48.♖a6

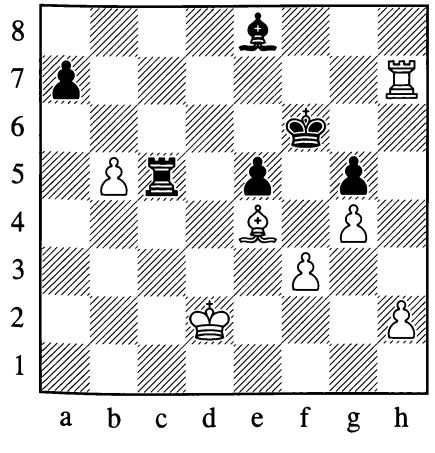


48...♖c5?

A serious mistake that gives White the chance to create two passed pawns on the kingside.

The right move was 48...h5!, exchanging off a weak pawn for one of White's long-term hopes. The draw is not far away.

49.♖xh6 ♔g7 50.♖h7† ♔f6 51.♖h6† ♔g7 52.♖h7† ♔f6



53.♖xa7?

A very natural move, but also a mistake.

White missed a very difficult winning possibility:

53.♖h8! ♔f7

53...♔e7 54.♖g8 and the g5-pawn falls.

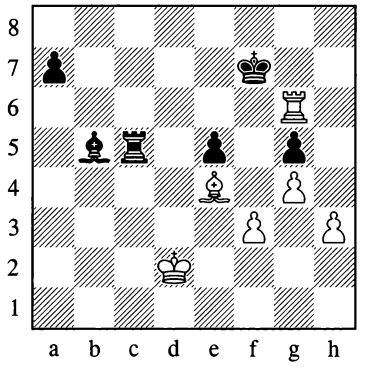
54.h3!

Securing the pawn against attacks. Meanwhile, Black can only weaken his position.

54...♗xb5

54...♖xb5 55.♖xe8! is an essential part of the winning path for White.

55.♖h7† ♔f6 56.♖h6† ♔f7 57.♖g6!



White will have two connected passed pawns and will win in the long run, even if Black is able to eliminate one of them.

57...a5 58.♖xg5 a4 59.♖h5! ♗f1

59...♔g8 60.♖h7 ♖d5† 61.♔c3 ♖d7 62.♖xd7 ♗xd7 63.h4 also wins for White.

60.♖h7† ♔f8 61.♖a7 ♗xh3 62.♖xa4

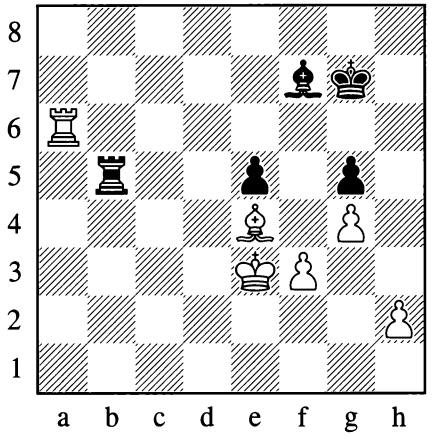
White will manoeuvre the king to h4 and win the game slowly. The extra pawn and Black's issues with defending the e5-pawn will be enough.

53...♖xb5 54.♖a6† ♔g7?

A straight-up blunder. The king belonged on e7.

55.♔e3 ♗f7

55...♖b2 would have worked great if the king was on e7, but now White would have 56.♖e6, winning on the spot.



56.♔f2?

Onischuk misses an easier win than the one three moves ago:

56.♖a7! ♔f6

56...♔f8 would lose to 57.♔f2 ♗c4 58.♔g3 ♖b2 59.♖a1!, followed by h2-h4, creating a passed pawn. At first glance it may not be entirely obvious, but White wins without facing any real resistance.

57.h4!

A nice trick. Black cannot allow h4-h5, and after:

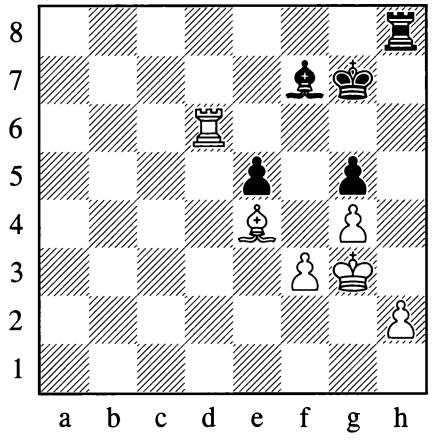
57...gxh4 58.g5†! ♔e6 59.g6

White wins a piece.

56...♖b8!

Strong defence. Black cannot allow White to create a passed pawn. Together with the strong bishop on e4, it would be too much for Black to handle.

57.♔g3 ♖h8 58.♖d6



58...♖h4?

A very understandable decision. By putting the rook here, Black prevents White from making any advance on the kingside. The active fortress seems impenetrable.

But as it is not, Black should have played:

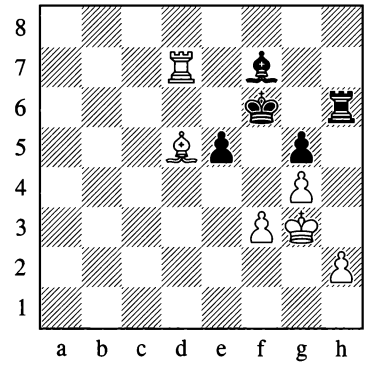
58...♖h6!

This relies on the bishop ending being an easy draw. White can push the g-pawn to g5, but thereafter no active idea exists. The king cannot enter the position on the kingside, and if it tries to go around via b4, Black will be able to play ...♗g6 and quickly eliminate the g5-pawn.

59.♖d7 ♔f6!

This is the surprising set-up. White has no obvious way to make progress, as the rook ending is perfectly safe for Black after:

60.♗d5



60...♗xd5 61.♖xd5 ♔e6

Black's pieces are well organised.

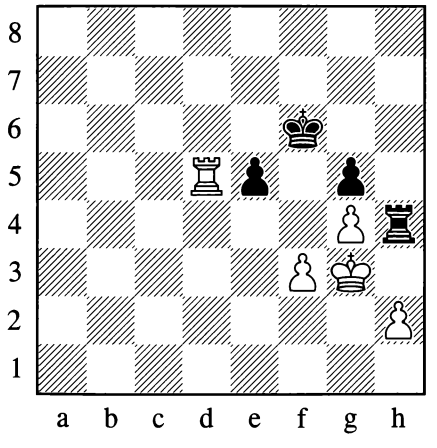
62.♖d8 ♔f7 63.♖a8 ♖b6

White cannot make serious progress. It is not true that all rook endgames are drawn, but this one shows how the saying came about.

59.♗d5! ♗xd5

Black has no alternative.

60.♖xd5 ♔f6



While rooks endgames are generally not the most promising type available, they are by no means as drawish as some would like to think.

61.♖d8!!

This amazing move prevents the black rook from re-entering the game. The immediate threat is a check on f8.

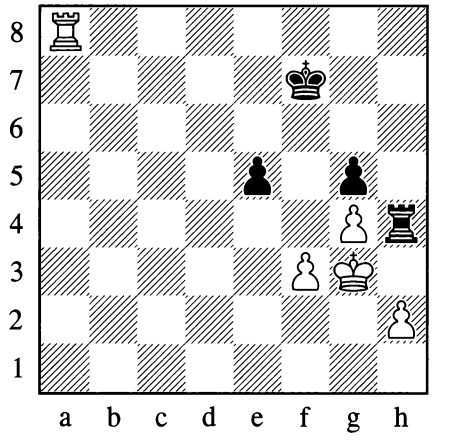
61...♔f7

Thus this is the only move.

61...♖h7 would lose on the spot to 62.♖d6†!, with the exchange of rooks or the fall of the g5-pawn.

62.♖a8!

A simple waiting move, asking Black what he wants to do.



62...♖h6

Not a move Black wants to play, but there is simply nothing else. He is in zugzwang.

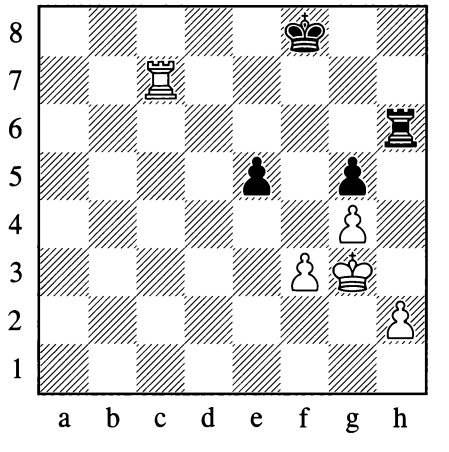
62...♔e7 63.♖g8 ♔f6 64.♖f8† and White wins a second pawn.

63.♖a7†!

Forcing the black king to the 8th rank.

63...♔f8 64.♖c7!

Another waiting move.

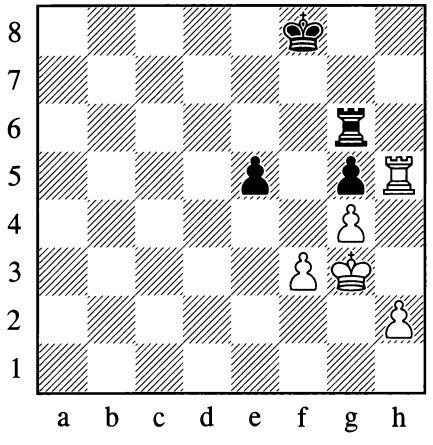


If Black could pass, he would make the draw. But he cannot. Either king move would drop a pawn. And the rook cannot return to h4, as e5-drops, or h8, as the pawn ending is hopeless.

64...♖f6 65.♖h7!

Transferring the rook to h5, paralysing Black.

65...♖a6 66.♖h5 ♖g6



67.♔f2

67.h4 gxh4† 68.♔xh4 ♖e6 69.♔g5 would also win. But the strong technician Onischuk prefers to win without doing anything at all.

67...♔e7 68.♔e3 ♔f6 69.♔e4 ♖g8 70.h4

Black resigned. 70...gxh4 71.♖xh4 and 72.♖h5 (or ♖h6† first) will quickly see Black two pawns down.

1–0

17. Triangulation

One of the common questions we should ask of the position in the endgame is: *"What would happen if it was my opponent to play?"* Zugzwang is such a significant part of the endgame that we should always consider it as a factor. In the previous example, we saw how Onischuk made non-moves and Shankland's position worsened. In the next example, we are going to see how White can win by triangulation, a three-step manoeuvre that will return to the same position, but with the opponent to play.

Katarzyna Toma – Jem Gurner

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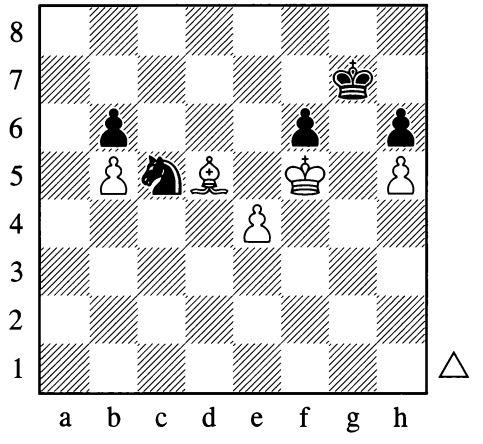


This game was played in the online British Championship. White is winning, but the winning line is hard to work out. The constant principle along the way is to put Black in zugzwang, so he has to make a concession and take a step backwards.

50.♗c4?

But this should not be the way to do it.

Also, Black would make it to the corner in time after: 50.e5 fxe5 51.♔xe5 White cannot make progress without Black being able to play ...♘a4-c3xb5.

White also has no way to make progress after 50.♗a2 ♘a4!. (However, the similar 50...♘b7? 51.♔e6 ♘c5† 52.♔d5 and 53.♗b1, would win for White.)

The key point is that 51.♔e6 would be met with 51...♘c3 and the knight will take both pawns (never counting the h-pawn) and we would have a theoretical draw.

51.♗b3 ♘c3 52.♗c4 ♘a4 also would not make progress.

50...♘d7?

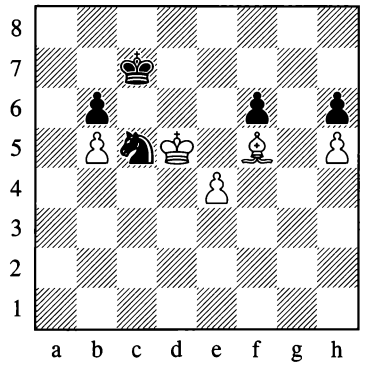
50...♘a4! and 50...♘b7! would both make the draw. 51.♔e6 ♘c5† transposes to the game.

51.♔e6?

51.♗a2! ♘c5 52.♗d5 would have transposed to the winning line below.

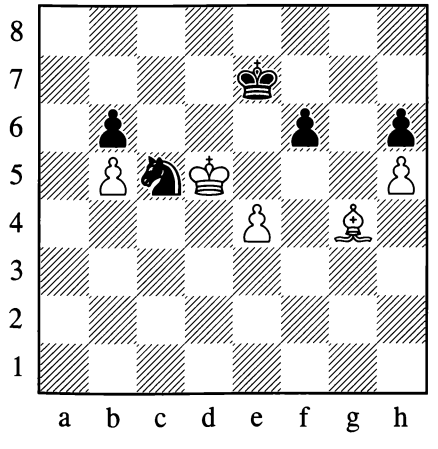
51...♘c5† 52.♔d5 ♔f8 53.♗e2

White could also have tried to regroup the bishop. 53.♗f1 ♔e7 54.♗h3 ♔d8 55.♗f5 ♔c7



Black is just in time to defend the queenside. Now the attack moves to the kingside. 56.e5 fxe5 57.♔xe5 ♔d8 58.♔f6 ♔e8 59.♔g7 ♔e7 60.♔xh6 ♔f7 Black makes the draw. He will get into the corner and then give up the knight for the b-pawn.

53...♔e7 54.♗g4

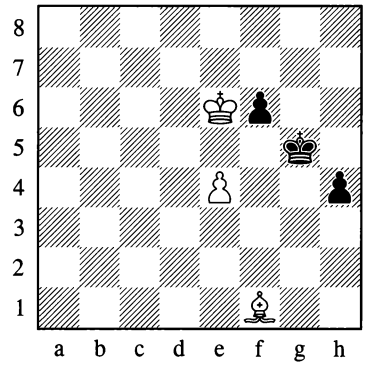


54...♘a4?

54...♘d3 was one way to make the draw. Black is in time for ...♘b4† with a draw.

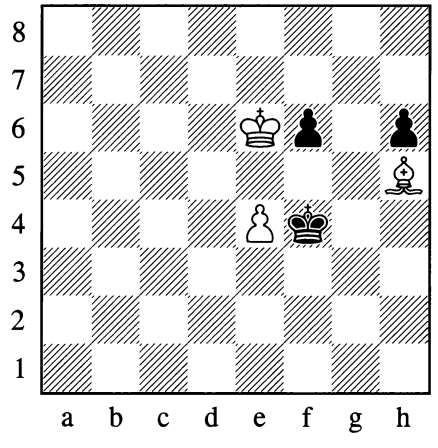
55.♔c6 ♔f7 56.♗d1 ♘c3 57.♗c2 ♔e6 58.♔xb6 ♔e5 59.♔c6 ♘xb5 60.♔xb5 ♔f4 61.♔c5 ♔g5 62.♔d5 ♔xh5 63.♔e6 ♔g5 64.♗d1

White has a few wins around here. For example 64.♗d3 h5 65.♗f1 h4



66.♗g2! ♔g6 67.♗h1 h3 68.♔e7 h2 69.♔f8! ♔h5 70.♔f7 ♔g5 71.♔g7 White wins the f-pawn and the e-pawn will queen.

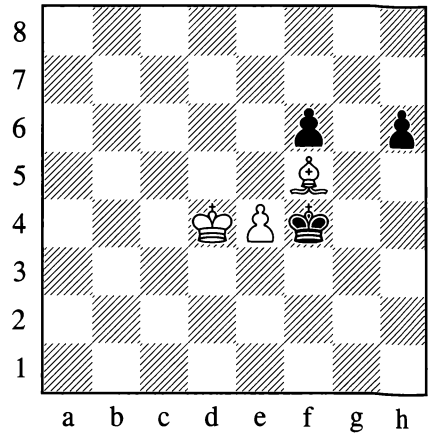
64...♔f4 65.♔d5 ♔e3 66.♗g4 ♔f4 67.♗h5 ♔g5 68.♔e6 ♔f4



69.♔d5

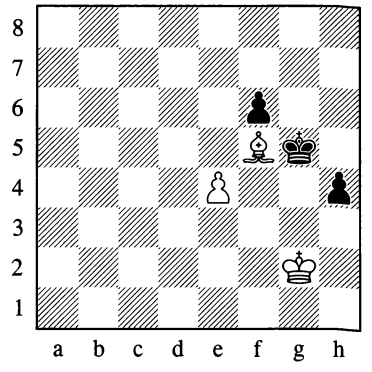
69.♗g6 ♔g5 70.♔f7 would win.

69...♔e3 70.♗g6 ♔f4 71.♔d4 ♔g5 72.♗f5 ♔f4



73.♗h3?

73.♗g6 was still objectively winning. 73...♔g5 74.♗f7 h5 75.♔e3 ♔g4 76.♗e8 h4 77.♔f2 White will slowly round up the h-pawn. 77...♔f4 78.♗g6 ♔g5 79.♗f5 ♔f4 80.♔g2 ♔g5



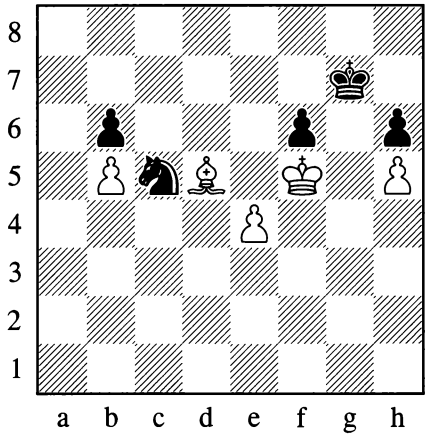
81.♔f3! ♔h5 82.♔f4 and the black king is driven away.

73...h5 74.♗g2 h4 75.♔d5 ♔g3

The bishop is unable to work on both diagonals. It cannot both defend the e4-pawn and prevent the h-pawn getting to h2. And if the pawn is on h2, it will have to shuffle between f3 and h1 to avoid the pawn queening.

76.♗f1 ♔f2 77.♗h3 ♔g3 78.♗f5 ♔f4 79.♗d7 ♔f3 80.♗c8 ♔f4 81.♗f5 ♔e3 82.♗d7 ♔f4 83.♔d4 ♔f3 84.♔d3 ♔f4 85.♗f5 ♔f3 86.♗h3 ♔g3 87.♗f5 ½–½

Let's return to the starting position.



White has the chance to break the first line of the defence with a nice triangulation.

50.♗c6!! ♔f7 51.♗a8!

Losing a tempo. But as all Black can do is to move back and forwards, losing a tempo will make it Black to play and thus be in zugzwang.

51...♔g7

51...♔e7 52.♔g6 would see White win with the distant passed pawn.

52.♗d5

Black is in zugzwang and must make a serious concession.

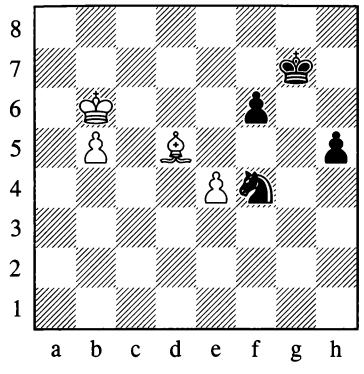
52...♘a4

Black can also go for the kingside and enter a race. It is probably the inferior defence, but still not easy to overcome.

52...♘d3 53.♔e6 ♘f4† 54.♔d6 ♘xh5

54...♘e2 55.♔c7! Clearing the square for the bishop. (55.♔c6? ♘c3 56.♔xb6 f5 would allow Black to eliminate all the pawns.)

55...♘c3 56.♗c6 ♔f7 57.♔xb6 White wins.
55.♔c6 ♘f4 56.♔xb6 h5



57.♔c7!

57.♔a7 ♘d3! would catch the b-pawn with the white king too far away. With the king on the right side of the pawn, the knight would not be able to stop the b-pawn.

57...♘xd5†

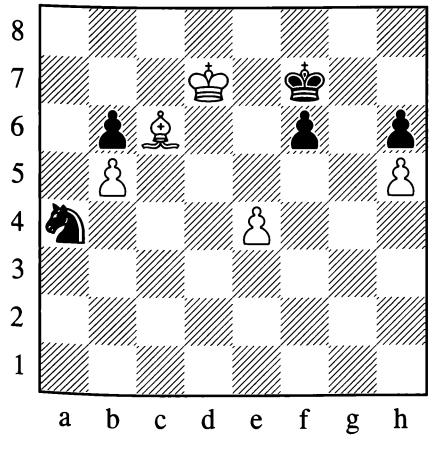
The only try.

58.exd5 h4

White can queen either pawn. Traditionally it is better to keep the d-pawn in the queen ending, but here the f6-pawn is a liability for Black. The white king will hide behind it, making it impossible for Black to give a long sequence of checks.

Thus, queening either pawn wins. I would still queen the b-pawn and keep the better pawn.

53.♔e6 ♘c3 54.♗c6 ♘a4 55.♔d7 ♔f7



White has made a lot of progress, but still has to overcome a number of defensive ideas.

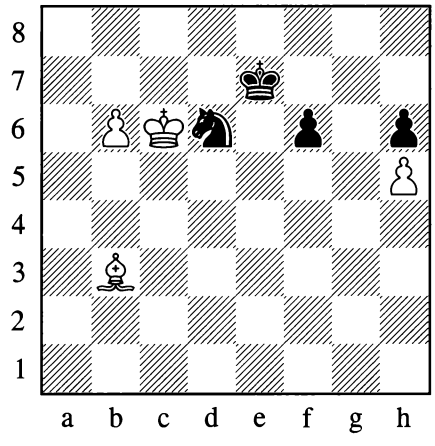
56.♗d5†!

56.♔c7 ♔e6 with ...♘c3xb5 and ...f5 coming, would quickly end in a draw.

56...♔f8 57.♔c7 ♔e7

After 57...♘c3 58.♗c6 (58.♔xb6? f5! would eliminate the white pawns.) 58...♘a4 59.♗d7 ♔e7 60.♗f5 ♔e8 61.♔d6 ♔f7 62.♔d7 ♘c3 63.♔c6 ♘a4 64.♗h3 ♔e7 65.♗f1 ♔e6 66.♗d3 ♔e5 67.♗c2 White wins the b-pawn and the game.

58.♗b3 ♘c3 59.♔xb6 ♘xe4 60.♔c6 ♘d6 61.b6

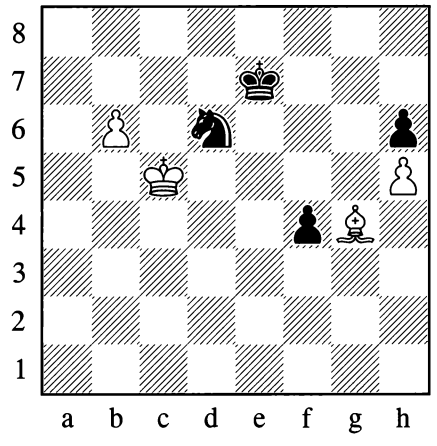


Black is in zugzwang and will have to move the f-pawn. This may look inconsequential. But the pawn is essential in keeping the blockade. Once it is gone, the king can come to e5 and the whole position starts to crumble.

61...f5 62.♗d5 f4

White is in control, but still has to overcome the last line of defence. A bit of manoeuvring eventually brings Black into zugzwang.

63.♔c5 ♔d7 64.♗c6† ♔e6 65.♗f3 ♔d7 66.♗g4† ♔e7



67.♔d5!

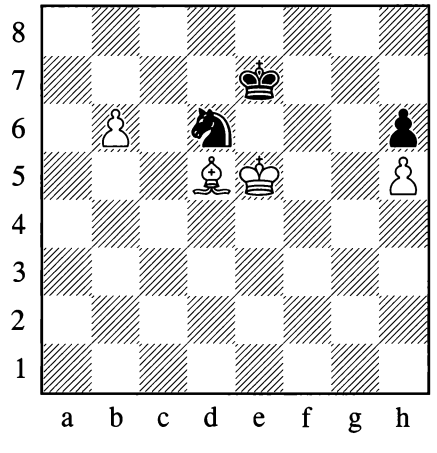
Good domination. White leaves the b-pawn on the queenside and brings the king to the kingside to win the game there.

67.♔c6? ♘c4 would be an instant draw.

67...♘b7 68.♔e5 ♘d6 69.♔xf4 ♔f6 70.♗f3 ♔e6 71.♗c6

More domination.

71...♔f6 72.♗d5 ♔e7 73.♔e5



As predicted. The black position is falling apart.

73...♔d7 74.b7 ♘xb7

74...♔c7 75.b8=♗† and White wins.

75.♗xb7 ♔e7 76.♗d5! ♔f8 77.♔f6

White wins.

18. Losing a tempo

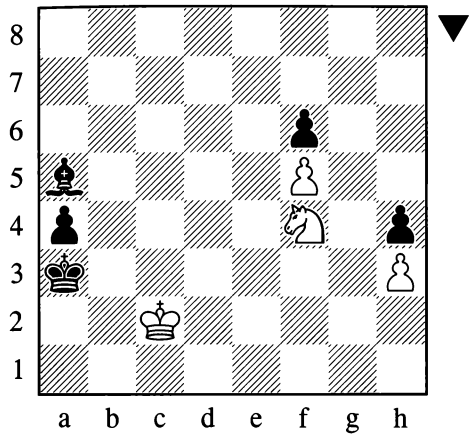
I find the following example quite hard to understand, but hopefully I will be able to explain it in a reasonable way. Black has won a pawn, but at the price of misplacing his king. The white king is trying to keep the king in the corner. If it can come out without paying too big a price, Black is easily winning. With the king out, the a-pawn can be used as a distraction. While the white king is busy eliminating it, the black king will create two new passed pawns on the kingside and win the game.

I analysed this example with powerful engines, then presented it to a classroom of talented students, and then analysed it again for hours. This has finally led to what I believe is a correct assertion of what actually happens in this position.

The key element circles around zugzwangs. Bishops have a big advantage over knights in that they can perform a type of triangulation, where they return to the same square after having spent three moves. The knight can only go away and come back, and never take any stops along the way. It is this feature that makes it possible for Black to use zugzwang to get the king out of the corner after accurate play, by losing a tempo.

Francesco Sonis – Jan Krejci

Internet 2021



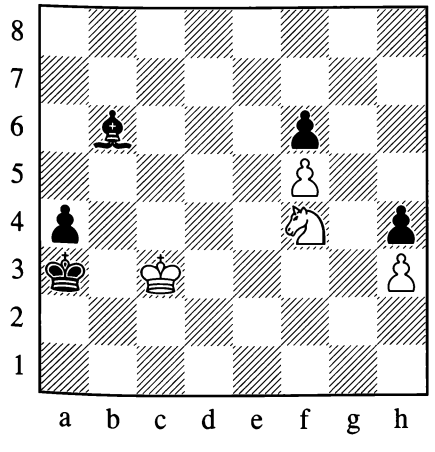
64...♗b6!

64...♔b4?! 65.♘d5† would drop the f6-pawn and lead to a draw.

65.♔c3

The most resilient move.

65.♘d5 ♗d4 is a sign of things to come. White is in zugzwang and will have to let the black king back into the game under very favourable circumstances: 66.♔d3 ♗a1 67.♔c2 ♗e5 and White has to make the lethal concession. White is in zugzwang and Black wins. This is what I wanted the solution to look like. If you were Black, wouldn't you?



65...♗a5†

Krejci failed to find a reasonable way to progress.

The attempt to force things with 65...♔a2? 66.♘d5 a3 does not work at all. White has both 67.♔c2 and 67.♘xb6 ♔b1 68.♘c4 a2 69.♘d2† ♔c1 70.♘b3† with a draw.

When I showed this example at Killer Chess Training Academy, I intended the solution to be:

65...♗c7

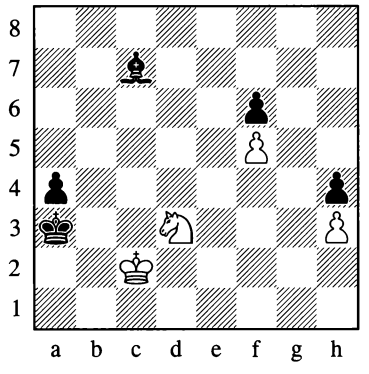
But the details are not as easy as I believed them to be.

66.♘d3!?

66.♘d5?! would lose to: 66...♗e5† 67.♔c2 ♗d4 68.♔d3 ♗b2 69.♔c2 ♗e5 and White is again in zugzwang.

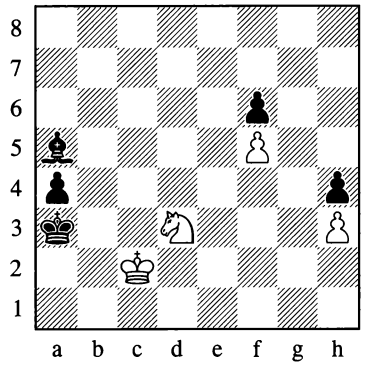
66...♗g3 67.♔c2 ♗c7

Black has lost a tempo.



68.♔c3 ♗a5† 69.♔c2

Also after 69.♔c4 ♗d2! 70.♘c5 ♗e3 71.♘d3 ♔a2 72.♔c3 ♔b1 it would be impossible for White to keep the king in the cage. 73.♔b4 ♔c2 and Black wins.



69...♗b4!

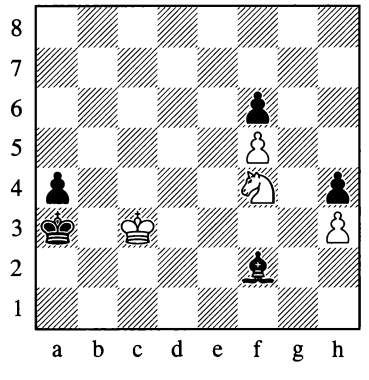
This small step manoeuvring is decisive.

70.♘f4 ♗c5 71.♘d5 ♗d4 72.♔d3 ♗b2 73.♔c2 ♗e5

White is in zugzwang and Black wins.

65...♗f2!

This looks promising and at the academy we did not manage to find the defence for White.



66.♘d3

66.♘d5? ♗g3 and ...♗e5 would put White in zugzwang and/or allow the king to escape the corner.

66...♗e3!

The first key move. Black loses a tempo.

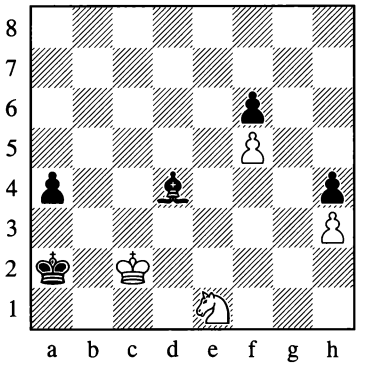
67.♘e1

67.♔c2 ♗d4! with zugzwang is what Black is aiming for.

67...♔a2 68.♔c2

68.♔b4 ♗d2† and wins.

68...♗d4



We managed to analyse correctly this far, but now went for the natural-looking 69.♘f3 ♗f2 70.♘d2 ♔a3, when Black will escape the corner. But this would put the white knight on the wrong circuit.

A better try is:

69.♘g2!?

Black has two options:

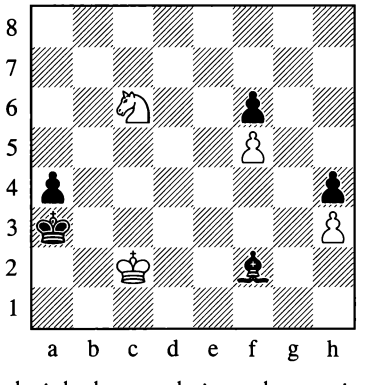
a) 69...♗f2 70.♘f4 ♗g3 71.♘g6!

The knight finds the right circuit.

71...♔a3 72.♘e7! ♗f2

72...♗d6 73.♘c6 It is difficult for Black to make progress.

73.♘c6

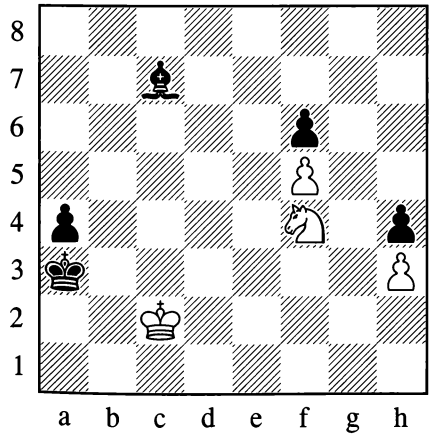


The knight has made it to the magic square, c6. This position could also have arisen in the game and is the key defensive position White should be striving for.

There are not enough squares for the black bishop on the a1-e5 and e1-a5 diagonals to keep control of the c3-square. If the bishop had made it to a1, White would be able to play ♔b1-c2. And on 73...♗e1, he can repeat with 74.♔d1-c2. There is no way for Black to lose a tempo and no way to create a zugzwang without denying White access to the c3-square. He cannot be in zugzwang as long as he can shuffle between c2 and c3. And Black needs to put him in zugzwang to force the knight to move, so the king can escape from the corner.

b) 69...♔a3! In advance it can be possible to miss this idea. Black exploits that the knight is far away, and he does not care for the h-pawn. 70.♘xh4 ♔b4 and the a-pawn will queen.

66.♔c2 ♗c7?



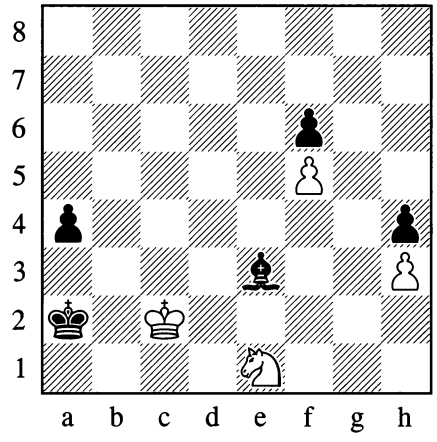
67.♘d3?

White ends up in zugzwang after 67.♘g2 ♗g3 68.♘e3 ♗f2! 69.♘d5 ♗d4 70.♔d3 ♗b2 71.♔c2 ♗e5 and White has to make the lethal concession.

But he had a chance to bring the knight in on the right circuit with: 67.♘g6! The key idea is 67...♗g3 68.♘e7! and the knight will make it to c6, establishing the fortress. 67...♔b4 68.♘xh4 a3 69.♘f3 also draws. The knight is back to take the important e5-square from Black.

67...♗b6 68.♔c3 ♗e3 69.♘e1 ♔a2 70.♔c2

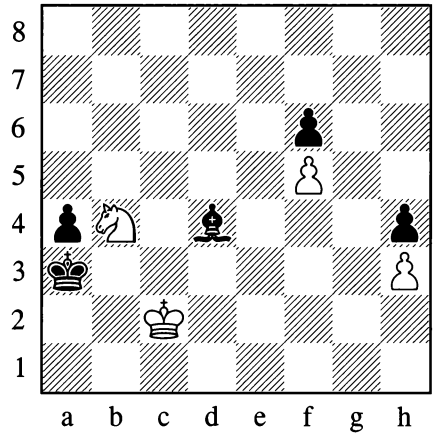
70.♘g2!? ♗f2! is also losing for White. 71.♘f4 (Or 71.♔c2 ♔a3 72.♔c3 ♗g3 and ...♗e1†, winning.) 71...♗g3 72.♘d5 ♗e5† 73.♔c2 ♔a3 with zugzwang.



70...♗f2?

70...♗d4! 71.♘d3 ♔a3! and the black king escapes from the corner. Black has managed to lose a tempo and transfer the move to White. This zugzwang is what Black is aiming for.

71.♘d3 ♗d4 72.♘b4† ♔a3



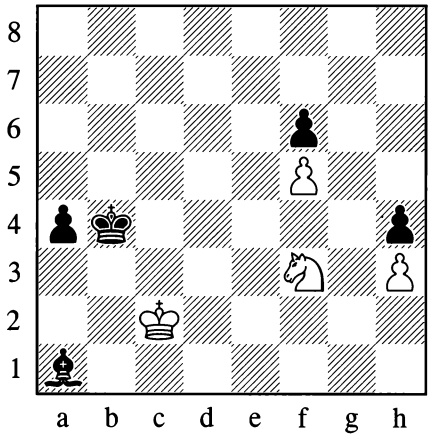
73.♘d3??

We already know that the knight is meant to go to c6: 73.♘c6! It is not possible for Black to lose the tempo required to bring out the king. There are not enough squares on the diagonal, when the knight is occupying this ideal square.

73...♗a1 74.♘e1

74.♔b1 ♗c3! 75.♔c2 ♗d4 and Black has managed to lose a tempo and transfer the move to White.

74...♔b4 75.♘f3



75...a3??

A horrible blunder. White should never be allowed to get the king to a2.

75...♗c3! would have dominated the knight and queened the a-pawn.

76.♔b1 ♗b2 77.♔a2

White escapes.

77...♔c5 78.♘xh4 ♔d5 79.♘g6 ♔e4 80.♘e7 ♔f4 81.♔b3 ♔g3 82.♘d5 ♔xh3 83.♘xf6 ♗xf6 84.♔xa3 ♔g4 85.♔b3 ♗c3 86.♔xc3 ♔xf5

½–½

How do you play such an endgame well? Obviously, it is very difficult to do. We know this, because two grandmaster-level players struggled with it throughout. There are a few angles I would recommend to always consider. First off, what would happen if my opponent was to play. Often players miss the chance to put their opponent in zugzwang, because they are too focused on their own possibilities, not open to their opponent's lack of possibilities. The other useful tool is schematic thinking. See page 231 below. If we understand where the pieces are best placed and which positions are winning and which positions are drawn, we will be able to find the bridge between our present position and where we want to be.

19. Unnecessary pawn moves

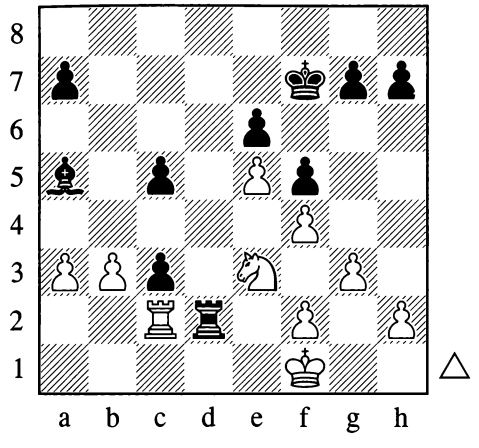
Above I have a few times mentioned the *Steinitz Rule*. I am not familiar with the origin of this strategic concept, but learned it personally from Mark Dvoretsky and his student and later super-trainer, Artur Yusupov.

The idea is simple: *Do not make unnecessary pawn moves!* We know that pawns do not move backwards. This is not just a limitation of their freedom, but a foundation of positional play. Advanced pawns can at times be a strength, and at other times be exposed. At times they fight for advanced squares and glory, and at other times they leave weaknesses in their wake.

In the endgame, we often find situations where additional pawn moves are good to have at hand. Particularly in pawn endings, but not limited to those. The connection to zugzwang scenarios is easy to understand.

Jiri Stocek – Michal Krasenkow

Polanica-Zdrój 2021



We enter this next example as White has to make a decision concerning an exchange.

34.♖xd2?

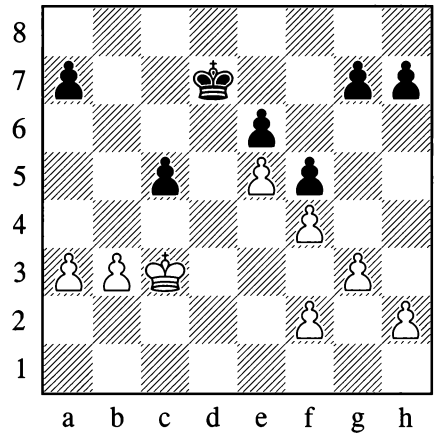
It is easy to understand this move, but at the same time impossible to condone it. White wants to win the pawn ending and eventually did so.

But as this is not a forced win and he for sure could not have felt in control, he should have taken the forced win with 34.♖c1!, although there are a lot of moves to be played following it. But the advantage of good knight vs dominated bishop, and the extra pawn, no matter how strange it looks on f2, will be enough to win in the long run. In the game, Stocek was relying on the generosity of either Kaissa or his opponent. But where the Goddess of Chess was dismissive, his opponent was supportive.

34...cxd2 35.♔e2 ♔e7 36.♘c4 ♗c3 37.♘xd2 ♗xd2!

Black must go for the pawn ending. Bad bishop against good knight is hopeless.

38.♔xd2 ♔d7 39.♔c3



We have arrived at the pawn ending. White has an extra pawn, which will not translate into a passed pawn on the kingside by itself, but which does have some positive features all the same.

Firstly, in a race, Black would have one more pawn to eliminate. This often translates into more than one tempo, but even at one, it could be enough to win the game.

But to reach a race situation, White will have to breach the fortress and force Black into the race. This would not be possible, if Black did not make one of those unnecessary pawn moves.

39...a5?

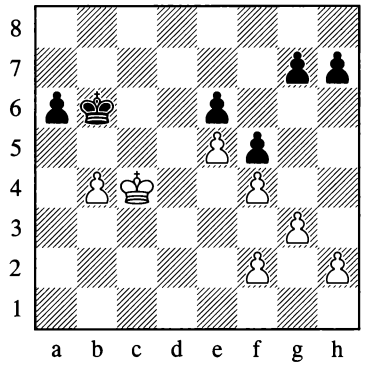
Krasenkow plays a natural-looking move, close to the time control, and ends up in a lost position. Moving the a-pawn is not technically an unnecessary pawn move, as the real problem with this move is that Black does not have time to play ...g6. This will in time give White a lot of additional tempo-loss moves on the kingside.

Black should have played 39...♔c6 40.♔c4 and now:

a) 40...♔b6? 41.b4 cxb4 42.axb4

White is threatening b4-b5, which would win quickly.

42...a6



Thus, this is the only try, but White now has:

43.g4!!

The last chance before Black plays ...g6.

43...g6

43...fxg4 44.f5 exf5 45.♔d5! and the king will make it to f7, helping the e-pawn to queen. We will see this tactic reprised continuously throughout this endgame.

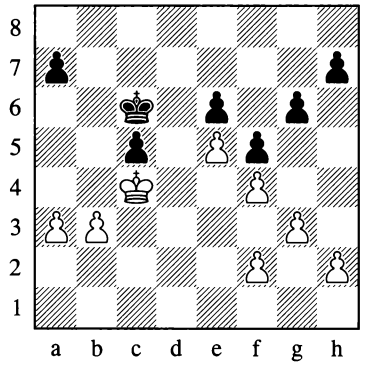
44.g5!

Paralysing the kingside.

44...♔c6 45.♔c3 ♔b5 46.♔b3 ♔c6 47.♔a4 ♔b6 48.h3

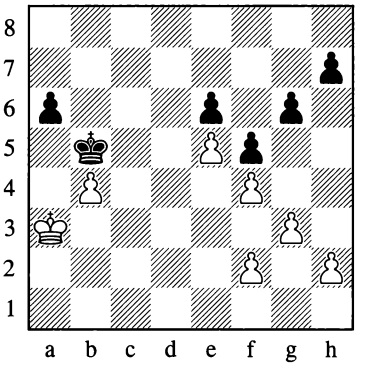
White has lots of spare tempos and wins easily.

b) 40...g6!



Wise from the lesson of this game, it is easy to see why Black should have played this move. All of White's f4-f5 tactics (see below) disappear. There will still be a tempo race happening on the kingside, but White does not get the big head start he got in the game, which allowed him to win by a single tempo. For good measure, we should clarify that on the previous move Black could play 39...g6! 40.♔c4 ♔c6, transposing.

41.b4 cxb4 42.axb4 a6! 43.♔b3 ♔b5 44.♔a3



44...a5!

Black can also draw one row further back, although it looks scary to me. 44...♔c6!? 45.♔a4 ♔b6 46.h3 h6 47.f3 h5 48.h4 ♔b7 49.♔a5 ♔a7 50.b5 axb5 51.♔xb5 ♔b7 Black draws. Every move of this sequence was an only move for Black.

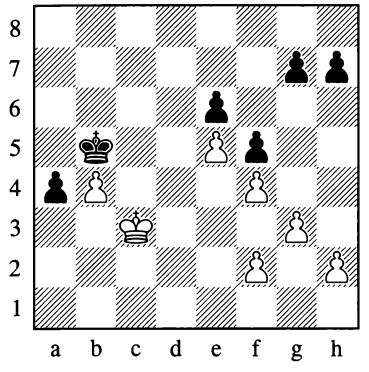
45.bxa5 ♔xa5

Things are a bit easier for Black here. There is more than one way to draw. For example: 46.h3 ♔b5 47.♔b3 ♔c5 48.♔c3 ♔b5 49.g4 h5! 50.g5 h4!

Black draws.

40.♔c4 ♔c6 41.b4 cxb4 42.axb4 axb4

Trying to create a distant passed pawn also does not work. After 42...a4 43.♔c3 ♔b5, White is hoping to get the king to a3 and put Black in zugzwang.

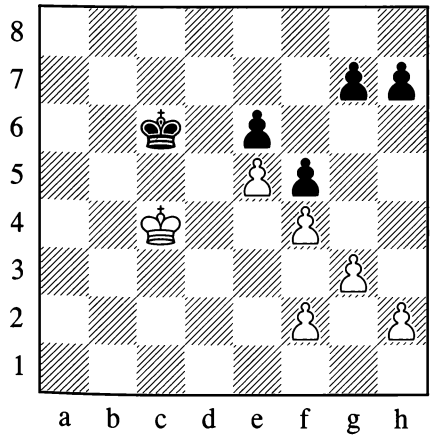


This can only be done by: 44.g4! fxg4 Black has to take. (The alternatives are to allow White to have a protected passed pawn, which means that Black can never take on e5, or to play 44...g6 45.g5, and Black is in zugzwang.) 45.f5 exf5 46.e6 ♔c6 47.b5†! Black will not be able to stop both passed pawns.

43.♔xb4 ♔b6

It is too late for 43...g6 now. 44.♔a5! would see the king come around the long way.

44.♔c4 ♔c6

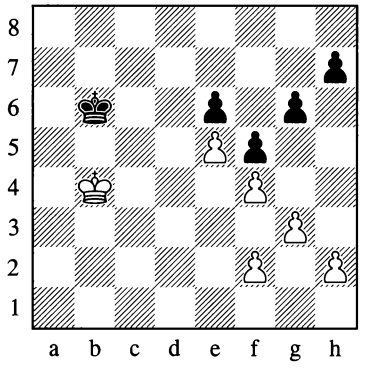


Stocek thought for a long time and found the winning manoeuvre.

45.♔d4!! ♔b5

45...♔b6 46.g4! also wins for White. After 46...g6, White has 47.g5. But the key line is: 46...fxg4 47.f5 Black has to take, or White will play 48.f6. 47...exf5 48.♔d5! ♔c7 49.♔e6! White plays ♔e6-f7 and advances the e-pawn.

But it is interesting that 45...g6 does not save Black. After 46.♔c4 ♔b6 47.♔b4

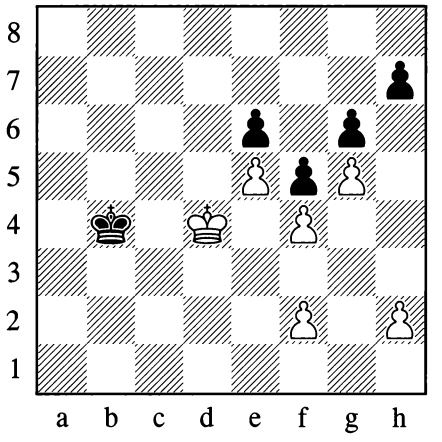


Black ends up in zugzwang. 47...h6 48.h3 ♔c6 And now White is able to make the most of his extra pawn with 49.♔a5!, when Black has to go down to take the f2-pawn, which is just too time-consuming.

46.g4! g6

46...fxg4 is once again unavailable. After 47.f5 exf5 48.♔d5! the e-pawn queens.

47.g5 ♔b4



48.h3!

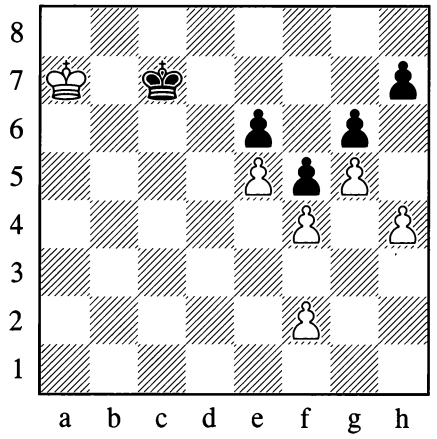
Using the spare tempo appropriately.

48.f3? would fail, as it puts the f-pawns close together. Apart, they are harder to eliminate.

48...♔b5 49.♔c3 ♔c5 50.h4 ♔b5 51.♔b3 ♔c5 52.♔a4 ♔c4

Also after 52...♔d4 53.♔b5 ♔e4 54.♔c5 ♔xf4 55.♔d6 White wins by a tempo.

53.♔a5 ♔c5 54.♔a6 ♔c6 55.♔a7 ♔c7



56.f3!

Black resigned.

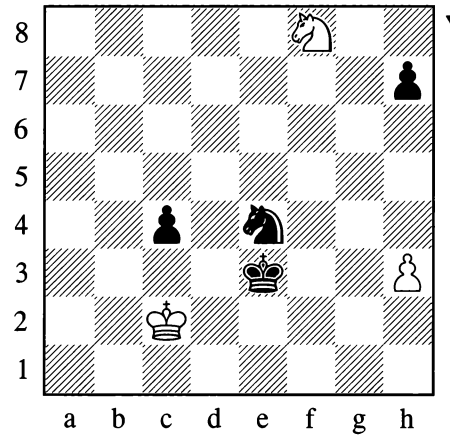
1–0

56...♔c6 57.♔b8 and White wins.

In the following example, we shall see how the Steinitz Rule would have helped Black, had he thought of it at the time.

Richard Rapport – Sam Shankland

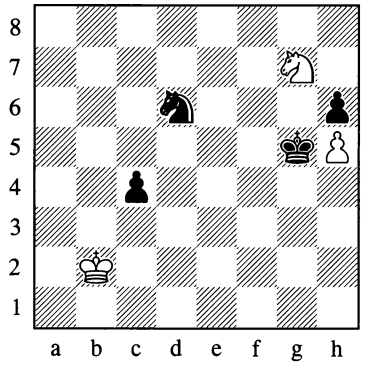
Wijk aan Zee 2019



Black has been punishing his opponent since the opening stage, but has not managed to finish him off. Now came the final mistake, blowing the chance.

74...h5?

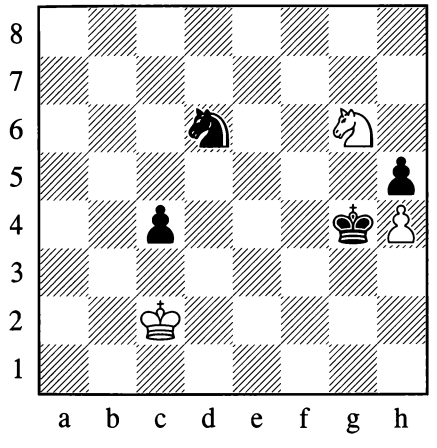
74...h6! was the right move. It looks right too, as we know it would take the white knight four moves to make it from f8 to h6. The actual winning line is quite instructive. 75.♘e6 ♔f3 76.h4 ♔g3!? (Of course Black would play 76...♔g4, but this will make a decent visual point.) 77.h5 ♔g4 78.♘g7 ♔g5 79.♔b2 ♘d6



If you compare this with the position after 78...♘d6 in the game, you can see that

everything has been moved backwards by a full rank. This means that Black is threatening ...♔f6, trapping the white knight. This makes all the difference over the game.

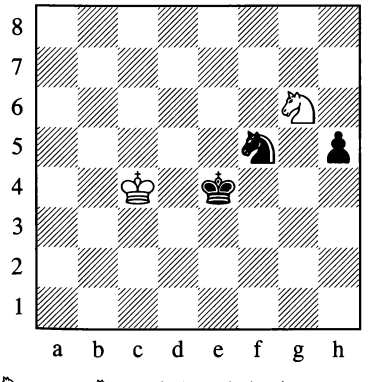
75.♘g6 ♔f2 76.h4 ♔g3 77.♔b2 ♔g4 78.♔c2 ♘d6



White held without any difficulties.

79.♔c3 ♘f5 80.♘e5† ♔xh4 81.♔xc4 ♔g3 82.♘g6 ♔f3 83.♔d3!

Not falling for the final trick. 83.♘e5† ♔e4 84.♘g6



84...♘e7! 85.♘xe7 h4 and the h-pawn queens.

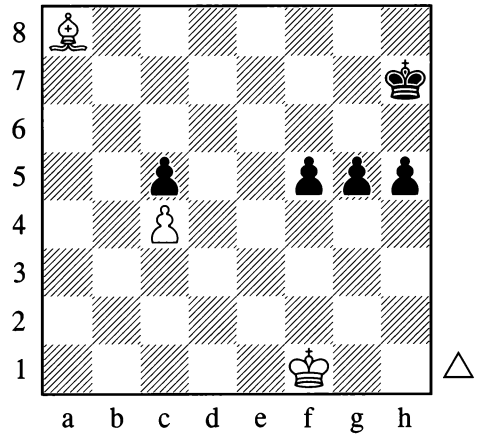
83...♘e7 84.♘e5† ♔g2 85.♘f7 h4 86.♘g5 ♘g8 87.♔e3 ♔g3 88.♘e4† ♔g2 89.♘g5 ♔g3 90.♘e4† ♔h2 91.♔f2 ♘h6 92.♘g5 ♘g4† 93.♔f3 ♘e5† 94.♔e4 ♔g2
½–½

20. Mutual zugzwang

The most fascinating part of zugzwang is the mutual zugzwang, a quite common phenomenon. These are positions where whoever must move will make a painful concession. Realising that they are coming up and preparing for them is both very difficult and very powerful.

Jacob Aagaard

Original 2021



In this original study, White is able to make a draw by recognising the positions with mutual zugzwang.

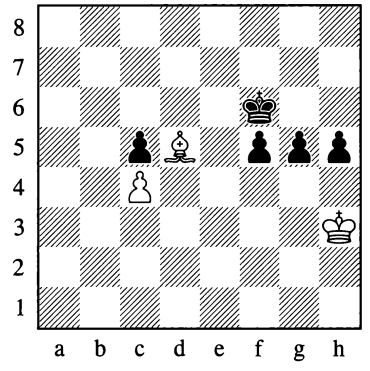
1.♔g2!

1.♗d5 ♔g6 2.♔g2 g4 and ...♔g5 wins effortlessly.

1...♔g6

A small practical try for Black in this position could be 1...♔g7!?, where a natural move like 2.♗c6 draws easily.

But if White tries to aim for the main line, he could lose: 2.♗d5? ♔g6!! 3.♔h3 ♔f6! White is in zugzwang. All moves he makes will hurt his position.



4.♗g8 g4† 5.♔h4 f4 6.♔xh5 f3 7.♗d5 ♔f5 would be one winning line for Black. Next comes ...♔f4 and ...g4-g3-g2.

4.♗b7 ♔e5 5.♗d5 f4 6.♗f7 g4† 7.♔h4 f3 8.♔g3 h4† also wins for Black. The mechanism is the same the entire way. If Black is able to control the light squares with the pawns, he wins.

2.♔h3!

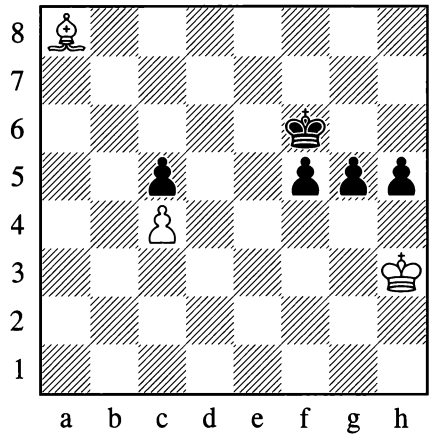
After 2.♗d5? g4 the black pawns are unstoppable.

2.♔g3? f4† 3.♔f3 ♔f5 4.♗e4† ♔e5 and ...g4† wins for Black.

2...♔f6

After 2...h4 White could play 3.♗c6 ♔f6 4.♗d7, which draws effortlessly.

2...f4 allows White to draw with both 3.♗e4† ♔f6 4.♗c6!, returning to our main line. Or the more prosaic 3.♗f3 g4† 4.♗xg4 hxg4† 5.♔xg4 with a textbook draw.



3.♗d5!!

An integral part of the zugzwang idea. The bishop is losing a tempo.

3.♗c6? is the square the bishop looks most natural on. But after 3...f4! the black king is ideally placed on f6. 4.♗e8 g4† 5.♔h2 (5.♔h4 f3 wins as above.) 5...♔g5! and Black wins.

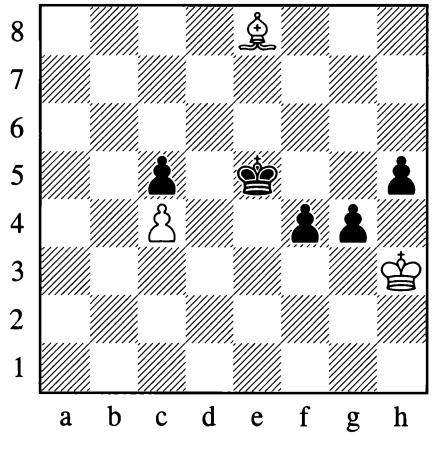
3...f4

The bishop had to go to d5 to lose a tempo, as it is also prophylaxis against 3...♔e5, when he will have 4.♗f7 on this move or the next.

4.♗c6!!

This time it is Black who is in zugzwang. All moves will make his position inferior.

4...♔e5 5.♗e8 g4†



6.♔h2!

The only move, not allowing the pawns to advance with check to squares they want to go to.

After 6.♔h4? f3 7.♔g3 h4† Black wins once again.

6...h4 7.♗d7!

Mark Dvoretsky called this 'pawns in the crosshairs'. The bishop is forcing the black pawn to go to a square it does not want to go to. White draws. For example:

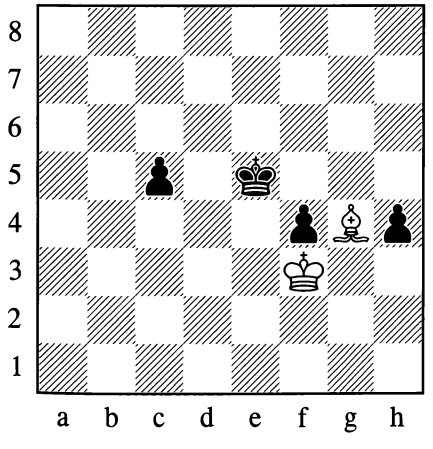
7...♔d4

7...g3† is less testing. 8.♔g2 ♔d4 9.♗e6 ♔e3 10.♗d5 With a blockade on the light squares.

8.♗xg4 ♔xc4 9.♔g2!

White seeks to eliminate the f-pawn first.

9...♔d4 10.♔f3 ♔e5

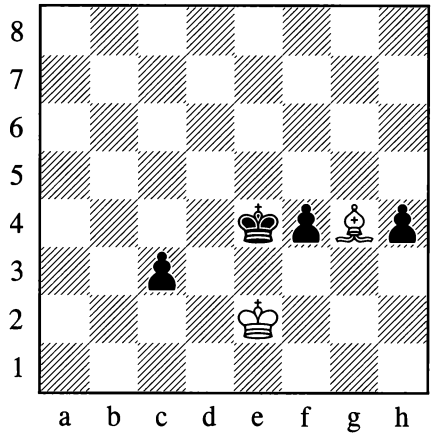


White is over the worst and will make a draw in many parallel ways.

11.♔g2 c4 12.♔f3 c3 13.♔e2!

The c-pawn must be kept under control.

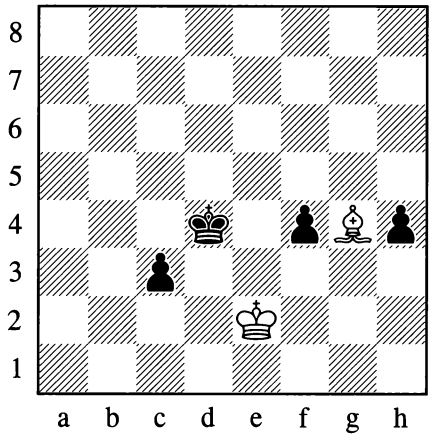
13...♔e4



14.♗f3† ♔d4

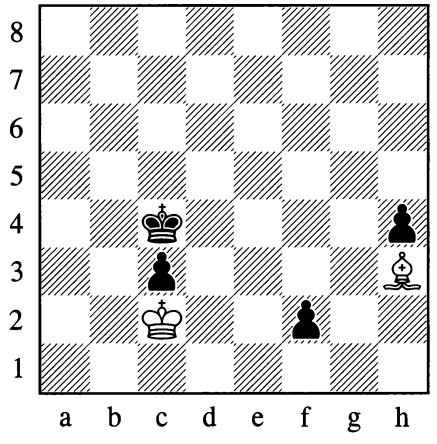
14...♔f5 15.♔d3 is an immediate draw.

15.♗g4



White has established a blockade. Even three passed pawns are not enough to win. To break it, Black has to give up too much material.

15...♔c4 16.♗e6† ♔b4 17.♔d3 f3 18.♔c2 f2 19.♗h3 ♔c4



The final occurrence of mutual zugzwang. This time it is not a difficult one.

20.♗g2!

20.♗f1†? ♔d4 and White would be in zugzwang.

20...♔d4 21.♗f1

Now Black is in zugzwang and has to give up a pawn. White makes a draw.

21...♔e3 22.♔xc3 ♔f3 23.♔d3 ♔g3 24.♔e3 h3 25.♗xh3 ♔xh3 26.♔xf2

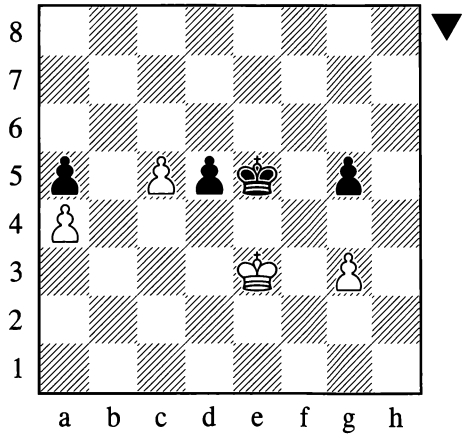
Draw

21. Opposition

A simple version of zugzwang that is relevant in many endgames, in this book and beyond, is opposition. Readers of this book will be aware of the basics of opposition, with two kings standing opposite each other, which is so common a mutual zugzwang that it has its own terminology.

Aravindh Chithambaram – Eltaj Safarli

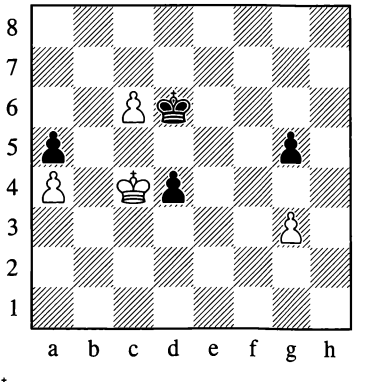
Moscow 2019



39...d4† 40.♔d3 ♔d5 41.c6 ♔xc6?

Black misses an elementary draw, using opposition.

41...♔d6! 42.♔c4!?



42...♔c7!

This is the trick. Black only wants to take on c6 when he gets the opposition.

43.♔xd4 ♔xc6 44.♔c4

44.♔e4 ♔c5 would see Black take the a-pawn and be in time. 44.g4 ♔d6 would block White from entry.

44...g4! 45.♔d4 ♔d6 46.♔e4 ♔c5

Black draws. He will even queen first.

42.♔xd4 ♔d6 43.♔c4

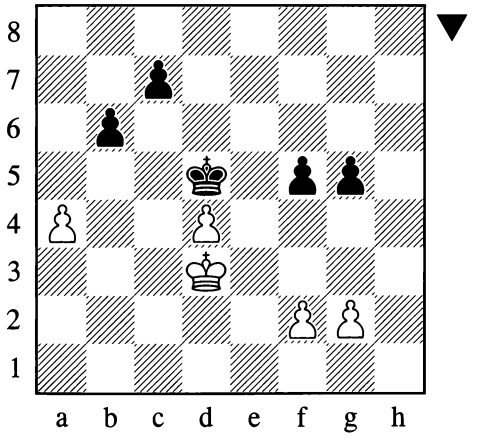
Black resigned. 43...♔c6 44.g4 White has the opposition.

1–0

The following game was quickly drawn, with Black starting off by angering Steinitz.

Pedro Antonio Gines Esteo – Vojtech Plat

Sitges 2020



39...c6?

Wasting the reserve tempo is poor form.

40.f3 ♔e6 41.♔c4 ♔d6 42.♔c3

½–½

Instead, Black could have won with:

39...g4! 40.f3

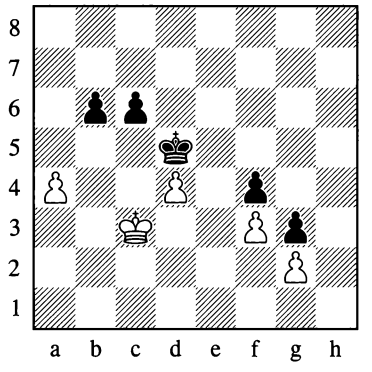
40.g3 c6 and Black has the opposition.

40.♔c3 ♔e4 41.♔c4 f4 42.d5 f3 43.g3 ♔e5 also wins.

40...g3! 41.♔c3

41.f4 c6 and wins.

41...f4 42.♔d3 c6 43.♔c3



43...c5!

Only now does this work.

44.dxc5 ♔xc5 45.♔b3 ♔d4

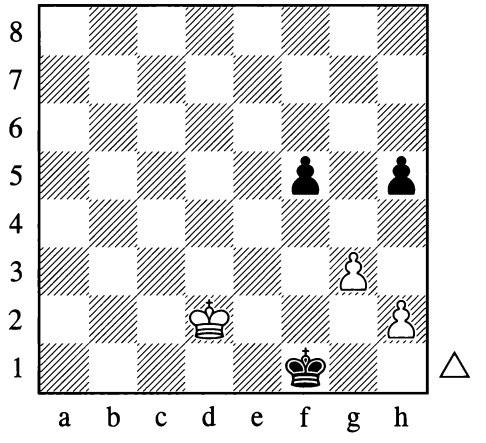
Black wins by queening first and with check.

22. Distant opposition

The opposition works just as well with three rows as it does with one row. It also works diagonally.

Maran Senthil – Diptayan Ghosh

Bhubaneswar 2017



59.♔e3?

A losing mistake.

59.♔d3!

This would keep the opposition.

59...♔g2!?

59...♔f2 60.♔d2 is standard opposition.

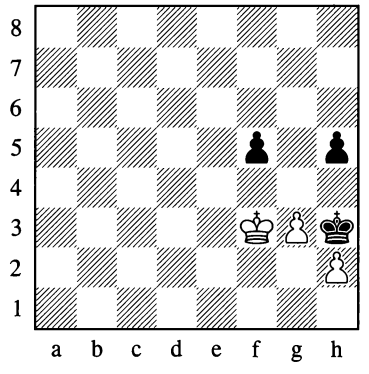
60.♔e3!

An important move. Black cannot take the opposition, as the g3-square is not available.

60...♔h3!?

60...♔g1?? would be too clever. After 61.h4!, White will take the black pawns.

61.♔f3!



Keeping the opposition. A draw is imminent.

61...♔xh2 62.♔f2 ♔h1 63.♔f1 ♔h2 64.♔f2 ♔h3 65.♔f3

And so on.

59.♔d1? ♔g2 60.♔e2 would transpose to the game.

59...♔g2 60.♔e2

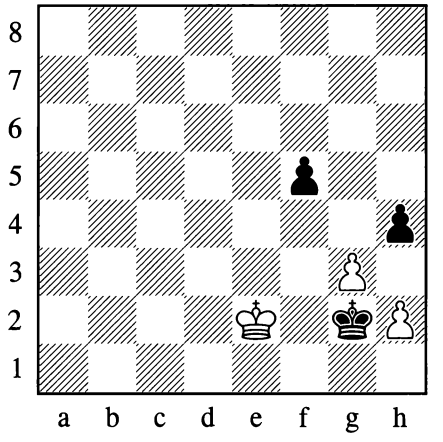
After 60.♔f4 ♔xh2 61.♔f3 ♔g1 White is unable to keep the opposition. 62.♔e3 ♔g2 63.♔f4 ♔f2 and the g3-pawn is lost.

White has managed to hold the opposition, but has fallen into a clever trap.

60...h4!!

White resigned.

0–1

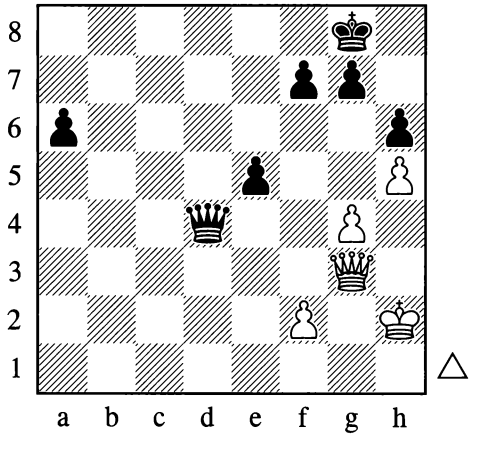


61.gxh4 f4 and the pawn queens.

The end of the following endgame is a good illustration of just how useful a mastery of these simple concepts can be.

Simen Agdestein – Jacob Aagaard

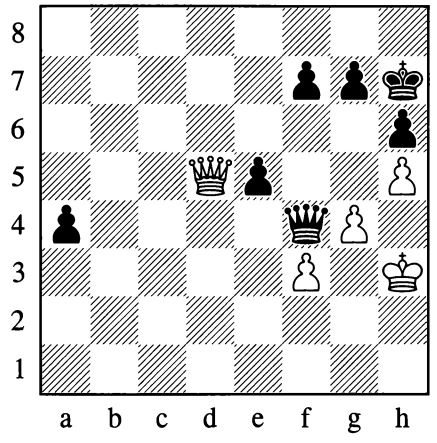
Dresden (ol) 2008



I had managed to completely outplay this giant of Norwegian chess in the middlegame, where his main weakness, lack of positional understanding, came to show. But you do not become a world-class player with great weaknesses without great strengths. Simen is a strong calculator and an impressive fighter. In an objectively hopeless queen ending, he took

every little chance I gave him. And I gave him plenty.

36.♔h3 a5 37.♕f3 a4 38.♕a8† ♔h7 39.f3 ♕f4 40.♕d5



40...♔g8?

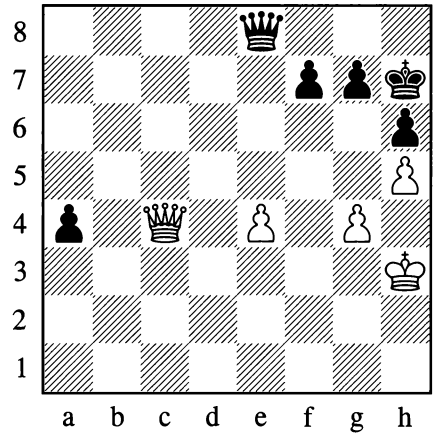
The first mistake. I wanted to repeat the position and get more time on the clock. But this gives my opponent a chance to harass me.

40...e4! 41.fxe4 ♕f3† won easily. Black would be happy to take on g4, so White has to try 42.♔h4, when 42...a3 followed by ...♕f2†, or ...♕f6† and ...♕e6 are deadly.

41.♕d8† ♔h7 42.♕d3† e4 43.fxe4 ♕e5 44.♕c4 ♕e8?

Too cautious.

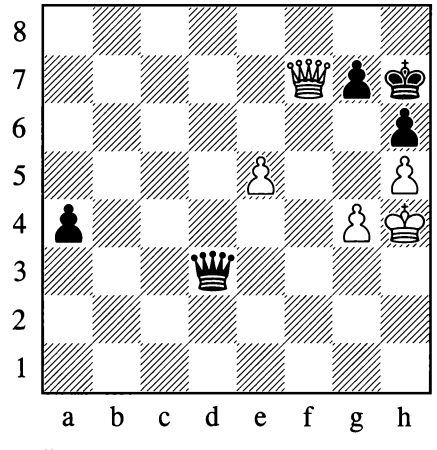
44...a3! 45.♕xf7 ♕xe4 46.♕b3 ♕a8! was winning without too many issues. Play could continue 47.♕a2 ♕h1† 48.♔g3 ♕e1† and ...♕c3-b2.



45.e5! ♕a8 46.♕xf7

We have already entered the zone of one mistake. Only accurate play wins for Black.

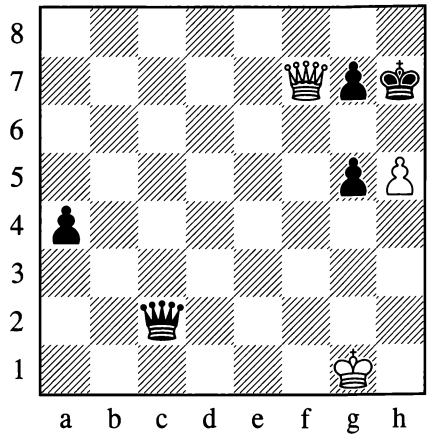
46...♕h1† 47.♔g3 ♕g1† 48.♔h3 ♕h1† 49.♔g3 ♕e1† 50.♔g2 ♕e2† 51.♔h3 ♕d3† 52.♔h4



52...♕c2!

Finally, a good move. Not a difficult one. But still something to feel good about.

53.g5 ♕e4† 54.♔h3 ♕e3† 55.♔h2 ♕xe5† 56.♔h3 ♕e3† 57.♔h2 ♕e2† 58.♔h3 ♕d3† 59.♔h2 ♕c2† 60.♔g1 hxg5



I have managed to keep the position somewhat under control. Simen continues to find strong defensive resources.

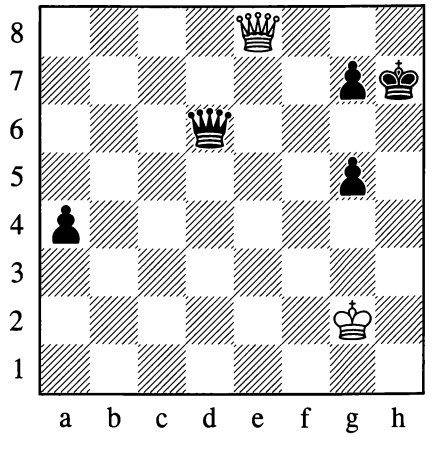
61.h6!

Keeping the game alive – White forces a lot of checks.

61...♕b1† 62.♔h2 ♕g6

In hindsight, I should have checked a lot and eventually after ...♕g4† played ...♔xh6.

63.♕d7 ♕xh6† 64.♔g2 ♕a6 65.♕e8 ♕b7† 66.♔f2 ♕b2† 67.♔g3 ♕c3† 68.♔g2 ♕d2† 69.♔h3 ♕d3† 70.♔g2 ♕d5† 71.♔g3 ♕d6† 72.♔g2



72...a3?

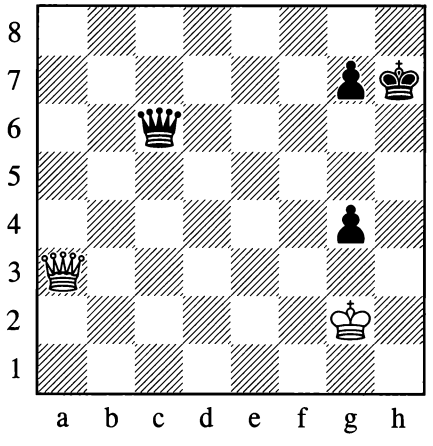
Winning was no longer straightforward.

After 72...♕d2† 73.♔h3 ♕d1!, Black is still on track to win, but it is not easy.

73.♕h5† ♕h6 74.♕f3! g4!?

74...a2 75.♕d3† g6 76.♕a6 and the a-pawn is gone.

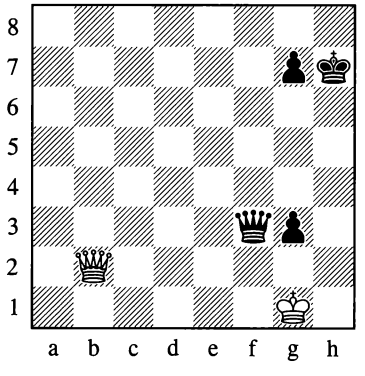
75.♕xa3 ♕c6†



76.♔g3?

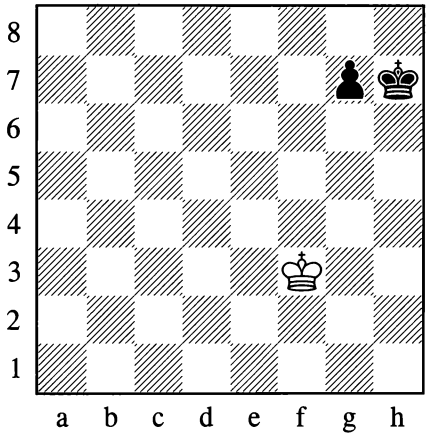
Simen was going through something emotional at this point. I could clearly see that he felt he had made it.

After the game I told John Shaw that I may have lost the thread, but that the position had been winning all the way. For example 76.♔g1 ♕f3 77.♕b2 g3 and White cannot avoid the exchange of queens.



John asked me what I intended to do about 78.♕xg7†, forcing stalemate?

76...♕f3†! 77.♕xf3 gxf3 78.♔xf3



78...♔h6!

This came as a big shock to the Norwegian giant.

79.♔g4 ♔g6

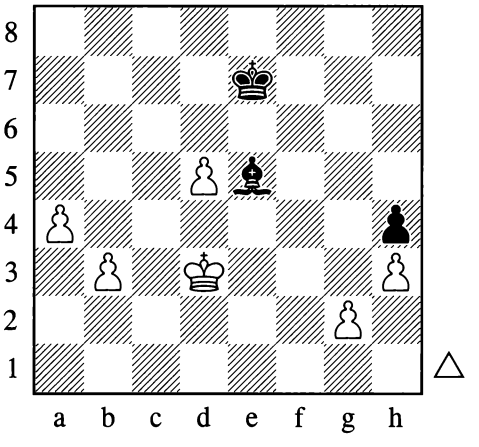
Black has the opposition. Deeply disappointed, my opponent resigned.

0–1

Monty Python had a famous sketch with "nobody ever expects the Spanish Inquisition". In chess it is important that we are alert to the chance of opposition being important in situations where there are few pieces. It is the most important aspect of pawn endings.

Sophie Milliet – Loic Travadon

Paris 2021

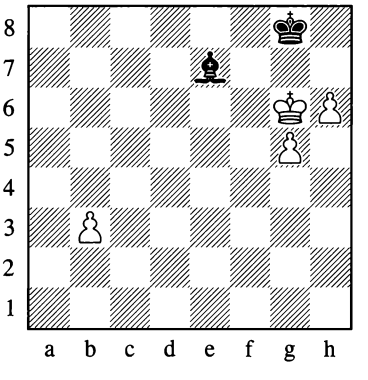


We enter this game at the point where White missed a direct win.

54.b4?

Milliet wanted to fight for the dark squares and jeopardised the win.

I presume she considered 54.a5! ♗c7 55.a6 ♗b6 56.♔e4 ♔d6 57.♔f4, where we have our theme. The black bishop is stuck on the queenside and White will win with ease on the kingside. But if you look a bit deeper, the win is not so straightforward: 57...♔xd5 58.♔g4 ♗f2 59.a7! ♗xa7 60.♔xh4 ♗c5 White's strategy is to get the king to g6. 61.♔g5! ♔e6 62.♔g6 ♔e7 63.h4 ♔f8 64.h5 ♔g8 65.g4 ♔h8 66.h6 ♔g8 67.g5 ♗e7



So far the moves would have been able to be blitzed out. Now a moment of accuracy is needed. 68.♔f5! (68.♔h5? ♔f7! and White loses the fight for the light squares.) 68...♔h7 69.g6†! The key point. 69...♔xh6 70.♔e6 White wins.

54...♔d6

The king arrives in time to stop the pawns on the queenside. Contrary to the king, the black bishop can hold the kingside. Still, there are practical problems to overcome.

55.♔c4 ♗g3 56.♔d4 ♔c7

A strange move that makes life more difficult for Black.

56...♗e1 57.b5 ♗a5 would keep control of the dark squares. The draw is imminent.

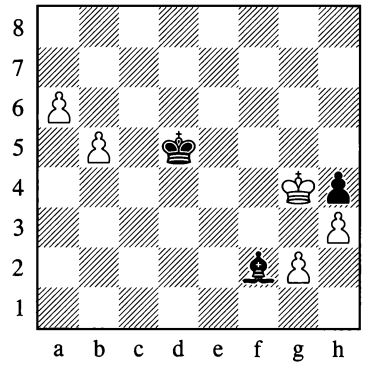
57.a5 ♔d6 58.b5 ♗f2†

A common technique in bishop endings is to fight for the squares on the colour of the bishop. In this position, it is the dark squares. This could effectively be done by:

58...♗e1! 59.a6 ♗f2†

Black will draw easily.

60.♔e4 ♗c5 61.♔f4 ♔xd5 62.♔g4 ♗f2



Now 63.b6!? ♔c6! and 63.a7 ♗xa7 64.♔xh4 ♔c5 are both elementarily drawn.

59.♔e4 ♔c5!

59...♗e1 60.a6 ♗f2 61.♔f3! would now provide White with an important tempo.

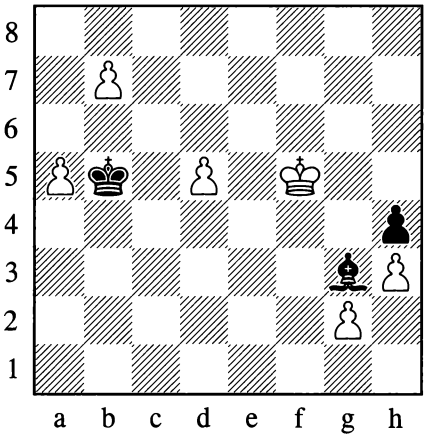
60.b6

The best chance.

60...♗g3

60...♔b5 transposes to the game.

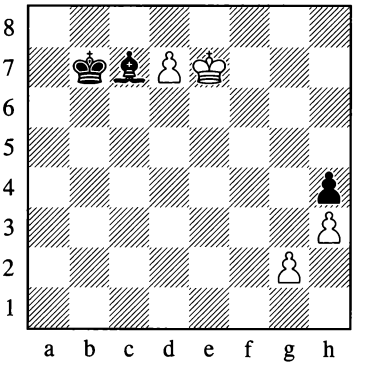
61.b7 ♔b5 62.♔f5



White has managed to create serious problems for her opponent, not without a lot of help. At this point Travadon had to find the only defence, which was not obvious.

62...♔a6?

Black could have drawn with: 62...♔xa5 63.♔e6 ♔b6 64.d6 ♔xb7 65.d7 ♗c7 66.♔e7

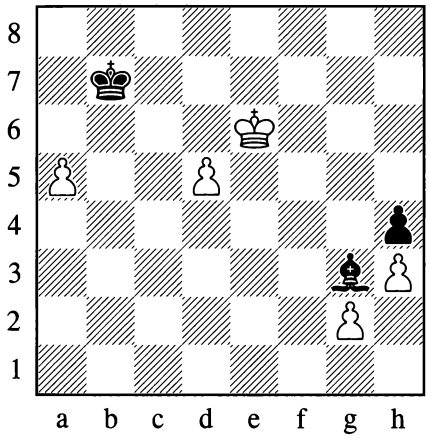


66...♔c6!! 67.d8=♕ ♗xd8† 68.♔xd8 ♔d6!! Opposition. The white king is kept away from the h-pawn.

63.♔e6!

It is possible Black was predicting 63.♔g4 ♔xb7 64.d6 ♔c6 65.a6 ♗f2, where Black would hold.

63...♔xb7

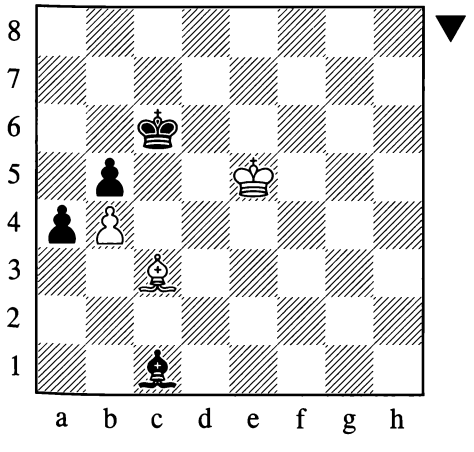


64.d6 ♔c6 65.a6 ♗f2 66.d7
1–0

Opposition is almost only relevant in pawn endings, but will also be relevant for transformation into pawn endings. In the following game, the players did not realise that they were already in a pawn ending, confused by the bishops still being on the board.

Nikola Mayrhuber – Sai Agni Jeevitesh

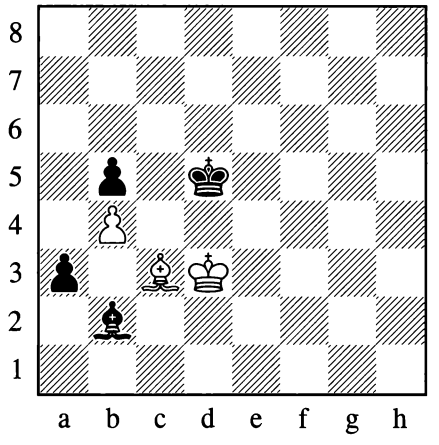
Biel 2021



62...a3?

Visually so attractive, but as we shall see, this allows White to draw.

63.♔e4 ♗b2 64.♔d3 ♔d5



65.♔c2?

The first move everyone would look at, but Black takes the opposition and wins.

65.♔d2! would be the tempo-losing move that draws. 65...♔c4 66.♗xb2 axb2 67.♔c2! White has the opposition and draws.

65...♔c4 66.♗xb2

66.♗d2 ♗d4 and the a-pawn queens.

66...axb2

White cannot take the pawn, as Black would have the opposition. The game ended with:

67.♔b1 ♔c3 68.♔a2 ♔c2 69.♔a3

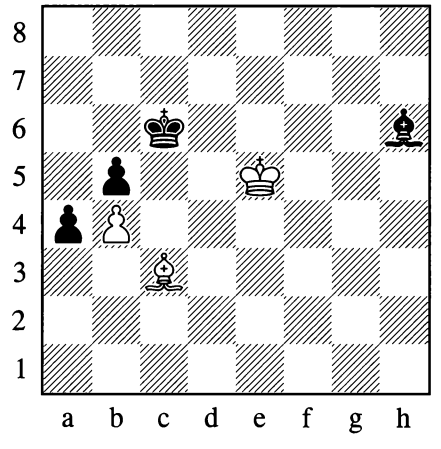
Hoping for a stalemate. But Black can win with either 69...♔c1 or underpromotion.

69...b1=♖
0–1

The winning method is entirely different. Black wins because White has two weaknesses.

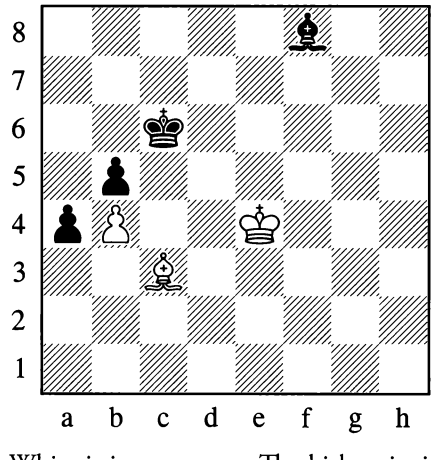
The first is the b-pawn, which needs constant protection. The other is the passed pawn. In the long run, the position is thus likely to win by itself, but there is a barrier to break through.

62...♗h6!



Regrouping the bishop to the other side of the board, where it can attack the b-pawn and remove the king from the e5-square.

63.♔e4 ♗f8



White is in zugzwang. The bishop is tied to the diagonal and the b-pawn.

64.♔d3

64.♗d2 a3 65.♗c3 a2 and ...♗xb4 would win the b-pawn.

64...♔d5 65.♗d2 ♗g7

Taking control of the important diagonal and removing the c3-square access for White.

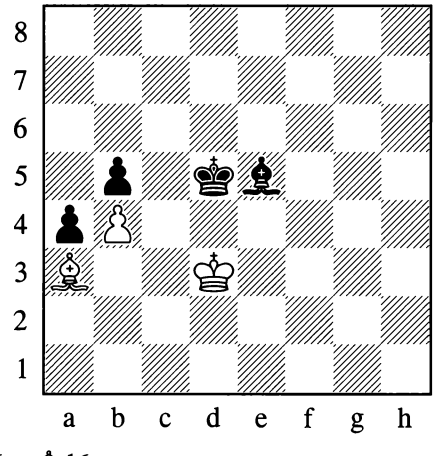
This time 65...a3? would allow White to block the pawn from b3 after 66.♔c3.

66.♗c1

66.♗e1 a3 67.♗c3 ♗f8 would win the b-pawn again.

Black wins with patience.

66...♗e5 67.♗a3



67...♗d6

Another zugzwang.

68.♔c3 ♔e4 69.♗c1 ♗e5† 70.♔c2 ♔d4 71.♗b2† ♔d5

Black wins the b-pawn and the game.

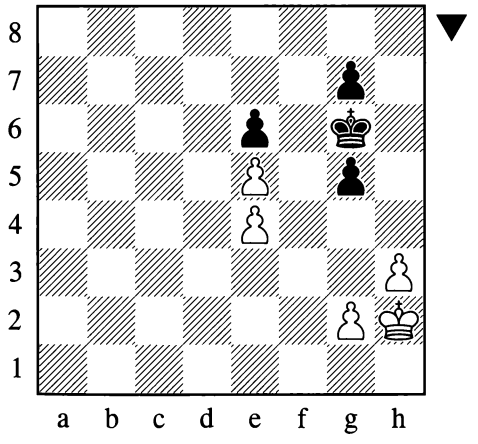
23. Corresponding squares

There are many famous opposition studies and endgames. When they get excessively difficult, we move into the territory of corresponding

squares, which is deeply fascinating, but in my opinion of limited practical use. In my 35 years in chess, I have never had a game that came close to the advanced versions of this phenomenon I have seen in studies. Thus, I do not consider advanced examples of corresponding squares relevant to practical players. But a soft version, as in the following example, is something that does have practical applications.

Abhimanyu Mishra – Adam Kozak

Vezerkepzo (var) 2021



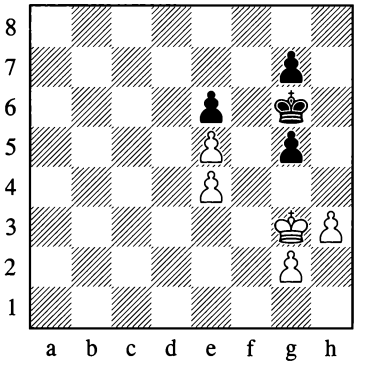
The world's youngest GM ever, Abhi Mishra, showed me this position, which could have arisen from this game. White has two ways to invade the black position. Either by gaining access to the 6th rank and then winning the e6-pawn. Or by winning the g5-pawn through an invasion of the kingside.

Black is able to defend against these two threats only if he arrives at the right squares at the right times. An important point is that he cannot rely on counterplay. If he tried to invade the white position via the queenside, he would arrive the morning after the party had ended. And on the kingside, White can always block the position with g2-g3.

1...♔h6!

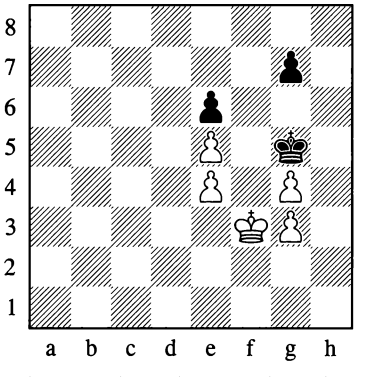
Distant opposition.

1...♔f7? This loses directly to: 2.♔g3 ♔g6



3.♔f2! ♔f7 4.♔e3 and the king arrives at b6 by force. 4...♔e7 5.♔d4 ♔d8 6.♔c5 ♔c7 7.g3

The interesting line is: 3.♔f3? This would be a blunder due to 3...♔h5 4.g3 g4†!, and it is White who has to play accurately to make the draw: 5.hxg4† ♔g5



6.♔e3 ♔xg4 7.♔d4 ♔xg3 8.♔c5 ♔f4 9.♔d6 g5 10.♔xe6 g4 11.♔d5 g3 12.e6 g2 13.e7 g1=♕ 14.e8=♕ ♕d1† with an immediate draw.

2.g3

White is trying to gain the opposition by using one of his two reserve pawn moves.

2.g4? would waste the tempo moves, block the kingside and give Black an easy draw.

2.♔g3?! ♔h5 would be risky for White. As 3.♔f3? ♔h4 would lose. Only 3.♔h2 draws.

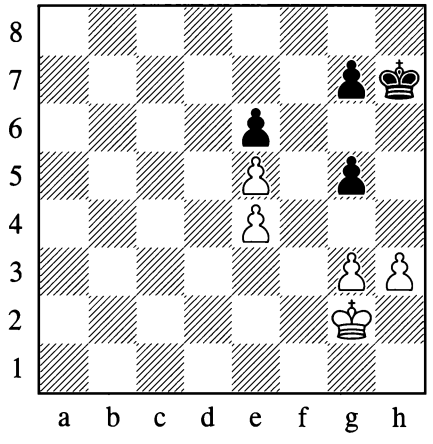
2.♔g1 would win, if Black did not have 2...g4! 3.h4 g3, and White has lost touch with the h-pawn and his advantage.

2...♔h7!

The corresponding square. Notice that White cannot take the opposition, as there is a pawn in the way on h3.

2...♔g6? would step into opposition after 3.♔g2! ♔f7 4.♔f3, when the king is caught. If Black goes to e7, the g5-pawn falls. And if he plays 4...♔g6, White will come first to b6 after 5.♔e3, and White wins.

3.♔g2



3...♔g8!!

A great example of corresponding squares. Black is ready to meet the opposition.

3...♔g6? would lose to 4.♔f2!, where Black cannot match the opposition, as the f6-square is not available to him. After 4...♔f7 5.♔f3! Black is in zugzwang.

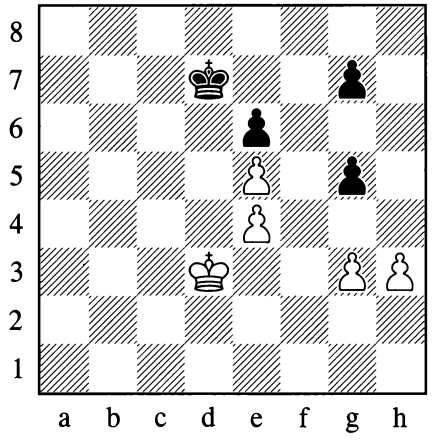
4.♔f2

4.♔f3 ♔f7 5.♔e3 ♔e7 6.♔d4 ♔d8 7.♔c5 ♔c7 and Black makes the draw.

4...♔f8!

Keeping the distant opposition.

5.♔e1 ♔e7 6.♔d2 ♔d7 7.♔d3



7...♔d8!

The corresponding square. The key point here is that White does not have access to the d5-square, which means that 8.♔d4 can be met with 8...♔d7!, making the draw.

8.♔c4 ♔c8! 9.♔b4 ♔b8! 10.♔b5 ♔b7

Black makes the draw. Typically, in endgame manuals, they put confusing numbers on the board and you have to bend your mind into another dimension to be able to understand what is happening. I am sure this makes sense to some people, but to me it is confusing. And by extension, I would believe it is confusing for a lot of other people.

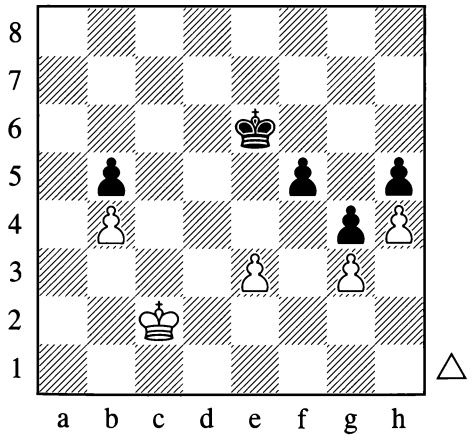
In this example, the key point is for Black to be able to take the opposition at a few places: ♔c5 has to be met with ...♔c7; ♔c4 has to be met with ...♔c8; ♔f3 has to be met with ...♔f7; ♔f2 has to be met with ...♔f8; ♔g2 has to be met with ...♔g8, ...♔e7 or ...♔e8.

It is opposition, except that it works a bit differently, as some squares are not available.

The next example is from the final of the 2021 PMG tour, where both players were short of time from the very beginning in this mini-match. I had originally written some annotations for this game, but after seeing the amazing Sagar Shah's explanation on Instagram, I had to admit that his explanation was better. Luckily, he allowed me to pillage his explanations and include them here.

Teimour Radjabov – Hikaru Nakamura

Oslo 2021



This position is a simple illustration of corresponding squares.

1) White has to meet ...♔d5 with ♔d3.
2) White has to meet ...♔e4 with ♔e2.
3) Thus, White has to meet ...♔e5 with ♔d2, so he is ready to parry threats 1&2.

After understanding this, we can see what the only move is...

48.♔d2?
Not this!

Correct is 48.♔c3! ♔e5 49.♔d2! ♔d5 50.♔d3 ♔e5 51.♔d2! ♔e4 52.♔e2 with a draw.

48...♔e5
White is in zugzwang.

49.♔d3
49.♔e1 ♔d5 and the b-pawn is lost.

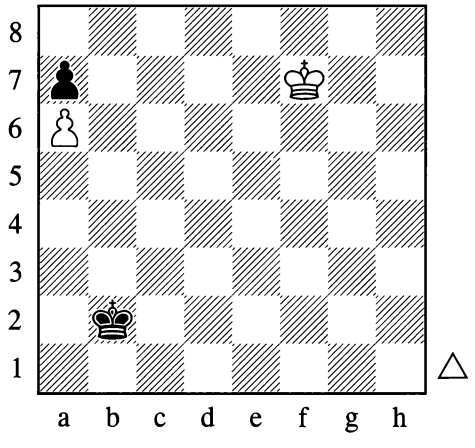
49...♔d5
White resigned.
0–1

24. Shouldering

Shouldering is a term borrowed from football (soccer), where one player is allowed to push the opposing players away, using shoulder to shoulder contact. In chess this refers to one king keeping the other at bay, by approaching it. Often by finding a different path between A and B than a straight line.

In the following classical example, which I have seen as a Danish game from 1911 (a reference I am a bit uncertain about), White wants to take on a7, without allowing Black to be able to meet this move with ...♔c7, trapping the king in the corner.

Classic Example



By taking a different route in the first four moves than a straight line, but executed just as fast, the white king can block the king from getting around to the right side of him.

1.♔e6! ♔c3 2.♔d5! ♔d3 3.♔c6 ♔d4 4.♔b7 ♔c5 5.♔xa7 ♔c6 6.♔b8

White wins.

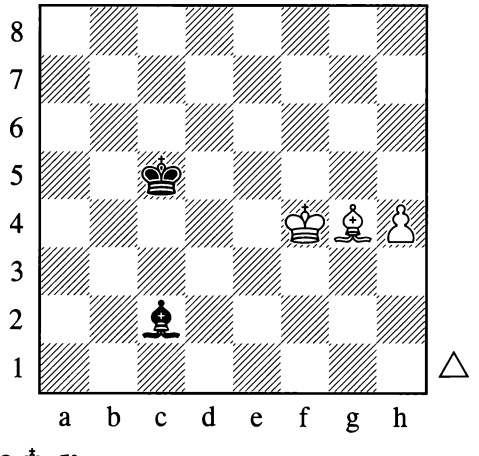
1–0

The next example of shouldering is less clinical and includes some other features as well. White in this ending was "Michael f-pawn", an institution of chess in California, while Black is one of the state's brightest teenage talents – the 2021 Californian Women's Champion.

This time, experience won out in a non-obvious bishop ending, with lots of small instructive points.

Michael Aigner – Ashley Pang

Internet 2021



58.♔e5?

The move any grandmaster would have made on intuition. Luckily GMs do not play exclusively on intuition. Most of them, anyway.

58.♗f5? ♗d1 would make no progress for White either.

The paradoxical only winning move was:

58.♔g5!

With the initial point that after 58...♔d6 White can play 59.♔f6! and keep the black king at bay, using shouldering. The h-pawn will then progress to h6 before White will play ♗f5 and take control.

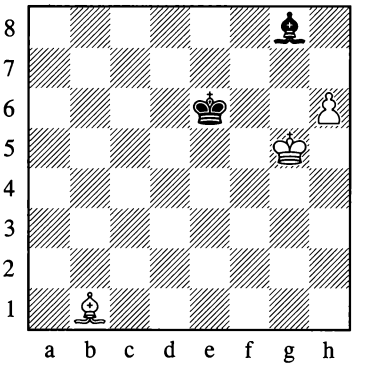
58...♔d4!?

For the above reason, this is a more resilient defensive try.

59.h5

White can also play the king to f6, but it makes less sense now, as the e7-square does not need covering.

59...♔e5 60.h6 ♗h7 61.♗h5 ♔e6 62.♗g6 ♗g8 63.♗b1



White wins by using zugzwang.

63...♔f7 64.♗c2!

A nasty waiting move.

Black's trick is that 64.♗a2†? ♔f8 65.♔f6 ♗h7 would allow her to save the game.

64...♔e7 65.♔g6 ♔f8 66.♔f6!

Black is dominated and has to do something she does not want to do.

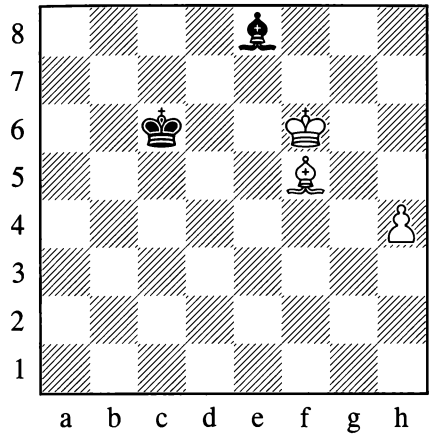
58...♗g6 59.♗e6

59.♔f6 ♗e8! 60.♗f5 ♗h5! is similar to the game.

59...♔c6 60.♔f6 ♗h5 61.♔e5 ♗g6 62.♗f5 ♗e8

62...♗h5!

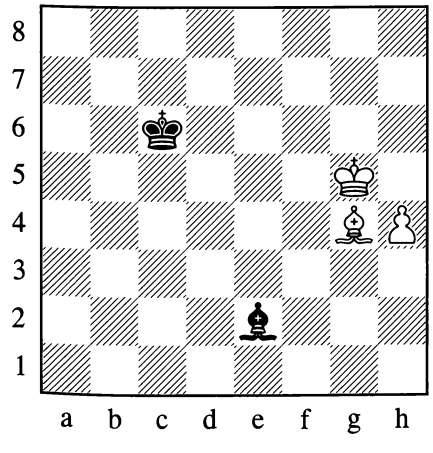
63.♔f6



63...♗h5!

I have noticed that in bishop endings the defender usually is best served by having the bishop blocking the passed pawn. The reason for this is simple: when the bishop is forced off the square, it will still be able to control it, as if the white bishop comes to g6, the bishop goes to d1 and it will take time to block the diagonal. And if the bishop was to go to g4, the black bishop would go to e8, with the same point. White's only way to make progress is to get the king to g5. But it takes some time and Black should use this time well.

64.♔g5 ♗e2 65.♗g4



65...♗d3?

A blunder. We should try to always be in control of the transitions into pawn endings. In this case Black would have been in time after 65...♗xg4 66.♔xg4 ♔d6 67.♔g5 ♔e7 68.♔g6 ♔f8 with a standard draw.

66.♔f6!

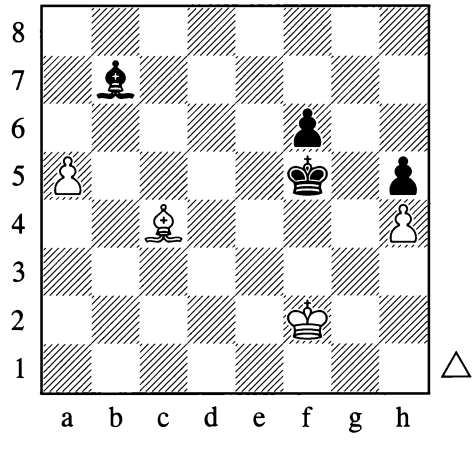
Shouldering again. White wins.

66...♔d6 67.h5 ♗h7 68.h6 ♗e4 69.♗f5 1–0

The following bishop endgame is deeply complicated and contains zugzwang, mutual zugzwang and plenty of surprising points. The main one of these is what they call the 'Reti manoeuvre' in study composition. This is when a king goes from point A to point B in something other than a straight line, with the intention of winning a tempo by doing, or threatening to do, something else along the way. It is named after the Czech grandmaster Richard Reti, who composed some of the most famous studies in chess, before dying at a young age. The Reti manoeuvre eventually won the game and on the way was a key component in most variations. But we are starting a bit earlier.

Jesus Martin Duque – Igor Janik

Figueira da Foz 2020

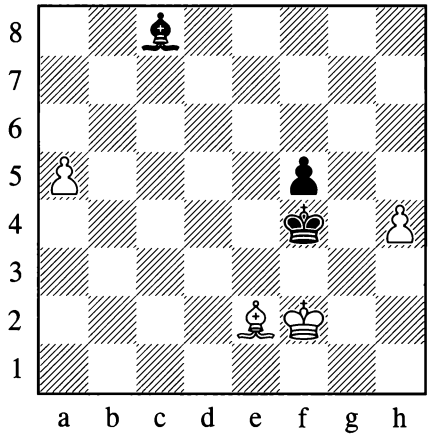


41.♗e2 ♔f4

Black has no choice but to give up the h-pawn.

41...♔g6 42.♔e3 f5 43.♔f4 ♗c8 44.♔e5 would be hopeless. 44...♗b7 45.♗d3 ♗c8 46.♗c2 would see Black lose the far superior f-pawn, without getting any sort of activity in return.

42.♗xh5 f5 43.♗e2 ♗c8



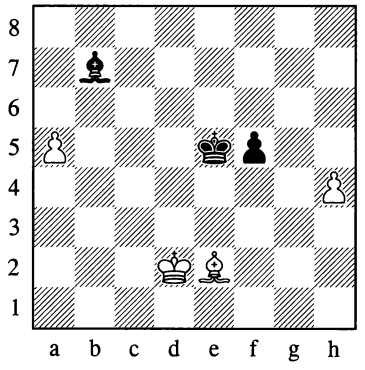
44.♗f3?!

Not a fatal mistake, but drifting in the wrong direction.

44.♔e1! ♗b7

44...♔e3 45.h5 would win immediately. The black bishop cannot stop both flank pawns.

45.♔d2 ♔e5



46.♗d1!?

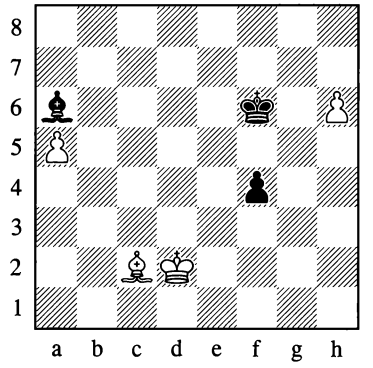
White has to be a little bit careful, even though he has many ways to win the game.

46.♔c3? f4 would allow Black counterplay.

46...f4 47.♗c2 ♗a6 48.h5

The pawn has one function: to occupy the black king.

48...♔f6 49.h6



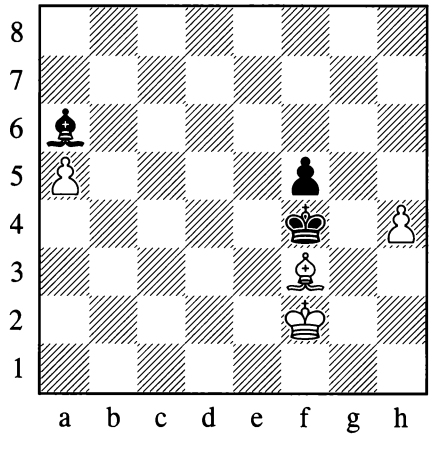
49...♔f7

49...♗b7 is met with: 50.♔c3 White is aiming to play ♔d4 and ♗e4, taking complete control over the position.

50.♗e4 ♔g8 51.♔e1

White picks up the f-pawn, before going to win on the queenside.

44...♗a6

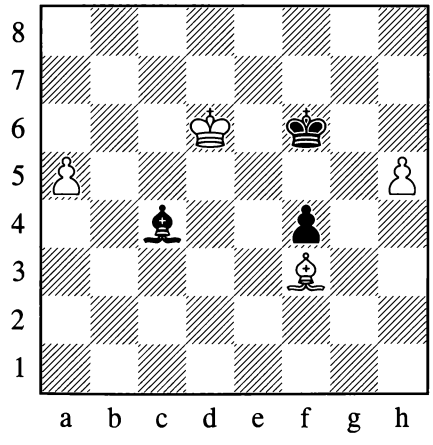


45.h5?

Passed pawns should be pushed. Except when they shouldn't. This move is a rather obvious mistake. The black king is awkward on f4, unable to approach the h-pawn and in the way of the f-pawn. Now it is able to go to g5 and control the distant passed pawn.

45.♗d1 ♗b7 46.♔e1 would still have won as above.

45...♔g5 46.♔e3 f4† 47.♔d4 ♔f5 48.♔c5 ♔f6 49.♔d6 ♗c4



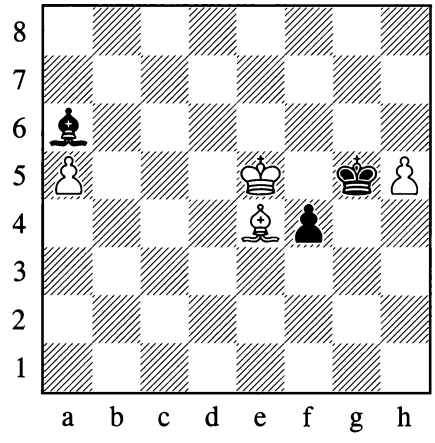
It is possible Martin Duque was expecting there to be a way to progress here. It is easy to sympathise. White has two passed pawns under control and the bishop on f3 is ideally placed. Black is really passive. But there is no simple winning plan. Winning the bishop for the a-pawn would lead to an immediate draw. And exchanging bishops would allow the f-pawn to queen. All that remains is to try to win the f-pawn. But at the moment, it is unapproachable.

Thus, the plan will be to exchange the h-pawn for the f-pawn and race to the queenside. It is quite easy to determine when White is winning and when he is not. The white king will almost always reach b6. If the black king can reach b8 before White advances the pawn to a7, it will be a draw. If not, Black will lose. To calculate which moves reach one outcome or the other is, on the other hand, very difficult.

50.♔c5 ♗a6 51.♔d4 ♔f5!

51...♔g5 52.♔e5! would allow White to win as in the game. Next comes 53.h6. And after 52...♗c8 53.♗e2 ♗b7, White has 54.h6 ♔xh6 55.♔xf4, and the king races to c7, kicking the black bishop.

52.♗e4† ♔g5 53.♔e5



Black is in zugzwang and will have to weaken his position. But one move is flexible enough to hold.

53...♗c8?

During the game it is unlikely either of the players had the faintest idea that this was an error. Taking on h5 will lose like the game. As will almost all bishop moves along the a6-f1 diagonal, after 54.h6.

There is one exception:

53...♗f1!!

The only move. White will not be able to win a tempo on the bishop twice, as he would if the bishop went to any other square on this diagonal.

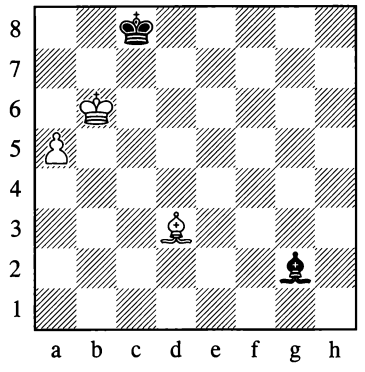
54.h6

54.♗f3 ♗a6 will transpose to the game.

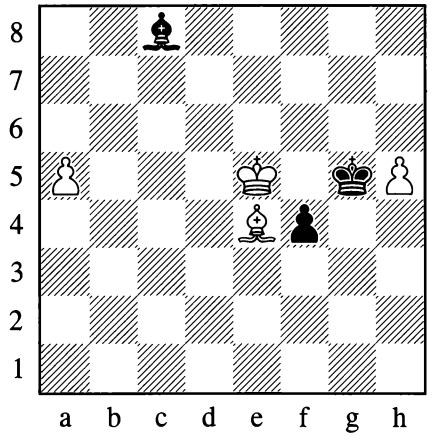
54...♔xh6 55.♔xf4 ♔g7 56.♔e3 ♔f6 57.♗d3 ♗g2 58.♔d4

58.a6 ♔e5 also holds.

58...♔e6 59.♔c5 ♔d7 60.♔b6 ♔c8



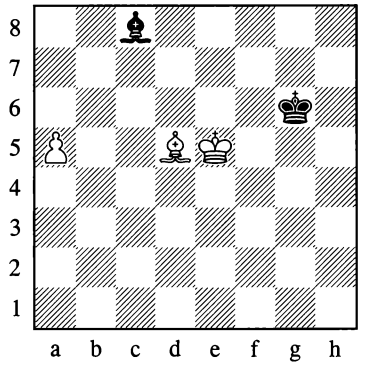
Black makes it into the corner just in time.



54.♗f3?

White misses a chance for immortality.

54.♗d5!! was a fantastic winning idea. First off, if Black plays 54...♗a6, White has 55.♗f3! and Black is in zugzwang. The bishop cannot keep the flexibility of the a6-square and White will win a tempo for the race. So Black has to go for the race straight away. 54...♔xh5 55.♔xf4 ♔g6 56.♔e5



We can see why the bishop had to go to d5. Black does not have access to the f7-square and is thus dominated. 56...♗a6 57.♗b3 White continues with ♔d4 and ♗c4, winning.

54...♗a6!

Mutual zugzwang. This time it is White's turn to play. Bishop moves do not work, as Black would take control of the f3-square.

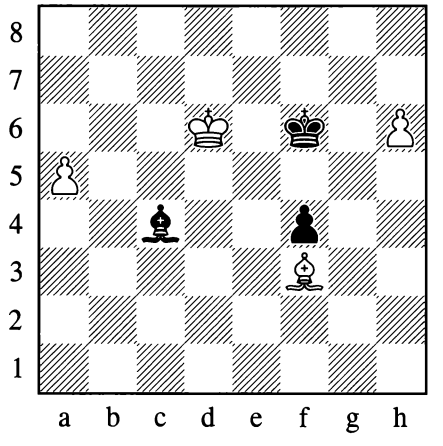
55.♔e6 ♗c4†! 56.♔e7 ♔f5!

56...♗a6 57.♔f7 ♔h6 58.♔f6 ♗d3 (otherwise ♔f5 comes) 59.♗g4 would put Black in zugzwang. White wins.

57.♔f8 ♔f6! 58.♔e8

White has to accept that he cannot penetrate on the kingside. If he moves the bishop, Black will take control of the f3-square and make a quick draw.

58...♗a6 59.♔d7 ♗b5† 60.♔d6 ♗c4 61.h6



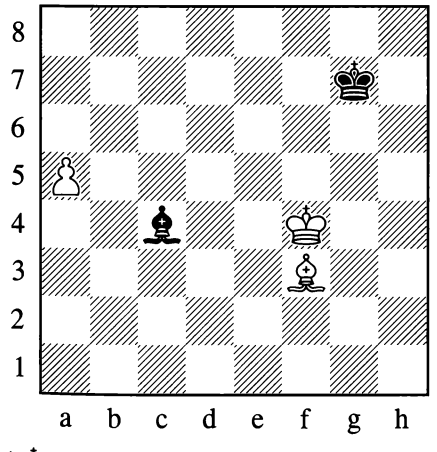
The final critical moment of the game. I have given this as an exercise to students, including grandmasters, and almost no one has been able to solve it.

61...♔g6?

The problem is that this move is so tempting and appears to be in time. But they all missed the possibility for White to use a Reti manoeuvre to gain an important tempo.

61...♗a6! was the drawing move. We saw this idea in the previous example. The bishop is preparing to go in either direction. If White exchanges it, the f-pawn becomes a threat. And in the lines with 62.h7, where White goes for the f4-pawn, he is unable to gain that important tempo from the Reti manoeuvre.

62.♔e5! ♔xh6 63.♔xf4! ♔g7



64.♔e3!!

The key point. The black king is just one step too far away from stopping the a-pawn in the pawn ending. So White wins a tempo by going to e3 instead of the visually more appealing e5-square.

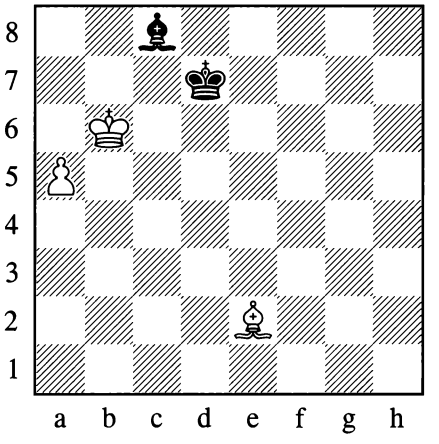
64...♗a6 65.♗e2! ♗c8

After 65...♗b7, White is able to win a tempo on the bishop after 66.♔d4 ♔f6 67.♔c5 ♔e7 68.♔b6, which he will use to push the pawn to a7, followed by ♗a6-b7. Black avoids this by putting the bishop on c8. But this also loses time, as the king loses access to this transition square on its sprint to the corner.

66.♔d4 ♔f6 67.♔c5 ♔e7 68.♔b6

White arrives in time.

68...♔d7



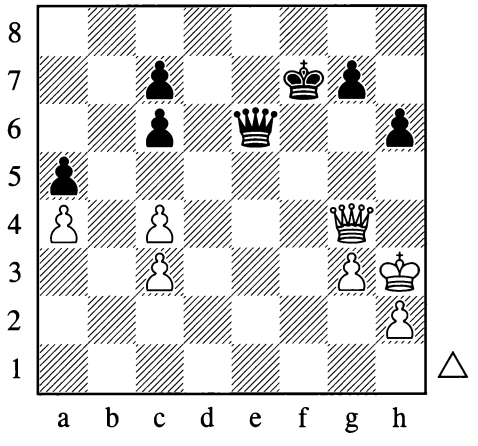
69.♗f3 ♔d6 70.♗b7
1–0

25. Provoking weaknesses

As a natural follow-up to unnecessary pawn moves, mentioned above on page 94, we shall look at an example where provoking the opponent to advance his pawns would have been the way for me to make a draw.

Jacob Aagaard – Tamir Nabaty

Internet 2021



This game was played in the 2nd Online Olympiad, where Scotland got totalled by the Israelis. Although I lost my game, I was happy with the quality of play and quick to forgive myself for making strange decisions in time trouble... I recommend you show yourself the same level of realism and compassion.

30.♕xe6†?

30.c5 ♔f6 makes no difference. Except that the king can make it faster to take the a4-pawn.

30...♔xe6 31.♔g4 ♔d6

Black is arriving in good time.

32.♔f5 ♔c5 33.♔g6 ♔xc4 34.♔xg7 ♔xc3 35.g4 c5 36.♔xh6 c4 37.g5 ♔b4 38.g6 c3 39.g7 c2 40.g8=♕ c1=♕† 41.♕g5?!

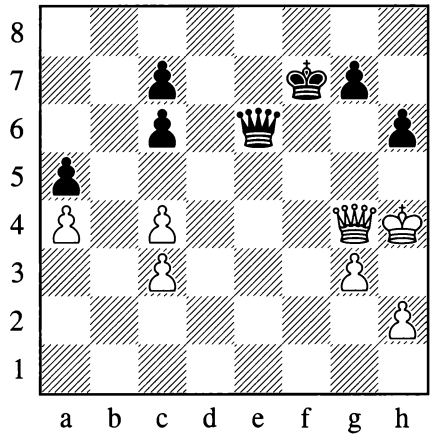
The ending is lost anyway, but it is a curious hallucination all the same. I simply missed that the c-pawn could advance. Rapid chess played in 2D is rather alien to the chess I have taught myself to play.

41...♕xg5† 42.♔xg5 c5 43.♔f4 c4 44.♔e3 c3 45.h4 ♔b3 46.h5 c2

0–1

The best advice I know of in chess is to "always have two serious options on every move." But as is well-known, advice is something you give other people... However, had I followed it, I would have had a chance to save the game.

30.♔h4!!

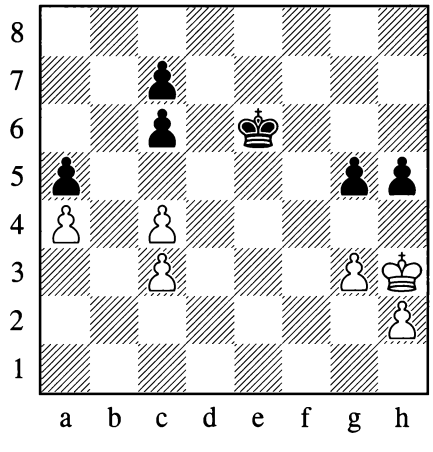


Black has no advantage to speak of in the queen ending, so should probably try:

30...g5† 31.♔h3 h5

31...♔f6 is less critical. After 32.♕xe6† ♔xe6 33.♔g4, Black has to play 33...♔f6! not to lose.

32.♕xe6† ♔xe6

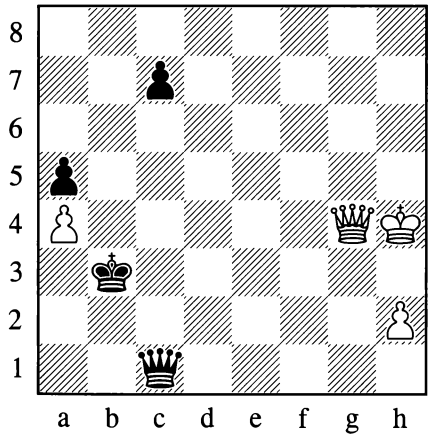


It appears that Black has won a few tempos. But all he has achieved is to bring his pawns closer to the white king.

33.♔g2

Instead 33.g4 h4 34.♔g2 ♔d6 is a more forcing move order.

33...♔d6 34.g4! h4 35.♔f3 ♔c5 36.♔e4 ♔xc4 37.♔f5 c5 38.♔xg5 ♔xc3 39.♔xh4 ♔b4 40.g5 c4 41.g6 c3 42.g7 c2 43.g8=♕ c1=♕ 44.♕g4† ♔b3



This is not an endgame study, but in study fashion, White has only one path to the draw and it is truly narrow.

45.♕f3†! ♔xa4 46.♕e4† ♔b3 47.♕b7†! ♔a3 48.♕f3†

With perpetual check.

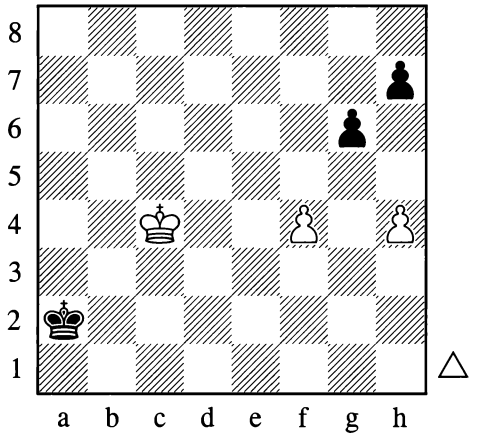
26. Domination

We shall talk plenty about various aspects of domination in general later, starting on page 348. But I wanted to introduce this key element of good technique at an early stage, to plant the seed. Please pay attention to how often it is throughout this book that accurate play includes limiting the opportunities of the opponent. We cannot always increase our own possibilities. In those situations, we can secure the advantage by limiting the possibilities of the opponent.

Pawn endings have a finite property to them. They can be calculated all the way to a clear conclusion in most cases. This does not mean that the process is not highly intuitive, and we do not need to understand a lot of themes to navigate them better. I always recommend the book *Secrets of Pawn Endings* by Karsten Müller and Frank Lamprecht, to anyone who wants to hear about it. I think it was nominated for book of the year at the Chesscafe.com Book of the Year awards at the same time as one of my books was nominated. I voted for them. Sadly, none of us won. Their next book, *Fundamental Chess Endings*, is one of the all-time great chess books. Magnus Carlsen was famously photographed with an entirely demolished copy of it, read more times than the cover, pages and spine were designed for.

Steffen Nielsen

Original 2017



My friend Steffen Nielsen, one of the best study composers in the world, created a study based on Senthil – Ghosh (see page 103), which coincidentally is a great example of domination in pawn endings.

1.♔c3!!

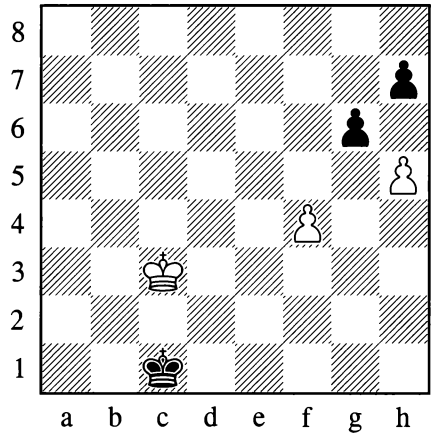
The white king is dominating the black king.

Black would make a draw after both 1.♔d5 ♔b3 2.♔e6 ♔c4 3.♔f7 ♔d5 4.♔g8 h5! and 1.h5 ♔b2! 2.hxg6 hxg6 3.♔d4 ♔c2 4.♔e5 ♔d3 5.♔f6 ♔e4.

1...♔b1

1...♔a3 would put the black king out of play. After 2.h5!, White will take on g6 and take the pawn with the king. Black's king has to attack the f4-pawn from behind, which is now not possible.

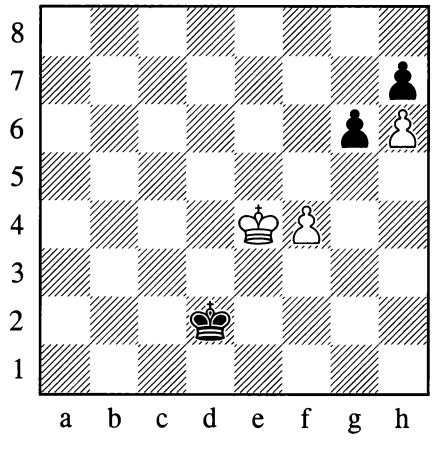
2.h5 ♔c1



3.h6!

A crucial point. White is attacking the h7-pawn and Black will not be able to take the h6-pawn, as it will be close and under control.

3...♔d1 4.♔d3 ♔e1 5.♔e4 ♔d2



6.f5!

The last accurate idea.

6.♔e5? ♔e3 7.♔f6 ♔xf4 8.♔g7 g5 would only be a draw.

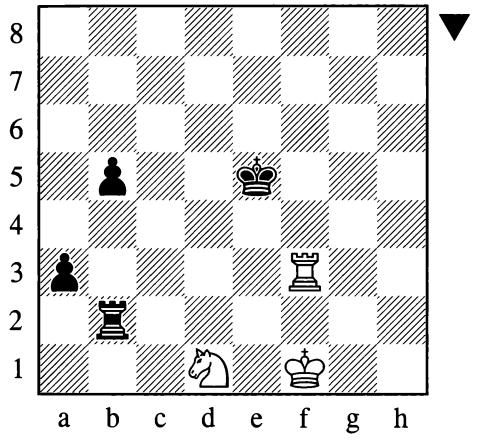
6...gxf5† 7.♔xf5 ♔e3 8.♔f6 ♔f4 9.♔g7 ♔f5 10.♔xh7 ♔f6 11.♔g8

White wins.

The following example is probably simpler, but no less instructive.

Brede Alex Kvisvik – Trond Romsdal

Norway 2015



Black blundered by allowing White to escape into a trivial draw in the rook ending.

78...♖b1? 79.♖xa3 ♖xd1† 80.♔e2 ♖d5

Trying to cut off the white king, but White simply played:

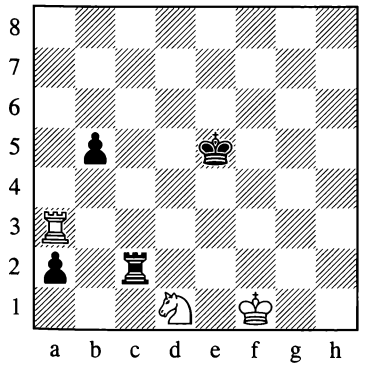
81.♖e3† ♔d6 82.♖d3!

Transitioning into a simple draw.

82...♔c5

½–½

Black could have won the game by keeping everything under control: 78...a2 79.♖a3 ♖c2!!

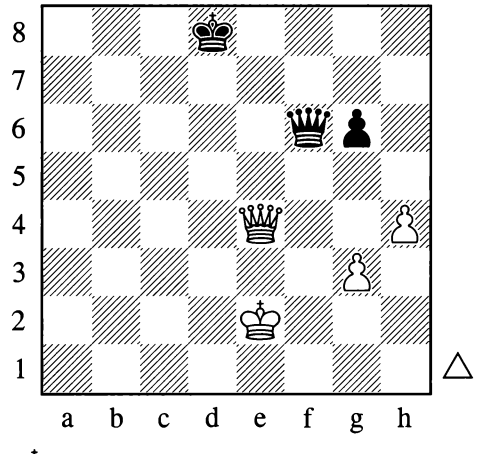


Dominating the white pieces. Black is threatening ...b4-b3, winning, so White has to try something. But for example: 80.♘c3 b4 81.♖xa2 ♖xc3 and Black has a winning rook ending. The white king is too far away.

The following example of domination in the middle of the board shows the power of a centralised queen.

Sadikin Irwanto – Luke McShane

Baku (ol) 2016



70.♔e3!

White is winning. Black cannot avoid the queen exchange without paying a heavy price.

70...♕f1

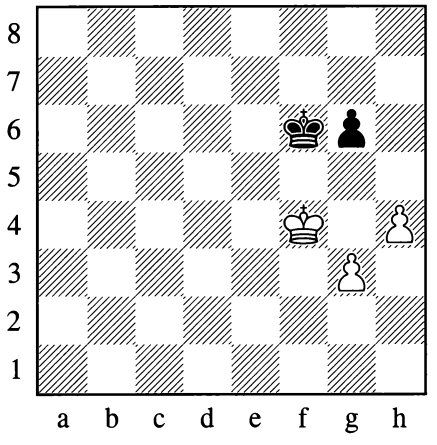
70...♕f7 71.♕a8† ♔e7 72.♕b7† would also lead to the pawn ending.

For this reason McShane should have attempted 70...g5, although he would be entirely lost after 71.♕d5† and 72.hxg5. But it still would offer White the chance to go wrong.

71.♕d3† ♕xd3† 72.♔xd3 ♔d7

White is winning only because his g-pawn has not advanced too far (Steinitz Rule!).

73.♔e4 ♔e6 74.♔f4 ♔f6



75.♔g4! ♔g7

75...♔f7 76.♔g5 ♔g7 and the extra tempo with the g-pawn comes in handy. 77.g4 ♔h7 78.♔f6 ♔h6 79.g5† ♔h5 80.♔f7 White wins.

76.♔g5 ♔f7 77.♔h6 ♔f6 78.g4 ♔f7 79.g5 1–0

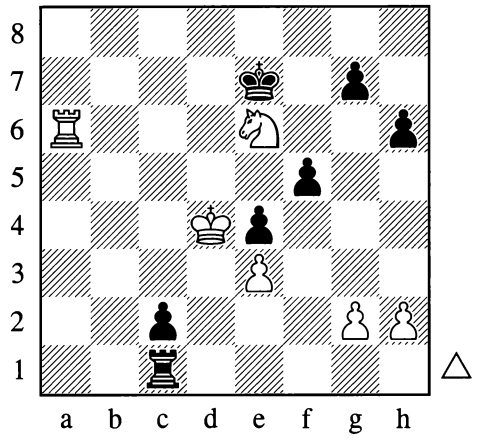
27. Mate in the endgame

Although endgames are primarily about pawns, we should always be open to the idea of mating attacks. In the middlegame, mate comes about with three pieces usually. One for a sacrifice, one to defend the mating piece and one to deliver the mate.

Usually, one of these pieces is a queen. In the endgame, sometimes you also need three pieces for a successful mating attack. And when you have three pieces in the proximity of the opponent's king, you should be open to the chance that mate is near.

Daniel Dardha – Anatole Vlachos

Paris 2021



44.♔c3?

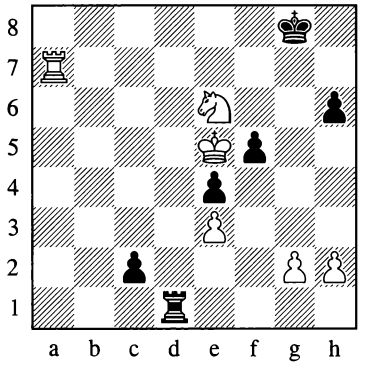
The checkmate variation is beautiful:

44.♔e5!! ♖d1 45.♖a7† ♔e8

45...♖d7 46.♖xd7† ♔xd7 47.♘c5† would allow the knight to come back to stop the c-pawn. Curiously, Black would not be able to get close, as there would be a check on d4, picking up the c-pawn, thus creating an impenetrable barrier.

46.♘xg7† ♔f8 47.♘e6† ♔g8

47...♔e8 48.♔f6 leads to a quick mate too.



48.♔f6! c1=♕

48...♖d6 49.♖c7 wins technically.

49.♖a8† ♔h7 50.♘f8† ♔g8 51.♘g6† ♔h7 52.♖h8#

44...♖e1?

After this move, Black will not be able to eliminate all the white pawns.

44...♖g1 45.♔xc2 ♖xg2† 46.♔c3 ♖g6! would have forced the exchange of rooks, after which the king and the four pawns will be able to eliminate the two white pawns and secure a draw.

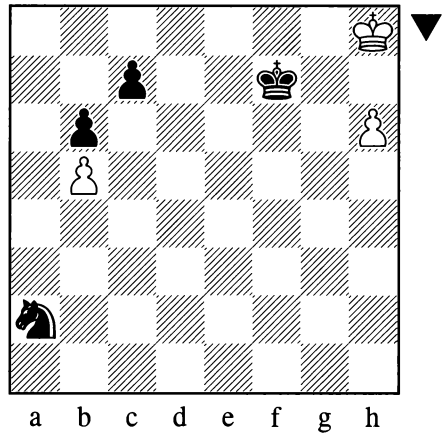
45.♔xc2 ♖xe3 46.♘xg7 ♖e2† 47.♔c3 f4 48.♘f5† ♔f8 49.♖f6† ♔e8 50.♖xh6 f3 51.gxf3 exf3 52.♔d3 ♖e1 53.♘g3 ♔e7 54.♖h4
1–0

The next game was played in the Kupreichik Memorial rapid tournament. Viktor Kupreichik was a colourful fighter from Belarus, known for his uncompromising play. I met him once, when he visited a tournament I was playing at a resort outside Pinsk.

That day I failed to win the endgame with queen against rook (I am in good company there), but tried and tried, getting more and more frustrated. After the game, I was rather deflated with my performance, until Kupreichik told me that I had fought bravely, "in the style of Kupreichik". I often wish that was a general character trait I had managed to develop, and I would recommend all young players to decide to be fighters, if they can. It is not the style that suits everyone, but if you can wear that suit, it will make you grow...

Vladimir Barskij – Nazar Laptii

Minsk (rapid) 2018



Outgunned by more than 450 points, Black has managed to win a piece. But White has a last-ditch defence to be reckoned with – a stalemate defence. Sadly, Black allowed it.

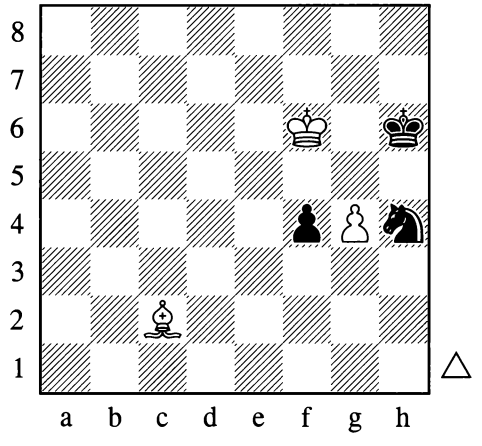
70...♔f8??

Black had several routes back with the knight. This is just one of them:
70...♘b4 71.h7
71.♔h7 loses to a well-known manoeuvre. White cannot stalemate himself for another two moves, so Black has time to make it to important squares in time. 71...♘d3 72.♔h8 ♘e5 Preventing the stalemate idea. 73.♔h7 ♘d7 74.♔h8 ♘f8 This time forcing the stalemate idea. 75.h7 But, before it can be stalemate, 75...♘g6# is mate.
71...c6!
Preventing stalemate.
72.bxc6 ♘d5 73.c7 ♘e7 74.c8=♕ ♘g6#

71.h7 ♔f7
Stalemate
½–½

Matej Sebenik – Michal Krasenkow

Sochi (1.2) 2021



From the 2nd game of the first round in the 2021 World Cup. Sebenik had to win the game, but was not able to find the winning continuation.

70.g5†?

70.♗d1? would allow the black king to escape with 70...♔h7.

The winning move was 70.♗e4!, dominating the black pieces. 70...f3 71.♗c2! f2 (Black can also play 71...♘g2, but after 72.♗g6! mate will follow.) 72.g5† ♔h5 73.♗d1† and with the pawn out of the way, White wins. 73...♘f3 74.♗xf3† ♔h4 75.♗e2 and so on.

70...♔h5 71.♗d1† f3 72.♗xf3† ♘xf3 73.g6 ♘h2

73...♔h6 74.g7 ♔h7 would also stop the pawn.

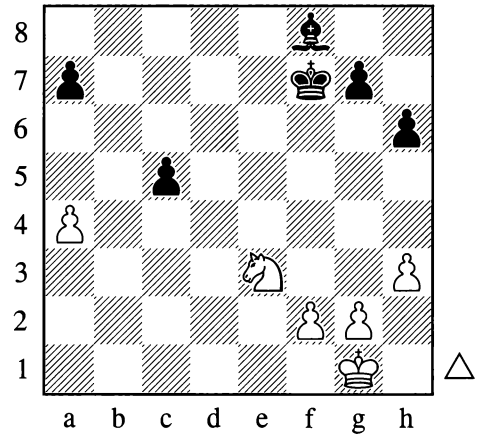
74.g7 ♘g4† 75.♔f7 ♘h6† 76.♔f8 ♔g6 77.g8=♖† ♘xg8 78.♔xg8

½–½

The following endgame goes through several phases before mate becomes only one of four themes in play. However, it is the prevailing theme and both the journey to the end, and the complexities in the six-man position, are worth a close inspection.

Renier Castellanos – Jhoel Garcia Vasquez

Mislata 2007



45.♔f1 ♗e7

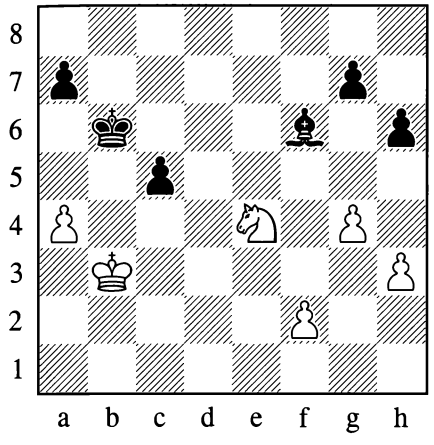
I know this is a minor point, but I think it is more practical for Black to put the pawns on g6 and h5, with the intention to exchange them later.

Thus, I think it would be more natural to play 45...♔e6 46.♔e2 ♔d6 47.♔d3 g6 48.♔c4 ♗g7, when Black should hold the endgame without too much effort.

46.♔e2 ♗f6 47.♘c2 ♔e6 48.♔d3 ♔d5 49.♘e3† ♔c6 50.♔c4 ♗d4 51.♘f5

The first minor issue has arisen from the inferior pawn structure.

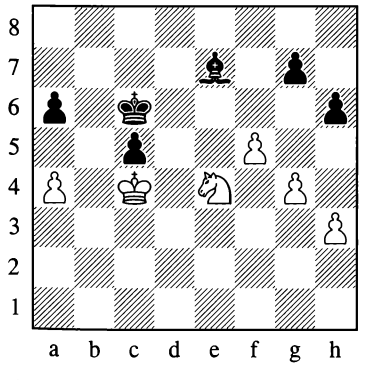
51...♗f6 52.g4 ♔b6 53.♘d6 ♔a5 54.♔b3 ♔b6 55.♘e4



55...♗d4?

This is quite an instructive error. Already Black was under serious pressure and quite frankly, paying the price for not having organised his kingside better earlier.

55...♗e7! was the right move. White should not be able to play h3-h4 and g4-g5 later. The bishop may look active on d4, but it has no function there of importance. 56.f4 Black still has to play cautiously. 56...♔c7! 57.♔c4 ♔c6 58.f5 a6!

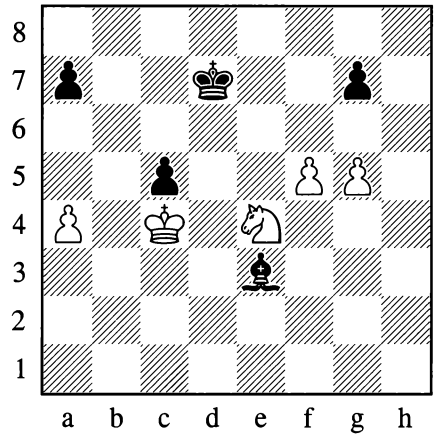


Black makes a draw with a bit of accuracy in this position of mutual zugzwang.

56.f4

White's play is simple. He wants to play f4-f5 and g4-g5-g6, and only then will he break through on the kingside with f5-f6. All Black can do is sit and wait.

56...♔c6 57.♔c4 ♗e3 58.f5 ♗d4 59.h4 ♗e3 60.g5 hxg5 61.hxg5 ♔d7!?



This is quite an instructive position in terms of the role of patience in good technique. We shall revisit this theme in the section on Timing below. Here it is enough to say that White is in no hurry to execute his advantage.

62.♘xc5†?

A silly mistake. There is no reason to let the black king into the game.

When I first analysed the game, I wanted the right move to be 62.♔d5!?. But I have later come to understand that although this does win, it is not the right move, technically. That would be:

62.a5!

Exploiting that Black cannot play 62...a6 at this moment, as White can take on c5 with check.

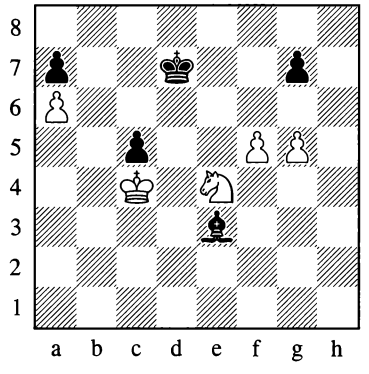
62...♔e7

The king has to remain passive due to the threat of g5-g6.

63.a6!

White has made a significant improvement of his position. The a7-pawn is fixed as a weakness and the a6-pawn is closer to the back rank.

63...♔d7



It is time for action.

64.g6 ♔e7 65.f6† gxf6 66.♘d6!

This operation would not work if the a-pawn was not pinned down.

66...♔f8 67.♘b5

White takes the a7-pawn and queens his own pawn. The bishop cannot make it back to sacrifice himself:

67...♗f4 68.♘xa7 ♗c7 69.♘c6 ♗b6 70.♔b5

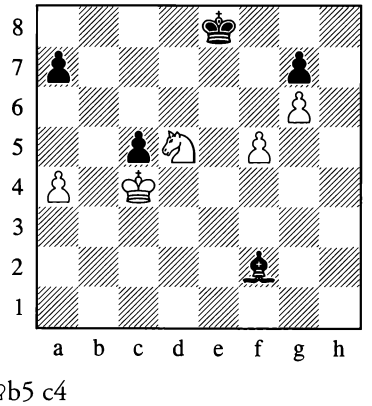
White wins.

There are other wins as well. It is all about being cautious. For example:

62.g6 ♔e7 63.♘c3! ♗f2

63...♗g5 64.♘d5† and White has forced the black king further back.

64.♘d5† ♔e8



65.♔b5 c4

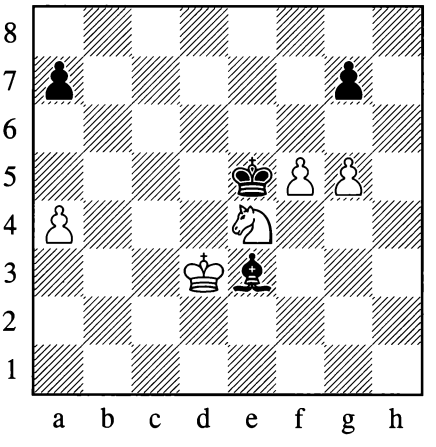
Simply necessary.

65...♗d4 66.a5! and White will have managed to avoid ...a7-a6, which is the main function of 65.♔b5.

66.♔xc4 a6 67.♔b4 ♗e1† 68.♔c5 ♗f2† 69.♔d6

White is in total control.

62...♔d6 63.♘e4† ♔e5 64.♔d3

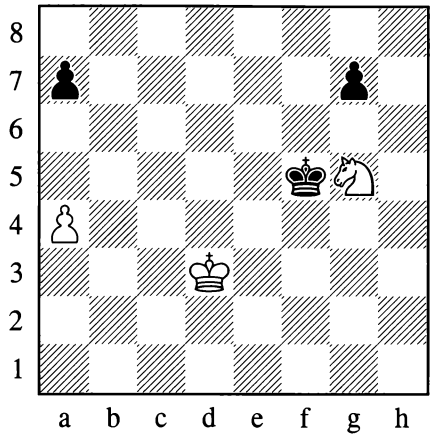


64...♗xg5??

Boris Gelfand said that the most difficult thing in the endgame is to know when to go for a passive defence and when to go for an active defence. He is probably right, but in this instance, it was not overly difficult to see that White would be unable to make meaningful progress, had Black played a waiting move like 64...♗c1.

This type of mistake usually comes from not considering enough options. Black had the idea that sacrificing the bishop would make a draw. Because it is active, it is emotionally appealing. He calculated it, until a random moment, when he was able to convince himself that everything would work out in his favour. Meanwhile, he simply forgot to consider how his opponent would win the game if he himself chose to do nothing. It is just a theory, but not a stupid one.

65.♘xg5 ♔xf5



However, we should thank Garcia Vasquez for forcing this endgame, as it gives us a chance to enjoy it and expand our understanding of the endgame in general.

There are four likely ways White can win this endgame.

The first is to give up the knight for the g-pawn and take the a-pawn with the king. This is unlikely to happen without help from Black. All he has to do is be aware of this scenario and it will be easy to avoid.

The second scenario is to win the g-pawn with the knight and win slowly on the queenside. This should not happen, as Black should be able to not walk into any unfortunate checks, and as the white knight cannot overpower the black pawn on its own. All it can do is block it.

The third is for the knight to go to the queenside and take the a-pawn and return in time to stop the g-pawn. It sounds outlandish, but the g-pawn is still back at the 7th rank.

Finally, we have the fourth way to win the game: to entrap the black king in the corner and then bring over the knight to deliver checkmate. It does not matter if Black gets a queen, as long as he does not get a chance to move it around.

66.♘e4?

A natural move and it feels unfair to be critical of Renier's play at this point. However, this move ties down the white king to the knight, just as he should be ready to run to the queenside. The winning line is both beautiful and logical.

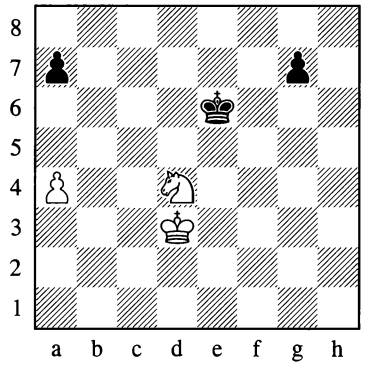
66.♘f3!! ♔e6

Based on what was written above, this is the logical try.

66...♔f4 67.♘d4 g5 68.♘c6 would see White in time to take the a-pawn and stop the g-pawn. The resource of meeting ...g4-g3 with ♔d3-e2 is important.

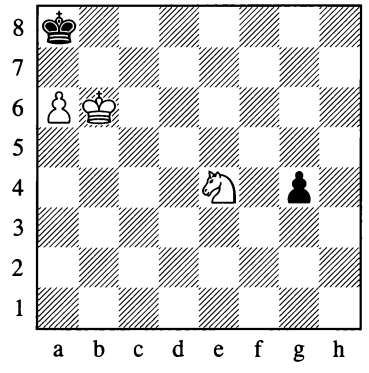
66...g5 67.♔c4 would see White sacrificing the knight for the g-pawn after 67...g4 68.♘h2 g3 69.♘f1, unless Black insists on losing it outright.

67.♘d4†



67...♔d5

67...♔d7 is met with 68.♘b5!!, provoking a weakness. After 68...a6 69.♘d4, White will win the a-pawn in the long run and then bring in the knight to deliver checkmate: 69...♔c7 70.♔c4 ♔b6 71.♔b4 g5 72.a5† ♔b7 73.♔c5 g4 74.♘e2 ♔c7 75.♘g3 ♔b7 76.♔d6 ♔a7 77.♔c6 ♔b8 78.♔b6 ♔a8 79.♔xa6 ♔b8 80.♔b6 ♔a8 81.a6 ♔b8 82.♘e4 ♔a8

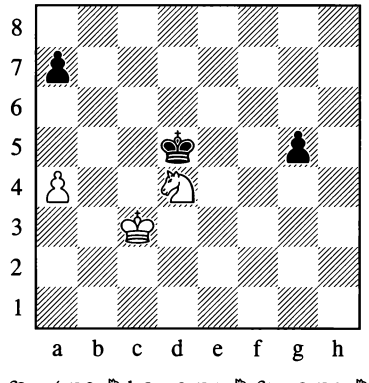


83.♘g5 g3 84.♘e6 g2 85.♘c7† ♔b8 86.a7† ♔c8 87.a8=♕† ♔d7 88.♕e8† ♔d6 89.♕e6#

68.♔c3!

This time 68.♘b5? would fail to 68...♔c5!, ready for counterplay against the white a-pawn. After 69.♔c3 g5 Black will draw as he could have done in the game.

68...g5

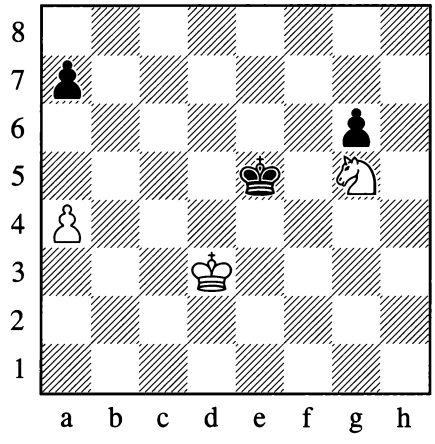


69.♘f3 g4 70.♘h2 g3 71.♘f1 g2 72.♘e3†

White wins. These knight manoeuvres can be fantastic.

66...♔e5 67.♘c5 ♔d5 68.♘e4 g6 69.♘g5 ♔e5?

As we shall see below, the king should stay on the queenside.



70.♔c4?

Natural-looking, but not winning.

On the other hand, it was possible to exploit that the king is lingering in the centre to catch the g-pawn with the knight:

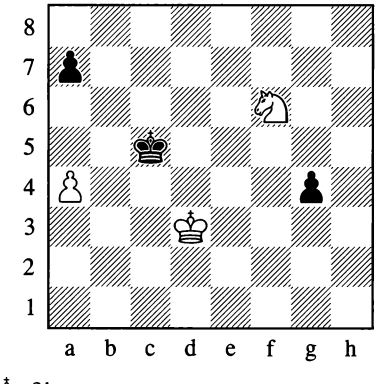
70.♘h7!! ♔d5

70...♔e6 71.♔c4 ♔d6 72.♔b5 ♔c7 73.♘f8! g5 74.♘e6† is an important tactic!

71.♘f8

71.♔c3 ♔c6! and Black escapes the checks and defends the queenside.

71...g5 72.♘h7 g4 73.♘f6† ♔c5



74.♔c3!

Not allowing the counterplay, but still winning the g-pawn.

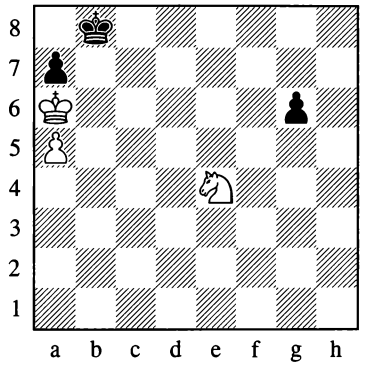
74...g3 75.♘e4†

White wins.

70...♔f5?

It is by no means intuitive that Black can go to the queenside and White would be unable to make progress on the kingside. But this is the case.

70...♔d6 71.♔b5 ♔c7 72.♔a6 ♔b8 73.a5 ♔a8 74.♘e4 ♔b8



75.♔b5 ♔b7 And White has made no progress.

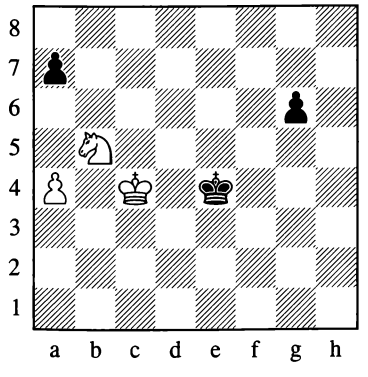
71.♘f3?

71.♘h7! would have won as before.

71...♔f4 72.♘d4 ♔e4 73.♘e6?

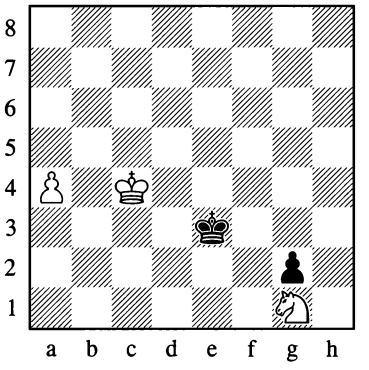
White could still win the game, but the win is starting to look more like an impressive study, than something a human would play in a game.

73.♘b5!



73...g5

73...a5 loses the a-pawn. White is just in time to take it. 74.♘d6† ♔e5 75.♘b7 g5 76.♘xa5 ♔e4 77.♘c6 g4 78.♘d4 g3 79.♘e2 g2 80.♘g1 ♔e3

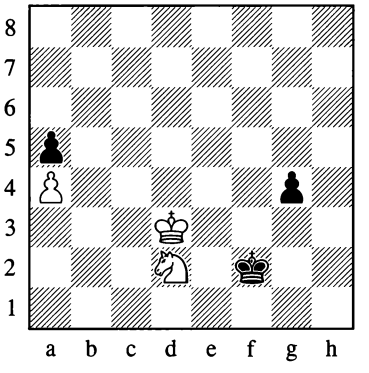


81.♘h3 ♔f3 82.♔d3! Ready to protect the knight when it comes back to e2. White wins.

74.♘c3† ♔f3

74...♔e5 75.♔c5! would win the a-pawn.

75.♔d5! g4 76.♘e4 a5 77.♔d4 ♔f4 78.♔d3 ♔f3 79.♘d2† ♔f2



80.♘c4!

Forcing the black pawn one step forward and onto an exposed square.

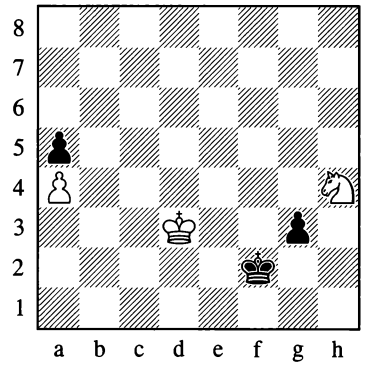
80...g3

80...♔f3 81.♘xa5 g3 82.♘b3 and the knight makes it back to e2.

81.♘e3 ♔e1

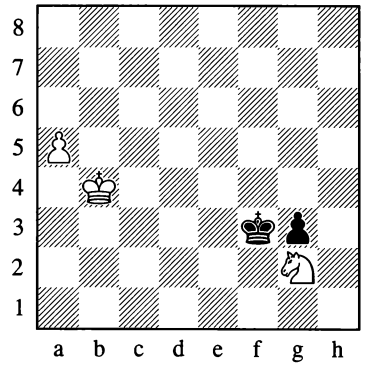
81...♔f3 82.♘f5 is easy enough.

82.♘g2† ♔f2 83.♘h4



The distance from f2 to h4 seems to be miles. But in the end, White only has one tempo to spare.

83...♔e1 84.♔c4 ♔d2 85.♔b5 ♔d3 86.♔xa5 ♔e4 87.♔b4 ♔f4 88.a5 ♔g4 89.♘g2 ♔f3



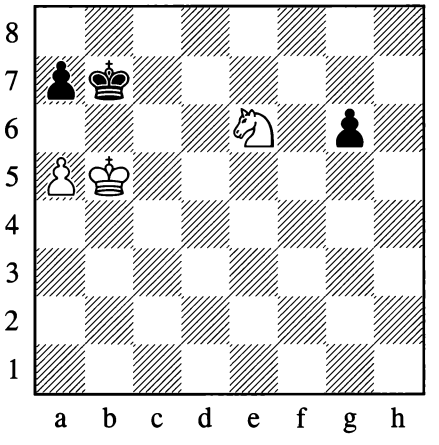
90.a6!

The g-pawn never holds against the queen. White wins.

73...♔e5 74.♘g5?!

74.♘d4! would leave Black with nothing better than 74...♔e4, giving White another chance to win the game.

74...♔d6 75.♔b5 ♔c7 76.a5 ♔b7 77.♘e6



77...♔c8?

77...♔b8! 78.♔c6 ♔c8 would have transferred the move to White and held the game.

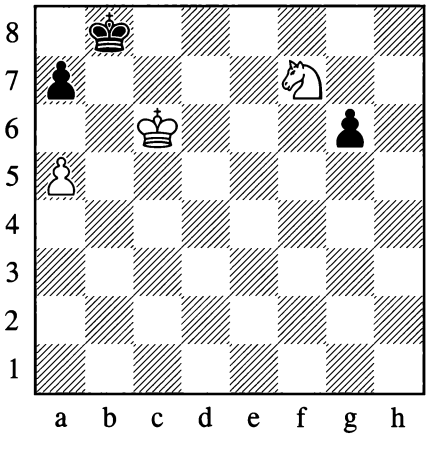
78.♔c6!

Another case of mutual zugzwang. Black cannot abandon the a-pawn and thus chooses to go to the corner.

78...♔b8 79.♘g5 ♔c8 80.♘f7

80.a6! ♔b8 81.♔d7 was a shortcut.

80...♔b8



81.a6?

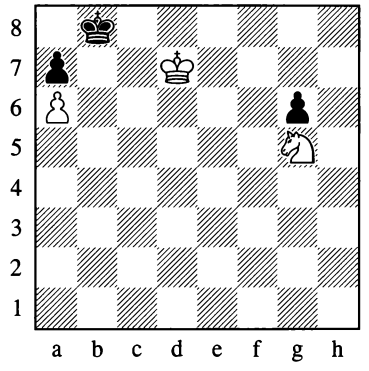
A horrible blunder.

There were several ways for White to block the g-pawn and then achieve the imprisoned king he needed to win the game. I shall give just one of them:

81.♘g5! ♔a8

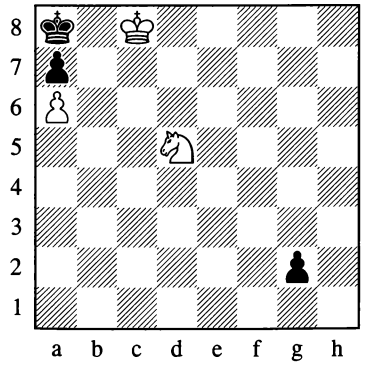
81...♔c8 82.a6 changes nothing.

82.a6 ♔b8 83.♔d7!



Imprisoning the king without stalemating him.

83...♔a8 84.♘f3 ♔b8 85.♘e5 g5 86.♘c6† ♔a8 87.♔c8 g4 88.♘b4 g3 89.♘d5 g2



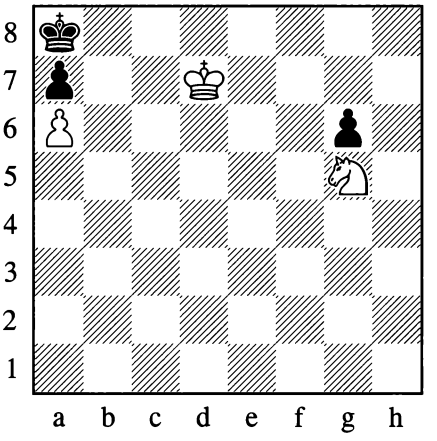
90.♘c7#

White can do this final manoeuvre in several ways. And as can be seen, he could even lose a tempo on the way...

81...♔c8?

81...g5! would have gotten rid of the pawn and made the draw.

82.♘g5 ♔b8 83.♔d7 ♔a8



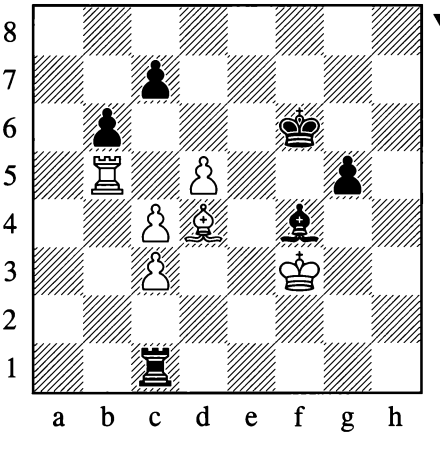
Black resigned. It is mate in 7.

1–0

In the 2021 Russian Higher League, my friend Aleksandr Rakhmanov managed to qualify for the Russian Superfinal – a great result. He won this game, but not without some help from his opponent.

Evgeny Romanov – Aleksandr Rakhmanov

Cheboksary 2021



It is my belief that he calculated the variation 50...♔f5 51.d6† c5 52.d7 ♗c7 53.♗xc5!, which holds a draw for White. What did he miss?

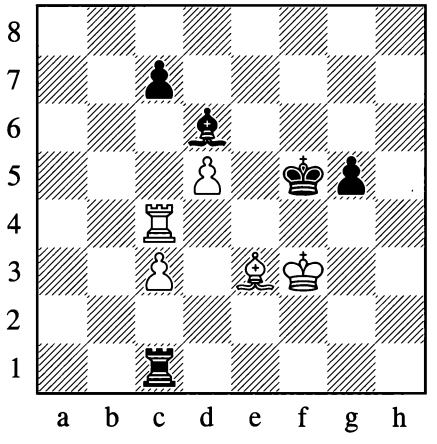
50...♔g6?

After 50...♔f5! 51.d6† c5 52.d7, Aleksandr missed 52...♖c2!!, and White has no defence against ...g4#.

51.c5 bxc5 52.♖xc5 ♗d6 53.♖c4?

White had an elegant draw available with 53.♖c6 ♔f5 54.♗b6!, but could also have held with more prosaic play, activating the strongest piece: 53.♖a5!? ♔f5 54.♖a8! and Black's advantage will be annoying, but should not be enough to win the game.

53...♔f5 54.♗e3



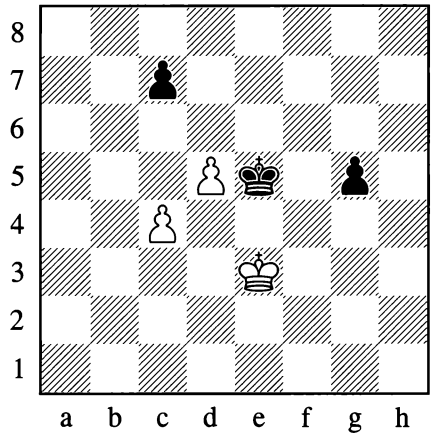
54...♖c2!

The mating threat is back. Furthermore, White is in zugzwang. Black now won in slightly wobbly fashion.

55.♖g4 ♗f4! 56.♗d4 ♖a2 57.♖g1 ♖b2 58.c4 ♖b4

58...g4† won on the spot.

59.♗e3 ♖b3 60.♖e1 ♔e5 61.♔f2 ♖xe3 62.♖xe3† ♗xe3† 63.♔xe3



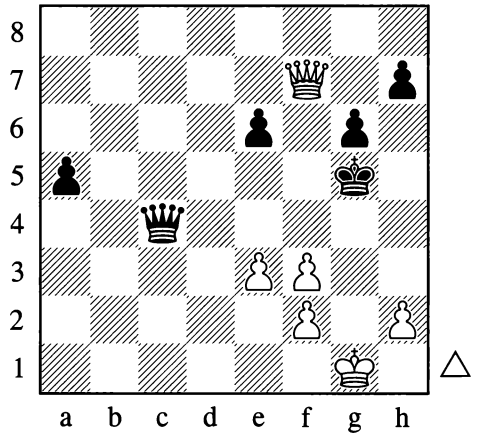
63...g4 64.♔d3 g3 65.♔e3 g2 66.♔f2 ♔d4 67.♔xg2 ♔xc4 68.♔f2 ♔xd5 69.♔e3 ♔e5 0–1

In chess you cannot deliver checkmate with one piece on its own. But it is not just the support of a pawn, piece or king that helps to create a mating scenario. The opponent's pawns can also be in the way.

In the following example, it is possible that Black could make a draw, if he only had the a-pawn (needed for counterplay). The pawns on the kingside do nothing to protect the king.

Evgenij Lesovoi – Evgeny Levin

St Petersburg 2021



In the game White played 34.e4, when after 34...h5 35.h4† ♔h6, he enjoyed a slight advantage, until the game was drawn on move 46. Black could have played 34...a4, pushing the passed pawn and securing the draw even more convincingly.

34.♕g7!!

34.h4† ♔xh4 and 34.♔g2 ♕d5 would also not give White any advantage.

34...h6

After:

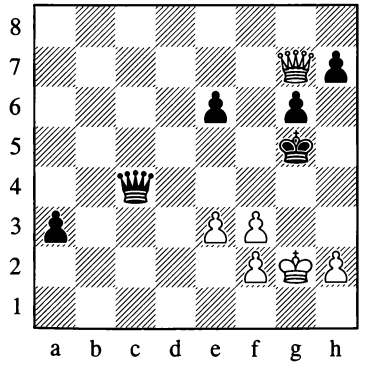
34...a4 35.♔g2!

White brings in the second piece, to create the mating attack.

35.h3!? also wins, but makes less sense.

35...a3

35...h6 transposes to the main line.



36.f4†

Black is mated after 36...♔h5 37.♕xh7† ♔g4 38.♕h3# and 36...♔f5 37.♕e5† ♔g4 38.♕g5#.

34...h5 is refuted most easily with the obvious tactical punt: 35.h4† ♔xh4 All other moves lose instantly, but this is no better. Mate is near. 36.♕xg6 ♕c7 37.f4 and White wins.

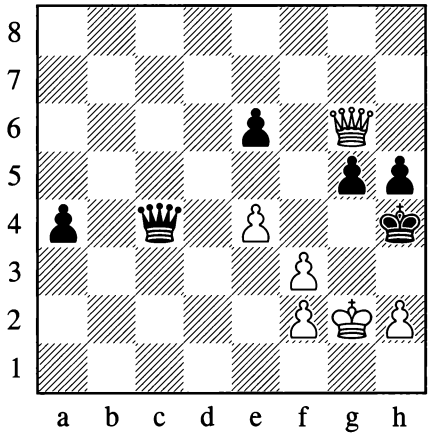
35.♕e5† ♔h4 36.♔g2!

The black king is trapped, and no one is coming to save it.

36...a4 37.e4 g5 38.♕g7 ♔h5

38...h5 39.♕e5 leads to mate.

39.♕f7† ♔h4 40.♕g6 h5



41.♕e8! ♕c1

Black has to let the a-pawn go to avoid getting checkmated.

Black is mated after 41...a3 42.♕b8!. For example: 42...g4 43.♕d8#

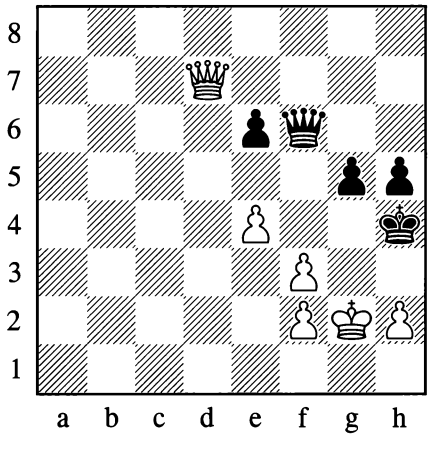
42.♕xa4

42.♕b8 ♕f4 is Black's defensive idea.

42...♕f4

42...g4 43.♕b3 ♔g5 44.fxg4 hxg4 45.♕xe6 also leads to a technical win.

43.♕d7 ♕f6



44.♕h7!

The most technical move. Black is paralysed.

44.h3!? also wins.

44...g4

Black is also lost after:

44...♕f4 45.♕e7 e5

45...♕e5 46.♕f7 ♕d6 47.♕f6 and Black is in zugzwang.

46.♕d7

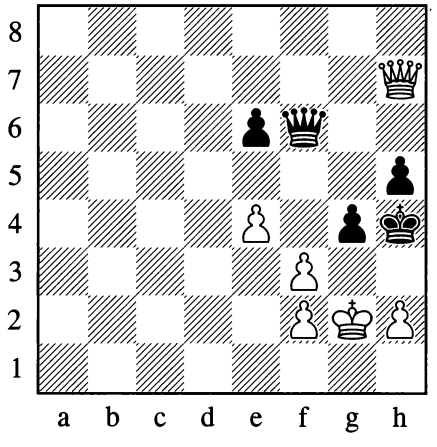
To avoid mate, Black will have to enter a lost pawn ending.

46...g4 47.♕e7† ♕g5 48.♕xg5† ♔xg5 49.fxg4 hxg4 50.♔g3 ♔h5 51.h3

The simplest.

51...gxh3 52.♔xh3 ♔g5 53.♔g3 ♔f6 54.♔g4 ♔g6 55.f3

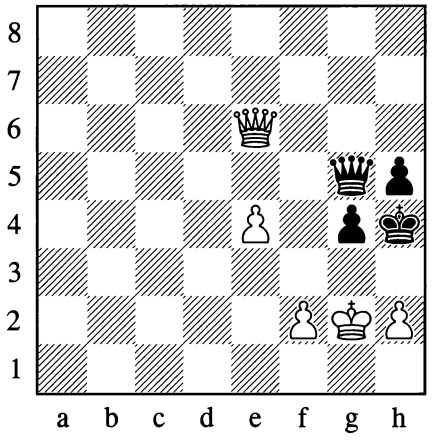
White wins.



45.f4!!

Giving up the pawn to keep the black king trapped on h4.

45...♕xf4 46.♕e7† ♕g5 47.♕xe6



White wins, by domination, but still needs to provide a bit of accuracy.

47...♕d8

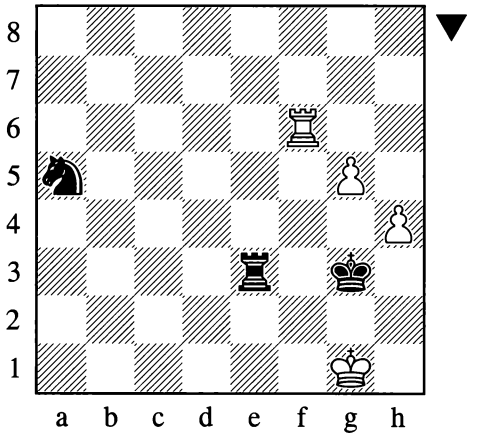
47...♕f4 48.♕e7† ♕g5 49.♕a3 ♕d8 50.♕e3 would keep the domination. White plays h2-h3 next.

48.♕h6 ♕e7 49.♕f4 ♕d8 50.h3 ♕b6 51.♔h2 ♕c6 52.hxg4 hxg4 53.e5

In the following example, the white pawns are again a liability.

Matthias Bluebaum – Alexander Graf

Magdeburg 2021



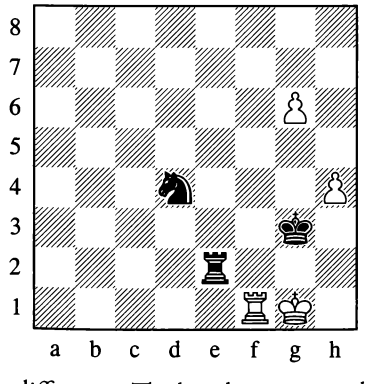
Black's extra piece has no great value without pawns. The endgame with rook and knight vs rook is rarely dangerous for the weaker side. All you have to do is keep the king away from the corner.

But this position is a special situation. Not only is the white king close to the corner, but the white pawns are a liability. Without them, White could give a few checks and the king could exit the corner and all dangers. In this position, Black still has one try left.

49...♘c4?

The wrong circuit. It is clear that Black did not spot the mating pattern.

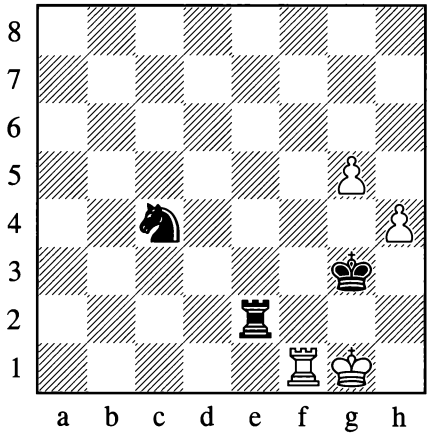
49...♘b3! would have brought the knight to the right square. 50.♖f2 (50.g6 ♘d2 51.♖f1 ♘f3† 52.♖xf3† ♔xf3 53.g7 ♖e1† 54.♔h2 ♖e2† and ...♖g2 would also win for Black.) 50...♖e1† 51.♖f1 ♖e2 52.g6 ♘d4!



The difference. The knight is not just heading for f3, but also e2. 53.g7 ♖g2† 54.♔h1 ♖h2† 55.♔g1 ♘e2#

50.♖f2! ♖e1† 51.♖f1 ♖e2

This allows White to simplify to a draw quickly. But as long as the white king runs away from the corner, Black is unlikely to make him sweat.



52.g6!

White is just in time.

52...♘d2 53.g7 ♖g2† 54.♔h1 ♔h3 55.♖f2!

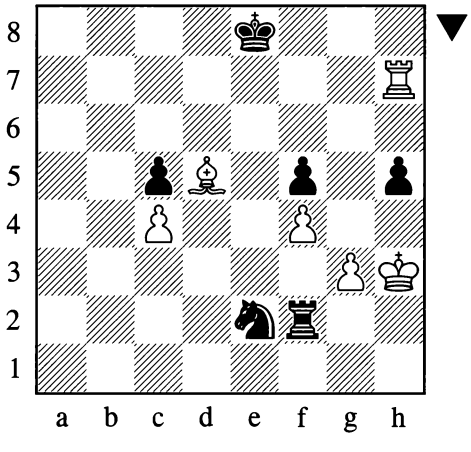
A draw was agreed.

½–½

Mating tricks can also be used to achieve other things.

Vladislav Artemiev – Matthias Bluebaum

Internet 2021



65...h4! would have saved the game. White cannot take with the king and the checks will not lead anywhere. And 66.♖xh4? ♘g1# would be unfortunate. So, Black would be able

to exchange off his worst weakness and hold the game.

Instead, he went down hard:

65...♘d4? 66.♖xh5

White has a large advantage and won the game after minor inaccuracies by both players.

66...♔e7 67.♖h7† ♔f6 68.♖h6†

68.♖f7†! ♔g6 69.♖c7 was even better.

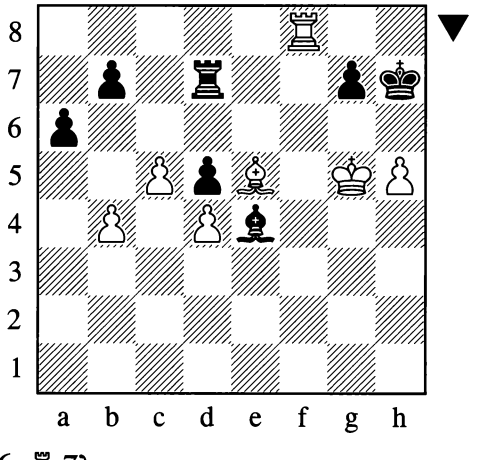
68...♔g7 69.♖b6 ♖a2 70.♔h4 ♖a3 71.♖b7† ♔f6 72.♔h5 ♘e6 73.♖b6
1–0

28. Defending against attacks on the king

Attacks on the king are rare in the endgame, but can be extremely powerful. In the following position, Black should have paid attention to this, and he might have survived.

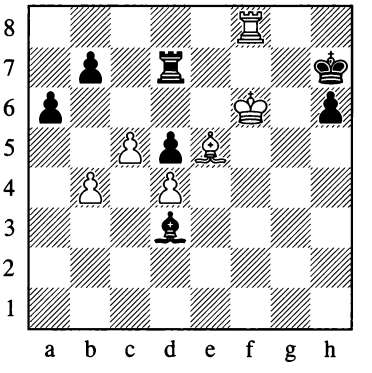
Arkady Gitelson – Roman Kvitka

Saratov 2015



46...♖e7?

46...♗d3!! was the only move. White retains the advantage, but it is not easy to see what he should do with it. The key point of the move is that after 47.h6, Black is ready for: 47...gxh6† 48.♔f6



After 48...♗f1!! White does not have an immediate way to break through.

48...♗e2? 49.♔f5! ♗d3† 50.♔e6 ♗b5 51.♖c8! and White wins with 52.c6!.

48...h5? 49.♔g5 also wins for White.

47.h6! gxh6† 48.♔f6 ♖g7 49.♔e6 ♖g8

49...♖g6† 50.♔f7! with mate.

50.♖f7†

50.♖xg8! ♔xg8 51.♔d7 won too.

50...♔g6 51.♖xb7
1–0

29. Stalemate

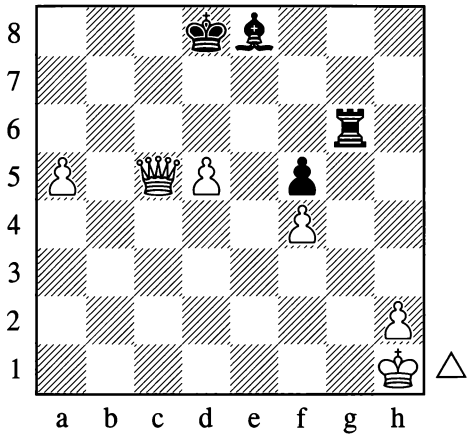
A few phenomena only really exist in the endgame. Zugzwang, pawn promotion and stalemate are the main culprits.

In the endgame, stalemate is a core element. It is the foundation of maybe the two most important endgames of all. The first being the bishop and rook pawn, where the bishop has the wrong colour configuration for the corner. The second being the draw made by blocking the last remaining passed pawn with the king, relying on the opposition.

The examples of stalemate shown here are not complex, but they are relevant.

Jiri Fichtl – Frantisek Blatny

Bratislava 1956



White is totally winning and could play quite a few different moves. All he has to do is avoid the one trick Black has left. Obviously, he did not.

49.d6?? ♗c6†

The players agreed a draw.

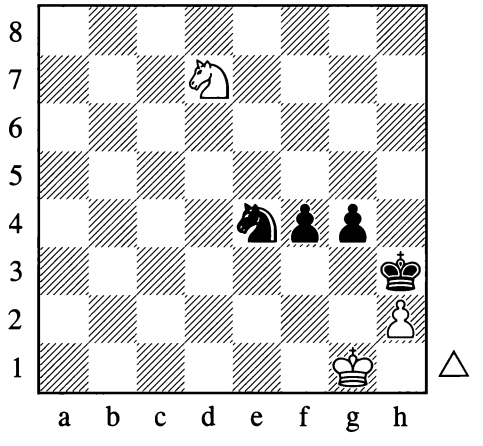
½–½

After 50.♕xc6 ♖g1† 51.♔xg1, Black is stalemated.

In the next example, it is not a blunder that allows White to hold, but simply a stalemate defence.

Zhamsaran Tsydypov – Anton Korobov

Moscow 2019



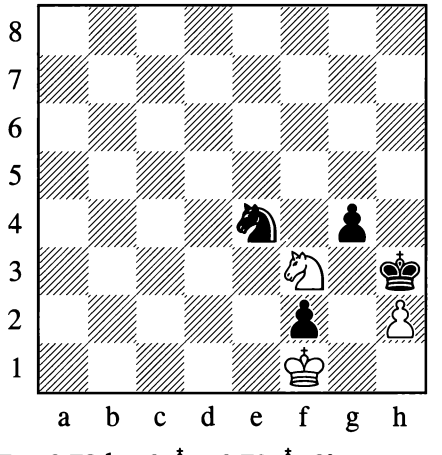
White looks in bad shape. Black will play ...f4-f3-f2 and take the h2-pawn. What can be done to prevent it?

75.♘e5! f3 76.♔f1!

An anticipation move. ...f2 is coming, so let's be ready for it.

76...f2 77.♘f3!

The saving trick. If Black takes the knight, it is stalemate.



77...g3 78.hxg3 ♔xg3 79.♔e2!

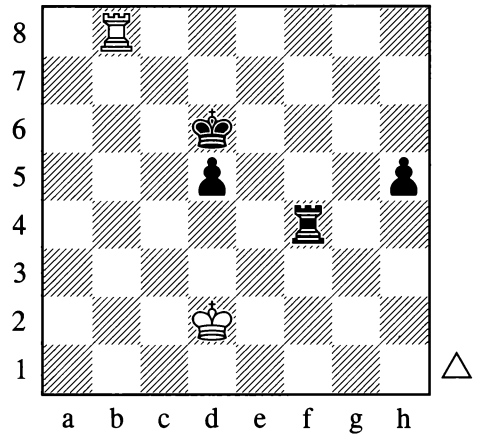
White makes the draw.

79...♘d6 80.♘e1 ♘b7 81.♘d3
½–½

The following stalemate defence is common in rook endings and many strong players have fallen prey to it.

Manuel Petrosyan – Haik Martirosyan

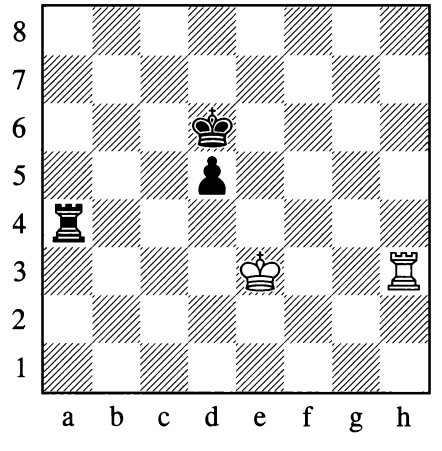
Yerevan 2021



56.♖h8 h4 57.♔e3 ♖e4† 58.♔d3 ♖a4 59.♔e3 h3??

59...♖a3† 60.♔d4 ♔e6 would have won easily. All Black needs to win is the h-pawn.

60.♖xh3



60...d4†

Black must have immediately realised his mistake.

After 60...♖a3† 61.♔d4 ♖xh3 it is stalemate.

61.♔e4 d3†

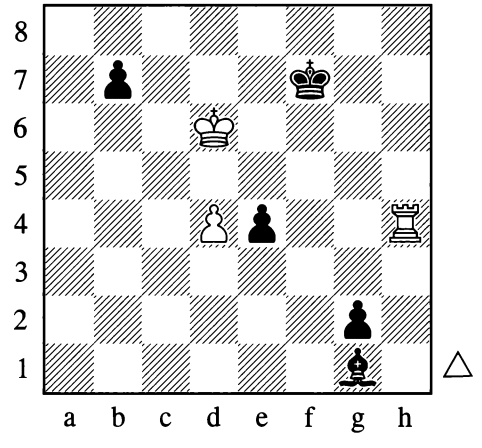
This looks like sort of a joke. White cannot take the pawn this time around.

62.♔e3 ♔d5 63.♖h5† ♔c4 64.♖h4† ♔b3 65.♖xa4 ♔xa4
½–½

Stalemate is a big theme in endgame studies. They especially appreciate it when the road to the draw is tangled and twisted, and the stalemate is in the middle of the board.

Leonid Kubbel

Shakhmatny Listok (110) 1925



1.♖f4†

Black is threatening ...♗h2†, so White has limited options.

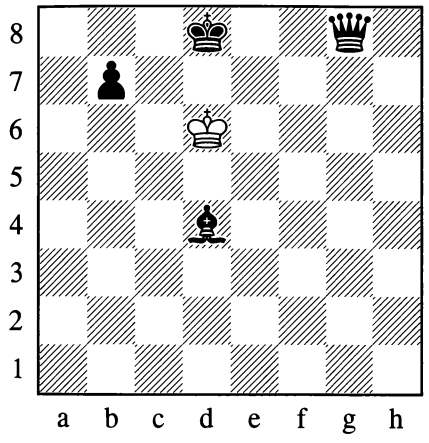
1...♔e8 2.♖xe4† ♔d8 3.♖h4!

White needs to lose the pawn. 3.♖g4 ♗h2† is just lost.

3...♗xd4 4.♖g4! g1=♕

4...g1=♖ 5.♖xd4 also does not cause concerns for White. And Black also had to respect the threat of checkmate.

5.♖g8†! ♕xg8

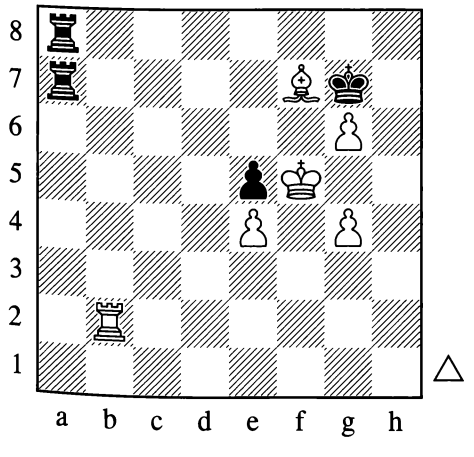


Stalemate. And a beautifully economical stalemate, where all the black pieces are covering 1-3 squares, and none of the squares are covered more than once.

At times there can be a fine line between domination and stalemate scenarios. In the following game, White did not manage to walk that line perfectly, but was gifted the full point in the end nonetheless.

Anastasia Bodnaruk – Khanim Balajayeva

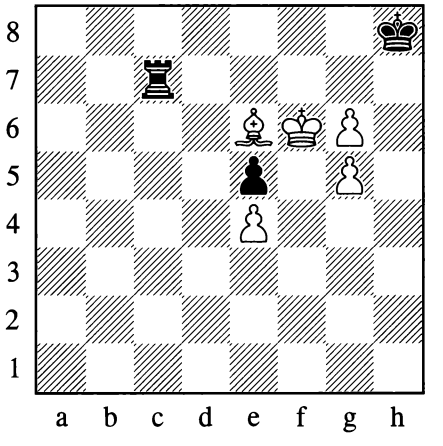
Bucharest 2021



70.♖h2

Threatening a deadly invasion.

70...♖h8 71.♖xh8 ♔xh8 72.♔f6 ♖a6† 73.♗e6 ♖a7 74.g5 ♖c7



75.♗f7

White is wavering, trying to feel her way through, but ultimately failing.

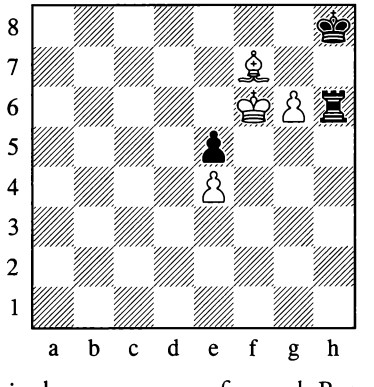
75.g7†! ♖xg7 76.♗f7

This would have trapped the rook.

76...♖h7

76...♔h7 77.g6† ♔h6 would create a permanent prison for the rook and White would be able to play 78.♔xe5, winning a sort of pawn ending easily.

77.g6 ♖h6



White has no easy way forward. But she can regroup the bishop.

78.♗e8! ♔g8 79.♗c6 ♔f8

79...♔h8 80.♔f7 would put Black in zugzwang.

80.♗d5

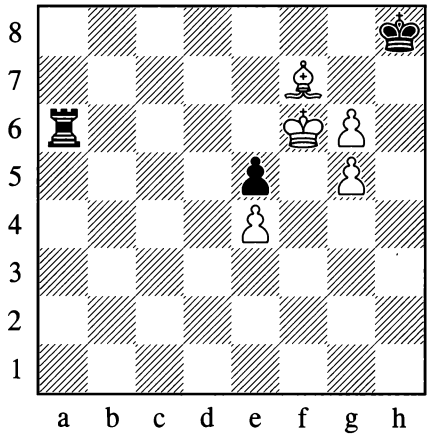
The black king is pushed away.

Note that 80.♗d7? would allow Black a beautiful escape with 80...♖h7!.

80...♔e8 81.♔g5 ♖h2 82.g7

The g-pawn will queen and claim the rook.

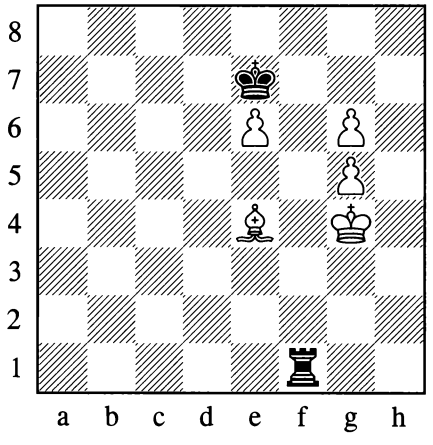
75...♖c6† 76.♗e6 ♖c7 77.♗d5 ♖a7 78.♗f7 ♖a6†



79.♔xe5?

79.♗e6 ♖a7 80.g7†! was still there.

79...♔g7 80.♔f5 ♖a1 81.e5 ♔f8 82.♗c4 ♖c1 83.♗d3 ♖d1 84.♗e4 ♔e7 85.e6 ♖f1† 86.♔g4



86...♖g1†?

A common problem – mistakes in time trouble. They will never go away; all we can do is to limit them.

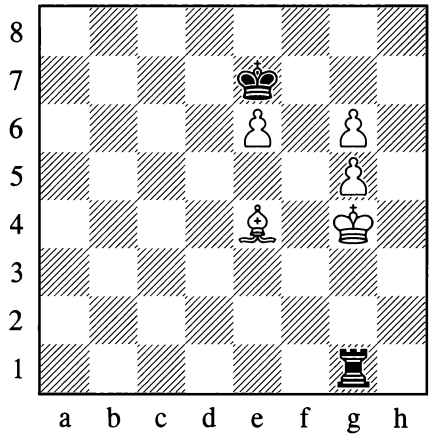
86...♔xe6? is the trap White was attracted to. Her point was that 87.♗d5†! ♔xd5 88.g7 queens the pawn.

But Black can block the pawns with either 86...♔f8 87.♗d5 ♖e1, or 86...♖f8!, with a draw.

87.♔f5?

87.♔h5! would have won, but as so often in increment-finishes, another chance soon arises.

87...♖f1† 88.♔e5 ♖g1 89.♔f4 ♖f1† 90.♔g4 ♖g1†?



91.♔h5! ♔xe6 92.♔h6 ♖d1 93.g7 ♖d8 94.♔h7 ♔e5 95.g8=♕

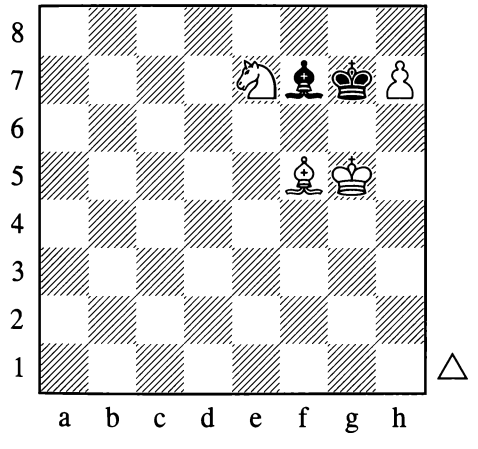
1–0

30. Stalemate escapes

We have already seen one stalemate escape above, but I want to emphasise the importance of this defensive resource. So let's study a few more examples.

Vlado Jakovljevic – Miod Savic

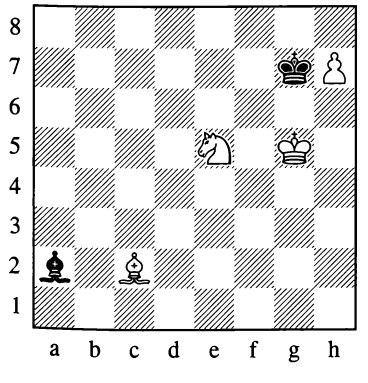
Ulcinj 2014



White believed mate was near, but instead blundered the game away.

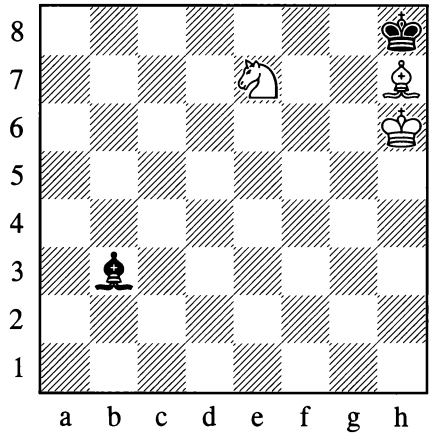
93.h8=♕†??

There were a number of different ways for White to reach the same winning idea. 93.♘c6 ♗d5 94.♘e5 ♗b3 95.♗d3 ♗a2 96.♗c2!



This is the zugzwang position White needs to achieve. It can be done in many ways, but as long as you have this idea, you would win the game. 96...♗d5 97.♘g6 ♔xh7 98.♘f4† White wins.

93...♔xh8 94.♔h6 ♗b3 95.♗h7



White has set up the mating net, but it will never be mate.

95...♗c2!

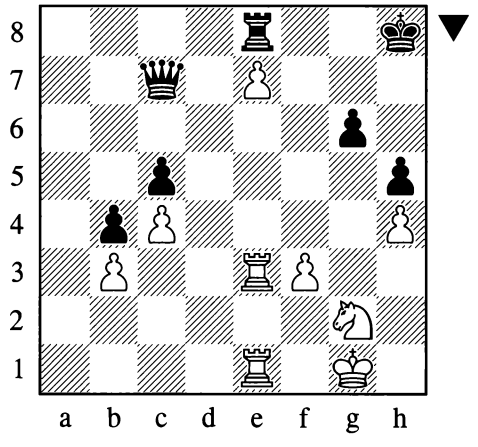
95...♗f7 also holds.

96.♗g8 ♗b3 97.♗h7 ♗c2 98.♗xc2
½–½

The next two games are from the 1990 Danish Championship. Both are great illustrations of situations where a player on the ropes is using stalemate as a way to get out of trouble, and the opponent realises too late in which direction things are going.

Finn Pedersen – Peter Heine Nielsen

Randers 1990



46...♔h7?

Not realising that White's big threat is ♖e5 and ♘f4.

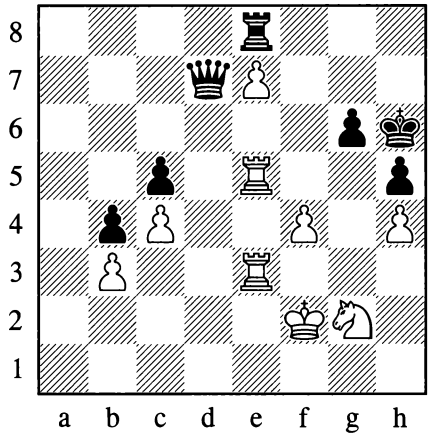
46...♔g7! with the intention 47.♖e5 ♔f6! would make Black's position quite holdable.

47.♖e5! ♔h6 48.♖1e3 ♕d6 49.♔f2 ♕c7 50.f4?

I am uncertain what the thinking was behind this move. It weakens a lot of squares around the white king and offers Black counterplay.

50.♖3e4 ♕d6 51.♘f4 and a steady build-up of the pressure would have won the game in swift order.

50...♕d7



51.♖e6?!

51.♘e1! to regroup the knight to f3 would have strengthened White's position. For example 51...♔g7 52.♖e6! and he would have held on to a lot of the advantage, although the position is no longer clearly winning.

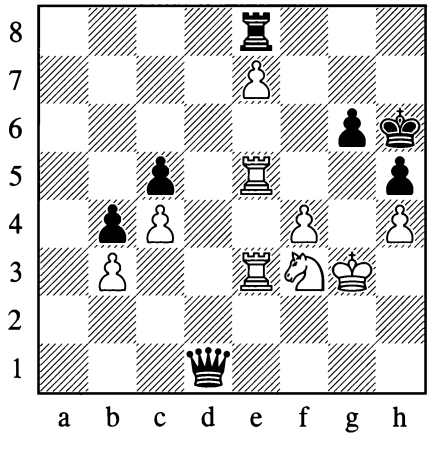
51...♕d1 52.♖6e5 ♕d6?

After 52...♕d2† 53.♔g3 ♕d7! 54.♖d5 ♕c7 it is hard for White to make progress.

53.♘e1?!

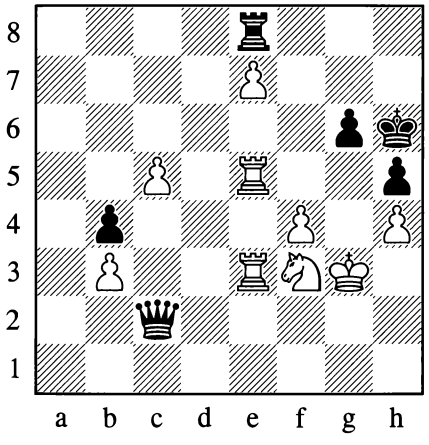
Not a terrible move, but you would have presumed that White had wanted to play 53.f5! to open up the black king to harassment.

53...♕d2† 54.♔g3 ♕d1 55.♘f3



The white pieces are finally well coordinated, and Black's position is deteriorating rapidly. Knowing PHN well, I am sure that he was already dreaming of the stalemate at this point.

55...♕c2 56.♖xc5 ♕b2 57.♖ce5 ♕c1 58.c5 ♕c2



59.♖g5?

59.♖d5 would have won without a hiccup. 59...♔g7 60.♖d8 ♕xc5 61.♖e5 ♕c6 62.♖xe8 ♕xe8 63.♘g5 and 64.♘e4.

59...♖xe7!

A bold surprise for Pedersen, no doubt!

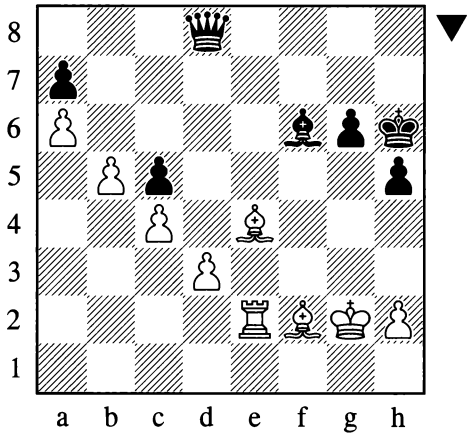
60.♖xe7 ♕h2†! 61.♘xh2

Stalemate.

½–½

Bo Jacobsen – Jan Christensen

Randers 1990

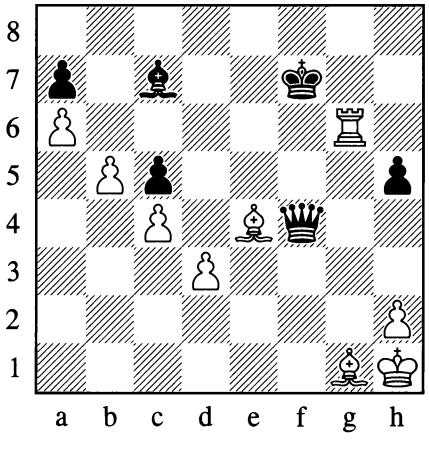


As we enter this endgame, Black had reasonable chances of a successful defence with 51...♗d4!, seeking to exchange one half of the powerful bishop pair. Instead, he played passively and was rapidly outplayed.

51...♗e7? 52.♗d5 ♗d6 53.♖e6 ♔g7 54.♗e4 ♕g5† 55.♔h1

55.♗g3! ♕d2† 56.♔h3 ♗xg3 57.♖xg6† ♔f7 58.hxg3 would have won quite quickly.

55...♕f4 56.♖xg6† ♔f7 57.♗g1 ♗c7



58.b6!

Things are going from bad to worse for Black.

58...♗b8

58...♗xb6 59.♖xb6! and White wins.

59.b7

It can be attractive to put a passed pawn on the 7th rank, and there is nothing wrong with this move, except that it loses a bit of flexibility.

For this reason I prefer 59.♖c6!, which would have won quickly.

59...h4 60.♖g2

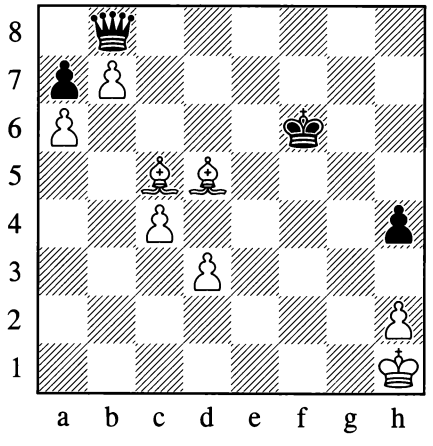
60.♖c6 and ♖xc5 looks natural.

60...♕e5 61.♗d5† ♔f6 62.♖g8 ♕d6 63.♖xb8!?

Aesthetically attractive and not a bad move. But when you know what is coming, you cannot help but look at this move as part of what went wrong.

63.♖c8 to take on c5 has a fantastic slow-moving inevitability to it.

63...♕xb8 64.♗xc5



White has done no wrong and is completely winning. The engines are already predicting the number of moves to checkmate. At this point Black sees the chance to trick his opponent and goes for it with total dedication.

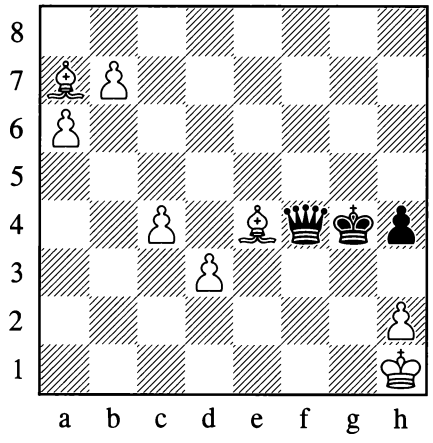
64...♔f5! 65.♗e4†

65.h3! ♕g3 66.♗g2 ♕e1† 67.♗g1 and a steady advance of the centre passed pawns would have won without difficulties.

65...♔g4! 66.♗g1 ♕f4 67.♗xa7?

White is unaware of the danger and falls straight into the trap.

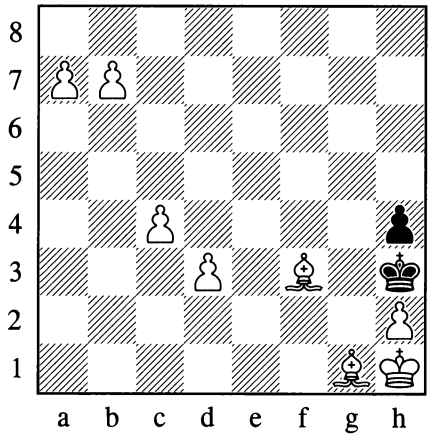
67.c5 is very human. White advances the c-pawn and wins.



67...♕f1† 68.♗g1 ♔h3!!

There is nothing White can do anymore.

69.a7 ♕f3† 70.♗xf3

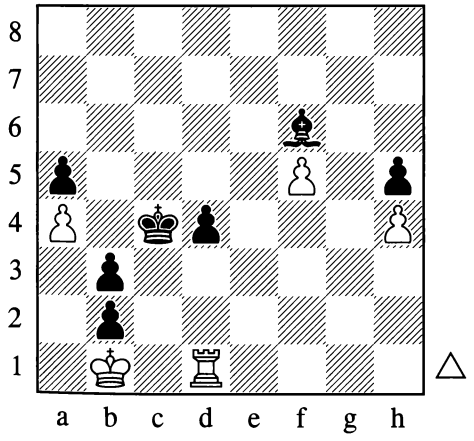


The final position shall stand as a reminder to you to always pay attention to the final rescue of stalemate, whether on the stronger or weaker side of an endgame. At least until Nigel Short is successful in his campaign to change the laws of chess and declare stalemate and mate equivalent.
½–½

As said already, stalemate is not only useful for tricks, but also a valid defensive strategy in many situations. In the following game, stalemate played a major part of events.

Govhar Beydullayeva – Nino Batsiashvili

Bucharest 2021



54.♖g1?

I am not sure if White missed the whole stalemate defence at this time. But a waiting move would have made it possible:
54.♖d2! ♔c3 55.♖d1
It is important to keep waiting.
55...♗xh4
55...d3 56.♖xd3† leads to stalemate.
56.♖h1 ♗f6 57.♖h3† ♔c4 58.♖c3†
And White is out of danger.

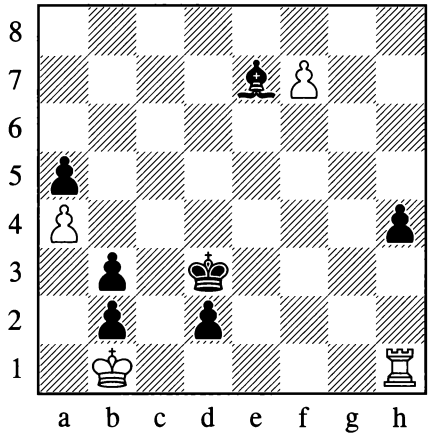
54...d3 55.♖d1 ♗xh4 56.f6
Hoping...

56...♔c3!

Waiting to stop the pawn outside of the f6-b2 diagonal.

56...♗xf6? would be a blunder due to 57.♖xd3.

57.f7 ♗e7 58.♖h1 d2 59.♖h3† ♔c4 60.♖h1 h4 61.♖d1 ♔d3 62.♖h1



62...♗d6?

Black was winning after something like:
62...♔c4
Many move orders were possible.
63.f8=♕ ♗xf8 64.♖xh4† ♔c5 65.♖h5† ♔c6 66.♖h1 ♗g7
Black has to defend the pawn, which revives the stalemate defence.
67.♖d1 ♗c3 68.♖h1 ♔c5 69.♖h5† ♔c4
69...♗e5!? wins too, based on similar ideas.
70.♖c5† ♔d3 71.♖xc3† ♔e2!
Black wins.

63.♔xb2 ♔e2 64.f8=♕ ♗xf8 65.♖h2† ♔e3 66.♖h3† ♔f2 67.♖h2† ♔g3 68.♖xd2 h3 69.♖d3† ♔g4 70.♖d4† ♔g5 71.♖d5† ♔g6 72.♔xb3 h2 73.♖d1 ♔g5 74.♖h1 ♗d6 75.♔c4 ♔g4 76.♔b5 ♗c7 77.♖xh2 ♗xh2 78.♔xa5
½–½

31. Shortest stalemate

I have a few times looked up what was the shortest stalemate of all time. You can find stalemates of 11 moves that are composed, but have little to do with tournament chess. They have of course occurred on the board a few times, but any arbiter worth his title should immediately declare the game 0–0, as the players are playing out a pre-arranged result.

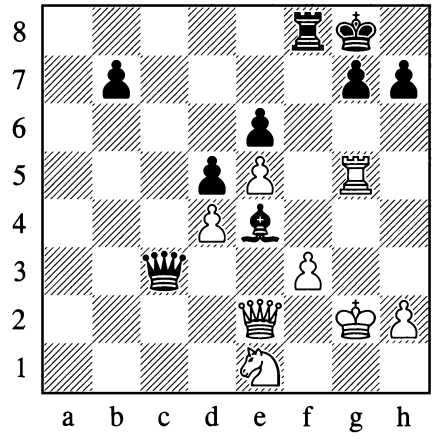
The same is the case in some top-level encounters, where no bookmaker will allow you to bet on them.

The following used to be the shortest tournament stalemate.

Robert Banko – Yassine Aouididi

Correspondence 1982

1.e4 e6 2.♘f3 d5 3.e5 c5 4.b4 cxb4 5.d4 ♘h6 6.a3 bxa3 7.c3 ♘f5 8.♘xa3 ♘c6 9.♘b5 a6 10.g4 ♗d7 11.♗g5 ♗e7 12.gxf5 axb5 13.fxe6 fxe6 14.♖xa8 ♕xa8 15.♖g1 ♕a3 16.♗xb5 ♗xg5 17.♖xg5 ♕xc3† 18.♔f1 0–0 19.♗xc6 ♗xc6 20.♔g2 ♗a4 21.♕e2 ♗c2 22.♘e1 ♗e4† 23.f3

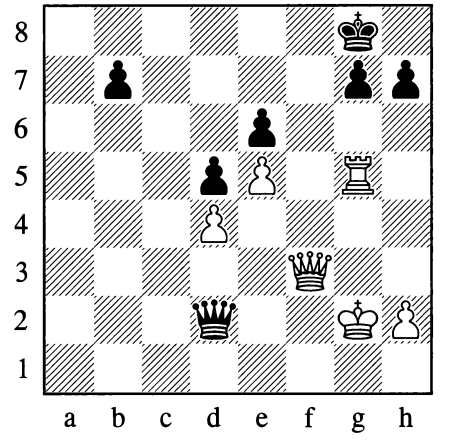


23...♖xf3?

A poor combination.

23...♗f5 for example and Black wins easily.

24.♘xf3 ♗xf3† 25.♕xf3 ♕d2†



26.♔h3! ♕xg5 27.♕f8† ♔xf8

This game has been copied once in a tournament game. What can I say? Lock them up! (And certainly, don't check my games from 20-30 years ago to see if any of them look like pre-arranged draws. The times have changed!)

½–½

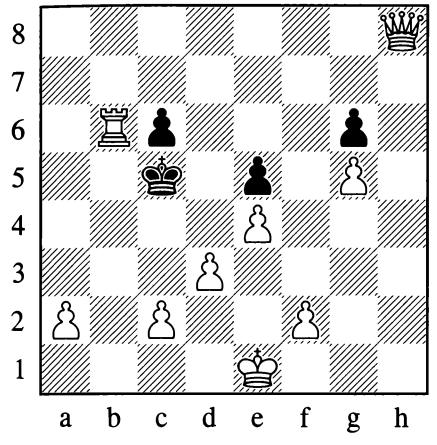
32. Newest shortest stalemate

But we have a new shortest stalemate. Again, it is not a great game. But it also does not appear to be pre-arranged. Rather, White must have been very disappointed with the outcome.

Louise Beukema – Juliette Valk

Waalwijk 2006

1.e4 e5 2.♘f3 ♘c6 3.♗c4 ♗c5 4.d3 ♘f6 5.♗g5 d6 6.♘c3 ♗g4 7.♘d5 ♘xd5 8.♗xd8 ♔xd8 9.♗xd5 ♘d4 10.h3 ♘xf3† 11.gxf3 c6 12.♗xf7 d5 13.hxg4 ♖f8 14.♗e6 ♔e7 15.b4 ♔xe6 16.bxc5 dxe4 17.fxe4 g6 18.♖xh7 ♖h8 19.♖xh8 ♖xh8 20.♕f3 b6 21.cxb6 axb6 22.g5 ♔e7 23.♕f6† ♔d7 24.♕xh8 ♔e6 25.♖b1 ♔d6 26.♖xb6 ♔c5



27.♕d8?

Ouch!

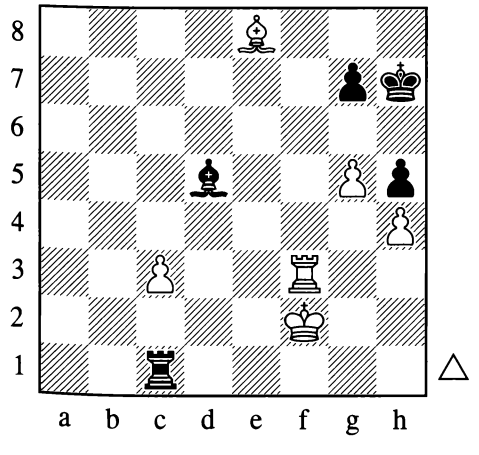
½–½

33. Perpetual rook

One stalemate trick is so common it has its own term – perpetual rook. It comes about when one side is nearly stalemated, but has a rook to get rid of and he gives perpetual check with the rook. The stronger side cannot take the rook, because of stalemate, and he cannot sidestep the checks.

Karthikeyan Murali – Parham Maghsoodloo

Moscow 2019

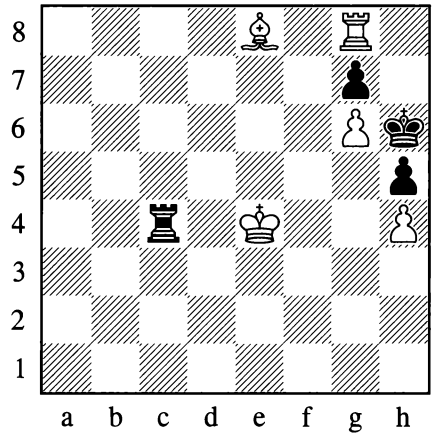


This example is a bit more complicated, as we shall see. White will be able to sidestep the checks, because he can organise it so that the only checks Black has are ones where the bishop can take the rook and release his opponent from stalemate.

49.g6† ♔h6 50.♖f8 ♗g8!

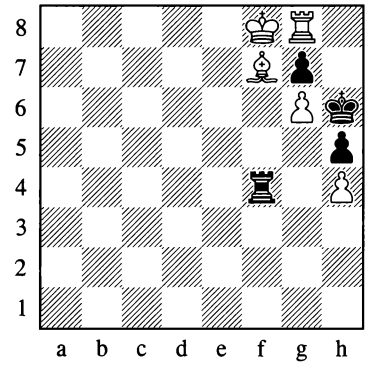
The only move to avoid checkmate.

51.♖xg8 ♖c2† 52.♔e3 ♖xc3† 53.♔e4 ♖c4†



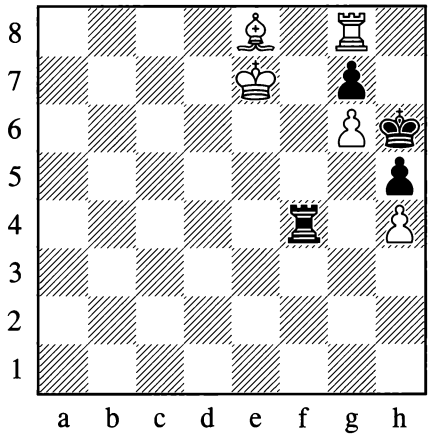
54.♔f5 ♖f4† 55.♔e6 ♖e4† 56.♔f7?

White had a faster path to victory in: 56.♔d6! ♖d4† (Or 56...♖e6† 57.♔d7 ♖e7† 58.♔d8 and White wins.) 57.♔e7 ♖e4† 58.♔f8 ♖f4† 59.♗f7



White wins, because after 59...♖xf7†, he has 60.gxf7.

56...♖f4† 57.♔e7

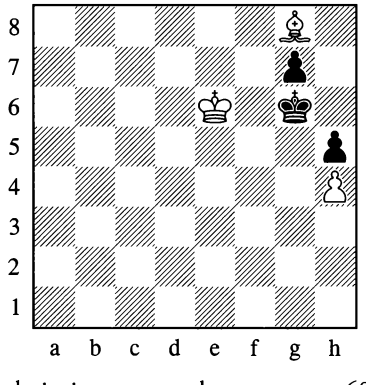


Karthikeyan had no doubt headed for the position shown above, but was now in for a surprise.

57...♖f8! 58.♗f7 ♖e8†!

This must have been annoying. White has no way to take the rook.

After 58...♖xg8 59.♗xg8 ♔xg6 60.♔e6!, White is able to use the stalemate theme against Black.

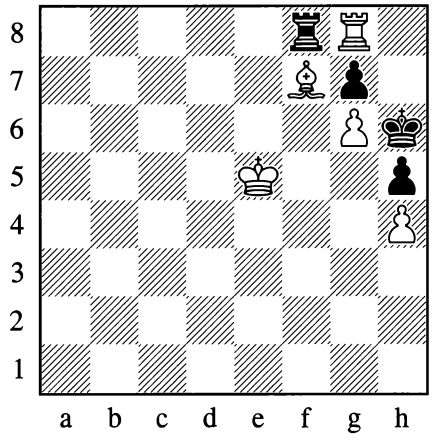


Black is in perpetual zugzwang. 60...♔h6 61.♔f5! g6† 62.♔f6 g5 63.hxg5#

59.♔d6 ♖d8† 60.♔e5 ♖f8!

Black continues to fight.

60...♖d5†? 61.♗xd5! and 60...♖e8† 61.♗e6! would both have won instantly for White.

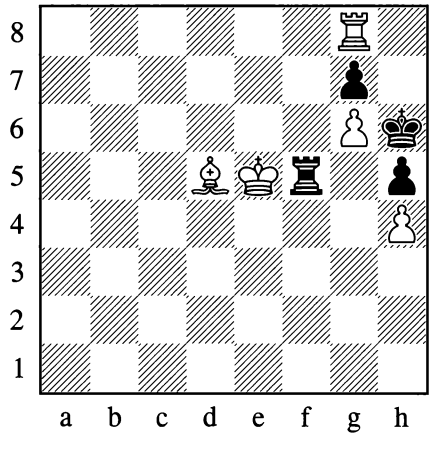


White is winning, but it is no longer easy.

61.♔e4

61.♔f4! ♖e8 62.♗d5 ♖e1 63.♖h8† ♔xg6 64.♗e4† ♔f6 65.♖xh5 is technically winning for White. It is not as overwhelming as it once was, but the win is not too difficult either. Rooks will not be exchanged and once the g-pawn falls, Black will see that it does not matter that the bishop is not controlling the h8-square.

61...♖e8† 62.♔d5 ♖d8† 63.♔e5 ♖f8 64.♗d5 ♖f5†



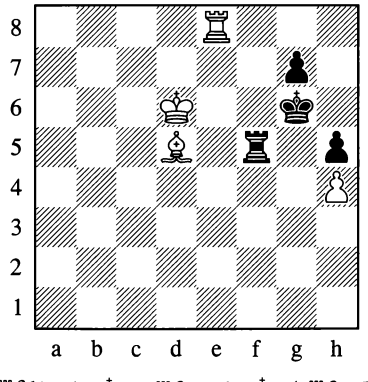
65.♔d6?

The wins for White are getting more and more complicated.

At this point he had to find: 65.♔e4! ♔xg6 66.♖h8 ♖f6 67.♗c4 ♖d6 68.♗e2 ♖e6† 69.♔f3 ♖d6 70.♔g3, and the h5-pawn falls.

65...♖f4?

Black had a difficult defence. After 65...♔xg6 66.♖e8 (66.♗e4 ♔f7 67.♗xf5 ♔xg8 is a draw. White will never be able to force Black to play ...g5.)



66...♖f6†! 67.♔e5 ♖f5† 68.♔e4 ♖f1! Black is on his way to eliminating the h-pawn in some way or form. After this, he will still have to defend rook against rook and bishop, if White manages to win the g7-pawn. Although this endgame is a draw, it is by no means trivial to defend.

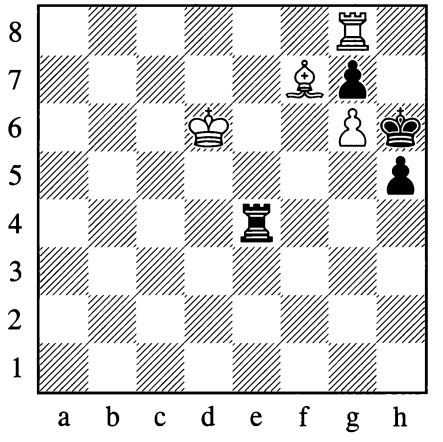
66.♗f7

66.♔e5 ♖f5† 67.♔e4 ♔xg6 68.♖h8 would have won as described above.

66...♖d4† 67.♔e7 ♖e4† 68.♔d6 ♖d4† 69.♔c5!

Forcing Black to take the h-pawn and ending this episode of perpetual rook.

69...♖xh4 70.♔d6 ♖e4

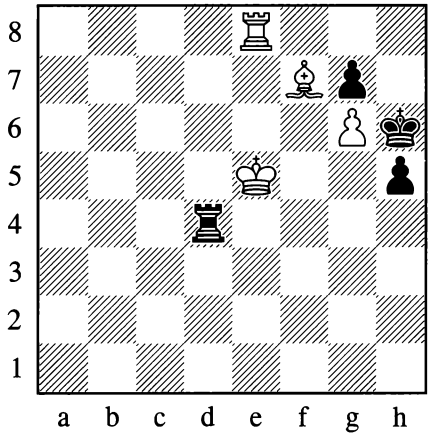


71.♖e8?

A blunder.

After 71.♖h8† ♔g5 72.♖h7, White would win as in the game.

71...♖d4† 72.♔e7 ♖e4† 73.♔d6 ♖d4† 74.♔e5

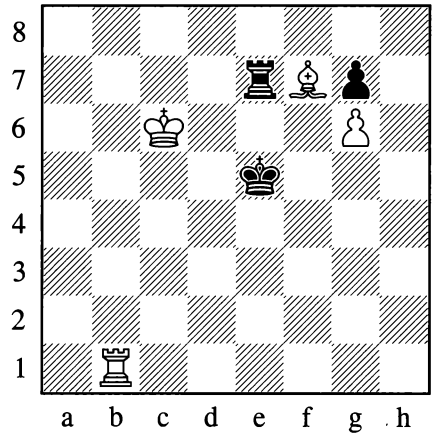


74...♖d1?

Dropping the h-pawn, after which White will be able to make slow, but steady, progress.

After 74...♖a4 75.♖h8† ♔g5 76.♖h7 ♖a5† 77.♔e6 ♖a6† 78.♔d5 ♔f6 79.♔c4 ♖a5! it is not obvious how, or if, White can make any progress. The bishop is awkwardly placed on f7.

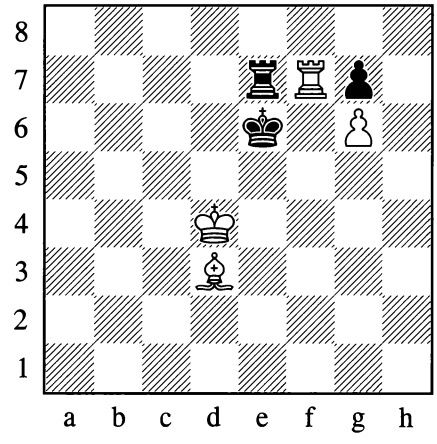
75.♖h8† ♔g5 76.♖h7 ♖e1† 77.♔d4 ♔f6 78.♖xh5 ♖d1† 79.♔c5 ♖c1† 80.♔d6 ♖d1† 81.♔c5 ♖c1† 82.♔d4 ♖d1† 83.♔e3 ♖e1† 84.♔d2 ♖g1 85.♖h3 ♖g2† 86.♔d3 ♖g1 87.♔d4 ♖d1† 88.♔c5 ♖d8 89.♖e3 ♖a8 90.♖e6† ♔f5 91.♖b6 ♔e5 92.♔c6 ♖a7 93.♖b1 ♖e7



94.♖f1

The black king has been separated from the g-pawn.

94...♖a7 95.♗c4 ♖a4 96.♔c5 ♖a5† 97.♔b4 ♖a8 98.♖f7 ♖h8 99.♗d3 ♖d8 100.♔c3 ♖g8 101.♔d2 ♔e6 102.♔e3 ♖e8 103.♔d4 ♖e7



Black resigned. 104.♔c5! ♖xf7 105.♗c4† ♔e7 106.gxf7 g5 107.♔d4 and White wins.

1–0

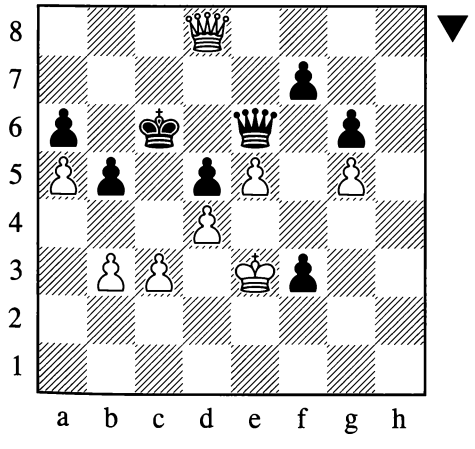
34. Perpetual check and pawn endings

Perpetual check is a drawing method that exists across all phases of the game. In the opening, it may arise in some critical line and is often replicated for pre-arranged draws. In the middlegame, it is often the natural conclusion of an attack that was insufficient to win the game. And in the endgame, it often happens as a desperate drawing resource.

In the following example, Black is looking for a draw. To achieve it, he has to be able to bridge the perpetual ideas with surprising lines in a pawn ending, where an extra pawn will not help White at all...

Manuel Petrosyan – Pier Luigi Basso

Belgrade 2021



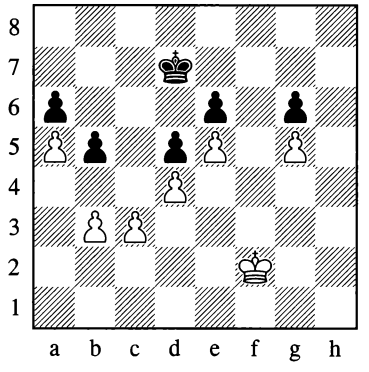
White to play would go ♔e3-f2, winning.

69...f2!

69...b4!? 70.cxb4 f2! works in the same way.

70.♔xf2

A key tactical point is that White would lose after: 70.♕b6† ♔d7 71.♕xe6†? fxe6 72.♔xf2



72...b4! 73.♔e3 (73.c4 dxc4 74.bxc4 b3 and the pawn is too far away) 73...bxc3 74.♔d3 ♔c6 75.♔xc3 ♔b5 Black will regain the pawn and then slowly exchange the queenside pawns and take all the white pawns.

70...♕f5†?

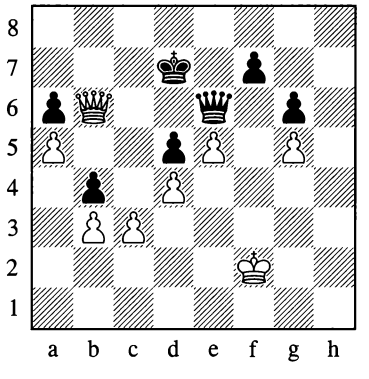
Mistakenly looking for a perpetual check with the hands. Optically it is not hard to see that the white king will be able to hide on b4 eventually, even if to calculate the line accurately may require a good deal of concentration.

70...b4!! 71.♕b6†

71.cxb4 ♕f5† leads to a simple perpetual check. Not only is the b4-square no longer available, the d4-pawn is also undermined.

71.♕f6 bxc3 72.♔e3 ♔b5 and Black draws.

71...♔d7



72.♕b7†

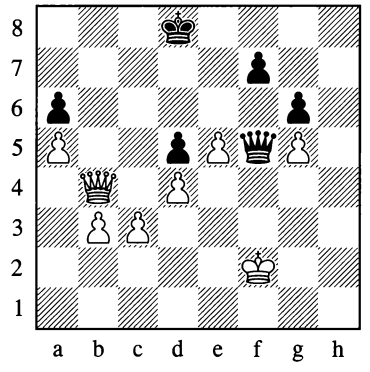
Pushing the black king to the back rank first makes a lot of sense.

72.♕xe6†? fxe6 transposes to the pawn ending analysed above.

72...♔d8 73.♕xb4

Without this, White will not have a chance. Now Black will have to play with slight accuracy.

73...♕f5†



74.♔e3!?

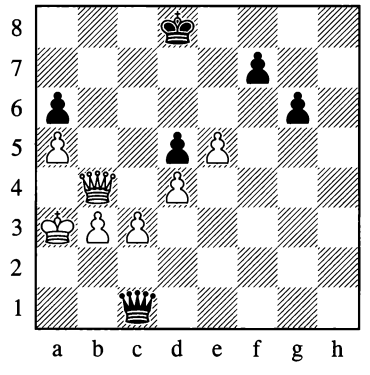
The only try, but not enough.

74.♔e2 ♕c2† would prevent the white king from escaping to the queenside.

74...♕xg5†!

Black needs the passed pawn for later.

75.♔d3 ♕g3† 76.♔c2 ♕f2† 77.♔b1 ♕e1† 78.♔a2 ♕d2† 79.♔a3 ♕c1†



Black draws. White cannot avoid the perpetual, on account of:

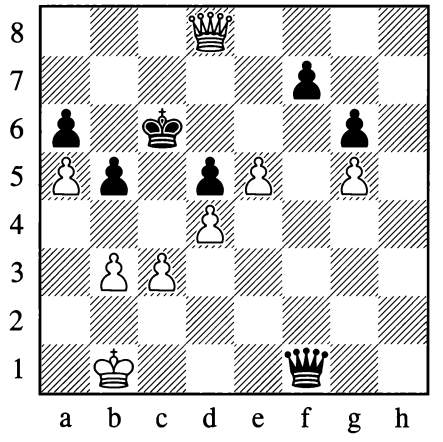
80.♔a4? ♕a1† 81.♕a3 ♕xa3† 82.♔xa3 g5

And the g-pawn queens.

71.♔e3 ♕e4†

It is too late for 71...b4, as White wins with 72.♕d6† among other moves.

72.♔d2 ♕f4† 73.♔c2 ♕f2† 74.♔b1 ♕f1†



The king is escaping to a3.

75.♔b2 ♕f3 76.♕c8#

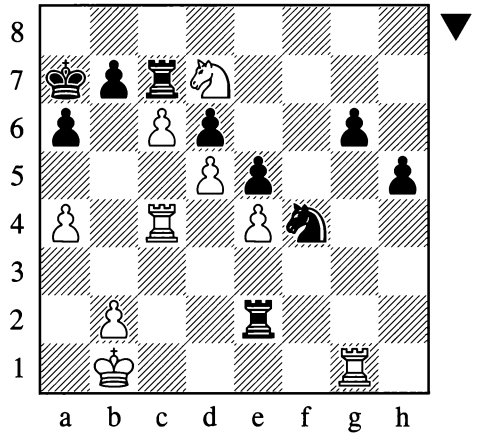
1–0

35. Counterplay

While we are going through defensive strategies and possibilities, we should not forget one of the most important: to create active counterplay. (For some reason, I can never avoid using the word 'active' in this standard phrase from my vocabulary, although it is redundant. There is no such thing as passive counterplay...) Some positions you have to defend passively, because you do not have realistic active options. Some positions you cannot defend passively, because the opponent has too many ways to improve his position. Judging which is which is an important skill.

Alireza Firouzja – Magnus Carlsen

Internet 2021



Carlsen has been doing well for most of the game. But a moment of inattention allows Firouzja to set up a powerful counterattack.

35...h4?

35...♘d3! would have retained the advantage, although White is still resisting.

36.b4! b6

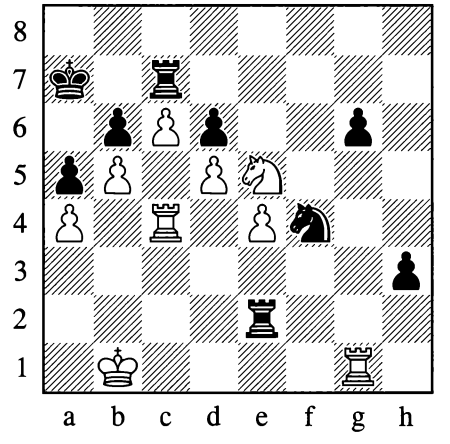
Carlsen probably missed the threat of 36...h3 37.b5 b6 38.a5!, when White wins.

37.b5! a5

Forced.

38.♘xe5! h3!

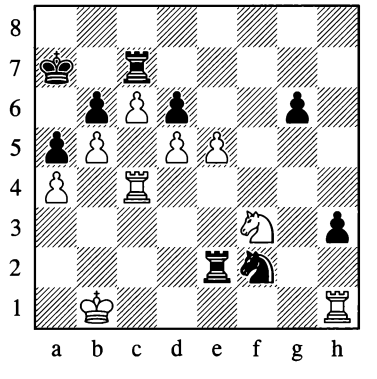
Black needs counterplay.



39.♖h1?

A very understandable mistake. White had the chance to play a study-like breakthrough:

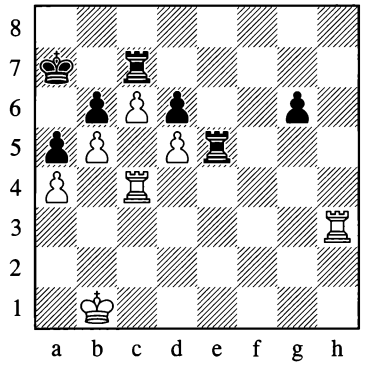
39.♘f3! ♘d3 40.♖h1 ♘f2 41.e5!!



White wins.

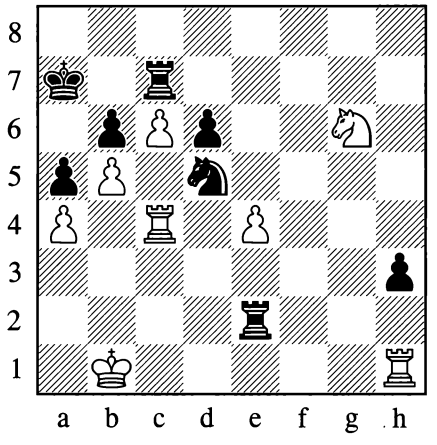
39...♘xd5!

After 40.exd5 ♖xe5 41.♖xh3



41...♔b8!! Black would have held the draw. (But not 41...♖xd5?, as 42.♖h8! would paralyse Black and create certain mating scenarios that would limit his opportunities so much he would eventually lose.)

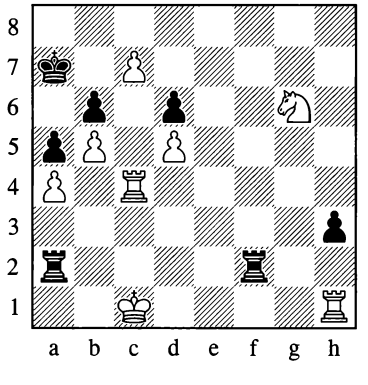
40.♘xg6



40...♘e3?

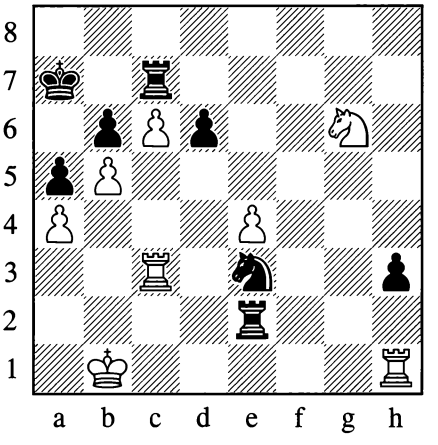
Carlsen in turn missed a far more standard way to create counterplay and save the draw.

After: 40...♖f7! 41.exd5 ♖ff2 42.c7 ♖b2† 43.♔c1 ♖a2



White cannot escape the threats from the black rooks. A draw will be declared after moves such as 44.♔d1 ♖ad2† 45.♔e1 ♖de2† 46.♔d1 ♖d2† 47.♔c1 ♖a2. White can take a knight, but after 48.c8=♘† ♔b8 it was just a check.

41.♖c3!



White has everything under control and soon won.

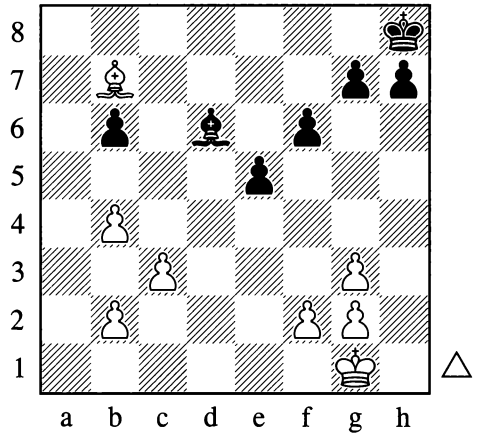
41...♘g4 42.♘f4 ♖xe4 43.♘d5 ♘f2 44.♘xc7 ♘xh1 45.♖xh3
1–0

36. Fortresses and passive defence

Fortresses arise in many endings and will occupy a full chapter later in the book and most of the one after on rook vs bishop endings. It is an important part of endgame strategy and is the cornerstone of passive defence. The philosophy is that of "you cannot hurt me, as long as I don't let you". Although at times, it is also the one of "please don't hurt me!" Which is exactly what we are dealing with in the next example.

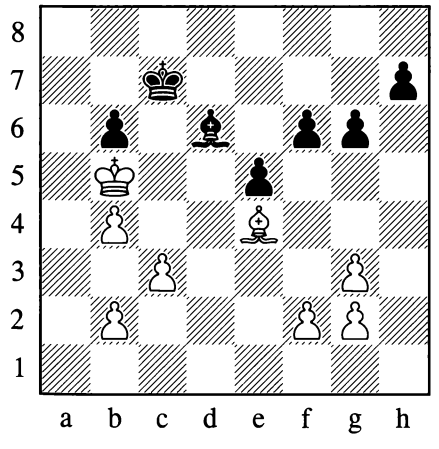
Renier Castellanos – Eric Sos Andreu

Roquetas de Mar 2014



White has won a pawn and with the pawns on the queenside effectively diminishing the opponent's bishop, the win should be a simple matter of technique. The first order of business is to bring out the king.

34.♔f1 ♔g8 35.♔e2 ♔f7 36.♔d3 ♔e6 37.♔c4 ♔d7 38.♔b5 ♔c7 39.♗e4 g6



With the king actively placed and the position under general control, the next order of business is to create plenty of weaknesses in the black position.

40.g4?!

The effortless win is also the win we have to rate as the best win.

White should start by creating entry points for the king:

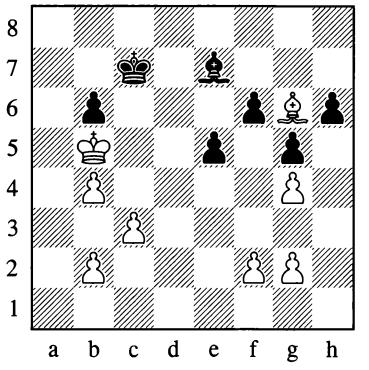
40.♗d5 ♗e7 41.♗g8 h6 42.♗f7 g5

Now the king can enter.

43.♔c4 ♔d6 44.♗g6 ♗d8 45.g4

Fixing the black pawns.

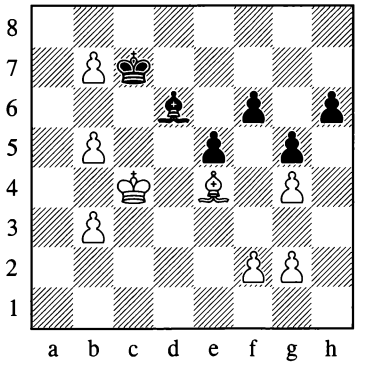
45...♗e7 46.♔b5 ♔c7



47.c4!

Creating a passed pawn on the queenside. Slowly.

47...♗f8 48.♗e4 ♗e7 49.b3 ♗f8 50.c5 ♗e7 51.cxb6† ♔c8 52.b7† ♔c7 53.♔c4 ♗f8 54.b5 ♗d6

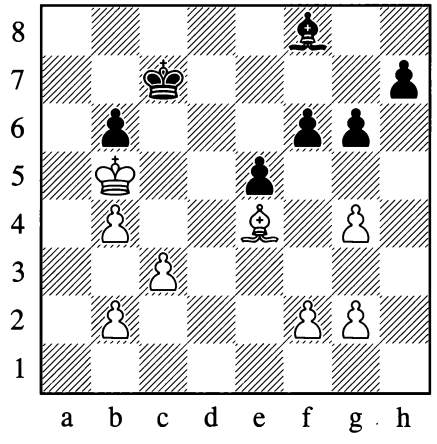


White has achieved complete control. It is now time to plunder the kingside.

55.♔d5 ♔d7

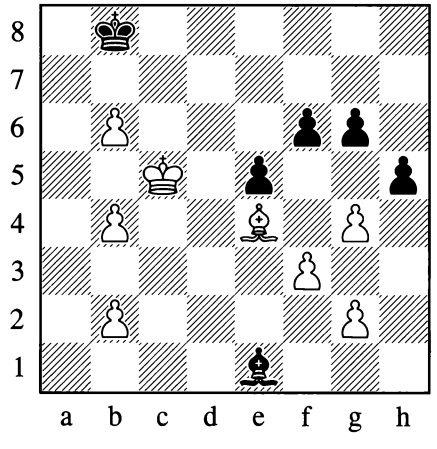
55...♗e7 56.♔e6 ♗d8 57.b6† ♔b8 58.f3 and Black is in zugzwang.
56.♗f5† ♔e7 57.b8=♕ ♗xb8 58.♔c6 ♔d8 59.b6 ♔e7 60.♔b7 ♗d6 61.♔c8
And White wins.

40...♗f8!



Black activates the bishop. It does not count as active defence per se, but at least it is not full resignation. The general defensive strategy in endings with opposite-coloured bishops is to force the opponent to put the pawns on the same colour as the opponent's bishop and then seek to block them. In the game, Black is highly successful with this strategy.

41.c4 ♗h6 42.c5 ♗d2 43.cxb6† ♔b8 44.♔c5 ♗e1 45.f3 h5

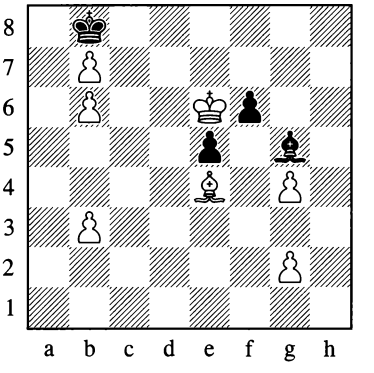


White has not made the most of his advantage, but it was big enough to make a few small mistakes and still win the game.

46.gxh5??

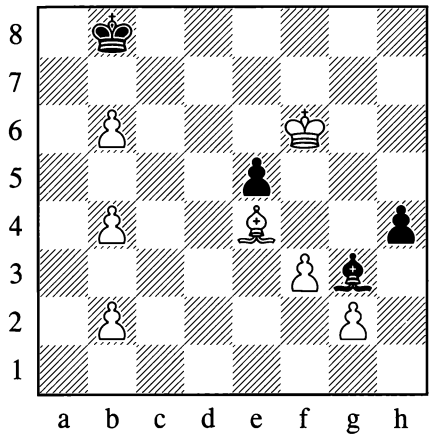
But this is a horrible blunder. White will need to have passed pawns to win the game. And the g4-pawn was that passer...

The winning line was:
46.♗xg6! hxg4
46...h4 loses in exactly the same way. White will bring the king to e6. Black can only put the bishop on g5 and once the black king is stalemated, the bishop will have to abandon the f6-pawn and the whole thing collapses.
47.fxg4 ♗f2† 48.♔c6 ♗e1 49.b5 ♗f2 50.♗e4 ♗e3 51.♔d6 ♗g5
51...♗xb6 52.♔e7 and wins.
52.♔e6 ♗h4 53.b7 ♔c7 54.b6† ♔b8 55.b3 ♗g5



56.g3
Black is in zugzwang.

46...gxh5 47.♔d6 h4 48.♔e6 ♗f2 49.♔xf6 ♗g3



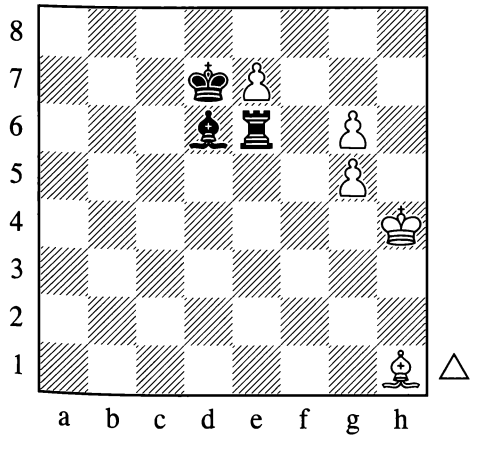
This is a proper fortress. White cannot put Black in zugzwang.

50.♔f5 ♗f4 51.♔g4 ♗g3 52.b7 ♗f2 53.b5 ♗g3
½–½

Later, in Chapter 3, we shall look at many practical examples of fortresses. There are a few types of fortresses, with different strategies. One of them is the dominating fortress, where we are preventing the opponent from using his material advantage. The following study is one such fortress.

Alexey Alexeyevich Troitzky

L'Échiquier (50) 1930



1.♗c6† ♔xe7 2.♗d5 ♖xg6 3.♔h5 ♖g7 4.g6 ♔f6 5.♗f7

White has established his fortress, but there is still one problem left to solve.

5...♔f5 6.♔h4!

6.♔h6? ♗f8 7.♔h5 ♗e7! 8.♔h6 ♗f6 9.♔h5 ♗g5! would put White in zugzwang and the fortress would burst.

6...♔f4 7.♔h3!

Again, running away from the possible enforced zugzwang. White draws.

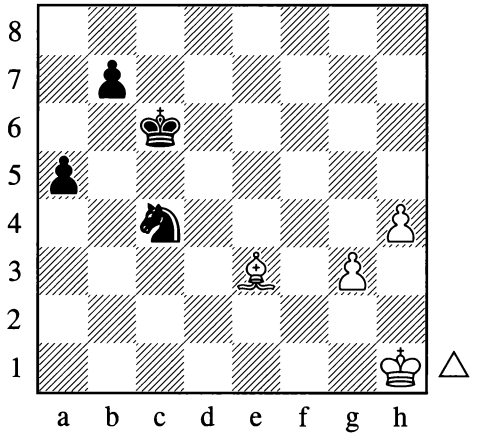
37. Positional draw

This terminology relates to situations where one side is stronger, but unable to do anything with his advantage for various reasons. It has something in common with fortresses, but is seen as different by study composers, mainly, I guess, because of the active nature of the defending side.

The following difficult endgame includes a tactical race and is obviously dangerous for Black. The knight is poor at travelling from side to side of the board, while the bishop is only limited by being stuck on the dark squares. As we shall see, Black could have saved the game by setting up a positional draw.

Bobir Sattarov – Jakhongir Vakhidov

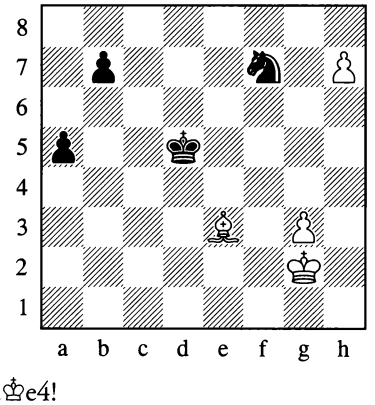
Internet 2021



44.h5 ♘e5

Black's best defensive idea was to use the bishop on e3 to create a Reti manoeuvre (see page 115) to win a tempo:

44...♔d5! 45.h6 ♘e5 46.h7 ♘f7 47.♔g2



47...♔e4!

An important resource.

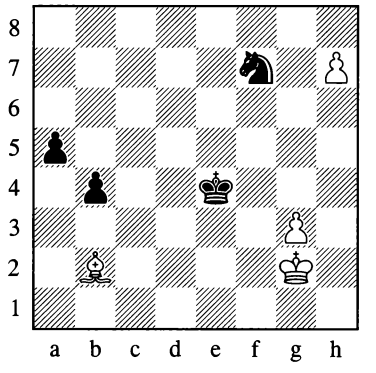
48.♗c1

48.♔f2 exists, but does nothing for the white position.

48...b5

Black is in time.

49.♗b2 b4



50.h8=♕

White queens the pawn, but does not win.

50...♘xh8 51.♗xh8 a4 52.♔f2 ♔d3 53.g4 a3 54.g5 b3 55.g6 b2

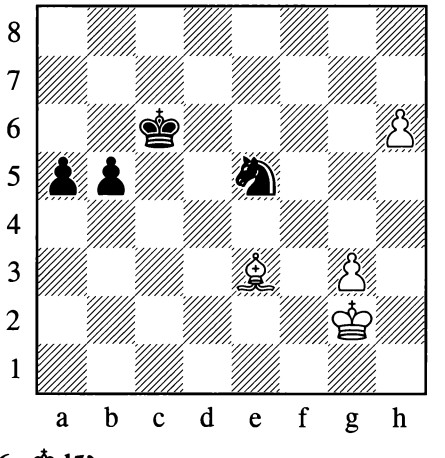
The draw is close.

45.♔g2 b5?!

Objectively not a mistake, but the path to the draw narrows significantly with this move.

45...♔d5! was still available.

46.h6



46...♔d5?

This move makes no great sense now. Black is not in time to play ...♔e4.

Black could still make a draw by setting up a positional draw:

46...b4

46...♘f7 47.h7 b4! transposes.

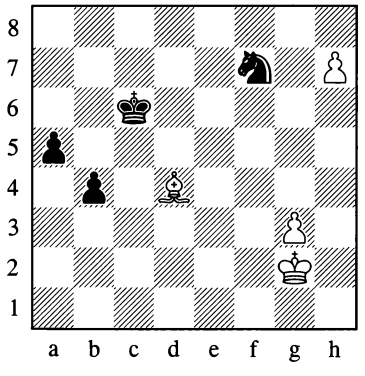
47.h7 ♘f7!

Black can also reverse the order of these two moves.

But 47...♘g6? 48.♔f3 would allow the king to kick the knight too quickly.

48.♗d4

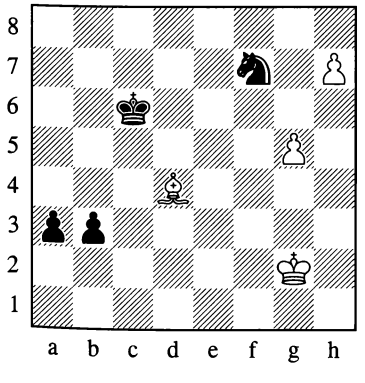
48.g4 ♔d5 49.g5 ♘h8! is a defensive set-up White does not want to fight.



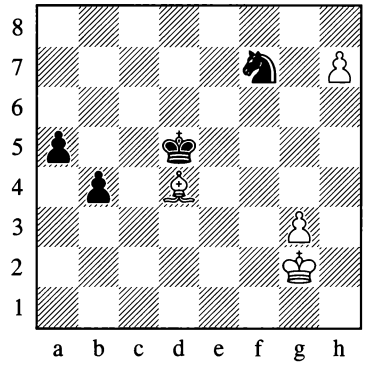
48...♔d5!!

This is not a tempo winner, but played with the idea of transferring the king to the kingside.

After: 48...a4 49.g4 a3 (49...♔d5 50.g5!) 50.g5 b3 (50...♘h8!? is a funny try. But 51.♗xh8 b3 52.♗e5 b2 53.h8=♕ b1=♕ wins for White in several ways. Most human is 54.♕f6† ♔d5 55.♕d6† ♔c4 56.♕c6† ♔b3 57.♕b5† ♔a2 58.♕xb1† ♔xb1 59.g6.)



51.g6 White arrives first. 51...b2 52.gxf7 b1=♕ 53.f8=♕ ♕xh7 54.♕c5†! and White wins the queen with 55.♕a7†.



49.h8=♕

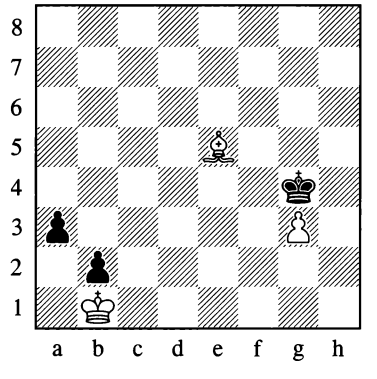
Otherwise, the king move would have worked as a tempo-gainer.

49...♘xh8 50.♗xh8 a4 51.♔f3

White brings the king to the queenside to deal with the passed pawns.

51.♗g7 a3 52.♗f8 ♔c4 53.g4 a2 54.♗g7 ♔d3 and we are heading towards a draw of total annihilation.

51...a3 52.♔e3 b3 53.♔d2 b2 54.♔c2 ♔e4 55.♔b1 ♔f3 56.♗e5 ♔g4



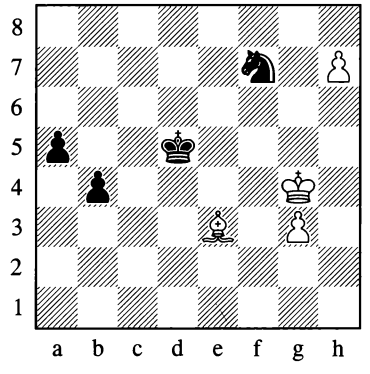
And we have reached the positional draw. White cannot make any progress. This may seem elementary, but I have seen plenty of examples in the research for this book where this defence was missed by strong players. Being aware of the concept during our games is valuable.

47.h7 ♘g6

47...♘f7

This looks a bit better, as it is further away from the white king. But it does not save the game:

48.♔f3 b4 49.♔g4!



The king comes to do the business.

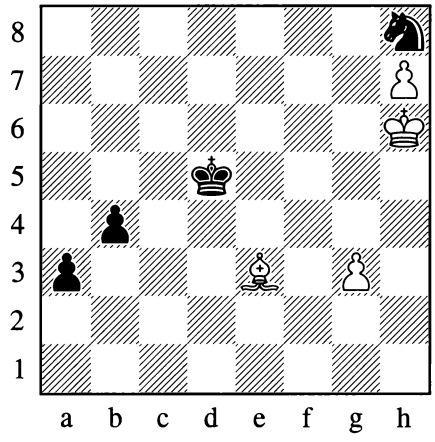
49...a4

White also wins against passive defence: 49...♔e6 50.♔h5 a4 51.g4 a3 52.♗c5! a2 53.♗d4 with full control. All White has to avoid is 53...♔d5 54.h8=♕??, when Black draws by a tempo. 54...♘xh8 55.♗xh8 b3 56.g5 ♔e4 57.g6 ♔d3 and the bishop is badly placed.

50.♔f5 a3 51.♔f6

White wins after either 51...♘h8 52.♗c1, or 51...a2 52.♗d4 ♔xd4 53.♔xf7 and the black king is placed on an unfortunate square.

48.♔f3 b4 49.♔g4 a4 50.♔h5 ♘h8 51.♔h6 a3



52.♗c1!

The only move. But also a move that wins easily.

52...♔c4 53.♔g7 ♔b3 54.♗f4! ♔a2 55.♔xh8 b3 56.♔g7 b2 57.h8=♕ b1=♕ 58.♕g8†

1–0

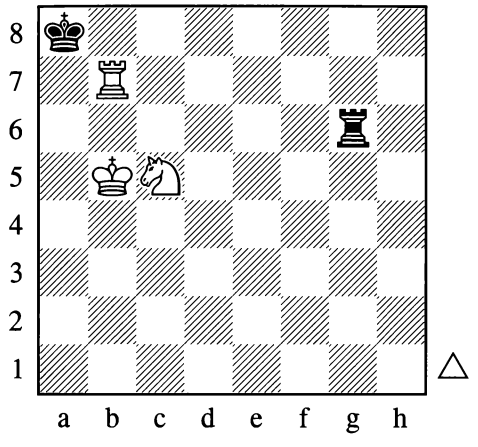
38. The 50-Move Rule

Discussing the endgame, a big topic is endgame theory. It is highly advantageous to have a solid knowledge of endgame theory. This book is not covering this topic in detail, although it is discussed a bit on page 440.

My most important recommendation for the ambitious player is to develop a personal file with the endgame positions you want to memorise, and the positions where you want to remember some simple tips. For example, for this endgame, the key idea for the defending side is to keep the king out of the corner. Even one step away from the corner, the king is relatively safe. In the corner, not so.

Antoaneta Stefanova – Kalle Kiik

Gibraltar 2019



126.♖e7 ♖h6?!

Knowing just a bit, which is all I do, I can see that 126...♔b8! is the simplest move.

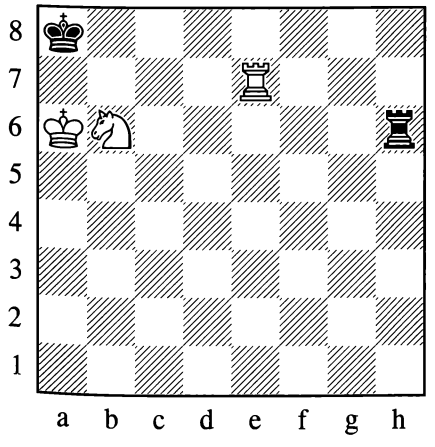
127.♘d7!

This does not change the objective evaluation of the position. But positions like this always appear on the board when the players are tired and have spent all their nervous energy; and most frequently all of their time as well.

127...♖h5†?

This is objectively a mistake, but not what lost the game.

128.♔a6 ♖h6† 129.♘b6†



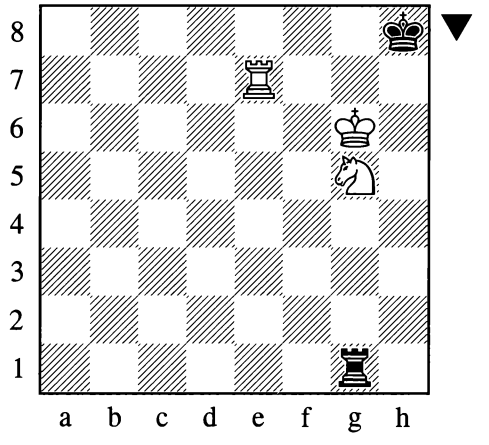
Resigned??
1–0

It looks as if Black is out of luck. But he had one resource left, which must have escaped his mind entirely. The 50-move rule! I could not believe it when I saw this position as 0.00 in the computer evaluation on Chess24. Surely it is mate in one or two moves? But no! If Black had stopped the clock and said: "I will now play 129...♔b8, after which we have played 50 moves without pawn moves or captures and I therefore claim a draw," it would have been given to him. This rule, which has saved many innocent men from endless imprisonment in the tournament hall, would in this case have let a guilty man off the hook.

Something similar happened in this game.

Mariya Muzychuk – Zhansaya Abdumalik

Khanty-Mansiysk 2018



Black resigned, believing 135...♖f1! would lead to mate in two. She did not realise that the last capture had been on move 86, so she could claim a draw by the 50-move rule on the next move. In this case it was the third play-off game at the Women's World Championship and there was no scoresheet to lean on.

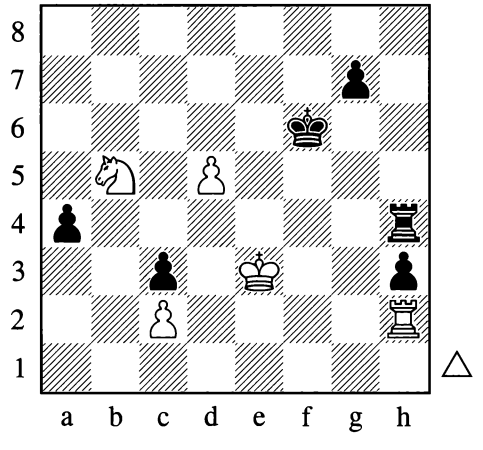
39. Activate the strongest piece first

Emanuel Lasker was the first to accurately evaluate the value of the pieces in the endgame. The queen is the strongest piece, followed by the rook, the king and then the minor pieces. Typically, we say that the king is worth 4 pawns in the endgame. The reason for this is both practical experience and also a small comparison. The queen can dominate the rook, the rook can dominate the king and the king can dominate the minor pieces. Not the other way around, unless there are special circumstances that have little to do with the value of the pieces. From this follows a simple strategic concept in the endgame.

You should activate your pieces in the order of value. And if you must have a passive piece, choose one with a lower denomination. This may sound a bit wooden and not be as dynamic and flexible as good chess usually is. But like most other strategic concepts, they are good to understand, because they have an underlying truth to them, which can help us evaluate our options better.

Anish Giri – Ding Liren

Internet 2021



59.d6?

A mistaken plan, aiming to activate the king and leave the rook to look after the passed pawn. Or did Giri intend to bring the rook out with a check?

It made more sense to relieve the rook of its duties right away, by bringing in the king.

59.♔f3?

But this does not work out.

First, it is often better to aim for getting in front of passed pawns, rather than approaching them from the side.

Secondly, there is a concrete issue:

59...♖b4! 60.♘xc3 ♖c4 61.♘a2

61.♘d1 a3 62.c3 is something students have suggested many times. It looks passive and after something like 62...♔e5 63.♖a2 ♖h4 64.♖h2 ♖a4, we have a funny, if not fully forced, draw.

61...♔e5 62.♔g3 ♔xd5 63.♔xh3 ♔e4

The black king is shouldering away the white king. White will be unable to make any progress that does not include losing the c2-pawn. Black draws.

For this reason, White should have played: 59.♔f2!, with the idea 59...♖b4 60.♘xc3 ♖c4 61.♖xh3, and the rook is defending the knight.

And after 59...g5 60.d6 ♔e6 61.♔g3 ♖h8 62.♖xh3 White is on the way to a win. More moves will have to be played, but things are working out.

59...♔e6 60.♔d3 g5??

Quite a bad blunder.

60...♔d7! and White would not be able to make meaningful progress.

61.♖e2†

The strongest piece comes into the game and wins it.

61...♔d7 62.♖e7† ♔c6

62...♔d8 63.♘a7 with mate.

63.d7

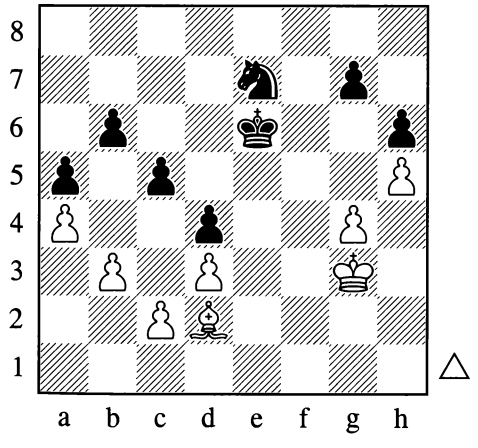
Ding resigned. 63...♖h8 64.♖e8

1–0

In the following sections we shall look a bit more deeply at the king, the bishop and the knight in the endgame. In the middlegame, these pieces are usually supporting actors, unless they are cowering in a corner to avoid being checkmated. In the endgame, when the big boys have left the scene, these three pieces can finally show their full potential. We shall start with the king

Anish Giri – Daniil Dubov

Internet 2021



39.g5!

A thematic break.

39.♗f4 ♘d5 and 39.♔f3 ♘d5 40.g5 hxg5 41.♔g4 ♔f6 42.♗xg5† ♔e6 both allow Black to make the draw.

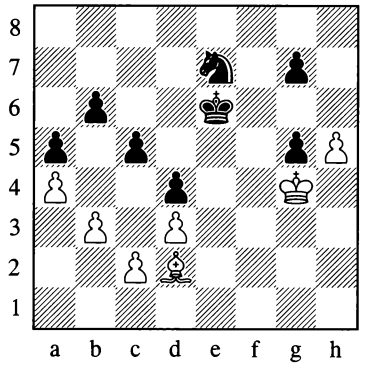
39...hxg5

39...♘f5† 40.♔f4 ♘d6 was another defensive try. After 41.gxh6 gxh6 42.♔g4 ♘f5 43.♗f4 Black is just lost. He cannot defend both the weakness on h6 and the weakness on b6. 43...♔f6 44.♔f3 ♔e6 45.♗c7 and White wins.

40.♗xg5?

A strange mistake from the renowned technician.

40.♔g4!



This must surely have been the first move that crossed the Dutchman's mind, and then he would have seen something he did not feel comfortable with and discarded the line because of a tactic, which afterwards turns out not to work.

40...♘d5 41.♔xg5 ♔f7 42.♔f5

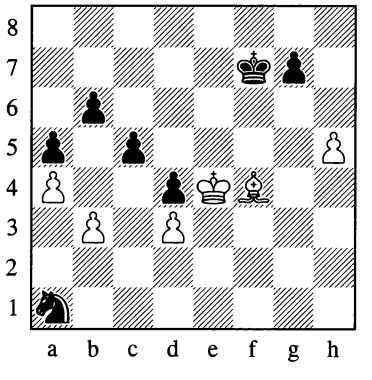
This gives White a dominating position. There is only one critical line.

42...♘e3† 43.♔e4 ♘xc2

Black has won a pawn. But there is no path home for the knight.

44.♗f4 ♘a1

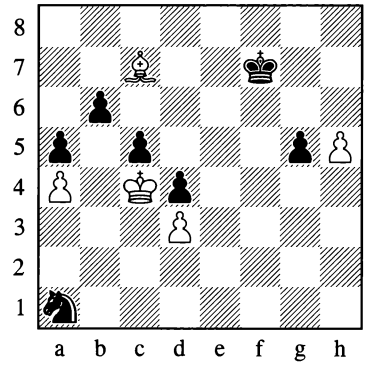
44...♔e6 45.♗e5! would force the king back to defend the g-pawn or make a monster out of the white h-pawn.



45.♔d5! ♘xb3 46.♔c4 ♘a1

White has lost two pawns, but is completely winning.

47.♗c7 g5



48.♗xb6!

48.hxg6† ♔xg6 49.♗xb6 ♔f7 50.♗xc5 ♘c2 51.♗xd4 ♘b4! 52.♗c3 ♘xd3! would see Black draw in a familiar way!

48...g4 49.♗xa5 g3 50.♗e1 g2 51.♗f2

White wins easily. The two distant passed pawns are impossible to stop.

40...♘d5 41.♔f3 ♔e5 42.♗h4 ♔e6 43.♗g3 ♔f5 44.♗h4 ♘f6 45.♔f2 g5 46.hxg6 ♔xg6 47.♗xf6 ♔xf6 48.♔e2 ♔g5 49.♔f3 ♔f5 50.♔g3 ♔g5 51.♔f3 ♔f5 52.♔g3 ♔g5 53.♔f3

½–½

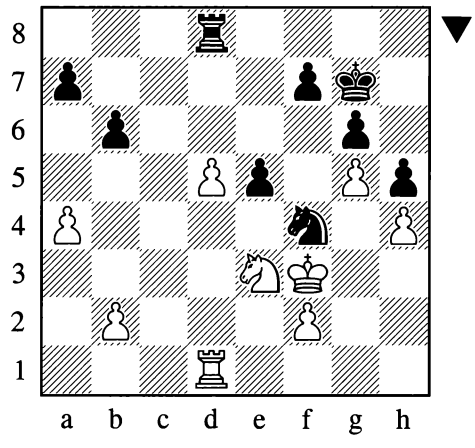
40. King activity

A big difference between the earlier stages of the game and the later stages, is that the board tends to become safer for the monarch to navigate. The examples of games where the king is active in the opening and middlegame are rare and impressive for exactly this reason. Making the most out of the king in the endgame is important!

In the following example, Black is worse, but can still equalise by bringing his last piece into the game.

Yuri Solodovnichenko – Vladyslav Larkin

Kremenchuk 2020



39...f5?

39...f6! would have transposed to the game. The black king comes out and White needs to take on f6, as otherwise Black will take on g5 and the h5-pawn will become a passed pawn.

40.gxf6†?

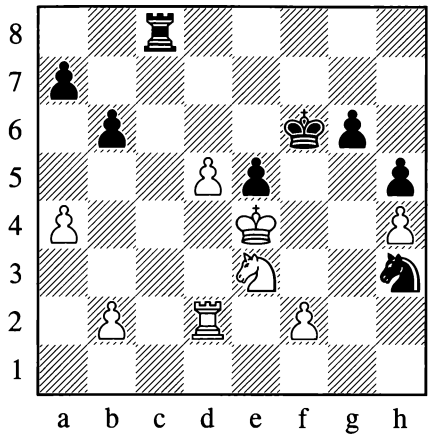
White lets the black king out and solves all of Black's problems for him.

40.♖c1? ♘xd5 would be OK for Black. 41.♖d1? e4† is a key point.

40.♘c4! ♖xd5 41.♖xd5 ♘xd5 42.♘xe5 The knight endgame is winning for White. The black king is stuck keeping an eye on the g6-pawn, while White will be able to bring his king into the game.

40...♔xf6 41.♔e4 ♘h3 42.♖d2 ♖c8?

42...g5!, creating a passed pawn and bringing in the knight, would secure at least even chances.



43.f3! b5

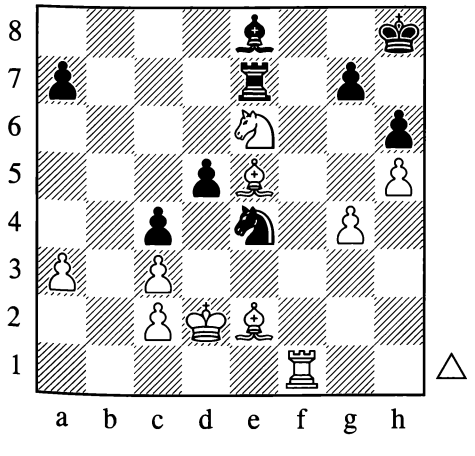
Black is also in great trouble after 43...g5 44.♖h2 ♘f4 45.hxg5† ♔xg5 46.d6!, with the idea 46...♔f6 47.d7 ♖d8 48.♖d2 and Black is in a chokehold. The next moves are ♖d6† and ♔xe5, with some knight check thrown in somewhere.

44.axb5 ♖c5 45.d6 ♖xb5 46.♘d5† ♔f7 47.d7
1–0

Often an active king is more important than a rounding number in the material calculation. The king is a strong piece, when not in danger of being checkmated.

Dmitrij Kollars – Georg Meier

Magdeburg 2021



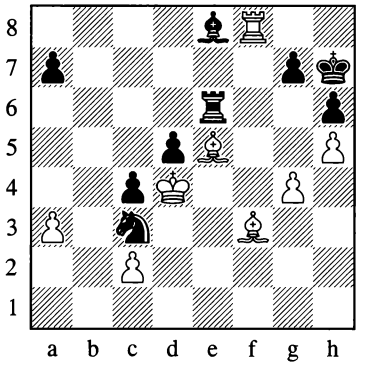
36.♔d1?

White remains better after this passive move, but not much. It is everything you do not wish to play. Going forward with the king had a price:

36.♔e3! ♖xe6 37.♔d4 ♘xc3

The issue. Black wins a pawn.

38.♖f8† ♔h7 39.♗f3



But it is just a pawn, and the game goes on. A lot of things have also gone well with White's position. Especially the activity of the second strongest piece, the king.

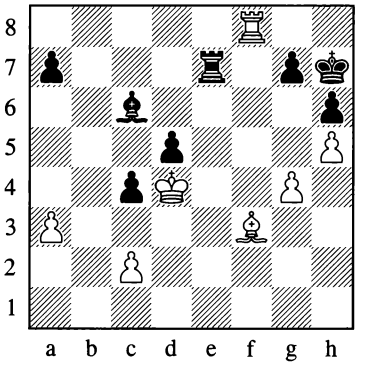
39...♗c6

The only move, threatening ...♘b5†.

Against 39...♘e4 40.g5! and 41.♗g4 will win.

White now has several promising continuations. 40.♗b8, for example. But I find clarity to be the most attractive.

40.♔xc3 ♖xe5 41.♔d4 ♖e7



42.♖c8!

42.c3!? is also tempting, but White should avoid 42.♗xd5?, which leads to the most drawish ending available – a rook ending. After 42...♗xd5 43.♔xd5 ♖e3! Black will draw by the skin of his teeth.

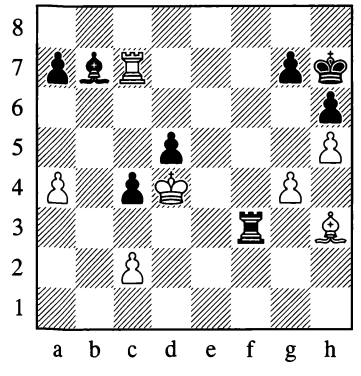
42...♗b7

42...♗e8 43.♗xd5 g6 is a bit more active, but does not provide a real chance to survive. As White I would look for clarity above all and wonder if 44.♗e4!? works this time. After 44...♔g7 45.hxg6 ♗xg6 46.♗xg6 ♔xg6 47.♖xc4 ♔g5 48.♔d5 White appears in control. Still, 44.hxg6 also feels quite logical.

43.♖c5 ♖e1

Black needs to attempt activity.

44.a4 ♖g1 45.♖c7 ♖g3 46.♗e2 ♖g2 47.♗f1 ♖f2 48.♗h3 ♖f3

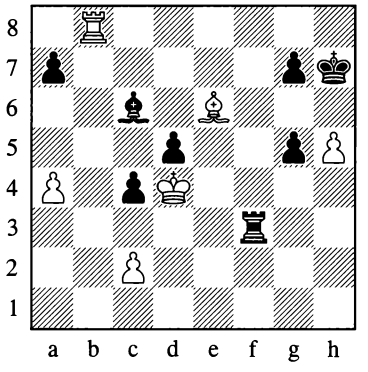


It seems as if the black rook can keep chasing the bishop forever. But White has a trick up his sleeve.

49.g5!! hxg5 50.♗e6 ♗a8 51.♖c8 ♗b7

51...g4 52.♖xa8 g3 53.♗h3 ♖f2 54.c3 g2 Black wins back the piece, but the rook ending after 55.♗xg2 ♖xg2 56.♔xd5 is quite hopeless.

52.♖b8 ♗c6



53.♗g8†! ♔h6 54.♗xd5

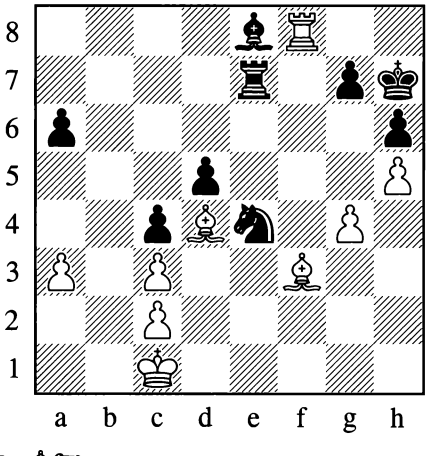
White wins.

36...♖xe6 37.♖f8† ♔h7 38.♗d4 ♖e7 39.♗f3 a6?

I do not see the reason for this move. The pawn was not currently exposed on a7.

A possible move would have been 39...♗c6, when Black is a bit worse, but has excellent chances of holding.

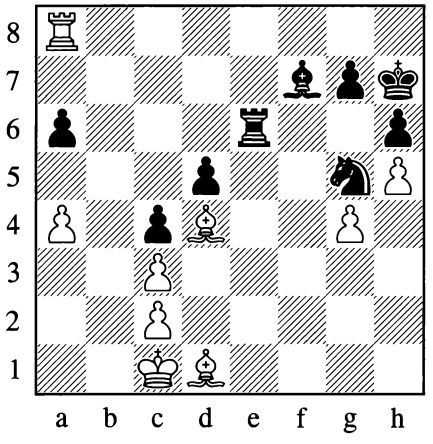
40.♔c1!



40...♗f7?

40...♗c6 and Black is on the defensive, but may still defend successfully.

41.♖a8 ♘g5 42.♗d1 ♖e6 43.a4!



Meier must have missed that there is nothing he can do about the white plan of playing a4-a5 and ♗b6, isolating the a6-pawn.

43...♘e4

43...♗e8 44.a5 ♗b5 45.♖a7! and g7 cannot be defended. An excellent example of the two weaknesses in action.

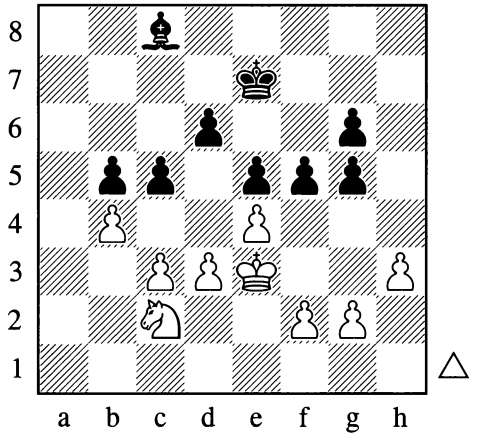
44.a5 ♘g5 45.♖a7 ♔g8 46.♗b6 ♘e4 47.♔b2 ♖f6 48.♖xa6 ♖f1 49.♖a8† ♔h7 50.a6 ♖xd1 51.a7 ♘d2 52.♖b8
1–0

41. King penetration

A common theme in minor piece endings is the invasion of the opposing position with the king. When the minor pieces are unable to do any damage, it is natural to look to the big guy to do the business.

Renier Castellanos – Sebastian Almagro Mazariegos

La Roda 2007



In this example White is better, as the black bishop is without much scope. But if Black manages to keep the position semi-closed, he will make the draw.

44.f3 f4†

I dislike this decision on principle. The g2-pawn does not appear to be a weakness to me. But the lack of active moves on the kingside feels like a loss for Black.

44...♗e6 45.g4 was not to be feared.

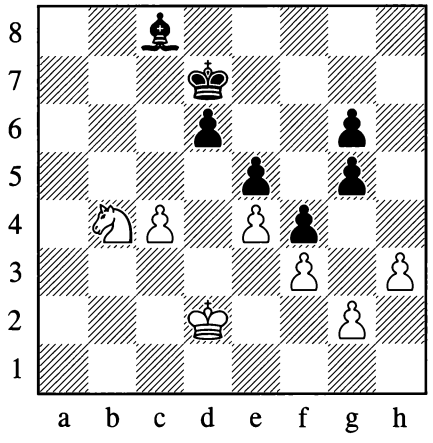
45.♔d2 ♔d7 46.c4

The only realistic way to win the game is to open up for the king (broadening). This does seem a little rushed though.

46...bxc4

46...♔c6! made more sense.

47.dxc4 cxb4 48.♘xb4



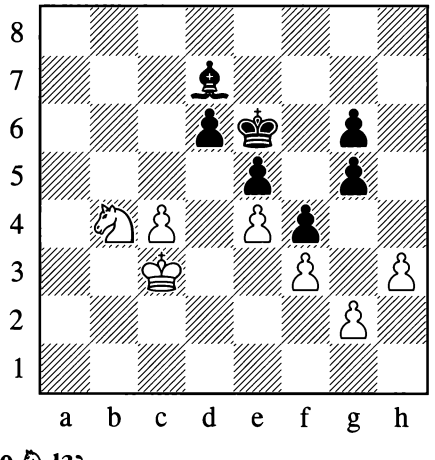
48...♔e6?

What is the king supposed to do here? Black appears to be afraid of ♘b4-d5-f6-h7xg5, but passive play will not dissuade it.

48...♔c7 and ...♗e6 would hold without big problems. 49.♘d5† ♔c6 50.♘e7† ♔d7 brings White nothing. For example: 51.♘xg6 ♔e6 52.h4 gxh4 53.♘xh4 ♔f6 and Black will win back the pawn in a moment.

49.♔c3 ♗d7?!

A horrible move, cutting off the black king. But already the position was on the verge of being lost.



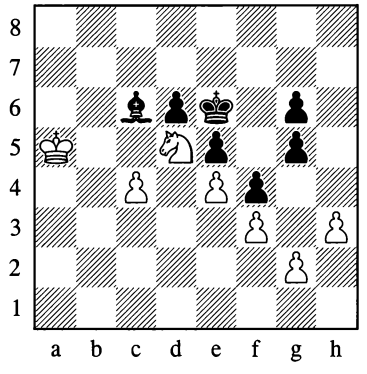
50.♘d3?

Strongest play looks like this:

50.♔b3!

Preventing the bishop from entering would have won the game quickly and without any need for deeper thinking.

50...♗e8 51.♘d5 ♗c6 52.♔b4 ♗d7 53.♔a5 ♗c6



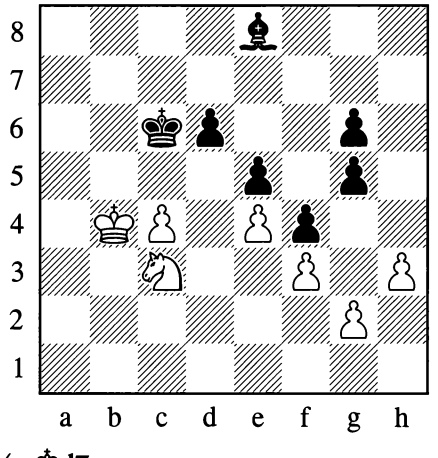
54.♘c3!

Practical. Why let the bishop in.

54...♔d7 55.♔b6 ♗a8 56.♘d5

Black is in zugzwang. For example 56...♔d8 57.♘c7 and the bishop is lost.

50...♗a4 51.♘b2 ♗e8 52.♔b4 ♔d7 53.♘a4 ♔c6 54.♘c3

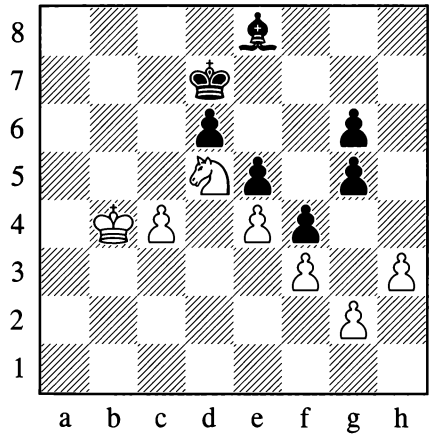


54...♔d7

Another defensive try was 54...♗f7 55.♘d5 g4!? 56.hxg4 ♔b7, when Black is pushed hard against the wall, but also where the defence is

not toppled that easily. For example: 57.♘e7 ♔b6 58.g5 ♔b7 59.c5 ♔c7 60.♔b5 ♔d7 61.♘d5 dxc5 62.♔xc5 ♔e6 and it is not so easy to win, as Black is threatening counterplay with the bishop against the g2-e4 pawn chain in the long run.

55.♘d5



55...♗f7?

Losing without a fight.

Black could have presented his opponent with a lot of additional problems, had he played 55...♔c6, giving up the g5-pawn. 56.♘f6 (56.♔a5?! ♔c5 would force White to look for the drawing counterplay.) 56...♗f7 57.♘h7 ♔b6 58.♘xg5 ♗g8 The game would continue 59.h4 ♔c6 60.♘h3 and White would certainly try to make something of the extra pawn. But it would not be so easy to do so.

56.♔b5

This time the king breaks through and White wins effortlessly.

56...♔e6 57.♔b6 ♔d7 58.♔b7 ♔e6 59.♔c8 ♗g8 60.♔c7 ♗f7 61.♔d8 g4 62.hxg4 g5 63.♔c8 ♗g6 64.♘c3 ♗f7 65.♔c7 ♔e7 66.♘d5† ♔e6 67.♔d8 ♗g8 68.♔e8 ♗h7 69.♔f8

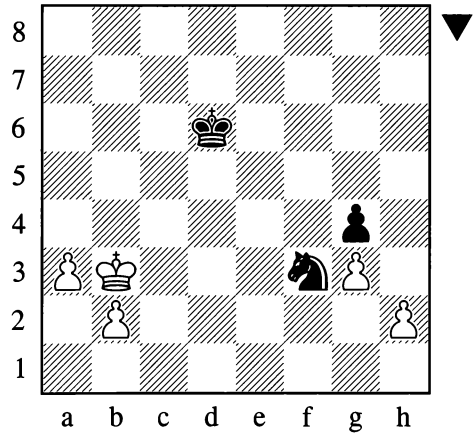
1–0

42. King flexibility

You cannot be two places at once. And neither can the king. But you can keep two doors open and decide only at the last minute which way to go. Below we shall see two examples where the king is ready to perform on both flanks, as well as in the centre.

Daniel Garcia Ramos – Jose Fernando Cuenca Jimenez

Barcelona 2021



56...♘xh2?

This fails without putting much demand on White.

56...♔c5?

This also does not work. The important square to cover is the e4-square.

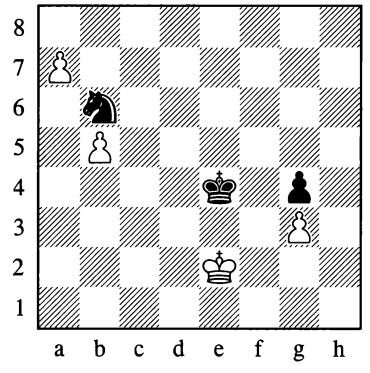
57.♔c3 ♘xh2 58.♔d3 ♔d5

58...♘f1 59.♔e4 with an imminent draw.

59.♔e3 ♔e5 60.a4 ♘f1† 61.♔f2 ♘d2 62.a5

One of the pieces has to run for the pawn.

62...♘e4† 63.♔e3 ♘f6 64.a6 ♘d5† 65.♔d2 ♔d4 66.a7 ♘b6 67.♔e2 ♔e4 68.b4 ♘a8 69.b5 ♘b6



White could probably have drawn without all this excitement. But it is interesting to see that the white king is still open for an adventure.

70.♔d2 ♔f3 71.♔d3 ♔xg3 72.♔d4 ♔h2 73.♔c5

It will be Black who has to defend the inferior queen ending. Objectively it is a draw, but experience suggests that people who have to defend this position do not always succeed.

Black could have won by keeping the king's options open, and shouldering the white king.

56...♔d5!

The only attempt for White is to run to the kingside.

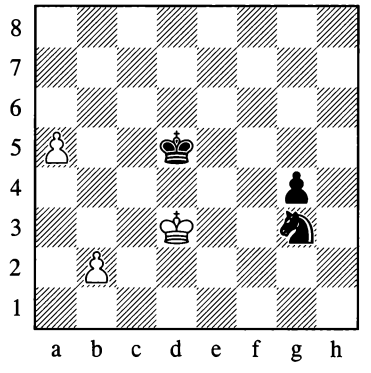
57.♔c3

57.♔b4 ♘xh2 58.♔b5 ♘f1 is not serious resistance. The knight comes back in good time.

57...♘xh2 58.♔d3 ♘f1 59.a4

59.♔e2 ♘xg3† is a lot of tempos worse for White, but essentially the same.

59...♘xg3 60.a5

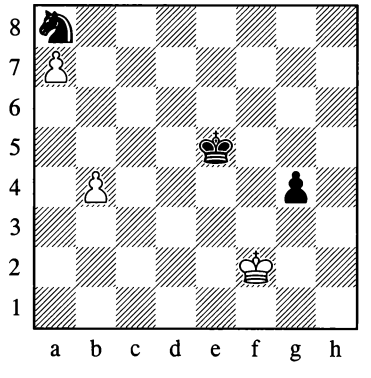


The knight can make it back in time only by the use of a check.

60...♘h5!! 61.a6 ♘f4† 62.♔e3 ♔e5

62...♘e6? would allow 63.a7 ♘c7 64.♔f4 with a draw.

63.b4 ♘d5† 64.♔f2 ♘c7 65.a7 ♘a8

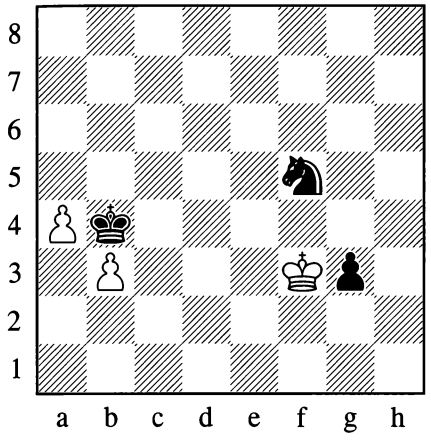


White will eventually run out of moves and be forced to make way for the black pawn.

57.♔c4!

Shouldering.

57...♘f1 58.♔d4 ♘xg3 59.a4 ♘f5† 60.♔e4 ♔c5 61.♔f4 g3 62.♔f3 ♔b4 63.b3

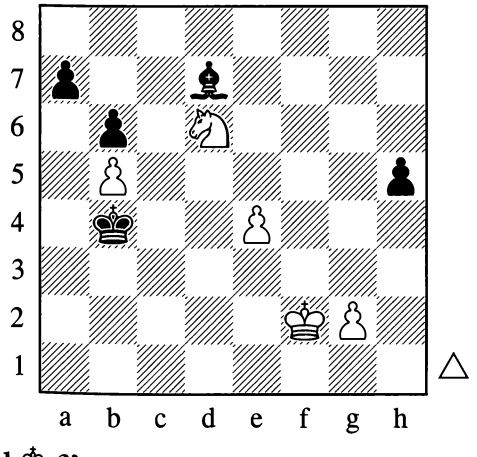


A typical positional draw. Remember this type of set-up. Many games end in this way.
½–½

In the next example White is under pressure. The bishop is stronger than the knight, and the potential passed pawns for Black are far away in the distance of the queenside.

Kamran Shirazi – Victor Stephan

Chartres 2021



51.♔e3?

I believe this is the move most would have played if based purely on intuition. But it serves no purpose and decides which way the king should go before it makes sense to make this decision.

51...♔c5!?

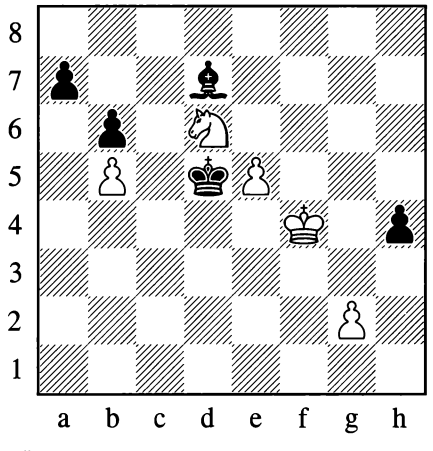
An easier win would be: 51...♗xb5! It is hard to think up any defence for White. For example: 52.♘c8 a5 53.♘xb6 a4 54.♘xa4 ♗xa4 55.♔f4 ♗d1 and Black is in control.

52.e5 ♔d5?

Black was still completely winning after 52...♗xb5, when something like 53.♘e4† ♔d5 54.♘f6† ♔xe5 55.♘xh5 a5 will win for Black.

But this is not as clear as it was. And secondly, it is hard to take on b5 with a loss of tempo, when you decided not to take in the first place.

53.♔f4 h4



54.♘f5?!

White is missing the first chance to make a draw.

After 54.♘e4! ♔d4 55.♘d6!, White holds. The key point is that Black cannot take on b5.

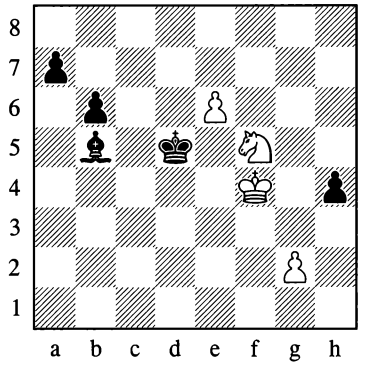
After 54...♗xb5? 55.♘c3† ♔c5 56.♘xb5 ♔xb5 57.e6 ♔c6 58.♔e5 a5 59.♔f6 White simply wins. This is the time wasted by Black shown on the board.

54...♗xb5 55.♘xh4?

White missed the final chance to make the draw. Taking the h-pawn and somehow

imagining that the poorly-placed king and the knight will be a match for the central black king and the bishop is hard to follow. I believe White had given up and was only making moves at this point. Chess is hard and people get tired...

55.e6!



This basic trick would have saved the game.

55...a5

55...♔xe6!? 56.♘d4† ♔d5 57.♘xb5 a5 is sharp, but not dangerous for White.

56.♔e3!

But this is the key point. White wins more than a tempo after:

56...♔e5 57.♘xh4 ♔xe6

The pawn deficit does not matter much. All we need is one pawn to distract on the kingside. Then the wrong bishop corner will save the day.

58.g4 ♔d5 59.g5 ♔c4 60.♔d2 ♔b3 61.♘f5 ♗c4 62.♘d6

Black cannot make meaningful progress. For example:

62...♔b4 63.♘c8 b5 64.♘d6

With the idea ♘xb5 and ♔c1-b1-a1 with a draw. After 64...♔b3?? 65.♘xc4! White would even win. 65...bxc4 66.♔c1 a4 67.g6 a3 68.♔b1 and Black cannot get a queen.

55...a5 56.♘f5 ♗d7 57.g4 b5

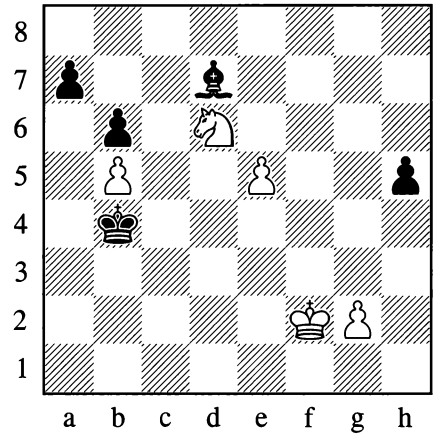
57...a4 was a bit more logical, but this works fine.

58.g5 b4 59.g6 b3 60.g7 ♗e6 61.♘e3† ♔d4 62.♘d1 a4 63.♔g5 ♔xe5

0–1

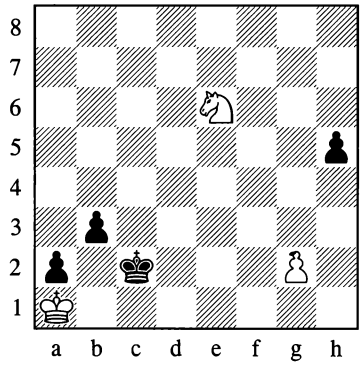
White missed the chance to make a draw with active counterplay:

51.e5!

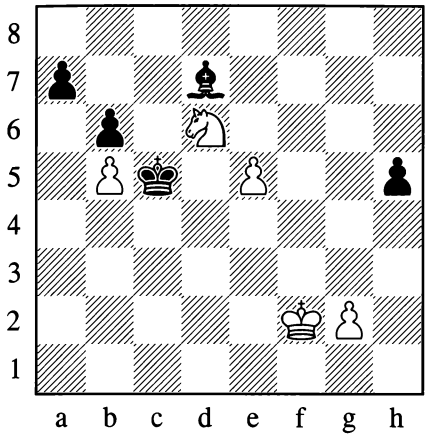


51...♔c5

51...♗xb5 52.e6 ♗c6 53.e7 a5 is sharp. But as in the game, White can bring in the king to the defence on the queenside and Black will not be able to win. 54.♔e2 a4 55.♔d2 ♔b3 56.♔c1 a3 57.♔b1 a2† 58.♔a1 b5 59.e8=♕ ♗xe8 60.♘xe8 b4 61.♘c7 ♔c2 62.♘e6 b3



White is in time to make a draw. 63.♘d4† ♔c3 64.♘f5



At this point we can see why it was important to keep the king's options open.

52.♔g3!

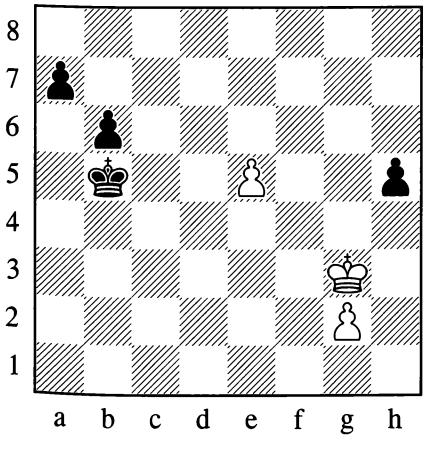
The king abandons the idea of blocking on a1 and now has two paths forward. Via f4 or h4, depending on circumstances.

52.♘e4†? ♔xb5 53.♘f6 ♗g4 and Black would win.

52...♗xb5

52...♔d4 53.♔f4 h4 (53...♔d5 54.♘e4! transposes to the game. Or at least how the game should have been played...) 54.♘f5† ♔c5 Black is making no progress.

53.♘xb5 ♔xb5



54.♔h4!!

The surprise. The distance from g3 to f6 is three squares no matter the route. By going to h4, the king keeps the option of taking on h5.

54...♔c6

Black should not play: 54...a5? 55.e6 ♔c6 56.♔g5!, when White queens first and wins.

55.♔xh5!

This extra option is invaluable.

55...♔d7

55...a5 56.♔g6 a4 57.e6 ♔d6 58.♔f6 a3 59.e7 with a draw closing near.

56.g4 a5!

56...♔e6? 57.g5 a5 58.g6 a4 59.g7 ♔f7 60.♔h6 a3 61.e6† and White wins.

57.g5

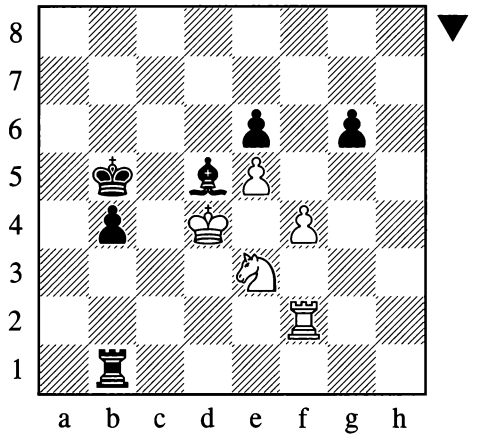
Again, the draw is not far away.

43. Cutting off the king

Having made the case for the king being a strong piece in the endgame, it is hopefully not difficult to make the case that we should limit the potential of the opponent's king as much as possible. As it cannot be sacrificed, exchanged or even blundered, according to the laws of chess, it is possible to restrict its freedom more than can be done to other pieces.

Daniel Garcia Ramos – Ethan Saya

Barcelona 2021



Black is a pawn up and should have good winning chances. Particularly as the b-pawn is a powerful asset. Still, good technique is required, and if you don't know what this means, you are left calculating random lines.

46...♗c6?

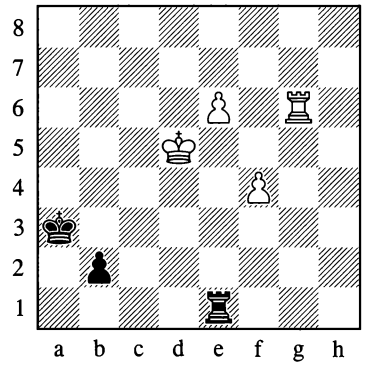
A little plotless.

Our students went deep into calculating the forcing lines after:

46...♔a4 47.♘xd5 ♖d1† 48.♔c4! ♖c1† 49.♔d4 exd5 50.e6! ♖e1!

50...b3 51.♖e2! and White even wins.

51.♔xd5 b3 52.♖g2 ♔a3 53.♖xg6 b2



54.♖g8 ♖d1† 55.♔c4 ♖c1† 56.♔d5 ♖d1†!

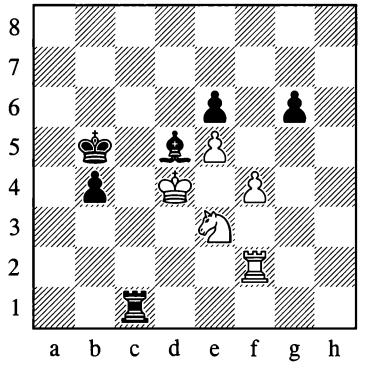
And in the end it is Black who makes a draw.

All of this is somewhat redundant, as with 47.♖c2!, White should also be on the way to making an effortless draw. Chess is not played well by making every situation into a long calculation. Rather, finding the various options in the starting position and understanding the consequences of them, is powerful.

Also 46...♖a1 47.♖c2! would give White a fighting chance.

But Black had two strong continuations. 46...♗b7!? 47.♖c2 ♗a6!! is rather amusing. The bishop goes from being a target, to denying White access to important squares needed for counterplay. Black is winning – but of course no one would ever play like this.

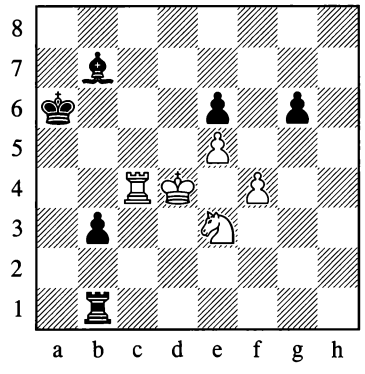
However, it is perfectly possible to find 46...♖c1!, which would cut off the king from coming over to block the b-pawn.



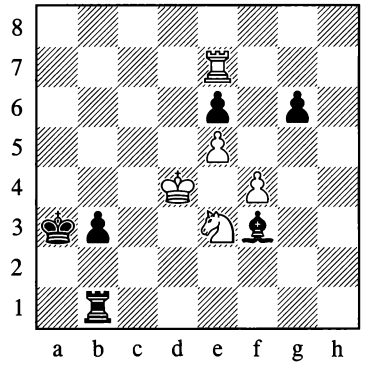
Black is simply winning. His next move could be ...♗c4. 47.♘xd5 ♖d1† 48.♔e3 ♖xd5 would also offer full control. White can only resign.

47.♖c2! ♗h1

47...♗b7 could also have posed some problems for White. But after 48.♖c5† ♔a6 49.♖c2! b3 50.♖c4 the draw is not too far away.

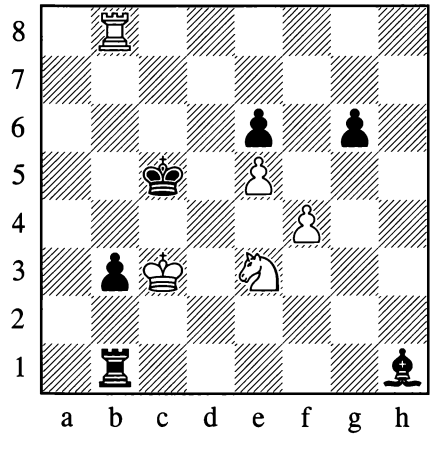


The key point is that after 50...♔b5 51.♖c5† ♔a4 52.♖c4† ♔a3, White has 53.♖c7 ♗f3 54.♖e7! with important counterplay:



54...b2 55.♘c4† ♔b4 56.♘xb2 ♖xb2 57.♖xe6 and he will have to hold the rook vs rook and bishop ending, but with some pawns to create additional problems for Black.

48.♖c8 b3 49.♖b8† ♔c6 50.♔c3 ♔c5



51.♖e8?!

51.♖c8†! White should harass Black. He would have to enter an annoying pin after 51...♗c6 52.♘c4 ♖c1† 53.♔xb3 ♔d5 54.♘d6 ♖f1 55.♘c4. White should hold without too many difficulties, but may end up defending rook vs rook and bishop in a worst case scenario.

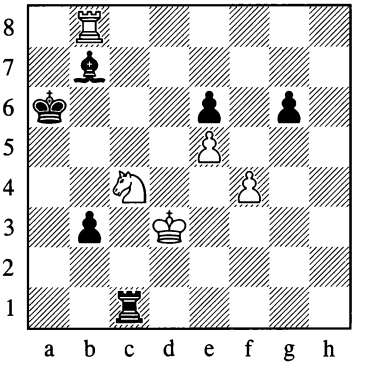
51...b2?!

This does not pose White too many problems.

51...♖e1!

This would have forced White to draw in an uncomfortable fashion.

52.♖c8† ♔b5 53.♖b8† ♔a6 54.♘c4 ♖c1† 55.♔d3 ♗b7!



Threatening to take on c4.

56.♘a5!

Desperate measures.

56.♘d6 ♗d5! and Black takes full control.

56...b2 57.♖xb7 b1=♕† 58.♖xb1 ♖xb1 59.♘c6!

On the right circuit.

59...♖b7 60.♘d4

With the knight on g5, White will establish a fortress.

60...♖e7 61.♘f3 ♔b6 62.♘g5

The accurate description is: White survives.

52.♘c2 ♔d5 53.♘b4† ♔e4 54.♖xe6 ♔xf4

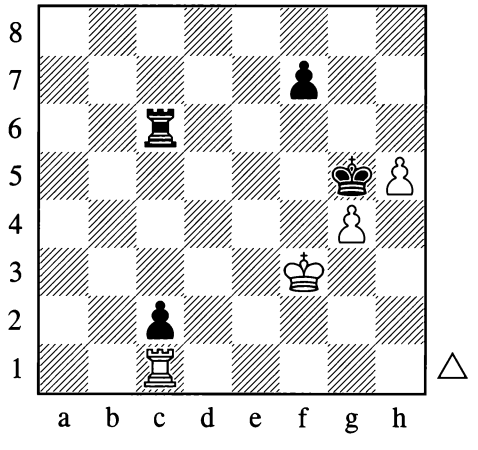
55.♖xg6 ♗e4 56.♖f6† ♔xe5 57.♖f2 ♖c1† 58.♔xb2! ♖g1 59.♔c3 ♖g3†
½–½

44. Checks

One of the often-underestimated features of endgame play is the importance of giving a check. It is not rare that the coordination between the king and one or two remaining pieces is optimal, and any little push can make the entire position fall over. The differences in endgames are simply frequently that small.

Sune Berg Hansen – Gabriel Sargissian

Helsingor 2019

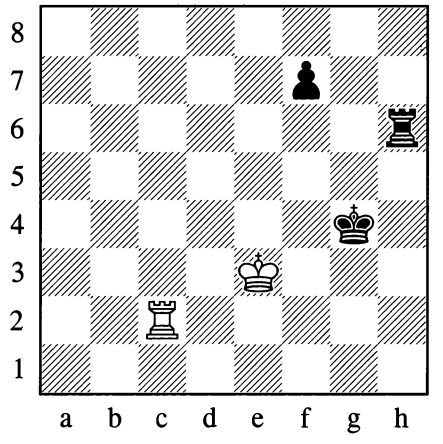


In this game White is under pressure, but should hold if he does nothing.

50.♔g3 ♖c3† 51.♔g2 and Black has no way to make progress. 50.♔g2 also held, but 50.♔f2? ♔xg4 51.h6 ♖xh6! would be erroneous.

50.♔e3?
This fails to an instructive detail.

50...♔xg4 51.h6 ♖xh6 52.♖xc2



It appears that White is still holding. It is not clear at which moment Hansen realised that he had missed an important detail. It could easily have been at the last moment.

52...♖h3†!
Kicking the king. Now the win is elementary.

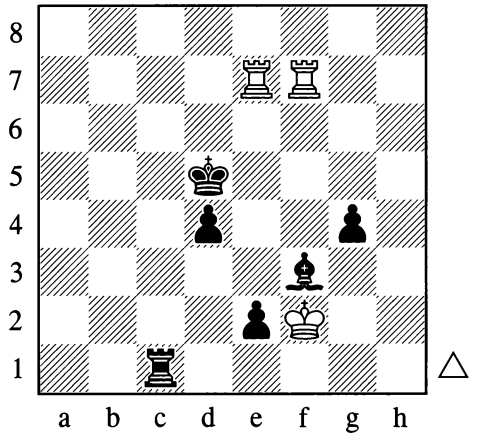
53.♔d4
53.♔f2 ♖h2† would win the rook.

53...f5 54.♖e2 f4
0–1

Another good example of checks comes from the following game from the German Masters 2021, which was a closed tournament above the German Championship, which seems a curious constellation to me. White was suffering for a long time and missed a random chance to get back in the game with a few checks.

Rasmus Svane – Alexander Graf

Magdeburg 2021



73.♖f5†?

The salvation was to be found after 73.♖d7† ♔e4 74.♖fe7† ♔d3 75.♖e3†!, which I guess is what Svane missed. It is still not obvious that 75...♔c2 76.♖xe2† ♗xe2 77.♔xe2 is an immediate draw, yet after looking for a few seconds, we can see that the d-pawn will fall and White will draw.

73...♔d6 74.♖fe5 d3 75.♖7e6†

Black is able to dance away from the checks now.

75...♔c7 76.♖e7† ♔b6 77.♖7e6† ♗c6 78.♖d6 ♖f1† 79.♔g3 e1=♕† 80.♖xe1 ♖xe1 81.♖xd3 ♗f3 82.♖c3 ♖e5 83.♔f4 ♖c5 84.♖b3† ♔c6 85.♖b8 ♔d6 86.♖g8 ♖c4† 87.♔g3 ♔e6 88.♖e8† ♔f7 89.♖e5 ♗b7 90.♖b5 ♗c8 91.♖b3 ♗e6 92.♖e3 ♔f6 93.♖d3 ♗f5 94.♖b3 ♔g5 95.♖a3 ♖d4 0–1

45. The king belongs in front of the passed pawn

Queens are the only pieces that are effectively able to support a passed pawn and fight directly for the square in front of it.

Knights and bishops can only control squares of one colour and will thus be unable to control both the square the pawn stands on and attack the square in front of it.

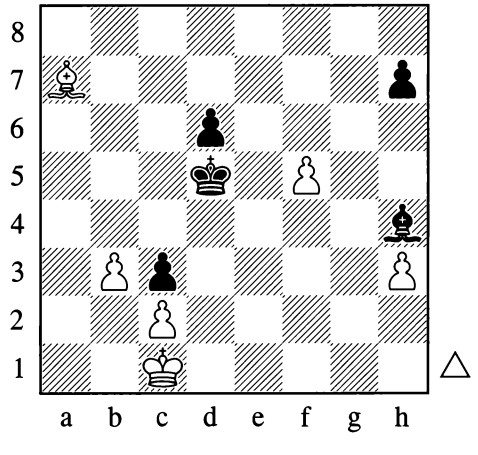
Rooks can do it, but only if they are in front of the pawns. This is frequently a poor place to be, and in the way of the advancing pawn.

And kings cannot fight for squares in the same way, as they are not allowed to be exchanged, as queens are. But kings are still effective in helping passed pawns advance. By stepping in front of the pawn, they take early control of the squares the pawn will have to pass through, and keep the opponent's king from blocking its path.

China had two Championships with only a few months apart. In the 2021 edition, the first four places were at some spot occupied by a player named Xu... Here we shall see one of them surviving an entirely lost bishop ending.

Zhao Jun – Xu Yi

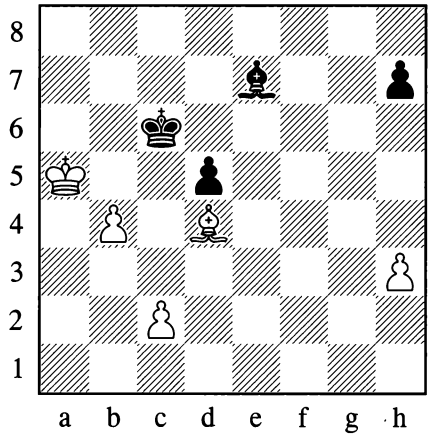
Xinghua Jiangsu 2021



44.♔d1 ♔e4 45.♔e2 ♗f6

45...♔xf5 46.♔d3 d5 47.♔xc3 h5 48.♔b4! would win easily for White.

46.b4 ♔xf5 47.♔d3 ♔e6 48.♗d4 ♗g5 49.♔xc3 d5 50.♔b3 ♔d6 51.♔a4 ♔c6 52.♔a5 ♗e7



53.b5†?

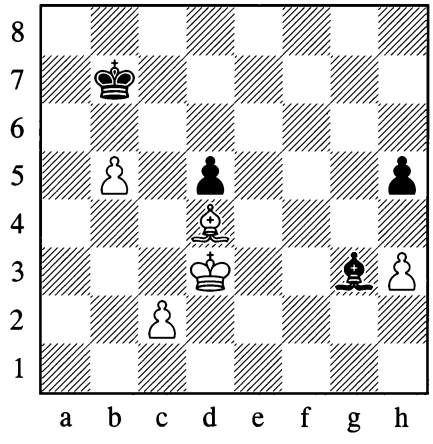
Truly poor technique. White is in no rush. This certainly comes in under the category of unnecessary pawn moves. Steinitz would not be happy.

Slow play with 53.♗f2 ♗f8 54.♗e1! would win the game easily. The next move is 55.♔a6. 54...♔b7 55.♔b5! would establish full control. 55...♗e7 56.♗f2 ♗f8 57.♗c5 ♗g7 58.♗e7 ♗d4 59.♗d6 ♗f2 Black cannot allow ♔b5-c5. 60.♗e5! ♗g1 61.c3 with 62.♗d4 and 63.♔c5, winning.

53...♔b7

Black has managed to block the pawn on the square where the bishop cannot harass him. The win is still there, but not as easy.

54.♔a4 ♗d6 55.♔b3 h5 56.♔c3 ♗f4 57.♔d3 ♗g3



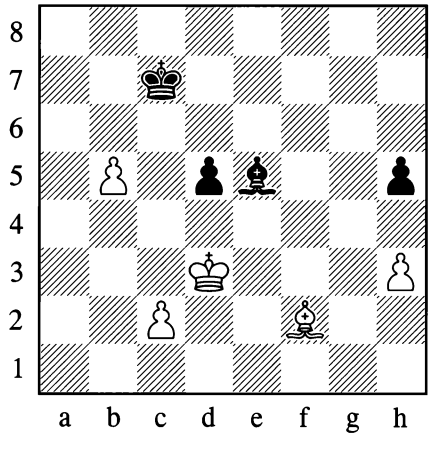
58.♗c5

It was simpler to exchange pawns and take control of the light squares in the process: 58.♔e3 ♗h2 59.♗g7 ♔b6 60.♔d4 ♔xb5 61.♔xd5 White's next move is ♗g7-d4!, cutting off the black king from an orderly retreat. A key tactical point is that 61...♔b6 loses on the spot to 62.♗e5!, with a forced exchange of bishops.

58...♗e5 59.♗e3 ♔c7 60.♗d4 ♗g3 61.♔e3 ♔b7 62.♔f3

62.♗g7! ♔b6 63.♔d4 still works.

62...♗d6 63.♔e2 ♗g3 64.♗g1 ♗d6 65.♔d3 ♗e5 66.♗f2 ♔c7



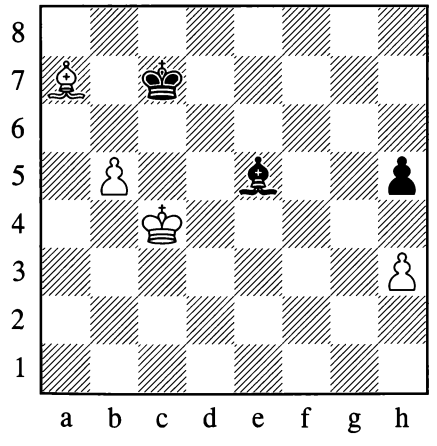
67.c4!

In general, we would not want to exchange pawns as the stronger side. But here, having manoeuvred his king to the centre, White has to create entry points for the king.

67...dxc4† 68.♔xc4 ♔d6 69.♗a7

69.♔b4!, threatening to go to a6, would win after 69...♔c7 70.♔c5 ♗f6 71.♔d5 ♔d7 72.b6 and Black is unable to defend both flanks.

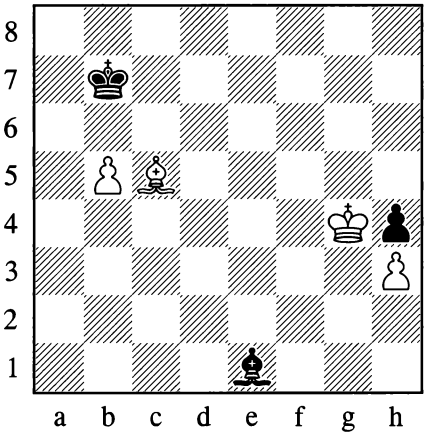
69...♔c7



70.♔d5?

70.♗f2! ♔d6 71.♔b4! ♔c7 72.♔c5 White would still win. The king goes to the kingside to win the h-pawn. But this was already a bit tricky to work out with limited time. Don't rely on the ability to solve difficult problems, when the potential to learn simple technical ideas before the game is available.

70...♗g3 71.♔e6 ♔b7 72.♗c5 h4! 73.♔f5 ♗e1 74.♔g4



74...♔c7!

A waiting move.

When White takes on h4, Black needs to be able to reply ...♗c3, as instead ...♗e5 could be met with ♔f5, gaining a decisive tempo. Thus 74...♗g3? would lose to 75.♗e7 ♔b6 76.♗xh4 ♗e5 77.♔f5.

75.♗e7 ♔b6 76.♗xh4 ♗c3 77.♗f2† ♔xb5 78.h4 ♔c6 79.h5 ♔d7 80.♔f5 ♔e8 81.♔g6 ♔f8 82.h6 ♔g8 83.h7† ♔h8 84.♗g3

½–½

46. Bishop on one diagonal

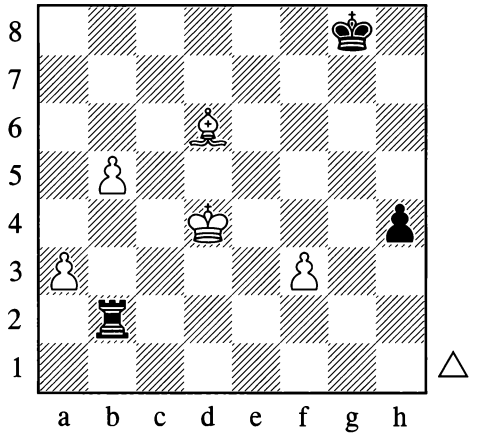
Having already slightly transitioned into looking at bishops with the previous example, we now shift to focus on the clergy. Bishops are strange creatures. I actually think that they would be better named as archers, as this is what they are in this medieval war game (and rooks are towers of course, while pawns were drafted as cannon fodder against their will and put in front as expendables).

As such, they operate well in straight lines, even if these are working exclusively as diagonals. Archers are traditionally not good at shooting in different directions at the same time and the same goes for the bishop. If you can, put your bishop on a safe square that operates on one diagonal.

In this position from a rapid game played at the Killer Chess Training academy, the bishop is well placed on d6, but first has other duties to attend to.

Frederick Rhine – Kushal Jani

Killer Chess Training Internet 2021



White lost a winning position to a small finesse.

48.♔c5?

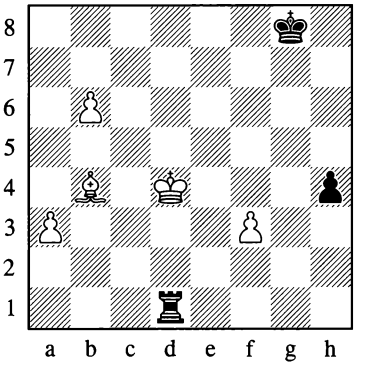
White had a beautiful winning line:

48.♗b4! ♖b1

48...♖c2 49.b6 ♖c8 50.♗d6 and White wins.

White also wins after: 48...h3 49.b6 h2 50.b7 h1=♕ 51.b8=♕† White secures victory with a series of checks. 51...♔h7 52.♕c7† ♔g6 53.♕c6† ♔f7 54.♕d7† ♔g6 55.♕e8† ♔g5 56.♗e7† ♔f4 57.♗d6† ♔g5 58.♗f4†! Not the only way, but flashy! 58...♔xf4 59.♕e5† ♔xf3 60.♕e4† and wins.

49.b6 ♖d1†



50.♔c4!

The key move. The bishop returns to d6, once the rook is pushed to an inferior square. 50.♔e3 ♖d8 51.a4 ♔f7! allows Black to draw, with two key ideas – ...♔e6 moving towards White's passed pawns, and ...♖g8, cutting off the white king from the passed h-pawn.

50...h3

50...♖d7 51.♗e1 h3 52.♗g3 wins in similar fashion.

51.b7 ♖d8 52.♗d6!

The bishop is back to the important diagonal, helping the b-pawn and stopping the h-pawn. White wins.

48...♔f7 49.♔c6 ♔e6 50.♗f4

50.b6 ♖xb6† and the h-pawn steals the show.

50...♖c2†!

The check is used to kick the king.

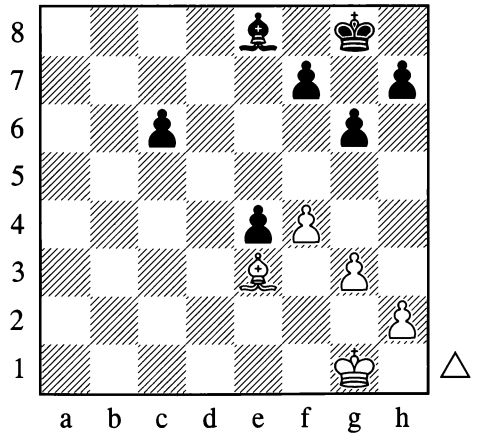
51.♔b7 ♔d7 52.b6 ♖a2 53.♔b8 ♔c6 54.♗c7 ♖xa3 55.b7 ♖b3 56.♔c8 ♖xb7 0–1

47. Bishop on two diagonals

So, bishops are struggling to perform their duties on two diagonals. Whether this is a combination of defensive and offensive duties, or pure defensive duties, does not matter.

Andreas Diermair – Marius Deuer

Bassano 2021



In the following endgame, there are several situations where the bishop will find itself stretched having to cover two diagonals. Please pay attention to them. But especially pay attention to the theoretical endgame arising with c- and f-pawns.

If White can block the pawns on one diagonal, he will make a draw. But if the pawns are already advanced enough to need controlling on two diagonals, White finds himself in zugzwang and unable to control the pawns.

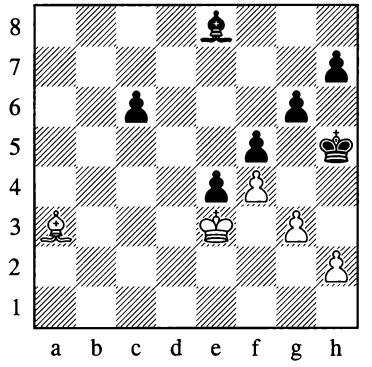
31.♗d4?

The best move was:

31.♔f2! f5 32.♗c1 ♔g7

White will not have great difficulties in establishing a blockade if the king goes for the centre. After both 32...♔f7 33.♔e3 and 32...c5 33.♔e3 ♔f7 34.♗a3 c4 35.♔d4, White will make the draw.

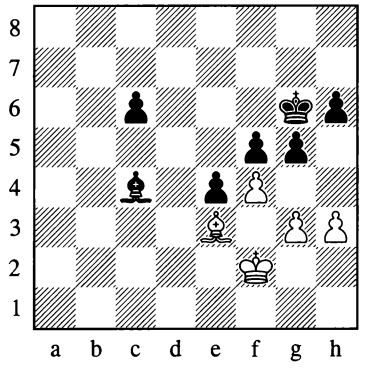
33.♔e3 ♔h6 34.♗a3 ♔h5



35.h3!

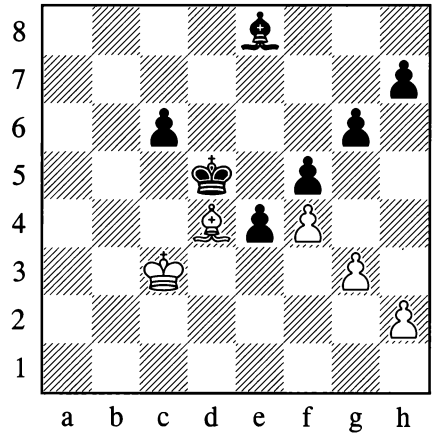
If White allows the king to come to h3, he would lose. For example: 35.♗c5? ♔g4 36.♔f2 ♔h3 37.♔g1 h5 38.♗e7 ♗f7 39.♔h1 ♗c4 40.♔g1 ♗d5 and White is in zugzwang, unable to prevent ...h5-h4, creating more weaknesses. Otherwise, he will face an e-pawn lodged on the second rank soon enough. Pay attention to how the bishop is underperforming.

35...♗f7 36.♔f2 ♗c4 37.♗c5 g5 38.♗e3 h6 39.♔e1 ♔g6 40.♔f2



White is in control of the fortress. Black will not be able to leave the kingside with the king, without first lessening the pressure. Then White will be able to send the king to the queenside to block him. It is important that the bishop is able to work well on the a7-g1 diagonal, while being able to deal with the kingside issues, if need be, with enough time to return to the one true diagonal.

31...f5 32.♔f2 ♔f7 33.♔e2 ♔e6 34.♔d2 ♔d5 35.♔c3



35...e3!

35...c5 36.♗e3 would allow White time to block the pawn.

36.♗xe3 ♔e4?!

An understandable move. Black gave up the pawn to access the kingside. Why would he then not rush in?

Far more dangerous was 36...c5! with the idea ...♗f7 and ...c4. I have often presented this as winning to impressed spectators and did so again in an online class with a strong GM a week before this book went to print. This coincided with the recent release of Stockfish 15. The even more monstrous monster quickly came up with White's only defence: 37.h4!! ♗f7 38.♔d2! A necessary move to create a blockade. 38...c4 39.♔e2 ♔e4 40.♗c5 c3 41.♗e7 White wants to play h4-h5 and ♗h4, but has to time it perfectly. Here are a few sample lines:

a) 41...♗c4† 42.♔d1 and now White holds after 42...♔f3 43.♔c2! or 42...♔d3 43.h5 or 42...♗b3† 43.♔e2!. In the last position it is important that we understand that 43.♔c1? loses to 43...♔f3 44.h5 ♔xg3! 45.hxg6 h5 and Black managed to get the necessary two passed pawns.

b) 41...♗b3 42.♗f6 c2 43.♗b2! and White holds the blockade. Once again 43.♔d2? would lose to 43...♔f3 44.h5 ♔xg3.

37.♔d2?

White was able to play 37.♗c5! ♔f3. There is now only one idea that holds the game:

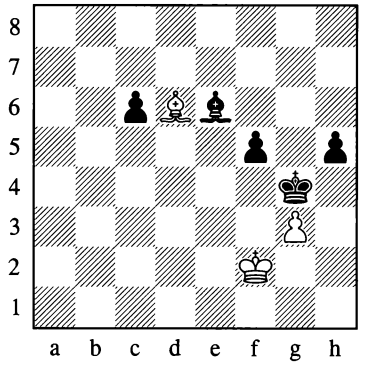
a) 38.♔d2? ♔g2 39.♔e3 ♔xh2 40.♔f2

This looks like a decent defensive try at first glance. But when you realise that the bishop would have to operate on two different diagonals, you see the trouble White is in.

40...♗f7 41.♔f3 ♗d5† 42.♔f2 ♔h3 43.♗e7 ♔g4 44.♗d6 g5

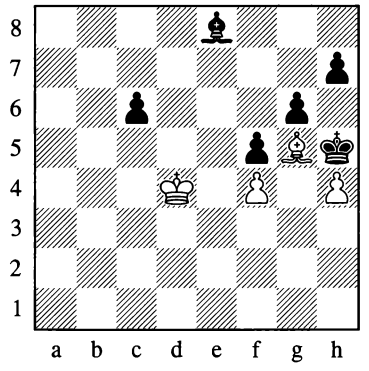
Creating a second passed pawn is easy.

45.fxg5 ♔xg5 46.♔g1 ♔g4 47.♔f2 h5 48.♔e3 ♗e6 49.♔f2

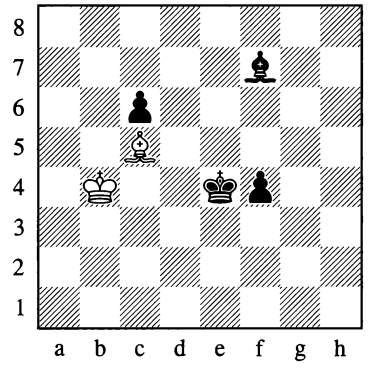


49...f4! 50.♗xf4
Or 50.gxf4 ♗f5!
50...h4
Black wins.

b) 38.♗e7!
To me this manoeuvre is obvious. But to some strong players I showed this game to, it is anything but. It is a matter of having seen various small ideas enough times.
38...♔g2 39.h4 ♔xg3 40.♗g5 ♔g4 41.♔d4 ♔h5

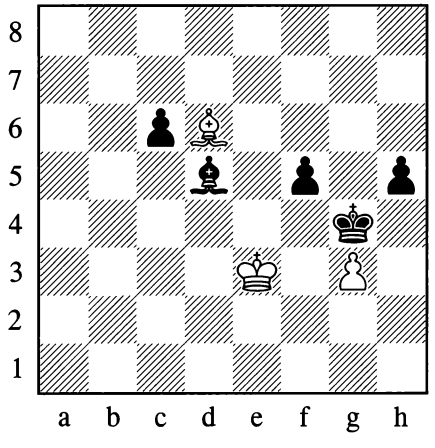


42.♗f6
42.♔e5? c5 and White would lose, as the c- and f-pawns can no longer be blocked on the same diagonal. And if 43.♔d5 h6 44.♗f6 ♔g4 45.♗g7 h5 the white king will be offside.
42...h6 43.♗g7!
This is the key idea. White is not giving up the fight for the dark squares.
43...g5
Black has no better try.
44.hxg5 hxg5 45.fxg5 ♔xg5 46.♗e5 ♔g4 47.♗d6!
Preventing the c-pawn from advancing.
47...f4 48.♔d3 ♔f5 49.♗c5 ♔e5 50.♔c4 ♗f7† 51.♔b4 ♔e4



White is able to keep the pawns blockaded, because the key squares are on the same diagonal. For example:
52.♔c3 ♔f3 53.♔d2 ♔g2 54.♔e1
With a draw.

37...♔f3 38.♗c5 ♔g2 39.♔e3 ♔xh2 40.♔f2 ♗f7 41.♗d6 ♔h3 42.♗c5 ♗d5 43.♗d6 ♔g4 44.♗e7 h5 45.♗d6 g5 46.fxg5 ♔xg5 47.♔e3 ♔g4



48.♗c7
White was in zugzwang and allowed the c-pawn to advance, something he decided was the lesser evil.

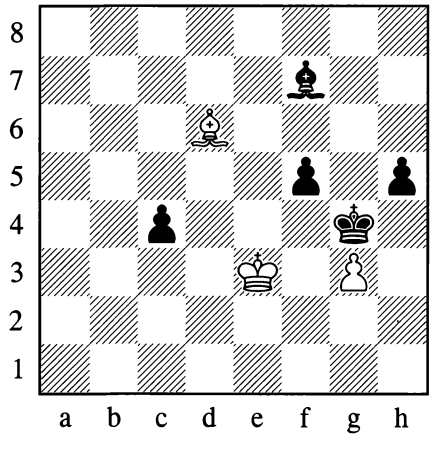
48.♔f2 f4! is instructive. 49.♗xf4 h4 and Black wins. Or 49.gxf4 ♗e6 and 50...♗f5. Black is in total control. The pawn on h3 will paralyse White, and Black will be able to go to the

queenside and win the bishop. Notice that the key squares, c5, f4 and h2, were on different diagonals. And that the black bishop is dealing with key squares on the same diagonal, f5 and h3.

48...c5 49.♗d6 c4 50.♗e5 ♗f7

50...h4!

51.♗d6

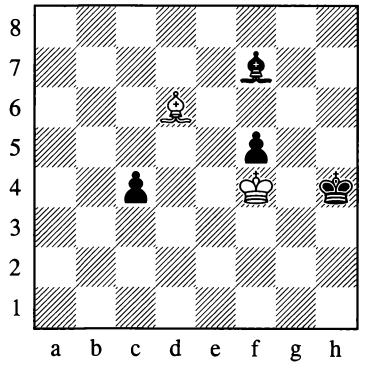


51...c3??

A horrible blunder.

Black should have created a second passed pawn. As the key squares blocking the c- and f-pawns are no longer on the same diagonal, White will not be able to hold.

51...h4! 52.gxh4 ♔xh4 53.♔f4



Optically, it is not clear that White will lose. Without the knowledge or experience relating to this specific position, even a strong grandmaster could be unsure about the outcome. But all we have to know to evaluate the position with a high degree of certainty, is to notice that the white bishop has responsibilities on two diagonals and to know that this never ends well.

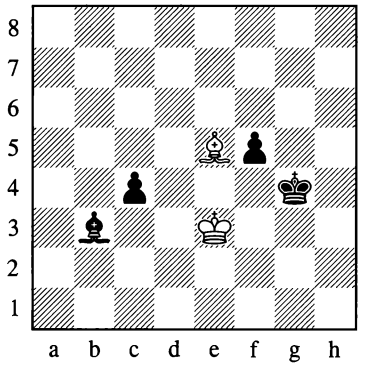
53...♗e6 54.♗b4 ♔h3 55.♗e1

55.♔e5 ♔g4 56.♔xe6 f4 would see the bishop unable to stop both pawns.

55...♗d7 56.♔f3

56.♗c3 ♔g2 57.♔e3 ♔g3 58.♗e5† ♔g4 and White is unable to keep the blockade on two diagonals.

56...♗c6† 57.♔f4 ♗e4 58.♗c3 ♔g2 59.♔e3 ♔g3 60.♗e5† ♔g4 61.♔d4 ♗d3 62.♔e3 ♗b1 63.♔d4 ♗a2 64.♔e3 ♗b3



White is in zugzwang. The pawns will advance, and Black will win.

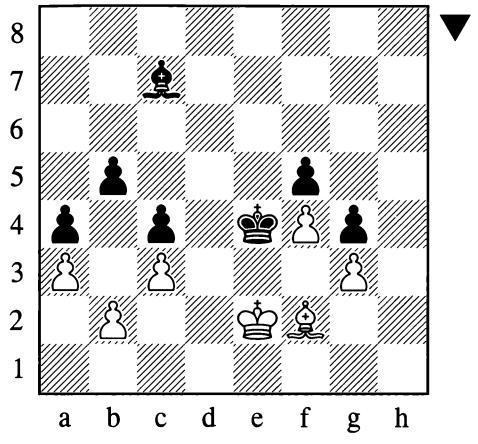
52.♔d3 ♔f3 53.♔xc3 ♗g6 54.♔d4 ♗h7 55.♗c7 ♗g6 56.♗d6 ♗e8 57.♗c7 ♔g4 58.♔e3 ♗c6

½–½

In the final example of this theme, we shall see a situation where an extra bishop is unable to do what is required of it, as the defensive responsibilities are on two diagonals.

Rhys Cumming – Yuriy Kuzubov

Portuguese League 2021



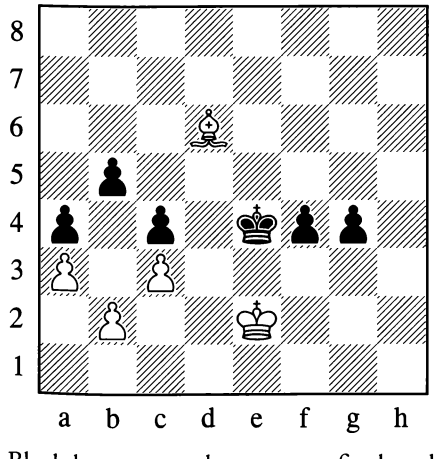
Black has been pressing for a long time, but White has established a fortress. So, in order to create a chance for White to go wrong, Kuzubov decided to sacrifice a piece.

61...♗xf4!? 62.gxf4 ♔xf4 63.♗c5 ♔e4

It is important for Black to keep control.

After 63...g3? 64.♗d6† ♔g4 65.♔e3, Black will lose.

64.♗d6 f4



Black has managed to create a final problem for White to solve. It seems the threat of ...g4-g3 is unpleasant.

65.♔f2?

White would have been better off waiting.

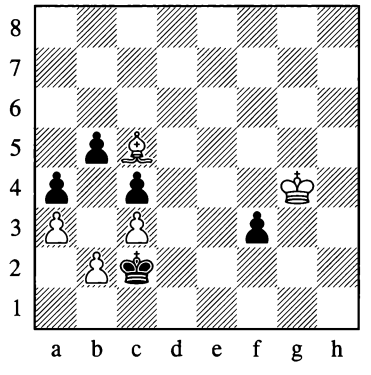
65.♗c7 Black can now keep a blockade with ...♔f5 and there is nothing White can do. But the idea was not to make a draw, so he would probably have tried: 65...g3 66.♗b8 f3† 67.♔d2 g2, but after 68.♗a7 ♔f4 69.♗f2 White has established a blockade. Black plays 69...♔e4! and the draw might as well be agreed right away.

65...f3!

This is the key point. White does not have time to eliminate the black pawns on the kingside and will have to wait and see what ill will befall him after Black takes the b2-pawn as well.

66.♗c5 ♔d3 67.♔g3 ♔c2 68.♔f2

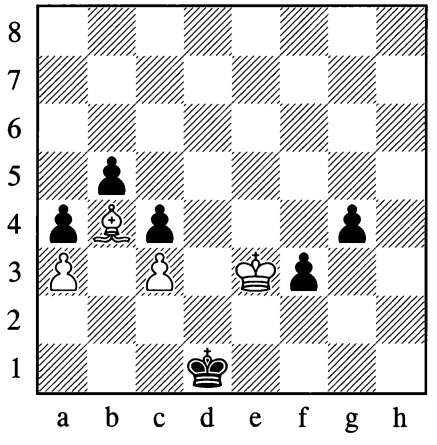
68.♔xg4 would fail to the accurate reply:



68...f2! wins easily for Black.

The key point is that 68...♔xb2? 69.♔xf3 ♔xc3 would allow White to draw after: 70.♔e3! (But not 70.♔e2? ♔c2!, when White is in zugzwang.) 70...♔c2 71.♔d4 and 72.♗b4.

68...♔xb2 69.♗b4 ♔c2 70.♔e3 ♔d1



71.♗e7

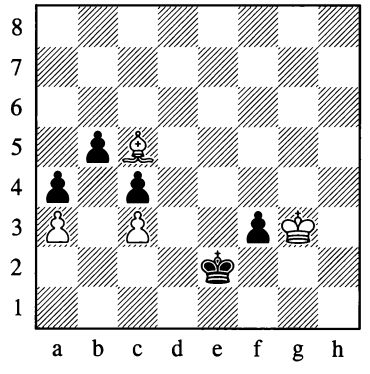
White could have offered a little more resistance, although I doubt that Kuzubov would have messed up.

71.♔f2

This would have required Black to find a triangulation.

71...♔d2 72.♗a5 ♔c2

72...♔d3 73.♗b4 ♔e4 74.♗a5 would win for Black after: 74...g3†! 75.♔xg3 ♔e3 76.♗b6† ♔e2 77.♗c5

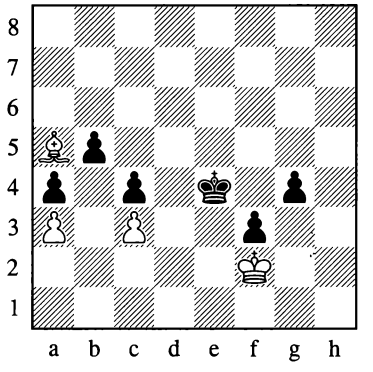


77...b4!! and after 78.axb4 a3 or 78.cxb4 c3, in both cases a pawn is promoted.

73.♔e3 ♔d1

Threatening to transpose to the game with ...♔e1.

74.♔f2 ♔d2 75.♗b4 ♔d3 76.♗a5 ♔e4

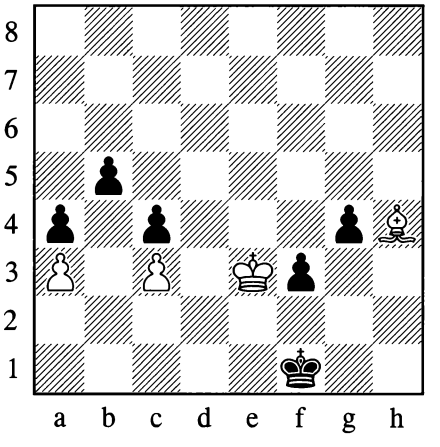


White is in zugzwang. The key ideas are 77.♗b6 b4! and:

77.♗b4 g3† 78.♔xg3 ♔e3 79.♗c5† ♔e2 80.♗d4 b4! 81.cxb4 c3

And Black wins.

71...♔e1 72.♗h4† ♔f1



Threatening ...♔g2 and ...g3.

73.♔f4 ♔e2

0–1

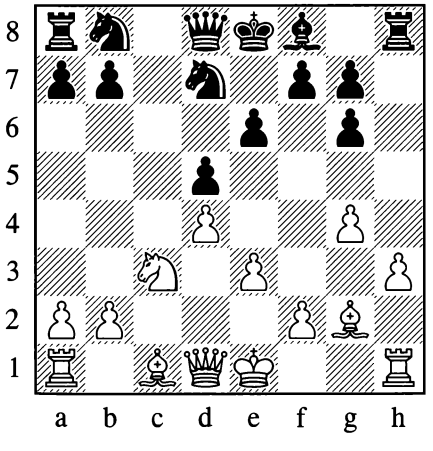
48. The power of the two bishops

One of the first things I knew about the endgame as a kid was that the two bishops were supposed to be something special. I did not fully understand why, but decided to accept it as gospel. One of my earliest memories of playing with the two bishops, against two knights, involved having a lot of pawn weaknesses, for which the bishops were unable to fully compensate. My pawns flew off the board faster than you can say humbug! In the first game we shall see how the bishops are able to dominate two knights, and the exchanges that lead to this scenario.

Magnus Carlsen – Hikaru Nakamura

London 2015

1.d4 d5 2.c4 c6 3.♘f3 ♘f6 4.e3 ♗g4 5.h3 ♗h5 6.cxd5 cxd5 7.♘c3 e6 8.g4 ♗g6 9.♘e5 ♘fd7 10.♘xg6 hxg6 11.♗g2



White has played relatively uncritical stuff, happy to play a position with a technical flavour against his dynamically-inclined opponent.

11...♘c6 12.e4 dxe4 13.♘xe4 ♗b4† 14.♘c3 ♘b6 15.0–0 0–0

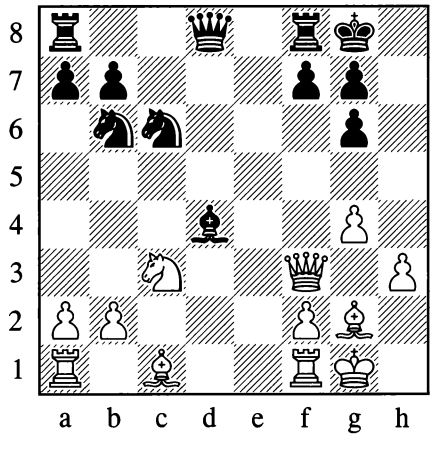
15...♘xd4 would cause Black to suffer unnecessary long-term risks. After 16.♗xb7 ♖xh3 17.♗g2 ♖h8 18.♖e1 ♖c8 19.♗e3 ♘c6 20.♕e2, the black king is stuck in the centre and the rooks unable to coordinate. It is more than just compensation for the pawn, it is an advantage.

16.d5 exd5 17.♘xd5 ♗c5

Black is close to equality. The only issues are that White has the two bishops and that the black bishop is not operating at full capacity.

18.♘c3 ♗d4 19.♕f3

19.♕b3!? was a possible improvement. White should be a little bit better.



19...♕f6?!

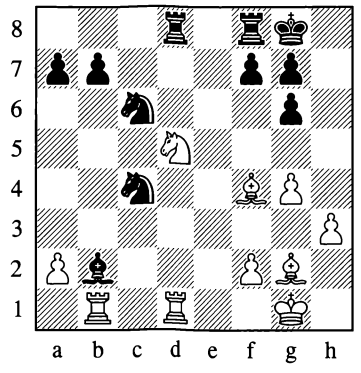
Black is seeking the exchange of queens, hoping to make a draw. But this is not a good strategy. White's advantages are long-term and once he gets organised, Black will be in a permanent state of defence.

19...♕e7 with the idea 20.♗f4 ♕b4!? would harass White a little bit and probably lead to equality.

20.♕xf6 ♗xf6 21.♗f4 ♖ad8

Black can win a pawn in the short term with 21...♘c4 22.♖ab1 ♖ad8, when the only way

for White to push is to play 23.♘d5 ♗xb2. But after 24.♖fd1, White is threatening to play 25.♗f1, which is somewhat annoying for Black.



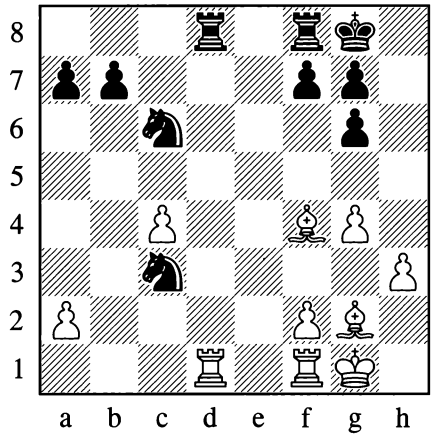
Here the solution for Black is probably 24...b6!, with the idea of ...♘6a5 without ♗c7 being a problem. White can play 25.♘xb6 axb6 26.♗xc6 ♗e5 27.♗h2!, where Black still has problems to solve.

22.♖ad1 ♗xc3!?

I am not too sure about this exchange. The two bishops become powerful in what follows. Nakamura played this in order to create active play, but if he is not able to solve his problems with brute force, he is left with long-term deficiencies: the two bishops against the two knights. In short, it all comes down to the specifics.

22...♘c4 23.b3 ♗xc3 24.bxc4 ♘d4 looks like a very reasonable way for Black to play. 25.♗g5! ♖d7 26.♔h1 would keep some advantage. Black is always a little bit worse because of the powerful bishops.

23.bxc3 ♘a4 24.c4 ♘c3



25.♖d2!

A nice little tactical move.

25...♖xd2?

A natural continuation, but I believe 25...♖d4! was better. It is all found in the details. After 26.♖xd4 ♘xd4 27.♔h2 ♖c8 28.♗d2! ♘de2! (28...♖xc4? 29.♖c1 ♘de2 30.♖c2! White will quickly win one of the knights after something like ♗f1.) 29.♖e1 ♖xc4 White will take on b7, before or after a ♗g2-f3 intermediate move.

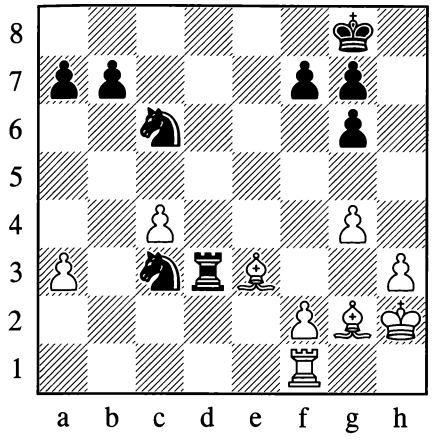
But Black has managed to achieve something important: the elimination of one of the two white queenside pawns. The draw seems to be closer. We can always analyse further and find rook endings where White has an extra pawn, but will not win, for example.

26.♗xd2 ♘e2†

26...♘xa2? would drop a piece to 27.♗xc6 bxc6 28.♖a1 and the knight is trapped.

27.♔h2 ♖d8 28.♗e3 ♘c3 29.a3 ♖d3?!

29...♘d1! would have diminished White's ability to play actively. White is still better, after say 30.♗c1 ♖d7, but it is not overwhelming.



30.♖c1! ♘d1

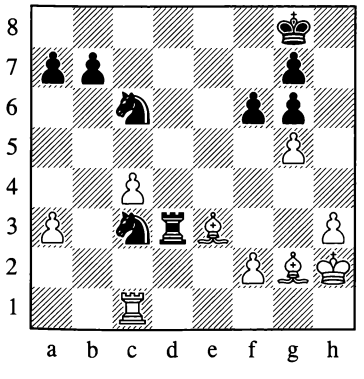
30...f5 31.♗f1 ♖d1 32.♔g2! ♖xc1 33.♗xc1 would also have given White a significant advantage.

30...f6?!

This could be met with 31.♗f1 ♖d1 32.♖xd1 ♘xd1 33.♗c5 and the two bishops are very powerful. But there are even more extraordinary continuations. 31.♖c2!? is stronger, probably. The black pieces do not coordinate well.

The strongest is surprising and the kind of thing we need computers to teach us:

31.g5!!



If Black does nothing, White will play h3-h4 and he has managed to fix the weak g-pawns for long-term exploitation.

31...f5

This is what would be a drawback in some situations, but here it weakens the e5-square crucially. And with the g7-pawn weak, White has a strong continuation.

31...♔f7 appears to be strongest. After 32.h4 White is doing very well.

32.♗xc6!

One of the powers of the two bishops vs two knights is that you can exchange them when you want. And if you exchange a bishop for a knight, you are still left with bishop against knight. This is a standard advantage of the two bishops. Most often you are in charge of when pieces are exchanged.

32...bxc6 33.♗xa7

Without the 31st moves inserted, Black would be equalising here.

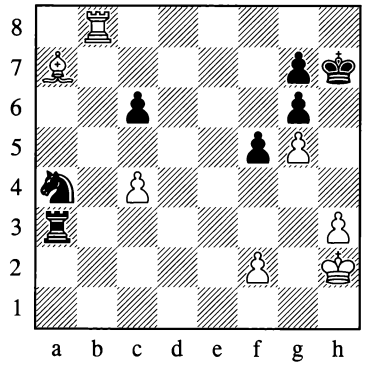
33...♘a4

33...♘e4 34.♖a1! and the a-pawn flies away.

34.♖b1!

34.♖a1 c5 and ...♖c3, winning the c4-pawn, is close to equality.

34...♖xa3 35.♖b8† ♔h7



36.♖b7! ♖d3!

The only move.

36...c5? 37.♗b8 and the pawn on g7 falls.

37.♗e3 ♖d6 38.♖e7

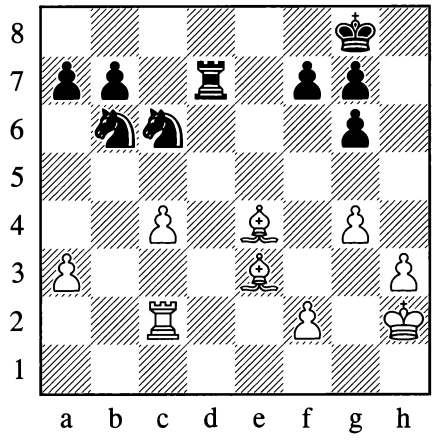
Black is totally dominated. There are ideas such as ♗f4-e5 in the air. White wins.

31.♗e4

White is able to push Black backwards.

31...♖d7 32.♗c5 ♘b2 33.♖c2 ♘a4 34.♗e3 ♘b6

34...♖e7 35.♗g2 ♖d7, with a renewal of the threat of ...♖d3, was a better try. Maybe White should play 36.♖d2 with a big advantage, but there is a long way to go.



This is a moment of clarity from Carlsen. I would personally have believed that White would be better off with the rooks on the board. Carlsen sees clearly that the bishops are so superior to the knights, that removing all counterplay is the more significant concern.

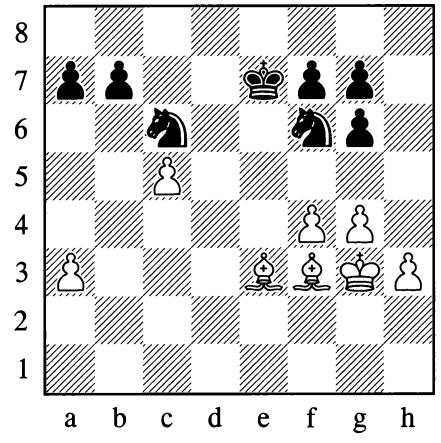
35.c5!

35.♗xb6 axb6 36.♖b2 ♖d4 37.♗d5 ♘a5 and Black should make the draw a pawn down.

35...♘d5 36.♖d2 ♘f6 37.♖xd7 ♘xd7 38.♔g3 ♔f8 39.f4 ♘f6 40.♗f3

The micro-domination of the knights is a big part of the power of the bishops.

40...♔e7



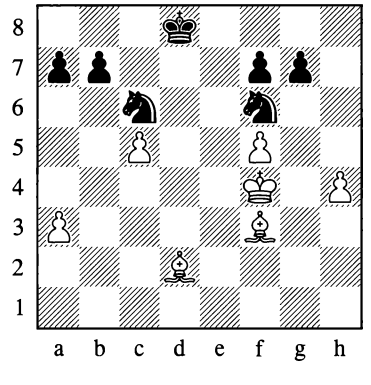
41.f5!

Great technique. The doubled pawns are by no means weak at the moment, but would be if White is allowed to take on g6. Therefore, White instead manages to create a weakness on g7 and limit the black pieces with this move. Also, this move can be seen as "broadening" (see page 681). Furthermore, it prevents ...♔e7-e6.

41...gxf5 42.gxf5 ♔d7 43.♔f4 ♘e8

Black has to defend passively, but I do not like this move. It is not that easy for the knight to return to f6.

Better would be 43...♔c7 44.h4 ♔d8, when I am 95% convinced that White is winning with best play, but it is not so easy to break through. 45.♗d2



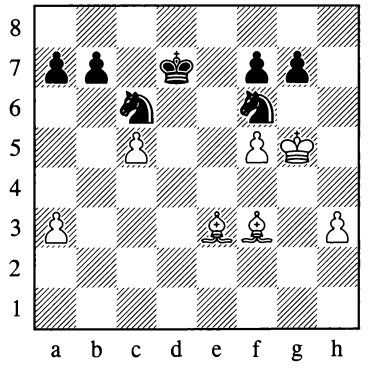
45...♘d7! is an important point. In the game Carlsen was offered a preferable regrouping, that Black would not be able to defend himself against.

44.♔g5

44.h4! was even stronger and would have exploited the last move. Black cannot play 44...♘f6?! on account of 45.♗d2! and with the bishop coming to c3, Black is in a desperate situation.

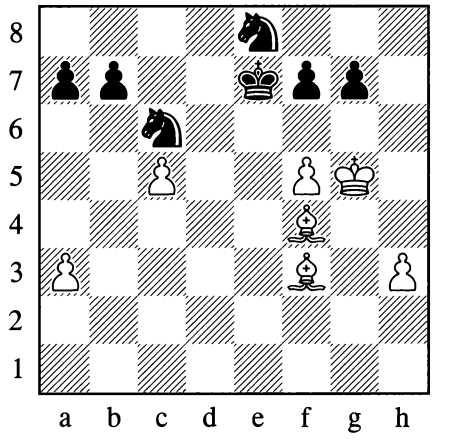
44...♔e7

To illustrate how poor the last move was: 44...♘f6 would already lose by force.



45.♗xc6†! ♔xc6 (45...bxc6 46.♗d4 ♘e4† 47.♔h5 makes it impossible for Black to defend the g7-pawn, after which White gets a deadly passed pawn on the h-file. Black does win the c5-pawn, but it is not an important pawn and there will be pawns enough left to win the game.) 46.♗d4 ♘e8 47.h4 Black has no reasonable defence to the idea of h4-h5 followed by ♗xg7!.

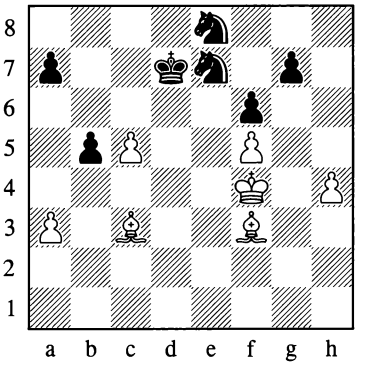
45.♗f4



45...a6?!

I dislike this move. I guess that the idea is to be able to take on c5 without losing the a7-pawn in concrete lines down the road.

Black had a last chance to fight for a draw with 45...♘f6, when White has a big advantage after 46.♗d6† ♔d7 47.h4, but Black can still resist with 47...b5! 48.♔f4 ♘e7 (48...a5 49.♗f8 and White wins.) 49.♗e5 ♘e8 50.♗c3 f6



51.h5, when there is no forced win, but Black will suffer a long-term bishop shuffle and undoubtedly miss something in practical play.

46.h4!?

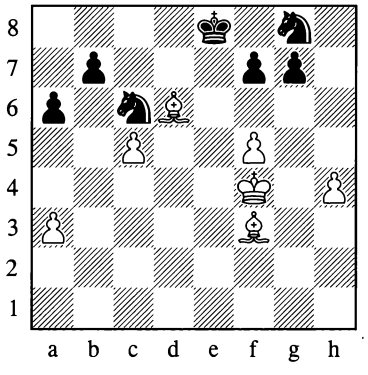
Not a mistake, but also not the best move.

Carlsen once again had the chance to regroup the pieces with 46.♗d2! ♘f6 47.♗c3 ♘h7†

48.♔g4 f6 49.♗d2 with a dominating position. Black cannot allow ♗f4-d6. And after 49...♘e5† 50.♔g3 ♘xf3 51.♔xf3 we can see that White will win this game because of the weakness on g7. More moves are to be played, but White will win.

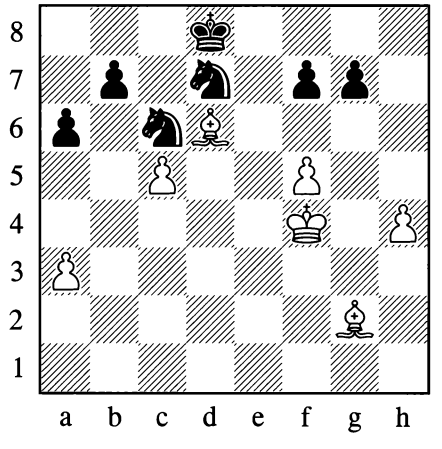
46...♔f8 47.♗g3 ♘f6 48.♗d6† ♔e8 49.♔f4 ♘d7

A funny variation will arise after: 49...♘g8



50.♗d5 ♘f6, where I believe White can achieve a lot by triangulation. 51.♗g2 ♘g8 52.♗f3! Black is in a lot of trouble. For example: 52...♘f6 53.♗e5! ♔e7 54.♗xf6† ♔xf6 55.♗xc6! bxc6 56.h5 ♔e7 57.♔g5 and White wins. White will play f5-f6 and create an outside passed pawn to distract the black king.

50.♗g2 ♔d8



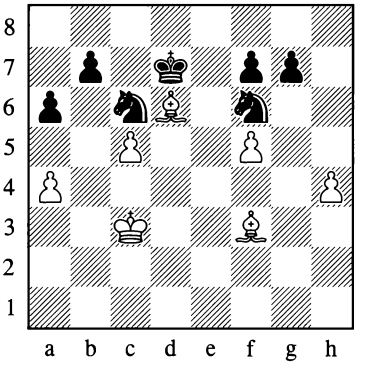
51.♔g5

The beginning of an entirely wrong plan, which is only taking effect once White commits the h-pawn. The correct plan for White would be to slowly outmanoeuvre Black and get the optimal use of the bishops before making any commitments. It is not possible to predict how Nakamura would have defended, but I have put together a possible variation that can illustrate one possible way for White to win the game. Black could obviously defend in many different ways, which would often force White to win in different ways too.

51.a4 ♔e8 52.♗f3 ♔d8 53.♔e3 ♔e8 54.♔d3 ♘f6 55.♔c3

The king is threatening to invade on the queenside after an exchange on c6. With weaknesses on b7 and g7, as a start, we can talk about exploiting two weaknesses. There is no rush.

55...♔d7



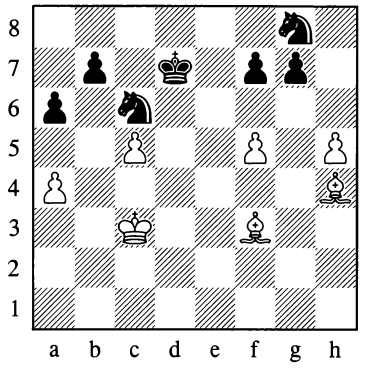
56.h5!?

Only now this commitment is made, when there is a direct way to exploit it.

56...♘h7

56...♔e8 57.♗xc6† bxc6 58.♔b4 and White wins the a-pawn and later the game. The h5-pawn being weak here is not a limitation.

57.♗g3 ♘f6 58.♗h4 ♘g8



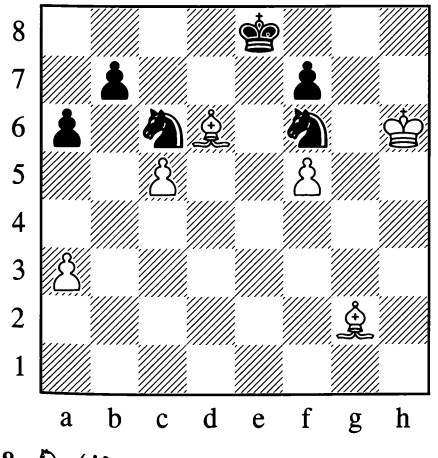
59.f6! gxf6 60.♗e4 ♔c7 61.♗g3† ♔d7 62.♗f5† ♔e8 63.♗c8 ♘d8 64.♗c7 ♘e6 65.♗b6

Soon, with passed pawns on both flanks, White wins.

51...♔e8 52.h5? ♘f6 53.h6

This was Carlsen's idea, but it is too impatient. Having said that, I was deeply impressed when I looked at this game originally. It is certainly extremely creative. But as said above, White should have outmanoeuvred his opponent first, rather than pushing on so hard.

53...♘h7† 54.♔h5 ♘f6† 55.♔g5 ♘h7† 56.♔h4 gxh6 57.♔h5 ♘f6† 58.♔xh6



58...♘g4†?

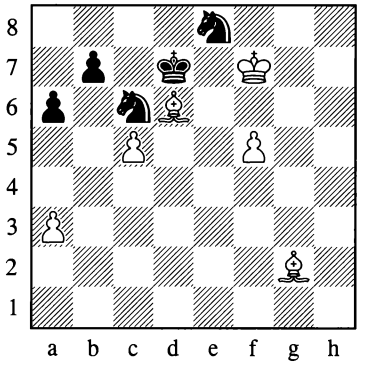
A natural-looking move, but a big step in the wrong direction. It all hangs on brilliant tactical play by Carlsen down the line.

A sturdier defence would have been:

58...♔d7!

Where Black has managed to exchange off his weak g7-pawn. Although the suffering is far from over, there is also no direct way for White to break through. For example:

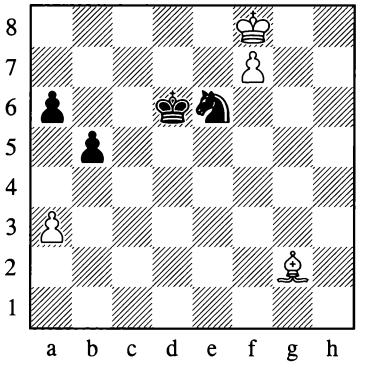
59.♔g7?! ♘e8† 60.♔xf7



60...♘xd6† 61.cxd6 ♘d8†!

Black makes the draw:

62.♔f8 b5 63.f6 ♔xd6 64.♔e8 ♘e6 65.f7 ♘g7† 66.♔f8 ♘e6†



67.♔e8

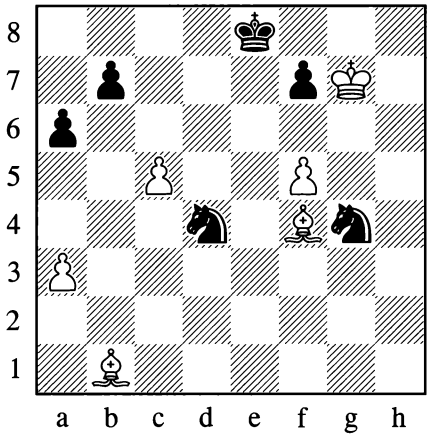
67.♔g8 ♔e7 68.♗h3 ♘f8 69.♗f5 a5 70.♔g7 b4 71.a4 b3 72.♔g8 b2 73.♔g7 ♘e6† with a draw.

67...♘c7† 68.♔d8 ♘e6† 69.♔c8 ♔e7

Black has several moves that draw, for example the strange 69...b4. But not 69...a5 70.♗h3 ♘f8 71.♔d8 ♔e5 72.♔e8 ♘g6 73.♗f1 and the f-pawn queens.

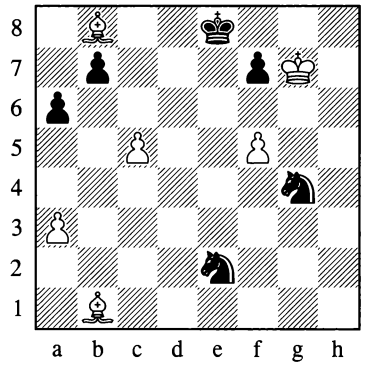
70.♗d5 ♔xf7 71.♔d7 ♔f6 72.♗xe6 ♔e5
White cannot save his remaining pawn.

59.♔g7! ♘d4 60.♗e4 ♘f2 61.♗b1 ♘g4 62.♗f4



62...f6?!

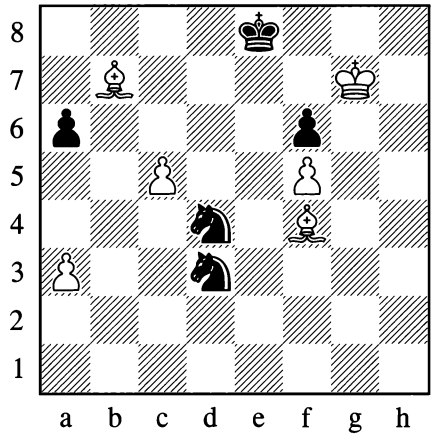
Black could have offered more resistance with the following variation, which gives us a chance to see the full power of the bishops in action: 62...♘e2 63.♗c7 ♘c3 64.♗c2 ♘b5 65.♗f4 ♘d4 66.♗b1 ♘e2 67.♗b8



And now we have two illustrative variations:
67...♘c3 68.♗c2 ♘e3 69.♗d3 ♘cd5 70.♗e4 f6 71.♗g3 ♔e7 72.♗h4 a5 73.♗e1 a4 74.♗d2 White wins.

67...♘d4 68.♗e4 ♘f2 69.♗xb7 ♘xf5† 70.♔f6 ♘e7 71.♗d6 ♘g4† 72.♔g5 ♘e3 73.♗xa6 White wins.

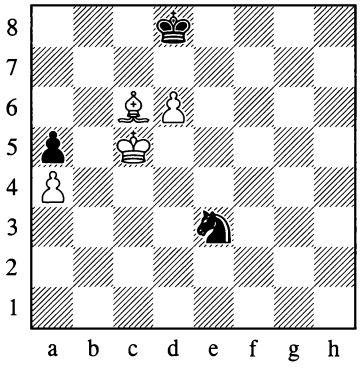
63.♗e4 ♘f2 64.♗b1 ♘g4 65.♗e4 ♘f2 66.♗xb7 ♘d3



67.♔xf6!!

A beautiful piece sacrifice, based on deep calculation by the World Champion.

After 67.♗d6? ♘xf5† 68.♔xf6 ♘xd6 69.♗c6† ♔d8 70.cxd6, the white position looks winning. The black king is dominated and White will run with the king to b6. But Black can send his knight on the right circuit and attack the d-pawn from f7! 70...♘b2!! 71.♔e6 ♘c4 72.a4 a5 73.♔d5 ♘e3† 74.♔c5



74...♘g4! 75.♔b6 ♘e5 76.♗b5 ♘f7 77.d7 ♘e5 78.♔xa5 ♘xd7 79.♗xd7 ♔xd7 80.♔b6 ♔c8! with a book draw.

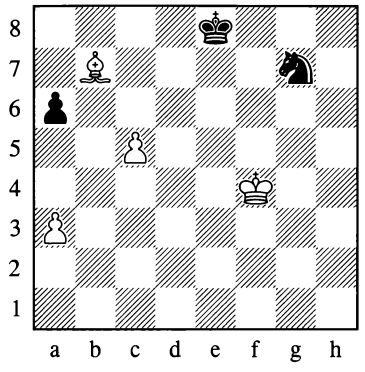
67...♘xf4 68.♔e5 ♘fe2

After:

68...♘xf5

White wins after taking either knight, but my instinct would definitely be to cut off the knight from the queenside with:

69.♔xf4 ♘g7



70.♔e5! ♔d7 71.♗d5

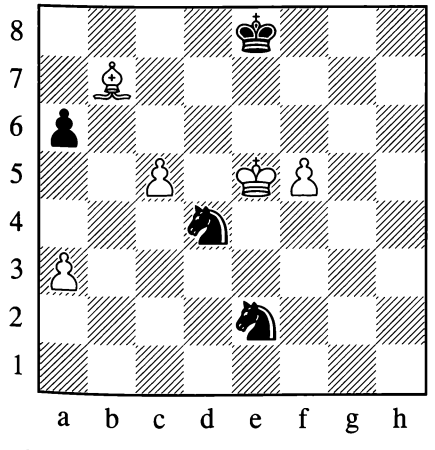
White should win slowly.

71...♘e8 72.♔d4 ♘c7 73.♗c4 ♔c6 74.a4 ♔d7 75.♗d5

Zugzwang.

75...♘e8 76.♔c4 ♘c7 77.♗b7 a5 78.♗g2 ♔e6 79.♗h3† ♔e7 80.♔d4 ♔d8 81.♔e5 ♔e7 82.♗c8 ♔d8 83.♗f5 ♔e7 84.♗h3 ♘e8 85.♔d5

And the king invades.



69.f6?

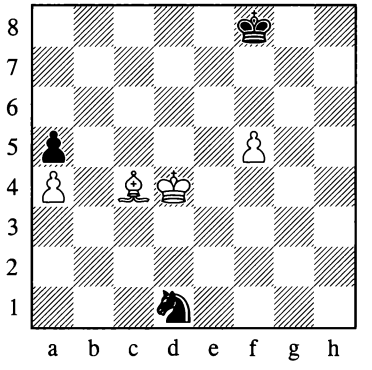
I don't know what went wrong here for Carlsen. This is a serious mistake, as now the pawn will be difficult to defend going forward.

69.c6 was the winning move.

The reason is that after 69...♘xc6 70.♗xc6†, the f-pawn is still on the 5th rank and easy to defend.

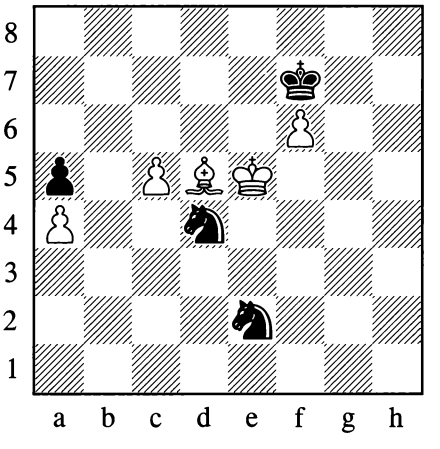
And after 69...♔d8 70.f6 ♘xc6† 71.♗xc6 Black can no longer get to the kingside and stop the pawn.

69...♘xc6† So this is critical after all. 70.♗xc6† ♔f8 71.♗d5 ♘c3 72.♗c4 a5 73.♔d4 ♘d1 74.a4



74...♔e7 75.♗b3 ♘b2 (75...♘f2 76.♔c5 ♔f6 77.♗e6 and White wins a pawn.) 76.♔c3 ♘xa4† 77.♗xa4 ♔f6 78.♗c2 White wins.

69...a5 70.a4 ♔f7 71.♗d5†



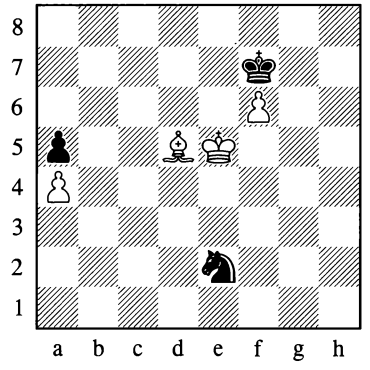
71...♔f8?

Nakamura missed a surprising defence.

71...♔g6!

This would keep touch with the f-pawn for a moment.

72.c6 ♘xc6† 73.♗xc6 ♔f7! 74.♗d5†



74...♔f8

Black is making the draw. We will see now why the f-pawn would have been better off on the 5th rank.

It is possible that Nakamura only looked at this in the context of returning to g6. But 74...♔g6? would now lose to 75.♗c4 ♘c3 76.♔e6 and the f-pawn queens.

75.♔d6 ♘c3 76.♗b3 ♔e8 77.♔c5

Eventually White will have to do this.

77...♘xa4† 78.♗xa4† ♔f7

Black draws.

72.♔e4!

Threatening ♔e3 and ♗c4, picking up one of the knights. Black is busted.

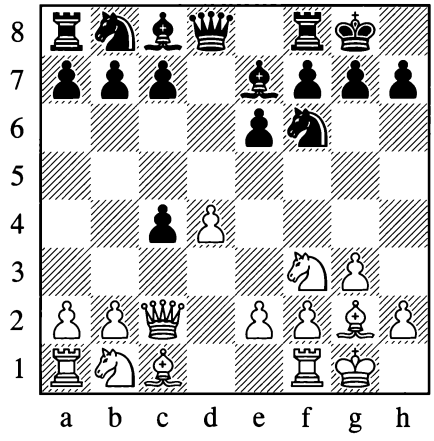
72...♘c2 73.c6 ♘c3† 74.♔e5 ♘xa4 75.♗b3 ♘b6 76.♗xc2 a4 77.c7 ♔f7 78.♗xa4 1–0

The next game features the bishop pair dominating a bishop and knight.

Ding Liren – Magnus Carlsen

Zagreb 2019

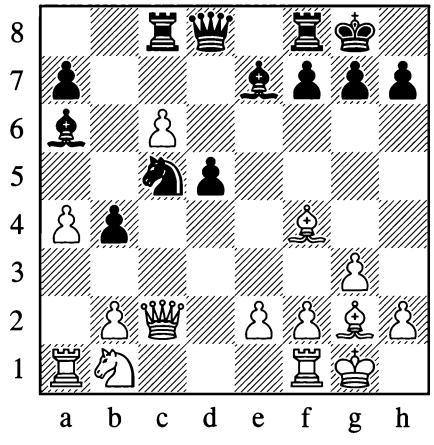
1.d4 ♘f6 2.c4 e6 3.♘f3 d5 4.g3 ♗e7 5.♗g2 0–0 6.0–0 dxc4 7.♕c2



7...b5!?

The main move is 7...a6 since forever, but a number of new ideas have been discovered early on in the Catalan in the last decade.

8.a4 b4 9.♘fd2 ♘d5 10.♘xc4 c5 11.dxc5 ♗a6 12.♘e3 ♘d7 13.♘xd5 exd5 14.c6 ♖c8 15.♗f4 ♘c5



16.c7

When faced with the same variation not long after, Boris Gelfand had a chance to show his homework:

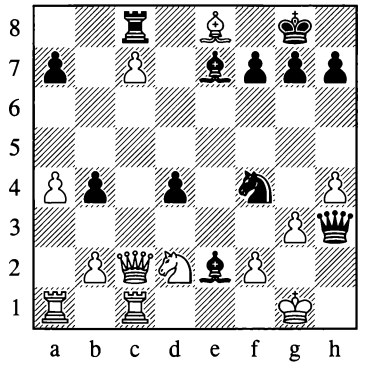
16.♖d1! d4 17.h4 ♖e8?!

17...h6 was stronger, but after 18.♗f3 White would still be better.

18.♘d2! ♗xe2 19.c7! ♕d7 20.♖dc1 ♘d3?

Bad moves in bad positions are not rare.

21.♗c6 ♕h3 22.♗xe8 ♘xf4



23.♕e4!

23.♕c6? looks appealing, but would fail to a neat trick. 23...♗b5!! and Black wins the queen on account of 24.axb5 ♘e2#.

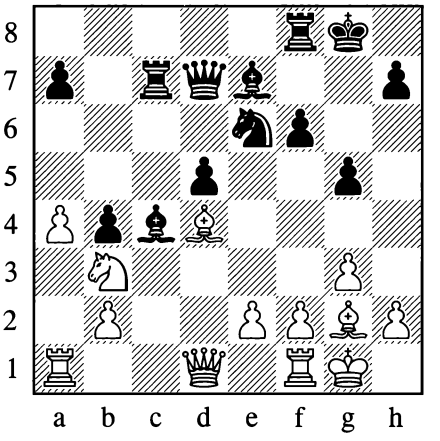
23...♖xe8 24.♕xf4 ♗a6 25.♕f3 ♕c8 26.♔h2 ♗b7 27.♕f4 ♕d7 28.♖c4 ♗f6 29.♖c5 ♗e7 30.♕f5 ♕c8 31.♕xc8 ♖xc8 32.♖c4 ♗d5 33.♖xd4

1–0 Gelfand – Deac, Bucharest 2019.

16...♕d7 17.♘d2 g5 18.♗e5 f6

Even though White is objectively slightly more comfortable, it is not much and since he was still in preparation, Carlsen was optimistic about his prospects.

19.♗d4 ♖xc7 20.♕d1 ♘e6 21.♘b3 ♗c4



An important move. White is not in time to get organised.

22.♘a5

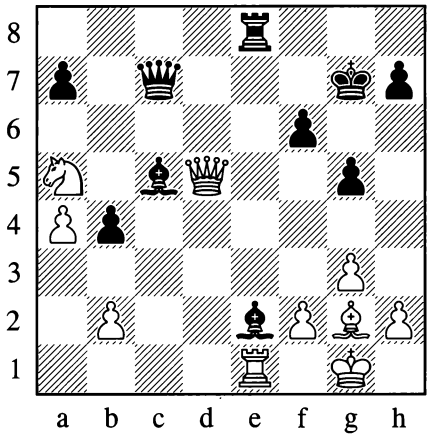
22.♗e3 d4 23.♘xd4 ♘xd4 24.♗xd4 ♖d8 25.♗e3 f5 with the idea ...♗f6 gives Black sufficient counterplay to justify the pawn deficit.

22...♘xd4 23.♕xd4 ♔g7 24.♖fc1 ♗xe2 25.♖xc7 ♕xc7 26.♖e1?!

White is drifting into a position where he will have to solve problems.

After 26.♕xd5 ♖d8 27.♕e4 the position would have been entirely equal. A possible proof could be: 27...♖d1† 28.♖xd1 ♗xd1 29.♘c6 ♗c5 30.♘d4 ♗xd4 31.♕xd4 ♗xa4 32.♕xb4 with a draw on the horizon.

26...♗c5 27.♕xd5 ♖e8



Black is threatening to play ...♗xf2†, which is why White should seek to exchange the queens. Choosing the right square is far from intuitive.

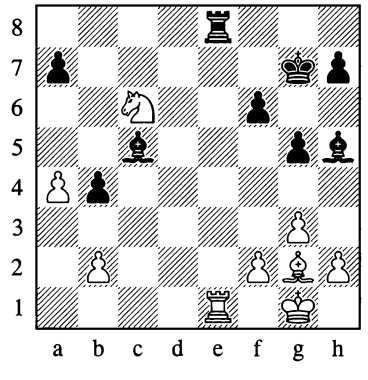
28.♕b7?!

This looks entirely reasonable. The idea here is to dominate the black bishop.

28.♘c6? would fail to a simple double attack: 28...♗f3! and Black wins at least the exchange.

28.♘b3 ♗c4 works in the same way.

28.♕c6! was the right move. The idea is all about coordination. 28...♕xc6 29.♘xc6 ♗h5



Here White has a way to create counterplay against the bishop on c5. 30.♖c1! The key point. Black cannot hold the bishop on the diagonal and after 30...♖e2!? 31.♖xc5 ♖e1† 32.♗f1 ♗e2 33.♘d4 ♗xf1 34.f4 White is not worse.

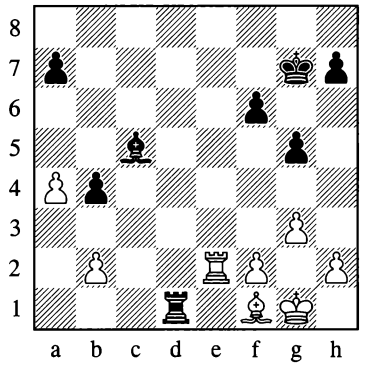
28...♕xb7 29.♘xb7 ♗f8

After 29...♗b6 30.a5 ♗d4 31.♗f3 ♗b5, White would have 32.♖d1! ♗e5 (32...♗xb2 33.♘d6 leads to an immediate solution to all problems) 33.♔g2 and White is holding everything together successfully.

30.♗c6?

White would not be better off after 30.♗f1?!, when Black could play something like 30...♗h5 31.♖c1 ♗f3 32.♗g2 ♗g4! 33.♘a5 ♖c8!? with a serious advantage for Black.

But White could direct his worst-placed piece, the knight on b7, towards the weak square on e6 with: 30.♘d8! ♖xd8 Black has nothing better than taking the knight. It would be too annoying on e6. 31.♖xe2 ♖d1† 32.♗f1 ♗c5

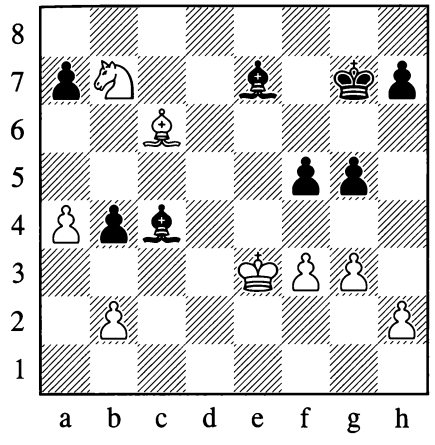


Black is a bit better. But a draw is almost certainly on the way. 33.♖e4 b3 34.♖c4 ♗d4 35.♖b4 ♖d2 36.♖xb3 ♗xf2† 37.♔h1 h5 Apparently Carlsen thought that there was still some work for White here. I am not sure about this. Also, why would White be so desperate to go for the b3-pawn?

30...♖e7 31.f3

31.♘c5 ♗g4 gives Black the type of opposite-coloured bishop ending he is longing for.

31...♗c4 32.♖xe7† ♗xe7 33.♔f2 f5 34.♔e3



34...♗g8!

Getting as far away from the reach of the knight as possible. On f7, it is quite likely that White would win a tempo to get the knight back in the game at some point.

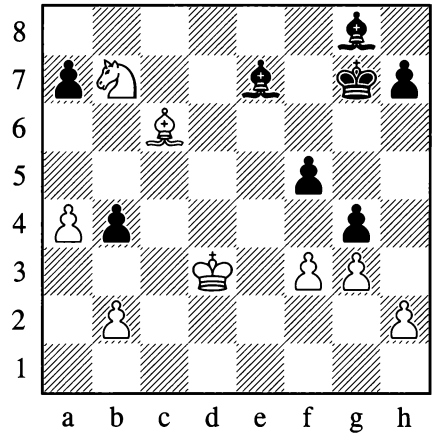
34...♗a2!? is given as strongest by Stockfish 14, with the key point that Black can play ...b3 and prevent the king from defending the b2-pawn from b1. But the downsides of imprisoning the bishop are not just optical, but also show up in deep analysis. It is all far from what would actually happen in a game between two humans, so I will ask you to take my word for it.

35.♔d3 g4!?

This is a decent technical move, aiming to fix the h2-pawn. But for concrete reasons, it seems to not be as effective as the alternative.

35...h5!, with the idea 36.a5 f4!, creating further weaknesses on the kingside, seems a bit more accurate. Only under these circumstances would Black favour the exchange of pawns. White could try 37.gxf4 gxf4 38.♔e4, but after 38...♗f6 39.♗d5 ♗h7† 40.♔xf4 ♗xb2 Black has gained a passed pawn and continues to be optimistic on the kingside, where the h-pawn can be difficult to defend later.

36.f4 is also possible, but everything looks dangerous for White.



36.♘a5?!

Trying to get the knight back, but it has nowhere to go.

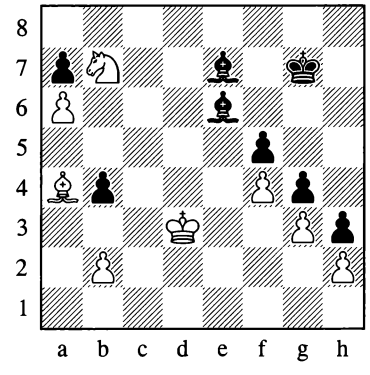
36.a5!

This was the best move, aiming to put the pawn on a6, where it is less exposed. Doing this is a difficult thing, as it feels passive. White is choosing to not react to what Black is doing.

A possible direct approach for Black would be:

36...b3

36...h5 37.a6 was suggested by Peter Heine Nielsen in his annotations. For example: 37...♗e6 38.f4! h4 39.♗a4 h3, which looks very natural.



But after 40.b3, White has managed to create a fortress. 40...♗h4 will not work. White has 41.♗c6, holding. 40...♗d5 41.♔d4 ♗h4!? is another try. But White is holding after 42.♔xd5 ♗xg3 43.♔e5 ♗xh2 44.♘d8! g3 45.♘e6† ♔g6 46.♘g5 with a draw on the horizon.

So, White would play:

37.fxg4 fxg4 38.a6 h5 39.♔e4

It is not easy for Black to make progress. For example:

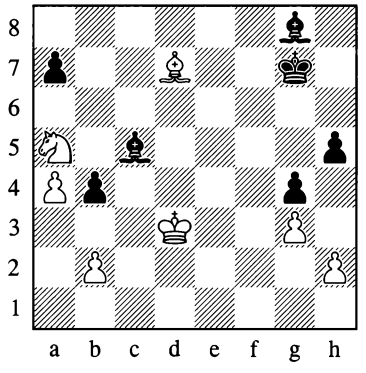
39...♗f6 40.♗d5! ♗h7† 41.♔e3 ♗xb2 42.♗xb3

Although White is worse, it is manageable.

36...♗c5 37.♘c4?

A natural continuation from the previous move, but a serious mistake.

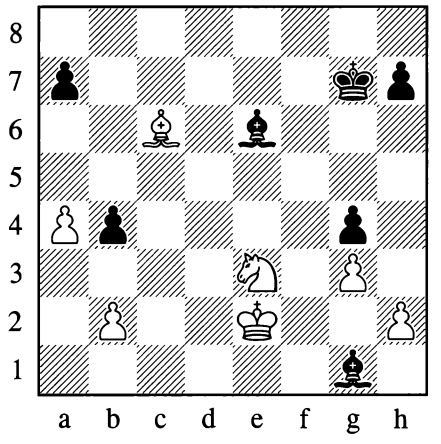
White could have included 37.fxg4 fxg4 38.♗d7 h5, before bringing back the knight.



39.♘c4 ♗g1 would now be met with 40.h3! gxh3 41.♗xh3, where Black is still doing swimmingly after 41...♔f6 42.♘e3 ♔e5, but White is not lost quite yet.

37...♗g1 38.♘e3 ♗e6 39.fxg4 fxg4 40.♔e2

40.♔e4 ♗xh2 41.♔f4 ♗g1 42.♘xg4 ♗d4 would lose the b-pawn and create more problems on the queenside.



40...h5!

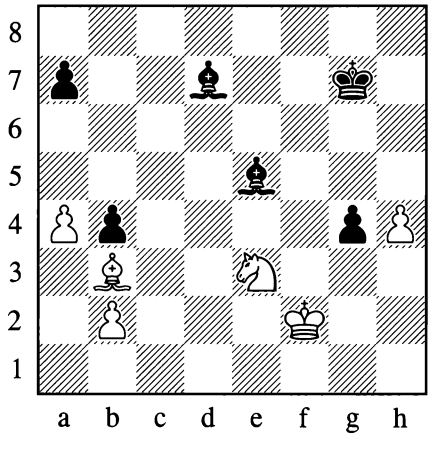
Revealing the plan of creating a passed pawn.

40...♗xh2? would blunder the bishop to 41.♔f2, although White would be unlikely to win the game.

41.♗d5 ♗d7!

Obviously, Black is not wanting to exchange bishops.

42.♗b3 ♗xh2 43.♔f2 h4 44.gxh4 ♗e5

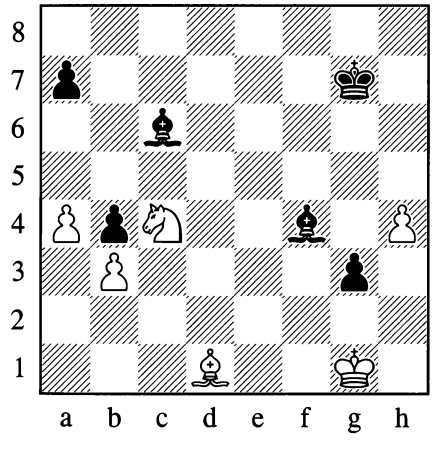


Black is winning with the powerful g-pawn. Carlsen converted this without any serious hiccups. If White had time to play ♗d5 and b2-b3, he would be able to put up serious resistance. But he does not.

45.♘c4 g3† 46.♔g1 ♗f4!

One of the main ways to exploit the advantage of two bishops against bishop and knight, is to have the bishop without a counterpart dominate the knight. Here the dark-squared bishop is the start of the show, while the light-squared bishop is more of a supportive piece.

47.♗d1 ♗c6 48.b3



Black has managed to achieve complete control of the position. He is now able to improve the activity of his king slowly.

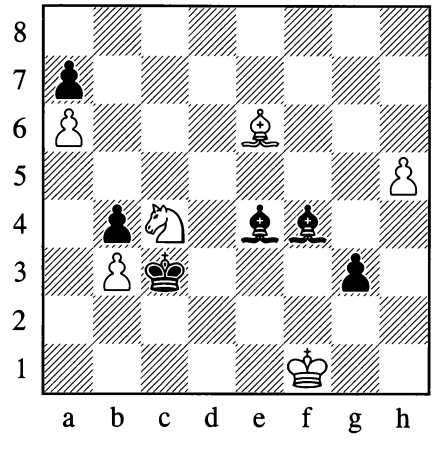
48...♔h6

I am not sure why it goes here first, but it will soon get on the way to c3.

49.a5 ♗e4 50.♔f1 ♔g7 51.♔g1 ♔f6 52.♔f1 ♔e6 53.h5 ♔d5 54.a6 ♔d4 55.♗g4 ♔c3

Black has achieved full control and it is now time to look for a way to win the game.

56.♗e6



56...♗c2

Direct was 56...g2† 57.♔g1 ♗h6, when White needs to be ready with ♗h3xg2, but cannot play it now because of ...♔xb3. And after 58.♔h2 ♗g5 White is in zugzwang. 59.♔g1 ♗e7 and the bishop arrives with check on c5. But what Carlsen did was good enough to win as well.

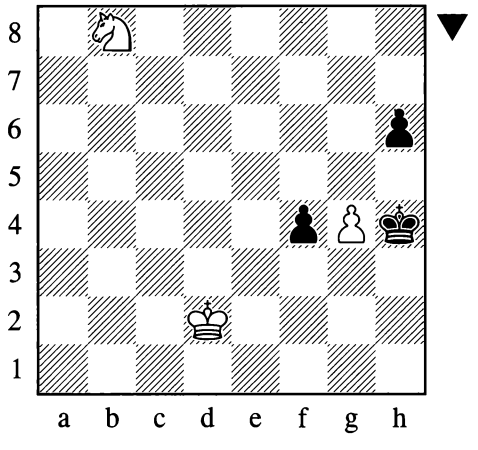
57.♘a5 ♗c7 58.♘b7 ♗d3† 59.♔g1 ♗xa6 60.♗d5 ♗xb7 61.♗xb7 ♔xb3
0–1

49. Knight paths

Undoubtedly the strangest piece on the board, the knight moves like a banana and makes people go bananas with its eating habits (using mainly forks...). As the patterns of movement of knights are different to the other pieces and the way we usually see the world (through geometric shapes, lines, diagonals and squares, all guiding how the other pieces on the board are moving), their prospects can be difficult to visualise, leading to plenty of mistakes for players at all levels.

Giga Quparadze – Luka Paichadze

Tbilisi 2021



In this game, Black undoubtedly decided that there was no reason to play on and simply eliminated the opponent's last pawn.

55...♔xg4??

55...♔g3 56.♘d7 f3 57.♘f6 f2 58.♘e4† would indeed see the knight arrive in time for a drawn pawn ending.

But if the king took a different path, Black would win: 55...♔h3! 56.♘d7 f3 57.♘f6 f2 and the pawn queens. We can ascribe this to a failure of imagination, or simply that knight paths are less obvious, as is the way we should react to them. As we are usually short on time in the endgame, it can be hard to notice these options if they are not at the forefront of our intuition.

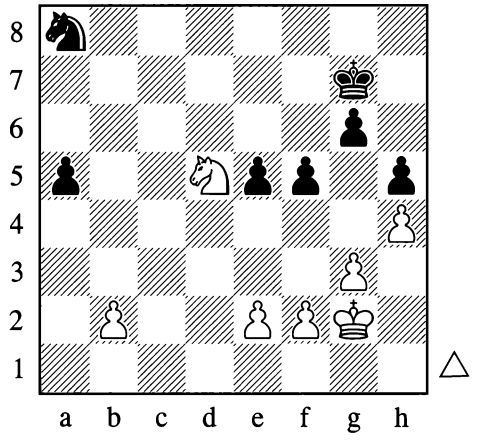
56.♘c6 h5 57.♘e5† ♔f5
½–½

50. Knight in the corner

The knight is the only piece that is never well placed in the corner. Sure, it can be blocking a passed pawn and we have all seen some cool manoeuvres that use the corners as a bouncing square. But generally, the knights are not doing well in the corner. Their options are limited, and they can at times be entirely paralysed, as in the next example and in Castellanos – Guerrero later in the book (see page 223).

Alexei Shirov – Ruben Domingo Nunez

Linares 2020



30.♔f3!

White activates his strongest piece.

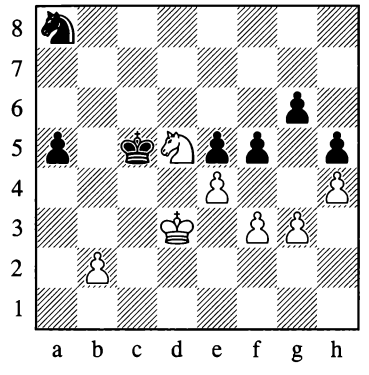
30...♔f7 31.e4 ♔e6 32.♔e3 ♔d6 33.♔d3?

Shirov allows his opponent to bring the knight out of the corner at the low cost of only a pawn.

33.f3!

This prevents the knight from coming out, as after an exchange on c7, White would create a distant passed pawn with exf5 and g3-g4. It wins with razor-sharp accuracy.

33...♔c5 34.♔d3



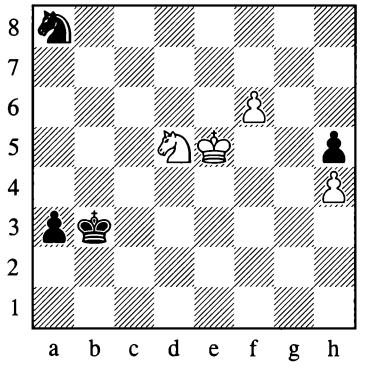
34...fxe4†

34...a4 35.♘e7 ♘b6 (35...fxe4† 36.♔xe4 ♔b4 may look like counterplay, but after 37.♘d5† ♔b3 38.♘c3 a3 39.bxa3 ♔xc3 40.♔xe5, White is winning on the kingside, and the knight is kept out of the game by the a-pawn.) 36.♘xg6 fxe4† (36...♘c4 37.exf5 and wins.) 37.♔xe4 ♘c4 38.♘xe5 ♘xb2 39.♘d3† ♔b5! A necessary try. 40.g4! But White does not bite the knight on the hook. 40...a3 41.♘c1 White wins.

35.♔xe4 ♔c4

35...♔d6 36.g4 a4 37.g5 ♔e6 38.f4 exf4 39.♘xf4† ♔f7 40.♔d4 After having forced the black king to be passive, White wins on the queenside.

36.g4 ♔b3 37.gxh5 gxh5 38.♔xe5 ♔xb2 39.f4 a4 40.f5 ♔b3 41.f6 a3



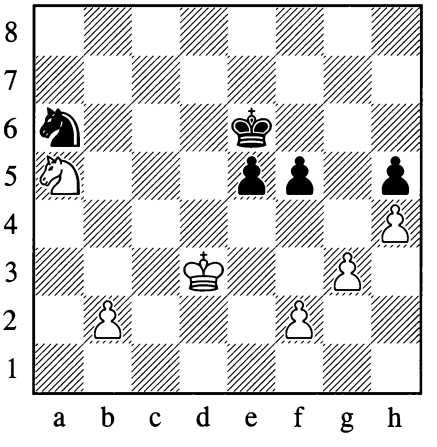
42.♘b4!

The important tempo winner. If Black takes the knight, the f-pawn will queen with check.

42...♘b6 43.♔e6

The knight cannot stop the pawn. White wins.

33...♘c7 34.♘e3 ♔e6 35.♘c4 ♘a6 36.exf5† gxf5 37.♘xa5



White has won a pawn, but it is not at all clear it is enough to win the game. But the black position is still difficult to defend and over the next three moves Domingo fell apart.

37...♘c5†?!

37...♔d5! would have made it hard for White to make progress.

38.♔e3 ♔d5?!

Black could offer more resistance with 38...♘a4 39.♘c4 ♔d5 40.b3, where White is close, but the outcome is still in doubt.

39.b4! f4†?!

The final chance was to play passively with something like 39...♘d7, where White should be winning after 40.b5 ♘b6 41.♔d3 ♔c5 42.♘b7† ♔d5 43.♘d8, but there is still a lot of work to do.

40.gxf4! exf4† 41.♔xf4

The time control has been reached and White is two pawns up, winning comfortably.

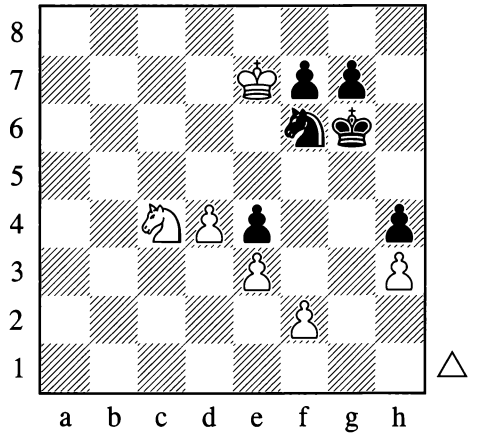
41...♘d3† 42.♔g5 ♘xf2 43.♔xh5 ♘d3 44.♔g6 ♘f4† 45.♔f5
1–0

51. Kings are better than knights

One effect from valuing kings higher than knights is that in knight endings, king activity is more important than knight activity.

Andreas Heimann – Arik Braun

Magdeburg 2021



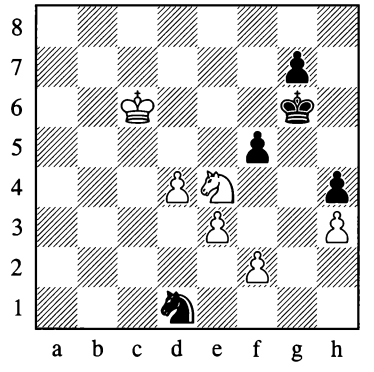
In this game, White ruined five hours of work with one careless check.

49.♘e5†?

A check that forces the black king to be active.

One of the students at Killer Chess Training came up with a curious triangulation, asking himself what Black would do if he was to play. 49.♔f8 ♘d7† 50.♔e8 ♘f6† 51.♔e7 would indeed pass the move to Black. But after 51...♘d5† 52.♔d6 ♘f6 53.♔e5, where White has achieved everything he had hoped for, Black has 53...♘g4†!, holding the draw.

Instead, White should have dominated the black pieces with: 49.♘d6! ♘d5† 50.♔d7 ♘c3 (50...f5 51.♔e6 and White wins the f5-pawn.) 51.♔c6 Preparing d4-d5. 51...♘d1 Looking for counterplay. 52.♘xe4 f5



53.d5! Hurrying the pawn away. (53.♘c5? ♘xf2 54.d5 ♘xh3 would allow the knight to make it back to f7 in time.) 53...fxe4 54.d6 White wins.

49...♔f5 50.♔xf7 g5 51.♘g6 ♘d5!

Black holds.

52.♘e5

52.♔g7 g4 also ends with a draw.

52...♘f6 53.♘g6 ♘d5 54.♘e5 ♘f6
½–½

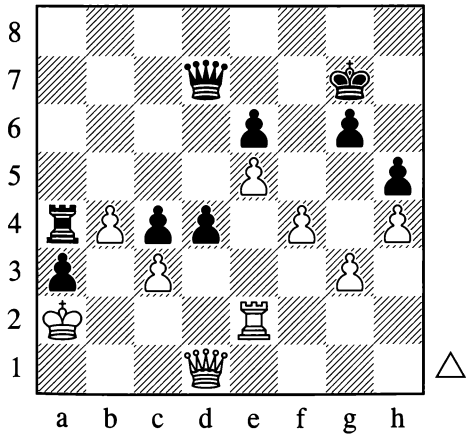
52. The fourth phase

Beyond the three phases known even to those who do not know how the pieces move, Romanovsky designated a fourth phase, outside of the normal categorisation. In the fourth phase we find queens and rooks and, usually, passed pawns.

Thus, we have elements of both the middlegame and the endgame at the same time: attacks on the king and the possible promotion of pawns. This hybrid phase is often highly concrete and leads to a lot of fascinating chess.

Padmini Rout – Thanh Thuy Tien Nguyen

Internet 2020

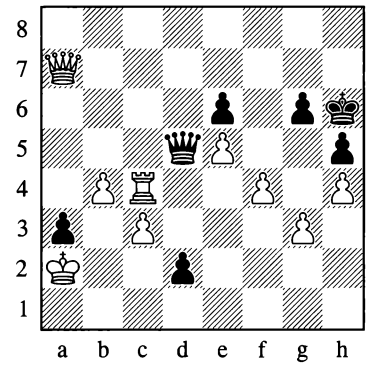


In the first example in this section, an Indian international is up against a young talented girl from Vietnam. Despite a big rating gap, White was unable to win the game.

46.♕xd4?

The transition to a rook endgame with an extra pawn, but where the black rook is very active, is a poor decision.

46.♖e4?! d3! 47.♖xc4 (47.♖d4? ♕c6 48.♕d2 ♖a7 and ...♕a4 wins for Black.) 47...♕d5 would force White to save the draw: 48.♕xa4! d2 49.♕a7† ♔h6



50.♕e7! ♕xc4† 51.♔xa3 ♕xc3† 52.♔a2 and White will escape with perpetual check.

46...♕xd4 47.cxd4 ♖xb4 48.♖e3 ♖b2† 49.♔xa3 ♖d2 50.♔b4 ♖xd4 51.♔c5

White's best chance was 51.♖c3 ♔f7 52.♖xc4 ♖d1. But even here I doubt White can make serious progress.

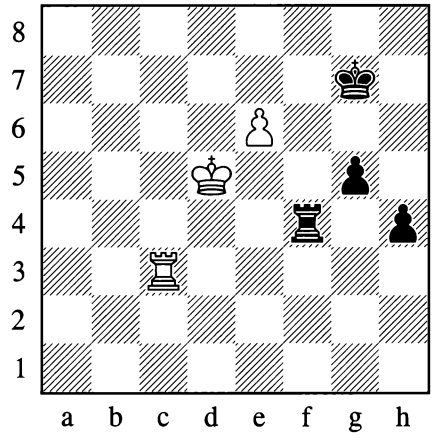
51...♖d3 52.♖e1 ♖xg3

Black is better.

53.♖a1 c3

53...♖g4!? was perhaps more dangerous.

54.♔d6 ♖g4 55.♖a7† ♔h6 56.♖c7 ♖xh4 57.♔xe6 ♖xf4 58.♖xc3 h4 59.♔d5 g5 60.e6 ♔g7



61.♔d6?

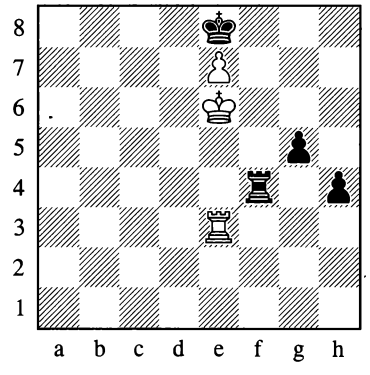
This could have caused White a serious headache.

61.♖c8? would be even worse. Black wins with 61...♖f8!.

61.♔e5!?, fighting for key squares, is what I thought was the most natural.

But the brilliant Jason Liang quickly found a forced draw:

61.e7! ♔f7 62.♖e3 ♔e8 63.♔e6!



Black cannot improve her position.

63...g4

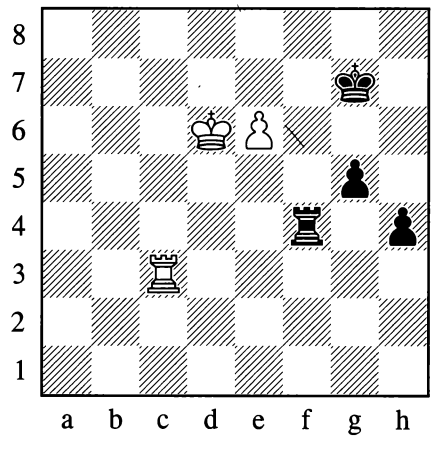
63...♖f7 64.♖a3 ♖xe7† 65.♔f6 is also an immediate draw.

64.♖a3 ♖e4† 65.♔f5 ♖b4 66.♔f6

66.♔g5? g3 and Black wins.

66...♖b6† 67.♔g5 g3 68.♔xh4 g2 69.♖a1 ♖h6† 70.♔g3 ♖h1 71.♖a8†

With a scorched earth draw.



61...♖d4†?

Black could have seriously challenged her opponent.

After:

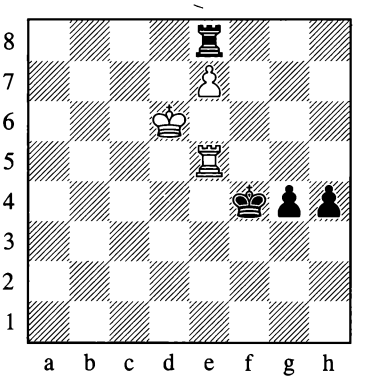
61...♔f6!

White will have to play a lot of only moves in order to hold.

62.♖e3 ♖d4† 63.♔c5 ♖d8 64.e7 ♖e8 65.♔d6 g4 66.♖e6†! ♔f5 67.♖e5†

67.♖h6 ♔g5 68.♖h7 g3 wins for Black.

67...♔f4

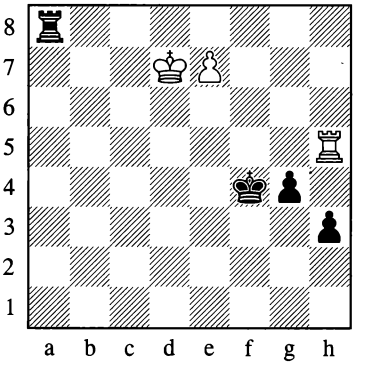


This far Padmini would have been able to play without any problems. But from here on, the defence is anything but obvious.

68.♖h5!

Winning an important tempo.

68...h3 69.♔d7 ♖a8



Now 70.e8=♕ ♖xe8 71.♔xe8 loses in a well-known way. 71...♔g3! 72.♔f7 ♔h2! and the

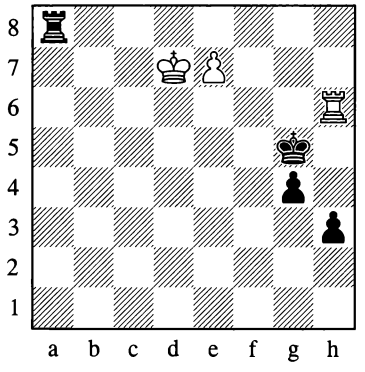
king helps the pawns advance by being in front of them.

Also after 70.♖a5 ♖g8 Black wins. The g5-square is under control. 71.♔e6 ♖e8! and the black pawns will arrive first.

70.♖c5 is unfortunate geometrically. 70...h2 71.♖c8 ♖xc8 72.♔xc8 h1=♕ 73.e8=♕ ♕a8† and Black wins.

70.♖h6!! ♔g5

70...♔g3 71.♖a6! with perpetual rook is another way for White to draw.



71.♖h7!

The black king can no longer help the pawns ahead, and there are exactly enough squares for White on the h-file to save the game.

71...♔g6 72.♖h4 ♔g5 73.♖h7

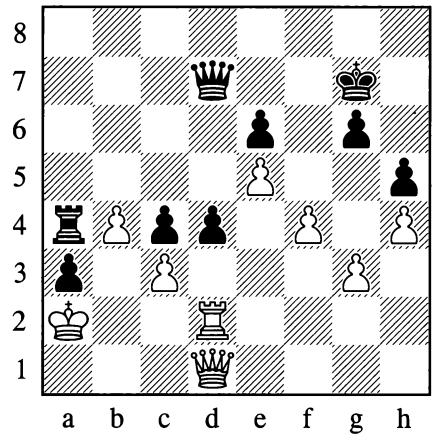
White draws.

62.♔e5 ♖d1 63.♔f5 ♖e1 64.♖c7† ♔h6 65.♖c8 ♖f1† 66.♔e5 ♖e1† 67.♔f6 ♖f1† 68.♔e5 g4 69.♖h8† ♔g5 70.♖g8† ♔h5 71.e7 ♖e1† 72.♔f6 ♖f1† 73.♔e6 ♖e1† 74.♔f7 ♖f1† 75.♔e6 ♖e1† 76.♔f6 ♖f1† 77.♔e6 ½–½

The winning continuation included a combination of defensive and offensive measures.

46.♖d2!

46.g4!? would also have given White a significant advantage, although Black can complicate matters with 46...♖a7!.



46...d3

Forced. Now it is time to attack on the kingside.

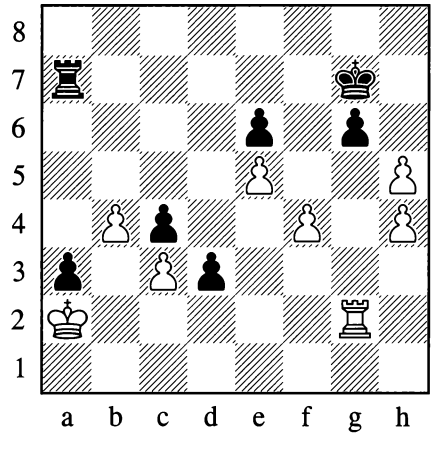
47.g4! ♖a8!?

The only defensive try is to enter the rook ending.

47...hxg4 48.♕xg4 ♕f7 49.h5 ♕f5 50.♕h4 would tear the black kingside apart. For example 50...♕xh5 51.♕e7† ♔h6 52.♕xe6 and White is in control.

48.gxh5 ♕a4 49.♕xa4 ♖xa4 50.♖g2! ♖a7

50...d2 51.♖xd2 gxh5 52.♖d4 and White wins.



51.♖g1!

Prophylaxis.

51.hxg6? ♖d7! 52.♖g1 d2 53.♖d1 ♔xg6 would see the black king create a lot of counterplay. Black is not worse.

51.♖xg6†? ♔h7 52.♖g1 ♔h6 would also give Black enough counter-chances.

But 51.b5!? would also pose Black some significant problems.

51...♖d7

White wins in several ways after 51...♔h6 52.hxg6 d2. The most clinical is not the most obvious: 53.b5 ♖b7 54.g7! ♖xg7 55.♖d1 ♖b7 56.♖xd2 ♖xb5 57.♖d6 The connected passers are too strong.

52.♔xa3

A more important pawn to eliminate, as now the king can help.

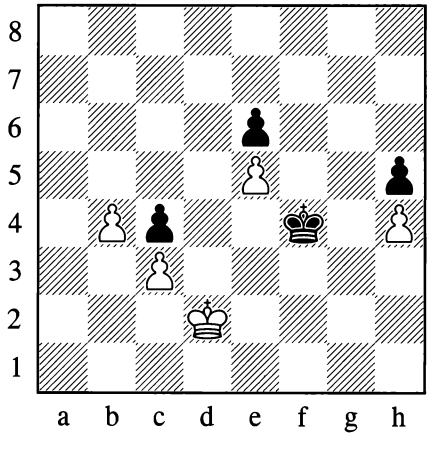
52...d2

52...♖a7† 53.♔b2 ♖d7 54.hxg6 would let White win on points.

53.♖d1 gxh5 54.♔b2 ♔g6 55.♔c2 ♔f5

55...♖f7 56.♖xd2 ♖xf4 57.♖d4 and White wins.

56.♖xd2 ♖xd2† 57.♔xd2 ♔xf4



The pawn ending wins in a number of ways. For example:

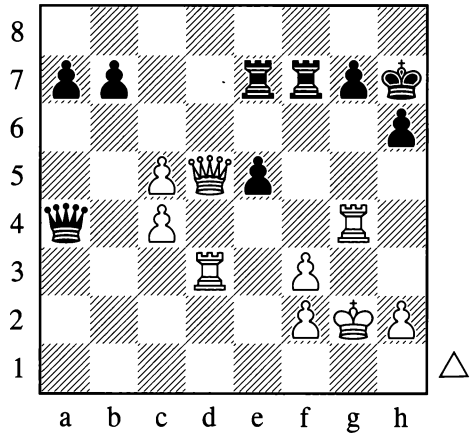
58.b5 ♔xe5 59.♔e3 ♔d5 60.b6 ♔c6 61.♔d4 ♔xb6 62.♔e5! ♔b5 63.♔xe6 ♔a4 64.♔d5 ♔b3 65.♔d4

White wins.

As can be seen by the next example, the dividing line between a middlegame without minor pieces and the fourth phase can be as narrow as the disappearance of a few pawns.

Arkadij Naiditsch – Adrien Demuth

Brest 2018



30.♕e4† ♔g8?

A tactical mistake. Now the h6-pawn is hanging and White wins an important tempo.

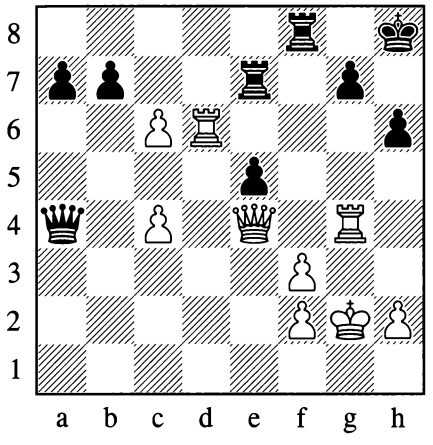
30...♔h8 31.♖d6 ♕e8 would not cause Black major worries.

31.♖d6! ♔h8 32.c6!

A nice tactic, cutting off the queen and thus the defence of the 8th rank.

32...♖f8

A prototypical critical moment. Black is in disarray and the white pieces are all ready for action. There are plenty of tactical targets. This is the time to calculate.



33.cxb7?

Sloppy.

The most convincing continuation was 33.c7!, with the irresistible threat of ♖d6-d8, as well as the tricksy ♕e4-f5!. So, the critical line must be: 33...♖xc7 Now just taking on e5 is good enough. But more forcing is 34.♖xh6†! gxh6 35.♕xe5† with mate in a few moves.

It should be said that 33.♕e3 was also very strong. 33...♕b4!? 34.c5! ♕b1 35.cxb7 ♕xb7 36.♖xh6† with a big attack.

33...♕b4!

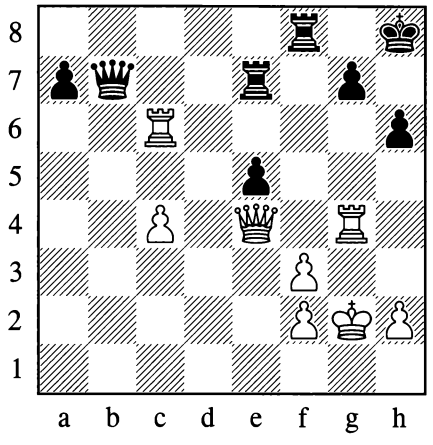
Black is back with a fighting chance. It is obvious that White missed this.

34.♖c6

Not dangerous, but easy to understand. Naiditsch prefers to keep the complexity alive.

34.♕c6 ♕xb7 35.♖xh6† ♔g8 would give Black decent drawing chances in the rook ending.

34...♕xb7



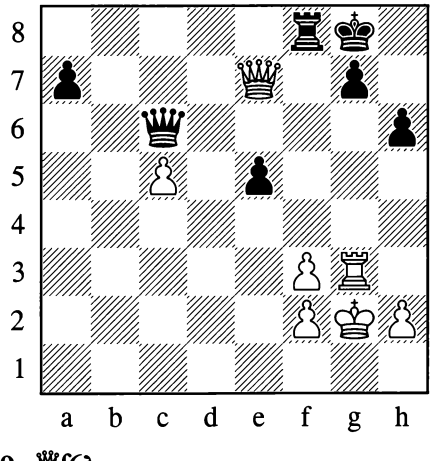
Black is not worse, but White can still create a few threats. There is a solid argument for saying that we have now entered the fourth phase, where there are both passed pawns and attacks on the king.

35.♖gg6 ♕d7 36.♕h4 ♔g8

This is fine.

But it is worth noticing that 36...e4!? 37.fxe4 ♖ef7 was a way to equalise by force.

37.c5 ♕d5 38.♖g3 ♕xc6 39.♕xe7



39...♕f6?

A mistake just before the time control.

39...♖f7 40.♕xe5 ♖c7 with full equality. Black will move the king and then take on c5.

40.♕xa7 ♖f7?

Allowing the white queen to bounce back to the centre and thus for White to organise his pieces.

40...♖c8 was better, though 41.♖g4! would still give White some advantage.

41.♕a8† ♖f8

41...♔h7 42.♕e4† g6 43.h4 is also bad news for Black.

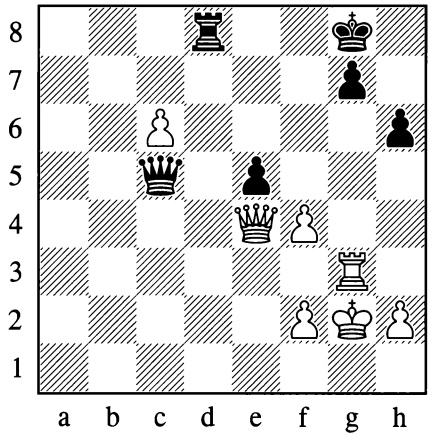
42.♕e4

Personally I would have checked the king into the corner with 42.♕d5† ♔h8 43.♕e4, just to ensure that all exchanges are in White's favour. But there are other tactical considerations of course.

42...♖d8

42...♕f5 43.c6! should win for White. The rook ending is a safe bet at least.

43.c6 ♕e7 44.f4 ♕c5



45.fxe5?!

Missing the chance to transfer into a winning queen ending with 45.♕g6 ♕e7 46.♖d3!.

45...♖d4?

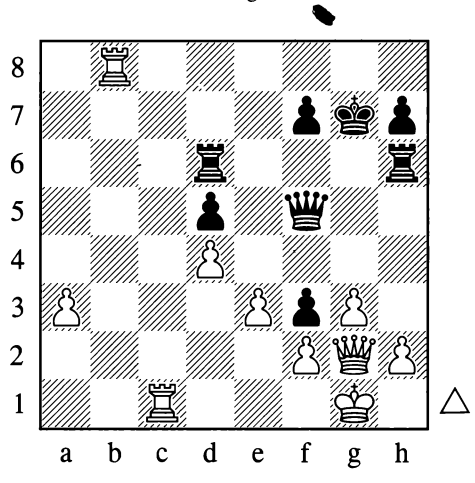
Black could offer more resistance with 45...♖d2 46.♕f3 ♕xe5, although after 47.h3!, giving an extra square for the king, White has excellent winning chances.

46.♕g6 ♕xe5 47.♖e3 ♕d5† 48.♔g3 1–0

In the fourth phase, the main considerations, as far as I am concerned, are transition into pawn, rook or queen endings, and tactics. The following game, between two of the great prospects of Danish Chess, is no exception.

Bjørn Møller Ochsner – Jonas Buhl Bjerre

Svendborg 2018



37.♕h1?

A poor move. The queen is in big trouble here.

37.♕f1? ♖xh2! leads to a mating attack.

White had only one way to defend, which should also give him an advantage.

37.g4!

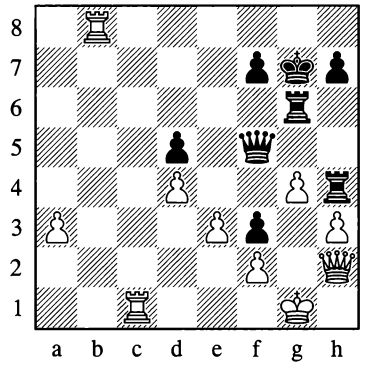
This had to be played, but I assume that Bjørn thought he was lost after:

37...♖dg6 38.h3 ♖h4!

38...fxg2 39.gxf5 ♖g5 40.♖cc8! and White wins.

It was not easy to see the following move in time trouble.

39.♕h2!!

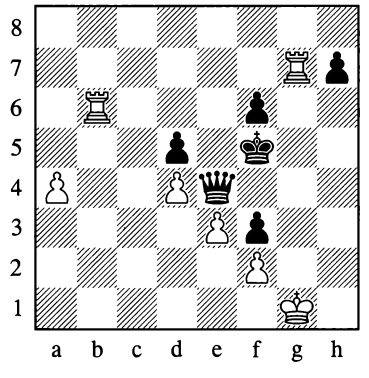


39...♕h5!

The only move.

39...♖gxg4† 40.hxg4 ♖xh2 fails because of 41.gxf5.

40.♖cc8 ♖gxg4† 41.hxg4 ♖xg4† 42.♔h1 ♖h4 43.♖g8† ♔f6 44.♕xh4† ♕xh4† 45.♔g1 ♕e4 46.♖b6† ♔f5 47.♖g7 f6 48.a4

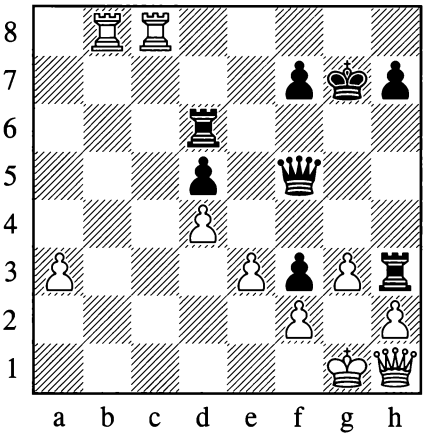


White is winning in the long term, with good technique.

37...♖h3!?

I would have included 37...♖c6! 38.♖d1, before playing 38...♖h3!, when Black should win easily.

38.♖cc8



38...♖dh6?

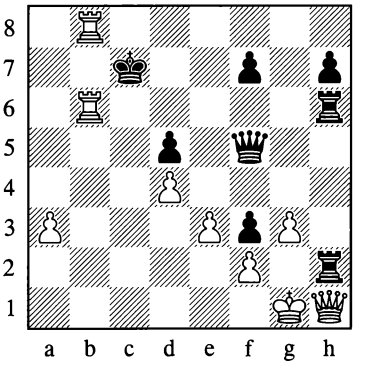
Direct and flawed.

Black is winning in the long term after slow play like 38...♖a6 39.♖g8† ♔f6 40.♖gc8 ♖xa3 and we can see that the white queen is entirely out of the game.

38...h5!? 39.♖g8† ♔f6, should also win in the long run. But it is quite strange.

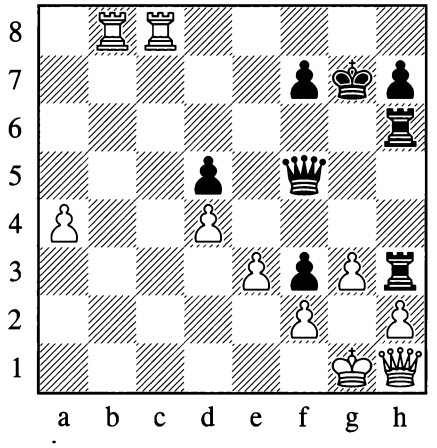
39.a4?

39.♖g8† ♔f6 40.♖b6† ♔e7 41.♖b7†! would give a lot of counterplay. The black king cannot hide. A possible line could be: 41...♔d6 42.♖d8† ♔c6 43.♖db8 ♖xh2 44.♖b6† ♔c7



45.♖8b7†, with perpetual. A key point is that 45...♔d8? would lose to 46.♖xh6 ♖xh1† 47.♖xh1! (47.♔xh1? ♕d3 with mate coming.)

47...♕d3 48.♖xf7 ♕e2 49.♖hxh7 ♕e1† 50.♔h2 ♕xf2† 51.♔h3 Black is mated.



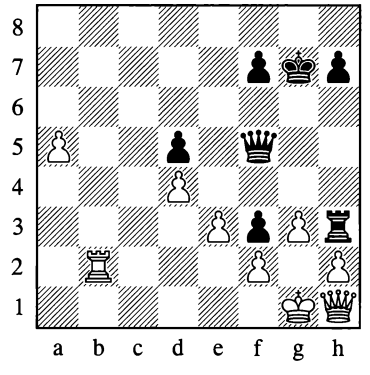
39...♔f6??

A horrible time-trouble error.

Moving the h6-rook along the 6th rank would be good enough to preserve the advantage, but it is a shame to miss the chance to strike: 39...♖xg3†! 40.fxg3 f2† 41.♔f1 Black would give mate after both 41...♖f6! and 41...♕d3† 42.♔xf2 ♕d2† 43.♔g1 ♖f6!.

40.♖c6† ♔e7?

40...♔g7 41.♖xh6 ♔xh6 42.a5 ♔g7 were all forced moves. After 43.♖b2 Black has the most bizarre waiting move I have seen for a very long time.

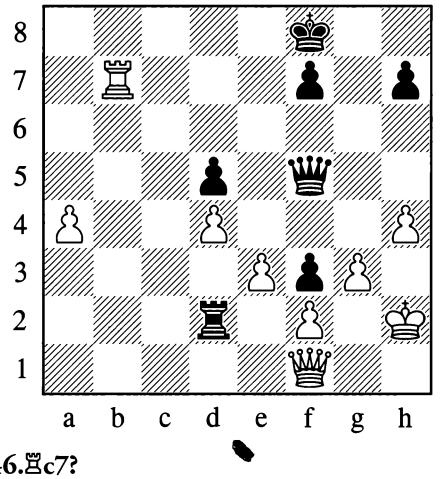


43...♖h4! This works because of the check with the queen on a6. 44.a6 ♖h6 45.h4 ♖xa6 46.♔h2 h5 White is better, but not much.

41.♖xh6 ♖xh6 42.h4!

Securing a square for the king. Suddenly White is winning again.

42...♖c6 43.♔h2 ♖c2 44.♕f1 ♖d2 45.♖b7† ♔f8



46.♖c7?

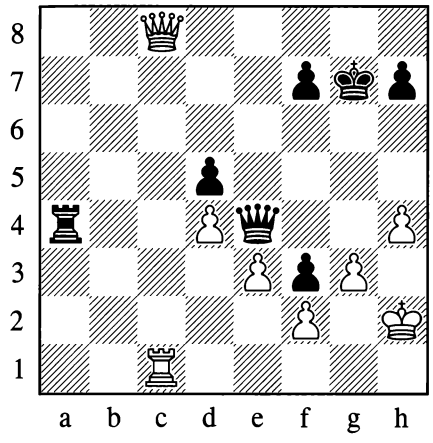
46.♖b1! ♔g7 (White was seemingly unhappy with 46...♖xf2† 47.♕xf2 ♕xb1 48.♕xf3, but he would be completely winning.) 47.♔g1 would organise the pieces and prepare for ♖a1 and pushing the a-pawn.

46...♖a2?

Black missed the last chance.

46...♕e6!, would have been a powerful intermediate move. 47.♔g1 ♖a2 48.♖c1 ♖xa4 49.♕d1 ♖c4 White still has real winning chances, but things have certainly depreciated.

47.♖c1 ♖xa4 48.♕h3! ♕e4 49.♕c8† ♔g7



50.♕c2!?

Forcing a promising rook ending.

50.♕d8! was more accurate, but few would fancy the complications after 50...♖a2 51.♖c8 ♖xf2† 52.♔h3, compared to a safe and probably winning rook ending. However, Black is just mated here.

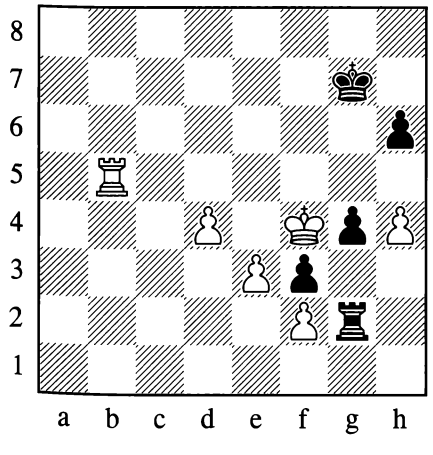
50...♕xc2 51.♖xc2 f5 52.g4!

Bringing out the king.

52...fxg4 53.♖c5 ♖a1?!

53...h5 54.♖xd5 ♔h6 could have offered a bit of additional resistance, but should also win for White in the long run.

54.♖xd5 h6 55.♖b5 ♖f1 56.♔g3 ♖g1† 57.♔f4 ♖g2

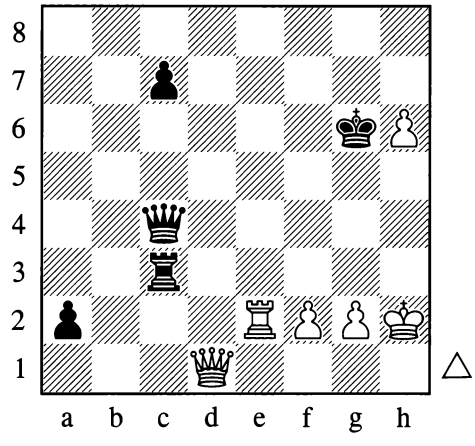


58.h5 ♔h7 59.♖b2 ♔g7 60.♖b7† ♔f8 61.♖b6 ♔g7 62.♖g6† ♔h7 63.♖xg4 ♖xf2 64.♖h4 ♖f1 65.♖h3 f2 66.♔f3
1–0

It is no surprise that composers are attracted to the fourth phase. The following study by Minski and Waelzel is wonderful.

Martin Minski & Helmut Waelzel

8th UAPA Foguelman 2019



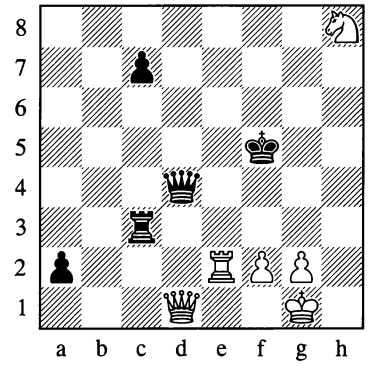
1.h7 ♕h4†

White also wins after 1...♕xe2 2.♕xe2 ♖h3† 3.♔xh3 a1=♕ 4.♕c2†.

2.♔g1 ♕d4 3.♖e6†

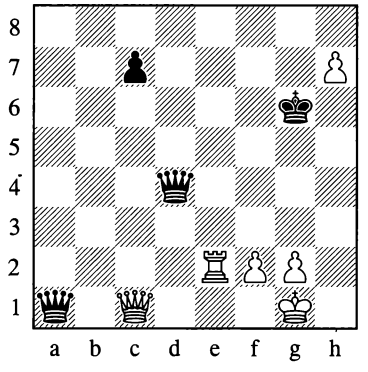
An important intermediate move.

3.h8=♘†? looks attractive. But after 3...♔f5, there is no strong way to continue.



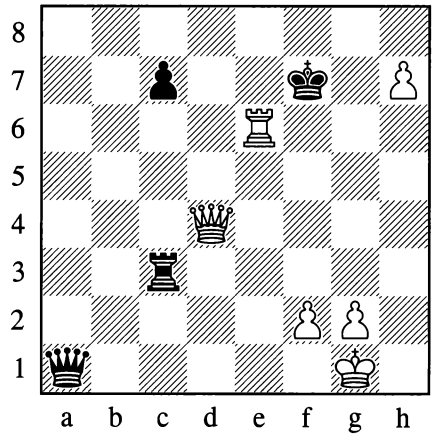
4.♕xd4 (4.g4† ♕xg4† is an immediate perpetual.) 4...a1=♕† 5.♔h2 ♖h3† would drop the queen, although after 6.gxh3 ♕xd4 7.♘f7, White should still make a draw. The knight comes to e5, the rook to e3 and the idea is to give up the knight for the c-pawn to create a fortress.

3.♕a1? would be a blunder. 3...♖c1†! 4.♕xc1 a1=♕ looks winning for Black.



But 5.♖e1! ♕xc1 6.♖xc1 ♔xh7 7.♖xc7† ♔g6 8.g3 will end in a draw with a fortress.

3...♔f7 4.♕xd4 a1=♕†



5.♖e1!

Forced, but not so obvious seen from afar.

5.♔h2? ♖h3† would be unfortunate, though White still draws after 6.♔xh3 ♕xd4 7.♖h6.

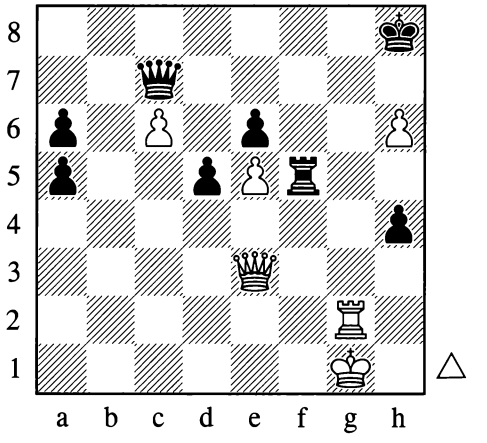
5...♕xe1† 6.♔h2

White wins.

In the next example, White missed a chance to defeat his famous opponent.

Ezra Kirk – Maxim Rodshtein

Chalons-en-Champagne 2021



38.♖g5?

Played to protect the e5-pawn.

The winning idea was: 38.h7!!

After 38...♕xh7 39.♕c1 ♕c7 40.♕h6† ♕h7 41.♕xe6 ♖f8 42.♕d6 Black can only resign.

And after 38...♔xh7 39.♕d4 there is no good answer to 40.♕g4, coming up next. (The clumsy 39.♕h3? allows a draw after 39...♕b6† 40.♔h2 ♕d4.)

On 38...♕xe5 39.♕xe5† ♖xe5 40.c7 ♖e1† 41.♔f2 ♖c1 the check is now supported on g8, which is the prophylactic idea behind the tactic. 42.♖g8† and White wins.

38...d4 39.♕c1 d3 40.♖xf5 exf5 41.♕c5

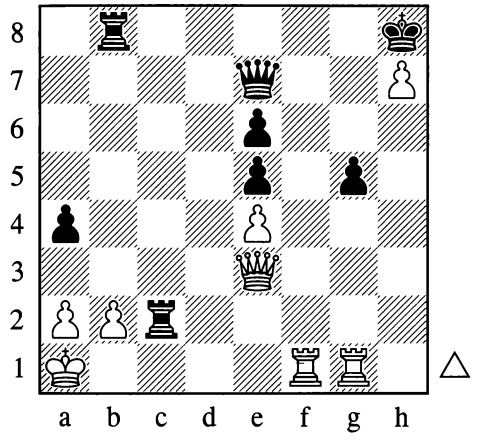
A draw was agreed. White has enough counterplay.

½–½

I have always loved the following position and used it in one of my previous books.

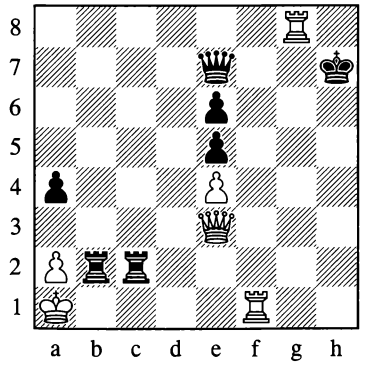
Peter Leko – Alexander Khalifman

New Delhi 2000

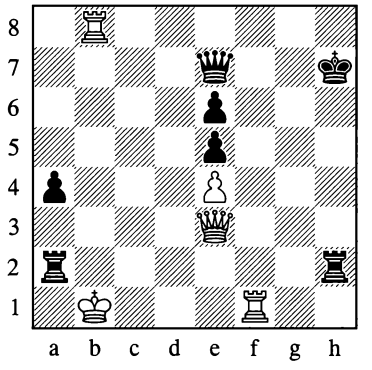


44.♖b1?

Leko missed a beautiful win with: 44.♖xg5! ♖bxb2 45.♖g8† ♔xh7



46.♖b8!! The first point. (46.♖h8† ♔xh8 47.♕h6† ♔g8 is only a perpetual.) 46...♖xa2† (46...♖xb8 47.♕h3† with mate to follow, now Black does not have ...♖g2 to block the coming ♖g1†.) 47.♔b1 ♖h2

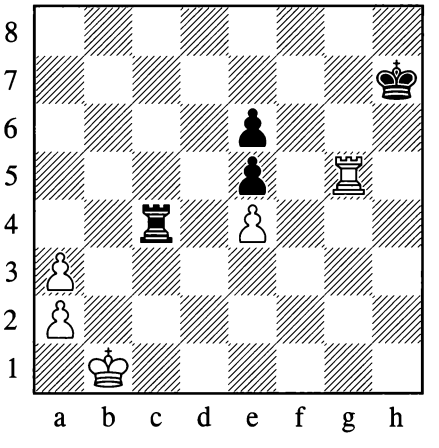


48.♖f3!! Forcing through a strong check on h3, as after 48...♕h4 49.♕a7†! White delivers checkmate.

44...a3! 45.♕xa3 ♕xa3 46.bxa3 ♖xb1†

46...♖d8! was simpler, but Black is fine.

47.♔xb1 ♖c4 48.♖xg5 ♔xh7



49.♖g4

49.♖xe5 ♔g6 50.♖xe6† ♔f7 will see Black make the draw after the e4-pawn falls.

49...♔h6 50.♔b2 ♔h5 51.♔b3 ♖d4 52.♖g2 ♖xe4 53.a4 ♖d4 54.a5 e4 55.a3 e5 56.a4 e3 57.♖e2 ♔g4 58.♖xe3 ♔f4 59.♖h3 e4 60.♖h8 ♖d6 61.♖e8 e3 62.♔c4 ♔f3 63.♔b5 ♖d5† 64.♔b6 ♖d4

½–½

53. Simplifications in the fourth phase

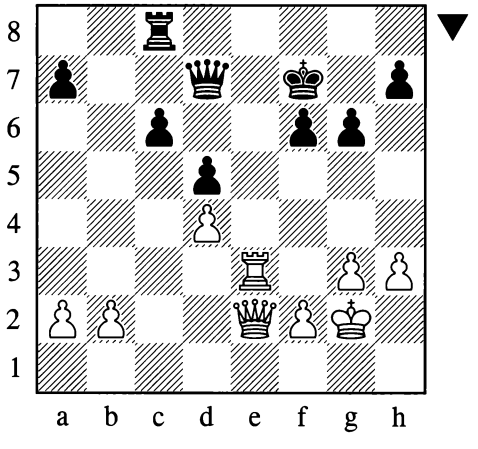
When you are in the fourth phase, there are three other possible endgames you can end up in (if you exclude double queen endings and other rarities). Both the rook and the queen endings have drawish tendencies, so it is rare that the defender would look to the generally riskier pawn ending for salvation.

But rare does not mean never, and generally does not mean always. Understanding what the standard choices are is a good thing. Because they will work more often. But when they do not work, it is healthy for us to look at the counter-intuitive options.

(It is important for our results that we do it in that order. Too many of our students are keen to look for surprising and exhilarating solutions to all problems, which is why the exercises we present them with generally revolve around standard reactions and tricks. As a coach it is easy to present the student with the material that is exciting for yourself, rather than to realise that the reason they are seeking your assistance is to learn the things you know.)

Nigel Short – Junta Ikeda

Helsingor 2017



In this position Black is suffering from a slightly worse pawn structure in the long term and should consider ways to solve this issue.

29...♖b8?

A passive move without great purpose. Nothing much will ever happen on the b-file.

Black could have forced the exchange of rooks with: 29...♖e8!? This makes a lot of sense, as the queen ending is probably the easiest of all four endings to defend. The only challenge would be to evaluate the pawn ending. 30.♖xe8 ♕xe8 31.♕xe8† ♔xe8 32.♔f3 ♔d8 33.♔e3 ♔c7 34.♔d3 ♔b6 35.♔c3 ♔b5 Black is in time to defend his weak flank. The draw is secured.

But in this position Black had a safer way to defend. By creating a passed pawn with 29...c5! 30.dxc5 ♖xc5, when there is no reason to say that Black is any worse at all.

30.h4?

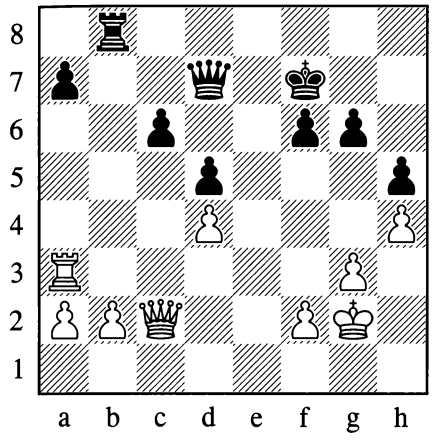
30.♕c2 ♖e8 31.♖c3 would have put Black under prolonged pressure, similar to what happened in the game.

30...h5?

This time Black absolutely had to seek the simplification.

The pawn ending still draws after 30...♖e8!.

31.♕c2 ♖e8 32.♖a3 ♖b8



33.♖c3!?

What I consider the best way to organise the pieces and get them to work together is shown in the following analysis:

33.♕c1!

Aiming at c6 and h6.

33...♔g7

33...♕b7 34.♖b3! ♕c7 35.♖xb8 ♕xb8 36.♕xc6 would give White an extra pawn.

34.♖c3

Forcing the black rook to a poor square.

34...♖b6 35.a4!

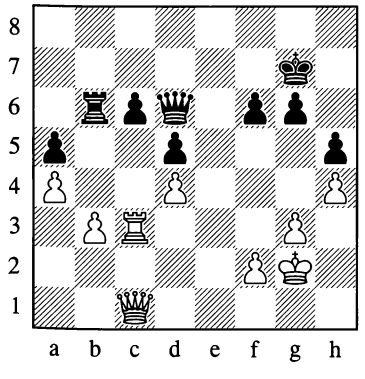
Black now has an unfortunate choice between advancing the weak a-pawn, or getting his rook kicked.

35...a5

Really the only choice.

35...♕d6 36.a5 ♖a6 37.♖c5 is a rather funny position.

36.b3 ♕d6



Now comes a sly queen manoeuvre that just improves everything a little bit.

37.♕e3

Threatening to penetrate on the e-file – an even greater risk.

37...♔f7 38.♕h6 ♕f8 39.♕f4 ♕b8 40.♕d2 ♕d8

Returning with the queen with 40...♕d6 would seem desirable. But White has 41.♖f3!, which would threaten both ♕xa5 and ♕h6 and thus win the a-pawn, at least.

41.♖c5 ♖a6

Black is barely holding on, but his position is also not collapsing imminently. I assume that White is winning, but have not found a direct path to the full point.

33...♖b6 34.♖c5?!

34.♕d2! was stronger.

34...♕b7?

Passive.

34...♕g4! would have offered Black counterplay. 35.♖xc6 ♖xc6 36.♕xc6 ♕e4†!, with the intention to take on d4 later, is the underlying point.

35.b3 ♕e7 36.a3?

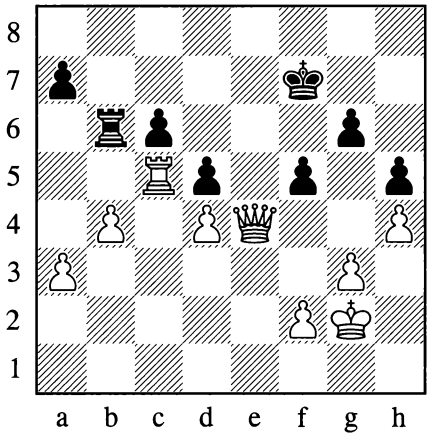
An unfortunate invitation to enter a rook ending.

36.♕d2! ♕e4† 37.♔g1 would keep the structural advantage and White would be able to slowly work towards the variations shown above.

36...f5?

36...♕e4†! 37.♕xe4 dxe4 38.b4 ♖a6 39.♔f1 ♔e6 40.♔e2 ♔d6 and Black is not worse at all.

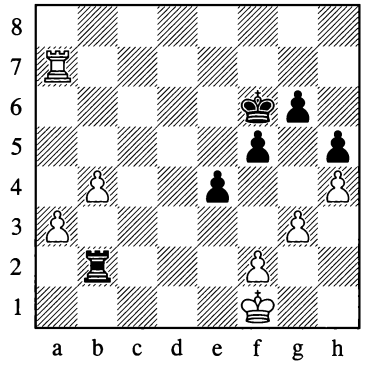
37.b4! ♕e4† 38.♕xe4



38...fxe4?

A horrible move without a real purpose.

38...dxe4 would keep the healthy pawns together. Now 39.♖a5 ♖b7 40.♖a6 ♖d7! would give Black counterplay. 41.♖xc6 ♖xd4 42.♖c7† ♔f6 43.♖xa7 ♖d2 44.♔f1 ♖b2!

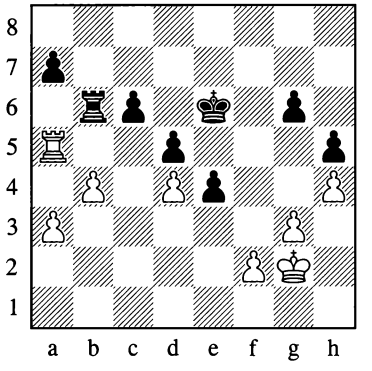


White would not be able to do anything meaningful with those two passed pawns and Black would hold the game.

39.♖a5 ♖b7?

Remember, we need to activate our strongest piece. This is the opposite of that. Black puts the rook in the most awkward and passive position, and is immediately punished for it.

Black could have offered more resistance with: 39...♔e6



40.♖xa7 ♖b8

White still wins, but it requires some accuracy.

For example: 41.f3 ♖f8! 42.f4 ♔f5! and Black has strong counterplay.

41.♖c7!

Forcing the rook to a passive square.

41...♖b6 42.♖g7!

Forcing the king away from the c-pawn.

42...♔f6 43.♖a7

Preventing ...♖a6.

Black is struggling to activate his forces. White wins slowly:

43...♔e6

43...♔f5 44.f3 and 43...♖b8 44.♖a6 would both offer far less resistance.

44.f3 ♔f5 45.♖a8

Not quite zugzwang, but Black has no good moves.

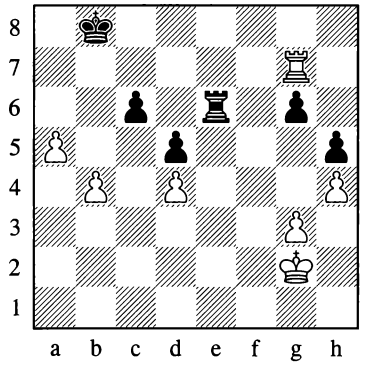
45...♖b7 46.♖f8† ♔e6 47.♖c8 exf3† 48.♔xf3 ♖f7† 49.♔e3 ♔d7 50.♖g8

Constantly forcing the black rook to stay passive.

50...♖f6 51.♖g7† ♔c8 52.a4

Finally, it is time to make advances all over the place.

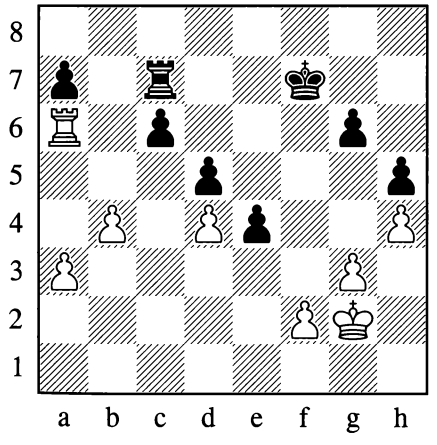
52...♖e6† 53.♔f3 ♖f6† 54.♔g2 ♔b8 55.a5 ♖e6



56.g4! hxg4 57.♔g3 ♖e3† 58.♔xg4 ♖e4† 59.♔g5 ♖xd4 60.♖xg6 ♖d1 61.h5

White wins.

40.♖a6 ♖c7



41.f3!

Black is too passive to offer real resistance.

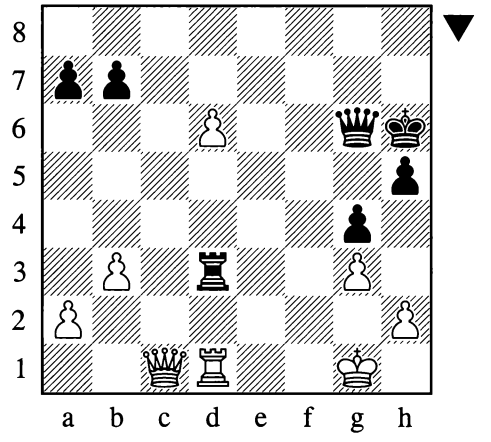
41...♔e6 42.fxe4 dxe4 43.♔f2 ♔d5 44.♔e3 ♖f7 45.♖a5† ♔c4 46.♔xe4 ♔b3 47.♖a6 ♖d7 48.♔e5

1–0

The final example from the fourth phase is as tactical as the others and also includes a possible transition into pawn, rook and queen endings.

Loek van Wely – Jonny Hector

Germany 2020



34...♔g7?

The correct defence was: 34...♔h7!

It would be great to be able to play 35.♕c2 to meet 35...♖xd6 with 36.♕c7†, but unfortunately Black has 35...♖xg3†.

And after 35.♕b1 ♖xd6 36.♕xg6† ♖xg6 37.♖d7†, now 37...♖g7 would hold. But also 37...♔h6!? to seek active play would be enough to make the draw.

35.♕b1?

Entering a complex, but essentially drawn, rook endgame.

Van Wely misses the chance to play 35.♕b2†! ♔h7 (35...♔f7 36.♕f2† transposes) 36.♕e2!, when the queen ending after 36...♖xd1† 37.♕xd1 is entirely winning.

35...♖xd6 36.♕xg6† ♖xg6 37.♖d7† ♔h6 38.♖xb7 ♖c6

The rook endgame is drawn, although White won it on move 72 after lots of events.

Common Themes

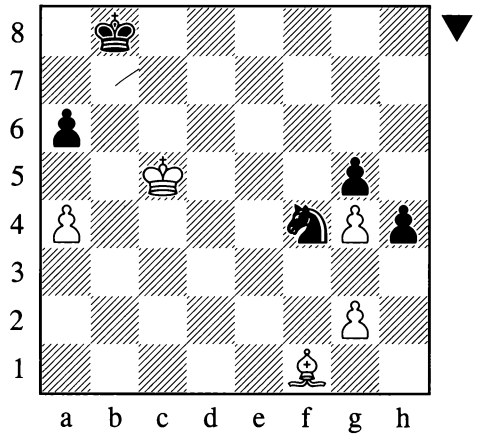
In this section we shall look at common endgame themes. A lot of them will be familiar to most, but it is still good to look at them again through some examples from high-level play.

54. Weaknesses

Identifying, creating and fixing weaknesses are basic endgame techniques. The following example is rather basic.

Baskaran Adhiban – Babu Lalith

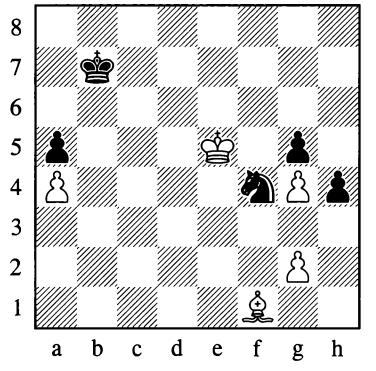
Jalgaon 2013



After Black made a careless mistake, he lost without a fight.

58...♔c7?

58...a5! would have made an easy draw. White cannot go for the pawn with the king due to ...♘d5-e3. And attempts to run for the kingside will now not see Black defending a weak pawn on a6. 59.♔d6 ♔b7 60.♔e5



60...♔c7! Keeping off the light squares to avoid ...♘xg2 being met with ♗f3†. 61.♔f5 ♘d5 Black makes the draw. White can try to sacrifice the piece, but it is not going to work out. 62.♔xg5!? ♘e3 63.♔xh4 ♘xf1 64.g5 ♔d7 65.♔h5 ♔e7 66.♔h6 ♘g3 and Black draws easily.

59.a5!

Fixing the a6-pawn on a light square. Very inconvenient for Black.

59...♔d7

The sign of a hopeless position. Black is in zugzwang and all moves look bad.

59...♘e6† 60.♔d5 ♘f4† 61.♔e4 and White wins.

60.♔b6 ♘d5†

60...♔d6 61.♗xa6 (61.♔xa6?? ♔c6 62.♔a7 ♔c7 would draw, but would not happen.) 61...♘xg2 62.♗b7 ♘e3 63.a6 and the a-pawn queens.

61.♔b7 ♔d6 62.♗xa6 ♔c5 63.♗e2 ♘b4 64.a6 ♘xa6 65.♗xa6 ♔d6 66.♔b6 ♔e5 67.♔c5 ♔f4 68.♗c8
1–0

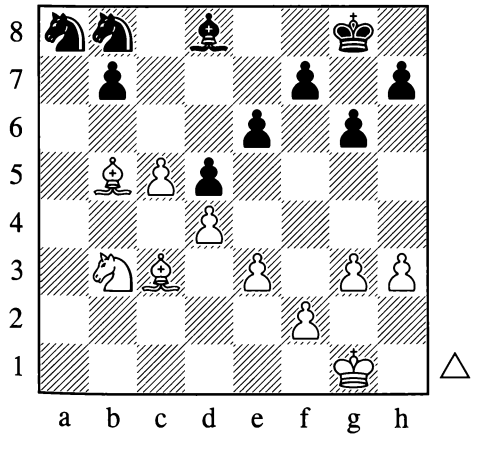
55. The principle of two weaknesses

This is probably the most famous strategic concept from the endgame. The common metaphor is that a man can carry a bucket of water around without spilling. But ask him to hold out two buckets of water in outstretched arms and then be active, and eventually he will spill the water from one of the buckets. Another is sitting on two chairs, which are slowly drifting apart from the pressure of your weight. You get the drift.

Bad metaphors to describe a quite simple idea. When a defender has to defend two weaknesses, he will find that coordinating his forces to go from one to the other, to defend, is not so easy to do. In most cases, he will as a minimum be forced to make painful concessions.

Renier Castellanos – Juan Carlos Guerrero Sierra

Forni di Sopra 2019



White was much better earlier in the game, but squandered most of his advantage. He still has the two bishops, although at this point, it is hard to see how they should present him with more than a nominal advantage. Frankly, the black knights are not that bad.

32.♘a5!?

A nice attempt to poke at the black weaknesses.

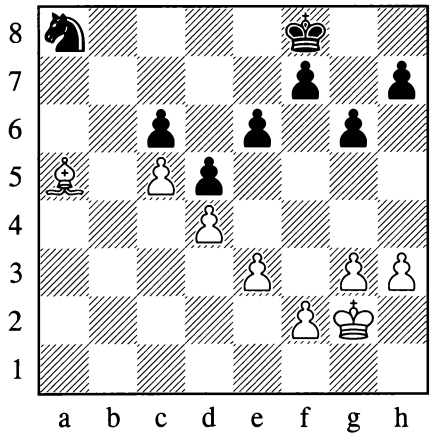
32...♗xa5?

A horrible move.

Knowing the Shankland Rule (see page 230), we should be able to find 32...b6! 33.♘c6 ♘c7!, when Black will be just fine.

33.♗xa5 ♘c6 34.♗xc6 bxc6 35.♔g2 ♔f8

Let's just note that 35...h5 36.♔f3 f6 37.♗d8 would tie the black king to the f6-pawn. White would eventually open up the kingside for the king, a process that is referred to as broadening.



We have reached the critical moment of the game. The principles are quite easy to explain, but the proof requires long variations to deliver.

Please do not get confused by this!

The variations are instructive and helpful for understanding how the advantage is exploited. But they would be played move by move in a game. White has a large advantage because of the two weaknesses in the black position: the c6-pawn and the h7-pawn. White needs to exploit both to win. If the h-pawns had previously been exchanged, Black would make the draw without difficulties.

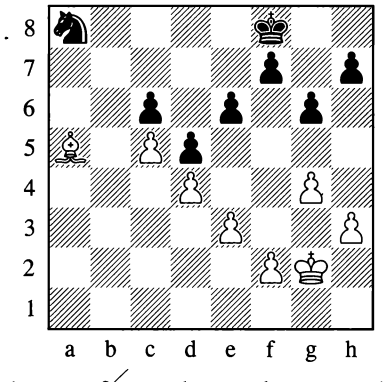
(Obviously, he would also make the draw easily if his knight was on d7. But it is not.)

To exploit the advantage, White has to play on both flanks.

36.♔f3?

Renier had already given up hope. If you want to be a good technical player, you have to identify every little chance to put pressure on your opponent. This is difficult, which is why you see the strong endgame players working hard at the board all the way till the end.

36.g4!



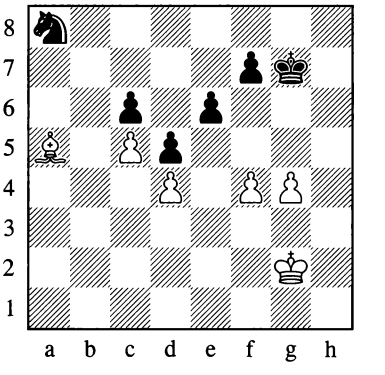
White is fixing the weakness on h7 and fighting for the control of the dark squares.

a) 36...♔e7 would prevent White from playing ♗a5-d8, but after 37.g5! it is clear that the white king will come to e5 and then Black will be in zugzwang.

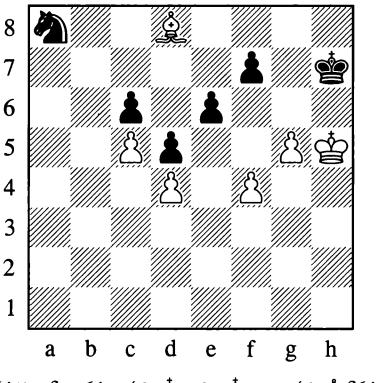
b) 36...f6 37.h4 also does not work. After 37...h6 38.♗d8 and 37...♔e7 38.g5, White takes control of the most important squares. Variations can always be shown, but let us focus on the more resilient defences.

c) Black can try to create a blockade with:
36...g5
But this gives White a chance to open up the kingside.

37.h4! h6
37...gxh4 38.♔h3 would not solve Black's problems with the h7-pawn.
38.hxg5 hxg5 39.f4! gxf4
39...f6 40.♗d8 would win a pawn and soon the white king will invade via f4 and e5.
40.exf4 ♔g7



White is completely winning. There are a lot of ways to prove the advantage. This is not necessarily the "best", but to me it looks convincing.
41.♔g3 ♔h6 42.♔h4 ♔g6 43.♗d8 ♔h6 44.g5† ♔g6 45.♔g4
Black is in zugzwang.
45...♔g7 46.♔h5 ♔h7



47.g6†!? fxg6† 48.♔g5 ♔g7 49.♗f6† ♔f7 50.♗e5
White wins.

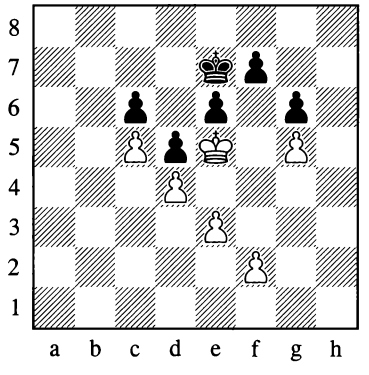
d) 36...h6

The critical move, fighting for the dark squares, without putting a weakness on the d8-h4 diagonal.

37.♗d8!

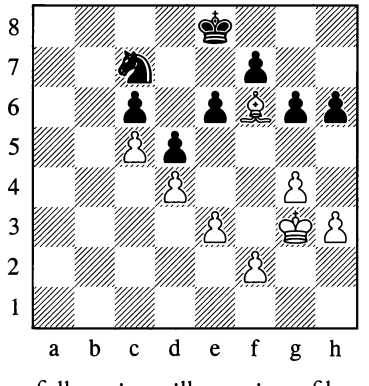
Letting the knight out of the corner in order to exploit the weak h-pawn.

37.h4? would miss the bus again. 37...♔e8! 38.g5 hxg5 39.hxg5 ♔d7 40.♔g3 ♘c7 41.♗xc7 (41.♔f4 ♘e8 with a fortress.) 41...♔xc7 42.♔f4 ♔d7 43.♔e5 ♔e7



44.f3 ♔d7 45.♔f6 ♔e8 Black has managed to get rid off the weakness on h7 and with both the e8- and e7-squares available, he will not fall into zugzwang. It is a draw.

37...♔e8 38.♗f6 ♘c7 39.♔g3

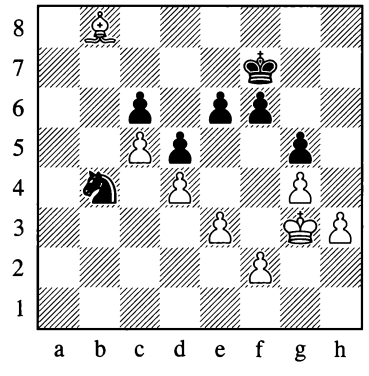


What follows is an illustration of how White could win the game. The weakness of the h6-pawn will eventually turn out to be an extra pawn for White. But this alone would be no guarantee of success, so I shuffled the pieces around a bit and came up with this:

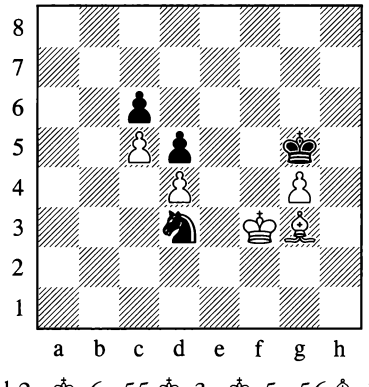
39...♘a6

39...♔f8 40.♔f4 ♘b5 41.♔e5 ♔e8 42.h4 ♘c3 43.h5 ♘d1 44.f3 gxh5 45.gxh5 ♔d7 (45...♘xe3 46.♔d6 and the c-pawn falls.) 46.♔f4 ♔e8 47.♗g7 will also work out well for White.

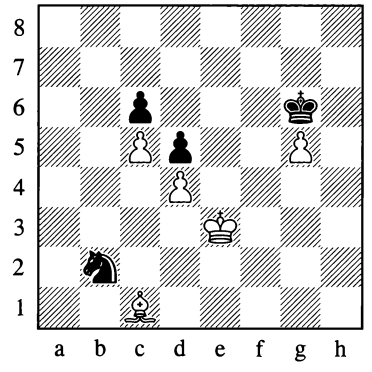
40.♗g7 ♘b4 41.♗xh6 f6 42.♗f4 g5 43.♗b8 ♔f7



44.f4 ♘a2 45.fxg5 fxg5 46.h4 gxh4† 47.♔xh4 ♔g6 48.♗e5 ♘c3 49.♔g3 ♘a2 50.♔f3 ♘b4 51.♗g3 ♘d3 52.e4 ♔g5 53.exd5 exd5



54.♗h2 ♔g6 55.♔g3 ♔g5 56.♗g1 ♔g6 57.♗e3 ♔g7 58.♗d2 ♔f7 59.g5 ♔g6 60.♔g4 ♘f2† 61.♔f4 ♘d3† 62.♔e3 ♘b2 63.♗c1



White is winning. 63...♘d1† 64.♔f4 and 63...♘c4† 64.♔f4 with zugzwang are both near the end. Black is still struggling with the two weaknesses: the c6-pawn and the g5-passer...

36...♔e7 37.♔f4

37.g4 g5 shows why White is too late. He no longer has ♗d8.

37...f6

Black has managed to create a blockade. The game was quickly drawn.

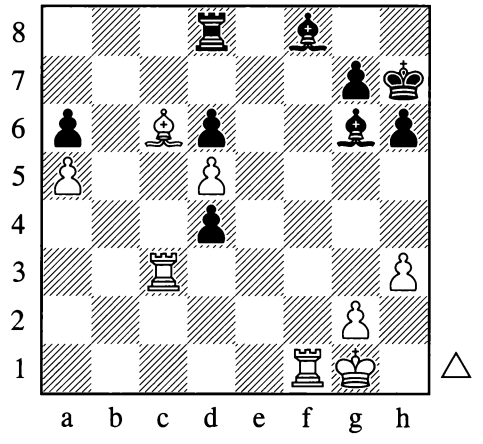
38.h4 ♔d7 39.f3 ♘c7 40.♗xc7 ♔xc7 41.e4 h6 42.♔e3 ♔d7 43.exd5
½–½

56. Prophylaxis

Being aware of your opponent's ideas is a cornerstone of good technique. At times this means understanding what they are wanting to do and block it. At other times it is not worth wasting your time on. And then there are the times where you should be aware of the opponent's defensive ideas, as you are trying to convert your advantage.

Denis Eraschenkov – Mikhail Kobalia

Sochi 2019



In the following example, White has an extra exchange and more active pieces. Still, he lost the game.

After 49.♖b3? ♗e7 50.♖b6 Black won a very complicated game on move 78, although he is not better at this point. After 50...♗g5!? Black has full counterplay.

The critical line is of course 50.♗b7, when Black has 50...♖b8 51.♖b6 ♗d8 52.♖xd6 d3 with counterplay. After 53.♖d1 ♗xa5 54.♖xa6 ♗b4 55.♗c6, White retains a small advantage. With a line under small...

White would not have lost, had he played:

49.♖a3!!

This looks stupid, but it defends the a5-pawn.

49...♖b8

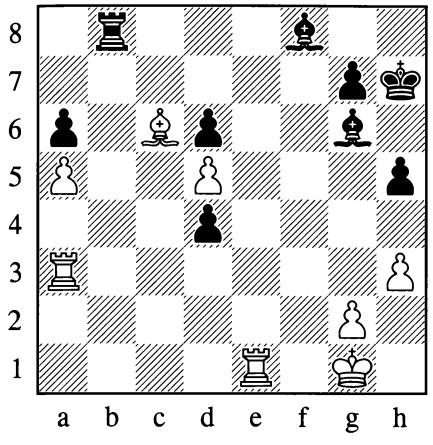
49...♗e7 50.♗b7 now just wins.

50.♖e1!

Preventing the bishop from developing.

50...h5

50...d3 51.♖a2 also gives White a large advantage.



51.g4! hxg4 52.hxg4 d3 53.♖a2 ♖b4 54.♗d7 ♔h6 55.♖f2 ♖b8 56.g5† ♔xg5 57.♖g2† ♔h5

57...♔h6 58.♖e6 wins the bishop.

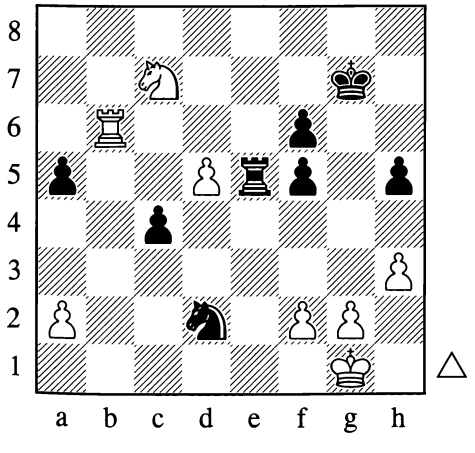
58.♖e3!

White wins.

The following example is basic, yet not simple.

Ngoc Truong Son Nguyen – Adhiban Baskaran

Tbilisi (1.4) 2017



The quality of the passed pawns, the pawn structures and just about everything else between the two sides' positions are in stark contrast. The only thing Black has going for him is that he is threatening ...♖e1† and ...♘f1†, leading to perpetual check.

52.g3?

This is a natural-looking move. It is quite harmonious within the white pawn structure, but otherwise a total mismatch to the rest of the position. The biggest problem with this move is that it allows Black to play ...♘e4, something that could have been prevented. After this, f2 is a weakness. The second is that there is no way for the white king to join the game. The third is that moves such as ...f5-f4 now make sense. It would lose a pawn, but not a useful pawn. In return, it would break up the white pawn structure and turn the white pawns into targets.

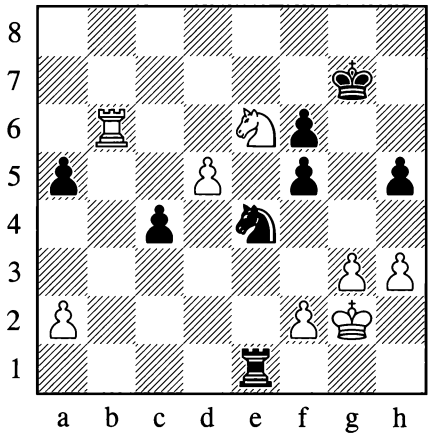
52.♘e6†? looks like a strong check, but this and the following checks lead nowhere. 52...♔g8 53.♖b8† ♔f7 54.♖b7† ♔g8 White would have to give up the extra pawn with 55.f3 ♖xd5 to be able to continue playing for a win.

From the explanation above, 52.f3! is the right move. Black has difficulties controlling the white passed pawn, while White is ready for ♖c6. An illustrative winning line could look like this: 52...♔f7 53.d6 c3 54.♖c6 ♘b1 55.♔f2 f4 56.d7 ♔e7 57.♖d6 ♔d8 58.♘e6† And after winning the exchange, all White has to do is to bring the rook behind the c-pawn to win the game.

52...♖e1† 53.♔g2 ♘e4

To be able to put the knight here is more than Black deserved.

54.♘e6†



54...♔h6?

A curious choice. The king will at best be out of play here. At worst, it will run the danger of being mated.

After 54...♔f7! 55.♖b7† ♔e8 56.♘g7† ♔d8 57.♘xf5 c3 Black would have strong counterplay.

55.♘d4?

Missing a big chance.

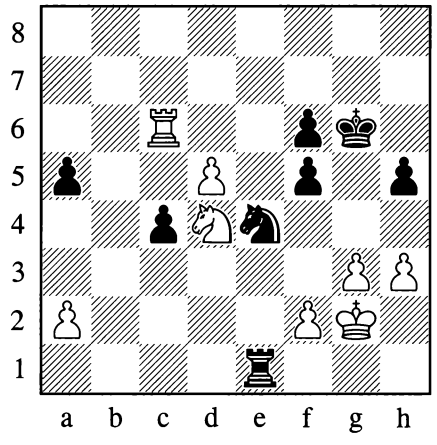
55.♖b7! with the threat of ♘f8, creating a mating net, would have been dangerous for Black. 55...♘g5 56.♘d4 ♔g6 57.h4 ♖e4 58.♘c6 ♘f7 59.♘e7† for example, would be winning for White.

55...♔g6

55...♖d1! was even stronger. The rook seeks to go to d2, where it can influence everything.

56.♖c6

On the slightly more accurate 56.♖b7, Black should reply 56...f4!, when he is only slightly worse.



56...c3?

Missing once again the chance to play 56...♖d1, when after 57.♖xc4 ♖d2 Black is out of the woods.

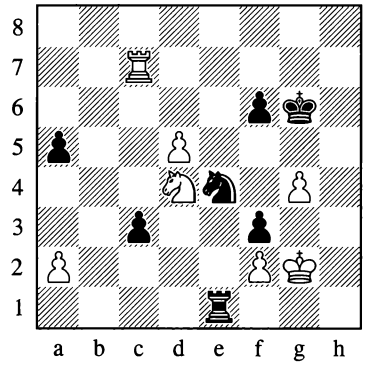
57.f3?

White misses the last chance to play for a mating net with:

57.♖c7!

The threat is ♘e6-f4/f8. Black has to play actively to not go down quickly.

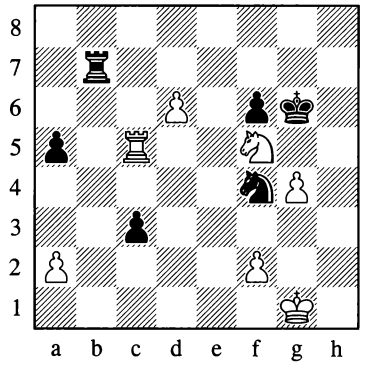
57...f4! 58.g4 hxg4 59.hxg4 f3†!



60.♔xf3

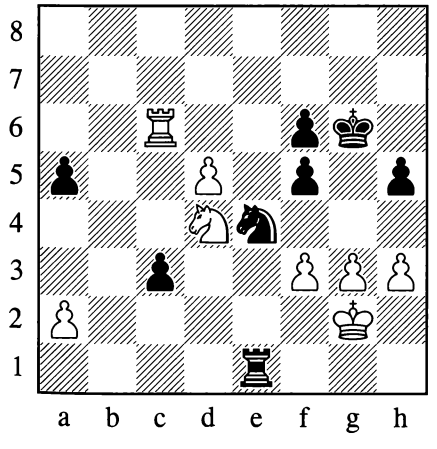
60.♘xf3 ♖a1! and Black creates activity and exchanges pawns.

60...♘g5† 61.♔g3 ♖g1† 62.♔f4 ♘h3† 63.♔e3 ♖e1† 64.♔f3 ♖d1 65.♘f5 ♖d3† 66.♔g2 ♘f4† 67.♔h2 ♖h3† 68.♔g1 ♖h7 69.♖c5 ♖b7 70.d6



White has consolidated a clear advantage, but it is yet to be seen if it will be enough to win the game. For example: 70...♔f7 71.♖c7† ♖xc7 72.dxc7 c2 73.c8=♕ c1=♖† 74.♕xc1 ♘e2† is still an advantage for White, although the amount of pawns is so reduced a draw is not unlikely.

For this reason 71.♔h2!, trying to improve the position further before choosing a direction, is advisable.



57...♖d1!

Finally Black solves his problems.

58.♘e2 ♖d2 59.♔f1 ♖d1† 60.♔g2 ♖d2 61.fxe4 ♖xe2† 62.♔f3 ♖xe4 63.♖xc3 ♖d4 64.♖c5 ♖d3† 65.♔f4 a4 66.♖a5 h4 67.gxh4 ♖xh3 68.d6 ♖xh4† 69.♔e3 ♔f7 70.d7 ♔e7 71.♖xf5

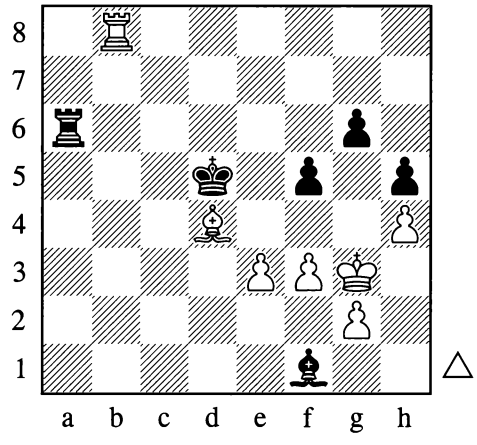
½–½

Understanding the opponent's intentions is a linchpin of good technique.

In the following game, White was pressing, but also had to solve his own issues, specifically with the g2-pawn. Black is on the way with ...♖a2, which White should prevent, giving him time to play ♔f4-g5.

Daniel Fridman – Dmitrij Kollars

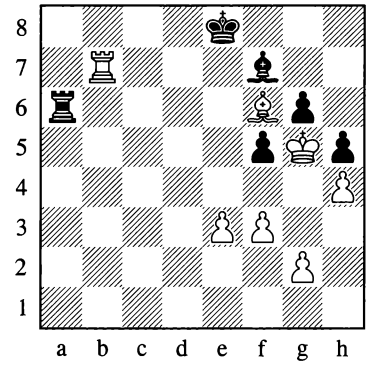
Magdeburg 2021



73.♖b1?

Losing an important tempo.

73.♖b2! would have prevented Black's play. The threat of ♔f4-g5xg6 is much too fast. Defensive play is also hopeless: 73...♔e6 74.♔f4 ♔f7 75.♔g5 ♗c4 76.♖b7† ♔f8 77.♗g7† ♔e8 78.♗f6 ♗f7



White can win in any which way. Renier Castellanos came up with the imaginative 79.♔h6? ♖xf6 80.♔g7, but after 80...♗d5!, White would be happy that he can still make a draw a piece down, exchanging the remaining pawns.

But White can improve the variation: 79.♖b8†! ♔d7 80.♔h6! ♖xf6 81.♔g7 ♖e6 82.♔xf7 ♖xe3 83.♖g8 The rook ending wins easily.

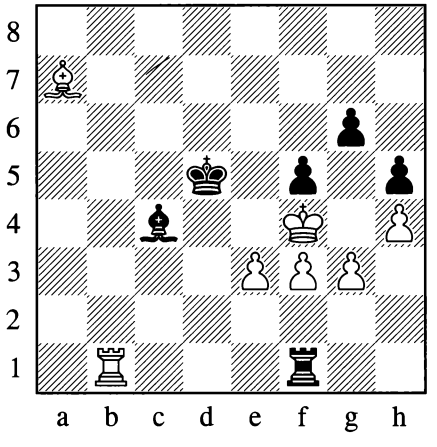
73...♗c4

Preparing ...♖a2. Black is within drawing margins.

74.♔f4 ♖a2 75.g3 ♖f2 76.♗a7 ♖f1?

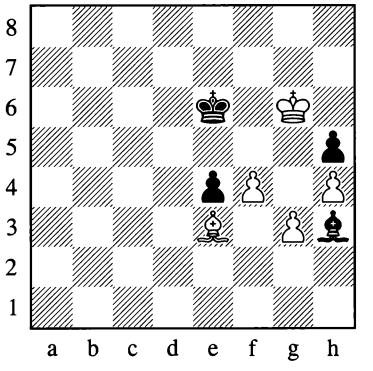
In principle this is the right exchange for Black. But in this situation, the white rook is ineffective, and the black rook is all that holds back the white king.

Instead, Black should have played 76...♗d3, when he would continue to be under pressure, but have excellent chances of holding.



77.♖b2?

Missing a random chance: 77.♖xf1! ♗xf1 78.♔g5 ♗e2 79.e4†! fxe4 (79...♔e6 80.♔xg6 transposes) 80.f4 ♔e6 81.♔xg6 ♗g4 82.♗e3 ♗h3



83.f5†! It is important to control the g4-square. (83.♔xh5? ♔f5 is a funny fortress, where three passed pawns are worthless) 83...♗xf5† 84.♔xh5 White wins easily with the two passed pawns.

77...♗d3 78.♗b8 ♗e4

Black has won the battle for the light squares and will establish a blockade.

79.♔g5 ♗xf3 80.♔xg6 ♗g4 81.♖b5† ♔e4 82.♗f4 ♖a1 83.♖e5† ♔f3 84.♖b5 ♖a6† 85.♔g5 ♖a8 86.♖b4 ♖g8† 87.♔h6 ♖h8† 88.♔g7 ♖a8

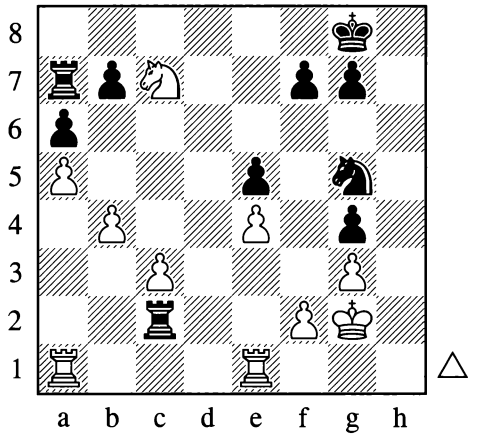
½–½

57. The Shankland Rule

Formulated by the American superstar. In many positions there will be a move you want to make on positional grounds, but which seems to be tactically deficient. Sam suggested that we should ask ourselves: "What happens if I do it anyway?" As I wrote in *Excelling at Chess*, the moves that are right for positional reasons have a tendency to work tactically as well.

Renier Castellanos – Bragi Thorfinnsson

Kragero 2019



34.♖ac1?

Placed to defend the c-pawn.

But White wanted to play 34.♖ad1!! and should have looked at it more.

After 34...♘h3 35.♖f1 ♔h7 36.♖d7, White wins.

Obviously the obstacle was 34...♖xc3, when White needed to find 35.b5!! (with the check on d8 before or after.) White simply wins. 35...♖xc7 36.♖d8† ♔h7 37.b6 And so on.

34...♖b2?

34...♖xc1! 35.♖xc1 ♘xe4 would have brought Black back into the game. For example: 36.♖e1 ♘xc3 37.♖xe5 b6!, or 36.c4 ♘d2! 37.c5 ♘f3 38.♖d1 ♘d4, with enough counterplay to draw.

35.♖cd1 ♘h3 36.♖f1

White is back on top. After:

36...♘g5? 37.♖d5! f6 38.♖d7

Renier was winning again, and won on the 62nd move.

...1–0

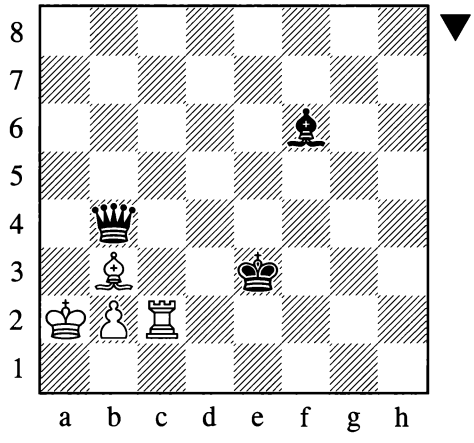
58. Schematic thinking

One way of thinking that is especially useful in the endgame is schematic thinking. I came to understand it almost twenty years ago, when my teammate Jonny Hector entered an endgame with an extra exchange against Ulf Andersson. After the game they analysed it and Ulf would constantly move a lot of the pieces around into one formation or another, stating, "Here I make a draw," and "Here I make a draw." Jonny would pull them back, trying to get into more move-by-move thinking.

It was a bit comical to watch and the entire team had a great laugh. But it was also instructive. One of the most legendary endgame players of all time was explaining the way he saw the endgame. Not as a tree of possibilities branching out from whichever position they were at, but as a series of possible end positions, which he had worked out if they were desirable or not. I doubt I have to say it, but will do so anyway. Ulf made the draw.

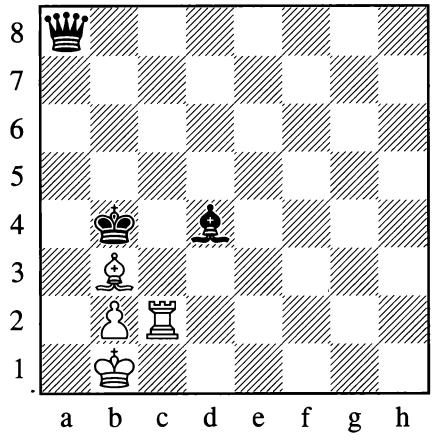
Aagaard

2021



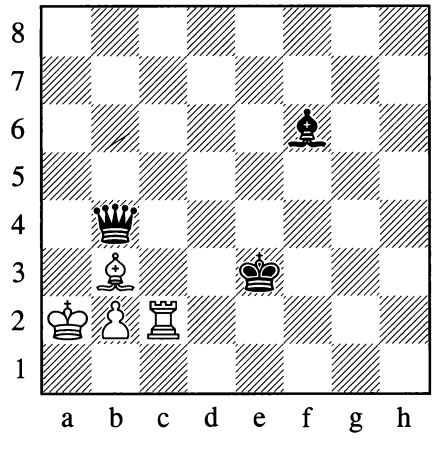
This position arose when I was analysing an incorrect study. One of the variations led to this position and I found it useful to explain how to break down a fortress: in this case, with

step-by-step schematic thinking. Black is well placed in general, but to get the most out of his position, he needs to improve his king.



This would be a much better version for Black – as long as he is avoiding losing the bishop to ♖c4†.

After having done this thought experiment, let's take a step backwards.



Black can easily transfer from the first to the second position.

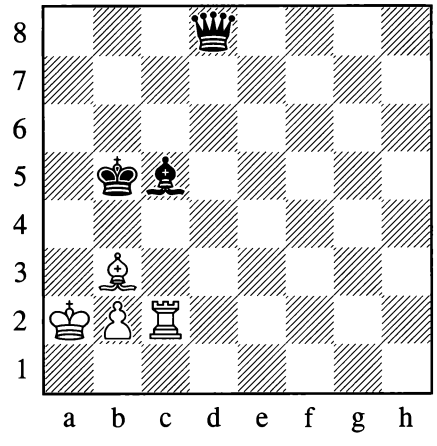
1...♗d4 2.♖c4 ♕b6 3.♖c2 ♔f4

The king will transition to b4, walking only on the dark squares.

4.♖c4 ♔e5 5.♖c2 ♔d6 6.♖c4 ♗c5 7.♖c2 ♕a5† 8.♔b1 ♔c7 9.♖c3 ♔b6 10.♖c2 ♔b5

OK, one exception...

11.♖c4 ♕e1† 12.♔a2 ♕d2 13.♖c2 ♕d8



Black has managed to improve the position of the king. It is now time for more concrete play.

14.♖c4

White can attempt to defend in various ways, but they seem to lead in the same direction.

14.♗c4† ♔b4 15.♔b1 ♗d4 16.♔a2 ♗f6 17.♗e2 ♕d5† 18.♗c4 ♕e4 We will see this position again below after Black's 17th move.

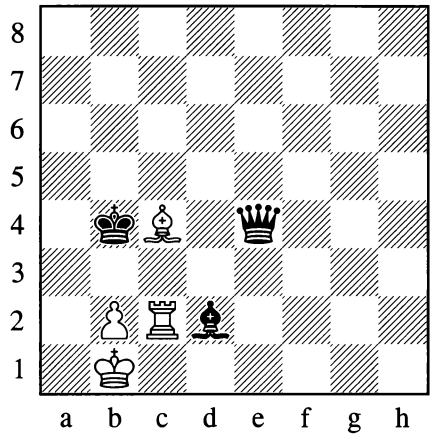
14...♗d4 15.♖c2 ♕a8† 16.♔b1 ♔b4 17.♗c4

17.♖c4† does not work at this point. After 17...♔xb3 18.♖xd4 ♕h1†, White is mated.

17...♕e4

An ugly pin. Especially now the bishop has lost the access to the b3-square. White is slowly getting squeezed. At this point we can see that a likely way for Black to make progress is to arrange for an (indirect) exchange of bishops, without allowing White to set up a fortress with the rook careering between a3 and c3.

18.♗e2 ♗e3 19.♗c4 ♗d2!



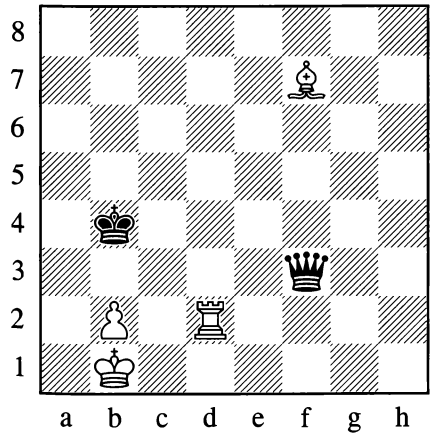
You can feel the screw tightening. This move prevents White from putting the bishop on e2. With only the c4-square being a safe square for the bishop, the fortress is now collapsing.

20.♗f7

One successful exchange of the bishops comes after 20.♗a6 ♕h1† 21.♔a2 ♕a8 22.♖xd2 ♕xa6† 23.♔b1 ♔b3! and White can only resign.

20...♕f3! 21.♖xd2

21.♗g6 ♕f1† 22.♔a2 ♕a6† would drop the bishop without getting the black bishop in return.



21...♕f1†!

An important intermediate move.

21...♕xf7?

This would be a serious mistake.

22.♖d4†!

Kicking the black king back.

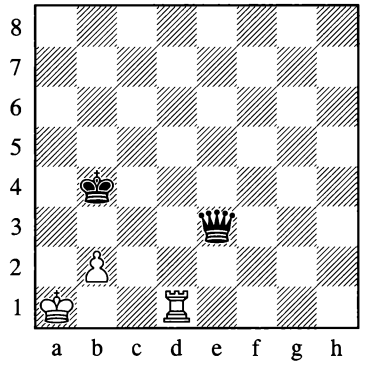
22.♖d3 ♕f5! 23.♔c2 ♔c4 would force White to play 24.b3†, when the fortress is no longer holding. We shall see more about these fortresses on page 471.

22...♔b5 23.♖d1!

Black is not in time to prevent ♖c1-c3 with ...♔b3 this time around.

23.♖h4!? also holds, but is not a move you would see a human play.

23...♕f5† 24.♔a1 ♕f4 25.♖e1 ♔b4 26.♖d1 ♕e3



The white fortress is not fully established, but amusingly it still holds on account of:

27.♖d8!

27.♖d6!? also works.

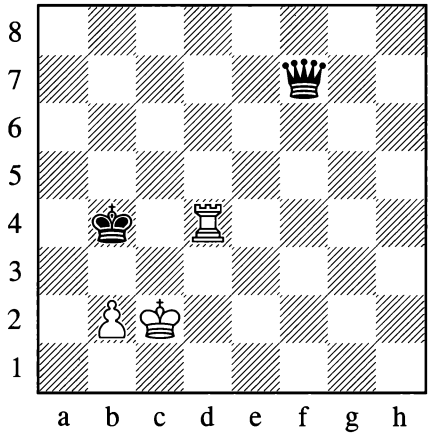
27...♔b3 28.♖d3†! ♕xd3

Stalemate.

22.♔c2

22.♔a2 would allow Black to give checks until the queen is on e4 and he can play ...♔b3!.

22...♕xf7 23.♖d4†



The final trick.

23...♔b5!

23...♔c5? looks natural, but White would now have 24.♖a4!, when Black cannot prevent ♖a4-a3 happening at some point. The white king will shuffle between c2 and b3, until it is allowed to go to b1 or a2 and hide in the corner.

White is unable to establish the fortress. For example:

24.♖d3 ♕f5 25.♔c3 ♕e4 26.♔d2 ♔b4 27.♖c3 ♕b1

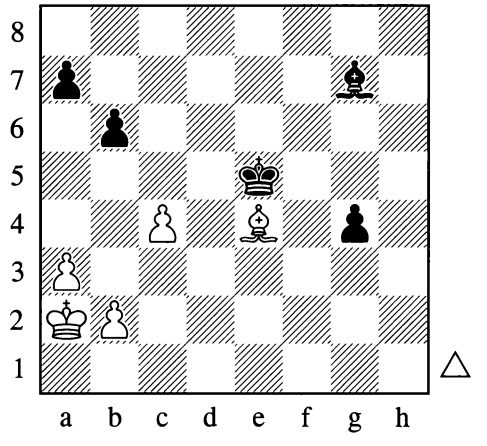
And the b2-pawn will go.

59. Fighting for key squares

We have already seen many fights for key squares. To me it is a central theme in my understanding of the endgame. The result is often decided by the access to one square or another by one of the players' pieces and thus decided by who can control the square.

Loek van Wely – Thies Heinemann

Internet 2021



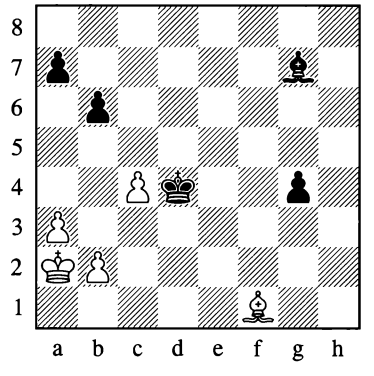
In this online game with a classical time control, the fight is for the d3-square. If Black manages to get to d3 with his king, White cannot organise his pieces and get the king out, as we shall see in the game.

51.♗h1?

In similar fashion, and according to the same principle, White loses after 51.♗d5? ♔d4 52.♔b3 ♔d3! and White cannot get his pawns moving in time.

But White was able to draw with:
51.♗g2!

Or 51.♗d3 – the path to f1 is irrelevant.
51...♔d4 52.♗f1!

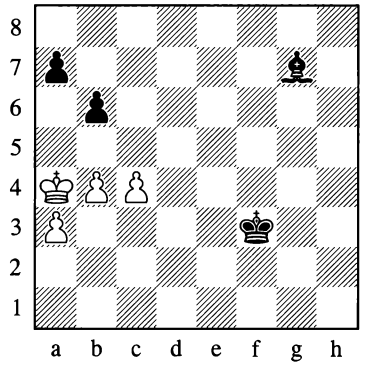


White has seemingly lost a tempo. But instead, he is making sure that he can get the king out.

52...♔e3

52...a5 53.b4 a4 would be an attempt to fix the a3-pawn. 54.♔b2 ♔e3† 55.♔c2 g3 56.c5 b5 57.♗g2 ♔f2 58.♗c6 g2 59.♗xg2 ♔xg2 60.c6 ♗e5 61.♔d3 ♔f3 62.c7! ♗xc7 63.♔d4 White will win both black pawns and make the draw.

53.b4 ♔f2 54.♗d3 g3 55.♗e4 g2 56.♗xg2 ♔xg2 57.♔b3 ♔f3 58.♔a4



58...♗b2

58...♔e4 59.♔b5 ♔d4 60.a4! ♗f8 61.a5 bxa5 62.♔xa5 White will continue with c4-c5 and ♔a6xa7.

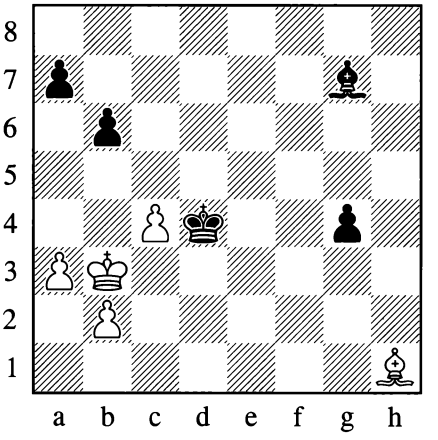
59.c5

59.♔b5 also draws.

59...bxc5 60.bxc5 ♔e4 61.♔b5 ♔d5 62.♔a6

With a draw.

51...♔d4! 52.♔b3



52...♗f8

52...♔d3! would be the thematic win. But the text move also works.

53.♗b7

A curious finish would arise after 53.♔a4 ♔xc4 54.b4 a5!, when Black either wins the pawn and then the game, or White is mated after 55.bxa5 b5#.

53...g3 54.♗h1 ♔d3!

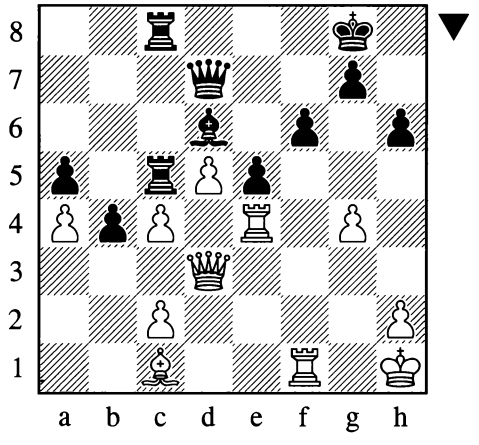
Black wins.

55.♗b7 ♗g7 56.♗h1 ♗d4 57.♗b7 ♔d2 58.♗h1 ♔c1 59.c5 bxc5 60.♔c4 ♗xb2 61.a4 ♗d4 62.a5 ♔d2 63.♔b5 ♔e3 64.a6 ♔f2 0–1

The following example shows the same principle at move 34. But first we need to allow Black to blunder.

Orelvis Perez Mitjans – Cristian Andres Hernandez

Barcelona 2021



27...♕c7?

Missing a trick.

If Black had organised his pieces with something like 27...♖5c7! 28.♗b2 ♗c5, White would not have any long-term prospects. There are too many weaknesses in his position.

28.♗e3! ♖xc4 29.♗b6! ♖c3

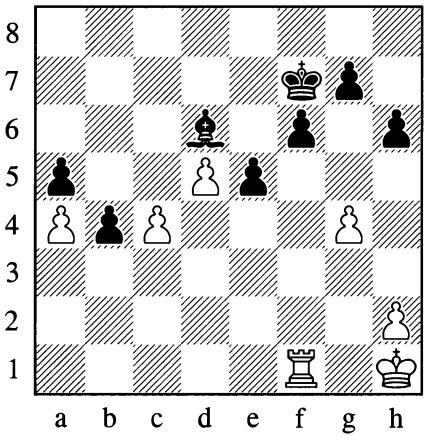
Black decides to seek refuge in the endgame. Practically, this was a good decision.

29...♕xb6 30.♖xc4 was also poor for Black.

30.♗xc7 ♖xd3 31.cxd3 ♖xc7 32.♖c4!

Seeking a favourable exchange. We now get into an endgame with dangerous passed pawns for both players.

32...♖xc4 33.dxc4 ♔f7

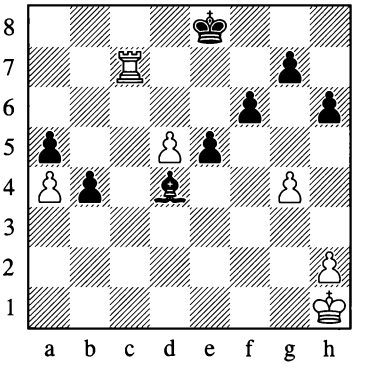


34.♔g2?

The most obvious-looking move ever. But also, a big positional mistake.

It is tempting to give up a pawn to activate the rook. But it would also activate the black bishop.

34.c5?! ♗xc5 35.♖c1 ♗d4 36.♖c7† ♔e8



It is already time for White to hit the brakes. 37.♖b7!

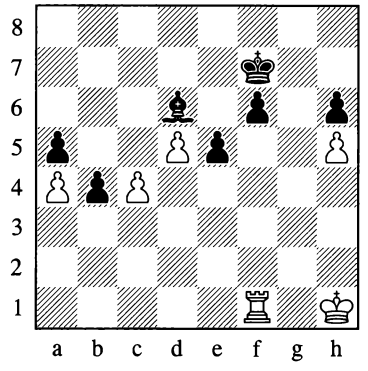
37.♖xg7? b3 38.♖b7 b2 39.♔g2 ♗c3! 40.♖b3 e4! 41.♔f2 ♗d4† 42.♔g3 ♔e7 43.♔f4 e3 44.♔f3 ♔d6 and Black wins.

37...h5 38.h3 hxg4 39.hxg4 g6

We are heading towards a draw. For example: 40.♔g2 e4 41.♔g3 ♗e5† 42.♔f2 ♗d4† 43.♔g3 ♗e5†

With friendly tidings.

But White was able to take control of the light squares on the kingside with a nice positional idea: 34.h4!! g6 35.h5! gxh5 36.gxh5



White is able to keep control and create squares via which he can penetrate Black's position with the king. It takes a bit of time for Stockfish to catch up, but when it does, it gets overly excited.

34...g6! 35.♔f3 f5

Black has achieved control over the light squares and is no worse.

36.♔e2 ♔f6 37.gxf5 gxf5

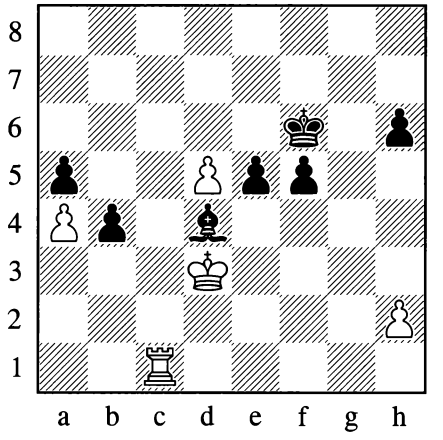
Black has achieved good harmony between his pieces and is not worse. White decides to go all in, but does not have the chips to back it up.

38.c5?

38.♖c1 ♗c5 39.♖d1 ♗d6 with a repetition could be a prudent end.

38...♗xc5 39.♖c1 ♗d4! 40.♔d3

40.♖c6† ♔e7 does not help White.



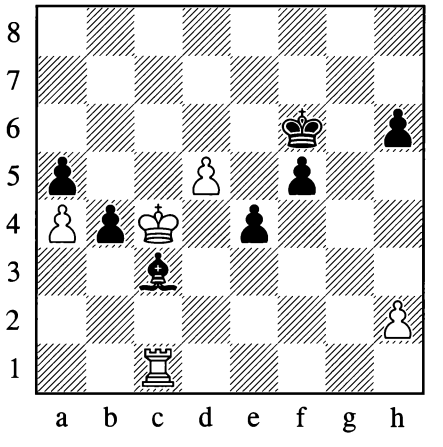
40...♗c3?

Putting the bishop on an obviously worse square, thus squandering several tempos.

Black could have won quickly with 40...b3 41.♔c4 b2 42.♖b1 ♔e7 and the bishop is no worse than the rook, but the extra pawns count.

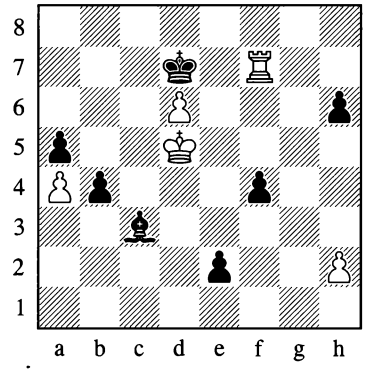
41.♔c4 e4

After 41...f4 White has only one way to hold the game. 42.♖d1! ♔e7 43.d6† ♔d7 44.♔d5! b3 (44...f3? 45.♖f1! and White would even win.) 45.♔c4 ♗d4 46.♔xb3 ♔xd6 47.♔c4 White has achieved a blockade of the light squares and will hold the game if he avoids obvious mistakes.



42.♔c5?

White misses a chance to push the black king back with: 42.d6! ♔e6 43.♖d1! ♔d7 44.♖d5! f4 45.♖f5 e3 46.♔d5 e2 47.♖f7†



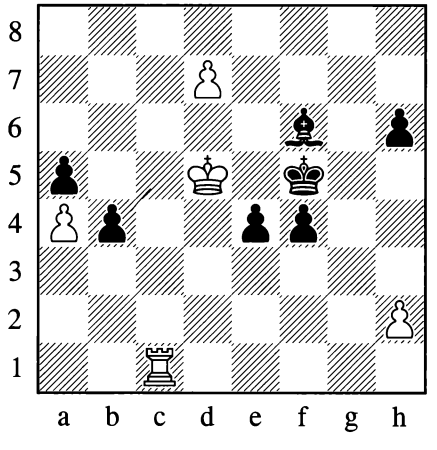
47...♔d8! (47...♔c8?? 48.♔c6 and Black is mated.) 48.♖f8† ♔d7 49.♖f7† With a draw.

42...f4

Good enough.

But Black was winning easily after 42...e3 43.d6 ♔e6 44.♔c6 f4 45.d7 ♗f6, when White cannot control all the passed pawns.

43.d6 ♔f5 44.d7 ♗f6 45.♔d5

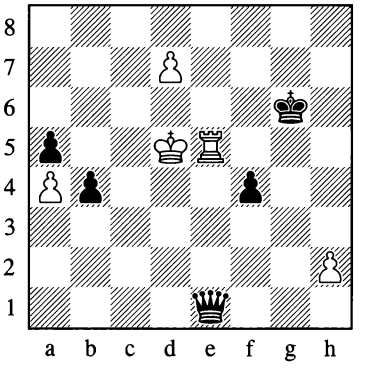


Black is winning, but will still need to be accurate for the win not to slowly slip through his fingers.

45...f3?!

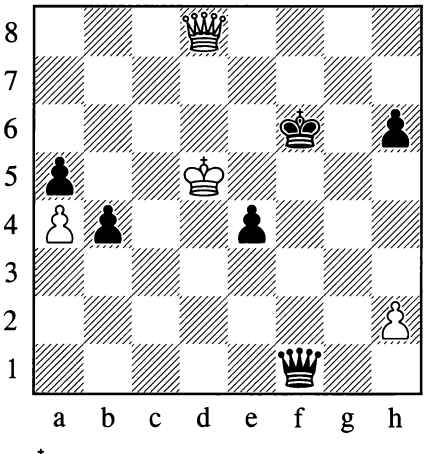
It was stronger to aim to queen the e-pawn, as it now becomes a target.

45...e3! Perhaps Black was unsure about the complications after: 46.♖c6 (46.♖c8 e2 47.♖f8 e1=♕ 48.♖xf6† ♔xf6 49.d8=♕† ♕e7 is a much more comfortable version of the queen ending.) 46...♗h4! 47.♖xh6 e2 48.♖xh4 e1=♕ 49.♖h5† ♔g6 50.♖e5!?



50...♕d2† 51.♔c6 ♕c3† 52.♖c5 ♕d4 53.♖d5 ♕c4† 54.♔d6 ♕a6† 55.♔c7 ♕a7† 56.♔d6 ♕b6† 57.♔e5 ♕f6† 58.♔e4 ♕d8 And Black wins.

46.♖c8 f2 47.♖f8 f1=♕ 48.♖xf6† ♔xf6 49.d8=♕†



49...♔g6?!

It is a bit strange to allow this check on g8.

The stronger 49...♔g7! 50.♔xe4 ♕e2† 51.♔f4 ♕e6 would give Black control over the path of the b-pawn and win the game.

50.♕g8† ♔h5 51.♕e8† ♔g5?!

Black would be winning after 51...♔g4! 52.♕g6† ♔f3 53.♕xe4† ♔f2 54.♕f4† ♔g1.

52.♕g8† ♔h4?

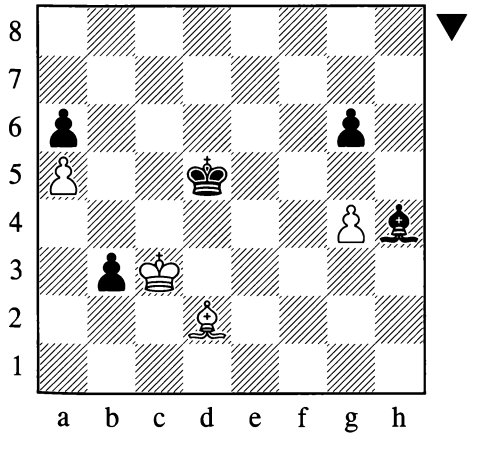
52...♔h5 with a repetition kept the dream alive.

53.♕g3† ♔h5 54.♕e5† ♔g6 55.♕g3†! ♔h7 56.♕c7† ♔g8 57.♕g3† ♔f7 58.♕c7† ♔f6 59.♕d6† ♔g5 60.♕g3† ♔f6 61.♕d6† ♔f7 62.♕c7† ♔g8 63.♕g3† ♔f8 64.♕b8†
½–½

In this example from one of the endless Internet rapid tournaments of 2020, which produced many interesting positions and no interesting games, Black could win the fight for the b4-square with a well-known little trick.

Ding Liren – Peter Svidler

Internet 2020



49...♗d8?

A natural-looking move.

After 49...b2! 50.♔xb2 ♔c4 Black is winning. His next moves would be ...♔b5 or ...♗e7-b4.

50.♔xb3 ♔c5 51.♔a4!

The king defends the a-pawn, but mainly he defends the b4-square. This makes the draw. If the black king goes for the white g-pawn, the white king will be able to eliminate the a6-pawn. The draw is secure. The remaining moves had no importance.

51...♔c4 52.♗e3 ♗e7 53.♗b6 ♗d6 54.♗d8 ♗f8 55.♗f6 ♗c5 56.♗d8 ♗f2 57.♗f6 ♗e1 58.♗d8 ♔d3 59.♔b3 ♔e4 60.♔c4 ♔f4 61.g5 ♗xa5 62.♗xa5 ♔xg5 63.♔c5 ♔f5 64.♔b6 g5 65.♔xa6 g4 66.♗c7 ♔e4 67.♗b8 ♔f3 68.♗c7 g3 69.♗xg3
½–½

60. Knowing when to act and when to squeeze

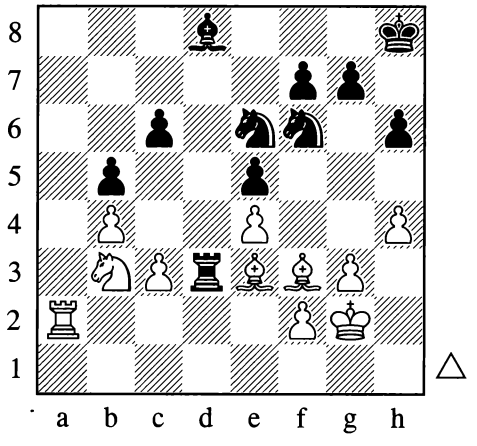
Getting a good feeling for endgame technique is to a high degree about having a feeling for when to slowly squeeze the opponent and when to make the most out of your advantage.

The simple guidelines are:

- As long as you can improve your position more than your opponent, you should do so.
- Avoid unnecessary complications and especially prevent counterplay.
- Stay calm.
- Don't hurry! The perceptive reader will understand the mentality we are talking about.

Renier Castellanos – Edoardo Di Benedetto

Forni di Sopra 2019



White is better, with two bishops and a marginally better structure. Very marginally, but still, it is real.

28.♖c2?

A bad choice, somehow obscured by the fact that White remains firmly better. But why would you want to put the rook on this dismal square?

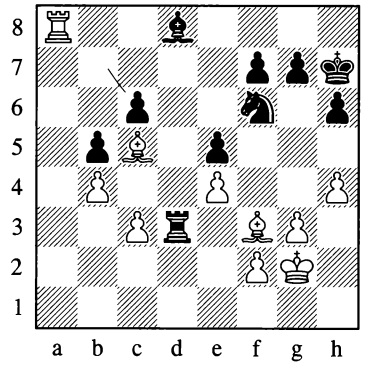
28.♖a8!

This is the move we would want to play (see the Shankland Rule above).

28...♔h7

28...♖xc3 29.♘c5 and the bishop is lost.

29.♘c5 ♘xc5 30.♗xc5



30...g5!?

Black needs to do something, or White will squeeze the life out of him. Nothing is better than a positionally sound move that includes a devilish trap.

30...♘d7? 31.♗e2 ♖d2 32.♖xd8 picks up a piece.

And after 30...♗c7, White can continue squeezing in many ways. Intuitively, I would want to play 31.h5!?, which wins slowly and without being concrete. But several concrete options are strong and not too difficult to understand: 31.♖a7! with the idea 31...♖d7 32.♖a6! is fairly convincing and within even my limited abilities.

31.hxg5

31.♖xd8? ♖xd8 32.♗e7 ♖e8 33.♗xf6 ♔g6 would be a combination that sees the bishop trapped.

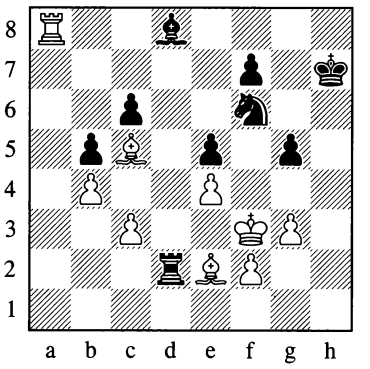
31...hxg5 32.♗e2!

An important move. The king on g2 is White's worst piece and it needs to pull its weight.

32.♖xd8? ♖xd8 33.♗e7 ♖e8 34.♗xf6 ♔g6 would again see the bishop trapped and Black winning!

32.♗e3 g4 33.♗e2 ♖d6 is bad for Black, but with the threat against e4, White has to play the unpleasant 34.f3 gxf3† 35.♔xf3, when his advantage is big, but we can start to imagine that Black has small chances of holding.

32...♖d2 33.♔f3!



White is simply winning. None of the tactics work for Black.

33...♘xe4?!

33...g4† 34.♔e3 ♘xe4 35.♔xe4 ♖xe2† 36.♔d3 ♖e1 37.♔d2 and White wins the bishop.

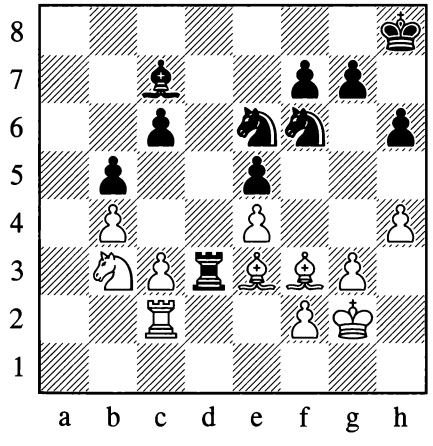
Or 33...♖d7 34.♖a6 and White wins.

34.♗e3 g4† 35.♔xe4 ♖xe2 36.♖xd8

And so on.

28...♗c7

28...♔g8!, bringing the king into the game, seemed practical.



29.♘c1?

Again, not a move you would want to play, if you were giving yourself a choice.

White misses a chance to strike. 29.♘a5! ♖d6 30.c4 ♘d4 31.♖c1 would leave Black with only unfortunate choices. If White is not simply winning, then he is at least quite close.

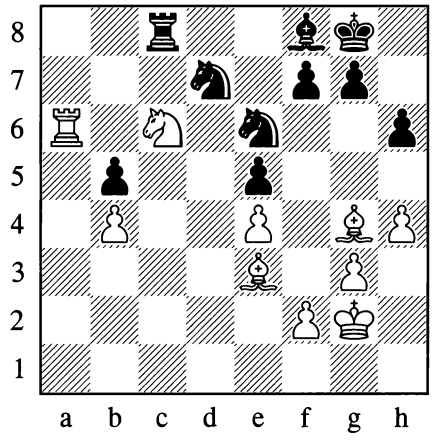
29...♖d8 30.♖a2

White retains a big advantage and continues to build. Let's fast forward a few moves.

30...♗d6 31.♘b3 ♖c8 32.♖a6 ♗f8 33.♘a5 c5 34.♘c6 cxb4 35.cxb4 ♘d7 36.♗g4! ♔g8

The second critical moment in the game. But allow me to digress for a second. I believe that there is a lot to learn from computers. They will be able to tell you which is the best move in many positions, and they will always be ready to discuss variations with you.

But we have reached the point in time, where they are looking so far ahead that their suggestions are often based on finesses that we would never pay attention to during the game. When we work with them, we should understand their limitations; especially in terms of their inability to explain anything to us. We need to understand how we can make decisions, not how you would make decisions if you were able to calculate 34 moves ahead in 30 seconds. We cannot. We need a different way to look at positions.



In this situation, the version of Stockfish on my laptop is suggesting 37.♗h3, 37.♗f5 and 37.♗d2 as equal to the obviously best move – seen from a human perspective. Eventually, it agrees with the human understanding of how to play this position, but if you take it to a GM, he will come up with the right move in seconds nine times out of ten.

37.♘a7?

Seeking something direct. When we were discussing this game at the academy, most of the players wanted to act, now, now, now. But why the rush?

37.h5! White improves the squeeze on the black position before looking for ways to exploit the advantage. The only reason not to do this, would be if Black can do something active. So, let's try that:

a) 37...♘f6 38.♗f5 ♘xh5 39.♘xe5 gives full control. An important tactic is 39...♗xb4 40.♖xe6. So Black has to play 39...♖e8, when White is on his way to winning after 40.♖a7.

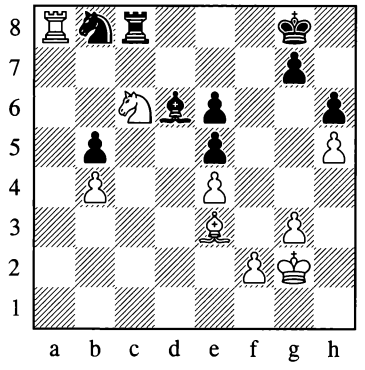
b) 37...♘b8 38.♗xe6

This is the win we found at the academy session. 38.♖a8 also wins.

38...fxe6

38...♖xc6 39.♖a8 fxe6 40.♖xb8 ♔f7 41.♖xb5 wins easily for White. For example: 41...♖c4 42.♖b7† ♔f6 43.b5 ♖xe4 44.b6 ♖b4 45.♖d7 e4 46.b7 e5 47.♗a7 ♔e6 48.♖c7 and so on.

39.♖a8 ♗d6



40.♗c5!

Removing the defender.

40...♗xc5 41.bxc5 ♖xc6 42.♖xb8† ♔f7 43.♖xb5 ♔f6 44.f4

The rook ending wins without too much trouble. For example:

44...♖a6 45.♖b2!

When White puts the rook behind the passed pawn, leading to an elementary win, even if it takes time.

37...♖e8 38.♘c6?!

Renier has clearly lost his way.

White could still play for an advantage after 38.♗xe6 ♖xe6 39.♖xe6 fxe6 40.♗d2! ♘b8 41.♗c3 ♘a6 42.♘c6, although I believe Black has reasonable drawing chances after 42...h5!.

38...♘f6! 39.♗f3 ♘d8!

Black is fine.

40.♘xd8 ♖xd8 41.♖b6 ♗xb4 42.♖xb5 ♗c3 43.g4 ♘e8 44.g5 hxg5 45.hxg5 ♘d6 46.♖c5 ♖c8 47.♖xc8† ♘xc8 48.♗c5 ♗d4

½–½

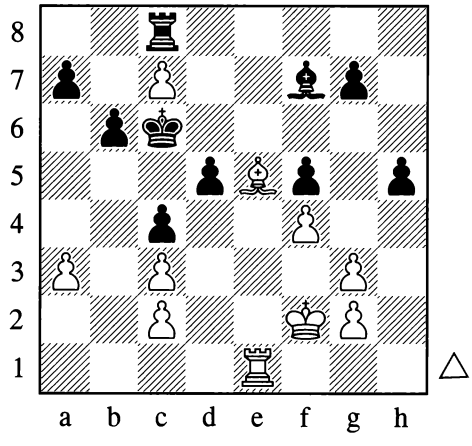
61. Timing

Timing is a big theme in positional chess. When is it time for building up, when is it time for action? Getting a good feeling for the rhythm of chess is essential to developing good technique. Often, lack of a sense of timing is the main indicator of someone with poor technique.

In the following example, Black should hold with great defensive play. But White is pushing and with good technique, he can challenge his opponent. As indeed happened in the game.

Alexander Cherniaev – Simon Knott

England 2007



White is apparently only marginally better in this position. This is the thinking of a machine. For a human, the practical chances lie exclusively with White. The pawn on the 7th rank and the superior pieces are big assets. But if Black can meet every offensive idea, then the evaluation should be equal. Such is digital logic.

Let's assume that White is better and that we are looking for a way to exploit that advantage. How should we go about that? Looking at the position, we can see that the white position still has massive scope for improvement. Before aggression is initialised, we should make the most out of our pieces' potential.

33.♔g1!

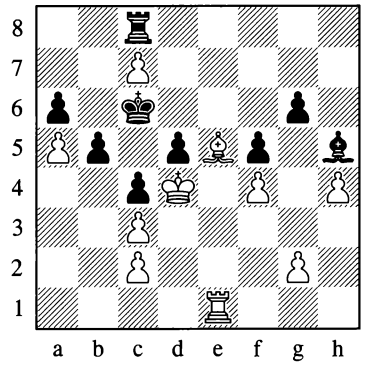
The king is heading for g5, from where it will attack the f5-pawn.

33.g4 is often suggested. Why the rush?

33...♗e8?

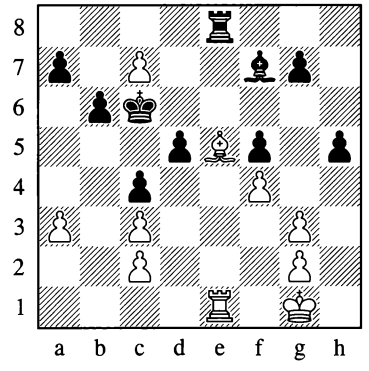
In practice it was not easy to find the only defence.

33...h4 could be a way for Black to offer resistance. But no. White has 34.♔f2!?, but there is nothing wrong with taking the pawn. 34.gxh4 ♗h5 35.♔f2 g6 36.♔e3 ♗g4 37.♔d4 ♗h5 38.♖b1 ♗g4 39.a4 a6 40.♖e1 ♗h5 41.a5! b5



White cannot improve his position any further. It is time to return the pawn, only to win the a6-pawn down the line. 42.♗f6 ♖xc7 43.♗e7 White is in full control.

The reason the engines are unconvinced is that Black has a fabulous defence. Strictly along first principles of course: 33...♖e8!!

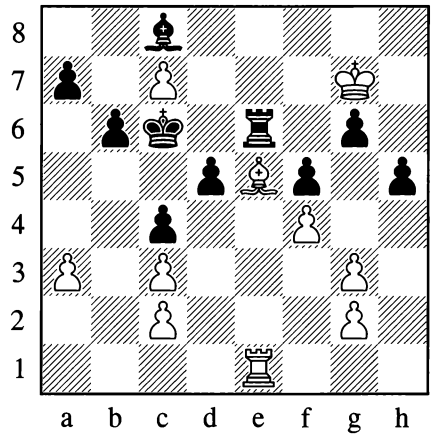


Preparing to put the king on c8 and the rook on e6, so there is no way for the white king to penetrate on the kingside. White can still find ideas, but nothing as convincing as in the game. The computer says 34.a4 is a bit better for White. Sure, if you say so. I would personally not commit to putting this pawn on a light square so quickly.

34.♔h2 ♗d7 35.♔h3 ♖e8 36.♔h4 g6

A further weakening of the dark squares, but Black has little choice.

37.♔g5 ♖e6 38.♔h6 ♗c8 39.♔g7

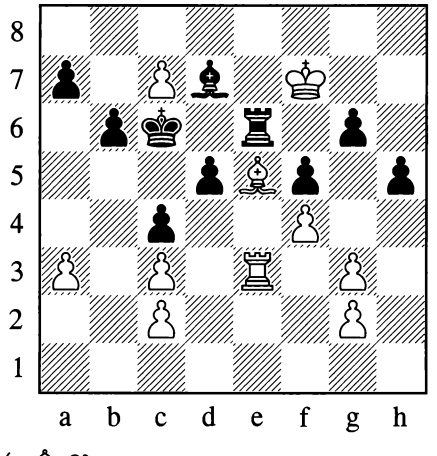


A few years ago, the position was still 0.00 according to a schizophrenic German buddy I used to hang with. Now Stockfish says 0.65 for White.

39...♗d7 40.♔f7 ♗c8 41.♖d1

White has achieved a clear improvement in his position and now takes his time to work out what to do next.

41...♗d7 42.♖h1 ♗c8 43.♖e1 ♗d7 44.♖e3



44...♗c8?

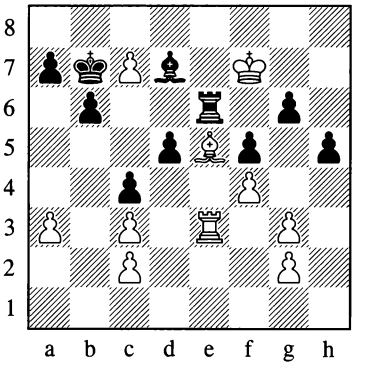
Black is allowing himself to get entirely run over. He can see what is coming and does nothing to counter it.

44...♔b7!

This was perhaps the last defensive attempt. Black keeps the possibility of playing ...♗a4, ...♗xc2 and ...♗d1, to block the kingside.

45.♖e2 ♗c8 46.♖e1 ♗d7 47.♖e3

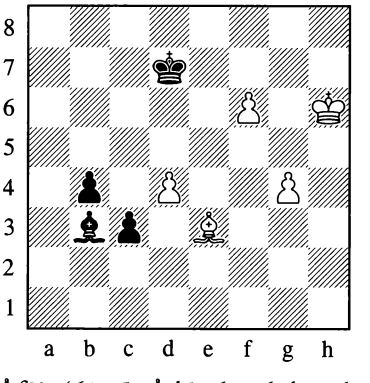
This would ask Black to weaken his position and be something White could repeat.



The key idea is that the black bishop and king cannot lose a move, the same way the rook can.

47...a5

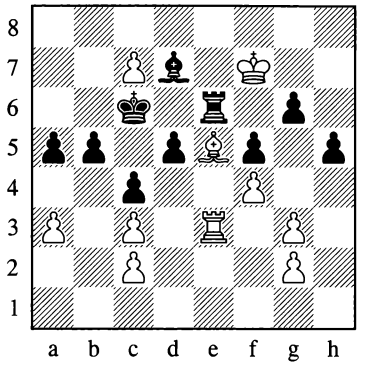
47...♔c6?! (or 47...♗c8) would still be dangerous for Black. The following variation is a good illustration of the problems Black is facing. 48.♗d4 ♖xe3 49.♗xe3 ♔xc7 50.♔xg6 d4 51.cxd4 c3 52.♔xh5 ♗a4 53.g4 fxg4 54.♔xg4 ♗xc2 55.♔h5! b5 56.g4 a5 57.f5 b4 58.axb4 axb4 59.f6 ♔d7 60.♔h6 ♗b3



61.♗f2! (61.g5 ♗d5 62.g6 b3 63.f7 b2 and this messy position is fine for Black.)

61...♗d5 62.♗e1! White manages to stop the black pawns. 62...♔e6 63.♔g7 White wins.

48.♖e1 ♗c8 49.♖e2 ♗d7 50.♖e3 b5 51.♖e2 ♗c8 52.♖e1 ♔c6 53.♖e3 ♗d7



54.♖e1

54.♗d4 ♖xe3 55.♗xe3 d4! 56.♗xd4 ♔xc7 57.♔xg6 ♔c6 58.♔xh5 ♔d5 Black is in time with ...♔e4 to create a blockade and should hold.

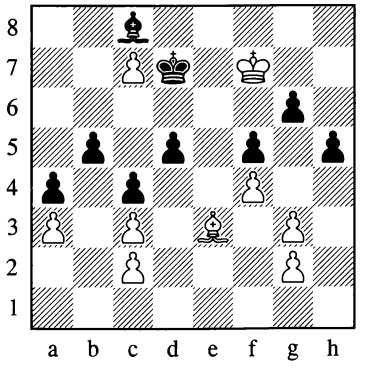
54...a4!?

Eventually White will play ♖b1 and threaten to go a3-a4 with interesting complications. So, Black may as well play this move early.

55.♖e2 ♗c8 56.♖e3 ♔d7 57.♗d4

Ultimately, White cannot make progress without this move, I think.

57...♖xe3 58.♗xe3



58...d4!

And without this, Black is lost.

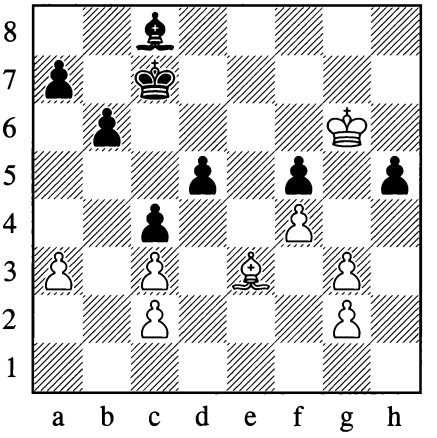
59.cxd4 ♔xc7 60.♔xg6 ♔d6 61.♗d2 ♔d5

61...c3!? is also a natural move.

62.♗c3 ♔e6 63.♔xh5 ♗b7 64.g4 fxg4 65.♔xg4 ♗xg2 66.f5† ♔d7! 67.♔f4 ♔c6 68.♔e5 ♗d5 69.♗d2 c3! 70.♗xc3 ♗a2

Black has managed to create a blockade, with all the squares conveniently on one diagonal for the bishop.

45.♗d4 ♖xe3 46.♗xe3 ♔xc7 47.♔xg6



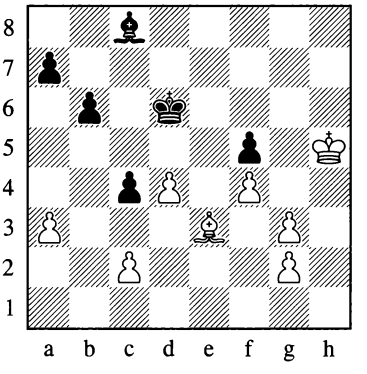
47...♔d6

The last chance for Black to create resistance came by:

47...d4!?

The win is nice, but not incomprehensible by any means.

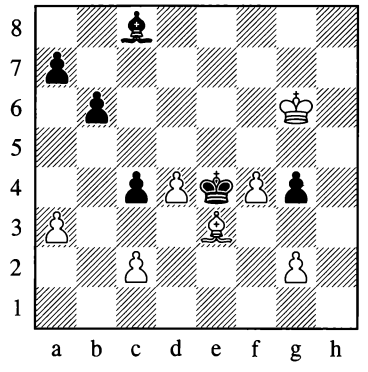
48.cxd4 ♔d6 49.♔xh5



49...c3!?

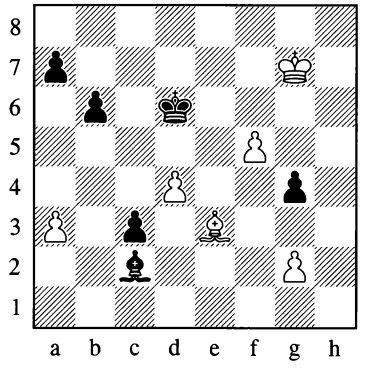
Trying for counterplay.

49...♔d5 50.g4 fxg4 51.♔g6 ♔e4



52.d5!! ♗f5† (52...♔xd5 53.f5 ♔e4 54.f6 ♗e6 55.♗f2 and White wins.) 53.♔f6 ♗d7 54.d6 ♔xe3 (54...♔d5 55.♔e7 ♔c6 56.♗d4 would also win for White.) 55.♔e5!! and White wins: 55...♔d2 56.f5 c3 57.f6 ♔xc2 58.f7 ♔b2 59.f8=♕ c2 60.♕f2 ♔b1 61.♕f7! c1=♕ (61...♗a4 62.d7 ♗xd7 63.♕b3† and Black will never get a queen.) 62.♕xd7 ♕b2† 63.♔e6 ♕xg2 64.♕b5† The d-pawn is too strong.

50.♔g6 ♗d7 51.g4! fxg4 52.f5 ♗a4 53.♔g7 ♗xc2



54.♗f4†!

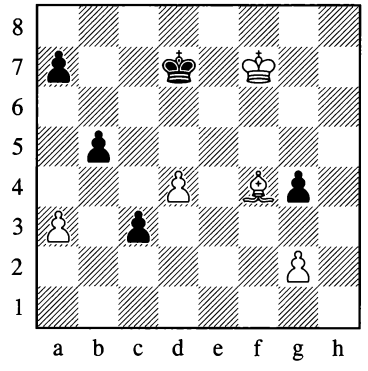
Pushing the black king back at the right moment.

54.f6 ♗b3 would turn it into White's obligation to make the draw.

54...♔d7

54...♔c6 55.d5†! and White wins.

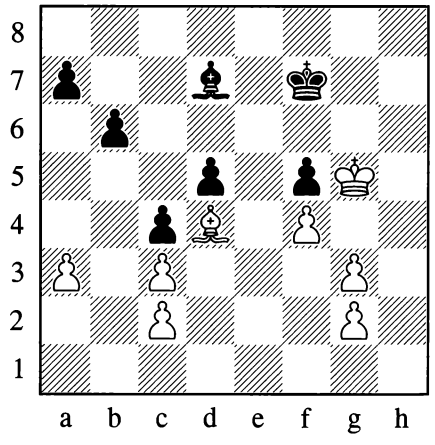
55.f6 ♗b3 56.f7 ♗xf7 57.♔xf7 b5



58.♔f6 a5 59.♔e5 b4 60.axb4 axb4 61.♔e4 b3 62.♔d3 b2 63.♔c2

White wins.

48.♗d4 ♔e6 49.♔xh5 ♔f7 50.♔g5 ♗d7



51.g4!

Creating connected passed pawns: the killer duo in endings with opposite-coloured bishops.

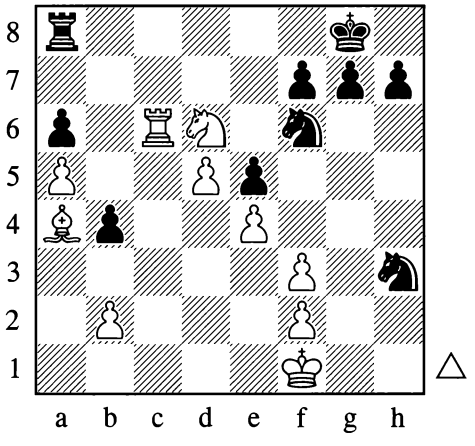
51...fxg4 52.g3 ♗a4 53.f5 ♗xc2 54.♔xg4 ♗d1† 55.♔f4 ♗c2 56.g4 ♗d1 57.g5 ♗h5 58.♔e5
1–0

The following example comes from one of the most talented female players I have ever seen. Her brother is now a famous grandmaster, but in blitz I fear her more...

I am not sure if the following game is the result of a lapse of concentration, or technical deficiency. As Vaishali is still a teenager, both are natural, and obstacles that have to be overcome over time. Hopefully, she learned a lot of small lessons from this game.

Vaishali Rameshbabu – Zhou Qiyu

Sochi (1.1) 2021



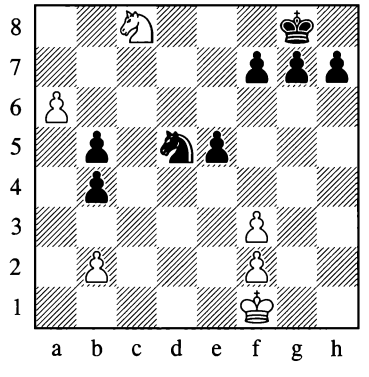
White is totally winning and as always with Vaishali, she found the most tactically astute way to continue.

32.♗b5!

Creating a path for the a-pawn.

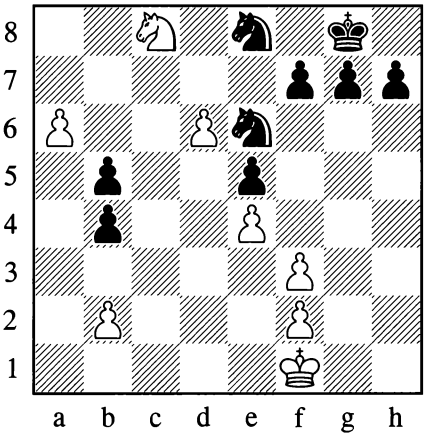
32...axb5 33.a6 ♘f4 34.♖c8† ♖xc8 35.♘xc8 ♘e8

35...♘6xd5 36.exd5 ♘xd5



This was a variation Vaishali had to have seen. And she undoubtedly also noticed that 37.♘e7†! ♘xe7 38.a7 would win.

36.d6 ♘e6

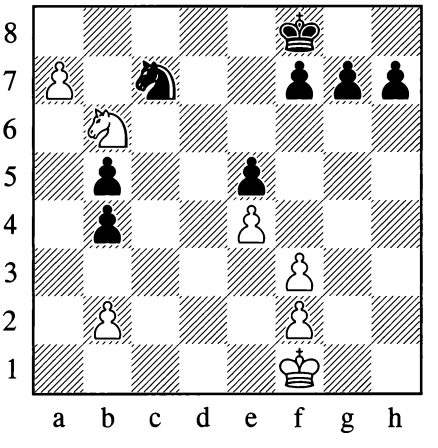


White is about to win and the game is over. Right? It is easy to imagine that she thought so and stopped thinking. If she had paid attention to the position, she would have noticed a more cautious way to win the game.

37.a7?

37.♘e7†! ♔f8 38.♘d5 and the a-pawn queens – and the queen stays alive.

37...♘8c7 38.dxc7 ♘xc7 39.♘b6 ♔f8



40.a8=♕†?

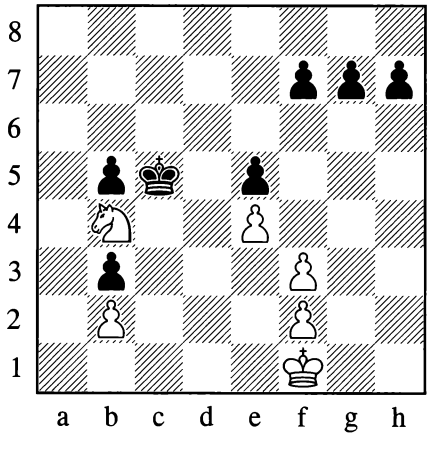
Move 40. It is easy to forgive a player for making a mistake when time is running out. Right? Not so fast. Vaishali had 18 minutes when she played 37.a7, and she still had about 18 minutes when she played this move. A move she made in 2 seconds. Remember that she had to put the queen on the board too, so this leaves far less than a second for active thought. Already, the white advantage is much diminished, but only with this move is it actually ruined.

Instead, White should have exploited that the black king is unable to join the game, as long as ♘d5† is in the air and the pawn still on the 7th rank. White wins by improving her position before giving up this advantage. 40.♔g2 ♔e8 41.♔g3 h5 (41...g6 42.f4 also wins.) 42.♔h4 g6 43.b3 ♔f8 44.♔g5 ♔g7 Only now, when there is no more to be gained on the kingside, will White queen the pawn and win easily. 45.a8=♕ ♘xa8 46.♘xa8 and White will win material on the queenside.

40...♘xa8 41.♘xa8 ♔e7 42.♘c7 ♔d6

Only now did Vaishali start to think, only to realise that it is not that easy anymore.

43.♘a6 b3 44.♘b4 ♔c5



45.♘d5?

It turns out that objectively, only this mistake throws away the winning position. With one minute now on the clock, Vaishali had no chance to work out the nuances of the position.

I allowed Fat Fritz 2 to analyse the position for an hour and will give you the winning line it suggested.

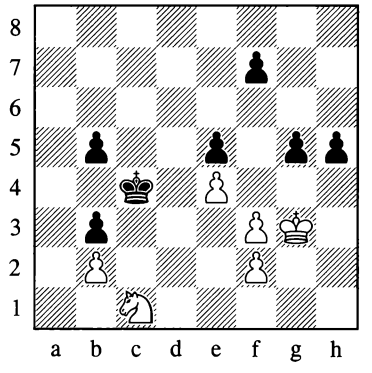
45.♘d3† ♔d4 46.♘c1

The point of this strange manoeuvre is to attack the b3-pawn and prevent the black king from penetrating at the same time.

46...♔c4 47.♔g2 h5 48.♔h2

Who knows why here? White has to provoke weaknesses on the kingside. Black has to advance the pawns to prevent White from taking the e5-pawn.

48...g6 49.♔g3 g5



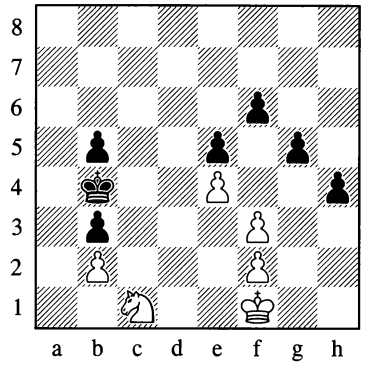
50.♔g2

Having achieved all there is to achieve on the kingside, the king returns to the centre to put Black in a zugzwang.

50...f6 51.♔f1 ♔b4 52.♔e2 ♔c4 53.♔d2 ♔b4 54.♔d3 h4

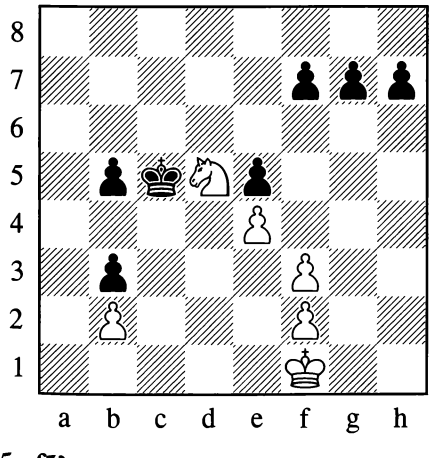
Black has no choice but to advance the pawn.

55.♔e2 ♔c4 56.♔f1 ♔b4



57.♔e1 ♔c4 58.♔e2
Triangulation.
58...♔b4 59.♔d3 h3 60.♘e2
White wins.

We can be confident that Vaishali could have worked this out with 15 minutes on her clock. But with one? Obviously, she did not. There is another emotional state happening when we are running out of time, that does not bode well for slow play. This game was not squandered at move 45 though. The mistakes were at move 37 and move 40.

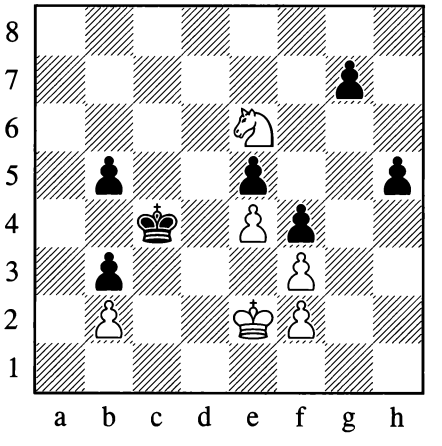


45...f5?

Black returns the favour. The pawn is needed on f6 later, to defend the pawn chain.

45...h5! 46.♔e2 h4 47.♘e3 g5 would have drawn the game. White is not able to protect the d3-square now and cannot abandon the centre with the king.

46.♔e2! f4 47.♘c7! ♔c4 48.♘e6 h5



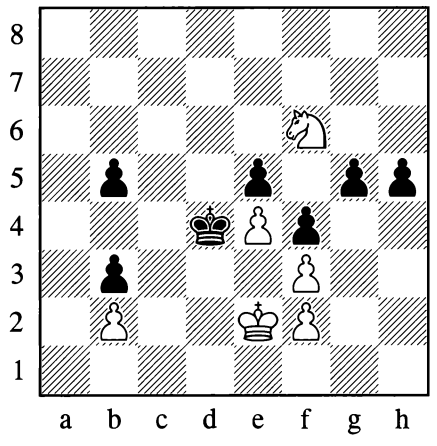
49.♘f8!?

I prefer the following win: 49.♘d8! ♔c5 50.♔d3 ♔d6 51.♘b7† ♔c6 52.♘a5† ♔b6 53.♘xb3 h4 54.♔e2 with full control.

49...g5

Black could have played in a less forcing way, and maybe offered more resistance, with: 49...♔c5 50.♔d3 ♔d6 51.♘h7 ♔e7 52.♘g5 ♔f6 53.♘h3 g5 54.♔c3 g4 55.♘g1 ♔g5 56.fxg4 hxg4 57.f3 ♔h4 (57...g3 58.♔b4 g2 59.♔xb5 ♔h4 60.♘e2! and White wins.) 58.fxg4 ♔xg4 59.♔d3 f3 60.♔e3 f2 61.♔xf2 ♔f4 62.♘f3 ♔xe4 63.♔e2 White keeps control and will slowly eliminate all the black pawns.

50.♘d7 ♔d4 51.♘f6



51...g4

White also wins after the following long and not very forcing, yet inevitably important, variation. 51...h4 52.♘g4 h3 53.♔d2 ♔c5 54.♔c3 b4† 55.♔d3 ♔b5 56.♔e2 ♔c5 57.♔f1 ♔d4 58.♔g1 ♔d3 59.♘xe5† ♔c2 60.♘c4 ♔d3 61.e5 and so on.

52.fxg4 hxg4 53.♘xg4 ♔xe4 54.f3† ♔d4 55.♘f6 ♔c4 56.♘e4 ♔d4 57.♘d2 b4 58.♘xb3† ♔c4 59.♘d2† ♔d4 60.♘e4 ♔c4 61.♔d2 ♔d4 62.b3
1–0

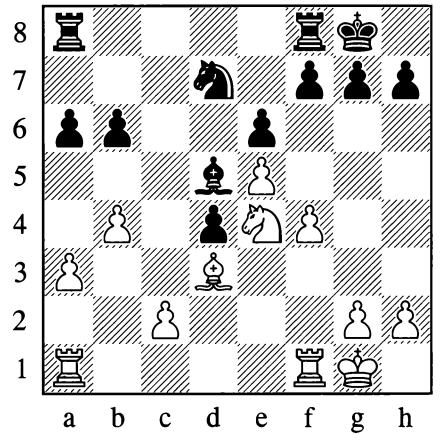
62. The importance of the critical moment

One of our guiding principles for converting an advantage is to look for clarity. In the same way, the defender would like to make things as murky as possible, when in trouble. In the following game, White gets a totally winning position, but then delays the moment of consequence, allowing Black to complicate matters and eventually forcing the sacrifice of a bishop in return for four pawns. While the endgame is still winning, the technical challenges have increased. It is possible that Giri would have overcome those challenges if he had reached the position through grit rather than lax play; he might then have had another attitude and found the few remaining paths to the win.

Anish Giri – Alireza Firouzja

Wijk aan Zee 2021

1.e4 e6 2.d4 d5 3.♘c3 ♘f6 4.e5 ♘fd7 5.f4 c5 6.♘f3 ♘c6 7.♗e3 a6 8.a3 cxd4 9.♘xd4 ♗c5 10.♕d2 0–0 11.♗e2 ♕c7 12.0–0 b6 13.♘xc6 ♕xc6 14.b4 ♗xe3† 15.♕xe3 ♗b7 16.♗d3! d4 17.♕e4 ♕xe4 18.♘xe4 ♗d5



White has achieved a slight advantage from the opening: favourable pieces and some weaknesses in the black position. Giri is traditionally strong both in the opening and also in the technical phase. On the other hand, Firouzja is imaginative and a fighter. As a starting point, the sound money would be on Giri converting his slight advantage.

19.♘g5

I like 19.c4!? dxc3 20.♘xc3 ♗c6 21.♘e4, when White is in full control, but Giri's idea of claiming bishop vs knight by applying pressure on the d-pawn is also sound.

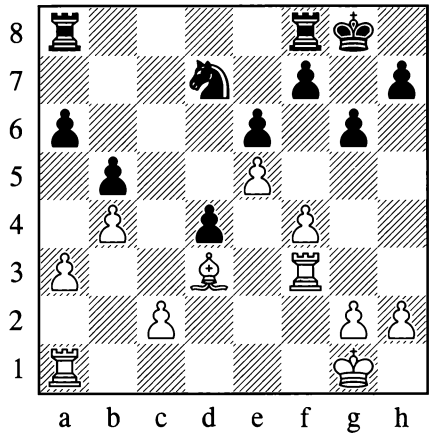
19...g6 20.♘f3 ♗xf3

The most natural reaction.

Black could also have tried 20...b5!?, with the intention of 21.♘xd4 ♘b6, where the rooks on the open files will provide Black with

sufficient compensation. Giri would no doubt have played 21.a4!, maintaining a small pull.

21.♖xf3 b5



22.♗e4

At first, 22.a4!? looks tempting. But after 22...♘b6! 23.axb5 axb5 24.♖xa8 ♖xa8 25.♗xb5 ♖a2 26.♗d3 ♘d5 27.b5 ♖b2 and 28...♘c3, Black will be close to the draw.

22...♖ad8!

Firouzja chooses active play.

23.♖d3 ♘b6 24.♗b7 ♘a4 25.♗xa6 ♘c3

Black has decent compensation for the pawn. The white bishop is offside on a6, and the knight is strong on c3.

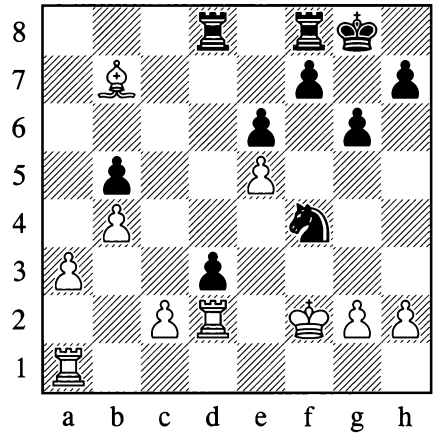
26.♗b7

26.g3 ♖d7! would force White to return material in order to get the bishop into the game.

26...♘e2† 27.♔f2 ♘xf4 28.♖d2 d3?

This move is a serious practical mistake, bringing Black into the zone of one mistake.

28...f6! would have activated the remaining piece and offered Black full equality.



29.c3

This provides Black with plenty of practical problems in the game, but I think that 29.c4!? bxc4 30.♖c1 also was a good shot. The following line consists of the best moves for Black: 30...♖d4 31.♗a6 g5 32.♖xc4 ♖xc4 33.♗xc4 ♖a8 34.♔e3 ♖xa3 35.♔d4 ♖a8! 36.b5 ♖d8† 37.♔c5 ♖c8† 38.♔b4 Black is still struggling. After 38...♘g6 39.b6 ♘xe5 40.♗xd3 ♖b8 41.♔a5 ♔f8 Black should hold, but will probably do so with sweaty hands.

29...♘e2?

A serious mistake.

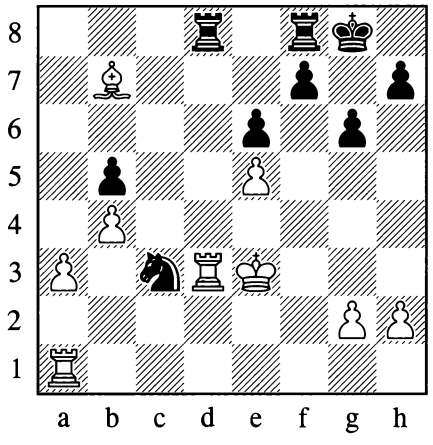
Black had to play 29...♖b8!, with the ideas 30.♗e4 ♖bc8 or 30.♗f3 g5!, in both cases with sufficient counterplay.

30.♔e3

Strong.

Also strong was 30.a4!? bxa4 31.♖a3!, when White has big winning chances. All in all, it is hard to understand what Firouzja was hoping for after 29...♘e2.

30...♘xc3 31.♖xd3



31...♖xd3†?

A poor decision.

The last chance to keep the black position defendable was 31...♖b8!, where White retains a clear advantage in several ways. For example: 32.♗f3 ♘a4 33.♖c1, with a much better piece configuration.

32.♔xd3 ♘a4 33.♖c1! ♖d8† 34.♔e2?!

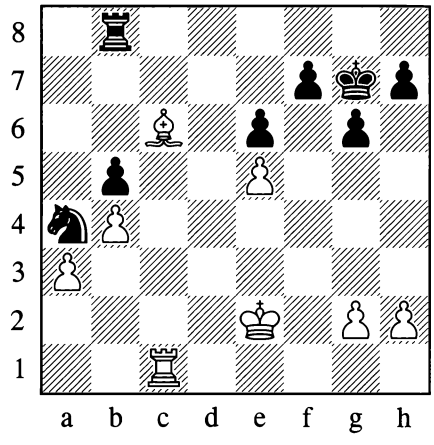
Played with the good intention of tying Black to the defence of the b5-pawn.

However, White could have played more directly. After 34.♔c2! ♘b6 35.♔b3, White is totally winning. For example: 35...♘c4 36.♖xc4!, and Black cannot stop the pawns.

34...♔g7 35.♗c6!

Forcing the rook to an inferior square.

35...♖b8



From this point onwards, Giri misses a lot of forced wins. Calculation is not the main strength of Anish Giri, which means that he often rejects concrete action over shuffling the pieces around and hoping for something easier to show up. Against a strong fighter like Firouzja, this is optimistic. It is one of the reasons Giri makes a lot of draws from superior positions.

36.♖c2?

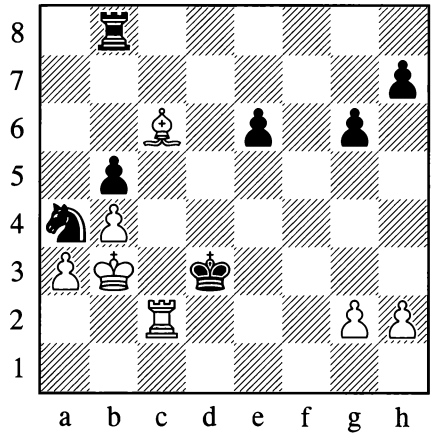
36.♔d2 with the same plan as in the game, just won. The idea of shielding the king with the rook is somewhat artificial, and could come up after 36...♖b6, when 37.♗f3 ♖b8 38.♖c7 is a far more active version of that idea.

36...♔f8?

Firouzja misses the only chance for counterplay:

36...g5! 37.♔d2 (37.g4 h5 would lead to activity and exchanges on White's weaker flank.) 37...g4! White is still much better, but Black is able to activate the king.

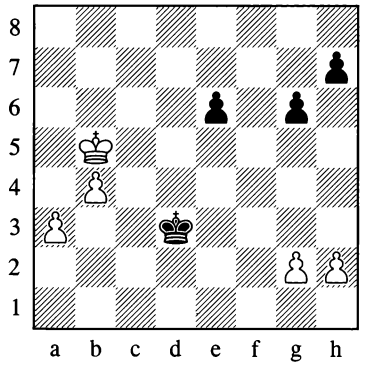
37.♔d2 ♔e7 38.♔c1 f6 39.exf6† ♔xf6 40.♔b1 ♔e5 41.♔a2 ♔d4 42.♔b3 ♔d3



43.♖f2

There is nothing wrong with this move, beyond missing another chance to win by force.

43.♗xb5†! ♖xb5 44.♔xa4 would have won convincingly. Black would have no chance in the rook ending. For example 44...♖b8 45.♖c5!, and White is in full control. Accuracy is not required. I guess Giri missed that after: 44...♔xc2 45.♔xb5 ♔d3 (45...e5? 46.♔c4! and White wins the e-pawn)

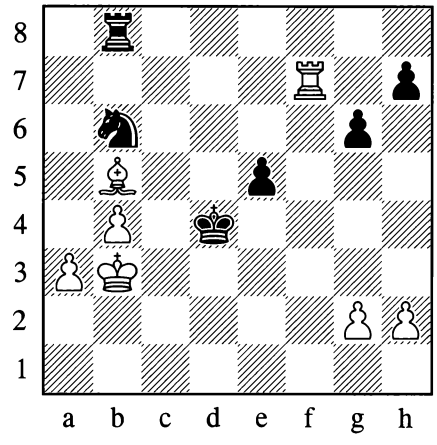


46.♔c5! It is not important where the king goes, just that it clears the path of the b-pawn. 46...e5 47.b5 e4 48.b6 e3 49.b7 e2 50.b8=♕ e1=♕ and White wins after 51.♕g3† or 51.♕b3†, with the exchange of queens coming.

43...e5 44.♖f7

A strong move, but in hindsight, 44.♖f6! was stronger. 44...♘b6 45.♗xb5† ♔d4 46.♖d6† is the key difference.

44...♘b6 45.♗xb5† ♔d4



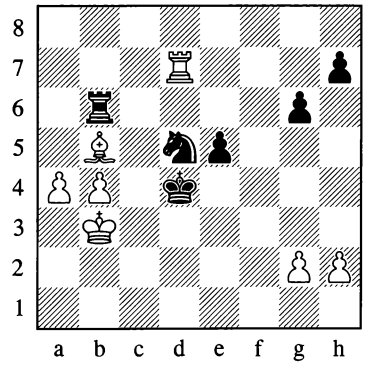
46.a4?

A clear lack of accuracy. Good technique in such a winning position means eliminating as much counterplay as possible.

White could have played 46.♖f1!, or 46.♗c6! ♖c8 47.b5, in both cases with total control.

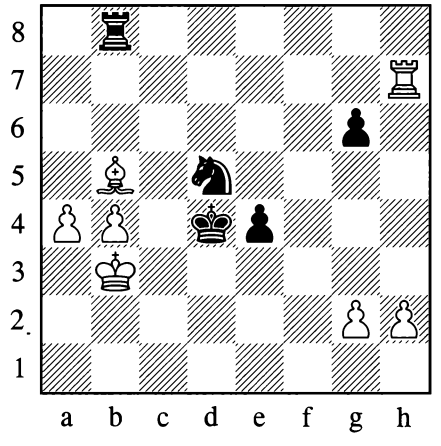
46...♘d5 47.♖xh7

White could have won by force with: 47.♖d7! ♖b6



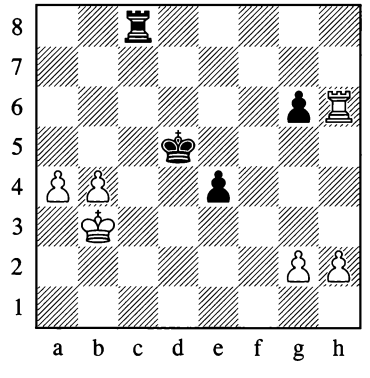
48.♔a3! e4 And now only 49.♗e2! is clear-cut. It is possible to find such a solution for a player of Giri's level, but it happens rarely.

47...e4



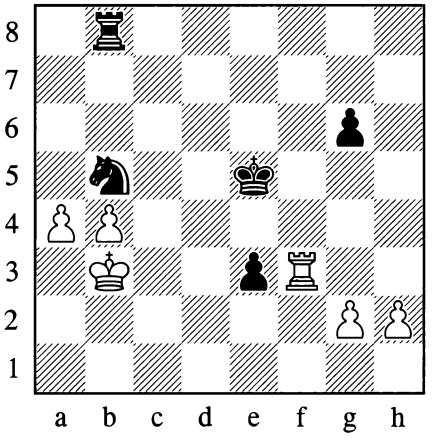
48.♖f7

White has a number of these difficult forced wins. For example: 48.♖h6!? ♖g8 49.♗c4 ♖c8 50.♗xd5 ♔xd5



And now the only winning move is 51.♖h7!!, with the ideas 51...♔d6 52.♖h3, and 51...♖e8 52.♖d7† and 53.♖d1, winning. I absolutely think that it was worth it for Giri to look for these wins and that he should have been able to find one of them. But the truism in play is that, if you do not take the chance when the forced wins are relatively easy, you will eventually have to find a difficult forced win. In this case, White's position is so winning that missing out on a few wins does not ruin the chances, but in the end, the complications became too much for him to navigate.

48...e3 49.♖f1 ♘c3 50.♖f4† ♔e5 51.♖f3 ♘xb5

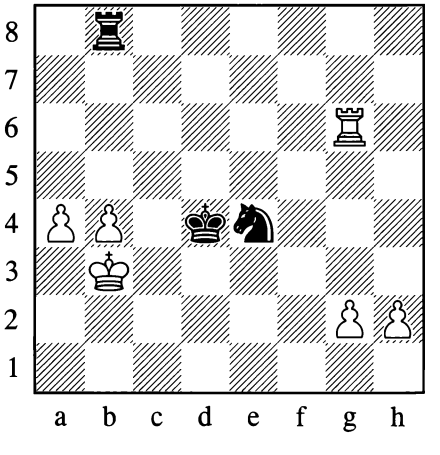


52.♖xe3†!

Giri has to accept the unbalanced piece configuration.

After 52.axb5? ♔d4, the e-pawn provides Black with enough counterplay to make a draw.

52...♔d4 53.♖g3 ♘d6 54.♖xg6 ♘e4



White is still winning, but the technical challenges have increased significantly.

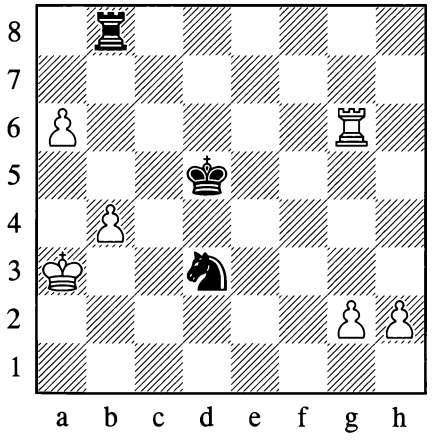
55.a5 ♔d5

White is also winning after 55...♘c5† 56.♔a3 ♘d3 57.♖b6, with full control.

56.a6

56.h4!, to make more of the kingside pawns, securing chances on both wings, was better.

56...♘c5† 57.♔a3 ♘d3



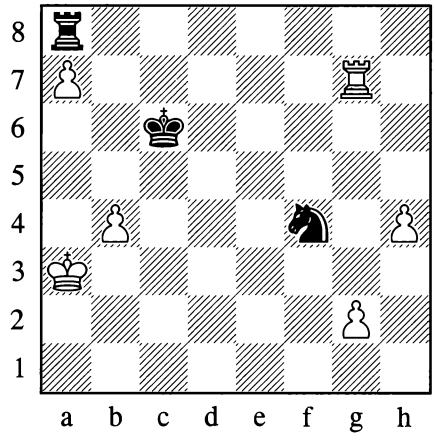
58.a7

White had a clearer path to victory in: 58.♖g7! ♘xb4 59.a7 ♘c2† 60.♔a4 White is winning after both 60...♖a8 61.♔b5!, or 60...♖c8 61.♖b7 ♖a8 62.♔b5 ♘d4† 63.♔b6.

58...♖a8 59.♖g7 ♔c6 60.h4?

A much better move order was 60.♔a4! ♔b6 61.h4, but Giri has already lost control over the game.

60...♘f4



61.g4?

Giri misses the last chance to win the game.

Necessary was 61.♔a4, in order to meet 61...♘e6 with 62.b5†! ♔b6 63.♖g6 ♖xa7† 64.♔b4 ♖e7 65.h5! ♔c7 66.h6, with a winning position. For example: 66...♔d6 (66...♘f8 67.♖g7 is easy.) 67.b6 and White wins after both 67...♔c6 68.h7 and 67...♔e5 68.♔b5 ♔f5 69.♖g8, followed by advancing the g-pawn.

61...♘e6 62.♖f7 ♘c7

Black holds.

63.g5 ♖xa7† 64.♔b2 ♖a8 65.g6 ♘e6 66.h5 ♖h8 67.♖h7 ♖g8

½–½

63. Anticipating the race

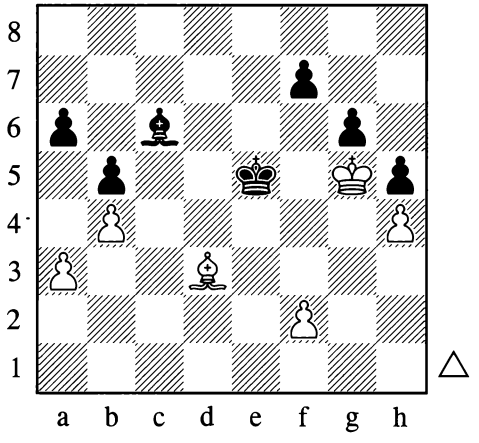
An important part of understanding the use of an advantage and timing is to see that we may only be able to keep control for as long as we do not try to do anything with our advantage.

Once we push, it can be like firing the starting gun for a race. At times advantageous endings are squandered because the stronger side does not want to enter a race, but seeks to win without complications. This is not always possible, so we should not be allergic to them.

Rather we should prepare as well as we can for the race. If we can get our pieces into the best possible position, and maybe force the opponent's pieces into an inferior position before we fire the gun, that is great.

Frederick Rhine – Christopher Chabris

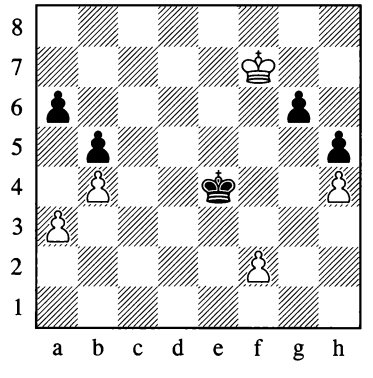
Internet 2021



In this example from one of the club championship tournaments in our academy, Black has the advantage, but if White is preparing for the race, he can still hold.

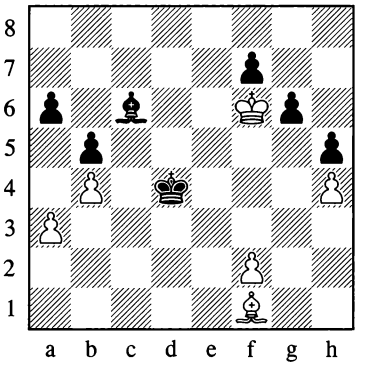
60.f4†?

60.♗b1? also loses, after a nice little switchback in the pawn ending. 60...♗e4 61.♗a2 ♗d5 62.♗xd5 (62.♗b1 ♔d4 is hopeless. Black is in complete control.) 62...♔xd5 63.♔f6 ♔e4 64.♔xf7

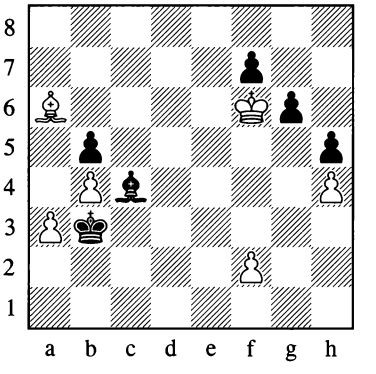


64...♔f5!! 65.♔g7 g5 66.hxg5 ♔xg5 Black wins.

The drawing move was 60.♗f1!, which also indicates the idea ♗h3-c8 with counterplay. But the key idea of this move is that it does not lose a tempo to ...♔d4, as in the game. If Black now goes for the race, White holds: 60...♔d4 61.♔f6



61...♗d5 (After 61...♔c3 62.♔xf7 ♗e4 63.♔f6 ♔b3 64.♔e5 ♗f5 65.♔d4 ♔xa3 66.♔c5 White just about holds.) 62.♗h3 ♔c3 63.♗c8 ♔b3 64.♗xa6 ♗c4



65.f4! ♔xa3 66.♗xb5! ♗xb5 67.♔xf7 ♗d3 68.b5 ♗xb5 69.♔xg6 and White holds.

60...♔d4 61.♗f1

61.♗b1 ♗e4! 62.♗a2 ♗d5 63.♗b1 ♔c3 would also win for Black.

61...♔c3 62.f5 ♔b3 63.fxg6 fxg6 64.♔xg6 ♗f3

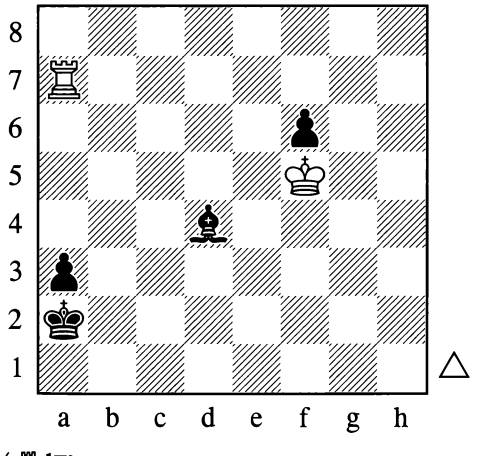
Black has full control.

65.♗d3 ♔xa3 66.♔g5 ♔xb4 67.♗g6 a5 68.♗xh5 ♗xh5
0–1

The following example shows the same theme. It is a big theme, so pay attention, even if only few examples are provided.

S.P. Sethuraman – Viktor Erdos

Biel 2021



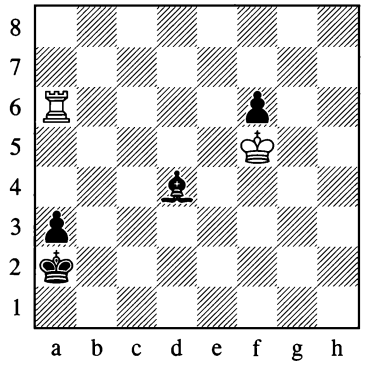
74.♖d7?

74.♖b7? would display Black's main plan, playing 74...♔a1 and ...♗b2, followed by ...♔b1 and ...a3-a2.

74.♖a8? could seem natural, as there is a larger checking distance for the rook to utilise. In some situations, this is useful, but it is only one idea and no ideas are useful in all situations. 74...♔b2 (74...♗c3) 75.♖b8† ♔a1 76.♔e4 ♗b2 77.♔d3 ♔b1

74...♗e5 75.♔e4 ♔b1 76.♖b7† ♗b2
0–1

The only drawing move was based on anticipation: the anticipation of ♖xf6 coming down the road. 74.♖a6!



a) 74...♔b2 75.♔e4 wins an important tempo to secure the draw.

b) 74...♗b2 almost puts White in zugzwang. 75.♔e6! But there is a useful waiting move. (75.♔g6? would be a step in the wrong direction. After 75...♗c3 76.♔f5 ♔b3 77.♖b6† ♔a4! 78.♖a6† ♗a5 79.♖xf6 a2 the king is in the way on f5.) The same idea does not work now. 75...♗c3 76.♔d5 ♔b3 77.♖b6† with a draw, as ♖xf6-f1 is there now.

c) 74...♗e5 75.♔e4! The king can stop looking after the f-pawn, at least for now, as the bishop is not threatening to leave the diagonal anyway. But the king is needed on the queenside. 75...♔b2 76.♖b6† ♔a1 77.♔d3 and ♔c2, creating a barrier.

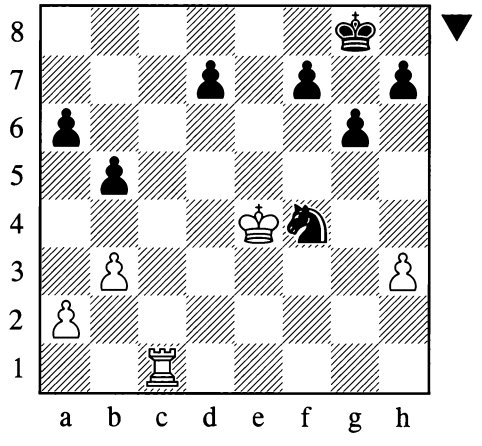
d) 74...♔b3 The most challenging move. 75.♔e4 ♗b2 76.♔d3 (76.♖b6†? would be a mistake, as 76...♔c2! would cut off the white king.) 76...a2 77.♖b6† White draws by perpetual check.

64. Active or passive defence

Boris Gelfand has suggested that knowing when you have to go for active defence, and when you have to go for passive defence, is potentially the most difficult thing in endgames. Some players will pull towards active and some towards passive defence. I guess more will pull towards active defence, and I think in more situations, active defence is appropriate. But ideally, we should be able to decide which type of defence is the best bet.

Rasmus Svane – Dmitrij Kollars

Magdeburg 2021



39...♘e6?

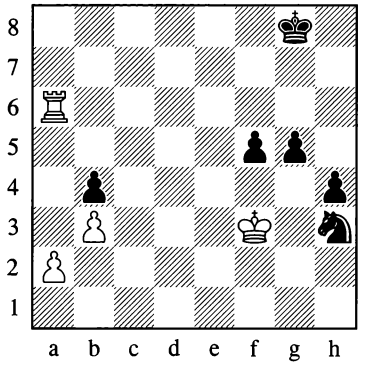
A poor misevaluation. When I look at an endgame like this, obviously I do not see a forced win or a forced draw; but I have learned that in a situation like this, White will always win the a6-pawn eventually, and with it, most likely the game. For this reason, it was better to go for the h3-pawn and rely on active counterplay.

39...♘xh3!

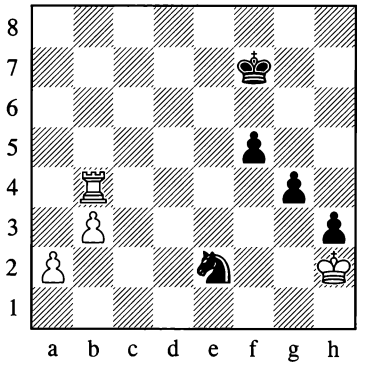
Analysis shows that Black does hold with this move. During the game, we would be unable to determine this, but would be able to have a high degree of certainty of the outcome following passive play.

40.♖c7 h5 41.♖a7

41.♖xd7?! would waste a valuable tempo, making things easier for Black. 41...h4 42.♖a7 b4! 43.♖xa6 f5† 44.♔f3 g5



Black has strong counterplay. You can follow the variation till the end, or just look at the position... 45.♖b6 g4† 46.♔g2 ♘f4† 47.♔g1 h3 48.♖xb4 ♘e2† 49.♔h2 ♔f7



Black has powerful counterplay with the pawns. White has to play accurately to make a draw. 50.a4! f4 51.a5 f3 52.♖a4 g3† 53.♔xh3 g2 54.♖a1 g1=♕ 55.♖xg1 ♘xg1† 56.♔g3 ♘e2† 57.♔xf3 ♘d4† Not the only way to make a draw, but this is a beautiful forced variation. 58.♔e3 ♘xb3 59.a6 ♘a5 60.a7 ♘c4† 61.♔d4 ♘b6 62.♔c5 ♘a8 63.♔c6 ♔e7 64.♔b7 ♔d7 65.♔xa8 ♔c7 Stalemate.

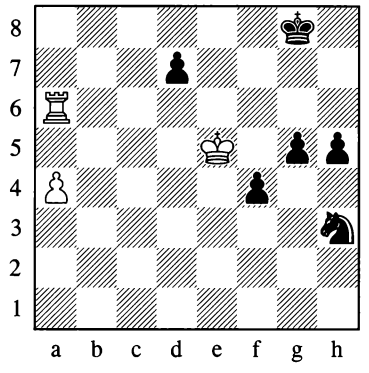
41...f5†!

Black's path to a draw is narrow.

42.♔e5

The most dangerous try.

42...f4 43.♖xa6 g5 44.a4 bxa4 45.bxa4



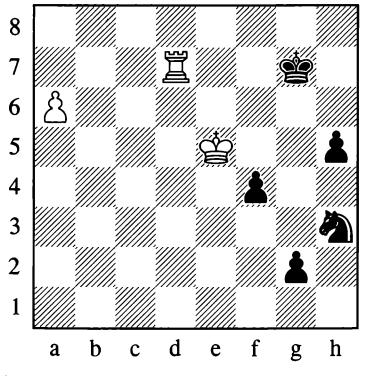
45...g4!

It is necessary for the pawns to advance together to create counterplay.

45...f3? 46.♖d6 ♘f4 47.♔e4 f2 48.♖d1 would see White in time to deal with the black pawns and the a-pawn running wild.

46.a5 ♔g7 47.♖d6 g3 48.a6 g2 49.♖xd7†

49.♖d1? amazingly loses to 49...d6†!! 50.♔e6 (50.♔f5 f3) 50...f3 51.a7 f2 52.a8=♕ g1=♕ and Black wins. (It is important to queen the g-pawn, on account of 52..f1=♕?? 53.♕a1†, when White would win.)



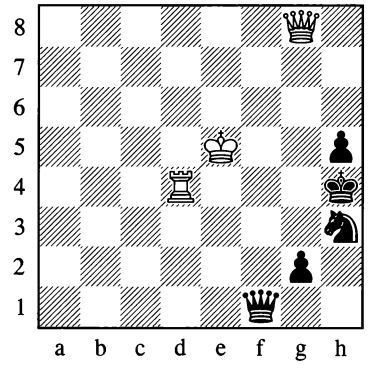
49...♔h6!!

We shall see the difference in a few moves.

50.♖d1 f3 51.a7 f2 52.a8=♕ f1=♕ 53.♕h8† ♔g5 54.♕g8†

If the king was on g6, rather than g5, this would be checkmate.

54...♔h4 55.♖d4†



55...♘f4 56.♖xf4† ♔h3

Black survives.

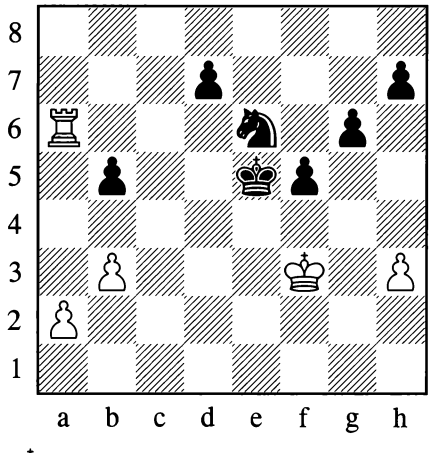
40.♖c8† ♔g7 41.♖a8 f5†

41...d5† 42.♔e5 d4 43.♖xa6 would also win for White.

42.♔f3?!

42.♔e3! ♘c7 43.♖a7 ♘d5† 44.♔f3 was more accurate.

42...♔f6 43.♖xa6 ♔e5



44.♔f2?

Sidestepping a check, but wasting valuable time.

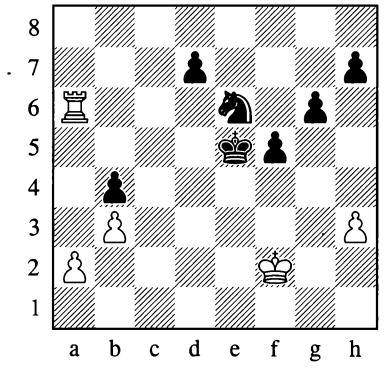
One simple way to play was 44.a4 bxa4 45.bxa4 ♔d5 46.a5 ♔c5 47.♖b6, where the black king remains cut off, the a-pawn is still dangerous and likely to claim a piece, and White can at any time switch his attention to the kingside and focus on queening the h-pawn instead.

Another way would be 44.♖b6.

44...♔d5?

After this, Black is dead lost.

44...b4! would have offered a lot of resistance.



45.♖b6 (45.h4 ♘d4 also holds) 45...♘f4! 46.h4 d6 47.♔f3 ♘d5 48.♖b8 h6 and Black will make a draw. A tactical point is that 49.♖h8 can be met with 49...♔f6!, saving the pawn. 50.h5 gxh5 51.♖xh6† ♔e5 52.♖xh5 ♘c3 53.♖h2 d5 54.♔e3 ♘e4 and Black holds.

45.♖b6 ♔c5 46.♖b7 ♔c6 47.♖b8 g5 48.♖h8 g4 49.hxg4

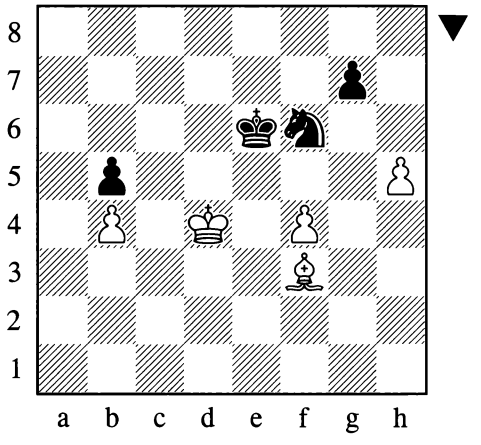
49.h4 was also tempting.

49...fxg4 50.♖xh7 ♘g5 51.♖h6† d6 52.♔e3 ♘f7 53.♖h1 ♘e5 54.♔e4 ♔c5 55.a3 ♘f3 56.♖c1† ♔b6 57.♖c2 ♘e1 58.♖e2 ♘f3 59.♔d5 ♘h4 60.♖e6 g3 61.♖xd6† ♔c7 62.♖c6† ♔b7 63.♖c3 ♘f5 64.♖c1 ♔b6 65.♔e4 ♘d6† 66.♔f4 ♔a5 67.♖c2 ♔b6 68.♔xg3 b4 69.a4 ♘b7 70.♖c4
1–0

The following example is basic, but still beautiful.

Boban Bogosavljevic – Lachezar Yordanov

Belgrade 2021



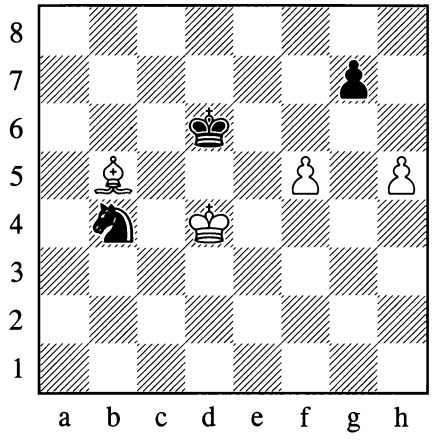
52...♔d6?

Active play would have saved the day. 52...♔f5! 53.♔c5 (Black also holds after 53.♗c6 ♘xh5 54.♗xb5 ♘xf4 55.♗d7† ♔f6 56.b5 ♔e7 and the king will be in time to block the b-pawn.) 53...♔xf4 54.♗c6 ♘xh5 55.♔xb5 g5 56.♔c5 ♔e5 57.b5 ♘f4 58.b6 ♘e6† The knight makes it to d8, ready to eliminate the white pawn.

53.f5!

Black is dominated. All he can try is to go for the b-pawn.

53...♘d7 54.♗d1 ♘f6 55.♗e2 ♘d5 56.♗xb5 ♘xb4



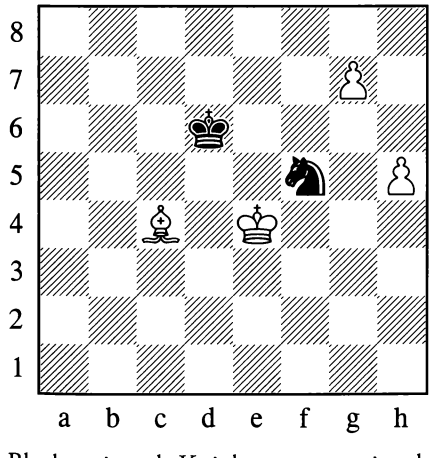
57.f6!

Creating a distant passed pawn.

57...♘d5

Black cannot take the pawn, as the h-pawn cannot be stopped then.

58.fxg7 ♘e7 59.♗c4 ♘f5† 60.♔e4



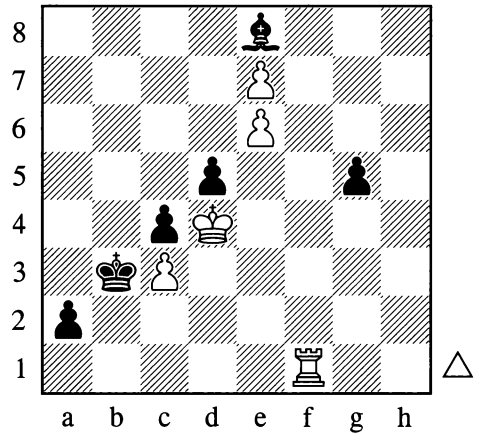
Black resigned. Knights are notoriously bad at dealing with rook pawns. 60...♘xg7 61.h6 ♘e8 62.♔f5 and the h-pawn will queen.

1–0

Where the previous example was simple, this example is very complicated; too complicated for the strong grandmaster who played it.

Maksim Chigaev – Pavel Ponkratov

Cheboksary 2021



53.♔xd5 ♗a4

53...♔xc3 would allow White to eliminate all of the black pawns with 54.♖a1! ♔b2 55.♖xa2†! ♔xa2 56.♔xc4 and the g-pawn is within the white king's reach.

54.♔d4?

Passive defence. In practice this was successful in the game, so it is hard to criticise it. But this was only because Black did not manage to find the win.

54.♔e5!

This would have made the draw, but is far from simple.

54...g4

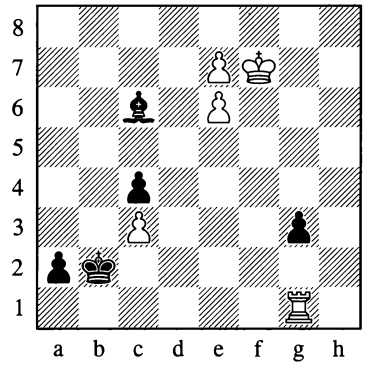
The most challenging.

54...♔xc3 55.♔f6 ♔b2 56.♔f7 would lead to a drawn queen ending, in similar fashion to the line after 54.♔d6 on the next page.

55.♔f6 g3

55...♔b2 56.♖f2† ♔a3 57.♖f1 prevents Black from making meaningful progress.

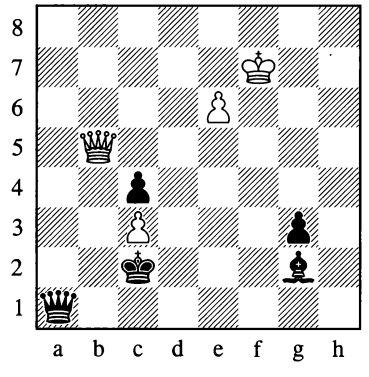
56.♖g1! ♗c6! 57.♔f7 ♔b2



58.♖g2†!!

The queen ending after 58.e8=♕ ♗xe8† 59.♔xe8 a1=♕ 60.♖xa1 ♔xa1 61.e7 g2 wins for Black. White cannot defend the c3-pawn and is theoretically lost. 62.♔d7 g1=♕ 63.e8=♕ ♕g3, for example.

58...♗xg2 59.e8=♕ a1=♕ 60.♕b5† ♔c2



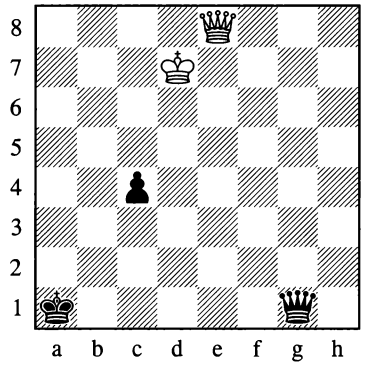
61.♕f5†!

61.e7? would lose to 61...♕a7 62.♔f8 ♕f2† 63.♔g7 ♗c6! 64.♕xc6 g2 65.e8=♕ g1=♕† 66.♕cg6† ♔xc3 with a winning queen ending for Black.

61...♔d2 62.♕g5† ♔e2 63.♕e5†

White gives a perpetual.

54.♔d6 ♔xc3 55.♔c7 also holds. Marginally. 55...g4 56.♔d8 g3 57.e8=♕ ♗xe8 58.♔xe8 ♔b2 59.e7 a1=♕ 60.♖xa1 ♔xa1 61.♔d7 g2 62.e8=♕ g1=♕

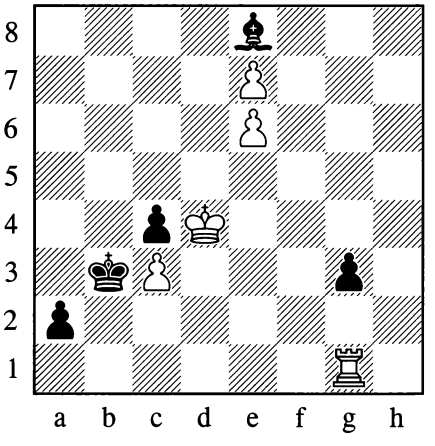


White draws with a series of only moves. 63.♕e5† ♔a2 64.♕a5† ♔b3 65.♕b5† ♔c3 66.♕a5† ♔d3 67.♕f5†! Black cannot escape the perpetual.

54...g4 55.♖g1 g3 56.♖e1

All White can do is wait.

56...♗e8 57.♖g1



57...♗g6?

Black had a beautiful win, which was very hard to see:

57...g2! 58.♖e1 ♔b2!

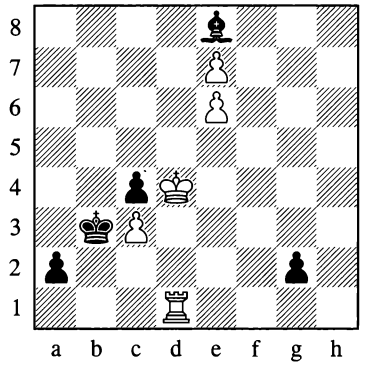
Triangulation, forcing the white rook to the d-line.

59.♖e2† ♔a3 60.♖e1 ♔b3

The zugzwang forces White to the d-file.

61.♖d1

61.♖g1 ♗h5 62.♖e1 ♔b2 and Black wins.



61...♔b2!

Another triangulation.

62.♖d2† ♔a3 63.♖d1 ♗h5

It is important that this move comes now, attacking the rook.

64.♖g1 ♔b3

White is in zugzwang.

65.♖e1 ♔b2

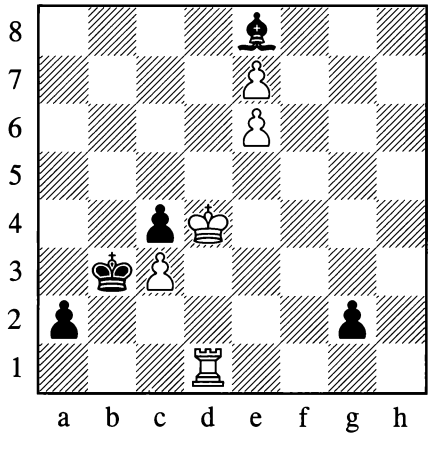
Black wins.

58.♖e1?

Once again White has the chance to play actively.

58.♔e5! ♗e8 59.♔f6 holds. A point is that 58...♔xc3 can be answered with 59.♖xg3†.

58...♗h5 59.♖h1 ♗e8 60.♖e1 g2 61.♖d1 ♔b2 62.♖d2† ♔a3 63.♖d1 ♔b3 64.♖e1 ♗a4 65.♖g1 ♗e8 66.♖d1

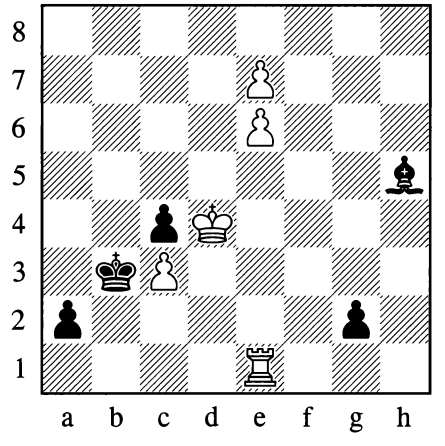


Black had a last chance to triangulate into a winning position.

66...♗g6?

Black would still have won after 66...♔b2! 67.♖d2† ♔a3 68.♖d1 ♗h5! 69.♖g1. If it was White to play, he would take on c4 and even be winning. 69...♔b3! White is once again in zugzwang. 70.♖e1 ♔b2 Black wins.

67.♖e1 ♗h5



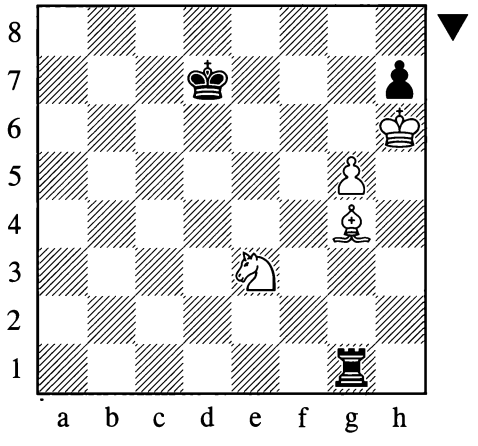
Draw agreed. After 68.♖g1 ♗e8, White could claim a draw by threefold repetition with 69.♖d1.

½–½

To defend passively can be dangerous in a position where the opponent can improve his position continuously. So, when we have a choice between playing passively or actively, we should carefully consider the dangers of both. Many games have been lost by seeking activity, where no real dangers exist. Likewise, many games have been lost by players playing passively, out of fear, while the opponent was getting stronger.

Dashgyn Ibadov – Bogdan Belyakov

Cheboksary 2021

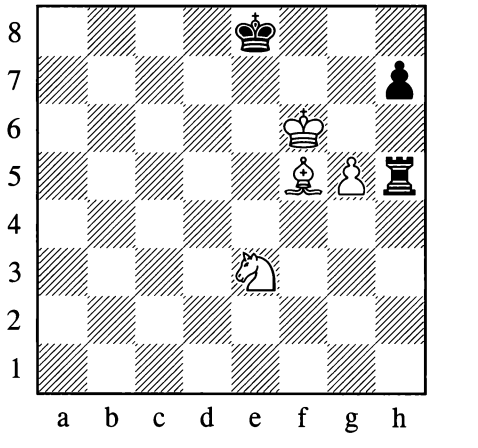


64...♔d8?

A passive move without any purpose.

64...♔d6! would have created active counterplay. The point is that after 65.♗f5 ♖h1† 66.♔g7, Black has 66...♔e5 67.♗xh7 ♔f4, making the draw.

65.♗f5 ♖h1† 66.♔g7 ♖h5 67.♔f6 ♔e8



68.♘g4?

Giving Black the time needed to bring the king to the corner.

68.♗g4! ♖h4 69.♔g7 ♖h1 70.♘f5 ♖g1 71.♘h6 won.

68...♔f8 69.♗e6

69.♘h6 would win if it was not for 69...♖xh6†! 70.gxh6 ♔g8, with the most common drawing method in the endgame: the bishop not matching the colour of the corner.

69...♖h1 70.♗c4

70.♘h6 ♖f1† 71.♗f5 ♖f2 would also make it impossible for White to progress.

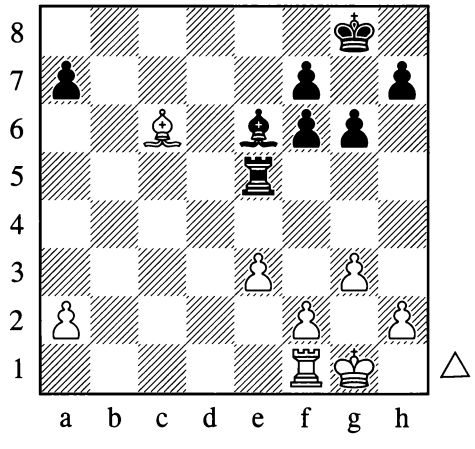
70...♖h4 71.♗e2 ♔g8 72.♔f5 ♔g7 73.♘f6 ♖h2 74.♘h5† ♔h8 75.♗f3 ♖f2 76.♔g4 ♖f1 77.♗e4 ♖g1† 78.♔f5 ♖f1† 79.♔e5 ♖e1 80.♘f6 ♔g7 81.♔f4 ♖xe4† 82.♘xe4 h6 83.gxh6† ♔xh6

½–½

In the next example, White was a bit worse out of the opening, with the middlegame skipped entirely. It is time to consider whether he should defend actively or passively.

Artem Sadovsky – Denis Khismatullin

Minsk 2017



20.a3?

The reality is that both strategies work. But the passive is probably a bit trickier to play.

The move in the game exposes the a-pawn to pressure.

I would play 20.♖c1! preventing what happened in the game. And after 20...♗xa2 21.♖a1 ♖a5 22.♗e4 ♖a6 23.♗d3 ♖d6 24.♖xa2 ♖xd3 25.♖xa7 with a handshake.

Passive play is equally good, but it should be 20.a4! to support the bishop. 20...♖c5 21.♗b5! ♗h3 22.♖d1 a5 23.♗f1! with equality.

20...♖c5! 21.♗g2

It is relevant to analyse 21.♗f3 ♖c3 22.♖a1 and now:

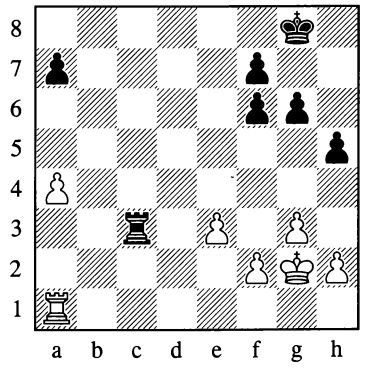
a) 22...a5 is a bit better for Black. But White should be able to hold without too much trouble.

b) Black can also try:

22...♗h3

White would seek the most drawish endgame:

23.♗g2! ♗xg2 24.♔xg2 h5 25.a4!



If White is to lose the pawn, which is not even a given, it is better to lose it far up the field.

25...f5!

Avoiding having the pawn hanging.

25...a5 26.♖d1 ♖c4 27.♖d4! would even give White an advantage, although the game is still an easy draw.

25...♖c4 26.a5 a6 27.♖d1 White will not lose a pawn and the draw will be easy.

26.a5 a6 27.h4 ♖c4

Black is better, but White should be able to draw with both passive and active defence. My tendency is to defend actively, but here I would await the right time.

28.♖d1 ♖c5 29.♖a1! ♔f8 30.♖a4

The king is able to come to f4. If Black plays ...f6, the pawns will all be hanging and White will be able to create active play easily.

21...a5 22.♖a1 a4

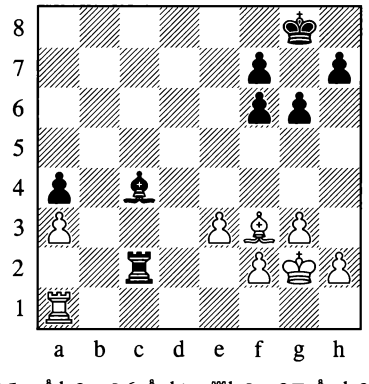
This position is bad for White and although probably still a draw objectively, it is nevertheless tricky to play.

23.♔f1

23.♗f3 ♗b3 would also cement an edge for Black.

23...♖c2 24.♔e1?!

White needed to create some active counterplay against the a4-pawn: 24.♗f3! ♗c4† 25.♔g2! The king cannot help and should stay out of trouble. There are two options:



a) 25...♗b3 26.♗d1 ♖b2 27.♗xb3 ♖xb3 (27...axb3 28.a4! and the pawns are soon exchanged.) 28.g4! ♔g7 29.h4 White is preparing for ♖c1-c7 at the right moment to create enough counterplay for a draw.

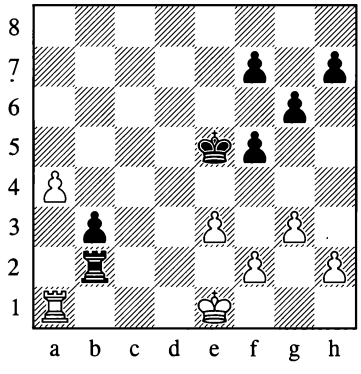
b) 25...♖c3! 26.♗d1 ♗d5† 27.♔h3 ♗c6 28.g4 keeps the advantage according to the computer, but it should still be well within what can be handled.

24...f5 25.♗f1 ♔g7 26.♗d3 ♖b2 27.♗e2? ♔f6 28.♗d1

I would have played 28.h4 at some point, although the position is bad no matter what.

28...♗b3 29.♗f3

29.♗xb3 axb3 30.a4 ♔e5! (30...♔e6 31.♖c1! and White will just hold.)



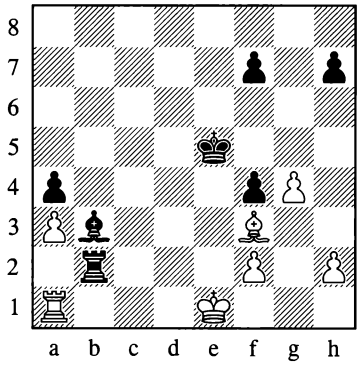
Black is winning, after both 31.♖c1 ♔e4! and 31.a5 ♔d5, with the idea 32.a6 ♖a2!.

29...g5!? 30.♗c6 ♔e5 31.♗f3 f4 32.exf4† gxf4 33.gxf4†?

This feels like a big positional mistake. White is passive and now his pawn structure will be damaged.

White had to try:

33.g4!?



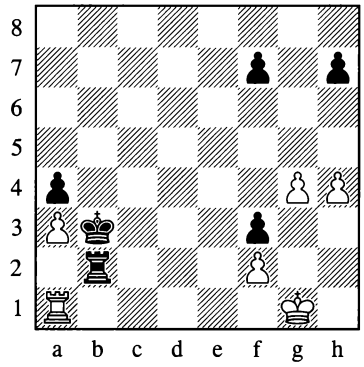
a) 33...♗d5

This looks promising, but is a bad exchange.

34.♗xd5 ♔xd5 35.♔f1!

This holds for White quite easily, although the variations are long and there are many possible lines.

35...f3 36.♔g1 ♔c4 37.h4 ♔b3



38.g5!

Preparing for active play.

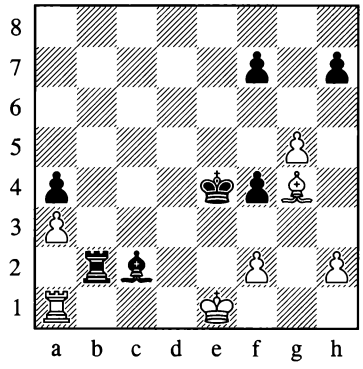
38...♖c2 39.♖b1† ♔xa3 40.♖b7 ♖b2 41.♖xf7 ♖b4 42.♖xh7 ♔b2 43.♔h2 a3 44.♔g3 ♖a4 45.♖e7 a2 46.♖e1 a1=♕ 47.♖xa1 ♖xa1 48.♔xf3 ♔c3 49.♔e4

With a draw.

b) 33...♔d4!

The more dangerous try.

34.g5 ♗c2 35.♗g4 ♔e4



36.♔f1!?

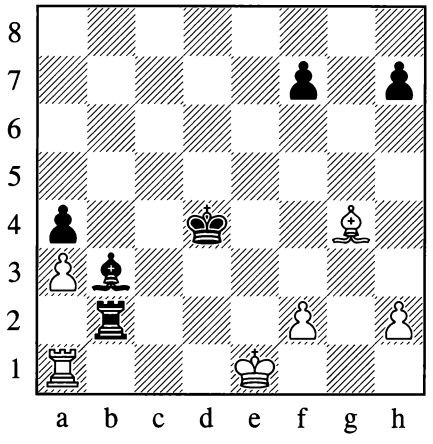
Trying to activate the king.

36...f3 37.♗h5 ♔f4 38.♗xf7 ♔xg5 39.♔g1 ♔f4

40.h4 ♖b7 41.♗c4 ♖g7† 42.♔h1 ♖g2 43.♖f1

White is probably lost, but not by force. Black will have to continue to play a lot of strong moves to win.

33...♔xf4 34.♗d1 ♔e4 35.♗e2 ♔d4 36.♗g4



Black wins easily now.

36...♗c2 37.♗h5 ♔c3 38.♖c1

38.♗xf7 ♖b7! and ...♔b2 will trap the rook.

38...♔b3 39.♗xf7† ♔xa3
0–1

Throughout this book we will continue to talk about deciding between active and passive defence and how difficult it is. We shall see this represented in this game, which was played in the last round of the qualification tournament to the US Senior Championship.

My friend and student of Killer Chess Training, Doug Eckert, had defeated one GM and drawn with another, going into the last round with 4½/5 points and a tiebreak from hell. A draw in the last round would lead him to his big ambition of qualifying for the US Senior Championship.

But with disappointment comes experience and a chance to learn from our mistakes. No matter the age. And the result was still a 2610 performance.

Igor Khmelnitsky – Doug Eckert

Cherry Hill 2021

1.e4 e5 2.♘f3 ♘c6 3.♗b5 a6 4.♗xc6

Khmelnitsky needed to win the game, but wanted to avoid any possible preparation.

4...dxc6 5.0–0 ♕f6!

This variation has to a great extent put the Exchange Variation out of business.

6.d4 exd4 7.♕xd4?!

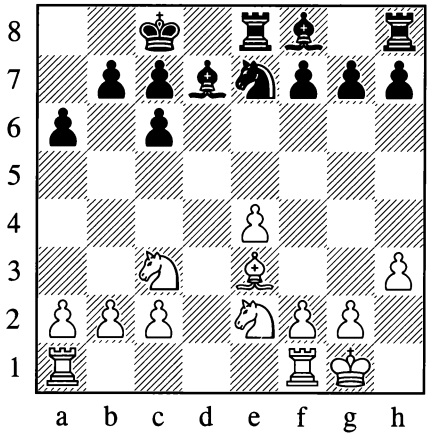
Harmless does not really cover it.

7.♗g5 is a useful tempo gain and the most played move.

7...♕xd4 8.♘xd4 ♗d7 9.♗e3 0–0–0 10.♘c3 ♖e8

10...♗b4 to seek opposite-coloured bishops was a real option. Or 10...♘e7 followed by ...♘g6 and ...f6, with better chances.

11.♘de2 ♘e7 12.h3



12...f5!?

Black usually plays 12...♘g6 13.♖ad1 f6 with slow play. Black will in principle want to open the position to take advantage of the two bishops. But first, he needs to bring the pieces into the game. This is one thing I learned from

John Watson's *Secrets of Modern Chess Strategy*. Often, the player with the two bishops gave up some tempos to get them, and thus should seek slow play, with the intention to open the position later, when he is ready. The bishop pair is a long-term advantage.

13.♘g3

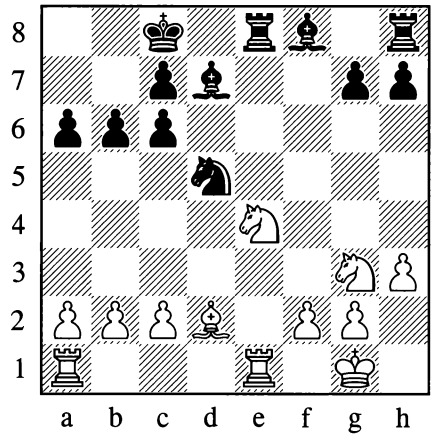
13.e5 would lead to double-edged play. On the one hand, Black would have greater control over the light squares. On the other hand, White would get the protected passed pawn on e5. Khmelnitsky apparently evaluated that the ideas of ...g5 with a strong bishop on c6, would be unpleasant for him in the medium term.

13...fxe4

I dislike this move, although it is not bad. Opening the position now does not make sense to me.

13...b6! to fight for the dark squares would be more sensible.

14.♘cxe4 b6 15.♖fe1 ♘d5 16.♗d2



16...♗e7

Missing a real chance to play for an advantage.

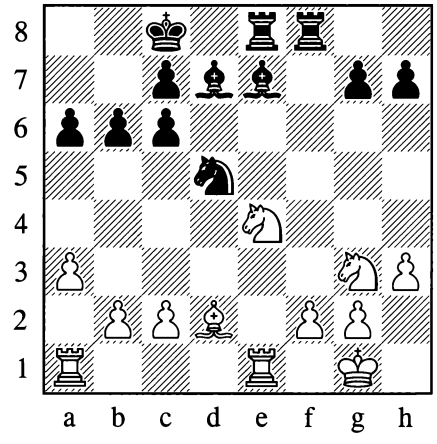
16...♘b4! would have been unpleasant for White.

After 17.♖ec1 c5! the knight would reroute to d4 with a big advantage.

And after 17.♗xb4, Black would have the two bishops in reserve for the long term. The knights are not too badly placed, but in the long run, Black has a slight enduring edge.

17.a3 ♖hf8

17...h5!? was also possible, although I do not see the point in advancing pawns on the kingside, where they mainly risk being weak. The only reason for it is to play ...h4 and ...♗f5. The trap is that 18.♗g5? would be in trouble after 18...h4 19.♘f1 ♗f5.



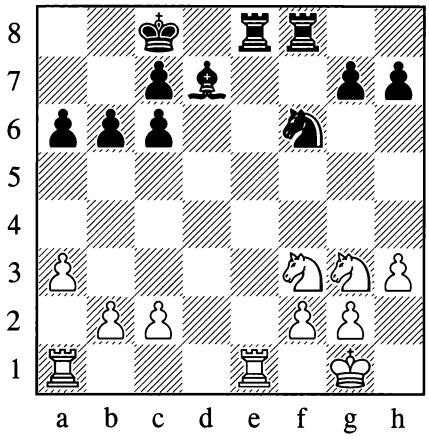
Black has not managed to organise his pieces well and now White has the chance to seek a favourable exchange.

18.♗g5! ♗xg5

18...♖f7 19.♗xe7 ♖fxe7 is also equal.

19.♘xg5 ♘f6 20.♘f3

White is organising his pieces favourably. His play was not too scary out of the opening, and he is still focusing on allowing Black to solve or create his own problems.



After the exchange of bishops, White's better structure is preferable to the black bishop, which could just as easily end up a bad bishop as a good one. The next question is, which exchanges are preferable for whom? Particularly the rooks, which are about to be exchanged. In my view, the pawn majority on the kingside is only actionable without rooks on the board.

Otherwise, the combination of a rook and bishop working together will fully match the slight advantage of a pawn majority on the kingside.

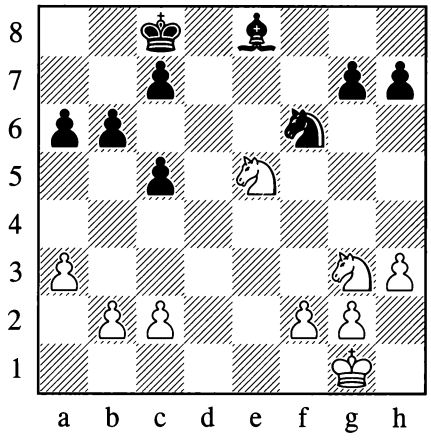
20...♖xe1†?!

20...c5, to improve the structure on the queenside, would have been my choice.

21.♖xe1 ♖e8?! 22.♖xe8† ♗xe8

After the exchange of the rooks, it is clear to me that White is better. But the position should still be defensible for Black. White's advantages are just not sufficient to win on their own. But there is a lot of play left.

23.♘e5 c5



24.♘f5!

Forcing Black to put the pawns on light squares. It can turn out to be useful later. Afterwards he is gaining space on the kingside.

24...g6 25.♘e3 ♔d8 26.g4 ♔e7 27.f4 ♔e6 28.♔g2 ♘e4 29.h4 ♘d2 30.♔h3 ♘e4

After 30...a5 31.♔g3 ♗b5, Black would ask White how he would want to continue. It is the archetypal passive defence, claiming that Black has a strong and solid structure with well-placed pieces. I cannot see why it would be wrong.

31.♘f3 ♗c6?

A positional mistake, allowing White to make a favourable exchange.

31...♘f6 would be a worse version of the previous note, but still as effective. Black is letting White show his hand.

32.♘g5†! ♘xg5† 33.hxg5

White has added another feature to his list of small advantages. The endgame is one of knight against slightly poor bishop.

33...♗e4?!

An active move, but without any prospects.

Watching the game live, I wanted Doug to play 33...a5 34.♔g3 ♔d6, and just wait.

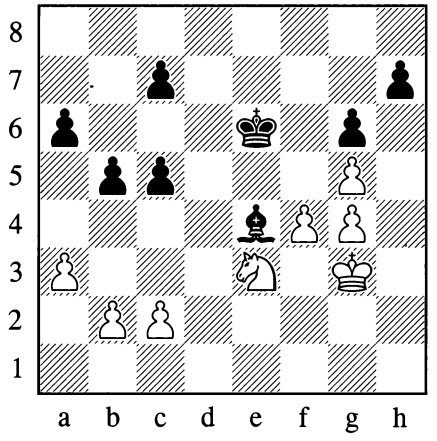
This strategy is still the best available. After 35.f5!? Black has 35...♔e5! 36.f6 ♗e8.

33...♗e8 is the computer move, followed by ...a5.

34.♔g3 b5?

Continuing with the activity.

34...♗c6 35.f5† ♔e5 36.f6 ♗e8 was forced. White has more options, but Black should still be able to keep things together.



35.c3?

White misses his first chance to win the game.

35.f5†! was a nice little trick. After 35...gxf5, White has 36.♔f4, just winning. This is no doubt what both players missed.

Black has to play 35...♔e5 instead, when White will play 36.f6 ♔e6 37.♔f4 ♗c6 and regroup the knight to create more weaknesses, starting with 38.♘f1. For example, ♘d2-b3. Also, all pawn endings would be winning for White.

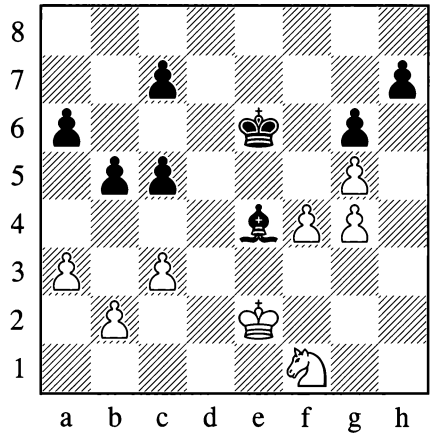
35...♗d3

Black is back over the drawing line. All he has to do is to avoid doing anything wrong. The safest way to do this is to do nothing.

36.♔f3 ♗b1

Allowing the white king a bit more freedom. 36...♔d6 makes more sense.

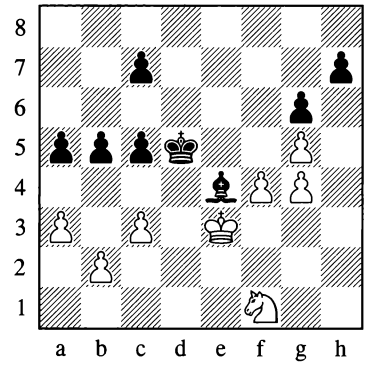
37.♔e2 ♗e4 38.♘f1



38...c4?

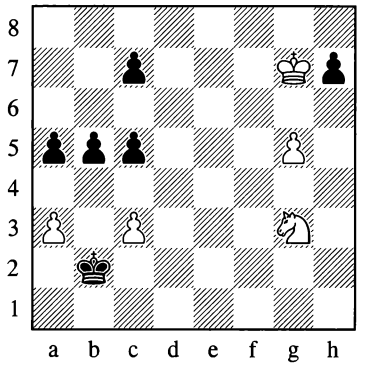
Another active attempt, but entirely mistimed. When Doug played this, all I could see was a desperate weakening of the dark squares. Compare the structure here with the one recommended on move 30. Black is in full control of the light squares, but the dark squares are in trouble.

Black still had a narrow path to a draw: 38...♔d5 39.♔e3 a5!

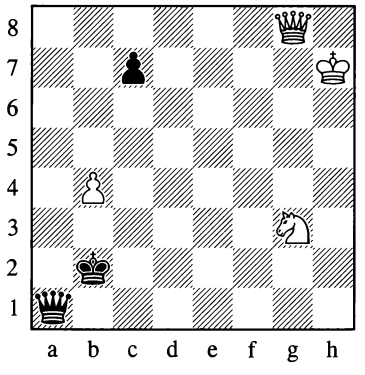


a) 40.♘g3 ♗c2 41.f5 gxf5 42.gxf5 ♔e5 43.f6 ♗g6 is not dangerous for Black.

b) But after 40.f5 gxf5 41.♔f4 Black would have to switch from passive to active defence with: 41...♔c4! 42.gxf5 ♔d3! 43.♘g3 ♗xf5 44.♔xf5 ♔c2 45.♔f6 ♔xb2 46.♔g7



46...b4 The classical breakthrough. (46...♔xa3 also holds) 47.cxb4 cxb4 48.axb4 a4 49.♔xh7 a3 50.g6 a2 51.g7 a1=♕ 52.g8=♕

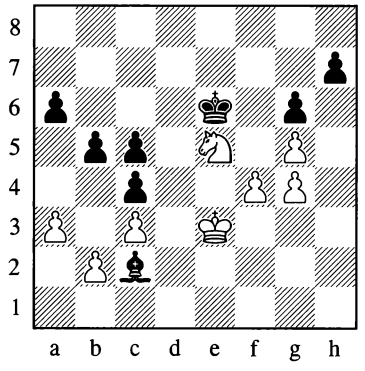


Black has plenty of ways to eliminate the b-pawn and secure the draw.

39.♔e3 ♗d3?!

It took me quite a while to break down the alternative, so probably that would have been a better practical try:

39...♔d5 40.♘h2 ♗c2 41.♘f3 c5 42.♘e5 ♔e6



The critical position. One of the questions we always have to ask ourselves is, what would my opponent do if it was him to play.

43.♔f3 ♗d1† 44.♔e4! ♗c2† 45.♔e3

Black is in zugzwang.

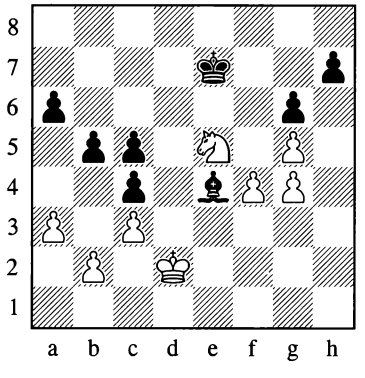
45...♔e7

The most resilient.

45...♗b1 46.a4! is a shortcut.

45...♗d1 46.♔d2 ♗b3 47.♘c6 ♔d6 48.♘a5 ♗a2 49.♔c2 is quite curious. The black bishop has been trapped. It is now time for White to force his hand. 49...♔d5 50.f5 gxf5 51.gxf5 ♔e5 52.f6 ♔e6 53.♘b7 White wins.

46.♔d2 ♗e4



47.a4!

The way for White to make progress. Black cannot take on a4, as there are too many weaknesses.

47...♔e6 48.♔e3 ♗c2 49.a5!

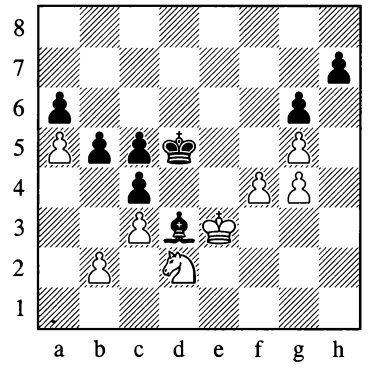
Fixing the weaknesses on the queenside.

49...♗b1 50.♔e2 ♗c2 51.♘f3 ♔d5 52.♘d2 ♔e6 53.♔f3 ♔d5 54.♔e3

Black is in zugzwang again.

54...♗d3

54...♔e6 55.♘e4 and White wins.



55.b3!

Now this is possible.

55...♗c2 56.bxc4† bxc4 57.♘f3 ♔e6 58.♘e5 ♗b3 59.♘c6 ♗a4 60.♘d8† ♔d7 61.♘f7 ♔e7 62.♘h6

Threatening ♘g8-f6 among other things. Black is dead lost.

40.♘g3

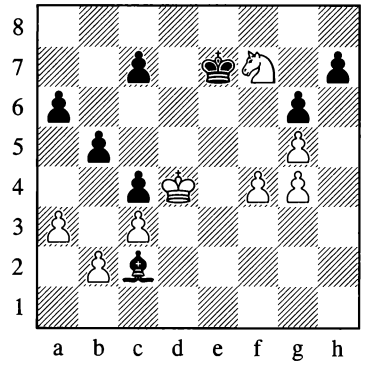
Khmelnitsky is shuffling around.

At this moment, White could win by regrouping the knight strikingly:

40.♘d2! ♔d5 41.♘f3 ♗c2 42.♘e5

Threatening ♘d7-f6.

42...♔e6 43.♔d4 ♔d6 44.♘f7† ♔e7



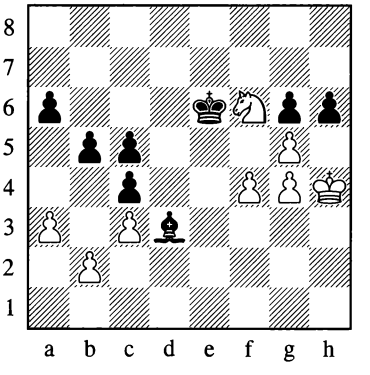
45.♘h6! ♔d6 46.♘g8!

The knight has made it. After previously provoking ...g6, the knight has taken a long journey and can finally exploit the weakness of the f6-square, created more than 20 moves earlier.

46...c5† 47.♔e3 ♔e6 48.♔f2

White brings the king to h4. Black can only wait.

48...♗d3 49.♔g3 ♗c2 50.♔h4 ♗d3 51.♘f6 h6

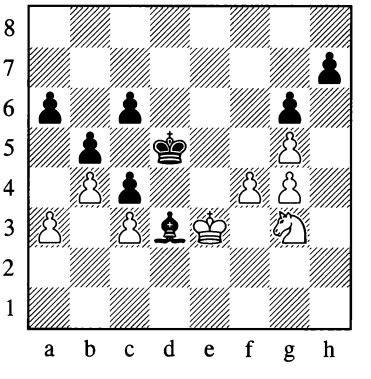


52.♘h7 hxg5† 53.♔xg5

White wins any which way.

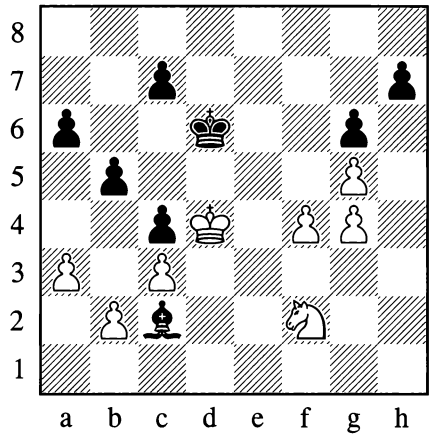
40...♗c2?!

40...♔d5 would also lose, but not nearly as easily. 41.b4! c6 (41...c5 42.bxc5 ♔xc5 43.♘e4† would see White arrive first in the pawn ending.)



White wins by regrouping the knight. 42.♘h1 ♗c2 43.♘f2 ♗b1 44.♘h3 ♗d3 45.♘g1 ♗e4 46.♘f3 White wins.

41.♘e4 ♗d1 42.♘f2 ♗c2 43.♔d4 ♔d6



44.♔e3?

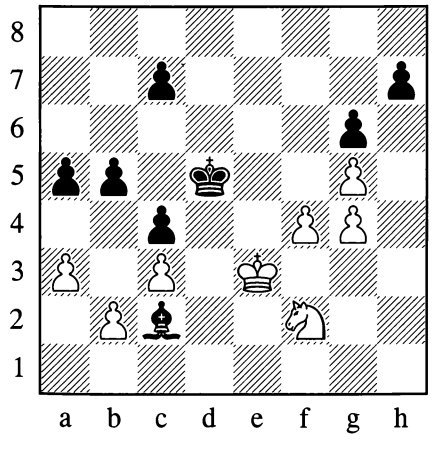
A rather strange mistake.

44.♘e4†! was winning immediately. The pawn ending is predictably easy to win. Whereas after 44...♔e6 45.♘f6 h6 46.♘e4! hxg5 (after both 46...♗xe4 47.gxh6! and 46...h5 47.f5† gxf5 48.♘c5† ♔d6 49.gxh5 White wins) 47.♘xg5† ♔d6 48.♘e4† White wins. Black has to play a move he does not want to make.

44...♔d5 45.♔f3 a5!?

Personally, I would not have moved any pawns. After 45...♗b1, White is not managing to make sufficient progress to win.

46.♔e3



46...c5?

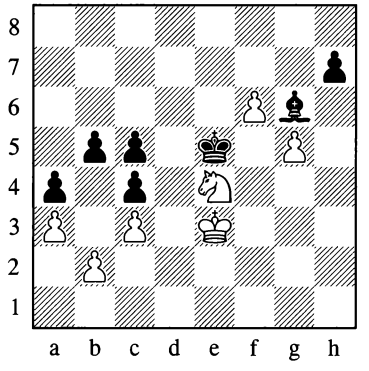
Another active move. But again, the only chance for a successful defence would have been to wait. This option is now gone.

46...a4 would still have made the draw. White cannot make sufficient progress. Sitting still is difficult in a position like this. It is important that Black can play ...♗d1 at various points. 47.♘h1 ♗b1 48.♘g3 ♗c2 49.f5 gxf5 50.gxf5 ♔e5 51.f6 ♗g6 52.♘e4 ♔f5 Doug told me later that he thought: "What would happen if I just played ...a4 and waited?" But his instinct took over and he made the active move.

47.♔f3 b4

Here comes the counterplay. Except, it is going nowhere.

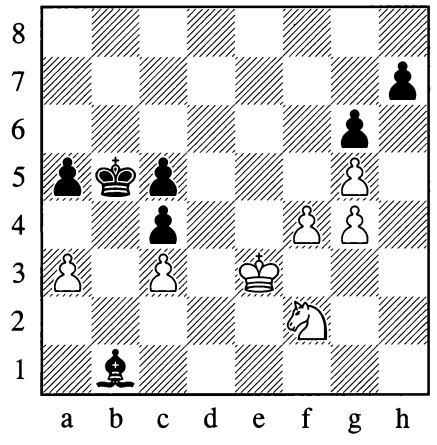
47...a4 no longer holds the draw. 48.♔e3 ♗b1 49.♘h1 ♗c2 50.♘g3 ♗b1 (50...♗d1 51.♘e4 is no improvement.) 51.f5 gxf5 52.gxf5 ♔e5 53.f6 ♗g6 54.♘e4



We can see now why ...c5 is a losing move. The problem is that after 54...♔f5, the resource Black would have if the pawn was still on c7, White plays 55.♘d6†, winning on the spot.

After 54...♔d5 55.♔f4 ♗f7 White is in control. Next, he will manoeuvre the knight to e5, having all the time in the world...

48.♔e3 ♗b1 49.♘h3 bxa3 50.bxa3 ♔c6 51.♘f2 ♔b5



52.♘e4 ♔a4 53.f5

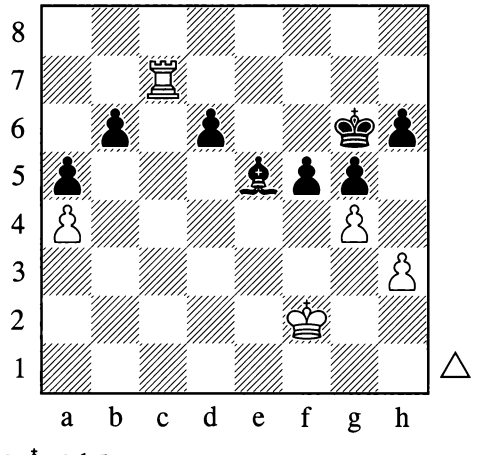
An instructive example of the difficulties of defending passively.

1–0

In the following example, Black would also draw with passive play.

Praggnanandhaa Rameshbabu – Volodar Murzin

Internet 2021



40.♔e3 h5

40...♗b2!, with the idea of ...♗a3-c5, was simplest.

41.♔f3 fxg4† 42.hxg4 h4?

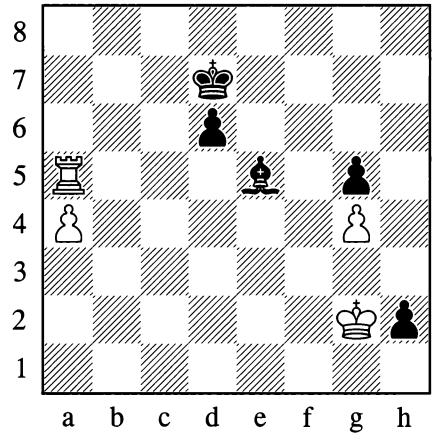
A horrible move, infected by the madness of Internet rapid. The pawn is now passed, but the activity is all a mirage.

42...hxg4† 43.♔xg4 ♗d4 would draw without difficulties.

43.♖c6

White eradicates the queenside.

43...♔f6 44.♖xb6 ♔e6 45.♖b5 h3 46.♖xa5 h2 47.♔g2 ♔d7



48.♖xe5!

Simplest, but not strictly required.

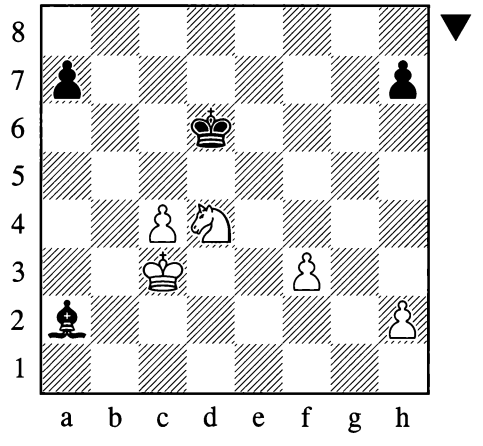
48...dxe5 49.♔xh2 ♔c6 50.♔g3 ♔c5 51.a5 e4 52.♔f2 ♔b5 53.♔e3 ♔xa5 54.♔xe4 ♔b5 55.♔f5 ♔c5 56.♔xg5

1–0

From the same Internet rapid event comes a position where Black can hold without too many issues. The bishop is strong and the white pawns too split to be able to do any good. I believe Black was unsure about 49.♔b4 coming, more than trying to make something of the a-pawn.

Leon Luke Mendonca – Gukesh Dommaraju

Internet 2021

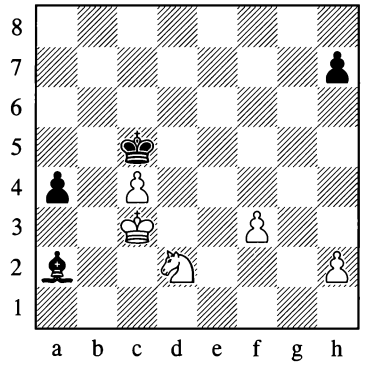


48...a5?

48...♔e5!? would have been better, if Black is insisting on an active move. But 48...♗b1, just waiting, seems very safe to me.

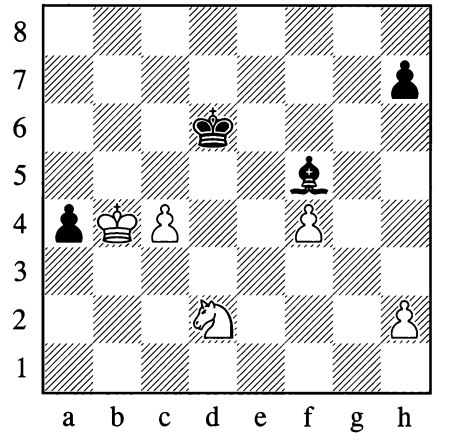
49.f4?

49.♘b3! a4 50.♘d2 would almost trap the black bishop. 50...♔c5



51.♘e4† ♔c6 52.♔b4 ♗b3 53.♘c3 White wins the a-pawn and later the game.

49...♗b1 50.♘b3 a4 51.♘d2 ♗f5 52.♔b4



52...♗d7?

This time, passive defence was a mistake. The difference is the liability of defending the a-pawn.

52...♗d3 53.♔xa4 ♔c5! was a good alternative. Black would survive a pawn ending, so the only critical move was 54.♔b3 ♔d4 55.♔b4, when Black draws after 55...♔e3 56.♘b3 ♔xf4, and the bishop takes the c-pawn and the king the h-pawn.

53.♘e4† ♔c6

53...♔e7 54.♘c5 is no better.

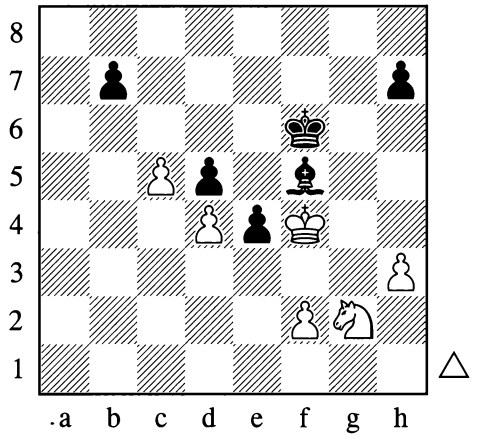
54.♔xa4 ♗f5 55.♘g3 ♗g6 56.♔b4 h5 57.f5 ♗f7 58.♘e4 ♔d7 59.♔c5 ♔e7 60.♔d4 ♗e8 61.c5 ♗d7 62.♔e5
1–0

65. Capablanca shuffling

This is so named because of the 3rd World Champion's tendency to win his endgames in this way. Rather than trying to play the most precise and forcing moves, the player utilising this technique is manoeuvring around, trying this and that, with little intention other than confusing his opponent and catching him out.

Sune Berg Hansen – Normunds Miezis

Porto Carras 2011



In this example, Sune believed that the endgame was probably objectively a draw when he went for it. Arguably it was a mistake to do so, as he had a considerable advantage when he chose to enter it. But he was convinced that his opponent, running short of time, would not be able to keep his bits together and that chances would occur.

Actually, quite a few chances arose before Sune took advantage of one of them. This is not an example of perfect technique, but it can be an effective way to win a game played with a 30-second increment at the end of a long day. What especially makes the position unpleasant for Black is that all the white pawns are untouchable, while almost all the black pawns are difficult to defend.

52.h4 ♗e6?

52...h5! was necessary. Both players failed to notice the significance of this.

Already White has the first chance.

53.♘e3?

53.h5! ♗f7 (53...h6 54.♘e3 ♗f7 55.♘g4† ♔e6 56.♘xh6 ♗xh5 transposes) 54.♘e3 h6 (54...♗e6 55.h6 would put Black in zugzwang. After 55...♗g8 56.♘f5, the threat is ♘d6. And 56...♔e6 is met with 57.♔g5 ♗f7 58.♘g7† and the white king penetrates.) 55.♘g4† ♔e6 56.♘xh6 ♗xh5 57.♘f5 White will penetrate and win.

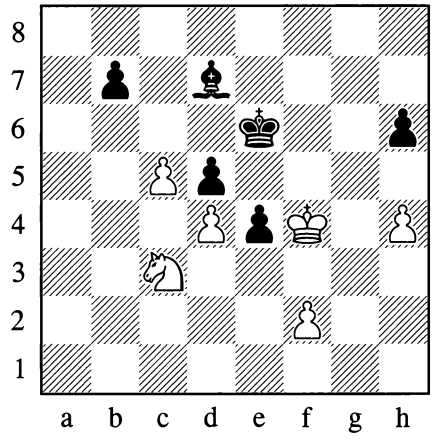
53...h6?

53...h5!

54.♘d1?

54.h5!

54...♗d7? 55.♘c3 ♔e6



56.♔g4?

56.♔g3!! ♗e8 57.♔g4 would put Black in zugzwang. He either has to allow ♘b5-d6/c7 or ♔g4-h5. He cannot survive either.

56...♗e8 57.♘e2 ♔f6 58.♔f4 ♗d7?

58...h5 was still the lesser evil.

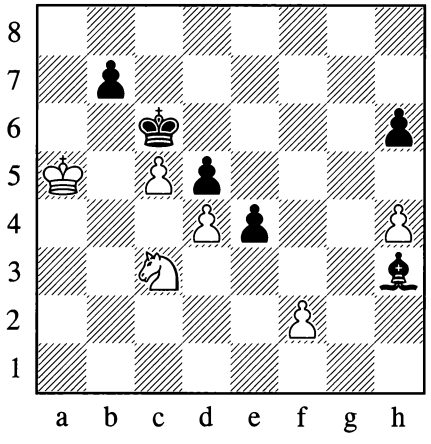
59.♘g3?

59.♘c3! ♔e6 60.♔g3 still won.

59...♗c8 60.♔e3 ♗g4 61.♔d2 ♔e6 62.♔c3 ♔d7 63.♔b4 ♔c6 64.♔a5 ♔c7

White has gone to the other flank to probe. Something might show up.

65.♘f1 ♔c6 66.♘e3 ♗e6 67.♘d1 ♗h3 68.♘c3



68...♗f1?

And eventually something did show up again.

68...♗d7, for example, would have held the troops together.

69.♘a2 ♗c4 70.♘b4† ♔c7 71.♘c2!

This is the problem. The knight returns to e3, now with the bishop hopelessly lost outside of its own pawn chain.

71...♔c6 72.♘e3 ♗e2

72...♗b3 73.♘f5 would eliminate the h-pawn. 73...h5 74.♔b4 and White either has ♘g7xh5, or ♘e7†xd5.

73.♘f5 h5 74.♘e7† ♔d7 75.♘xd5 ♔c6 76.♘f6 ♗f3 77.♔b4 b6 78.d5† ♔c7 79.cxb6† ♔xb6 80.♔c4 ♔c7 81.♔d4 1–0

66. Winning without doing

Often games are won though no winning chances remain. I understood at a young age that it can be difficult to withstand the pressure of defence for a long time. Even if the defence is entirely effortless. I won a good number of games where I had no idea of how to proceed, despite having an advantage. But by doing the Capablanca shuffle, I would frustrate my opponents. They knew the draw should be within reach, but with no way to claim it. I realised that this was an excellent way to beat lower-rated players, as in my experience a necessary fear of not making the draw would lead them to try to force matters, rather than waiting patiently for my efforts to dry up. In one game I won, my opponent had stopped writing down the moves some fifteen moves before his eventual blunder.

There is no shame in draining your opponent of his defensive resources. Chess is a game which will end in a draw if both sides play well. We are entirely within our rights to put as much pressure on our opponents in an effort to induce them to make a mistake. I used to believe that this tactic was only useful against amateurs, but after having seen too many professionals be drained of their patience and ability to withstand the pressure, I can categorically say that this is not the case.

And when we lose our patience, we often lose our other senses too... The following game is as boring as chess can be. But the cost of playing on is only time. Of course, it was boring for Fedoseev, but his hope of something happening was the low amount of energy that kept him going until his opponent lost the ability to withstand the pressure.

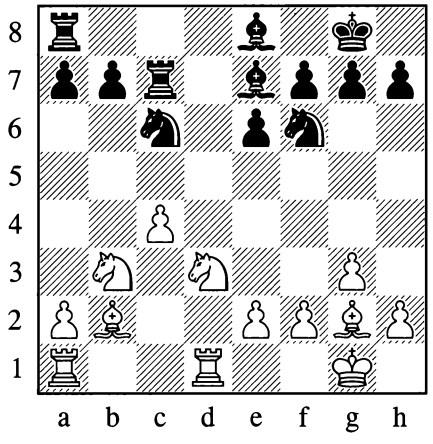
Vladimir Fedoseev – Amin Tabatabaei

Sochi (6.2) 2021

1.d4 ♘f6 2.c4 e6 3.♘f3 d5 4.g3 dxc4 5.♗g2 c5 6.0–0 ♘c6 7.dxc5

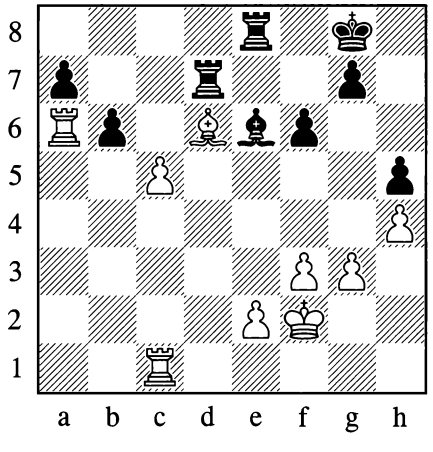
Not the most ambitious option.

7...♕xd1 8.♖xd1 ♗xc5 9.♘bd2 c3 10.bxc3 0–0 11.♘b3 ♗e7 12.c4 ♗d7 13.♗b2 ♖fc8 14.♘e1 ♗e8 15.♘d3 ♖c7



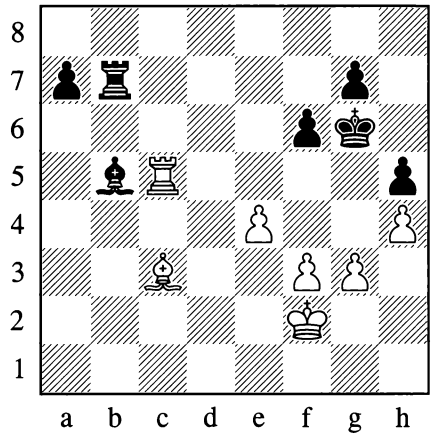
White achieved very little out of the opening. The game proceeds in the same fashion.

16.c5 ♖ac8 17.♗c1 ♘d5 18.♗xd5 exd5 19.♘f4 d4 20.♘d5 ♖d7 21.♘xe7† ♖xe7 22.♔f1 ♖d8 23.♗f4 ♖ed7 24.♗d6 b6 25.♖ac1 f6 26.f3 ♗f7 27.♘xd4 ♘xd4 28.♖xd4 ♗xa2 29.♖a4 ♗e6 30.♖a6 ♖e8 31.♔f2 h5 32.h4



Black has completely equalised. The opposite-coloured bishops and the lack of danger in general should ensure Black of the draw. The only problem is that he will have to wait for it.

32...♗f7 33.♗f4 bxc5 34.♖xc5 ♖b7 35.♖a3 ♔h7 36.♗e3 ♖ee7 37.♗d4 ♔g6 38.♖aa5 ♔h7 39.♖c2 ♖ed7 40.♗e3 ♖e7 41.♗c5 ♖ec7 42.♖c3 ♔g6 43.e4 ♖c6 44.♗d4 ♖xc3 45.♗xc3 ♗c4 46.♖c5 ♗b5



47.e5

White tries to change the structure and create some sort of a weakness. But it is by no means enough.

47...♗d7 48.exf6 gxf6 49.♖d5 ♗e6 50.♖d6 ♖b6 51.♖d8 ♖c6 52.♗d4 a6

Black has achieved a perfect defensive set-up.

53.♔e3 ♔f7 54.♖h8 ♔g6 55.♖f8 ♗f7 56.♖d8 ♗e6 57.♔e4 ♔f7 58.♖a8 ♔g6 59.♖a7

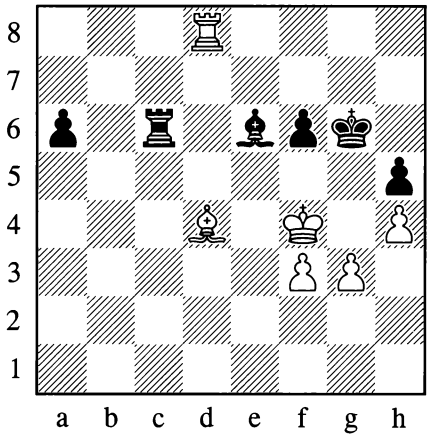
White is finally managing to create a few tricks.

59...♗c8

59...♗f7?! 60.g4! would create some pressure. Black should still hold after 60...♖e6† 61.♔f4 ♖d6, but he will have a serious challenge on his hands. For example: 62.♗a1 ♗e8 63.g5 fxg5† 64.hxg5 ♗f7 65.♖a8 with the threat of ♖h8-h6.

59...♖d6 seemed simpler to me. Black just sits. But in the game White can go nowhere too.

60.♔d5 ♖c2 61.♔e4 ♖c6 62.♔e3 ♗f5 63.♖a8 ♗c8 64.♖b8 ♔f7 65.♔e4 ♗e6 66.♖h8 ♔g6 67.♖f8 ♗f7 68.♖d8 ♗e6 69.♔f4



69...♖c4!?

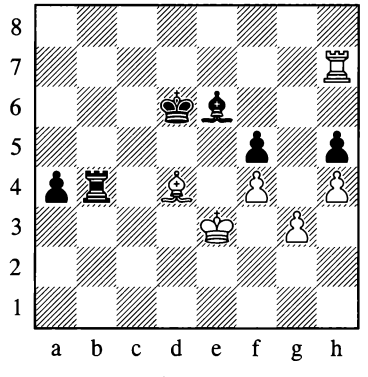
This changed things a bit. Black is fine still, of course, but why did he decide to mix things up? Did he get tired of waiting?

69...♔f7 and nothing is happening.

70.♖d6 ♔f7 71.♔e4 a5 72.f4 ♔e7 73.♖a6 a4 74.♖a7† ♔d6 75.♔e3 ♖b4?

Black is still drawing, but now has to play a few accurate moves.

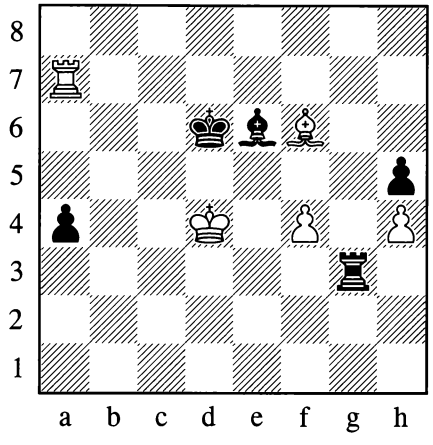
At this point, the simplest was 75...f5! 76.♖h7 ♖b4, and Black will simply wait.



77.♖xh5 ♖b3† 78.♔f2 a3 79.♖h7 a2 80.♖a7 ♖b1 and Black will always have ...♖h1, if needed.

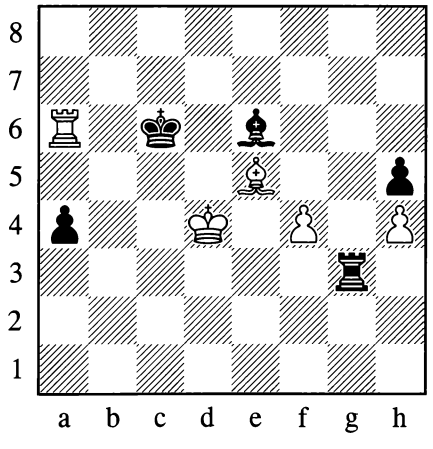
76.♗xf6 ♖b3† 77.♔d4 ♖xg3?

77...♖b4† would draw easily. If the king goes to c2, Black can safely take on g3.



Fedoseev could not believe his luck.

78.♗e5† ♔c6 79.♖a6†



Black resigned. 79...♔d7 80.♖d6† ♔e7 81.♖xe6† ♔xe6 82.f5† ♔xf5 83.♗xg3 White has the right bishop and wins easily. Fedoseev speculated that his opponent had misunderstood this fact, but I think this is unlikely. Tabatabaei seems to have lost his patience and with it his sense of danger.

1–0

67. Plus equal

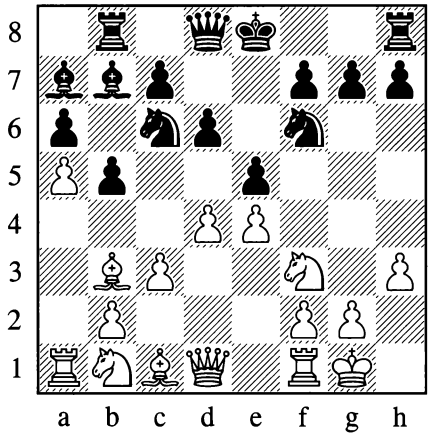
In order to understand this game fully, there is a concept I would like to introduce: *Plus equal*. One player has a slight advantage and will be able to pose the opponent continuous problems throughout the game. Only once the problems have been fully solved will the draw become obvious.

A lot of players in the elite aim for this in their opening preparation, but it is not always so easy to achieve. Gelfand called it the Champagne moment. Once a year, when you have an opening advantage, it is time to open the lavish bubbly. But at times, even the smallest pressure can make a big difference.

Jan-Krzysztof Duda – Vidit Santosh Gujrathi

Sochi (6.2) 2021

1.e4 e5 2.♘f3 ♘c6 3.♗b5 a6 4.♗a4 ♘f6 5.0–0 b5 6.♗b3 ♗c5 7.a4 ♖b8 8.c3 d6 9.d4 ♗b6 10.a5 ♗a7 11.h3 ♗b7

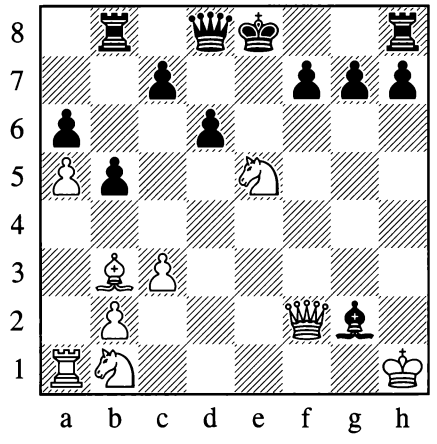


Duda explained after the game that he got into trouble on his way to the venue and was afraid he would even miss turning up on time for the game. With the zero-tolerance rule in place, this would have cost him his chance to fight to go into the semi-final. Shaken, he decided to go for this line, which was known as a drawish line.

12.♗e3 ♘xe4 13.d5 ♗xe3 14.dxc6 ♘xf2 15.♕e2 ♘xh3† 16.♔h1 ♘f2† 17.♖xf2 ♗xf2 18.♕xf2 ♗xc6

18...♗c8? 19.♘xe5 0–0 20.♘d3 ♕g5 21.♘d2 would be risky for Black. The knights are strong and the pawn on c6 is a strong asset.

19.♘xe5 ♗xg2†!



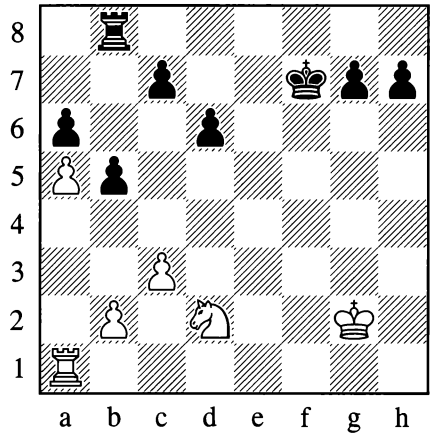
20.♔g1!

20.♔xg2? ♕g5† 21.♔f1 ♕xe5 would give Black a strong chance of winning the endgame with rook and three pawns against two minor pieces.

20...♕f6

This was the first new move for Duda.

21.♘xf7 ♕xf2† 22.♔xf2 ♖f8 23.♔xg2 ♖xf7 24.♗xf7† ♔xf7 25.♘d2



The opening stage is over, and we have skipped straight into the endgame, bypassing the middlegame.

Duda explained that he considered this a forced draw. But reality is different. Only White has chances of winning this game, even if they are small.

The problem for Black is that although his preparation has been perfect, he will still have to work out how to make the draw. This is something preparation cannot provide him with. White has too many options and there are too many variations to prepare, making it impossible to analyse everything to the end.

In practice, this pressure was not easy to deal with for Vidit, in an already high-pressure game.

25...♖e8

Black's main difficulty is the a-pawn. If the b-pawn was back on b7, he would not have anything to worry about. Now there are many situations that are unpleasant. White has ideas such as ♘c7, or ♘xb5.

It is hard to evaluate if 25...b4!? 26.c4 ♖e8 was more accurate. My feeling is that it is not. The pawns are stuck, which can only favour White.

26.♖f1†

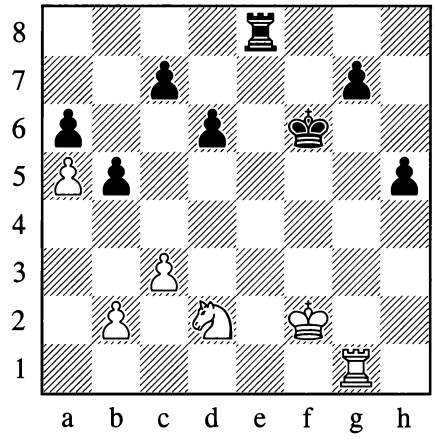
Black immediately has questions to answer. Is the king more useful on the kingside or the queenside? It is a question without an obvious answer.

26...♔g6

Vidit decides to keep his king close to the kingside pawns. This is a rational choice, as it does not run the risk of losing them.

On the other hand, the a-pawn is awfully far away now. One thing Black would not have to worry about at the moment, would be a pawn ending where the black king is in the centre or on the queenside. The king can defend the queenside, and neither the white king nor the knight will be able to overpower the two kingside pawns. A draw would be assured.

27.♔f2 h5 28.♖g1† ♔f6



The most natural manoeuvre would be ♘f3-d4, but Duda found a different way to create pressure against the fragile black queenside.

29.♔f3!? g6?!

Vidit does not find the best way to organise the pieces.

29...♖e5! 30.♘e4† ♔f7 was stronger. For example: 31.♘f2 ♖f5†! 32.♔e2 g5 33.♘d3 c5

and Black is making the draw. White can try 31.♔f4 and look for ways to create problems for the opponent.

30.♘e4†

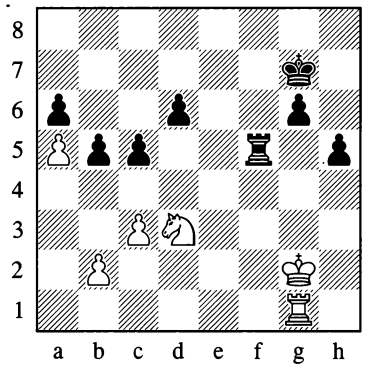
Already Black is approaching the zone of one mistake.

30...♔g7! 31.♘f2 ♖f8†

It was stronger to play 31...♔h6! 32.♘d3 g5, mobilising the pawns for active counterplay.

32.♔g2 ♖e8?

Black still had time to play 32...♖f5 33.♘d3 c5, keeping everything under control.



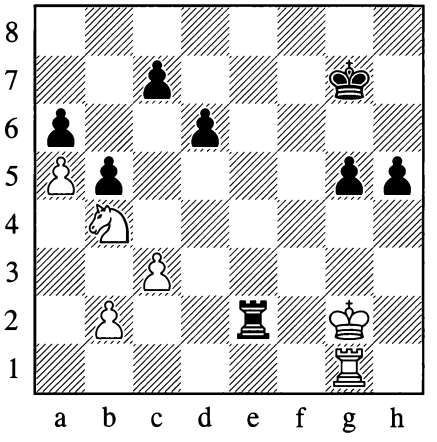
Duda would probably still be able to create some difficulties for his opponent, but it is worth noticing that the exchange of rooks would not be a problem. 34.♖f1 ♖xf1 35.♔xf1 ♔f6 36.b4 cxb4 37.♘xb4 ♔e6 38.♘xa6 ♔d7 39.♘b4 ♔c7 Black holds. White cannot make progress on the queenside while the king is occupied on the kingside.

33.♘d3! g5

33...c5 34.♘f4 was also bad for Black.

34.♘b4 ♖e2†?

Black's last chance was to follow a forced path: 34...c5 35.♘xa6 ♖a8 36.♘c7 ♖xa5 Black has finally eliminated the a-pawn. But he is still in grave danger after 37.♘e8† ♔g6 38.♘xd6 ♖a2 39.♖b1 b4 40.c4, when Black is balancing on the edge of destruction.



35.♔h1!!

Duda was here able to play a surprising move, worthy of an endgame study.

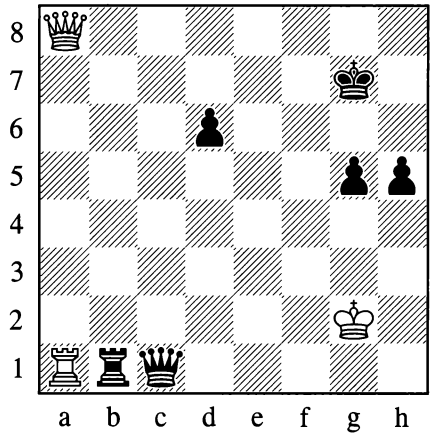
35.♔f3 would be inferior, as ...♖xc3 would come with check, as would ...g4, both giving Black reasonable drawing chances.

35...♖xb2 36.♖a1 c5 37.♘xa6 b4 38.♘xb4!

Duda was happy having a forced win, so although the line was long, it was easy to calculate.

White was also winning after 38.cxb4 cxb4 39.♘c7!, when he would win the rook after 39...♖c2 40.a6, and eliminate the b-pawn after 39...b3 40.♘e6†! ♔f6 41.♘d4!. The black king is not within the quadrant after 41...♖a2 42.♖xa2 bxa2 43.♘b3, winning.

38...cxb4 39.a6 bxc3 40.a7 c2 41.a8=♕ ♖b1† 42.♔g2 c1=♕



43.♖a7† ♔f6 44.♕f8† ♔e5 45.♖e7† ♔d5 46.♕f3† ♔c5 47.♖c7† ♔b4 48.♕b7† ♔a5 49.♕a7† ♔b5 50.♕b8†

1–0

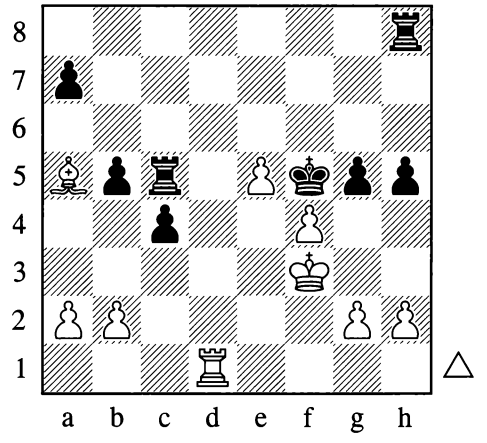
68. Small details

In the endgame, there is often a fine line between a position being a win or a draw. The effect of a single tempo, or of a piece placed slightly differently, can make all the difference.

White managed to establish a strong mating net in the following example:

Yuriy Kryvoruchko – Dragan Solak

Yerevan 2014



40.♖d6! gxf4?!

The critical move, requiring the most elaborate refutation.

Black could also have tried:

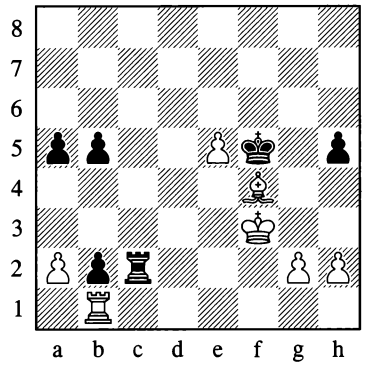
40...♖f8 41.♗b4 c3

41...♖cc8 42.♖h6! and White wins.

42.♗xc5 cxb2 43.♖d1 ♖c8

With not too difficult play, White is able to transform the extra piece into a stable advantage. But there will still be some work to do after this.

44.♗e3 gxf4 45.♗xf4 a5 46.♖b1 ♖c2



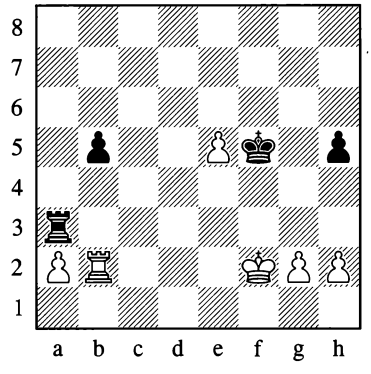
47.♗h6!

The bishop is transferred to deal with the black pawns.

47...a4 48.♗f8 a3 49.♗xa3

Giving back the piece is not only forced, but also desirable.

49...♖c3† 50.♔f2 ♖xa3 51.♖xb2



The rook endgame is highly advantageous for White, but Black is not without defensive means either.

51...h4!

The most resilient.

51...♖a5?! 52.♔g3! and White wins.

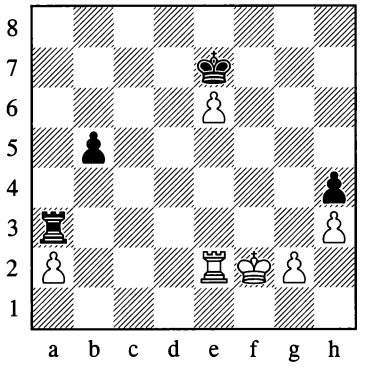
But a serious try would be 51...♔xe5!? 52.♖xb5† ♔f4 53.♖b2 ♔e4. Now White can try 54.♔f1!? ♔f4 55.♖f2† to ask the black king on which side of the board he wants to be cut off. The white king will then go in the other direction. White should win.

52.♖e2 ♔e6 53.h3

Black is in zugzwang and will have to let the white king advance, or give up the pressure on the a-pawn, making ♖e4xh4 a thing.

Or he can try:

53...♔d7 54.e6† ♔e7



White can now prepare for this situation perfectly with:

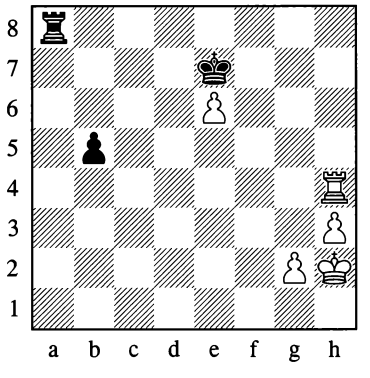
55.♔g1! ♖a4 56.♔h2 ♖a3

And then transform the position into an easily winning one.

57.♖e4! ♖xa2 58.♖xh4 ♖a8!

Black has to look for active counterplay.

58...♔xe6 59.♖b4 ♖a5 looks – and is – too slow. 60.g4 ♔d5 61.♔g3 ♔c5 62.♖b1 and White wins.



59.♖b4!

Every tempo counts.

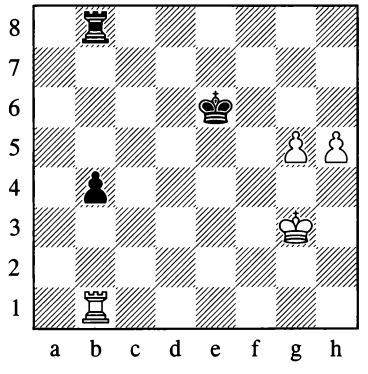
59.♖h7†? ♔xe6 60.♖b7 ♖a5 61.g4 ♔d5 62.♔g3 ♔c6 63.♖b8 ♔c7 and Black makes the draw.

59.♖e4? ♖b8 60.g4 b4 61.♔g3 b3 62.♖e1 b2 63.♖b1 ♔xe6 is also a simple draw. Black will block the white pawns with the king, and with the rook checking from the side, no progress can be made.

59...♖b8 60.g4 ♔xe6 61.♔g3 ♔d5 62.g5 ♔c5 63.♖b1 b4 64.h4!

No time to waste!

64...♔d5 65.h5 ♔e6



66.♖f1!

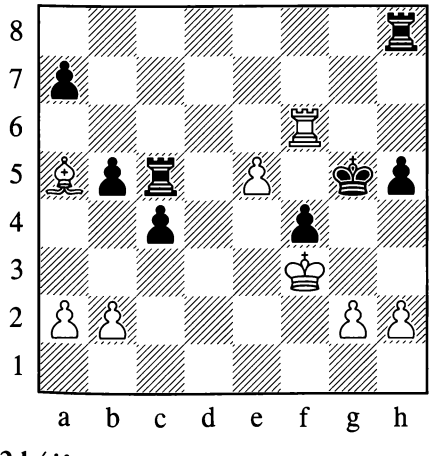
Cutting off the king.

66...b3 67.g6 b2 68.g7

White wins.

41.♖f6† ♔g5

41...♔xe5? would drop a rook to 42.♗c3†.



42.h4†!

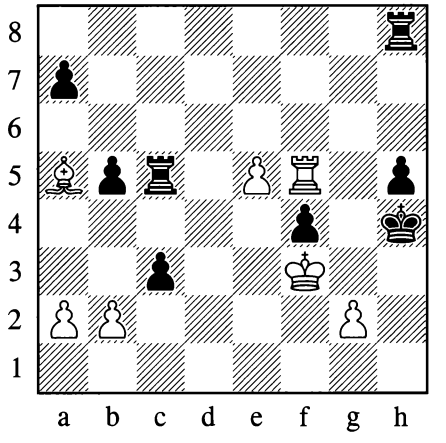
The point behind White's play.

42...♔xh4 43.♖f5!

Creating a mating net.

White also has the advantage after 43.♔xf4?!, but with 43...c3 44.♗xc3 ♖c4† Black would be able to put up a lot of resistance.

43...c3



44.♗xc3?

A horrible mistake, and yet such a natural move.

44.♗b4!

This just had to be spotted to be played.

44...♖c7

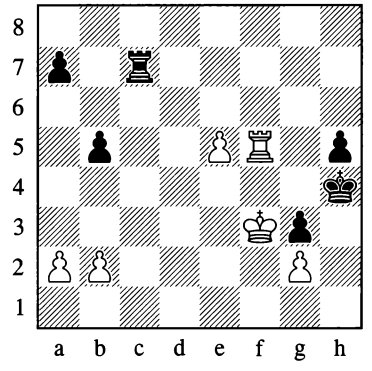
The only critical move.

The rook endgame after 44...♖hc8 45.♗xc5 ♖xc5 is hopeless: 46.bxc3 ♖xc3† 47.♔xf4 ♖c4† 48.♔f3 ♖c3† 49.♔e4 ♔g4 50.♖f2 and White wins.

45.♗xc3

The difference is not immediately obvious. But with the rook on the 7th rank, White wins easily.

45...♖g8 46.♗e1† ♖g3† 47.♗xg3† fxg3



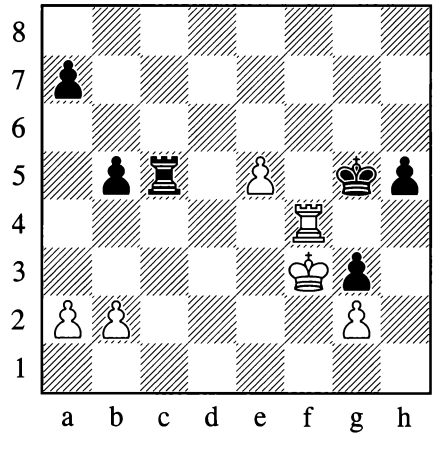
48.e6!

The difference from the game will be easy to see. The black rook does not make it to e5 and White wins.

44...♖g8 45.♗e1† ♖g3† 46.♗xg3† fxg3

White remains much better, but it is no longer so easy to win in practice.

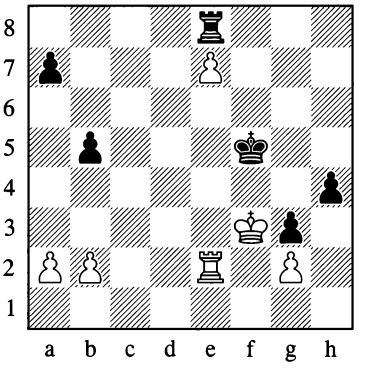
47.♖f4† ♔g5



48.e6?

I presume Kryvoruchko miscalculated the resulting pawn ending, rather than forgot that the rook is best placed behind the passed pawn.

48.♖e4! ♔f5 49.e6 ♖c8 50.♖e1 h4 51.e7 ♖e8 52.♖e2 would put Black in a horrible decaying perpetual zugzwang.



Sooner or later, Black will have to do something, if nothing else, then simply because the rules of chess demand that he makes a move every so often. If he tries immediately with 52...♔g5, White has 53.♖e5† ♔f6 54.♖xb5 ♖xe7 55.♖h5, with a winning rook ending. More moves will be played, but winning it is.

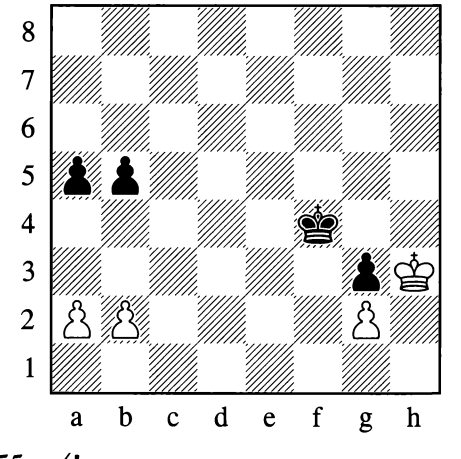
48...♖e5 49.♖e4 ♖xe4 50.♔xe4 ♔f6 51.♔f4

51.♔d5 ♔e7! 52.♔e5 h4 53.♔f4 h3! would also force a draw.

51...♔xe6 52.♔g5 a5 53.♔xh5 ♔f5!

Black has to defend with only moves.

54.♔h4 ♔f4 55.♔h3



55...a4!

55...b4? 56.b3 ♔e4 57.♔xg3 ♔d3 58.♔f3 ♔c2 59.g4 would win for White.

56.a3 ♔e4 57.♔xg3 ♔d3 58.♔h2 ♔c2 59.g4 ♔xb2 60.g5 b4

The most natural.

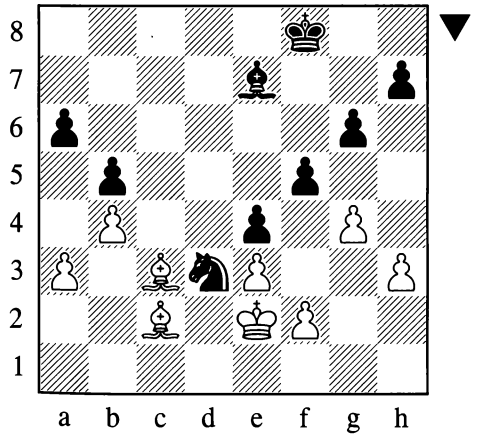
But Black also draws with: 60...♔xa3!? 61.g6 b4 62.g7 b3 63.g8=♕ and here only 63...♔b4? would lose. But no one would ever play it, so it does not matter. A fortress worth remembering.

61.axb4 a3 62.g6 a2 63.g7 a1=♕ 64.g8=♕ ♕c1 65.b5 ♕h6† 66.♔g3 ♕d6† 67.♔g2 ♕d2† 68.♔g1 ♕e1† 69.♔h2 ♕e5† ½–½

We enter this bishop ending to be, when Black is on the verge of losing a pawn.

Wesley So – Alireza Firouzja

Wijk aan Zee 2020

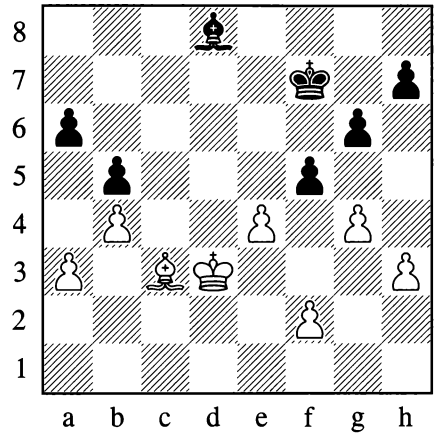


34...♗d8?

An all-out waiting move. It is a mistake, not because it loses, but because it makes losing a real scenario. Black could have done something to improve his position and should have done so.

Wesley So mentions that his opponent after the game correctly pointed out that Black could have achieved an easy draw by creating a barrier on the 5th rank with 34...h5! 35.gxh5 gxh5 36.♗xd3 exd3† 37.♔xd3 ♔f7 38.e4 ♔e6 and there is no way for the white king to break through.

35.♗xd3 exd3† 36.♔xd3 ♔f7 37.e4



37...fxg4!

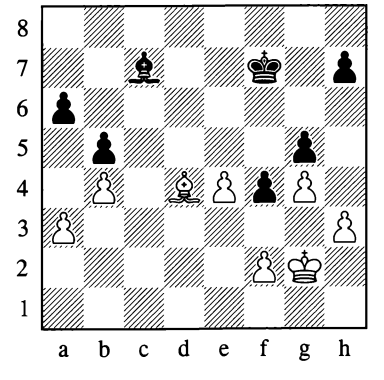
The natural and correct approach.

Wesley So thinks that this is the losing mistake and suggested a passive and unnatural defence for Black.

37...f4? 38.♔e2 g5 39.♗d4 ♔e6

But this position, where White has an extra pawn and lots of time on his hands, does not bode well for Black. White will be able to improve his position gradually.

40.♔f3 ♗c7 41.♔g2 ♔f7

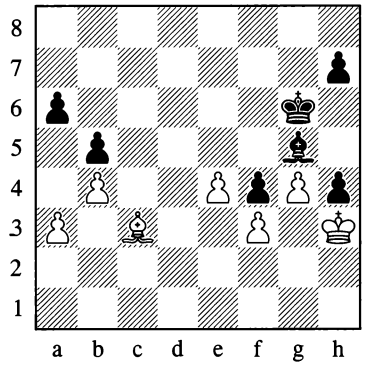


42.h4! gxh4

Black has no alternative to taking the pawn. 42...h6 43.h5! would bind the king to the protection of the g7-square. White moves the king to f3 and plays e4-e5.

42...♔g6 43.hxg5 ♔xg5 44.♔f3 would similarly tie the king to the f-pawn. White wins slowly.

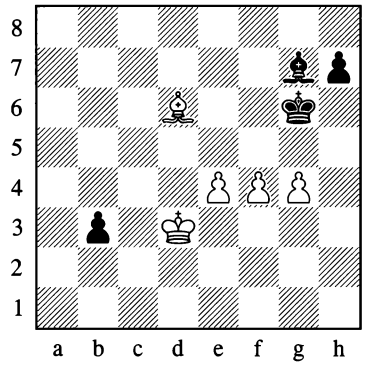
43.♔h3 ♗d8 44.f3 ♔g6 45.♗c3 ♗g5



46.♗d2!

A nice waiting move that forces Black to do something he does not want to do. The key to understanding this position is the following slightly long and forcing variation. Abstraction does not work well to explain this, it is a concrete comparison.

46.♗e1? draws because after: 46...♗f6 47.♗xh4 ♗b2 48.♗e1 ♗xa3 49.♗d2 ♗b2 50.♗xf4 ♗c3 51.♗d6 a5 52.bxa5 ♗xa5 53.♔g3 ♗c3 54.♔f2 b4 55.♔e2 b3 56.♔d3 ♗g7 57.f4



Black is well placed and can play: 57...h5! exchanging the h-pawn. If he was not ready for this, for example if White was to play here, the white pawns would advance too quickly. They would claim the black bishop and White would still have the g-pawn to win the game with.

46...h6

Black is in zugzwang. Luckily this move does not change anything in the long variation, as ...h6-h5 is just as effective as ...h7-h5. But it does lose the chance to make this move later on!

46...♔h6 would not work in the long variation. ♗xf4 would come with check later! And the bishop is busy defending both pawns.

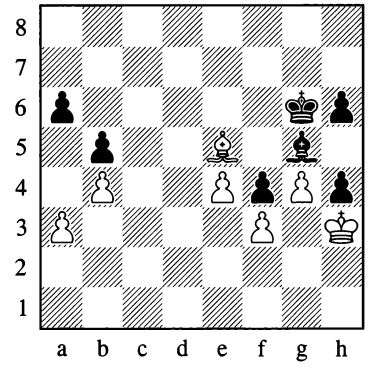
47.♗c1

White now wins with a beautiful triangulation manoeuvre.

47...♔g7

It does not matter where the king goes.

48.♗b2† ♔g6 49.♗e5!

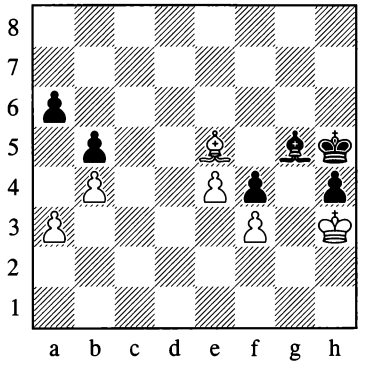


The key move, putting Black in zugzwang again.

49...♔f7

Would it make sense to play 49...h5 to get rid off the h-pawn early on? No, because Black cannot take on g4 and let the white king in. And after 50.♗c3, the only place the black king can go and still keep an eye on the h-pawn is h6, when we have the ♗xf4†

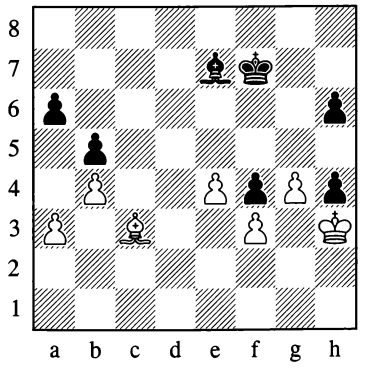
problem down the line. 50...♗e7 can be tried, but after: 51.♗e5 ♗g5 52.gxh5† ♔xh5



Black has problems again. As he cannot allow ♔h3-g4, he will be triangulated. 53.♗d6 Active play with 53...♗f6 (Passive play is easily doomed: 53...♗h6 54.♗c7 ♗g5 55.♗e5 ♗h6 56.♗f6 and White wins.) 54.♗xf4 ♗b2 55.♗d2 ♗xa3 loses to brute force: 56.f4 ♗b2 57.e5! ♗d4 58.e6 ♗f6 59.f5 ♗e7 60.♗e1 and White wins.

50.♗c3 ♗e7

50...♔g6 51.♗d2! would put Black in zugzwang again.



51.♗e1

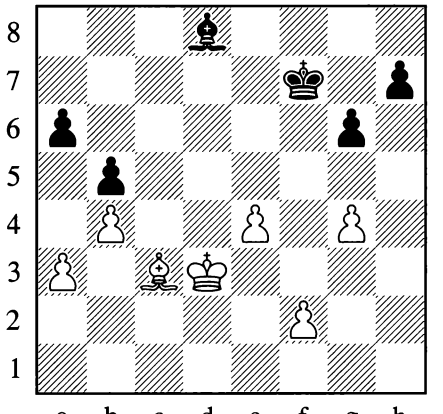
Now that the king is not on g6, it is time to go for concrete play.

51...♗f6 52.♗xh4 ♗b2 53.♗e1 ♗xa3 54.♗d2 ♗b2 55.♗xf4 ♗c3 56.♗d6 a5 57.bxa5 ♗xa5 58.♔g2 ♗c3 59.♔f2 b4 60.♔e2 b3 61.♔d3 ♗g7 62.f4

White wins. Black is not in time to play ...h5. The white pawns are coming too fast.

37...♔e6?! 38.exf5†! also looks dangerous for Black. White will get a distant passed pawn on the kingside at some point, and Black will most likely have to divert his attention to it and consequently lose on the queenside.

38.hxg4



38...g5?

Wholly unnatural. And not surprisingly lost within a few moves. This is the sign of time trouble and of problems that calculation struggles to solve. What it does show is that the teenager Firouzja still needs to work on both his concrete play and his intuition for what can never work. This move has no chance of ever holding and the refutation is simple and clear. The alternative at least hangs on a tempo. That it works is not something that could be worked out with certainty in time trouble, but the chance that it would is present.

38...h5!

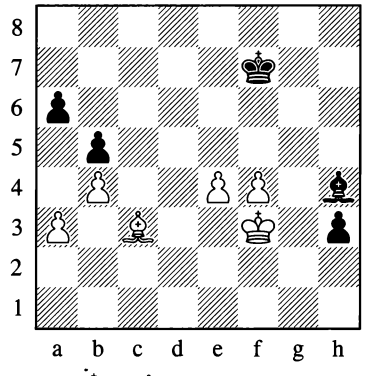
This would create a passed pawn and would have been the first-instinct move from Firouzja. However, accurate tactics are needed to make it work.

After:

39.gxh5 gxh5 40.f4 h4 41.♔e3 h3 42.♔f3

Black would have had to see that he has the following resource.

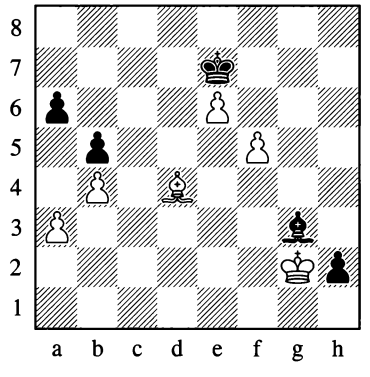
42...♗h4!!



43.f5 h2 44.♔g2 ♗g3 45.e5

White has two impressive pawns, but without the help of the king, it will not be possible to break the black blockade. We can see this, because White will have to control d6, e7 and f6 in order to do so.

45...♔e8 46.e6 ♔e7 47.♗d4



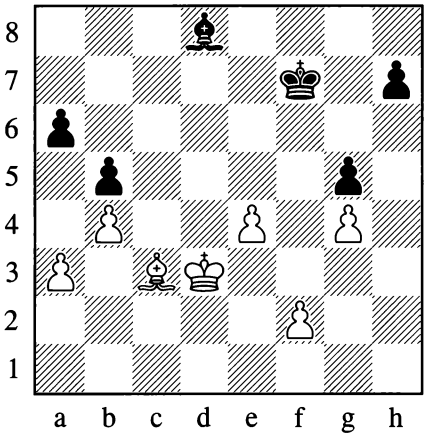
47...♗f4!

The only move. The black king needs the d6-square, so the bishop has to keep the connection between the bishop and the h-pawn and can thus not retreat too far:

47...♗c7? 48.♗c5† ♔f6 49.♗f2! and the check on h4 decides the game.

48.♗c5† ♔f6 49.♗f2 ♔e7 50.♗h4† ♔d6

White will not be able to make meaningful progress.



39.♔d4!

The easiest. The king takes the a-pawn.

39...♗b6† 40.♔d5 ♗xf2 41.♔c6 ♔e6 42.♔b7 ♔d7 43.♔xa6 ♔c6

The blockade is doomed. White will have two passed pawns soon.

44.e5 ♗e3 45.e6 ♗c1 46.a4 bxa4 47.♗e5 1–0

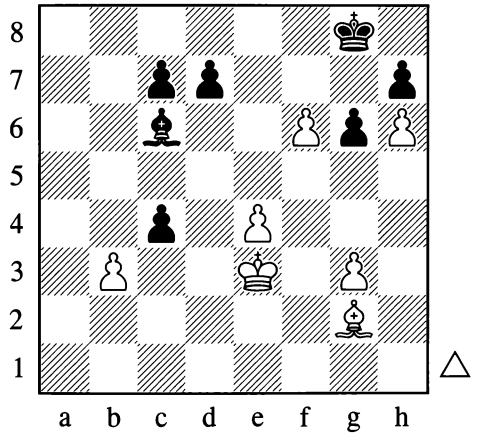
69. Mechanical manoeuvre

At times we come across a fascinating occurrence in the endgame, where the defender is left with such a limited choice that the opponent can slowly improve his position. Very slowly! The defender has only one possible way to play, after which the stronger side will initiate a small sequence of moves, winning a tempo. The theme is an established part of endgame study composition, where we see such bizarre situations as a king walking up and down the board, in order to triangulate in the one exact spot where it is possible, causing the other side to weaken his position slightly by advancing a pawn. This then happens again and again, until the weakening becomes fatal. This has little to do with practical play, but if you imagine fewer extreme scenarios, it does.

The following example was played in the club championship in our online academy. The moves made in the game were not sensational, as is often the case in a rapid game. But the bishop ending was fascinating.

Kevin Smyth – Jeremy Hart

Internet 2021



49.♗f1!

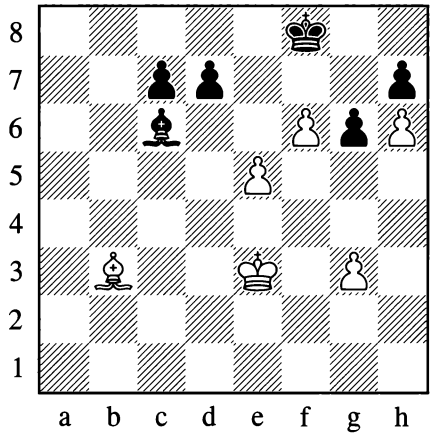
The only way for White to create winning chances is to limit the freedom of the black king.

After 49.bxc4 ♔f7 50.♔f4 ♔xf6 Black is fine and eventually made a draw.

49...♔f7

49...cxb3 50.♗c4† ♔f8 51.♗xb3 d6 looks like a better defence, although it is still shaky.

50.e5 cxb3 51.♗c4† ♔f8 52.♗xb3



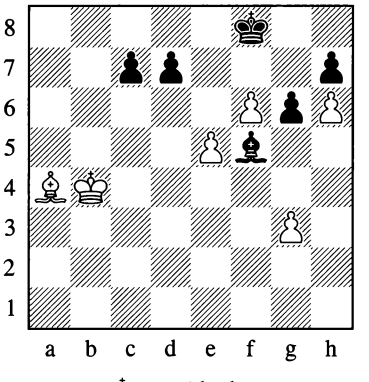
52...♔e8?

For the sake of illustration, the main line is poor, but natural, defence by Black.

52...♗b5!!

This was the only move, preventing what we are about to see. The main line of the analysis looks like this:

53.♔d4 ♔e8 54.♔c3 ♔f8 55.♔b4 ♗d3 56.♗a4 ♗f5



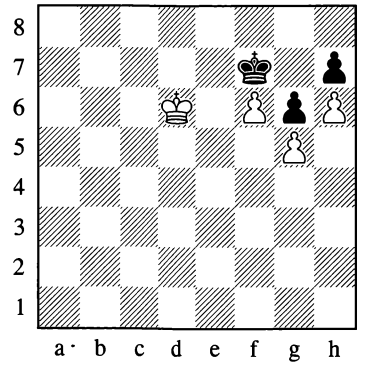
Now on 57.♔a5, Black is in time with 57...d6!, breaking up the pawns.

57.♗b3 ♗d3!

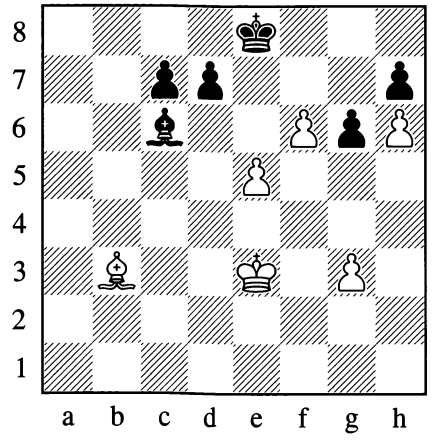
The constant fight for the c4-square. Black cannot allow White to put his bishop on c4, when the bishop is doing its job on two diagonals, both preparing e5-e6 in many situations, and making sure the king can make it to a6 without the black bishop

blocking it. A key point is that Black holds the pawn ending.

58.♗c4 ♗xc4 59.♔xc4 ♔f7 60.g4 d6 61.exd6 cxd6 62.g5 ♔e6 63.♔d4 ♔f7 64.♔d5 ♔f8 65.♔xd6 ♔f7



Without the h-pawns, Black would be forced to play ...♔g7 at some point. Now he is inhabiting a stalemate fortress.



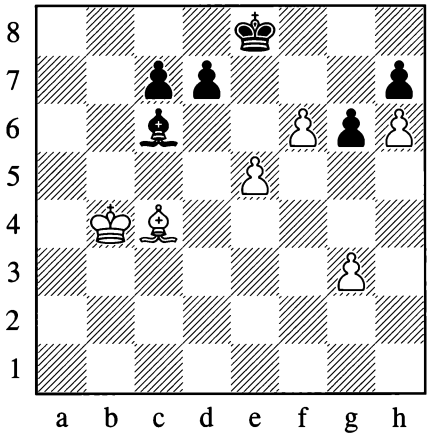
White to play and win in a fantastic way.

53.♗c4!!

The power of this move is simple. The bishop prevents any active play from Black's king as it forces the king to stay close to the h7-pawn (Black needs to be able to reply to ♗xh7 with ...♔f7, deterring White from winning a pawn and getting his bishop trapped). At the same time, the bishop takes control of the f1-a6 diagonal.

This is the key reason why 52...♗b5!! draws. We shall see how the white king will travel to a5 to pacify the black bishop.

53...♔f8 54.♔d2 ♔e8 55.♔c3 ♔f8 56.♔b4 ♔e8



57.♔a5!

Even though the king does not manage to penetrate the queenside, the manoeuvre to a5 is very fruitful.

57...♗b7

Black cannot allow the white king to penetrate the kingside. But what White has achieved is to force the bishop away from c6, making it possible to attack the d7-pawn with ♗c4-b5. This will become very useful later.

58.g4 ♔f8

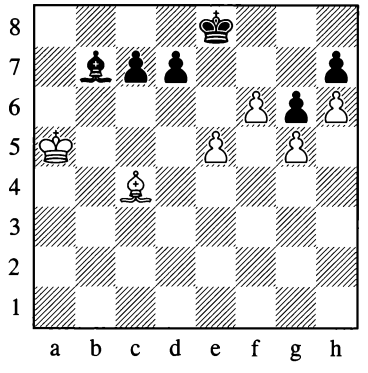
A forced move. The king has to get out of the b5-e8 diagonal, lest he be pinned.

58...♗f3

Played in order to provoke the pawn forwards, looks desirable, but there is a drawback.

After:

59.g5 ♗b7



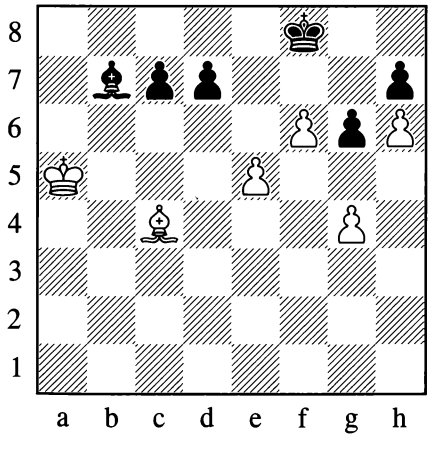
60.♗b5!

Black has to make a concession and he will not survive.

60...c6 will give the white king a path in through the queenside, as will 60...♗d5.

60...♔d8 61.♗d3 will see White sacrifice the bishop on g6.

Finally, 60...♗c8 loses to 61.e6, when White has too many options. All of them winning.



This is the position of maximum interest to us. White has managed to put Black into a submissive position. All he has to do is to manoeuvre the king to g5 without Black being able to improve his position. This can be done by a mechanical manoeuvre that works with a bit of triangulation.

For every two bishop moves White makes, Black has to make two bishop moves and two king moves.

59.♗b5

Forcing the bishop back to c8.

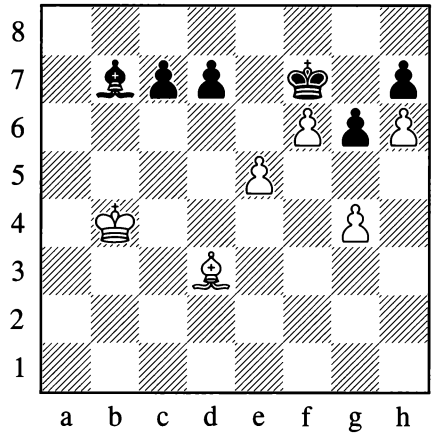
59...♗c8 60.♗d3!

Threatening to take on g6. The function of this move is to force the king to a light square so a tempo can be won by checking it later.

60...♔f7 61.♗c4† ♔f8 62.♔b4

The pawn ending after 62.♗a6 ♗xa6 63.♔xa6 ♔f7! followed by ...d7-d6 is a draw.

62...♗b7 63.♗d3 ♔f7



64.♗b5!

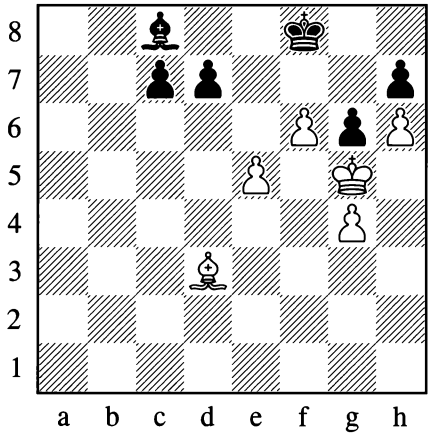
Forcing the bishop back to c8, as ...c7-c6 would give White an entry point on the queenside, and advancing the d-pawn would give White two far-advanced connected passed pawns. It does not matter where the white king is placed, Black is so passive that he can never make these concessions.

64...♗c8 65.♗c4†

Winning a tempo.

65...♔f8 66.♔c3 ♗b7 67.♗d3 ♔f7 68.♗b5 ♗c8 69.♗c4† ♔f8 70.♔d4 ♗b7 71.♗b5 ♗c8 72.♗d3 ♔f7 73.♗c4† ♔f8 74.♔e3 ♗b7 75.♗b5 ♗c8 76.♗d3 ♔f7 77.♗c4† ♔f8 78.♔f4 ♗b7 79.♗b5 ♗c8 80.♔g5 ♔f7

81.♗c4† ♔f8 82.♗d3



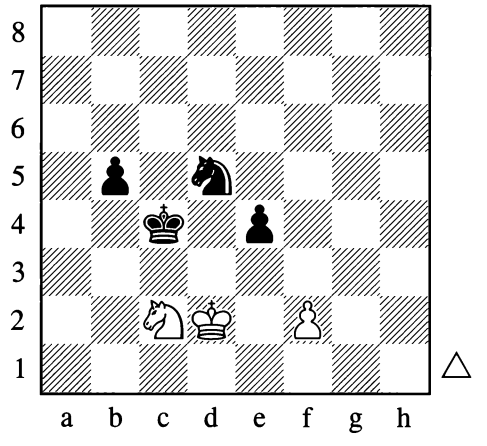
The white king has travelled from a5 to g5, without Black having the chance to activate his bishop. Next, White wins with 83.♗xg6.

70. The endgame is deeply tactical

One thing to remember is that the endgame is highly tactical. There are many times where the best move seems outside all the concepts and ideas we have talked about – only because the idea that matters is not the one we were focusing on. They thus seem to be "against the rules" (there never were any rules, only shortcuts to finding the most important options) or whatever nonsense people say. You simply did not see the most important theme.

Atulya Shetty – Francesco Sonis

Bassano 2021



Take this position, where the themes are the elimination of the pawns to make a draw, and domination.

61.♘a3†? ♔b4 62.♘c2† ♔c5?

Black could have won the game with 62...♔a4! 63.♔c1 b4 64.♔b2 ♘f4! and the check on d3 will be deadly.

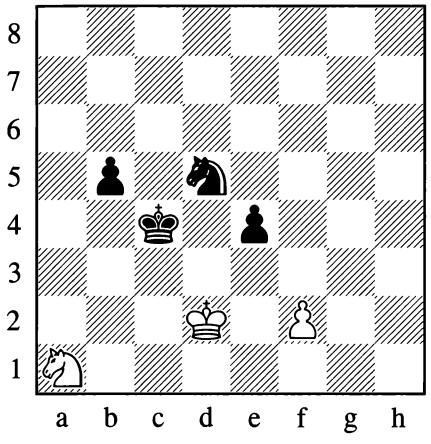
63.f3!

Given a second chance, White finds a simpler version of the drawing idea.

63...exf3 64.♘e1 ♔c4 65.♘xf3 b4 66.♔c2 b3† 67.♔b2 ♔d3 68.♔xb3
½–½

White could have made a draw in an extraordinary way.

61.♘a1!!



Who would think of putting the knight on a1 when it is not a study? (Composers want all the pieces to go to the corners all the time...)

61...♔b4

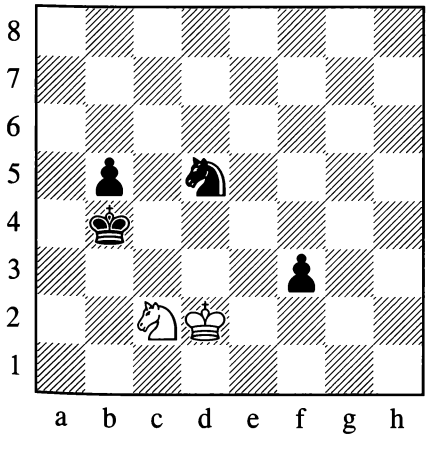
61...b4 62.♔c2 ♘f4 63.♘b3 ♘d3 64.♘d2† ♔d4 65.♔b3 also ends in a draw.

Now White has a surprising tactic.

62.f3!!

I doubt many would find this without knowing it was there.

62...exf3 63.♘c2†



Astonishingly, White can eliminate both black pawns, after first having given up a pawn of his own.

63...♔c4

63...♔c5 64.♘e1! and 63...♔a4 64.♘d4 f2 65.♔e2 both eliminate the pawns easily.

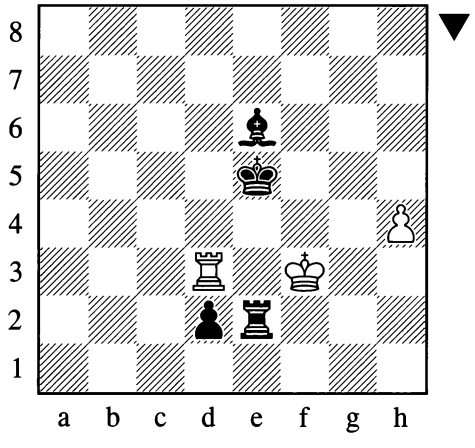
64.♘a3† ♔c5 65.♘xb5! ♔xb5 66.♔e1

Black is unable to defend the f-pawn, even though White is approaching it slowly.

In the following example, Topalov won an error-prone finish – which is often how it goes in the rook and bishop vs rook endgame.

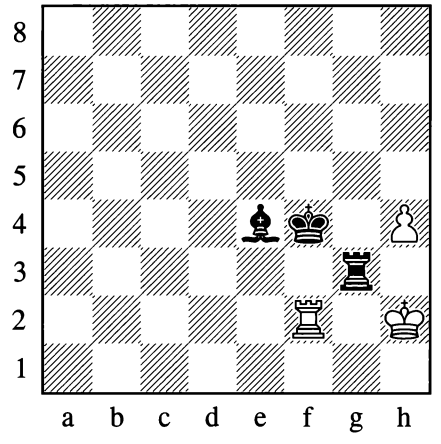
Mika Karttunen – Veselin Topalov

Skopje 2015



62...♖h2? 63.♔e3 ♗f5 64.♖xd2 ♖h3† 65.♔f2 ♔f4 66.♔g2 ♖g3† 67.♔h2 ♗e4 68.♖f2†?

68.♖a2! still held.



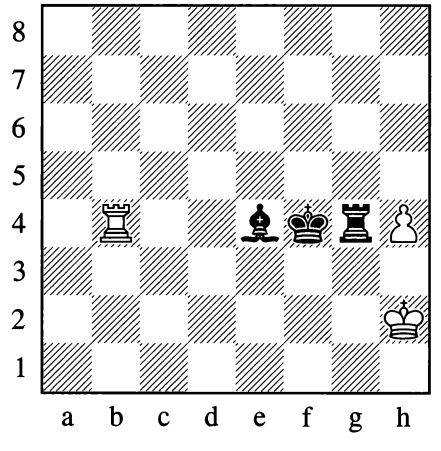
68...♗f3?

68...♔g4! would have won. The obvious threat is ...♖h3†, ...♖h1† and ...♖h2†. And after 69.♖e2 ♗f3 70.♖d2 ♖h3† 71.♔g1, Black has 71...♔g3, taking advantage of the fact that White still has the h-pawn, avoiding stalemate defences.

69.♖b2 ♖g4 70.♖b4†?

70.♔h3! was one of the moves that still held.

70...♗e4



71.♖b3

Not the most resilient.

71.♔h3

This was a better defensive try, but Black still wins:

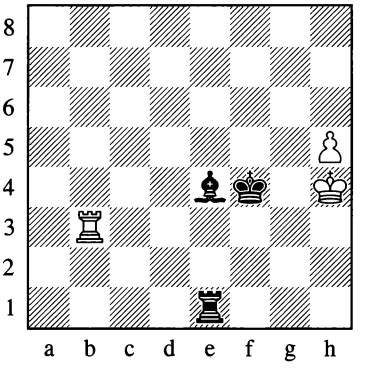
71...♖g3† 72.♔h2 ♖g2† 73.♔h3 ♖e2!

A typical coordination move for this ending.

74.h5 ♖e3†!

This drives the king to a worse square. The power of checks in the ending!

75.♔h4 ♖e1 76.♖b3



76...♖a1!

A waiting move. White has to do something he does not want to do. It is not quite zugzwang; but at the same time, White is sad about having to make a move.

77.h6

77.♖c3 ♗d5 would put White in zugzwang. After 78.♖d3 ♗f3 79.♖d4† ♗e4 Black wins.

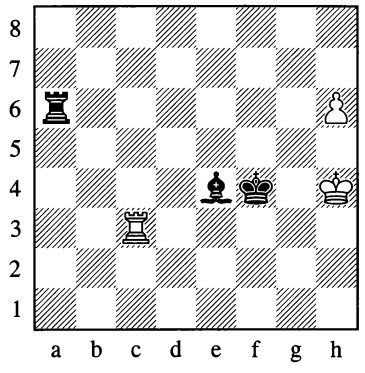
77...♖a2!

Another waiting move that takes the white rook to a worse square.

78.♖c3

78.h7 holds the longest according to the tablebases, but Black will pick up the pawn and continue the harassment of the white king.

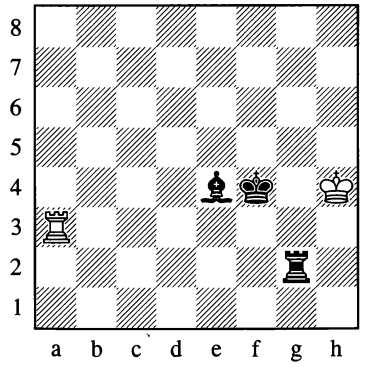
78...♖a6



79.♖c5

79.♔h5 ♗d5! This works with the rook on c3, now there is no check on b4 anymore.

79...♖xh6† 80.♖h5 ♖g6 81.♖b5 ♖g7 82.♖a5 ♖g2 83.♖a3



83...♗c2!

Taking away the a4-square from the rook and putting White in zugzwang again.

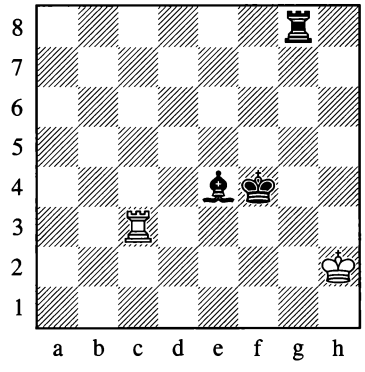
84.♖c3

84.♔h3 ♖d2 and wins.

84...♗f5 85.♖c4† ♗e4 86.♖c3

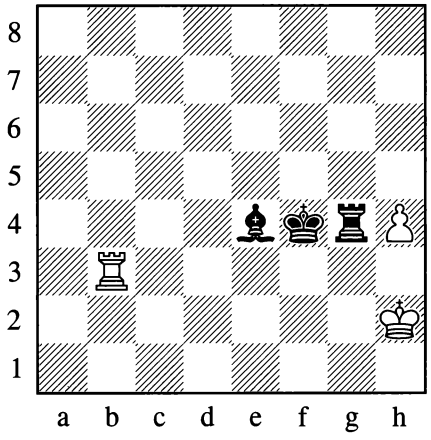
86.♔h3 ♖g1 is what Black is hoping for: right at this moment where White does not have ♖c2 anymore.

86...♖g4† 87.♔h3 ♖g8 88.♔h2



88...♖g2† 89.♔h3 ♖d2 90.♖c4 ♖d1

Black wins.

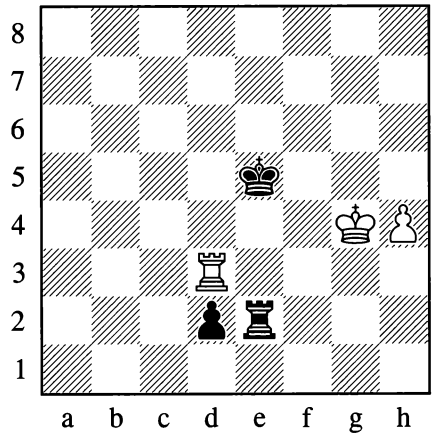


71...♖g2† 72.♔h3 ♖d2 73.♖b4 ♖d3† 74.♔h2 ♖d1

0–1

Let's return to the starting position, where Topalov could have won on the spot with a convincing tactic:

62...♗g4†! 63.♔xg4



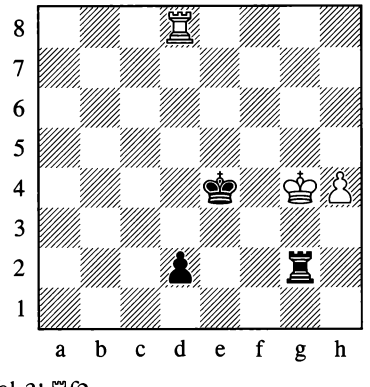
63...♖f2!!

The threat is ...♖f4† and ...♖d4, winning. And after any king move, Black will play ...♔e4 and transfer the rook to the d-line with the help of a check:

Black has another tempting option:

63...♔e4? 64.♖d8 ♖g2†

But White does not play 65.♔h5, when the king would block the h-pawn, but rather:



65.♔h3! ♖f2

When first the king is checked to a worse position:

66.♖e8†! ♔d3 67.♖d8† ♔e2 68.♖e8† ♔f1 69.♖d8 ♔e1

Then the white king comes out again, ready to help the h-pawn make the draw.

70.♔g4!

64.♔g5

64.♔g3 ♔e4 is no different.

64...♔e4 65.♖d8 ♖f5† 66.♔g6 ♖d5

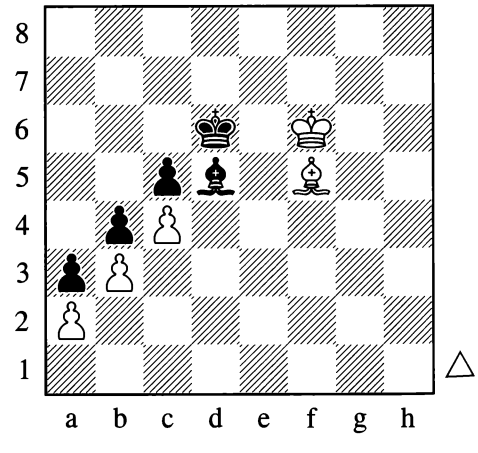
Black wins.

71. Deep calculation

Although the foundation of good endgame play is the knowledge of a lot of themes, as shown above and in the rest of this book, we cannot escape the fact that the endgame is also concrete. At times we must calculate long variations accurately. At the very end of them, the evaluation can turn entirely.

Tiger Hillarp Persson – Kaan Kucuksari

Sweden 2020



White to play and win

The following example from a Swedish weekender is illustrative. The amazing Tiger Hillarp was probably lost in thought, calculating the lines, when his clock ran out of time.

55.cxd5 ♔xd5

Black won on time. White wins on the board.

56.♔e7! ♔d4

56...c4 57.bxc4† and 58.♗c2! wins for White.

57.♔d6! c4

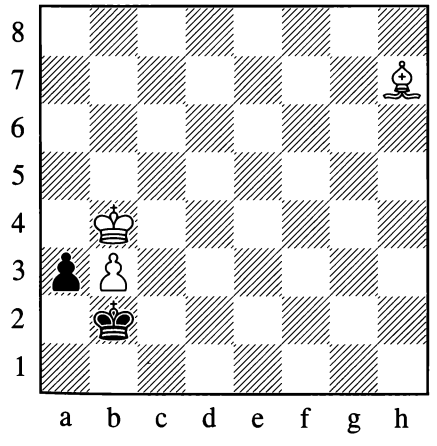
This looks rather dangerous for White.

58.♗e6! c3 59.♗f5 c2

Winning a few tempos in return for the pawn.

59...♔e3 60.♔c5 would see White arrive at a3 in good time.

60.♗xc2 ♔c3 61.♗h7 ♔b2 62.♔c5 ♔xa2 63.♔xb4 ♔b2



Black is about to queen the pawn, but White has one final trick.

64.♗b1!

White wins.

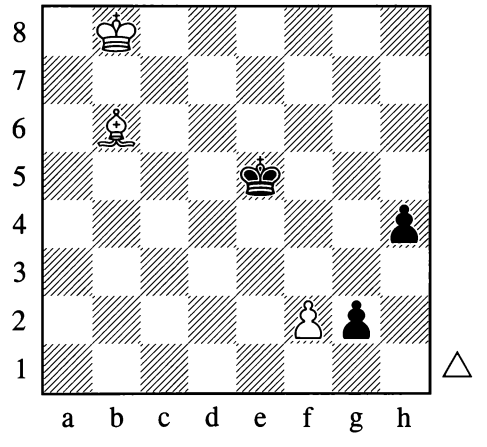
72. Deep resources

There is not really any limit to how deep endgames can be. At least it surpasses human abilities by quite a large margin, which is why there are so many points to be gained by improving your endgame play.

The following study (starting a bit in) is close to incomprehensible, and was discarded from the book Steffen Nielsen and I are writing together, *Endgame Labyrinths*, which offers a lot of exercises from endgame studies.

Vladislav Tarasiuk

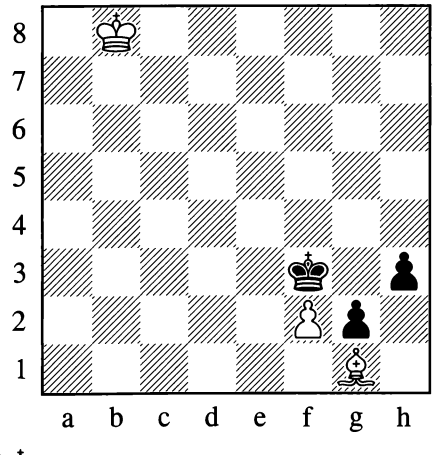
UAPA Internet (4) 2015



3.♗c7† ♔e4 4.♗h2 ♔f3

4...h3 5.f4! and holds.

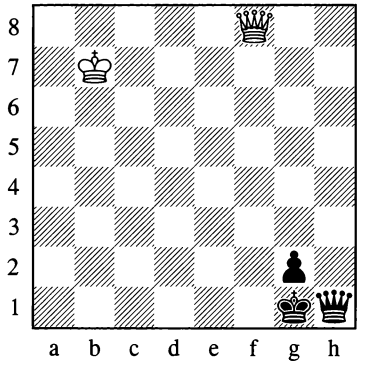
5.♗g1 h3



6.♔a8!!

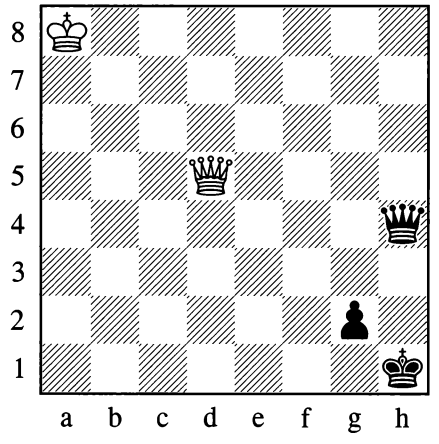
The only move.

6.♔b7? does not look any different, but after: 6...♔e2 7.f4 ♔f1 8.f5 ♔xg1 9.f6 h2 10.f7 h1=♕ 11.f8=♕



Black has the chance to give a check. 11...♕h7†! 12.♔a8 ♕e4†! After 13.♔a7 ♕h4, Black wins in 45 moves. 14.♕c5† ♕f2! is an important point.

6...♔e2 7.f4 ♔f1 8.f5 ♔xg1 9.f6 h2 10.f7 h1=♕ 11.f8=♕ ♕h4 12.♕c5† ♔h1 13.♕d5



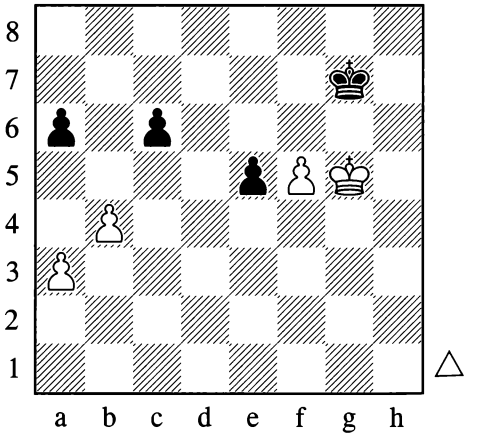
This is a tablebase draw, although it is not without difficulty defending it in practice. A study composer can escape from those problems, by just declaring it a draw. You and I will have to invest time into understanding why it is a draw – which is a subject for another time.

73. Miracle escapes

We are now well into the second century of tournament chess and the second century of chess composition. We have managed to get some control over a few hundred theoretical positions (I doubt any professional player has memorised in excess of a thousand positions from the endgame) and most of the general themes. Still, the beauty and complexity of the endgame continues to amaze. Even in relatively simple positions.

Ian Nepomniachtchi – Teimour Radjabov

Berlin (blitz) 2015



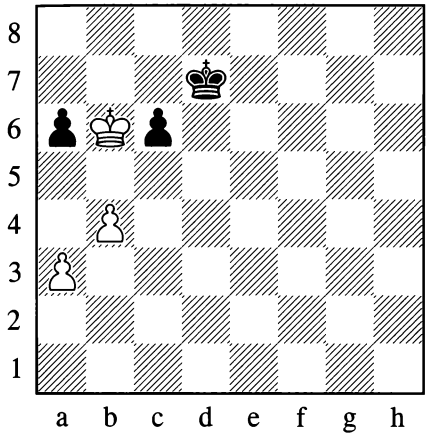
The following example is from the 2015 Blitz World Championship. The logic of the best play is elementary. But with little time on the clock, even the 2021 World Championship Challenger can show poor technique.

59.f6†?

All things are forgiven in blitz. Still, it is good to remind you to improve your position as much as possible, while the opponent is busy waiting, before you take action.

59.a4! ♔f7 60.a5 would prepare for what happened in the game, without the extra chances Black had in what follows.

59...♔f7 60.♔f5 e4 61.♔xe4 ♔xf6 62.♔d4 ♔e6 63.♔c5 ♔d7 64.♔b6

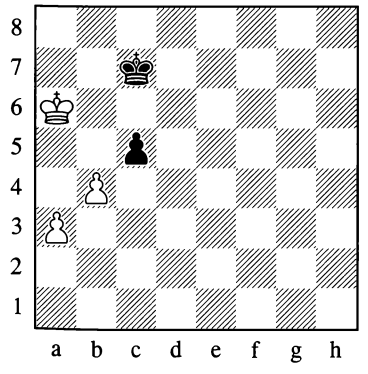


White arrived first to the queenside, and all seems to be in order. Radjabov believed so too and lost immediately.

64...♔d6?

The natural move, which lost on the spot.

But Black had a miracle escape: 64...a5!! A seemingly silly move. The pawn cannot escape. 65.♔xa5 White obviously will not take with the pawn, when the draw is elementary. 65...♔c7 66.♔a6 c5!



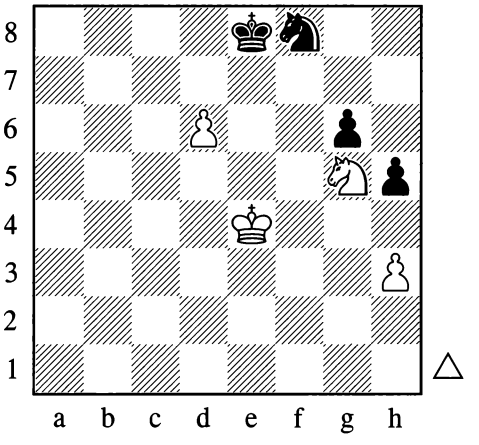
This is the key idea. 67.b5 If White takes the pawn, Black will just take it back. 67...♔b8 There is no reason to enter a queen ending. 68.♔a5 ♔b7 69.a4 ♔a7 70.b6† ♔b7 71.♔b5 c4 With a draw.

65.♔xa6 c5 66.♔b5 1–0

We enter the last game of the chapter halfway through. Obviously, the players had no idea that this was the case. It shows how close endgames can be and that they have dimensions that are impossible to predict, but it is not surprising when you see them, if you have seen this happen enough times...

Ferenc Berkes – Renier Castellanos

Linares 2014



45.♔d5?

From how the rest of the game proceeded, it is not hard to spot that the right move was:

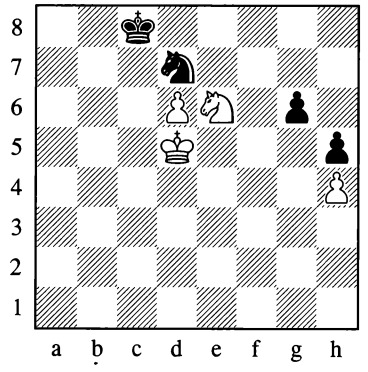
45.h4!

White supports the knight on g5, fixes the g6-pawn as a weakness and prepares to win the pawn ending. The latter may sound ridiculous. But schematic thinking should tell you that ...g4! would be a great break for Black, while ...g5 would allow White to queen first.

45...♘d7 46.♔d5 ♔d8 47.♘e6† ♔c8

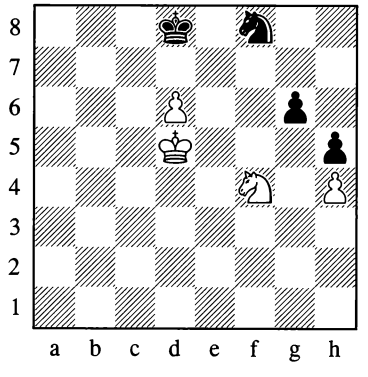
Black is also losing with slow play after 47...♔e8 48.♔c6 ♘f6 49.♘f4 ♔f7 50.♘d5 ♘g4 51.♔c7 ♘e5 52.♘b4! ♔e8

53.♘c6 ♘d7 54.♘e7 ♘e5 55.♘xg6. The key point is that the endgame after White steals the g6-pawn is winning. But it will happen very slowly.



48.♔d4!! ♘f6 49.♔e5 ♘d7† 50.♔d5 ♘f6† 51.♔c6 ♘d7 52.♘f4 ♘f8 53.♘d3 ♘d7 54.♔d5 ♔d8 55.♘f4

White wins the g6-pawn, on account of: 55...♘f8

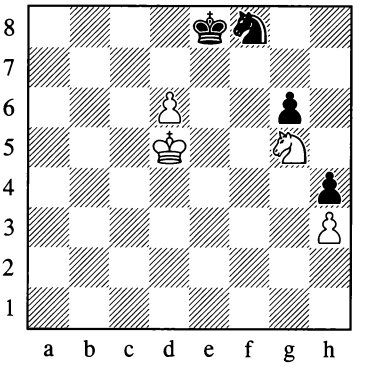


56.♘e6† ♘xe6 57.♔xe6 ♔e8 58.d7† ♔d8 59.♔d6

With a lethal zugzwang.

45...♔d7?

45...h4!! was the only move.

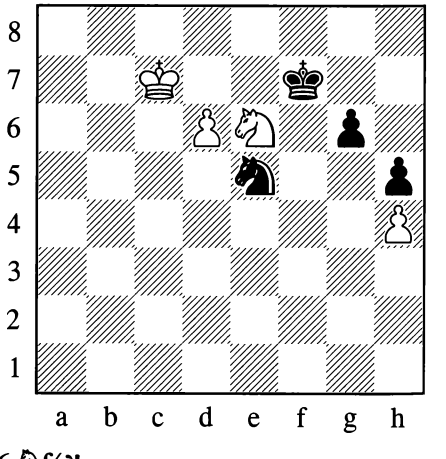


This seems quite incredible. The key reason is that White loses control over the g5-square, making it possible for Black to activate the king and seek the exchange of pawns. 46.♘f3 ♔f7 47.♘xh4 ♔f6 48.♘f3 g5 with ...♔f5 and ...g4 coming. Black makes a draw.

46.h4! ♔e8 47.♔c6

47.♘e6! is winning as in the notes to White's 45th move: 47...♘d7 48.♔c6 ♘f6 49.♘f4 ♔f7 50.♘d5 ♘g4 51.♔c7 ♘e5 52.♘b4 and so on...

47...♔d8 48.♘f7† ♔e8 49.♘g5 ♔d8 50.♔c5 ♔e8 51.♔d4 ♘d7 52.♔d5 ♘f8 53.♘e6 ♘d7 54.♔c6 ♘e5† 55.♔c7 ♔f7

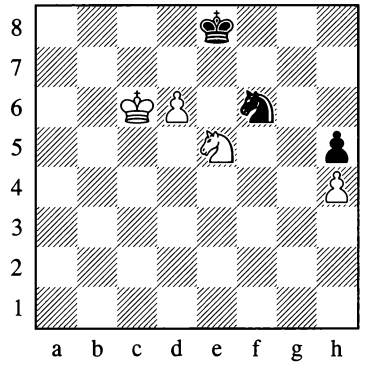


56.♘f4?!

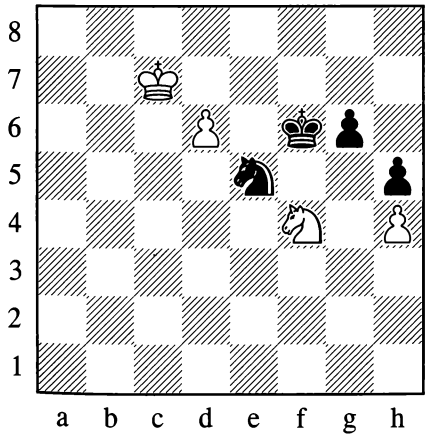
Missing the chance to promote the pawn. 56.♘d4! ♔f6 57.♘c6 ♘f7 58.d7 ♔f5 59.♘a5 g5 60.♘b7 and 61.♘d6.

56...♔f6?!

The toughest defence was 56...♔g7! 57.♘e6† ♔f7 58.♘d8† ♔e8 59.♘c6 ♘d7, which looks incredibly shaky. 60.♘e7 ♘f6 61.♘xg6 ♘d5† 62.♔c6 ♘f6 63.♘e5



White is in control and has a tablebase win. He will still have to win it though.



57.♘d5†?

White misses a not difficult move. It is easy to see how this can happen in an endgame played with 30 seconds for each move. Obviously Berkes would see this option in a few seconds. But often we will make a few quick moves to gain time on the clock, to be able to think. At times, this can lead us to miss big chances.

Here I believe that both players were making such quick moves that this was nothing but a random chance: 57.♘d3! ♘f7 58.d7 ♔f5 59.♘c5 ♔f6 60.♘b7 and White wins.

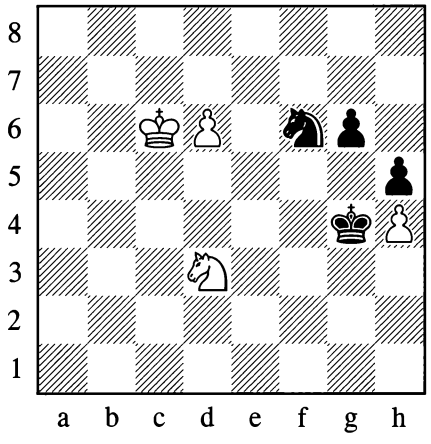
57...♔e6 58.♘b4 ♘d7 59.♘d3 ♘f6 60.♔c6 ♔f5 61.♘c5 ♔f4

61...♔g4 62.♘d7! and White wins.

62.♘d3†

62.♘d7 ♘e4 would be an immediate draw. No check on e5.

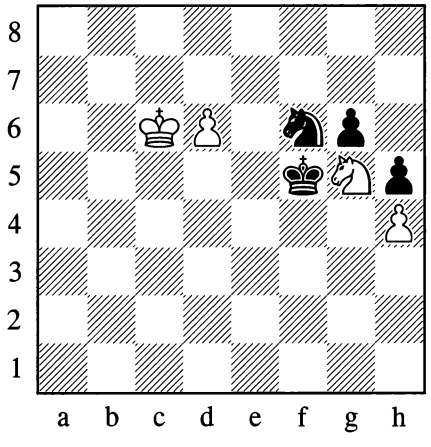
62...♔g4



63.♘f2†

Also after 63.♘b4 ♔xh4 64.♘d5 ♘g4 65.♔c7 ♘e5 66.♘e3 ♘f7 67.d7 ♔g3! 68.♘c4 h4 Black would be in time to make a draw.

63...♔f4 64.♘h3† ♔f5 65.♘g5



65...♘g4!

The only move.

65...♔f4 66.♘h7! ♘g4 67.♔d5! and the knight has been cut off.

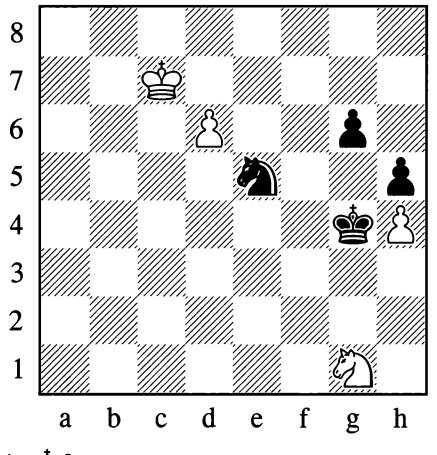
66.♘h7 ♔e6 67.♔c7 ♘e5 68.♘g5† ♔f5 69.♔b7 ♔f4 70.♔c7 ♔f5 71.♘h3 ♔g4 72.♘f2† ♔f5

72...♔xh4? 73.♘d3 and the d-pawn would queen with check.

73.♘h3

73.♘d3? ♘xd3 74.d7 ♘c5 and Black would win.

73...♔g4 74.♘g1



74...♔f5

74...g5?! 75.hxg5 ♔xg5? would lose to 76.♘f3†. In this line 75...h4 would still draw, but this would not be a sensible way to play.

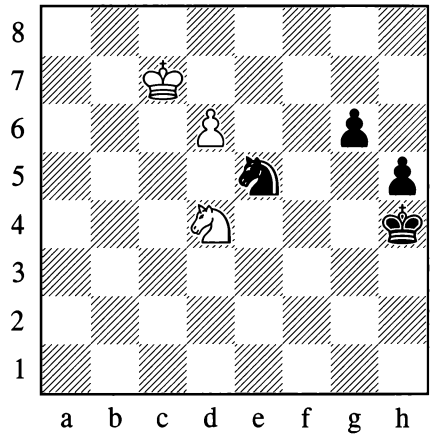
But Black could play 74...♘f7! 75.d7 g5, which would have forced a draw on the spot.

75.♘e2 ♔g4?

An understandable mistake. Black is seeking to create a passed pawn of his own. But the pawn will not have enough time to go far. Meanwhile White will queen the d-pawn.

75...♔e4! was necessary, to keep the white knight away from the c6-square.

76.♘d4 ♔xh4



White's shuffling has been successful. The win is within reach.

77.♘f3†?

I believe almost all grandmasters would have played this move under the same circumstances. With little time on the clock and the chance to queen the pawn, hesitation would not have a chance. But, as we shall see, this was a serious mistake.

White should have played: 77.♘c6! ♘f7 78.d7 ♔g3 79.♘e5 giving up the knight under slightly better circumstances.

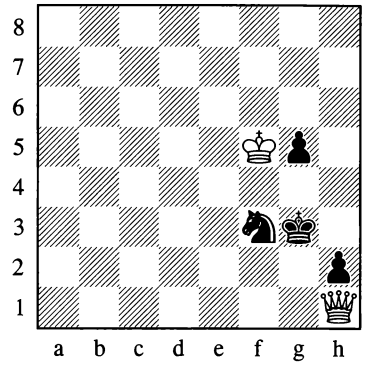
77...♘xf3! 78.d7 ♔g3

78...♘g5 79.d8=♕ would pin the knight. No forks this time.

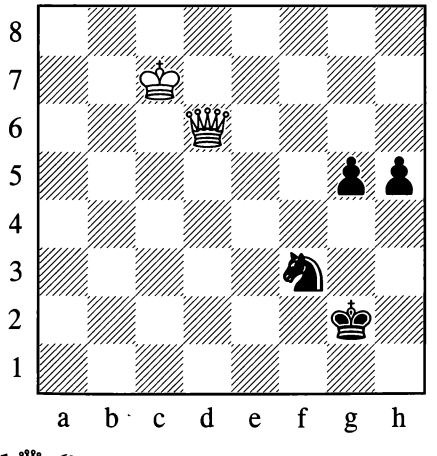
79.d8=♕ g5 80.♕d6† ♔g2?

The wrong square.

80...♔f2! was necessary, leaving the option open to advance either pawn. 81.♕c5† ♔g3 82.♔d6 h4 would be fast enough. 83.♕c1 h3 84.♕h1 ♔g4 85.♔e6 ♔g3 86.♔f5 h2

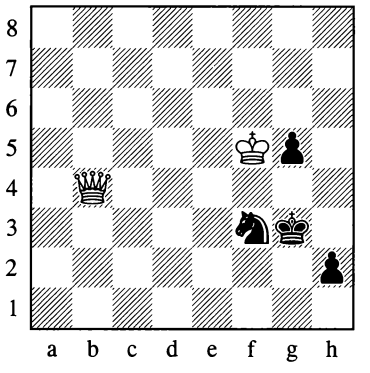


Mysteriously, White is not able to win this position. It looks entirely overwhelming, but there is no path forward.



81.♕e6?

White had to play prophylactically with 81.♕b4!!, preventing ...h5-h4, on account of ♕g4†. At the same time, it has to be possible for White to protect the g4-square with the king, enabling ♕g4† down the line, thus the e6- and d7-squares are not as effective. If you do not see this key point, it looks like the winning move is to place the queen on a rather random square on the side of the board where nothing is happening. 81...♔g3 82.♔d6 h4 83.♔e6 h3 84.♔f5 h2 White arrives with no time to spare.

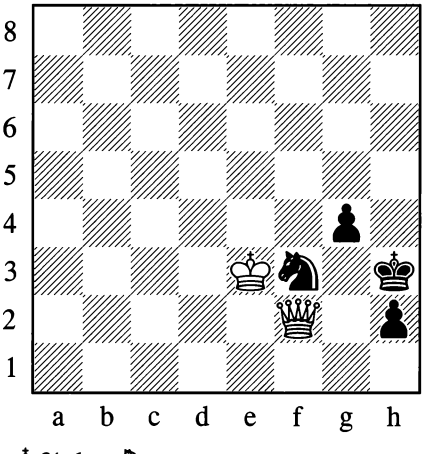


85.♕g4† ♔f2 86.♕h3 Black is in zugzwang.

81...g4?

For the reasons given above, Black had a last chance to save the game with 81...♔g3! 82.♕d6† ♔f2!.

82.♔d6 ♔f2 83.♕a2† ♔g3 84.♔d5 h4 85.♔e4 h3 86.♔e3 h2 87.♕f2† ♔h3



88.♔f4! h1=♘

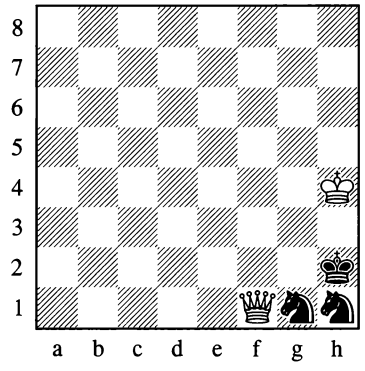
88...h1=♕ 89.♕g3#

89.♕f1†

Black resigned.

1–0

After: 89...♔h2 90.♔xg4 ♘g1 91.♔h4



Black is in zugzwang. Amusingly, he would make a draw if all the pieces were moved one rank to the left...

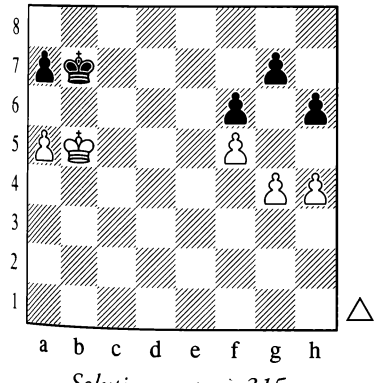
This is by no account all the possible themes relevant to the endgame. We have entirely skipped rook endings, which is a universe of its own, for example. But if I had to fill a full book of endgame elements that I desperately wanted our students to be familiar with, this chapter is it.

There is more to say, so let's move on to the next chapter...

Exercises to Chapter 2

★☆☆☆☆ Easy. Based on a simple idea
★★☆☆☆ Friendly. Can be solved by most
★★★☆☆ Mid-range. You need to think, but not too much
★★★★☆ Challenging. You will need to concentrate for these ones
★★★★★ Brain crusher. After solving, see a neurologist...

★★☆☆☆



Solution on page 315

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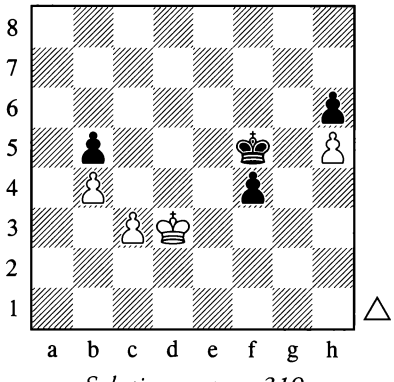

Solution on page 319

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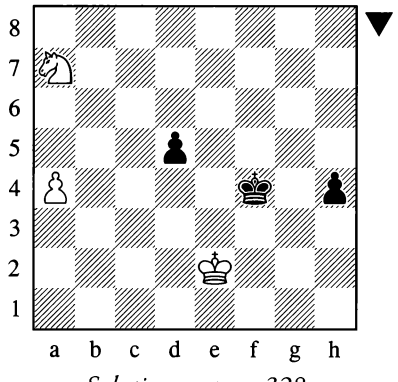

Solution on page 328

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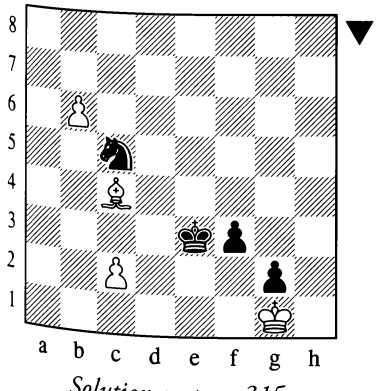

Solution on page 315

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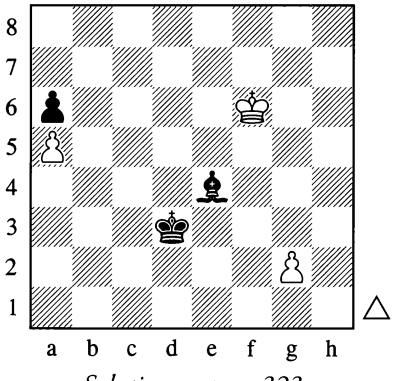

Solution on page 323

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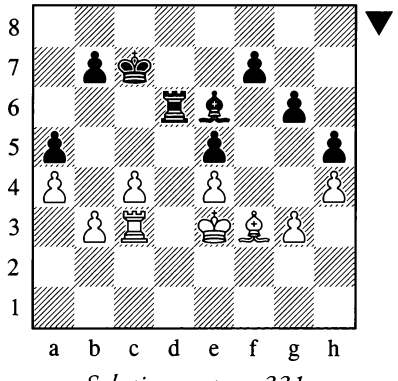

Solution on page 331

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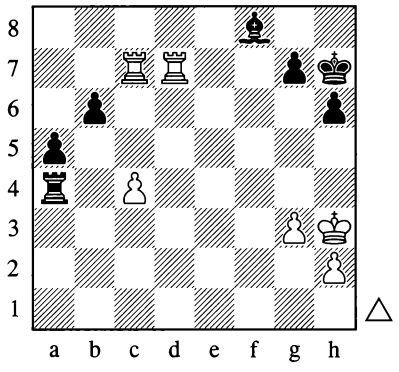

Solution on page 337

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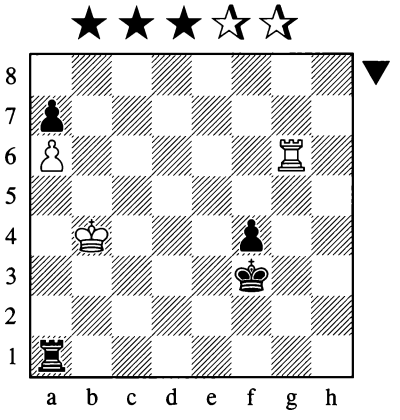

Solution on page 344

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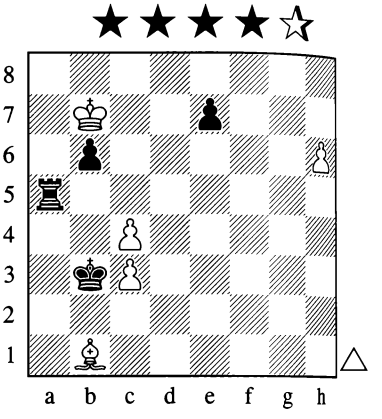

Solution on page 348

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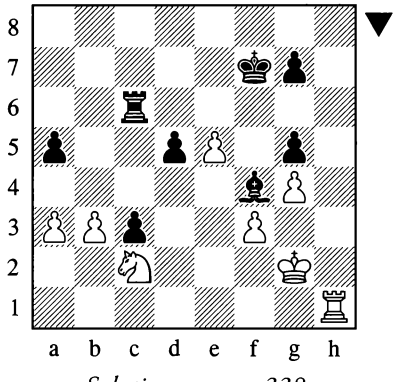

Solution on page 338

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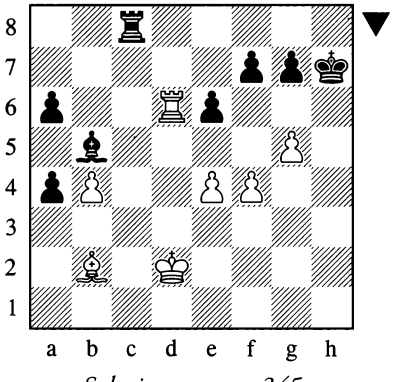

Solution on page 345

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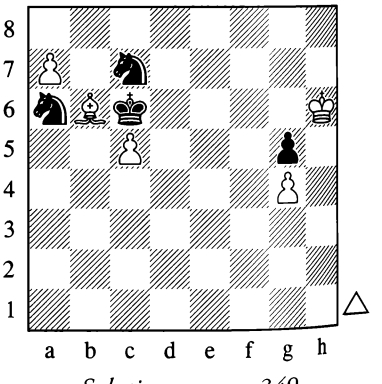

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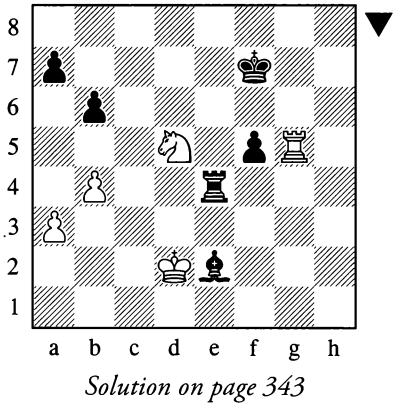

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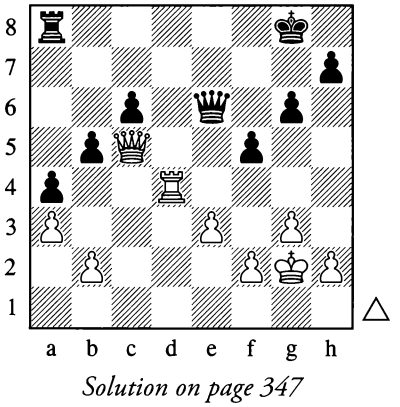

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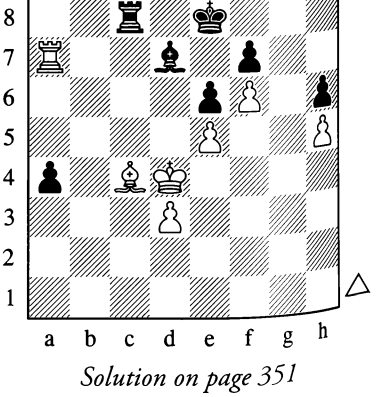

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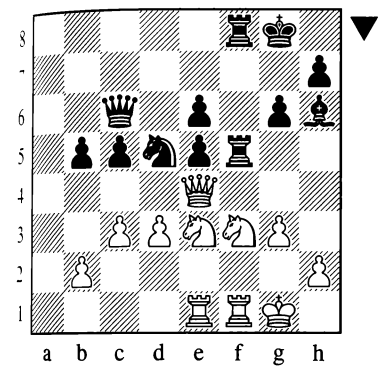

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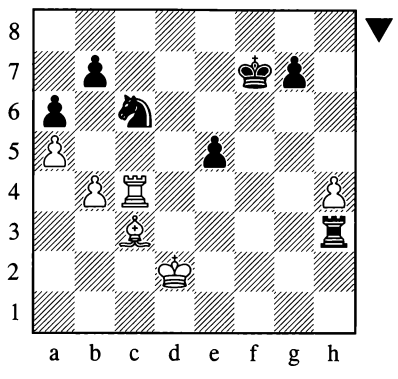

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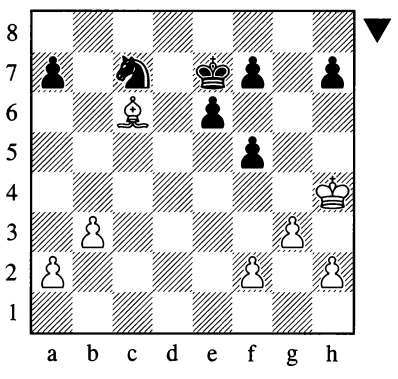

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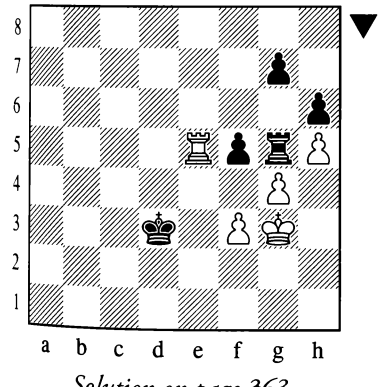

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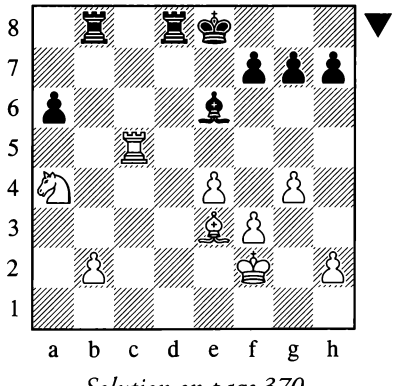

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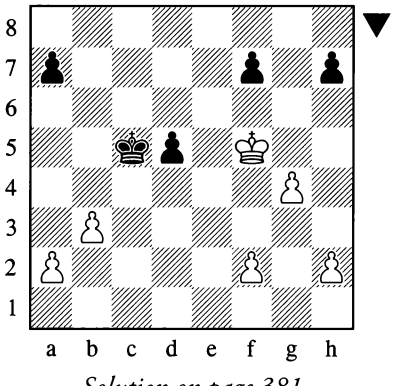

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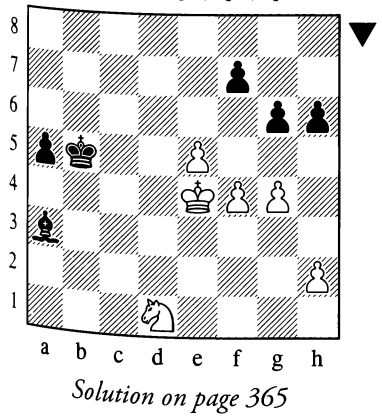

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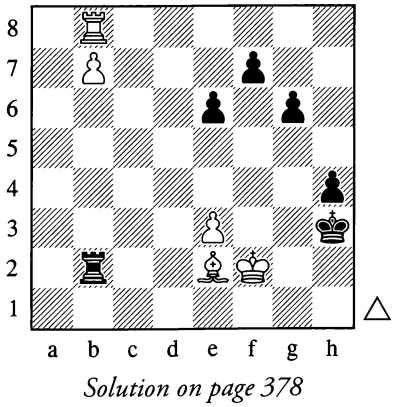

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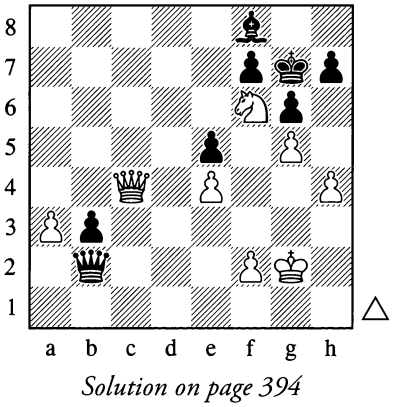

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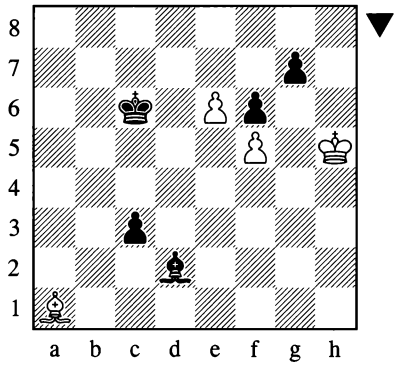

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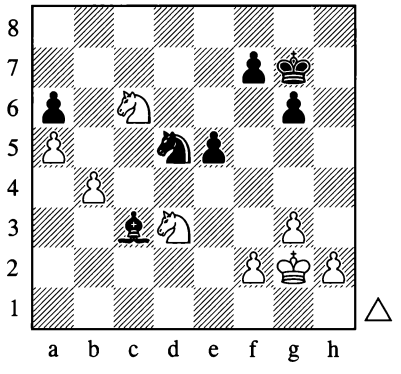

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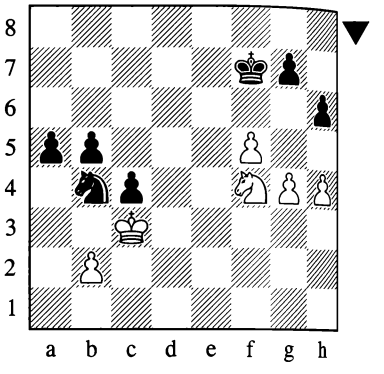

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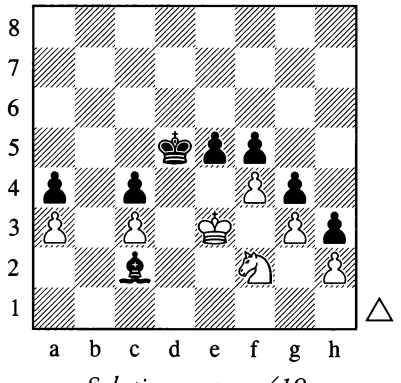

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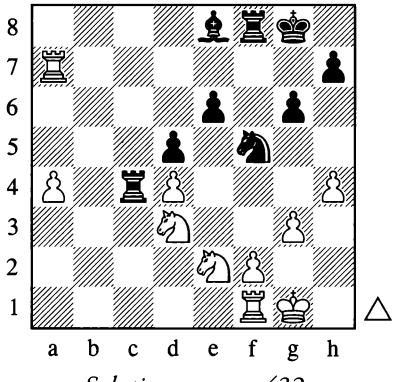

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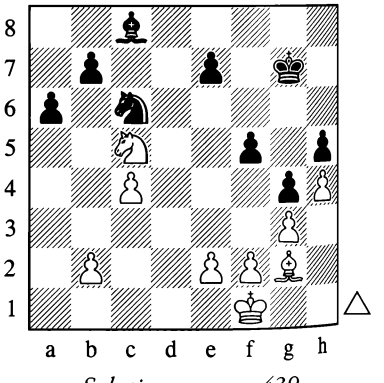

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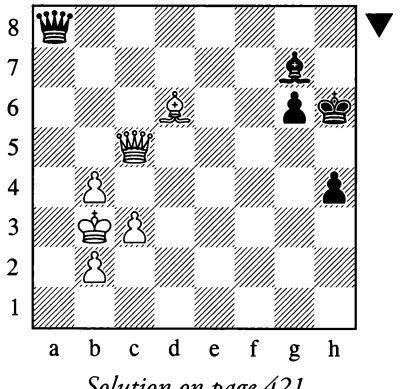

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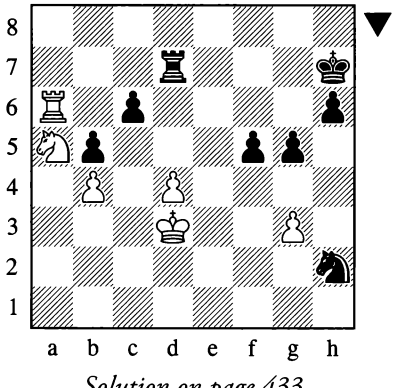

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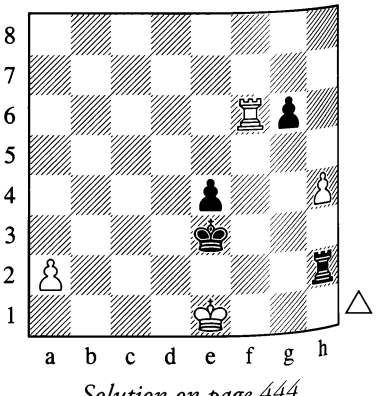


Solution on page 444

Chapter 2

Lack of Technique

Introduction

Finally, we have reached a chapter on *technique* in this book called *A Matter of Endgame Technique*...

As this is not a traditional endgame manual, and despite its immense size, I will not attempt to teach you all the techniques of the endgame. Rather, I will give you some examples of how strong players can mess up in the endgame and explanations of what happened. While there are holes in the skills and knowledge of all chess players, they are few and far between when we talk about grandmasters and super-grandmasters.

Many mistakes committed by grandmasters come about because they think that in a particular instance, the well-known strategic principles of the endgame are not important. Playing chess is constantly balancing a scale with understanding and well-trodden paths on one side, and raw calculation on the other. If we tip too much in either direction, we risk either being too dogmatic in our approach or ignoring strategic concepts developed over centuries. In this chapter, we shall first look at a few strategic principles and how their violation led to failure. Then we shall look at the importance of dynamics in endgames, first with situations where the players play too dynamically, then situations where they don't play dynamically enough.

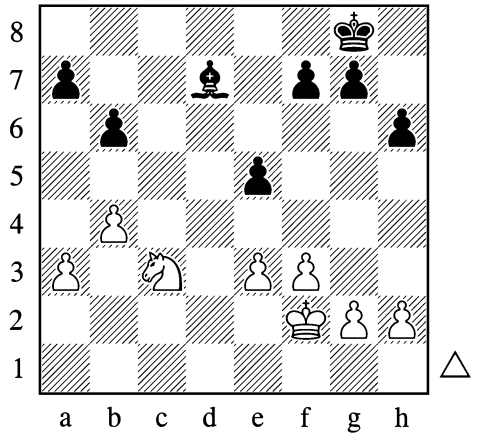
1. Opposition and triangulation

The first topic to deal with is as basic as it gets – the opposition.

The first example is a little-known game from the Soviet Union in the 1970s. White is a famous Russian Grandmaster, while Black at the time of the game was still a junior player and unrated. Later the player from Kyrgyzstan became an International Master. We enter the game after the exchange of queens. White has a slight advantage, as his king is a little more active, but with accurate play, Black should hold the draw. But Black's initial play is anything but accurate, giving White a big advantage.

Ratmir Kholmov – Vladimir Ilinsky

Riga 1975



27.♔e2 ♔f8?

The first chance to make the draw is to create a pawn structure that works well with the bishop.

27...f6 28.♔d3 b5! This is the ideal pawn structure. Black will leave the pawn on a7 so it does not become a weakness. The single weakness on b5 is easy to defend, and the white king will have no way to penetrate.

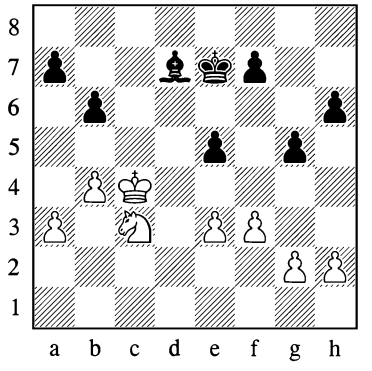
28.♔d3 ♔e7 29.♔c4

White has managed to put some pressure on Black, and it is now easy to succumb to desperation.

29...♔d6?

Which Black does. The hope of drawing the pawn endgame is slim at best. Generally, I would only enter a difficult pawn endgame if I was on top of the implications, or if I had no other choice.

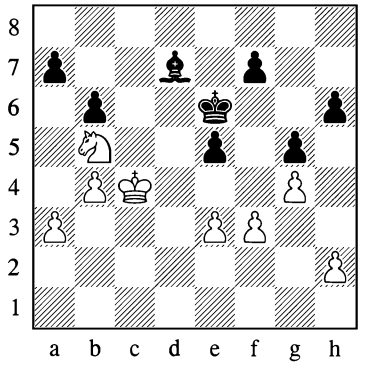
29...g5 would be a normal move. Putting the pawns on the opposite colour of the bishop. White has various tries and I considered four of them:



a) 30.a4 ♗c6 is not dangerous at all.

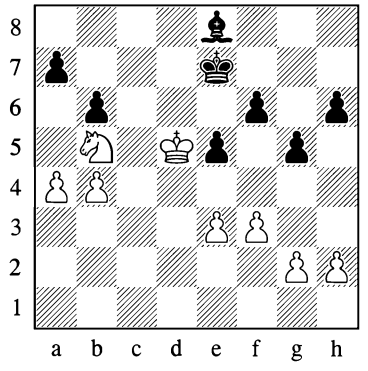
b) After something like 30.♘b5, Black can play actively with 30...♗e6† 31.♔c3 ♗d7! 32.♘xa7 b5, when the knight is sort of trapped. Why only sort of? Because 33.a4 bxa4 34.b5 is always there. But Black makes a draw quite easily: 34...♔d6 35.♔b4 a3 36.♔xa3 ♔c5 37.♔a4 ♔b6 38.♘c6 ♗xc6 39.bxc6 ♔xc6 40.♔b4 ♔d5 41.♔c3 e4, for example. There are many ways for Black to defend. This is simply the one that seemed most natural to me.

c) 30.g4 looks quite natural, but Black is not in any trouble. 30...♔e6!? The computer says that almost everything holds. But the actual experience at the board may be a bit more awkward. I like this move, as it contains a little trap: 31.♘b5?

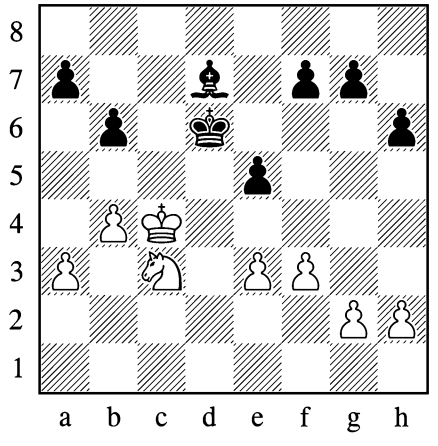


31...e4! 32.fxe4 ♔e5 33.♘c3 ♗xg4 34.♔b5 ♗c8! Black wins. The distant passed pawn on the kingside decides.

d) You might guess that Black was afraid of 30.♔d5, but natural play holds everything together: 30...f6 31.a4 ♗e8 Black can solidly wait. White has no real threats. 32.♘b5



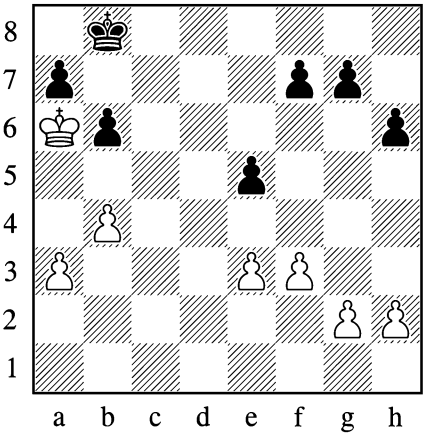
32...♔d7! A nice little trick. 33.♘xa7 ♗f7† 34.♔e4 ♗g6† with perpetual check.



30.♘b5†!

White is eager to grab this chance.

30...♗xb5† 31.♔xb5 ♔c7 32.♔a6 ♔b8



White is obviously winning. But it is still possible to ruin it. The natural strategy would be for White to improve his position to the maximum and then work out the specifics of how to win the game. But with his next move, Kholmov made things harder for himself.

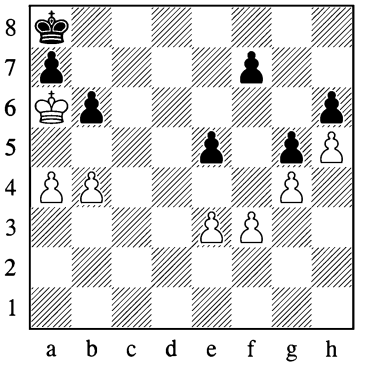
33.f4?!

Not objectively bad, but making things a lot harder is, well, bad.

33.g4!?

This was a stronger move. If Black plays ...g5, White has h2-h3 in reserve for later.

33...♔a8 34.h4 g5 35.h5 ♔b8 36.a4 ♔a8

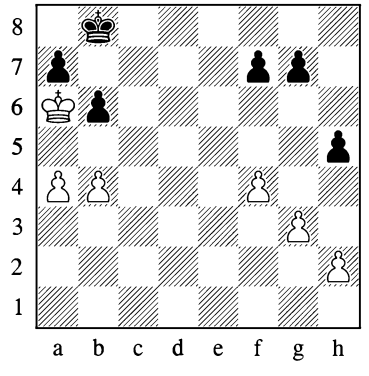


The critical moment where White has to find a win. Luckily there are two.

37.♔b5
Later on, we will see that 37.a5 bxa5 38.bxa5 ♔b8 39.♔b5 ♔b7 wins because of 40.♔c5 ♔a6 41.♔b4! ♔b7 42.♔b5 and Black has been triangulated.
37...♔b7 38.♔c4 ♔c6 39.f4! exf4
39...f6 40.b5† ♔d6 41.f5 and White wins.
40.exf4 f6
40...gxf4 41.g5 and White wins. The white king is within the quadrant and the black king is not.
41.fxg5 fxg5 42.♔d4 ♔d6 43.♔e4 ♔e6 44.b5
Zugzwang. White wins.

33...exf4 34.exf4 ♔a8?!
Black returns the favour.

He could have provided a lot of resistance with:
34...h5!
The winning line is very narrow for White and the chance that Kholmov would have found it is not big.
35.g3! ♔a8
There are other attempts, but at this point I shall not spam you with variations.
36.a4 ♔b8



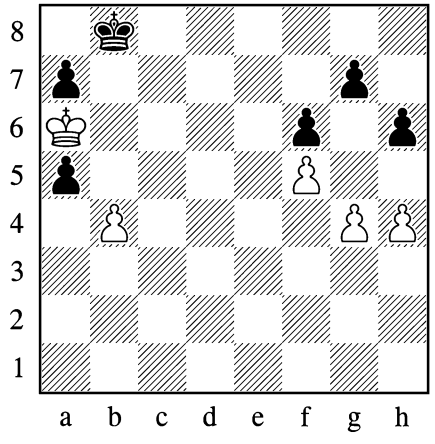
37.f5! ♔a8 38.a5! bxa5 39.♔xa5! ♔b8 40.♔b5 ♔b7 41.♔c5 ♔c7 42.♔d5 ♔d7 43.♔e5 ♔c6
43...♔e7 44.f6† gxf6† 45.♔f5 is elementary. White will quickly win a pawn and then the game.
44.f6 g6 45.b5†! ♔c5 46.h4
Black is in zugzwang and White wins.

35.a4?!
35.g4!

35...♔b8
35...h5! still loses, but was worth a try.

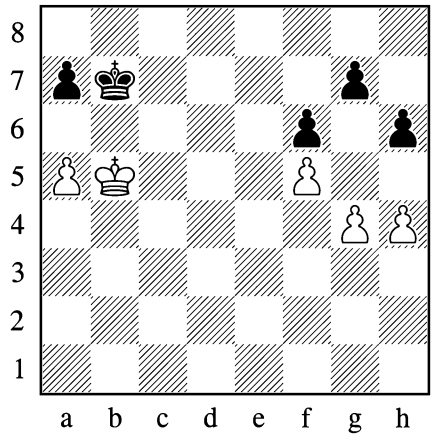
36.g4 ♔a8 37.h4 f6 38.f5!
Securing a tempo move on the kingside.

38...♔b8 39.a5 bxa5



40.bxa5?!
40.♔xa5! would have been a lot easier. A possible winning line could be: 40...♔b7 41.♔b5 ♔c7 42.♔c5 a6 43.♔d5 ♔b6 (43...♔d7 44.h5 and the reserve tempo comes in handy. Black is in zugzwang and can only decide which side of the board he wants to lose on.) 44.♔e6 ♔b5 45.♔f7 ♔xb4 46.♔xg7 a5 47.g5 White wins. He will promote with check on f8 and not even have to win a queen ending.

40...♔a8 41.♔b5 ♔b7



42.a6†?

The first real mistake.

The winning line was based on triangulation.
42.♔c5! ♔a6

42...♔c7 43.♔d5 ♔d7 44.a6 wins easily.

43.♔b4 ♔b7 44.♔b5!

The triangulation is complete.

44...♔c7 45.♔c5 ♔b7

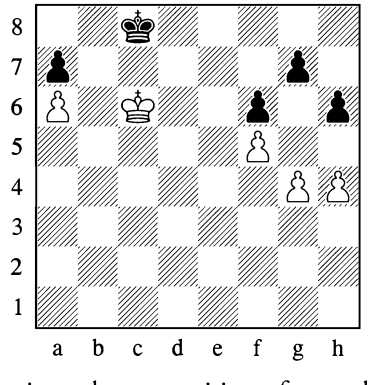
45...♔d7 46.♔d5 a6 47.h5 and White wins.

46.♔d5 ♔a6 47.♔e6 ♔xa5 48.♔f7 ♔b5 49.♔xg7 a5 50.g5

White arrives first, winning.

42...♔c7?

Black misses the chance to save the game. 42...♔b8!! 43.♔c6 ♔c8



Keeping the opposition from the 8th rank. Talk about the last line of defence!

The key point is that 44.h5 ♔d8 45.♔b7 ♔d7 46.♔xa7 ♔c7 leads to a well-known fortress.

43.♔c5 ♔d7 44.♔d5

Black is in zugzwang and White wins.

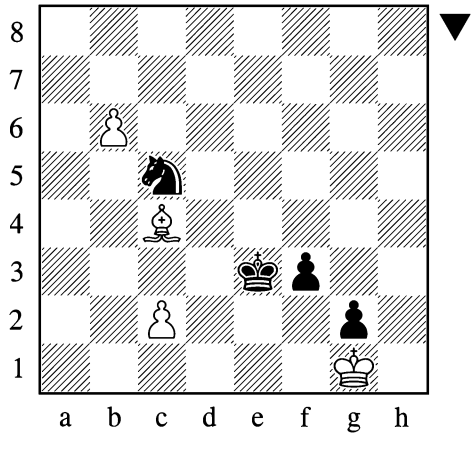
44...♔e7 45.♔c6
1–0

There are several points to be made about this game. Black lost because he entered a dangerous pawn ending and then played it sub-optimally. Perhaps he believed himself to be already lost when he missed the last chance to hold. White got his chance and then played quite poorly. First he failed to strengthen his position on move 33. Then on move 40 he chose to have an a-pawn, rather than a b-pawn. Finally, he failed to find the triangulation manoeuvre that would still have won the game, giving his opponent an undeserved chance to hold. Or maybe he failed to see the defence that his move allowed. We can only speculate.

Let's see another example of triangulation.

Francis Alard – Jacques Porte

Vitrolles 2000



Draw agreed?
½–½

Obviously, this will not do. Let's see the winning triangulation.

52...♔f4!

The winning move.

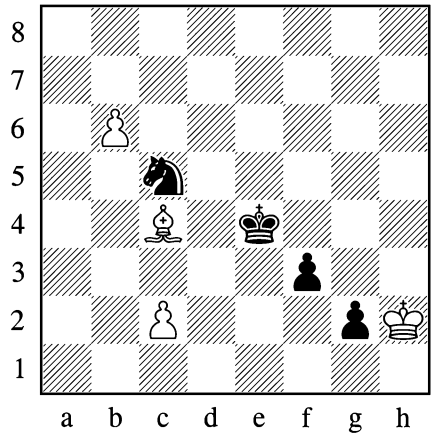
Black can also play 52...♘b7, but after 53.♗d3, all he can do is repeat the position. The knight cannot do triangulation.

However, should White play 53.♗d5?!, Black will win with a nice idea: 53...♔e2 54.♗c4† ♔e1 Once the knight protects the g2-pawn, it is game over. 55.♗a6 ♘d6 56.♗d3 ♘f5! 57.b7 ♘e3 58.b8=♕ f2† 59.♔h2 g1=♕† 60.♔h3 ♕g2† 61.♔h4 ♕g4#

53.♔h2!

Forced because of the mate arising after ...♔g3.

53...♔e4!!



We can now see that the bishop is ideally placed on c4. White can either move the bishop now, or on the next move. It makes no difference.

54.♔g1 ♔e3

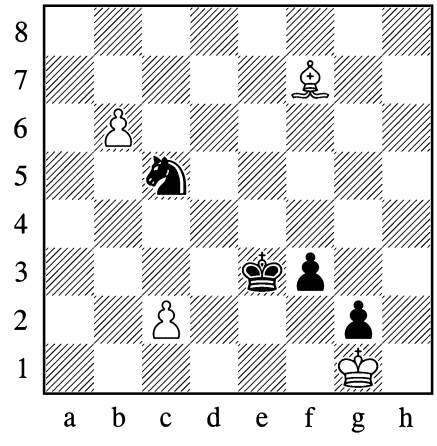
Black has managed to pass the move to White, who is now in zugzwang.

55.♗f7

The critical try. White is preparing to meet 55...♔e2 with 56.♗h5, preventing the advance of the f-pawn. Black would then do best to go back with 56...♔e3, aiming to repeat the position, after which he could win as detailed below.

Putting the bishop on the other diagonal is out of the question. After 55.♗b5 ♘e6, Black will defend the g-pawn and queen his pawns with check.

55.c3 loses in various ways, most entertainingly with Black repeating the triangulation manoeuvre. But this is not a study, so the position of the pawn stems from prior action and not to diminish the number of winning lines for Black.



55...♘d3!!

The absolute highlight of this endgame. Black is threatening ...♘f4, so White has to accept the sacrifice.

56.cxd3 f2†

It was still possible to blunder with 56...♔e2??, when 57.♗h5 wins for White.

57.♔xg2 ♔e2

Black queens the pawn and wins the game.

2. Being practical

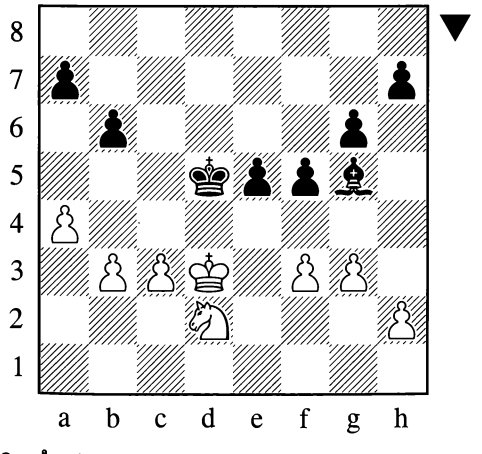
In the next game, we shall see one of the most common mistakes. When there are several plausible paths to victory, be certain to choose the one that requires the least complications and the least amount of calculation. This is how you avoid nasty surprises.

Conveniently, opposition and triangulation are once again the main chess themes of this endgame, with pawn breakthroughs as an important additional theme.

We join the game just as Adhiban decides to go for a complicated pawn ending that only he has a chance to win.

Tamas Banusz – Adhiban Baskaran

Spain 2018

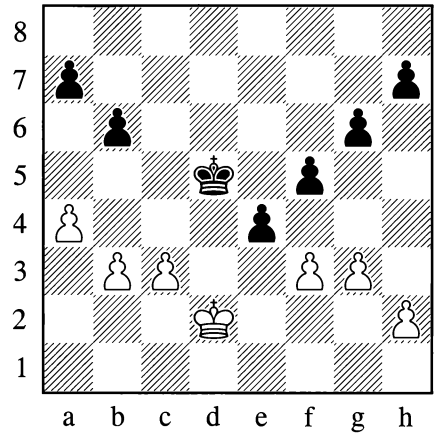


29...♗xd2!

This is the practical choice. All responsibility going forward will be on White.

29...h5 30.♘c4 e4† 31.fxe4† fxe4† 32.♔e2 White should be able to hold, although he may have a few questions to answer in the near future.

30.♔xd2 e4

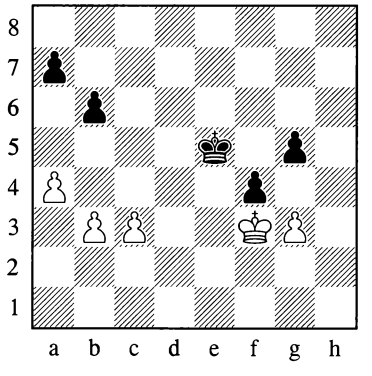


31.♔e3

31.f4!?, aiming for a fortress, holds according to the computer. But at the board it is very difficult to provide the opponent with a protected passed pawn in a still-complex pawn ending.

31...exf3 32.♔xf3 g5 33.h4 h6 34.h5!?

In principle White would prefer to exchange pawns, but it is easy to understand that he was feeling uncomfortable about 34.hxg5 hxg5 35.♔e3 ♔e5 36.♔f3 f4, where White is clearly in trouble.



However, with 37.gxf4† gxf4 38.a5! bxa5 39.c4 White would make a draw.

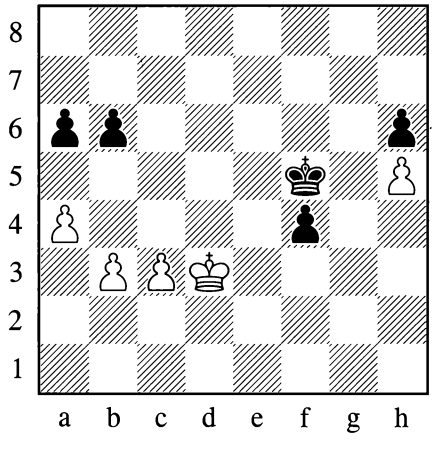
34...♔e5

With plenty of time on his clock, Adhiban decided to repeat the position a number of times before trying to find a way forward. I think he was hoping that White would make a voluntary mistake. He didn't. Instead, he gained more time with the passing of move 40.

35.♔e3 ♔d5 36.♔f3 ♔e6 37.♔e3 ♔e5 38.♔f3 ♔d6 39.♔e3 ♔c5 40.♔f3 a6 41.♔e3 ♔d5 42.♔f3 ♔e5 43.♔e3 f4† 44.gxf4† gxf4† 45.♔d3

45.♔f3 looks more natural, but is not different in essence from the move played in the game.

45...♔f5

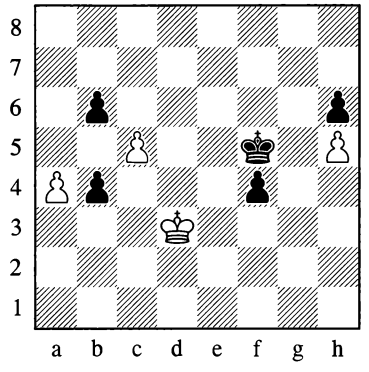


We were always going to end up in a position similar to this. On the previous move White spent over 23 minutes, deciding which way to go with the king, but without finding a path to equality. The reality is that it was on this move he should have invested his time.

46.b4?

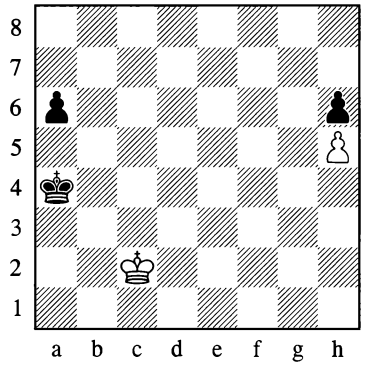
This is a bad idea as it allows the two black pawns to stop the three white pawns.

46.c4? would be bad for the same reason. After 46...a5 47.b4 axb4 48.c5, White is breaking through on the queenside.



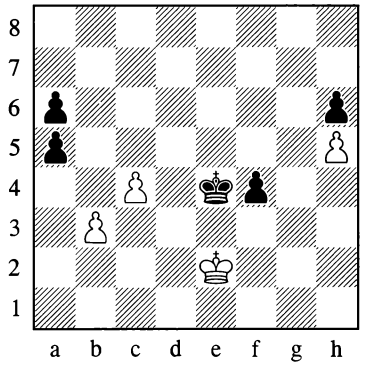
But Black can win in several ways: with 48...♔e5!, making it to the queenside in time to stop the pawns, or with 48...bxc5 49.a5 c4†! 50.♔xc4 f3 51.♔d3 b3! and the black pawns arrive first, one assisting the other by forcing the king to the first rank.

White's drawing mechanism could be: 46.♔e2 ♔g4 47.a5! bxa5 48.c4, when the pawn is in time to create counterplay. 48...f3† 49.♔f2 ♔f4 50.c5 ♔e5 51.♔xf3 ♔d5 52.♔e2 ♔xc5 53.♔d2 ♔b4 54.♔c2 a4 55.bxa4 ♔xa4

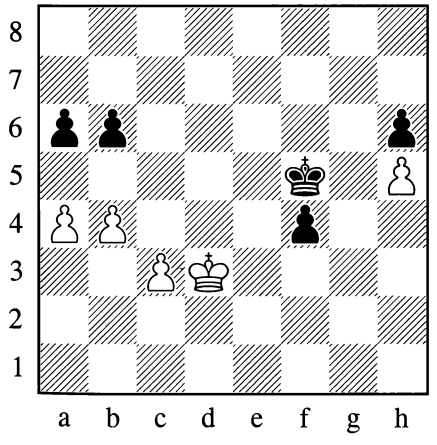


This is a well-known theoretical position. White makes a draw by the thinnest of margins. But it is all he needs. 56.♔c3! ♔b5 57.♔b3 ♔c5 58.♔a4 ♔d5 59.♔a5 ♔e5 60.♔xa6 ♔f5 At this point, Black looks far ahead in the race. But he is not able to run this race in a straight line, as the white king is. 61.♔b5 ♔g5 62.♔c4 ♔xh5 63.♔d3 ♔g4 64.♔e2 ♔g3 65.♔f1 White has made it with no time to spare. Draw.

Even stronger would be 46.a5!, when White does not have to rely on a final tempo after: 46...bxa5 47.c4 ♔e5 48.♔e2 ♔e4



49.♔f2 ♔d4 50.♔f3 a4 51.bxa4 ♔xc4 52.♔xf4 a5 At this point, White can choose to go for the h-pawn or follow the black king to the queenside. Both ways will make the draw.



46...b5??

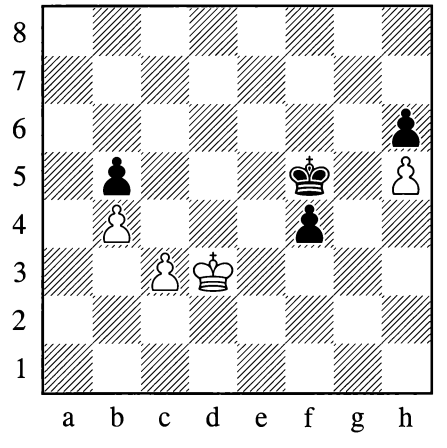
46...♔g4! was strong and practical. Most of all practical. The immediate threat would be to play ...f3 and ...♔g3, when the pawn will arrive on f1 with a check before White is able to push a pawn to the other end of the board.

For this reason, White would not have a chance to play 47.c4, but would be forced to play 47.♔e2, when Black can play 47...♔g3 48.♔f1 b5! and we have a position very similar to the one in the game.

I for one would not be surprised if you cannot tell the difference. And neither did Adhiban. Now it is possible that he saw nothing wrong with what he played and simply went with a simple option without looking for alternatives. Perhaps this was his mistake. We heard from Lasker that "whenever you see a good move, look for a better one". But surely this does not apply to winning moves, does it? It turns out it does. With plenty of time on his clock, Adhiban could have found this additional possibility and considered it for long enough to see that it was more forcing, more convincing and thus simpler and more practical.

On the other hand, it is also possible that he saw the additional possibility and chose not to bother comparing it to the move he played in the game. This too would have been a mistake. Not because the objective value of the two moves turns out to be different, but because one was clear and clean, while the other was harder to see to the end.

47.axb5 axb5



White resigned??

0–1

In the age before computers, no one would have batted an eyelid. And even now it is

not clear to me that many chess fans noticed the true evaluation of the position. On the Chess24 website, the computer does not reach deep enough to notice that White is able to save the position.

48.♔d2!!

The only move. The consequences of this are close to impossible to calculate to the end, as it is simply too incredible. However, it is possible to eliminate the alternatives and know that the continuation that cannot be calculated is the only choice.

48.♔d4? ♔g4! would allow Black to queen the f-pawn.

48.c4? bxc4† 49.♔xc4 f3 50.♔d3 ♔g4 51.b5 ♔g3 would also queen the f-pawn.

Finally, 48.♔e2? is refuted with: 48...♔g4! (48...♔e4 49.♔f2 f3? would transpose to our main line: 50.c4!), when Black wins after 49.♔f2 f3 50.c4 bxc4 51.b5 c3 52.b6 c2 53.b7 c1=♕ 54.b8=♕ ♕d2† with mate. It is important for this line to win that the king is on g4.

On the other hand, 49.c4 loses faster. 49...bxc4 50.b5 c3 51.b6 f3† 52.♔d3 f2 53.♔e2 c2 54.b7 c1=♕ 55.b8=♕ f1=♕#

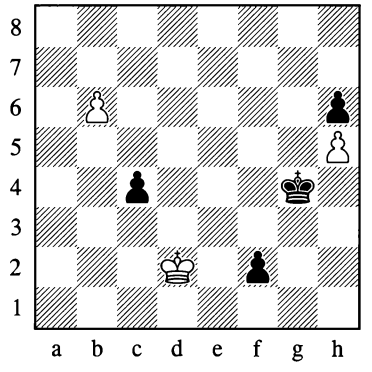
48...♔e5!

The most devious.

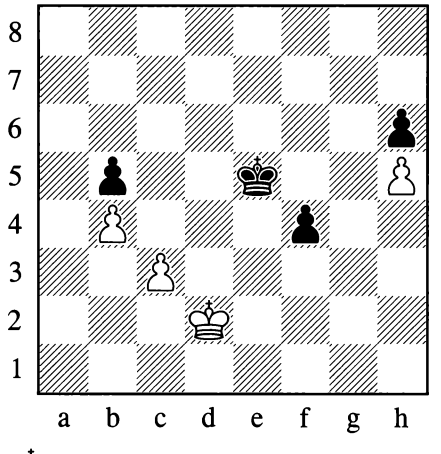
48...f3 49.♔e3 ♔g4 50.♔f2 ♔f4 51.c4 makes a draw too. With the king on f4, White queens with a check. And if Black wins the b-pawn, White will be right on his heels all the way, preventing any of the pawns making it to the 1st rank.

48...♔e4 49.♔e2 is not that different from the previous line.

48...♔g4 allows White to force a draw with: 49.c4 bxc4 50.b5 f3 51.b6 f2



52.♔e2! (52.b7? f1=♕ 53.b8=♕ ♕d3† will lead to an exchange of queens and black victory.) 52...c3 53.b7 White is in time and makes the draw.



49.♔e1!!

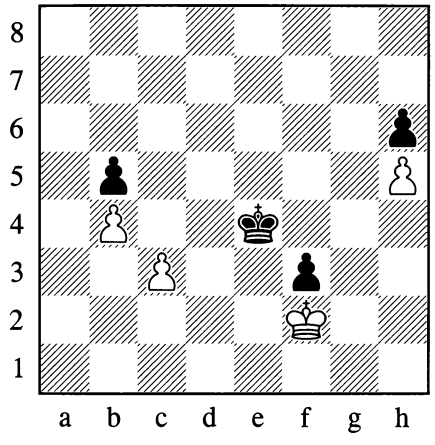
Distant opposition. Black cannot break through.

After 49.♔d3? ♔d5 and 49.♔e2? ♔e4 50.♔f2 ♔f5!, White is unable to keep the opposition. A plausible way for Black to win the game could be: 51.♔e2 ♔g4! 52.♔f2 f3 Once again White has to play 53.c4, but this time with the black king on g4, which we know means that after both sides get their queens, Black delivers mate.

49...f3

49...♔f5 50.♔d2! is the way for White to keep the opposition.

50.♔f2 ♔e4

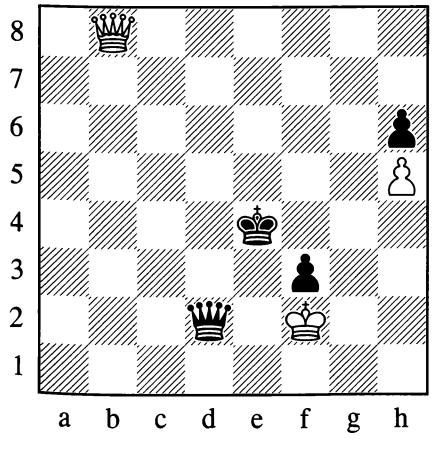


We know that after 50...♔f4, the pawn queens with check on b8. When it is on g4, Black wins (but it was one step too far at the moment). But with the king on e4, the situation is less obvious.

51.c4! bxc4 52.b5 c3

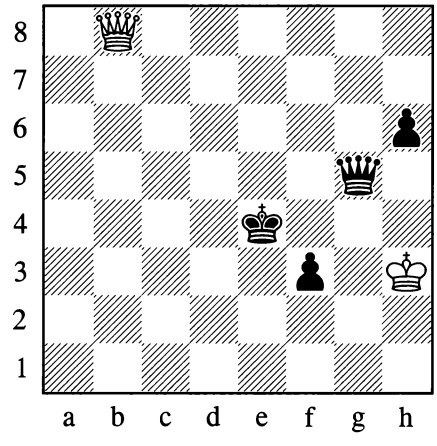
White is exactly in time after 52...♔d5 53.♔xf3 ♔c5 54.♔e3 ♔xb5 55.♔d2 ♔b4 56.♔c2, with a draw.

53.b6 c2 54.b7 c1=♕ 55.b8=♕ ♕d2†



The position looks absolutely lost for White. But at the board, all we can do is make the moves that do not lose immediately.

56.♔g3 ♕g2† 57.♔h4 ♕g5† 58.♔h3 ♕xh5† 59.♔g3 ♕g5† 60.♔h3



60...f2

It is most bizarre that after 60...♕g2† 61.♔h4, Black has no way to make serious advancement.

61.♕b7†

By a miracle of the first rank, Black cannot win. The key idea is the following:

61...♕d5 62.♕xd5† ♔xd5 63.♔g2

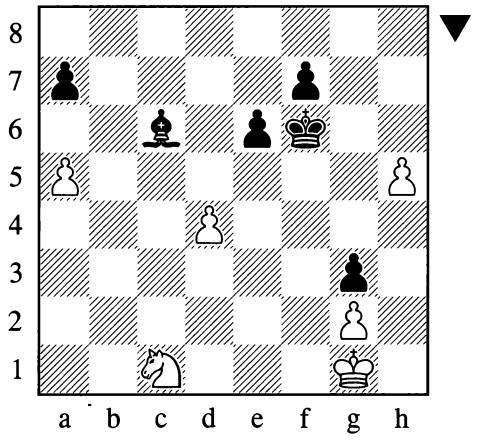
White draws.

3. Distractions

The following is a good example of how things can go wrong when we are confused about our strategic goals. In this example, White is trying to make a draw after a long game of suffering. What happens, which I have seen happen to a lot of students many times, is that secondary considerations pop up and the search for the forced draw becomes muddied with all types of other considerations.

James Eden – Stamatis Kourkoulos-Arditis

Paleochora 2021



We enter the game just as Black ruins four hours of serious effort, after outplaying his opponent.

40...♔g5??

A time-trouble blunder.

40...♗b5! 41.♘a2 ♔g5 42.♘c3 ♗d3 would have completely dominated the white king and won the game immediately.

41.♘e2 ♔xh5

Black has to accept this painful exchange.

After 41...♔h4 42.h6 ♗e4 43.♘c3 ♗d3 44.♘b5 White would win the a-pawn.

42.♘xg3† ♔g5 43.♘e2!

White establishes the best fortress. The knight will eventually take care of the e4-square and the king the e3-square.

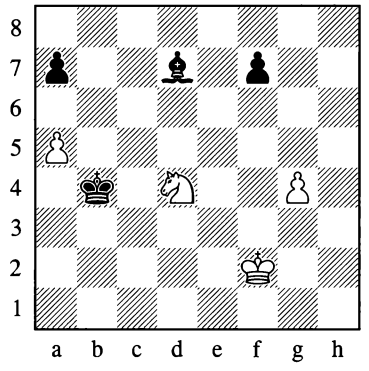
43...♔f5 44.♘c3 e5

44...♔f4 45.♔f2 is not progress for Black.

45.d5

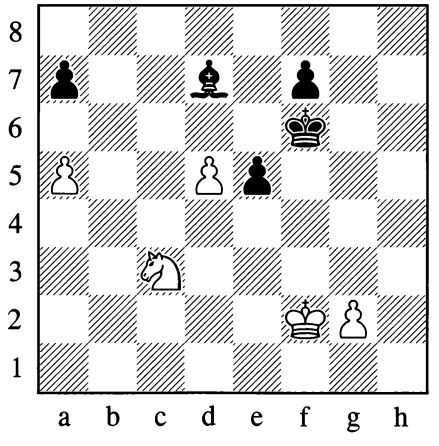
This is the first decision I don't like. It has no serious consequences, but it is causing White to have to think just a little bit more than if he had taken the pawn. Sure, there would be some thinking associated with this too, but the delaying of the moment of truth (a common sin) almost always leads to greater challenges; no matter if you are trying to convert an advantage or securing a draw.

45.dxe5!? would be the principled move. The exchange of pawns brings the draw closer. White was probably worried about losing the a-pawn, but the draw is very straightforward once you look for it. 45...♔xe5 46.♔f2 ♔d4 47.♘e2† ♔c4 48.g4 ♔b4 49.♘d4 ♗d7



50.g5! Fixing the f7-pawn. 50...♔xa5 51.♔e3 ♔b4 52.♔d2 a5 53.♔c2 The white king makes it to the corner, after which the knight will take the f7-pawn, defended or not.

45...♗d7 46.♔f2 ♔f6

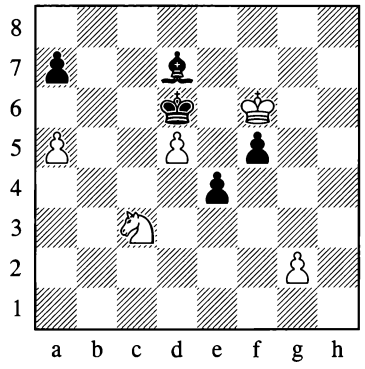


47.♔g3?!

47.♘e4† ♔e7 48.d6† would draw by force too. If the king goes backwards, White has ♘e4-f6 and would be no worse. And after 48...♔e6 49.♘g5† White manages to exchange pawns once again.

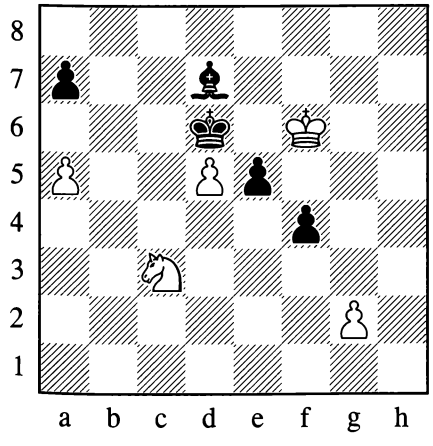
47...♔e7 48.♔h4 ♔d6 49.♔g5 f5 50.♔f6 f4

A draw would also arise after: 50...e4



The strongest is 51.♔f7!, where 51...♔e5 52.♔e7! leads straight to a draw.

But White can also draw with 51.g3, although it looks scary. 51...♗c8 (Or 51...e3 52.♔g5 ♔e5 53.♘e2 ♗b5 54.d6! ♔xd6 55.♔xf5 ♗xe2 56.♔e4 and White makes a draw.) 52.♔g5 ♔e5 53.d6! a6 54.♘b1 ♔xd6 55.♔f4 ♔c5 56.♘d2 and a draw arises after 56...♔b5 57.♘xe4 or 56...♔d4 57.g4.



51.♔g5!?

This is the natural move to play, when you do not want to calculate.

If White had wanted to, he would have calculated the checks and found satisfaction: 51.♘e4† ♔xd5 52.♘c3† ♔d4 53.♘e2† ♔e4 (53...♔e3 54.♔xe5! is similar.) 54.♘c3† ♔d3 55.♔xe5 ♔xc3 56.♔xf4 ♔b4 57.♔e3 and the draw is secured.

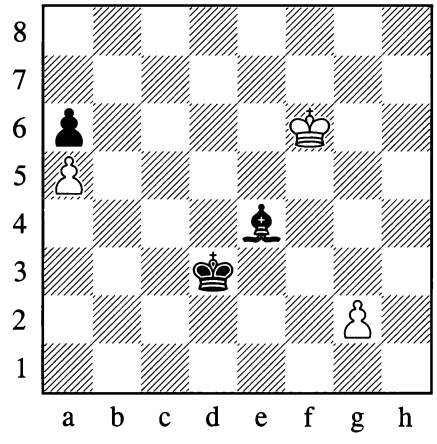
51...a6 52.♘e2!

Finally seeking to secure the draw.

52...♔xd5 53.♘xf4† ♔d4!? 54.♘e2† ♔d3 55.♘g3 ♗c6

55...e4 56.♘xe4 leads straight to the draw.

56.♔f6 e4 57.♘xe4 ♗xe4



Black has tried to avoid the draw, but our old friend, the bishop and the wrong corner, is hard to keep at bay. If White now focused on bringing the king back to a1, he would draw.

But it is easy to get confused and think: "Why should I give up the pawn?" But it is not relevant. Get the king to the corner. Do not get distracted!

58.g4?

When I showed this game at the academy, all the students wanted to play this as well. The attraction is strong! But it is the losing move.

58.♔e5 ♗xg2 59.♔f4 and the king cannot be held away from the corner.

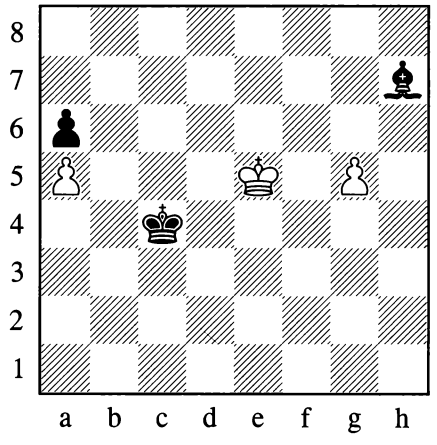
58...♔c4

Now the king is one tempo too far away.

59.g5

Or 59.♔e5 ♗h7 60.g5 ♔b4 61.♔d4 ♗g6 and White is in a decisive zugzwang. This is why the king had to be on e3 instead of e5.

59...♗b1 60.♔e5 ♗h7



White resigned.

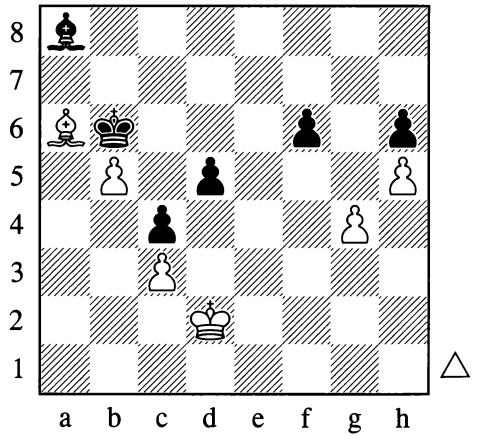
0–1

The next example is simpler, but not less relevant.

Samir Lejlic – Claus Seyfried

Gibraltar 2015

White had a winning position earlier, but squandered it and has since then been moving around almost aimlessly, hoping a random chance would pop up. The acceptance that the ending is actually a draw was long overdue by this point. But White, being the higher-rated player, could not make peace with this outcome.



66.♔e2??

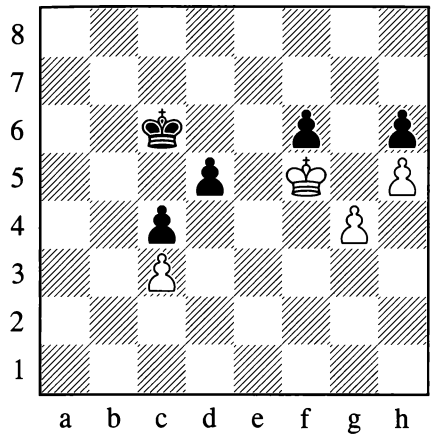
This is actually a fairly common scenario. A player believes that he deserves to win the game and thus fails to consider any possibility that he might actually lose the game. Punishment usually follows swiftly.

66.♔e3! ♔c5 and nothing happens. But 66...♗c6? no longer works. 67.bxc6 ♔xa6 68.♔d4 and White actually wins.

66...♗c6! 67.bxc6

White also loses on the spot after 67.♔e3 ♗xb5 68.♗c8 ♔c7 69.♗f5 ♗d7.

67...♔xa6 68.♔e3 ♔b6 69.♔f4 ♔xc6 70.♔f5



70...d4! 71.cxd4 c3 72.♔e6 c2
0–1

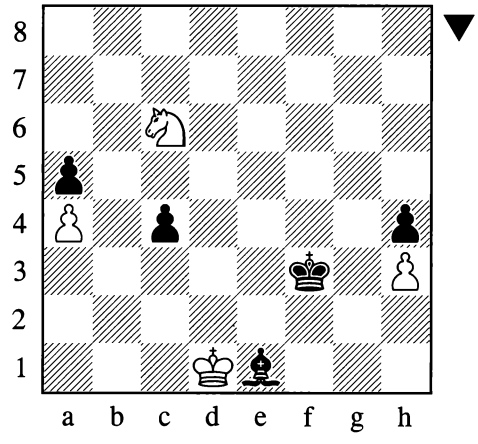
The important lesson from this is to realise when you have lost your advantage and it is time to let go. Don't be the fool in the casino, trying to win his money back.

4. Pattern recognition – Knights and flank pawns

We will never be able to stuff enough patterns into our brain. But with the knowledge of as many as possible, we will be able to navigate complicated endgames far easier. At New Year 2021, Chess24 had some of the participants in their Champions Tour perform in the circus, going through the *100 Endgames You Must Know* test on Chessable. In terms of promotion, this was of course a masterstroke, but it also exposed some of the second-tier top players (the top-tier players do not have to clown around to be allowed to play) as being patchy in their knowledge. This only shows that we are always able to improve our technical repertoire. The following endgame is mainly about pattern recognition. All grandmasters will know that knights are poor at dealing with flank pawns. But it is important to get the pattern exactly right.

Igor Kovalenko – Andrey Esipenko

Skopje 2019



If the knight is able to jump along on the e3-f1-h2-g4 squares, it is able to stop the promotion of the h-pawn. That is all you have to know. *100 Endgames You Must Know* would teach you that, while being patchy in some other areas. For a grandmaster, it would make sense to create your own database with endings you "Must Know" and to go through it with regularity.

75...♗c3?!

Both 75...♗g3 76.♘xa5 c3 77.♘c4 ♔g2 and 75...♗f2 76.♘xa5 c3 77.♘b3 ♔g3 would have won without a lot of trouble. The white king is unable to make it to g1/h1 and thus obstruct the h-pawn from advancing. And the white knight is deprived of the e3-square. Having played for hours on increment, this did not seem obvious to Esipenko.

We have all had the experience and can sympathise with how difficult it is to avoid "stupid" moves, when put under that type of pressure. And at the same time, we can learn from games like this the importance of those simple and easy to understand patterns and positions; if you know them, you will be far more likely to succeed in situations like this.

76.♔c2 ♗e1 77.♔d1 ♗c3?

Objectively only this is the mistake. Esipenko repeats the position in order to gain time on the clock, but does so planning the wrong idea.

78.♔c2 ♔g3

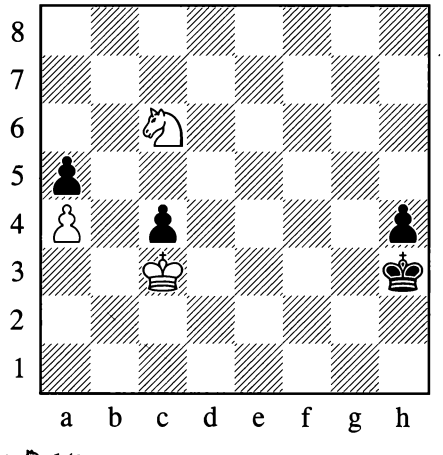
78...♗e1 79.♔d1 would give White the chance to claim a threefold repetition, and is thus out of the question.

79.♔xc3

Kovalenko spent his remaining minutes on this move, which is a bit odd.

79.♘e7 ♔xh3 80.♘f5 ♗e5 is not desirable.

79...♔xh3



80.♘d4?

Played quickly, out of necessity. It was on this move the decision had to be made, and several options were available.

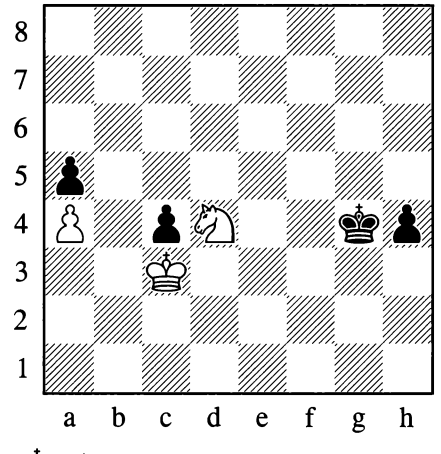
The most desirable move was 80.♘xa5, when the draw comes easily. (White can also go to c4 via e5, but why would he?) 80...♔g3 81.♘xc4 The knight is heading for e3 and f1, just in time. Black can try to do funny stuff, but he cannot win:

a) 81...♔f3?? would be a terrible blunder because of 82.a5 and White skewers the black royalty.

b) After 81...♔f2 82.♘e5 it is an elementary draw. White can also look towards the more playful 82.a5!? h3 83.♘e5 ♔g3 84.♘f3!, which is a nice way to make the draw from the stronger side, but maybe a bit too study-like for time trouble at closing time.

c) 81...h3 82.♘e3 White has achieved the desired position. Even with no a-pawn, it would still be a draw.

80...♔g4!



81.♔xc4

Against 81.♘c2, the simplest is 81...♔f4 and Black wins.

81...h3 82.♘c6 h2 83.♘xa5 h1=♕ 84.♔b5 ♕d5† 85.♔b6 ♕a8 86.♔b5 ♔f5 87.♘c4 ♕d5† 88.♔b4 ♕b7†
0–1

5. Basic principle of exchanges

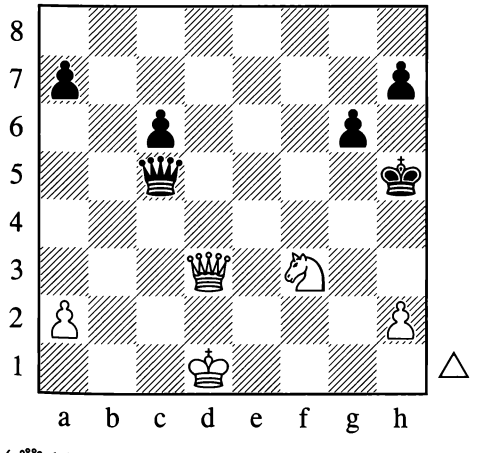
Exchanges are a bigger strategic topic, which we will deal with in Chapter 5. The core principle of the endgame, where most games are won by the promotion of pawns, is that the defender would like to exchange pawns. The reason is obvious. Without pawns, no promotion is likely to happen. (On the other hand, the side with the advantage is meant to generally desire the exchange of pieces, which is not reliable advice, as we shall discuss in Chapter 5!) The defender desires to give up a piece for the opponent's final pawn.

The goal of all athletes defending a poor endgame is to end in a position with only three chessmen on the board, one of them being a knight or bishop. Artists of course prefer to be stalemated, but that is a spiritual discussion.

So, a rough guideline is that defenders want to exchange pawns. More nuanced examples can be found in Chapter 5. Here we shall focus on a clear-cut example.

Pentala Harikrishna – Levon Aronian

Riyadh 2017



44.♕d4!

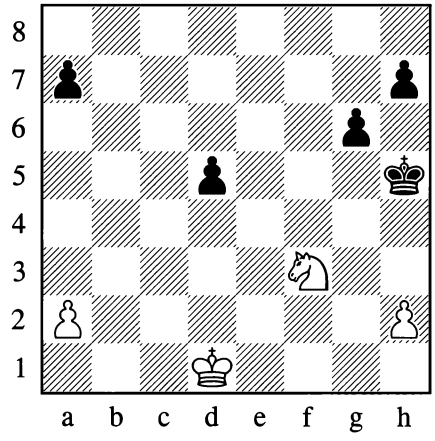
Harikrishna exchanges the queens due to the threat of mate.

44...♕d5!

The only chance.

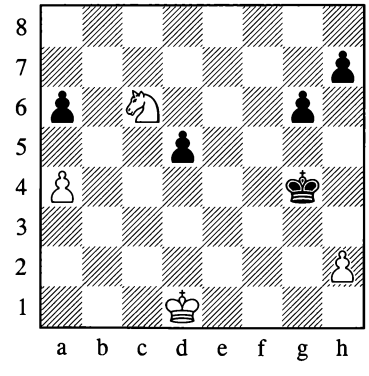
44...♕xd4† 45.♘xd4 c5 46.♘c6 a6 47.♘b8 a5 48.a4 sees the a-pawn making it to the 8th rank with a few laps to spare.

45.♕xd5† cxd5



This is the key moment of this endgame. White is of course completely winning, but if you go in the wrong direction, it is possible to see the advantage disappear. Slowly or quickly.

The first choice could be the race. White can play 46.♘d4!? (or 46.♘e5) with the intention of continuing: 46...♔g4 47.♘c6 a6 48.a4!? Not the most accurate, as analysis shows, but something that a human could quite easily play here.



After 48...♔h3, it is now quite possible to continue down the wrong path with 49.a5? ♔xh2 50.♘b4 g5 51.♘xa6? g4, and Black arrives first.

Instead, White would win with 49.♘b4 ♔xh2 50.♘xa6 g5 51.♘c7 g4 52.♘xd5 g3 53.♘e3 and White is just in time. For example: 53...h5 54.a6 h4 55.a6 h3 56.♘f1† ♔g2 57.♘xg3 and White wins.

In the game, Harikrishna tried to control the black king with:

46.h3?

He most likely realised his mistake almost as soon as he touched the pawn. But as it is not better located on h4, there is no way back.

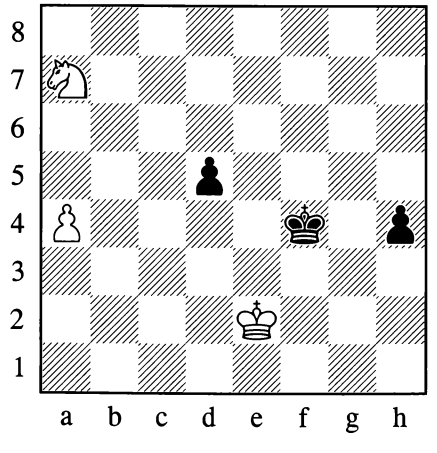
46...g5!

The exchange of pawns not only favours Black in principle, it also helps to generate a passed pawn here.

47.a4 g4 48.hxg4† ♔xg4 49.♘e5† ♔f4?!

49...♔g3 50.♔e2 ♔g2 looks far more logical to me. White cannot stop the h-pawn and make progress on the queenside at the same time.

50.♘c6 h5 51.♔e2 h4 52.♘xa7



52...h3?

Obeying a basic principle of *passed pawns must be pushed*, which we will look at below. Often it makes a lot of sense to push the most advanced passer first. But in this example, pushing the d-pawn has two points. First off, it opens a passage for the black king to the queenside. Secondly, it is able to win a convenient tempo on the white king, which the h-pawn does not.

Sympathy should be extended to Aronian. It is not immediately obvious that it is the d-pawn that provides Black with the counterplay needed to make the draw. But the logic is not hard to understand once we realise this. The d-pawn will draw away the attention of the white king. Whether it has to go to h4 or to h3 to pick up the black pawn matters little. If anything, h3 is likely to be closer in terms of necessary moves in some lines. What really matters is if White can manage to defend the a-pawn with the knight from behind, as happened in the game. Black has a number of ways to prevent this.

The following variation is very artistic and shows how Black can win a race to get to the a-pawn from outside the square with various tempo-gaining moves, similar to the famous Reti manoeuvre. 52...d4 53.♘b5 ♔e5 54.a5 d3†! 55.♔f3 (55.♔xd3 h3 56.♘d4 h2 with the exchange of the final pair of pawns.) 55...d2 56.♘c3 ♔d4! 57.♘d1 ♔c5 Draw.

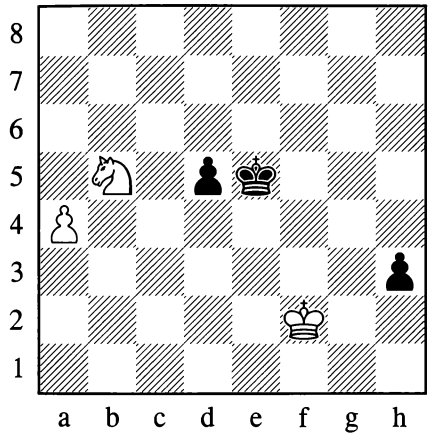
But if this seems a bit too flashy to you, bread and butter solutions work just as well. 52...♔e4 53.a5 d4 54.a6 ♔d5 55.♘b5 ♔c6 56.a7 ♔b7 and the white knight has to go back to help deal with the two black pawns.

53.♔f2 ♔e5

53...d4 54.♘b5 would see the knight catch the d-pawn, without extending the same

courtesy to the black king regarding the a-pawn. 54...d3 55.a5 d2 56.♘c3 ♔e5 57.a6 and White is too far ahead.

54.♘b5



...♔d5 is not there.

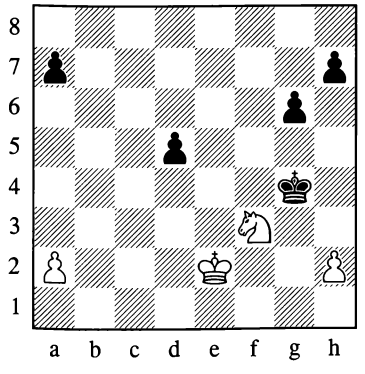
54...♔e6

Now all White has to do to win the game is to not push the a-pawn to a6 too soon.

55.♔g3 ♔d7 56.♘d4 ♔c7 57.♔xh3 ♔b6 58.♘b3 d4 59.♔g3
1–0

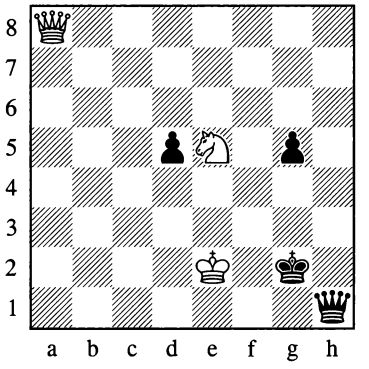
The *good technique* continuation in this endgame required the inclusion of the best piece – the king.

46.♔e2 ♔g4



And now White could play 47.♔f2!, which would prompt resignation in a classical game.

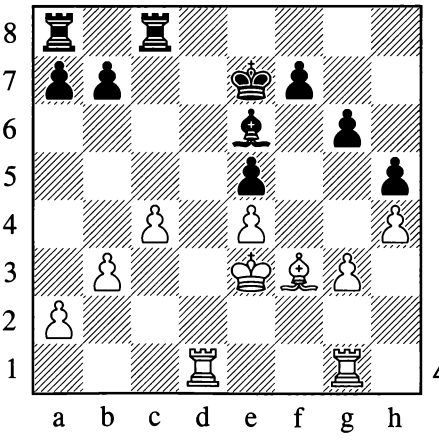
Or 47.a4!?, with the idea a5-a6, shortening the journey for the a-pawn before the start of the race. For example: 47...a5 48.♘e5† ♔h3 49.♘c6 ♔xh2 50.♘xa5 h5 51.♘c6 ♔g2 52.♘e5 g5 (52...h4 53.♘xg6!) 53.a5 h4 54.a6 h3 55.a7 h2 56.a8=♕ h1=♕



This is not how White should play this endgame. But it is winning all the same. Black is trapped in a mating net. 57.♕xd5† ♔g1 (57...♔h2 58.♘g4† ♔g1 59.♕d4† ♔g2 60.♘e3† ♔h2 61.♕g4 and White wins) 58.♘f3† ♔g2 59.♕xg5† ♔h3 60.♕h4† ♔g2 61.♕g4#

NN – Bryan Tay

Internet 2020



This is a game one of my smaller friends played online (but with a serious time control).

Because of the pawn structure on the queenside, Black is slightly better. White should thus seek exchanges. In this case this means both pawns and bishops, for simple positional reasons. The white bishop does not work well with the pawns, but the black one does.

27.♖c1

27.g4! hxg4 28.♗xg4 was good defence. White will allow the h-pawn to be weaker, but in return gets rid of his bad bishop and reduces the number of pawns by one. 28...♖d8 29.♗xe6 ♖xd1 30.♖xd1 ♔xe6 31.♖h1 ♖h8 32.b4 ♖h5 33.♔f3 White is not living without challenges, but will be able to create counterplay on the queenside and hold the game.

27...♖c6

27...a5!? was also a decent move.

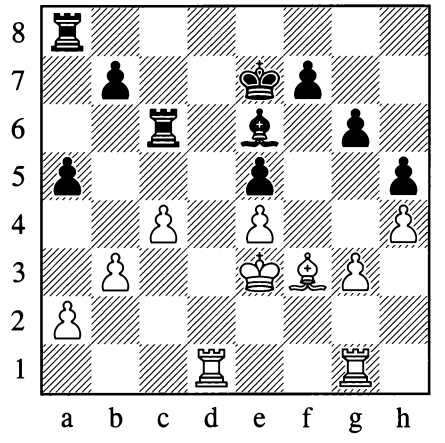
28.♖cd1

28.g4 no longer works as well. After 28...hxg4 29.♗xg4 ♖h8 30.♗xe6 ♖xe6 31.♖h1 ♖f6! White is in trouble. The position is still defendable with great accuracy, but the trend is definitely going the wrong way.

28...a5

Very natural. Black wants to activate the last piece and exploit the hook on b3.

28...♖h8!? was a funny prophylactic idea. Black is just somewhat better. And probably for a long time.



29.a4?

This is quite a common mistake for a less experienced player. When you have tried to defend a position with a locked pawn structure with the pawns on the same colour as the bishop one too many times, you will not freely make such a move.

Once again White had the chance to play 29.g4!, when his position would be close to equal.

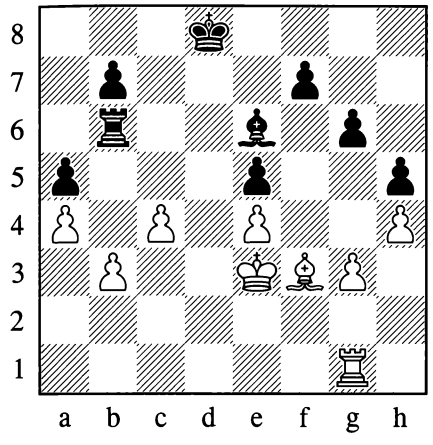
29...♖b6 30.♖d3 ♖d8!

Brian decides to exchange his worst piece for the best defender. This has the advantage of permanently preventing White from playing g3-g4.

31.♖xd8

31.♖gd1 ♖xd3† 32.♖xd3 ♖d6! 33.♖c3 would transpose to the game, if this is the defensive set-up White wanted.

31...♔xd8



32.♖d1†?

This is quite an instructive mistake. White is very weak on the dark squares on the queenside. Black's least active piece is the king. Guess where the king wants to go?

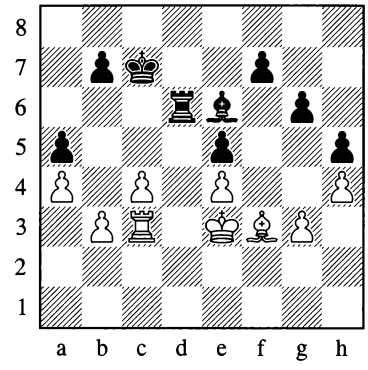
For this reason, White had to be able to plug the hole with the king. After this check, this is no longer possible.

After 32.♗d1 ♔c7 33.♗c2 ♔c6 34.♔d3 ♔c5 35.♔c3 ♖d6 Black is very active, but the final break is not yet available. All White can do is wait and try to prepare for the various ways Black may try to break through his defences.

32...♔e7?

Black returns the favour and we transpose to 31.♖gd1.

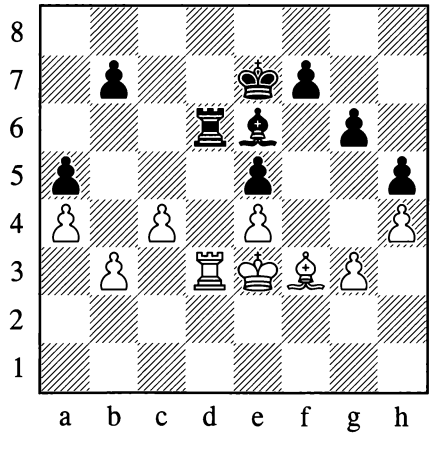
Black had a winning plan consisting of strong and surprising moves: 32...♔c7 33.♖d3 ♖d6 (33...♔c6 34.♔d2 would allow White to defend the dark squares.) 34.♖c3



34...♗g4!! A surprising move, and definitely not one the IM-version of myself would have found obvious. Yes, White's bishop is bad. But there are other factors in the position as well. Mainly this is about the fortress character of the white position. The black bishop may be the better piece, but it is not able to create any threats and neither is the rook. On top of this, White has ideas with c4-c5 and b4-b5 as a way to defend the queenside actively.

By exchanging the bishop, Black gives White a few too many weaknesses to defend. For example, 35.♗xg4 hxg4 36.♖c1, defending against the penetration of the rook. 36...♔c6 37.♖h1 ♔c5 38.h5 gxh5 39.♖xh5 f6 40.♖h4 ♖b6 and the white position collapses.

33.♖d3 ♖d6!



Winning control of the d-line by threatening to go into a bishop endgame.

34.♖c3!

White correctly declines.

34.♖xd6? ♔xd6 35.♔d3 ♔c5 36.♔c3 is hopeless. The simplest way for Black to win is with 36...♗d7 37.♗g2 ♗c6 followed by ...f5, when White cannot defend both the e4-pawn and against ...♔b4.

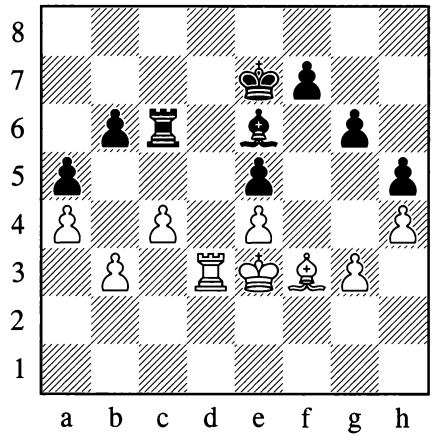
34...♖c6

Black is not yet completely winning, although White is feeling the pressure.

Also after 34...♔d7, White can still resist. He cannot let the black king go to c5/b4, so he must play 35.c5 ♖d4 36.♗e2! ♔c7 37.♗d3 ♖b4 38.♗c2 and White is under pressure, but not yet lost.

35.♖d3 b6

I am a bit sceptical about this move. From Mark Dvoretsky and Artur Yusupov, I learned the Steinitz Rule of never making unnecessary pawn moves in the endgame (see page 94). And as we shall see, it has real-life drawbacks.



36.♖c3?

A crude mistake.

The only move was:

36.♗e2

This partly regroups the bishop to the queenside. Also White is ready to meet ...♗g4 with ♗d3, should that come up later.

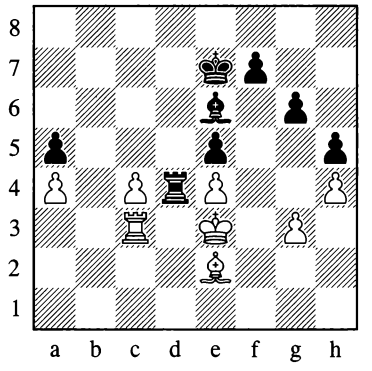
36...♖d6 37.♖c3

It is obvious that Black is better, but a clear winning plan is not easy to pinpoint. First of all, White will meet ...♔d7 with c4-c5 and ♗b5(†) with great counterplay. The following variation is a good illustration of how White would be able to create active counterplay:

37...♖d7 38.b4! ♖d4

If Black takes the pawn, 39.♖b3 will create counterplay.

39.bxa5 bxa5



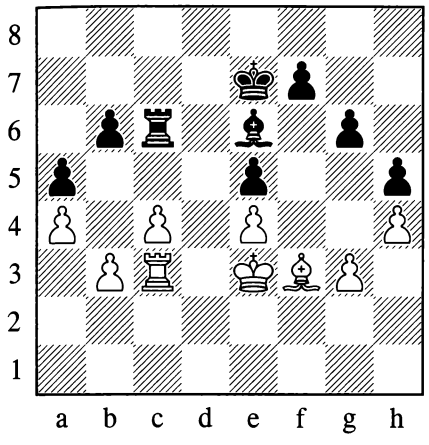
40.c5!

White has to play actively to create counterplay.

40...♖xa4 41.c6 ♗c8 42.c7

White has a number of decent ideas: ♗c4-d5, ♖c6 and ♗a6, ♖c5 and so on. Despite being a pawn up, Black has no realistic chances of winning the game.

Obviously there are other tries early on for Black, and probably some that will create more problems, but White for sure can struggle a lot!



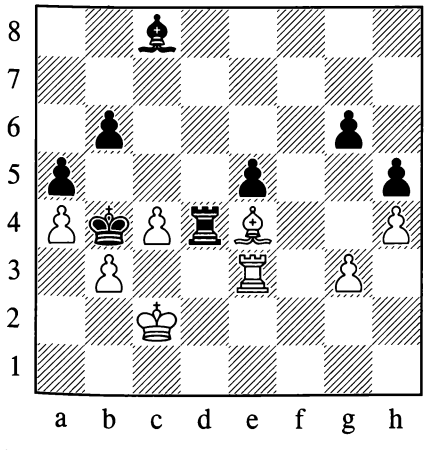
36...♔d6!

Here comes the king, ready to rule.

37.♔d3 ♔c5 38.♔c2 ♖d6 39.♖e3 ♔b4 40.♖e2 ♖d4 41.♖e3 ♗c8 42.♗e2 f5 43.♗d3

After 43.exf5 ♗xf5† 44.♔b2, Black wins however he wishes. But the exchange of the opponent's only active piece makes a lot of sense. 44...♖e4! 45.♖xe4 ♗xe4 46.g4 hxg4 47.♗xg4 ♗d3 and White has to make further concessions.

43...fxe4 44.♗xe4



44...♖xe4!

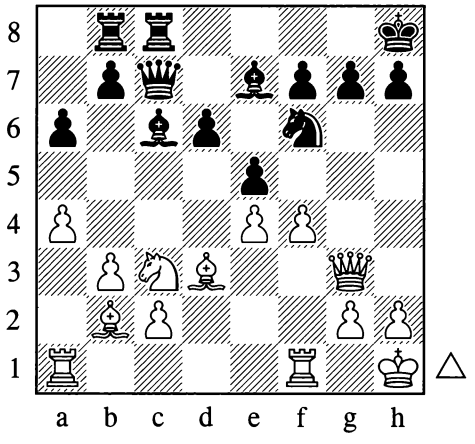
A fitting brute-force end.

45.♖xe4 ♗f5 46.♔d3 ♔xb3 47.♔e3 ♗xe4 48.♔xe4 ♔xa4 49.♔xe5 ♔b4 50.♔f6 a4 51.♔xg6 a3 52.♔xh5 a2 53.g4 a1=♕ 54.g5 ♕h8† 55.♔g4 ♔xc4 56.h5 b5 57.g6 ♕h6 0–1

The following example is great to show how to implement these concerns for the club player. The White player, Ryo, was 8-9 years old at the time the game was played. We shall see his strengths as well as his weaknesses on full display.

Ryo Chen – Bovey Liu

Houston 2019



21.fxe5 dxe5 22.♘d5!

A small combination that exposes the weakness of the e5-pawn.

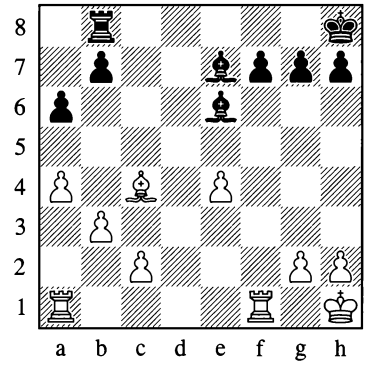
22...♗xd5 23.♗xe5 ♘h5!? 24.♗xc7 ♘xg3† 25.♗xg3 ♗e6 26.♗xb8 ♖xb8

The tactics have come to an end and it is now time to win the game.

27.♗e2?!

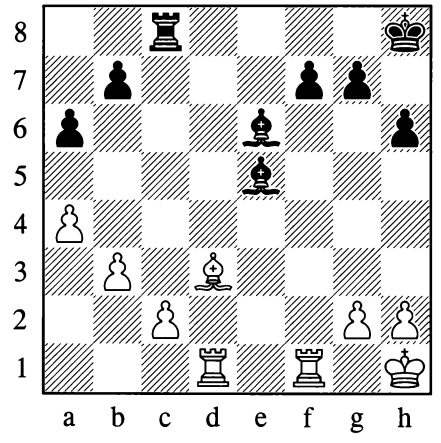
It is not clear to me what the idea was behind this move. White is obviously completely winning with an extra pawn and an extra exchange. The elimination of counterplay is all that is needed.

27.♗c4! would be the optimal exchange.



With no defender of the light squares, the rooks will penetrate on d7 and turn off the lights. No reason to care about things such as doubled pawns. This option existed for a bit.

27...♖c8 28.♗d3 ♗f6 29.♖ad1 h6 30.e5!? ♗xe5



31.♗e4

There is nothing wrong with this move, but again, the exchange of minor pieces leads to increased abilities for the major pieces: 31.♗f5! was thus strongest.

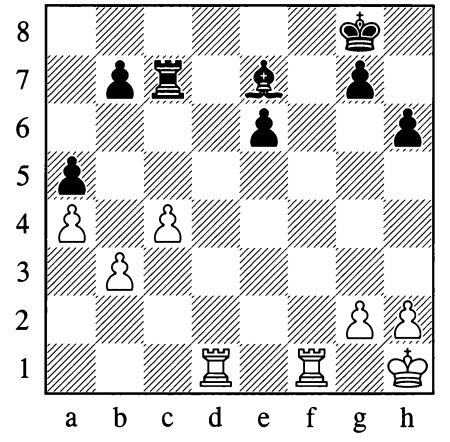
31...♗f6 32.c4

32.♗xb7 ♖xc2 33.♗d5! You get the picture. This exchange existed a number of times.

32...♖c7 33.♖d6 ♔g8 34.♗f5!

Finally!

34...♗e7 35.♖dd1 a5 36.♗xe6 fxe6



The next objective would be to bring all the pieces into the game. Thus, White should bring the king to the centre and take it from there. But Ryo, like most of us, is too busy "doing stuff" to solve the real problems.

37.♖de1 ♖c6 38.♖e5 b6 39.♖d1 ♔f7 40.g3 ♖c7 41.♔g2 ♗c5

Black has managed to set up a decent pawn structure on the queenside, but remains dead lost all the same.

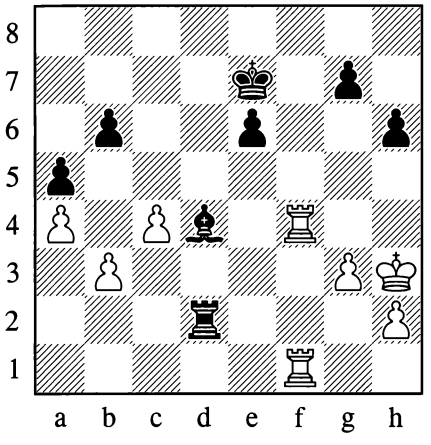
42.♖f1†

There is no point in giving up the d-line. Bring in the king and see if there is another way to maximise your advantage before acting. Black is not going to do anything meanwhile.

42...♔e7 43.♖e4 ♖d7 44.♖ef4?

44.♖fe1 would prevent the rook from running wild, after which White would have been able to set up the ideal pawn structure on the kingside before thinking about active ideas.

44...♖d2† 45.♔h3 ♗d4



Because Black has been allowed to be active, the win is no longer easy.

46.♖b1??

A horrible move. White has wasted a lot of time. A material advantage does not win by itself. We have to use it. When we talk about the rule of "do not hurry" below, it is clear that this does not mean: do nothing while the opponent is improving his position!

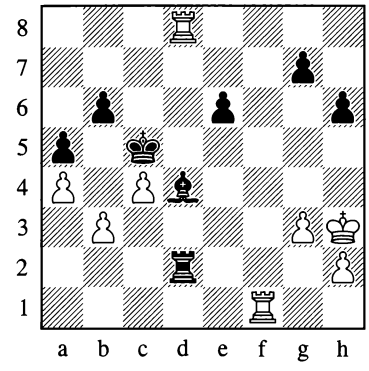
46.♖f8! ♔d6

46...♗f6 47.♖a8! with the idea c4-c5.

47.♖d8† ♔c5

The move I would worry about.

But apparently 47...♔e7 is more resilient. 48.♖c8 ♔d6 49.♖e1 ♖d3 50.♖e8 will eventually win, although there are a lot of good moves ahead to do so. Black will take on b3, White on g7 and a race will ensue, which White should win. A small point is that 50...e5? 51.♖1xe5! ♖xg3† 52.hxg3 ♗xe5 53.g4 will be an easy win. Black has no counterplay. (See more about rook vs bishop endgames in Chapter 4).

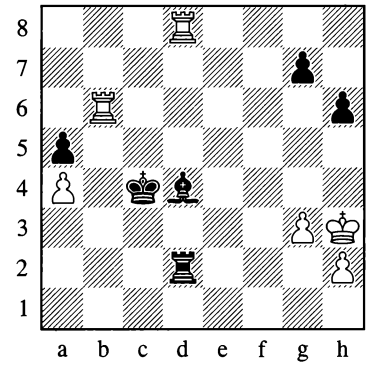


48.♖e1!

The e-pawn is doomed.

48...♔b4 49.♖xe6 ♔xb3 50.♖xb6† ♔xc4

White has to choose between a lot of wins.



The best from my standpoint would be:

51.♖b5!

Black has to accept the exchange of the rook in order not to lose the pawn. Without the rook, Black will find it harder to create active counterplay. Although White cannot defend the a-pawn indefinitely, Black will also take way too long to win it for anyone to care. And after winning it, things are still far from happening for Black.

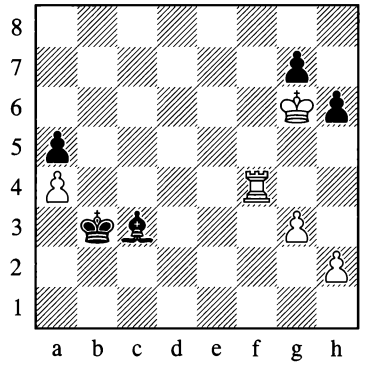
51...♗c3 52.♖xd2 ♗xd2 53.♖b1 ♗b4 54.♔g4 ♔c3

54...g6 55.♔f4 is not much different.

55.♔f5 ♔c2 56.♖f1 ♔b3 57.♔g6 ♗c3

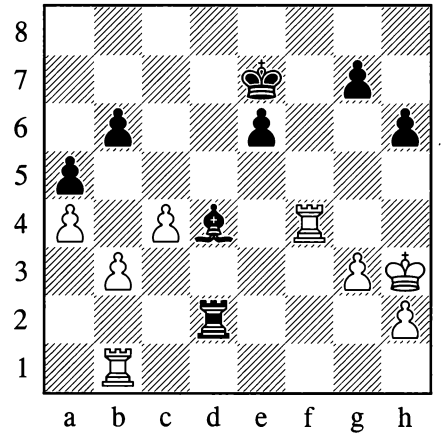
Black cannot give up the entire kingside.

58.♖f3 ♔b4 59.♖f4† ♔b3



60.h4

White is close to being fully prepared for the moment where he will return the exchange and win the race.

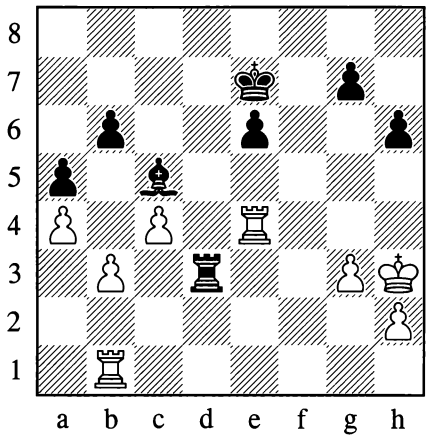


46...♗c5?

Returning the favour. Black could have played 46...e5! 47.♖ff1 h5 and it is clear that White's advantage is gone. Black obviously wanted to prevent 48.b4, but after 48...axb4 49.♖xb4 g5 it is clear that the exchange of pawns is favouring Black. And more is to come. Besides, the e-pawn is starting to look really strong.

47.♖e4! ♖d3?!

If Black returns with the bishop: 47...♗d4, White will solve his biggest problem, getting the king into the game: 48.♔g4 e5 49.h4 and White should still be on the path to victory.



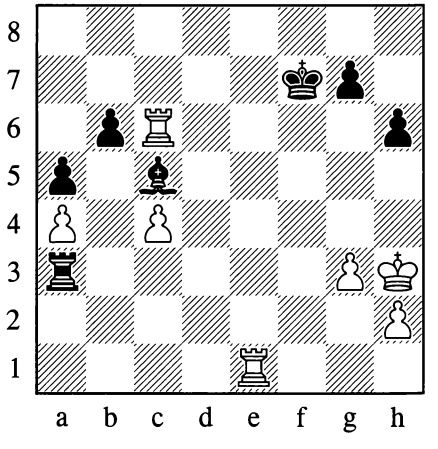
48.♖be1!

White takes the chance to get the pieces into the game. But also 48.♔g4 was good.

48...♖xb3 49.♖xe6† ♔f7 50.♖c6

I like the idea of 50.♔g4 with the follow-up ♔h5, but the move in the game is good too.

50...♖a3



The way I see chess is very much through building blocks like the three questions, which I have written about before:

1. *Where are the weaknesses?*
2. *Which is the worst-placed piece?*
3. *What is your opponent's idea?*

At this point, the rook on e1 and the white king are not active. White wants to win the g7-pawn more than anything, and create a winning passed pawn on the kingside. While Black is spending time taking pawns, White should activate his superior force.

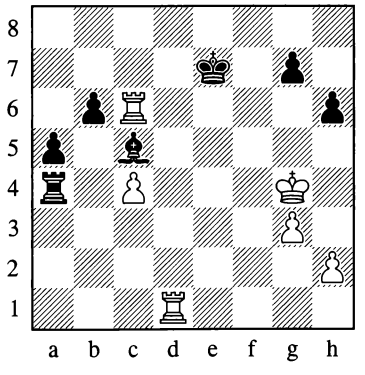
51.♖c7†

White could also have tried:

51.♖d1! ♔e7

Black does not have time for 51...♖xa4, when White will play 52.♖d7† ♔g8 53.♖cc7 ♗f8 54.♖c8 ♖a2 55.♖b7! and once the b6-pawn is gone, the c-pawn will be crowned.

52.♔g4 ♖xa4



53.♔f5!

Not wasting time defending irrelevant pawns.

53...♖xc4 54.♖e6† ♔f8 55.♖d8† ♔f7 56.♖d7† ♔f8 57.♖c6 ♔g8 58.♖cc7

White dominates.

51...♔g8?!

An ugly, passive move.

Black should play 51...♔g6, when the winning path narrows tremendously.

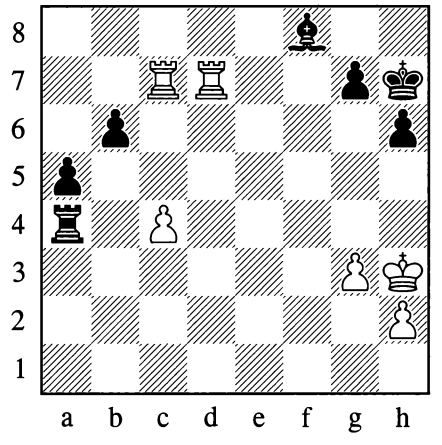
52.♖e8†

52.♖d1!, to go to d7 to attack g7, was the natural move.

52...♔h7 53.♖d8 ♖xa4

White should also win after 53...♔g6 54.♖dd7 ♖xa4 55.♖xg7† ♔f5, but we are in for a closer race than you would like.

54.♖dd7 ♗f8



55.♖b7??

The worst exchange ever. Giving up the only potential passed pawn for basically nothing.

White was still winning in a number of ways. Most spectacularly by sacrificing the essential pawn with 55.c5!! bxc5 56.♖c8 and Black can only resign.

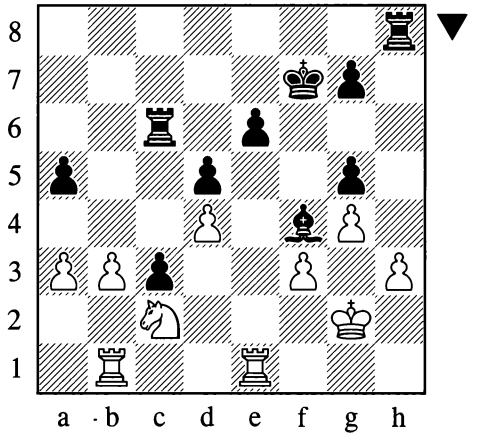
55...♖xc4 56.♖xb6 a4 57.♖b8 ♗a3 58.♖bb7 ♗f8 59.♖f7 ♖c8 60.♖a7 a3 61.♖f3 ♔g8 62.♖axa3 ♗xa3 63.♖xa3

½–½

No doubt a disappointment for Ryo. But with his tenacity and bright intelligence, he is already on to making title norms, long before his teenage years. Future books will be full of his successes, so he will surely quickly forget this endgame.

Viswanathan Anand – Yeoh Li Tian

Tbilisi 2017



Anand had won the first game of this first-round match, and was for a while slightly better with White without the necessity to take any risks. But in what appears to be complete lack of concentration, like a driver falling asleep at the wheel, he drifted slowly towards the cliff edge without taking drastic action to change the course.

52...e5!

And now it is too late.

53.dxe5 ♖xh3! 54.♖h1

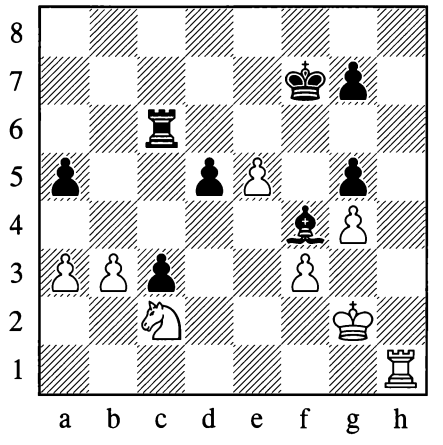
54.♔xh3 ♖h6† 55.♔g2 ♖h2† 56.♔f1 ♖xc2 wins for Black after a few accurate moves. I am sure that Anand saw this and knew immediately that it held no chances for him.

54...♖xh1

A natural move.

Still, it is quite possible that 54...♖h4!? was more practical.

55.♖xh1



The dust has settled and it is time for the Malaysian Number 1, at the time an IM of only 18 years of age, to convert his endgame advantage against the five times World Champion. Had it been a young Russian with the black pieces, this probably would not have been an overly emotional experience. But the reverence for Vishy in Asia is only comparable with that of Aronian in Armenia and Carlsen in Norway. And maybe even more than that. It would be natural to expect Yeoh Li Tian to be a bit nervous.

55...♗xe5?

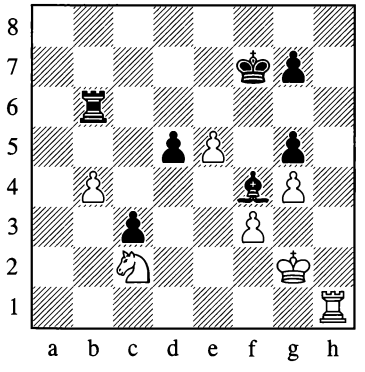
It feels natural to take a free pawn. Even if it looks entirely irrelevant to what is happening strategically right now. It could come in handy later. Yet material is not White's main problem in this position. Rather it is how offside his king and rook are. Quick action on the queenside would thus have won the game quickly.

But knowing how the game progresses, it is also worth discussing this position through the prism of exchanges. The black bishop is not working well together with the c3-pawn if White is able to get the king to d3. So, an exchange of bishop for knight would be highly desirable for Black.

However, this will not happen. So, what about the exchange of rooks? On the downside, it would deprive Black of a way to attack the many white weaknesses and also allow some fortress positions. (And Anand is the king of fortresses, let's not forget!) However, at the same time it would also stabilise the position and take away all of White's chances to do something active. This factor is likely to be more important when Black has two such fabulous connected passed pawns.

55...♖h6? would be the wrong idea at the moment. 56.♖xh6 gxh6 57.♔f2 would make it impossible for Black to penetrate the white position, the extra pawn being useless.

Active play would be far more effective:
55...♖b6! 56.b4
56.♖b1 ♖h6! is a nice switchback theme. As we know, the exchange of rooks is in Black's favour as long as the white king cannot make it to d3.
56...axb4 57.axb4
57.♘xb4 ♖xb4!



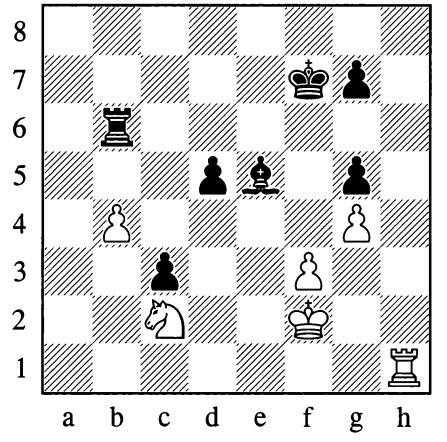
57...♖a6!
Activating the strongest piece first. White can of course try something here, but with the black rook landing on a2, the game is decided.

56.♔f2! ♖b6?!

Black is still winning, but things are getting more and more difficult.

56...♖c8! is most accurate, to prevent the white rook becoming active. Black can then put his rook on the f-file to tie White to the defence of the f3-pawn. A set-up with Black's rook on f4, king on c5 and then playing ...a4 would quickly create a disastrous position for White.

57.b4 axb4 58.axb4

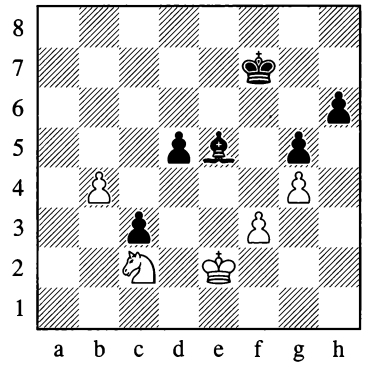


58...♗d6?

58...♖a6 59.♔e2 ♔e7 60.♔d3 ♔d6 61.♖h8 leaves us with an endgame in the grey-zone. Objectively Black is still winning. But in practice, the game has certainly slipped from his hands and the white rook will be as difficult to get rid of as a mosquito in a tent.

However, a clear and logical path to victory was offered by the exchange of rooks. This is something that should benefit Black as his position is completely winning, and White wants to use the rook to generate counterplay.

58...♖h6! 59.♖xh6
White can try 59.♖h5, but 59...♖xh5 60.gxh5 d4, followed by bringing the king to d5, wins easily. After this, the black bishop will manoeuvre to a7, and the black king will be free to go wherever he desires and take whatever he fancies.
59...gxh6 60.♔e2



60...♔e6

Everyone would play this move, as there is no reasonable reason to travel via e7. Curiously, this is not just a matter of "what the hands want", but actually a case of accuracy.

60...♔e7? 61.b5 ♔d6 (61...♔d7 would allow White to use the light squares to activate his king. 62.♘b4 d4 63.♔d3 ♔c7 64.♘c2 ♔b6 65.♔c4 and Black cannot make progress.) 62.b6 ♔c6 63.♘b4† ♔xb6 64.♘xd5† ♔c5 65.♘e3 and White is able to establish a fortress.

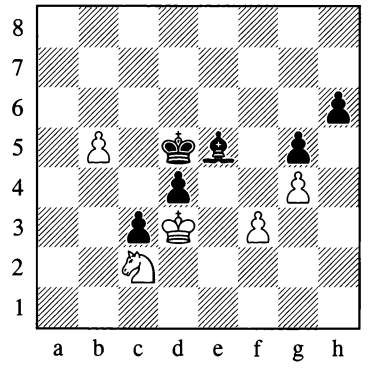
61.b5

White cannot just sit and wait for Black to round up the b-pawn.

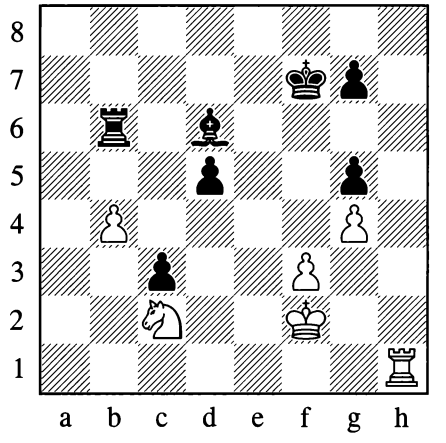
61...d4!

Again, I think everyone would play this move. Notice that the unnatural 61...♔d6 would transpose to the line above. However, like this, the king and the bishop work well together.

62.♔d3 ♔d5



White will lose the b-pawn, after which Black will win slowly, never in danger of losing his two extra pawns.



59.♔e2?

Played with the attitude of "don't interrupt your opponent when he is busy making a mistake".

59.♖b1? would force Black to find a new plan. In this case 59...♗e5! and then ...♖h6 on the next move. Anand cunningly decided not to protect his pawn, no doubt having already seen the futility of defending the minor piece ending.

This was only wrong because he missed a much stronger option. 59.♖d1! ♔e6 60.♖e1† ♔d7 and only now 61.♔e2!, where Black can still win the b-pawn, but afterwards he will find his king stuck on the wrong side of the e-line, unable to help on the kingside. White is already making the draw.

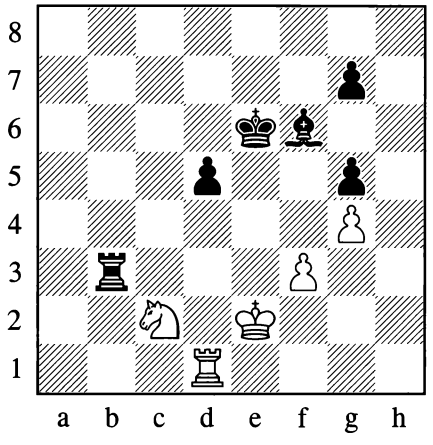
59...♗xb4 60.♔d3 ♗e7!

Black cannot hold on to the pawn. So, what has this operation achieved? To exchange pawns. Although Black is winning with best play, the draw is significantly closer.

61.♔xc3 ♗f6† 62.♔d2 ♖b3! 63.♔e2 ♔e6

64.♖d1

64.♖c1!? is one of those mysterious moves that humans do not play. Black should still win in the long run.



64...♔e5?

64...♖b2 65.♔d3 ♔e5 and ...♔f4 would have won. Compare this with the position after 59.♖d1!.

65.♘e1

65.♖d3! was stronger. The exchange of rooks would benefit White at this point, because he is close to creating an impenetrable fortress.

65...♖b2†?

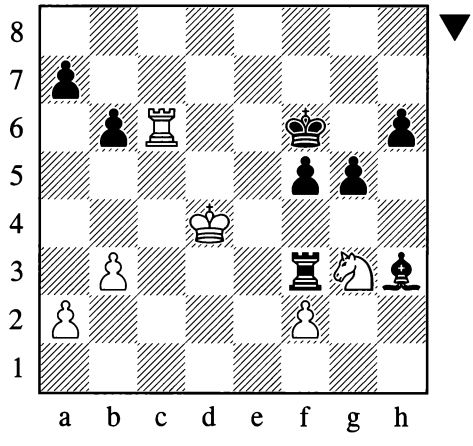
The final mistake.

65...♔d6!? 66.♘d3 ♗c3! was the last chance to apply pressure. Yet after 67.f4! White is close to a draw.

66.♖d2 ♖b8 67.♘d3† ♔d6 68.♖a2 ♖h8 69.♖a6† ♔c7 70.♘b4 ♖d8 71.♖a5 ♔b6 ½–½

Anish Giri – Hou Yifan

Wijk aan Zee 2016



We enter the game at a point of Black triumph. White played the London System and has been punished for his sins. At the outset the position is completely winning for Black. The bishop is better than the knight and the extra pawns are good to have too.

44...♔e7

Like in the previous example, we start with a small inaccuracy by Black. White is obviously going to harass the black king with umpteen checks. The question is whether Black should step away on the light or the dark squares. Working this out is not easy at all.

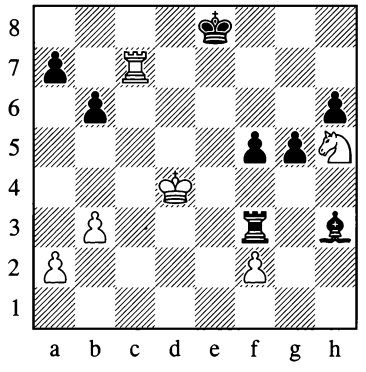
44...♔f7!

This turns out to be the more accurate move. And as in so many other situations, early accuracy will make everything easier.

45.♖c7†

A small tactical point is that the direct 45.♖xh6 would allow 45...♖xf2! 46.♖xh3 ♖f3, when the two passed pawns will decide the game. 47.♘e4 is the despairing wriggle of a fish in a net. Another pin takes over, with 47...♖f4! winning.

45...♔e8! 46.♘h5



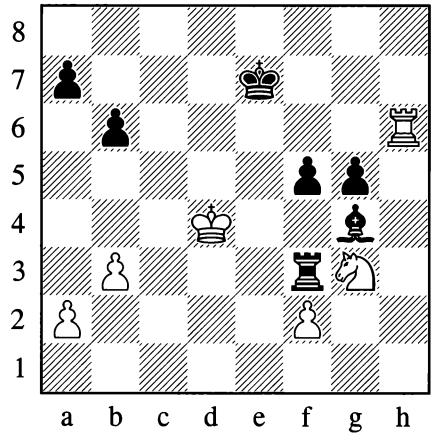
My guess is that this was what Hou Yifan was uncertain about. The black king is passive and after something like 46...♖xf2 47.♘g7†! there is already enough counterplay for a draw.

But Black has several winning moves. For example:

46...♔f8!? 47.♖xa7 ♖xf2 48.♖h7 f4 49.♖xh6 ♔e7 50.♖xb6 ♖xa2 51.♖g6 ♖a5

Nothing of this comes easy. To a great extent the guide on this journey for Black has to be experience and intuition. Calculation alone cannot do it.

45.♖xh6 ♗g4



46.♖g6!

While being a terrible finisher, Giri is a top-notch defender. He knows that removing another pawn increases his chances considerably.

46.♖h7† ♔f6 47.♖h6† ♔f7 48.♖h2 ♖f4† 49.♔e5 ♔g6 is the type of thing Black is hoping for. Everything is more or less under control and the white pieces are passive. 50.a4 ♗d1 51.♖h8 ♗xb3 52.♖c8 ♖c4 53.♖g8† ♔f7 54.♖xg5 ♖c5† 55.♔f4 ♗c2 56.♔e3 ♔f6 57.f4 ♗d1 is a computer line that can illustrate how Black could win the game.

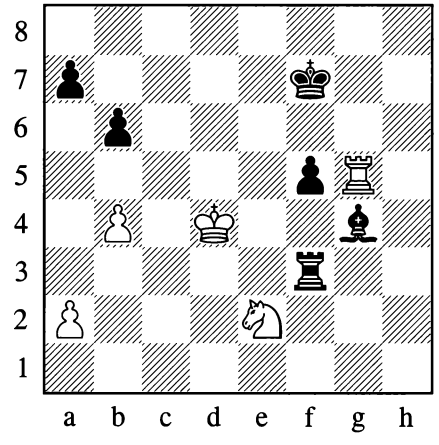
46...♖xf2 47.♖xg5 ♔f7!

A nice domination move.

48.b4 ♖f3

It is important to understand that the otherwise desirable 48...♔f6?? is met with 49.♖xg4!, when Black should feel happy that she can still make a draw.

49.♘e2



49...♖h3?

The first really poor move of the endgame. Black is completely dominating her opponent and now had to think of a way to exploit the advantage.

Instead, she becomes frustrated with the apparent absence of an immediate winning move and chooses to transfer the rook to a worse position.

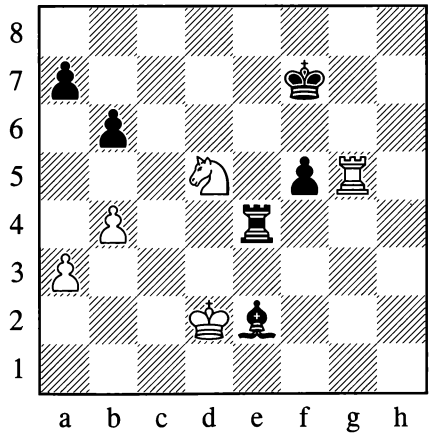
Black fails to find another forced win. 49...♖f1!

50.♘g3 ♔f6! was the simplest, although there are a number of variations on this theme that work too. After 51.♖g8 ♖f4† Black picks up another pawn and the technical difficulties are left behind.

50.♘c3 ♖h8 51.♘d5

The knight is just in time to prevent Black from trapping the rook with ...♔f6.

51...♖e8 52.a3 ♖e4† 53.♔d3 ♗e2† 54.♔d2

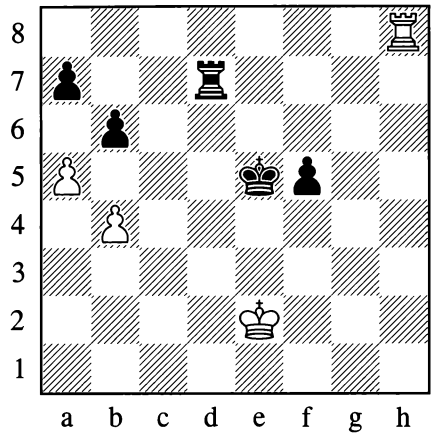


Frustrated by the absence of any clear path to victory, Hou Yifan has reached a position where there is only one winning move. White is ready to play ♘d5-e3, after which no winning chances exist. Flustered by the resistance offered by her opponent, Hou Yifan chooses to make the worst possible exchange, going into a rook endgame.

54...♖d4†?

Black should have played 54...♗a6!, when White cannot play 55.♘e3 f4 or 55.♖xf5† ♔e6!, which lead to quick defeat. And after 55.♘c3 ♖d4†, when either 56.♔c1 ♗d3 or 56.♔e1 ♖d3 leaves White dominated and in despair.

55.♔xe2 ♖xd5 56.♖h5 ♔g6 57.♖h8 ♖d7 58.a4 ♔f6 59.a5 ♔e5



60.♖c8?

Giri decides not to rock the boat, hoping that Black is unable to do active damage. He apparently played this move instantly, making it to the next time control, where he would receive another 15 minutes, on top of the 30-second increment the players were getting on each move.

It is possible that Giri had seen the futility of the following line in advance and thus chose his perplexing move. 60.axb6? axb6 61.♖b8 ♖d6 62.♔e3 f4† 63.♔f3 ♔d4 and White will not be able to defend the b-pawn for long, leading to a theoretically lost ending.

White could play for this waiting strategy if he first improved his position. After 60.♔e3!?, Black cannot play 60...bxa5 61.bxa5 ♖d5 with success anymore, as White has 62.♖e8† ♔d6 63.a6 ♖a5 64.♔f4! with active counterplay.

And after 60...f4† 61.♔f3 ♖d3† 62.♔e2 ♖b3 63.♖h7 White has sufficient counterplay.

But simplest was 60.a6!, fixing the a7-pawn as a weakness. White has a lot of active resources, like ♖b8-b7 in some positions. All he has to do to draw is prevent the black king getting to c6. 60...♔d5 61.♔d3 holds the fort. Obviously Hou Yifan would have tried to come up with something. But White has many ways to hold.

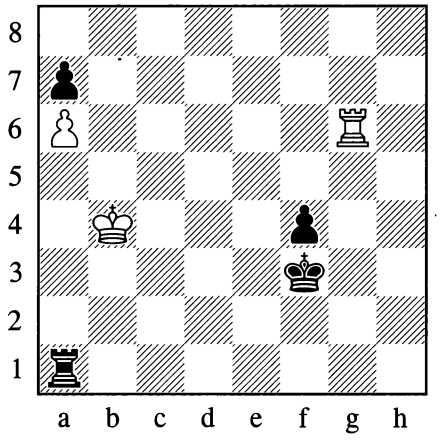
60...bxa5! 61.bxa5 ♖d5 62.a6 ♖a5!

Perhaps Giri was planning for 62...♖d6? 63.♖c5†! ♔f4 64.♖c4† ♔g5 65.♖a4, when White holds.

63.♖c6 ♔d5 64.♖f6 ♔e4 65.♖e6† ♔f4 66.♔d3!

Realising that passive play will not be enough to deal with the perfectly-placed black rook and king, Giri looks for active counterplay.

66...♖a4 67.♖g6 ♔f3 68.♔c3 f4 69.♔b3 ♖a1 70.♔b4



One of the many things I admire about Anish Giri is his ability to create practical problems for the opponent. Here he has managed to set up a situation where what to many would be the most logical move, fails to win the game.

70...♔e3?

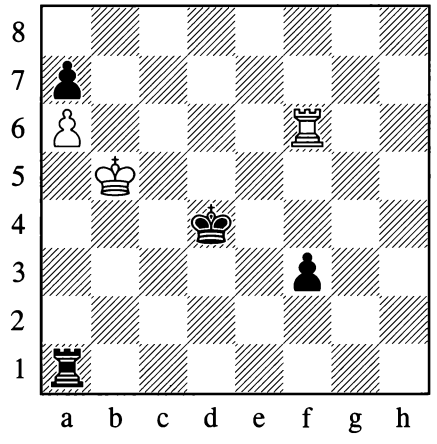
This leads to a draw as we shall see. Black had two paths to victory, both based on prophylaxis. The first is the more natural of the two, although less convincing.

70...♔e4 71.♔b5 f3 72.♖e6† ♔d5 73.♖f6 ♖f1! is a nice winning line. The point is easy. White will have to give up the rook, as after 73...♖f1 in the game, but with the king unable to reach the c6-square.

Black also had a very instructive winning plan in 70...♖a2! 71.♔b5 ♖g2 72.♖f6 ♖g7 and the rest should be rather easy.

But on the other hand, 70...♔f2? would lose a tempo. After 71.♔b5 ♖g1 72.♖f6 f3 White has time to play 73.♖f7, drawing.

71.♔b5 f3 72.♖e6† ♔d4 73.♖f6



73...♖b1†

As everything is working a bit less well for Black with the king on d4 instead of d5, it is easy to understand that Black decides to force the white king backwards.

73...♔e4 would effectively lose a tempo and after 74.♖f7!, White has enough time to save the game.

After 73...♖f1, the access to the c6-square is very useful for White. He can afford to lose the rook, as the a-pawn will secure the draw. 74.♔c6 f2 75.♔b7 ♖b1† 76.♔xa7 f1=♕ 77.♖xf1 ♖xf1 78.♔b7 ♔c5 79.a7 ♖f7† 80.♔a6!

74.♔a4!

From here on Giri is as accurate as can be. Hou Yifan did not get a third chance to win the game.

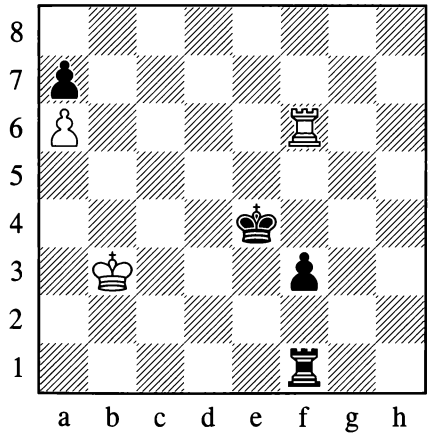
74...♖f1 75.♔b3!

Again, the only move, but this time not too difficult.

75.♔a3? ♔e4 76.♔b2 (76.♖f7 ♖a1† picks up the a-pawn.) 76...♖f2† 77.♔b3 ♖e2 wins without any complications.

The same is the case for 75.♔b5? f2 76.♔c6 ♖c1† 77.♔b7 f1=♕ 78.♖xf1 ♖xf1 79.♔xa7 ♔c5 and Black wins.

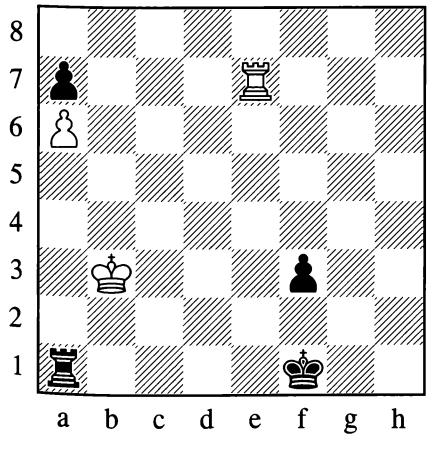
75...♔e3 76.♖e6† ♔d2 77.♖d6† ♔e3 78.♖e6† ♔d4 79.♖f6 ♔e4



80.♖f7! ♖a1

Because the black king has been harassed back to e4, White would be able to meet 80...f2 with 81.♔b2 with an immediate draw.

81.♖e7†! ♔d4 82.♖f7 ♔e3 83.♖e7† ♔d2 84.♖d7† ♔e1 85.♖e7† ♔f1



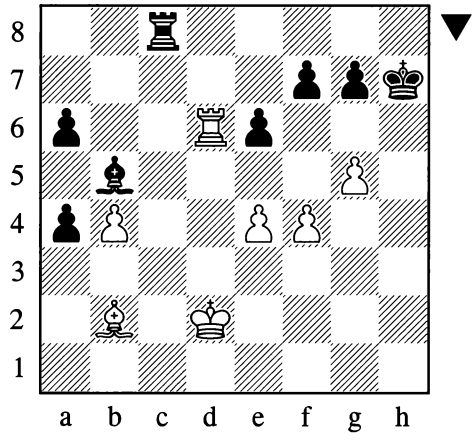
86.♖xa7

Only now can White take the pawn. He needed the time to bring in the king.

86...f2 87.♔c4 ♔e2 88.♖e7† ♔d2 89.♖f7 f1=♕† 90.♖xf1 ♖xf1 91.♔b5 ♔c3 92.a7 ♖f8 93.♔c6 ♔b4 94.♔b7 ♖f7† 95.♔b6 ♖xa7 ½–½

Andre Diamant – Neuris Delgado Ramirez

Brasilia 2017



Black has an obvious advantage. With an extra pawn, and one of his pawns passed, he should be able to win if nothing happened. However, it is not so easy for him to convert the advantage. An obvious problem is the passive king. Another is the opposite-coloured bishops.

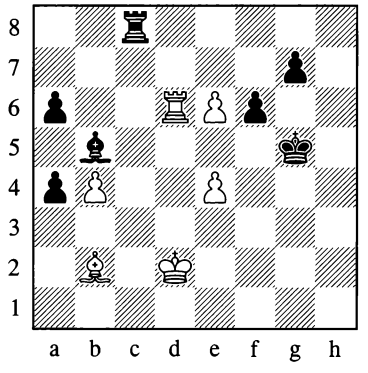
Regarding exchanges, there is not really anything Black can do. The exchange of bishops is unlikely to happen, and the exchange of rooks would totally ruin his chances of playing for a win. Thus, the only problem he could actually solve would have been to bring the king into the game.

33...a3??

A horrific move.

If Black wanted to push the pawn, he could have tried: 33...♖c4 34.♖d4 (34.g6† ♔xg6 35.f5† looks fancy, but after 35...♔h5 36.fxe6 fxe6 37.♖xe6 g6 Black has real winning chances with the passed g-pawn, although a draw remains most likely.) 34...a3! 35.♗a1 ♖c8 36.f5 ♖e8 37.♔c1 Black is obviously better with the pawn advanced to a3, but the chances of him winning the game are not overwhelming. More pawns have been exchanged and the black king has been unable to join the game.

So for this reason, Black should have applied the Shankland Rule and brought the king into the game: 33...♔g6! This has the dual effect of activating the king and making ...♖h8 possible, while retaining the ...♖c4 option. The only possible downside would have been if White could play 34.f5† ♔xg5 35.fxe6. But here Black has the clever 35...f6!! at his disposal.

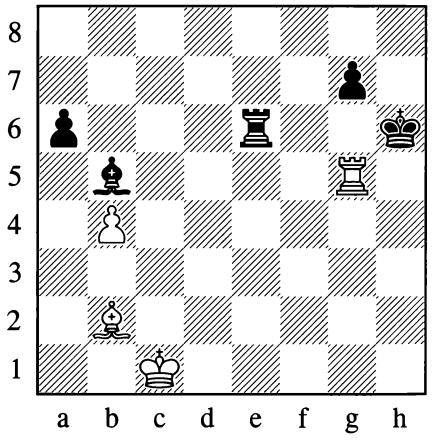


White has lost all of his counterplay and his pawns are suddenly all weak. The black king has broken out of his cage and is ready to sow terror on the board. On top of this, there is a strong pawn on g7 that will join the game when it is time.

34.♗xa3 ♖c4 35.f5!

This leads to a further exchange of pawns, and also brings about the possibility of a theoretical draw where White hides the king in the corner.

35...♖xe4 36.g6† fxg6 37.fxe6 g5 38.♗b2 ♖e2† 39.♔c1 ♗c4 40.♖c6 ♗d3 41.♖d6 ♗b5 42.♖d5 ♖xe6 43.♖xg5 ♔h6



44.♖xg7!

Forcing the draw, a piece down. Obviously White was not in danger of losing, but it is cool nonetheless.

44...♖e1† 45.♔d2 ♖e2† 46.♔c1 ♖xb2 47.♔xb2 ♔xg7
½–½

6. Maximise your advantage before striking

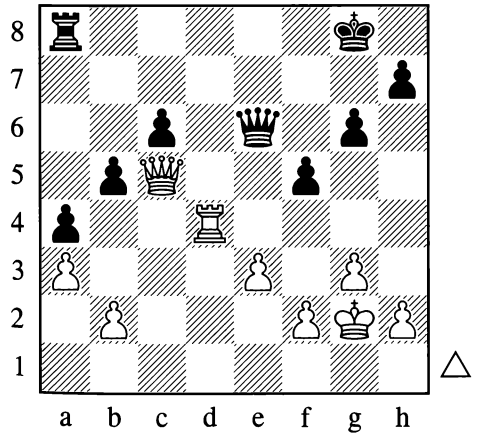
One of the core techniques for playing with an advantage relates to positions where you have managed to dominate your opponent. In those situations, you will want to prevent counterplay and then increase your advantage to the maximum before using it. It is known as "do not hurry".

In the following example, White is dominating the situation, offering his opponent no chance to play active moves. All he can do is shuffle the rook along the 8th rank.

Thus, there are a number of ways for White to improve his position. Accuracy in this regard is not strictly essential. What is essential is that he does not rush.

Vladimir Fedoseev – Sam Shankland

Danzhou 2018



39.♖d6?

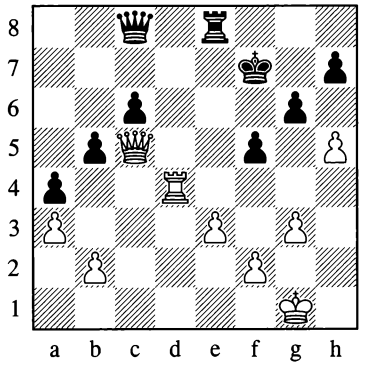
But, alas, Fedoseev did.

39.h4! is the most natural way to improve the position. Let's look at two likely continuations.

39...♖c8 40.♔g1! White further improves his position, preparing ♖d6 and h4-h5. Black would probably have resigned in another move or two.

I should mention that 40.♖d6 would also win now, although it would still require a bit of accuracy. Something that is not always available to us when we need it.

39...♖e8 40.♔g1 ♕c8 is the only way to prevent ♖d6 from winning the c6-pawn eventually. But White can now play 41.h5 and create further threats. 41...♔f7

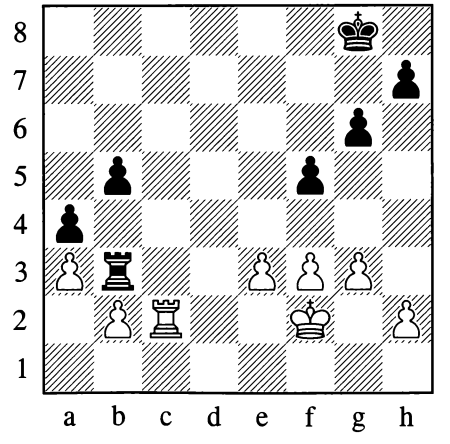


42.h6!, with the idea of following up with ♕c3, would be good technique. No calculation required.

39...♕e4† 40.f3 ♕c4! 41.♕xc6

41.♕xc4† bxc4 42.♖xc6 ♖b8 would also offer Black sufficient counterplay.

41...♕xc6 42.♖xc6 ♖d8 43.♖c2 ♖d3 44.♔f2 ♖b3



Black has managed to get very active after only losing a pawn. White was unable to create even the slightest practical problems for his opponent.

45.g4 fxg4 46.fxg4 ♔f7 47.♔f3 b4 48.axb4 ♖xb4 49.h3 ♔f6 50.h4 h6 51.♖c6† ♔f7 52.♖a6 ♔g7 53.♖a7† ♔f6 54.♖a5 ♔f7 55.e4 g5 56.hxg5 hxg5 57.♖xg5 ♖xb2 58.♖a5 ♖a2 59.♔f4 a3 60.♔g5 ♖e2 61.♖a7† ♔f8 62.♔f5 a2 63.g5 ♖f2† 64.♔g6 ♖e2 65.e5 ♖f2 66.♖a5 ♖g2 67.♔f6 ♖f2† 68.♔e6 ♖e2 69.♖a7 ♖f2 70.g6 ♖g2 71.g7† ♔g8 72.♔d5 ♖d2† 73.♔e4 ♖e2† 74.♔d4 ♖d2† 75.♔e3 ♖g2 76.♔d3 ♖f2 77.♔c4 ♖e2
½–½

7. Domination

I find that domination is one of the worst-explained topics in the endgame. If you look up the definition on Wikipedia, you will find a peculiar endgame study where three minor pieces dominate a rook in the middle of the board, so that it is eventually lost to a nice tactic. To most, this is what domination in the endgame means: something outlandish from endgame studies.

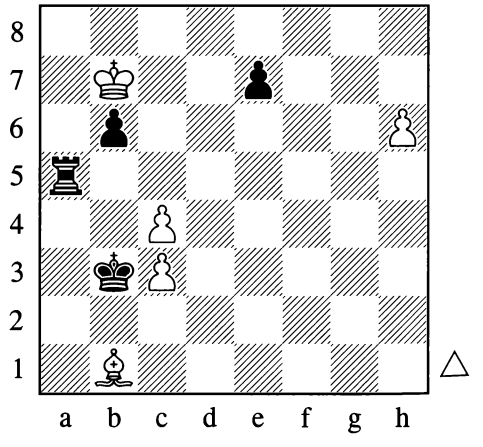
The other example on the Wikipedia page is even worse. And you will find examples in the best overall endgame manual, *Dvoretsky's Endgame Manual*, which are just as bad: domination as simply a trapped piece. In reality, domination is a much more complex topic. And if you want to go far deeper, you could look at micro-domination. I am talking about positions with a white knight on c3 and a black bishop on c6, and discussing in which scenarios the knight is dominating the bishop, and in which scenarios the bishop is dominating the knight. It will usually come down to what is happening on the rest of the board, although there is a tendency for the bishop to be the stronger piece in this scenario, as it has a wider range and thus is not limited as much as the knight.

In this section we shall see four examples. First, a traditional example of domination in a study, then a study of my own. Then two recent practical games – one with a very commonplace endgame scenario and another with a very uncommon middlegame situation.

In the next section, I will give a brief introduction to the idea of micro-domination, illustrated by one of my own games.

H. Bednorz, M. Minski & W. Bruch

Europa Rochade 2006
(Special Honorary Mention)



This beautiful study is a strong representation of domination in studies. I have chosen to skip the first move, to make it cleaner.

2.c5!

We can see the reason why White wants to get rid of the c-pawn after 2.♗g6? ♖a2!, and Black will hold.

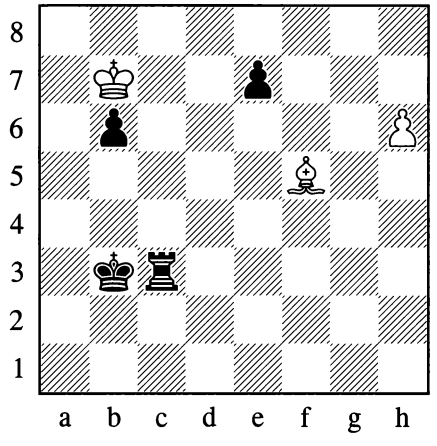
2...♖xc5 3.♗g6

Forcing the rook to take the c3-pawn.

3...♖xc3

3...♖c4 4.♗f7 and White wins.

4.♗f5!



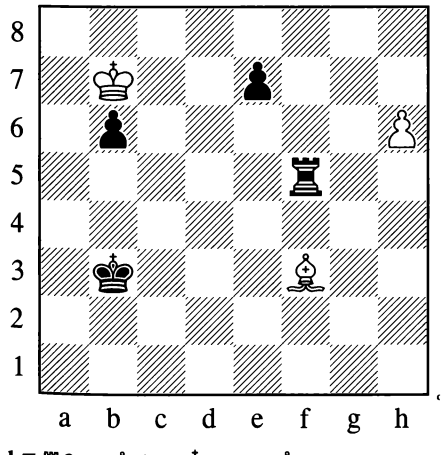
It is surprisingly difficult for the black rook to stop the h-pawn.

4...♖c1 5.♗e4 ♖c3 6.♗g2! ♖c5

6...♖d3 7.h7 ♖d8 does not work. White has 8.♗d5†! and 9.♗g8, winning.

7.♗f3 ♖f5

What else? After 7...♖c4 8.♗d5 and 7...♖c2 8.♗d1, the black rook is fatally pinned.

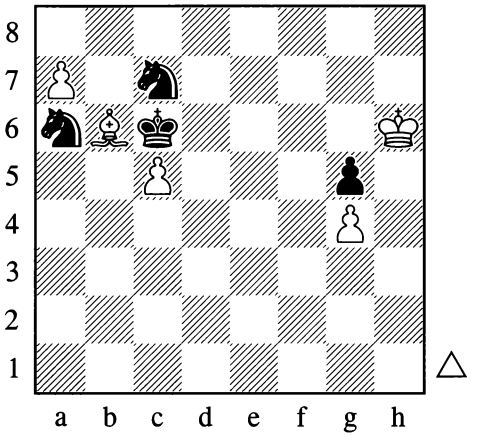


8.h7 ♖f8 9.♗d5† ♔c3 10.♗g8

White wins.

Aagaard/King

Original 2020



This is a traditional "White to play and win" position, reworked from a blitz game by FM Alex King of Memphis, Tennessee. Basically, I moved the white king and thus made it an "original" study?!

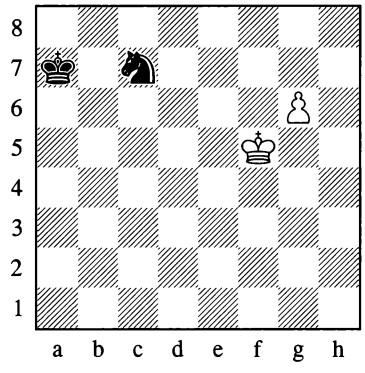
Alex is a talented player, with a strong passion for both chess and music.

In this position, the sub-topic to domination is *corresponding squares*.

1.♔g6!!

A tempo-losing move.

1.♔xg5? fails to 1...♘xc5 2.♗xc5 (2.♗xc7 ♘e6† 3.♔f5 ♘xc7! is similar. The knight needs the e8 or d5-square.) 2...♔xc5! 3.♔f5 ♔b6 4.g5 ♔xa7 5.g6



The position is an easy draw, whereas if the knight was on c5, it would not be able to fight for the important e8-g7-h5-squares. 5...♘e8 and Black will be able to eliminate the g-pawn easily.

1...♔b7

The king has to stay close to the pawns, or White would play ♗xc7 and ♔xg5, and it would take Black way too long to pick up the pawns on the queenside and then make it to the kingside.

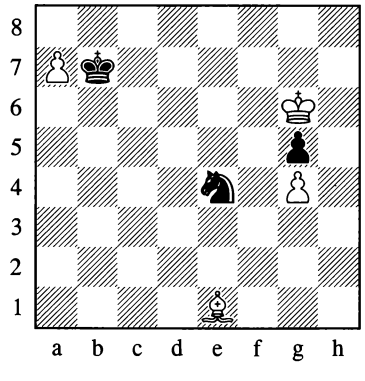
1...♘xc5!? 2.♗xc7 ♔b7

This is a try, but White has a number of ways to keep the knight away from the g4-pawn. I guess most thematic is:

3.♗g3?!

3.♗b6! ♘e4 4.♗e3 is more human; but the text move leads to a fun line that shows how micro-domination works.

3...♘e4 4.♗e1

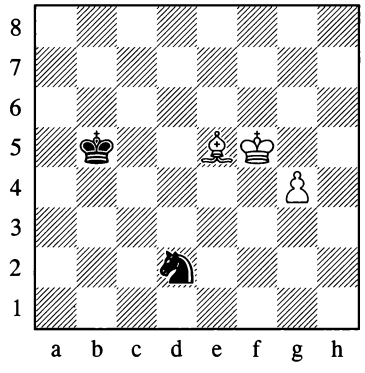


The knight is dominated, despite being in the centre, with the bishop on the edge of the board.

4...♔xa7 5.♔f5 ♘d6† 6.♔xg5 ♔b6 7.♗b4!

Kicking the knight about.

7...♘c4 8.♔f6! ♔b5 9.♗c3 ♘d6 10.♗e5 ♘e4† 11.♔f5 ♘d2

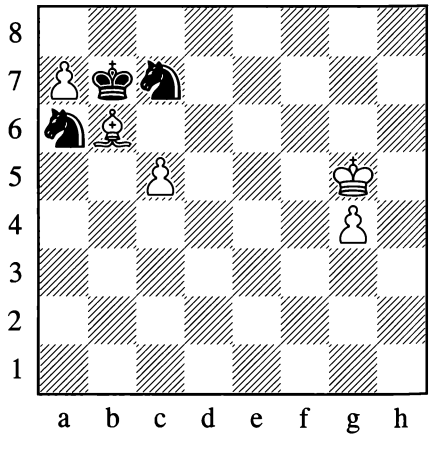


The knight is desperately trying to eliminate the g-pawn, while being kicked about like a dog trying to steal meat off the chef's table.

12.♗f4 ♘f3 13.♔e4 ♘h4 14.♗g3 ♘g6 15.♔f5 ♘e7† 16.♔e6 ♘g6 17.♔f6 ♘f8 18.♗d6 ♘d7† 19.♔e6 ♔c6 20.g5

And White wins.

2.♔xg5!

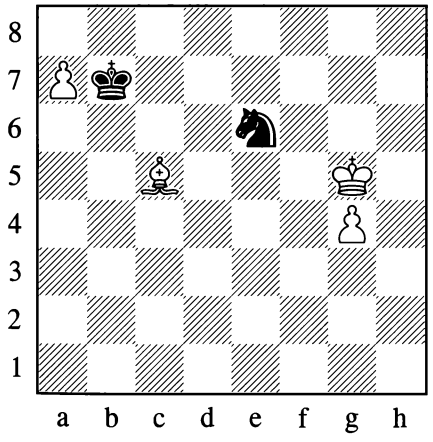


The truly astonishing thing about this position is that the black king wants to be on b7, but "winning a tempo" and getting there early is actually losing a tempo. This is because what the king has to do first is recapture on c5.

2...♘xc5

2...♘d5 3.♔f5 ♘e3† 4.♔f4 ♘d5† 5.♔e5 would allow White to win slowly by domination.

3.♗xc5 ♘e6†



4.♔f5!

A typical scenario in endgames. Micro-domination. The knight is denied the needed squares by the white king.

4.♔f6? would blunder away a check on e4.

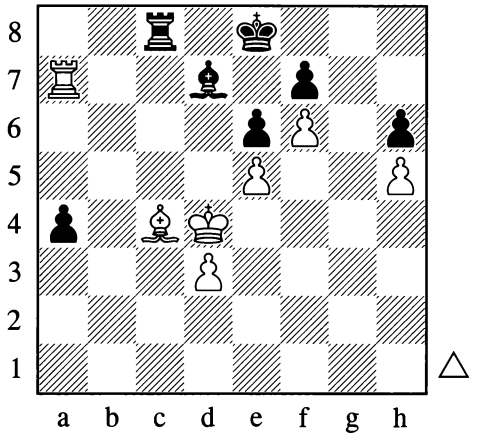
4...♘xc5 5.g5

White wins. The pawn cannot be stopped.

In the next example, White has been pressing for a long time, but failed to make the most out of his advantage.

Vahe Danielyan – Alen Yeremyan

Yerevan 2021



63.♔c3? ♖b8

White is still better here, but the black position is fully defensible.

64.d4

64.♔d4 does not manage to repeat the position. After 64...♖d8 65.♔c5 ♖c8† the white king is pushed back.

64...♖c8 65.♔d3 ♗c6 66.♔d2 ♔f8 67.♗d3 ♖a8! 68.♖xa8† ♗xa8 69.♔c3 ♗f3 70.♔b4 ♗xh5 71.♔xa4 ♗f3 72.♔b4 ♗d5 73.♔c3 ♔g8 74.♔d2 ♗f3 75.♔e3 ♗d1 76.♗e4 ♗g4 ½–½

White had the chance to place his opponent in chains with accurate moves:

63.♗a6!

This move exposes Black's main issue: his king is trapped on the back rank, in danger of getting mated.

63...♖d8

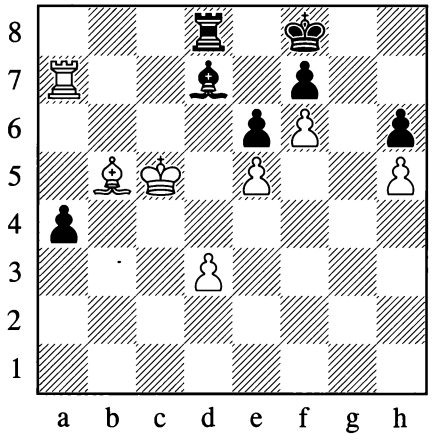
I really like the following variation: 63...♖b8 64.♔c5 a3 65.♗b7! a2 66.♔d6 ♔d8 67.♗c6, which again dominates the black pieces. The pawn on the 2nd rank offers no benefits.

64.♔c5 ♔f8

The king is trying to escape. But the corner is not so much a safe space, as it is a cage.

64...♖b8 65.♗b7 and 66.♔d6.

65.♗b5!

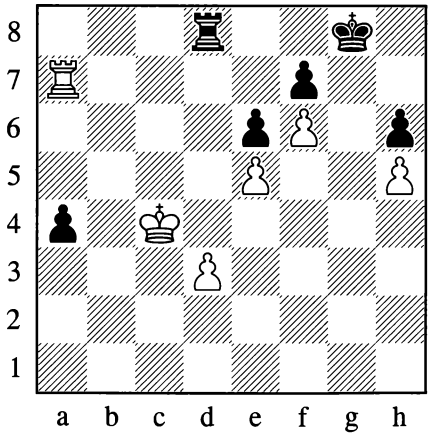


Yes, the white bishop is the stronger piece. But the exchange of the bishops removes a lot of defensive ideas for Black and creates clarity, which is an important reason to exchange pieces.

65...♗xb5

65...♖c8† 66.♔b4 does not change anything.

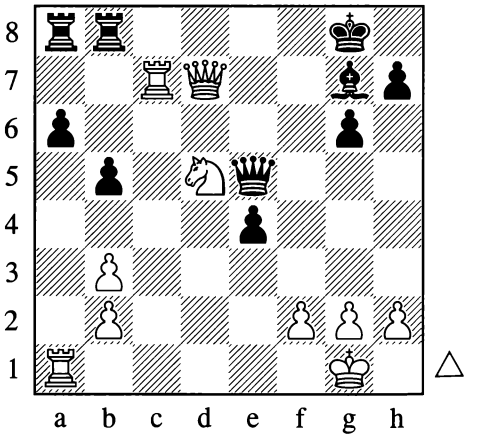
66.♔xb5 ♔g8 67.♔c4



The rook endgame will win slowly. White will take the a-pawn, put his pawn on d4, rook on d6 and advance the king. If the black rook stays on the 8th rank, White will exchange rooks and win the pawn ending. If the black rook departs from the 8th rank, White will have a breakthrough with 1.♖d8† ♔h7 2.d5! exd5 3.e6! and the f-pawn will at least win the rook when queening.

Wei Yi – Wen Yang

Xinghua 2020



Domination is not solely an endgame concept, although on a larger scale it is rare in the middlegame. However, if you talk about micro-domination, it is quite a common thing. We are back to talking about the knight on c3 vs the bishop on c6. Who dominates who? It is all about where the action is happening. Who is defending and who is attacking. The following example of blatant domination is beautiful and quite recent.

29.♘e7† ♔h8 30.♘c8!

I cannot off the top of my head recall a situation where two rooks were in this way cut off from the game by the enemy's pieces.

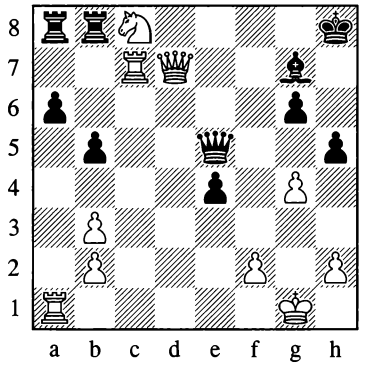
30...h5 31.♖d1!

Bringing in the last piece, ready to exploit the temporary advantage in manpower. Also, Black has some ideas with ...♕d4, harassing the white queen, which I can understand Wei Yi not entertaining.

Actually, after 31.♖e1!? they do not work, so it was a serious alternative.

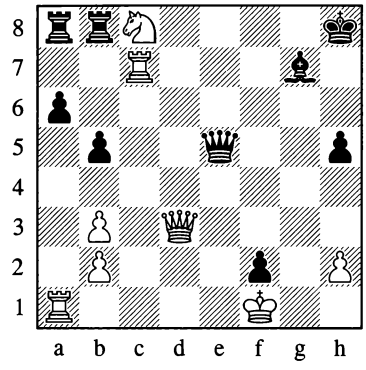
The computer offers a surprising top choice that I doubt many grandmasters would even see, let alone consider seriously.

31.g4!?

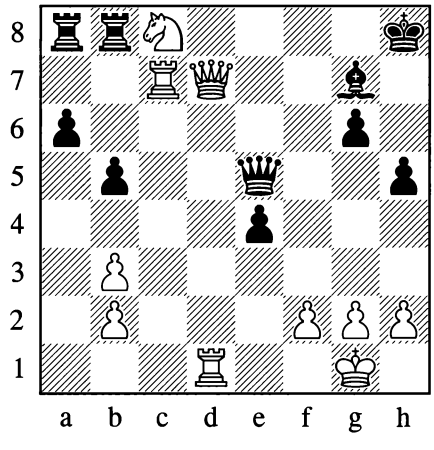


The idea is to blow the black kingside to pieces. The key idea is that after 31...hxg4 32.♖ac1! e3 White can start a mating attack with: 33.♕d8† ♔h7 34.♕h4† ♔g8 35.♘e7† ♔f7 And now for example 36.♘xg6† ♔xg6 37.♖1c6† ♗f6 38.♕xg4† ♕g5 39.♖xf6† ♔xf6 40.♖c6† wins. As do so many other ideas.

So, for this reason Black has to try 31...e3 immediately. This alone would be enough to scare me away. For example: 32.gxh5 exf2† 33.♔f1 gxh5 34.♕d8† ♔h7 35.♕d3† ♔h8



White only wins with 36.♖e7! ♕f4 37.♕g6 ♕f8 38.♖e8 ♖xc8 39.♖xf8† ♖xf8 40.♖xa6!, according to the computer. Even here I would not feel certain of the evaluation during the game. No matter how much Wei Yi saw of this (possibly nothing), he would have been a fool to play in this way, even though White is certainly winning here.



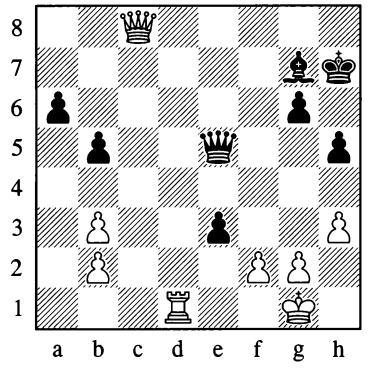
31...e3?

This is of course the move Black would like to play, but the specifics are not working.

Black could have played pessimistically with: 31...♔h7!

A cunning waiting move. There are a few ideas behind it. One of them is to not allow a check on c8, when Black throws in the towel on the future of his rooks.

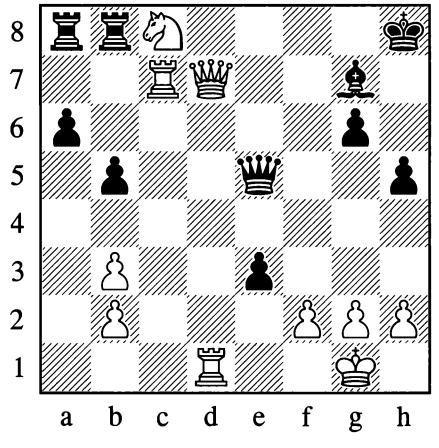
32.h3 ♖xc8!? 33.♖xc8 ♖xc8 34.♕xc8 e3



The idea is rather cunning. Black is hoping to exchange queens at the right time and then take the pawn on b2 and play ...a5-a4, exchanging the last white pawn on the queenside, reaching a well-known fortress, as investigated on page 561.

Obviously there is a long way to go, but I think there is a reasonable chance that Black would be successful with this plan.

This would have forced White to find (after 31...♔h7!) the cunning 32.♖e1!. Black no longer has any ...♕d4 ideas, as the bishop is pinned. And after 32...♕xb2, White has managed to bring all the pieces into the game and is ready to start a violent attack with 33.g4!, which is far more human at this point.



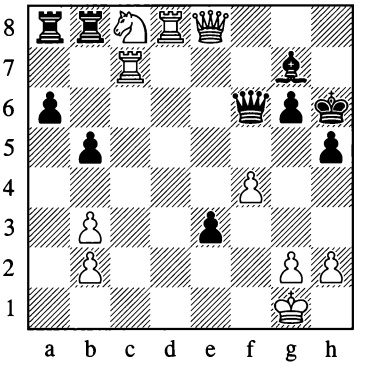
32.fxe3?

It is uncommon for Wei Yi to miss such attacking chances.

32.f4! would have been very strong. The queen is dislodged from the strong central square. We now have the following lines to check:

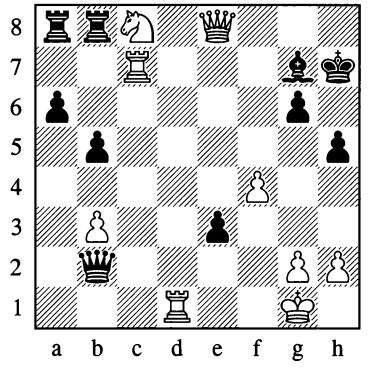
32...♕xc7 33.♕xc7 ♖xc8 fails to 34.♕b6! with a double attack on e3 and g6. 34...♔h7 35.f5! gxf5 36.♕xe3 and White wins. The black king is very open and any chance of a long-term holding fortress are delusional.

32...♕f6 loses to a nice forcing sequence. 33.♕e8† ♔h7 34.♖d8 ♔h6



35.♘e7! ♖xd8 36.♘g8† ♔h7 37.♘xf6† ♔h6 Yes, White can simply take on e3 and win in the long run. But it would be a shame not to finish with: 38.g4! hxg4 (38...♖xe8 39.g5# is pretty too.) 39.♖xg7 with mate in a few moves.

32...♕xb2 With the other options failing scrutiny, only this remains. 33.♕e8† (White can also play 33.f5 directly, but this is more forcing.) 33...♔h7

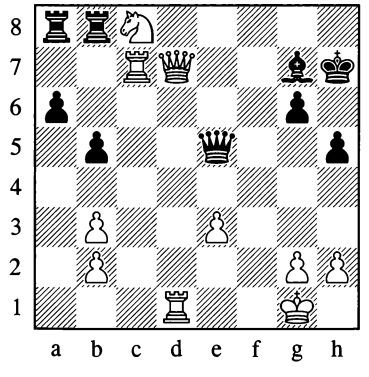


34.f5! White has a winning attack. For example: 34...♕f6 35.♖xg7† ♕xg7 36.fxg6† and mate is not far away.

32...♕xe3†?

A terrible loss of tempo for no reason.

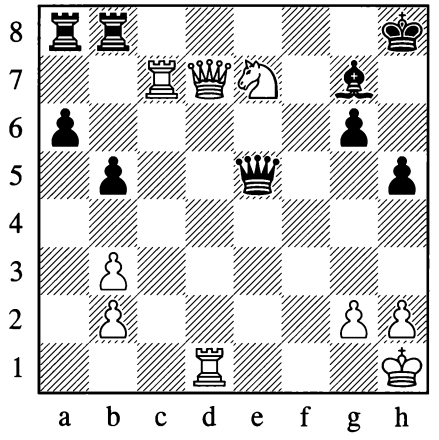
32...♔h7!



This would have saved Black from a lot of tactical issues. He would have time to play for ...a5 and ...♖a6, freeing one of the rooks, as well as thinking about taking one of the white pawns later on. The longer you look at this position, you realise that White has no advantage at all.

A key idea is that after 33.h3 Black is in time to play 33...♖xc8! 34.♖xc8 ♕xe3† 35.♔h1 ♖xc8 36.♕xc8 ♕xb3 and next up the b2-pawn goes. Even if White wins the black queenside pawns, which he might, there are no real chances of playing for a win.

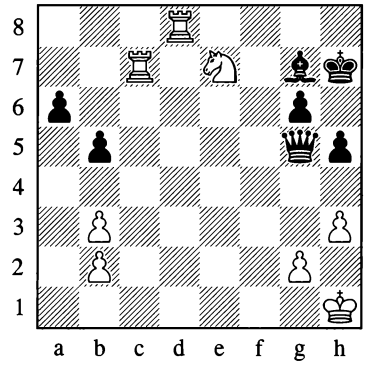
33.♔h1 ♕e5 34.♘e7



34...♖b6?!

A final blunder. Black still had a chance to fight with:

34...♕g5!? 35.h3 ♖d8! 36.♕xd8† ♖xd8 37.♖xd8† ♔h7



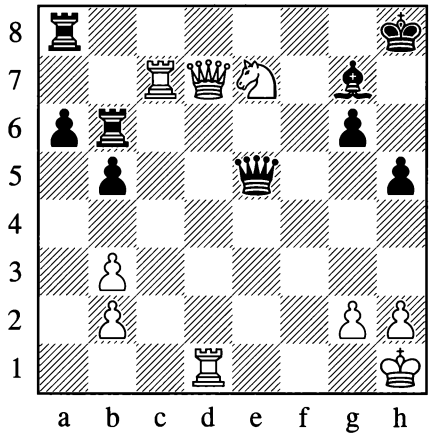
Black has real counterthreats, so White has to play actively in order to retain the initiative.

38.♖dd7 ♕e3 39.♘xg6 ♔xg6 40.♖xg7† ♔h6 41.♖ge7!

The only winning move.

41...♕xb3 42.♖c6† ♔g5 43.♖xa6 ♕xb2 44.♖ae6

White is objectively winning. He will slowly surround the b-pawn. And once it falls, it is time to attack the h-pawn. Winning this endgame will take many moves, but should not be too difficult.



35.♖c6!

A nice little tactic, based on 35...♖xc6 36.♕xc6, and both g6 and a8 are hanging.

35...♕xe7 36.♖xb6
1–0

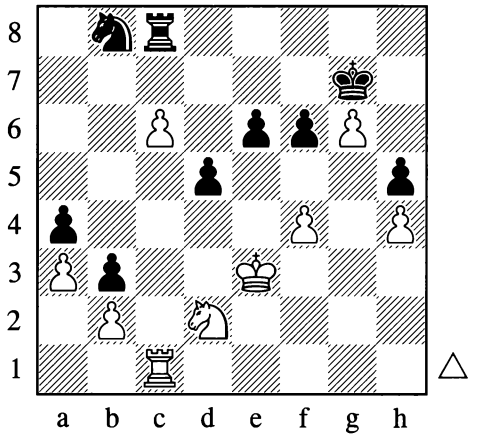
8. Micro-domination

Domination does not have to be total, throughout the position, or impossible to escape, to be annoying to face. Partial restriction of pieces is enough to cause issues. In the next examples, we shall see how playing against the opponent's pieces, while trying to get other things going, can be an effective strategy.

The next game was played in the famed Rilton Cup over New Year 2003-04. After winning the first two games, I played seven Grandmasters in the last seven games in the tournament and with wins in the last two games, made my first GM-norm.

Jacob Aagaard – Tiger Hillarp Persson

Stockholm 2003



In this game I was outplayed right from the beginning, but move 40 not only gave me more time, but also a chance to create counterplay in a desperate situation.

41.c7!

This loses two pawns, but it also ties up the black pieces.

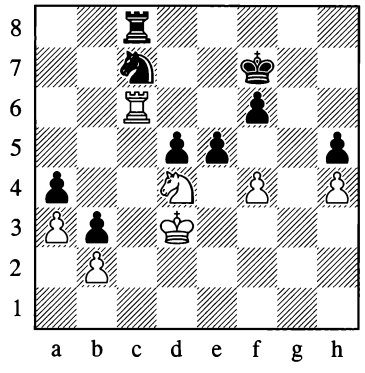
41...♘a6 42.♖c6 ♘xc7 43.♘f3 ♔xg6 44.♘d4 ♔f7

Looking at this game with an engine 18 years later, is a very different experience from struggling with the challenges of this position at the board. Stockfish calls it 0.00, but in practice, White has to show the quality of his compensation.

45.f5!?

I now see that 45.♔d3 ♔e7 46.♘xe6 ♔d7 47.♘d4 is absolutely fine. I was a bit worried about this during the game. A key point is 47...♖f8 48.♖xc7†.

Instead, after 45.♔d3 Black can try: 45...e5



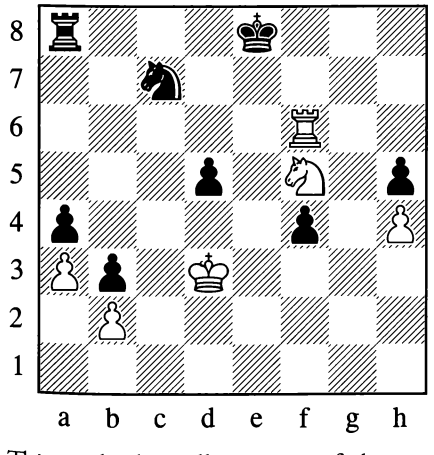
The unclear consequences of 46.fxe5 fxe5 47.♘e6 ♘xe6 48.♖xc8 are of course equal according to the engine. But during the game it would feel like a very risky proposition for both players.

For this reason, White should probably play 46.♘f5 ♔e8 47.♖xf6 exf4, when the continued harassment of the black pieces will provide White with simple counterplay. 48.♖c6 ♔d7 49.♖d6†! ♔e8 50.♖c6 with a likely draw.

45...exf5 46.♔d3

46.♔f4 was more natural, but the game move does not fail.

46...f4 47.♘f5 ♔e8 48.♖xf6 ♖a8



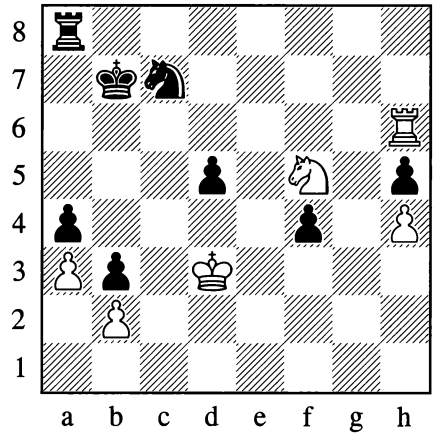
This is the best illustration of the concept of micro-domination. During the game I was consciously thinking about how I could continue to limit the black pieces. (Never mind that I have enough counterplay if I play 49.♘g7† and pick up a few black pawns.)

49.♖c6!? ♔d7 50.♖d6†!

White wants to force the black king to a bad square.

50...♔c8 51.♖h6 ♔b7

51...♖a6 52.♖xa6!? was one of my intentions. The check on e7 is very convenient.

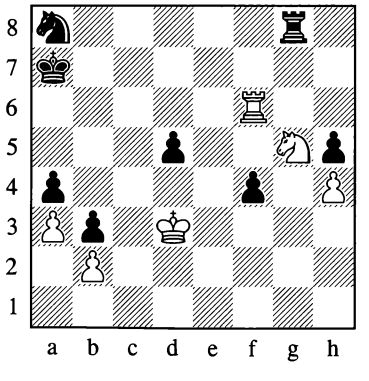


52.♘d6†! ♔a7 53.♖f6!?

53.♖xh5 ♖f8 54.♖f5! was a very serious alternative. White holds without difficulties.

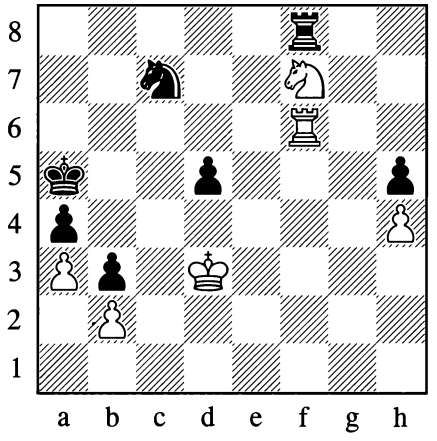
53...♖d8 54.♘f7 ♖f8

A serious idea was 54...♖g8!? 55.♘g5 in order to get the dominated knight into the game. 55...♘a8!



White holds, but only with 56.♘e6! ♘b6 57.♘c5, where the active white pieces qualify for a draw.

55.♖xf4 ♔b6 56.♖f6† ♔a5



57.♖f5!

The continued harassment of the black pieces was so strong in my intentions. I also desired the fortress that happened in the game.

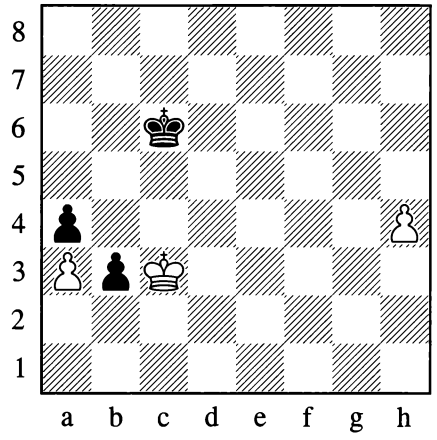
57...♘b5 58.♘d6 ♖xf5 59.♘xf5 ♔b6 60.♘g7 ♘d6 61.♘xh5 ♘c4 62.♘f4

62.♔c3? was the last chance to go wrong. 62...♔c5 and ...d4†.

62...♘xb2† 63.♔d4 ♘d1 64.♘xd5† ♔c6 65.♘c3! ♘xc3

65...b2 66.♘b1 is also an effortless draw.

66.♔xc3



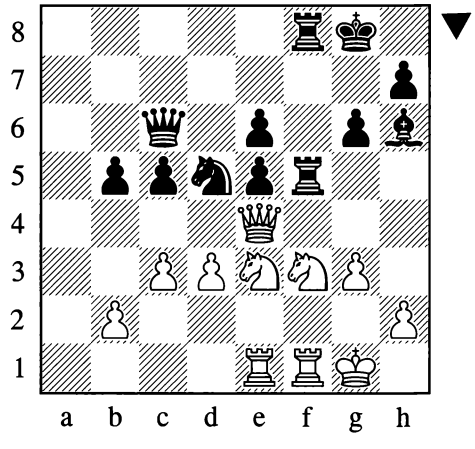
A well-known fortress.

66...♔d5 67.h5 ♔e5 68.h6 ♔f6 69.h7 ♔g7 70.h8=♗† ♔xh8 71.♔b2
½–½

The following game is an instructive example of how important it is to keep control of the position through micro-domination and control of key squares. Black loses control of the position on several occasions, only to manage to create enough problems for his opponent, who eventually goes wrong.

Marko Ivanovic – Milos Stankovic

Paracin 2021



We enter the game, just as Black is about to make a tactical operation.

30...♗xe3† 31.♖xe3 c4!

A clever move.

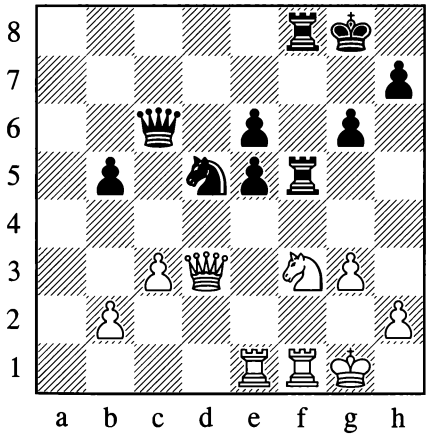
32.♖ee1

The only move.

32.dxc4? ♕xc4! 33.♕xc4 bxc4 would win a piece for Black.

32...cxd3 33.♕xd3

Black is much better after several moves now.



33...♘b4?

But this tactic is not working and has all the signs of time trouble and nerves.

33...♕c5† 34.♔g2 b4 35.cxb4 ♕xb4 White would be under a lot of pressure, as well as a pawn down. Although there is a lot of play left, Black should win.

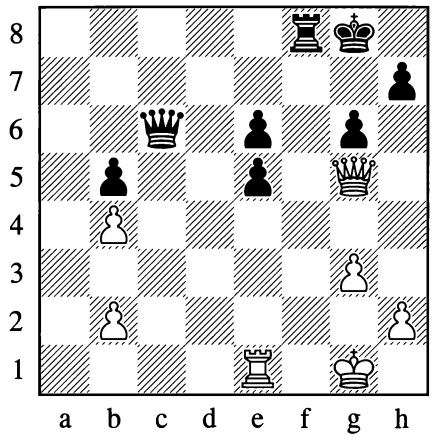
34.cxb4?

White had the chance to make a draw with: 34.♘xe5! ♘xd3 35.♘xc6 ♘xe1 36.♘e7† and the big hoover has done its job.

34...♖xf3

Back on the winning track.

35.♖xf3 ♖xf3 36.♕d8† ♖f8 37.♕g5



37...♖f5

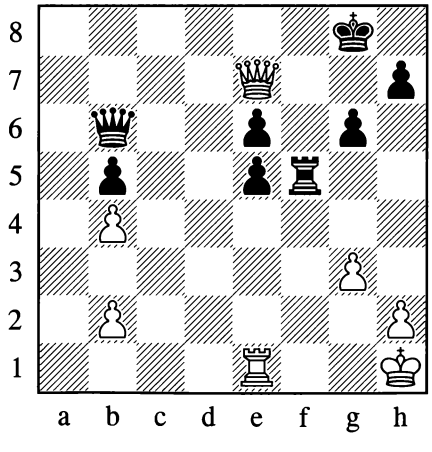
Black had a strong chance in 37...♕b6†! 38.♔h1 ♕b7† 39.♔g1 ♕a7† 40.♔h1 ♖f5 41.♕d8† ♔g7, but even here you have to think for a bit to realise that this is preferable, because the e7-square is really useful for White. Black's big threat, now he has dominated the white queen, is ...♖f2. While after 42.♖d1 ♕f2 there are various threats, such as ...♕e2 and ...e4, which White cannot deal with.

38.♕d8† ♖f8 39.♕g5 ♕b6† 40.♔h1 ♖f5

40...♕b7†!

41.♕e7

41.♕d2!?, with the small trap that 41...♖f2? 42.♕d7! would eliminate most of Black's advantage, was worth a try.

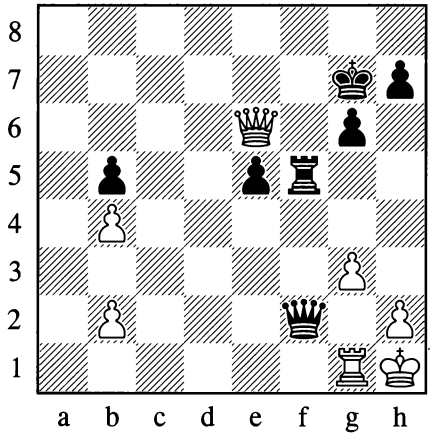


41...♕f2?

41...♕c6† 42.♔g1 ♕d5! would have kept everything under control. As already discussed, winning quickly is nothing compared to winning safely.

42.♕xe6† ♔g7 43.♖g1?

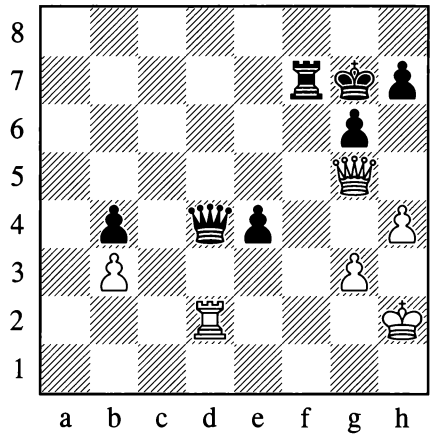
43.♕d7†! and 44.♕d1 would have more or less equalised.



43...♕e2?

43...♕f3† 44.♖g2 ♕b7! (44...♔h6!? also works. 45.h4 ♕d1† 46.♖g1 ♕g4! is the main reason why. Black wins the queen with a discovered check next.) 45.h4 (45.♔g1 ♕a7† leads straight to mate.) 45...♖f2 46.♕xe5† ♔f7 White is out of checks and must resign.

44.h4! ♕e4† 45.♖g2 ♕xb4 46.♔h2 ♕d4 47.♕e7† ♖f7 48.♕g5 b4 49.b3 e4 50.♖d2

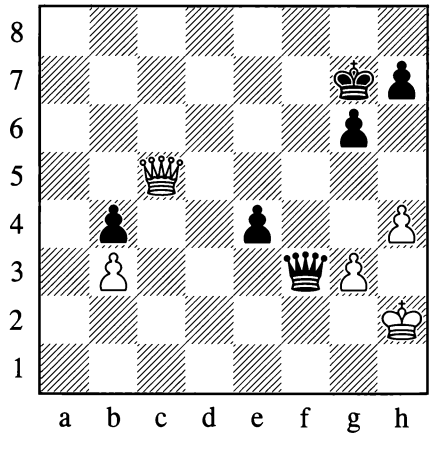


50...♖f2†

Stankovic decides to enter a queen ending and just keep trying to make something of the extra pawn. In such a situation, most titled players will have a strong feeling that White should make the draw.

But they will also know that many moves will be played before we get to this conclusion, giving White a lot of chances to make a mistake. Even if Black should blunder badly, it is likely that the game would still be drawn. So, playing on holds no reasonable risk.

51.♖xf2 ♕xf2† 52.♔h1 ♕f6 53.♕c5 ♕f3† 54.♔h2

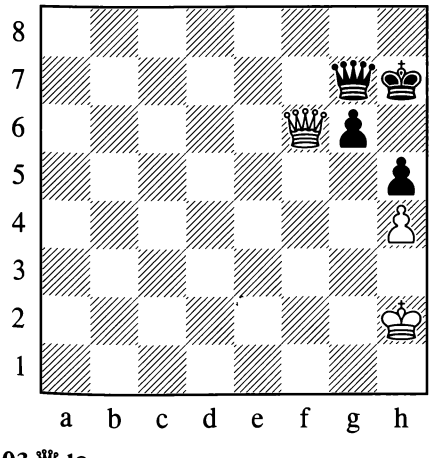


As Black I would have been more eager to push the e-pawn, but I just do not see how.

The following queen ending is a theoretical draw for several reasons. The black king is open and cannot hide from checks. Quite often the pawn endings will be drawn too. But most bizarrely, the queen ending with h- and g-pawn is not winning on its own.

This is not a reason to agree a draw, of course. Black should continue trying, as he did.

54...♕xb3 55.♕e7† ♕f7 56.♕xb4 ♕f2† 57.♔h1 ♕xg3 58.♕xe4 ♔h6 59.♕e7 ♕f2 60.♕d8 ♔g7 61.♕e7† ♕f7 62.♕g5 ♕f6 63.♕g4 ♔h6 64.♔g2 ♕f5 65.♕d4 ♕c2† 66.♔g3 ♕c7† 67.♔h3 ♕e7 68.♕f4† ♔g7 69.♕d4† ♔f7 70.♕f4† ♔e6 71.♕e4† ♔f7 72.♕f4† ♔g8 73.♕d4 h6 74.♕d5† ♔g7 75.♕d4† ♔h7 76.♕d5 ♕e3† 77.♔g2 ♕e2† 78.♔g3 ♕e1† 79.♔h3 ♕f1† 80.♔g3 ♕g1† 81.♔h3 ♕e3† 82.♔g2 ♕e7 83.♔g3 h5 84.♕d4 ♕e6 85.♕d8 ♕e5† 86.♔h3 ♔g7 87.♕d7† ♔f6 88.♕d8† ♔f7 89.♕d7† ♕e7 90.♕d4 ♕e6† 91.♔g3 ♕f5 92.♕c4† ♔f6 93.♕c6† ♕e6 94.♕f3† ♔e7 95.♕b7† ♕d7 96.♕e4† ♔f6 97.♕f4† ♔g7 98.♕e5† ♔h7 99.♕f6 ♕g7 100.♕d8 ♕a7 101.♕f6 ♕d7 102.♔h2 ♕g7



103.♕d8

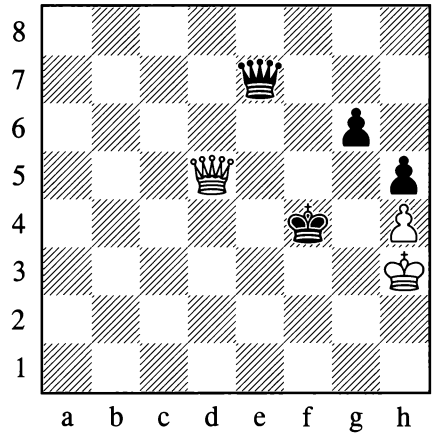
It was possible to exchange queens on quite a few occasions. None of them more attractive than here. 103.♕xg7†! ♔xg7 104.♔g3 with standard opposition.

103...♕e5† 104.♔h3 ♔g7 105.♕d7† ♔f6 106.♕d8† ♕e7 107.♕d4† ♔f5 108.♕d5†?!

This is pushing the black king in the wrong direction.

108.♕f2† would make the draw easily.

108...♔f4



Black has made progress, but the position is still a draw. The most mundane idea would be 109.♕g2 and Black is not able to make anything out of his progress.

109.♕d4†?

But not this move.

109.♕c4†!? is funny. 109...♕e4 110.♕f1† ♕f3† 111.♔h2! repeats what we already know. Chess is fundamentally a draw with a significant margin. The rule of stalemate, so hated by Nigel Short, does not make it less so...

109...♕e4 110.♕d6† ♔e3! 111.♕b6† ♔f3 112.♕b3† ♕e3

Black wins.

113.♕b8 ♕e6† 114.♔h2 ♕e2†

0–1

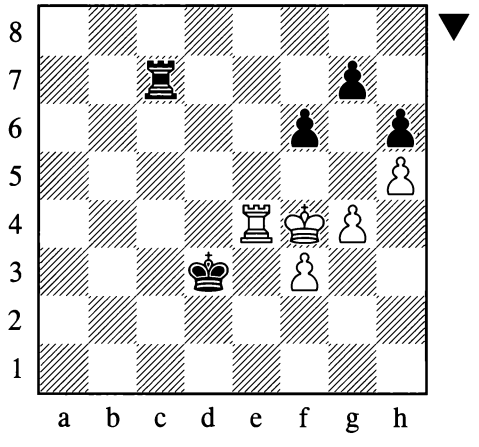
9. Cutting off the king

Most endgames will have between two and four pieces each, including the kings. Often they end in positions where each side only has one supporting piece, besides his majesty. As the number of pieces diminishes – especially with the disappearance of the queens – the king becomes a more essential piece to use.

But at the same time, it is the easiest piece to restrict. Cutting off the king is thus an important technique. Here is a basic example.

Sinisa Drazic – Pavle Ciric

Paracin 2021



53...♖b7?

A typical endgame/time-trouble slip. Black believes that the g7-pawn can be defended with active ideas, but it is not so. Even if it was, this would be a poor approach.

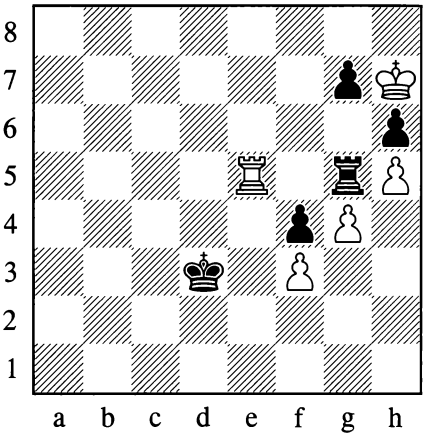
54.♔f5

With two pieces attacking g7 in the near future, and the black king cut off by the white rook, all hope is gone.

54...♖b5† 55.♔g6 ♖g5† 56.♔h7 f5 57.♖e5!

White wins in an elementary way.

57...f4



58.♖e7

An easy way to win.

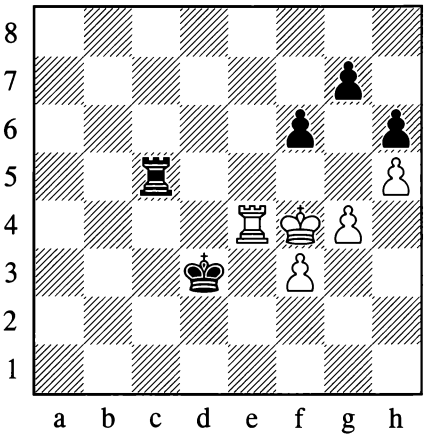
Also simple was 58.♖xg5 hxg5 59.♔xg7 and the h-pawn arrives in an excess of good time.

58...♔d2 59.♖e4 ♔d3 60.♖xf4 ♔e3 61.♖f7 ♔f2 62.♖f5 ♔g3 63.♖xg5 hxg5 64.♔xg7 ♔xf3 65.h6

1–0

Black absolutely had to cut off the white king.

53...♖c5!



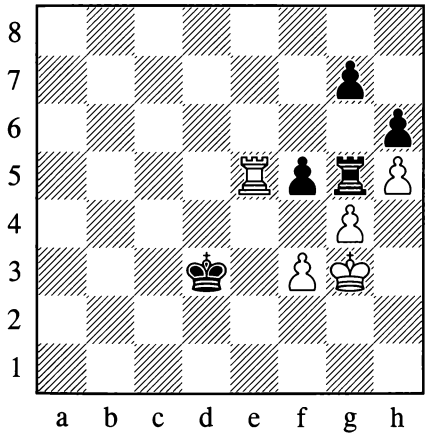
54.♖e7 ♖g5

Black will make a draw, although we can see what Black must have missed.

55.♔g3 f5

This is the most natural move, and I am certain this is what Black considered and rejected.

56.♖e5!



Undoubtedly Black was wary of this move. The draw is not something you could find without a bucketload of time on the clock.

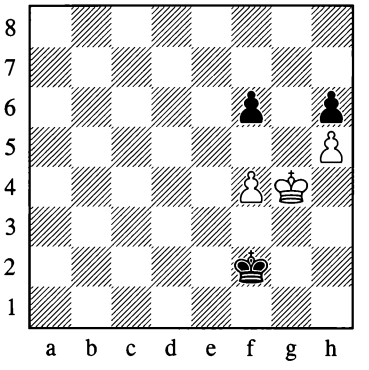
56...♔d2!!

A great waiting move. It is not obvious that the pawn ending is a draw from afar.

57.♖xf5 ♖xf5 58.gxf5 ♔e2!!

The deep point, based on prophylaxis.

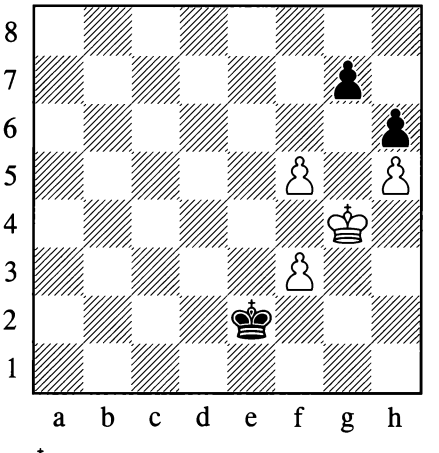
58...♔e3 looks natural, but loses a tempo. 59.♔g4 ♔f2 60.f6 gxf6 61.f4!



61...♔g2 62.♔f5 ♔f3 63.♔g6! White wins. It is important not to waste time on unimportant things, such as the f6-pawn.

59.♔g4

59.♔f4 ♔f2 is also not progress for White.



59...♔e3!

Prophylaxis against the f5-f6 followed by f3-f4 idea.

59...♔f2 60.f6 gxf6 61.f4! wins for White once again.

60.f6 gxf6 61.♔f5 ♔xf3 62.♔g6 ♔g4 63.♔xh6 f5

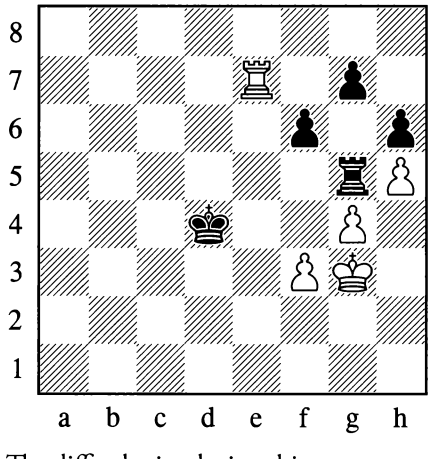
Black is just in time to make the draw.

It is good to be aware of which endings are most likely to end in a draw and which are most likely to have a decisive result, when making quick decisions in time trouble. Pawn endings are generally the endings where the slightest advantage can prove decisive, followed closely by knight endings – which is why Botvinnik famously compared the character of the two. In endings with four pawns vs three on the kingside, the rook, queen and bishop endings are famously drawish, or dead drawn – while the pawn ending is generally won and the knight ending won frequently.

55...f5 is a very natural move, but is also incredibly complicated. With time on the clock, it would be natural to avoid the exchange of rooks, even at the cost of a pawn.

It is therefore not surprising that Black can make a draw with:

55...♔d4!



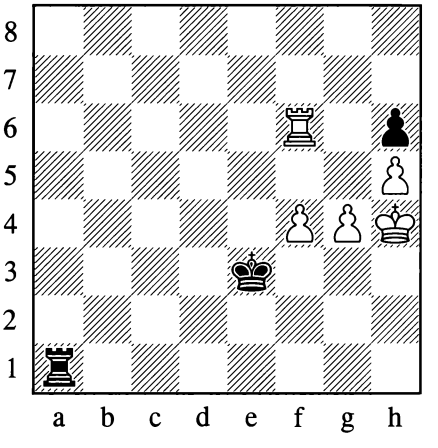
The difficulty in playing this move cannot be overstated. Black is essentially treading water, giving up his kingside for the small concession of White blocking the f4-square with a pawn, meaning that the king cannot get into the game.

56.f4 ♖a5 57.♖xg7 ♖a3†

Rook to the first rank also draws, but it is so natural to free the f3-square for the black king.

58.♔h4 ♔e3 59.♖g6 ♖a1! 60.♖xf6

White has won two pawns, but his king is about to be cut off completely.



60...♖h1† 61.♔g3 ♖g1† 62.♔h3 ♔f3

Black will make a draw effortlessly. White has to put the king in the bottom corner to simply play on. Personally, I would go for the repetition with 63.♔h2 ♖g2† 64.♔h3 ♖g1 before something went entirely wrong.

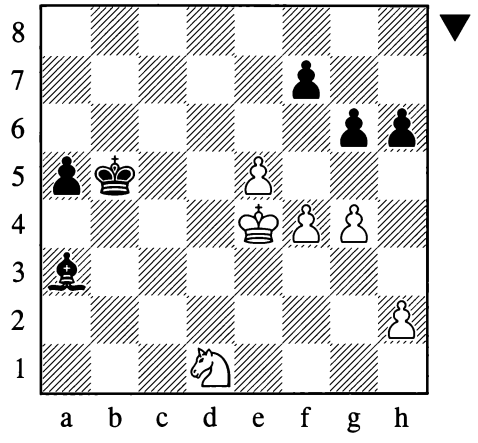
10. Shouldering

Shouldering is best known from rook endings, where there are many positions, especially with rook and king vs king and pawn, where the defending side has to keep the opponent's king out of the game by being in its way. This has been called shouldering, taking the term from football, where a player is allowed to push another player out of the way with his shoulder.

In the endgame, this is an important technique.

Pavel Ponkratov – Semen Khanin

Sochi 2019



61...♗b4?

Seeking to advance the pawn quickly, missing the chance to keep the white king out of the game.

The winning move was:

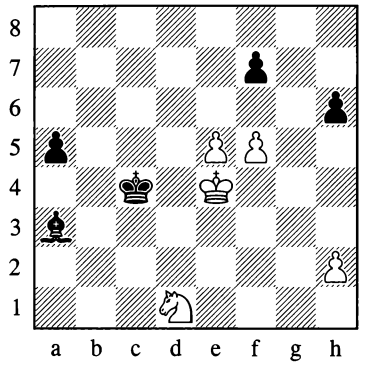
61...♔c4!

Classic shouldering

62.f5

Black's win is perhaps longer, but essentially trivial, after: 62.♘e3† ♔b3 63.♔d3 a4 64.♘c4 ♗b4 The a-pawn will claim the knight and as long as Black does not allow the wrong bishop fortress, he will win. 65.f5 gxf5 66.gxf5 a3 67.♘xa3 ♗xa3 68.♔d4 ♔c2 69.e6 f6! Keeping the pawn that will later win the game. Black will take the f5-pawn and queen his own f-pawn.

62...gxf5† 63.gxf5



63...♗f8!

The only winning move. The bishop will not get hit and lose a tempo.

63...♗b4? fails to 64.♘b2†! ♔b3 65.♘d3 ♗f8 66.♔d5 a4 67.♘c5†! with a drawn queen ending on the horizon.

64.♘e3† ♔b3 65.♔d3 a4 66.♘c4 a3

Black wins as after 62.♘e3 above.

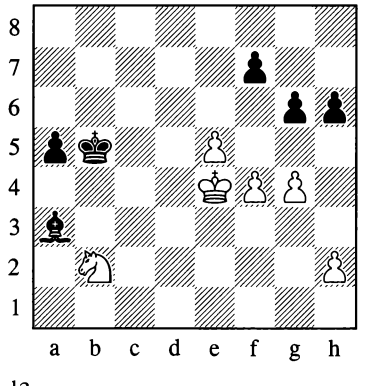
62.♘b2?

62.f5 a4 63.♔d3 a3 64.♘e3! a2 65.♘c2 draws.

62...♗c3?

The position is still winning for Black, but the variation is anything but intuitive.

62...♗a3!



63.♘d3

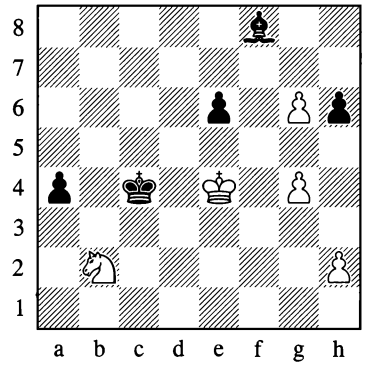
63.♘d1 gives Black a chance to avoid

repeating his mistake by transposing to our starting position.

63...♔c4

So far, so good. The shouldering is back in action.

64.f5 a4 65.e6 fxe6 66.fxg6 ♗f8 67.♘b2†



67...♔b5!!

Threatening to dominate the knight in classical flank pawn style.

68.♘xa4 ♗g7

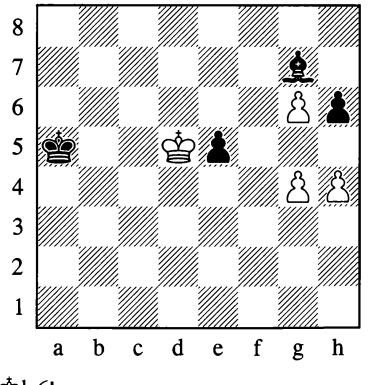
Black wins.

69.♔d3 ♔xa4 70.♔c4 e5?!

This move still wins, but requires some accuracy. As so often, if we are not accurate at first, we will have to be even more accurate later.

70...♔a5! 71.♔c5 e5 is a tempo stronger and what should be played.

71.h4 ♔a5 72.♔d5



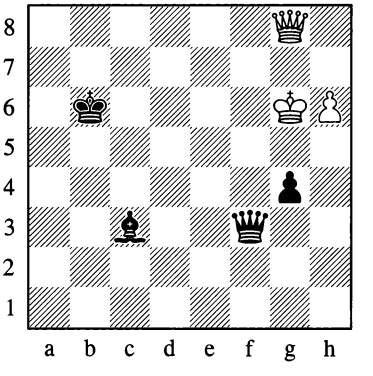
72...♔b6!

White is planning to play h4-h5, followed by g4-g5 hxg5 and now h5-h6. Black has to be back in time to stop the g-pawn, or he will run out of pawns.

73.♔e6 e4 74.♔f7 ♗c3!

The bishop can also go to d4, but not b2, where it can fall prey to a ♕b8† later. Nor can it go to a1, where even less predictable checks would endanger it.

75.g5 hxg5 76.h5 e3 77.h6 e2 78.g7 e1=♕ 79.g8=♕ ♕f1† 80.♔g6 ♕f6† 81.♔h5 ♕f3† 82.♔g6 g4



Imagine that the bishop was on b2 here. After 83.♕b8† ♕b7 84.♕g3 the white king would come to help eliminate the last black pawn.

But with the bishop on c3, the black king will simply march away from the checks and the extra piece will eventually be an extra queen.

So, Black was still winning, but not without a lot of obstacles to beat.

63.♘d1

White draws effortlessly.

63...♗d2 64.f5 gxf5† 65.gxf5 a4 66.♔d3 ♗b4 67.e6 fxe6 68.fxe6 ♔c6 69.♘e3 a3 70.♔c2 ♔d6

A draw was agreed.

½–½

11. Allowing counterplay

When I studied with the great technician Artur Yusupov, his main attitude to technique was the prevention of counterplay. The way he saw it, everything started with being in control of the situation. The ideal conversion of an advantage was the one where the opponent could do nothing but moving first left, then right – or maybe forward, then backwards – waiting for you to improve your position to the maximum, after which it will be time to investigate how to make the most out of your advantage.

In this approach, there are three phases in endgame conversion. In the first, you remove all of your opponent's counterplay through various prophylactic measures, his active possibilities all framed in a way that will only cause him harm. Then it will be time to improve our own position to the maximum. And only then, action will be taken, the pawn race will start, the breakthrough or the penetration of the opponent's position will happen – or whichever way you are planning to move forward.

Although endgame conversions have a more messy reality than this at the best of times, this approach to the endgame is successful far more often than one would imagine. The clarification of a position and the prevention of counterplay makes it possible. To a great extent this is what the focus on the right exchanges above was about.

A part of the thinking behind this form of technical proficiency is a mistrust of calculation, which I have come to appreciate more and more over the years. In the middlegame, calculation is a necessary tool with great effectiveness.

Often the presence of more pieces on the board will narrow the number of reasonable possibilities, in a way that may seem counter-intuitive to some at first. The reasons are simple: there will simply be fewer available squares available for the pieces, their interdependency will create limitations for most of them and thus fewer available moves.

Also, in the middlegame, most variations of consequence are not long. In the endgame, when the positions go from containment to confrontation, we will often see different situations, with long variations with many possibilities and nuances at each step.

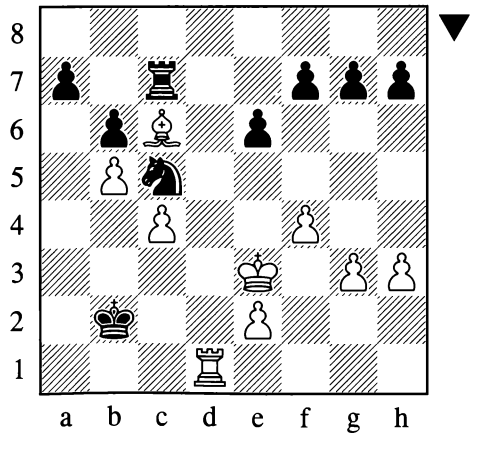
It is thus highly desirable to narrow the path and prune the tree, simplifying the calculation of essential variations. Below we shall see some simple and some more complicated examples where containment of counterplay failed.

In the next example, White has been thoroughly outplayed and is now desperately struggling for a draw.

Matthias Bluebaum – Radoslaw Wojtaszek

Dortmund 2017

When we have the advantage, we should always be cautious of allowing our opponent to get counterplay. This is one of the things that made me loathe technical play when I was younger. I would always make a mistake eventually and let the opponent off the hook. I am not sure if I was inattentive, or if I just did not know how to look for the opponent's possibilities, rather than my own.



34...a5?

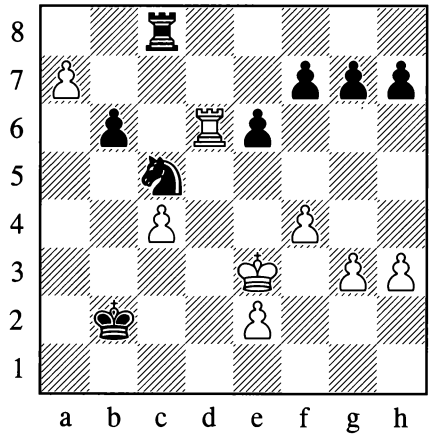
34...♔c3 35.♖d8 and now either 35...♔xc4, 35...♘b3 with the plan ...♘a5xc6, or 35...h5!? to avoid the pawn becoming a target later, is available. The win is not guaranteed, but the chances are great.

35.bxa6!

Bluebaum was no doubt grateful for this chance to change the direction of the game. Sacrificing the rather useless bishop for a passed pawn on the 7th rank does not look like a difficult decision.

35...♖xc6 36.a7 ♖c8 37.♖d6!

An important finesse.

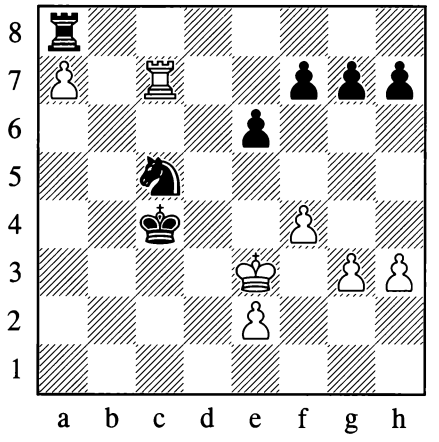


37...♔c3

You can always speculate about what it was that Wojtaszek missed. Usually, it is something simple; like he did not really consider the piece sacrifice seriously, as the rook could always make it back to stop the pawn.

But it could also be something a bit more nuanced, such as that 37...♘a4?! is met with 38.c5! bxc5 39.♖a6 ♖a8 40.♖xa4 and this time it will be Black who makes the draw.

38.♖xb6 ♖a8 39.♖c6 ♔xc4 40.♖c7



40...f6

40...f5 41.♖xg7 h5 42.g4 fxg4 43.hxg4 hxg4 44.♖xg4 ♖xa7 45.f5† leads to a simple draw.

41.♖xg7 ♔d5 42.♖xh7 ♔d6 43.g4 ♘d7 44.h4 ♖xa7 45.g5

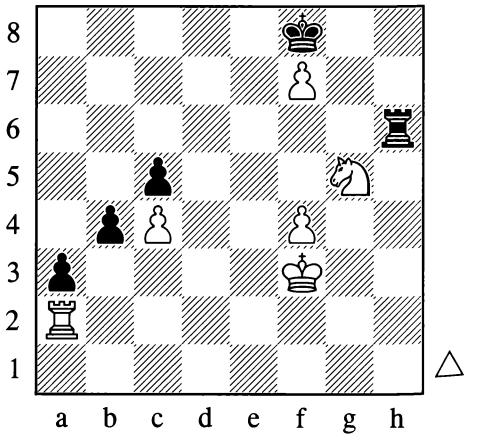
White is making an effortless draw.

45...♖a3† 46.♔f2 fxg5 47.hxg5 ♘c5 48.e3 ♘e4† 49.♔f3 ♘d2† 50.♔e2 ♘e4 51.♔f3 ♘d2† 52.♔e2 ♘e4

½–½

Jan Krejci – Blazimir Kovacevic

Internet 2021



One of the most dastardly creations of the 2020/21 pandemic was hybrid chess, which could be boiled down to online chess without a serious risk of cheating (at least the arbiters would need to be in on it, which also would make cheating possible in over-the-board tournaments).

The quality of the games was often poor, leading to a gasp of relief from traditionalists, and some peculiar moments. The following game from the Mitropa Cup is one of the instances where the playing format could be blamed, should White look for excuses. Carelessness would be another likely explanation for the disaster that befell him.

White is obviously completely winning, with an extra piece and a passed pawn on the 7th rank. The only thing that could go wrong would be self-inflicted...

54.♖e2

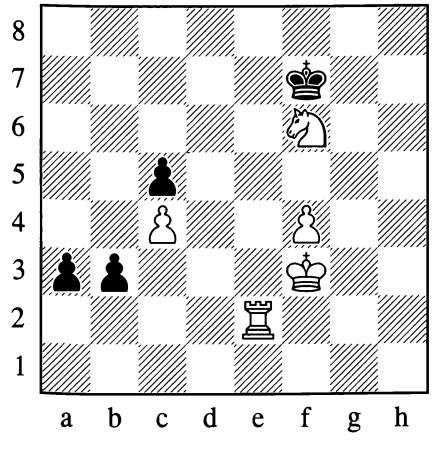
The rook transfers to the ideal placement on the 8th rank, forcing Black's next move.

54...♖f6 55.♘h7†?? ♔xf7

I am sure that White was well aware the moment he let go of the knight what he had done. Such is the nature of blunders.

56.♘xf6 b3!

The surprise.



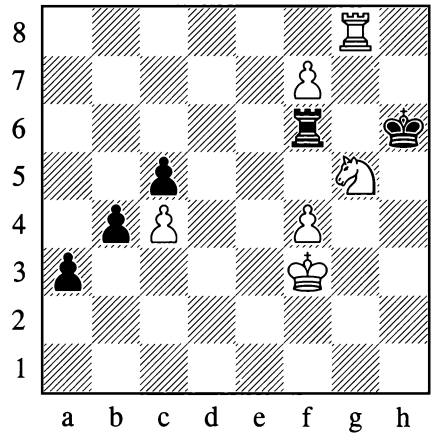
Black does not need to take the knight. Instead, the pawns become unstoppable. Euwe's rule stipulates that if two connected passed pawns have a total of four squares from promotion (as here – 2nd and 4th rank positions work in the same way), the rook cannot stop them. White is lucky here to be able to make a draw with his additional pieces.

57.♘d5 a2 58.♖e7† ♔f8 59.♖a7 b2 60.♖a8† ♔f7 61.♖a7† ♔f8 62.♖a8† ♔f7 63.♖a7† ♔e8 64.♖a8† ♔d7 65.♖xa2 b1=♕ 66.♖a7† ♔d8 67.♖a8† ♔d7 68.♖a7† ♔c8 69.♘e7† ♔d8 70.♘c6† ♔e8 71.♘e5 ♕h1† 72.♔g4 ♕e4 73.♔g5 ♕e3 74.♔f5 ♕b3 75.♖a8† ♔e7 76.♖a7† ♔e8 77.♖a8† ♔e7 78.♖a7† ♔e8

½–½

Instead of 55.♘h7†?? the first two moves White should play are not surprising.

55.♖e8† ♔g7 56.♖g8† ♔h6



At this point the most natural way to win the game would be:

57.♖a8!

White is in complete control of the black pawns and will win slowly however he prefers to do so.

It should be mentioned that White is able to create checkmate, although this is not the way I think one should try to win an endgame like this, where time is undoubtedly sparse. 57.♔g4!? a2 58.f5 a1=♕ 59.f8=♗† ♖xf8 60.♖g6# would be the mate.

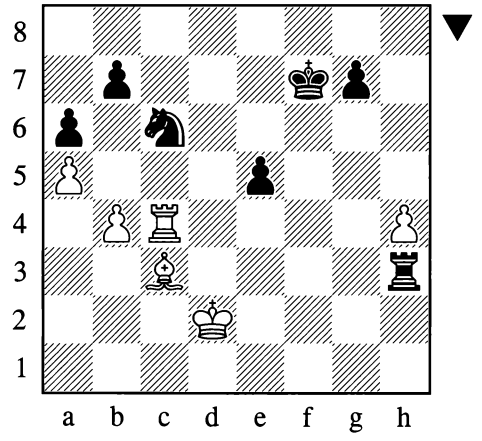
57...♔g7

Sooner or later Black has to play this. White wins however he wants now. 58.f8=♕† ♖xf8 59.♘e6† is undoubtedly the easiest way. But also far from the only way.

The next example is an elementary failure.

Vladimir Malakhov – Sebastian Bogner

Germany 2020



45...g6?

Allowing White to escape with a last-minute counterstrike.

46.b5! axb5 47.♖c5 ♖xh4

White's twist relies entirely on 47...b4 48.♗xe5, when the rook endgame holds.

48.a6!? ♖c4 49.♖xc4 bxc4 50.axb7 ♔e6 51.♗a5 ♔d6 52.♔c3 g5 53.♗d8 ♘b8 54.♗xg5 ♔c6 55.♔xc4 ♔xb7 56.♔d5 ♘c6 57.♗f6

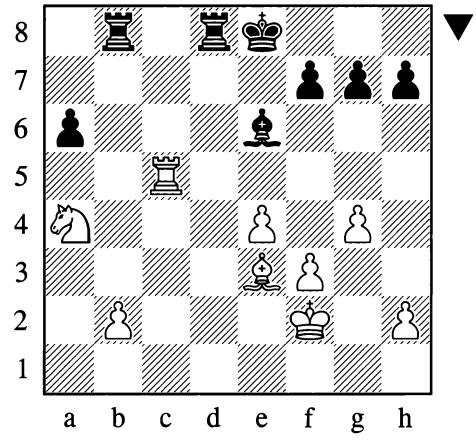
½–½

Had Black played 45...♔e6! to start with, White's counterplay would have been ineffective. You can extend the variation with 46.b5 axb5 47.♖c5 b4 48.♗b2 ♖xh4 49.a6 ♔d6, when the counterplay runs out. But to present this as calculation would be misleading. White has no active options other than b4-b5. By bringing the king closer, it loses its potency.

In the following example Black has a clear advantage, but needs to be smart to exploit it.

Andy Woodward – Jason Wang

Internet (extended rapid) 2020



Once again we are dealing with a hugely talented young player blowing a winning position. Although this time it does require a little bit of finesse to convert the advantage.

Black is an exchange up, but White is only a few steps away from increasing his holding changes dramatically.

In a scenario like this, it is useful to be able to think strategically:

Under which circumstances will Black win?
Under which circumstances will White hold?
Which exchanges are benefitting whom?
What happens if nothing happens?
What is White's strategy?

I am sure there are more questions that could be useful. And I think anyone who thinks this way has his own slightly refined approach (which most will no doubt argue is superior, because of ...insert random nonsense...). The reality is that any method that helps us to view the position in a different light is helpful. This is the reason why there are so many different approaches suggested in this book and not a strict "formula" as you will at times find with some chess authors. No strong player uses such formulas, but many have a toolbox of questions and thinking techniques to reach into when the approach to the position does not come naturally to them. How do they determine which one is the right one in a certain situation? Basically, experience will lead the way. They guess. Mostly they are good at it. But if the guess proves useless, they realise quickly and already have gathered a bit more information that will help them decide on a better way to approach the problem in the future.

The answers to these questions – which are quite common in this type of conversion situation – are:

Under which circumstances will Black win?

If he gets a passed pawn on the queenside or wins the f3-pawn.

Under which circumstances will White hold?

If we get to a situation where Black will not be able to win f3 or create a passed pawn.

Which exchanges are benefitting whom?

White would desperately want to exchange the weak b2-pawn for the a6-pawn. Without a potential passer for Black on the queenside, the draw would be close. Black would love to exchange a set of rooks. The rook is the sole source of counterplay for White. If it was gone, he could struggle to set up a fortress, based on the principle of two weaknesses. (The principle of two weaknesses dictates that a defender will be unable to defend two separated weaknesses in most situations. Here that would be the b-pawn and the f3-pawn.)

What happens if nothing happens?

Black's potential for improving his position seems to be far greater. The white king will always have to defend f3, while the black king can become a real force.

What is White's strategy?

To exchange those queenside pawns. Actually, he is threatening to do so right away.

28...♔f8?

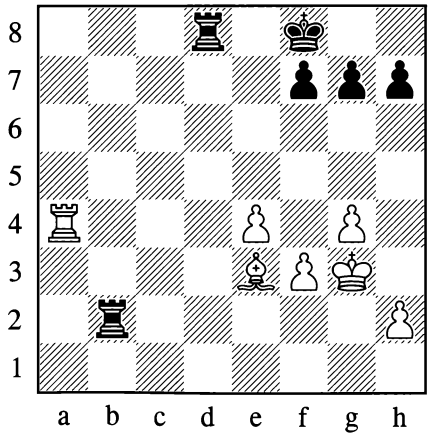
I forgot to ask Jason what his intentions were with this move. I am sure that there was an idea behind it, but right now I cannot see it. It is a déjà vu to looking through my own old games.

29.♖c6! ♗d7

Black can no longer win.

After 29...♖a8 30.♘b6, 29...♗c8 30.♘b6 or 29...a5 30.♖a6 ♖a8 31.♗a7!, White will make the desired exchange of pawns.

30.♖xa6 ♗xa4 31.♖xa4 ♖xb2† 32.♔g3

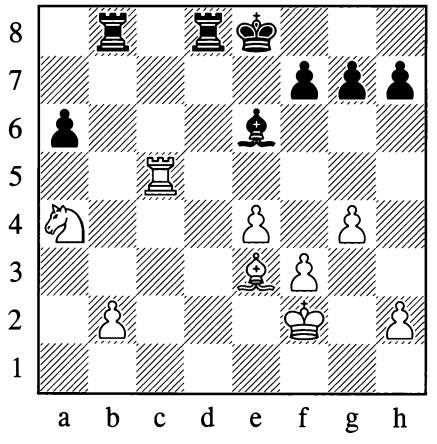


32...h6

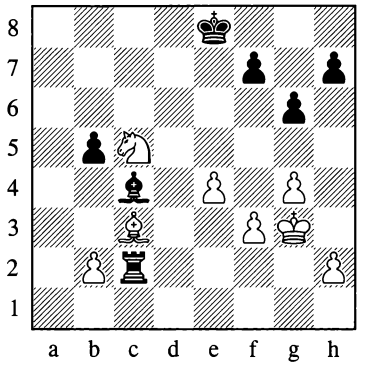
32...♖b3 33.♗c5† ♔g8 34.g5! would lead to further exchanges of pawns for Black to get the king into play.

33.h4 ♔g8 34.♖a3 ♖d1 35.h5 ♖db1 36.♖a8† ♔h7 37.♖a7 ♖b3 38.♗d4 ♔g8 39.♖a8† ♔h7 40.♖a7 ♖b7 41.♖a3 ♖d1 42.♗e5 ♖db1 43.♗d4 ♖1b4 44.♗e5 ♖4b5 45.♗d4 ♖b8 46.♖a7 ♔g8 47.e5 ♖b4 48.♗c5 ♖b3 49.♗d6 ♖c8 50.♖a4 ♖cc3 51.♖f4 ♖d3 52.♗b4 ♖e3 53.♗d6 ♖e2 54.♖c4 ♖ee3 55.♖f4 ♖ed3 56.♗b4 ♖b1 57.♗c5 ♖c1 58.♗b4 ♖b1 59.♖e4 ♖bb3 60.♖f4
½–½

Black had a few ways to achieve his objective (as concluded from the questions above) of exchanging the white rook. The least effective is:



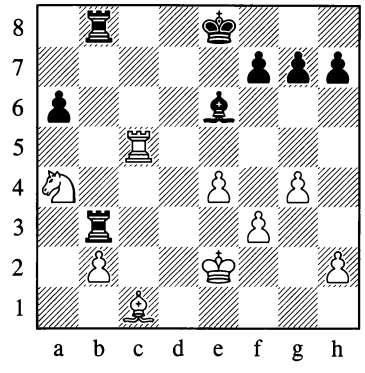
28...♖dc8!? The main problem with this move is that the exchange of rooks is not immediate and forced. White can play 29.♖a5 ♖c6 30.♗d4, when we have: 30...♖b5 31.♖xb5 ♖c2† 32.♔g3 axb5 33.♘c5 g6 34.♗c3 ♗c4



Black is probably winning in the long run, but it would have been better to have an a-pawn for a number of reasons. One of them being that ...♖xc3 in some positions would give Black a passed pawn. Another that the b5-square would be a good transit square for the black king.

28...♖b3 is a nice move, relying on tactics. Black is threatening ...♖dd3, which is very direct. After 29.♗c1, Black has 29...♖c8!, with the desired exchange of rooks. And after 29.♖c2 comes 29...♖xe3 30.♔xe3 ♗b3, winning a piece. So, White has to accept the exchange of rooks and will be in big trouble in the endgame.

28...♖d3 is my favourite solution. The immediate threat is ...♖bb3, which would force ♖c3 and after ...♖dxc3, Black would get a passed a-pawn. So White should play something like 29.♔e2, preparing to meet 29...♖bb3 with 30.♘c3, as the rook on d3 would be loose. Black can play 29...♖db3, threatening ...♖b4. And after: 30.♗c1



30...♖c8! The rook is exchanged under ideal circumstances.

The following game features a talented Norwegian junior against a seasoned Russian grandmaster. The junior gets an overwhelming advantage, but the grandmaster does what any experienced player would do: he hangs on. Rather than playing for traps or trying other acts of desperation, he invites his opponent to do all the running, as if he is saying: "You are winning, but you have to do the winning, I will not do it for you."

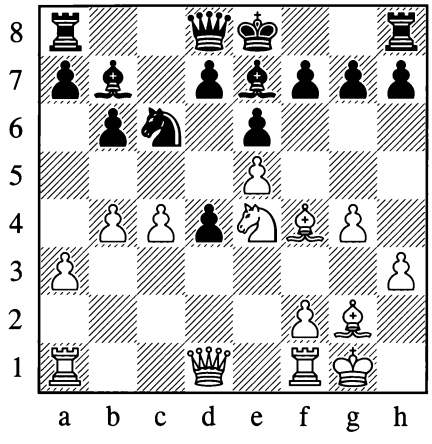
Johannes Haug – Sergey Ivanov

Stockholm 2018

1.d4 ♘f6 2.c4 e6 3.♘f3 b6 4.g3 ♗a6 5.♘bd2 c5 6.e4 cxd4 7.e5 ♘g4 8.h3 ♘h6 9.♗g2 ♘c6 10.a3 ♘f5?!

Black is doing well out of the opening. At this point 10...b5! would have been a nice move. White will be the one fighting for equality.

11.0–0 ♗e7 12.b4 ♗b7 13.g4 ♘h4 14.♘xh4 ♗xh4 15.♘e4 ♗e7 16.♗f4



16...0–0?

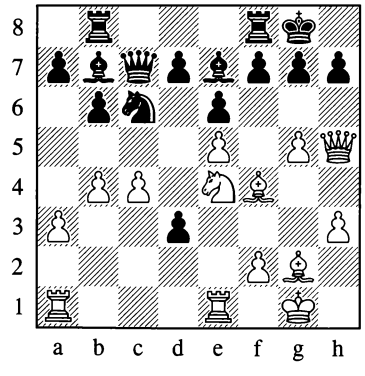
This is the move that lands Black in trouble.

16...♕b8! with the idea 17...a5!, in order to reply to 18.b5 with 18...♘xe5, was still fine for Black.

17.g5 ♔h8

17...♕b8 no longer works the same way. Black is tied down after 18.♖e1!, when the tactics are not in his favour: 18...♘xe5 19.♗xe5 ♕xe5 20.♘f6† gxf6 21.♖xe5 ♗xg2 22.♕xd4!? White is winning, although there will be more moves to play.

My laptop is suggesting 17...♕c7 18.♖e1 ♖ab8 19.♕h5 d3! as being almost playable for Black.



Just how good it is for White is hard to decipher. But what we can determine easily is

that no one would play like this with Black, and that White has many other attractive options around here.

The key point of Black's play is: 20.♘f6† ♗xf6 21.♗e4 g6 22.exf6 gxh5 23.♗xc7 d2!! 24.♖ed1 (24.♖e3 ♖bc8 25.♗d6 ♘e5 also creates much needed confusion) 24...♘d4! 25.♗xb8 ♗xe4 26.♗xa7 ♗c2 27.♗xb6 ♘b3 And apparently someone, somewhere is entirely equal. Thanks, Stockfish.

Thus 19.♕g4 with a slight edge is better. This is chess. After inaccuracies in the opening, the onus is on Black to find a dynamic solution to his rising static problems. As he failed to do this, he is now heading for a world of suffering.

18.♕h5 ♖g8 19.♖ad1 ♕e8!?

Threatening ...f5.

20.♕h4

Black is tied down, but things can still get a lot worse.

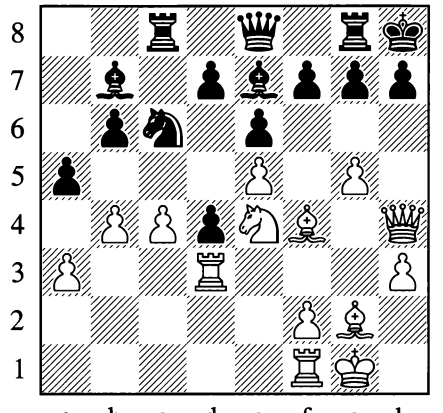
20...♖c8

20...♗f8!? could be a trap. White should avoid 21.♖d3?! a5! 22.b5?! ♘e7! 23.♘d6 ♘g6 with a big mess. Black is not worse. This is what Black's hopes are reduced to – tricks and traps.

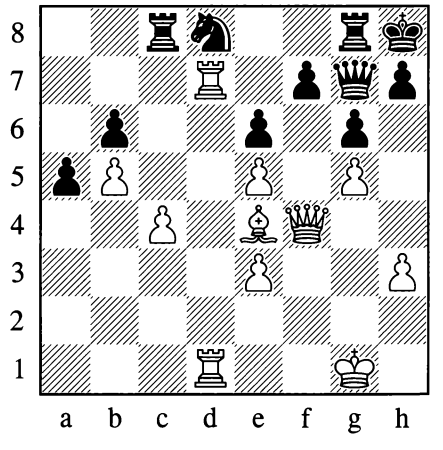
After 21.♘d6, 21.♕g3, 21.♔h2, or virtually anything that does not blunder away everything, White keeps a solid edge.

21.♖d3 a5

Black's position is quite poor. So, although this is a bad move, it is hard to be critical of it.



22.b5! ♘d8 23.♖xd4 ♗xa3 24.♗e3 ♗xe4 25.♗xe4 g6 26.♖fd1 ♗c5 27.♖xd7 ♗xe3 28.fxe3 ♕f8 29.♕f4 ♕g7



This is really where the story begins. White is entirely winning. Black is unable to make a move.

Obviously White is able to win the game in any which way he desires. And this is where the discussion becomes interesting. Because how would you want to win the game? Personally, I would want to win it with the lowest possibility of error. At the moment Black cannot move. I would want to keep it that way.

When you are this winning, the first question to ask yourself would be: *How can I mess this up?* The answer will be about making a

tactical mistake, or allowing counterplay. To avoid tactical mistakes, we avoid complicated variations. We want to win without calculation. To avoid counterplay, we have to continue to strengthen our position without allowing Black any type of counterplay. At the moment the queen and g8-rook are imprisoned. And the rook on c8 is busy defending the knight (which cannot move). Least likely to be active is however the king. Not only is it void of legal moves, it can also not bear to be checked at the moment, as tactics would lead to immediate material losses.

It takes time to spoil a position as winning as White has here. A lot of praise is due to Ivanov, who managed to use his chances and give White the opportunity to overplay his hand. What I would like you to pay attention to is how White allows Black to have counterplay, and that this leads to a position where White makes a concrete mistake. It does not arise out of nowhere.

30.♕f6?

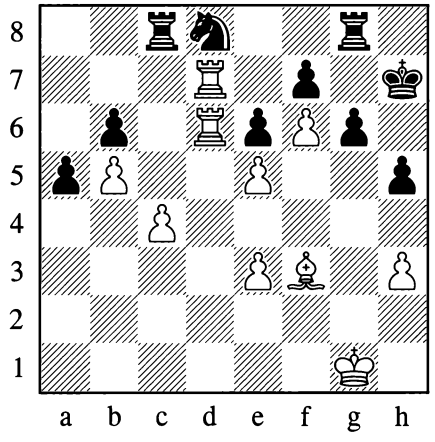
It must have felt emotionally satisfying for Haug to remove the queens from the board. Surely Black can never create counterplay without them? As we shall see, the opposite is the case. The white pawns will loosen their grip on the black position, and there is now a path to activity for one of the black pieces.

I would have slowly improved the position. Starting with: 30.♖1d6 ♖b8 31.h4 ♖e8 32.♔g2 a4!? Black is not forced to play like this, but otherwise, White does exactly the same, before cashing in. 33.♖a7 ♖c8 34.♖dd7! Black cannot take on c4, as his back-rank problems would hurt immediately. 34...♔g8 35.♗f3 And so on. Eventually White will take the a-pawn. And without the a-pawn moving, we would eventually play ♕f4-f6. But only after having strengthened the position to an absolute maximum. Very few one-move variations would have to be calculated in this way.

30...♕xf6 31.gxf6 h5 32.♗f3

White can still win without complications. For example: 32.♖1d6 ♖b8 33.♖a7 ♔h7 34.♖a8! and the only active black piece is exchanged. Unsurprisingly, exchanging the queens did not ruin anything. The position was too winning for that.

32...♔h7 33.♖1d6



33...♔h6!

Black can try a number of things. They all lose, so the best strategy is to allow White to do all the running. Most players feel comfortable reacting to direct threats and assaults. But creating a longer-term plan is more troublesome. So, the cunning old grandmaster knows that his chances, should they come, will come later.

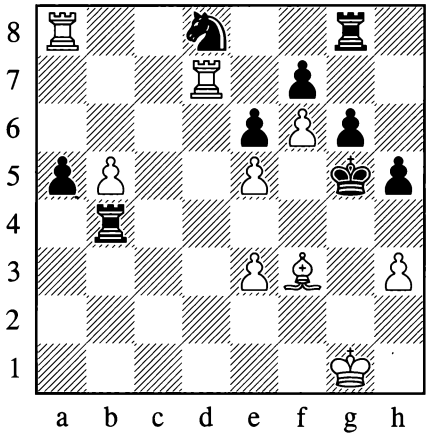
34.♖xb6 ♔g5 35.♖a6?!

Why is the a-pawn relevant to collect? It is important that we understand what our frame of mind should be. Because White allowed the black king to come out, he has lost the complete control he had earlier. This means the game has gone into a more concrete phase. White should be looking for concrete wins.

On top of the philosophical aspects, it is also sad for White to give up on his connected passed pawns so easily.

White has plenty of wins. My preference, 35.♖bd6 ♔f5 36.b6 ♔xe5 37.c5, would have caused near-immediate resignation.

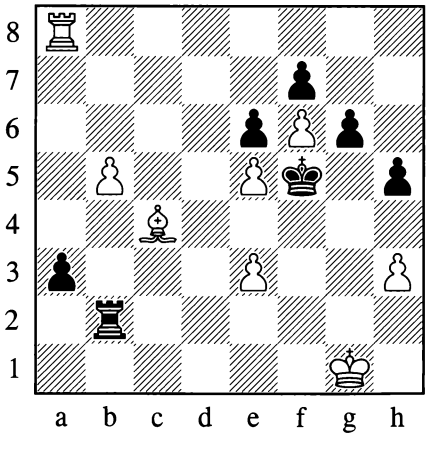
35...♖xc4 36.♖a8 ♖b4!



37.♗e2!

Holding on to the valuable passed pawn. White wanted this position, where the extra piece and the b-pawn is a certain winner. It just requires a bit of technique and calculation...

37...a4 38.♖dxd8 ♖xd8 39.♖xd8 a3 40.♖a8 ♖b2 41.♗c4 ♔f5



42.♖xa3

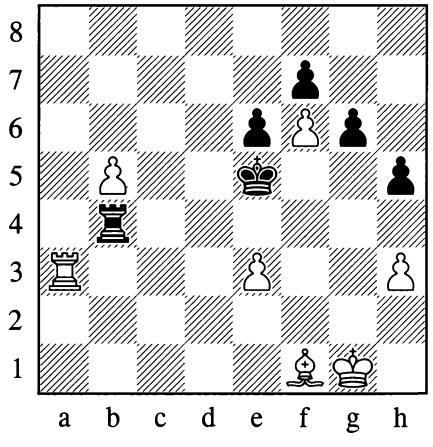
Having slowly abandoned the idea of winning without calculation, it is now time to find the tactical wins.

At this point White could have played 42.♖a6 ♔xe5 43.♖xe6†!, and the game will not be much longer.

42...♖b4 43.♗f1

43.♗d3† ♔xe5 44.♗xg6 ♔xf6 45.♗d3 looked cleaner. White is a full piece up.

43...♔xe5



44.♖a8

44.♖a6 ♔xf6 45.b6 ♖b1 looks a little clumsy for White. But after 46.h4 followed by ♔f2-g3, White will be able to play ♗g2 and win quickly. I am not sure the rook is less clumsy on b8 – and it takes an extra tempo to get there.

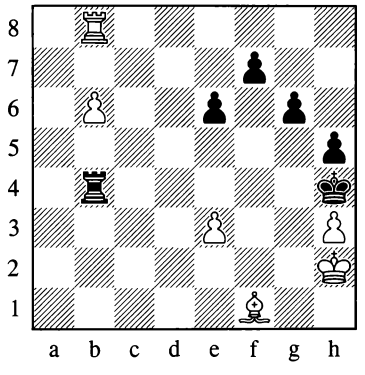
If I were White, I would be mightily frustrated at this point. The position was so winning earlier and now you have to play some clumsy moves to make headway. In such a situation it is important to wipe the slate clean and be happy with the extra piece. It is easier said than done...

44...♔xf6 45.♖b8 ♔g5 46.♔f2

White's concrete wins are becoming longer, but not overly difficult.

46.b6 ♔h4 47.♔h2

With the threat of ♗g2, this was one such win.

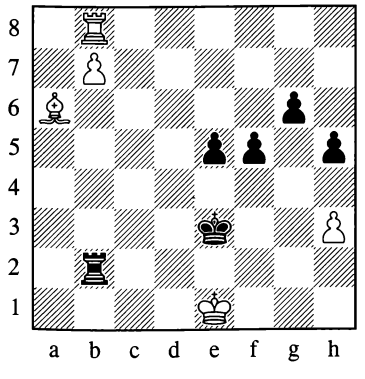


If Haug thought of it, which is not a given, he was probably not afraid of:

47...e5

Rather, he would have been a bit uncertain about the endings after 47...♖b2† 48.♗g2 e5!, where White only wins with 49.b7 e4 50.♖e8! ♖xb7 51.♖xe4† ♔g5 and now a rook check. I personally would have to spend some time to see that 52.♖g4† hxg4 53.♗xb7 gxh3 54.♔xh3 is a simple win. Apparently so.

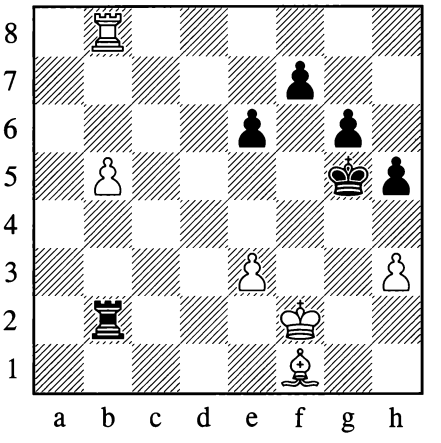
48.b7 f5 49.♗a6 ♖b2† 50.♔g1 ♔g3 51.♔f1 ♔f3 52.♔e1 ♔xe3



53.♔d1

Where it is easy to rely on the strength of the white army to take on a few passed pawns.

46...♖b2†

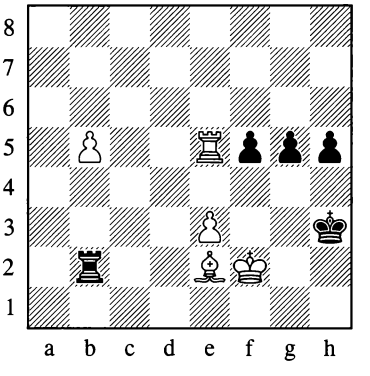


47.♗e2

47.♔g3!, with the threat of h3-h4†, was a good idea. After 47...h4† 48.♔f3, Black has lost his main avenue to counterplay.

47...♔h4 48.b6

48.♖f8!? f5 49.♖f6 g5 50.♖xe6 ♔xh3 51.♖e5 was another way to win the game.

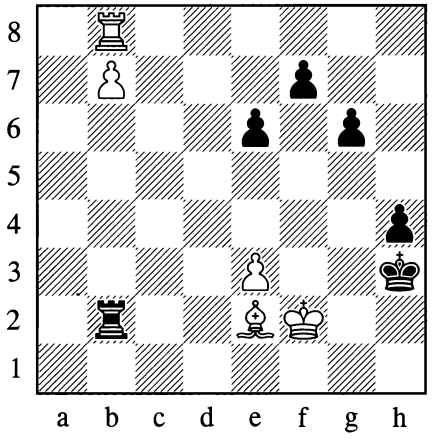


There are plenty of winning continuations still, but like this one they now require some action, and don't lead to instant resignation. 51...g4 52.♖xf5 h4 53.♖g5 g3† 54.♔f3 is pretty close to resignable. But to feel confident of this seven moves earlier is a tall order.

48...♔xh3 49.b7

White has achieved his primary objective from the last many moves. Some accuracy is still needed though.

49...h4



50.e4?

The final mistake, after which the win is no longer there. If you came to this position fresh, say within the first half hour of your training session, you would work out that White wins with:

50.♔f3!

But if you are weary during the game and you do not know that now you have to calculate to be accurate (or if you have tried to solve everything by calculation for two hours and the end point was constantly too far away), you may suffer a bit of additional confusion. White is now threatening 51.♗a6, winning. Black should try:

50...g5

Now 51.♗a6 g4† 52.♔f4 ♖b4† looks very confusing. White is still winning, but the b-pawn is not queening directly and certainly it's a step backwards on the winning path.

Instead, the most satisfying solution is 51.♗f1†! ♔h2 52.♗a6 and White wins a tempo when it matters most. Black can only resign.

The computer comes up with a bit of wizardry that no one would see. And if they saw it, they would not play it:

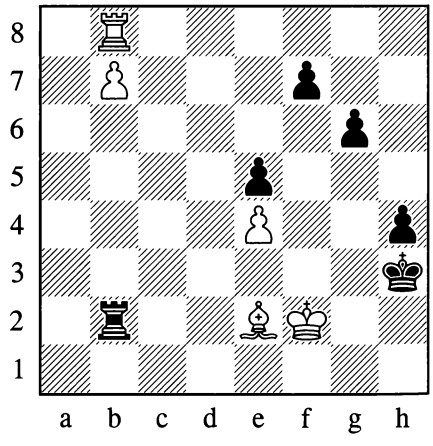
51.♖g8!? ♖xb7 52.♖xg5 ♖b1 53.♖g2! f5 54.♖f2

With a beautiful finish.

50.♔e1? would be a much weaker version of the same plan. After 50...♔g3! 51.♗a6 h3 52.♖h8 h2, White arrives a tempo too late. With the threat of ...♔g2, it is time for White to avoid losing. After 53.♗f1 ♖b1† 54.♔e2 ♖b2† 55.♔e1! he would achieve exactly that. Suddenly it is important that he does not give away the f2-square to the black king.

50...e5!

Restricting the white king and now suddenly it is White who is out of moves.



51.♔f3

Allowing Black to repeat the position, but offering a draw immediately too. It is easy to understand Haug in this decision. Dealing with the frustrations of an opponent resisting in the impressive manner of Ivanov can be tough. Already 20 moves ago, White was totally winning. And then he was just a bit less winning every few moves. At some point you just want it to end.

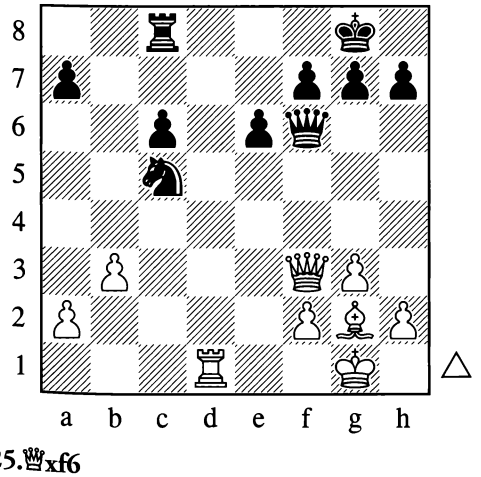
But also after 51.♔e3 ♔g3 52.♗f1 ♖b1 53.♔e2 g5 White is not on his way to winning the game. The best he can hope for is rook and bishop vs rook; but even this is not easy to achieve. And it is a theoretical draw, if you get it. Although I should add that I had to defend it once and it did not feel drawn at all! Every move is a trap and eventually I fell for one of them.

All is well that ends well. A bit over a year later, Haug got the IM-title and started taking big steps towards the grandmaster title.
½–½

In the next game we shall see a fight between the ultimate English gentleman grandmaster and a Romanian grandmaster with a very different style to most people. When I have seen him at tournaments, it was clear to me that he distracted his opponents – and in no way intended to do so... Starting out, the position is mildly more pleasant for White, but soon Black gets into trouble.

Stephen Gordon – Bogdan-Daniel Deac

Gibraltar 2020



25.♕xf6

25.♕e3!? with positional compensation was interesting, but it is very natural to win back the pawn.

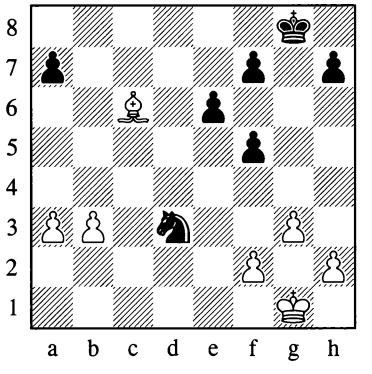
25...gxf6 26.♖d6

This endgame has a poor outlook for Black. With the chance to create a distant passed pawn on the queenside and a potential breakthrough down the h-line, we could be talking about two weaknesses. But in both cases, it will take White a long time to make any of these potentials come real. Meanwhile Black needs to act.

26...♘a6?

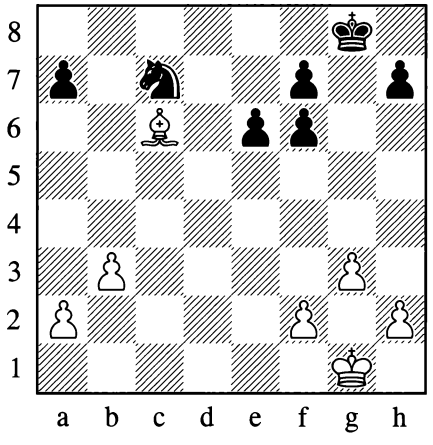
This is not it. Yes, there is a simple fork on b4, but this is not going to happen.

The active play was 26...f5!, threatening ...♘e4. After 27.♖xc6 ♖xc6 28.♗xc6 Black can play 28...♘d3 29.a3



29...♘e1!, which would encourage White to put the pawns on light squares, making them easier to block. There will still be a demand of making a few good moves down the road, but nothing similar to the problems Black is faced with in the game.

27.♖d7 ♖c7 28.♖xc7 ♘xc7 29.♗xc6



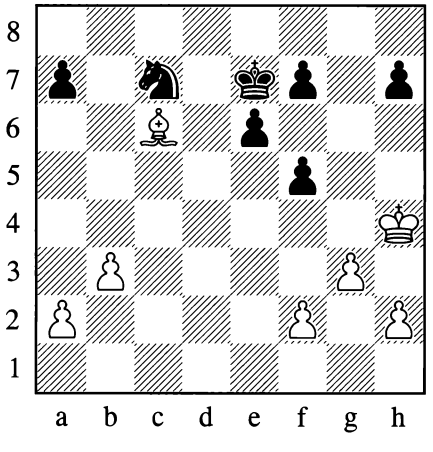
29...♔f8!

The black king has to rush to the centre, as White is threating 30.♔f1-c4.

30.♔g2 ♔e7 31.♔h3!

The computer is inspired by the incredibly subtle 31.♗b7. But honestly, no one would play this way. Gordon does what all good technical players would do, which is to copy Rubinstein and go for the weak h-pawn.

31...f5 32.♔h4



32...a5?

This move is poor for two reasons.

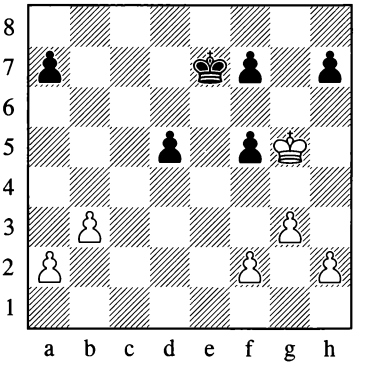
First of all, it is completely ignoring the threats White will now carry out. And secondly, it is a small violation of the principle of "don't move a pawn on the side that you are weaker".

If the white a-pawn was on a4, this move would make a lot of sense, as one pawn would neutralise two. But in this case it simply makes it easier for White to create a passed pawn. If the pawn had remained on a7, both the white pawns would have had to make it to the 5th rank to be able to create a passed pawn. Now the a-pawn only has to make it to the third rank.

32...♘d5!! 33.♗xd5

Black also would be forced to find good moves after 33.a3 ♔d6 34.♗b5. There are a number of ways to go wrong. The simplest way to go right is 34...♘c3! 35.♗d3 ♔d5 with active counterplay.

33...exd5 34.♔g5



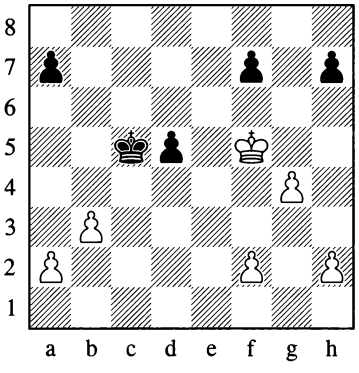
This pawn ending looks bad for Black, but accurate play will turn the tables and put White under pressure.

34...♔d6!!

A very surprising move, with a very surprising idea.

35.♔f4

35.♔xf5? looks natural, but after 35...♔c5, it is White who is lost. For example, 36.♔e5 f6†! or: 36.g4

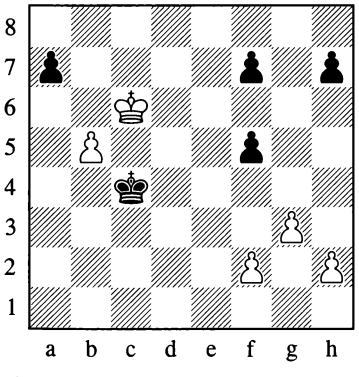


36...♔d4!! and the d-pawn will queen before you know it.

35...♔c5 36.♔e3 ♔b4 37.♔d4

White is holding with a series of accurate moves. They may look quite reasonable, but so do a lot of the wrong moves.

37...♔a3 38.♔xd5 ♔xa2 39.b4 ♔b3 40.b5 ♔b4 41.♔c6 ♔c4



42.f3 ♔b4 43.b6

With a draw after a lot of more or less obvious moves.

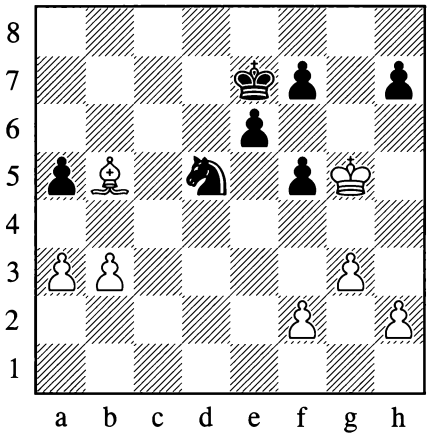
33.♔g5!

This was the main threat.

Maybe Black expected the game to continue 33.a3 ♘a6 34.♗b5 ♘c5 35.b4 axb4 36.axb4 ♘e4 37.f3 ♘c3 38.♗d3 ♘d5 39.b5, where Black certainly has real problems to deal with. But with 39...♔f6 it may be a fortress.

33...♘a6 34.♗b5 ♘b4 35.a3 ♘d5

35...♘c2 is not a threat. For example, 36.♔h6 with the idea 36...♘xa3 37.♗d3! and the knight is out of play.



36.♗c4!?

I have to be honest and say that I am not too clear on what the idea of this move is beyond pushing the knight away in order to play b3-b4. I cannot see that Black will prevent this for very long anyway, so I feel different moves could have been more effective.

The key point is that we are in a phase of the game where White has a lot of ways to win. The game move is fine. So is 36.♔h6 ♘f6 37.♗e2 ♔f8 38.b4, or 36.f4 ♘f6 37.♔h6 ♘g4† 38.♔xh7 ♘xh2 39.♗e2, or something entirely different. What is important in terms of "good technique" is to keep staying in a scenario where either a) everything wins, or b) the small tactical sequence that wins is fully under control.

The reason I picked out this game to be in the book, is that we can see very clearly the path from anything wins, through many wins, to only one way to win, to the draw. Obviously I am being flippant. This is what an endless series of technical misadventures looks like, including from grandmasters. Often you will

find these games in books (this one included) starting at the time when the path to victory has narrowed. From a chess perspective, these are the most fascinating moments. But with the topic at hand, what follows over the next few moves is maybe more educational.

36...♘f6 37.f3 ♘d7!

Deac is actively looking for some sort of counterplay and thus abandons the h-pawn.

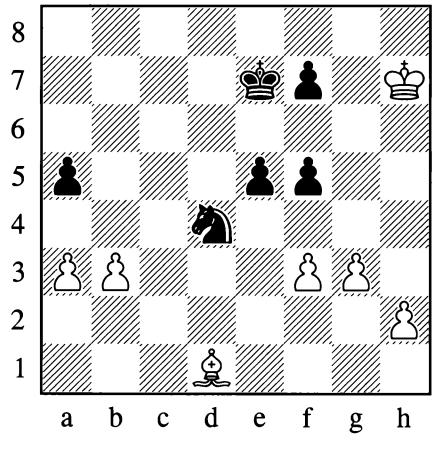
37...♘g8 38.b4 would win for White.

38.♔h6 ♘e5 39.♗e2 ♘c6 40.♔xh7

There is nothing wrong with this.

But had it been me, I would have played 40.f4! ♘d4 41.♗c4 and I cannot see what Black is trying to do.

40...♘d4 41.♗d1 e5



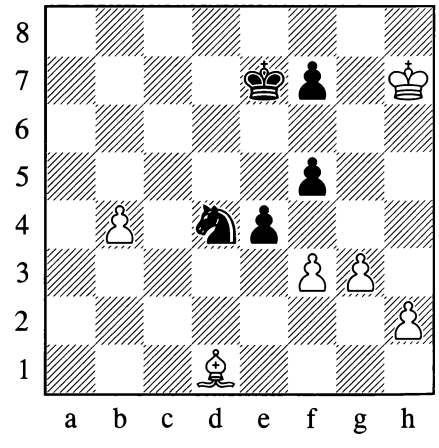
White is still winning, but now Black has actual counterplay. Black has a passed pawn. We are now entering a phase where accurate play is necessary to win the game. This would not have been necessary with better moves earlier.

42.b4?!

A natural enough move. With two passed pawns, it is not obvious which one to send away first. In this case, the b-pawn is simply less dangerous than the h-pawn. And in tempo-related action, it helps to be dangerous.

42.h4! e4 (42...♔f6 43.b4! would leave the knight fighting on two wings. Black is not going to be successful.) 43.fxe4 fxe4 44.h5 e3 (44...♔f8 45.g4! and again Black is unable to deal with passed pawns on both sides.) 45.♔g8 ♘f5 46.g4 White wins.

42...axb4 43.axb4 e4



We have reached the zone of one mistake. What was earlier a position that was winning in many different ways, is now not.

44.fxe4?

A very natural tempo-winning move. But actually, it is a poor choice.

44.f4!

This was the right move as it would deny the black knight access to both f4 and f5. Having no clear path back to stop the h-pawn, Black would have to prevent ♔h7-g7.

44...♔f8

Forced, as 44...e3 45.♔g8 e2 46.♗xe2 ♘xe2 47.b5 wins without a lot of fuss.

45.♗a4!

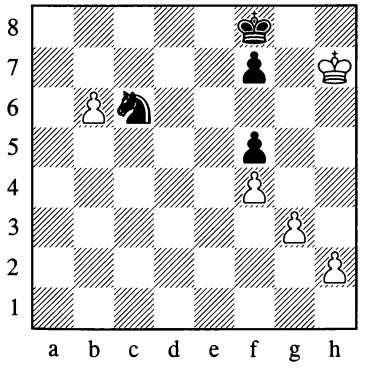
Not the only winning move. But the key point is that White will push the b-pawn before the h-pawn is sent off this time around.

This is important as Black would draw after 45.h4? by advancing the e-pawn, when the path of e2-g3-h5-f6 becomes available for the knight.

45...e3

Black has no other move. But White does not win because of zugzwang. White to play would simply push the b-pawn and win with a check on e8.

46.♗d1 e2 47.♗xe2 ♘xe2 48.b5 ♘d4 49.b6 ♘c6



50.b7

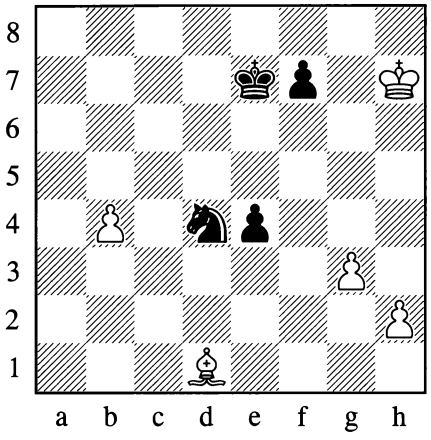
This is a very intuitive move to make and everyone would play it. Were it not for computers, we would not have spotted the following nice point:

50.♔h6? fails to win the game on account of 50...♘a5! 51.♔g5 ♔g7 52.h3 f6† 53.♔xf5 ♘c4! and Black picks up the b-pawn.

50...♘b8 51.♔h6 ♔e7 52.♔g5 ♔e6 53.h4

White wins.

44...fxe4



45.g4

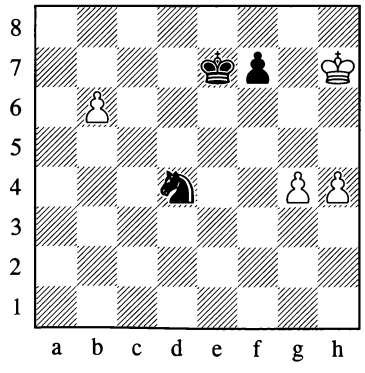
45.♔g7 e3 46.h4 just does not work. After 46...e2 47.♗xe2 ♘xe2 48.h5 ♘xg3 it is clear that the knight will make it back in time. Actually, Black has a tempo to spare here and it is White who has to be careful. After 49.♔h6!, he will still make the draw. But instead, 49.h6? ♘f5† 50.♔h7 ♔d7 would cost the whole point.

45...♘f3?!

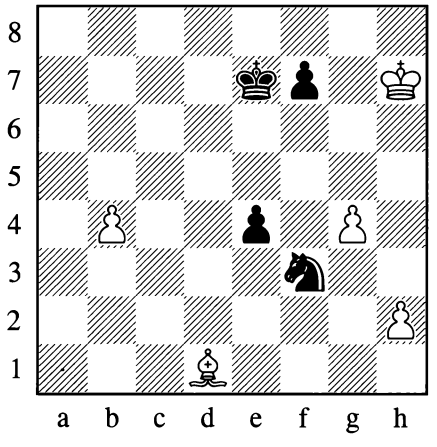
This should have created a lot of unnecessary problems for Black. There were a number of clear ways to make the draw. For example:

45...f5!? 46.g5 f4 47.g6 f3 48.g7 f2 49.g8=♕ f1=♕ and after the exchange of queens, the e-pawn will be a good little soldier.

Also, the straightforward 45...e3 46.h4 e2 47.♗xe2 ♘xe2 48.b5 ♘d4 works. The thing you have to see is that after: 49.b6



Black should let the knight deal with the kingside. 49...♔d6 (49...♘c6? 50.♔g7 and White wins.) 50.♔g7 f5! with an immediate draw.



46.b5?!

Bringing back the king would pose more dangers for Black:

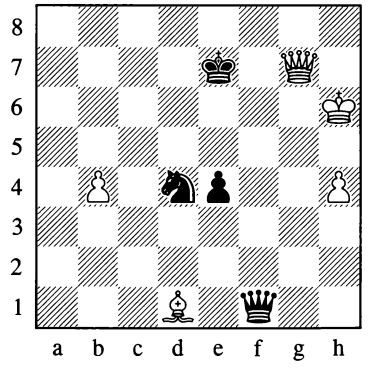
46.♔h6!

Black would have to walk the following tightrope to survive.

46...♘d4

46...♘xh2? 47.♔g5 ♘f3† 48.♔f4 ♘d2 49.g5! is lost for Black. White's intention is ♗c2xe4. And if 49...♔e6 50.b5 ♔d5 he has 51.♗h5, creating a second passed pawn.

47.h4 f5! 48.g5 f4 49.g6 f3 50.g7 f2 51.g8=♕ f1=♕ 52.♕g7†



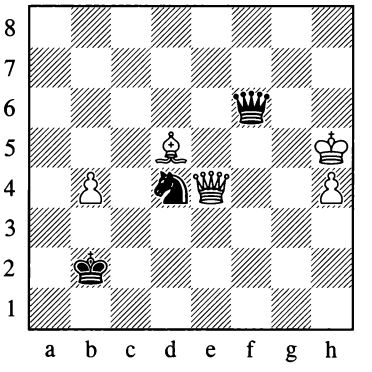
52...♔e6! 53.♗g4†

53.♕xd4 ♕f4†! 54.♔h7 ♕f5† gives perpetual check.

53...♔d5 54.♕b7† ♔c4 55.♕a6† ♘b5 56.♕c6† ♔b3!

56...♔xb4 57.♕xe4† is lost for Black. Obviously a lot of chess would still have to be played.

57.♗e6† ♔b2! 58.♕xe4 ♕f6† 59.♔h5 ♘d4 60.♗d5



60...♔a3!

Again, the only move.

61.b5 ♔a4!

61...♘xb5 62.♕f3† would leave the black king hopelessly offside.

62.♗c6 ♔a5

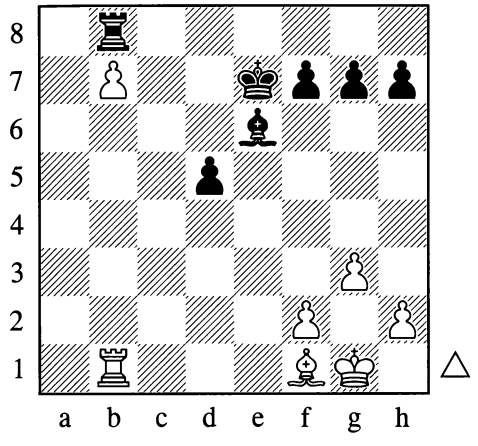
Black is holding. But only after another 50 or more moves.

46...♘xh2 47.b6 ♔d6 48.♔g7 ♔c6 49.♔xf7 ♘xg4 50.♗xg4 ♔xb6
½–½

In the next complicated example, White has an obvious advantage, but converting it will not be easy and obviously requires immediate action.

Hikaru Nakamura – Alexander Grischuk

Internet 2020



32.♗a6

The bishop obviously has to defend the passer, in order to free the rook to fight for the promotion square.

32...d4

Active play is necessary.

Black would be left passive and White would be able to bring in the king slowly after first playing 32...♔d8 33.♖c1, when Black has no way to challenge White at all.

33.♔f1!

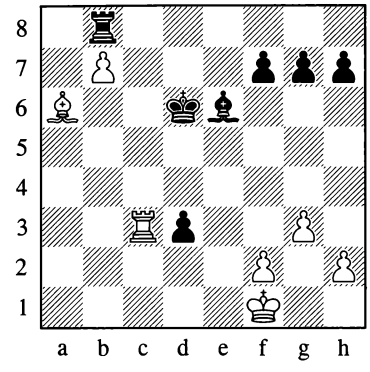
The most natural move and probably played purely on instinct. After all, this is an Internet rapid game.

33.♖c1 d3 34.♖c3

This also looks winning, but Black has a remarkable resource.

34...♔d6 35.♔f1

35.♖xd3† ♔c7 and the king heads for b6 with immediate equality.



35...♖e8!!

The threat of mate distracts the white forces.

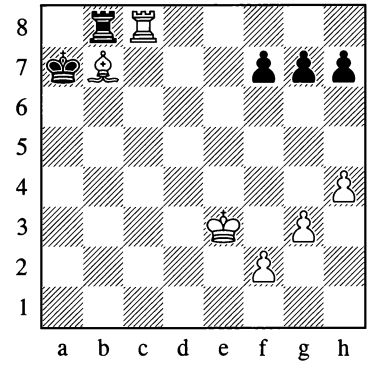
36.♖xd3† ♔c7 37.h4 ♖b8 38.♖c3†

The only way to deal with Black's next move.

38...♔b6 39.♖c8 ♔a7 40.♔e2 ♗d5

Black makes the draw along similar lines to the game. The only way to maintain an advantage is to win the h-pawn, which is wholly insufficient to win the game.

41.♔e3 ♗xb7 42.♗xb7



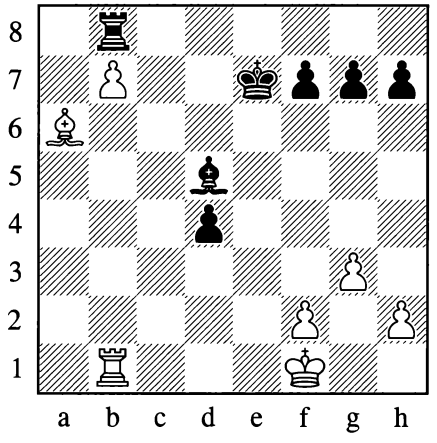
42...♔xb7!

42...♖xb7 43.♖h8! would give White a chance to attack the kingside and exploit the black king being so far away.

43.♖xb8† ♔xb8 44.♔f4 ♔c7

The pawn ending is an effortless draw.

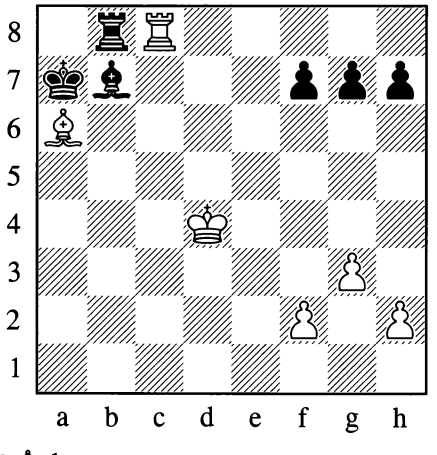
33...♗d5



34.♔e2?

But this is sloppy. This time the black king makes it to the queenside in time.

34...♔d6 35.♔d3 ♔c7! 36.♖c1† ♔b6 37.♖c8 ♔a7 38.♔xd4 ♗xb7



39.♗xb7

39.♖xb8 ♔xb8 40.♗d3 ♔c7 41.♔e5 ♔d7 42.♗xh7 could be tried, but it would have been a draw anyway.

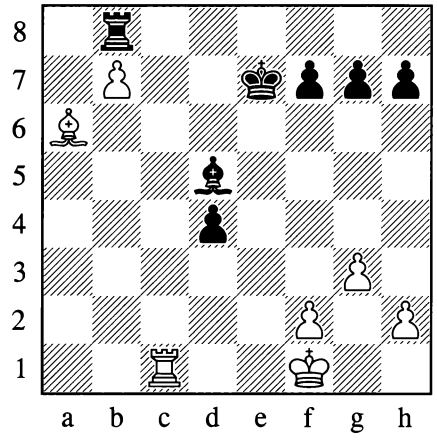
39...♔xb7 40.♖c3

The pawn ending leads nowhere, as the white king cannot penetrate the position.

40...♖c8 41.♖f3 ♖c7 42.♖e3 ♔c6 43.♖e8 ♔d6 ½–½

The winning path went this way:

34.♖c1!



In practice this would have won the game quickly. In analysis we can see some extra defensive resources for Black.

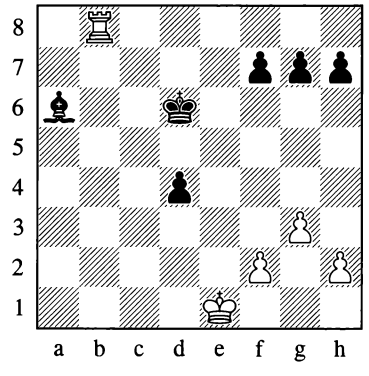
34...♔e6!

Black prepares to give up the exchange by putting the king on the best square.

34...♔d6

This leaves the f7-pawn undefended and White wins quickly.

35.♖c8 ♗xb7 36.♖xb8 ♗xa6† 37.♔e1



White is threatening ♖g8!, provoking serious weaknesses on the kingside. Long term the black h-pawn will be lost. The black king

cannot go to the 6th rank, due to the check on b6.

After 37...♔e7 38.♖b4, White will quickly pick up the d-pawn and then slowly win the game.

So, the only try for Black would be:

37...♔e5

If only Black had time to play ...♗c4, a draw would be a realistic prospect.

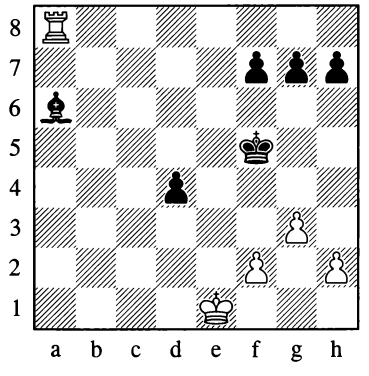
38.♖e8†!

As so often, a disturbing check ruins the coordination of the defending side.

38...♔f5

38...♔f6 39.♖e4 and the pawn will soon be lost.

39.♖a8!

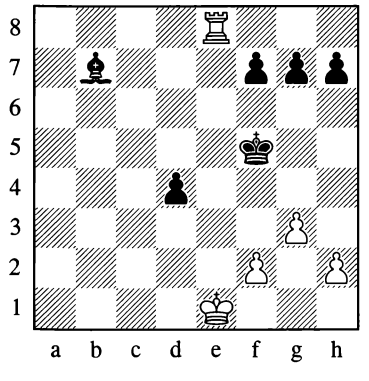


At the moment where ...♗c4 is not possible.

39...♗b7

39...♗d3 40.♔d2 ♗e4 41.♖d8 ♔e5 42.♖e8† ♔f5 43.♖e7 and White wins a pawn.

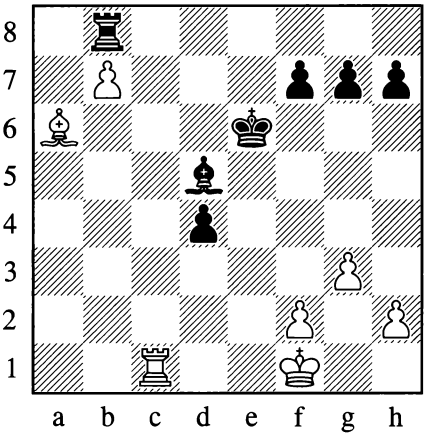
40.♖d8 ♔e5 41.♖e8† ♔f5



Over the last few moves all White has achieved is to force the black bishop to another diagonal. These sorts of small improvements are hunted down with vigilance by the successful technical player. The bishop cannot both defend the f7-pawn and the d3-square from elsewhere than c4.

42.♔d2 ♗e4 43.♖e7

White wins.

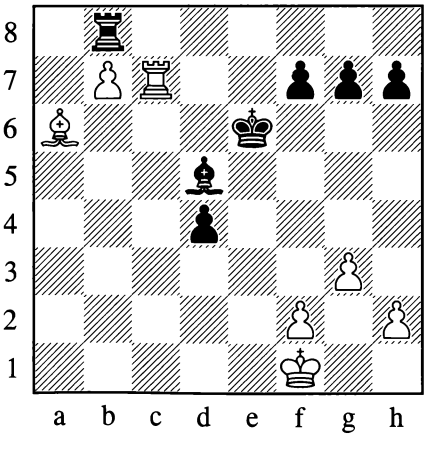


35.♖c8? ♖xb7 36.♗xb7 ♗xb7 37.♖d8 ♔e5

Black will resist, although White has winning chances. I have not reached a final conclusion on this position, but I presume that White would be unsuccessful against impeccable defence.

Instead, White should keep full control of the position and play:

35.♖c7!



We know that the king is badly placed on d6, so here White is encouraging the king to go to this worse square.

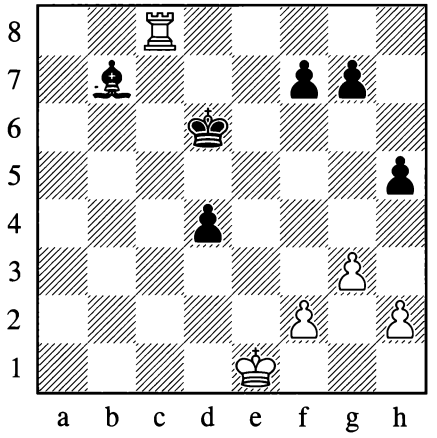
35...h5 36.♔e1!

The extra move White has won is spent getting the king out of the check on a6.

36...♔d6

Now this is unavoidable.

37.♖c8 ♖xb7 38.♗xb7 ♗xb7

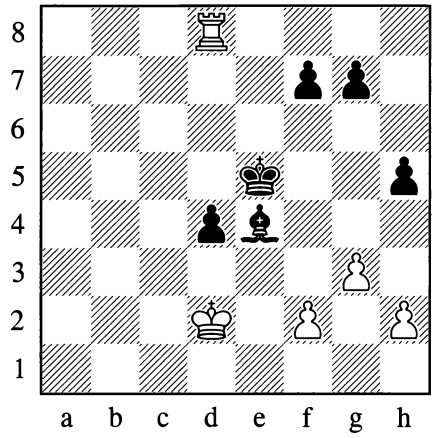


39.♖d8†! ♔e5 40.♖e8† ♔f5 41.♔d2 ♗e4

An unfortunate regrouping of the bishop, but Black is out of options.

41...♗a6 42.♖a8! ♗f1 43.♖a1! would leave the bishop with no good squares on the a6-f1 diagonal. The d-pawn is toast.

42.♖d8 ♔e5



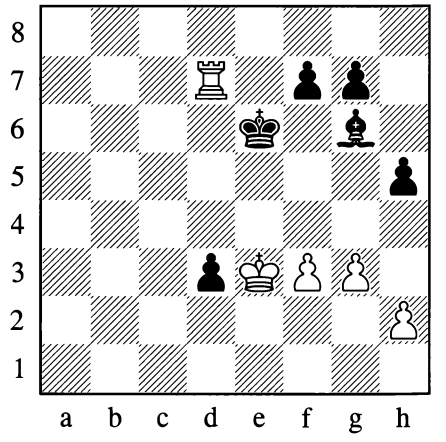
43.♖d7

43.f4†? ♔f6 44.♖xd4 ♗f5 is an instructive mistake. White has lost his ability to fight for the light squares and will find the conversion of the advantage to be very difficult to pull off, if possible at all.

43...♗g6 44.f3!

Black is in zugzwang and has to make a painful concession.

44...d3 45.♔e3 ♔e6



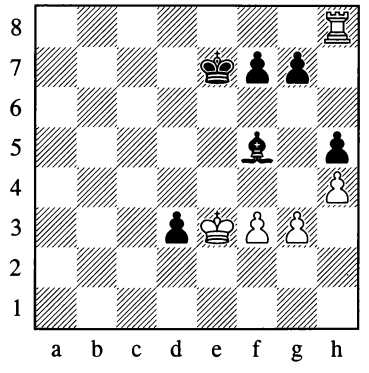
46.♖b7

This looks like a very roundabout way for White to play and perhaps there are quicker paths. But to me, keeping Black tied down would be the first priority.

46.♖d4 ♗f5 47.h4 f6!, when Black has achieved a structure on the kingside where the pawns and bishop work together, is something I would desperately regret seeing.

46...♗f5 47.h4 g6

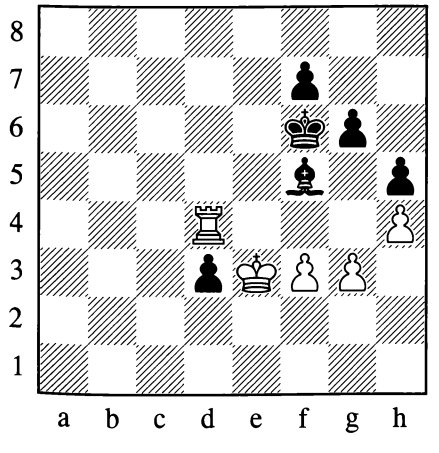
An admission of guilt that would normally need to be provoked in a manner such as this: 47...♔f6 48.♖b8 ♔e7 49.♖h8!



49...g6 50.♖a8 and we enter a territory similar to the main line.

A fun point is that 49...♗g6 50.♖g8 ♔f6 51.g4! leaves Black in zugzwang; most entertainingly after 51...hxg4 52.fxg4 ♗h7 53.g5† ♔g6 54.♖h8 and the bishop is lost.

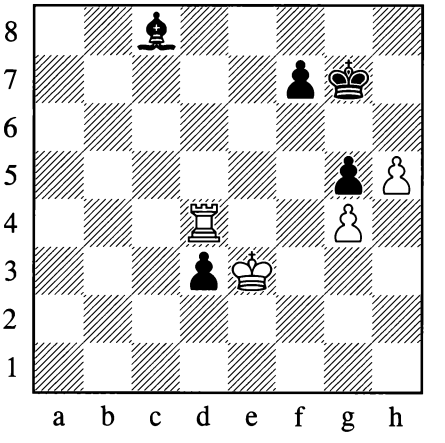
48.♖b4 ♔f6 49.♖d4



At this point Black has two main defensive tries:

a) 49...g5 50.g4! hxg4 51.fxg4 ♗c8 52.h5 ♔g7

Black's defensive idea is clear. If he is able to play ...f5, he will make the draw.

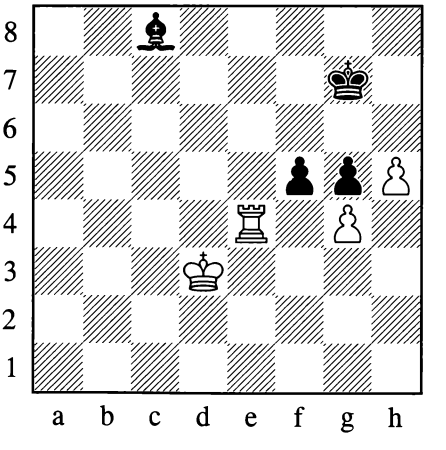


53.♖c4!

Before White allows ...f5, he improves the position of the rook.

53.♔xd3? f5 54.♖d8 ♗a6† leads to an easy draw. The black king is well placed on g7.

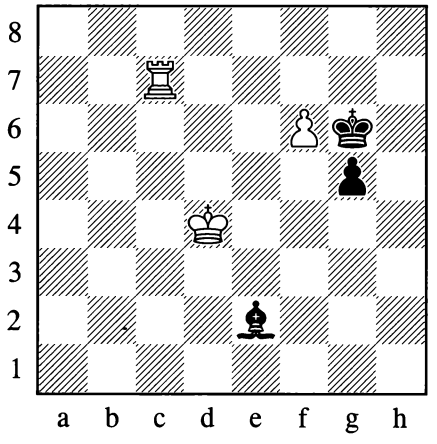
53...♗e6 54.♖e4 ♗c8 55.♔xd3 f5



56.♖e7†!

A vital intermezzo. After this anything wins, for example:

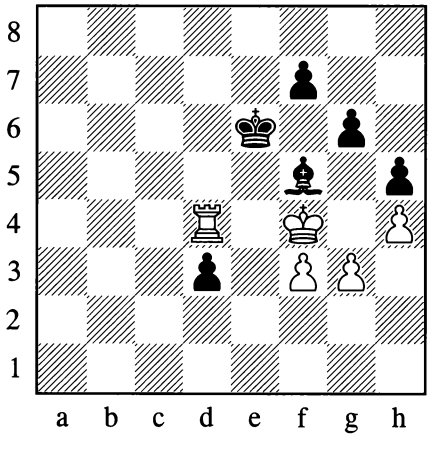
56...♔h6 57.♖c7 ♗a6† 58.♔d4 ♗e2 59.gxf5 ♔xh5 60.f6 ♔g6



61.♔e5

White wins with ♖g7† and an invasion by the king.

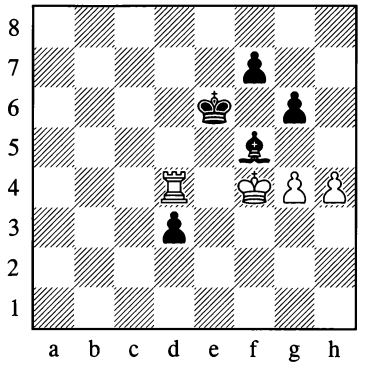
b) 49...♔e7 50.♔f4 ♔e6



This leads us to one of the core questions of technique. What would happen if my opponent was to play?

51.♖d8!

51.g4? hxg4 52.fxg4

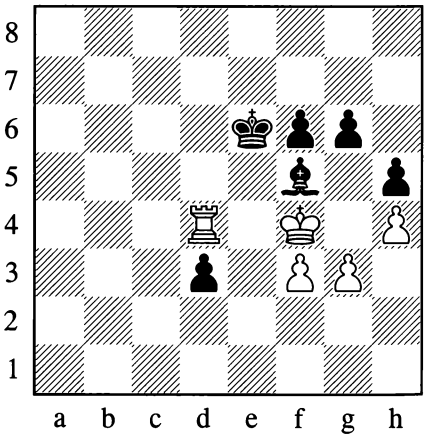


52...g5†!! is a cute trap. If White does not take with the king, ...♗h7 will hold. And after 53.♔xg5 ♔e5 54.♖d8 f6† 55.♔h6 ♗e4, Black will create enough counterplay with ...♗d5.

51...♔e7 52.♖d5 ♔e6 53.♖d4

Black has to make concessions. If the king retreats, the defensive idea of ...g5† loses its potency.

53...f6

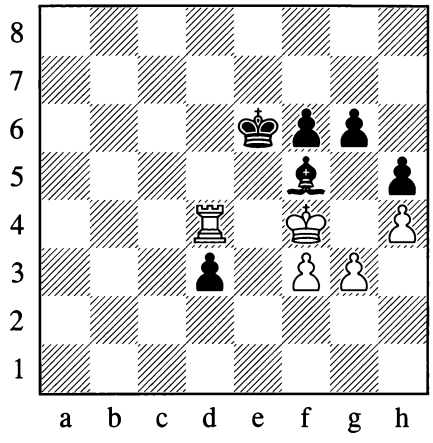


The only downside with this move is that it can only be played once.

54.♖d8!

54.g4? g5†! is there again.

54...♔e7 55.♖d5 ♔e6 56.♖d4



Black has to make a concession he cannot recover from. White wins.

The following game was played at the sadly way-too-common time control of 90 minutes for the whole game, with 30-second increments. This time control is not conducive to good chess, but in the times of the Covid pandemic, somehow it was deemed safest to have as many games as possible end at roughly the same time.

Tagir Salemgareev – Zhamsaran Tsydypov

Chelyabinsk 2021

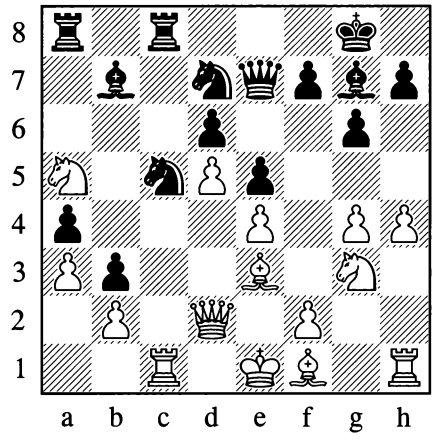
1.d4 ♘f6 2.c4 g6 3.♘c3 ♗g7 4.e4 d6 5.h3 0–0 6.♗e3 e5 7.d5 ♘a6 8.g4 c6 9.♘ge2 cxd5 10.cxd5 b5 11.♘g3 b4 12.♘b1 ♘d7 13.h4 ♘ac5 14.♘d2 a5 15.♖c1 a4 16.♘c4 ♕e7 17.♕d2 b3 18.a3 ♗b7

A typical moment in the middlegame where White has many strategies available. He can play on the kingside with 19.h5, he can plan to put pressure down the c-line with 19.♖c3, or he can finish development with 19.♗e2 and keep his options open. During the game it would be impossible to decide which is the strongest, even if you invest a lot of time in it. The practical approach would be to invest a few minutes and then make a commitment to go all in, in one direction.

19.♘a5

This is certainly one of the serious options, playing for the weakness of the c6-square.

19...♖fc8



20.g5?

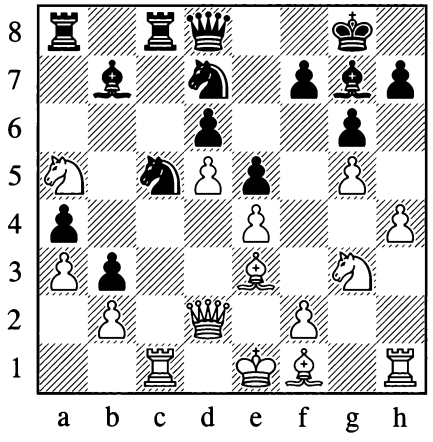
White spent 25 minutes on this move. Obviously this is poor time-keeping, in a game where the time is bound to get short soon enough.

The move itself is unimpressive and there is no reason to believe that this will be the critical moment of the game. But more importantly, it does not combine well with the previous move. I am certain that White was seeking to prevent something with this move, but I am equally certain that whatever he was preventing, the threat was not real.

20.♗b5! was a simple positional move that could have been played in 30 seconds. We already committed to go for the c6-square with the previous move. So, unless we see something wrong with this, we should just play it.

20...♕d8!

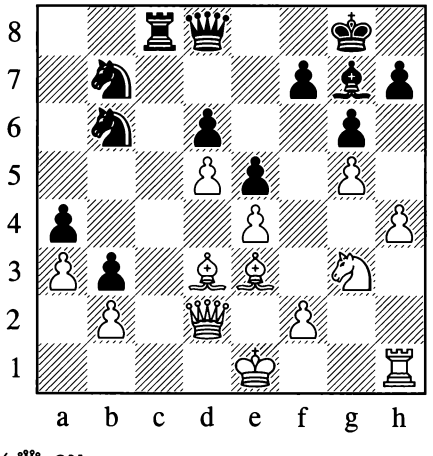
A strong move, forcing clarification on the queenside. As White did not reply instantly, we can safely assume that he had not predicted this move.



21.♘xb7?!

Another ten minutes spent on this move. Obviously it is a real decision whether or not to exchange the knight or return it to c4. But the specifics of each decision can be worked out quite quickly, after which it is simply time to choose. I happen to think returning to c4 was stronger, but I can also understand the frustration of having just invested a third of your allotted time on a move, and then seemingly having missed the opponent's answer.

21...♘xb7 22.♖xc8 ♖xc8 23.♗d3 ♘b6



24.♕e2?!

24.♕b4 ♘c5 25.♗b5 would have retained some of the advantage.

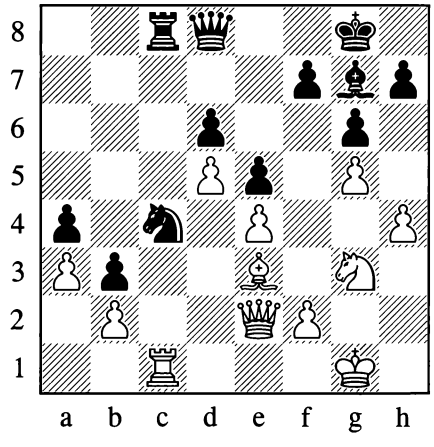
24...♘a5 25.0–0 ♘ac4

White has achieved nothing for all the time he spent.

26.♗xc4?

26.♗c1 with even chances was reasonable. Black would regroup his pieces with ideas such as ...♗f8-e7, or ...♖c7 and ...♕c8.

26...♘xc4 27.♖c1



27...♘a5??

Totally incomprehensible. The consequences of this move are desperate in all variations and easy to foresee.

27...♘xe3 28.♕xe3 would only be bad for Black if White was allowed to play ♖c6 on the next move. This can easily be prevented by 28...♖xc1†, with even chances.

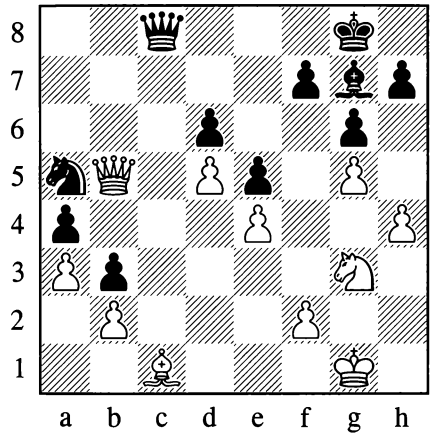
But even stronger is 28...♕d7!, where Black is combining threats of ...♕g4 with an attempt to take over the c-line with ...♖c7 and ...♕c8.

There is no reason to look for variations here. The game will obviously become complicated in one direction or another, depending on what White plays. And the dangers are obviously greater for White, with the weaknesses on b2 and h4.

28.♕b5

28.♖xc8 ♕xc8 29.♕b5 was a fraction more precise in case anyone cares (you shouldn't).

28...♖xc1† 29.♗xc1 ♕c8



30.♗d2?!

Stronger was 30.♗e3!, when White wins more or less on the spot, on account of 30...♘c4 31.♕c6!. But as the text move is very strong as well, there is no reason to criticise.

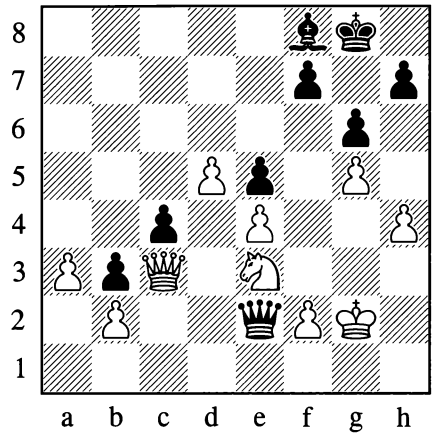
30...♘b7 31.♕c6

31.♕xa4 ♘c5 would give Black a bit of coordination, which is why 30.♗e3! was stronger.

31...♕b8 32.♕xa4 ♘c5 33.♕c4 ♕e8 34.♗b4 ♕a4 35.♕c3 ♗f8 36.♔g2 ♕b5 37.♗xc5 dxc5 38.♘f1!

A strong regrouping.

38...♕e2 39.♘e3 c4



With no such thing as a time control, we cannot criticise White for making a decision at this point. However, we can point out that he is entering complications without knowing how they will end up.

40.d6?

This move is considered strongest by the computer, but in practical terms it is an obvious mistake. Without seeing a path to checkmate, it does not make sense to give up both the d6- and b2-pawns.

40.a4! would have given Black something to worry about. Against 40...h6, White would continue to improve his position with 41.a5!, delaying the crisis moment to a time in the near future, where a far-advanced a-pawn would make the calculation of variations much easier and the path to the victory as broad as possible.

Attempts to muddy up matters with 40...♗c5 would fail. After 41.♕xc4 ♕xb2 42.♕xc5 ♕a1, White has several ways to deliver checkmate. The most human is probably 43.♘g4, but the key point is that the variations are very easy to calculate in all directions.

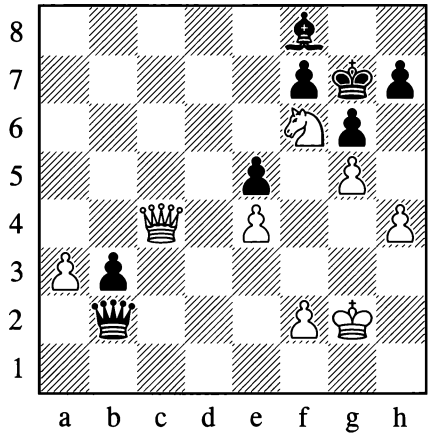
40...♗xd6 41.♕xc4 ♕xb2!

Black is very happy to have counterplay.

42.♘g4 ♗f8

Forced, due to the threat of ♘h6† with a mating attack.

43.♘f6† ♔g7



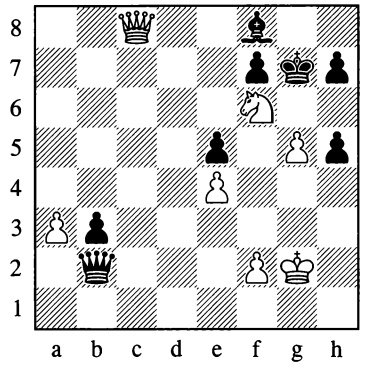
The moment has come for White to show his calculation. As he is living on increment, he does not have ten minutes to find the forced win he must have been sure was there when playing 40.d6.

44.♘e8†

Using the three questions (see page 336) in this position might have helped White to see that the biggest problem for Black is the h7-square.

From there it is not a big stretch of the imagination to find the winning continuation: 44.h5! gxh5 45.♕c8!

Black would be OK after: 45.♘xh5†? ♔g6 46.♘g3 ♔g7! (46...♕c2 47.♕d5!! would give White a winning attack, or force Black to give up the b-pawn, when the endgame would be disastrous.)

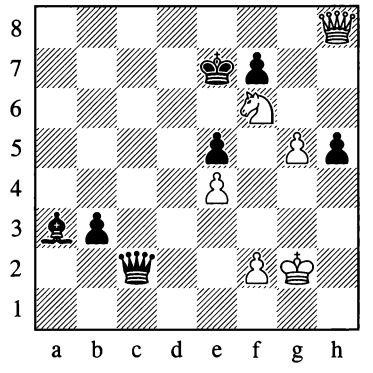


Black has no defence against the attack. For example:

45...♕c2

Or: 45...♕d2 46.♕f5 ♗b4!? Defending the queen is imperative. 47.♕xh7† ♔f8 48.♕h8† ♔e7 49.♕e8† ♔d6 50.♕d7† ♔c5 But the downside is that the bishop now hangs with check. 51.axb4† ♕xb4 52.♕d5† ♔b6 53.♕xf7 White wins.

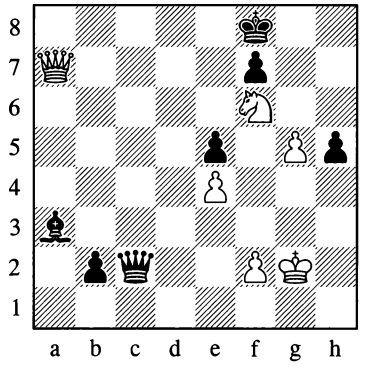
46.♕f5 ♗xa3 47.♕xh7† ♔f8 48.♕h8† ♔e7



49.♕b8!

The strongest among equals. White wants to pick up the a3-bishop, as well as threatening the e5-pawn and keeping an eye on the b-pawn.

49...b2 50.♕a7† ♔f8



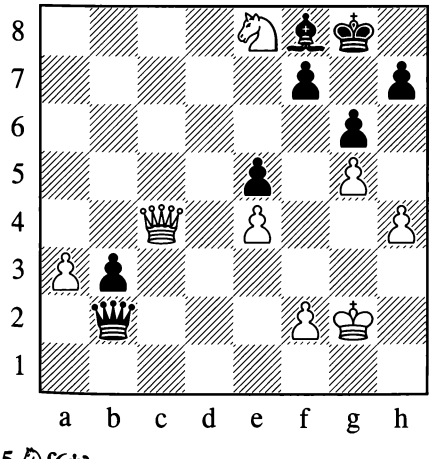
If the king comes forward, the queen will be hanging on c2.

51.♕xa3† ♔g7 52.♕a8

White wins.

Although these variations are long, they are very narrow and quite possible to work out once you have seen the original idea. This is quite common with calculation. The drop is quite predictable, but from which mountain top you leap is not at all obvious.

44...♔g8



45.♘f6†?

The real mistake was probably offering a draw, as there is another chance to find the winning plan on the next move.

White could still win with 45.h5!, as the threat of ♘f6†, h5-h6† and ♕xf7 forces Black to take on h5.

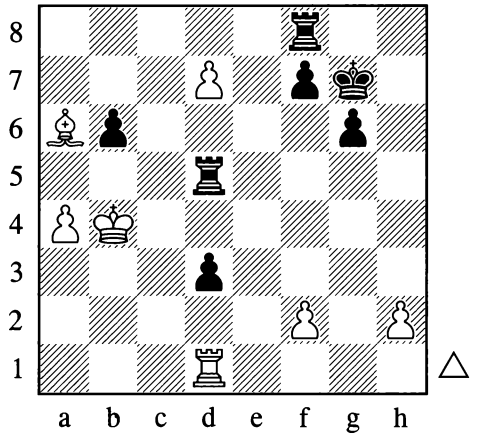
½–½

The following game is between two grandmasters from Iran's golden generation. I visited Tehran twice in 2017, once for the Women's World Championship and once for a training session with a young Alireza Firouzja. I was impressed with how much the Iranian Federation had achieved in their development of chess and the kindness of the people there.

Sadly, the interference of politics into sports has created problems for the development of the top players beyond the national stage. Like in so many countries, the regime does not seem to have a plan beyond staying in power. When this happens, focusing on external enemies is the laziest of strategies, but also the most common. After a few British citizens were held on charges that were both bogus and not a crime in democracies, I declined invitations to return to Iran for training camps and lost touch with the players there. Later Firouzja and his family left the country, not as dissidents, but simply so he could travel freely and play chess. At the time of writing, he has climbed to number two in the world rankings.

Aryan Gholami – Pouya Idani

Iran 2021

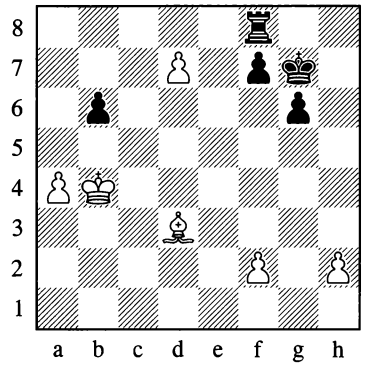


We enter this game as both players are running out of time. White has compensation for the exchange through the pawn on the 7th rank, but then he decides to misplace his bishop terribly, giving Black a chance to fight for an advantage.

38.♗c8?

Bishops are in general not very effective when defended by a pawn far up the board (the last three rows). This is a pitiful example of this concept; all the bishop can do is protect the pawn. From b5 the bishop would also protect the pawn, but we can easily see why White did not want to play this. That square is needed for the king.

38.♖xd3! ♖xd3 39.♗xd3 would have drawn quite easily. The white king will grab the b6-pawn, and Black will have to activate his rook on the 2nd rank in order to give checks and eliminate the white pawns. This requires no great accuracy and will make the draw without real difficulty. But it will be Black who has to make the draw.

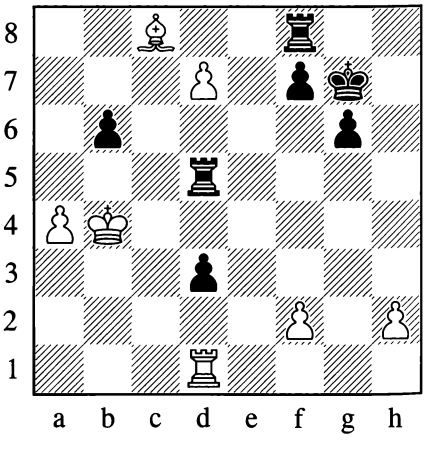


I wonder if White was reluctant to exchange the rooks, because he felt that the simplification would assist Black. As we will discuss in the chapter on exchanges, this is not a good way to decide on them. The white rook was awful and the black rook was Black's best piece.

To exchange them would be clearly in White's favour. But then it is quite possible that White did not have time to look beyond 39...♖d8, where he definitely does not want to play 40.♗b5?, blocking out the king.

Instead, 40.♔b5 ♖xd7 41.♗e4 will lead to the drawing scenario mentioned above. In time trouble it is easy to get scared of two connected black pawns, or 41...♖d6, where 42.♗c6 still picks up the b-pawn.

Having a good intuition for the endgame would help a lot in such a situation.



38...d2??

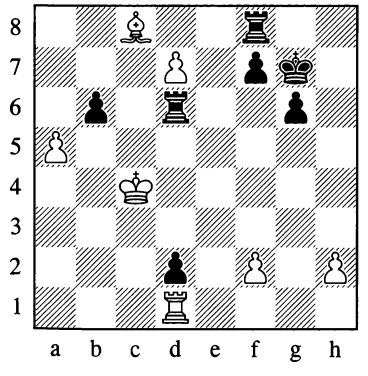
A horrible blunder. One topic in *A Matter of Middlegame Technique* will be *missing random chances*. A lot of games are spoiled because we do not realise that our opponent has gifted us a sudden chance.

In this scenario it is hard to see what advancing the pawn achieves. It is already tying down the white rook. True, White can play ♖d1-d2, but this does not change anything. What Black needs in this position is to gain control of the position and activate the remaining pieces. This was easily done by doing both at once.

38...♔f6 39.♔c4 ♖d6 and the king will take care of the white passed pawn and important squares in the centre. White can only resign.

39.♔c4 ♖c5†

Too late Black must have realised that 39...♖d6 would allow White to strike with: 40.a5!



Winning important squares and gaining enough counterplay to play for a draw. 40...bxa5 41.♔c5 ♖d3 42.♔c4 ♖f3 Trying to fight. 43.♖xd2 ♖d8 We do not want to block the pawn with our strongest piece, as it is inefficient. But here Black has to. 44.♖e2 ♔f8 45.♔b5 White has enough counterplay. Still, a few chances to create problems for him might exist.

40.♔b4 ♔f6 41.♖xd2

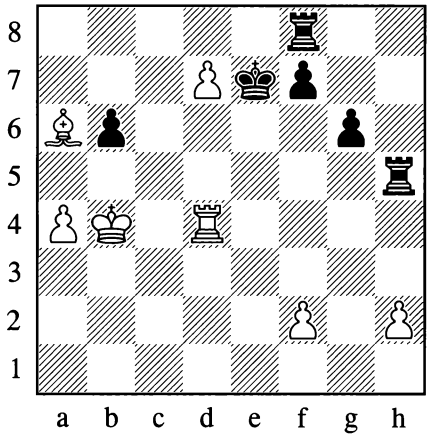
White is certainly happy to win this pawn.

41...♔e7 42.♖d4

42.♗a6! would improve the bishop at once.

42...♖h5 43.♗a6

43.♗b7! would bring the bishop to c6, where it would not block the white king.



43...♖xh2

43...♖d8!? 44.♗b5 ♖xh2 would have given Black a lot of chances.

Also strong was 43...g5 44.♔b5 ♖h6!, when White will have quite a lot of problems to solve.

Deeper analysis indicates that White can still hold the game with accurate play. The a-pawn will provide him with a lot of counterplay. Move 38 was really the only chance to win the game. This does not mean that Black should not have given his opponent a good chance to lose the game. If he was willing to do it once, maybe he would be so again.

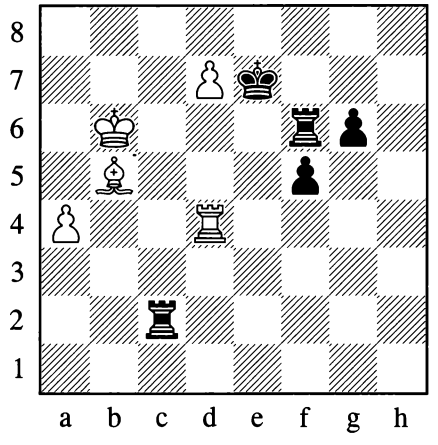
44.♔b5 ♖xf2 45.♔c6?!

This does not change the evaluation of the position to a computer. But to a human, it is distressing to go from a relatively easy to draw position, to having to play a number of

accurate moves. Even if it is not only moves all the way, White has also entered the zone of one mistake. And mistakes usually come aplenty in difficult positions. This is why we want to be sure that we play accurately at all times. Problems tend to compound.

45.♔xb6 was more natural.

45...f5 46.♗b5 ♖c2† 47.♔xb6 ♖f6†



48.♔a5!

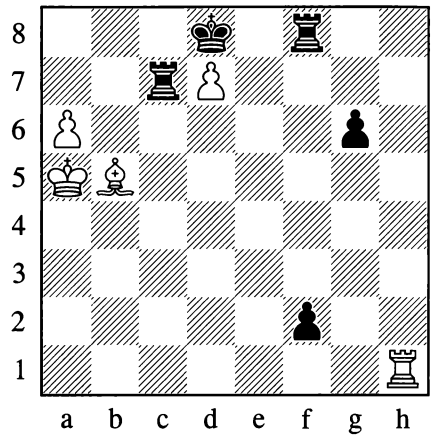
Due to the curious mistake on move 45, White is down to playing only moves.

48.♔b7? ♔d8 49.♖h4 ♖c7† 50.♔b8 ♖f8 would deprive White of all his counterplay. Notice that 51.a5 ♖c5 52.♖b4 ♖f6! would paralyse White. The counterplay is slow and ineffective: 53.♔b7 f4 54.a6 ♖c7† 55.♔b8 ♖b6† 56.♔a8 ♖xd7 for example.

48...♔d8 49.♖d1?

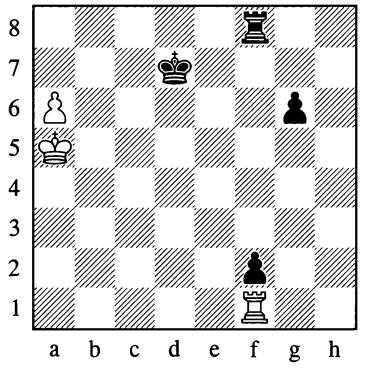
49.♖h4! ♖f8 50.♖h6! Intending to take on g6 and then play ♖g6-e6-e8†. 50...♖g8 51.♔b6 White has enough counterplay to make the draw.

49...♖c7! 50.♔b4 f4 51.a5 f3 52.a6 f2 53.♖h1 ♖f8 54.♔a5



54...♖c5?!

If you were a student of Mark Dvoretsky, you would have been drilled extensively in preventing counterplay and creating clarity. For this reason, your first instinct in this position would have been to return the exchange and eliminate the white pawn on the 7th rank. 54...♖xd7! 55.♗xd7 ♔xd7 There is a variation to calculate. But as it has no branches, this will only take a matter of seconds. 56.♖f1



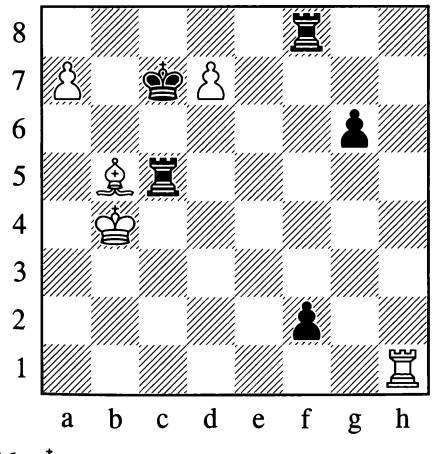
56...♔c7! And all counterplay vanishes.

You can also calculate 56...g5 57.a7 g4 58.♖xf2 ♖xf2 59.a8=♕ ♖a2†, winning. It is clear that a strong grandmaster like Idani will have no problem calculating such a line, even when living on a 30-second increment. However, the impulse to prevent counterplay with him seems wanting. There are often situations

where a desire for clarity can make you return extra material unnecessarily, and you should be able to recognise them. This is not one of them. Clarity is the easiest way to win here, as there are no chances for making mistakes.

54...g5 was also winning relatively easily. But you need to have seen that 55.♔b6 g4 56.a7 loses to 56...♖f6†!. But already Black has to see only moves a bit down the line. Yes, they are not difficult to see when you are there. But with 30 seconds on the clock, you may not look at the right moment, or realise that there is an option.

55.a7 ♔c7 56.♔b4



56...♔b6?

It is quite understandable that Black did not find 56...♖d5! 57.♖f1 ♖d4† 58.♔c5 ♖df4!, where he would have successfully created harmony among the pieces and made ...♖a8 possible. Black would be winning. 59.♖d1 ♖4f5† 60.♔b4 ♖a8

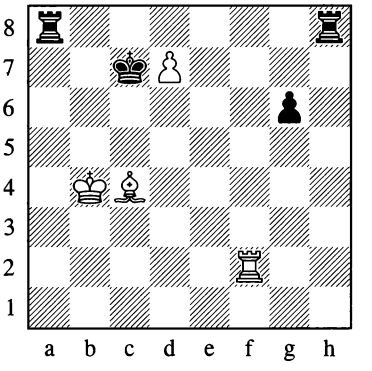
57.♗c4

The most accurate draw was 57.♗e2 ♖e5 58.♖a1! ♖e4† 59.♔c3 ♖a8 60.d8=♕† ♖xd8 61.a8=♕ ♖xa8 62.♖xa8 ♖xe2 63.♖f8 and White is just in time. There are a few other ways to hold, but they all feel equally unbelievable.

57...♖c7?!

This leads to a quick draw. It makes you wonder if Black had missed White's next move.

57...♖h5!? 58.♖f1 ♖hh8! would still have created some winning chances. Play could continue along these lines: 59.a8=♕ ♖xa8 60.♖xf2 ♔c7



White has a final problem to solve.

61.♗b5? loses after great complications: 61...♖h4†! 62.♔c3 ♖b8 63.♖d2 ♔d8 64.♗c6 ♖b6 65.♖d6 g5 There are many moves left to be played, but things are not going in White's direction at all.

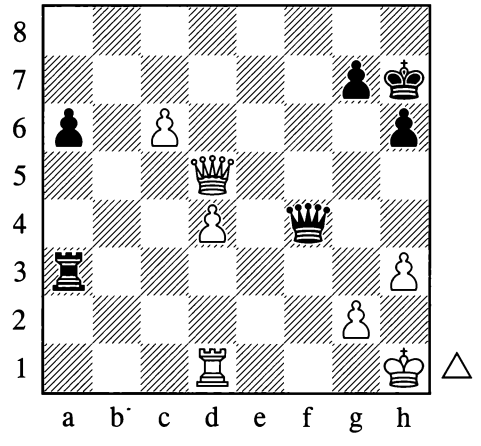
61.♖g2! ♖hb8† 62.♔c3 ♖b6 63.♗f7 ♖aa6 64.♗e8 White is holding in a curious fortress. Black cannot make progress without either entering a drawn rook ending or allowing the elimination of all the pawns. This is by no means obvious at first glance, nor is it certain that White would have played in this way.

58.♖f1! ♔xa7 59.♖xf2 ♖b8† 60.♗b5 ♖cb7 61.♖a2† ♔b6 62.♖c2 ♖c7
½–½

Exercises! On the following pages you will find a few not-too-difficult exercises to test your ability to spot possible counterplay.

Shakhriyar Mamedyarov – Dmitry Bocharov

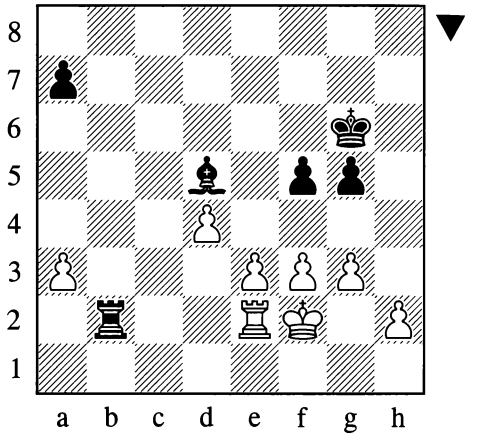
Riyadh (rapid) 2017



Should White play 34.♕e6 or 34.♕c4?

Mikkel Antonsen – Bjorn Moller Ochsner

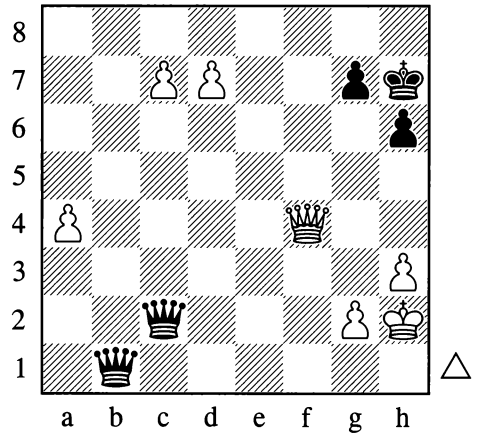
Svendborg 2019



Black has an extra piece, but White has three pawns. However, with accurate play, Black could still have won this game. What should he do?

Tomu Sano – Kruttika Nadig

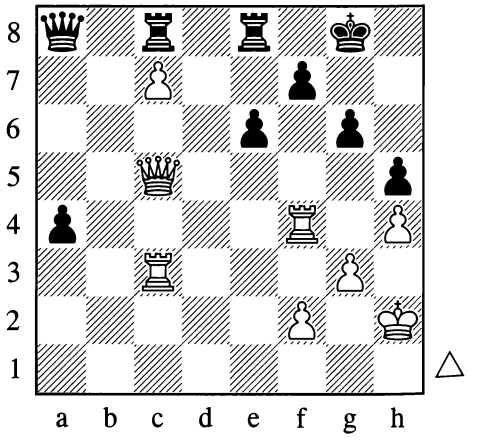
Kuala Lumpur 2008



White is completely winning. All he has to do is to avoid counterplay. How?

Jon Ludvig Hammer – Nicolai Getz

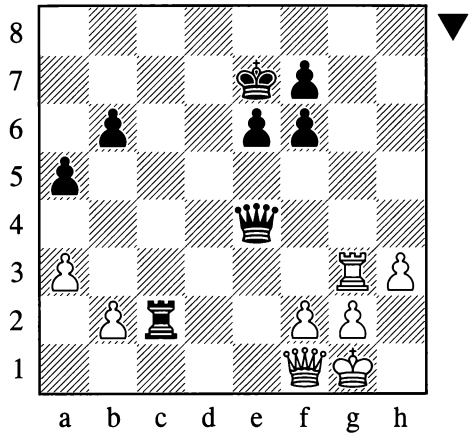
Helsingor 2017



White is a pawn down, but boy, oh boy, his active pieces and passed pawn on the 7th rank make up for it. How to continue?

Li Ruifeng – Le Quang Liem

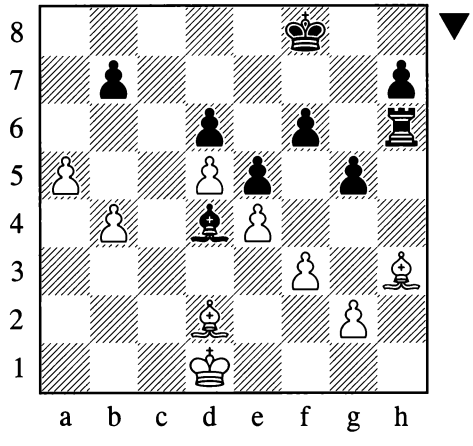
St. Louis 2016



Black is better with more active pieces. How can he conserve the advantage?

Ognjen Jovanic – Marin Boskovic

Trieste 2020

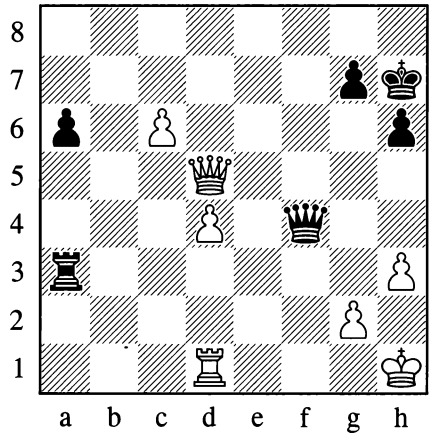


In the last exercise we shall see greatness in action. The play by Boskovic in this game was simply amazing. Can you emulate it?

Solutions!

Shakhriyar Mamedyarov – Dmitry Bocharov

Riyadh (rapid) 2017



34.♕c4?

This is clearly the wrong square, as the game demonstrates.

34.♕e6! was stronger.

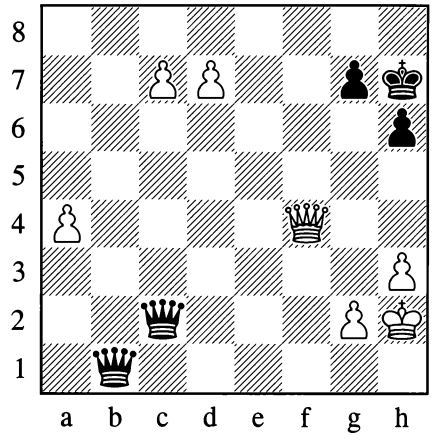
34...♕e4!

Threatening mate in 3! The counterplay is sufficient to hold the game.

35.♔g1 ♕e3† 36.♔h2 ♕f4† 37.♔h1 ♕e4! 38.♕c1 ♖xh3† 39.♔g1 ♖g3 40.♕d2 ♕xc6 41.d5 ♕c5† 42.♕f2 ♕d6 43.♕f5† ♖g6 44.♖e1 ♕f6 45.♕xf6 ♖xf6 46.♖d1 ♔g6 47.d6 ♖f8 48.♖a1 ♖d8 49.♖xa6
½–½

Tomu Sano – Kruttika Nadig

Kuala Lumpur 2008



White is completely winning. All he has to do is to avoid counterplay.

54.c8=♕?

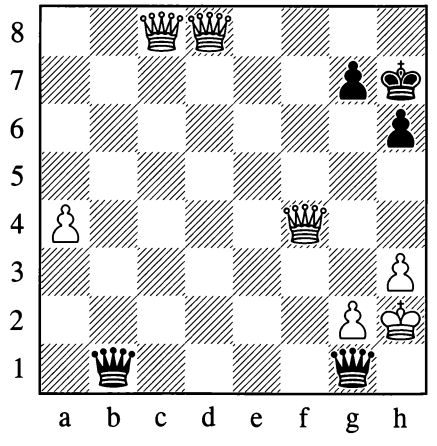
54.d8=♕ would have avoided all counterplay. Now White has to be careful.

54...♕cd1! 55.d8=♕?

There were many moves that held the balance.

Maybe White could even pose a few practical problems with 55.♕c5!?, but let's not go there...

55...♕g1†

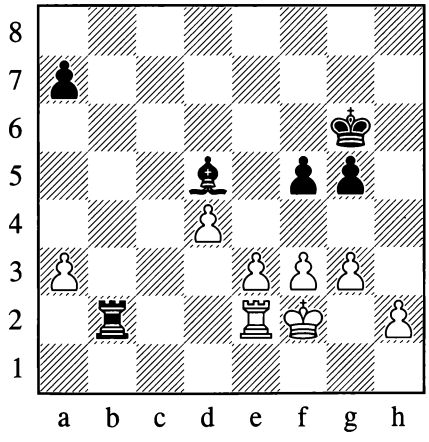


Three queens are better than two, unless two of the three are off on a break... Mate is coming.

56.♔g3 ♕be1† 57.♔f3 ♕gf2† 58.♔g4 ♕xg2† 59.♕g3 ♕gxg3†
0–1

Mikkel Antonsen – Bjorn Moller Ochsner

Svendborg 2019



Black had easier wins earlier, and as you will know by now, this is where the game should have been won. Showing a win at this moment is more about showing an interesting position than analysing the game.

36...♖b3?

The black rook feels stronger, so it is natural to avoid exchanging it. But White's only way to provide counterplay is to get the central pawns rolling. And now he can.

37.e4 fxe4 38.fxe4

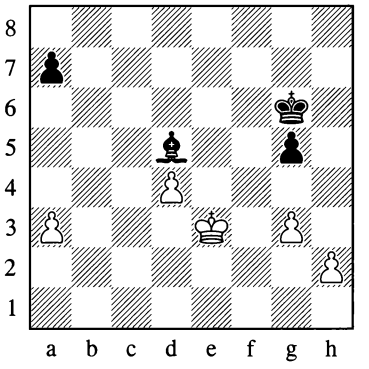
Objectively, Black is still better. But it is clear that much of the advantage has been squandered.

38...♗b7

After 38...♗c6 39.♖e3 ♖b1 40.d5 ♗b5 White has the fine move 41.♖f3!, with the intention of activating the king.

39.♖e3! ♖b2† 40.♖e2 ♖b3

White would have to be a bit accurate in the pawn ending with: 40...♖xe2† 41.♔xe2 ♗xe4 42.♔e3 ♗d5



43.h4! and the draw is near. If the g5-pawn is eliminated, the king will go to a1 and laugh. And after 43...g4 44.♔f4 it is clear that White has enough counterplay to make the draw. 44...♗e6 45.d5 draws on the spot, as 45...♗c8? would even lose: 46.♔e5 ♔f7 47.♔d6 and 48.h5, proving the power of spread pawns.

41.♖e3 ♖b2† 42.♖e2 ♖b6

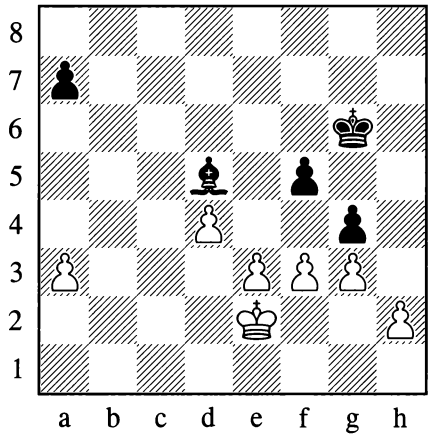
Black has still not recognised that the advantage is gone. This is normal in situations where it has been lost in small increments, as in this game.

43.d5 ♔f6 44.e5† ♔e7
½–½

The solution was:

36...♖xe2† 37.♔xe2 g4!

This would have taken control over the light squares. Black wins, although there are a few obstacles remaining.



38.e4!

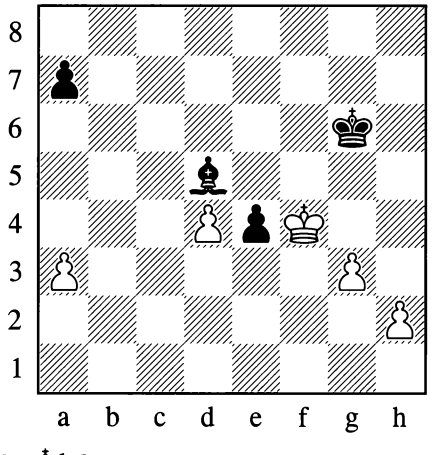
White has to try something desperate.

38.fxg4 fxg4 39.♔d3 ♔f5 and White will suffer cascading zugzwangs before losing everything.

38...gxf3† 39.♔xf3 fxe4†!

39...♗xe4† 40.♔f4 followed by 41.g4 would lead directly to a draw.

40.♔f4



40...♔h5!

Threatening to invade the white position.

40...♔f6 41.h4 and White has enough counterplay.

If you want to perform at peak level, this is as far as you should see. Anything beyond this point can be inferred.

41.h3!?

Trying to build a barrier.

41.g4† ♔h4 42.g5 ♔h5 43.h4 could be tried, but loses by one tempo. 43...a6 44.♔e3 ♔xh4! 45.g6 ♔g5 46.g7 ♔f5 and Black is in control.

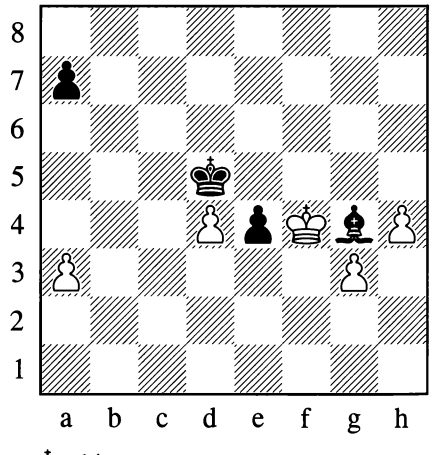
41...♗c6

Black has an endless supply of waiting moves.

42.♔e3 ♔g5 43.♔d2 ♔f6 44.♔e3 ♔e6 45.♔f4 ♔d5 46.♔e3 ♗d7 47.h4 ♗g4

The fatal zugzwang.

48.♔f4



48...♔xd4

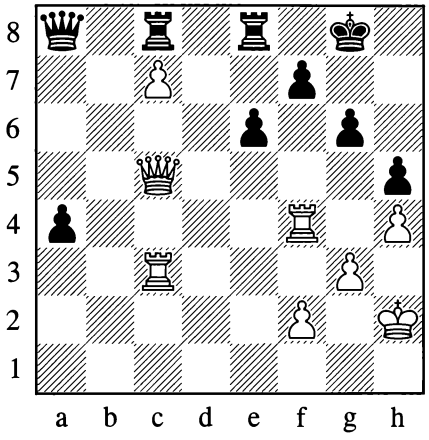
Not necessary, but also not hard to calculate.

49.♔xg4 e3 50.♔f3 ♔d3

Black queens the pawn and wins.

Jon Ludvig Hammer – Nicolai Getz

Helsingor 2017



White squandered his advantage by allowing the exchange that gave Black a chance to bring his pieces into the game.

39.♖cf3? ♕d5! 40.♕xd5

White has no choice, as otherwise Black will be able to play ...♖e7, which solves all his problems.

40...exd5 41.♖xf7 a3 42.♖d7 ♖a8 43.♖e3 ♖f8 44.♖ee7 ♖xf2† 45.♔g1 a2 46.♔xf2 ♖f8† 47.♖f7 ♖xf7† 48.♖xf7 ♔xf7 49.c8=♕ a1=♕ 50.♕d7† ♔f6 51.♕d8† ♔g7 52.♕e7† ♔h6 53.♕g5† ♔g7 54.♕xd5

½–½

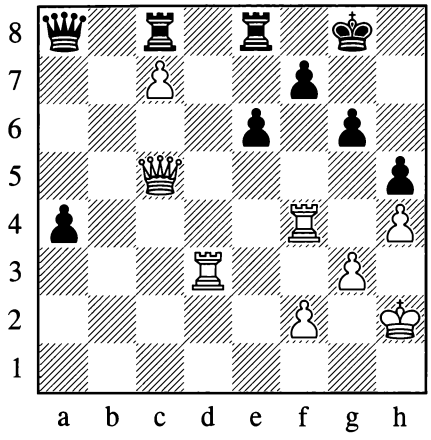
The perfect move would have been:

39.♖d3!

Preventing Black's idea.

39.♖fc4?! ♕d5 40.♕a7 still offers White a big advantage, but clearly things have gone in the wrong direction.

39.♖d4!? e5 40.♖d7 ♕e4 41.♖cd3! is a bit clumsy, but also good enough to win.



39...♖f8

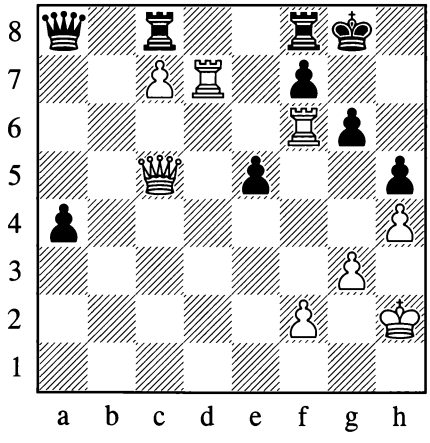
It is hard to pick moves for Black. Which is exactly the point. White is not loosening the grip.

39...e5 40.♖f6 a3 41.♖d7 gives White a winning attack.

40.♖d7 e5

40...a3 41.♕e7 and f7 falls long before Black can queen the pawn.

41.♖f6



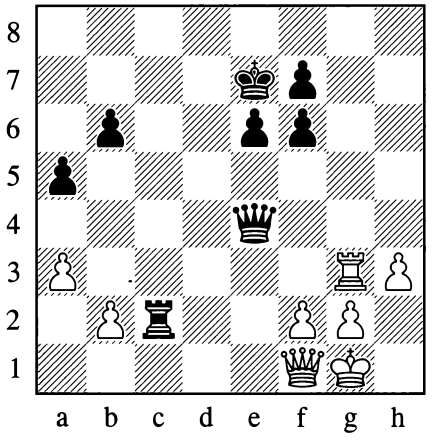
White is threatening ♕xe5 followed by ♖xg6† as one way to deliver checkmate.

41...♕e4 42.♕e7

Now threatening to take f7. 42...♖ce8 43.♕xe8 ♖xe8 44.♖d8 White wins.

Li Ruifeng – Le Quang Liem

St. Louis 2016



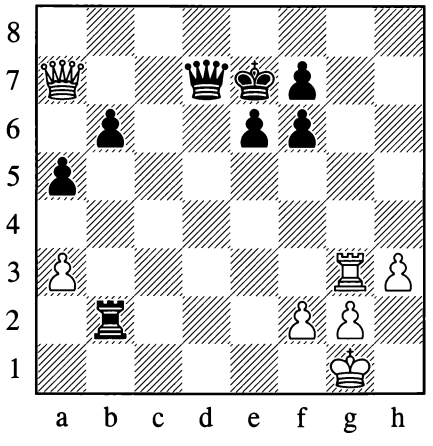
31...♖xb2?

After 31...♕d4?! 32.b3 ♖a2 33.♖d3 ♕b2 34.a4, Black is better, but the endgame after 34...♖a3 35.h4 ♖xb3 36.♖xb3 ♕xb3 37.♕a1 is by no means winning.

32.♕a6!

The queen is able to penetrate the black position and create havoc. The advantage is gone.

32...♕c6 33.♕a7† ♕d7



34.♕b8

This is what I think most would have played.

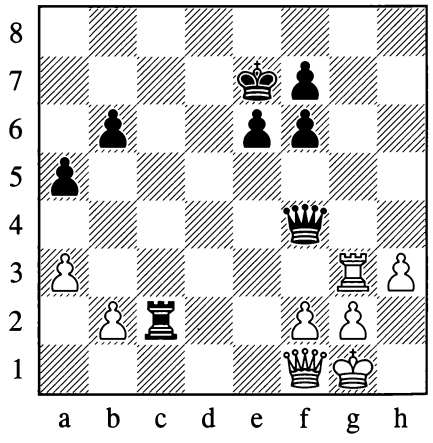
But 34.♕xd7†!? is bizarrely also playable. 34...♔xd7 35.♖g8! ♖b5 (35...♖b3?! 36.h4 ♖xa3? would even lose. After 37.h5 ♖a4 38.g3 the pawn cannot be stopped.) 36.g4!? ♖g5 37.♖f8 ♖g7 38.♔h2 White has a lot of activity, securing him a draw with decent play.

34...b5 35.♕b6 f5 36.♕xa5 ♕d4 37.♕c7† ♔f6 38.♕c3 ♕xc3
½–½

The solution focuses on keeping control:

31...♕f4!

This move, creating an annoying threat of winning the queen, while putting pressure on f2, would have kept White's forces under control.



32.♖f3

The best try.

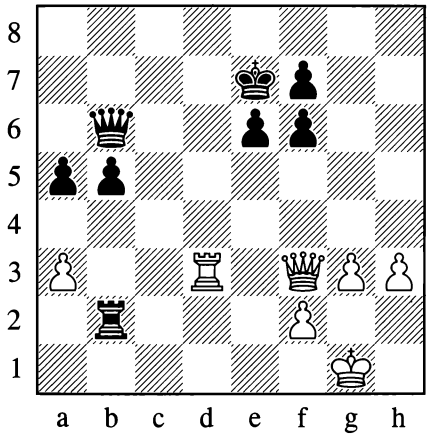
32.♖c3 ♖xb2 does not improve things for White.

32.♖d3 ♖xb2 33.♕e1 a4 would allow Black to slowly tighten the grip, as well as steal a pawn of course. Now both ...♕e5 and ...♕f5 are strong threats.

32...♕c7 33.♖d3 ♖xb2

If you have seen this far, it is more than sufficient for practical play. The following is simply an illustration of how the advantage should be converted. Black is improving his position, while preventing counterplay.

34.♕d1 b5 35.g3 ♕b6 36.♕f3



36...♖c2!

The perfect technical move.

36...b4? would be premature. 37.axb4 After 37...♕xb4 38.♖c3 there is annoying counterplay. And after 37...axb4 38.h4 b3 39.♔g2 it is evidently hard for Black to find a path forward. 39...♖b1 40.h5 b2 41.♖b3 is starting to look dangerous for Black, even if a draw is still within reach.

Black is a pawn up and will win with the absence of counterplay. If White allows ...♕c6, swapping the queens, Black wins. So, forced is:

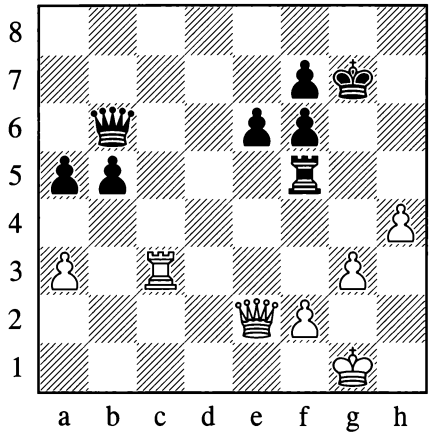
37.♖b3 ♖c5!

Again, preventing counterplay (h4-h5 and against the b-pawn), as well as making it possible to regroup the pieces.

38.h4 ♖f5 39.♕e2 ♔f8!

The king is dispatched to take care of the h-pawn, if necessary.

40.♖c3 ♔g7

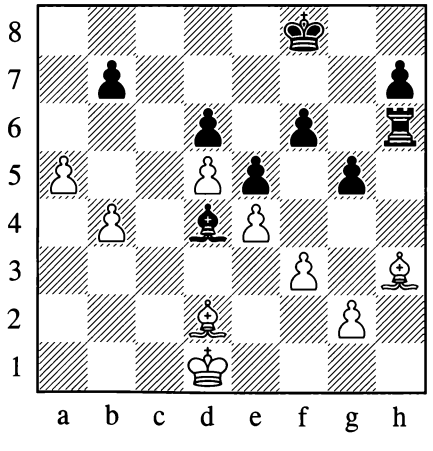


Black is in full control of the position. The following moves are just for the imagination and by no means a representation of best play. What I want you to pay attention to is how Black's main focus is control and constant improvement of the position, rather than pushing the b-pawn. This can always be done.

41.♕g4† ♔h7 42.♕e2 ♕d4 43.♖c2 ♖d5 44.♔g2 ♔g7 45.♔h3 ♖e5 46.♕f3 ♖f5 47.♕e2 ♕d5 48.♔h2 ♖f3 49.♖d2 ♕f5 50.♔g2 ♖xa3

Ognjen Jovanic – Marin Boskovic

Trieste 2020



41...♔e7?

This looks natural, but is bad.

42.b5 ♖g6

White has many ways to equalise here. For example:

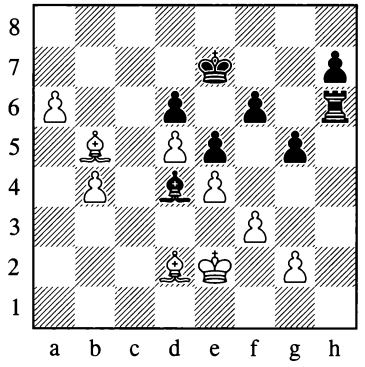
43.♗e6 h5 44.b6

The weakness of the pawn on b7 is far more important than anything Black has to offer.

44...♖g7 45.♗c3!?

This is mainly a joke. But 45...♗xc3? 46.a6, where White wins, shows that Black has to be careful not to overpress. There is real counterplay.

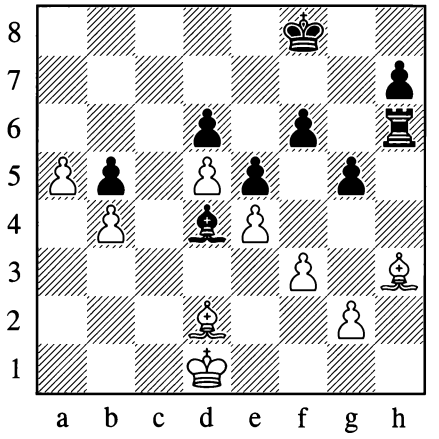
41...b6? is a much poorer version of the game. White will put the extra tempo to good use. 42.a6! b5 43.♔e2 ♖g6 44.♗d7 ♔e7 45.♗xb5 ♖h6



46.♔e1! with the idea 47.♗f1. Black will press, but to win this ending looks highly implausible.

The great Boskovic played:

41...b5!!



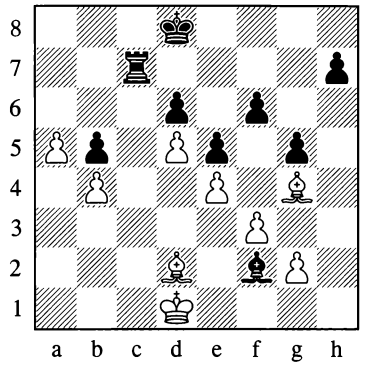
A beautiful move. At first it looks all wrong. The pawn is exposed and White is gifted a passed pawn. But the further you look at the position, the more you realise that the key property of this move is to block the b4-pawn. With the b-pawn stopped, the bishop on d4 is able to keep everything under control and Black is able to exploit his material advantage without restriction.

42.♔e2

Other options include:

42.♗d7 ♖h1† 43.♔e2 Black can win in many ways. The easiest is probably 43...h5 44.♗xb5 ♖g1 and the black pawns on the kingside are much stronger than the white pawns on the queenside, as the black pieces are so much stronger, not just in value, but also in placement.

42.♔c2 If White is doing nothing, neither will Black. In the long run, the extra exchange will decide the game. 42...♔e7 43.♔d1 ♔d8 44.♔c2 ♗f2 Now that the king has taken control of the a-pawn, Black threatens ...♖h4 and ...h5. 45.♔d1 ♖g6 Threatening ...h5. 46.♗f5 ♖g7 47.♗g4 ♖c7



Black wins without having to calculate a single line. Next comes ...♖c4 and ...♗d4-b2-a3 and the b4-pawn is gone.

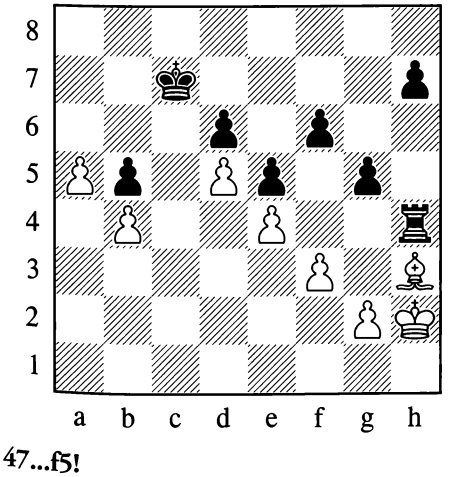
42...♔e7

The extra tempo is spent preventing the bishop from invading. Black is in control and won easily.

43.♗e1 ♔d8 44.♗f2

This exchange does not make things harder for Black, but it is by itself quite understandable. The bishop on d4 is very powerful.

44...♗xf2 45.♔xf2 ♔c7 46.♔g3 ♖h4 47.♔h2



47...f5!

A chance to play actively emerges unsurprisingly.

48.g3 ♖h6 49.exf5 e4 50.f6 ♖xf6 51.fxe4 ♖f2† 52.♗g2 ♖b2 53.e5 dxe5 54.a6 ♖a2 0–1

12. Necessary and unnecessary complications

A big question in the endgame is when to force matters and when to build up your position. Following the philosophy of Yusupov, we generally want to avoid calculating difficult variations – if possible.

Obviously, if conversion requires risk, we should not automatically shy away from it, but evaluate it on its own terms. (Many winning positions have been blown, when a player was unable to force himself to calculate accurate variations.) However, when possible, it is good to keep the required level of calculation to a minimum and avoid unnecessary complications. Here is a point where many young players do not know how to analyse their games accurately with computers. It is our goal to find the easiest win during – and after – the game.

So, if you won the game with simple means and no uncertainty, do not think that missing a winning attack that a 16-core monster can easily calculate to mate was a mistake. Unless YOU can calculate it (*not* should have, would have or could have calculated it) to a clear conclusion, it may hold unnecessary risk. And unnecessary risk is... well, unnecessary.

Vincent Keymer – Jan Smeets

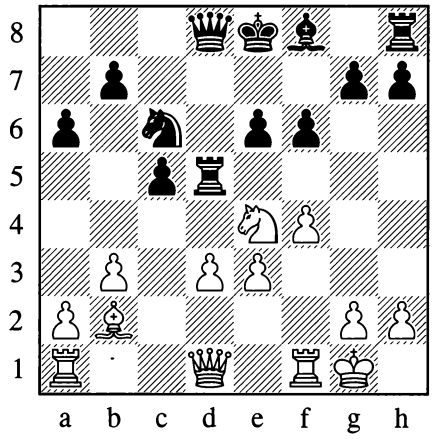
Germany 2019

1.♘f3 d5 2.e3 c5 3.b3 ♘c6 4.♗b5 ♗d7 5.0–0 a6 6.♗xc6 ♗xc6 7.♘e5 ♕c7 8.♗b2 e6 9.d3 ♘e7 10.♘d2 f6 11.♘xc6 ♘xc6 12.c4 ♖d8 13.cxd5!?

To me this looks a bit unjustified. White's pieces are not in the game yet. However, with accurate play, it was possible to create some chances.

13.♕e2, with even chances, is what I would have played.

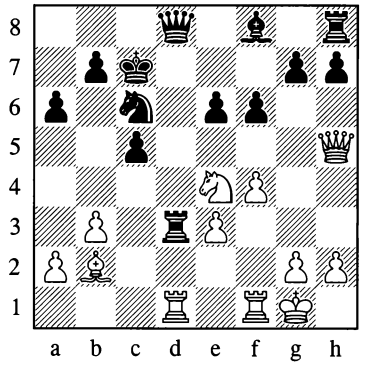
13...♖xd5 14.♘e4 ♕d8 15.f4!



15...h5!?

A slightly odd move. Long term Black could regret that the h-pawn is exposed like this.

15...♖xd3 16.♕h5† ♔d7 is something any grandmaster would reject out of hand. It does not come as a surprise that White has a strong tactic with: 17.♖ad1 ♔c7



18.♘xf6! But hardly anyone would have seen it. After 18...gxf6 19.♖xd3 ♕xd3 20.♗xf6 ♕xe3† 21.♔h1 ♖g8 22.♕f7† ♗e7 23.♗xe7 ♘xe7 24.♕xe7† ♔c6 25.♖d1 ♔b6 26.h3 White is only a bit better, which is something of a surprise.

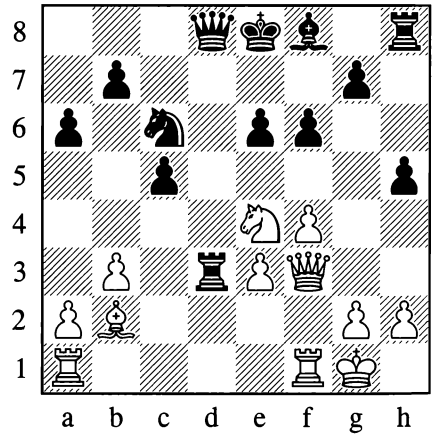
15...♘b4! 16.♕g4 ♔f7 looks most prudent. There are no ♘g5† combinations on the horizon and soon ...h5 can come with a tempo, should Black still want to play it.

16.♕f3!?

This requires a lot to be justified.

16.♘f2 was the natural move. White can build up slowly, as Black now cannot win the pawn: 16...♘b4?! 17.♕e2 ♘xd3? 18.♘xd3 ♖xd3 19.♗d4! and the rook is trapped.

16...♖xd3



17.f5?!

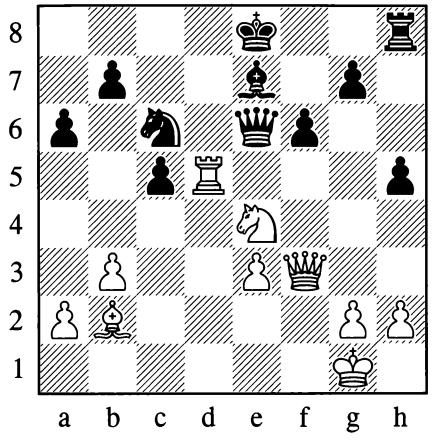
White had to play actively to justify the sacrifice.

After 17.♖ad1!, Black should play 17...♖xd1 18.♖xd1 ♕c8, when White has compensation, but only enough to win back the pawn. Black had to exchange on d1, as after 17...♗e7? White has a nice way to take over the initiative. 18.♘g5! fxg5 19.♕e4, when Black has to find 19...♖d5! to stay in the game.

17...♕d5! 18.fxe6 ♕xe6 19.♖ad1 ♖xd1 20.♖xd1 ♗e7 21.♖d5?!

Keymer is trying to stay active.

However, it was sounder to play 21.♖c1 0–0 22.♘xc5 ♗xc5 23.♖xc5 ♖d8 24.♕e2, when Black is only a bit better.



21...♕g4?!

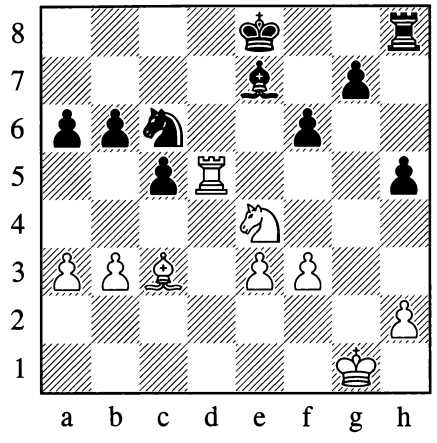
Black should probably have accepted the invitation on principled grounds with: 21...♕xd5! 22.♘xf6† ♗xf6 23.♕xd5 ♗xb2 24.♕xc5 ♖h6 and Black is better.

22.a3?!

Smeets' main point was that 22.♕xg4?! hxg4 23.♘xc5? fails to 23...♘b4!.

But White could have played for compensation with 22.♗c3!, preparing to exchange the valueless bishop for the black knight. A computer line looks like this: 22...♕xf3 23.gxf3 b6 24.♔f2 ♔f7 25.♖d7 ♖b8 26.♖c7 ♔e6 27.♔e2, and it is very difficult for Black to say that the extra pawn provides him with a real advantage.

22...♕xf3 23.gxf3 b6 24.♗c3



This was a moment for accurate calculation. Why? Because it is the only way to prove a solid advantage.

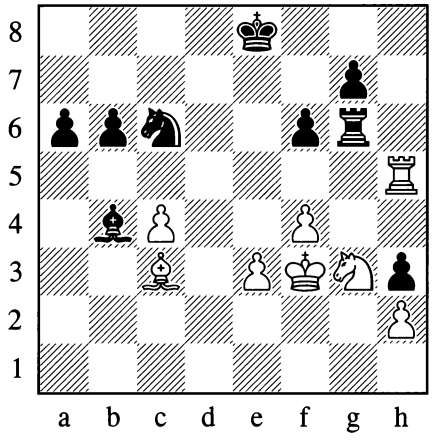
24...♖h6?!

This plan of transferring the rook to g2 feels wildly optimistic and somewhat artificial. It is not a surprise that it is easy to stop.

The rook belongs on the d-line. This is what we want to do. So, we should try to make it work.

After 24...♔f7! 25.♖d7 ♖d8 26.♖c7 ♖d3! 27.♖xc6 f5 there are many complications remaining and the outcome is not clearly decided. But all the pressure would be on White.

25.♔f2 h4 26.f4 h3 27.♔f3 ♖g6 28.♘g3 c4 29.bxc4 ♗xa3 30.♖h5 ♗b4



31.♗a1?!

Erroneously exposing the c-pawn to danger, in order to keep hold of a bishop that does not look to be very effective. Indeed, this is an odd move.

After 31.♗xb4 ♘xb4 32.♖xh3, the only thing I can imagine White was afraid of was 32...♖h6. But after 33.♖xh6 gxh6 34.♘f5 a5 35.♔e2 he is holding without a lot of problems.

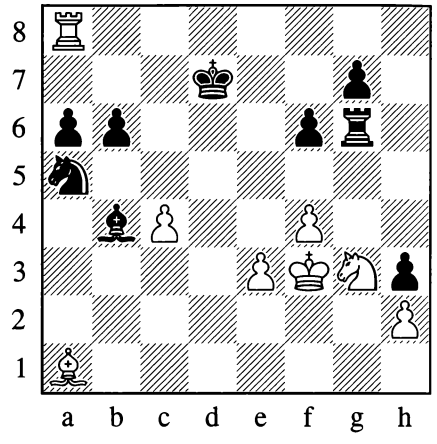
31...♘a5 32.♖h8†?

White is understandably scared of the long-term dangers of Black having distant passed pawns on the queenside. But as we shall see, the dangers provided by the pawn on h3 are far greater. Understanding this during the game is challenging indeed.

32.♖xh3 ♘xc4 33.♖h8† ♗f8 34.f5 ♖h6 35.♖xh6 gxh6 36.♗xf6 gave decent chances of saving the game.

32...♔d7 33.♖a8?

33.♖xh3 was still a more or less defendable endgame.



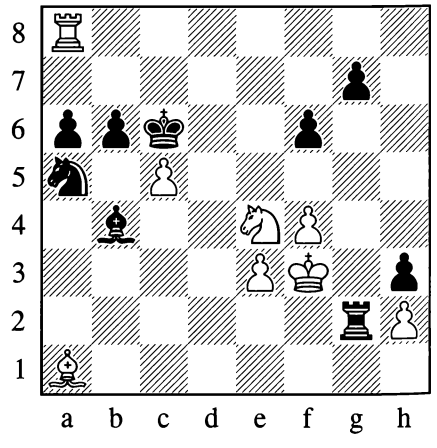
33...♔c6

Most would make this move without much delay. Computers may suggest more complicated possibilities and attribute them with a higher value, but when we analyse our games, we should not become obsessed with looking at what engines think to an extent where it overrules our common sense.

34.♘e4

34.♖xa6 ♔b7 and the rook is trapped.

34...♖g2 35.c5



With this move, White creates a critical moment. Smeets played very reasonably, but I would have looked for something concrete, spurred on in this way.

35...bxc5

I like 35...f5! 36.♘g5 ♘b3 37.♘xh3 ♖xh2 38.♔g3 ♖a2 39.♗xg7 ♗e1† 40.♔f3 ♖h2 and it is time for White to resign.

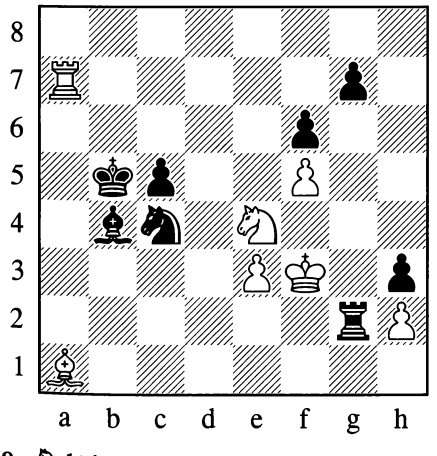
The way Black played in the game was also winning, but to some extent it only delayed the moment of truth.

36.♖xa6† ♔b5 37.♖a7 ♘c4

37...♘b3! would give White a choice between being paralysed and having to give up the bishop. 38.♗c3 would lose to 38...♗xc3 39.♘xc3† ♔b6, and with ...♘d2† coming, White will lose the exchange as a start.

38.f5

Smeets was out of time and living entirely on increment at this stage. A fair punishment for what seems to be indecision in the late opening/early middlegame.



38...♘d2†?!

This is impractical. White is so tangled up at the moment that this exchange, nominally in Black's favour, is a relief for White.

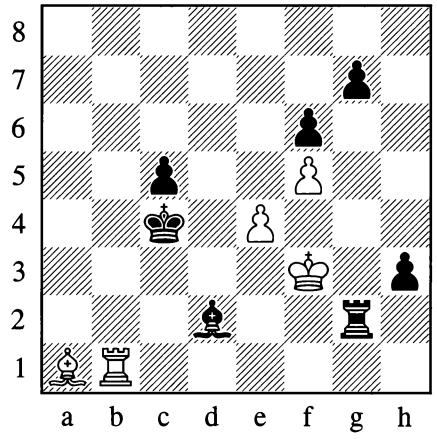
38...♔b6!? 39.♖f7 ♖g1 would win a piece.

39.♘xd2 ♗xd2 40.♖b7†?!

40.e4 with the idea e4-e5 made more sense. Black would have to play more slowly, but the coming exchange of pawns certainly increases the drawing chances for White. 40...♖xh2? 41.♖xg7 would already be holding for Black.

40...♔c4 41.♖b1 ♖xh2 42.e4 ♖g2

Somehow this was the moment where Smeets decided to spend a good deal of his newly-acquired time – 16 minutes. The move is good, but I am wondering what he was thinking for so long about.



43.e5!

Strong defensive play.

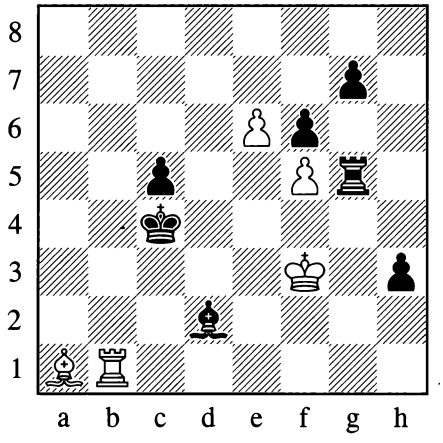
Smeets was no doubt looking forward to 43.♖h1 ♔d3 44.♖xh3 ♖e2, where Black would allow the exchange of a lot of pawns, but on the other hand would have achieved his biggest dream: a clear winning position without significant complications. Yes, Black can still blunder, but it would have to be uninvited, which rarely happens at the top level – even when living on increment. Mistakes almost exclusively happen when a player is faced with a lot of difficult decisions. It is a question of probability. 45.♖h7 ♖e3† 46.♔g2 ♔xe4 47.♖xg7 ♔xf5 48.♖c7 ♗b4 for example will be rather hopeless for White.

43...♖g5!?

Clarity is desirable. At this point, Black could have played 43...fxe5 44.♗xe5 ♔d5 45.♗a1 c4 and once again Black will win with his two extra pawns.

44.e6!

Establishing counterplay.



44...♖h5?!

This is still not ruining anything. But it was time to find a forced way to clarify the situation.

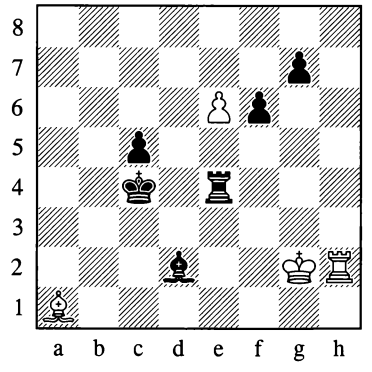
44...h2! 45.♖h1

45.e7 ♖g1! and you do not need to see anything else.

45...♖xf5† 46.♔g2 ♖f4!

The simplest.

47.♖xh2 ♖e4



Black is totally winning. White can struggle a little bit to avoid being three pawns down, but it will soon end:

48.♔f3

OK, after 48.♖h7 ♖xe6 49.♖xg7 ♗c3 50.♖g4† ♗d4, Black is happy to be two pawns up. Or even one. The white king is cut off and the game is finished.

A possible end could be:

48...♖e3† 49.♔g4 ♗b4 50.♔f5 ♔d5 51.♖h1 g6† 52.♔xg6 ♔xe6

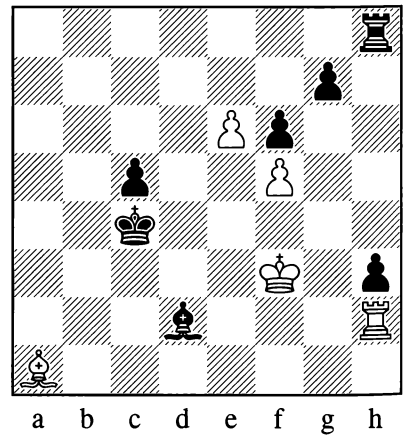
Although more moves have to be made, they will not be as difficult as in the game.

I want to stress once again that this is not about Black calculating everything till the end, but to find a path without unnecessary complications, where there is little counterplay and the need for accuracy is low.

45.♖h1 ♖h8 46.♖h2!

Another great defensive move.

46.♔g3 is met with the tricky 46...h2! 47.e7 ♖e8 48.♖xh2 ♔d3, which would leave Black in total control.

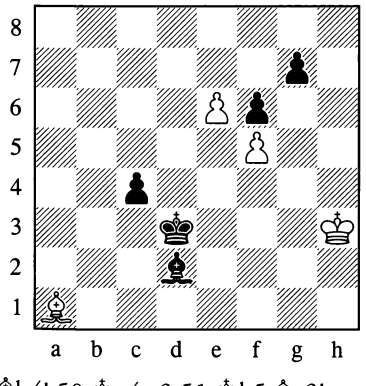


46...♔b5!?

Smeets decided to play this non-forcing move after 18 minutes. The idea itself and the move is sound. Black wants to advance the c-pawn

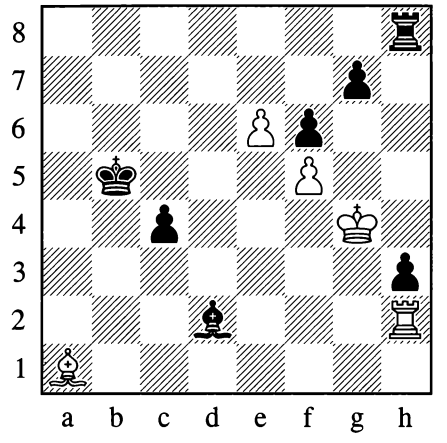
and to deal with the e-pawn with the king. But spending most of his remaining time on this was not a wise choice. I am a strong believer in making sure that time for calculation is spent on calculation and as calculation always becomes necessary, we need to set aside time for it. If you decide that you are not going to try to find a forced win (potentially, because you know it is beyond your abilities), it is more practical to make a faster decision.

The move you would want to work is:
46...♔d3
The c-pawn is ready to run. But this would require accurate calculation, which is not so easy in a position like this.
47.♔g4 c4 48.♖xh3†
48.e7 ♖e8 49.♖xh3† ♔c2 is not what we would expect Smeets to have been concerned about.
48.♗b2 ♗b4 is similar to the main line, but could still be missed.
48...♖xh3 49.♔xh3



49...♗b4! 50.♔g4 c3 51.♔h5 ♗a3!
Another move you could easily miss from afar.
51...c2? 52.♗b2 would blow it.
52.♗xc3 ♔xc3 53.♔g6 ♔d4 54.♔xg7 ♔e5
And Black wins by exactly one tempo.

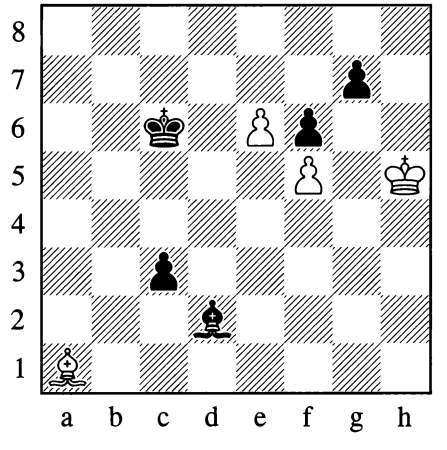
47.♔g4 c4



48.♖xh3!
Keymer plays a lot of moves that lose by force. But the margin for error is always small for Black, making it very strong defensive play.

48.e7 ♗b4 49.♖xh3 ♖e8 is the sort of clarity Black is longing for.

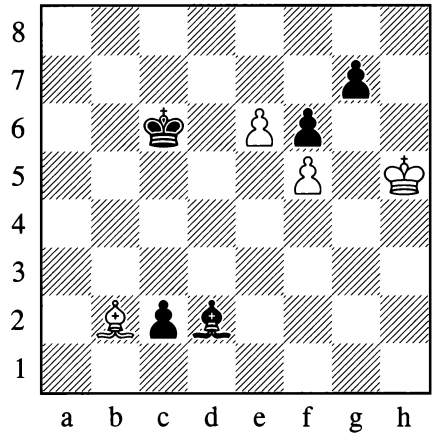
48...♖xh3 49.♔xh3 ♔c6 50.♔g4 c3 51.♔h5



We have arrived at the last chance for Black to win the game by force. He plays the most natural move in the world, spending 23 of his final seconds.

51...c2?
51...♔d6! 52.♔g6 ♔e7 53.♔xg7 c2! 54.♗xf6† ♔e8 55.♗b2 ♗c3†! and Black wins.

52.♗b2



52...c1=♕?!

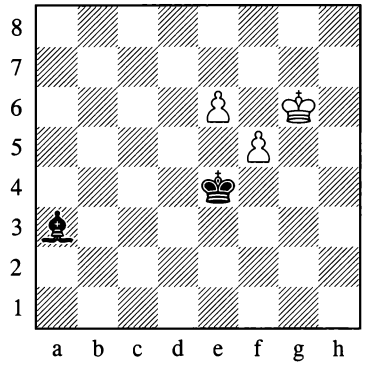
This is the sort of inaccuracy you would play in time trouble. If Black had the path to the draw clearly established, it would not make sense to call this an inaccuracy. But without control of the situation, we can say that Black missed a chance to hold with simple means with:

52...♔d6! 53.♔g6 ♔e7 Here White would be the one to hold, which would have been relatively easy. 54.♗a3†! ♔e8 55.♔xg7 with an immediate end to hostilities. White will take the black pawns, Black will block the white pawns.

53.♗xc1 ♗xc1 54.♔g6 ♗a3 55.♔xg7 ♔c7?

This is a basic mistake. In bishop endgames, the king is traditionally better off attacking the pawns from behind. This is no exception.

Black would have drawn the game with: 55...♔d5! 56.♔xf6 ♔e4 57.♔g6



57...♔e5! 58.♔f7 ♔xf5 59.e7 ♗xe7 60.♔xe7 with the drawest of draws.

56.♔xf6 ♔d8 57.♔f7

White wins.

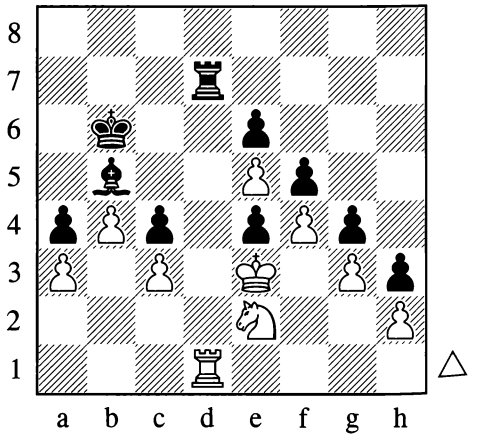
57...♗e7 58.f6 ♗xf6 59.♔xf6 ♔e8 60.e7 1–0

13. Overpressing

One common mistake in the endgame is akin to trying to win your money back in the casino. When we have a winning position and things go wrong, it is the sign of a professional to notice it and accept that the chance has passed.

Jason Liang – Dagur Ragnarsson

Montreal 2020



73.♖d6†?

This mistake is predominately a question of calculation. Intuitively it could be tempting to get an extra passed pawn, but in reality the absence of the pawn on e5 is a problem and the d6-pawn is a weakness more than an asset.

The winning continuation included a basic regrouping of the white pieces, after the exchange of rooks.

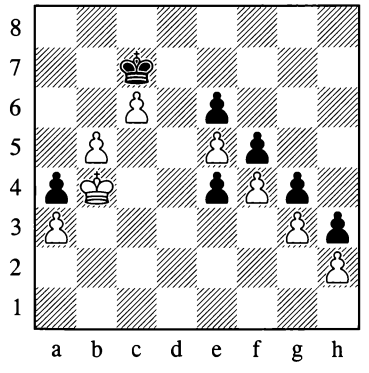
73.♖xd7 ♗xd7 74.♘d4!

Stopping the black king from coming to d5.

74...♗c8 75.♘c2 ♗d7 76.♔d4 ♗b5 77.♘e3 ♔c6

White wins a pawn, but in the pawn endgame, Black has a strong passed pawn on e4, making it non-obvious that White is winning.

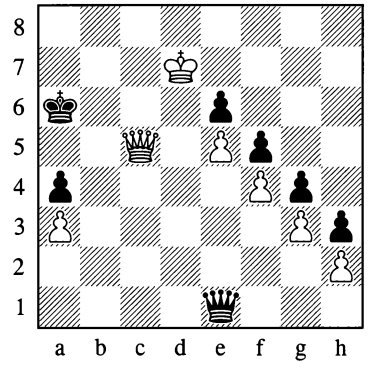
78.♘xc4 ♗xc4 79.♔xc4 ♔c7 80.♔d4 ♔b7 81.c4 ♔c6 82.c5 ♔b5 83.♔c3 ♔c6 84.♔c4 ♔b7 85.b5 ♔a7 86.c6 ♔b6 87.♔b4 ♔c7



From the decision 15 moves earlier, this was always the inevitable end point. Obviously, White should not go for this in advance, in the hope that there is something here. At times, in time trouble for example, we do have to rely solely on our intuition, but it is a suboptimal way to make decisions.

In order to solve this problem, Liang had to use schematic thinking and look at this situation in advance. Calculating 15 moves ahead and then further, usually does not work. But we can look at this position as a place we are destined to end up, and then go on from there. White wins with a common turn.

88.♔c5! e3 89.b6† ♔c8 90.♔d6 e2 91.b7† ♔b8 92.♔d7 e1=♕ 93.c7† ♔xb7 94.c8=♕† ♔b6 95.♕c6† ♔a5 96.♕c5† ♔a6

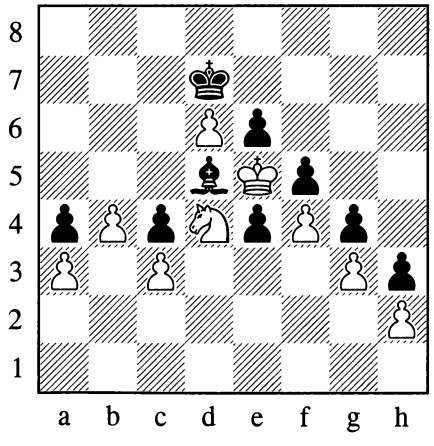


Everything wins and according to the computer, the fastest way to checkmate is to take on e6. But everyone would play:

97.♔c7 ♕a5† 98.♕xa5† ♔xa5 99.♔d6

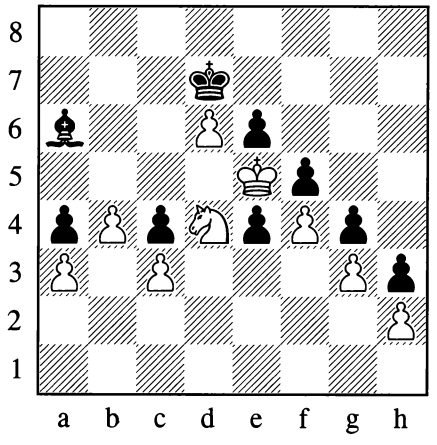
And the rest is clear sailing.

73...♖xd6 74.exd6 ♗c6 75.♔d4 ♗d5 76.♔e5 ♔c6 77.♘d4† ♔d7



Black is just in time to defend everything. Black will have to time the advance of the e-pawn.

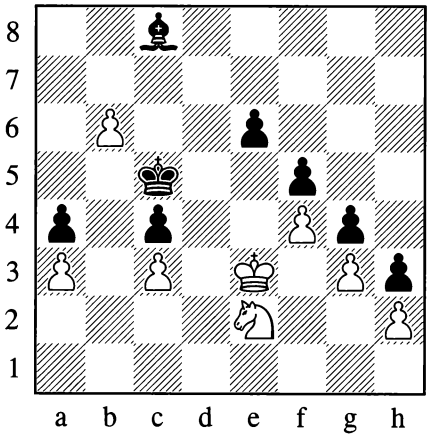
78.♘c2 ♗c6 79.♘e3 ♗b5 80.♘d1 ♗a6 81.♘e3 ♗b5 82.♘c2 ♗a6 83.♘d4



83...e3! 84.♘e2

84.♘c2? is an unlikely and horrible mistake. But it does show the problem with no longer having a pawn on e5. 84...e2 85.♔d4 ♔xd6 86.♔e3 e5 87.fxe5† ♔xe5 88.♔xe2 f4 89.gxf4† ♔xf4 90.♔f2 ♔e4 and White is lost, because of the weakness of his queenside and the threat of ...g4-g3.

84...♗b7 85.b5 ♗d5 86.b6 ♗f3 87.♘c1 ♗b7 88.♔d4 ♔xd6 89.♔xe3 ♔c5 90.♘e2 ♗c8



Already way past the right time to agree to a draw.

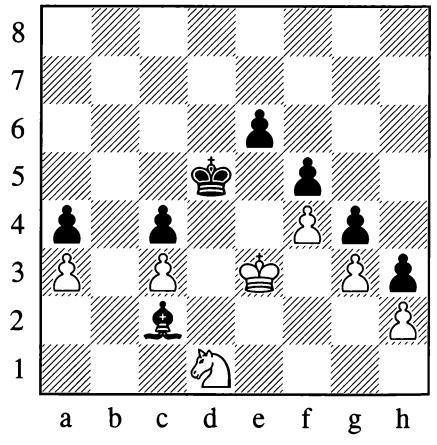
91.♘c1 ♗b7 92.♘a2 ♗c8 93.♘b4 ♗b7 94.♘c2 ♗c8 95.♔d2 ♔xb6

With an extra pawn, it is already apparent that Black is the player with realistic chances to win. But having a good knight against bad bishop, the position is still well within drawing margins. The white king belongs on e3 and when Black at some point plays ...e5, the knight will belong on f4, with a simple fortress.

96.♘e3 ♔c5 97.♘d1

Instead, White manoeuvres the knight to what could possibly be the worst possible square.

97...♗b7 98.♔e3 ♗e4 99.♔f2 ♗c2 100.♘e3 ♗d3 101.♘d1 ♔d5 102.♔e3 ♗c2



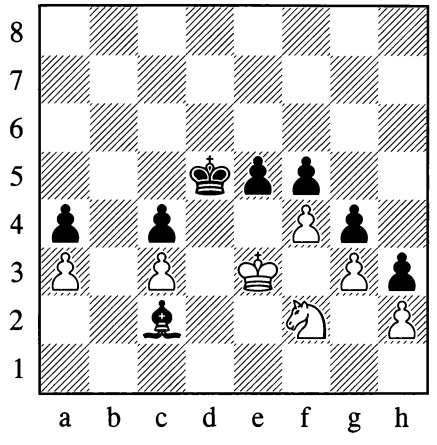
103.♘f2

Although it is a move everyone would make, it is already disconcerting that White has to play an only move in order not to lose.

103...♗b3 104.♔d2 ♗a2

Manoeuvring the bishop to the best possible square before breaking.

105.♔e3 ♗b1 106.♔d2 e5 107.♔e3 ♗c2



White is under pressure and we can now clearly see that the white knight went to a poor square. If it had been on e2/d4, it would not be dominated the way it is now.

Being under unexpected pressure, White is not up to the task of defending this tricky ending.

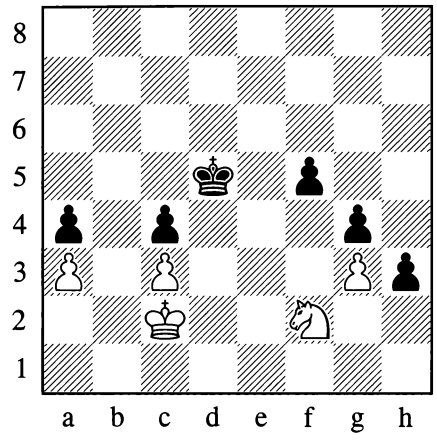
108.♔d2?

White draws with accurate play after 108.♘h1 ♗e4 109.♘f2 ♗f3 110.fxe5 ♔xe5 111.♘xh3!, and the simpler 108.fxe5 ♔xe5 109.♔d2 ♗b3 110.♔e3, where Black has no way forward.

108...exf4 109.♔xc2

109.gxf4 ♗e4 and ...g4-g3 would also be lost.

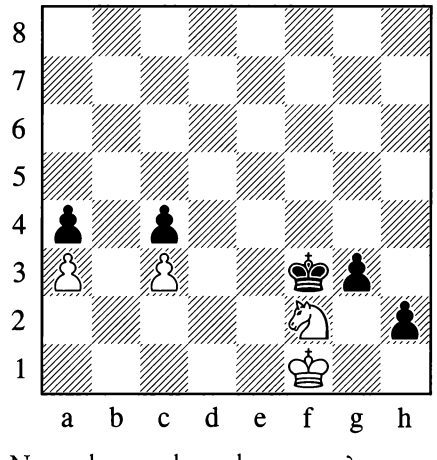
109...fxg3 110.hxg3



110...f4!

Not a wildly surprising breakthrough.

111.gxf4 h2 112.♘h1 ♔e4 113.♔d2 ♔xf4 114.♔e2 g3 115.♔f1 ♔f3 116.♘f2



Not stalemate, but why not try?

116...g2† 117.♔e1 g1=♕† 118.♔d2 ♕xf2† 119.♔c1 h1=♖#

0–1

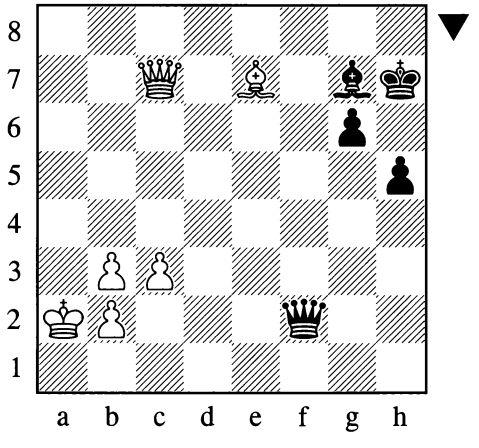
14. Passed pawns must be pushed

This is a simple strategic concept that has been voiced more or less everywhere. As always with these oversimplified concepts, they are pretty much worthless if you do not understand the core of them. In this case the concept is easy to understand. A pawn on the 4th rank is rather irrelevant. On the 5th it is only worth a glance or two. On the 6th it has become a major player, while on the 7th row, it has become the talk of the town... And when it makes it to the back rank, it is all glory or death!

Essentially, we should see if the passed pawn is more valuable further up the pitch. If it only endangers the pawn, or there is no hope of promotion for any other reason, pushing it may backfire... In the first example, Black fiddles around with all types of preparation moves before finally pushing the h-pawn. I am certain that Mista had ideas behind the moves he chose, but if he had had a stronger internal push to let the h-pawn run away, he would not have gotten into the difficulties he eventually faced.

Jan-Krzysztof Duda – Aleksander Mista

Warsaw 2018



41...♔h6

41...h4! 42.♗d6 (A small tactical point is that after 42.♗c5 ♕e2, Black is threatening to give perpetual on a6, d3 and f1. There is plenty of time to look after other concerns down the line.) 42...h3!? Again, not strictly necessary, but a move we want to make. 43.♗e5 ♕f8 However, mate must be respected. Black is now threatening to win the game with ...♕a8† and has plenty of time to move the king on the next move. White should start to look for the exit.

42.♗d6

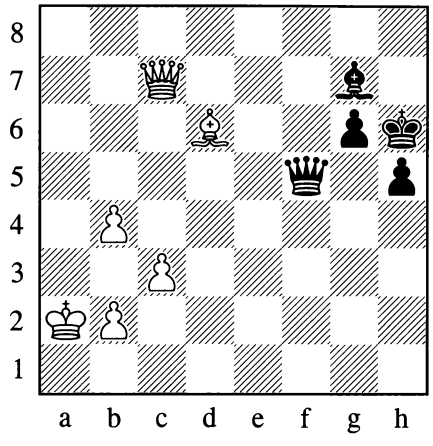
Keeping an eye on the black pawns.

42...♕f5?

This move is somewhat puzzling. I am not sure where Black thought this would end up. It is the type of move you would explain as planless, had it been played by a lower-rated player, whom you could suspect had no clear idea of what his objectives should be in a position like this.

42...h4! was again the logical move. After 43.b4 ♕e2, Black is able to frustrate the advance of the white b-pawn enough to gain a relatively easy draw. Against 43.♗f4†, the intuitive move for me is 43...g5, as after 44.♗xg5† ♔xg5 45.♕xg7† ♔f4 Black makes the draw with great ease. The far-advanced h-pawn makes the white pawn cluster on the queenside entirely irrelevant. White needs to look for a draw with some urgency.

43.b4



43...♕d5†?

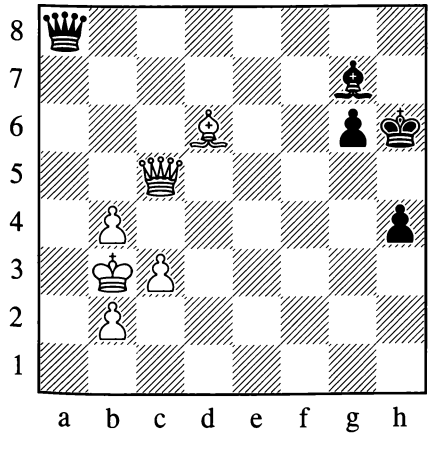
So probably this was the intention behind the previous move. Black decided to centralise the queen before pushing the h-pawn. But the queen was actually better placed to assist the h-pawn to start with.

Black could still have keep the balance with 43...h4 44.♕c4 ♔g5! 45.b5 ♗e5!, which is easy enough to understand, but hard as anything to imagine up.

44.♔a3 h4 45.♕c5!

45.♔a4!? with the idea 45...h3? 46.c4! does not work on account of 45...♕a2† 46.♔b5 ♕xb2 47.c4 ♕e2! and the coordination of the white pieces is anything but ideal.

45...♕a8† 46.♔b3



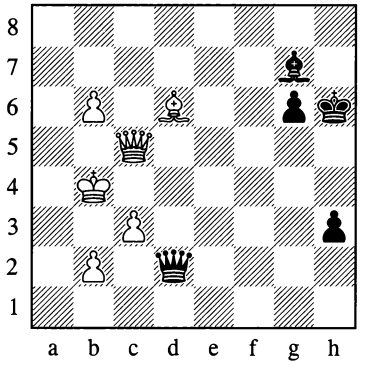
46...♕g2?

This is a very natural move, but any critic would argue that the queen has been running around a lot, just to end up where it started. At this point Black had a very difficult way to save the game.

46...♕f3! 47.b5 h3 48.b6

Objectively best would be 48.♕c7!? ♕e2 49.♕d7 h2 50.♕h3† ♔g5 51.♕xh2 ♕xb5† 52.♔c2 ♕f5† 53.♔c1 and White retains very serious winning chances with the extra pawn.

48...♕d1†! 49.♔b4 ♕d2!!



A beautiful resource that both attacks the b-pawn and prepares to push the h-pawn to the 2nd rank. White has no advantage at all.

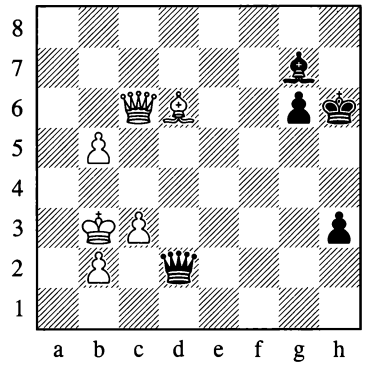
47.b5 h3 48.♕c6?

48.♕c4 g5 49.♕c6 would have won.

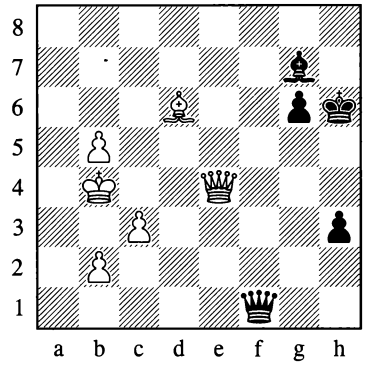
48...♔h5?

The final mistake and again one that is a bit difficult to explain, except with the presumption of time trouble.

Once again Black could have played 48...♕d2! which would have caused a lot of difficulties for White. The combined ideas of ...♕d1† and ...h2 create a lot of counterplay.

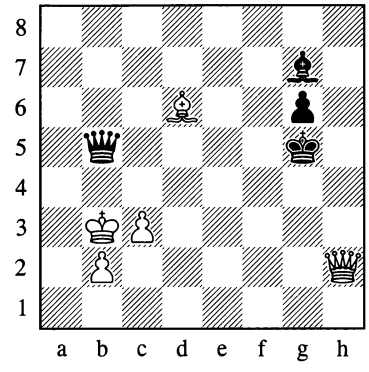


Now 49.♕e4 would win if it was not for: 49...♕d1† 50.♔c4 ♕f1† 51.♔b4



51...♗f8!! This is an incredible resource. After 52.♕h4† ♔g7 53.♕d4† ♔h7 54.b6 ♗xd6† 55.♕xd6 ♕g2 the h-pawn once again saves the day, superbly supported by the black queen.

White could play for an advantage with: 49.♕c7! ♕e2 50.♕d7 h2 51.♕h3† ♔g5 52.♕xh2 ♕xb5†



53.♔c2 The extra pawn will offer White serious chances.

But this would only come up if both players saw 51...♗f8!! and the moves leading to it. In reality, I think neither of the players did.

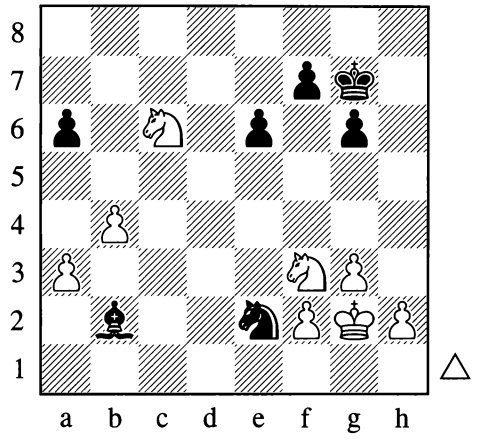
49.♕xg2 hxg2 50.♗c5
White wins.

50...♔g4 51.♔c4 ♗e5 52.b6 ♔h3 53.♔d5 ♗b8 54.c4 ♔h2 55.♗d4
1–0

The next game is from the 2018 US Championship, where the American junior has managed to win a pawn going into the endgame. It is however quite possible to notice the other reason why this should have led to an easy win: the potential to create a passed pawn on the kingside. With the pawns still so close to their starting formation, who can be blamed for not thinking about queening them already?

Jeffery Xiong – Zviad Izoria

St. Louis 2018



35.a4 ♘c3 36.a5 ♘d5

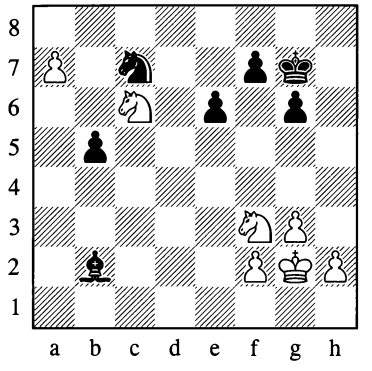
White has managed to fix the a6-pawn as a weakness, but now has to deal with the ...♗c3 threat.

37.♘e1?!

A natural-looking move. White regroups the knight to look after the b-pawn. But it still sets up the not-very-stable knights as passive defenders, rather than using the advantage positively. I guess it is partly an intuitive thing. If you do not feel that having two slightly passive, unstable knights defending a pawn is somewhat flawed, then you are unlikely to look around for other options. Many are the grandmasters who think for a long time, but only consider one move. It is highly inefficient, yet also entirely human.

Following the guidance that you should always have at least two serious options for each move, you would be forced to look for alternatives. A player of Jeffery's calibre would certainly have searched and seriously considered changing the character of the position with more forcing play.

37.b5! axb5 38.a6 ♘c7 39.a7



This is the thematic position. White has exchanged his extra material for a much higher quality passed pawn. Also, as mentioned earlier, there is the potential for creating a passed pawn on the kingside.

Victory is ensured, although it is not something you would be able to verify with calculation. The following variation is entirely illustrative, but as such is useful to understand what is happening.

39...♔f6 40.♘fd4 ♗xd4 41.♘xd4 b4 42.f4 e5 43.fxe5† ♔xe5 44.♘c6† ♔d5 45.♘xb4† ♔c4 46.h4! f5 47.♔f3!

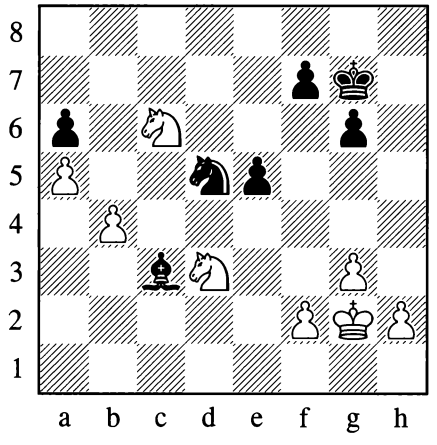
And White wins on the kingside.

37...♗c3 38.♘d3

In my opinion Xiong spent his time in the wrong place here, using 7 minutes, and then making the next move in 22 seconds.

38...e5

Black is making use of his strong central majority, trying to create counterplay against the unstable knight on d3.



39.♔f3?

Played on general principles, I suppose. The king certainly is White's best piece and involving it in the game makes a lot of sense. Except that in this scenario White loses his biggest asset, the possibility of creating a passed pawn on both sides of the board. The short story is: extra pawns are nice, but if they don't promote, they don't count.

39.b5!

This was the strongest move once again.

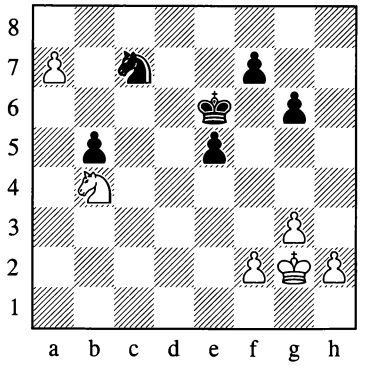
39...axb5 40.a6 ♘c7 41.a7

As before, the spread passed pawns will be impossible for Black to keep a track on long term.

41...♔f6 42.♘db4 ♗xb4

42...♔e6 43.♘d8† ♔d7 44.♘d5 would hit both the knight and the bishop.

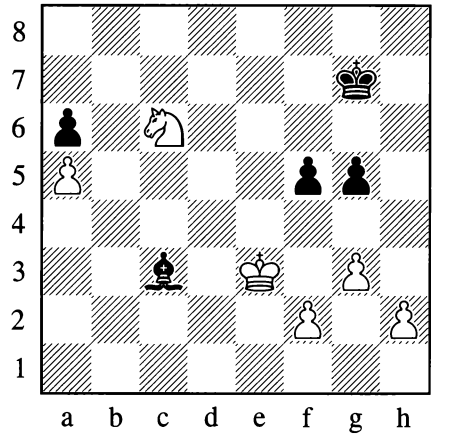
43.♘xb4 ♔e6



44.h4 f5 45.f3 ♔d6 46.♔f2

White wins. The simplest way to convert it is to bring the king in and then crash through in the centre, while Black is busy elsewhere.

39...f5 40.♘dxe5 ♘xb4 41.♔e3 ♘xc6 42.♘xc6 g5



White's knight is useless and the pawns have all but evaporated.

43.f3 ♔f6 44.♔d3 ♗e1 45.♔e2 ♗c3 46.♔d3 ♗e1 47.♔c4 ♔e6 48.♘d4† ♔d7 49.♘xf5 ♗xa5 50.♔d5 ♗d8 51.♘d6 a5 52.♘b7 ♗b6 53.♘c5† ♔e7 54.♔c4 ♔f7 55.♔b5 ♗c7 56.♘b7 ♔g6 57.♔c6 g4 58.f4 ♗xf4 59.gxf4 ♔f5 60.♘xa5 ♔xf4 61.♘c4 g3 62.hxg3† ♔xg3

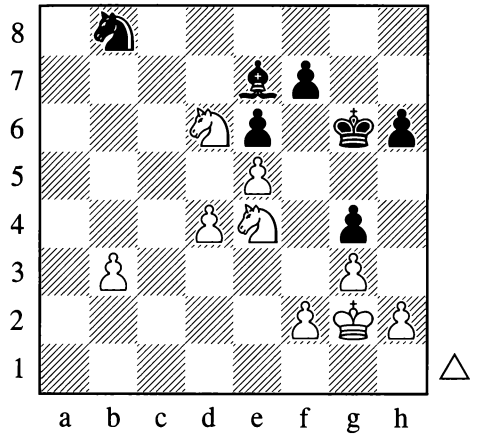
½–½

15. Losing control

We enter this game at a point where White is completely winning. Swapnil has outplayed his much stronger opponent up to this point, so it is a bit unfair to start just at the moment when the game turned sour. But it is a good illustration of how a big advantage is often lost.

Swapnil Dhopade – Mykhaylo Oleksiyenko

Abu Dhabi 2016



There are many winning moves in this position and several strategies that work. The approach I would suggest we should take in such a situation is a return to basics approach. What is good about the white position? What is not?

The best thing about the white position is not the two extra pawns, but that one of them is a passed pawn. And the biggest problem to solve is the inactivity of the strongest piece, the king.

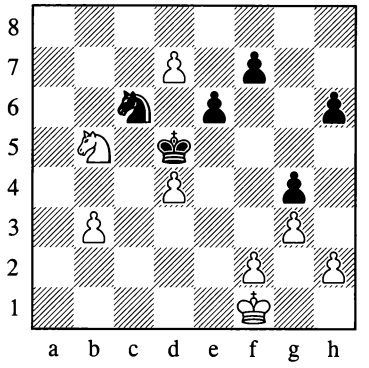
I would add a bit of schematic speculation. Under which circumstances will the position be easily winning? And how could we imagine things going wrong?

This immediately suggests two ways to continue the game that both win convincingly.

38.♘c8??

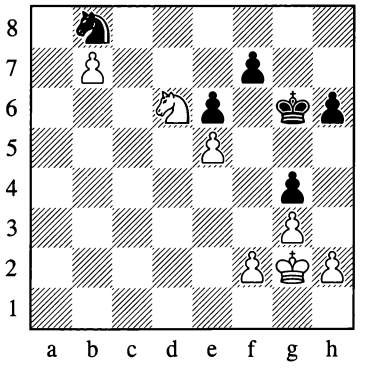
This is a horrible move. White was controlling the black king and bishop with the presence of this knight on d6. Now they are allowed to escape their prisons. And for what? It is hard to see what the knight is doing on c8.

38.♔f1!? ♘c6 39.♘b5 ♔f5 (39...f6 40.exf6 ♗xf6 41.♘xf6 ♔xf6 42.♔e2 works in much the same way.) 40.♘ed6† ♗xd6 41.exd6 ♔e4 42.d7 ♔d5



43.♔e2 ♘d8 44.♔d3 ♔c6 45.♘c3 ♔xd7 46.♔c4 White has an easily winning endgame. White will play d4-d5, to create more squares for penetration, and then the distant passed pawn will distract the black forces, while White turns his attention to the kingside.

Although this was convincing, I would have gone for pushing the passed pawn to the 7th rank and only then looked at my options. 38.b4! ♘c6 39.b5 ♘xd4 40.b6 ♘c6 41.b7 ♗d8 42.♘c5 ♗c7 43.♘a6 ♗b8 44.♘xb8 ♘xb8



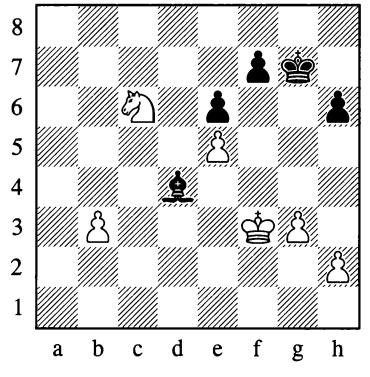
White has successfully transformed his two-pawn advantage to a much larger one-pawn and positional advantage. The black king is still out of the game and the b-pawn is paralysing the knight. All that remains is to bring in the king.

White would start with moves like 45.f4 and 46.h4, daring Black to take and give the king easy access to the kingside. If this is declined, the king will go to the queenside, while the knight is preparing to take the g- and h-pawns, creating another distant passed pawn.

38...♗a3 39.♘a7?

I am not sure if Swapnil realised his mistake or in time trouble was simply preventing ...♘c6 for a single move. When we lose control over a winning position, the moves are rarely beautiful.

White is still winning, but it has certainly become more complicated. One way he could play would be: 39.♘ed6 ♘c6 40.♘b5 ♗b2 41.f4! gxf3† 42.♔xf3 ♘xd4† 43.♘xd4 ♗xd4 44.♘e7† ♔g7 45.♘c6



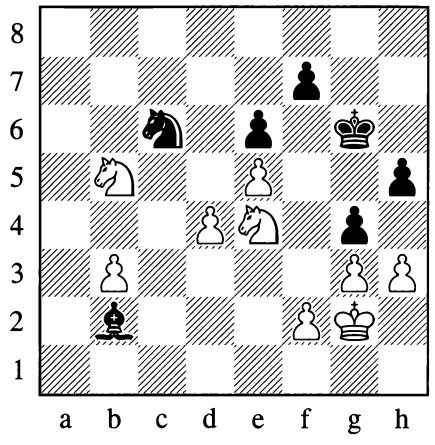
White has re-established control and with b4-b5 will maximise his advantage, before working out how to exploit it.

39...♗b2 40.♘b5 ♘c6 41.h3!

The time control has been reached and Swapnil plays a good move.

41...h5

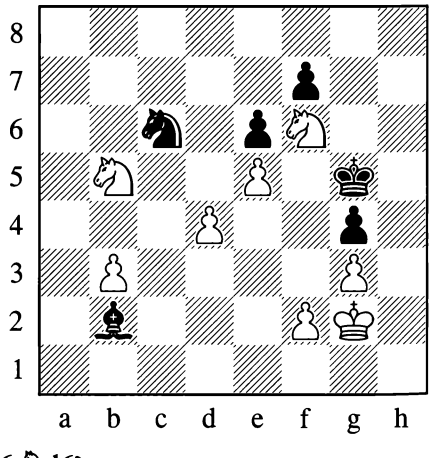
41...gxh3†?! 42.♔xh3 would bring the white king into the game.



42.hxg4?!

Losing a bit more of the advantage. The exchange of pawns is generally in favour of the defender, as we know from page 68 and will discuss further on page 668. On top of this, the h5-pawn is a long-term weakness for White to exploit.

42...hxg4 43.♘f6 ♔g5 44.♘e4† ♔g6 45.♘f6 ♔g5



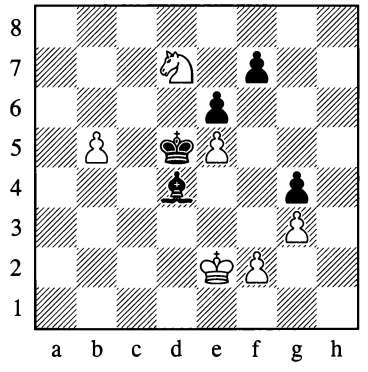
46.♘d6?

The end of the winning attempts.

White could still have played for a win by activating his king. After 46.♔f1 ♗xd4! 47.♘e4† ♔f5 48.♘ed6† ♔xe5 49.♘xf7† ♔e4

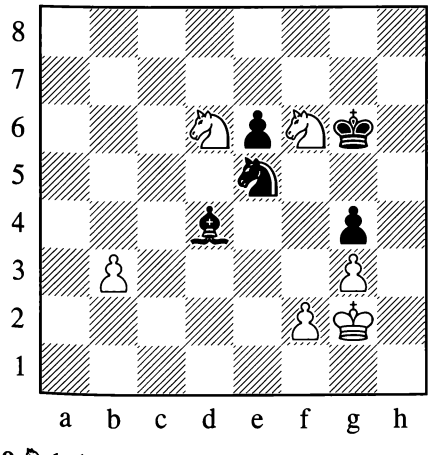
50.♘xd4 ♘xd4 51.b4 White is playing for a win. I doubt it will be enough, but it offers real chances.

I should mention that meeting 46.♔f1 with 46...♘xd4 47.♘xd4 ♗xd4 48.b4 ♔f5 49.♘d7 ♔e4 50.♔e2 ♔d5 51.b5 is dangerous for Black.



Stockfish is suggesting 51...♗b2 as the only move. But after 52.♔e3! ♗c1† 53.♔d3 ♗a3 54.♘b6† ♔c5 55.♘c4 ♗b4 56.b6 ♔c6 57.♔e4 White will win.

46...♗xd4 47.♘xf7† ♔g6 48.♘d6 ♘xe5



49.♘de4?

It is easy to understand Swapnil. His position has deteriorated and his advantage is gone and by now, he was probably just making random moves, thinking more about where it had all gone wrong. Obviously, this is not a good way to play chess, but it is a natural way to deal with shock.

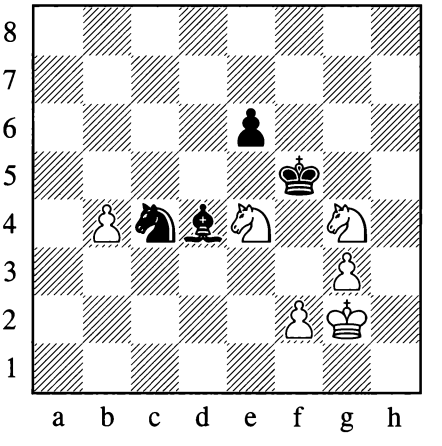
49.♘fe4 would have kept a small advantage for White, but the chances of winning the game are slim. A possible best-case scenario would be two knights against nothing and a book draw.

49...♔f5 50.b4

It was probably better to give up the knight straight away.

50...♘c4 51.♘xg4

Close to a total defeat. White not only loses his advantage, he has now also lost a piece.



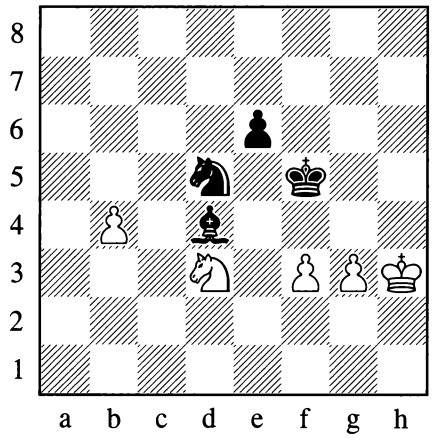
51...♔xg4?

51...♔xe4 was stronger, giving some chances of playing for a win. Eliminating the last black pawn will not be that easy. A draw is the most likely result, but Black can try for a long time.

52.f3† ♔f5 53.♘f2?!

53.♔f1! was simpler.

53...♘e3† 54.♔h3 ♘d5 55.♘d3



55...♗c3?

55...e5! 56.♔g2 ♗c3 57.b5 ♗d4 and Black would have been on his way to winning the game. Thankfully this did not happen. Swapnil is a great asset for chess culture and it might have broken his spirit.

56.b5 ♗a5?!

Giving the c5-square to White in important variations.

56...♗d4 still gave Black serious chances.

57.♔h4

White is generating enough counterplay to save the game.

57...♗d8† 58.♔h5 ♘c3 59.g4† ♔f6 60.g5† ♔f5 61.g6 ♗f6 62.b6 ♘d5 63.♔h6 ♘xb6 64.g7 ♗xg7† 65.♔xg7 ♘c4 66.♘c5 ♘d2 67.♘xe6

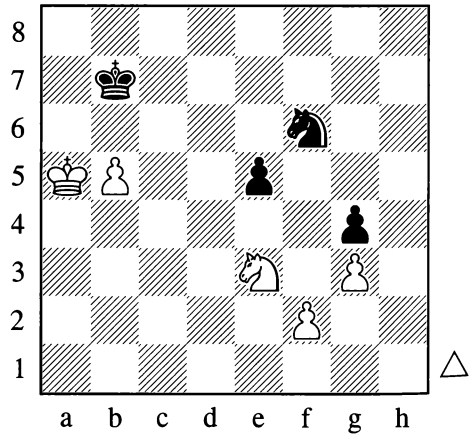
½–½

16. Pushing passed pawns too far

Most things in chess are like Truman's famous request for a one-armed economist, tired of "on the other hand" arguments. While it makes sense to increase the value of the passed pawn by pushing it as close to promotion as possible, there are also cases where the value of the pawn is not increased by being pushed forward. Rather, it will just be exposed to the opponent's pieces. There are plenty of examples of this available. The two I have chosen for illustration here have different properties, but are at the core very similar. The pawns are pushed too far and White loses control of the position.

Ivan Rozum – Evgeny Kardashevskiy

Yaroslavl 2019

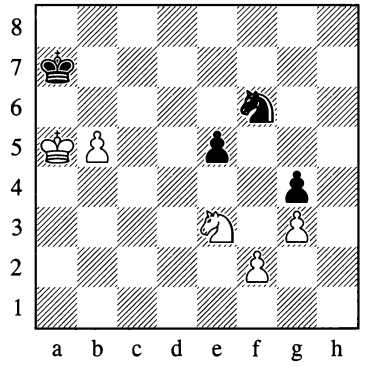


60.b6?

A natural-looking move, but the pawn is simply exposed to pressure by the black king. The main difference from having the pawn on b5 and b6 is that when the pawn is on b5, the knight can help with pushing the black king away from the white pawn.

The reason the pawn is more valuable on b5 is that one of its main qualities is to keep the black king occupied, should the white king go to the kingside, where victory lies.

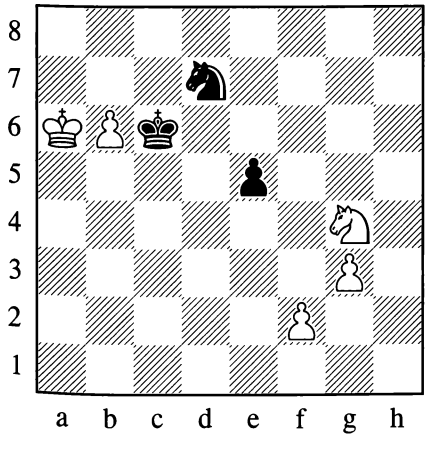
White could have won with:
60.♔b4 ♔c7
60...♔b6 61.♘c4† and the e-pawn falls.
61.♔a4
The desirable 61.♔c5 does not work due to 61...♘e4†.
61...♔b7 62.♔a5 ♔a7



63.b6†
Now this makes sense, as White gets control of the b5-square, which he failed to do in the game.
63...♔b7 64.♔b5 e4 65.♔c5 ♘d7† 66.♔d5
White picks up both pawns and wins.

60...♔c6! 61.♔a6 ♘d7
Black comes around to pick up the pawn.

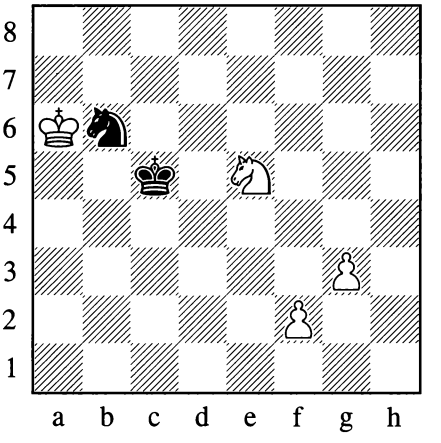
62.♘xg4



62...♘xb6?
62...e4! would have made a draw. I cannot even think of a try for White.

63.♘xe5†
Two pawns up makes things much easier.

63...♔c5

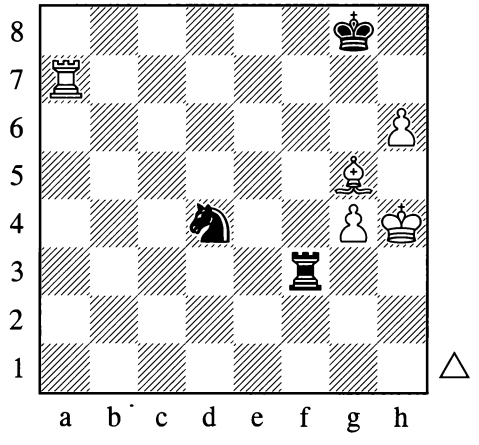


64.♘d3†!
Pushing the king away. After this accurate move, White wins. The following is surprisingly effortless.

64...♔c6 65.♔a5 ♘d7 66.♔b4 ♔d5 67.♔c3 ♔e4 68.♘e1 ♔f5 69.♔d2 ♔g4 70.♔e2 ♘e5 71.♘d3 ♘c4 72.♔f1 ♔h3 73.♔g1 ♘e5 74.♘f4† ♔g4 75.♔g2 ♘f3 76.♘d3 ♘g5 77.f3† ♔f5 78.g4† ♔f6 79.♔g3 ♔g6 80.♘c5 ♔h6 81.f4 ♘f7 82.♘e4 ♔g6 83.f5† ♔h6 84.♔f4 ♘d8 85.g5† ♔g7 86.♔g4 ♘c6 87.♔h5 ♘d4 88.f6† ♔f7 89.g6† ♔e6 90.g7 ♔f7 91.♘g5† ♔g8 92.♔g6
1–0

Anastasia Bodnaruk – Daria Charochkina

Novosibirsk 2016



White is completely winning. The pawns work well together with the rook and the bishop, but after the next move, things suddenly became very difficult.

68.h7†?

White has a lot of ways to win. The strategy is however the same with all of them. Slowly improving the position without making any commitments or becoming dependent on variations. Basically, most of the things we have discussed in this chapter already.

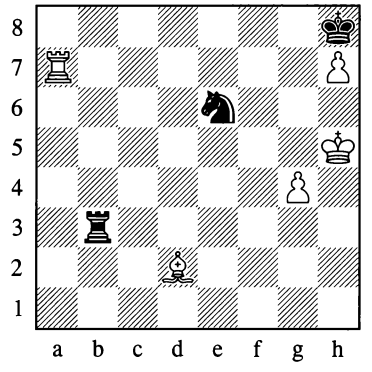
For example, 68.♖e7, dominating the knight.

Or the enhanced version: 68.♖g7† ♔h8 69.♖e7 White is planning ♔h5-g6. It is hard to see what Black can do. 69...♘c6 70.♖e6 would not improve matters. Resignation is likely to arrive before White has even created a serious threat.

68...♔h8 69.♔h5?

White could still have won with accurate play:

69.♗d2! ♖b3 70.♔h5! ♘e6



71.♖f7!

An advanced version of 68.♖g7† and 69.♖e7. Black is still dominated. A key point is that ...♘f4/8† will no longer be a saving trick. White will take with the rook and the stalemate trap will evaporate.

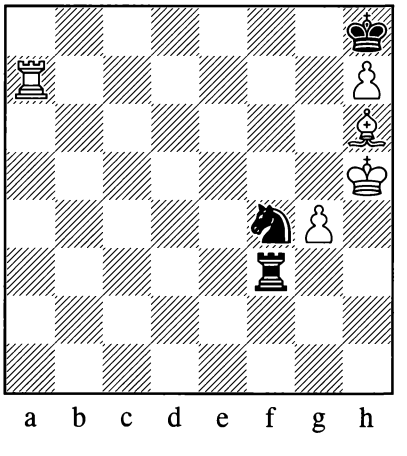
71...♖d3 72.♗c1 ♖b3 73.♔h6!

And Black will not be able to defend against the various threats accumulating. The knight is stuck and any check would be lethal.

But even though the win was still there, it did not make pushing the pawn less of a mistake. The fact that White did not manage to follow up with the winning moves shows that making things difficult was unwise.

69...♘e6 70.♗h6 ♘f4†

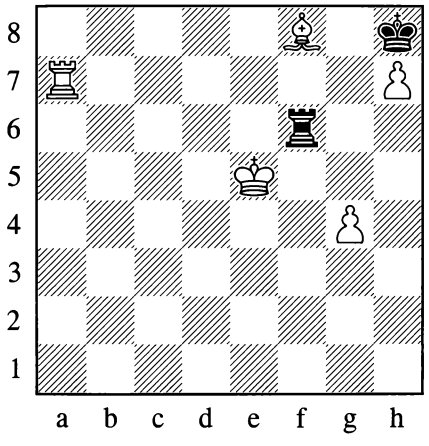
The key point is that the rook endgames are all either stalemate or transposing into drawn pawn endings.



71.♔g5

Or: 71.♗xf4 ♖xf4 72.g5 ♖h4† 73.♔g6 ♖h6† 74.♔f5 ♖f6† with a suicidal rook and a draw.

71...♘e6† 72.♔g6 ♘f8† 73.♔h5 ♖h3† 74.♔g5 ♘e6† 75.♔g6 ♘f8† 76.♗xf8 ♖h6† 77.♔g5 ♖g6† 78.♔f5 ♖f6† 79.♔e5



79...♖e6†

Black is truly enjoying harassing the white king.

Otherwise 79...♖xf8!? 80.g5 ♖f7 81.♖a8† ♔xh7 would be another way to draw the game.

80.♔d5 ♖d6† 81.♔c4 ♖c6† 82.♔d3 ♖d6† 83.♔e3 ♖e6† 84.♔f3 ♖f6† 85.♔g3 ♖f3† 86.♔h4 ♖h3† 87.♔g5 ♖h5† 88.♔f6 ♖h6† 89.♔e5 ♖e6† 90.♔d5 ♖d6† 91.♔c4 ♖c6† 92.♔b5 ♖b6† 93.♔a5 ♖b5† 94.♔a4 ♖b4† 95.♗xb4

½–½

17. Hanging on to material

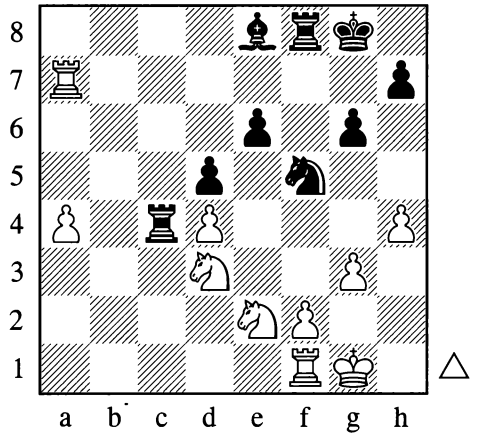
From the previous topic we are smoothly sliding into the next duality, related to the transformation of advantages. As Xiong experienced above, it can be difficult to evaluate when we should give up material in order to place a bet on other advantages in the position. When is it appropriate and when not? Any type of firm guidance will be doomed in advance. The best advice I can think of is to be alert to understanding the possibilities conceptually and then evaluate them neutrally, aware that any approach could be the right one.

The best way to make such evaluations will not be solely based on calculating long variations. There is a definite advantage to strong calculation; and there is a definite limitation to what human calculation is able to achieve. Rather, having seen/analysed a lot of endgames and having understood them both on a move by move level and on a conceptual level, will give us strong reference points to making similar decisions at the board. Partly, probably mainly, by intuition and partly by conscious referencing.

To make the transition into this next topic painless, we shall start with an example where White erroneously hung on to his extra pawn, rather than pushing the passed pawn. If you believe that this example could just as well have been in the previous section; or that the Xiong – Izoria game could have been in this section, you are not mistaken... We enter the game at a crucial moment. White is a pawn up, but Black is threatening to regain it, while kicking the white pieces about a bit. White played the move most people would have played in blitz, defending both pawns with the help of tactics, unfortunately missing the power of the available active counterplay.

Gu Tianlu – Zhang Xiaowen

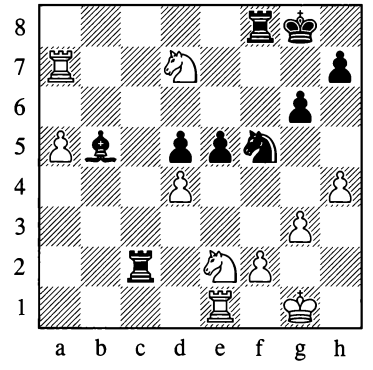
China 2017



28.♘c5? e5! 29.♘e6

White could still have tried 29.a5!?, but Black has managed to create complications. Even if they were not in her favour, the practical implications are already significant and should have been enough for White to seek a different path.

However, they work out just fine for Black. 29...♖c2! 30.♖e1 ♗b5 This bad bishop is now quite useful. 31.♘d7



31...exd4! 32.♘xf8 (White is nominally better after 32.♘f4 ♘xh4 33.♖b1 ♘f3† 34.♔g2 ♗xd7 35.♖xd7 ♘e5, but Black is going to make the draw bar any serious mistakes.) 32...d3 Black has adequate counterplay. A curious variation is the following: 33.♘f4 d2 34.♖d1 ♖c1 35.♘xh7 It looks as if White is about to deliver a glamorous mate. But Black draws by simple means: 35...♖xd1† 36.♔h2 ♖h1† 37.♔g2 ♖g1† and so on...

29...♖f7 30.♖xf7

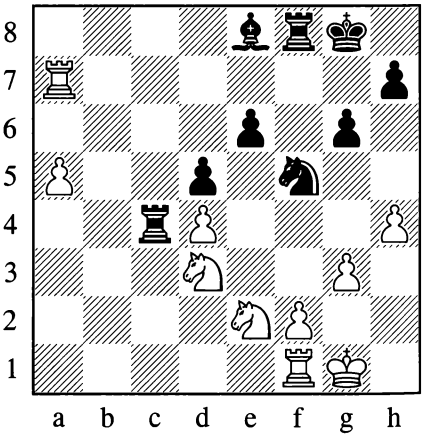
The advantage is gone.

30.♖a8 ♖e7 also achieves nothing.

30...♗xf7 31.♘g5 exd4 32.♘f3 ♖xa4 ½–½

But White actually had a number of promising options; all connected with letting the d-pawn go and focusing on either activating the rook from f1 or making the most of the strong asset on a4.

28.a5!

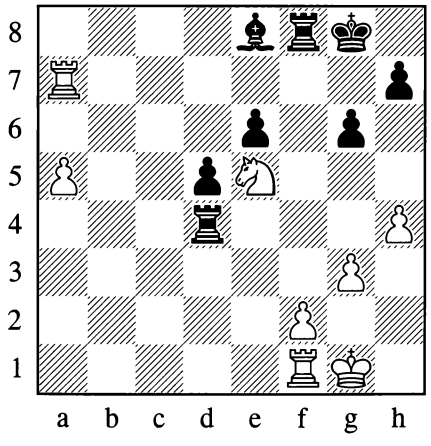


The other moves are dim versions of this move. 28.♖a1 is the one that makes the most sense and you can imagine a scenario where ensuring that Black does not get behind the a-pawn is important. Here tactics makes this possibility redundant.

28...♘xd4

28...♖c2 is a serious attempt to complicate matters. The idea is to follow up with ...♗b5. But White can play actively too: 29.♘ef4! ♗b5 (29...♘xd4 30.♖b1 is very similar. Black can of course transpose. Or choose other paths to pain.) 30.♖b1 ♘xd4 31.♘e5 is just bad for Black. Besides having a powerful passed pawn, we can easily imagine the white rooks doubling on the 7th rank. Also, other threats are piling up: ♖b4, ♘xe6, ♘g4 and so on.

29.♘xd4 ♖xd4 30.♘e5



White has a monstrous positional advantage and with the exchange of knights, all her tactical problems have evaporated. Not so much because the black knight had potential, but more because the white knights were targets for black counterplay, as in the game.

30...♖d2

There are other moves, but in reality, nothing works.

30...♖a4 31.♖c1 and 30...♖e4 31.f4 would be other paths to nowhere.

31.f4 ♗a4 32.♖c1 ♗c2 33.♘f3 ♖d1† 34.♖xd1 ♗xd1 35.♘d4 ♗g4 36.a6

White is completely winning.

18. Overestimating dynamics

The other side of the coin is that just as we can be clenching our fists too tightly around our additional material, we are just as likely to err in the opposite direction by overestimating the dynamic potential of our position. I am personally a player who has done this far too often, relying on long stupid calculation and a drive to play dynamically at all turns, rather than simple solutions with clear paths forward.

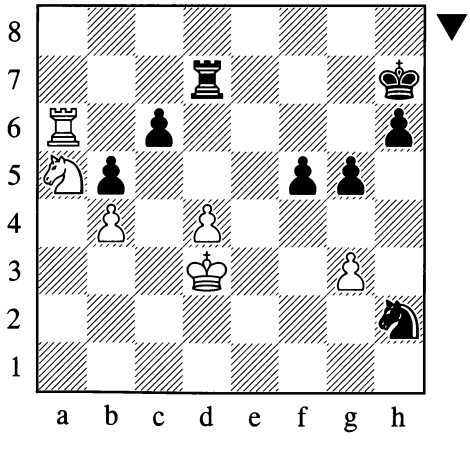
According to Dvoretsky's model, a player's style should be measured on two axes, dynamic/technical and logical/intuitive. Being dynamic and intuitive is very useful when you are attacking, but less so when you are trying to convert an endgame advantage. Fortunately, the technical aspects are easier to learn than the dynamic.

The following few examples will show great players overreacting entirely to the situation they find themselves in.

The first example sees Harikrishna trying to find a forced win, in a position that should win without theatrics.

Sergey Zhigalko – Pentala Harikrishna

Kocaeli 2014



55...f4?

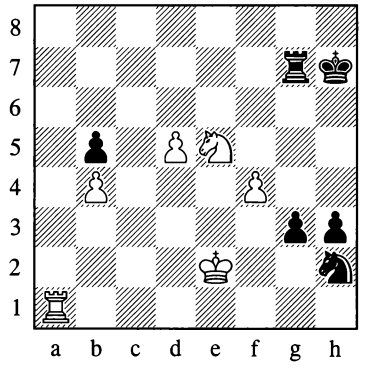
Unnecessary dynamics.

An unlucky student suggested that Black should try 55...♔g6 56.♘xc6 ♔h5, only to find himself in unpleasant danger after 57.♘e5! and 58.♖a1.

55...♘f3 56.♘xc6 ♖d6 57.♔e3 also holds for White.

56.gxf4 gxf4

Another sharp idea is 56...g4!? 57.♘xc6 g3, which almost works. To survive, White would have to find the following accurate defence: 58.♖a1 ♖g7 59.♔e2! The king needs to go here to avoid ...♘f1† tricks down the line. 59...h5 60.♘e5 h4 61.d5 h3



White arrives just in time. 62.d6 g2 63.d7 ♖g8 64.♘f7 ♘f3!? 65.♔xf3 h2 66.d8=♕ g1=♘† 67.♖xg1 hxg1=♕ 68.♘g5† ♖xg5 69.♕xg5 ♕d1† with a drawn ending.

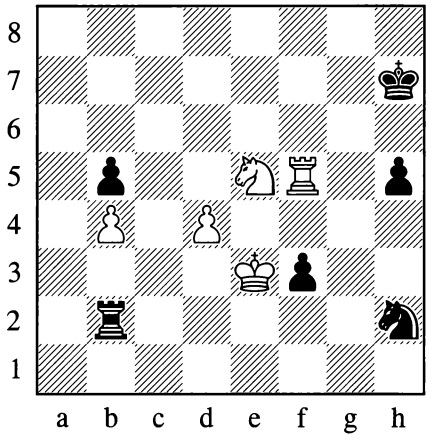
57.♘xc6 f3 58.♘e5

Not only is the knight making it back just in time. Also ♖a6-f6 is in the air.

58...♖g7 59.♔e3 ♖g2 60.♖f6

White is managing to defend.

60...♖e2† 61.♔d3 ♖b2 62.♔e3! h5 63.♖f5



63...♔h6

This draws after a lot of only moves for White. But they are only moves both in the sense that all other moves lose, and in the sense that they are the only moves anyone would consider.

63...♘g4†!?

This could have worked as a primitive trap. The key point is 64.♔xf3? ♖f2† 65.♔e4 ♘f6†! and Black wins the exchange.

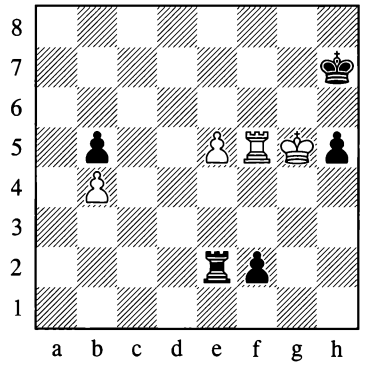
White needs to play:

64.♔f4! ♘xe5 65.dxe5 f2 66.♔g5!

Active play.

66.♔e3 ♔g6 67.♖f8 ♖a2 would be fatal for White. After 68.e6 ♖a6 Black will win the ending.

66...♖e2



67.♖f7†!

67.♔f6 ♔g8! 68.e6 ♔f8 and Black would win.

67...♔g8 68.e6 ♖e5† 69.♔h4 ♖xe6 70.♖xf2 ♖e5 71.♖c2 ♔f7 72.♖c6!

White draws. The black king is cut off and Black cannot make any reasonable progress.

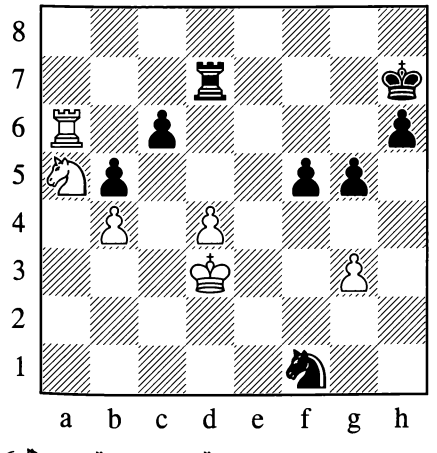
64.d5 ♘g4† 65.♘xg4† hxg4 66.d6 ♖e2† 67.♔f4 ♔g6 68.d7 ♖d2 69.♔xg4 ♖d4† 70.♖f4 ♖xf4† 71.♔xf4 f2 72.d8=♕ f1=♕† 73.♔e3 ♕e1† 74.♔f3 ♕xb4 75.♔e2 ♕c5 76.♔d3 b4 77.♕d4 ♕xd4† 78.♔xd4
½–½

Instead in the starting position, Black could have played:

55...♘f1!

His soon-to-be three connected passed pawns will be impossible to contain in the long run. There is not really the need for any variations here. But I shall try to construct something anyway.

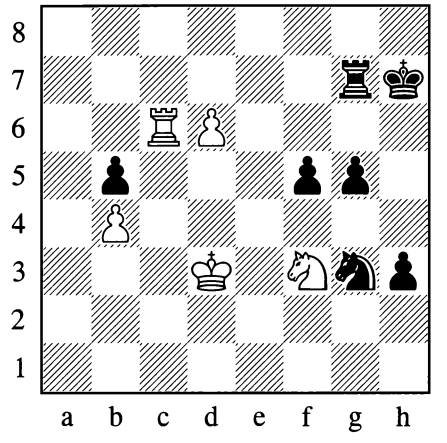
55...h5 is also winning, but not a move many would choose.



56.♘xc6 ♘xg3 57.♘e5 ♖e7!

Preventing the d-pawn from running off too quickly.

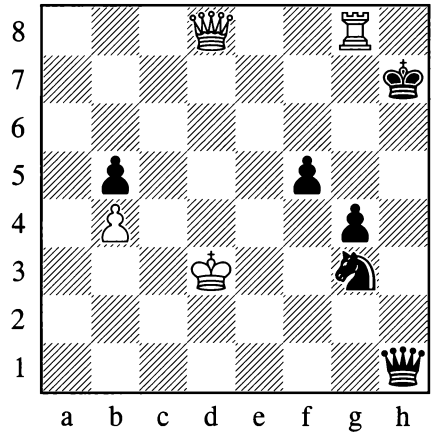
58.♖b6 h5 59.♘f3 ♖g7 60.d5 h4 61.d6 h3 62.♖c6



62...g4 63.♘g5† ♖xg5 64.d7 ♖g8 65.♖c8 h2

Maybe some of Black's moves could be less dynamic. But I do not think anything here was difficult to calculate.

66.♖xg8 h1=♕ 67.d8=♕



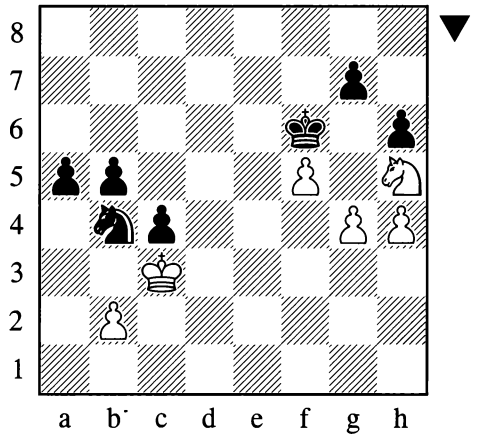
67...♕d1† 68.♔e3 ♕c1† 69.♔d4 ♕c4†

Black picks up the rook. But there are many other ways to win the game.

In the next game, we shall see an overestimation of connected passed pawns.

Daniil Yuffa – Ernesto Inarkiev

Moscow 2018



44...♔f7!

A good choice, the first time around.

45.♘f4

White regroups, which is a reasonable choice and worked out well in the game.

The alternative was:

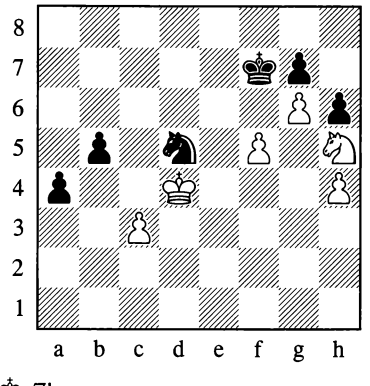
45.g5 ♘d5† 46.♔d4 c3!?

My first instinct.

46...a4! with the idea 47.♔xd5 c3! is stronger, but the main line has a really nice moment I would not cheat you out off.

47.bxc3 a4 48.g6†!

48.♔d3 ♘e3 would win for Black.



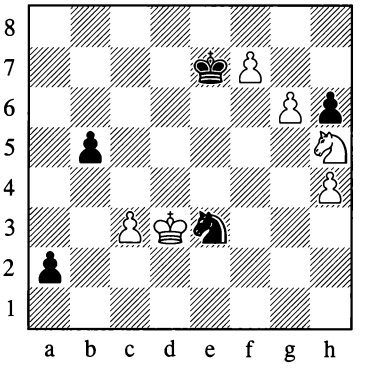
48...♔e7!

48...♔f8? 49.♔xd5 a3 50.♘xg7! White is just in time to generate counterplay. 50...♔xg7 (50...a2 51.f6! is even a bit dangerous for Black.) 51.♔e6 White will get a queen and a draw.

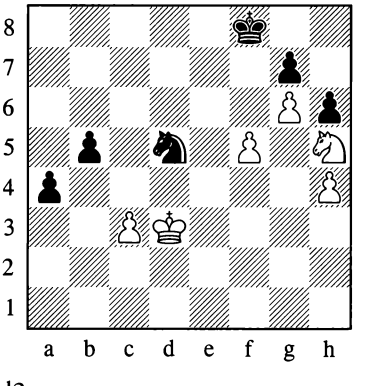
49.♔d3 ♔f8!

Now defending the pawn is the right move. All those nuances...

49...♘e3? 50.♘xg7 a3 51.♘h5 a2 52.f6† ♔e6 53.f7 ♔e7



Black looks like he is in total control, but White has an escape pod ready: 54.♘f6!! a1=♕ 55.♘h7 and Black will have nothing better than perpetual check.

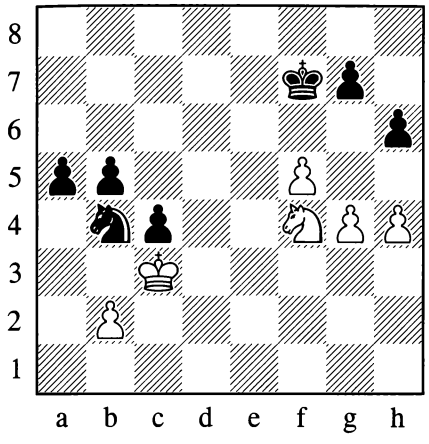


50.♔d2

50.♔c2 ♘e3† would see Black winning on points.

50...♘e3 51.f6 gxf6 52.♘xf6 a3 53.♔c1 ♔g7 54.♘e4 ♔xg6 55.♘d6 ♘c4

Black wins.



45...♔f6

A poor repetition.

45...♘c6!

The regrouping of the knight to assist on the kingside was winning.

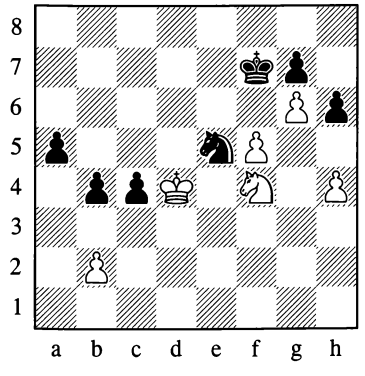
46.g5

The most obvious move.

46.♘e6 loses to active play: 46...♘e5 47.g5 b4† 48.♔c2 A sad retreat. (48.♔d4 c3 and Black wins.) 48...hxg5 49.hxg5 ♘c6! White is paralysed – and a pawn down. After something like 50.♔c1 g6 Black wins another pawn.

46...♘e7!

Black is also winning after: 46...♘e5 47.♔d4 b4! 48.g6†



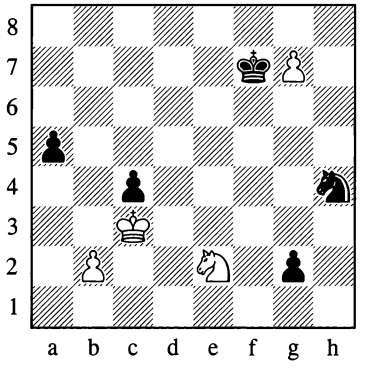
48...♔f6! 49.♔e4 ♔e7 50.♘d5† ♔f8 But let's be realistic. No one would ever play like this.

46...hxg5? would be a poor exchange. Black wants to win the weak h4-pawn.

47.f6 ♘g6!

Exploiting the threat of exchanging knights to win another pawn.

48.♘d5 ♘xh4 49.fxg7 hxg5 50.♘c7 g4 51.♘xb5 g3 52.♘d4 g2 53.♘e2



Black still has to be very accurate to win.

53...♔xg7!

53...♘f3 54.♔xc4 ♔xg7 55.♔d3 leads to a quick draw.

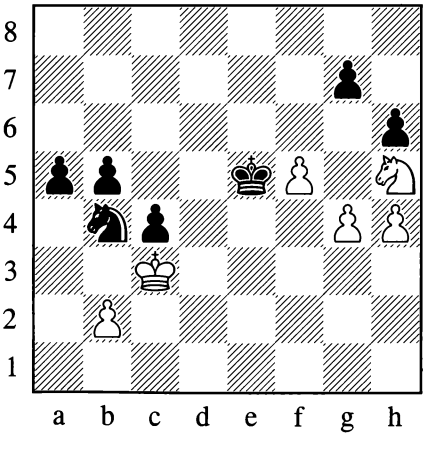
54.♔xc4 ♔f6 55.♔d3 ♔e5 56.♔e3 ♘g6! 57.♔f3 ♘f4 58.♘g1 a4 59.♔e3 ♔d5 60.♔xf4 ♔c4

Black wins.

46.♘h5† ♔e5?

An unfortunate dynamic solution.

46...♔f7 47.♘f4 ♘c6 was the way to win the game, as we have already seen.

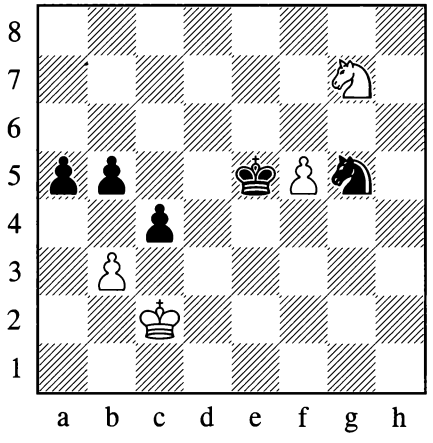


47.♘xg7?

On the other hand, White's chance to hold the game was based on a dynamic solution.

47.g5! ♘d5† 48.♔d2 ♘e7 49.♘xg7 hxg5 (49...♘xf5 50.gxh6 ensures White a very useful pawn on the distant flank.) 50.hxg5 ♘xf5 51.♘h5 White still has to play a few good moves, but it is already clear that he will make the draw with decent play.

47...♘d5† 48.♔d2 ♘f6 49.g5 ♘e4† 50.♔c2 hxg5 51.hxg5 ♘xg5 52.b3



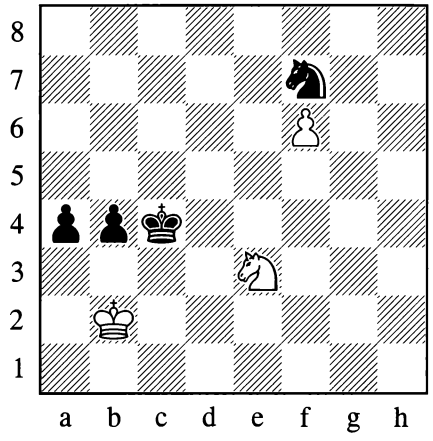
A move with advantages and disadvantages. White is able to reduce the amount of pawns to a very low number. On the other hand, both the pawns will be passed pawns.

52...b4??

A totally unnecessary attempt to use dynamics.

Black would have been able to consolidate and expand his material advantage with 52...cxb3† 53.♔xb3 ♘f3! with the idea ...♘d4†. 54.♘e6 ♔xf5 55.♘c7 ♘d4† 56.♔c3 ♔e5 would decide the game in Black's favour.

53.bxc4 a4 54.♔b2 ♔d6 55.f6 ♔c5 56.♘f5 ♘f7 57.♘e3 ♔d4 58.♘c2† ♔xc4 59.♘e3†



White is making an easy draw. Black would need to have both the king and knight on the queenside in order to make anything of the pawns. Thus, the f-pawn works well as a diversion.

59...♔d4 60.♘c2† ♔c4 61.♘e3† ♔d4 62.♘c2† ♔c5 63.♘e3 ♘e5 64.♔c2 ♔d4 65.♘f5† ♔d5 66.♘e3† ♔d6 67.♔b2 ♔e6 68.♔c2 ♘c6 69.♔b2 ♘a5 70.♔a2 ♘c6 71.♔b2 ♘e5 72.♔c2 ♘d7 73.f7 ♔xf7 74.♘d5 b3† 75.♔b2 ♘e5 76.♘b6 ♘d3† 77.♔a3 b2 78.♔a2 a3 79.♘c4 ♔e6 80.♘xa3 ♔d5 81.♔b1 ♔c5 82.♘c2 ♔c4 83.♘e1 ♘xe1 84.♔xb2

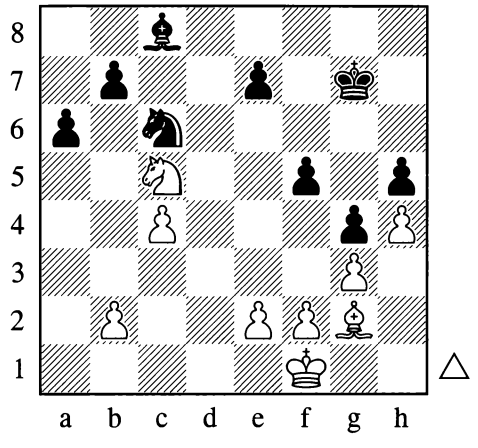
½–½

In the next example, White is completely dominating his opponent. Who would want to start mud wrestling from a position of absolute superiority?

White starts out with a not-very-difficult exchange.

Zoltan Almasi – Kaido Kulaots

Germany 2019



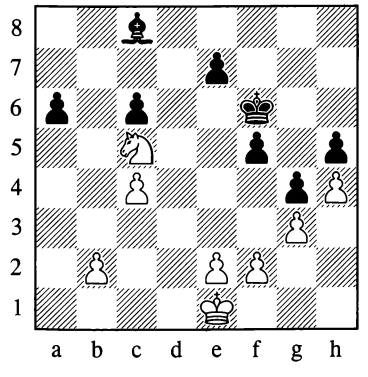
37.♗xc6!

Black is left with an almost dead "bad" bishop. If White had a pawn on e5 too, the paralysis would be total.

37...bxc6 38.e4??

But this fancy move is poor. White is trying to save a tempo, but the true effect of this move is to allow the bishop on c8 to re-join the game.

White was winning with slow play, without any problems: 38.♔e1 ♔f6



39.♔d2!? A little bit forcing. (White could also play something like 39.♘d3 e5 40.♔d2, when Black has no counterplay at all.) 39...♔e5 40.♘d3†! ♔d4 41.b3 (41.♘f4 also works, but why have anything that looks like complications?) 41...e5 Otherwise ♘f4 comes next. 42.e3† ♔e4 43.♔e2 Black can only resign.

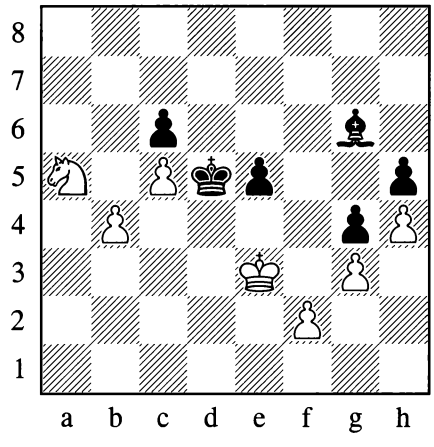
38...♔f6 39.♔e2 ♔e5 40.♔e3 fxe4 41.♘xe4 ♗e6 42.b3 a5 43.♘c5 ♗f5

43...♗c8 was a clever move. But it would require that after 44.♘d3† ♔f5 45.♘f4 Black has seen 45...♗d7! 46.♘xh5!? e5, when White has to give up the knight. The endgame is still a draw, but as no one would ever play like this, we can stop here.

44.♘b7 ♗e4 45.c5

45.♘xa5?? c5 would see the knight trapped.

45...♔d5 46.♘xa5 ♗g6 47.b4 e5



48.♔d2

White could have applied a bit more pressure with 48.♘b7!? ♔c4 49.♘d8 ♔b5 50.♔d2 ♔xb4 51.♘xc6† ♔xc5 52.♘xe5, but the extra pawn will not create real winning chances after 52...♗e8.

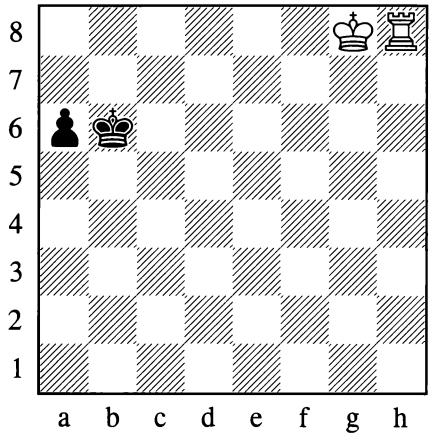
48...♗f5 49.♔c3 ♗d7 50.♘c4 ♔e4 51.♘d2† ♔d5 52.♔d3 ♗f5† 53.♔e3 ♗c2 54.f4 gxf3 55.♘xf3 ♗f5 56.♘d2 ♗c2 57.♘f3 ♗f5 58.♘g5 ♗g6 59.♘f3
½–½

19. Endgame theory

In this chapter we have seen a lot of different technical mistakes that players of both club level and international level commit. The purpose of this has been to show you various areas where you can improve your endgame play. Good endgame play does not come solely from learning endgame theory, or from solving studies, or reading annotated games and manuals about endgame strategy. It comes from all of these, and a serious look at your own endings. From this chapter you have some ideas of how you can analyse your own games and find mistakes that you would be better off diminishing, or leaving behind entirely.

Knowledge and Application

It is clear that although this is not a small chapter, I have not been able to cover all topics of endgame technique in detail. One of these is the application of endgame theory to practical games. There are two issues connected to this. The first is insufficient knowledge of endgame theory and the other is applying it. My experience is that of the two, generally the former is the main problem. If you have spent a good deal of time learning the theoretical endings, mostly you will be decent at using them in practice. Obviously, this will be different from player to player. But my experience is that, surprisingly, even among world-class players, you often find deficiencies in their endgame knowledge.



While I am writing this chapter, Chess24 and the Play Magnus group is promoting the modern classic *100 Endgames You Must Know* by Spanish super-coach Jesús de la Villa. It is based on the classes he used to give for promising Spanish juniors, and has become one of the big bestsellers in modern chess publishing. Their promotion strategy was quite excellent. Players participating in the Champions Chess Tour were doing various online activities to boost Chess24. One of them was doing the test for the said endgame book, live on camera. Besides being excellent promotion for a great book, it was also at times a shocking look into the knowledge – and lack of knowledge – of top players. Watching the video of Pentala Harikrishna, whom we have already seen in action a few times in this chapter, I was impressed repeatedly with his quick tactical vision. But also surprised by his lack of knowledge at times. (Don't get me wrong – I learned a thing or two as well, watching the video!) But when he got this wrong, I was astonished. Harikrishna put in the move:

1...♔b5?

The computer program immediately notified him that it was a mistake and he smiled, slightly surprised and easily made the rest of the moves after 1...♔c5! without thinking.

And obviously he only made this mistake because he was relaxed and a bit careless. Still, it surprised me that a player of such calibre would not automatically make the shouldering move. Most likely Harikrishna has seen the position before; but it was such a long time ago that it has taken the nature of early childhood memories and is all but erased.

Now there are many routes to chess mastery. None are more effective than the other, I believe, starting out. Thus, it makes a lot of sense to focus on what you enjoy. Take a player like Anish Giri. He clearly enjoys looking at openings a lot. I think it was on a YouTube video where he had a poster in the background saying "Do More of What You Like". Which is good advice. But as all parents know, you should also eat your vegetables! Basically, do the things you don't like, but which you know are good for you. There comes a time where a big weakness is holding you back in your development in chess. Which is the main theme of these books. Ergo: We know that Harikrishna is a great player – at the time of writing, he is number 22 in the world – but maybe refreshing endgame theory would help him going forward?

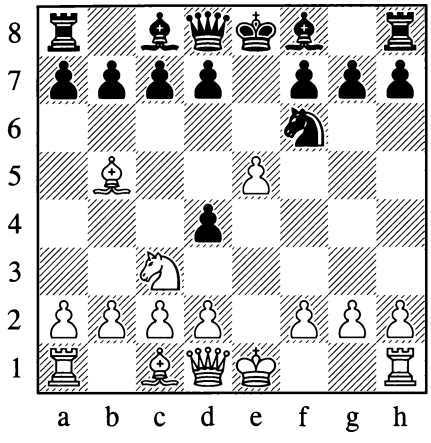
With that, let's go to another game between two great players. Currently number 23 and 5 in the world. With a guest appearance from a few other strong players.

Jan-Krzysztof Duda – Levon Aronian

Stavanger 2020

It is important to look at this game from the beginning to fully understand it, as the main part of the story seems to be psychological.

1.e4 e5 2.♘f3 ♘c6 3.♘c3 ♘f6 4.♗b5 ♘d4 5.♘xd4 exd4 6.e5



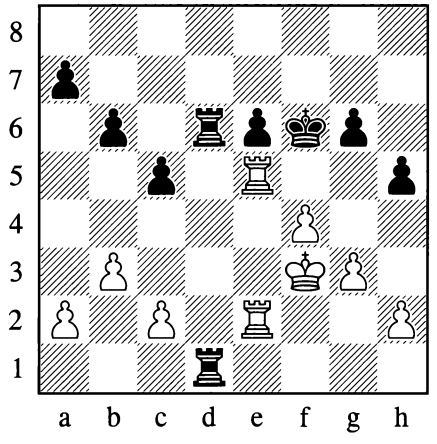
Playing this way is an indirect draw proposal. The position is simplified and clarified. From here on Aronian played incredibly fast, playing all but one of his moves before move 30 in less than two minutes, many of them after 7-9 seconds. Only once he started getting winning chances did he slow down a bit. The reason for this is easy to explain. The tournament was played with a version of the Gladiator format, where draws would result in a blitz rematch later in the day, with a complicated points system.

Thus, energy conservation made a lot of sense and worked well for Aronian, who ended third after Carlsen and Firouzja.

6...dxc3 7.exf6 ♕xf6 8.dxc3 ♕e5† 9.♕e2 ♕xe2† 10.♔xe2 c6 11.♗d3 d5 12.♖e1 ♗d6 13.♗f4 ♔e7 14.♔f3† ♗e6 15.c4 dxc4

Aronian spent five minutes making this decision. Black is completely equal.

16.♗xc4 ♗xf4 17.♔xf4 ♖ad8 18.♗xe6 fxe6 19.♖e2 ♖d4† 20.♔g3 ♖hd8 21.♖ae1 ♖8d6 22.f4 ♔f6 23.♔f3 h5 24.♖e3 ♖d2 25.♖1e2 ♖d1 26.g3 g6 27.♖e5 b6 28.b3 c5



The game is completely equal, with neither player having a right to say that they are better. It will clearly take a number of unfortunate decisions for either player to land in trouble. At this point the simplest way for White to play would be 29.a4, preparing to exchange the worst of his pawns.

29.c4?!

Obviously White is not worse after this move, but the a2-pawn is now going to be a small liability. This was very unnecessary.

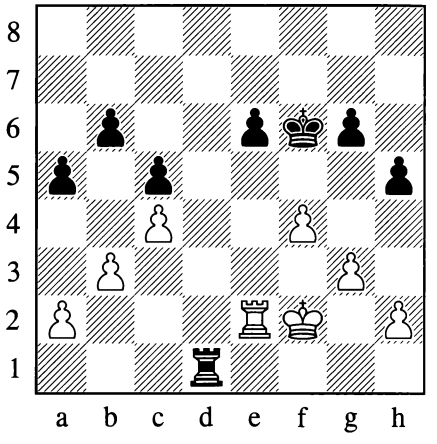
29...a5 30.♔f2?!

30.a4! would make it impossible for Black to create threats.

30...♖1d3 31.♖5e3

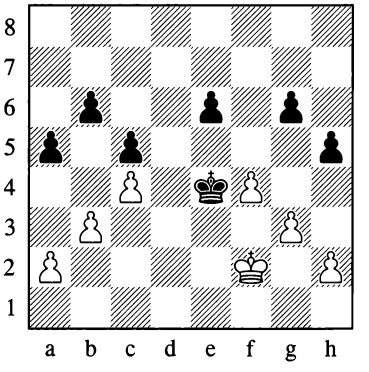
Aronian smells blood and slows down.

31...♖xe3 32.♖xe3 ♖d2† 33.♖e2 ♖d1

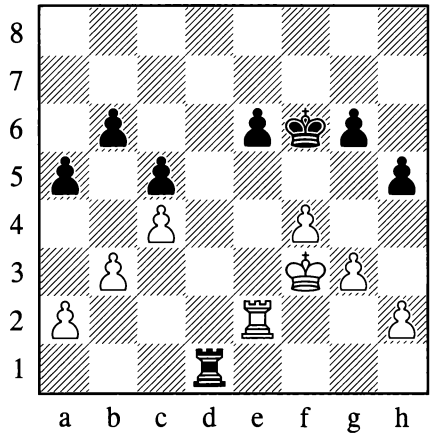


34.♔f3

34.♖e1!? would require accuracy that no one wants to be forced to show in a dead drawn position. But after the small inaccuracies, there will come a moment where Duda has to show at least a few good moves. 34...♖xe1 35.♔xe1 ♔f5 36.♔f2 ♔e4



White makes the draw here. But only just. For example: 37.♔e2 a4 38.h4! a3 39.♔f2! ♔d3 40.♔f3! ♔c2 41.♔e2 ♔b2 42.♔d2 ♔xa2 43.♔c2 ♔a1 44.♔c1 ♔a2! 45.♔c2 With a fortress.



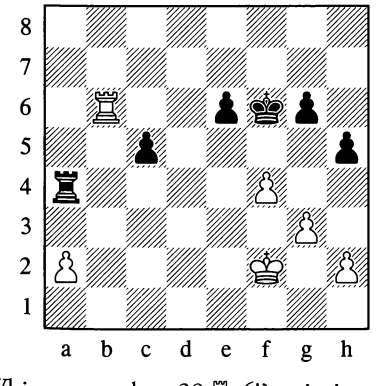
34...a4!

Whether the idea is to play ...a3 and ...♖b1-b2, or to take on b3 and place the rook on first b1, then b2, this is definitely uncomfortable for White. He has to take and thus lead the game into a forced territory not without peril.

35.bxa4 ♖c1 36.♖e3

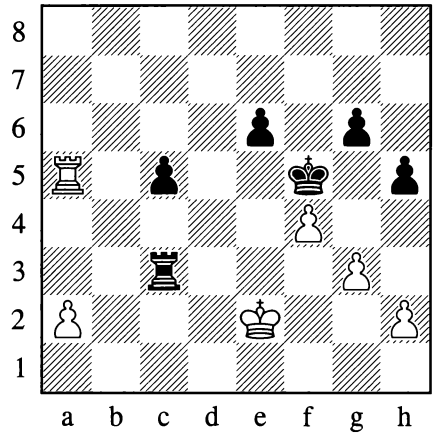
I was watching this game live and found this to be the start of a horrible manoeuvre.

White could achieve the same pawn structure with a few moves to spare with 36.♖b2 ♖c3† 37.♔f2 ♖xc4 38.♖xb6 ♖xa4, where everything holds.



White can play 39.♖c6!?, aiming for an active defence, which should hold with a serious margin. Or he can play the more plain 39.♖b2, with the idea 39...♔f5 40.♖e2 and it is hard to believe that Black will make serious progress.

36...♖xc4 37.♖a3 ♔f5 38.a5 bxa5 39.♖xa5 ♖c3† 40.♔e2



40...h4!

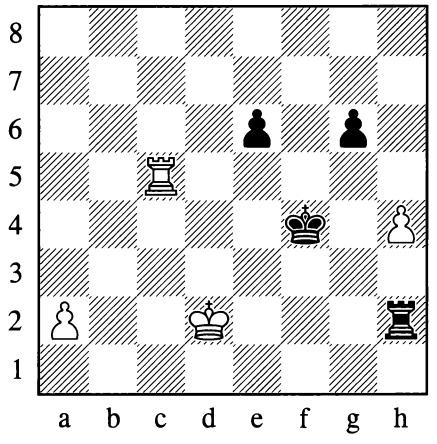
Creating more pressure. At move 37 Aronian spent 5 minutes, probably convincing himself that the game was still far within drawing margins and that the best strategy was to continue doing what he had been doing: to play fast and put his opponent under psychological pressure. There were no visible risks to this strategy. The position is a draw with a big margin all the same.

41.gxh4

To me it is obvious that the passed e-pawn is a far greater threat, as it will be supported by the king.

So, 41.a4 would be something I would seriously consider. I am a big believer in pushing the passed pawns up the field. But it is easy to see why Duda wanted to exchange a lot of pawns as well.

41...♔xf4 42.♔d2 ♖h3 43.♖xc5 ♖xh2†



44.♔e1?

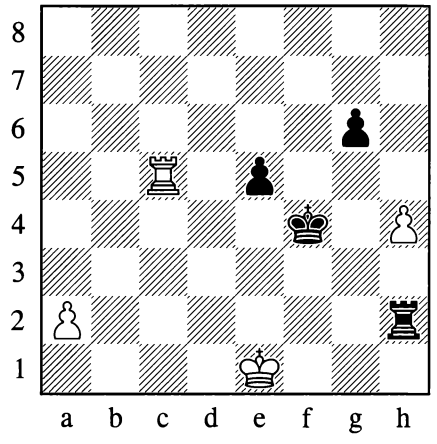
Would you ever voluntarily make such a move? .

44.♔d3 was available and hard to find a fault with. On 44...e5, White has 45.♖c4†.

And on 44...♖xa2 45.♖c6 ♔f5 46.♖c8 the white rook is active and will harass the black pieces a lot. With split pawns and nothing else in his favour, it is impossible for me to dream up a scenario where Black wins. For example, 46...♖a4 47.♖f8† ♔e5 48.♖h8 looks easy enough to hold.

It is though understandable that Duda decides to hold on to material parity. But this is part of his downfall: not to understand when to seek active pieces, rather than the protection of inadequate foot soldiers. We know that passed pawns grow in influence as they advance up the board. On a2 the pawn is close to worthless. Keeping the main players centre stage is more important.

44...e5



45.♖c4†?

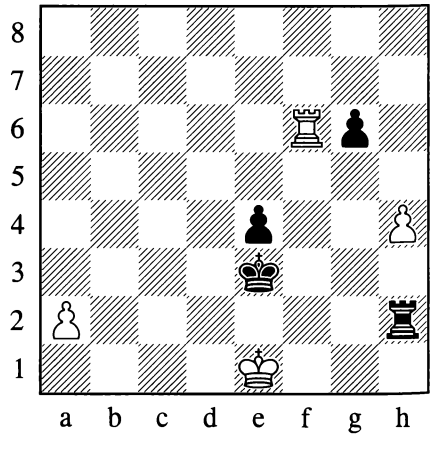
This move stinks of nervousness. Not that Duda would be especially nervous playing against Aronian, more that after his attempt to force a draw in the opening had failed, he might have felt some emotional pressure not to lose the game. Which in turn made him play worse.

At this point 45.♖c6 was the right move, a whole tempo better than the game. And White has played so poorly that he should start worrying about tempos.

45...e4

Black now has practical chances, though White can hold with best play.

46.♖c6 ♔f3 47.♖f6† ♔e3

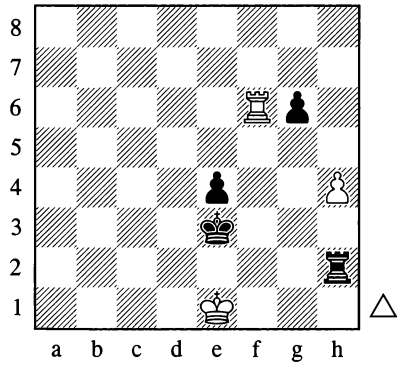


We have arrived at the moment of truth. White is in the zone of one mistake. We will soon have a position with only a pawn each, with the white king cut off on the 4th rank and the black pawn ready to march to the 2nd rank. Where should the white king be in this situation?

48.♔f1?

Duda chooses to take the king to the kingside, presumably with the hope that it can harass the black rook. But rather it will be entirely side-lined, with no influence on the game. At this point he may have been confused by theoretical knowledge.

Illustrative Example
2021



In the position without the a-pawn, White's choice is easy. He needs to be able to provide checks from the a-file.

48.♔f1!

48.♔d1? ♖xh4 49.♖xg6 ♖h1† 50.♔c2 ♔f3 51.♖f6† ♔e2 and Black wins trivially.

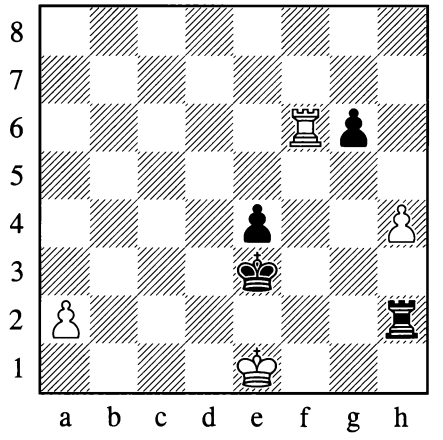
48...♖h1† 49.♔g2 ♖xh4 50.♖xg6 ♔e2

50...♔d3 51.♖a6 e3 52.♖a3† With an elementary draw.

51.♔g3! ♖h1 52.♖a6 ♖d1 53.♖a2† ♖d2 54.♖a1

With a well-known theoretical scenario.

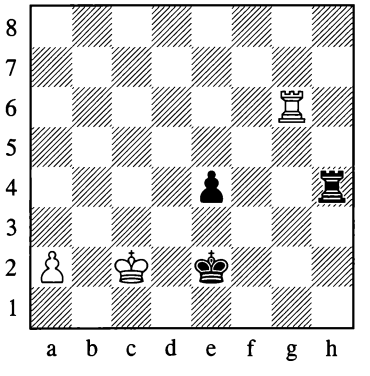
Back to the game!



48.♔f1?

A small reprise. But with the a2-pawn on the board, there is no chance to give checks from the a-file. So, the corresponding theoretical knowledge fails to help.

Rather, White needs to prepare to use the a-pawn as an asset. And to do so, the king needs to help out: 48.♔d1! ♖h1† 49.♔c2 ♖xh4 50.♖xg6 ♔e2



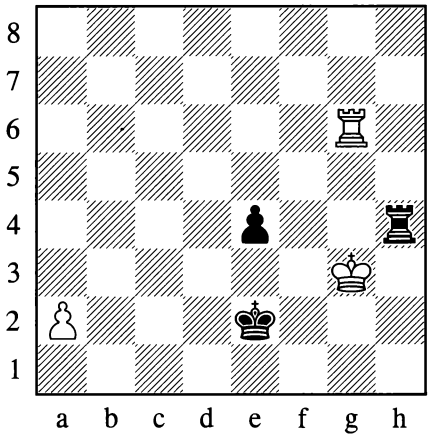
I presume that Duda was worried that his king would be cut off on the 4th rank. Which is true. But there are a number of ways for White to hold the draw all the same.

51.a4! is the main way, to be discussed below. But let's look at something based on a different strategy for now:

51.♖e6 e3 52.♖e8 (52.♔c3 ♔f2 53.♔d3 ♖h3 54.♖f6† ♔e1 55.♔c4!) 52...♔f2 53.♔d3 ♖h3 54.♖f8† ♔e1 (Black can also try 54...♖f3, but White is holding easily. 55.♖e8! e2†?! 56.♔d2 and even here it is a dead draw.) 55.♔c4! White makes an easy draw.

48...♖h1† 49.♔g2 ♖xh4 50.♖xg6 ♔e2 51.♔g3

51.♖b6 was slightly trickier. Black would have to find 51...♖g4† 52.♔h3 ♖g5! to win.



Watching the live commentary, two young retirees, Vladimir Kramnik and Judit Polgar, were fumbling their way all over this endgame. I could see what the engine was suggesting (I strongly recommend following games live without an engine, for improvement, but I rather lazily was focusing on work...), but also noticed that for the players and the commentators, this endgame was not at all obvious. Knowing that once you have seen the solution, everything becomes obvious, which before was impenetrable, I presumed that the position was tricky and gave it to Sam Shankland to solve, while Aronian was still thinking over the move.

51...♖h7?

A somewhat random square. I am sure that Aronian had some thought about why the rook should go to h7 rather than h8, related to the advance of the a-pawn. But the reality is that both moves draw.

Sam spent less than 5 seconds before he came up with the right move. 51...♖h5! "Have you seen it before?" I asked. "No, but I know this endgame from watching Alex Yermolinsky's video series, *Every Russian Schoolboy Knows,* a long time ago."

There you have it. If you know it, you know it. If you don't, the greatest mind in the world is lost to the wind. But if you know which direction you are headed, everything becomes easy.

52.♖b6?

As Sam explained it, if you have the Lucena position, it is winning, unless the opponent is able to get a pawn to the 6th rank. Once you know this statement, it is easy to see why it is true. If the rooks are exchanged, White will have enough time to queen his own pawn. If the pawn needed another step, it would not make it. 52.a4! is the best move for this reason. If White is allowed to play a4-a5-a6, we have the draw Sam explained. Thus, Black has to try 52...♖a7, when White has the chance to bring the rook around: 53.♖b6! ♖xa4 54.♖b2† ♔d3 55.♔f4 White draws.

While formatting this chapter, I played a tournament myself and managed to win with Black against GM Postny in a similar rook ending. Knowing that it was winning helped in making an easy choice between a number of promising options.

52...e3 53.♖b2† ♔d1 54.♖b1† ♔c2 55.♖a1

As you will remember, this position would be a simple draw without the a-pawn. But White held on to material equilibrium and lost the game in the process.

55...♖f7 56.a4 e2 57.♔g2 ♖f5 58.♖a2† ♔d3 59.♖a1 ♔e3 60.♖a3† ♔e4 61.♖a1 ♖d5!

White resigned.

0–1

My recommendation for the player who wants to have a world-class knowledge of endgame theory is to start out with the two best manuals on endgame theory on the market, *Dvoretsky's Endgame Manual* and *100 Endgames You Must Know*, and create your own database with theoretical endings you want to remember. Make sure that it is practically useful. Only include things you think might come up in your games and not every ending you see. Dvoretsky's book has about 220 positions and ideas to file away and De la Villa, something like 100. There is some overlap. But also, there are things missing in both books.

An example is something that every Russian schoolboy knew when Yermolinsky grew up; but which they forgot to teach to Kramnik...

And there are positions that you might never find in an endgame theory manual, which you think should be in there. For example, the bishop endgame with three white pawns against two on the kingside, and a black a-pawn on the queenside, as in the Ding Liren – Aronian game (page 704).

To know that this is a draw might give you a surprising and effortless draw at some point. Choose for yourself. Then study the database at frequent intervals and test yourself using the ChessBase functions. You will know all of this stuff sooner than you think. Then you add more, until you decide that there are other areas of your game that need your urgent attention.

20. Surprising endgame theory

I want to make a final note about endgame theory. A lot of players I know have never thoroughly studied endgame theory and memorised the most important elements of it. This is mainly because after seeing the most important positions and understanding them, the work has only just begun. A lot of repetition is necessary over a spread of weeks and months, to make sure that you can remember all the important positions. Once they have been thoroughly memorised, they need to be revisited maybe 3-4 times a year for a few hours, to make sure you have still got it. Also, it makes sense to add positions and ideas to your personal endgame files that you find worthy of remembering. Good judgement is needed, as you want your files to have hundreds, but not thousands, of positions.

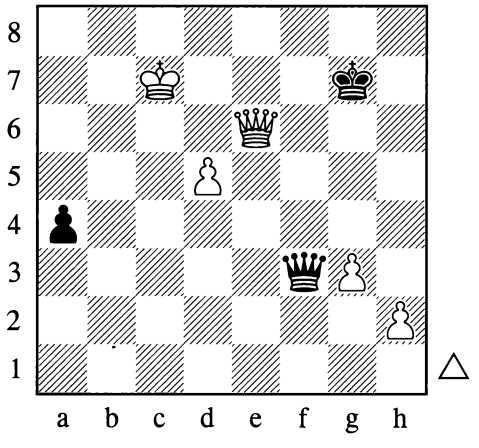
Some types of endgames need occasional practical training. Queen endings with a b- or g-pawn, for example. Or rook and bishop vs rook. There are some general principles and a few key positions to remember, but in order to be successful in these endings, some practice goes a long way. This is where good judgement comes in. Perfectionism can easily create an obsessive approach and take away time from the study of other parts of the game. It is all well and good that you can hold with a rook vs rook and bishop, but if your openings are so poor that your best hope is to be on the weaker side of this endgame, you may want to dedicate more time to your openings!

These are the professional concerns. To many non-professionals, there are shocking revelations waiting for you in endgame theory. Positions that seems trivially won, can be theoretically drawn. You will encounter some in this book for sure.

For example, this one:

Nikita Afanasiev – Denis Khismatullin

Moscow 2019



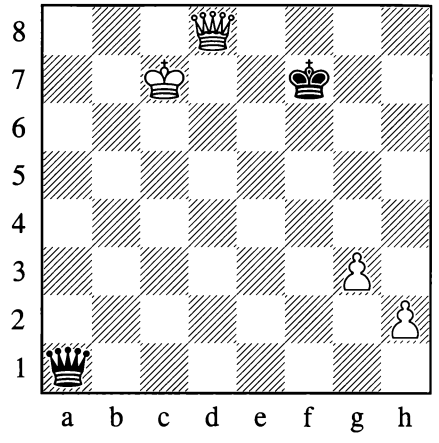
White is two pawns up and should win with accurate play. Which surprisingly is only 53.♕e5†! followed by advancing the d-pawn. The strong queen in the centre prevents a perpetual check and the d-pawn is close to the end of the board. Many moves will certainly be played before the handshake occurs.

Instead, White played a seemingly winning continuation:

53.♕d7†?

Picking up the a-pawn or forcing the exchange of queens. What's not to like?

53...♕f7 54.♕xf7† ♔xf7 55.d6 a3 56.d7 a2 57.d8=♕ a1=♕



And now for the surprise. This endgame is a draw and Black held without any difficulties.

58.♕d5† ♔g7 59.♕g5† ♔f7 60.h4 ♕a7† 61.♔c6 ♕a6† 62.♔d7 ♕b7† 63.♔d6 ♕b6† 64.♔e5 ♕c5† 65.♔e4 ♕c4† 66.♔f5 ♕e6† 67.♔f4 ♕c4† 68.♔f3 ♕f1† 69.♔g4 ♕e2† 70.♔f4 ♕c4† 71.♔e5 ♕c5† 72.♔e4 ♕c4† 73.♔e5 ♕c5†
½–½

I would presume that during the game, Afanasiev was kicking himself for allowing the perpetual in an easily winning game. Then afterwards, Khismatullin may have told him that the endgame is a well-known draw, stunning the poor white player. It is so surprising that in his book *My Most Memorable Games*, Boris Gelfand simply assumed that the endgame was winning in his annotations to his game against Julian Hodgson. Even one of the greatest players of the last 30 years had no suspicion that any difficulties the stronger side would face in this endgame were not to be relatively easily overcome.

Exercises to Chapter 3

★☆☆☆☆ Easy. Based on a simple idea

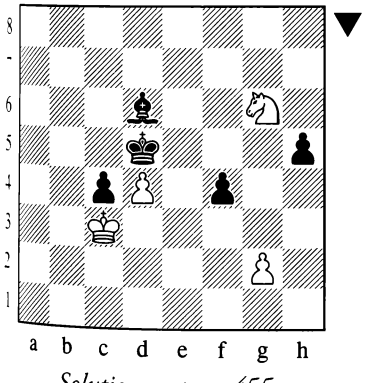
★★☆☆☆ Friendly. Can be solved by most

★★★☆☆ Mid-range. You need to think, but not too much

★★★★☆ Challenging. You will need to concentrate for these ones

★★★★★ Brain crusher. After solving, see a neurologist...

★★★☆☆



Solution on page 455

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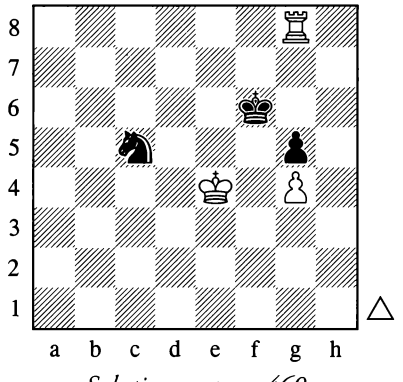

Solution on page 460

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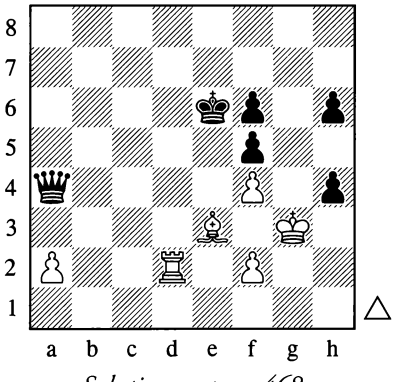

Solution on page 468

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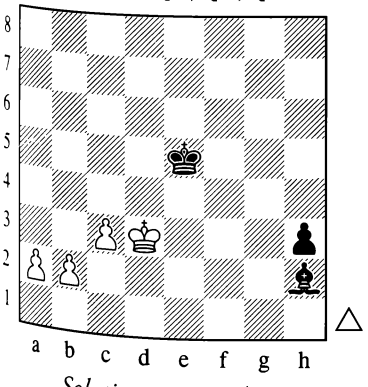

Solution on page 457

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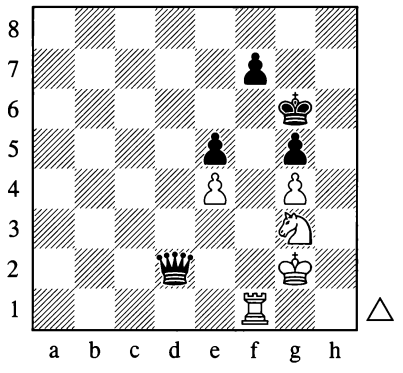

Solution on page 462

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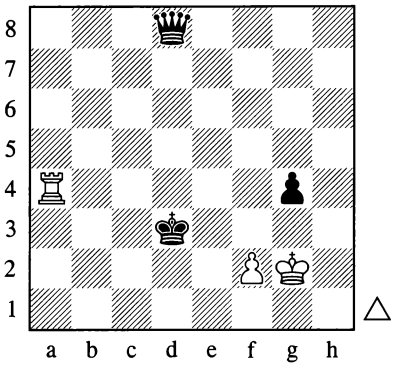
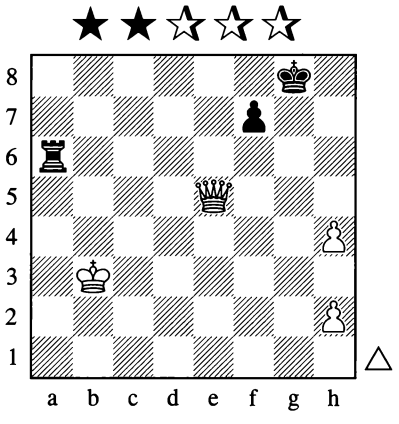
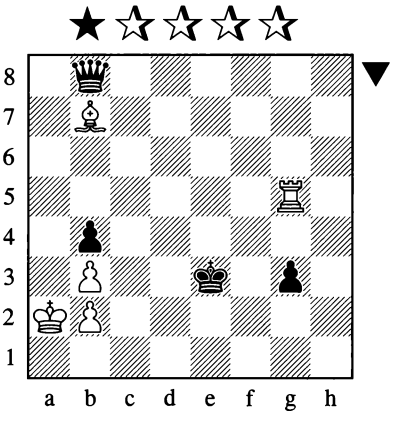


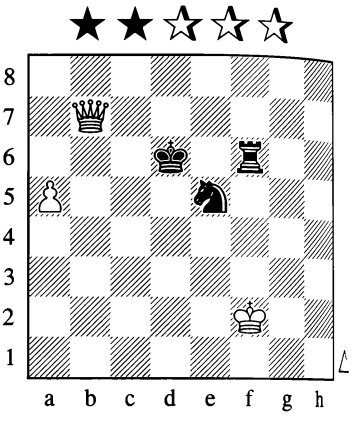
Solution on page 484



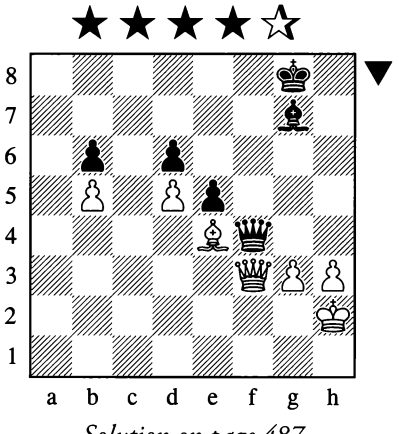
Solution on page 485



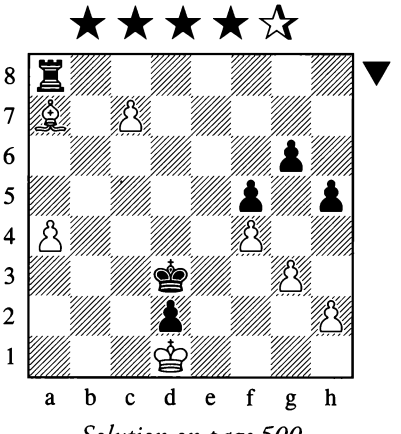
Solution on page 492



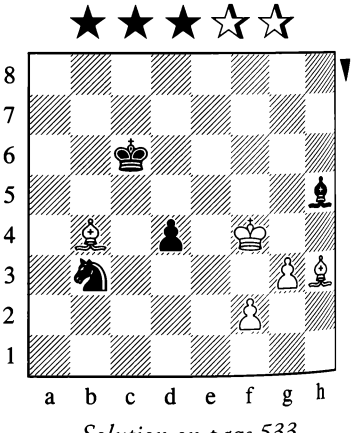
Solution on page 512



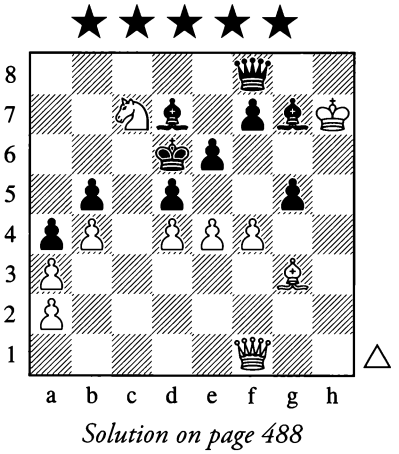
Solution on page 487



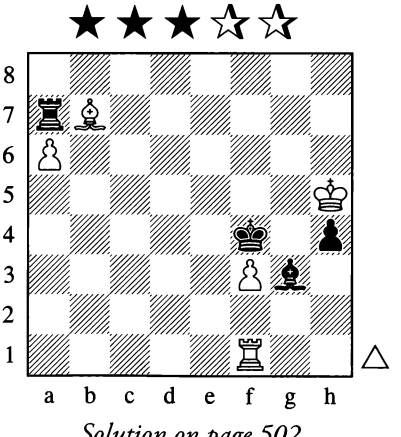
Solution on page 500



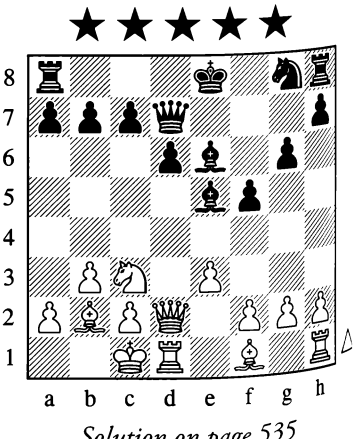
Solution on page 533



Solution on page 488



Solution on page 502



Solution on page 535

Chapter 3

Fortresses

Introduction

I fear that no readers of this book would have been spared the experience of seeing a winning position squandered by a moment of unawareness that allowed the opponent to set up a fortress. I hope that you have at least also received the pleasure of saving a dead lost position in the same manner. Most will hopefully be spared the experience of resigning in a drawn position because they did not realise it was a fortress. But even at the top level we have seen this happening.

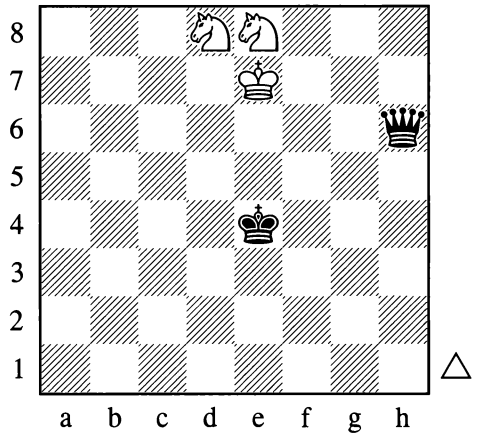
We can all benefit from learning more about fortresses. Whether this is how to use schematic thinking to defend them or zugzwang to break them, your endgame technique needs an upgrade and this chapter provides it.

1. Types of fortresses

I do not know of any defining work on fortresses, so I have made some of my own observations on different types of fortresses. This is certainly not an extensive list, but it is a starting point.

Relying on stalemate
There are fortresses that rely on stalemate as a last resort. These are quite popular in studies, but also have a competitive application. The three most common fortresses all rely on this resource: the rook's pawn and the bishop of the wrong colour, the queen against a bishop's pawn on the 7th rank, and the queen against a rook's pawn on the 7th. But there are also more elaborate fortresses relying on stalemate covered in this chapter.

The bunker
Then there are fortresses that hold by defending a small impenetrable piece of land, usually in the corner of the board. Often the king is hiding behind the last few defenders, although there are exceptions, such as this one:



1.♔d7

White holds easily. The key idea is that the king can never come in to help the queen create damage.

1...♔d5

Now 2.♘c7† and the king is repulsed. We could talk about a perimeter fortress, but let's not nerd out.

1...♕h7† 2.♔d6 also does not create any damage. A key point to this fortress is that the king always has two squares available. 2...♔f5 is the only challenging move. After 3.♘c7!, White holds. But not 3.♘c6? ♕g6† 4.♔d7 ♕e6† and a knight is lost.

The bunker is what most people think of when imagining a fortress, rather than a position where the king is all alone but cannot be mated or chased out of the way. In my opinion they are both fortresses, as the strategy is to wait and see what damage the opponent can do, rather than seeking active options of one's own.

Aggressive hedgehogs

At times I hear people saying that a fortress is not a fortress, because the defender is relying on some sort of counterplay. It could be in a situation with a pawn each, where the player with the advantage will take a long journey with the king, only to leave himself open to counterplay on the side of the board the king has left (see Caruana – MVL, page 786.) To me this is still a fortress. Only, it is reliant on counterplay under some circumstances. Pushed to the limit, most fortresses will require an active move under one circumstance or another, so I really do not see the need for a purity test.

Restriction fortresses

Quite a lot of fortresses are relying on the exclusion of one or more of the opponent's pieces. Usually, it is the king, which is easier to cut off than the other pieces. But fortresses where more pieces are cut off from the action are not entirely uncommon. One of these fortresses does not deserve a category of its own, but we can call it the shouldering fortress. One king is keeping the other king at bay, preventing it from assisting, which would otherwise create a lot of harm.

The blockade

Then there is the fortress of the entire position. This is quite a common concept in pawn endings and minor piece endings, but also something we see in complex positions, where the defending side is attempting a full board fortress. See Ju Wenjun – Muzychuk on page 505.

Most of the time, these themes are merged. A fortress relying on stalemate is quite often a bunker as well, for example. Throughout this chapter, and all over this book, you will see fortresses that are crossbreeds between these various ideas.

2. Fortress as a defensive strategy

There is no human end to the types of fortresses you can think up. Also, there are a number of ways you can talk about a fortress. Usually, we say that a fortress is not a fortress

if it can be broken. Although I have at times spoken like this, I do not consider it helpful. During the game we may believe that a fortress holds, or that it does not. But it is definitely not as important as if we believe that it will be difficult to break and if we believe that it may be our best chance of holding the game. In this chapter you will see plenty of fortresses that do not withstand an assault by computer analysis – even though some of them did so for quite some time! During the game we could not care less about this. Rather, we choose to defend in this way because we believe it is our best possibility at that moment. For this reason, I will be talking throughout this chapter about fortresses in the same way, whether they should hold against best play or not.

3. Ways to break fortresses

There are three types of fortresses, seen from this perspective. There are those that are made of hay and just blow over, wherever the wind comes from. Then there are the ones made of brick, which can withstand anything. Finally, we have the ones in the middle. They are robust, but have a weakness. These fortresses usually break only in one way. There may be different set-ups that breach them, but they are all based on the same nuance. Some fortresses break through brute force. They are the ones made of hay. Then there are those that break through a pawn sacrifice, which cannot be declined, but also cannot be accepted without creating a weakness in the fortress, through which evil shall enter. Some fortresses demand a larger return of material before they break. Often these are the restriction fortresses, where a soldier, or even the queen, is used as a shield for the king to breach the moat and enter the fortress. This hopefully sounds dramatic, but you will see below that it can be rather mundane. However, the most common way for a fortress to break is through zugzwang. This arises when the fortress is perfect, everything is defended. But there is no leeway. In these circumstances, all we have to do is to ask our opponent to make another move. A sort of "Can you do that again?" question. This leads us to one of the most important questions in the endgame: what would happen if my opponent were to play here?

Where do fortresses most commonly occur? The stereotypical fortress is one where one player has a significant material advantage. Think queen vs rook. Or bishop and pawn vs empty pockets. But we also see blockades in minor piece endings, where one player is suffering from a lot of positional ills, such as multiple weaknesses. Keeping the opponent from entering is a big part of the story. This may not be what we traditionally think of as a fortress, but the strategic mindset of it is, which is what matters to me. In particular, bishop endings are prolific with fortresses – positions where one side is trying to stand his ground and not lose more territory and keep all the weaknesses protected. We have already seen quite a few of them in this book. On the other hand, I cannot off the top of my head think of any fortresses in major piece endings that are not composed, with the exception of queen vs pawns, of which we have already seen some.

With the theoretical stuff out of the way, I want to underline one thing. What I am hoping to communicate to you in this chapter and to a great extent also the next, is fortress thinking. I want you to understand the lack of urgency that most commonly is involved in breaching fully formed fortresses; while at the same time understanding that when a fortress is under construction, we need to strike before it is fully up and running. I want you to understand the zugzwang/triangulation mechanisms and become better at recognising the potential

for fortresses. Hopefully, the examples in this chapter and the next will help you see these themes in action and help you develop the intuition for fortresses that you need.

Without further ado, let's move on to the practical examples.

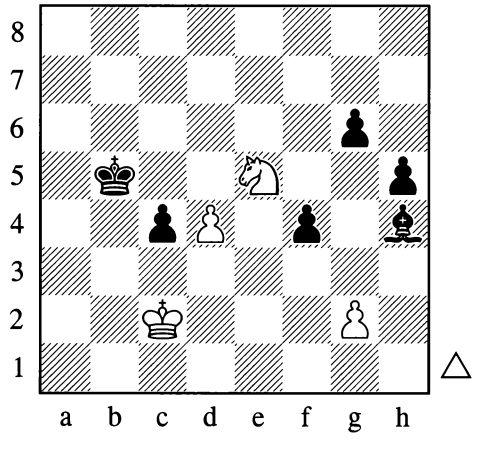
4. Wrong bishop for the corner square

We will start with a deathbed resurrection and one of the most basic fortresses there is.

Let's set the scene. We are in Tbilisi, Georgia, a gorgeous town, for the World Cup, played as a series of two-game knockouts. The players in this first-round encounter are super-GM Harikrishna from India, near his peak, and GM Gonzalez Vidal from Cuba. Gonzalez had won the first game, overcoming the solid Petroff Defence. But Harikrishna struck back in the second game with a nice positional win in the Ruy Lopez. The first game in the tie-break was drawn and now Gonzalez has the chance to qualify for the second round if he manages to convert his extra pawn.

Pentala Harikrishna – Yuri Gonzalez Vidal

Tbilisi (1.4) 2017

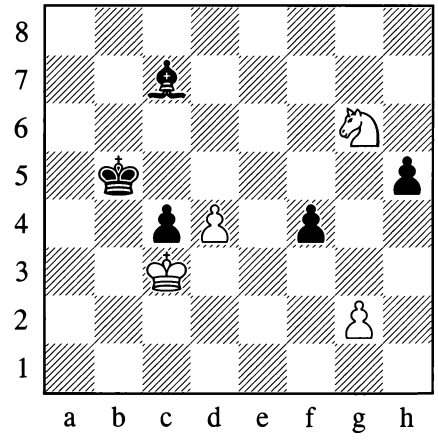


60.♘xg6 ♗g3

Gonzalez misses the first chance to win the game.

60...f3! with the basic idea that 61.gxf3 (61.♘xh4 f2 and the pawn promotes) 61...♗g5 62.f4 h4! is over. The black bishop can easily stop the white pawns, so White cannot give up the knight. And after 63.fxg5 h3 it's glory days.

61.♘e5 ♗f2 62.♔c3 ♗e1† 63.♔c2 ♗a5 64.♘g6 ♗c7 65.♔c3



65...♗d6

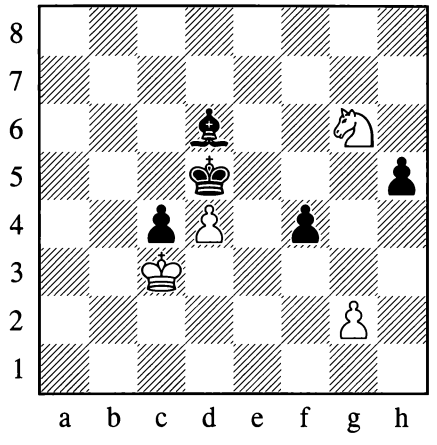
Missing the second chance to win.

After 65...f3! 66.gxf3 ♗g3 White again will have a choice only of which way to go down.

66.♘h4 ♗b4† 67.♔c2 ♔c6 68.♘g6 ♗d6 69.♔d2 ♔d5

Ironically the king is worse placed on d5. White can push it away and win time.

70.♔c3



I have given this position as an exercise to many people. The vast majority made the same mistake as Gonzalez. Where they spent about 10 minutes on average, and failed, Gonzalez was living on 10-second increments at this point.

70...f3?

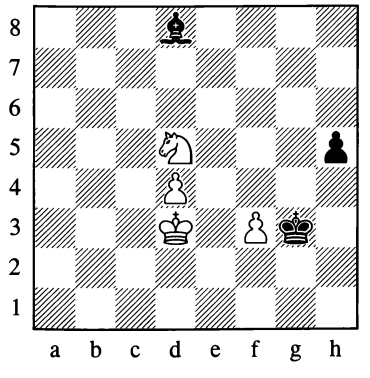
This is very tempting, but it fails.

The correct path to win the game was:
70...♗c7

With the threat of giving a check on a5. White is also in a sort of zugzwang, as he cannot keep the knight on g6, counterattacking the f4-pawn.

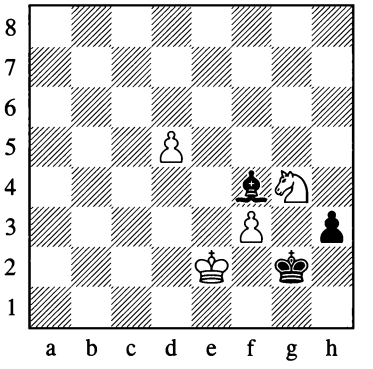
71.♘e7† ♔e6 72.♘g6 ♔f5 73.♘e7† ♔g4

Black should win quickly. For example:
74.♘d5 ♗d8 75.♔xc4 ♔g3 76.♔d3 f3 77.gxf3



After 77...♔xf3! Black wins. White cannot get close to the h-pawn. The white pieces are entirely cut off.

But it is worth noticing 77...h4? 78.♔e2 h3 79.♘e3 and the knight is just in time. For example: 79...♗g5 80.♘g4 ♔g2 81.d5 ♗f4



82.♔e1! White is just waiting, as after 82...♔xf3 83.♔f1 ♔xg4 84.♔g1, we have a standard fortress.

Black also has a weird win in 70...♔e4 71.♔xc4 ♗c7! 72.♔c5 ♗d8, when ...h5-h4-h3 will decide the game.

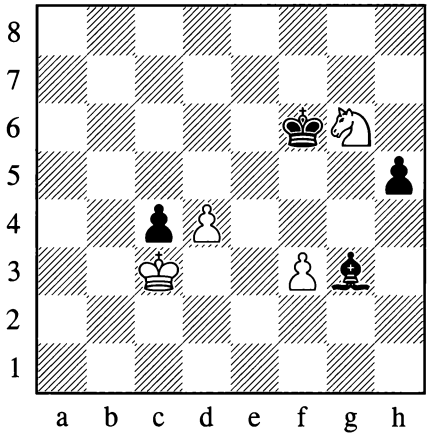
71.gxf3 ♗g3

Black looks entirely winning, but in fact this is not so.

72.♘e7†! ♔e6 73.♘g6!

White is threatening to take the c-pawn. Black can return to d5, but this would only repeat the position.

73...♔f6

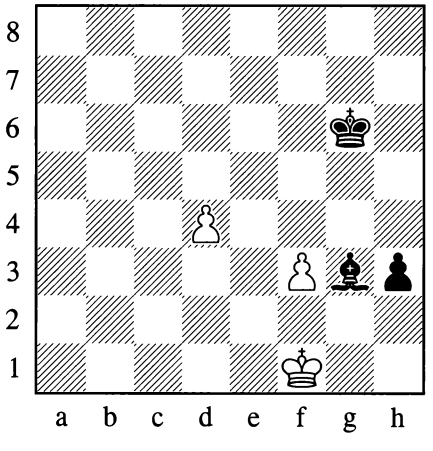


It looks as if the knight is kicked away and the h-pawn will have a free run. But this is not the case.

74.♔xc4!

White is just in time to make it into the quadrant, stopping the h-pawn.

74...♔xg6 75.♔d3 h4 76.♔e2 h3 77.♔f1



White is in time to stop the h-pawn. Black tries to prevent the white king from making it to the corner, but he cannot get his king there in time. It is worth noting that if White did not have the d-pawn, Black would be in time to win the game.

77...♗h2 78.f4 ♔f5 79.d5 ♔f6 80.♔f2 ♔f5 81.♔f1 ♔f6 82.♔f2 ♔g6 83.♔f1 ♔f5 84.♔f2 ♔xf4 85.d6 ♔g4 86.d7 ♗c7 87.♔g1 ♔f5 88.♔h1 ♔e6

Draw agreed.

½–½

Harikrishna went on to win the match and qualify for the next round.

There are other things that are worth knowing about fortresses. First of all, there are fortresses where the defender hides in one corner of the board, like a boxer on the ropes, with his arms covering his head, trying to make the fatal blow impossible. Then there are others where we manage to prevent the opponent from bringing in the necessary material to cause damage. In studies this can be somewhat overblown, while in tournament chess, this extra material is often the king. Stalemate is an integral part of many fortresses. We have already seen one in this chapter and shall see more cases of this below. Most unstable fortresses have only one weak link. There is only one way for the fortress to be taken down.

Weak fortresses can fail to a direct brute-force attack, but these instances are rare, as we would not feel compelled to use the word fortress in such a situation.

Sometimes a significant material advantage can be given up as a way to break through a fortress.

Creating passed pawns is another method of breaking fortresses. If we are unable to use our material advantage in one corner of the board, it can be valuable to create a passed pawn somewhere, which will allow our superior strength to shine.

If we are able to create a threat of mate, this can often be of great help. The most important

theme in fortresses is however zugzwang. A fortress is by definition a small compact structure that can withstand any attack you throw at it. But unlike in medieval warfare, chess has this archaic rule of forced play. When your pieces are just, only just, able to keep everything together, it can be a real annoyance that you have to move them.

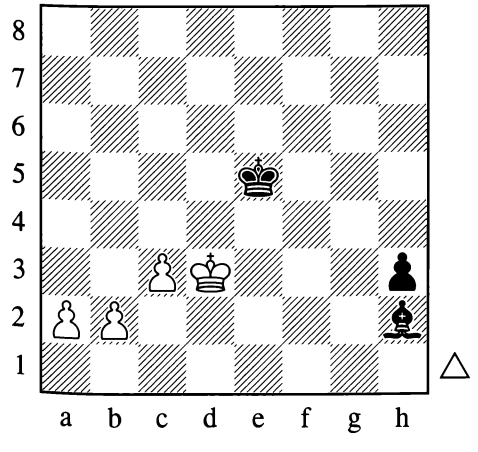
Zugzwang can come up in many ways. Sometimes with the threat of mate. At other times with triangulation, where the same piece is on the board, but the obligation to move has been passed over.

Praggnanandhaa Rameshbabu – Maksim Chigaev

Wijk aan Zee 2019

Praggnanandhaa is one of the nicest kids I have ever had a chance to work with. His attitude to the game is one of joy and playfulness, mixed with a determination rarely seen in adults. There is no doubt in my mind that he will be a permanent fixture in top events in the near future and will delight chess fans with his fighting spirit.

One of the things that impressed me with Pragg is his ability to learn quickly. But like all others, he has to make the mistakes before he can learn from them.



In this example he got his king stuck on the wrong side of the e1-h4 diagonal and was unable to make use of the corner fortress.

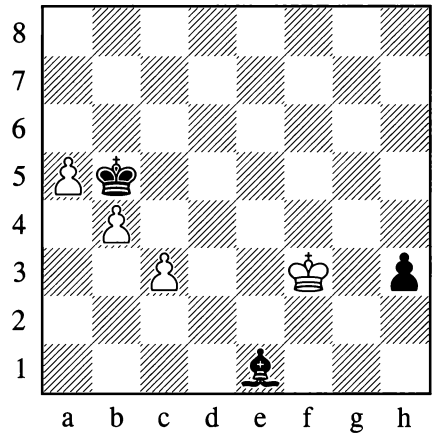
45.♔e3?

45.♔e2! was the right way to play. Only after 45...♗g1 would White play 46.♔f3!, when he will be able to access either g3 or f2, leading to a draw. 45...♗g3 46.♔f1 ♗h2 leads to a trivial draw, as seen in the previous example. After 47.♔f2 ♔d5 48.♔f3 ♗f4 49.♔f2 the repetition is instant.

45...♗g3 46.♔f3 ♗e1!

The white king is cut off from the corner and all Black has to do is to take his king to the queenside and make sure that White runs out of moves. If White was able to make a king move that did not take him further away from the corner, he would make a draw. Alas, he is not, so zugzwang will get him. Fortresses 101.

47.a4 ♔d5 48.a5 ♔c5 49.b3 ♔b5 50.b4



50...♗h4!

Black is able to make waiting moves though. Only one type, but it is all that is required.

51.c4† ♔a6

White is about to lose all the pawns and then the game. Instead, he resigned.

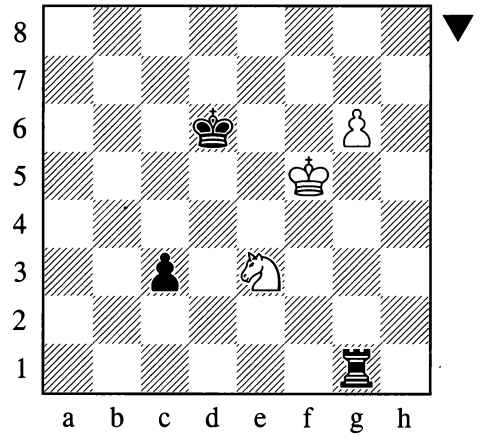
0–1

5. A shouldering fortress

In the next example, we shall see another surprise fortress appearing in a brief moment of low concentration.

Alexander Morozevich – Robin van Kampen

Warsaw 2013



The young Dutch talent has managed to win the exchange and now has to be careful not to allow White any Houdini-like escapes.

54...♖g3! 55.♘c2

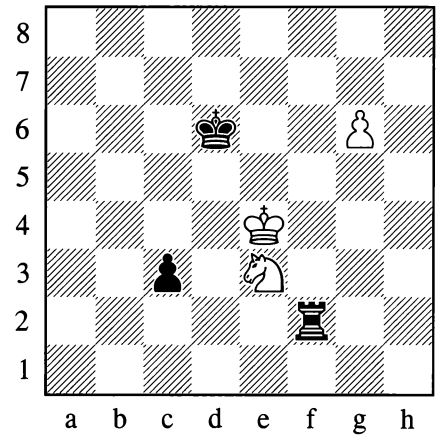
After 55.♔e4 ♔c5 56.♔d3 Black wins with both 56...♔b4 and 56...c2 57.♔d2 c1=♕†.

55...♖g2 56.♘e3 ♖f2†

56...c2? 57.♘xc2! ♖xc2 58.g7 ♖g2 59.♔f6 would allow a familiar draw.

57.♔e4

57.♔g5 ♔e6 and White can only resign.

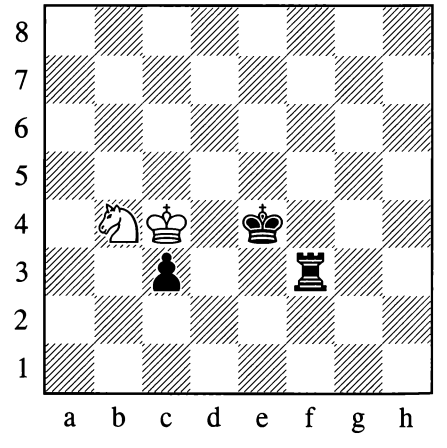


57...♔e6?

A very natural-looking move. Black will pick up the white pawn without losing his own.

57...c2! was however much better, winning the knight and the game instantly.

58.g7 ♔f7 59.♔d3 ♖f3 60.♔d4 ♔xg7 61.♘c2 ♔f6 62.♔c4 ♔e5 63.♘b4 ♔e4



64.♘c2

White has a fortress. Black is not able to get the king around to dislodge the knight before it is able to eliminate the pawn.

64.♔b3? ♔d4 65.♘a2 ♖f2 and Black wins.

64...♖h3 65.♘b4 ♖g3 66.♘c2 ♖f3 67.♘b4 ♔f5 68.♘c2 ♔g4 69.♘d4 ♖g3 70.♔b3 ♖e3 71.♘b5 ♔f4 72.♘xc3 ♔e5 73.♔c4 ♖h3 74.♘b5 ♖h8 75.♘c3 ♖c8† 76.♔d3 ♖d8† 77.♔c4 ♖d4† 78.♔c5 ♖d3 79.♔c4 ♖xc3† 80.♔xc3

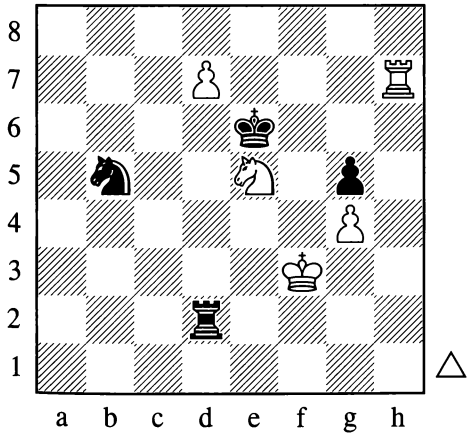
½–½

6. A fortress that relies on counterplay

Some fortresses are based on some form of counterplay. In the following example, White wins if he is able to keep Black passive. But if Black is able to attack the g4-pawn with the knight, he will be OK.

Andrey Esipenko – Daniil Dubov

Sochi 2021



59.♖h8?

An understandable mistake. The endgame looks winning.

But patience is the most treasured property of good endgame play. At this point 59.♔e3! would make it impossible for Black to avoid losing the rook for the pawn. 59...♖d5 (59...♖d1?! 60.♘d3 is immediately over) 60.♘d3! followed by ♘c5† and ♖h8 is too strong.

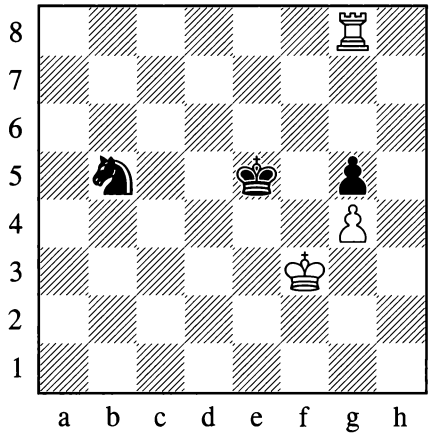
59...♔xe5!

59...♔e7? loses instantly to 60.d8=♕† ♖xd8 61.♘c6†.

60.♖e8† ♔f6 61.d8=♕† ♖xd8 62.♖xd8 ♔e5!

The king has to help the knight to come back.

63.♖g8



63...♘d4†?

But not just yet!

63...♔f6! would assist the knight to get on the right circuit to end on h6. White has no way to prevent ...♘d6-f7 with a draw like in the game.

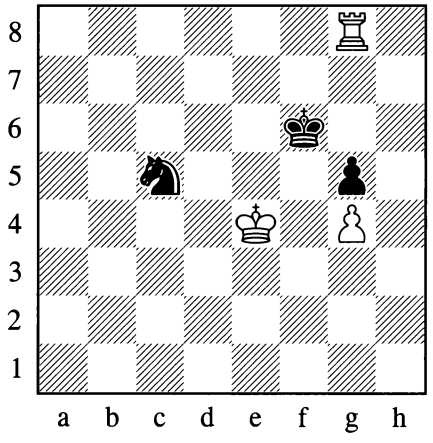
64.♔e3 ♘c2† 65.♔d2 ♘d4 66.♔d3 ♘e6

The knight has no business on e6.

67.♔e3 ♔f6 68.♔e4?!

The way to keep control would be to play: 68.♖a8! ♔e5 69.♖a5† ♔f6 70.♔e4 ♘g7 71.♖a6† ♔f7 72.♔e5 and the black knight is as bad as it can be.

68...♘c5†



69.♔d5?

Allowing the knight back into circulation.

White is still winning by slow meticulous play: 69.♔d4 ♘e6† (Instead 69...♘d7 fails to 70.♖a8! ♔g6 71.♖a6† ♔f7 72.♖a7 ♔e6 73.♖a5 ♔f6 74.♔e4 ♘b8 75.♖a7 ♔e6 76.♖b7 and Black cannot avoid a lost pawn ending.) 70.♔d5 ♘f4† 71.♔e4 ♘e6 72.♖c8 ♘f4 73.♖c6† ♔g7 74.♔f5 ♘h3 75.♖c3 And White wins the g-pawn for starters.

69...♘d7 70.♔d6

70.♖e8 ♔f7 and ...♘f6†.

70...♘e5 71.♖f8† ♘f7†!

The last trick was 71...♔g7? 72.♖f5!, when White wins.

72.♔d5 ♔g7 73.♖a8 ♘h6 74.♖a4 ♔f6 75.♖b4 ♔f7 76.♔e5 ♔g6 77.♔e6 ♔g7 78.♖c4 ♔g6 79.♖e4 ♔g7 80.♔d5 ♔f6 81.♔d4 ♘f7 82.♔e3 ♘h6 83.♖a4 ♔g6 84.♔f3 ♔f6 85.♖a6† ♔g7 86.♔e4 ♘xg4 87.♔f5 ♘h6† 88.♔xg5 ♘f7† 89.♔f5 ♘h6† 90.♖xh6 ♔xh6

½–½

7. Fortress as a surprise defence

The starting point when it comes to fortresses is to be aware of them. This sounds pretty basic and to some extent it is. But it is a sort of lateral thinking. Most chess players are focused on positional aspects, calculation and material. The thinking behind a fortress is to some extent anti-positional and anti-material, while it exists in a dimension where time does not move forward one move at the time, even though it does.

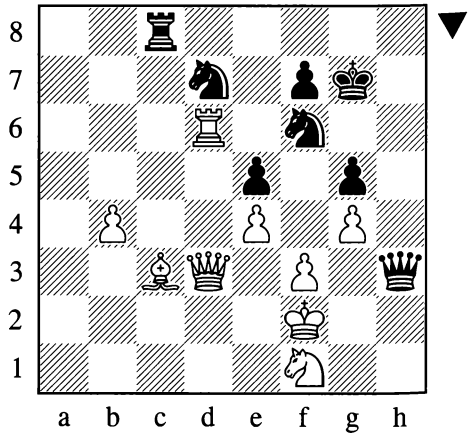
In the next example, this is where we start out. Unawareness, an illusion that chess could be easy for just one move, changes an easy win into a complex fortress.

Here we come across the first topic relevant to fortresses – schematic thinking. We discussed this idea on page 231. It means we approach the position by looking for possible resulting positions, to work out where the pieces are best placed, where they are placed badly.

In this example we shall also see the first instance of zugzwang breaking down a fortress. But what I want you to pay most attention to in this example is how difficult fortresses are. The players in this game are decent players who will at times take points from grandmasters. But as this game transitions into a fight shaped by fortress strategy, both players find it difficult to know what to look for and how to look.

Conor O'Donnell – Ludvig Carlsson

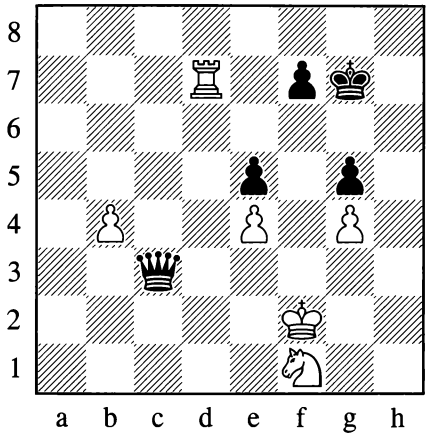
Oslo 2020



We enter the game just as things take a turn for the better for Black.

51...♖xc3! 52.♕xc3 ♘xe4† 53.fxe4 ♕xc3 54.♖xd7

This is the real moment of interest.



After winning the queen, it is easy to turn off the concentration, switch on the autopilot and presume that the full point will land safely in our hands. Even for experienced grandmasters this is a common psychological failure, akin to not tightening your safety belt...

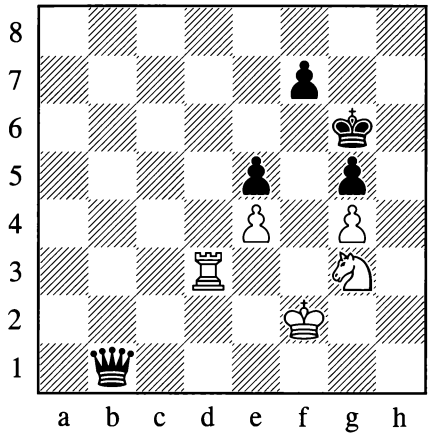
54...♕xb4?

A truly horrible and lazy move. It is important that we keep the concentration and make sure the opponent on the ropes will go down and stay down. But instead, Black took on b4, the first move that pops into anyone's mind.

54...♕c8! was the easiest way to win. Taking the g4-pawn will allow Black to put his own pawn on g4 and control the h3- and f3-squares, with decisive effect. As we shall see below, the h3-square is the most important.

55.♘g3 ♔g6 56.♖d3 ♕b1

Although White has a defensible position, he has still not managed to set up a strong fortress, where all he has to do is nothing, which is the ideal.



57.♖f3?

A very natural move. But the real problem for White in this game is that he did not work out where his pieces would be best placed. That the rook will be great oscillating between f5 and f1 is not hard to see. Or that the knight is well-placed on g3. But where does the king belong? This is the question. Schematic thinking would be a good tool to work this out. Hopefully it will quickly lead to identifying the h3-square, where the king can defend the g4-pawn and stay safe from checks.

For this reason, White could have held the draw with 57.♖e3, so the king could go to f3, or even better, with 57.♖d6† ♔g7 58.♔g2! and the draw is imminent.

57...♕c2†!

Forcing the king to the first rank, after which the position is very dangerous for White.

58.♔g1

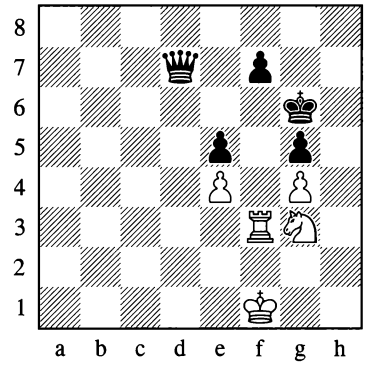
58.♔f1

This is refuted with:

58...♕h2!

White is in zugzwang and Black is threatening ...♕h3†.

59.♘f5 ♕d2 60.♘g3 ♕d7!



Forcing White to put the pieces on poor squares. There are different ways for White to try to defend, but none of them work.

61.♘f5

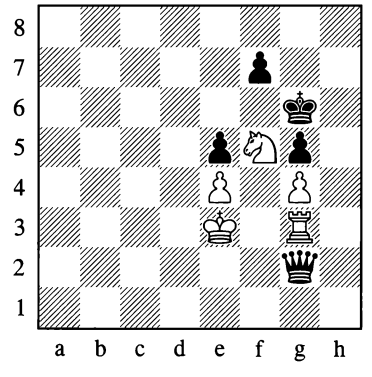
61.♖f5 ♕d1† and Black picks up the g-pawn.

61...♕d1† 62.♔f2 ♕c2†!

Forcing the king to a bad square.

63.♔e3 ♕g2 64.♖g3

64.♘g3 ♕h3 and the g-pawn is gone.

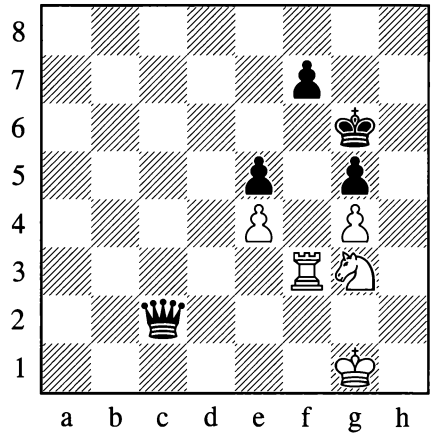


64...♕f1!

White is slowly being pushed to worse and worse squares by zugzwang. He could give a number of knight checks, but they would only delay the collapse.

65.♔d2 ♕f2† 66.♔d3 ♕e1 67.♖g2 ♕f1† 68.♖e2 ♕g1 69.♘e3 ♕a1 70.♘f5 ♕a3† 71.♔d2 ♕f3

Black wins.

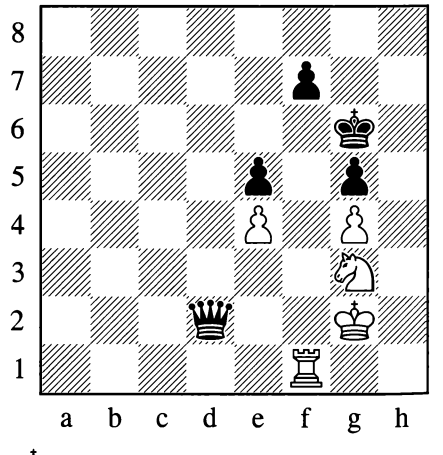


58...♕d1†?

58...♕d2! would put White in horrible zugzwang and prepare ...♕d7 as before. 59.♔f1 ♕d7! (59...♕h2 transposes to the line above, but makes little sense.) 60.♘f5 ♕d1† Black is winning again.

It is worth noticing that if Black is slow, White will play ♘h5-f6, ♖f2, ♔g2 and try to get the knight back to g3, after which it is a fortress again.

59.♔g2 ♕e1 60.♖f1 ♕d2†



61.♔g1??

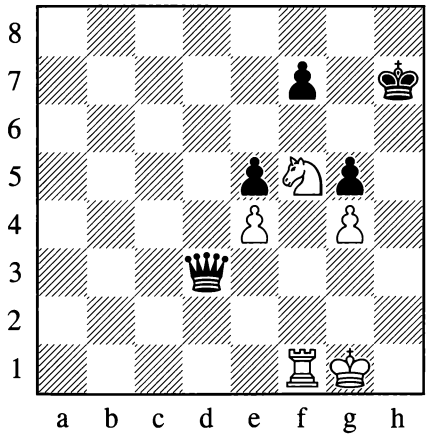
Going the wrong way.

White could have played 61.♔h3! which is a draw, as we have previously discussed.

61...♕d7! 62.♘f5 ♕d3

Again, White loses a pawn. A blunder accelerated his downfall, but it is just a matter of time.

63.♘e7† ♔g7 64.♘f5† ♔h7



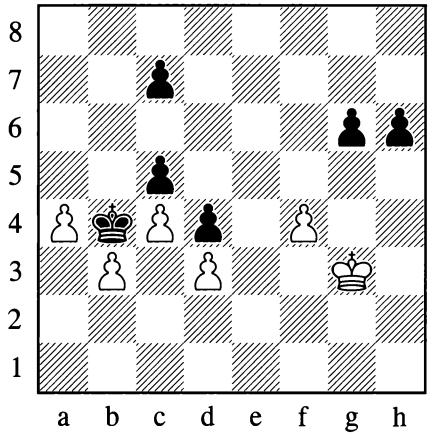
65.♖f2 ♕d1† 66.♔h2 ♕xg4 67.♘d6 ♔g6 68.♖f5 ♕e2†
0–1

Aleksander Mista – Cemil Can Ali Marandi

Hersonissos 2017

In this game White was a queen ahead twice. The first time it was transient. But the second time he was actually a queen ahead at the time where he lost concentration and his opponent escaped with a miracle draw.

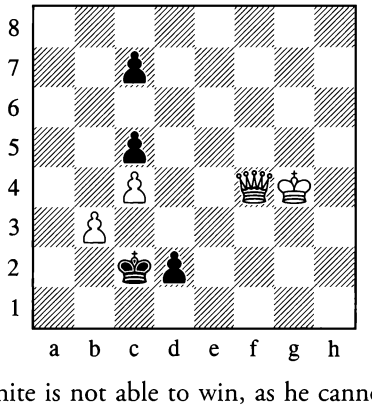
1.e4 e5 2.♘f3 ♘c6 3.♗b5 f5 4.♘c3 fxe4 5.♘xe4 ♘f6 6.♘xf6† ♕xf6 7.♕e2 ♗e7 8.♗xc6 bxc6 9.♘xe5 ♕e6 10.♘f3 ♕xe2† 11.♔xe2 c5 12.♖e1 ♗b7 13.♔f1 ♗xf3 14.gxf3 ♖f8 15.♖e3 d6 16.b3 ♔d7 17.♗b2 ♗g5 18.♖d3 ♗f6 19.♗xf6 ♖xf6 20.♖e1 ♖af8 21.♖e4 ♖xf3 22.♖xf3 ♖xf3 23.♖h4 h6 24.♖a4 ♖f5 25.♖xa7 ♖h5 26.♖a4 ♖xh2 27.♖g4 ♖h1† 28.♖g1 ♖xg1† 29.♔xg1 d5 30.c3 ♔c6 31.a4 ♔b6 32.d3 ♔a5 33.c4 d4 34.f4 g6 35.♔f2 ♔b4 36.♔g3



36...♔c3?

Sooner or later Black has to allow White to queen the a-pawn. Later makes more sense, as in the game White got to keep the f-pawn.

36...h5 37.♔h4 ♔a5 38.♔g5 ♔b4 39.f5 gxf5 40.♔xh5 ♔c3 Eventually, Black will have to go for this. 41.a5 f4 42.♔g4 ♔xd3 43.a6 ♔c2 44.a7 d3 45.a8=♕ d2 46.♕e4† ♔c1 47.♕xf4 ♔c2

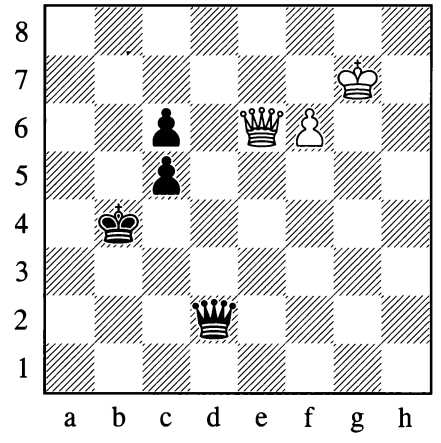


White is not able to win, as he cannot give the important checks on b4, c4 or d4, which are a part of the winning technique against a centre pawn.

37.a5 ♔xd3 38.a6 ♔c2 39.a7 d3 40.a8=♕ d2

White is a queen up, but at this point this does not stretch to an advantage.

41.♕e4† ♔c1 42.♕xg6 d1=♕ 43.♕e4 ♕xb3† 44.♔h4 ♕c3 45.f5 ♕f6† 46.♔g4 c6 47.♔f3 ♔b2 48.♕e6 ♕h4 49.♕e5† ♕d4 50.♕f4 ♕f6 51.♔e2 ♔b3 52.♕e3† ♔b4 53.♕e6 ♕g5 54.♕g6 ♕e7† 55.♔f3 ♕e1 56.♕xh6 ♕d1† 57.♔g3 ♔xc4 58.♕e6† ♔b4 59.f6 ♕g1† 60.♔h4 ♕f2† 61.♔g5 ♕d2† 62.♔g6 ♕d3† 63.♔h6 ♕d2† 64.♔g7



64...♕d4?

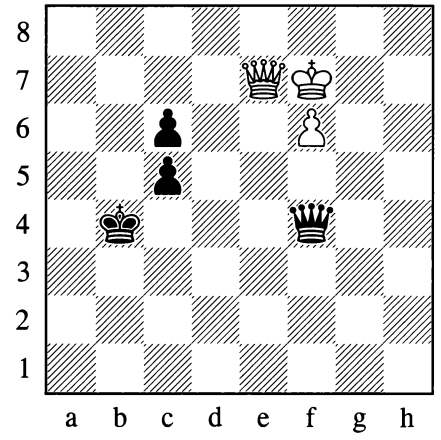
Black has not played the best moves all the way. At some point it would have made sense to push the c-pawn. But only this is a real mistake.

64...♕g5† 65.♔f8 c4 66.f7 c3 would have been in time still.

65.♔f7?

65.♔f8! was the winning move.

65...♕f4 66.♕e7

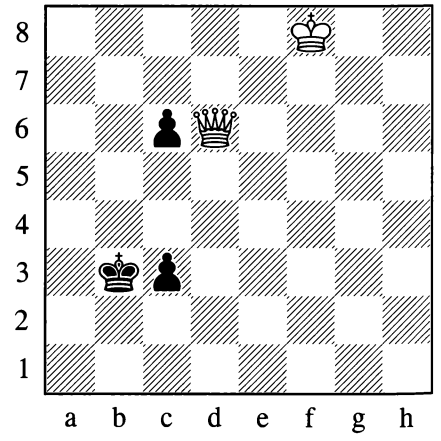


66...♕g5?

Another mistake. This time White exploits it.

66...♔b5! and then the c-pawn is ready to go again.

67.♔e8 ♕g8† 68.♔d7 ♕g4† 69.♔c7 ♕f4† 70.♔b7 ♕g5 71.♕e1† ♔b3 72.f7 ♕f4 73.♕e7 ♕b4† 74.♔c8 ♕g4† 75.♔c7 ♕f4† 76.♔d7 ♕d4† 77.♕d6 ♕g7 78.♔e8 c4 79.f8=♕ ♕xf8† 80.♔xf8 c3



White has achieved a winning position. All he has to do is tie up the bag. But at this point he falls prey to a standard fortress with a twist.

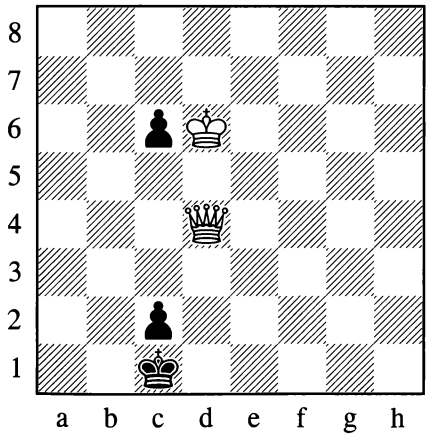
81.♕c5??

81.♕f6 c2 82.♕a1 would have been a trivial way to win the game.

81...c2

Suddenly it is a draw. The white king is too far away to be able to participate in any threats soon enough to prevent Black making the draw by pushing the rear c-pawn.

82.♔e7 ♔b2 83.♕b4† ♔a2 84.♕c3 ♔b1 85.♕b3† ♔c1 86.♔d6 ♔d2 87.♕b4† ♔d1 88.♕d4† ♔c1



89.♕c3!

The best attempt.

89.♔c5 is the move White really wants to play. The king comes quickly to the queenside and seals things up. But unfortunately, it blocks the c6-pawn and after 89...♔b1 90.♕b4† ♔a1 91.♕c3† ♔b1 92.♕b3† ♔a1, Black survives with the standard stalemate fortress.

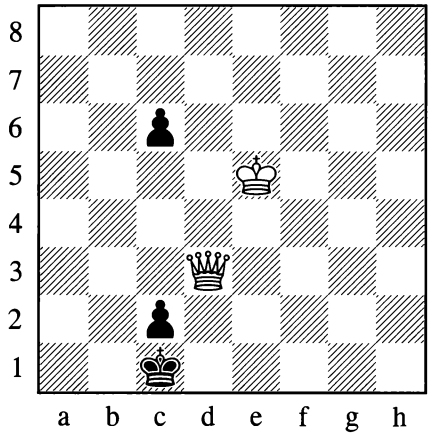
89...♔d1!

Black does not fall for the trick.

After 89...♔b1 90.♕b3† ♔c1 91.♔c5 ♔d2 92.♕b2 ♔d1 93.♕d4† ♔e1 94.♕c3† ♔d1 95.♕d3† ♔c1 96.♔b4 White wins.

90.♕d3† ♔c1 91.♔e5

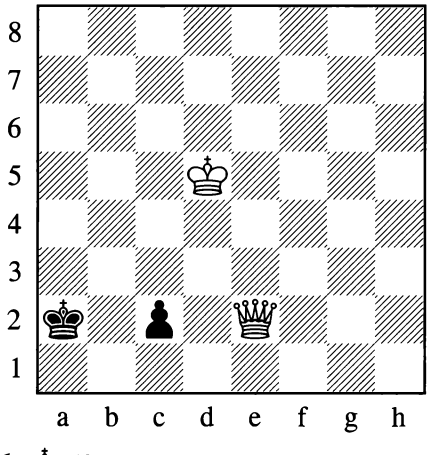
Again, the c5-square is not available.



91...c5!

91...♔b2? 92.♕d4† ♔b1 93.♕b4† would win for White. What we see in what follows is that the c5-pawn takes away these two important squares from the white queen and thus saves the day.

92.♔d5 ♔b2 93.♕b5† ♔c3 94.♕xc5† ♔b2 95.♕b5† ♔a2 96.♕e2



96...♔a1!

96...♔b1? 97.♔c4 c1=♕† 98.♔b3 is not a trick Black should fall for.

97.♕d2 ♔b1 98.♕d3 ♔b2 99.♕d2 ♔b1 100.♕b4† ♔a2 101.♕e1 ♔b2 102.♕e2 ♔a1 103.♕xc2
½–½

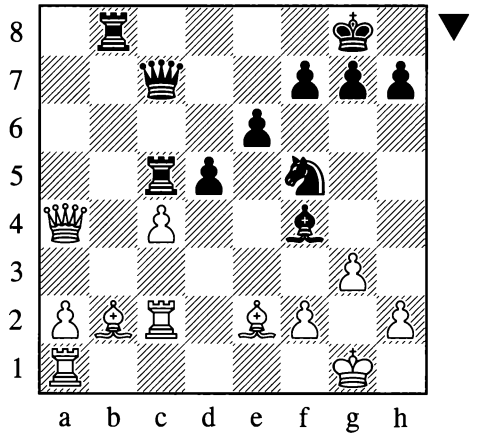
8. The role of pawns in breaking fortresses

Pawns are an important part of breaking fortresses. They can help create weaknesses and they can assist in fighting for important squares. In some of the situations we shall see in this book, they can also help by becoming passed pawns.

The following game is played by two players of strong club level, on their path to higher strengths. It shows the fortress experience at the lower levels of international tournaments. We enter the game at the moment where White lost the queen.

Eric Yuhan Li – Pran Senthilkumar

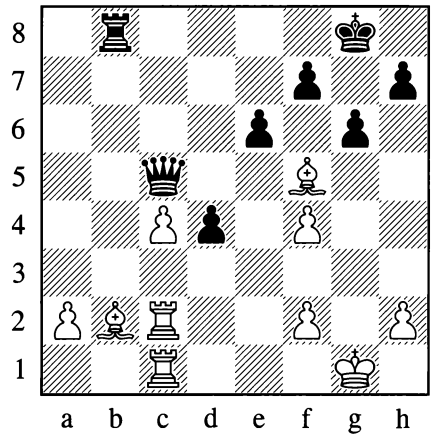
United States 2017



28...♖a5 29.♕xa5 ♕xa5 30.gxf4 d4 31.♖ac1 ♕c5 32.♗d3 g6?

32...♘h4! with an attack on the king was a stronger strategy.

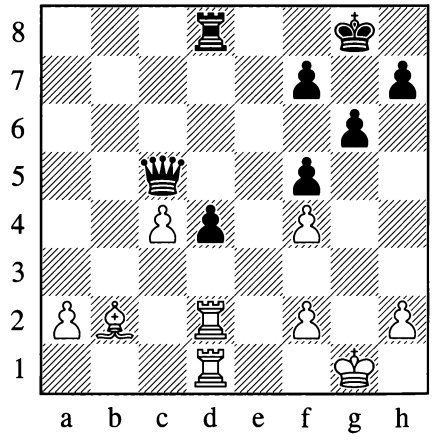
33.♗xf5



33...exf5?

Black would win after 33...♕xf5!. For example, 34.♗xd4 ♕xf4 35.♗e3 ♕g4† 36.♔f1 f5!, and 34.c5 ♕g4† 35.♔h1 ♕xf4 36.c6 ♖xb2 37.c7 ♖xc2 38.♖xc2 ♕e4†, both winning.

34.♖d1 ♖d8 35.♖cd2



35...♕b4?

Stronger was 35...♕xc4 36.♖xd4 ♖xd4 37.♖xd4 ♕c7, when my analysis suggests that Black should win with accurate play in the long run. But he has certainly made it much harder than it had to be.

In what follows, we have some complex variations that will show how to defend a fortress and how to break it.

36.♗xd4?!

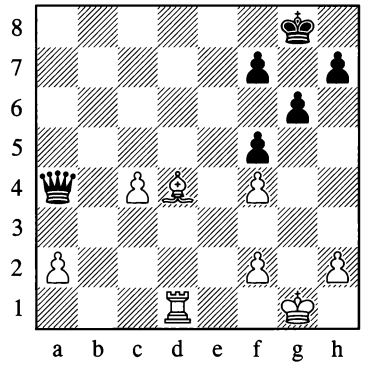
White has a difficult path to a holding fortress.

36.♖xd4! ♖xd4

36...♖f8 37.♗c1!?

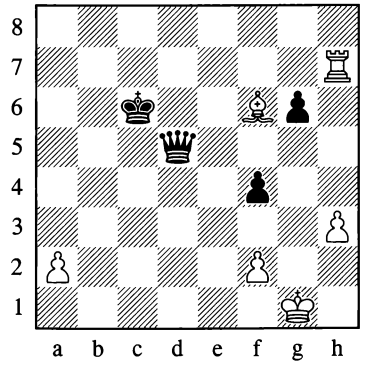
37.♗xd4 ♕a4!

37...♕xc4? 38.♗f6 and White would be winning.



38.♖c1

38.♖d2?! ♕xc4 would get White into trouble. 38...♔f8 39.♗e5 ♔e7 40.c5 ♔d7 41.c6† ♔c8 42.h3 f6 43.♗xf6 ♕xf4 44.♖e1 ♕d2 45.♖e8† ♔c7 46.♖e7† ♔xc6 47.♖xh7 ♕d1† 48.♔g2 ♕d5† 49.♔g1 f4



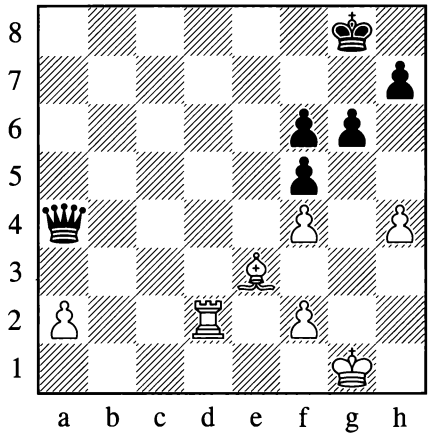
50.♖h4! ♕d1†

White also holds after 50...♕f5 51.♗g7 g5 52.♖g4 ♕g6 53.♗e5.

51.♔g2 g5 52.♖g4 f3† 53.♔g3 ♕d6† 54.♔xf3 ♕xf6† 55.♔g3

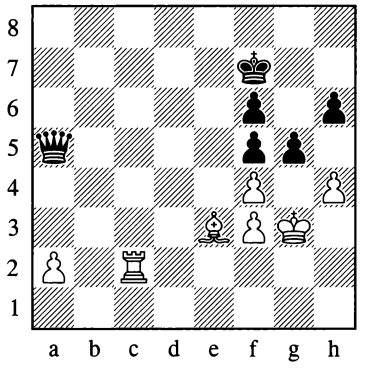
White draws.

36...♕xc4 37.♗e3 ♖xd2 38.♖xd2 f6 39.h4!? ♕a4



40.♔g2

I have analysed 40.f3!? a lot. In the end, I settled on this as the main line: 40...h6 41.♔g2 ♔f7 42.♔g3 ♕a5 43.♖c2 g5



44.fxg5 fxg5 45.hxg5 ♕e1† 46.♗f2 ♕e5† 47.♔g2 hxg5 I think this is the easiest way for Black to win. How the actual game would have gone, is impossible to predict.

In order to break the white fortress, Black has to eliminate the things that keep it together, as well as create threats to the white king. The way to do this is to get a pawn to f4, where it can dislodge the white bishop from the e3-square.

If White is able to keep control of the f4-square, Black will put the pawn on g4 and break in on the light squares, win the h4-pawn and take it from there.

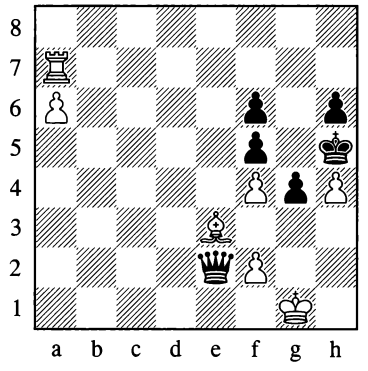
40...♔f7

Improving the king and playing slowly is not wrong, but direct play was already available, and preferable, as White also has ways to improve his set-up.

40...g5! 41.♖d4

41.hxg5 fxg5 42.fxg5? f4 43.♗d4 ♕a5 44.♖d1 ♕xg5† wins comfortably for Black.

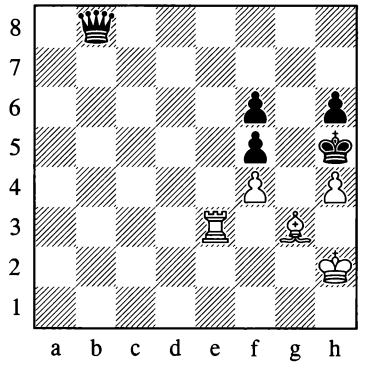
41...♕c6† 42.♔h2 g4 43.a4 ♕f3 44.♖d8† ♔g7 45.♖d7† ♔g6 46.♔g1 ♕e2 47.a5 h6 48.♖a7 ♔h5 49.a6



49...g3 50.♔g2 gxf2 51.♗xf2 ♔g6 52.♖b7 ♕xa6 53.♖a7 ♕e2 54.♖a3 ♔h5 55.♖e3 ♕c4 56.♔g3

56.♗g3 ♔g4 is a shortcut.

56...♕g8† 57.♔h2 ♕b8 58.♗g3



58...♕b5 59.♔g2 ♔g4

Black is invading with the king on the light squares. White loses.

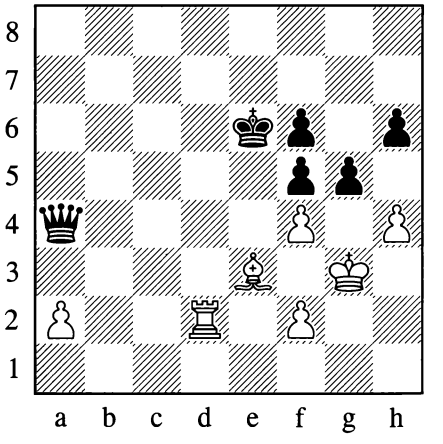
41.♔h2 h6 42.♔g3 ♔e6

42...g5! was still winning.

43.♔h2

43.f3! was stronger, but Black should still win.

43...g5! 44.♔g3



We have arrived at one of the crucial moments of the game.

44...gxh4†??

Remember, the fight for the light squares is what will determine this game. With this move, Black gives up his main weapon in that fight – a potential pawn on g4.

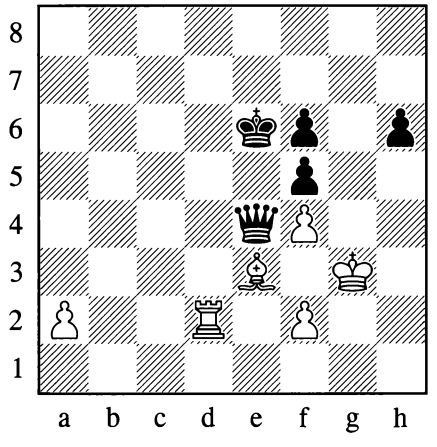
Following this logic, we discover 44...♕e4 45.♖d1 g4 46.♔h2 ♕f3 47.♖e1 ♔f7, and Black would win.

45.♔xh4?

45.♔h2!! ♔f7 46.♖d6 ♕xa2 47.♖d1 ♔g6 48.♖g1† ♔h5 49.♖g2 and White would have held. The h-pawns are not exactly in the way, but they cannot achieve anything.

On the other hand, White would lose after: 45.♔h3? ♕e4 46.♔h2 h3 47.♔xh3 ♕h1† 48.♔g3 ♕g1† 49.♔h3 h5 and Black has won the battle for the vital h1-square.

45...♕e4 46.♔g3



46...h5??

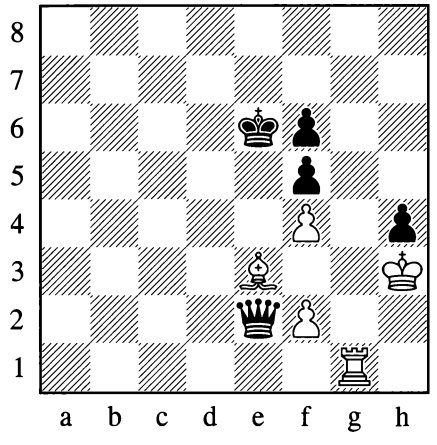
Candidates! Always look out for your options.

46...♕h1!, followed by an advance of the h-pawn, would be catastrophic for White.

47.♖d1 h4† 48.♔h2!

It is quite possible Black was thinking that White had to take. What else would he play? This sort of thinking is quite common. But as 48.♔xh4 ♕g2 is winning immediately for Black, White is forced to look elsewhere.

48...♕c2 49.♖g1 ♕xa2 50.♔h3 ♕e2



51.♔xh4?

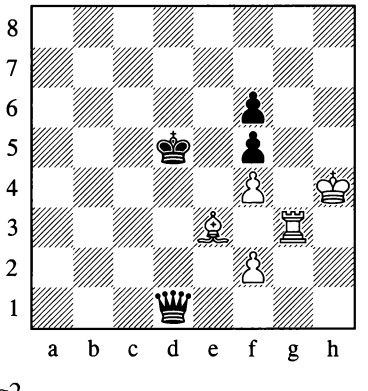
What is this? There is no reason to take this pawn.

51.♔h2! would have kept the fortress going.

51...♕f3 52.♖g3 ♕h1† 53.♖h3 ♕d1 54.♔g3!?

Eric explained that he saw the dangers to this move and decided to take a big risk. He did not believe that he would hold the draw if he resisted with normal play.

54.♖g3 ♔d5



55.♖g2

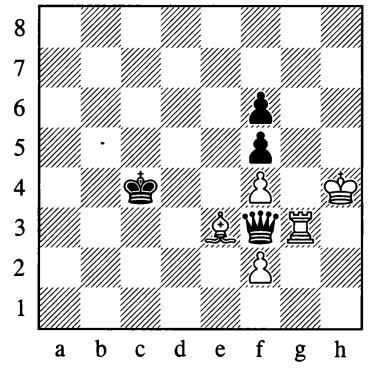
55.f3 ♕h1† 56.♖h3 ♕e1† would pick up the bishop.

55...♕f3!

It is important for Black to play with the standard technical approach of limiting White's freedom and possibilities, while at the same time improving his position. Which in this position means bringing in the king.

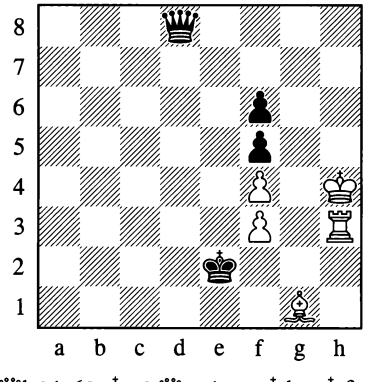
55...♔e4? is rushed. 56.♔g3 would get the king out of the danger zone.

56.♖g3 ♕h1† 57.♖h3 ♕d1 58.♖g3 ♔c4 59.♖g2 ♕f3 60.♖g3

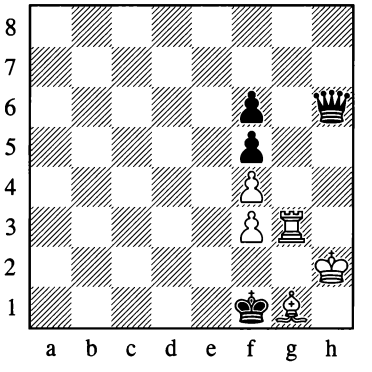


60...♕b7! 61.♖h3 ♕g7 62.f3 ♔d3 63.♗b6 ♕b7 64.♗g1 ♔e2 65.♗d4 ♕h7† 66.♔g3 ♕g8† 67.♔h4 ♕d8 68.♗g1

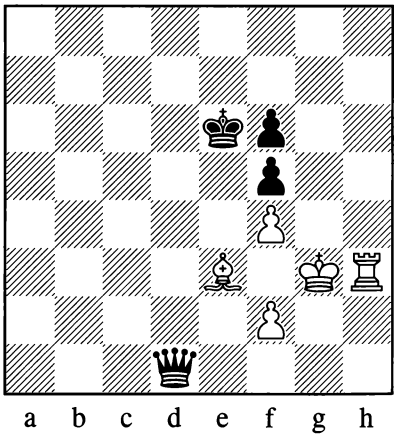
68.♗c5 is met with 68...♕c7.



68...♕h8† 69.♔g3 ♕g8† 70.♔h2 ♔f1 71.♖g3 ♕h7† 72.♖h3 ♕g6 73.♖g3 ♕h6†



74.♖h3 ♕xf4† 75.♖g3 ♕h6† 76.♖h3 ♕d2† 77.♔g3 ♕g2† 78.♔h4 ♕g5#



54...♔f7??

White successfully gambled that his opponent would not see 54...♕g1† 55.♔f3 ♕g4#!

55.f3

Finally, the fortress is established and Black gave up on winning the game.

55...♕e2

½–½

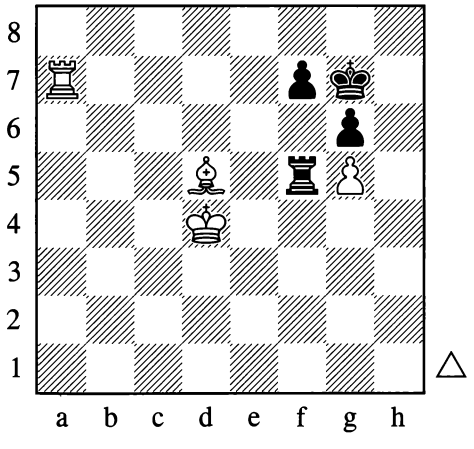
9. Six fortress exercises

The following six exercises are maybe not too difficult. This is after all not an exercise book. To some they may even be entirely simplistic. But if this is not you, taking a few minutes to try to work out the logic in all of them is definitely worth your time.

In the first one, it is White to play and win.

Basic fortress breach

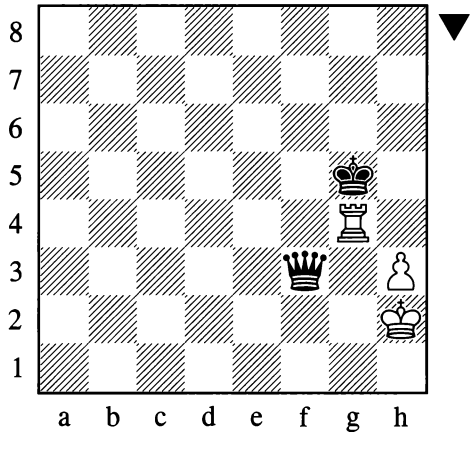
2020



Very easy, but good to know.

Basic fortress

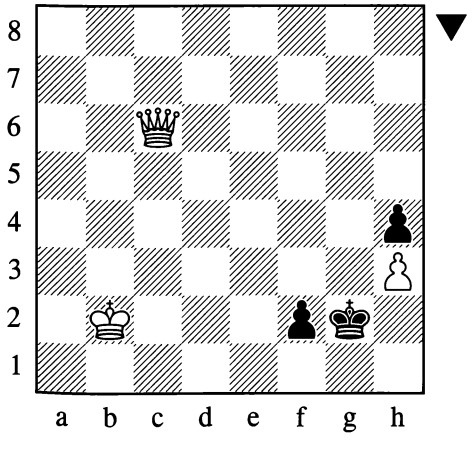
2020



Where should Black go with the king?

Basic fortress

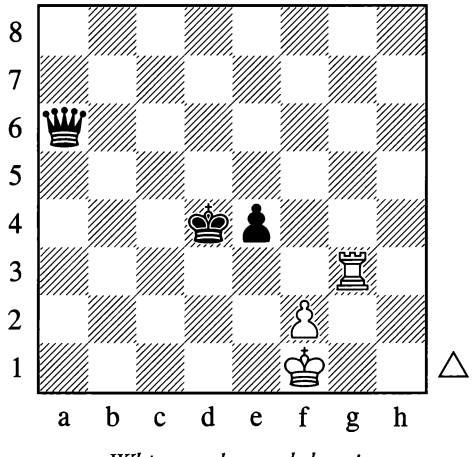
2020



It is easy to choose a move. But is the position a loss or a draw?

Basic fortress

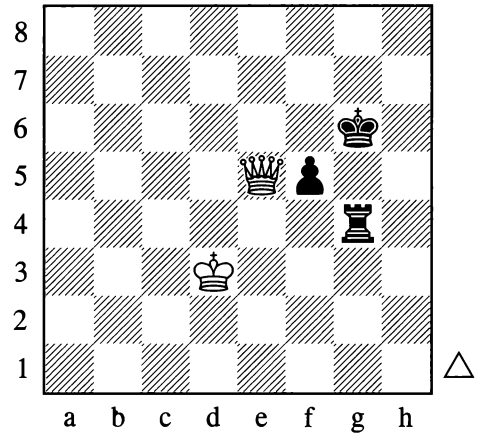
2020



White to play and draw!

Basic fortress

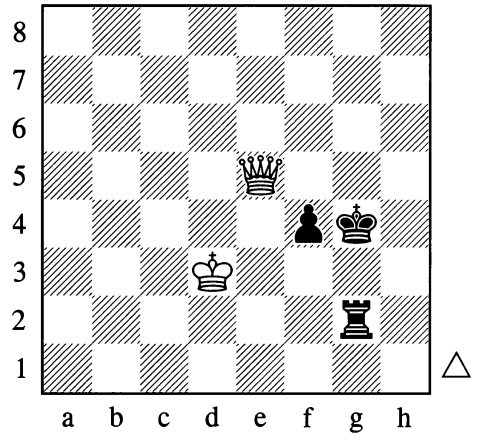
2020



White wins. But can you beat a computer from this position?

Basic fortress

2020

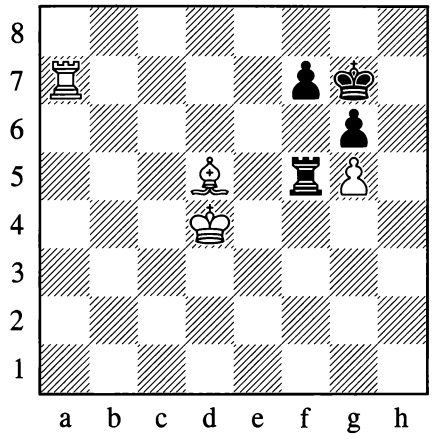


This situation is more favourable for Black, as there is less space for the white king in front of the pawn and less time to win the pawn. But is it enough for Black to hold a draw if White is to play?

10. Solutions

Basic fortress breach

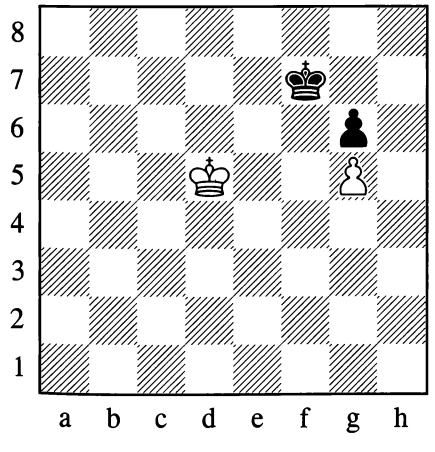
2020



1.♖xf7†

It is hard to see what else White would play.

1...♖xf7 2.♗xf7 ♔xf7 3.♔d5!



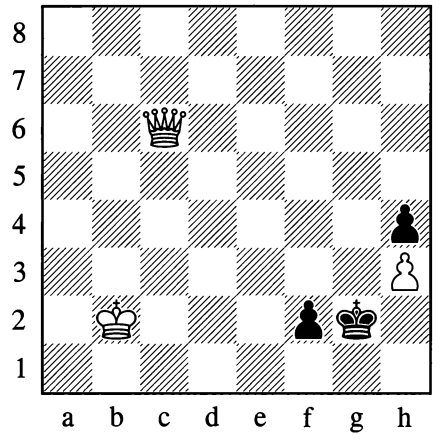
A standard opposition. This is one of the most often recurring brute-force penetrations of fortresses I have seen.

3...♔e7 4.♔e5 ♔f7 5.♔d6

White wins.

Basic fortress

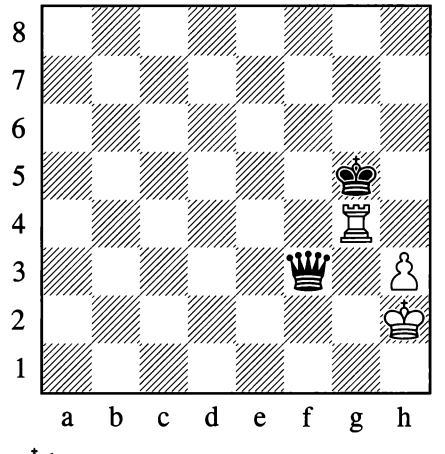
2020



It is indeed a fortress. After **1...♔g1 2.♕g6† ♔h2 3.♕f5 ♔g2 4.♕g4† ♔h2 5.♕f3 ♔g1** we can see that White desperately needs access to the g3-square, but does not have it.

Basic fortress

2020



1...♔h5!

The right decision. Black can also go to h6. As long as the king is on the h-line, it will eventually make it to h4 after White is put into zugzwang.

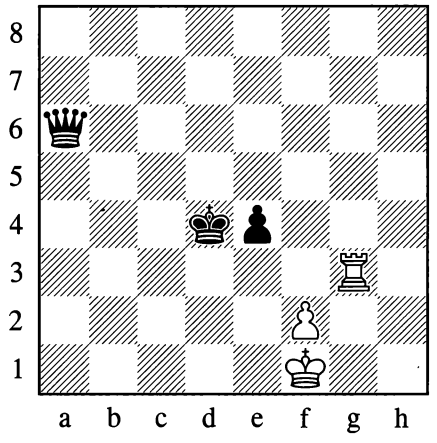
If the king goes to the f-line, White indeed has an impenetrable fortress.

2.♖g2 ♕f4† 3.♔h1 ♕e3 4.♔h2 ♕e5†

The key point. Black wins after ...♔h4 next.

Basic fortress

2020



The drawing move can seem a bit counter-intuitive. The king needs to be in the open. As Black cannot create a mating attack with the queen alone, there is no danger.

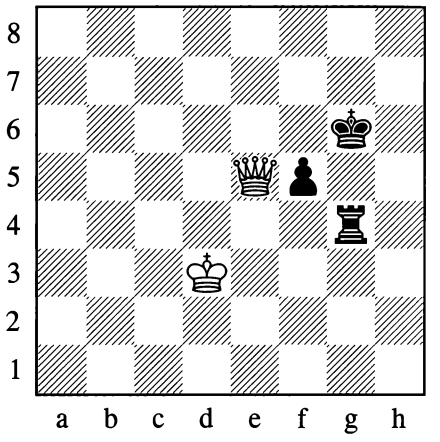
1.♔e1!

The king needs to be within shooting distance of the black pawn, once it becomes a d-pawn.

1.♔g1? ♕d3! would allow Black to manoeuvre the king close to the f-pawn and decide the game. If the white king had been on e1, White would have been able to take the queen. Now 2.♖xd3† exd3 3.♔f1 ♔c3 wins for Black. It does not matter if White chooses not to take the queen. Black comes in with the king anyway.

Basic fortress

2020



White needs to first put Black in an uncomfortable position, then improve the king. The second part is really difficult.

1.♕e6† ♔g5 2.♕f7

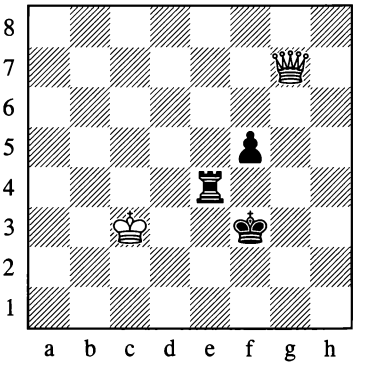
A sort of zugzwang. Black has to make a small concession.

2...♖g3†

Another variation goes like this:

2...♖e4 3.♕g7† ♔f4 4.♔c3 ♔f3

4...♖a4?! leaves the rook exposed. 5.♕h6† ♔g4 6.♕g6† ♔f4 7.♕d6†! is very unpleasant for Black. White wants to check on d1, so Black has to play 7...♔g5 8.♕d8†! ♔h6 9.♕f6†, when White wins.



5.♕h7

A handy bit of prophylaxis.

After 5.♕g5 ♖e3† 6.♔d4, Black will play 6...f4, which is a worse version than the main line for White. The black rook is better placed and the white king worse placed.

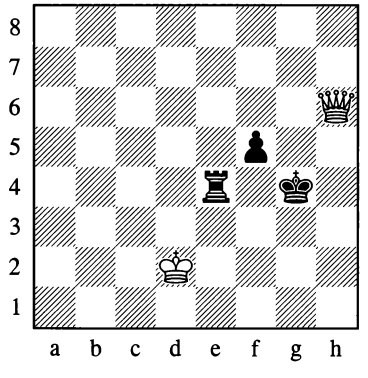
5...♔g4

5...f4? 6.♕b7! ♔e3 7.♕d5 and Black will quickly lose the rook. 7...♖e8 8.♕c5†!

6.♕h6!

The type of annoying moves that are not too easy to find.

6...♖e2 7.♔d3 ♖e4 8.♔d2!



The rook is quickly running out of good squares.

8...♖a4

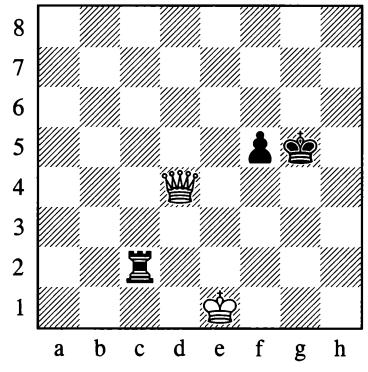
8...♖e7? 9.♕g6† ♔f4 10.♕d6† ♖e5 11.♔d3 and wins.

9.♕g7† ♔f4 10.♔e1 ♖c4 11.♕f6 ♔g4 12.♔f2 ♖f4† 13.♔g2 ♖c4

This shows how difficult the position is for Black.

After 13...♖e4 14.♕g6† ♔f4 White has the effective 15.♕g3#.

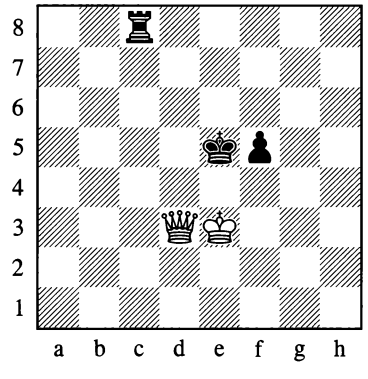
14.♕e5 ♖c2† 15.♔f1 ♔g5 16.♔e1 ♔g4 17.♕d4† ♔g5



18.♕d8†!

When the rook is far from the king, it often is in danger.

18...♔f4 19.♕d3 ♖c8 20.♔f2 ♔e5 21.♔e3

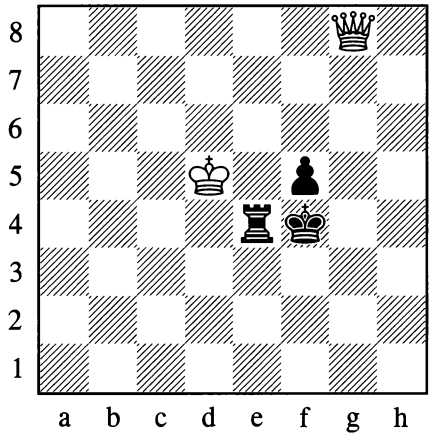


White is winning. The f-pawn is doomed. For example:

21...♖f8 22.♕b5† ♔e6 23.♔f4 ♖f7 24.♕e5† ♔d7 25.♕d5† ♔e7 26.♔e5 ♔f8 27.♕d8† ♔g7 28.♔e6 ♖f8 29.♕g5† ♔h7 30.♔e7

White wins.

3.♔d4 ♖g4† 4.♔d5 ♖e4 5.♕g8† ♔f4



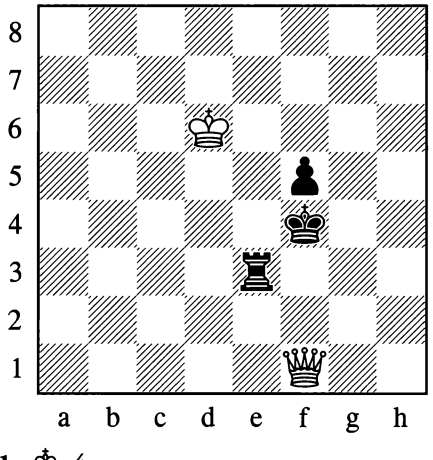
6.♕g6

The black king is cornered.

6...♖e5† 7.♔d6 ♖e4 8.♕h5

The queen slowly manoeuvres around.

8...♖e3 9.♕h4† ♔f3 10.♕h3† ♔f4 11.♕f1†



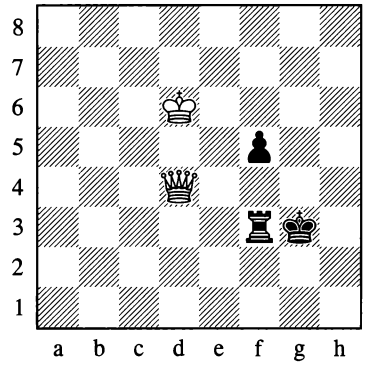
11...♔g4

This is more natural, and thus the main line.

11...♖f3

This is the toughest defence according to the tablebases.

12.♕g1 ♖e3 13.♕f2† ♖f3 14.♕d4† ♔g3



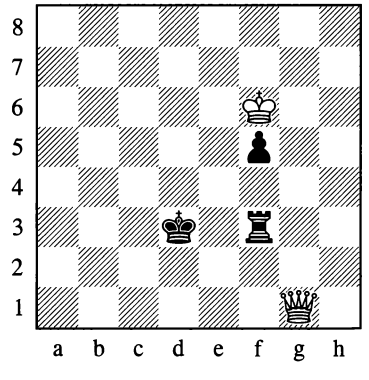
15.♕g1†!

The only winning move.

15.♕g7† ♔h2! 16.♕h6† ♔g2 17.♕g5† ♔h2 and next Black achieves ...f4, with a drawn position.

15...♔f4 16.♔e6 ♔e4 17.♔f6 ♔d3

17...f4 18.♕e1† ♖e3 19.♕b4† ♔f3 20.♔f5 and the f-pawn falls.



18.♕e1!

It is hopefully becoming obvious that Black will not be able to hold on to the pawn for long.

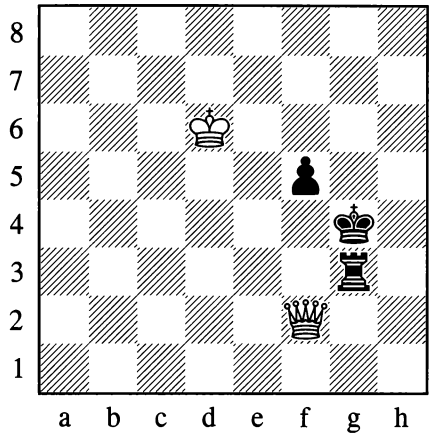
18...♖f4 19.♕d1† ♔e3 20.♔e5 ♖f3 21.♕e1† ♔d3 22.♔d5

White wins, on account of 22...♖f4 23.♕g3†, picking up the rook.

12.♕g2† ♖g3

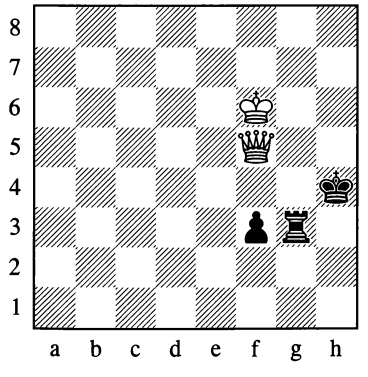
12...♔f4 13.♕f2† ♔e4 14.♔e6 f4 15.♕c2† ♔d4† 16.♔f5 f3 17.♕a4† ♔d3 18.♔f4 and the pawn is doomed.

13.♕f2



13...♖f3

White also wins after: 13...f4 14.♔e5 ♖e3† 15.♔f6 ♖a3 16.♕g2† ♖g3 17.♕e2† (17.♕d5 is the shortest path, but also a bit mysterious) 17...f3 18.♕e6† ♔f4 19.♕e5† ♔g4 20.♕f5† ♔h4

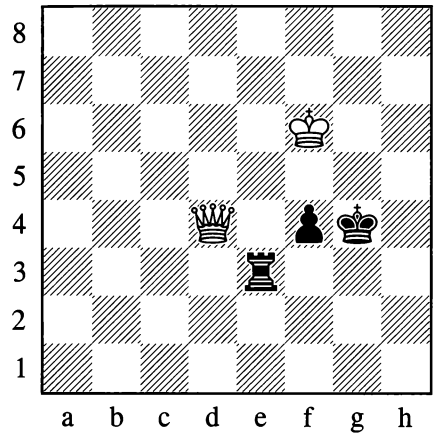


21.♔f7! A typical idea, which we have seen a few times by now. Black is in zugzwang.

14.♕g1†!

14.♕e2? ♔g3! 15.♔e5 f4 and Black is in time to hold the game. 16.♕e1† ♖f2 17.♔e4 ♔g2

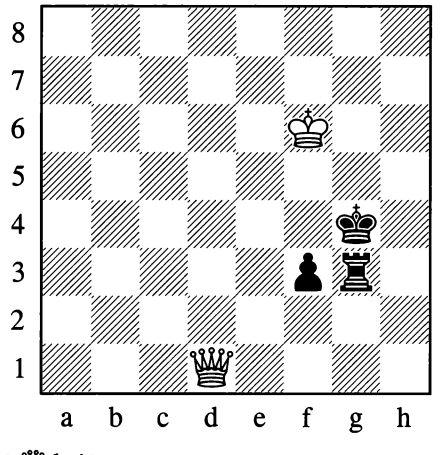
14...♖g3 15.♕d4† f4 16.♔e5 ♖e3† 17.♔f6



This is a major achievement for White. Getting the king to f6 or f5 is a constant in most of the lines we have looked at here. When we look at an endgame like this, these are the things we are looking for. Once the king gets behind the passed pawn, it is doomed.

17...♖a3 18.♕g1†! ♖g3 19.♕d1† f3

Black is quickly mated after: 19...♔h4 20.♔f5! f3 (20...♖f3 21.♕g1 with mate approaching.) 21.♕e1! ♔h3 22.♕h1#



20.♕d7†!

The only winning move, but not a difficult one.

20.♔e5? ♖g2 would allow Black to save the game.

20...♔h4

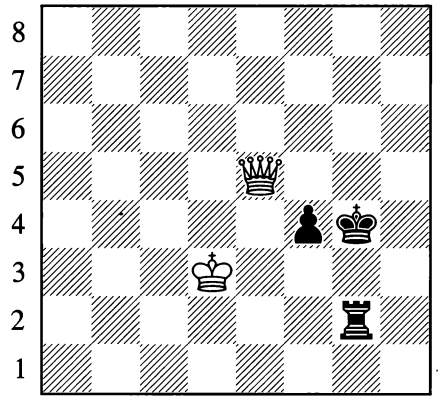
20...♔f4 21.♕d4#

21.♕f5!

White wins the pawn.

Basic fortress

2020



White is not winning with the pawn on f4.

1.♕g7† ♔f3 2.♕f7 ♔g3 3.♕g6† ♔f3 4.♕h5†

It should be mentioned for good order that White would be winning here, if the queen was able to go to h4. Alas, it is not.

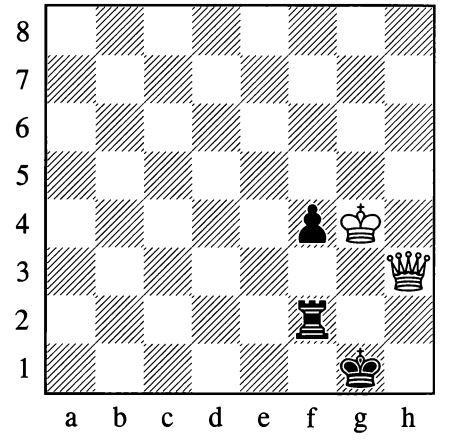
4...♔g3!

4...♔f2 would be a blunder because of 5.♔e4.

5.♔e4 ♖f2 6.♕g5† ♔h2!

6...♔h3? would be a blunder. White wins after 7.♕g1! ♖g2 8.♕f1 and the f-pawn is lost.

7.♕g4 ♔h1 8.♕h3† ♔g1 9.♔f5 ♖f1 10.♔g4 ♖f2



This is the position you will want to remember or add to your endgame database. White cannot get closer. Black has achieved a perfect fortress. Even if White was allowed to get the king to h3, Black can always check it away:

11.♕d3 ♖f1 12.♔h3 ♖f3†! 13.♕xf3

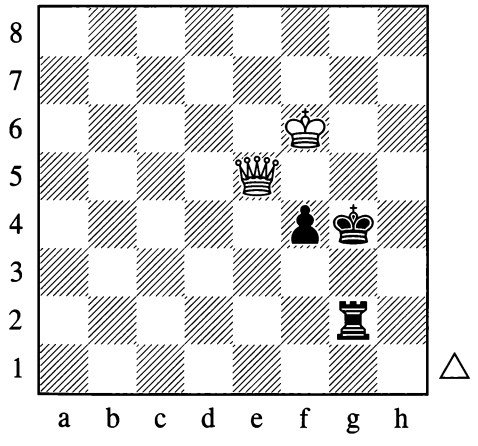
Stalemate.

11. Queen vs rook and pawn

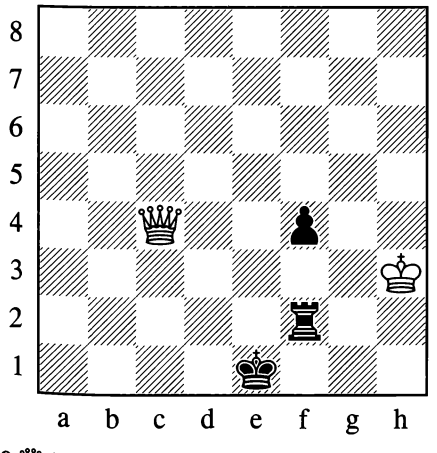
Let's expand this logic a bit further. It is particularly the move ♕g5† that wins for White. For this reason, the fortress with the pawn on f4 does not hold if the white king is on e6, f6 or h6.

Theoretical position

2020



1.♕g5† ♔f3 2.♕h4 ♖f2 3.♕h3† ♔e2 4.♔g5 ♔d2 5.♔g4 ♔e1 6.♕c3† ♔e2 7.♕c1 ♖f1 8.♕c4† ♔e1 9.♔h3 ♖f2



10.♕d3!

A typical zugzwang manoeuvre.

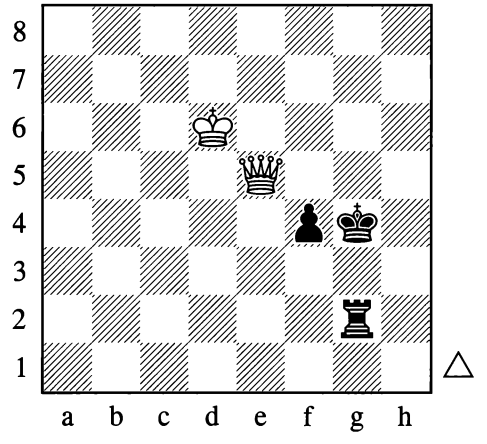
10...♖e2 11.♕c3† ♔f2 12.♔g4 ♖e3 13.♕d2†

The pawn is toast.

The following position is quite similar.

Theoretical position

2020



White is still winning with the king all the way over at d6, but only very narrowly.

1.♕g7†!

The only winning move.

1...♔h3

1...♔f3 2.♕h6 is not really different.

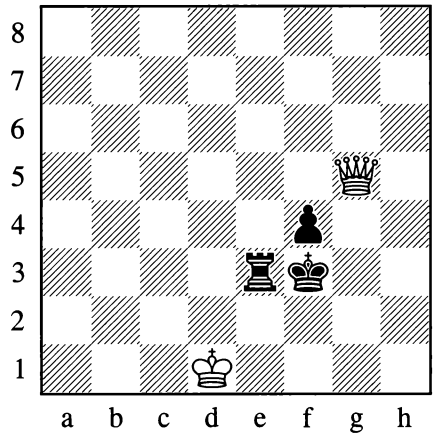
2.♕h6† ♔g4 3.♕g6† ♔h3 4.♕h5† ♔g3 5.♕g5† ♔f3 6.♕h4!

White is winning again. The key move is, as we can see, the queen check on g5. Compared to before, Black can here try:

6...♖e2

Where the win is still long for White.

7.♔d5 ♖e3 8.♔d4 ♖e2 9.♕h5† ♔f2 10.♔d3 ♖e3† 11.♔d2 ♔g3 12.♕g5† ♔f3 13.♔d1!



We can see that the first step is to remove the rook from its pleasant position on e2/e3. This is done with this zugzwang position.

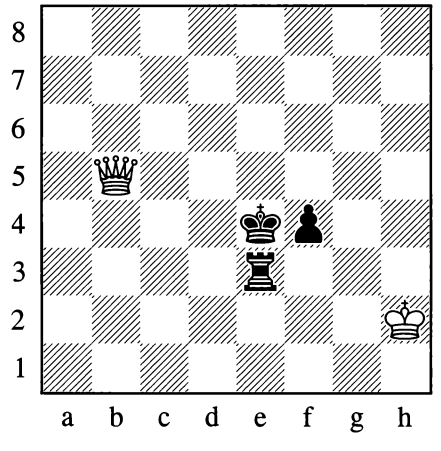
13...♖a3 14.♕f6

A tempo loser.

14...♖e3 15.♕h4! ♖e5 16.♕h8 ♖e3 17.♕h3† ♔e4 18.♕h5

The black king has lost its ideal position.

18...♖g3 19.♔e1 ♖g1† 20.♔f2 ♖g3 21.♕b5 ♖f3† 22.♔g2 ♖g3† 23.♔h2 ♖e3



White has managed to improve his king, but the rook is still well placed. Further zugzwang manoeuvres are needed.

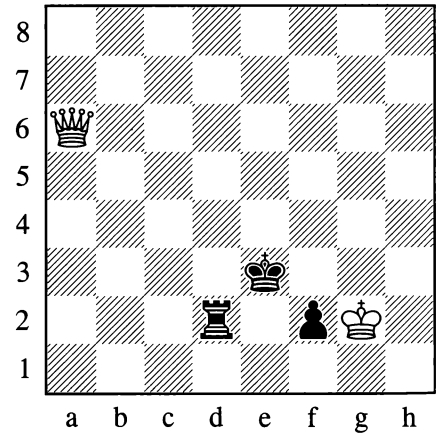
24.♕g5!

Preventing ...♔f3.

24...♖g3 25.♕f6! ♖e3 26.♕e6† ♔d4

26...♔f3 27.♕f5! is great progress for White too. 27...♖e2† 28.♔h3 ♔e3 29.♕e5† ♔f3 30.♕d4 ♖e3 31.♕d5† ♖e4 32.♕c6 ♔e3 33.♕c3† ♔e2 34.♔g4 and the pawn is doomed.

27.♕f5 ♖e2† 28.♔h3 f3 29.♔g3 f2 30.♕f6† ♔d3 31.♕a6† ♔e3 32.♔g2 ♖d2



33.♕c4

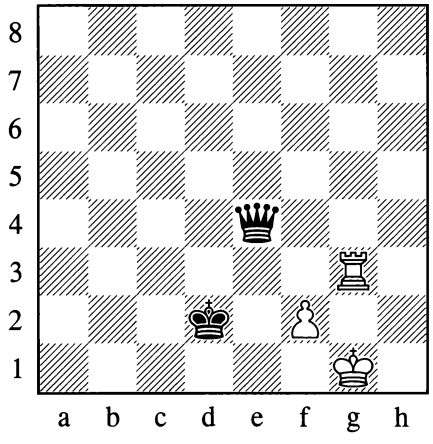
Another zugzwang. White will win the f-pawn in due course.

33...♖e2 34.♕c3†

This is a shortcut, winning at once.

12. Expanding on a generic fortress

With the next game, we shall look at the connection between knowing a fortress position and making decisions. Knowing that a position is a fortress, or that it is not, will make a lot of decisions easier. Knowing where to go and where not to, can be vital knowledge.



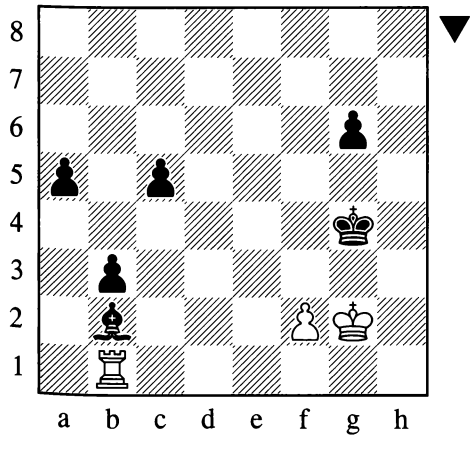
Take this diagram. This is a well-known fortress with no major hiccups. We shall see this in a dynamic situation in our game.

13. Fortress in a complicated setting

This game was played in the World Youth u16 Chess Olympiad. Juniors are rarely known for their extensive command of endgames, so the chance that they were on top of this endgame is low. Still, we can see how a lot of decisions would have been easier if the players knew what they were aiming for.

Ekaterine Pipia – Mahel Boyer

Konya 2018



54...c4!

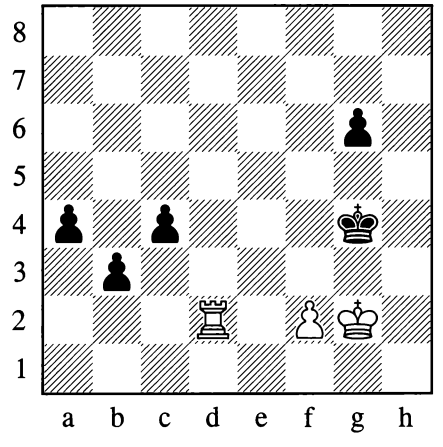
Not a difficult piece sacrifice. The rook is not able to restrain all the black pawns. If, on the other hand, White was allowed to take on b3, she would have been able to hold the game.

55.♖xb2 a4?

Queening one of the three pawns. But only one!

At this point Black could have played 55...♔f4! 56.♖d2 ♔e4! and then slowly advanced the pawns. There is no way White would be able to snatch up two of those babies...

56.♖d2



56...c3?

This is an obvious move to make and also a serious mistake. Most people would not even look for an alternative. But if you calculate the main line till the end, you have a real chance to see that there is a viable fortress at the end of the line.

56...a3? would fail in the same way as the game.

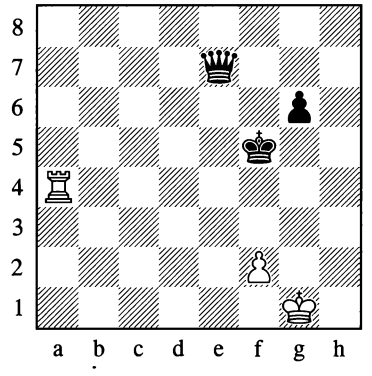
But Black had the chance to play:
56...♔f5!

Or other moves to the 5th rank also work.

57.♖d4 b2 58.♖xc4 b1=♕ 59.♖xa4

The key point is that White is unable to get the rook to the third rank.

59...♕b7† 60.♔g1 ♕e7!



Not the only way to get there, but a good example of how to prevent White from getting the rook to the third rank.

61.♖a5†

61.♖c4 g5 62.♔g2 ♕b7† 63.♔g1 ♕b3 64.♖c8 g4 65.♖f8† ♔g5 and ...g3, winning. 61.♖a1 g5 62.♖b1 ♕e2 63.♖a1 ♕d2 64.♔g2 ♕c3 65.♖d1 g4 will also quickly lead to the exchange of the g-pawn.

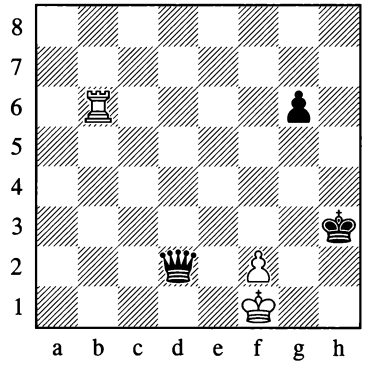
61...♔g4 62.♖b5 ♕a3

This is also close to the end.

63.♖b1 ♕c3 64.♖b6 ♔h3

A benefit of having the rook on the third rank is that White will not get checkmated. Here she will.

65.♔f1 ♕d2!

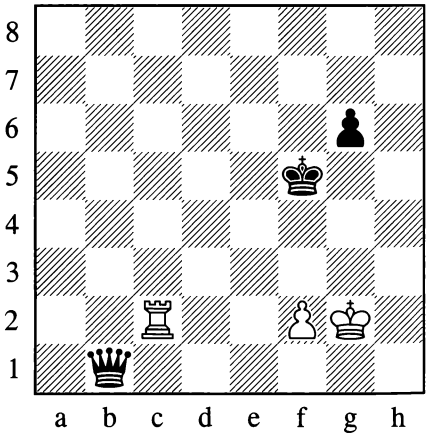


66.♖e6 ♕d3†

White cannot allow ...♔g2. And after 67.♖e2 ♕c4! White can only delay the checkmate for a few moves.

57.♖d4† ♔f5 58.♖xa4 c2 59.♖c4 b2 60.♖xc2 b1=♕

We are close to the generic fortress. The g-pawn does not make a difference, as the rook can still oscillate between e3 and g3. White must be a little bit careful not to allow ...♕xg3 in a situation where White could lose a pawn ending. Luckily, White will not end up in a situation where Black can force ♖e3-g3 and prevent ♔g2 at the same time.

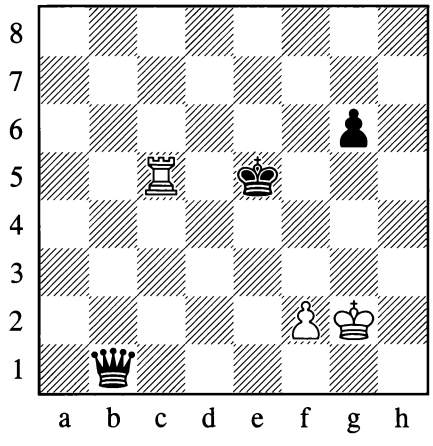


61.♖c5†

61.♖c3 ♕e4† 62.♔h2 was the simplest way for White to achieve the fortress position.

61...♔f6 62.♖c6† ♔e5 63.♖c5†?

63.♖c3 was still a draw.



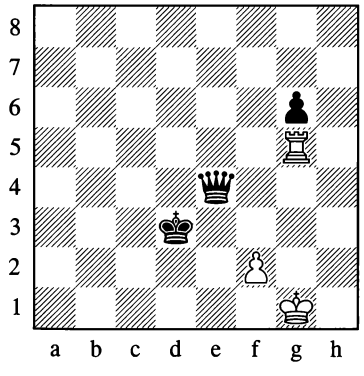
63...♔f4?

Black also does not sense the moment either.

63...♔d4!

This would prevent White from achieving the fortress by taking away the c3-square from the rook.

64.♖g5 ♕e4† 65.♔g1 ♔d3!



Black is winning. The differences with having the king crossing the third rank are multiple. One of them is what we shall see at the end of the game. At this point things are even easier though:

66.♔f1

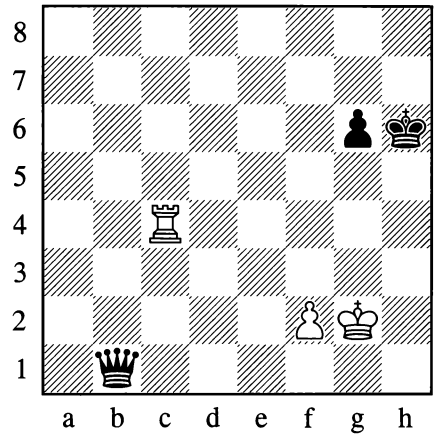
66.♖g3† ♔e2 also wins, as the pawn ending is hopeless for White.

66...♕h1† 67.♖g1 ♕h3† 68.♖g2 g5 69.♔g1 g4 70.♖g3† ♕xg3† 71.fxg3 ♔e3

Black wins.

64.♖c4† ♔g5 65.♖c5† ♔h4 66.♖c4† ♔h5 67.♖c5† ♔h6 68.♖c4?

68.♖c3 is a draw again. We can see from this mistake that White had no idea what she was aiming for.

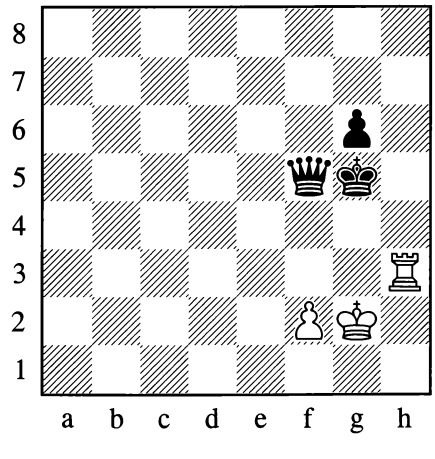


68...♕f5?

Black again had the chance to win the game. It was not too different from the previous chances Black had, so we shall just quickly plot it out.

After 68...♕b7†! 69.♔g1 ♕b3 70.♖h4† ♔g7 71.♔g2 ♕d5† 72.♔h2 ♕f3 73.♔g1 g5 74.♖d4 g4 Black wins.

69.♖h4† ♔g5 70.♖h3!



White has achieved the fortress, almost by chance.

70...♕e4† 71.♔h2 ♔g4 72.♖g3† ♔f4 73.♖h3 g5 74.♖g3 ♕d5 75.♔g1 ♕a8 76.♔h2 ♕a2 77.♔g2 ♕e2 78.♔g1 ♕d1† 79.♔g2 ♕h5 80.♔g1 ♕h4 81.♔g2 ♔f5 82.♖f3† ♔g6 83.♖g3 ♕e4† 84.♔g1 ♔h5 85.♖h3† ♔g4 86.♖g3† ♔h4 87.♔h2 ♕f4 88.♔g2 ♕f5 89.♔g1 ♕b1† 90.♔g2 ♕d1 91.♖h3† ♔g4 92.♖g3† ♔f4 93.♖a3 ♕d5† 94.♔g1 ♕e5 95.♖g3 ♕h8 96.♔g2 g4 97.♖a3 ♕e8 98.♖g3 ♕h5 99.♖a3 ♕h4 100.♖a4† ♔f5 101.♖a5† ♔e4 102.♖a3 ♕d8

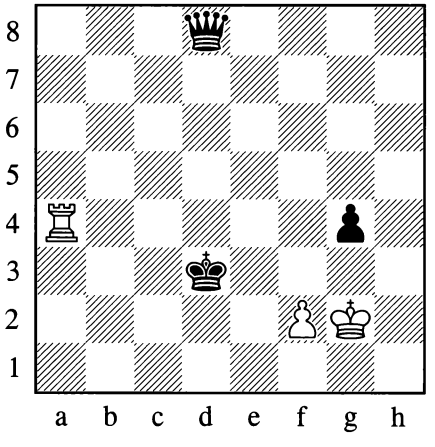
We are still many moves away from a draw, as the last time a pawn moved was only 6 moves ago. But achieving the draw is not too hard. All White has to do is... nothing.

Instead, White complicated everything.

103.♖a4†?

The rook has no job going to the 4th rank.

103...♔d3



This brings us to the most instructive position in the game. White is surviving on 30-second increments and is certainly not able to calculate everything accurately. Most of my students were also struggling with this position, even the strong grandmasters. However, the position should not be difficult to play if you know what you are aiming for.

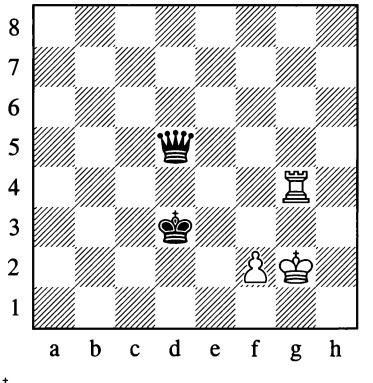
104.♖a3†?

Once the king comes to the 2nd rank, White's fortress will never hold, due to how the game ended.

104.♖xg4

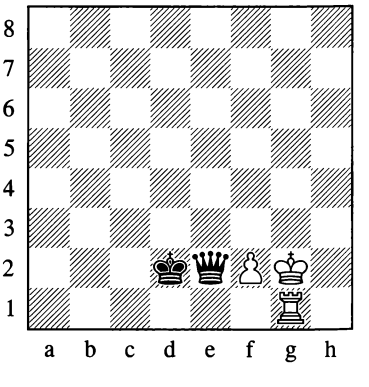
This was forced. There was no alternative. The way to get to this decision is basic. We know that everything else will not work. So, we must go for this, even though it looks scary.

104...♕d5†



105.♔g1!

105.♔f1? ♕h1† 106.♖g1 ♕h3† and Black wins. 107.♔e1 (107.♖g2 ♔d2 108.♔g1 ♔e1! wins for Black. It is important that the king goes to e1, so there will be no pin on the second rank after the f-pawn falls.) 107...♕e6† 108.♔f1 ♕e2† 109.♔g2 ♔d2

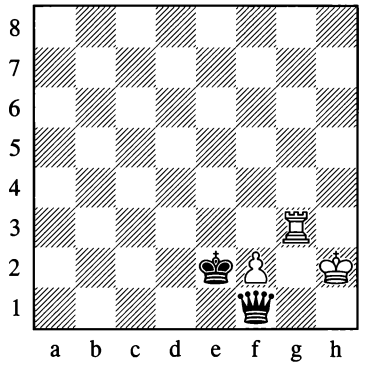


110.♔h2!? The last trick. 110...♕h5† and ...♔e2 and Black wins. (But not 110...♕f3?, which looks attractive until you see 111.♖g3!, when White is surviving.)

105...♔e2 106.♖g3

This is the set-up we are aiming for. The only real chance is to try it out.

106...♕d1† 107.♔g2 ♕f1† 108.♔h2

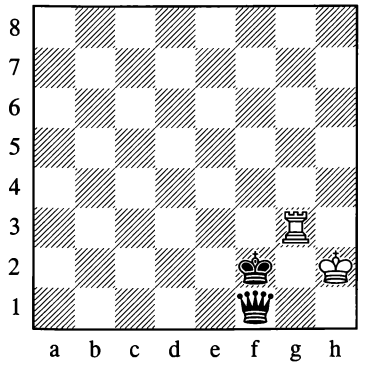


It looks as if Black has achieved everything he desired, but it is still not enough.

108...♔xf2

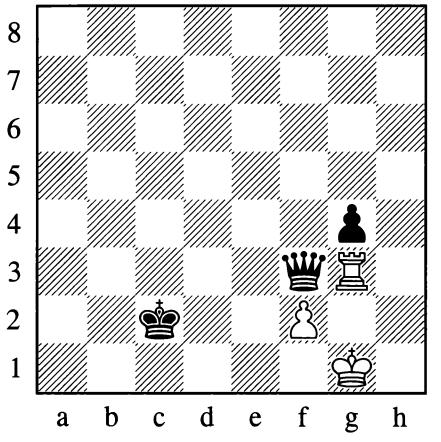
108...♔d2 109.♖g4 and Black has no way to make progress.

108...♔e1 would of course fail to 109.♖e1. But it is worth noting that 109.♖e3†? ♔d1!! wins for Black on account of 110.♖f3 ♕e2, when White will not be able to set up the fortress due to 111.♔g2 ♕e4! 112.♔g3 ♕g6† and the black king will come in and take the f-pawn.



109.♖f3†! ♔xf3 Stalemate.

104...♔c2 105.♖g3 ♕d5† 106.♔g1 ♕f3!



There we got it. White is lost.

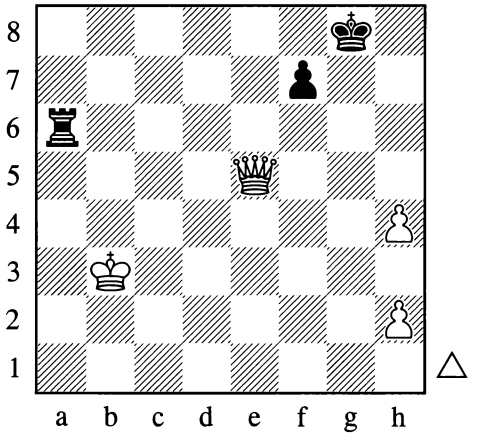
107.♖g2 ♔d2 108.♖g3 ♕xg3† 109.fxg3 ♔e1 110.♔g2 ♔e2 111.♔h1 ♔f1 112.♔h2 ♔f2 113.♔h1 ♔xg3 114.♔g1 ♔f3 115.♔h1 ♔f2

0–1

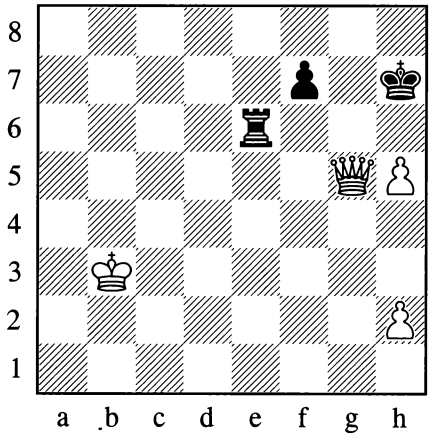
The following example sees a very strong grandmaster allowing his opponent to escape with the same standard fortress – with a twist.

Constantin Lupulescu – David Navara

Antalya 2017



56.h5? ♖e6! 57.♕g5† ♔h7 58.♕f5† ♔g7 59.♕g5† ♔h7

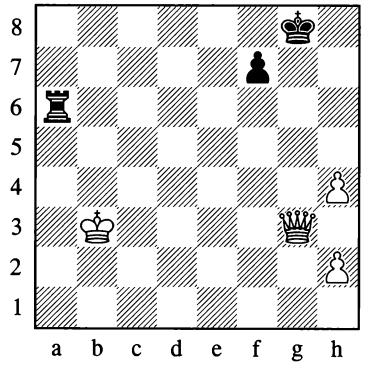


White tried all the way until move 114 to see if there was a way to break down the fortress, but there is none.

...½–½

White should have played:

56.♕g3†!



Black cannot find a decent square for the king. Going to h8 would lose the rook to 57.♕c3† and if the king goes to f8, White will be able to slowly push the pawns. This is not a fortress if the king is not near the corner.

56...♖g6 57.h5!

This is the key point.

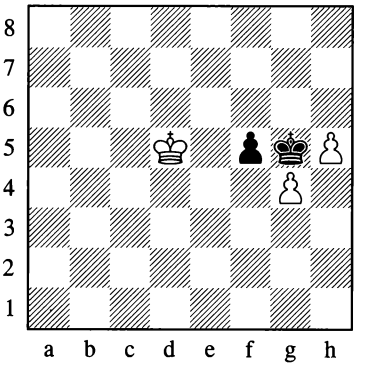
57...♖xg3†

Black can also try 57...♖g7, but now the rook cannot make it to e6 in time. 58.♔c4 ♔h7 59.♕f4 Next the white king comes in and decides the game.

58.hxg3

The pawn ending wins by a tempo.

58...♔g7 59.♔c4 ♔h6 60.g4 ♔g5 61.♔d5 f5



62.h6!

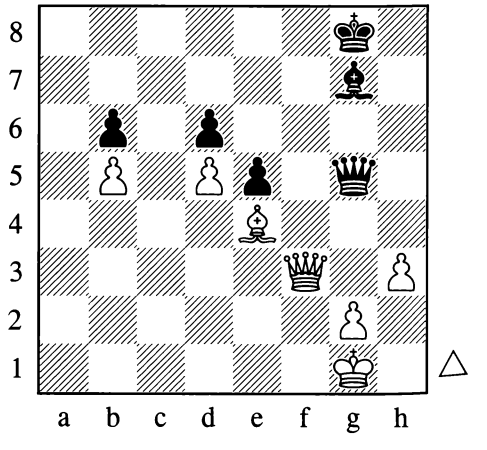
White wins.

14. Control over one colour of squares

The next game was played at a classical time control, but on computers. I am not sure what this does to quality, although it does not give a good first impression.

Parham Maghsoodloo – Gadir Guseinov

Internet 2021



White is a pawn up and has two healthy passed pawns, which indicates that he should be able to find a path to a win, barring any accidents. Black has a passed pawn, but it is rather worthless and even blocks the bishop from any activity.

35.♔h2?

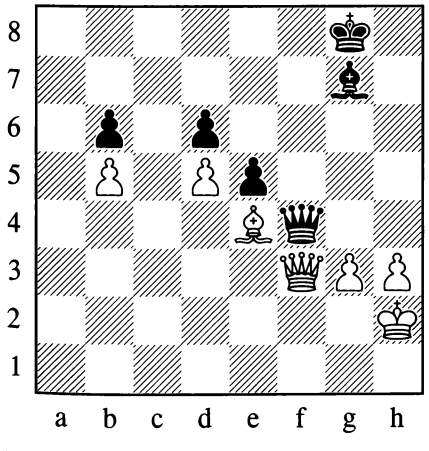
There were many ways to play for a win.

Personally, I would look at 35.g3!? to fight for the dark squares. It passes the smell test.

But even stronger was 35.♔f2! ♕d2† 36.♔g3 ♕g5† 37.♕g4 ♕e3† 38.♗f3, where the king comes out to help fighting for important squares, and Black will soon wish that he had exchanged queens.

35...♕f4† 36.g3

36.♕xf4 exf4 holds easily for Black due to the control over the dark squares.



The critical moment in the game. Black decided to give a check and was soon entirely lost. He had one chance only to seek refuge in a pure opposite-coloured bishop endgame.

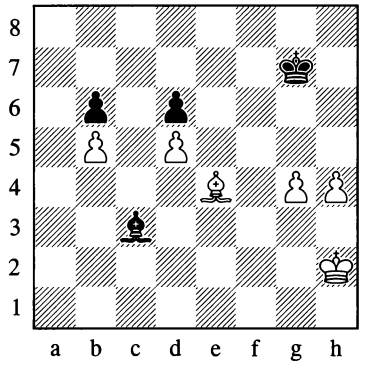
36...♕d2†?

Black should have played:

36...♕xf3 37.♗xf3 e4!! 38.♗xe4 ♗c3

The bishop is aiming for e1 (for example after 39.♔g2). The draw comes with active play with the king, helping to blockade the dark squares.

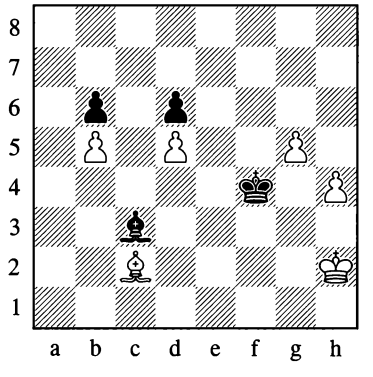
39.h4 ♔g7 40.g4



40...♔f6!

The only move. White was threatening to keep the king out of play with 41.g5.

41.g5† ♔e5 42.♗c2 ♔f4!



Black has no time for the d5-pawn. Instead, the king comes in to prevent h4-h5, while keeping the white king out of the game. The position is as drawn as they come.

37.♕g2 ♕e1 38.h4!

White has taken control of the dark squares and Black is not in time to create any counterplay.

38...♗h6 39.♕f3 ♕e3 40.♕xe3 ♗xe3 41.g4 ♗f2 42.♔h3 ♔g7 43.g5 ♗e1 44.h5 ♗d2

45.♔g4 ♗e3 46.h6† ♔f7 47.♔h5 ♗f4 48.g6†
1–0

15. A stalemate and restriction fortress

We will see these two themes again and again in what follows; and we have already seen them to some extent already.

Firstly, stalemate is a common theme. It is the last line of defence of almost all fortresses, and we shall see it many times.

The other theme is more like a dividing line. In what we normally consider a fortress, a small gathering of forces is pushed into a corner, but they are still able to organise themselves in a way where the massive pressure from the opponent is uncomfortable, but not enough to deliver the deadly blow.

But there is another type of fortress, where one side has a substantial lead in material, but will not be able to get enough pieces to the scene of the action.

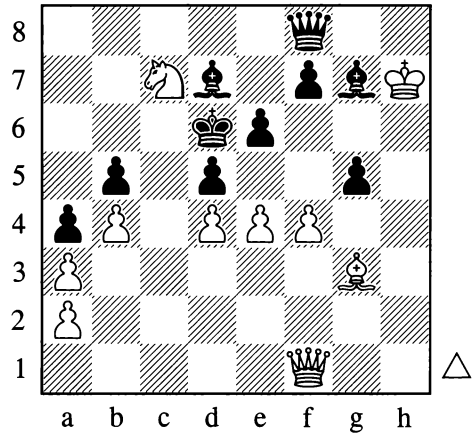
Most often this is the king, as in the position, White: ♔h1, ♖g4, ♙h3 vs Black: ♔f5, ♕f2 – and several other of the positions we have already encountered. Stalemate is frequently an important element of this type of fortress, but not always.

In Salem – Antipov below, we shall see lines where the white king is needed, but unable to penetrate Black's position.

At this point we shall see a fortress that relies heavily on stalemate.

Günter Amann

2009

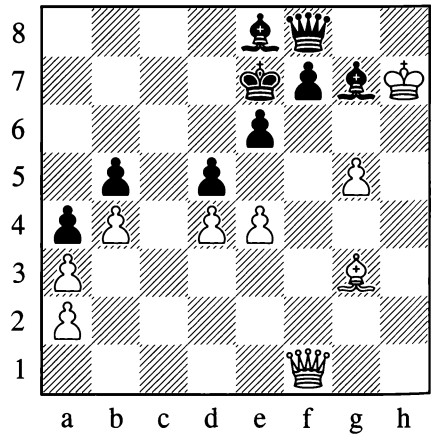


White is obviously in desperate difficulties. Curiously, the engines on my machine were not able to solve this problem before the arrival of Stockfish 12 NNUE.

The elaborate fortress that White constructs is a type we see only in studies:

1.♘e8†! ♗xe8 2.fxg5† ♔e7

2...♔d7? 3.♕xb5† is not relevant. 2...e5 3.♗xe5† also wins for White.



3.♕f6†!!

This is the shot.

3...♗xf6 4.gxf6† ♔d8

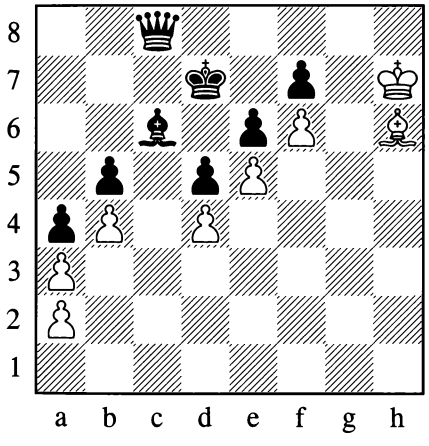
4...♔xf6? 5.♗h4#

5.e5

White is keeping the position closed.

5...♗c6 6.♗f4 ♔d7 7.♗h6 ♕c8

Black is ready for ...♗b7 and the activation of the queen.



8.♗f8!!

The key point.

8...♗b7

8...♕xf8 is stalemate.

9.♗c5

White has established a fortress. The black pieces are unable to enter the game. This is of course very different from the usual fortresses. Here the black pieces are trapped in a big fish tank, while usually they are circling the defenders' pieces, which are hiding in an impenetrable tank.

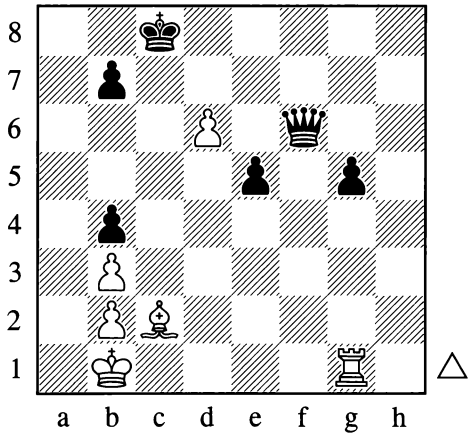
9...♕xc5 10.bxc5 would show us why there are doubled white pawns on a2 and a3. 10...b4 11.axb4 ♗c6 12.a3 would still be a draw.

16. Fortress as a defensive strategy

In the next example we shall see a very commonplace example of a fortress from grandmaster practice. In the beginning it is not a classical fortress, but rather a position where Black has a clear material and positional advantage, but where White is able to make it difficult for Black to advance his passed pawns. Brute force, accompanied by schematic thinking and accuracy, should win the day, but it is by no means easy...

Andrey Esipenko – Daniil Yuffa

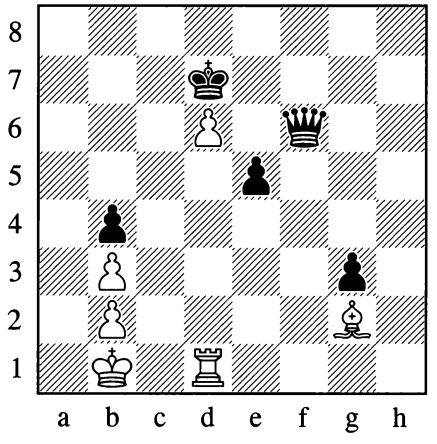
Abu Dhabi 2019



White was totally winning, but blundered the queen and was forced to aim for this very shaky fortress. It was now up to Black to convert his obvious advantage.

41.♖d1 ♔d7 42.♗e4 g4 43.♗xb7 g3 44.♗g2

At the start of this endgame, there are a lot of easy ways to win the game. What strikes me about the play by Yuffa is that it seems to not be aimed in any specific direction. While it is obvious that he was trying to win the game, I did not get a sense that he knew what to aim for and especially what to avoid.



In that connection, time management matters a lot. The players were living on increments with no additional time yielded at move 40 (why do organisers hate endgames?). At this point Yuffa thought for close to three minutes and did not come up with a clear plan for how to win the game. This is obviously not a lot of time to come up with a big plan. Therefore, it is important to study these things in advance, so we know how to approach them. If we can recognise the strategic patterns in such positions, see the potential fortresses – which in this case is with a white rook on c4 – we might have a chance.

But let me get this rant off my chest: shorter time controls mean that games are decided by blunders or drawn with a much higher frequency. The reason for this is that there are many positions like this one, where the defence is passive and simple to play, but the winning method requires some accuracy, which can only be found through thinking. If the players do not have the time, we get a lower standard of play and the only reason why there is not a lower number of decisive games is the higher level of low-quality mistakes. Or at least, so goes my hypothesis.

44...♕f5†

There was a brute-force win in:

44...♕e6! 45.♗e4

White cannot allow Black to advance the e-pawn.

45...♕g4!

White's coordination is ruined.

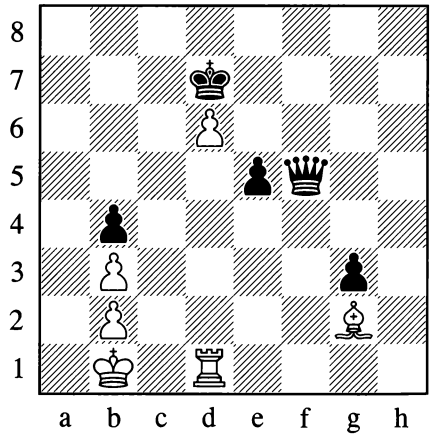
45...♕xb3? is greedy and planless. 46.♗f5† ♔c6 (46...♔d8? 47.♖h1! and White wins.) 47.♗c2 ♕g8 48.♗e4† ♔d7 49.♗f5† with a repetition of moves.

46.♖e1 g2

This is unnecessarily concrete. But it also works.

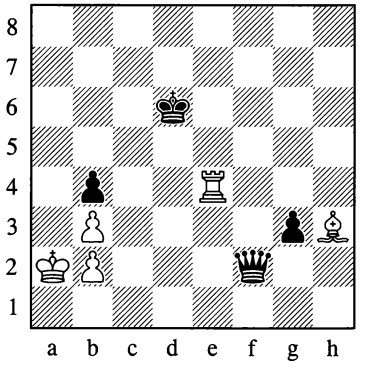
47.♗xg2 ♕xg2 48.♖xe5 ♕g3!

Black wins.



45.♔a2 ♕h5

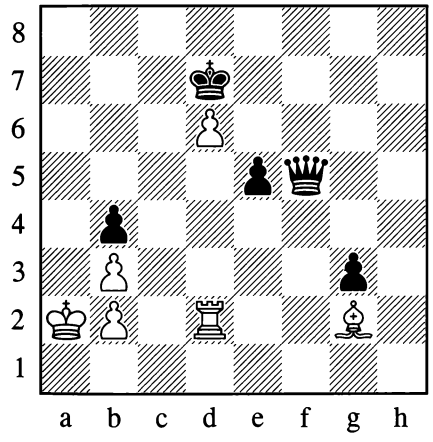
45...e4! would also have won easily. After 46.♖e1 ♕f2 47.♗h3† ♔xd6 48.♖xe4



Black is totally winning. White will not be able to give up the bishop for the pawn, so Black does not even need: 48...♕a7† 49.♔b1 ♕h7 50.♗g2 ♔d5 But as it is there, it would force immediate resignation.

Missing the forced win at the end of this line, with already shrinking time, is understandable.

46.♖d3 ♕g4 47.♖d5 ♕f5 48.♖d2

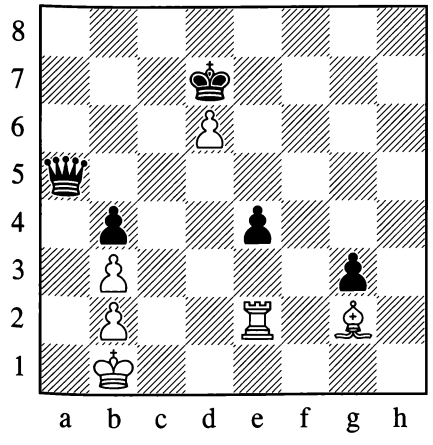


The path to the full point is still pretty wide, but with every little inaccuracy, it is narrowing.

48...♕g4?! 49.♖d5 ♕f5 50.♖d2 e4 51.♖e2 ♕a5†

51...e3! was stronger, as we shall see below.

52.♔b1



52...♕d5

Stronger was:

52...♕f5! 53.♔a2 e3! 54.♖xe3 ♕f2 55.♗h3† ♔xd6

Black will eventually be able to get back to what we saw earlier.

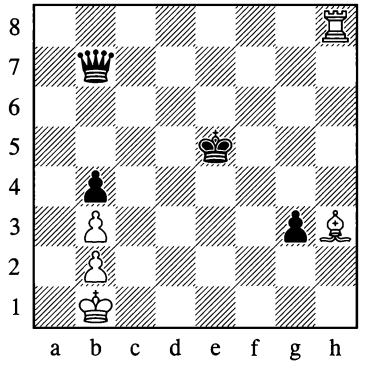
56.♖e6† ♔d5 57.♖e7 ♕h2 58.♗f1 ♔d4 59.♖e8 ♕f2 60.♗h3 ♕f7

The rook is knocked off the e-line. The threat of ...♕a7† and ...♕h7† is deadly.

61.♖d8† ♔e5 62.♖h8 ♕b7

The most accurate, but at this point accuracy is not required.

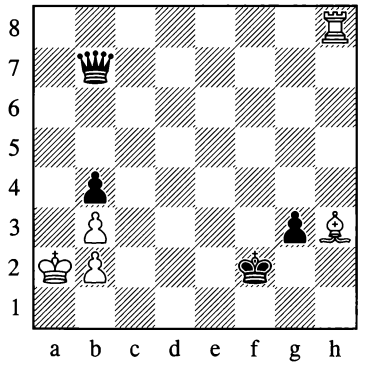
63.♔b1



63...♕f7

Obviously, we are not going for 63...g2?? 64.♗xg2 ♕xg2 65.♔a2 with a fortress.

64.♔a2 ♕a7† 65.♔b1 ♕g7 66.♖h5† ♔f4 67.♔a2 ♕b7 68.♖h8 ♔e3 69.♖e8† ♔f2 70.♖h8

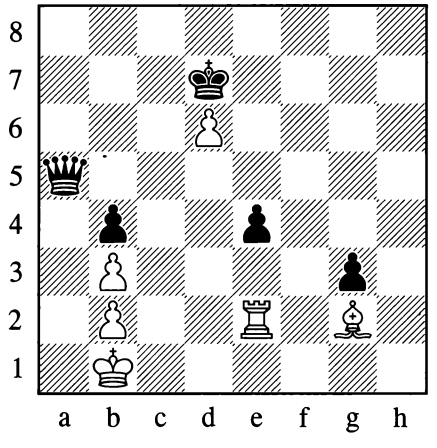


Black has managed to involve the king. On f2 it will be immune to checks from both the side and the rear; and it will help the fight against the bishop.

70...♕a6† 71.♔b1 ♕g6† 72.♔a2 ♕f6

The rook cannot stay on the h-line. After ...♕h6 the bishop will be kicked away, and the g-pawn will decide.

53.♔a2 ♕a5† 54.♔b1



54...♔xd6?

This is a clear time-trouble move. There is no logical or emotional reason for taking the pawn at the moment when the queen is out of play on a5.

54...♕f5! 55.♔a2 e3 would have transposed to the lines we saw above. And after 55.♖xe4 ♔xd6 56.♔a2 Black wins with a bit of long diagonal action: 56...♕f2 57.♗h3 (57.♗h1 is met with 57...♕a7† 58.♔b1 ♕g1†) 57...♕a7† 58.♔b1 ♕h7 59.♗g2 ♔d5 and the g-pawn will soon rule alone.

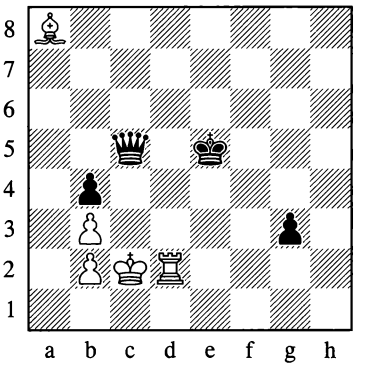
55.♗xe4 ♕h5

Still unpleasant for White would be:

55...♕e5 56.♖d2† ♔e6 57.♗g2 ♕e3

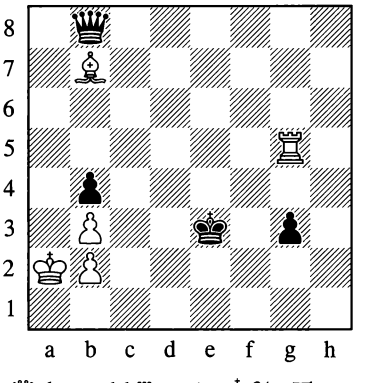
The king belongs to a2.

58.♔c2 ♔e5 59.♗a8 ♕c5†

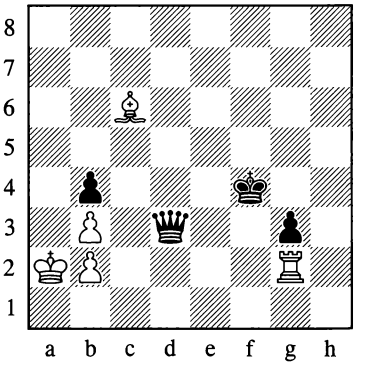


60.♔d1!

60.♔b1? ♔f4 61.♗b7 ♔e3 The rook does not want to go to g2, but what else? 62.♖g2 (62.♖d5 ♕c7 63.♖b5 ♕f4 64.♔a2 ♕b8 65.♖g5



65...♕xb7! 66.♖xg3† ♔f4 The rook is beautifully trapped in the middle of the board. Black wins.) 62...♕c7 63.♗a8 ♕h7† 64.♔a2 ♔f4 65.♗c6 ♕d3!

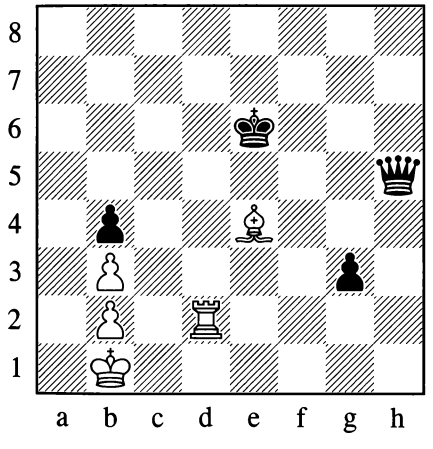


White is totally paralysed. 66.♗b7 ♕d7 67.♗e4 ♕d6 68.♗b7 ♕c7 Black wins the bishop without giving up the g-pawn.

60...♔f4 61.♗d5

It appears that even this fortress holds. White has given a lot of concessions, but not yet too many.

56.♖d2† ♔e6



57.♗g2

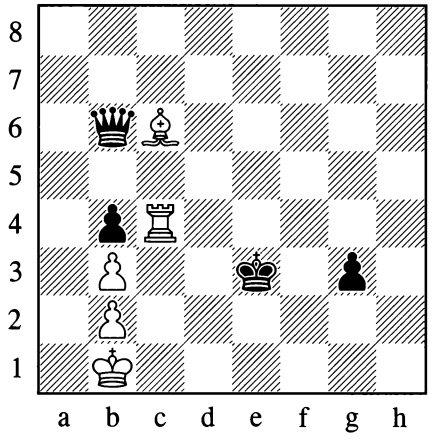
This still holds. As long as the bishop is on the long diagonal, Black cannot win. There are even some funny lines where Black takes the bishop on h1, with the king on f4 and White plays ♖g4†, which after ...♔f3 ♖xg3† gives Black a choice between stalemate and ♖g4-c4 with a fortress.

Still, after 57.♖d4! ♕a5 58.♖c4 the fortress would have been impenetrable.

57...♕h7† 58.♔c1 ♕a7 59.♖e2† ♔f5 60.♔b1 ♕a6 61.♖d2 ♕b6 62.♖c2 ♔f4

Making things a bit easier for White, but there was no way to win anymore.

63.♖c4† ♔e3 64.♗c6



This is definitely a fortress that holds.

64...♕a5 65.♗g2 ♕f5† 66.♔a2 ♕f8 67.♗c6 ♕d6 68.♗g2 ♕d2 69.♗c6 ♔f2 70.♗e4 g2 71.♗xg2 ♔xg2 72.♔b1 ♔f3 73.♔a2 ♔e3 74.♖c8 ♕d5 75.♖c4 ♕a5† 76.♔b1 ♔d3 77.♖c1 ♕f5 78.♖c4 ♕e6 79.♔a2 ♕a6† 80.♔b1 ♕a5 81.♖c1 ♕h5 82.♖c4 ♕d1† 83.♔a2 ♕e1 84.♖c8

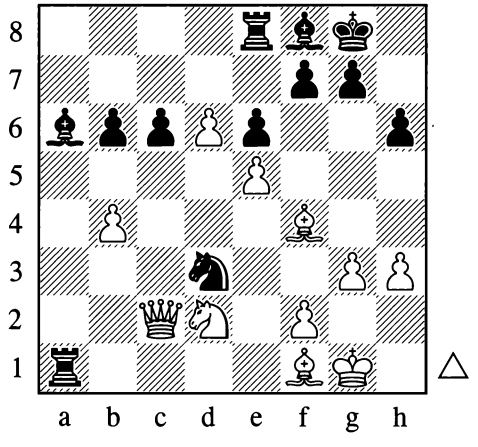
½–½

17. Breaking down a fortress

In the next example we shall look at how important passed pawns are in the breaking down of elaborate fortresses. We shall see later how White is happy to give up pawns to create a passed pawn. A big material advantage is often not usable, if there is no coordinated force to exert pressure. The narrative of the game is one of allowing the opponent to set up a fortress and then celebrating when he was unable to do so competently.

A.R. Saleh Salem – Mikhail Antipov

Abu Dhabi 2019



Salem has played well and the game has now entered the conversion stage.

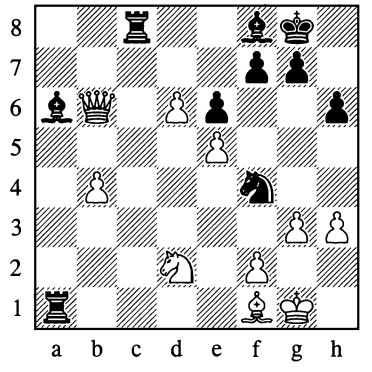
29.♕c3?!

The first mistake. The position is concrete and it is a matter of eliminating counterplay, as we discussed on page 367.

29.♕xc6 ♖c8 30.♕xb6

This is concrete and requires some accurate calculation. The key point comes after:

30...♘xf4



31.gxf4

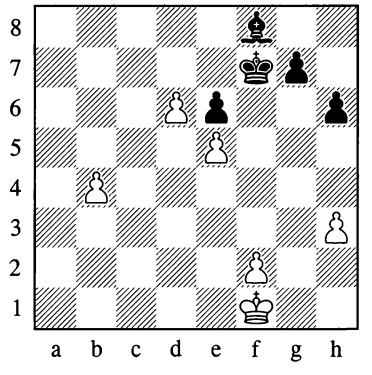
After 31.b5 ♗xb5 32.♕xb5 ♘xh3† 33.♔g2 ♖c2 34.♘e4 Black is fortunate to be able to create counterplay with 34...♘xf2!.

31...♗xf1 32.♘xf1 ♖cc1 33.♕b5!

33.d7 ♖xf1† 34.♔g2 ♖fd1 35.d8=♕ ♖xd8 36.♕xd8 ♖b1! would lead to immediate equality.

It is quite possible that Salem simply did not see that the text move would win the endgame after something like:

33...f6 34.♔g2 ♖xf1 35.♕xf1 ♖xf1 36.♔xf1 fxe5 37.fxe5 ♔f7



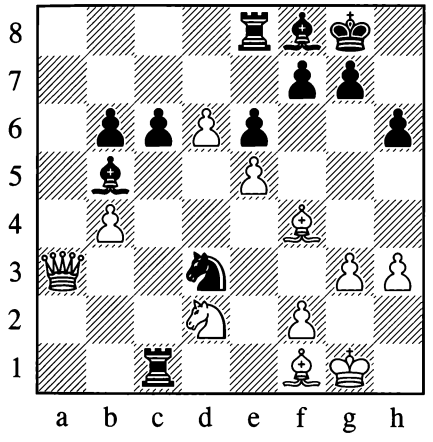
38.b5

The b-pawn races through. It does seem a bit fantastical, but it is true nonetheless.

Something like 29.♔h2!? ♘xf4 30.♗xa6 would have been strong. There are still possible complications, but White is not in any danger and looks to be in firm control.

29.♘b1!? ♘xf4 30.gxf4 ♖a8 31.♗xa6 ♖8xa6 32.♔g2 would also have won the game in the long run.

29...♖c1! 30.♕a3 ♗b5

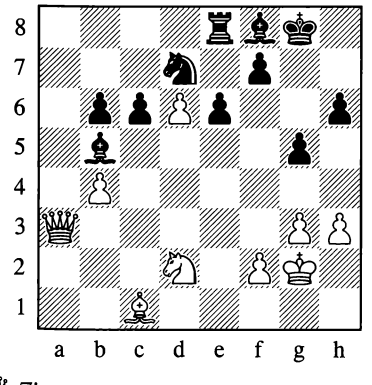


31.♔h2?

This is the first real mistake, but already the win had become very complicated.

31.♔g2! ♖xf1 32.♘xf1 g5 33.♗c1 ♘xe5 34.♘d2 ♘d7

34...♗xd6?! 35.♘e4 ♗e7 36.f4 ♘d7 37.fxg5 hxg5 38.♗xg5 and White should eventually win.



35.♕a7!

White could press on with 35.f4 or 35.h4, when his advantage is obvious, but finding a direct win is not so easy.

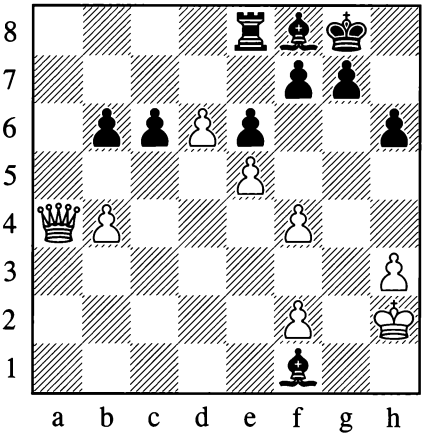
35...c5 36.♘c4! cxb4 37.♗b2!

Threatening ♘e5.

37...♗g7 38.♗xg7 ♔xg7 39.♘xb6

White will manage to break down the defences one by one, tearing through the village like a cohort of my Viking ancestors.

31...♖xf1 32.♘xf1 ♘xf4 33.gxf4 ♗xf1 34.♕a4

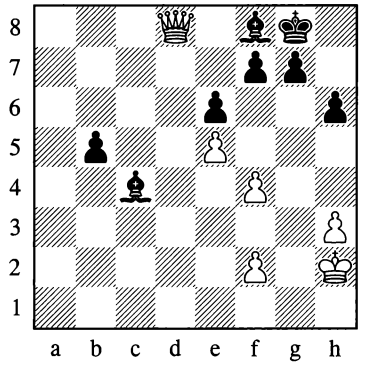


The nature of the game has entirely transformed. Black holds a material advantage right at this moment, but the value of the passer on d6 is tremendous. For this reason, Black should be looking for a viable defensive set-up.

This requires schematic thinking, where you look at the viability of the different fortresses and what the possible threats to them could be. The usual calculation with "I go here and he goes there" will not work.

34...♗b5!?

The right path was: 34...b5! 35.♕a6 ♗c4 36.♕xc6 ♖b8 37.♕c7 ♖a8 38.d7 ♗xb4 39.d8=♕† ♖xd8 40.♕xd8† ♗f8



With a draw. If the white king could make it to e8, White would win. But there is no path to get there. Without the pawn on b4, there are also no chances for breaking through on the queenside.

The bishop on c4 is not bound to defending the b-pawn and when a breakthrough with f4-f5 and e5-e6 comes, Black will always have ...♗xe6 in the end.

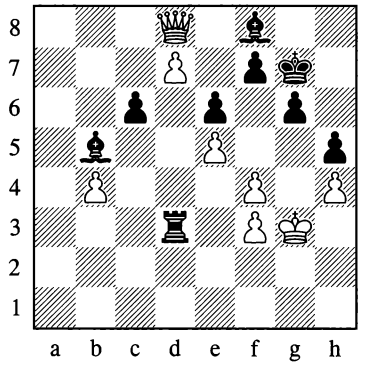
35.♕a7 ♖d8

Also interesting was:

35...g6!?

With the idea that h3-h4 can always be met strongly with ...h5. If we analyse deeply, we will see that eventually White wins the rook, but not the game:

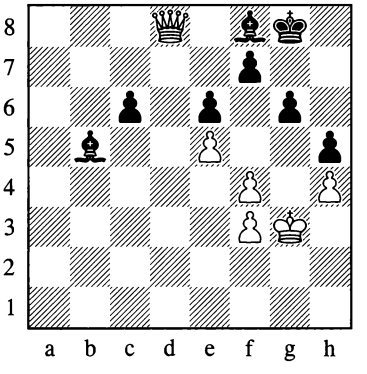
36.♕xb6 ♖a8 37.h4 h5 38.♕b7 ♖d8 39.♔g3 ♔g7 40.♕b6 ♖a8 41.f3 ♖a3 42.♕d8 ♖d3 43.d7



43...c5!

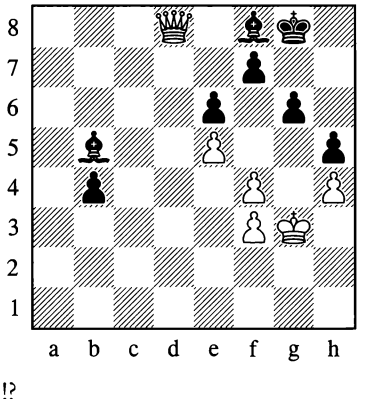
The c-pawn will be able to create real counterplay, which will be needed down the line.

43...♗xb4? loses to a parallel line: 44.♕f6† ♔g8 45.d8=♕† ♖xd8 46.♕xd8† ♗f8



47.f5! Very thematic. 47...gxf5 48.♔f4 Compared to 43...c5, the c6-pawn offers no counterplay for Black. The white king will run forward and demand blood. 48...c5 49.♔g5 ♔g7 (49...c4 50.♔f6 c3 51.♕c8 is desperate for Black too.) 50.♔xh5 ♗e2 51.♔g5 ♗xf3 52.h5 White arrives at the finish line in very good time.

44.♕f6† ♔g8 45.d8=♕ ♖xd8 46.♕xd8 cxb4



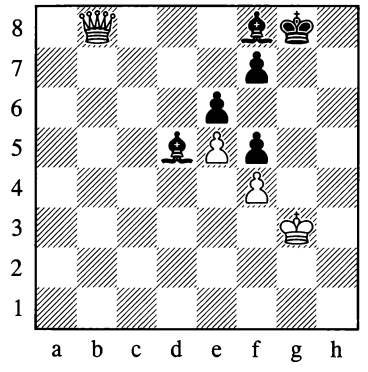
47.f5!?

Without this, White has no way to play for a win.

47...gxf5!?

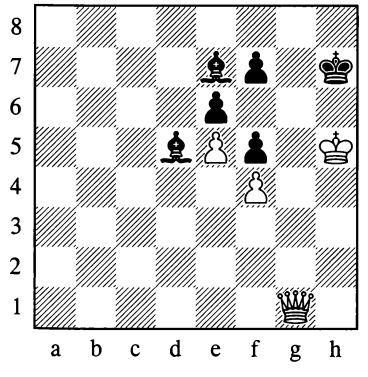
47...exf5 48.e6 fxe6 49.♕c8 ♗a4 also looks like it is holding, although it is a bit counter-intuitive.

48.♕g5† ♗g7 49.f4 b3 50.♕xh5 ♗f8 51.♕d1 ♗c4 52.♕d8 ♔g7 53.h5 b2 54.h6† ♔g8 55.♕b8 ♗d5 56.♕xb2 ♗xh6 57.♕b8† ♗f8!



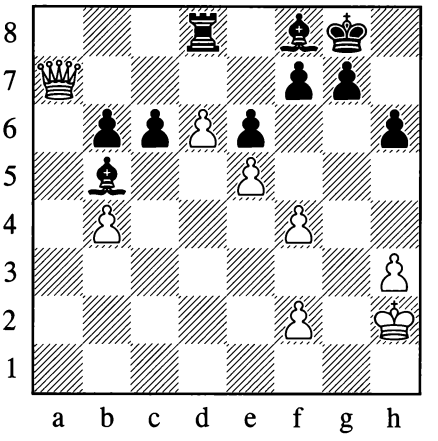
Black has achieved an impenetrable fortress. The only way to create threats is to get the queen around the other side.

58.♕d8 ♔g7 59.♔h4 ♔g8 60.♔g5 ♔g7 61.♕c7 ♗b4 62.♕a7 ♗f8 63.♕g1 ♗e7† 64.♔h5† ♔h7



White cannot make progress on account of:

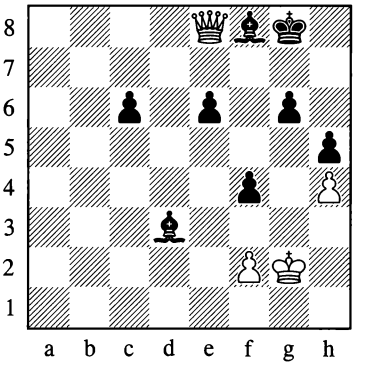
65.♕a7?? ♗f3#



36.♔g3

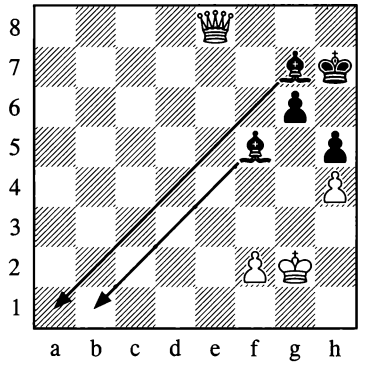
There are several possible fortresses at this point. Black should look for the best one.

36.♕xb6 ♖a8 (36...♖xd6! is even stronger) 37.h4 h5 38.f5 exf5 39.♕c7 g6 40.♔g2 f4 41.d7 ♗xb4 42.d8=♕† ♖xd8 43.♕xd8† ♗f8 44.e6 fxe6 45.♕e8 ♗d3



Black has achieved another fortress. With the bishops on the a1-g7 and b1-f5 diagonals and the king on h7, White cannot make any progress. If he could get the king to g8, it should be possible to out-manoeuvre Black. But there is no path across the barrier created by the bishop pair.

Schematic thinking brings us to this diagram.



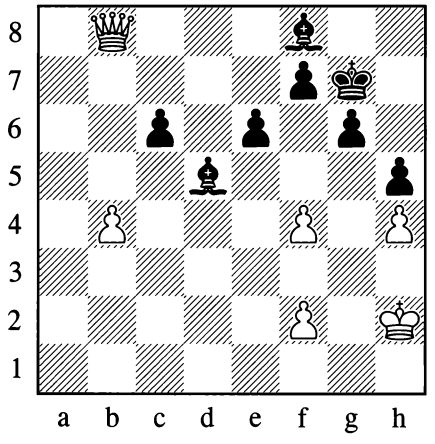
The barrier created by the bishops excludes the king from participating, making it an impenetrable fortress.

36...♖xd6

36...g6 was also possible.

37.exd6 ♗xd6 38.♕a8† ♗f8 39.♕d8 g6 40.♔h2 ♗c4 41.♕xb6 ♗d5 42.♕b8 ♔g7 43.h4 h5?

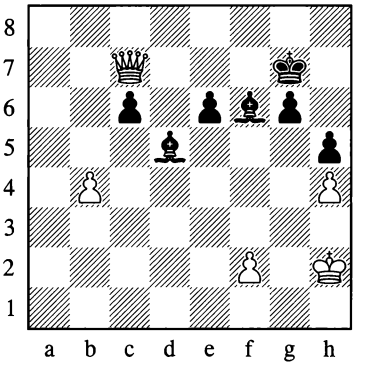
43...f5! 44.♕b7† ♔g8 looks like it was holding.



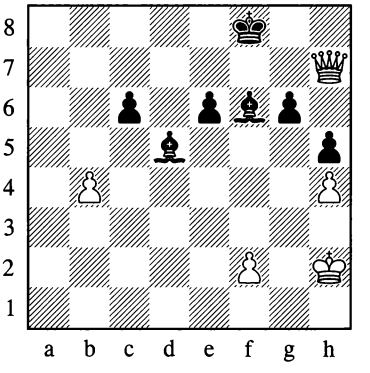
44.f5! gxf5

Originally I had some belief that Black could hold after 44...♗e7 45.fxg6 fxg6, although the fortress does look very fragile. But schematic thinking, something that is not offered by any machine at this point, leads to the winning idea.

The following is not forced, but the resulting position is inevitable, once White works out how to break it down. 46.♕e5† ♗f6 47.♕c7† leads to an interesting branching of possibilities.



a) Now 47...♔f8 leads to another important position. White can here play: 48.♕h7!? This is not necessary, but it works.



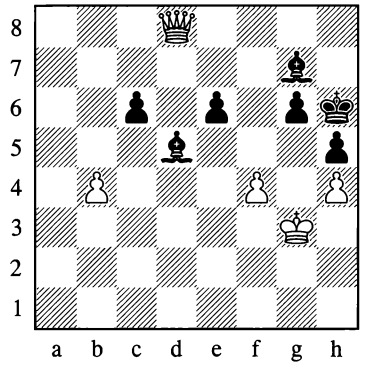
Black cannot defend the pawn with 48...♗e4, on account of 49.f3, when either g6 or c6 will soon fall.

Also after 48...♗xh4 49.♕xg6 ♔e7 50.f4 ♗f6 51.♕xh5, White is winning. He will have breaks with b4-b5 or f4-f5 at various times. But also, the bishop on d5 is restricted from preventing the white king from advancing on the light squares.

b) 47...♔g8

This leads in a different direction:

48.♔g3 ♗b2 49.♕e7 ♗g7 50.f4 ♔h7 51.♕d7 ♔h6 52.♕d8!

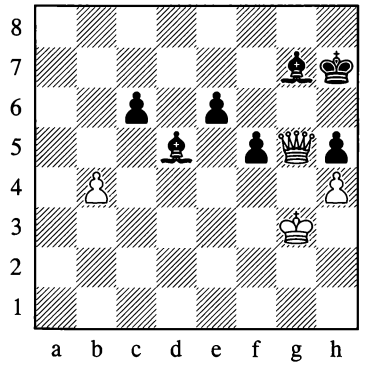


White is threatening a breakthrough. Black can only delay it.

52...♗e4 53.♕d6 ♗d5 54.f5! gxf5

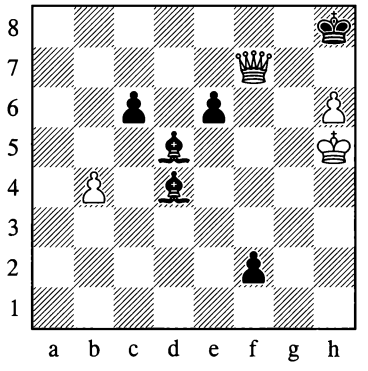
54...exf5 55.b5 is a key point.

55.♕f4† ♔h7 56.♕g5



After capturing the h-pawn, White's winning plan is not difficult. An important part of the whole thing is that the position is opened up for the white king. The fortress was meant to hold because the white queen on its own was unable to do damage.

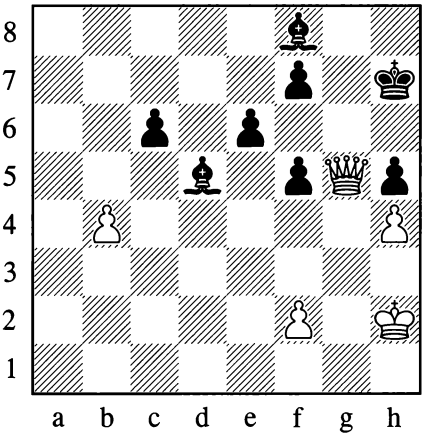
56...♗h6 57.♕xh5 f4† 58.♔g4 f3 59.♕f7† ♔h8 60.h5 ♗e3 61.♕f6† ♔h7 62.♕g6† ♔h8 63.h6 ♗d4 64.♕f7 f2 65.♔h5



Mate is near. For example:

65...♗c4 66.h7

45.♕g3† ♔h7 46.♕g5



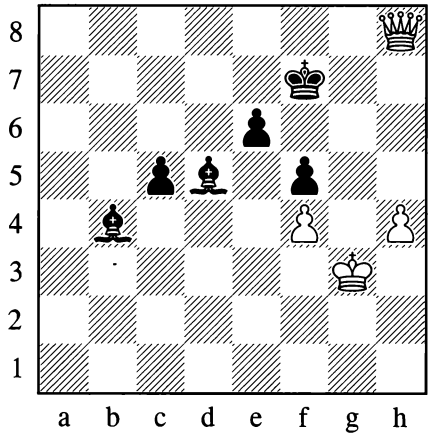
I am wondering what Antipov had misjudged here. Maybe he was thinking that the h-pawn on its own would not be dangerous. But with pressure along the 8th rank, it will indeed become a great asset for White.

Or maybe he was thinking that White would not even be able to win it. If we look at it structurally, with schematic thinking, rather than a move-by-move approach, we can see that the light-squared bishop would never be able to defend the h5-pawn and the c6-pawn at the same time. And it would have to defend both, as either falling will give White a passer.

46...♗d6†

46...♗f3 47.♔g3 and wins.

47.♔g1 ♗f3 48.♕f6 ♔g8 49.♕d8† ♗f8 50.♔h2 ♗d5 51.♔g3 f6 52.♕xf6 ♗d6† 53.f4 ♗xb4 54.♕g6† ♔f8 55.♕xh5 c5 56.♕h8† ♔f7



57.h5 ♗e1† 58.♔h3 ♗f2 59.♕h7† ♔f8 60.h6 ♗d4 61.♕g6

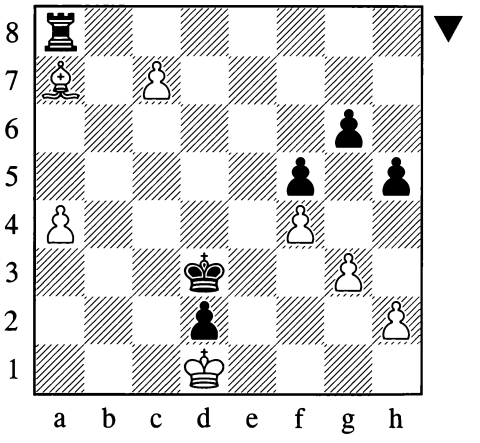
1–0

18. Brute force to break down a fortress

In the next game, White's fortress is based on the black rook not being able to give a check, as it would then be checkmate. But Black could have won the game with a brute-force breakthrough on the kingside, opening lines.

Olexandr Bortnyk – Peter Leko

Minsk 2017



In the game Peter Leko played 52...♖c8, when after 53.♗b6 ♖e8 54.♗f2 ♖a8 55.♗a7 he had a second chance to break through, but acceded to a draw with: 55...♖c8 56.♗b6 ♖e8 ½–½

52...g5!

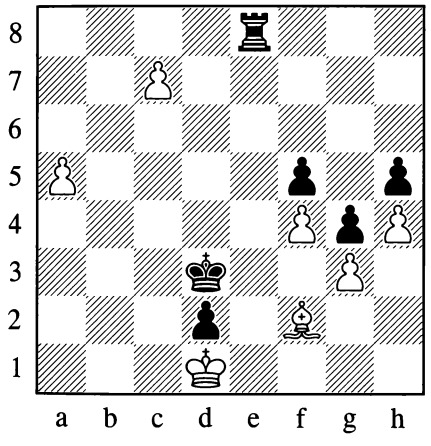
Black can shuffle around and do this later, but either way, this is the key move.

53.h4!?

53.a5 ♖c8 54.♗b6 h4! breaks through on the kingside too. 55.gxh4 gxf4 56.a6 f3 57.a7 ♖xc7 58.♗xc7 f2 with mate coming.

53.fxg5 is met with 53...h4! and Black is threatening to break through down the h-line. (53...♖e8 54.♗f2 h4! wins in the same way. The method is identical, the move order not.) If White replies 54.gxh4, then Black is able to win with 54...f4 55.g6 f3 56.g7 f2 57.♗xf2 ♖xa4 58.♗d4 ♖b4 and mate is coming.

53...g4 54.a5 ♖e8 55.♗f2



White has prevented Black from opening lines on the kingside, but also weakened the g3-pawn dramatically. Black will sooner or later have to seek forcing play that only narrowly works. Or, which narrowly works, if you prefer that emphasis.

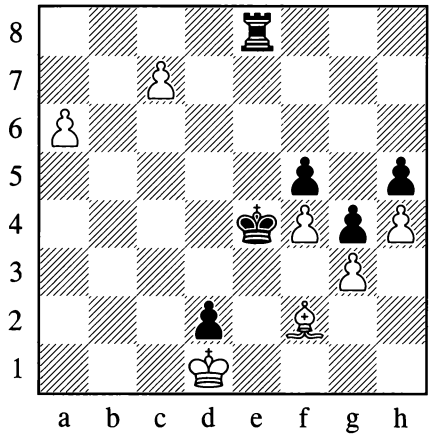
55...♔e4

The creation of passers on the kingside would terminate the game.

56.a6!

The trickiest try.

56.♔xd2 ♔f3 57.♗a7 ♔xg3 58.♗b8 ♔xh4 59.a6 g3 60.a7 g2 61.a8=♕ g1=♕ and Black wins.

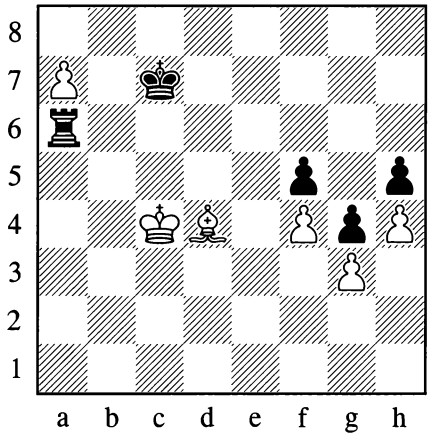


56...♔d5!

Black has to deal with the dangers of the queenside first.

56...♔f3? 57.♗c5 ♔xg3 58.♔xd2 would hold for White, as 58...♔xh4? loses to 59.♗e7†!.

57.♔xd2 ♔c6 58.♔d3 ♔xc7 59.♗d4 ♖e6 60.a7 ♖a6 61.♔c4

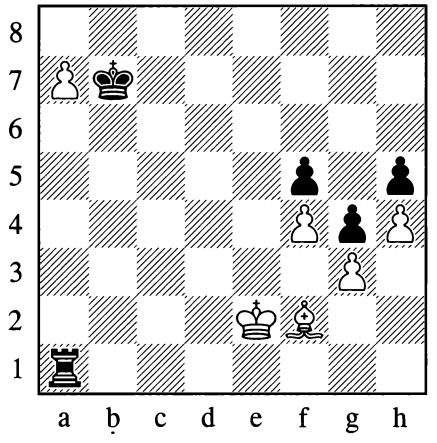


It almost looks as if White has managed to set up an active fortress, where the a-pawn will prevent Black from creating threats on the kingside. But this is not so, as the following variations shall show.

61...♔c6 62.♗f2 ♖a1 63.♗d4 ♖c1† 64.♔d3

64.♗c3 ♔b7 and Black wins.

64...♔b7 65.♗f2 ♖f1 66.♔e3 ♖d1 67.♔e2 ♖a1



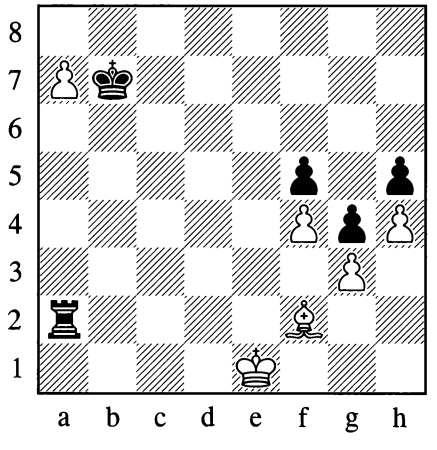
68.♗c5

White has no active counterplay. After 68.♔d3 ♖a3† 69.♔d4 ♖f3 70.♗e1 ♔xa7 Black wins. White cannot play 71.♔e5 on account of 71...♖e3†, picking up the bishop.

68...♖a5 69.♗d4 ♖a3 70.♗e3

After 70.♗f2 ♖a2† 71.♔f1 ♔c6 the black king will reach f3.

70...♖b3 71.♗f2 ♖b2† 72.♔e1 ♖a2



With the white king pushed to the first rank, Black will be able to bring in the king and create deadly threats on the kingside.

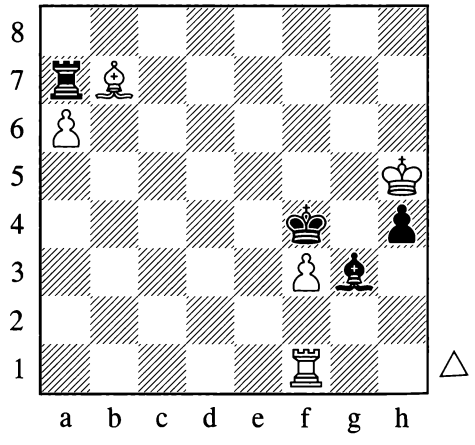
19. Breaking a fortress slowly

With Aronian changing to the US, Armenian chess needs a new hero. This could be Ms Anna Sargsyan, aged 19 at the time of this game, played in a closed tournament in the Armenian capital. She is young and still has a lot to learn, but there is clear potential in her play and with serious study, she will make the grandmaster title and compete for the highest titles in women's chess.

The game quickly ended in a draw. With what you can safely presume were seconds on the clock, Sargsyan did not manage to come up with the only winning plan. For those who have read this book, hopefully this would not be too difficult.

Anna Sargsyan – Sergei Lobanov

Yerevan 2021



83.♖a1? h3!

The h-pawn creates equalising counterplay immediately.

84.♖h1 h2 85.♔g6 ♖xb7

The simplest.

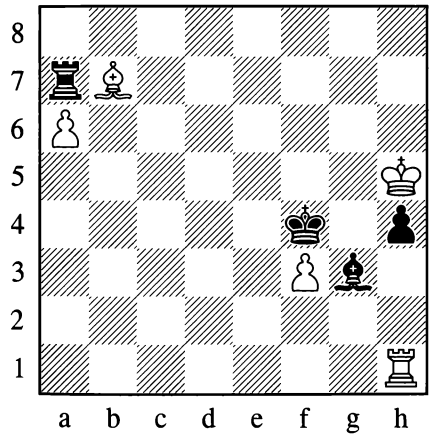
86.axb7 ♔xf3 87.♖b1 ♔g2 88.♖b2† ♔g1 89.♖b3 ♗b8 90.♖b1† ♔g2 91.♖b2† ♔g1

92.♖xh2 ♔xh2
½–½

The winning manoeuvre is based on entering a world without time, something we shall see later in Mikhalevski – Akobian, page 580.

83.♖h1!

The first order of business is to prevent the counterplay.

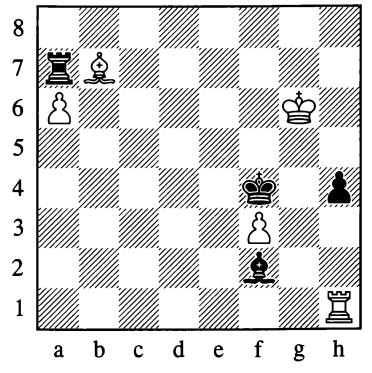


83...♗f2

For illustration, I will allow Black to simply wait.

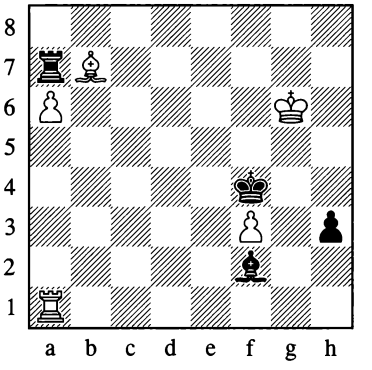
Black cannot block the king's escape, as after:
83...♔f5 84.♖h3 ♗f2 85.♖h2 ♗g3 86.♖h1!

White has performed something as unusual as a triangulation with a rook.
86...♔f4 87.♔g6 ♗f2



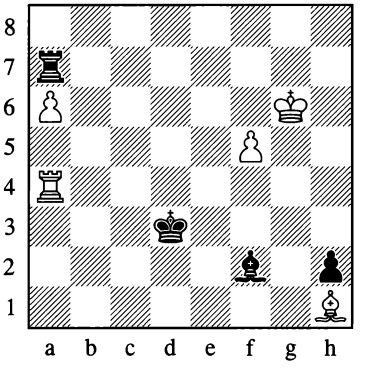
This is not quite the same position as our main line. White here has the additional opportunity of playing:
88.♖a1! h3

88...♗g3 89.♖a4† ♔e3 90.♔g5 h3 91.f4 h2 92.♖a3† ♔f2 93.♖a1 also wins for White.



89.♖a4† ♔e3

89...♔g3 90.♖g4† ♔h2 91.f4 and White wins.
90.f4 h2 91.♗h1 ♔d3 92.f5



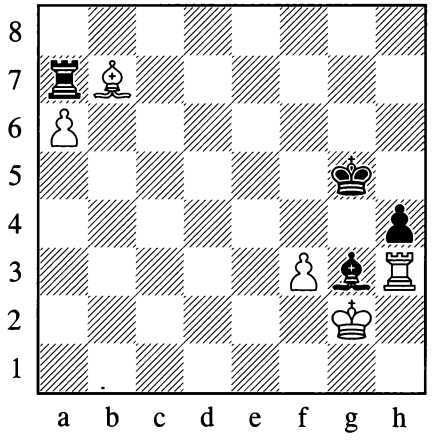
White wins. But to me this is still a bit messier than I would have liked.

84.♔g6 ♗g3

Again, just waiting.

After 84...♔g3 85.♔f5 h3 86.f4 ♗e3 87.♖f1 White also wins.

85.♔f6 ♗f2 86.♔e6 ♗g3 87.♖h3 ♗e1 88.♔d5 ♗g3 89.♔d4 ♗f2† 90.♔d3 ♗g3 91.♔e2 ♔g5 92.♔f1 ♔f4 93.♔g2 ♔g5

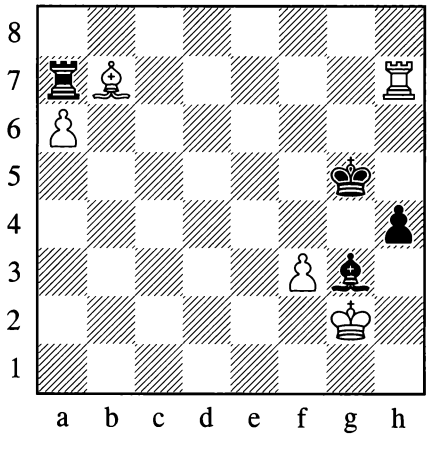


White has achieved the first aim of having the king look after the passed pawn. From here on the win is not difficult.

94.♖h1 ♔f4 95.♖d1 ♔g5 96.♖d4 ♔f5 97.♖c4

Waiting moves are an essential part of endgame technique.

97...♔g5 98.♖g4† ♔f5 99.♖g7 ♔f6 100.♖h7 ♔g5



White has managed to put the rook in an ideal position. It is now time to include her king in the game.

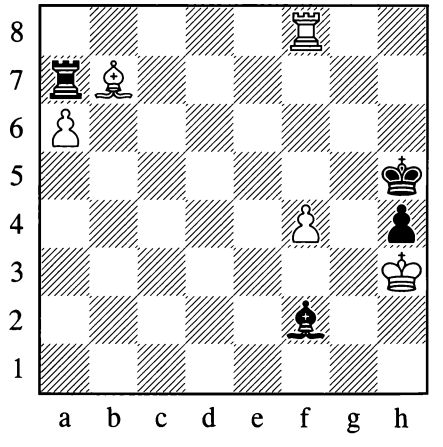
101.♔h3 ♔f4 102.♖f7† ♔g5 103.♖f8

Another waiting move. Black needs to retain his h-pawn.

103...♗f2 104.f4† ♔h5

Trying to keep the white king out.

After 104...♔g6 105.♔g4 White can progress mechanically. 105...♗g3 106.♖c8 ♔f6 107.♖c6† ♔g7 108.♔g5 h3 109.♖c3! Fireworks are not mandatory, but they sure are pretty. White wins.



Why not finish with a small dessert?

105.♖f6! ♗e1 106.♗f3#

Five advanced examples

In this section we shall look at five very different examples of fortresses as a strategic aspect of chess, in five very differently paced battles. I hope that these games will be a good illustration of the great strategic versatility of fortresses.

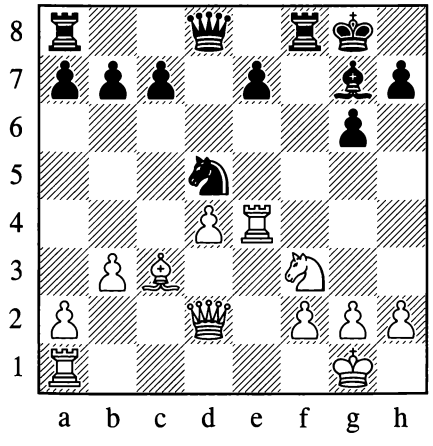
20. Blockade

In the first example, Black has given up the exchange to gain control over a lot of strong squares. Most importantly d5 and f4. On top of this, White's pawn structure is damaged on the kingside and her bishop is not friends with the d4-pawn and is generally useless.

Ju Wenjun – Anna Muzychuk

Lausanne 2020

1.d4 ♘f6 2.c4 g6 3.♘c3 d5 4.cxd5 ♘xd5 5.♗d2 ♗g7 6.e4 ♘xc3 7.♗xc3 0–0 8.♕d2 ♘d7 9.♘f3 ♘b6 10.b3 f5 11.♗d3 fxe4 12.♗xe4 ♘d5 13.0–0 ♗f5 14.♖fe1 ♗xe4 15.♖xe4

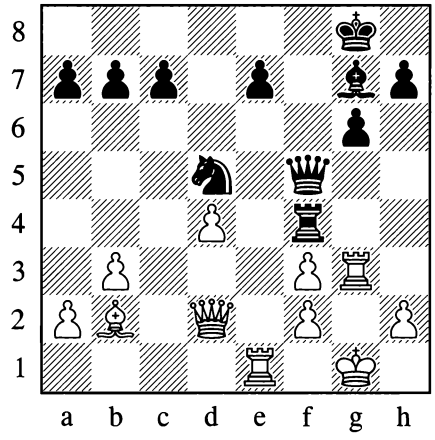


15...♖xf3!?

A reasonable exchange sacrifice. Black keeps good pieces and good squares. She is not playing for an advantage, but it will be hard for White to make any progress. Especially with the queens on the board and a weakened kingside.

Less excitable was 15...♕d7, with the idea to meet 16.♘e5 ♗xe5 17.♖xe5 with 17...♖f5. White would probably not let go of the knight, in which case Black can always give up the exchange later, should she deem it necessary.

16.gxf3 ♕d7 17.♖g4 ♖f8 18.♖g3 ♖f4 19.♗b2 ♕f5 20.♖e1



My understanding of this position is that Black's compensation is fully adequate, and that Black should play for activity. The main asset of her position is how difficult it is to attack, and this can be used to harass White with impunity.

However, this was not the strategy Muzychuk decided to go for. Rather she decided to defend passively, using the fortress strategy.

20...♖xf3?

I would have played:

20...♗f6!?

Black has full compensation.

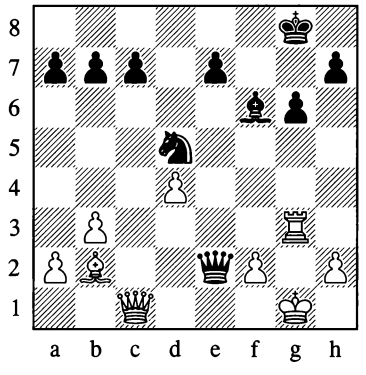
21.♖e4

This is the most obvious, removing some of Black's firepower.

21.♕e2?! ♗h4 22.♔g2 ♖xd4! may not lead to an advantage, but certainly White has more to prove by now.

21.♕a5 b6 22.♕xa7 h5 23.♗c1 ♖xf3 offers lots of counterplay.

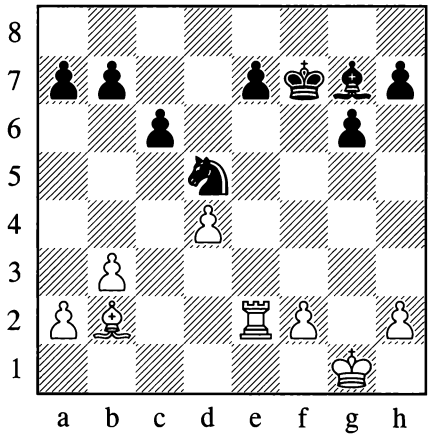
21...♖xe4 22.fxe4 ♕xe4 23.♕d3 ♕e1† 24.♕f1 ♕d2 25.♕c1 ♕e2



White should be happy to draw after: 26.♕c4 ♕e1† 27.♕f1 ♕d2 28.♕c1

With a triangulation repetition of sorts.

21.♖xf3 ♕xf3 22.♕e2 ♕h3 23.♕e6† ♕xe6 24.♖xe6 ♔f7 25.♖e2 c6

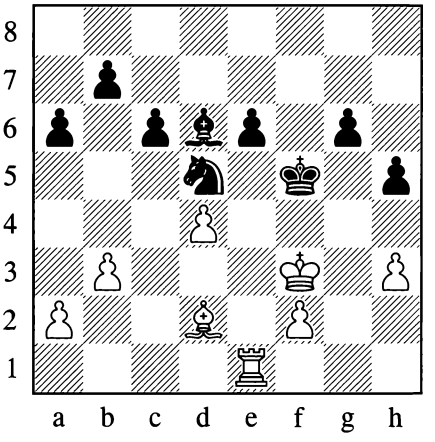


This is the fortress position Black has been aiming for. There is a good deal of compensation for the pawn, but on the other hand, White has a completely free hand to prod as much as she wants. This turns out to be very dangerous for Black.

26.♔f1 ♗h6 27.♖e1 ♗d2 28.♖d1 ♗f4 29.♔g2 ♗d6 30.♔f3 h5 31.h3 a6 32.♗c1

32.♖g1!? ♘b4 33.a4 ♘d5 34.♗c1 was another option.

32...♘c3 33.♖d2 ♔e6 34.♖c2 ♘d5 35.♗d2 ♔f5 36.♖c1 e6 37.♖e1

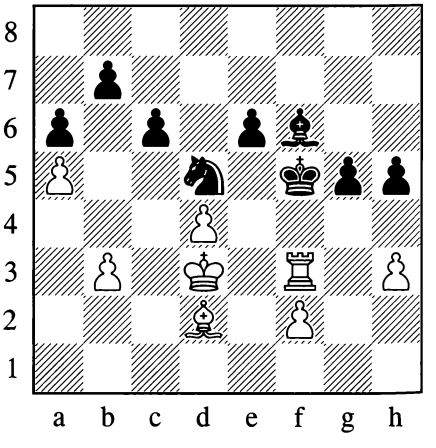


37...g5?!

It is quite possible that this is a losing mistake.

37...♗c7 38.h4 ♗b6 was the alternative. Is it possible for White to break through? It is hard to say, without investing many hours searching for an answer.

38.♖g1 ♗e7 39.♔e2 ♗f6 40.♔d3 ♗e7 41.♖g3 ♗f6 42.a4 ♗e7 43.a5 ♗f6 44.♖f3† ♔g6 45.♖g3 ♔f5 46.♖f3†



46...♔g6

An important point is:

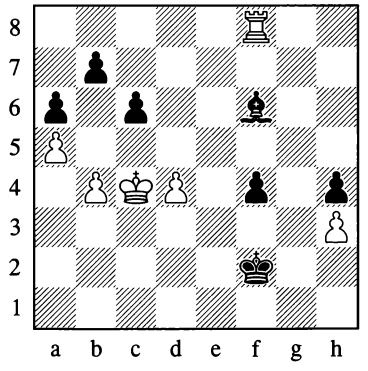
46...♘f4† 47.♔c4!

White wins. There are many variations. In this type of static position, you can fill pages and pages with lines, but what matters are the key points. The following variation is a good illustration of White's winning ideas.

47...♔e4

47...h4 loses on the spot to 48.♗xf4 gxf4 49.♖d3 and 50.f3.

48.♖g3 h4 49.♖g4 ♔f3 50.♗xf4 gxf4 51.b4 ♗e7 52.♖g6 ♔xf2 53.♖xe6 ♗g5 54.♖e5 ♗d8 55.♖e8 ♗g5 56.♖g8 ♗f6 57.♖f8

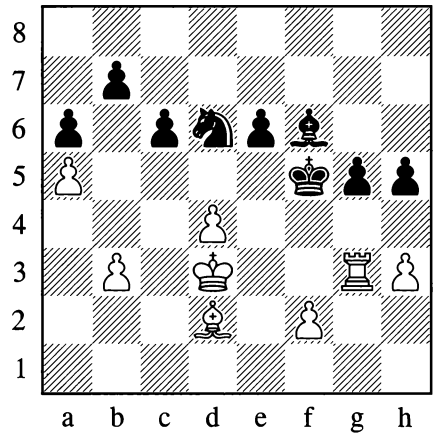


Eventually we get to this position. White wins by force:

57...♗g5 58.♖f5 ♗h6 59.♔d3 ♔f3 60.♖f7 ♔f2 61.♖xb7 f3 62.d5 cxd5 63.b5 axb5 64.a6 ♗e3 65.♖xb5

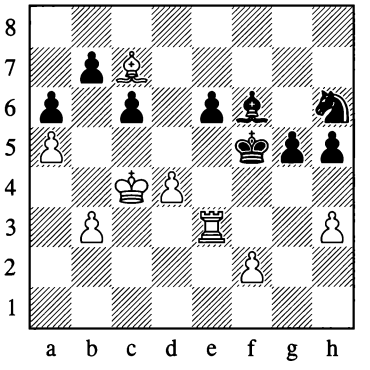
And so on.

47.♔e4 ♘e7 48.♖g3 ♘f5 49.♖g2 ♘d6† 50.♔d3 ♔f5 51.♖g3



51...♘b5

White wins after 51...♔g6 52.♗xg5, and is also doing well following: 51...♘f7 52.♗b4 ♔f4 53.♖e3 ♔f5 54.♗c5 ♘h6 55.♗d6 ♘f7 56.♗c7 ♘h6 57.♔c4



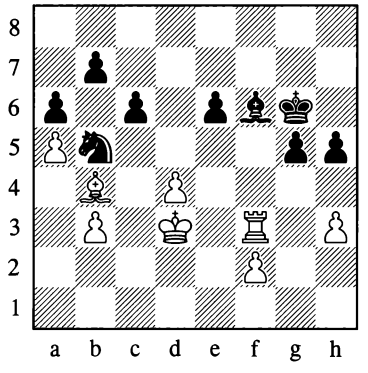
White is winning, on account of 57...♗e7 58.f4! gxf4 59.♖e5† ♔f6 60.♖xh5 f3 61.♖h4! and Black is helpless.

52.♗e3

The World Champion gives up her winning attempts. I analysed this position deeply and think I found a way to win. It is closely connected with exploiting the hook of the g5-pawn. I am somewhat doubtful whether Black would have been able to hold the game if she had not advanced the g-pawn, but the chances were definitely higher. This underlines something that is worth remembering.

When you are playing for a fortress, you should not "do" something unless you are certain it improves your chances. Black was in no rush to advance the g-pawn. White had already shown that she was not interested in playing h3-h4. And even if she was, it is not clear it would improve her chances. But after Black had moved the g-pawn forward, White had real chances of a breakthrough on the kingside.

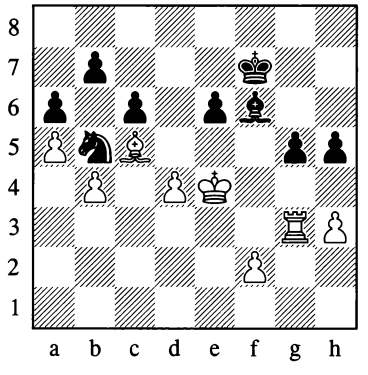
52.♖f3† ♔g6 53.♗b4



First the bishop is improved. Black cannot take on d4 anyway.

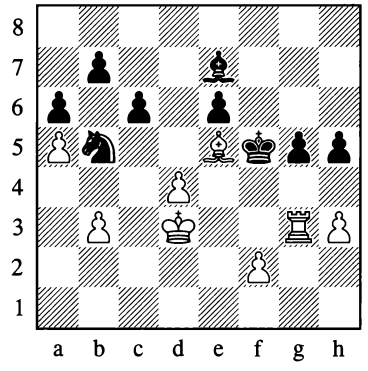
53...♘c7

53...♔f7 54.♔e4 ♔g6 55.♗c5 ♔f7 56.♖g3 ♗d8 57.b4 ♗f6



58.f4 also gives a winning position for White. For example: 58...gxf4 59.♔xf4 ♘xd4 60.♗xd4 ♗xd4 61.♔g5 and the rest is a matter of...

54.♗d6 ♘b5 55.♗e5 ♗e7 56.♖g3 ♔f5

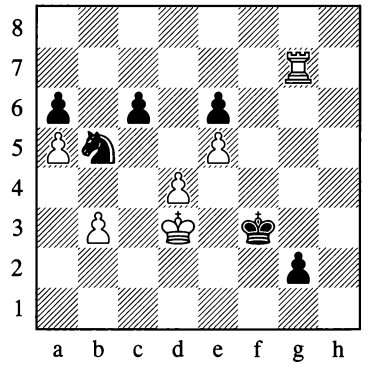


White has optimised the forces. It is time for the break.

57.f4! g4

57...gxf4 58.♖g7 and wins.

58.hxg4† hxg4 59.♖g1 ♗d6 60.♖h1 g3 61.♖h7 ♗xe5 62.fxe5 ♔f4 63.♖f7† ♔g4 64.♖xb7 g2 65.♖g7† ♔f3



Black has managed to create real counterplay with the pawn. But at the same time, White has managed to remove the key worker from the black structure, leaving all the pawns helpless and alone.

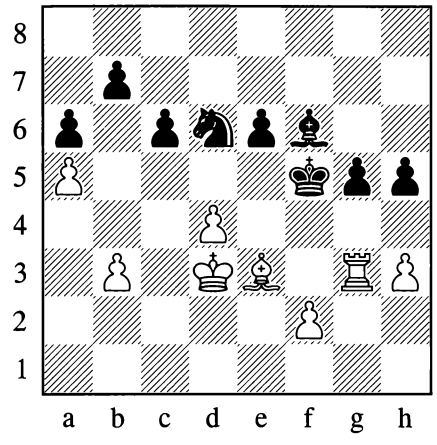
66.♔c4! ♔f2 67.♔c5 g1=♕ 68.♖xg1 ♔xg1 69.b4 ♔f2 70.♔xc6 ♘xd4†

70...♔e3 71.d5 also wins for White.

71.♔b6 ♔e3 72.♔xa6 ♔e4 73.♔b6

White wins.

52...♘d6



53.♖g1 ♘b5 54.♖g3 ♘d6 55.♖g1 ♘b5 56.♖g3
½–½

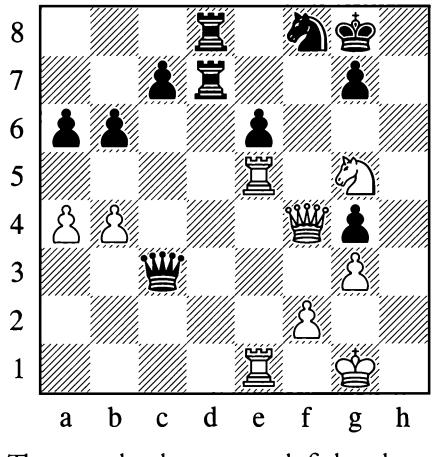
21. Fighting to stay alive

In the following game, my good friend IM Vaishali had a decent position until a blunder sent her into a world of torment. Most players would have collapsed quickly facing such problems, but of her many commendable attributes, her fighting spirit is probably the most admirable. Hunted all over the board, Vaishali keeps finding defensive resources every time it seems her time has come.

Raymond Song – Vaishali Rameshbabu

London 2019

1.e4 e5 2.♘f3 ♘c6 3.♗c4 ♘f6 4.d3 ♗c5 5.0–0 d6 6.c3 h6 7.♖e1 a6 8.a4 ♗a7 9.♘a3 0–0 10.h3 ♗e6 11.b4 ♘e7 12.♗xe6 fxe6 13.♘c2 ♘g6 14.♗e3 ♗xe3 15.♘xe3 ♖f7 16.g3 d5 17.♘d2 ♕d7 18.♘b3 dxe4 19.♘c5 ♕c6 20.♘g4 exd3 21.♕xd3 ♘xg4 22.hxg4 ♘f8 23.g5 hxg5 24.♖xe5 b6 25.♘e4 g4 26.♘g5 ♖d7 27.♕e4 ♕xc3 28.♖e1 ♖ad8 29.♕f4



The game has been a tough fight where both sides have something to be happy about. Black has two extra pawns and White has managed to make the black king feel quite unsafe. In practical terms the position is probably easier to play for White, which was certainly evident from Vaishali's next move.

29...♘g6?

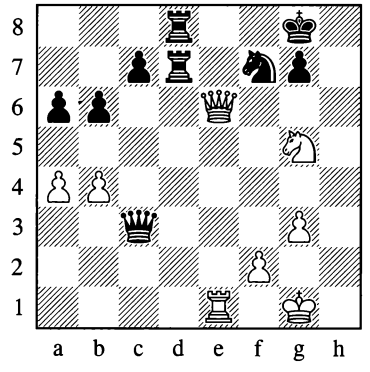
Just a blunder.

29...♕d4!? with even chances was a valid alternative.

30.♕xg4 ♕xe5?

Another mistake.

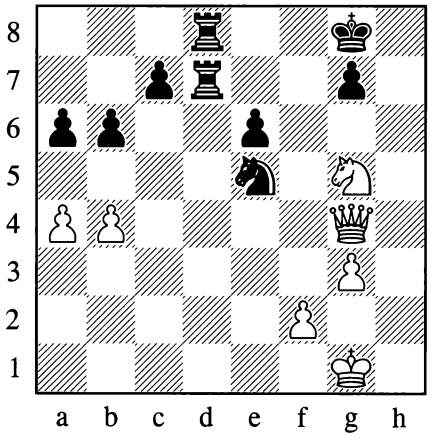
Clearly Black had not seen in advance that she could not play: 30...♘xe5? 31.♕xe6† ♘f7 (31...♔h8 32.♖xe5 with a winning attack)



White would have 32.♕e8† ♖xe8 33.♖xe8#.

But more resistance was offered by 30...♘f8, although White has a very big advantage after 31.♖xe6!.

31.♖xe5 ♘xe5

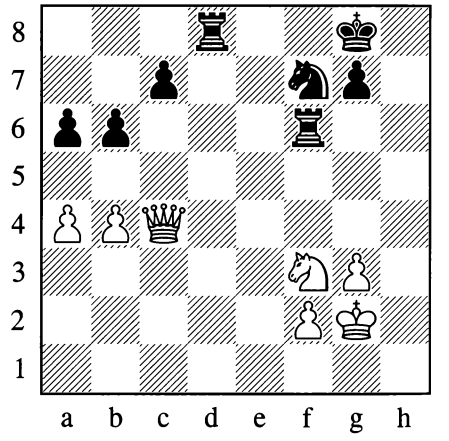


32.♕xe6†??

Sloppy! We have seen this several times above. Once the winning position has been achieved, many lose concentration.

32.♕e4! would have decided the game on the spot. There were other moves to achieve this, but this is the most human.

32...♘f7 33.♘f3 ♖d6 34.♕c4 ♖f6 35.♔g2



White's advantage is obvious, but not obviously winning. Vaishali now makes an understandable decision to give up a pawn to reduce the number of pawns on the board.

35...c5!? 36.bxc5 bxc5 37.♕xc5 ♖d3?

A time-trouble blunder.

37...♖e8 was stronger, keeping things tight.

38.♘g5! ♘xg5!?

An understandable practical decision.

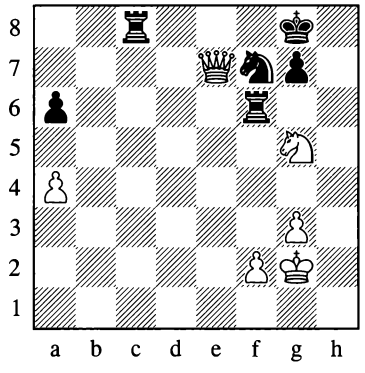
After:

38...♖d8 39.♕e7

Black would be under a lot of pressure.

39...♖c8

39...♖f8 40.♘e6 ♖b8 41.g4! would be devastating for Black.



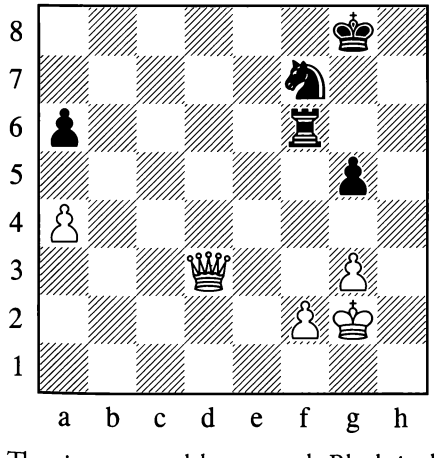
40.♘e6!

40.♕b7 ♖d8 41.♘xf7? ♖xf7 42.♕xa6 ♖df8 43.f4 ♖f6 and Black holds.

40...♔h7 41.♘c7 ♔g8

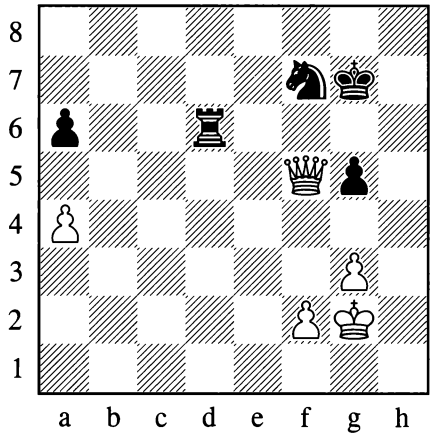
This is not immediately losing, but at the same time it is hard to imagine Black will not have to make a serious concession very soon.

39.♕c4† ♘f7 40.♕xd3 g5



The time control has passed. Black is down on material, but at the same time has more pieces. The general feeling is that White should be winning, but that the margin could be very slim. However, in practice, Black will have to defend well to make White's job difficult.

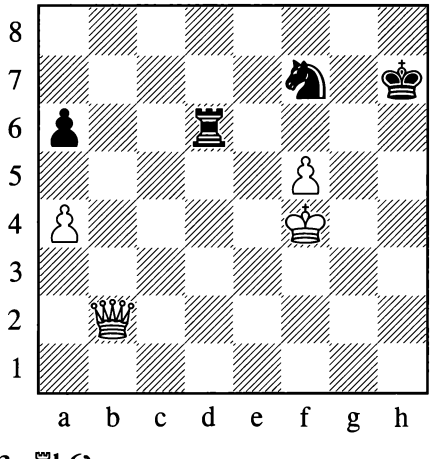
41.♕d4 ♖d6 42.♕g4 ♔f8 43.♕f5 ♔g7



44.f4?

This is certainly too rushed. Black is not doing anything. White had all the time in the world to improve the position of his king, before allowing Black to exchange another weakness.

44...gxf4 45.gxf4 ♖f6 46.♕e4 ♔g8 47.♔g3 ♔g7 48.♕d4 ♔g6 49.♔f3 ♖d6 50.♕b2 ♖d3† 51.♔e4 ♖d6 52.f5† ♔h7 53.♔f4



53...♖h6?

53...♖c6? would have been another waiting move, but after 54.f6 ♔g6 55.♕g2†, White picks up the rook.

Thus 53...♔h6! was the only move. 54.f6 can always be met with 54...♔g6.

54.f6 ♔g6 55.♔g4

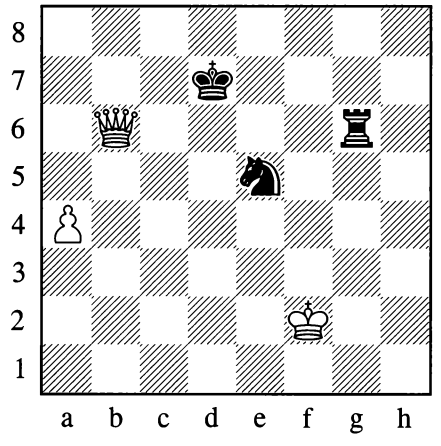
Prophylaxis.

55.a5!? would be very thematic. It is possible that White was concerned about 55...♖h5, but in that case White wins by force: 56.♕g2† ♖g5 57.♕e4† ♔h6 58.♕e7 ♔g6 59.♕xf7†!

55...a5

White's main idea is that 55...♖h5 loses to 56.♕c2† ♔h6 57.♕c8! ♖g5† 58.♔f4 ♔g6 59.♕xa6, which is a much improved version of the game.

56.♕b5 ♔xf6 57.♕xa5 ♘e5† 58.♔g3 ♖g6† 59.♔f2 ♔e6 60.♕b6† ♔d7

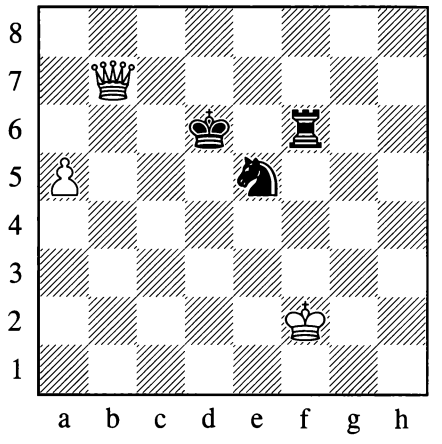


White has achieved a winning endgame, but with increments ticking away, there is still a lot of work to be done.

61.♕b7†

61.♕d4†!, forcing the black king away from the queenside, would have been stronger. After 61...♔e6 62.a5 White should win without big obstacles. For example: 62...♔f5 63.♕a7 and the a-pawn marches on.

61...♔d6 62.a5 ♖f6†

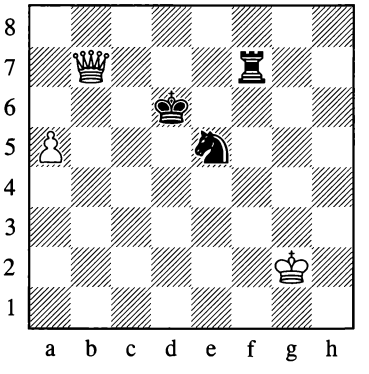


63.♔e2??

The most natural-looking move in the world, but also one that diminishes White's winning chances greatly. The king belonged on the g-file.

63.♔g2 ♖f7

63...♖g6† would lose to 64.♔h3 ♖h6† 65.♔g3 ♖g6† 66.♔f4 ♖f6† 67.♔g5 ♖e6 68.a6 and White will at least win the knight.



64.♕b4†!

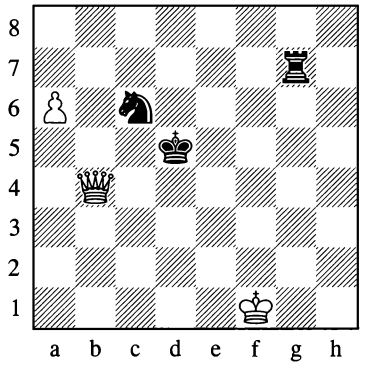
An important tempo move. Black will be too late to properly organise her pieces.

64...♔d5

64...♔c6 65.♕e4† ♔d6 66.♕d4† ♔e6 67.a6 and White wins.

65.a6 ♖g7† 66.♔f1 ♘c6

This loses to:



67.♕d2†!

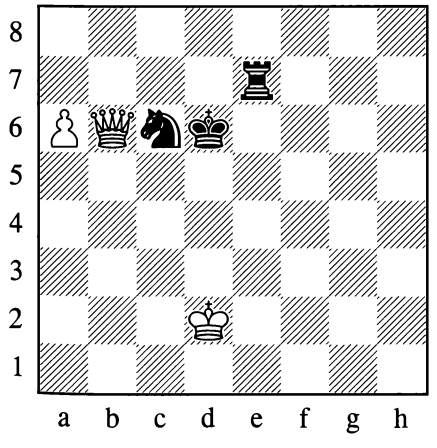
Black has nowhere to go. 67...♘d4 68.♕a2† is just over, and 67...♔c4 sees Black destroyed by a few nice checks. 68.♕a2† ♔c5 69.♕f2† ♔d5 70.♕f3†!

Black will lose a piece no matter where she goes.

63...♘c6 64.a6 ♖e6†

This extra tempo is most vital.

65.♔d2 ♖e7 66.♕b6



Black has managed to set up a fortress, but the game does not end there. She will still have to make decisions on each move and this without much time on her clock. Her choice in the game was to bring the king to the corner to block the pawn.

This is a very understandable decision, but not a good one. Keeping the king in the centre seemed wiser in retrospect.

66...♖c7 67.♔c3 ♔d7 68.♔d3 ♔c8 69.♔e4 ♖e7† 70.♔d5 ♖d7† 71.♔c5

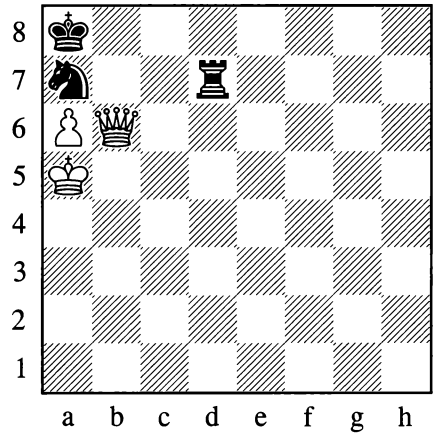
Black is obviously hoping for 71.♔xc6 ♖d6† with stalemate.

71...♖c7 72.♕b2 ♘a7† 73.♔b6 ♔b8 74.♕h2 ♘c8† 75.♔a5 ♘a7 76.♕b2† ♔a8?

Only this is a serious mistake.

Black would still have been able to hold the position with 76...♔c8 77.♔b6 ♔b8 and White is unable to make progress.

77.♕b6 ♖d7



We have arrived at the final interesting moment in the game. Black's pieces are awfully tangled up suddenly. The rook has to defend against checks on b7 and d8. The knight against a check on c6 and the king is forbidden to move. It is not surprising that White has a winning continuation at his disposal.

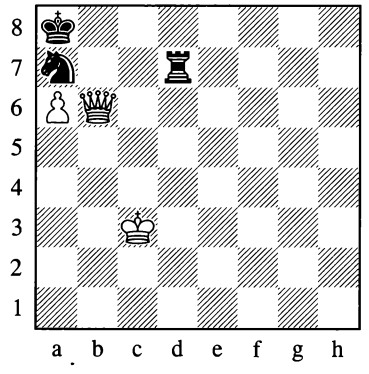
78.♔a4?

A plain blunder. Schematic thinking would have been able to solve the problem for White. In which position is Black in zugzwang and how do we get there?

78.♔b4 ♖d4† 79.♔c3!

79.♔c5 ♖d7 80.♔b4!, but not 80.♔c4? ♘c8! and the king is misplaced again.

79...♖d7



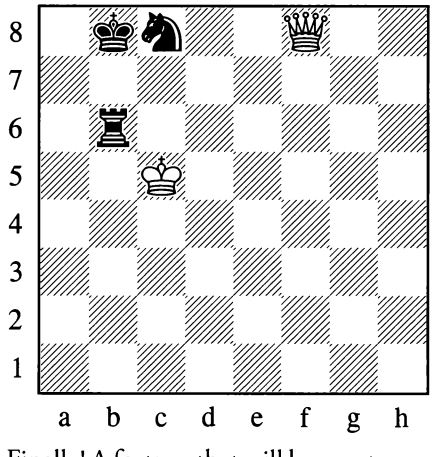
80.♔b3! ♖d3† 81.♔c4 ♖d7 82.♔c5

Black is in zugzwang. Whatever she plays, it will hurt. A brilliant example of how triangulation can be used to take down fortresses.

78...♘c8 79.♕c6† ♔b8 80.♕h1

80.♕xd7 ♘b6† is a disappointment.

80...♔a7 81.♕h6 ♖d6 82.♕f8 ♖xa6† 83.♔b4 ♖b6† 84.♔c5 ♔b8



Finally! A fortress that will be easy to manage!

85.♕e8 ♔b7

½–½

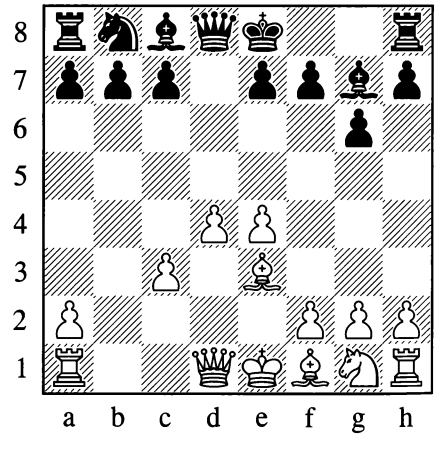
22. A fluid fortress

In this game we shall see Black under a lot of pressure and resorting to a fortress as the only chance. Neither player would have any chance to evaluate the chances for the fortress to hold during the game, and even in analysis it looks like a stretch to come up with a final conclusion. Essentially, it is a middlegame that turns into a fluid fortress, where the players simply play. Like the opening position, theoretically it can be solved, but it really should be played.

Jeffery Xiong – Gawain Jones

St. Louis 2019

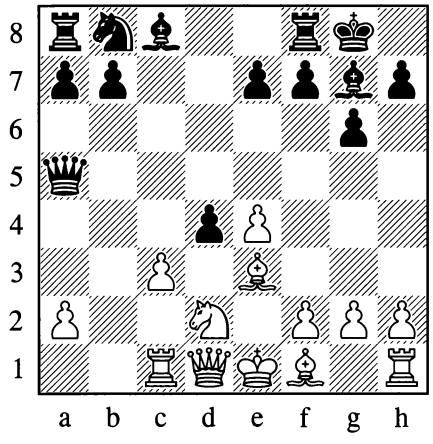
1.d4 ♘f6 2.c4 g6 3.♘c3 d5 4.cxd5 ♘xd5 5.e4 ♘xc3 6.bxc3 ♗g7 7.♗e3



7...0–0

Looking at this game, it is easy to see White's play as a worse version of 7...c5 8.♘f3 ♕a5 9.♘d2!?, which is an interesting line. Do not ask me what the downside for Black is with the move order in the game. I am no expert on the Grünfeld.

8.♘f3 c5 9.♖c1 ♕a5 10.♘d2 cxd4



11.♘c4

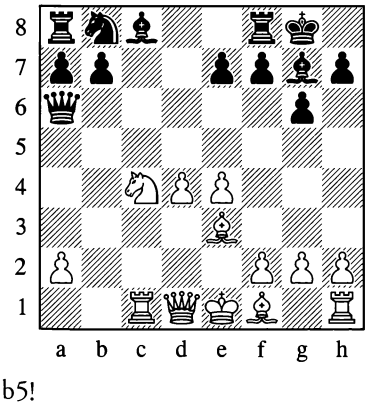
White players have also tried 11.cxd4, when Black does not seem to be under a lot of pressure as I see it. After 11...♘c6 12.d5, the tried and tested move is the natural 12...♘d4, when Black is at least fine.

11...♕d8?!

This is what most players have played here, but I do not think it is the strongest.

11...♕xa2 12.cxd4 ♕a6 13.♗e2 gave White reasonable compensation for the pawn in Aronian – Grischuk, Moscow 2014.

But the real problem for White in this line arises if Black had played:
11...♕a6! 12.cxd4



12...b5!

Black is fighting for the initiative. The knight has no good square to go to.

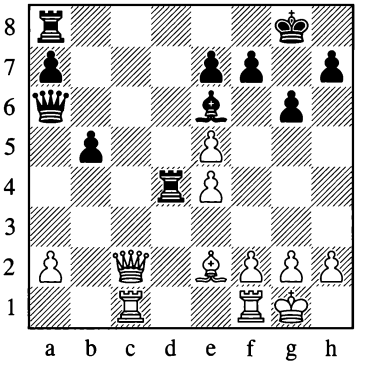
13.♘e5

White's attack gets under immediate pressure with 13.♘d2 ♘c6 14.♘b3 ♖d8, but still the situation is not so clear. 15.d5 ♘b4 16.♘d4 ♗d7 17.♕d2 ♕a4 leaves Black with better chances, but White can still fight.

13...♗xe5! 14.dxe5 ♗e6 15.♗e2

15.♕e2 ♘d7 16.♕xb5 ♕xa2 will quickly lead to an endgame where White is a pawn down.

15...♘c6 16.0–0 ♖fd8 17.♕c2 ♘d4 18.♗xd4 ♖xd4

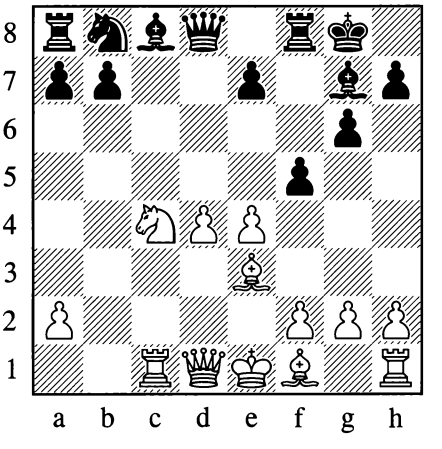


White is obviously in trouble. His position is full of weaknesses and Black is more active.

19.♕c5 ♕b6 20.♗xb5 ♗xa2 21.f3

This still gives drawing chances though.

12.cxd4 f5



13.♘e5

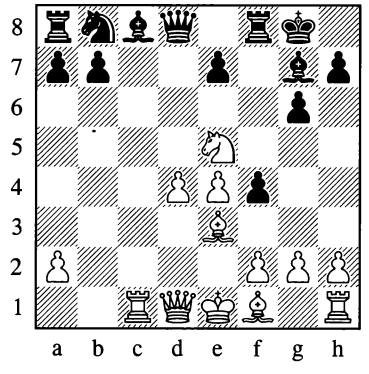
13.♗d3? f4 would blunder the centre pawn.

13.♕b3!? is the most popular move and also a decent try for an advantage.

13...♗e6

In the only other game played in this variation previously, Black went for very sharp play:

13...f4?!

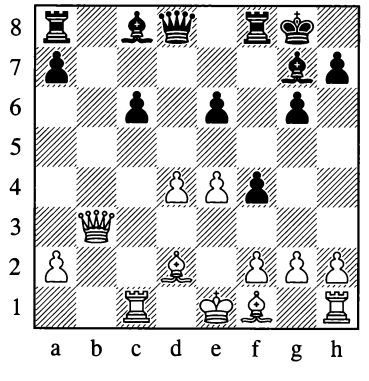


This leaves us with two promising options for White.

14.♕b3†

This intermediate move can feel rewarding to play, but does not look entirely obvious to me.

14...e6 15.♗d2 ♘c6 16.♘xc6 bxc6



17.♗e2?!

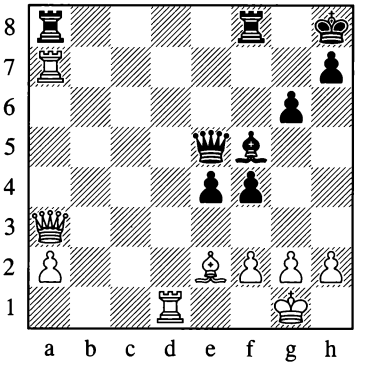
With this move White loses the chance to fight for an opening advantage. His play is simply not energetic enough. That he won the game was due to his opponent's lacking sense of danger.

17.♗c3! ♗xd4 18.♗c4 with rapid development was still dangerous for Black.

17...♕xd4 18.♗c3?! ♕xe4 19.♗xg7 ♔xg7 20.♕b2† e5 21.0–0 ♕d4 22.♕a3 e4?!

22...♖b8! would still have been fighting for an advantage.

23.♖xc6 ♗f5 24.♖c7† ♔h8 25.♖d1 ♕e5 26.♖xa7



26...♖xa7??

After 26...♖ae8 Black would still be close to equal.

27.♕xf8#

1–0 Stocek – Warmerdam, Teplice 2019.

14.♗d2!N

This would be an interesting novelty, although hardly a surprising one.

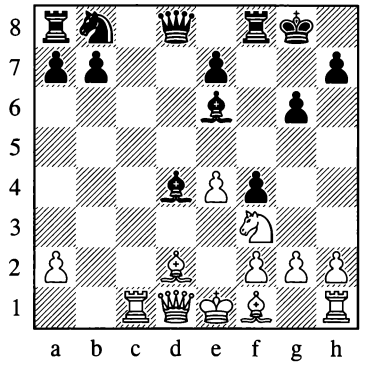
14...♗e6

14...♕xd4 15.♕b3† e6 16.♖xc8 ♕xe5 17.♕xb7 is unattractive.

14...♘c6 15.♗c4† e6 16.♘xc6 bxc6 17.♗c3 would turn out very poorly for Black. His position is all weaknesses.

15.♘f3! ♗xd4

Without this move, 13...f4 makes little sense.

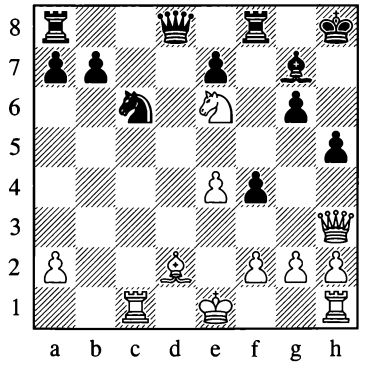


16.♕a4!

This energetic move leads to a sequence where White wins material by force.

16.♘g5 ♗xa2 17.♕c2 ♗f7 18.♗c4 e6 is less convincing.

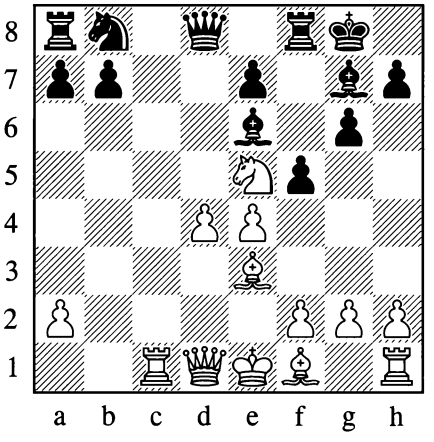
16...♗g7 17.♘g5 ♗d7 18.♗b5 ♗xb5 19.♕xb5 ♘c6 20.♕b3† ♔h8 21.♕h3 h5 22.♘e6



By winning the exchange in this way, White gets to organise his pieces in the best possible way.

22...♕d6 23.♘xf8 ♖xf8 24.♗c3 f3 25.0–0

White has good chances of converting his advantage.



14.♕a4!

Strong active play. White wants to develop the bishop with as much energy as possible and prepares to recapture on c4 with check.

14...f4

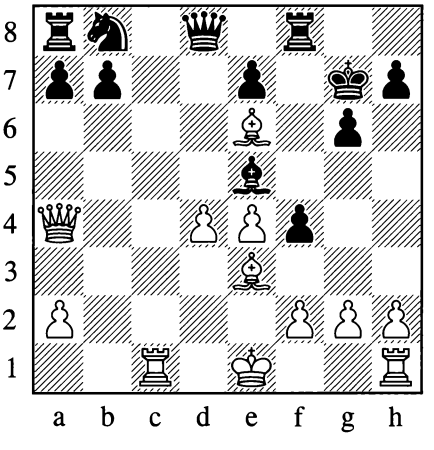
14...♗xe5 would be strongly met with 15.♗c4! ♗xc4 16.♕xc4† and dxe5, when White is a bit better.

15.♗c4 ♗xe5!

A necessary evil.

15...♗xc4 16.♕xc4† ♔h8 17.♗d2 ♗xe5 18.dxe5 ♘c6 19.♗c3 also favours White.

16.♗xe6† ♔g7



17.♕b5!

Strong play by Xiong.

17.♖c8 ♕b6 18.♖xf8 ♔xf8 19.0–0 was suggested by a group of Indian kids. (19.♕c4 ♘c6! would benefit Black.) 19...♕xe6 20.dxe5 g5! was pointed out by Ivan Salgado. Black will take on e5 with the knight and be at least equal.

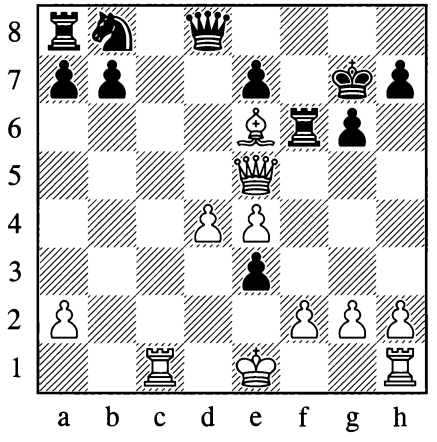
17...fxe3?!

I am not sure what Jones was thinking.

17...♗xd4? would lose a piece to 18.♗xd4† ♕xd4 19.♕xb7.

17...♗f6! 18.♗xf4 ♘c6 19.d5 ♘d4 was critical, offering Black a lot of counterplay. White seems to have a path to a slightly better endgame, but the chances are that Jones would have held it without experiencing too much discomfort.

18.♕xe5† ♖f6



19.♖c8!

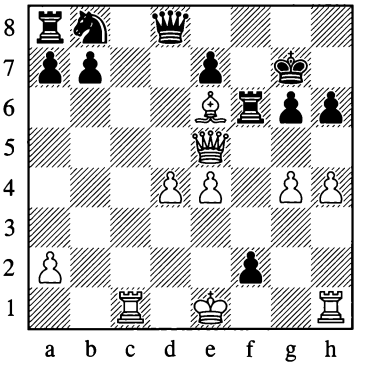
For a long time, I was convinced that this was a mistake. I apologise to those of my students to whom I have shown this game and misled them.

I was discussing the game a few days later with Xiong and he said he had been so focused on the move played in the game and the intricate details thereafter, that he had completely missed out on looking seriously for alternatives. I told him that he had a much stronger option and shared my analysis with him.

19.g4!? exf2†

19...♘c6 20.♖xc6 bxc6 21.g5 and White nets a piece.

19...h6?! 20.h4! only improves White's options. The key point is that after: 20...exf2†

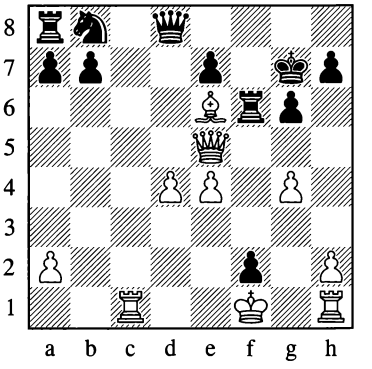


21.♔e2! ♘d7 22.♗xd7 ♕xd7 23.g5 ♕g4† 24.♔f1! There is no check on h3.

20.♔f1

The critical move.

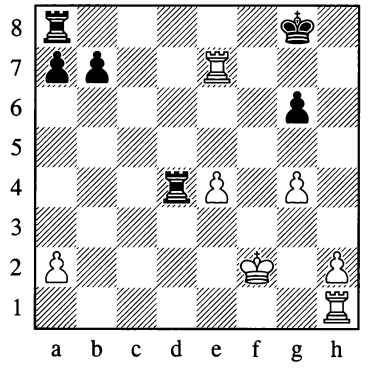
20.♔e2 The king walks straight into a check. 20...♘d7! 21.♗xd7 ♕xd7 22.g5 ♕g4† We could go deeper, but it is already obvious that things are going in the wrong direction.



The critical line is:

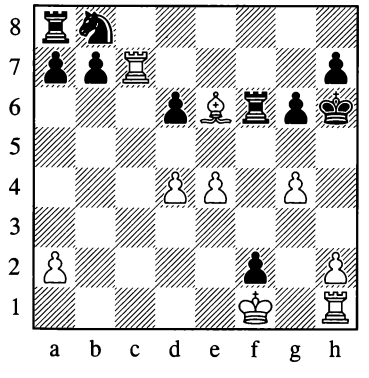
20...♕d6!

20...♘d7 Bringing out the knight and seeking exchanges is very logical, but tactically it does not work. 21.♗xd7 ♕xd7 22.♖c7! This would see Black come under serious pressure. 22...♕d6 23.♖xe7† ♔f8 24.♕xd6 ♖xd6 25.♖xh7 ♔g8 26.♖e7 ♖xd4 27.♔xf2



27...♖d2† (After 27...♖f8†?! 28.♔e3 ♖a4 29.♖b1! White's initiative in the ending is likely to take him across the finish line.) 28.♔g3 ♖xa2 29.♖c1 g5 30.♖c3 ♖a6 31.♖xb7 Black will have to suffer a lot, but may still make the draw.

21.♕xd6 exd6 22.♖c7†! ♔h6



23.♗c4!

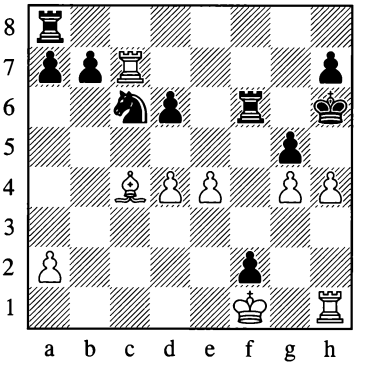
23.d5 ♘a6 and ...♘c5 is fine for Black.

23.♗d5 ♘a6 24.♖xb7 ♖c8 also gives Black a lot of counterplay. White needs to be careful too.

23...♘c6

23...♖f4? 24.h4! with the threat of g5† forces Black to play 24...♖xg4, whereafter 25.♖c8! and ♗d5 wins a piece and in time the game.

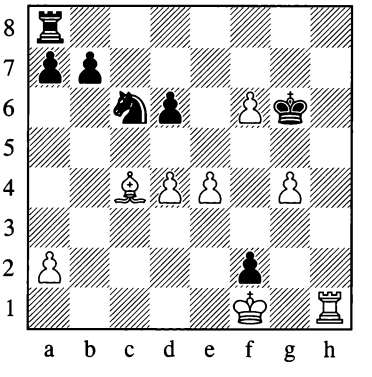
24.h4 g5



25.♖xh7†!

This key move looks very dangerous for Black indeed.

25...♔xh7 26.hxg5† ♔g6 27.gxf6

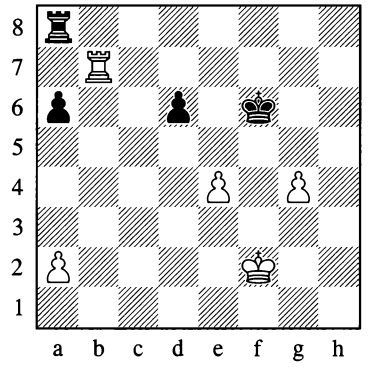


27...♘xd4!

This very accurate move holds.

27...♔xf6?! 28.♔xf2 ♘xd4 29.♔e3 would give White a serious initiative in the endgame. Black has some chances to draw because of the low number of pawns, but it is going to be a rough ride.

28.f7 ♘f3! 29.♔xf2 ♘e5 30.♗e6 ♘xf7 31.♗xf7† ♔xf7 32.♖h7† ♔f6 33.♖xb7 a6



The rook ending is not difficult to hold for Black, on account of his active king and the limited number of pawns and how difficult they will be for White to defend.

34.♔f3

34.♔g3 ♖c8! also holds.

34...♖h8 35.♔g3 ♖h1 36.♖b6 ♔e5 37.♖xa6 ♖g1† 38.♔f3 ♖f1†

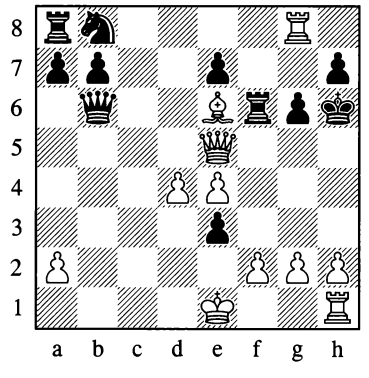
Black draws.

This is obviously deep analysis, and many things could have gone wrong along the way; mostly for Black. Which is what an advantage means. But as we shall see, defending the fortress was also not a simple thing to do for Black.

19...exf2†

Jeffery told me that he had spent the majority of his time calculating the consequences of:

19...♕b6? 20.♖g8† ♔h6



21.f4!!

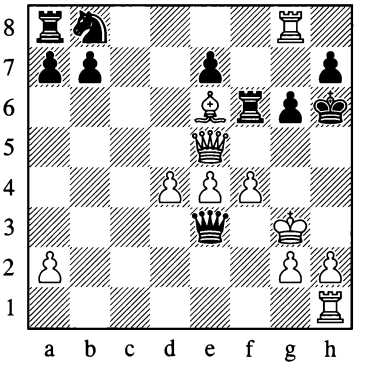
This was the beautiful discovery by Xiong. Black is running out of checks and will be punished for his lack of development.

Jeffery suspected that Jones was relying on 21.h4 ♕b1† 22.♔e2 ♕b2† 23.♔xe3 ♕c3† with a perpetual check, and thus looked for a way to avoid it.

21...♕b4† 22.♔f1 ♕b1† 23.♔e2 ♕c2† 24.♔xe3 ♕c3†

After 24...♕xg2 the simplest is 25.♕g5† and White will win material in the near future.

25.♔f2 ♕d2† 26.♔g3 ♕e3†

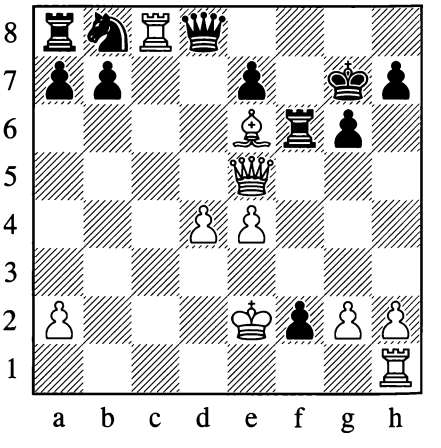


27.♔g4 ♕e2† 28.♔h3 ♕h5† 29.♕xh5† gxh5 30.f5

White is totally winning.

20.♔e2

20.♔f1? ♕b6 works very differently now, of course.

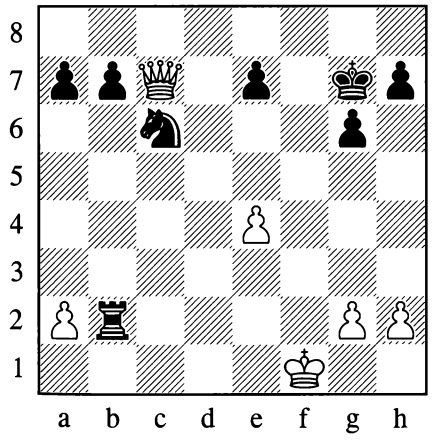


20...♘c6!

Xiong had been too focused on calculating 19...♕b6 and missed this idea completely. Black sacrifices the queen to defend the position in a fortress-style way.

20...♕b6 no longer works. After 21.♖g8† ♔h6 22.h4 ♕b2† 23.♔d3! ♕a3† 24.♗b3 ♕a6† 25.♔d2 Black is out of checks and about to be checkmated.

21.♖xd8 ♖xd8 22.♕c7 ♖xe6 23.♔xf2 ♖xd4 24.♖e1 ♖f6† 25.♔g1 ♖d2 26.♖f1 ♖xf1† 27.♔xf1 ♖b2



Forced play has ended and it is time to take stock.

Firstly, White should be happy that his oversight on move 19 did not cause him problems, but rather increased his chances of winning the game.

Secondly, let's look at the likelihood of this fortress holding. Black has three pawn islands. At the moment all the pawns are defended, and it is not easy for the white king to join the game. But if White is able to create serious threats on the kingside, Black will find it very difficult to defend. Mainly it is about the white king's future.

The winning plan would thus be to create a target on the kingside that forces Black to bring the rook back to the defence, freeing the white king from the first rank. Alternatively, White can bring the king to c1, as the rook would have to keep defending b7.

Activating the king is not simply bringing it past the second rank. It must come up and create threats. It is very hard to determine if this will happen with best play or not. My evaluation is: not. This is the nature of chess. Both sides try to work out the best path forward and afterwards we analyse the games to see what we can learn from them, as one of the ways to improve.

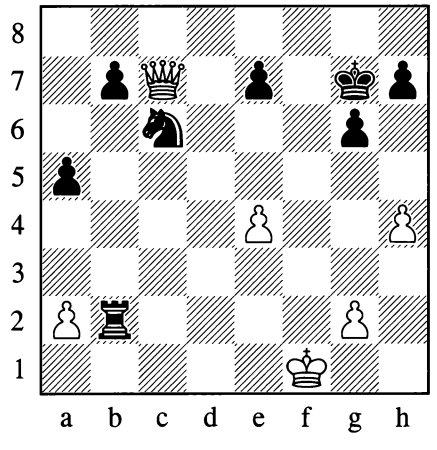
28.h4

A natural move. White wants to create threats against the black king and clear the pawns from the first rank.

28.g4 g5 would not improve White's chances.

28...a5?!

My gut feeling is that 28...h5! would be better. Black would not create any serious weaknesses in his position, but White would not be able to make progress on the kingside without exchanging the pawns, limiting the pressure on the black position automatically.

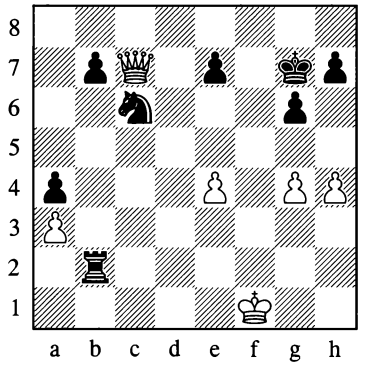


29.h5

Although objectively not inferior, I am a bit sceptical about this move. The thinking is that White wants to create a target on the kingside. I think this would be better achieved by having pawns on the same file. Think for example how a pawn on h6 would be able to work together with the queen to attack a pawn on h7. You would not get the same effect with a pawn on g5.

I believe White would be better off playing:
29.g4! a4 30.a3

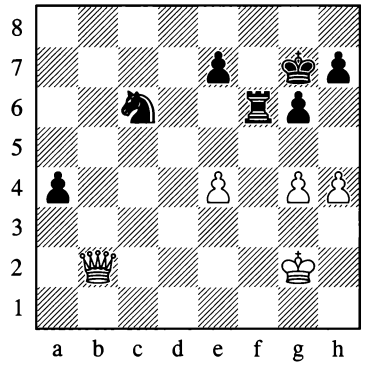
Only after deep analysis, and some helpful input from Doug Eckert, did Black's defence surface.



Black has two methods of defence we shall investigate here, though he would continue to face a difficult defence.

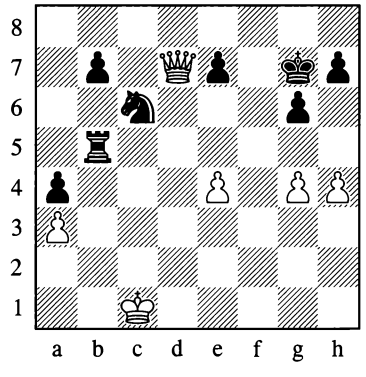
Intuitively attractive is active defence. But often being active in a fortress situation is exactly what you don't want to do.

Originally I considered 30...♖b3 to be more prudent. 31.♕c8 ♖xa3 32.♕xb7 ♖f3† 33.♔g2 ♖f6 34.♕b2



White will take the a-pawn and then try to break the fortress. To me it looks holding, but it may still be possible to create a zugzwang that makes the whole thing come tumbling down in some way.

Active defence goes like this:
30...♖b1† 31.♔e2 ♖b2† 32.♔e1 ♖b1† 33.♔d2 ♖b2† 34.♔c1 ♖b5 35.♕d7



35...♖b3!

Only now this move is played, to meet 36.h5 with 36...gxh5 37.gxh5 ♔h6!.

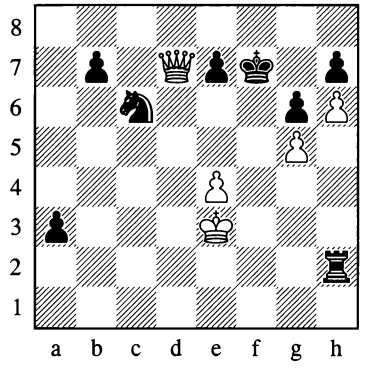
Also 35...h5 may look attractive, but I am worried about Black's position. On the one hand the knight is supported by the b-pawn. But probably it is more important that Black will have three isolated pawns to defend. After 36.gxh5 gxh5 37.♕d1 ♖c5† 38.♔d2 ♔f6 39.♕xa4 ♔e5 40.♕b3 b5 41.♕d3 Black's position looks very much on the edge. I would not be surprised if White has a winning continuation with accurate play.

If not, Black would as a minimum be under extensive and enduring pressure.

36.♕d2

36.h5 gxh5 37.gxh5 ♔h6! should be fine for Black.

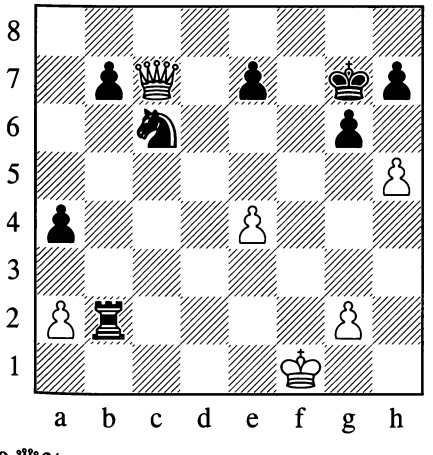
36...♔g8 37.h5 ♖xa3 38.h6 ♖h3 39.g5 a3 40.♕d7 ♖h1† 41.♔d2 ♖h2† 42.♔e3 ♔f7



The a-pawn secures the draw.

29...a4?

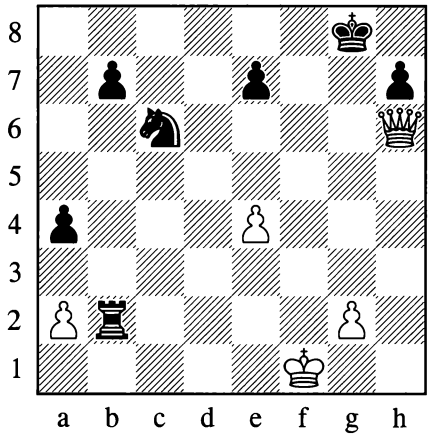
Based on the ideas described above, I would assume that 29...♔h6!? or 29...gxh5 would be likely to be better.



30.♕f4!

30.g4 is desirable in principle, but 30...gxh5 31.gxh5 ♔h6! would eliminate the kingside and presumably lead to a draw.

30...gxh5 31.♕g5† ♔f8 32.♕xh5 ♔g7 33.♕g5† ♔f8 34.♕h6† ♔g8



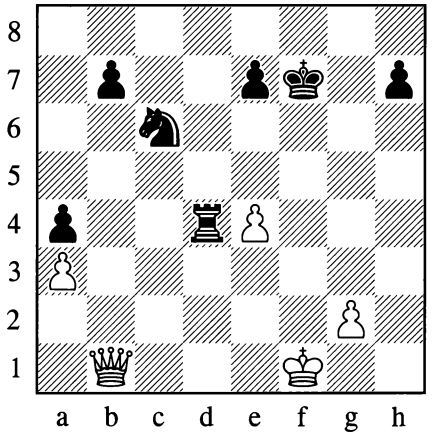
35.♕c1!

Black has weaknesses all over and cannot easily coordinate his pieces.

35...♖b4 36.a3 ♖d4

36...♖b6 37.♕c4† ♔f8 38.♕xa4 ♖a6 39.♕b3 would also be critical for Black.

37.♕b1 ♔f7



38.♕xb7?

Just before the time control, this is the move almost everyone would make. But it was also interesting for White to try to exploit Black's

lack of coordination, rather than going for the weakest of the pawns.

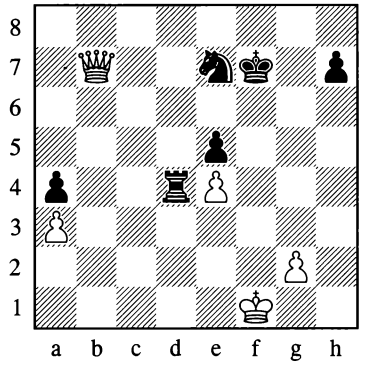
38.♕b5!

Black would be in much greater trouble if he lost the h7-pawn, so this is the immediate target.

38...e5

I do not see any other serious moves for Black. But playing this takes away the e5-square from the black knight, which it could use to transfer to the stable g6-square.

39.♕xb7† ♘e7



There are two important tries to understand.

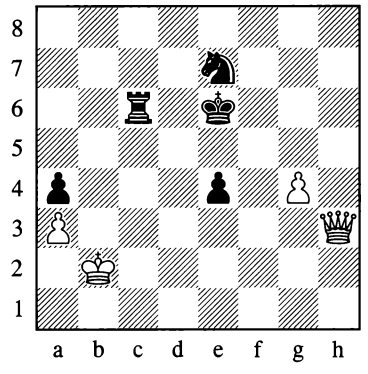
a) 40.♔f2 h6

40...h5 41.♔g3! would allow White to attack the h5-pawn quickly.

41.♕c7!

There are potential fortresses all over the place. The following variation is not at all forced, but shows how things can go wrong for White. 41.♔g3 ♖d3† 42.♔g4?! ♖xa3 43.♕b5 ♖b3! 44.♕xe5 (44.♕xa4 ♖b6 45.♔h5 ♖f6 46.♕b3† ♖e6 Black is making the draw) 44...♖b6 45.♕d4 ♖g6† 46.♔f3 ♖g5 and ...♘g6. Black seems to have established a fortress.

41...♖xe4 42.g3 h5 43.♕c2 ♖d4 44.♕h7† ♔e6 45.♕h6† ♔d7 46.♕xh5 ♔e6 47.g4 ♖f4† 48.♔e2 ♖e4† 49.♔d2 ♖d4† 50.♔c2 ♖c4† 51.♔b2 e4 52.♕h3 ♖c6

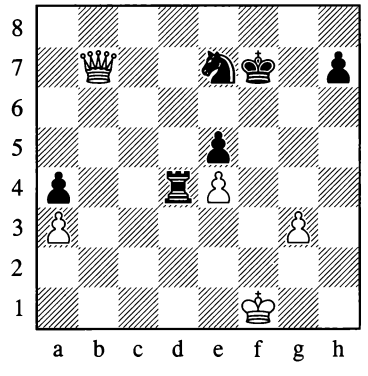


53.g5† ♔d6 54.♕h8 ♖b6† 55.♔a1 ♔d7 56.♕d4† ♖d6 57.♕xa4† ♖c6 58.♕xe4

White wins.

b) 40.g3

The strongest move it seems. White will bring the king round via h3.

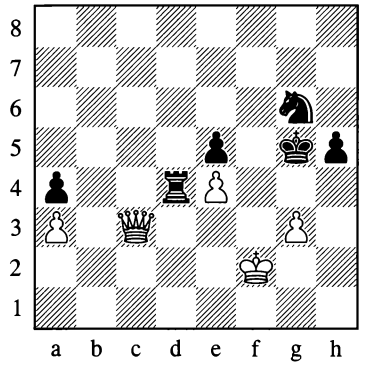


40...h5!

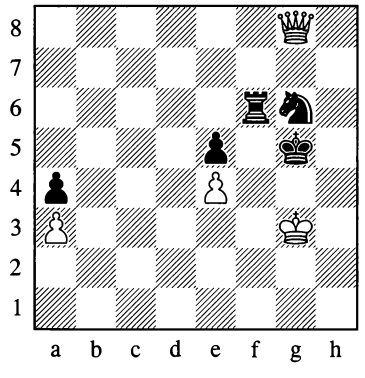
40...♔f6 41.♔g2 ♔f7 42.♔h3 ♔e6 43.♔g4 ♔f7 44.♕a8 ♖c4 45.♔g5 Black is not able to defend the h-pawn for very much longer.

40...♖d3 41.♕b4 ♖d4 42.♕c5 ♖xe4 43.♔f2 h6 44.♕c2 ♖d4 45.♕h7† ♔e6 46.♕xh6† ♔d7 47.g4 ♖d3 48.♕c1 White has made great progress and is well on his way to winning the game.

41.♔g2 ♔f6 42.♕a6† ♔g5 43.♕e2 ♔h6 44.♕e3† ♔g6 45.♕f3 ♔g5 46.♔f2 ♘g6 47.♕e3† ♔g4 48.♕c3 ♔g5



49.♕c1† ♔g4 50.♕h6 ♖d6 51.♕c1 ♖d4 52.♕e3 ♖d6 53.♔g2 ♖d4 54.♕h6 ♖d6 55.♔h2 ♖f6 56.♕d2 h4 57.♕d1† ♔g5 58.♕d8 hxg3† 59.♔xg3 ♘h4 60.♕g8† ♘g6



61.♕e8 ♖f4 62.♕xa4

White wins.

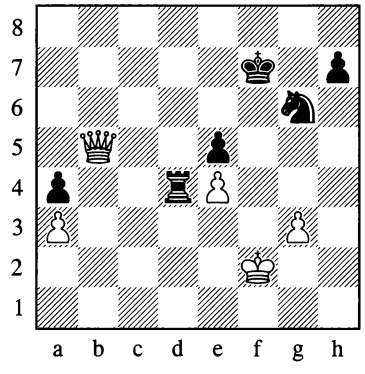
38...♘e5! 39.♕b5 ♘g6

The knight has found a stable square. The black pieces are coordinated, but he still has to defend three pawns across the board, which is a big task.

40.♔f2 e5 41.♔e3?!

I believe that the fortress is holding by now, but it still looks very scary.

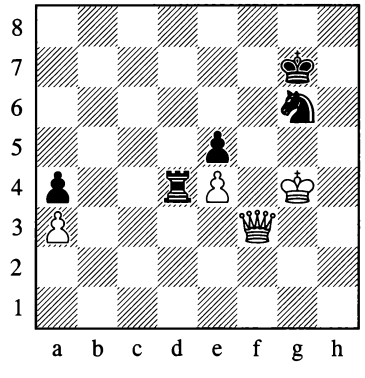
41.g3!?



41...h5!

41...♔g7 42.♕b7† ♔h6 43.♕c6 ♔g7 44.♕c7† (44.♔f3?! ♘h8! would allow Black to reorganise his knight, making sure that White would not be able to make significant progress.) 44...♔h6 45.♔f3 ♔g5 46.♕xh7 ♖d3† 47.♔f2 ♖xa3 48.♕d7 White has made good progress. I would expect him to win the game.

42.♕e2 h4 43.gxh4 ♘xh4 44.♔g3 ♘g6 45.♕f3† ♔g7 46.♔g4

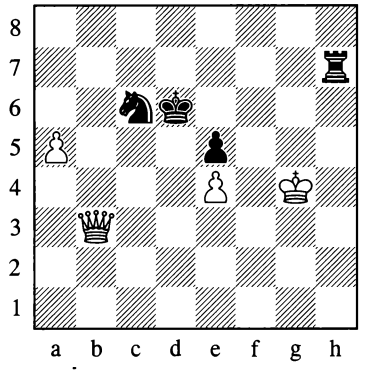


White has made a lot of headway, but Black has many resources.

46...♘e7

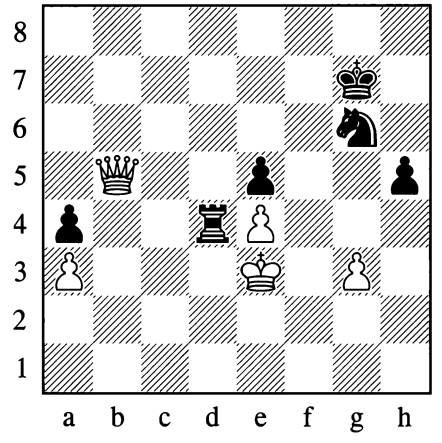
46...♘h8? loses to a simple breakthrough. 47.♔f5 ♘f7 48.♕g2† ♔f8 49.♕c2 ♔g7 50.♕c6 ♔f8 51.♕c8† ♔g7 52.♕a8 ♖c4 53.♕b7 ♖d4 54.♔e6 ♖d6† 55.♔e7 White is winning.

47.♔g5 ♖d6 48.♕c3 ♖g6† 49.♔h5 ♘c6 50.♕c4 ♖h6† 51.♔g4 ♖g6† 52.♔h3 ♔f8 53.♕xa4 ♖f6 54.♕b3 ♔e7 55.a4 ♔d6 56.a5 ♖h6† 57.♔g4 ♖h7



Black has managed to establish a holding fortress.

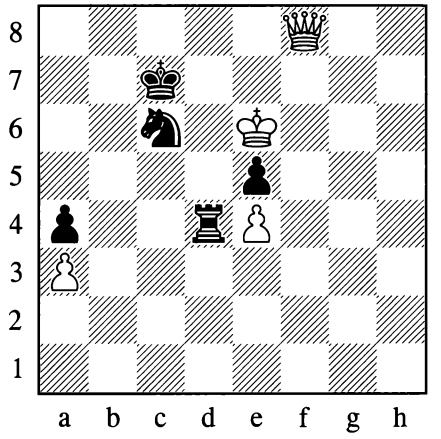
41...h5 42.g3 ♔g7



43.♕e2?!

43.♔f3 ♔f6 44.♕a6† ♔g5 also looks like a fortress. But White would be able to do a lot more prodding.

43...h4 44.♔f3 hxg3 45.♔xg3 ♘e7 46.♔g4 ♔f7 47.♔g5 ♔e6 48.♕a6† ♔d7 49.♕b7† ♔d6 50.♕b8† ♔e6 51.♕a8 ♔d6 52.♔f6 ♘c6 53.♕f8† ♔c7 54.♔e6



54...♔b6 55.♕f1 ♔c7 56.♕f7† ½–½

23. A restriction fortress

The following game is a big rollercoaster ride. From the opening White creates a small edge and manages to create more problems for his opponent than he can handle. In time trouble White fails to take the possibility of a restriction fortress seriously and after reaching move 40, he finds himself unable to bring his strongest piece into the game.

The amazing thing is that during the game neither player seemed to believe the restriction fortress was able to provide Black with a draw. I was watching the game live, although mainly from downstairs, analysing it with a few friends, none of them digital. We were all convinced that a draw was imminent, when Black decided to let the king out of his cage.

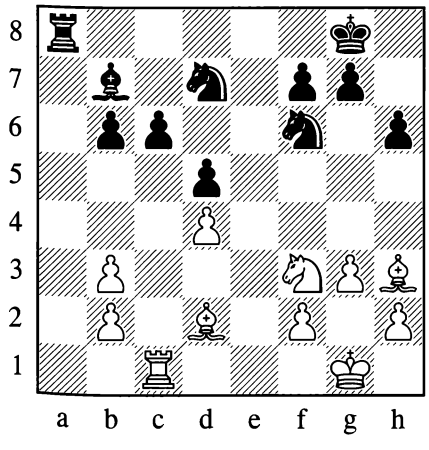
Sam Shankland – Dariusz Swiercz

St. Louis 2019

1.c4 ♘f6 2.♘f3 e6 3.g3 d5 4.♗g2 ♘bd7 5.d4 ♗b4† 6.♘bd2 0–0 7.0–0 b6 8.cxd5 exd5 9.♘e5 ♗b7 10.♕a4 a5 11.♘c6 ♕e8 12.♘xb4 axb4 13.♕xb4 ♕xe2 14.♘f3 ♕c4 15.♗d2 ♖a4 16.♕b3 ♕xb3 17.axb3 ♖xa1 18.♖xa1 ♖a8 19.♖c1 c6 20.♗h3 h6?

A lacklustre move.

20...♖a2!? gives Black counterplay.



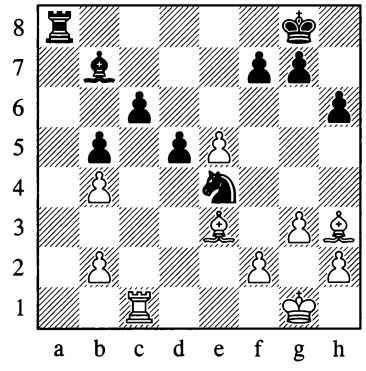
21.♗b4?!

A taunting move that urges Black to play a combination that actually works, although both players were convinced it did not. Chess is hard.

21.b4! b5?!

Maybe 21...♖a2 is better, but after 22.b5 c5 23.♗c3, White has an evident advantage all the same.

22.♘e5! ♘xe5 23.dxe5 ♘e4 24.♗e3



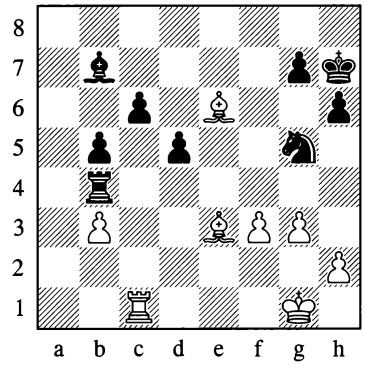
White is much better. For example:

24...♖a4 25.e6 fxe6

25...♔f8 26.f3 ♘g5 27.♗c5† ♔e8 28.exf7† ♔xf7 29.♗g4 is a sort of transposition.

26.♗xe6† ♔h7 27.f3 ♘g5 28.b3 ♖xb4

28...♖a2 29.♗g4 ♘f7 30.♗d4 ♘d6 31.♖e1 ♖d2 32.♗e3 ♖d3 33.♗c5 and White wins.

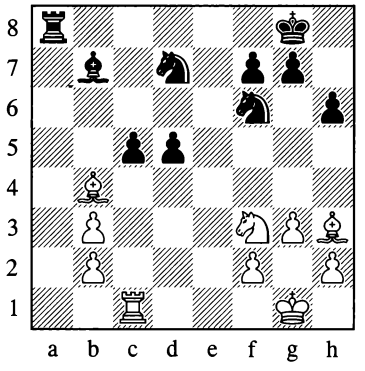


29.♗xg5 hxg5 30.♖a1!

The bishop is trapped. After 30...♖xb3 31.♖a7 ♖xf3 32.♖xb7 Black has three pawns for the piece, but his drawing chances are rather miniscule, if not non-existent.

21...♖e8?

Swiercz misses the chance to equalise with: 21...c5! The white bishop is dominated. 22.dxc5 (22.♗a3 g5 23.♗f5 g4 24.♘d2 h5 is the positional justification for Black's play. 22.♗c3 c4 is also fine for Black.) 22...bxc5



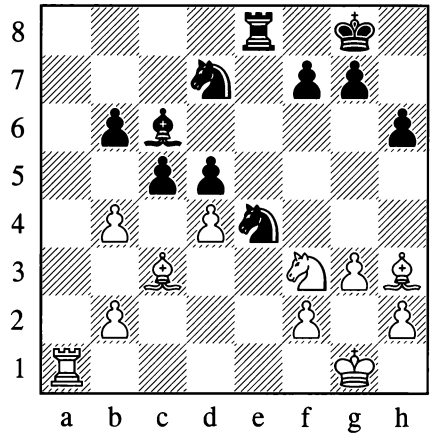
Now 23.♗xc5? does not work tactically. The issue is that 23...♘xc5 24.♖xc5 ♖a1† 25.♔g2 ♘e4 26.♖c7 ♗a6 is absolutely devastating. After 27.♘g1 ♗f1† 28.♔f3 ♘g5† 29.♔g4 ♗d3, for example, it is clear that White will lose a piece.

22.♖a1 c5

22...♖a8 23.♖xa8† ♗xa8 24.♗e7! would give White big chances in the endgame. The black pieces are tied up and White has the strong bishop pair. This does not guarantee victory, but it is a great start to a long endgame.

23.♗c3 ♗c6 24.b4 ♘e4?!

24...c4 25.♖a7 is rather ugly for Black, but still worth a go.



25.♖a7

White has achieved a lot.

25.bxc5! bxc5 26.♖a7 looks very strong too. Long term, White will have a passed b-pawn. I suppose Sam was unsure about exchanging pawns, as it often leads closer to a draw. But in this case these concerns are less relevant. 26...♘df6 27.dxc5 is a clear pawn up, for example.

25...cxb4 26.♗xb4 ♘df6?!

26...♘ef6 is passive and horrible. It was also a better chance.

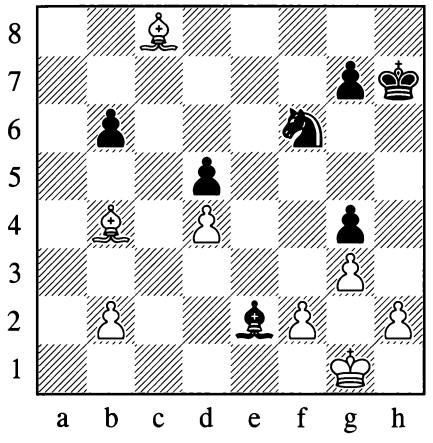
27.♘e5

White wins a pawn.

27...♗b5 28.♘xf7 ♘g5 29.♘xg5 hxg5 30.♗f5 g4 31.♖c7

This is usually good technique. With the two bishops and an extra pawn, Sam seeks to exchange the rooks to reduce the chances of counterplay.

31...♖a8 32.♖c8† ♖xc8 33.♗e6† ♔h7 34.♗xc8 ♗e2



We have reached the most interesting stage of the game. White has won a pawn and will win the game if nothing special happens. This is where it is easy to lose concentration and think the job is done. But there is still one possible obstacle that Sam Shankland was blind to, giving his opponent a chance for a second act.

Thus, this game is almost the prototype game for this book. The dead man is in the coffin. Now, don't let go of the hammer. Get those nails in!

35.♗d6

35.♗e7! was accurate and easy. Black cannot allow White to take on f6 and play f2-f4. Although he will temporarily get the pawn back, the bishop endgame holds no chances of survival at all. Thus, he would have to play 35...♘e4, when the simplest of many wins is 36.♗e6 ♘d2 37.f4! gxf3 38.♗xd5 and White is totally winning, being a pawn up and not long away from winning the f-pawn as well. The two bishops are just the icing on the cake.

35...♘e4 36.♗f4 g5 37.♗e3?

A plausible move, but also a horrible mistake.

The win was far more natural.

37.♗c7

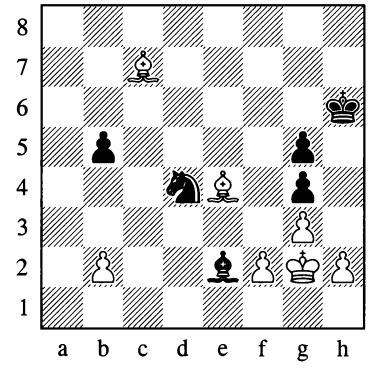
An obvious tempo move.

37...b5 38.♗e6

This is a very natural move. Black has only one try.

But White can also play prophylactically. With 38.♗a5! Black does not have the ...♘d2-f3 counterplay idea and will not be in time to set up his fortress.

38...♘d2 39.♗xd5 ♘f3† 40.♔g2 ♘xd4 41.♗e4† ♔h6



White wins with only one move.

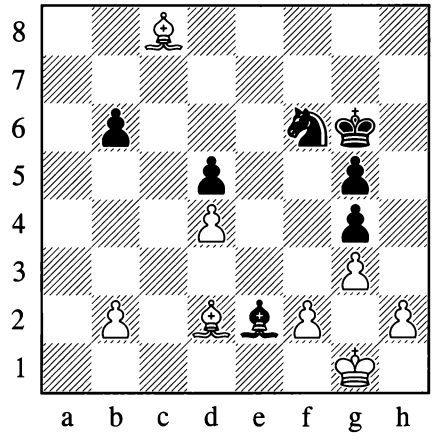
42.♗a5!!

The key thinking is prophylaxis.

42...♗f3† 43.♗xf3 ♘xf3 44.h3

White has denied the ...♘e1† option, which would be an immediate perpetual. Now the extra pawn will win slowly. Black will not be able to defend on two flanks.

37...♔g6 38.♗e6 ♘f6 39.♗d2 ♗d3 40.♗c8 ♗e2 41.♗b7 ♔f5 42.♗c8† ♔g6



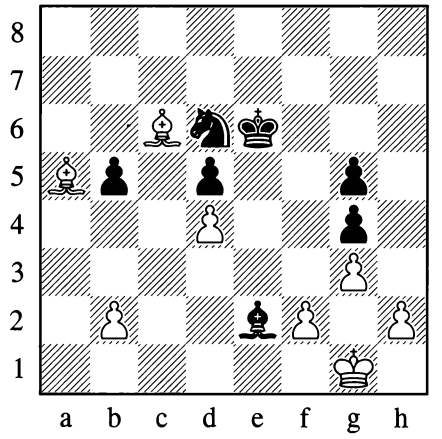
43.♗b4

It is worth noting that after 43.♗e6 ♗d3 44.♗b4 ♗f5! Black makes a draw. The white bishop is bad, the d-pawn weak and the pawns on the kingside are not able to join the game.

43...♔f7!

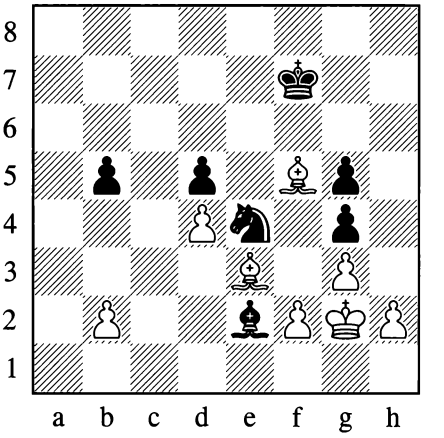
Preventing ♗e7.

44.♗d6 ♘e4 45.♗c7 b5 46.♗a5 ♘d6 47.♗d7 ♔e7 48.♗c6 ♔e6



Black has managed to set up a fortress. Without having the time to bring the king around, this would not have been possible.

49.♗b4 ♘e4 50.♗b7 ♘f6 51.♗c8† ♔f7 52.♔g2 ♘e4 53.♗a6 ♔e6 54.♗b7 ♘f6 55.♗c8† ♔f7 56.♗e1 ♔e7 57.♗f5 ♔f7 58.♗d2 ♘e4 59.♗e3



59...♗f3†?

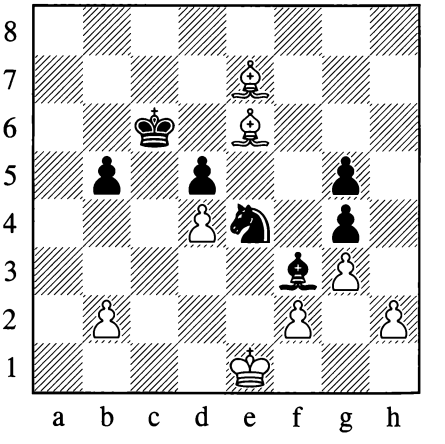
Swiercz is seeing ghosts.

After 59...♔f6 the fortress was holding. It is very difficult for most of us to do nothing for a long time. At some point you start imagining problems that are not there, panic and "do something", which is not what you should have done...

60.♔f1 ♔e7 61.♔e1 ♔d6

The white king is still trapped. But the black bishop is much worse placed on f3, where it no longer defends the pawn on b5. This job now must be taken over by the black king.

62.♗d2 ♔c6 63.♗b4 ♔c7 64.♗e6 ♔c6 65.♗e7



Black is in zugzwang. There is nothing but concessions left.

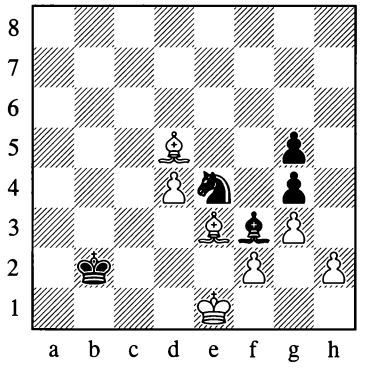
65...b4 66.b3!?

Prophylactic thinking, but in this case, overthinking.

What Sam was concerned about was probably: 66.♗xb4 ♔b5 67.♗d2 ♔c4

This looks like counterplay. But after: 68.♗e3

Black would be in zugzwang again. White wins. For example: 68...♔b3 69.♗xd5† ♔xb2



70.♗xe4!?

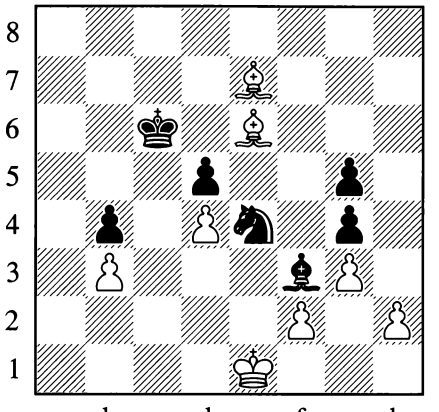
Not strictly necessary, but the three extra pawns will secure the victory.

70...♗xe4 71.♔d2!

71.♗xg5 ♔c3 72.♗f6 ♔d3! would re-establish the fortress strategy. The extra three pawns are of no use here.

71...♔b3 72.♗xg5 ♔c4 73.♔e3 ♔d5 74.♔f4 ♗f3 75.h4

White wins.

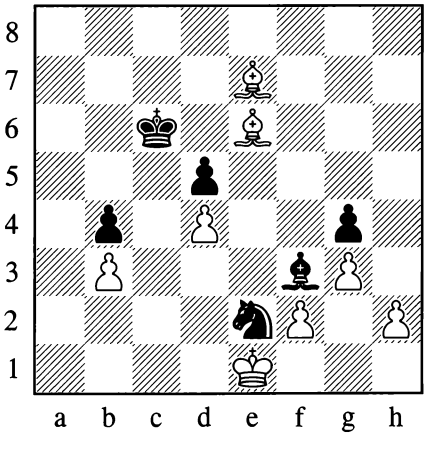


66...♘d6 67.♗xg5 ♘b5 68.♗f6 ♘c3 69.♗e7?!

A blunder that does not throw the win away, but suddenly makes things unnecessarily difficult.

69.h3! ♗d1 70.♗e7 gxh3 71.♗xh3 ♗xb3 72.♗xb4 wins easily for White, two pawns up.

69...♘e2!



With a double threat on the d-pawn and b-pawn. The counterplay is real and White has to show accuracy in order to win the game.

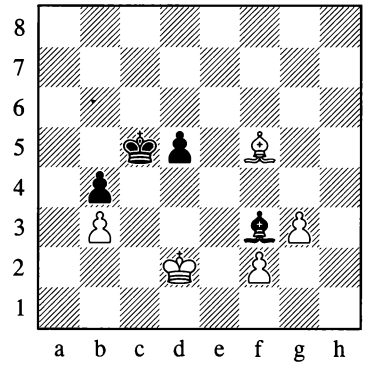
70.h3?

After this natural-looking move, which unfortunately is a mistake, the endgame becomes very complicated and frankly impossible to navigate on increments.

70.♗c5! ♘c1 71.h4 gxh3 72.♗xh3 ♘d3†

72...♘xb3 73.♗xb4 ♘xd4 74.♔d2 wins slowly for White. More accurate moves will be needed, but the extra pawn and the bishops will be enough to win the game.

73.♔d2 ♘xc5 74.dxc5 ♔xc5 75.♗f5

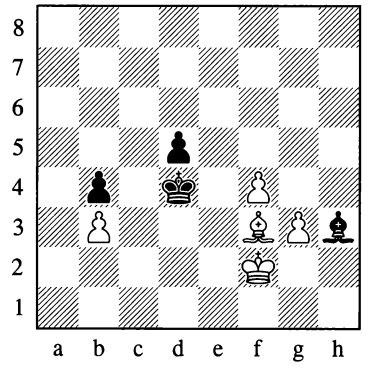


White wins this bishop ending. This is not obvious from afar, but once we are here, we can see that the kingside pawns will advance relatively unhindered.

75...♔d4 76.♗d3 ♗g4 77.f4 ♗h3 78.♗h7 ♗g4 79.♗g6 ♗h3 80.♗h5 ♔e4 81.♔e2 ♗g2 82.♔f2 ♗h3

82...♗h1 83.♔g1 White wins.

83.♗f3† ♔d4



84.g4

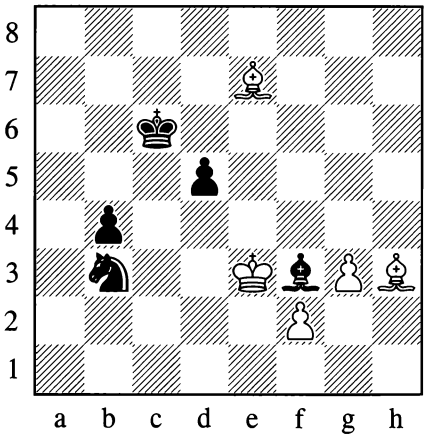
The simplest. The bishop is trapped, and the f-pawn is threatening to go all the way. So after Black tries:

84...♔c5

White traps the black bishop with:

85.♗e2

70...gxh3 71.♗xh3 ♘xd4 72.♔d2 ♘xb3† 73.♔e3



73...♗h5?

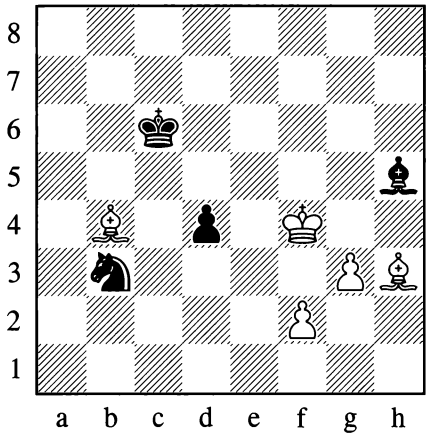
Black would still have held after 73...♗d1 74.♗xb4 ♗c2 and 73...♗e4 74.♗xb4 ♗h7. It turns out that the b1-f5 diagonal is essential for Black's defensive efforts.

74.♗xb4?

A very natural move.

But 74.♗f5! was much stronger. After 74...♘c5 (74...♔b5 75.g4 and the pawns will motor up the board.) 75.g4 ♗e8 76.♔d4 ♘b3† 77.♔e5 the white pieces are perfectly placed to help the pawns push forward.

74...d4† 75.♔f4



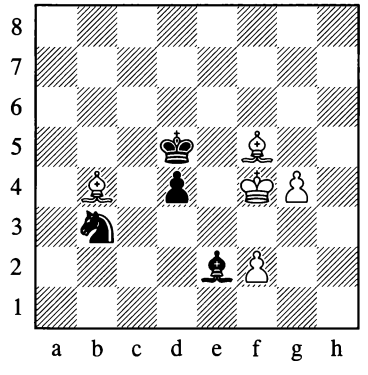
75...♔b5?

A mistake that would have been hard to understand at the time and easy to explain.

75...♔d5! 76.♗c8

76.g4 ♗g6 would hold again. Chess is really difficult.

76.♗f5 ♗e2! gives counterplay. 77.g4



Black holds with thematic counterplay: 77...d3 78.♔e3 ♘d4! Threatening both ...♘c2† and ...♘xf5. Also after 79.♗xd3 ♗xg4, Black holds.

76...♗d1!

76...♗e2? 77.♔f5! ♗d3† 78.♔f6 ♘c5 79.♗xc5 ♔xc5 80.♔e5! and White will win.

77.g4 ♘c1! 78.♗f8 ♗c2

Black has enough counterplay to hold. The black king is both restricting the white king and being close to the action.

76.♗e1! ♘c5

76...♗g6 77.♗d7† ♔c5 78.♗e6 ♗c2 79.g4 d3 80.♗xb3 ♗xb3 81.♔e5! White wins.

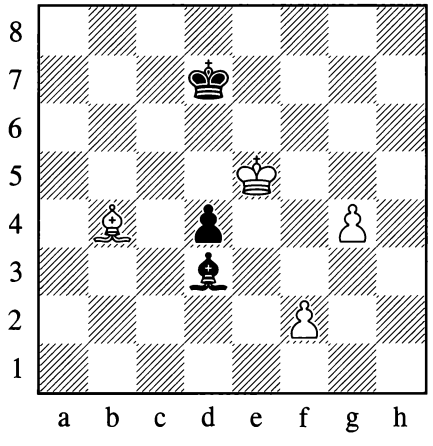
77.♗f1† ♔c6

77...d3 78.g4 ♗g6 79.♔e5 and White wins.

78.♗b4

78.♔e5! was a bit cleaner, but White is winning all the same.

78...♗g6 79.g4 ♘d3† 80.♗xd3 ♗xd3 81.♔e5 ♔d7



82.f4!

The white pawns are deadly, while the black pawn is harmless.

82.♔xd4? would be a horrible mistake. After 82...♗e2 83.g5 ♔e6 Black will blockade the pawns.

82...♔e8 83.f5 ♔f7 84.♔xd4 ♗e2 85.g5 ♗b5 86.♔e5 ♗e8 87.♗c3 ♗b5 88.♔f4 ♔g8 89.g6 ♗d3 90.♔g5 ♗c4 91.f6 ♔f8 92.♗b4† ♔g8 93.♔f4 ♗b3 94.♔e5 ♗c4 95.♗e7 ♗b3 96.♔d6 ♗c4 97.♔c7 ♗b3 98.♔d8 ♗c4 99.♗a3 ♗b3 100.♔e7

1–0

24. Understanding fortresses

The last game of this chapter was added as this book was completed. It has a fairly normal narrative for a messy fighting game. In the beginning White has an initiative, but as he misplays it, he is left with a material deficit and a desperate fight for a draw. The technical endgame is again a story of its own...

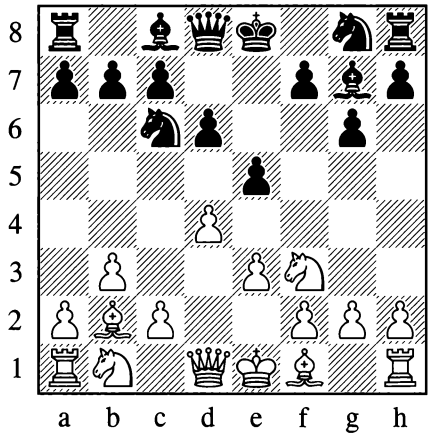
Hovhannes Gabuzyan – Manuel Petrosyan

Yerevan 2021

1.b3 e5 2.♗b2 ♘c6 3.e3 g6 4.♘f3 ♗g7 5.d4 d6

This feels a bit unnatural.

5...exd4 6.♘xd4 ♘xd4 7.♗xd4 ♘f6 would be a simple way to play the position; while 5...e4 6.♘fd2 f5 7.c4 d6 would be a more advantageous path.



6.dxe5! ♘xe5 7.♘xe5 ♗xe5!

The early transition into an endgame would be a bad choice.

After 7...dxe5? 8.♕xd8† ♔xd8 9.♗c4 ♘h6 10.h3! c6 11.g4 ♔c7 12.♘d2 with ideas such as 0–0–0 and ♘e4-d6, White is massively better.

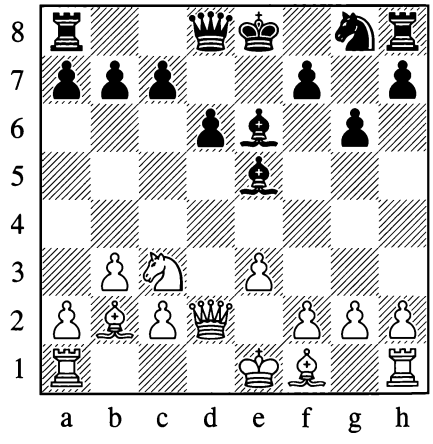
8.♘c3

8.♗xe5 dxe5 9.♕xd8† ♔xd8 is on the other hand not dangerous for Black, as the king can be safely placed on e7 without fearing any ♗a3† annoyances.

8...♗e6?!

8...♗d7! is probably the strongest move in this position. The point is quite deep and will be shown to be relevant in the note to move 10. Also, it works quite well against g2-g3 ideas.

9.♕d2



9...f5?

Black is certainly neglecting development, in favour of creating weaknesses in his pawn structure.

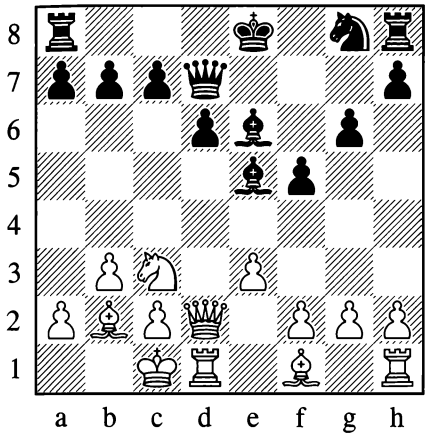
9...♕d7 would still be better for White, but not desperately so.

10.0–0–0 ♕d7

10...♘f6 11.f4! ♗xc3 12.♕xc3 ♖f8 is almost OK for Black. Unfortunately, White has two annoying moves.

First of all, there is 13.♕b4!, where we can see Black's desperate need to play ...♗c6. After 13...b6 14.♗a6, White is better.

Also 13.g4!? is interesting.



11.♘b5?

At the grandmaster level, this is quite a disappointing move. The main goal of the opening is to include all the pieces in the game. At this point, Black has neglected development and instead weakened his position. This should create inspiration.

11.e4!!

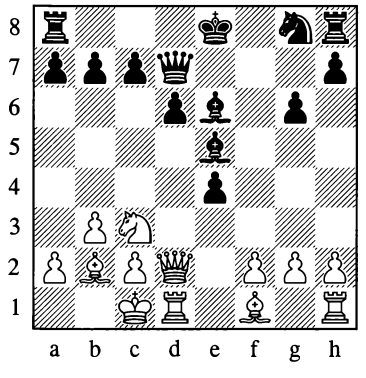
This is the principled move. Open the centre! The planned follow-up is f2-f4.

11...fxe4?!

This is certainly the critical line. Unsurprisingly, Black is punished for his lack of development.

11...f4? 12.♘b5! leads to a total collapse. For example: 12...♘f6 13.♗xe5 dxe5 14.♕a5 b6 15.♕c3 and it is time to resign.

Thus, Black's lesser evil is 11...♘e7!? 12.f4! ♗g7 13.e5 0–0–0, although after 14.♕f2 his position is still desperate.



12.♗b5!!

This looks like a simple provocation, but as the bishop is abandoned there, it seems to be the appropriate moment to attach the !!.

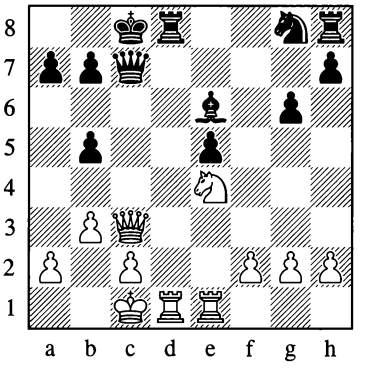
12...c6 13.♘xe4 cxb5 14.♖he1

Not the only move, but very principled. Hulk is ready to smash!

14...0–0–0

14...♗xb2† 15.♔xb2 0–0–0 16.♕c3† and White wins.

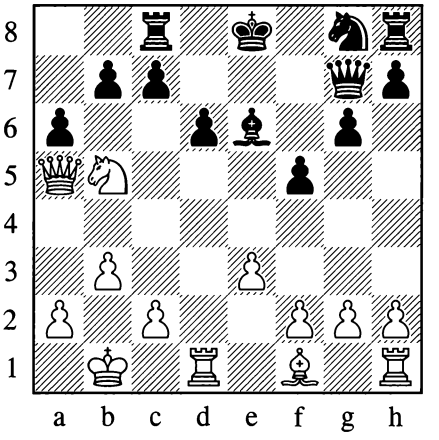
15.♗xe5 dxe5 16.♕c3† ♕c7



17.♖xd8† ♔xd8 18.♖d1† ♔c8 19.♘d6† ♔b8 20.♕xe5

White wins.

11...♗xb2† 12.♔xb2 ♕g7† 13.♔b1 a6 14.♕a5 ♖c8



15.♖xd6!?

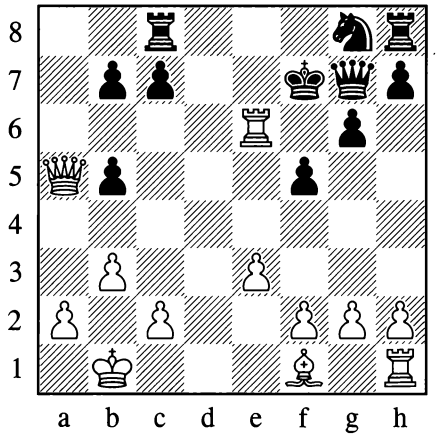
I am of the belief that if you see such a move and you cannot find a reason why it is bad, it is almost always the right thing to play it. Life is for living!

White could still have held on to a slight plus with 15.♘d4 ♗d7 16.♗c4 ♘f6 17.e4! fxe4 18.♘e6 ♗xe6 19.♗xe6 ♖b8 20.f4!? and it will at least not be pleasant to be Black going forward, even if the position is objectively fine.

15...axb5

15...cxd6? 16.♘xd6† ♔e7 17.♕b4 would be desperate for Black. 17...♔d7 18.♗c4 ♗xc4 19.♖d1 is the most obvious line, in the style of Mikhail Tal.

16.♖xe6† ♔f7

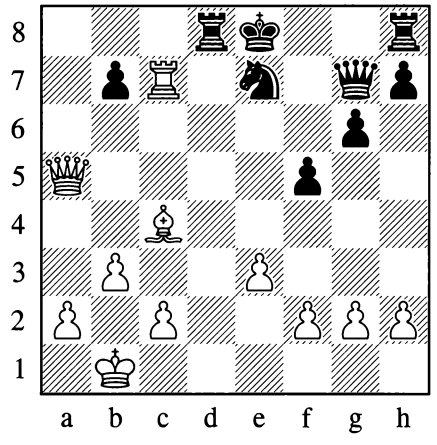


17.♗xb5?!

A very logical move, but sadly not a good one.

17.♕xb5! was better. 17...♔xe6 18.♗c4† ♔e7 19.♖d1 ♘f6! 20.♕b4†! This is the key difference. 20...♔e8 21.♕xb7 ♔e7! 22.♕b4†! with a draw by repetition. But who plays chess to make draws?

17...♔xe6 18.♖d1 ♔f7 19.♖d7† ♘e7 20.♗c4† ♔e8 21.♖xc7 ♖d8

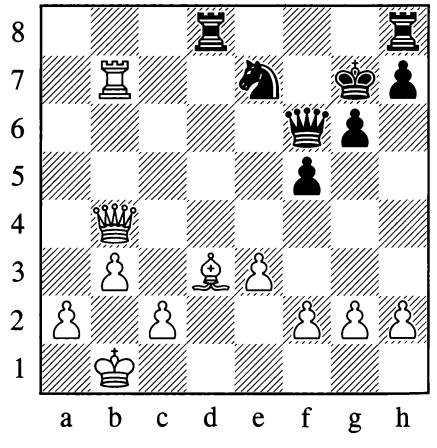


22.♕b5†?

Checking the king out of the killzone is hardly ever a good idea.

22.c3! b6 23.♕xb6 ♕e5 24.a4 White has compensation, but Black is for choice after 24...♖f8! and ...♖f6, including the last pieces in the game.

22...♔f8 23.♗d3 ♕f6 24.♖xb7 ♔g7 25.♕b4



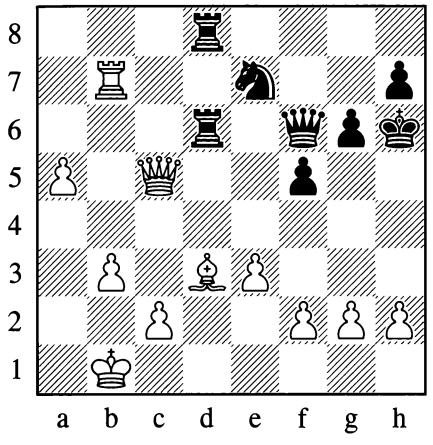
25...♖he8?

A very natural-looking move, but you only need to spot 25...♖d6! to see that the pieces are better organised this way.

26.♕c5 ♖d6 27.a4 ♖ed8

The lost tempo matters. We shall see that the a-pawn is a strong asset.

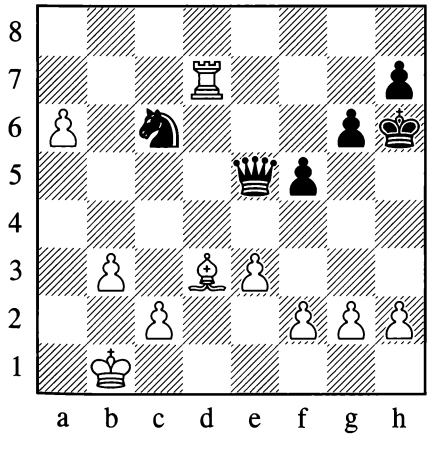
28.a5 ♔h6



29.♕c7!

A great practical decision. Even a queen down, White has lots of counter-chances.

29...♖8d7 30.♕xd7 ♖xd7 31.♖xd7 ♘c6 32.a6 ♕e5



While it is already some time ago that the white attack came off the tracks, it is only at this moment that White's position becomes a lost one. But he has already entered the zone of one mistake. I am sure that Gabuzyan realised that his position was very difficult, but most likely he believed that his position was already lost and decided to set up for a passive fortress.

33.h4?

Only this mistake was fatal. By putting the pawn on h4, White has created unnecessary weaknesses in his own position.

White had several different ways to make a draw.

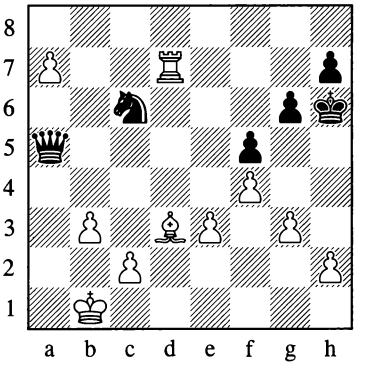
33.g3!?

This does not have the forcing quality of the next two defensive ideas. Still, it is hard for Black to improve his position. And the attempt to win by force is not successful:

33...♕a5 34.f4 ♘b4

34...♘b8 35.♖d6 is unpleasant for White, but it is not easy for Black to make progress either. 34...♕e1† 35.♔b2 ♕xe3

35.a7 ♘c6



36.g4! fxg4

36...♘xa7?? would lose to 37.g5† ♔h5 38.♖xh7† ♔g4 39.♗e2#.

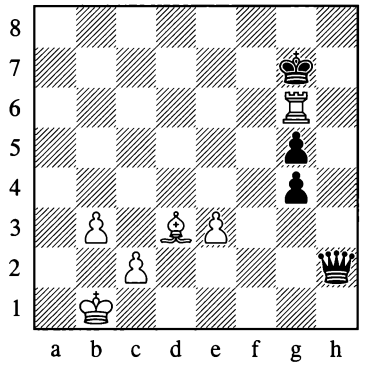
37.♗c4 ♘xa7 38.♗g8 g5 39.f5!

By creating a mating net, White wins a piece.

39...♕xf5 40.♖xh7† ♔g6

The endgame after 40...♕xh7 41.♗xh7 ♔xh7 42.b4 is also a draw. White has a lot of counterplay, and the black king is far away from everything.

41.♖xa7 ♕e5 42.♗h7† ♔f6 43.♖a6† ♔g7 44.♗d3 ♕xh2 45.♖g6†



White will make a draw. The key point is that after:

45...♔f7 46.♖xg5 g3 47.♗e4

White will be happy to give up the bishop for the last remaining black pawn, before transferring the rook to the queenside, establishing a fortress.

The most abstract idea is:

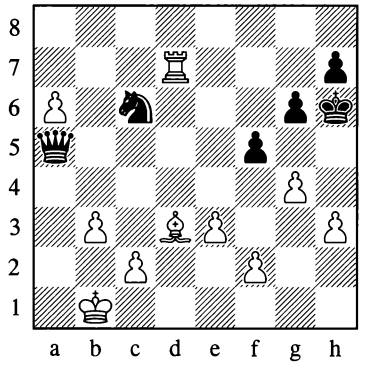
33.h3

This is based on a strong wish to exchange pawns. And it works.

33...♕a5

33...♕h2 34.♗b5 ♕xg2 35.♗xc6 could even be dangerous for Black. It would make sense to play 35...♕f1†! 36.♔b2 ♕xa6 37.♖d6, where the players will play for all three results.

34.g4



34...♕e1†

White is not experiencing any difficulties after either 34...♘b4 35.a7 ♘xd3 36.cxd3 or 34...fxg4 35.hxg4 ♔g5 36.♖xh7 ♔xg4 37.♖g7, where he will make easy draws.

35.♔b2 ♕xf2 36.♖c7 ♕g2 37.gxf5 ♘b4 38.♖d7

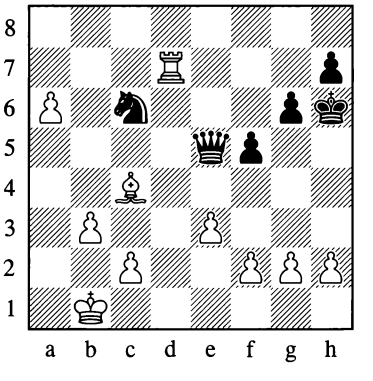
38.a7!? would also hold, but is a bit over the top.

38...♘xd3† 39.♖xd3 ♕a8 40.fxg6 hxg6 41.♖d6

White makes a comfortable draw.

As always, the best solution to our difficulties is the least abstract one.

33.♗c4!



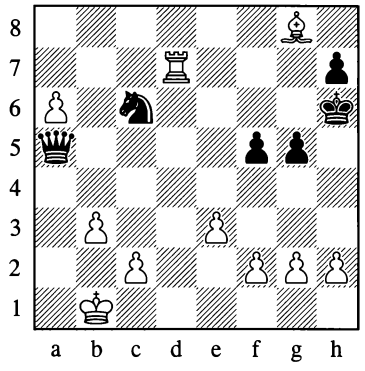
This move has several ideas. White would love to play ♗d5 and a6-a7, but it is with counterplay against the black king that White makes his mark.

33...♕a5

33...♘b4 34.a7 ♕a5 looks dangerous, but after 35.♔b2! Black has nothing more than a repetition.

34.♗g8 g5

34...♕xa6? 35.♖xh7† ♔g5 36.f4† ♔g4 37.♗c4 and it would be White who wins.

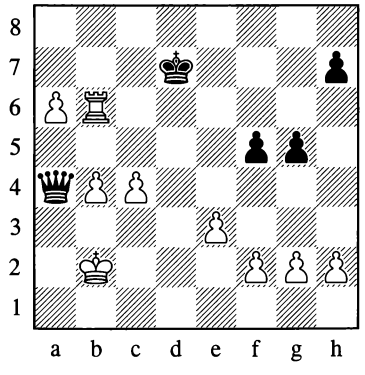


It is possible Gabuzyan saw this much and rejected it. But, Black has no winning path at all.

35.♖d6†! ♔g7 36.♖xc6 ♔xg8 37.♔b2!

White can slowly improve his position. In the end it will be Black who needs to look for a draw.

37...♔f7 38.c3 ♔e7 39.b4 ♕a4 40.♖b6 ♔d7 41.c4

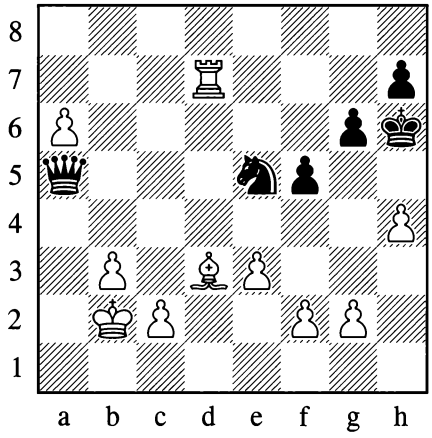


With c4-c5 coming, White has an active fortress, where the continuous threat of pushing the a-pawn, and the way the black king is cut off, makes it impossible for Black to do anything, despite the huge number of pawns on the board.

33...♕a5

We immediately see the problem with White's last move. There is no obvious follow-up.

34.♔b2 ♘e5



35.♖d4?

White is going for a passive fortress with only one huge weakness, the f2-pawn. Unfortunately for him, if that pawn falls, the whole position falls.

Giving up the a6-pawn, the only real asset in the white position, was simply put, a bad mistake, which deserved to lose the game far more than any of the other mistakes in the game, even though deep analysis shows that the position is already lost:

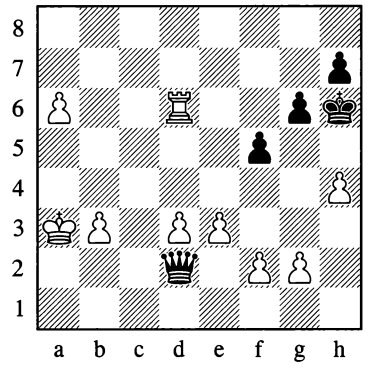
35.♖d6! ♘xd3† 36.cxd3 ♕d2†!

Only very accurate play wins.

36...♔h5 37.g3 ♔g4 38.♖d4† and 39.♖a4 would let White off the hook.

36...f4?! would be an attempt to make it possible to advance the king. The idea is good, the timing is wrong. 37.exf4 (37.♖c6 transposes to 40.♖c6 in the main line) 37...♔h5 38.♖d7 ♕xa6 39.♖xh7† ♔g4 40.h5! gxh5 (40...♕f6† 41.♔a2) 41.f3† and White holds.

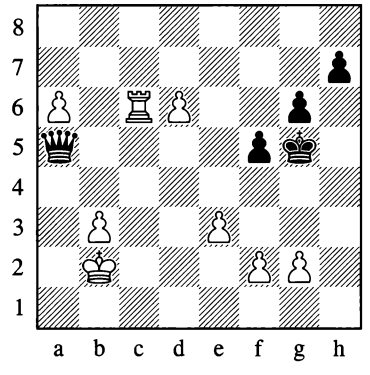
37.♔a3



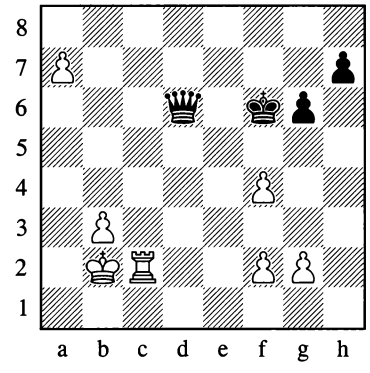
37...♕c3! 38.♖e6!?

A very clever defensive move.

38.d4 is also a difficult move to take down. The win is beautiful: 38...♕c7 39.♖e6 ♕a5† 40.♔b2 ♔h5 41.♖c6 ♔xh4 Black looks ready to win, but White has one big idea left. 42.d5! ♔g5 43.d6



43...f4!! Maybe this move is not so difficult to find once you are here, but the timing of this idea still makes it difficult. The reason for the move will be obvious in a few moves. 44.exf4† ♔f6! 45.♖c4 ♕d2† 46.♖c2 (46.♔b1 ♕xf2) 46...♕xd6 47.a7



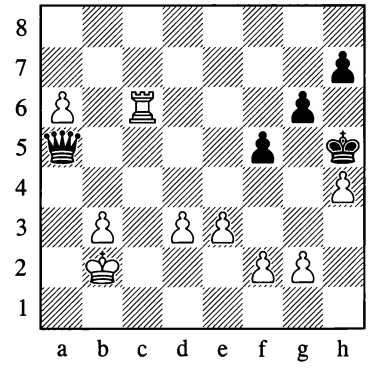
Here we see the difference. It is not related to any ♖d4 ideas, but about being able to stop the a-pawn with: 47...♕d4† Black wins.

38...♕a5†!

An essential part of playing well technically, is to keep things under control as much as possible.

38...♔h5 39.♔a4 ♔xh4 40.b4 would give White enough counterplay to make the draw. The white pawns are strong.

39.♔b2 ♔h5 40.♖c6



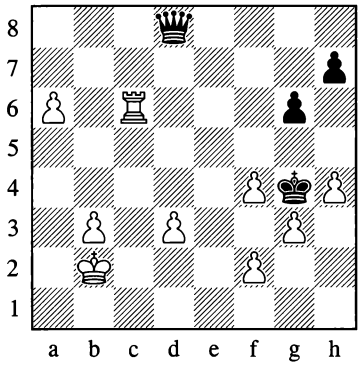
40...f4!

By now we have become familiar with this idea. Black does not allow ♖c4† and ♖a4.

41.exf4 ♔g4!

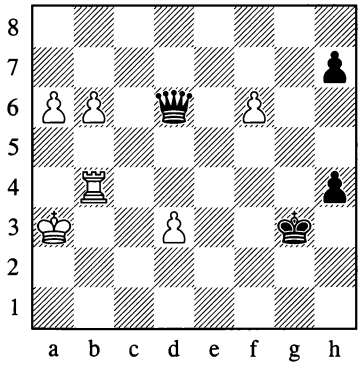
41...♔xh4? 42.f5! and the check on c4 raises its ugly head again.

42.g3 ♕d8



According to my analysis, Black wins this endgame. Already getting this far would be an incredible feat.

43.h5!? gxh5! 44.f5 ♕d4† 45.♔a3 ♔f3 46.b4 ♔xf2 47.b5 ♔xg3 48.f6 ♕d7! 49.♖c4 h4 50.b6 ♕d6† 51.♖b4

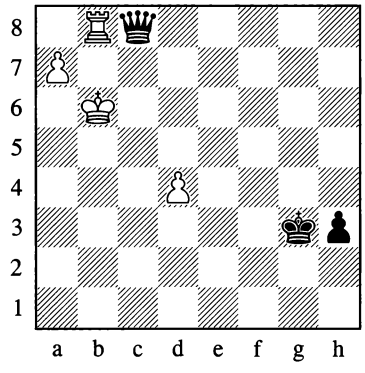


A truly crazy position, where Black wins by one tempo only.

51...h3 52.b7 h2 53.b8=♕ ♕xb8 54.♖xb8 h1=♕ 55.♖b6 ♕a1† 56.♔b4 h5!

Black wins.

57.f7 ♕b2† 58.♔c5 ♕f2† 59.d4 ♕xf7 60.♖b7 ♕f8† 61.♔c6 ♕f6† 62.♔b5 h4 63.a7 ♕f5† 64.♔a6 ♕c8 65.♔b6 h3 66.♖b8

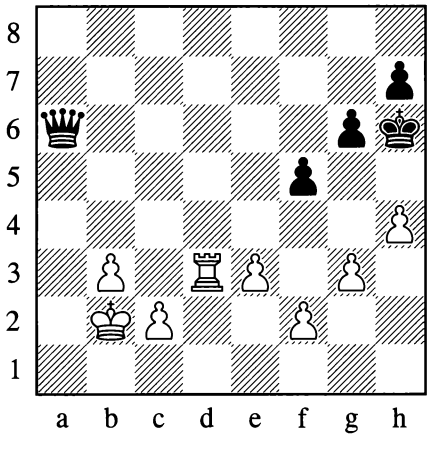


66...♕e6† 67.♔c5 ♕e7† 68.♔b6 ♕d6† 69.♔b5 ♕d5† 70.♔a6 h2

Black wins, if he can convert queen against rook.

35...♘xd3† 36.♖xd3 ♕xa6 37.g3

The position has stabilised. It is time for Black to create a winning strategy.

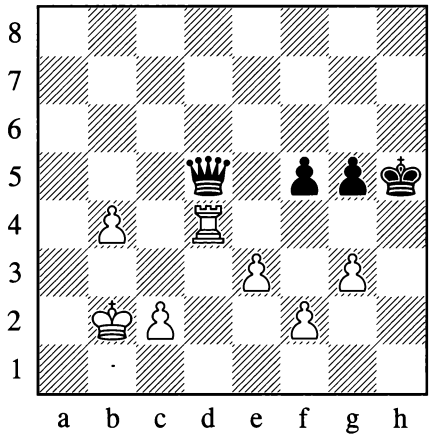


We have been over the basic winning techniques of this type of position already. Black wants to create a passed pawn, if possible, but mainly he wants to stabilise the advantage, activate the king and then slowly squeeze White until it becomes impossible for him to defend the f2-pawn. He has no intentions of exchanging pawns if it can be avoided.

37...♕a5

Preventing b3-b4 and ♖b3. This probably does not work anyway, but why allow it?

38.♖d4 ♕e1 39.♖f4 ♔h5 40.b4 h6 41.♔b3 ♕f1 42.♔c3 ♕e2 43.♔b3 ♕e1 44.♔c4 ♕d2 45.♔b3 ♕d5† 46.♔b2 g5 47.hxg5 hxg5 48.♖d4



This position marks the peak of Black's advantage.

48...♕g2

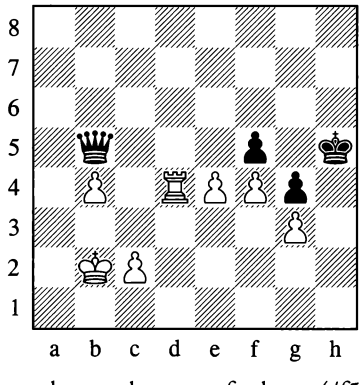
I personally prefer:

48...♕b5

The idea is to limit White's ability to create counterplay.

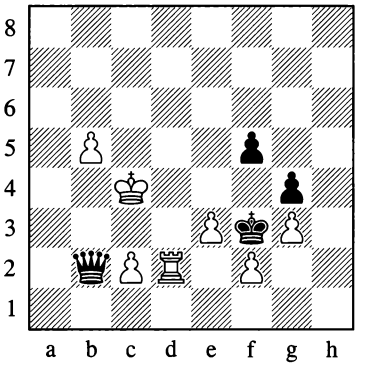
49.♔c3

49.f4 g4 50.e4!? is a decent try.



After the exchange of the e4/f5-pawns, White can drop the rook back to the third rank, when he has achieved an impenetrable fortress. But Black can still win with 50...♕b6!, when all moves by White have fatal flaws.

49...♕f1 50.♖d2 ♔g4 51.♔b3 ♕e1 52.♔c3 ♔f3 53.♔d3 ♕b1 54.♔c3 g4 55.♔c4 ♕b2 56.b5



56...♔g2!

Black comes closer and closer. He is not in a hurry.

57.♖e2 ♔f1 58.♖d2 ♔e1

The white position collapses.

59.♖d4 ♕xc2† 60.♔d5 ♔xf2 61.b6 ♕b3† 62.♔c6 ♕xe3 63.b7 ♕c3†

Black wins.

49.♖d2 ♕f1 50.c3!

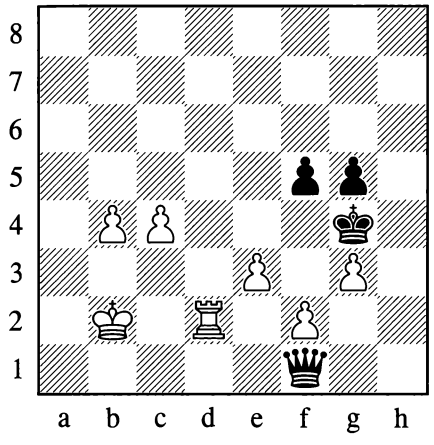
As we saw in the previous note, White is needing space for the rook. Slowly, he is managing to get his rook to b2, with the intention of pushing the b-pawn forward, while defending the important f2-pawn.

50...♔g4?

Not a critical mistake, but certainly a moment where we can see that Black has lost control.

Better was: 50...♕c4! 51.♖c2 ♔g4 52.♖d2 (52.f4 does not work. Both e3 and g3 are doomed and the f-pawn will decide.) 52...♔f3 53.♖c2 ♔g2 This is the common path the king is taking. 54.♔b1 ♔f1 55.♖b2 ♔e1 56.b5 ♔d1 57.b6 ♕d3† 58.♔a2 ♔c1 Black wins.

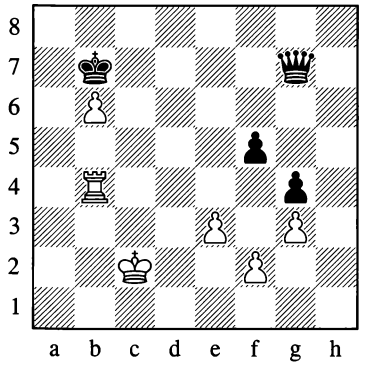
51.c4!



51...f4?

Finally, this is the decisive mistake, throwing the win away. Black should never willingly exchange pawns. The following variations, like those above, are all illustrations and by no means forced. But they do give a decent understanding of what a winning continuation would look like.

51...♔f3 52.♖c2 ♕e1 53.b5 ♕b4† 54.♔a2 ♔e4 55.♖b2 ♕xc4† 56.♔b1 ♕d3† 57.♔a2 ♕d5† 58.♔b1 ♕b7 59.b6 ♔d5 60.♔a2 ♔c6 61.♖c2† ♔b5 62.♖b2† ♔a6 63.♖b3 g4 64.♔b2 ♕g7† 65.♔c2 ♔b7 66.♖b4



If White had time to get his king to e2, he would make the draw. But Black does not allow it.

66...♕a1! 67.♖f4

67.♔d2 ♕a2† 68.♔e1 ♕a5! is an important point.

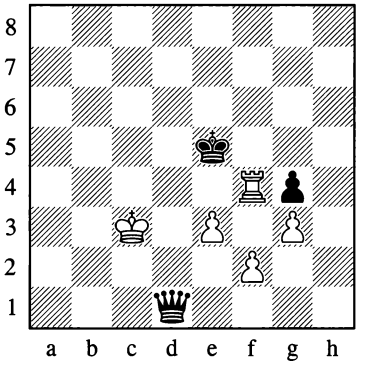
67...♕e1!

67...♕f1 68.♔d2 ♔xb6 69.♖xf5 would allow White to make the draw.

68.♖xf5 ♔xb6 69.♖f4 ♕e2† 70.♔c3 ♔c5

Black is winning. He will slowly put White in zugzwang.

71.♖f5† ♔d6 72.♖f4 ♔e5 73.♖f8 ♔e6 74.♖f4 ♕d1 75.♖e4† ♔f5 76.♖f4† ♔e5

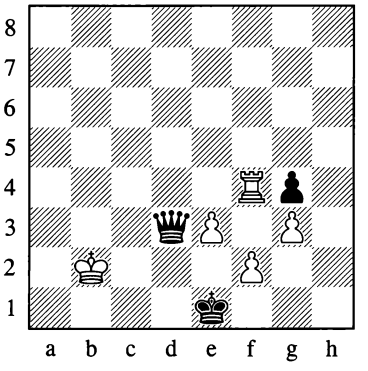


The first zugzwang. The black king must be allowed to cross the 4th rank.

77.♖f8 ♕c1† 78.♔b3 ♔e4 79.♖f4† ♔d3 80.♖d4† ♔e2 81.♖f4 ♕c5 82.♔b2 ♕b5† 83.♔c3 ♕d5 84.♔c2

84.♖xg4 ♔xf2 would lead to the desired queen vs rook endgame. But it is worth knowing that even some strong players have failed to win this. Also, some weaker players, like me, do not have a 100% score with the queen...

84...♕d3† 85.♔b2 ♔e1

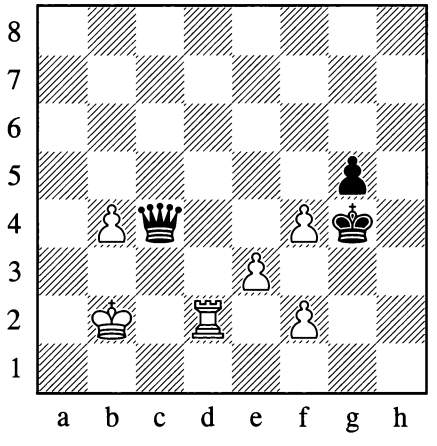


Another zugzwang.

86.♔a1 ♕c2

Black wins.

52.gxf4 ♕xc4



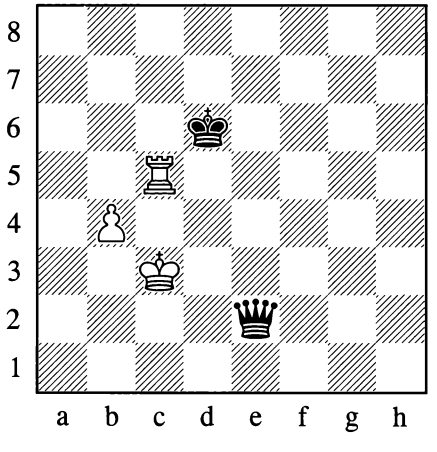
53.♖d4!

Securing the b-pawn – the pawn needed to save the game.

53...♕e2† 54.♔c3 ♕xf2 55.fxg5† ♔xg5 56.♖d5† ♔f6 57.♖c5!

Creating the perfect set-up.

57...♕xe3† 58.♔c4 ♕e2† 59.♔b3 ♔e6 60.♔c3 ♔d6



White has an impenetrable fortress.

61.♔b3 ♕a6 62.♔b2 ♕a4 63.♔c3 ♕a3† 64.♔c4 ♕b2 65.♔b5 ♕a2 66.♔b6 ♕a4 67.♖c4 ♔d7 68.♖c7† ♔d8 69.b5 ♕d4† 70.♔b7 ♕e5 71.b6 ♕d5† 72.♔b8 ♕a5 73.♖c8† ♔d7 74.b7 ♕b6 75.♔a8 ♕a6† 76.♔b8 ♕a5 77.♖c4 ♕a1 78.♖c7† ♔d6 79.♖c8 ♕a2 80.♖c7 ♕a4 81.♖c8 ♕a5 82.♖c2

½–½

Fortresses are usually only spoken of as being fortresses if they hold. During a game, this is often a less important factor. Being able to play these positions well is more important. Understanding different types of fortresses and different types of strategies, such as defending specific squares and the role of zugzwang, but not only this, is an important part of navigating these positions better.

Until the day I, or someone else, writes a complete book on fortresses, this chapter will have to do. (Maybe I will cannibalise this chapter in the process!)

Exercises to Chapter 4

★☆☆☆☆ Easy. Based on a simple idea

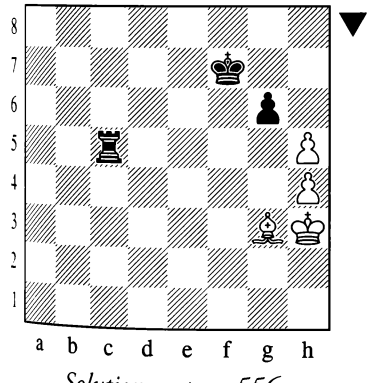
★★☆☆☆ Friendly. Can be solved by most

★★★☆☆ Mid-range. You need to think, but not too much

★★★★☆ Challenging. You will need to concentrate for these ones

★★★★★ Brain crusher. After solving, see a neurologist...

★★★☆☆



Solution on page 556

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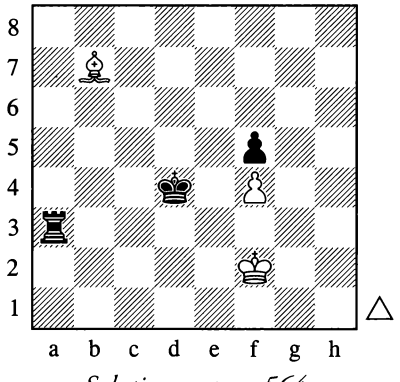

Solution on page 564

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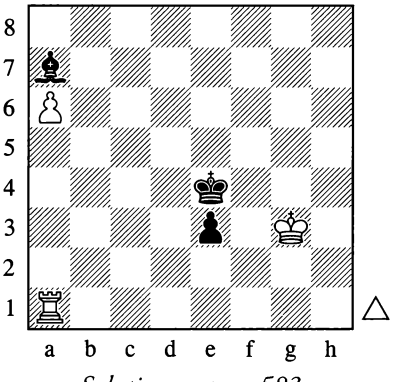

Solution on page 583

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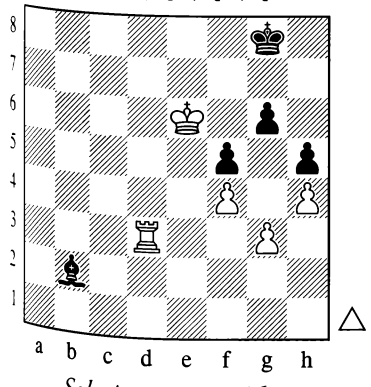

Solution on page 563

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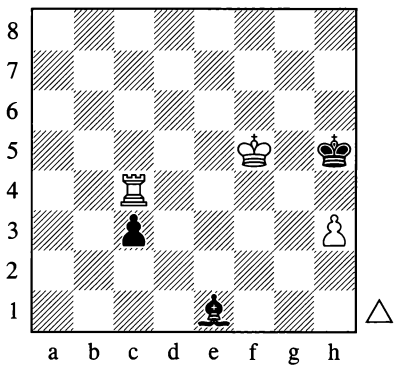

Solution on page 580

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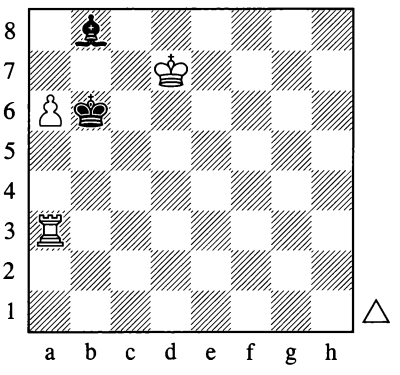

Solution on page 588

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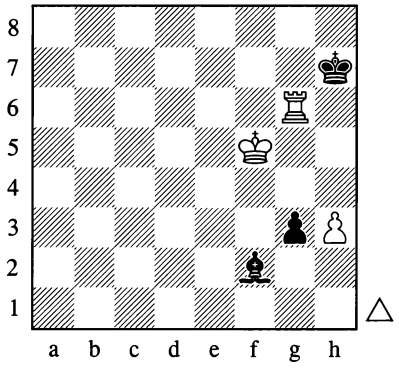

Solution on page 591

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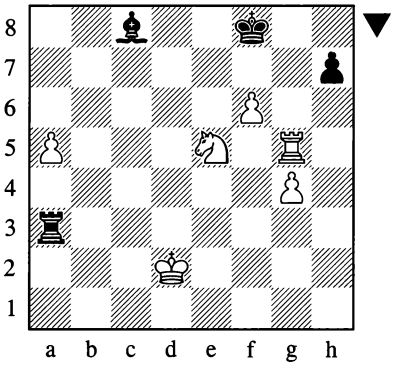

Solution on page 610

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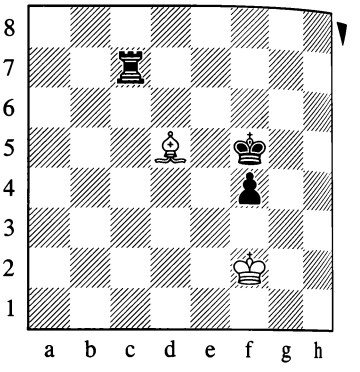

Solution on page 616

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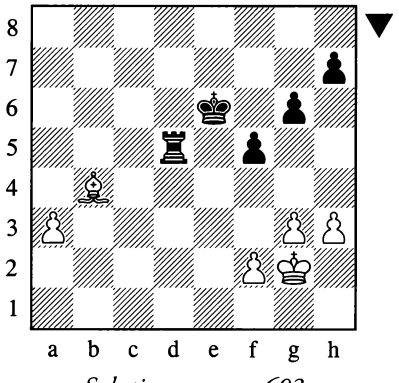

Solution on page 603

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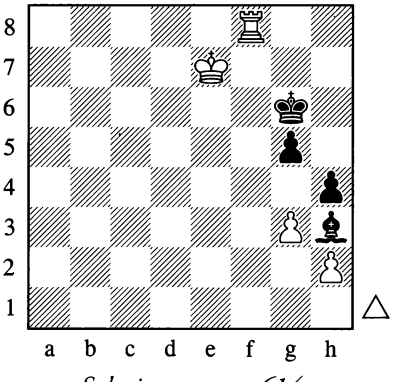


Solution on page 614

Chapter 4

Rook vs Bishop

Introduction

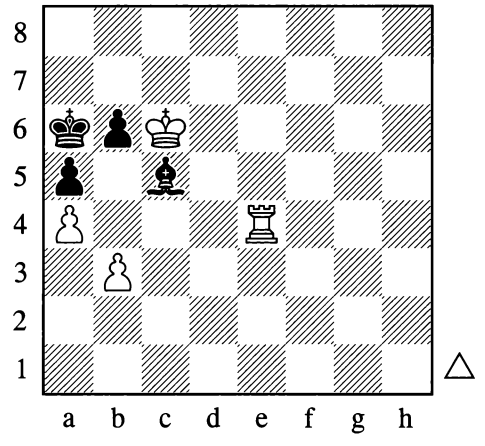
In this chapter we shall look a bit more closely at fortresses where the stronger side has a rook and the weaker side has a bishop. Because of the bishop's inherent limitations, it always works better in tandem with other pieces; for example, famously, a bishop operating on the other colour squares. But in defensive positions the pieces are often left fending for themselves. The luxury of flexibility comes with a lack of responsibility. This is not the case when the pieces are limited, dominated and responsible for the defence of several weaknesses. Bishop endings have a great tendency to be about fortresses in general. It is quite well-known when we talk about endings with opposite-coloured bishops, but also in endgames with bishops of the same colour, that passive defence with a high amount of blockade activity is the main defensive strategy. Adding a rook into the mix does not change this in a significant way.

In this chapter you will see a lot of zugzwang scenarios, often combined with the threat of mate. As so often in chess, it will be easy for me to explain how the positions work, but finding the path yourself would be very challenging. In order to get the most out of this chapter, I strongly encourage you to try to do exactly that.

1. A fortress breaking – filmed backwards

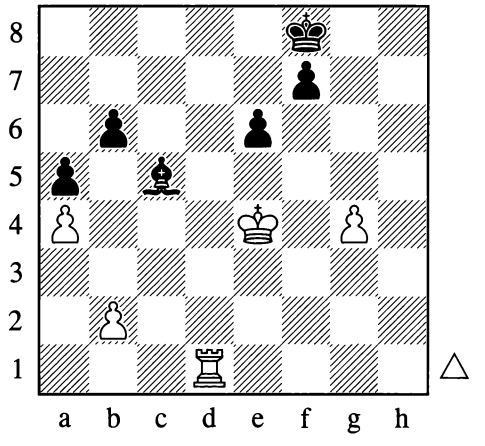
In this section we will look at the collapse of a fortress in three stages. We start with the last fortress, which you can reach if you can break the second fortress, which again you can get to, if you break the first fortress.

Example 1



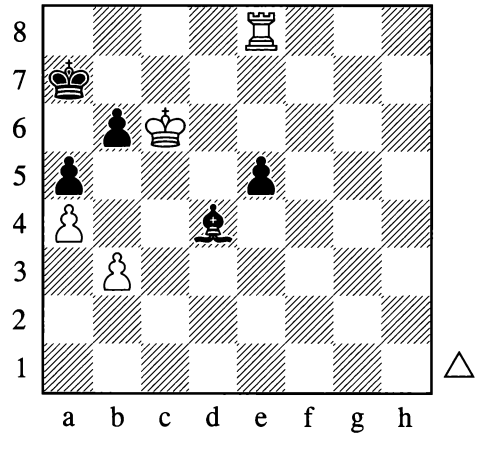
The first example in this chapter comes in three steps. We will start with the final step. Black has a desperately fragile fortress, but we still need to find the way to break it. How?

Example 3



Who is behind Door Number 3? White is obviously playing for a win, but breaking down the defence requires more precision than hot air. How should White proceed?

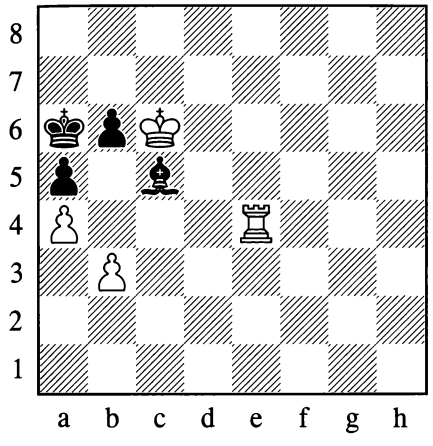
Example 2



While the first fortress seemed like a straw house, this one is built of wood and takes a big bad wolf to break down. Show your teeth!

Let's break 'em down...

Example 1

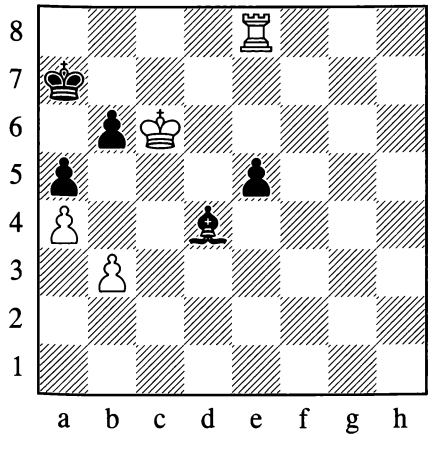


Schematic thinking is probably the best tool to solve this position. White has to play ♖xb6, winning the pawn. In order to do this, we need to have the white king on a6, so we can play ♖b7xb6. Once we have established this, it is easy to work out a winning path. As Black is just waiting, White can do this in many different ways.

1.♖e8 ♔a7 2.♔b5 ♔b7 3.♖e5 ♗g1 4.♖e7† ♔b8 5.♔a6 ♗c5 6.♖b7† ♔c8 7.♖xb6

White wins.

Example 2



This fortress is less easy to break. It takes quite a bit more than brute force. The e-pawn defends against that. Hopefully then we turn to schematic thinking, most likely after a few failed avenues have been travelled. As we know, zugzwang is a central method of destroying fortresses. Another is checkmate.

First, let us look at the checkmate. If the white rook is on b7 and the white king on a8 with the black king on a6, checkmate is ensured. If we can play ♖b7 with the gain of a tempo, we are thus about to deliver checkmate.

Looking at the position from a zugzwang perspective is always relevant in endgames. For example, if Black was to play he would be very short of options. Giving up the e-pawn would lose in an elementary way, as we have already established.

Thus 1...♗c3 or similar would be met with 2.♖e7† ♔a6 3.♖b7! ♗d4 4.♔c7 and Black cannot prevent the king from going to a8, after which it is checkmate.

So, the path to winning the position is through triangulation. White needs to hand the move over to the other side.

1.♖e7† ♔a6

1...♔b8 is simple. White plays 2.♖e6! ♔a7 3.♖e8 with triangulation and White wins.

2.♖e6!

Putting Black into zugzwang.

2.♖b7

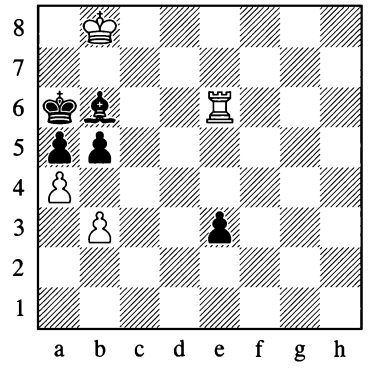
This also wins, but is quite complicated. Black can play 2...♗c5 3.♔c7 ♗d6† 4.♔c8 e4 5.♖d7 ♗c5 and although White is still winning, it requires some technique.

Things are rather complicated after the more direct:

2...e4 3.♔c7 ♗e5† 4.♔c8 e3 5.♖e7 ♗d4 6.♔b8

White is winning, but it is not easy.

6...b5 7.♖e6† ♗b6



8.♔a8

Black is in zugzwang, but it does not stop here.

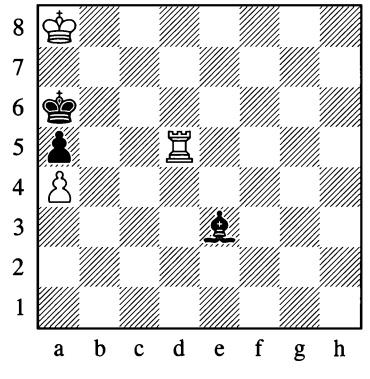
8...e2 9.♖xe2 bxa4 10.bxa4 ♗c7 11.♖e6† ♗b6

White has to manoeuvre very accurately to put Black in a damaging zugzwang.

12.♖e5

12.♖e7 ♗c5 13.♖d7? ♔b6 would allow Black to escape.

12...♗c7 13.♖b5 ♗g3 14.♖g5 ♗c7 15.♖g6† ♗b6 16.♖g7! ♗e3 17.♖b7! ♗f4 18.♖f7 ♗e5 19.♖f5 ♗c7 20.♖f6† ♗b6 21.♖f7 ♗d4 22.♖f5 ♗a7 23.♖d5 ♗e3



24.♔b8

Only now can the white king come out, as the a5-pawn is hanging and the black king is unable to escape the corner. As we shall see below, this is an important theoretical position to be on top of.

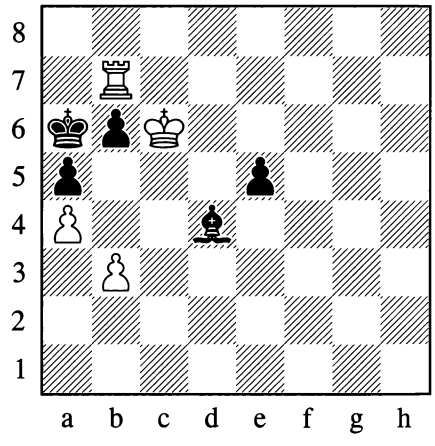
2...♔a7

2...♗c3 3.♖e8! transposes.

3.♖e8!

We have managed to pass the move to Black, who now has to either give up the e-pawn, or get checkmated after:

3...♗c3 4.♖e7† ♔a6 5.♖b7 ♗d4



6.♔c7 ♗c5 7.♔b8 ♗d6† 8.♔a8

And White forces mate.

Example 3

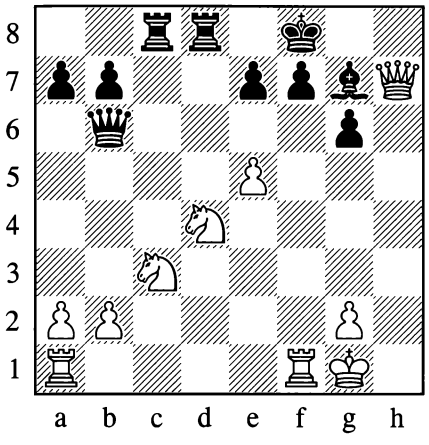
Let's start from the beginning, to get a true feeling of the context of this endgame.

Awonder Liang – Parham Maghsoodloo

Internet 2020

Although played online, this game was played with a classical time control.

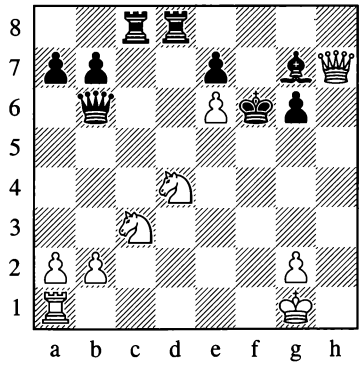
1.d4 ♘f6 2.c4 g6 3.♘c3 d5 4.cxd5 ♘xd5 5.♗d2 ♗g7 6.e4 ♘b6 7.♗e3 0–0 8.♗b5 ♗e6 9.h4 ♗c4 10.h5 ♗xb5 11.♘xb5 ♘c4 12.hxg6 hxg6 13.♕g4 ♘xe3 14.fxe3 c5 15.♕h4 ♕a5† 16.♘c3 ♖d8 17.e5 cxd4 18.exd4 ♘c6 19.♘ge2 ♖ac8 20.♕h7† ♔f8 21.0–0 ♘xd4 22.♘xd4 ♕b6



23.♘ce2?

Awonder missed the chance to win the game on the spot:

23.♖xf7† ♔xf7 24.e6†! ♔f6



25.♖f1†

25.♕h4† ♔e5 26.♕e4† ♔d6 27.♘cb5† ♔c5 28.♖c1† ♔b4 29.♕e1† ♔a4 30.b3# was a nice line suggested by Anthony He, but unfortunately Black has 25...g5, when White has nothing more than perpetual.

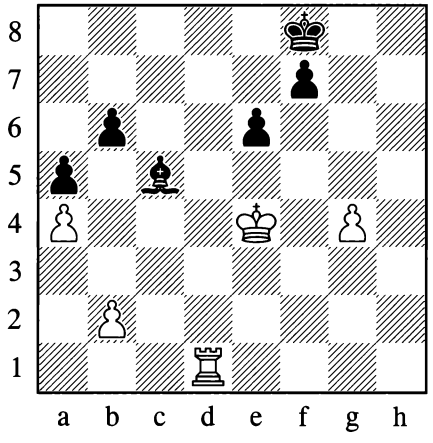
25...♔e5

25...♔g5 26.♘e4† ♔g4 27.♕h3#

26.♕xg7† ♔d6 27.♘cb5†

It is time for Black to resign.

23...♖xd4 24.♘xd4 ♕xd4† 25.♔h1 ♕xe5 26.♕xg6 ♗f6 27.♕h6† ♗g7 28.♕g6 ♗f6 29.♕h6† ♗g7 30.♕h3 ♖c6 31.♖ac1 ♕c7 32.♖xc6 ♕xc6 33.♖d1 ♔e8 34.♕h2 ♕h6 35.♕xh6 ♗xh6 36.g4 ♗f4 37.♔g2 a5 38.♔f3 ♗d6 39.♔e4 b6 40.a4 ♗c5 41.♔d5 e6† 42.♔e4 ♔f8



43.♖d8†?

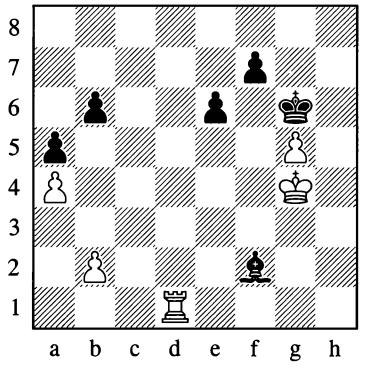
Played with a draw offer. Black unsurprisingly accepted. After the check the game should end in a draw anyway.

½–½

If White was to waste even a tempo, Black would be in time to make it so difficult for White to play g5-g6 that meanwhile Black would get enough time to create counterplay on the queenside.

43.g5? ♔g7 44.♔f4 ♗f2 45.♔g4 ♔g6!

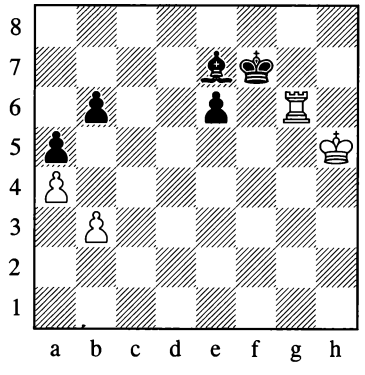
In order to get the king to h5, White has to put the rook on a stupid square.



46.♖h1

Black has many ways to defend here. 46...f5!? could work. But it is more natural to wait.

46...♗c5 47.b3 ♗b4 48.♖h8 ♗c5 49.♖h6† ♔g7 50.♔h5 ♗e7 51.g6 fxg6† 52.♖xg6† ♔f7



We could get here in many ways. Black makes the draw, as the white king is too far away from the centre of action.

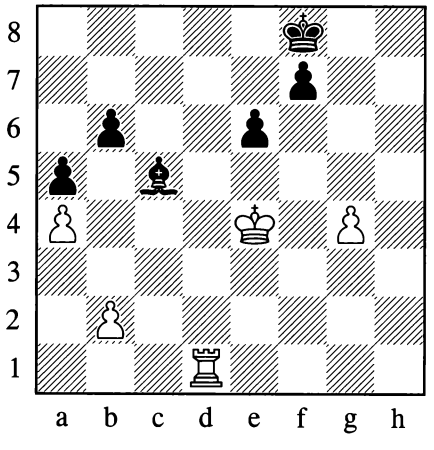
53.♖g2 ♔f6 54.♖g5 ♗c5 55.♖g8 ♔e5

Aiming for ...♔d4-c3. Black can always play ...♗c3 to cut off the defence of the b-pawn along the third rank.

56.♖d8 ♔f4

The most natural. At some point soon White will have to allow the black king to go to the queenside, or the e-pawn will present a real challenge.

The win



43.♔f4!!

It is important to make it to h5 first, so White can play g5-g6 later on.

43...♗e7

43...♔g7 44.♔g5! and ♔h5 and Black cannot prevent g5-g6 forever.

Black can choose between different poor positions. But he is not able to prevent White from playing g4-g5 and ♔g4-h5, when he will either win with g5-g6 or in some cases by attacking the f7-pawn with the rook and king. 43...♔e7 44.♔g5 ♗f2 45.♔h5 e5 46.g5 e4 47.♔g4 ♗c5 48.♔f4 e3 49.♔f5! White will win slowly as you can see in the annotations for move 47 below.

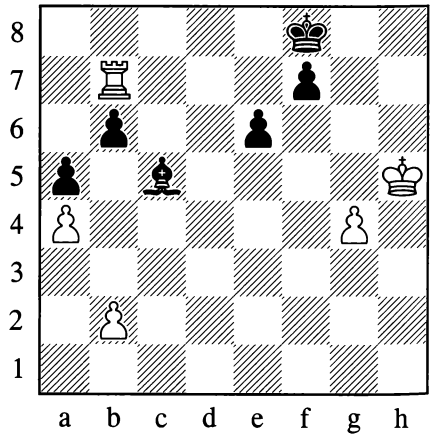
44.♖d7 ♗c5 45.♔g5 ♔e8 46.♖b7!

This was found by Sam Shankland and is better than the line the computer suggested. White quickly simplifies the position to Example 2 above.

46...♔f8

46...e5 47.♔f6 ♗d4 48.♖e7† wins immediately.

47.♔h5



a) Now after:

47...♔e8 48.g5 ♔f8 49.g6 fxg6† 50.♔xg6 ♗d4 51.b3 ♔e8 52.♔g5 ♔d8 53.♔f4 ♔c8 54.♖e7 e5† 55.♔e4 ♔d8 56.♖h7 ♔c8 57.♔d5 ♔b8 58.♔c6 ♗c5 59.♖h8† ♔a7 60.♖e8 ♗d4

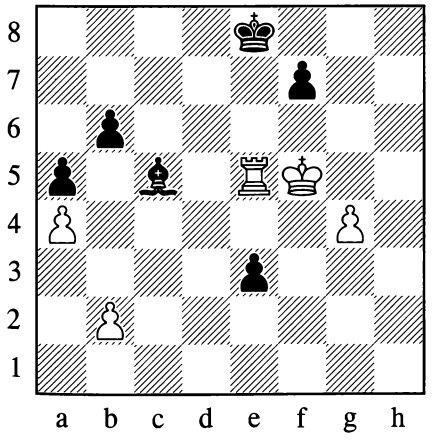
We have reached Example 2.

b) Black can also try to push the pawn to e3, but this would seriously restrict the bishop's options going forward and lead to its own problems.

47...e5 48.♔g5 e4 49.♖d7 ♔e8

49...e3 50.♔f6! makes things easier for White.

50.♖d5 e3 51.♔f6 ♗e7† 52.♔f5 ♗c5 53.♖e5†



53...♔d7!

The most tenacious.

53...♔f8 54.♖e4 ♔g7 55.g5 ♔g8 56.♔f6 ♔f8 57.g6 fxg6 58.♔xg6 would give us a very typical zugzwang situation, like we shall see below.

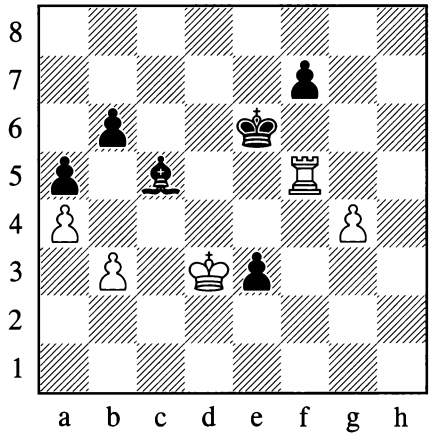
White should exploit Black's paralysis to regroup in the best possible way. The following line is a bit long, but essentially, nothing is happening.

54.b3

54.♔e4?? ♗d6 would win for Black.

54...♔c6 55.♖e4 ♔d5 56.♔f4 ♔d6 57.♔f3 ♔d5 58.♖e8 ♔d6 59.♔e2 ♔d7 60.♖e4 ♔d6 61.♔d3 ♔d5 62.♖f4 ♔e6 63.♖f5

White has made a lot of progress and Black has moved back and forwards.



63...♔e7 64.b4! ♗xb4

64...axb4 65.a5 and White wins.

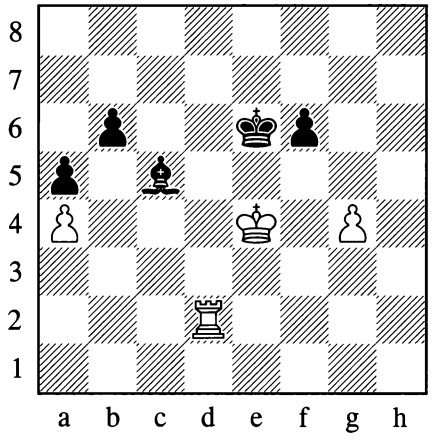
65.♔xe3 ♗c5† 66.♔d3 f6

Black will have to play like this, or White will eventually play g4-g5 and ♖f6xb6.

67.♖d5 ♔e6 68.♔e4 ♗g1

68...♗b4 69.♖d1 ♗d6 70.♖c1 ♗c5 71.♖c2 transposes.

69.♖d2 ♗c5



70.♖c2!

A nice zugzwang movement.

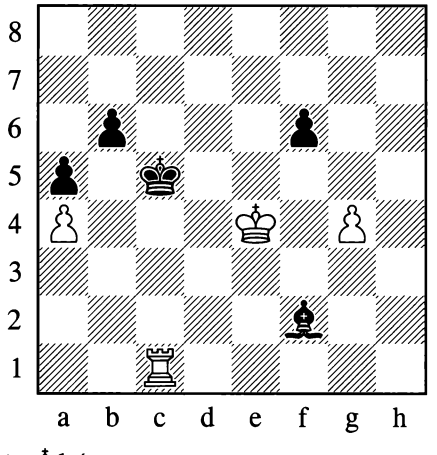
70...♔d6 71.♔f5 ♗d4 72.♖d2 ♔d5 73.♖d1

Another zugzwang.

73...♔c5 74.♔e4 ♗f2

74...♗e5 75.g5!

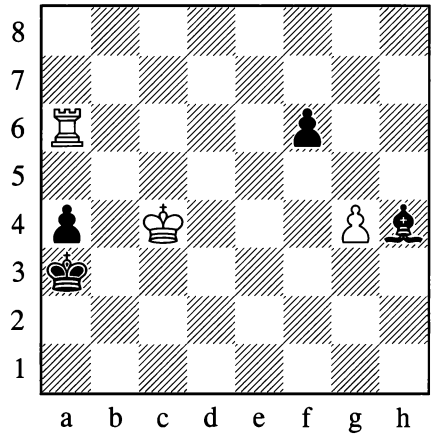
75.♖c1†



75...♔b4

75...♔d6 76.♖f1 ♗h4 would leave the bishop forced to look after the f-pawn from a poor diagonal. White plays ♔d4-c4 and will soon get the king to b5, after which ♖e1-e6 will happen and will win.

76.♖c6 ♗h4 77.♖xb6† ♔xa4 78.♔d3 ♔a3 79.♔c4 a4 80.♖a6



White picks up the a-pawn and later the f-pawn.

Since analysing this game with Awonder, I have given it to a number of Top 100 players to solve. Although they are far from clueless, none of them have been able to connect all the dots from Examples 3 to 2, and from 2 to 1.

Fortresses are difficult things to deal with, as we saw in the previous chapter, and as we shall continue to see in this. Although Awonder should have pushed on, there is no reason to believe that he actually missed a win in a practical sense.

Symmetrical pawns

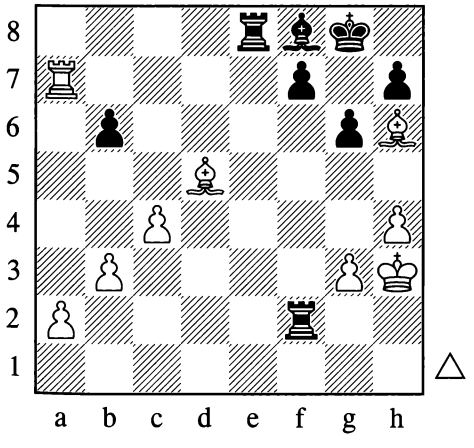
In the following section, we will look at a lot of situations with symmetrical pawns. We shall not be entirely systematic, but rather mix and match, starting with endgames with two or three opposing pawns on the kingside each. Rather than following the material systematically, we will aim to develop an understanding of the ideas you will find in these endgames, and take them from the "simpler" (in this case the word simple is odd, as it only points to what can be explained and not to actually doing it) to the absurdly complex (Aronian – Dubov).

2. Symmetrical h-pawns on the 4th and 5th rank

We start with a simpler example, before we slowly advance to really difficult stuff.

Jacek Szwed – Christopher Yoo

Heraklion 2019



In time trouble White pushes too hard. It was time for 40.♗c6! ♖c8 41.♗d7, when Black is lucky that he can escape with 41...♗xh6! with a drawn ending, as after 41...♖b8 42.♗f4 ♖d8 43.♗e3 White is totally winning.

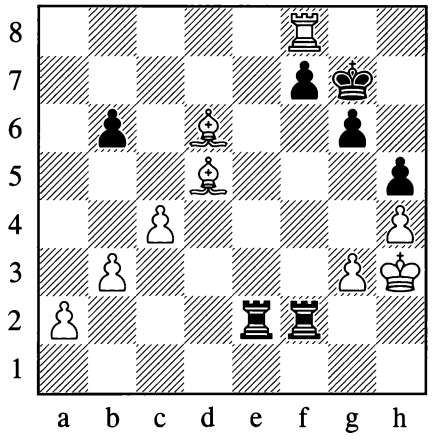
40.♗f4? ♖e7 41.♖a8

Black looks under pressure, but with the next move it turns out that it is White who is in danger of getting mated.

41...h5! 42.♗d6

42.♗h6 loses to 42...♔h7! 43.♗xf8 ♖ee2 with mate.

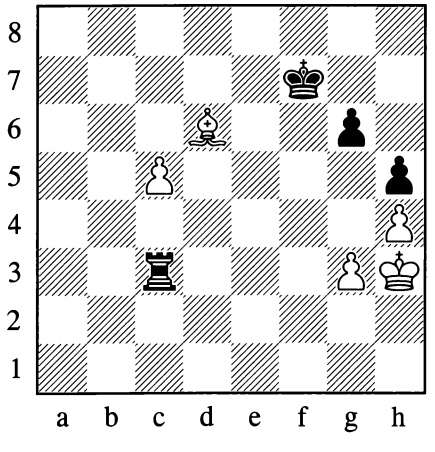
42...♖ee2 43.♖xf8† ♔g7



44.♖xf7†

White has no choice but to go into this ugly endgame. But as we shall see, it is by no means trivial to win it with Black.

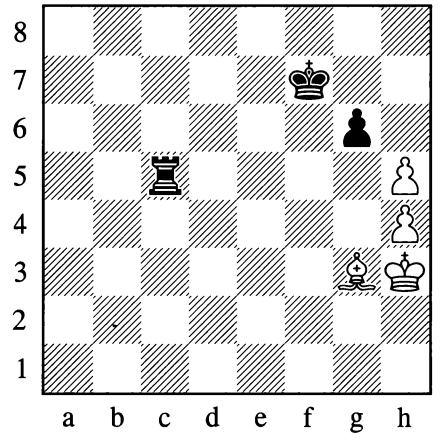
44...♖xf7 45.♗xf7 ♔xf7 46.♗c7 ♖xa2 47.♗xb6 ♖b2 48.♗c7 ♖xb3 49.c5 ♖c3 50.♗d6



50...♖c2!

Good technique. White is in zugzwang and has to make a serious concession.

51.g4 ♖c3† 52.♗g3 ♖xc5 53.gxh5



53...gxh5?

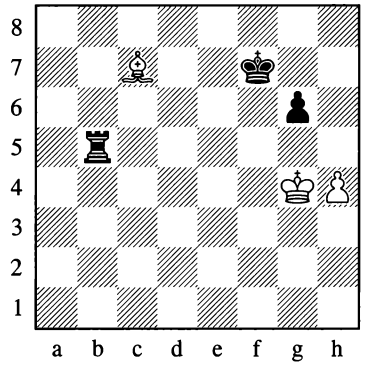
This is an instructive technical mistake. You will never be able to make this decision correctly with calculation. Only logical thinking will be able to tell you that when you eventually give up the rook for the h-pawn, you want to have a g-pawn and not an h-pawn.

53...♖xh5

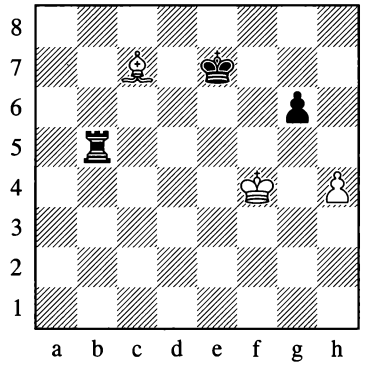
This was winning, although it is pretty difficult to get the king to the winning f5- and h5-squares. The problem is that White always seems to have a check to kick the king away from either h6 or f6, so again careful surgical manoeuvring with the rook will be needed to push the bishop to squares where no check exists, after which it is time to nudge the white king away.

54.♔g4 ♖a5 55.♗e1

55.♗c7 ♖c5 56.♗d6 ♖b5 57.♗c7



57...♔e7!! (57...♔f6 58.♗d8† ♔g7 59.♗c7 ♔h6 60.♗f4† is the defence Black is undoing) 58.♔f4

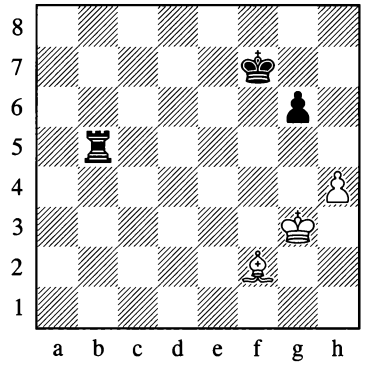


The king is no longer covering the h5-square. 58...♔f6 59.♗d8† ♔g7 60.♗g5 ♖d5! 61.♔e4 ♖f5 The white king has been cut off and Black will slowly get the king into the game. Eventually, it will come to e6, when checks on the 4th rank will drive the white king back. Then comes ...♔f5 and a check on the third rank. At the end, the h-pawn falls.

55...♖c5 56.♗f2 ♖e5 57.♔f4

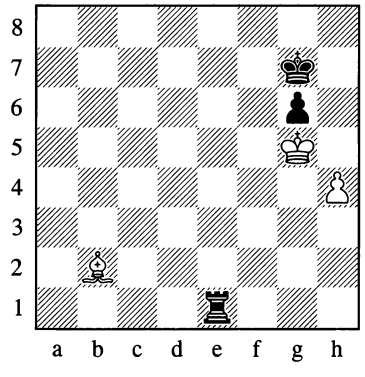
57.♗g3 ♖e3 58.♗f2 ♖e4† 59.♔g5 ♔g7 is another way for Black to get to h6-h5.

57...♖f5† 58.♔g3 ♖b5



These rook moves can seem pretty random if you do not get the logic. At this point Black is preventing ♗b6, which would give the chance to give a check on d8.

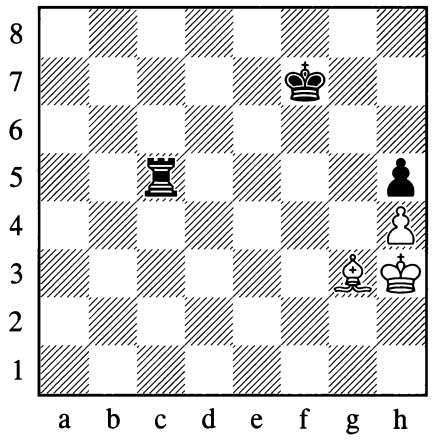
59.♔g4 ♖b4† 60.♔g5 ♔g7 61.♗e1 ♖c4 62.♗d2 ♖c2 63.♗e3 ♖e2 64.♗c1 ♖e1 65.♗b2† 65.♗d2 ♖g1† and the king can get to h6.



65...♔h7 66.♗d4 ♖e2

After ...♖g2† followed by ...♔h6-h5, Black wins first the h-pawn, then the game.

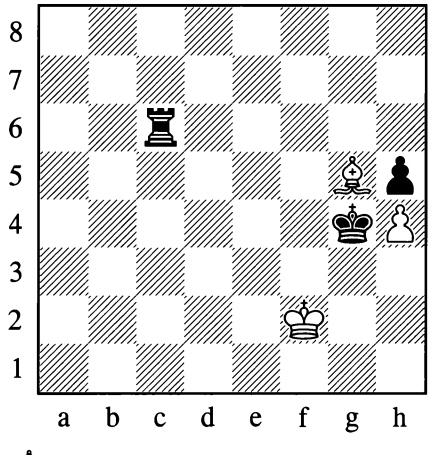
This endgame (as seen in the next diagram) is a theoretical draw, but there are a number of finesses worth knowing. The first is that if Black wins the white h-pawn, he will have to keep his h-pawn on the 5th rank, as was first discovered by Guretzky-Cornitz in 1863. Rather than pull up this old analysis, I refer you to move 64 below.



54.♗f4 ♔e6 55.♔g3 ♔f5 56.♗g5 ♖c3†

56...♔e4 57.♔f2! would allow White to escape the corner.

57.♔g2 ♔g4 58.♔f2 ♖c6

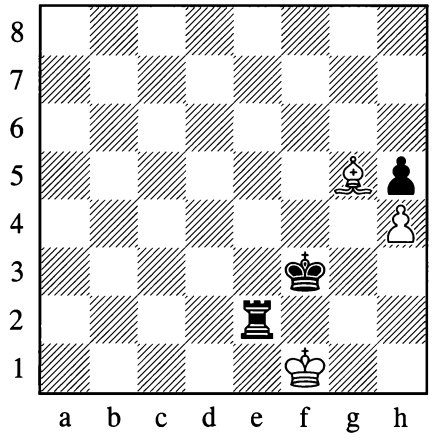


59.♗e7?

A big mistake. As we shall see, Black's only way to break the fortress is to put White in zugzwang. This can happen only if the white king is restricted and endangered.

59.♔e3 would let the king escape the killzone.

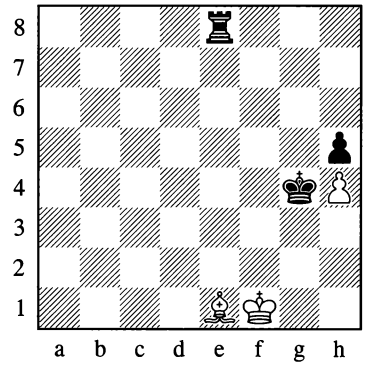
59...♖e6 60.♗d8 ♖e4 61.♗g5 ♖e8 62.♔g2 ♖e2† 63.♔f1 ♔f3



64.♔g1?!

This relieves Black from having to show the maximum amount of technique.

More resilient was:
64.♗f6 ♖e8 65.♗c3 ♔g3 66.♗e1† ♔g4



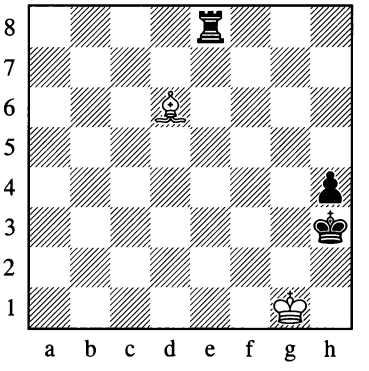
67.♗b4

White has to accept that the pawn is lost and get the bishop to the best diagonal to obstruct Black's progress.

67.♗f2 ♔f3! makes mate on the first rank imminent. 68.♔g1 ♖g8† 69.♔f1 ♖b8 and Black wins.

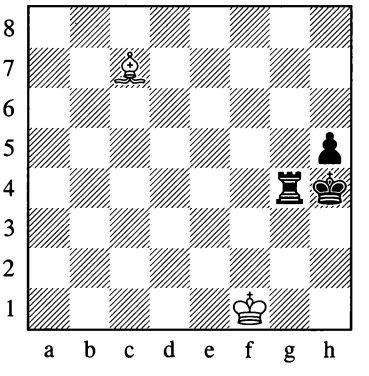
67...♔xh4 68.♗d6 ♖e6

White's last chance is that Black rushes ahead and pushes the h-pawn forward too soon. 68...♔h3 69.♔g1 h4?



70.♗c7 would be a draw. Black cannot keep the white king away from the corner. Black needs the h4-square.

69.♗c7 ♖c6 70.♗b8 ♖g6 71.♗c7 ♖g4!

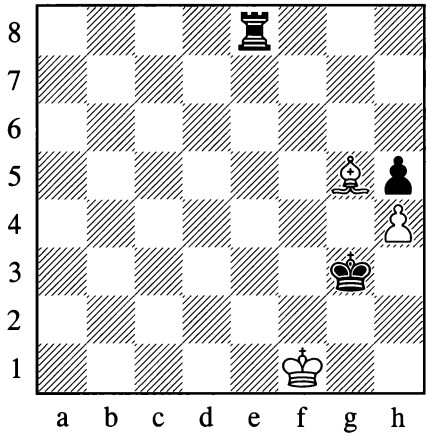


Black is winning. Sometimes it is more difficult to get around to this position, where Black can play ...♔g5-f5-e4-f3, followed by ...♖g2 and advancing the h-pawn to h2. This is the key set-up Black is aiming for.

72.♗d8† ♔g3 73.♔g1 ♖c4 74.♔f1 ♖c1† 75.♔e2 h4

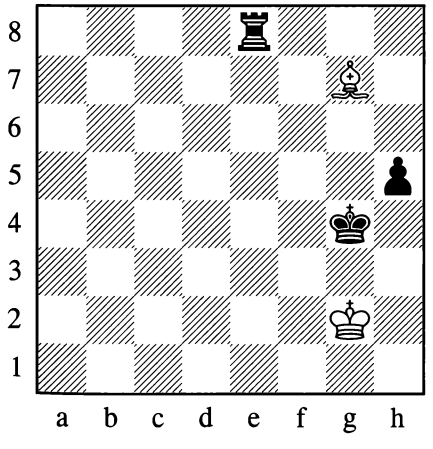
Black wins.

64...♔g3 65.♔f1 ♖e8!



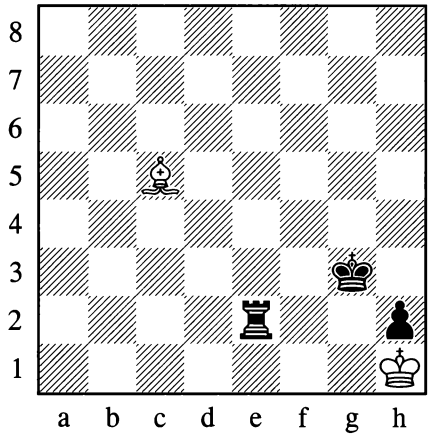
This is the method. Black wins with zugzwang. Kramnik once won a game against Ponomariov in the same way.

66.♗h6 ♔xh4 67.♔g2 ♔g4 68.♗g7



Because of the poor placement of the white bishop, Black is able to win by brute force and does not have to place the rook on g4 as above. Christopher wins this endgame without hassle. A more nervous soul might have gone for getting the rook to g4 as in the lines above.

68...h4 69.♗d4 h3† 70.♔h1 ♖e2 71.♗g1 ♔g3 72.♗c5 h2



73.♗d6† ♔h3 74.♗g3 ♖d2 75.♗e1 ♖b2 0–1

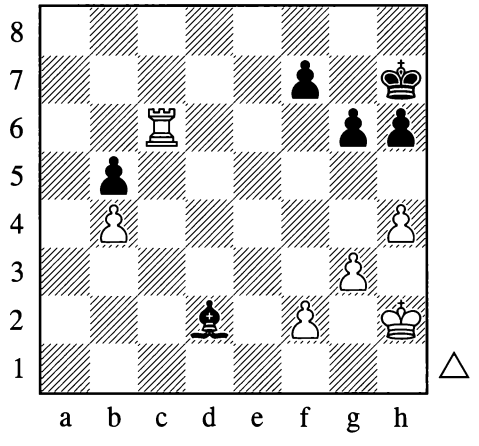
3. Two symmetrical pawns

The following example between two strong club players shows how well anyone might play this type of endgame without a reasonable understanding of some key techniques and ideas.

I am not pointing fingers at all. It was only with the release of *Dvoretsky's Endgame Manual* that I got to somewhat understand these ideas. And a lot of them I only took in slowly. I had this endgame in 2003 myself and only won it with a cheap trick, having failed to show any sort of technical skill. That game was the spark that lit my interest in endgames.

Csaba Papp – Peter Somogyi

Hungary 2005



In the starting position, White has just won the exchange and should now focus on converting the extra material. But there are a few elements he is not in command of, making it a much harder task than it really is.

45.♖f6?!

45.g4! ♗xb4 46.♔g2 ♗f8 47.h5 was completely winning for White. Black can delay taking on h5, but eventually delaying will only give White more options, while denying him none.

And after 47...gxh5 48.gxh5 White will cautiously manoeuvre the king to e5, put the rook on b6 and advance the pawn to f6. Eventually he will take the f7-pawn and await his opponent's resignation.

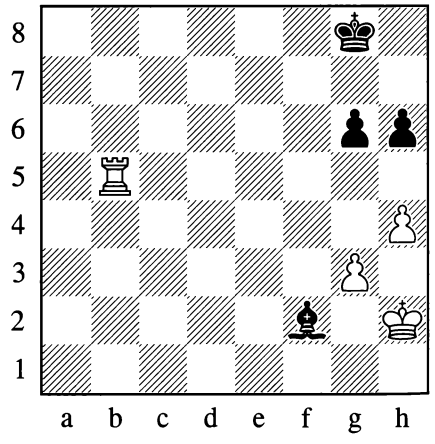
45...♗xb4?!

The best chance was 45...♔g7 and then to hope that his opponent would not be able to find the same win Rapport did, which we will see in the next game on page 563.

46.♖xf7† ♔g8 47.♖b7 ♗e1 48.♖xb5?!

48.♔g2! was much stronger. It is very poor technique to exchange pawns when you are trying to convert a slim material advantage like this one.

48...♗xf2



49.♖b7?

49.h5! would remove the g6-pawn, which gives White the f5-square for the king, and by extension the g6-square, and a winning ending. It does not matter too much if he has the g-pawn or the h-pawn after that, although it is an easier win with the g-pawn. If you are unsure about how White wins, go back to the analysis to move 53 in the previous example.

49...♗d4?

49...h5! would have set up a standard fortress. Without the f-pawns, White has no breakthrough. It does not matter where the white pawns are placed, as long as none of them have exceeded the 4th rank and White is not about to play gxh5, which would indeed be winning.

50.♔g2?

50.g4! would prevent the fortress from being established.

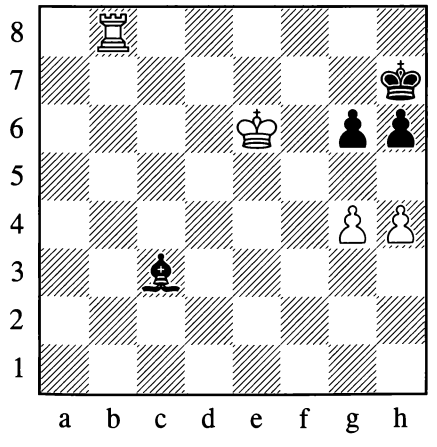
50...♗g7?

50...h5!

51.♔f3? ♔f8? 52.♔e4? ♔g8? 53.♔d5? ♔f8? 54.♔e6 ♔g8

Finally, 54...h5 no longer works...

55.♖b8† ♔h7 56.g4 ♗c3



57.♖b7†?!

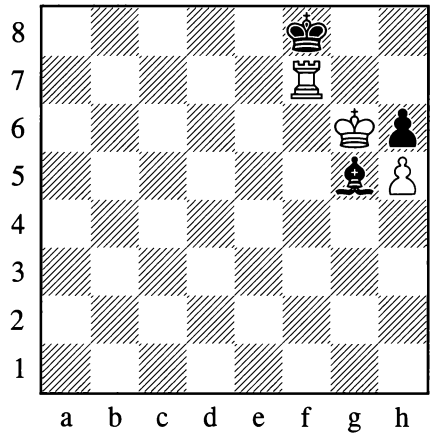
Often endgames – especially fortresses – are a fight for squares, and in this situation there was no reason for White not to win the last remaining light squares under his opponent's control with:

57.♔f7! ♗e1 58.♖g8 ♗xh4 59.♖xg6 ♗g5, when the simplest way to win is 60.♖g7† ♔h8 61.♔g6 and mate is on the horizon.

57...♔g8 58.h5

White now has to exchange pawns in order to gain access to the light squares.

58...gxh5 59.gxh5 ♗d2 60.♔f6 ♗g5† 61.♔g6 ♔f8 62.♖f7†



62...♔g8?

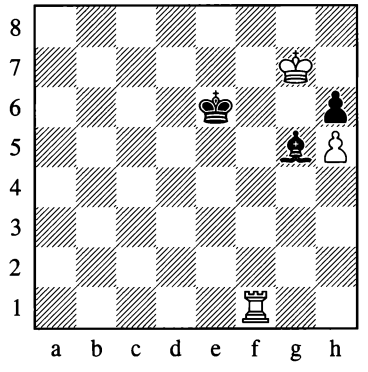
The king should never go to the corner in such situations. It gets zugged way too easily then.

62...♔e8

This would demand a bigger show of technique from White, which is worth spending a few moments to understand if you have not seen this type of manouevre before.

The key strategic idea is to push the black king away to the c-line, making it possible to sacrifice the rook on h6 without the king making it to f7 in time. This is done by a combination of zugzwang, harassing the bishop and keeping constant pressure on the h6-pawn.

63.♖f1 ♔e7 64.♔g7 ♔e6



65.♖d1!

A really important move. The bishop cannot go to d2 or e3 and the king has no good squares either.

65...♗f4

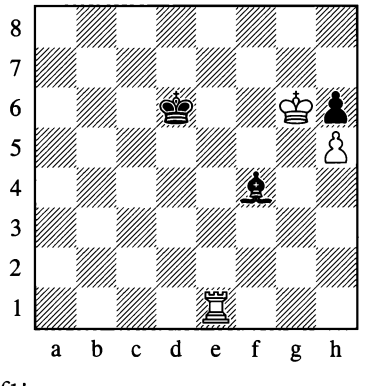
65...♔f5 loses quickly to 66.♖d5† ♔g4 67.♔g6 ♗e3 68.♖d7 and the h-pawn is going.

65...♔e5 66.♔g6 ♗f4 67.♖e1† is very similar to the main line.

66.♖e1† ♔d7

66...♔f5 67.♖f1! and White wins on the spot.

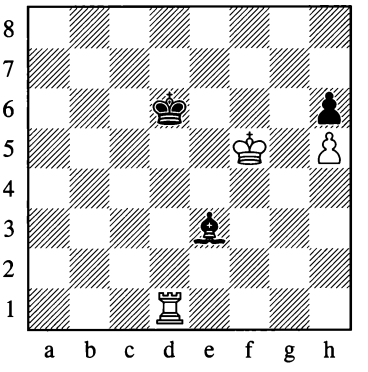
67.♔g6 ♔d6



68.♖f1!

Another key move. The bishop is quickly running out of squares.

68...♗g5 69.♖g1 ♗f4 70.♔f5! ♗e3 71.♖d1†



This is why harassing the bishop was so important. The black king now has to go to the c-line.

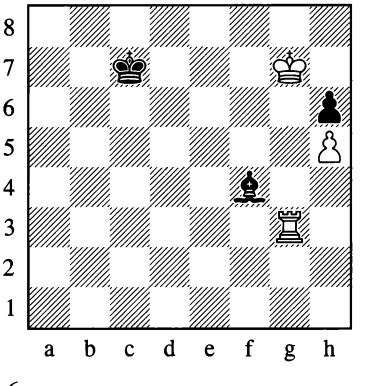
71...♔c7

Avoiding checks along the 6th rank, but White can still outmanoeuvre Black.

72.♔g6 ♗f4 73.♖d3 ♗g5 74.♔g7 ♗f4

74...♔c6 75.♖g3 ♗f4 76.♖g6† and wins.

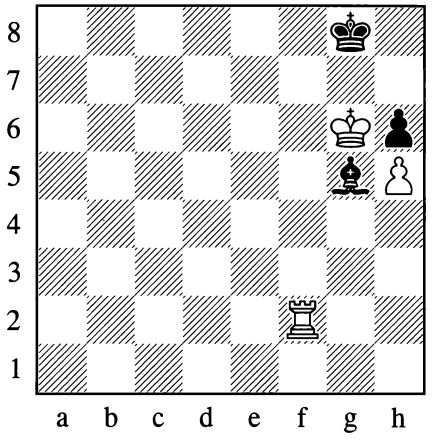
75.♖f3 ♗g5 76.♖g3 ♗f4



77.♖g6

White wins.

63.♖f2



Black resigned. He has to give up the pawn, after which there is no chance.
1–0

There are a number of key ideas to take away from this example.

There are of course the checkmate ideas and the zugzwang ideas that eventually won the game.

Then there is the idea of carefully pushing the king to the c-line, making it possible to win the h-pawn without allowing a drawn pawn ending. Again, this is done with careful manoeuvring and with zugzwang. I have noticed this idea many times since I first became aware of it. It is an essential technique to include in your endgame mastery arsenal.

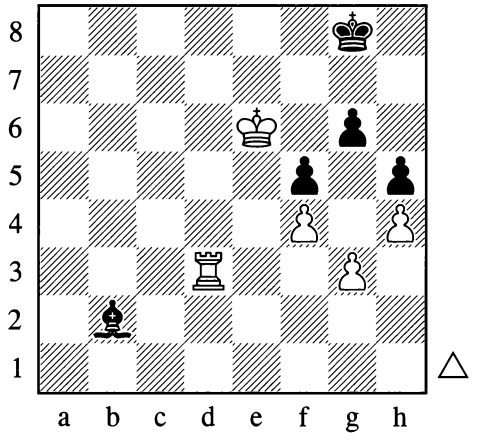
Then there are some more general points about not exchanging pawns unnecessarily, about fighting for squares of a certain colour (here the light squares) and of course about knowing your theoretical endings.

4. Three pawns on the same flank

Adding an extra pawn is greatly advantageous to the side with the rook. The most important position we have to know is the following, which has occurred many times in chess history.

Richard Rapport – Wei Yi

Tbilisi 2017



I am not going to spend too much time on theoretical positions, but this is one I feel too few know about. Without the f-pawns this position is a draw. It does not matter too much how the white pawns are placed, as long as Black is in time to set up the structure with g6 and h5. But with the extra pawns, White has a chance to breach the black defences with a brute-force action.

59.g4! hxg4 60.h5 ♔g7 61.♖d7† ♔h6 62.hxg6 ♔xg6 63.♖f7 ♗c1 64.♖xf5 ♔h6

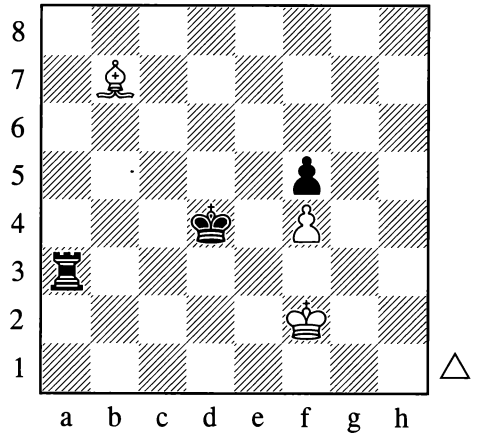
Black resigned without waiting for White's next move.
1–0

5. f-pawns only

When there are two f-pawns facing each other in the middle (or c-pawns, obviously), the draw is not hard to hold, as long as you think in squares.

Aleksey Goganov – Igor Kovalenko

Gjakova 2016



White has a fully-functioning fortress. All he has to avoid is for the black king to come to e3 or e4. As Black cannot force the white king away from f2/f3, it is clear that ...♔e4 is the winning strike. For this reason, all White has to do is to keep the bishop on the long diagonal.

This can only be done by putting the bishop on g2 or h1.

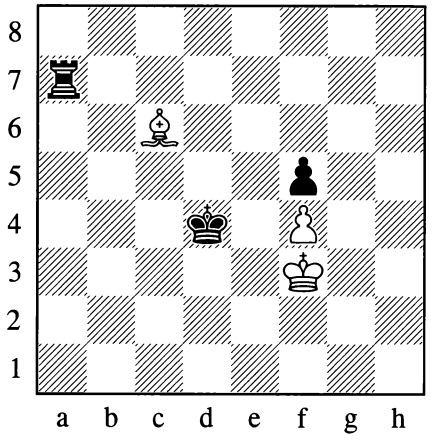
74.♗c6? ♖a7?

74...♖a2†!

75.♔e2?

75.♗g2!

75...♖a2† 76.♔f3 ♖a6 77.♗b7 ♖a7 78.♗c6



78...♔c5!

The bishop is repelled from the long diagonal and cannot return quick enough.

79.♗e8 ♖a3† 80.♔f2 ♔d5

White resigned.

0–1

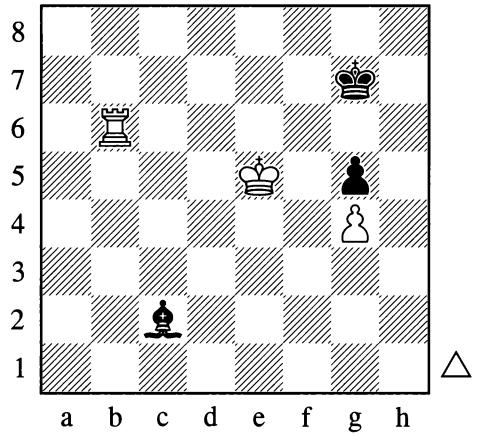
6. g-pawns in the middle

With pawns on the 2nd file from the edge, we get into some mindboggling stuff, where you and I will both struggle to understand everything. Well, at least I will...

The basic winning method

The following endgame is the most complicated version, with pawns on the g-line. In order to understand the following game, there are a few standard positions we need to be familiar with. There are plenty of additional lines which emerge, where White wins in elaborate ways or Black holds a draw with moves that are seemingly senseless. I have tried my best to come up with the key points in the endgame and I think a lot of them are transferable to other rook vs bishop endgames. Playing through the lines and understanding them will hopefully give an insight into the way the rook and bishop dance around, with the bishop trying to reach hallowed squares and the rook preventing this, while trying to create a moment where the white king can get closer to where it wants to be. This game is perhaps the most complex in this book and in order to make it simpler than it really is – because this is what we need it to be as a starting point – I have taken three positions I would consider important for endgame theory and the essence of what is going on. Understanding them is the starting point for understanding this endgame.

Example 1



In the first position, White wins in the same way as with the f-pawns.

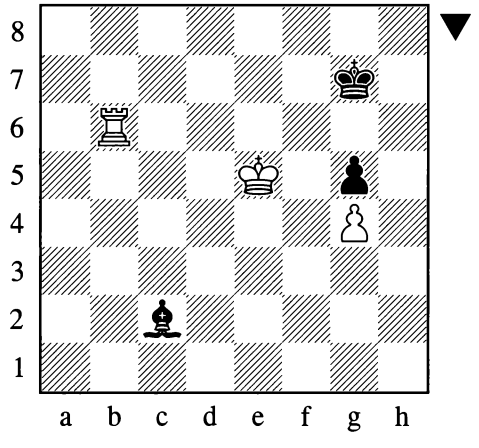
1.♖b7† ♔g6

1...♔h6 2.♔f6 ♗d1 is another defensive try. But the king is too vulnerable on the edge of the board. 3.♖g7 ♗xg4 4.♖xg5 White wins. For example: 4...♗h5 5.♖g2 and it is time to resign.

2.♖b2! ♗d3 3.♔d4 ♗f1 4.♖b6† ♔g7 5.♔e4

The white king scoops up the g-pawn and White wins.

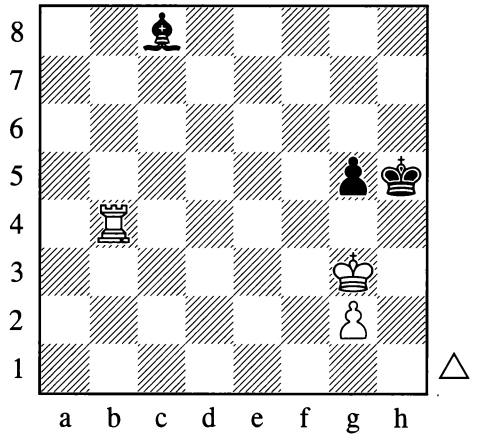
Example 2



It is important to notice that contrary to the endgame with the f-pawns, there is no draw by keeping the bishop passive. After:

1...♗h7 2.♖b7† ♔g6 3.♖a7
Black is in zugzwang.

Example 3

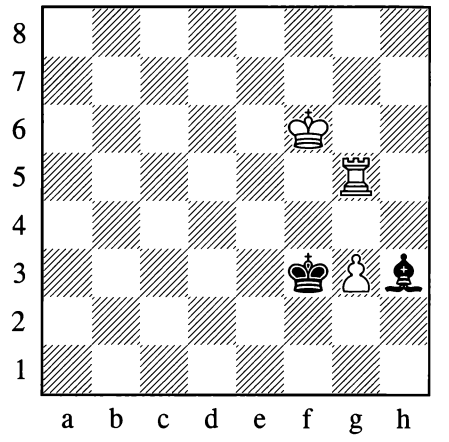


In this position it is difficult for White to make progress. Attacking the g5-pawn seems to be the only plan.

1.♔f2 ♗d7 2.♔e3 ♗c6!
Black should provoke White to play g2-g3, which is in Black's favour. The rook has to stay on the 4th rank, to keep out the king, so White has no choice in the matter.

3.g3 ♗d7 4.♖d4 ♗e6 5.♔e4 ♗c8 6.♔e5 ♗h3 7.♔f6 ♗c8 8.♖c4
8.♖d5 ♔g4 9.♖xg5† ♔f3 and Black holds.

8...♗h3 9.♖c5 ♔g4 10.♖xg5† ♔f3

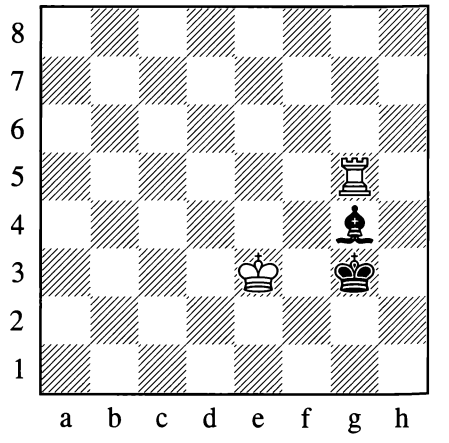


Black draws. ...♗g4 and ...♔xg3 are imminent. By transposition we have reached the game Chistiakov – Dvoretsky, Moscow 1966, which is not in the database, but is in *Dvoretsky's Endgame Manual.*

I always find it astonishing how many theoretically important endings Dvoretsky managed to get on the board in his games. The reason is of course that Mark knew these endings pretty well and thus knew in which direction to aim. I suggest to all my students that they have a database of endgame positions they want to know, and revise it frequently. Whenever they see something new, they should add it to the file.

Mark actually lost this game, and in doing so demonstrated the dangers the defender has to face in this endgame.

11.♔e5 ♗g4 12.♔d4 ♔xg3 13.♔e3

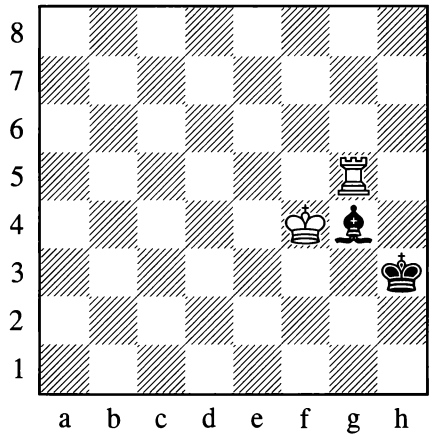


13...♔h3!

The only move.

13...♔h4? 14.♔f4! would see the black king trapped on the edge of the board. After 14...♗e2 15.♖g2 ♗f1 16.♖h2† ♗h3 17.♖h1 White wins.

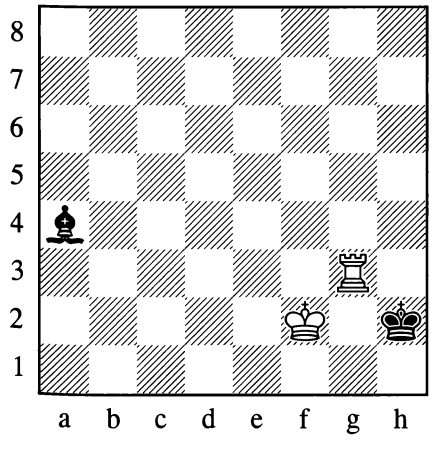
14.♔f4



14...♗d7?

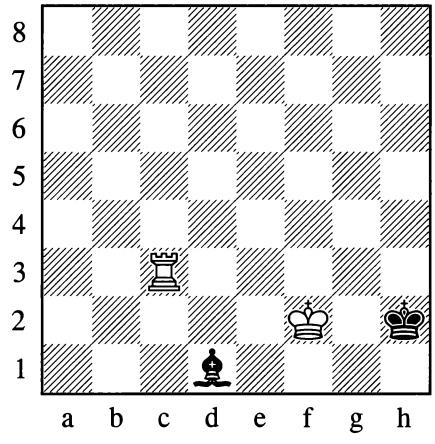
14...♗e2 or 14...♗d1 would make the draw, as White does not have the ♔f4-f3-f2 manouevre.

15.♖g3† ♔h2 16.♔f3 ♗a4 17.♖g2† ♔h3 18.♖g3† ♔h2 19.♔f2



White wins no matter where the bishop is. Of course, if the black king was near the a1- or h8-corner, the position would be a draw. The easiest way to remember this is to visualise the stalemate needed for a successful defence.

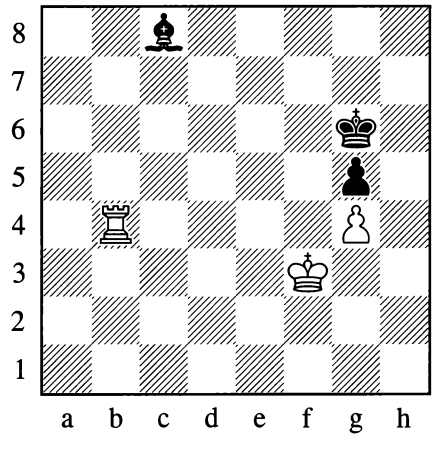
19...♗c2 20.♖c3 ♗d1



21.♖c1!

There are no squares left for the bishop, where it will not be hit with a double attack with the threat of mate. Only after 21...♗b3 does that not happen, but 22.♖c6 ♔h3 23.♖c3† is just as bad.

Example 4



Black makes a draw. White needs to have the king on the 5th rank to be able to win a position like this. It cannot cross the 4th rank without letting go of the pawn, when the bishop is placed here.

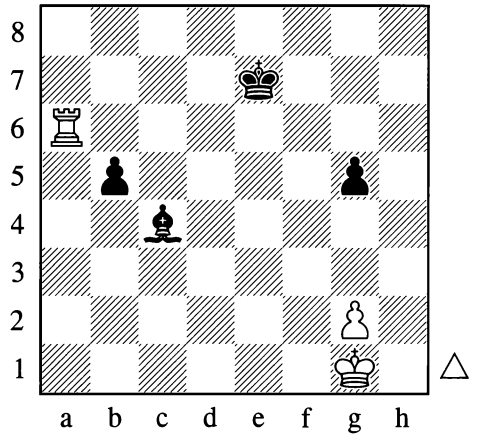
7. The game

With these four examples under our belt, we have a rudimentary knowledge of this endgame. I believe this is all that it makes sense to know about this endgame. The big difference is between knowing and understanding. Below we will go through an immensely complicated example, which it would make no sense whatsoever to try to commit any part of to memory. However, trying to understand as much of it as possible is an important part of developing a sense for the endgame. I will try to explain what the main points are, as I see them; but inevitably there will be things you pick up, which are difficult to explain, but perhaps not too difficult to experience, which will give you a stronger feeling for endgame technique.

The following endgame from the 2017 World Cup was played with the classical World Cup time control. What this means in practice is that from the moment we join the game, the players are without big reserves of time, although there are a few chances to think. Still, both players did have their chances.

Levon Aronian – Daniil Dubov

Tbilisi (4.2) 2017



Below you will see some mind-blowing derivative fortresses that no one would have been able to predict and no one would have been able to prepare for or work out during the game.

But there will also be relatively clear-cut moments, where having read *Dvoretsky's Endgame Manual* would enable you to win/draw the game (depending on which side of the board you are on). This is an important lesson. Knowing 300-400 endgame positions by heart (100 in De la Villa's *100 Endgames You Must Know* and about 220 in *Dvoretsky's Endgame Manual* – plus the ones they have left out for space concerns) should be something all professionals are on top of.

But what we often see is that since you will never be able to do all the work you really have to, many top players focus on doing what they enjoy the most. At times it is astonishing to me that so few are truly well organised. But then I am not one of them either.

White is winning only by a small margin from the outset, but quickly we get our designated ending in the most ideal format to investigate it.

45.♔f2!

The king has to rush to the centre, so it can deal with the b-pawn if needed. But there is another aspect that is really important. If Black gets the king to g4 and then h5, Black has managed to create a fortress.

45...♔f7

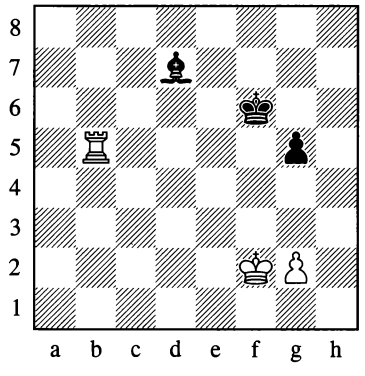
Dubov is aiming for the fortress without hanging on to the b-pawn. But without knowing where the position is holding and when it is not.

White will have to show accuracy in all lines no matter what.

45...♗d5 only loses to 46.♖g6!.

45...b4 would draw if White did not have 46.♖a4!.

It turns out that the most resilient path starts with giving up the pawn immediately. 45...♗e6! 46.♖b6 ♔f6 47.♖xb5 ♗d7 would have been the toughest defence. White needs to play very accurately to win.

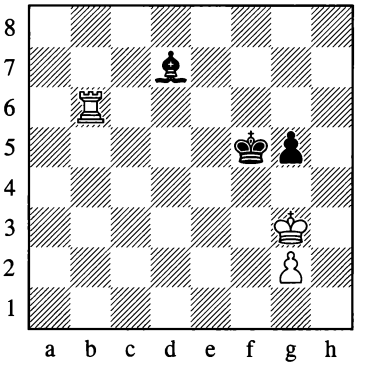


Here are three winning lines that will help expand our understanding of the position – or confuse us even more.

a) 48.♖b6† ♔f5 49.♔g3!

Black is not to be allowed to play ...♔g4-h5. 49.♖b4? ♔g6 50.g4 ♗c8 is an instructive fortress. White is unable to get the king past the fourth rank as the rook needs to defend the pawn.

49.♔f3 ♗e8! with a check coming on h5 makes things more difficult.

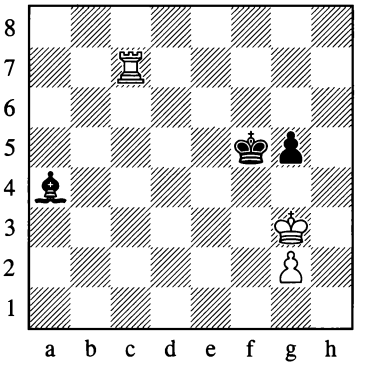


49...♗e6

White has to be very cautious at this point. If Black was to get his bishop to b7, for example, the position would already be a draw. White would have to put the pawn on g3 or g4. In some lines the pawn on g3 will allow ...♗f3 with the king on g4, leading to an elimination of the winning asset. And if the pawn goes to g4 before the king has made it to e4, Black will be able to put the bishop on c8-e6 as in our basic fortress.

49...♗a4! is the best defence, but the main line is more useful for us to understand the endgame.

50.♖c6 ♗d7 51.♖c7 ♗a4



52.♖c4!

The bishop is being dominated.

52...♗d1

52...♗d7 53.♔f3 ♔f6 54.♖c5 ♗f5 55.♔e3 ♗g4 56.♔e4 leads to the same place.

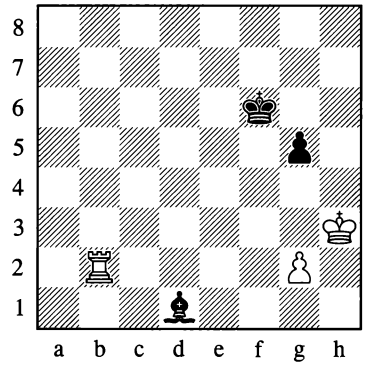
53.♔h3!

This move is really difficult to find, and it is hard to believe that anyone would play it in a game. But Black is forced to make an unpleasant concession, making the awkward attractive.

53...♔f6

53...♗b3 54.♖c5† ♔f6 55.♔g3 ♗d1 56.♖c1 ♗b3 57.♖c6† ♔f5 58.♖c5† ♔f6 59.♔f3 ♗e6 60.♔e4 ♗d7 61.♔d5 White wins, as we shall see below.

54.♖d4 ♗e2 55.♖d2 ♗h5 56.♖b2 ♗d1



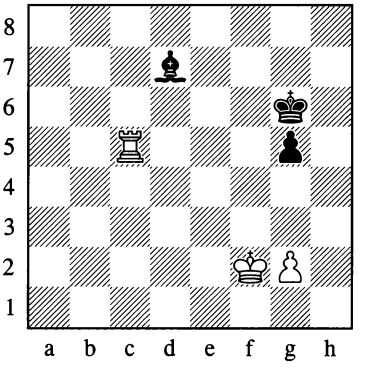
57.♖f2† ♔g7

57...♔g6?! makes things easier for White, as the bishop can no longer stay on the d1-h5 diagonal without getting trapped. 58.♖d2 ♗b3 59.♖d6† ♔f5 60.g4† and White picks up the g-pawn.

58.♖d2 ♗h5 59.♖d6!

White has dominated the black pieces and can now bring the king into the game and win.

b) 48.♖c5 ♔g6

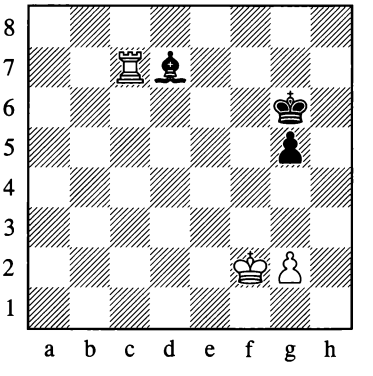


This position is very interesting. Not so much because White is winning only after 49.♖d5!. He is, and the win is long and winding. But what I find really interesting is the illustration of Black's defensive resources.

49.♖c7?

49.♔e3 is refuted by: 49...♔h5! 50.♔e4 ♔g4 51.♔e5 ♔g3 with a draw.

49.♔f3 feels like the thing White wants to play, but after 49...♔h5! 50.♖c7 ♗e8 51.g4† ♔g6 52.♔e4 ♔f6! 53.♔d4 ♗f7 the bishop comes to e6 and Black draws.



49...♗a4!!

The only move that holds.

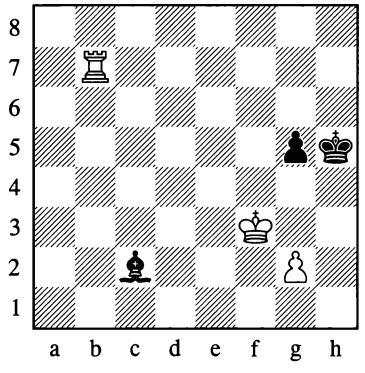
49...♗b5 50.♖b7 ♗a4 51.♖b6† ♔f5 52.♖d6 ♗b3 53.♔g3 ♗e6 54.♖c6 ♔f6 55.♔f3 ♔f5 56.♖c5† ♔f6 57.♔e4 and White wins.

50.♖b7

The best try. Black is doing well after 50.♖a7 ♗c2!.

50.♔f3 ♔h5 51.g4† ♔g6 52.♔e4 ♔f6 would allow Black to hold the draw, as there is no way to prevent the bishop from coming to e6 sooner or later.

50...♗c2 51.♔e3 ♔h5! 52.♔f3



52...♗d1†!

52...♗f5 would lose to 53.♖c7!! only, where the bishop is strangely dominated.

53.♔g3

White cannot allow the king to attack the g-pawn.

53...♗c2 54.♖b6 ♗f5 55.♖f6 ♗d7 56.♔f3 ♗c8

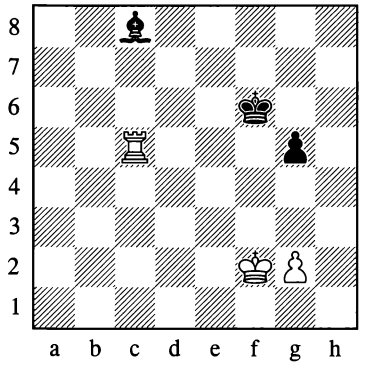
White is not able to make meaningful progress. Black will get the bishop to the long diagonal and hold.

c) The best move in the initial position is:

48.♖d5!

Domination is the name of the game.

48...♗c8 49.♖c5



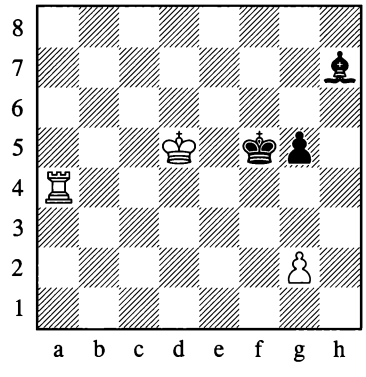
49...♗g4

49...♗b7 is usually desirable. After 50.g4! we can see the idea of putting the rook on c5. Black is not able to get the bishop back to the c8-g4 diagonal anytime soon, giving White enough time to get the king into the game.

50.♔e3 ♗h5 51.♔d4 ♗f7 52.♖a5 ♗g8

52...♗b3 53.♔c5! would allow the white king to cross the 5th rank.

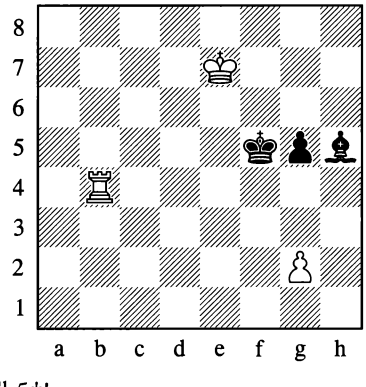
53.♔e4 ♗h7† 54.♔d5 ♔f5 55.♖a4



55...♗g8†

White will win with reasonable moves. Although this win is fiddly as well, it is not as difficult as many of the others we have seen or will see below.

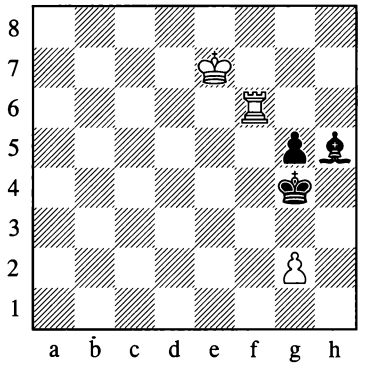
56.♔d6 ♗b3 57.♖b4 ♗d1 58.♔e7 ♗h5



59.♖b5†!

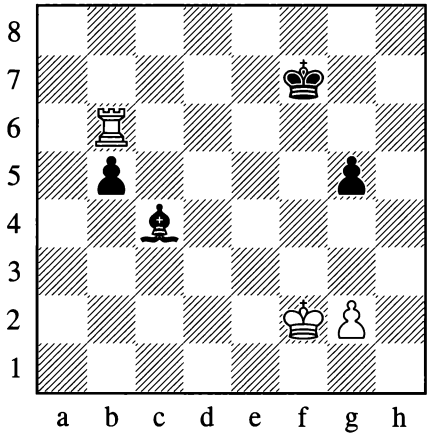
As usual a good check can be devastating in the endgame.

59...♔g6 60.♖b6† ♔f5 61.♖f6†!
Another good check.
61...♔g4
61...♔e5 62.♖f1 and White will get peace to bring in the king.



62.♖h6! ♔h4 63.♔f6 g4 64.♔f5 g3 65.♖d6
White wins.

46.♖b6

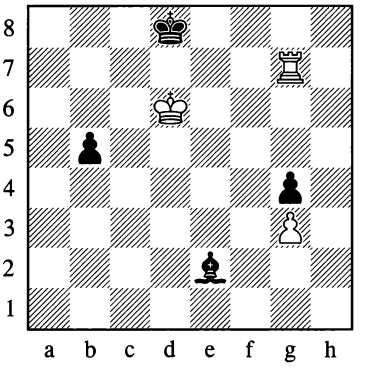


46...♗e6

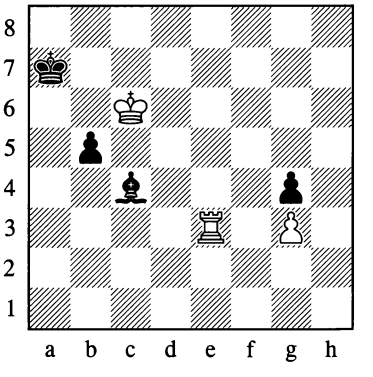
I am not too interested in the endgame where Black holds on to the pawn, but the winning method is still nice to include. It mirrors what we have seen already in this chapter and as such is quite instructive in its own right.

But here I will just give a variation and leave it at that.

46...♔g7 47.♔e3 ♔f7 48.♔e4 g4 49.♔f5 ♗f1 50.♖b7† ♔e8 51.g3 ♗e2 52.♔e6 ♗c4† 53.♔f6 ♔d8 54.♖g7 ♗e2 55.♔e6 ♗c4† 56.♔e5 ♗e2 57.♔d6



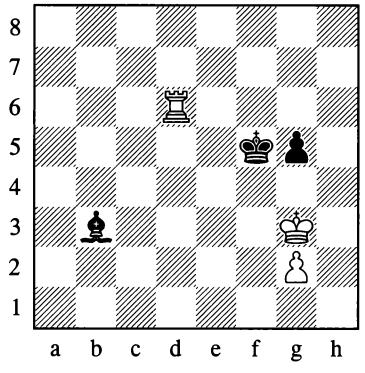
There is the usual theme of the king being in danger and the bishop being overstretched and hanging on a file, limiting the options of the king.
57...♔c8 58.♖e7 ♗d3
58...♗c4 59.♖e4 and wins.
59.♔c6 ♔b8 60.♖e8† ♔a7 61.♖e3 ♗c4



62.♔c7!
The black king has slowly been pushed into a mating net. White wins on account of 62...b4 63.♖e4.

47.♖xb5 ♔f6?

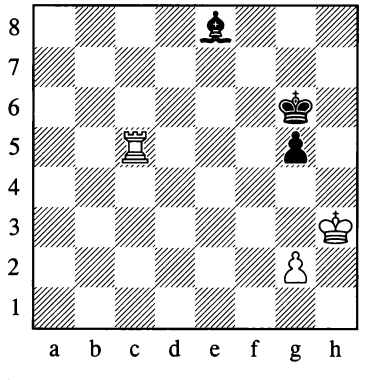
Black should have played:
47...♔g6! 48.♖b6 ♔f5 49.♔g3! ♗d7 50.♔f3 ♗e8 51.♖d6 ♗f7 52.♔g3 ♗b3



53.♔h3!

This looks very mysterious, but it is indeed very difficult to get the white king into the game without allowing one of the fortresses. After 53.♖c6 ♗d1 we can see there is nothing better for White than repeating the position.

53...♗e6 54.♖c6 ♗d7 55.♖c7 ♗e8 56.♖c5† ♔g6

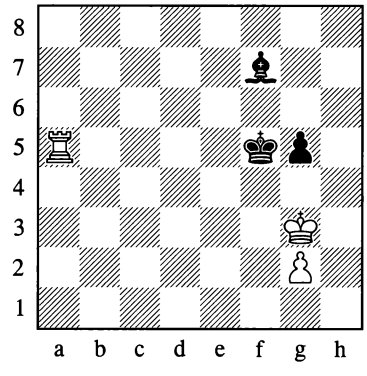


57.♖d5!

The only winning move. White has to dominate the bishop and prevent it from coming to the c8-h3 diagonal.

57.♖c7 ♗a4 58.♖b7 ♔h5 59.g4† ♔g6 would be a draw. Black can manoeuvre the bishop to e6 before White will be able to play ♔e5. For example, with ...♗e8-f7-e6, although I quite like the look of ...♗d1, with the idea of meeting a later ♖d2 with ...♗b3. We see again that knowing what you are aiming for really helps.

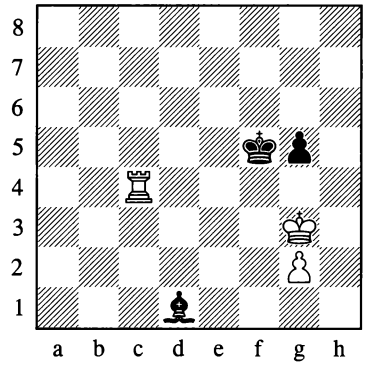
57...♗f7 58.♖d6† ♔f5 59.♖c6 ♗e8 60.♖a6 ♗d7 61.♖a7 ♗e6 62.♔g3 ♗c4 63.♖a4 ♗f7 64.♖a5†



64...♔g6!

White's moves look pretty difficult to find, but we should not forget that the defensive ideas are difficult too. This move looks passive, but can be found through realising that 64...♔f6?! 65.♔g4! ♗e6† 66.♔h5 ♗f7† 67.♔h6 is a big achievement for White. After 67...g4 68.♖a4 ♔f5 69.g3, then ♖f4† and ♔g5 will decide the game.

65.♖a6† ♔f5 66.♖c6 ♗e8 67.♖c8 ♗d7 68.♖c7 ♗a4 69.♖c4 ♗d1



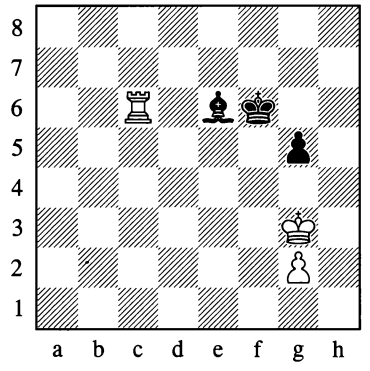
70.♔h3!

The return of the king to h3 is very hard to fathom. But it is necessary.

70.♔f2 ♔g6 71.♖d4 ♗b3 72.♖d6† ♔f5 is still winning for White, but some progress made with all the mysterious manoeuvring has been lost.

70...♗b3 71.♖c5† ♔f6 72.♔g3 ♗d1 73.♖c1 ♗b3 74.♖c6† ♗e6

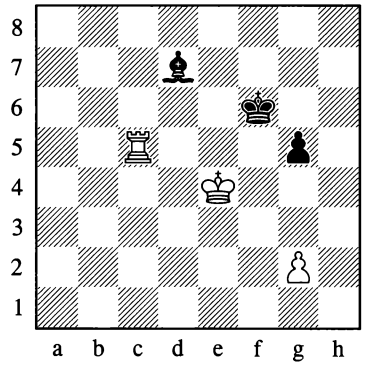
Black does not have time to get the king around to h5 in this scenario. After 74...♔f5 75.♖c5† ♔g6 76.♔f3 ♗d1† 77.♔e4 ♔h5 78.♔f5 ♔h4 79.♔f6 g4 80.♖c3 White has made great progress.



Finally Black is a bit tied up and White can bring the king into the game.

75.♔f3 ♔f5 76.♖c5† ♔f6 77.♔e4 ♗d7

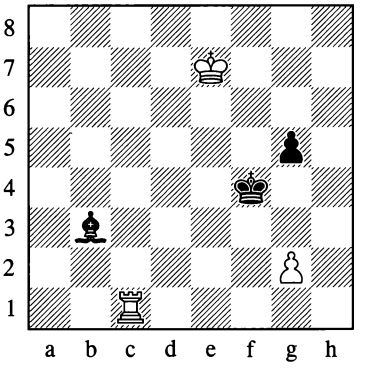
Although White has reached the 4th rank with the king without allowing any of the many fortresses, progress is still slow and painful. The white rook is ideally placed and the king will have to do a lot of the work now.



78.♔d5

78.g3? would be an instructive mistake. The g-pawn needs to be on g2 so that Black cannot attack it with the king. At the same time, White has to prevent the bishop from attacking it and provoking it onto the third rank, or tying the rook down. This is what all the mysterious rook moves are about. White is dominating the black bishop and king by really deep prophylactic manoeuvres, which prevent the bishop from being well placed and provoking the advance of the white g-pawn. 78...♗e8 79.♖f5† ♔g6 80.♔e5 ♗d7 81.♖f8 ♔h5 82.♔f6 ♔g4 Black draws.

78...♗e6† 79.♔d6 ♗b3 80.♖c1 ♔f5 81.♔e7 ♔f4



82.♖c5!

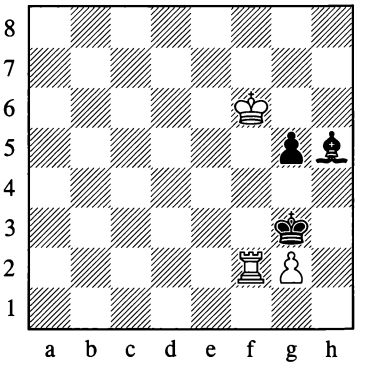
Accuracy to the end.

82.♖c3? ♗d5! and Black escapes. 83.g3† ♔g4 with the idea ...♗f3, a key feature of Black's defensive efforts.

82...♗d1 83.♖c3! ♗h5 84.♔f6 ♗e2 85.♖a3 ♗d1 86.♖a1 ♗e2 87.♖a2

Despite 40 moves of tablebase accuracy, White still needs to make a bit of progress.

87...♗d1 88.♖d2 ♗h5 89.♖f2† ♔g3



90.♖f5!

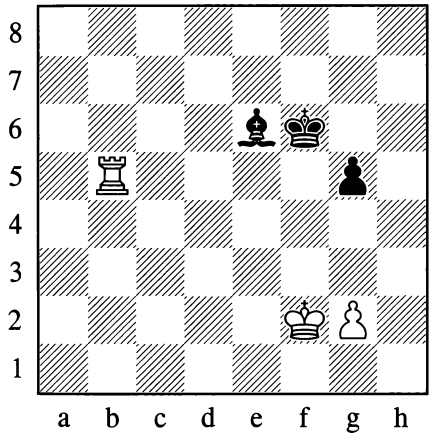
Finally, it is time to pull the trigger.

90...♗g4 91.♖xg5 ♔f4

This final attempt at a fortress is unsurprisingly not hard to take down.

92.♖g7 ♗c8 93.♔g6 ♗g4 94.♔h6 ♔g3 95.♔g5! ♗c8 96.♔h5† ♔f4 97.g4

White wins.

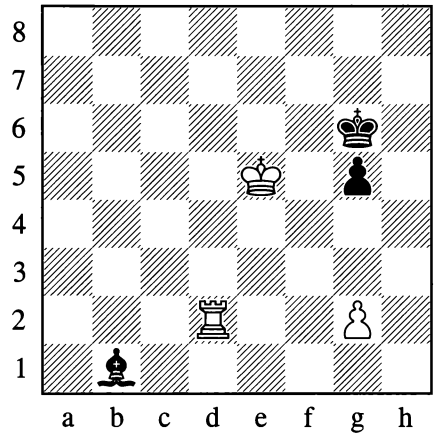


48.♔f3 ♗f5 49.♖c5 ♗d3 50.♔e3 ♗f5 51.♔d4 ♗b1

51...♗e6 52.♔e4 ♗d7 53.♔d5 transposes to the variation above after move 78.

52.♖c1 ♗g6 53.♖c6† ♔g7 54.♔e5 ♗b1 55.♖a6 ♗c2 56.♖d6 ♔f7 57.♖f6† ♔g7 58.♖f2 ♗b1 59.♖b2 ♗d3 60.♖d2 ♗b1 61.♔e6 ♗e4 62.♖e2 ♗d3 63.♖d2 ♗e4 64.♔e5 ♗b1 65.♖d4 ♔f7 66.♖a4 ♗c2 67.♖a5 ♗b1 68.♖c5 ♔g6 69.♖c1 ♗d3 70.♖d1 ♗c2 71.♖d2 ♗b1

Aronian has moved around a bit aimlessly for the last 20 moves. Between move 52 and 56 he spent almost 16 minutes and clearly did not find a winning plan. Since then, he has not accumulated time, but spent a minute on every third move, approximately, and a few seconds on the moves in-between, no doubt trying to see if he could spot some hidden opportunity or trap. But without success.



72.♔e6

72.♖b2 ♗d3 73.g4! ♔g7 74.♖b7† ♔g6 75.♖b3 ♗c2 76.♖b2 ♗d3 77.♔d4! ♗f1 78.♖b6† ♔g7 79.♔e4 and White wins elementarily, as covered above.

72...♗e4

The narrative of the remainder of the game is something like this: Dubov sees that Aronian is unable to find a win and decides to do nothing, hoping that this will not change. But as Aronian is trying out various things, he eventually tries the one thing he has deliberately delayed, putting the pawn on g4. This is probably on account of the 50-move rule. It is easy to understand why Aronian would not make this committal decision before he had tried other avenues. Pawns do not move backwards after all.

73.g3?

73.g4! ♗b1 74.♔e5 still won.

73...♗b1?

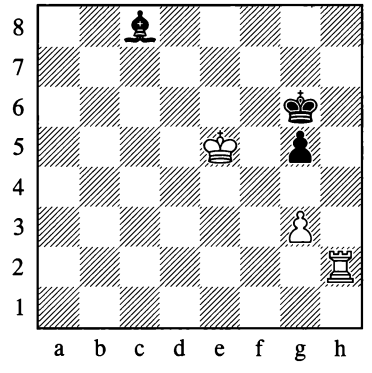
The wrong square.

73...♗f5† 74.♔e5 ♗c8

This would give Dubov his fortress. White can still try a small trap:

75.♖h2!

This relies on mutual zugzwang.



75...♗g4!

Going here (or to f5) is necessary. It is about keeping options open for later.

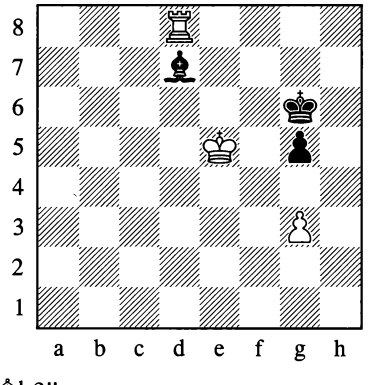
75...♗d7? 76.♖h8! and White wins. The bishop can neither stay on d7 nor go to h3.

76.♖h8 ♗d7!

It is now White to play. We shall see the importance of this after:

77.♖d8

77.♖g8† ♔h5 78.♔f6 ♔g4 also draws.



77...♗h3!!

The point. Black has to keep the bishop on d7 or h3 (if not d1/e2, where it does not have time to get to in these lines), keeping the h5-g4-f3 route clear for the king.

78.♖g8† ♔h5 79.♔f6 ♔g4 80.♖xg5† ♔f3

Black holds.

74.♖b2?

74.g4! is correct. Over the following moves, both players repeat their previous mistakes.

74...♗d3?

74...♗f5†! 75.♔e5 ♗c8

75.♔e7?

75.g4!

75...♗e4?

75...♔f5!

76.♖b6†?

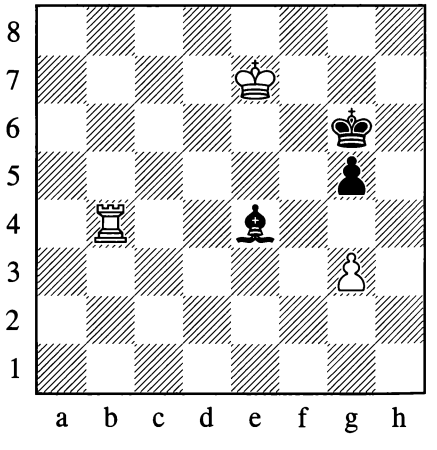
76.g4!

76...♔g7?

76...♔f5!

77.♖b5 ♔g6 78.♖b4?

78.g4!



78...♗c2?

All of the play has been understandable. Dubov has not discovered the fortress idea. Aronian has not found the winning idea. As this was played with 30-second increments and the players were already tired by this point, it was nearly impossible for Black to see that at this very moment there was a chance to play actively.

78...♔f5! 79.♔f7 ♗d5† 80.♔g7 ♗f3 81.♔h6 ♗d1 82.♖b5† ♔g4 83.♖xg5† ♔h3 with our standard drawing method.

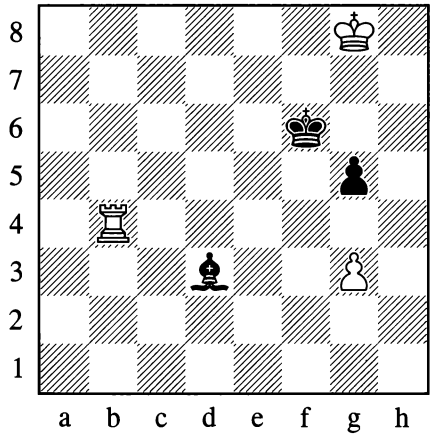
79.♔f8?

79.g4!

79...♔f6?

79...♔h5! 80.♔g7 ♗f5

80.♔g8 ♗d3

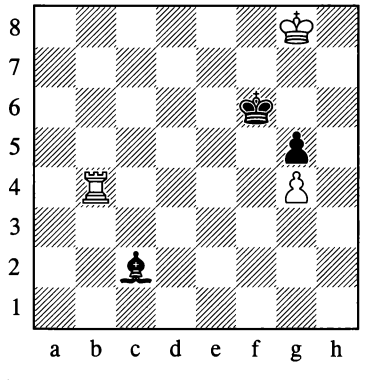


81.♖d4

At this point Aronian spent seven minutes, but already the position has become too difficult to work out in such a limited amount of time.

The winning line below is beautiful.

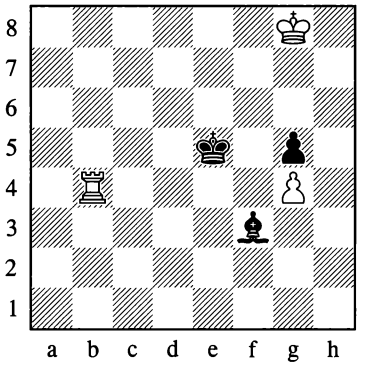
81.g4! ♗c2



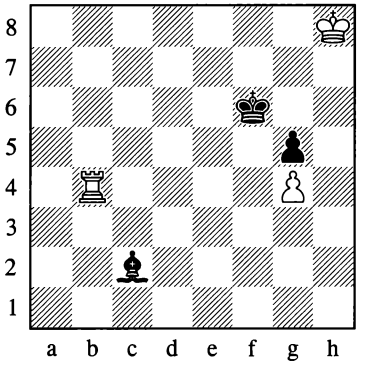
82.♔h8!!

The goal is to get the king to h6.

82.♔f8?! ♗d1 83.♖d4? (83.♔g8! would return to the winning line.) 83...♗b3 (Black has another defensive method which is worth noticing: 83...♗f3 84.♔g8 ♔e5 85.♖b4



85...♔d5! 86.♔g7 ♔c5 87.♖a4 ♔b5 88.♖d4 ♔c5 and the rook cannot find peace.) 84.♔e8 ♗e6 Black has established a fortress. On top of this, after 85.♔d8, Black can force a draw with 85...♗xg4, when the g-pawn will queen.



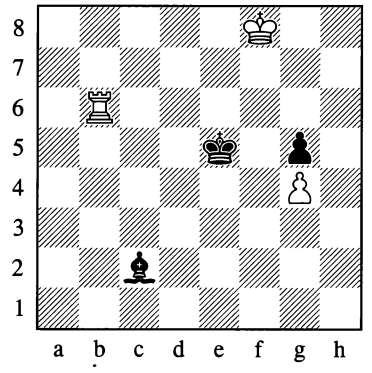
82...♗d3

82...♗f5 83.gxf5 ♔xf5 84.♔g7 g4 85.♔h6! and White wins.

82...♔g6 83.♖b6† ♔f7 84.♖b5 ♔f6 85.♖b2 ♗e4 86.♖e2 ♗d3 87.♖f2† ♔g6 88.♖d2! (88.♔g8? ♗c4† 89.♔f8 ♗e6 90.♖g2 ♔f6 is back to the standard fortress.) 88...♗e4 89.♔g8 ♔f6 90.♖e2! ♗d3 (90...♗d5† 91.♔h7 ♗e6 92.♖xe6†! White wins.) With the bishop on d3, White can finally focus on getting the black king out of the way, as you

can see in the analysis right below. 91.♖b2! is the key move and we have transposed.

83.♖b6† ♔f7 84.♖b2 ♗e4 85.♖b5 ♔g6 86.♔g8 ♔f6 87.♔f8 ♗c2 88.♖b6† ♔e5



White now wins with a remarkable triangulation manoeuvre.

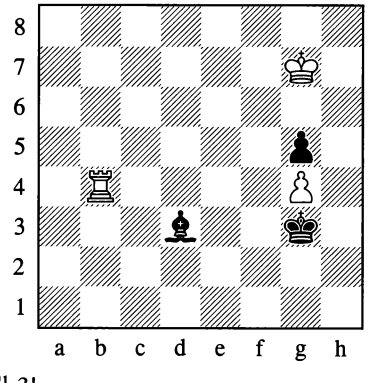
89.♖b4!!

Zugzwang. The bishop has to stay on the diagonal, so it will be forced to go to d3 very soon. 89.♔g7? ♔f4 90.♖b4† ♔g3 91.♔f6 ♔h4 would allow Black to escape.

89...♔f6 90.♔g8! ♗d3 91.♖b6† ♔e5 92.♔g7 ♔f4 93.♖b4†

This is the key point. Black's defensive resource is gone.

93...♔g3



94.♖b3!

The point. The bishop is badly placed on d3.

94...♔xg4 95.♖xd3 ♔f4 96.♔g6 g4 97.♔h5 g3 98.♔h4 g2 99.♖d1 ♔f3 100.♔h3

White wins.

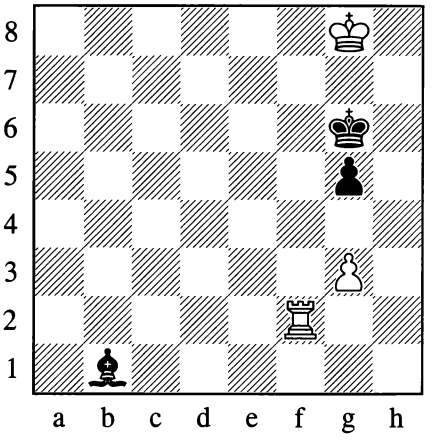
81...♗c2 82.♖d2?

82.g4 ♔e5 83.♖b4 ♔f6 84.♔h8! is still the path to the full point.

82...♗b1?

82...♗e4 would hold. For example: 83.♖b2 ♔f5 84.♖b4 ♔g4!? and Black draws.

83.♖f2† ♔g6



84.♖b2?

White was winning once again with:

84.g4! ♗d3 85.♔f8

This time the king needs to go in this direction.

85.♔h8? ♗c4! 86.♖b2 ♗e6 87.♖b6 ♔f7! 88.♖b4 ♔g6! with a fortress based on the white king being stuck.

85...♗c4

85...♗a6 86.♖b2 ♗c8 87.♖b6† ♔h7 88.♖b4 ♔g6 89.♔e7 ♔g7 90.♖c4 and once the bishop has left the diagonal, White can bring in the king and win.

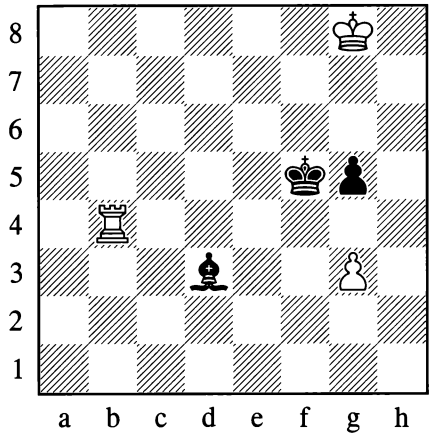
86.♔e7 ♗b3 87.♖b2 ♗c4 88.♔d6 ♔f6 89.♖f2† ♔g7 90.♔e5

We are back to our original way of breaking the fortress by getting the king to f5 by force.

84...♗d3 85.♖b6† ♔f5

85...♔h5 will feel more natural to us, but the game move should also hold.

86.♖b4



86...♔f6?

Black continues the waiting strategy, thinking it is successful no doubt.

Black can set up one of the standard fortresses with: 86...♗e2 87.♔g7 ♗d1 88.♔h6 ♗f3 89.♖b5† ♔g4 90.♖xg5† ♔h3 with a draw on the horizon.

87.♖d4

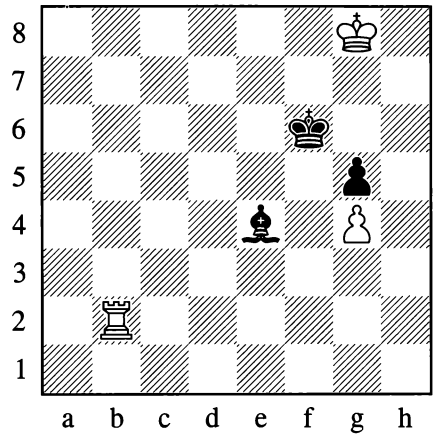
87.g4! ♗c2 88.♔h8! we have seen before.

87...♗c2 88.♖d2 ♗b1 89.♖f2†

89.g4!? ♗e4 90.♖e2 ♗d3 91.♖b2 ♗e4 92.♖b5 ♗c2 93.♖b4 ♗d3 94.♖b6† wins as shown in the notes to move 81.

89...♔g6 90.g4! ♗e4 91.♖d2 ♔f6 92.♖b2?

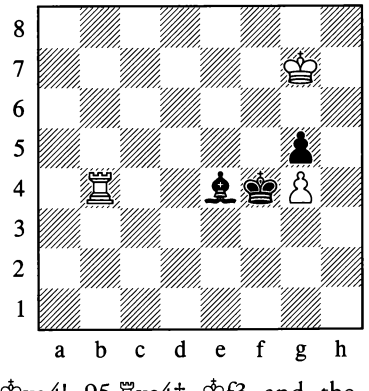
We have seen the winning idea for White a few times by now: 92.♖e2! ♗d3 93.♖b2! ♗e4 (93...♔e5 94.♔g7 ♔f4 95.♖b4† ♔f3 96.♖b3 and White wins.) 94.♖b5 ♗c2 95.♖b4!! and Black is in zugzwang, as we have seen already.



92...♗d3?

We have already seen that this loses. While Aronian was unable to find a way to will this position into existence, he was ready to exploit it once it arose on the board.

Dubov rejects his last chance to be active. Black would have drawn with: 92...♔e5! 93.♔g7 ♔f4 94.♖b4



94...♔xg4! 95.♖xe4† ♔f3 and the g-pawn secures a draw.

93.♖b6† ♔e5 94.♔g7 ♔f4 95.♖b4†! ♗e4 96.♖xe4† ♔xe4 97.♔g6
1–0

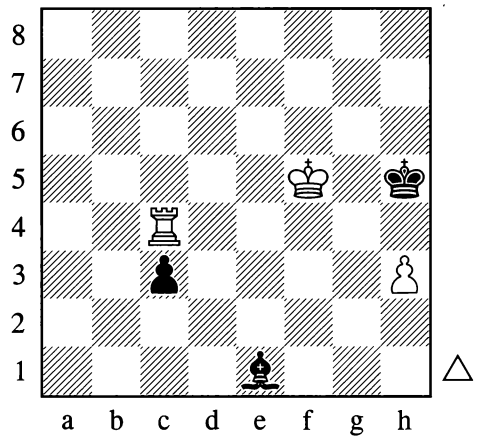
8. Asymmetrical pawns

We shall now move away from positions with symmetrical pawns and show some defensive positions that are akin to fortresses, in the way that it is difficult for the defender to produce any real counterplay. Not that it is impossible, but that it almost always fails.

The reason why we have spent most of our energy in this chapter on positions with symmetrical pawns is that this is where the defensive chances are usually best. In what follows, we shall see some positions with adjacent pawns, where the stronger side is almost always winning. See also the mistake on move 53 in Szwed – Yoo above.

Victor Mikhalevski – Varuzhan Akobian

Gibraltar 2018



Mikhalevski was trying to win this game for a long time and we have reached the end of his attempts, and also the most difficult version of this endgame. His chances of winning at this point had in a practical sense evaporated, but still the position is extremely instructive and can teach us a lot about schematic thinking.

Black is certainly going for a fortress. If White makes a misstep with the king, Black will go for counterplay against the h3-pawn, as happened in the game. But this is not always successful, and we know that White wins with the h-pawn if he manages to win the black c-pawn.

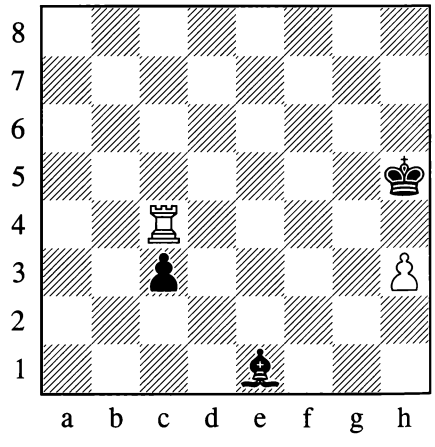
90.♖c8? ♔h4

Black wins the h-pawn. The game was soon drawn.

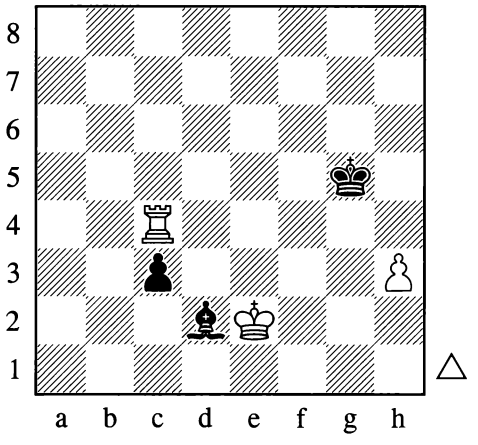
91.♖h8† ♔g3 92.♔e4 ♗d2 93.♔d3 ♔h2 94.♔e2 ♔g3 95.♖h7 ♔h2 96.♖h4 ♔g3 97.♖c4 ♔xh3 98.♔f2 ♗g5 99.♔f3 ♗d2 100.♖c8 ♔h2 101.♔f2 ♔h3 102.♖c4 ♗g5 103.♖xc3† ♔g4 104.♖g3† ♔f4 105.♖xg5 ♔xg5

½–½

Schematic Thinking

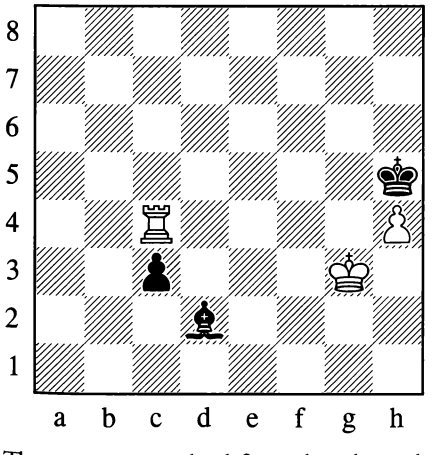


This is the way to apply schematic thinking to this position. Imagine in your mind's eye the white king anywhere. Find a way to make progress. Quickly you will work out that you cannot put the black bishop in zugzwang so that it will have to give up the c-pawn. Your only way to make progress will be to advance the h-pawn without losing it. Even this is not easy to achieve, but it can be done.



Once White achieves this position, we can see that the bishop is forced to be on d2. There is another way for White to win that I contemplated too. With the king on h2 and the bishop on the ideal square e1, White plays ♖c5†. The king must go to h4 (otherwise White plays ♔g2-f3-g4). Then White plays ♔g2, forcing ...♗d2 and then ♖c4† and h3-h4, leading to the same result.

1.h4† ♔h5 2.♔f2 ♔g6 3.♔g3 ♔h5

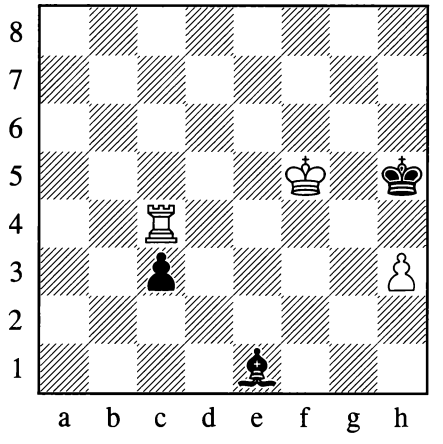


The winning method for White here should be easy for students of this chapter.

4.♖c5† ♔h6 5.h5 ♔g7 6.♔g4 ♔h6 7.♖c7 ♗e1 8.♖c6†

And the pawn advances to h6, winning. We notice that Black has the wrong bishop for any kind of lucky fortress in the corner once the pawn is lost.

The basic win

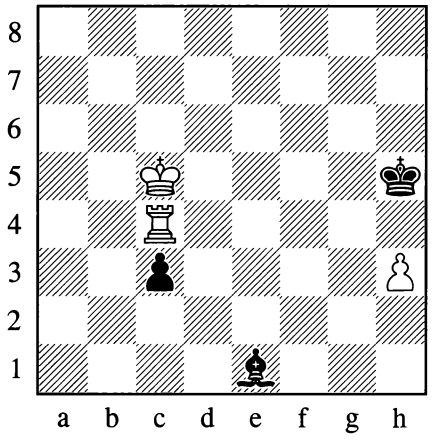


The great challenge in this position is to get the white king to the other side of the 4th rank, after which progress is easier. In the game the king was in that area, but Mikhalevski was unable to find the win, so for this reason he tried to bring the king around to f5 and found no purpose there. But for our needs, this shows schematic thinking very well. The way we would like to think about this position is that the white king could be literally anywhere. How could we then improve the position?

90.♔e6! ♔g5 91.♔d5 ♔h5 92.♔c5 ♔g5 93.♔b4 ♔h5 94.♔b3 ♔g5 95.♔c2 ♗d2 96.♔d3 ♔h5 97.♔e2 ♔g5

We know the rest.

Let's go back to the position after 92.♔c5.



Black can try a few other defensive ideas.

92...♗g3!?

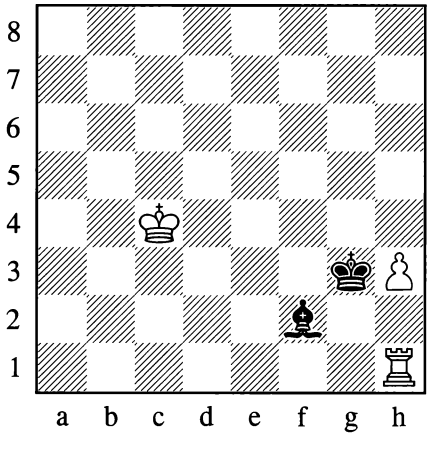
Going for the h-pawn at the time when the white king is the furthest away.

92...♗d2 would prevent White from going to b4, but the bishop is worse placed and White can play 93.♔b5 ♔g5 94.♔a4 and win in the same way.

93.♔b4 c2 94.♔b3

White is forcing Black to put the pawn on the 1st rank.

94...c1=♕ 95.♖xc1 ♔h4 96.♖h1 ♗f2 97.♔c4 ♔g3



98.♖f1!

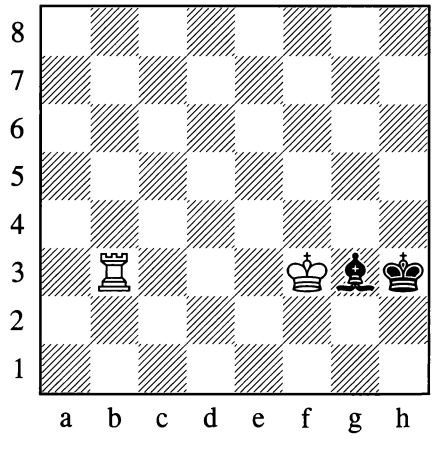
An important detail pointed out by Danish Grandmaster Mads Andersen. White wins a vital tempo.

98.♔d3 ♔g2 99.♔e2 ♗h4! would allow Black to escape with a draw.

98...♗b6 99.♖b1 ♗c7 100.♖b3† ♔h4 101.♔d4 ♗g3

Black has finally arrived at the desired moment, where he can win the pawn. Sadly, it is too late and creates other well-known problems.

102.♔e4 ♔xh3 103.♔f3!



Black is lost. The black king cannot reach the drawing corner. For example:

103...♔h2 104.♖b2† ♔h3 105.♖b7

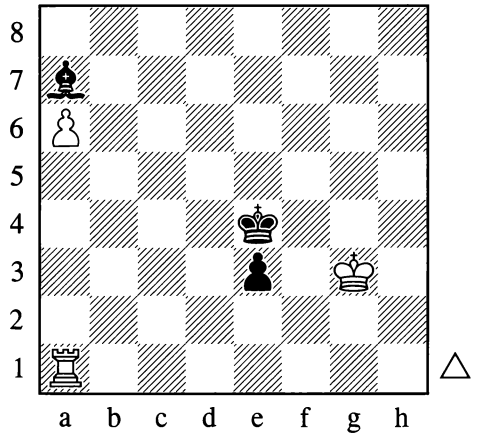
White wins.

9. Flank pawns

There are some positions that do not win, even with a rook and an extra pawn against a bishop. Actually, there are three (if you exclude the ones where the pawn is either surrounded or quickly lost), as we shall talk about later.

Ivan Salgado Lopez – Aleksander Mista

Drancy 2016



Once again schematic thinking is the way to progress. White needs to get the rook to b7 (or anywhere on the 7th rank) without allowing counterplay with ...e3-e2. The difficult thing in this position is to sense that Black is threatening to build a fortress in the corner. We should know that this danger exists, even if it would be impractical to work out exactly when it is a fortress and when White still wins.

In the game Ivan did not sense the danger and Black managed to escape.

62.♖a4†? ♔d5!

An important move.

62...♔d3? 63.♔f3 would win for White. 63...♔c3 64.♔e2 and the rook makes it to the 7th rank without allowing the black king past the 4th.

63.♔f3

It is possible that Salgado missed that 63.♖b4 is met with 63...e2 64.♖b1 ♔e4 followed by ...♔e3 and Black holds.

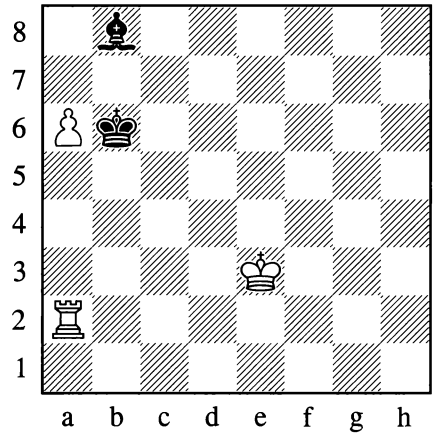
Note that it would be wrong for Black to play 64...♔c6? 65.♔f3 e1=♕ 66.♖xe1 ♔b6 67.♖e6†, when Black is unable to get the king into the corner.

63...♔c5 64.♖a2 ♔b5 65.♔e2 ♔b6

This is not strictly necessary, but it still works.

After 65...♔c6 66.♖b2 ♗b6 with the idea ...♔c7-c6, Black holds too.

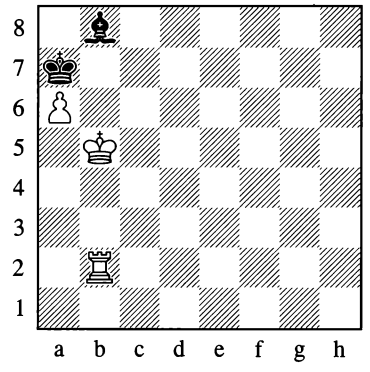
66.♔xe3 ♗b8



Black has achieved another fortress.

67.♔d4 ♔a7!

The bishop belongs to the a7-g1 diagonal, but here 67...♗a7? would still lose. The key point is that after 68.♔c4 ♗b8, White has 69.♖b2†!, when he is able to effectively regroup. 69...♔a7 70.♔b5



Black is not in time to get the bishop on the important diagonal and prevent White from getting the pawn to a7. 70...♔a8 71.♖g2 ♗f4 72.♖g8† White wins. Black cannot prevent a6-a7 for long.

68.♔c5 ♔a8 69.♖e2

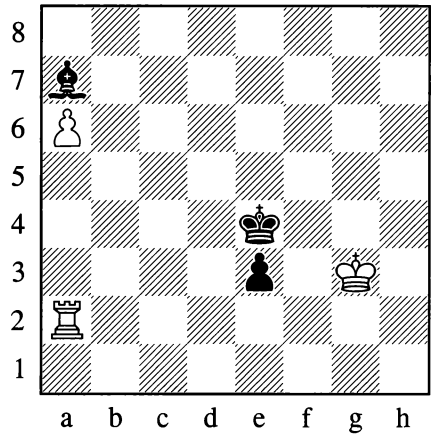
69.♔b5 ♗a7! is the important difference from the note above. White is not able to repel the bishop from the long diagonal. There are simply too many squares on it.

Salgado kept trying to trick his opponent, as he should, but he was unsuccessful due to Black's vigilant defence.

69...♗a7† 70.♔c6 ♗g1 71.♖e7 ♗f2 72.♖f7 ♗d4 73.♖f8† ♔a7 74.♔d5 ♗g1 75.♖f1 ♗e3 76.♔c6 ♗d4 77.♖f7† ♔a8 78.♔d5 ♗g1 79.♖f8† ♔a7 80.♖f3 ♔a8 81.♔c4 ♔a7 82.♖f7† ♔a8 83.♔b5 ♗e3 84.♔c6 ♗g1 85.a7 ♗xa7 86.♖f8† ♗b8 87.♔d7 ♔b7 88.♖f1 ♗a7 89.♖b1† ♔a8 90.♔c6 ♗b8 91.♔b6 ♗a7† 92.♔c7 ♗e3 93.♖b8† ♔a7 94.♖b3 ♗f4† 95.♔c6 ♔a8 96.♔b6 ♗h2 97.♖b1 ♗e5 98.♖d1 ♗g3 99.♖d2 ♗f4 100.♖e2 ♗g3 101.♖a2† ♔b8 102.♖g2 ♗c7† 103.♔c6 ♗f4 104.♖f2 ♗e3 105.♖f1 ♗d4 106.♖f4 ♗g1 107.♖b4† ♔a8 108.♖b2 ♗d4 109.♖a2† ♗a7 110.♔c7
½–½

White's winning mechanism is remarkably simple and should be easier once we have worked through the previous examples.

62.♖a2!



62...♔d5

Black has to go for this still.

62...♔d3 63.♔f3 ♔c3 64.♖h2 and ♖h7 is the easy version of what White is trying to do.

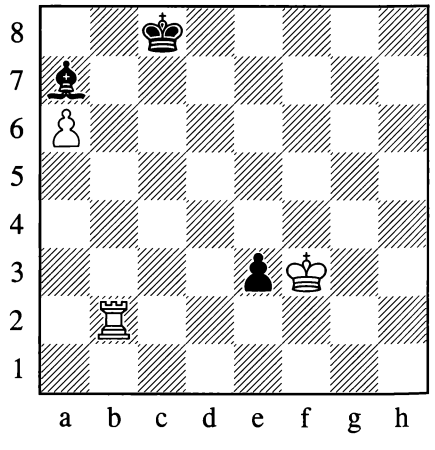
63.♖c2!

Cutting off the king and preparing ♔f3-e2.

63...♔d6

63...♔e4 64.♖c7 e2 65.♖e7† also wins for White.

64.♔f3 ♔d7 65.♖b2 ♔c8



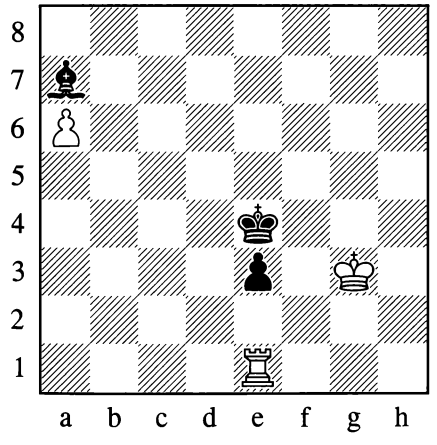
White is managing to make it to b7 with the rook, but there is still a final flourish needed to crack the last line of the defence.

66.♖b7 ♗c5 67.♖b5 ♗a7 68.♖b4

Black is in zugzwang and can only resign.

In the initial position, the final move to check is:

62.♖e1!?



This also wins and is a bit strange. But the winning line is sort of cool. The key idea is that Black cannot play ...e2 and White thus has time to regroup with ♔g2-f1-e2.

62...♗b8†

62...♔d3 63.♔f3 ♔d2 64.♖b1 would make things easy. 64...♗d4 65.♖b4 ♗c5 66.♖b7 and White wins.

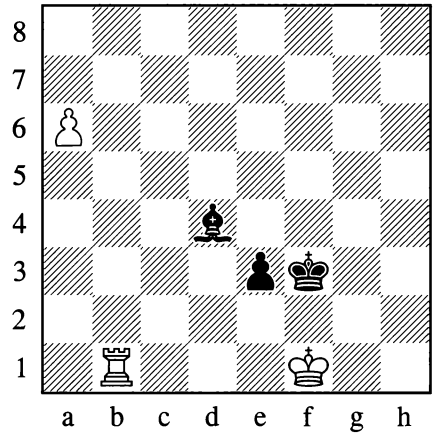
63.♔g2 ♗a7

Black can do nothing but wait.

64.♔f1

If White is allowed to play ♔e2, the rook quickly makes it to b7.

64...♔f3 65.♖b1 ♗d4



66.♔e1!?

Not the only way, but aesthetics play a role too.

66...♗c3† 67.♔d1 e2† 68.♔c2 ♗d4 69.♔d3 ♗f2 70.♖e1! ♗xe1 71.a7

White wins.

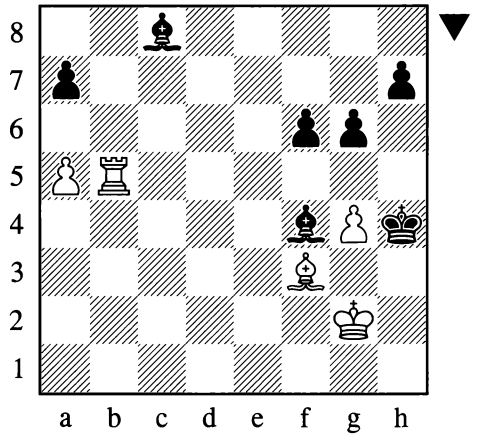
10. Looking back...

The previous examples are from the last few years, as I believe strongly in analysing new games and not showing people material they have already seen. It is not so much because it makes the author look lazy (which this one certainly is), but because it can dull the reader's attention. When you believe that you know something already, thinking stops. It happens to everyone.

However, this game is an almost mandatory exception to this rule. From a sharp middlegame, which we shall entirely ignore, comes a typical endgame, which Bent Larsen plays like a virtuoso.

Bent Larsen – Anthony Miles

Bled/Portoroz 1979



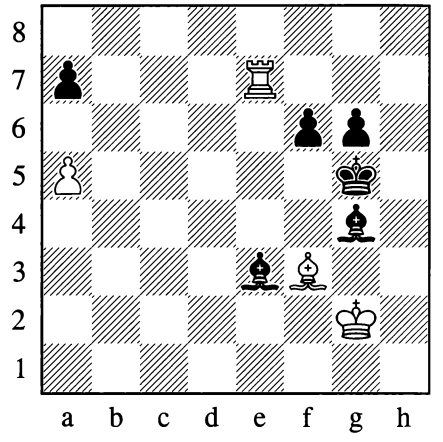
36...♗xg4

Things become sharp.

36...♗e5!? was also possible. Black will still have to defend the a7-pawn.

37.♖b7 ♗e3 38.♖xh7† ♔g5 39.♖e7

Larsen was the ultimate fighter, always trying to win every position. He especially loved playing endgames and often managed to create something out of little.

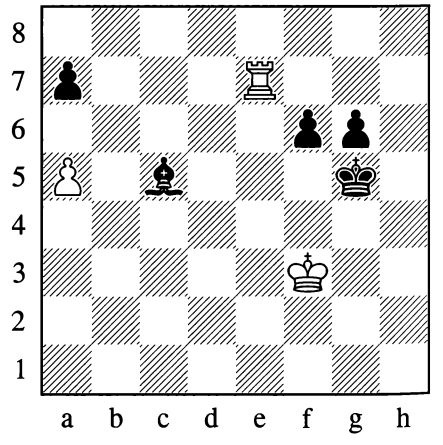


39...♗xf3†?

39...♗c5 40.♖c7 ♗e3 would still be holding, although Larsen would certainly have been able to create plenty of problems for Miles.

40.♔xf3 ♗c5

40...♗d4 41.♖d7 ♗g1 42.♖d1 ♗h2 43.♖d2! followed by ♖d7 and there is no way Black can keep the a-pawn defended. Thus, the only try is 43...♗c7, but White still plays 44.♖d7 on account of 44...♗xa5 45.♖d5†.



This is back in the days of post-mortem analysis. I do not know if Larsen was able to look at this endgame in his hotel room around this point, but the chances are great. His play from this point onwards is immaculate.

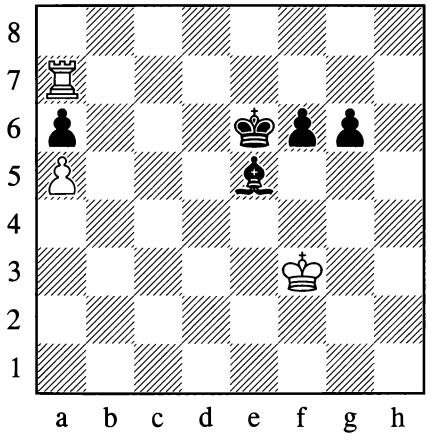
41.♖c7 ♗g1 42.♖c1

42.♔g2 ♗e3 43.♔f3 is also decent.

42...♗h2 43.♖c2 ♗e5 44.♖d2!

The bishop is cut off and the a-pawn is going. But there are still the connected passers to deal with.

44...♔f5 45.♖d7 a6 46.♖a7 ♔e6



47.♖xa6†

This is not a difficult move to play, but if you look at the alternative, you might get the idea that you are able to make progress, when all it would achieve is to lose an important tempo.

47.♔e4 f5† 48.♔d3 ♔d5 49.♖xa6 ♗c7 50.♖a7 ♔c6 51.♔c4

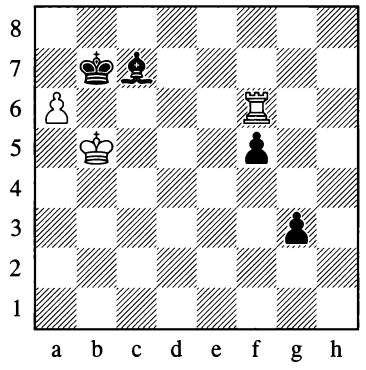
Black draws after 51.a6 g5 52.♖b7 g4 53.♔e3 f4† 54.♔f2 ♗b6† 55.♔g2 f3† 56.♔g3 ♗c7† 57.♔xg4 f2 58.♖b1 ♗b6.

51...g5 52.♖a6† ♔b7 53.♔b5 g4 54.♖f6 g3

54...f4 would be mistaken, on account of 55.a6† ♔a7 56.♖f7 ♔b8 57.a7†, and White wins.

55.a6†

Black holds after 55.♖xf5 g2 56.♖g5 ♗f4 57.♖xg2 ♗e3.



55...♔a8!!

55...♔a7 would fail to 56.♖f7.

56.♖xf5

56.♖f8† ♗b8 57.♖g8 f4 58.♔b6 g2 59.♖xg2 ♗a7† 60.♔c6 ♗e3 and Black has established the fortress.

56...g2 57.♖g5 ♗f4 58.♖xg2 ♗e3

With a draw.

47...♔d7

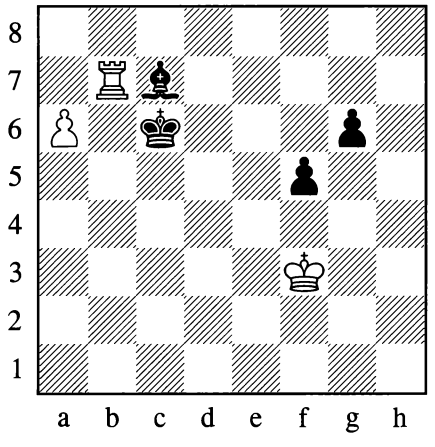
The reason why the previous move was so easy is that 47...♔d5 loses to 48.♖b6 ♗d4 49.♖b7 ♔c6 50.a6.

48.♖b6

Conveniently the only reasonable square for the rook. The king is cut off as so often before.

48...♗c7 49.♖b7 ♔c6 50.a6 f5

50...♗b6 51.♖f7 would offer White a shortcut.



51.♖b3 ♗b6

If only Black was to play, he would save the game.

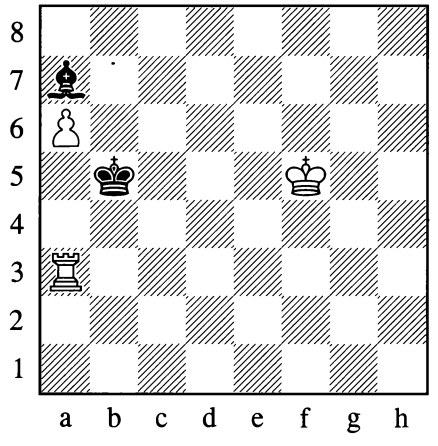
52.♔f4 ♗c7† 53.♔g5 ♗b6 54.♔xg6 f4 55.♔f5 f3

This moment was always coming.

56.♖xf3 ♔b5

The only way Black can try to regroup the pieces.

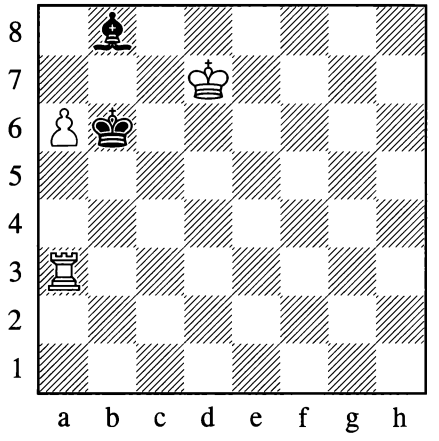
57.♖a3 ♗a7



58.♔e6!

Larsen plays it cool. But at this point he could win in whichever way he wanted. Black is not in time to play ...♔a8 and ...♗a7, as White would then hit him with a check on the 8th rank, prohibiting the bishop from escaping on the desired diagonal.

58...♔b6 59.♔d7 ♗b8



The glorious moment that all Danish schoolboys know...

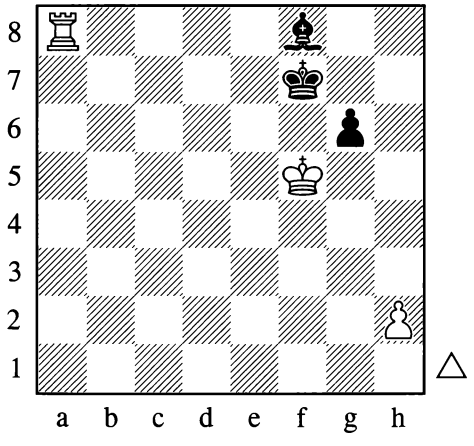
60.a7!
1–0

11. Adjacent pawns

This scenario should always fill us with optimism. But without sufficient technical skills, it is difficult to convert the advantage – as we shall see from the following stock example.

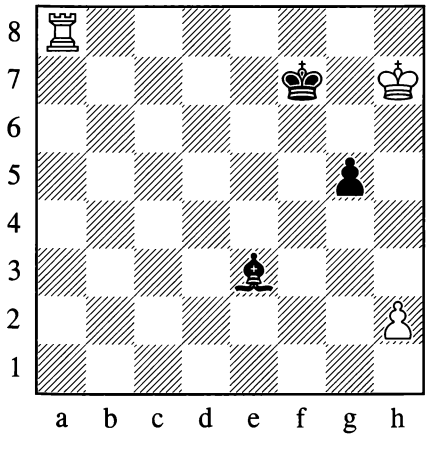
Alexander Grischuk – Maxime Vachier-Lagrave

Tbilisi 2017



This highly fascinating endgame is taken from a very tight play-off in the 2017 World Cup by two of the most fascinating players today.

41.♔g5 ♗c5 42.♔h6 ♗e3† 43.♔h7 g5



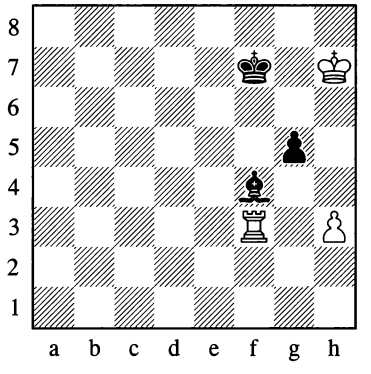
44.♔h6?!

To me this move is strange.

44.h3! ♗f2

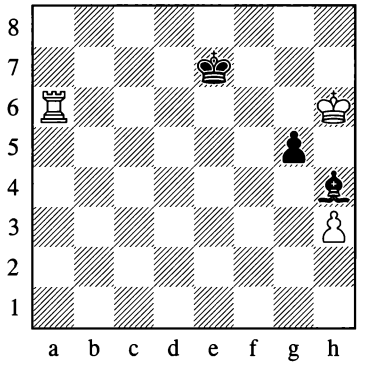
Putting the bishop on h4 seems horrible, but is the best defensive try.

44...♗f4 feels more flexible. The bishop stays on the longer diagonal. But as we have seen before, bishops are easily dominated. And here White gets an extra option. 45.♖a6 ♗e3 46.♖a3 ♗f4 47.♖f3



White is quickly threatening h3-h4. A natural conclusion could be: 47...♔e6 48.♔g6 ♔e5 49.♔h5 ♗d2 50.♔g4 ♗c1 51.♖f1 ♗d2 52.♖d1 ♗f4 53.h4 ♔f6 54.♖a1 and White wins.

45.♔h6 ♗h4 46.♖a6 ♔e7

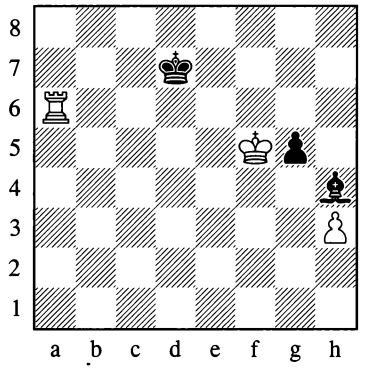


Black is clearly in danger of being zugged. But on the other hand, the king is not so easy to checkmate as it would be if Black had placed it on g8 and White could play ♖f6.

47.♔g6 ♔d7

47...♔f8 48.♖e6! would be a well-known pattern.

48.♔f5



48...♔e7

The black king has to fight to stay in the centre, as a drift to the queenside would be exploited. The king would be cut off and forced to stay too far away.

Thus 48...♔c7 would see the black king drift too far away from the h8-square. 49.♖a7† ♔d8 (49...♔d6 50.♖g7 puts Black in zugzwang again. Next comes ♖xg5.) 50.♔e6 ♗e1 51.♖d7† ♔c8 52.♖d5 ♗h4 53.♔f5 ♔c7 54.♔g4 ♔c6 55.♖xg5 White wins.

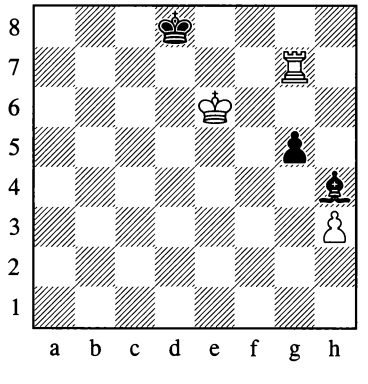
49.♖a7† ♔e8

White wins in many different ways here. The easiest is to push the king to the c-line and then take the g-pawn.

50.♔e6 ♔d8

50...♔f8 is met with 51.♖b7 and 52.♔f6.

51.♖g7



A typical zugzwang.

51...♔c8 52.♖d7!

The king is cut off. White wins with:

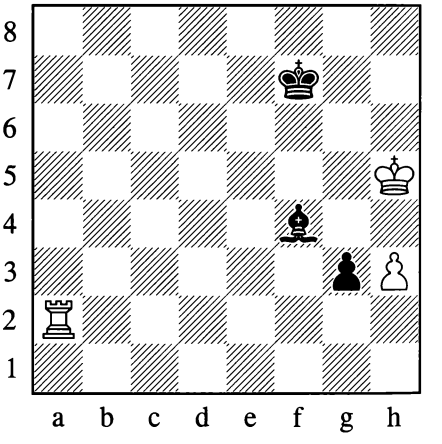
52...♗e1 53.♖d5 ♗h4 54.♔f5

As usual.

44...♗f4!

MVL is only too happy to push his pawn to g3, correctly assessing that it will be more difficult for White to deal with once there.

45.♖a2 g4† 46.♔h5 g3 47.h3



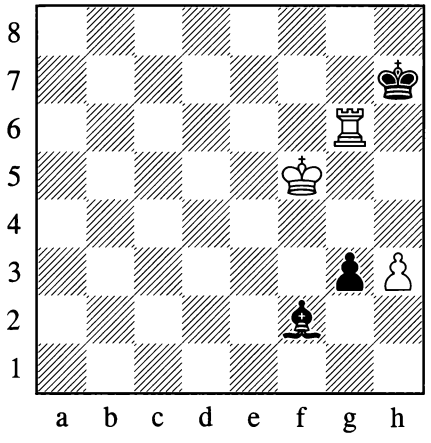
47...♗e3!

Another strong defensive move. The bishop will be less active on f2, but the threat of pushing the g-pawn later will be quite serious, limiting White's options.

48.♔g4 ♗f2 49.♔f3 ♔g6 50.♖a5 ♔h6 51.♖b5 ♔g6 52.♖d5 ♔h6 53.♖e5 ♔g6 54.♖b5 ♔h6 55.♖b4 ♔g5 56.♖g4† ♔h6 57.♔e4 ♗e1 58.♔f5 ♗f2 59.♖g6† ♔h7 60.♔f6 ♗d4† 61.♔f7 ♗f2 62.♔f6 ♗d4† 63.♔f5 ♗f2

There were other options along the way to here, but this is the most important position in the game. Not because Grischuk made a mistake. Actually, he spent 13 seconds on this move, which was above average, as it was a play-off game with 10-second increments.

But rather it is the most instructive position (and the second time it has occurred).



Without time, you cannot play chess. It requires a chance to think and solve problems. For example, is your first thought in this position to consider what would happen if it was Black to play? Was it your second thought?

If not, the 13 seconds have already passed and failure to make a move will cost the game.

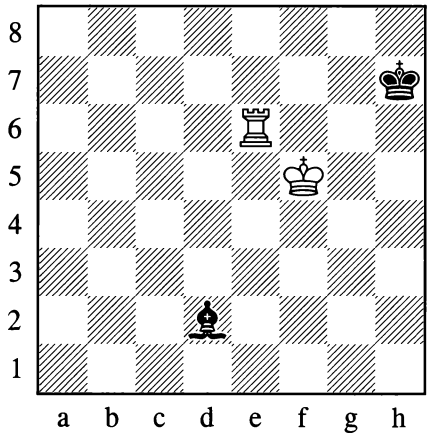
However, it is a thought we should have often in the endgame. Especially when it comes to fortresses, where small finesses can be the messengers of doom.

64.h4?

Another attempt would also include bringing in the h-pawn too soon.

64.♔f6 ♗d4† 65.♔f7 ♗f2 66.h4? ♗e1 67.h5 ♗f2 68.h6 ♗e1 69.♔f6 ♗f2 If it was Black to play in this position, he would play ...♗d4†. And after 70.♔f5 ♗d4! Black also holds.

64...♗e1 65.h5 ♗f2 66.♔f4 ♗e1 67.♔f3 ♗f2 68.♔e2 ♔h8 69.♔f3 ♔h7 70.♔f4 ♗e1 71.♔g4 ♗f2 72.♔f5 ♗e1 73.♔f4 ♗f2 74.♔e5 ♗e1 75.♔f6 ♗f2 76.♔f5 ♗e1 77.♔g5 ♗f2 78.♔f5 ♗e1 79.♔e4 ♗f2 80.♔f3 ♗e1 81.♖e6 ♗f2 82.h6 ♗c5 83.♔xg3 ♗f8 84.♔g4 ♗xh6 85.♔f5 ♗d2



86.♔f6

86.♖g6 would force Black to find 86...♗c3! as an only move. White is not allowed to play ♔f6-f7, when he would have reached a winning theoretical position, as we have seen above.

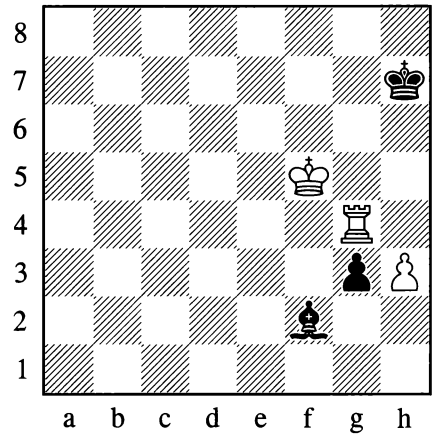
86...♔h6 87.♖c6 ♔h5 88.♔f5 ♔h4 89.♖c2 ♗e3 90.♖e2 ♗b6 91.♖e6 ♗c7 92.♖c6 ♗b8 93.♖c3 ♗g3 94.♖xg3

½–½

The win is all about patience and timing

If you don't know where you are going, it does not matter which way you go – a truth that was firmly established in *Alice in Wonderland*. Here, schematic thinking will lead to a set-up where Black is in zugzwang. Remember, this is the key weapon to use against shaky fortresses. You can huff and puff as much as you like, but a brute-force wolf-attack will not capture the little piggie. You need to force him to come out...

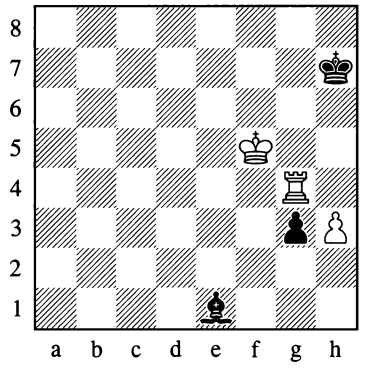
64.♖g4!



64...♔h6

This is the most tenacious defence.

64...♗e1 allows White to show another case of brilliant triangulation.



65.♔f6!! This is nothing more than a tempo-losing move. 65...♗f2 66.♔g5 We have reached the note on 65...♔h7.

65.♔f6

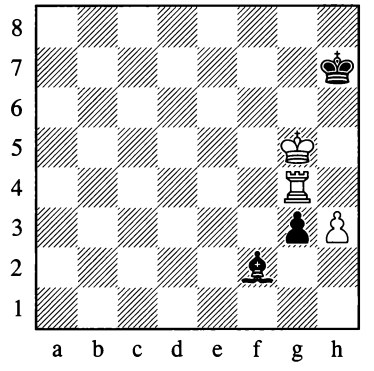
As so often in this type of ending, there are many paths that lead to the desired set-up.

65.♖g8 ♗e1 66.♖h8† ♔g7 67.♖e8 ♗f2 68.♖e6 ♔h7 69.♖g6! is another way to get there – and more effective. The main line is the main line because Black has more defensive ideas, and we want to see them.

65...♔h5

White also wins after:

65...♔h7 66.♔g5!



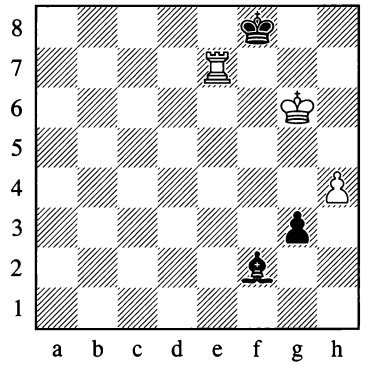
66...♔g7

66...♔g8 67.♔g6 wins in a very direct way. If Black moves the king to the f-line, White will move the king back to f3 and advance the h-pawn to h5, making the ...g2 counterplay idea redundant. After this the king is free to help again. And if Black plays 67...♔h8 then 68.♔f7 wins on the spot.

67.h4

There are many other ways to play.

67...♔h7 68.♔h5 ♗e1 69.♖e4 ♗f2 70.♖e7† ♔g8 71.♔g6 ♔f8



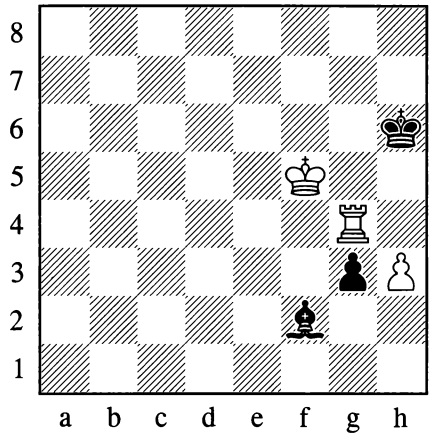
72.♖e2

White wins.

72...♗g1 73.h5

You can figure out the rest.

66.♔f5 ♔h6



67.♖g8!

This is an important tempo-losing move. The first idea is that 67...♔h7 68.♖g6! wins.

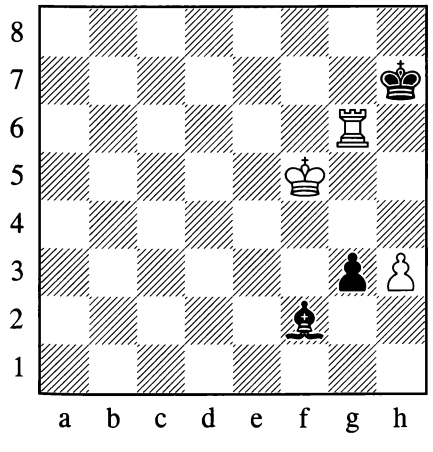
67...♗e1

This would force White to find a nice triangulation manoeuvre.

68.♖h8† ♔g7 69.♖e8 ♗f2 70.♖e6 ♔h7

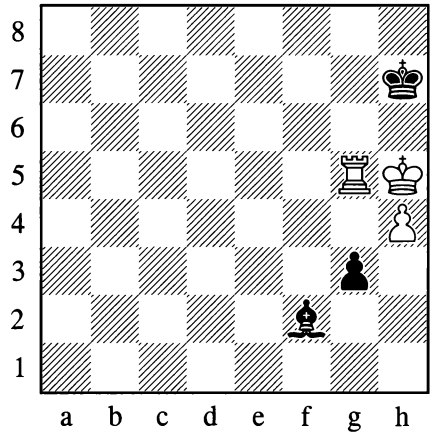
Again the king cannot go to the f-line, as it will be cut off.

71.♖g6!



Black is to play. White wins by trapping the king in the corner and creating a typical zugzwang.

71...♗e1 72.♔g5 ♗f2 73.♔h5 ♗e1 74.h4 ♗f2 75.♖g5!

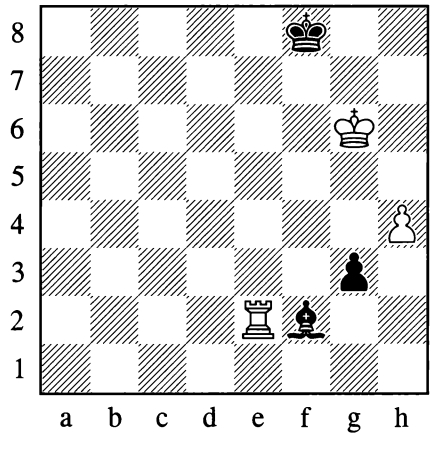


We need to learn to embrace this type of waiting move. The bishop is exposed on e1 and White should exploit this continuously to improve his position by winning tempos to reorganise the pieces.

75...♗e1

75...♔h8 76.♔g6! with a very similar outcome.

76.♖e5 ♗f2 77.♖e7† ♔g8 78.♔g6 ♔f8 79.♖e2



The target position. White puts the h-pawn on h7 and then takes the g-pawn.

12. A few games in conclusion

In the final part of this chapter, we shall see a few games that show how winning positions can slowly disintegrate.

The following game was played in the Individual European Championship in the lovely city of Batumi (if you have never been, consider going in the future). After a mistake by Black in the opening, White is completely winning. What is interesting for us to look at is how this win slowly deteriorates. White misses a lot of chances to use the activity of his pieces, and never gets the most out of his bishop.

It is also worth noting that in such positions the stronger side would usually seek the exchange of a pair of rooks to diminish the opponent's counterplay. But in this game White is able to create very strong threats against the black kingside, and would thus benefit greatly from delaying the exchange of the rooks until those opportunities are maxed out. It is rather the exchange of bishop for knight under favourable circumstances that White is seeking, especially if he is able to create further weaknesses in the black position as a result.

At the end of the game, we shall see how Black is able to get a holdable position by exchanging pawns and setting up a fortress – only to misplay it in well-known fashion.

Ivan Cheparinov – Burak Firat

Batumi 2018

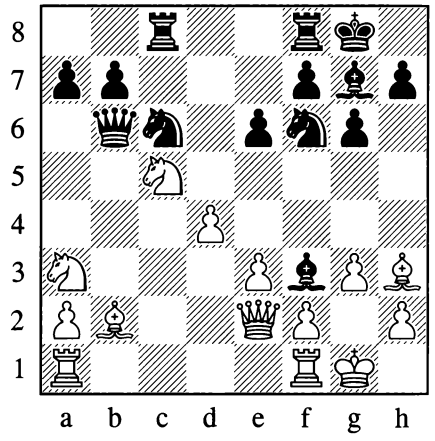
1.♘f3 ♘f6 2.g3 g6 3.♗g2 ♗g7 4.0–0 0–0 5.d4 d5 6.c4 dxc4 7.♘a3 c3 8.bxc3 c5 9.e3 ♘c6 10.♗b2 ♗f5 11.♘d2 ♖c8 12.♘b3 ♕b6 13.♕e2 cxd4 14.cxd4 ♗e4 15.♗h3 e6

15...♗f5! was stronger, when Black is more or less fine.

16.♘c5 ♗f3?

A misguided tactic that Cheparinov refutes brutally.

16...♗d5 with a slight edge for White after 17.♖fc1 was necessary.

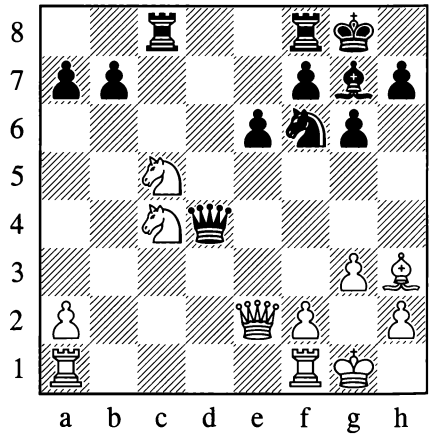


17.♕xf3 ♕xb2 18.♘c4 ♕c3 19.♕e2

The black queen has survival issues.

19...♘xd4!? 20.exd4 ♕xd4

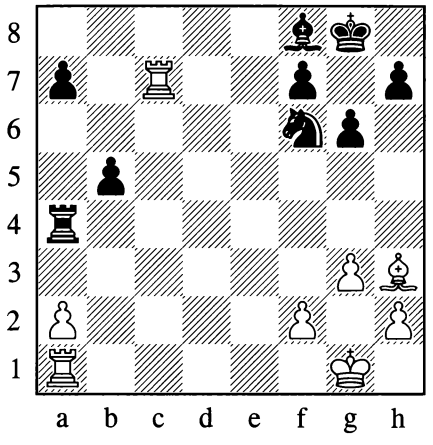
You would presume that Black was relying on winning back one of the knights at this point, when he entered the tactical operation. But White is not done swinging the axe.



21.♘xe6!

White ends with extra material and we enter the conversion stage of the game.

21...♕xc4 22.♕xc4 ♖xc4 23.♘xf8 ♗xf8 24.♖fc1 ♖a4 25.♖c7 b5



26.♖b7?!

As I have discussed elsewhere, it is often very useful to take your least effective piece and find a good square for it. Preferably where it can both defend weaknesses in your own camp and attack them in the opponent's. In this position, the ideal spot for White's bishop is the b3-square.

White is thus best off playing 26.♗f1! a6 27.♗d3 ♗d6 28.♖c8† ♔g7 29.♗c2! and Black's position is very near total collapse.

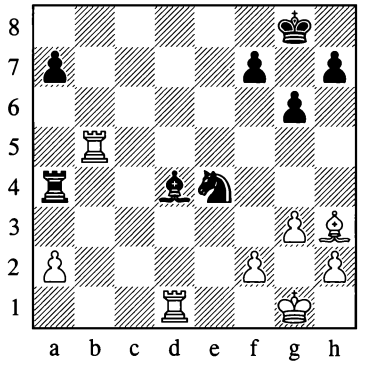
26...a6?

Black had a chance to create more problems for his opponent with:

26...♗c5!? 27.♖xb5

27.♖c1! ♘e4 28.♗g2 ♗xf2† 29.♔h1 ♘c5 30.♖b8† ♔g7 31.♖c2 ♗d4 32.♖xb5 is stronger according to the computer. The intention is ♗d5-b3 once again, to defend the a2-pawn and attack the f7-pawn. As the black knight will struggle to find stability, White should win. Still, this is quite a complicated way to play and I believe most grandmasters would be tempted by the simplicity of eliminating the knight.

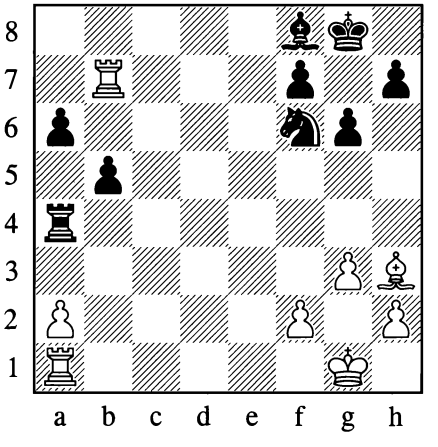
27...♗d4 28.♖d1 ♘e4



The key idea is that the pawn on a7 will support the bishop. White has excellent winning chances after something like:

29.♗g2 ♗xf2† 30.♔f1 ♗b6 31.♗xe4 ♖xe4 32.♖b3

But there is a long way to go and not a lot of inaccuracy is needed for Black to be able to escape with a draw.



27.♖c1?!

27.♖e1! with the idea of ♖e2 was possible. The key tactical point is 27...♖xa2 28.♖xf7! and White will win.

27...♖xa2 28.♖c8 h5 29.♖a8

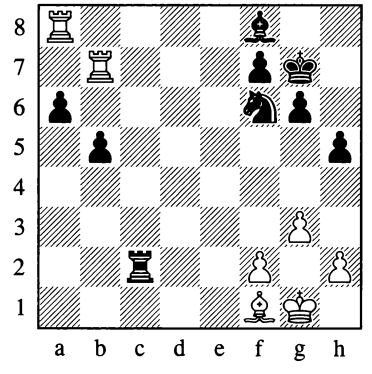
White naturally seeks to eliminate the a-pawn.

29.♖cc7? ♘e4! would give Black strong counterplay. The f7-pawn is not really threatened.

But White has a bizarre move in 29.♖a7!, where we see that Black is without options entirely. The rook has to stay on a2, or White can attack f7 for real or take the a6-pawn. And moving any of the queenside pawns would lose quickly to 30.♗f1!. Black's best move is probably 29...♘h7, but after 30.♗f1, White will be able to eliminate the queenside and keep the rooks on the board, creating strong threats on both f7 and f8.

29...♖a4

29...♖c2!? could have provided more resistance. White is completely winning, so there are several ways to win the game. But there are also many ways to go wrong. The following inclusion of the worst-placed piece is very thematically satisfying. 30.♗f1 ♔g7

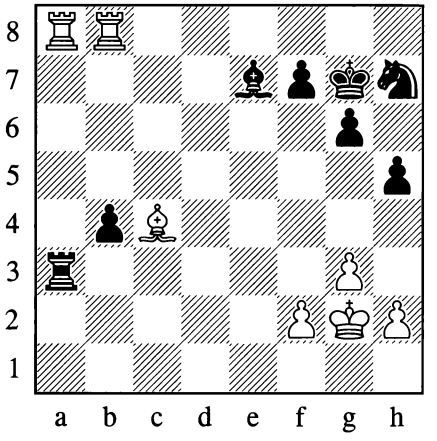


Once again using the bishop effectively is White's core path to victory. 31.♗d3! ♖c1† (31...♖c3 32.♖aa7! and White wins) 32.♔g2 ♗c5 White was threatening ♖aa7. 33.♖c8 ♗a3 34.♖xc1 ♗xc1 35.♖a7 and White will get the endgame he got in the game.

30.♔g2 ♖a3 31.♖bb8?!

31.♖c7! with the ideas of ♗c8 and ♖aa7 would have cut the game short. Black's only move is 31...♘h7, but after 32.♗c8 b4 33.♖aa7 ♖c3 34.♗xa6 the bishop will soon emerge on c4 and create further concessions.

31...♘h7 32.♗c8 b4 33.♗xa6 ♔g7 34.♗c4 ♗e7

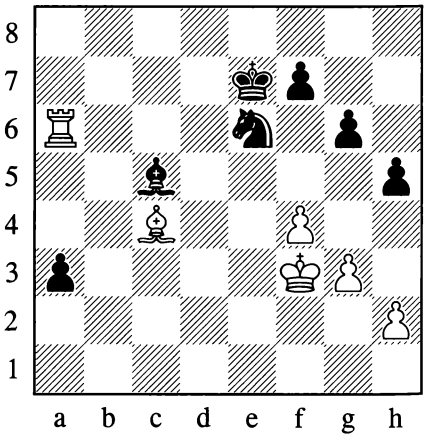


35.♖xa3?

There are a number of things wrong with this move, such as for example giving the opponent's passed pawn another push up the board. But at the same time, it is easy to understand the temptation to remove Black's only active piece from the board.

35.♖g8† ♔f6 36.♖ab8 ♘g5 37.♖b6† would tie Black up completely and create both exchanges and further weaknesses. The descent would be slow but unavoidable for Black.

35...bxa3 36.♖b7 ♔f6 37.f4 ♘f8 38.♔f3 ♘e6 39.♖b6 ♗c5 40.♖a6 ♔e7

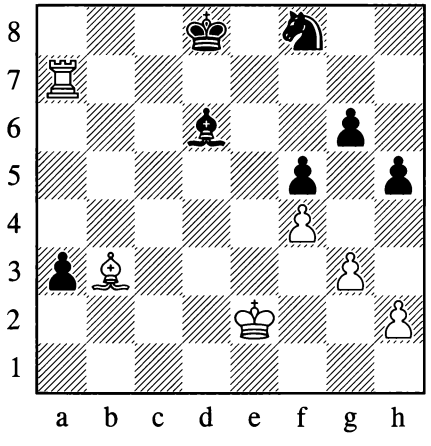


41.♔e4 f5†?!

Creating an unnecessary weakness on g6, which will be hard to defend later.

After 41...♗d6 42.♖a7† ♘c7 it would require a lot of ingenuity to break down Black's fortress.

42.♔d3 ♘f8 43.♔e2 ♗b4 44.♗a2 ♗c5 45.♗b3 ♗d6 46.♖a7† ♔d8



47.♗f7?!

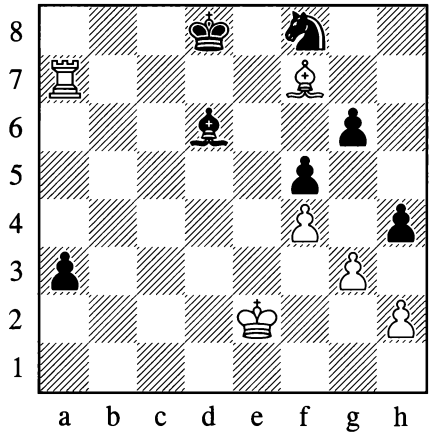
This is a move that is easy to designate as a mistake, as it is clearly in the interests of Black to exchange pawns. With three pawns each, he will not hold the pure rook vs bishop endgame. But the more pawns that are exchanged, the closer he gets.

But with concrete play there is always the benefit of the doubt. If the player is on top of it, what can you say. But as we shall see, this is not the case.

47.h4!? would have been my choice, trying to win the game slowly and surely.

47...h4!?

Trying to exchange the pawn.

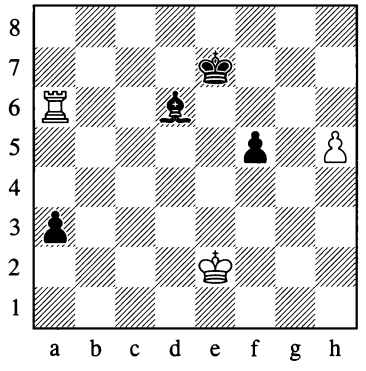


48.♔d3?

With this move we see that White was not on top of anything.

The mysterious 48.♔f3!? would have kept the technical win alive. But no one would have planned to play this.

The concrete move that would have justified the previous move is in itself not satisfying, but it is there: 48.♖a6 ♔e7 (48...hxg3 49.♖xd6† ♔e7 50.♖a6 with the threat of ♖a7†. 50...♔xf7 51.hxg3 and White wins.) 49.gxh4 ♗xf4 50.♗xg6 ♘xg6 51.♖xg6 ♗xh2 52.♖a6 ♗d6 53.h5



This endgame is winning for White, but it is not the type of win he wanted.

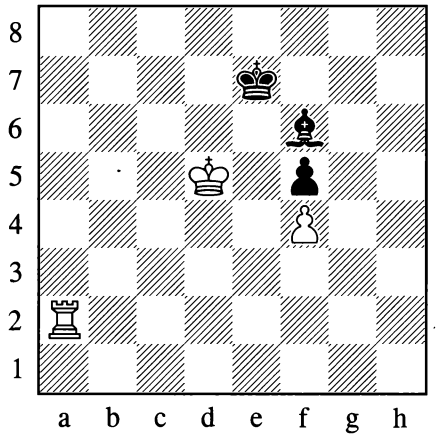
48...hxg3 49.hxg3 ♗c5 50.♖a6 ♗f2

Black has managed to create counterplay. The pawns are disappearing and the position simplifying.

51.♗xg6 ♘xg6 52.♖xg6 a2!

The pawn has to be pushed before the white king can stop it.

53.♖a6 ♗xg3 54.♔e3 ♔e7 55.♖xa2 ♗h4 56.♔d4 ♗f6† 57.♔d5



We have reached a familiar position.

57...♗c3?

The same mistake as on page 564.

57...♗g7! would be a fortress as we know. It really is very passive and thus hard to even consider if you have not understood the logic of the position already.

58.♖a7† ♔f6 59.♖a3! ♗b2 60.♖a2 ♗c3 61.♔c4! ♗e1 62.♖a6†

Black resigned.

1–0

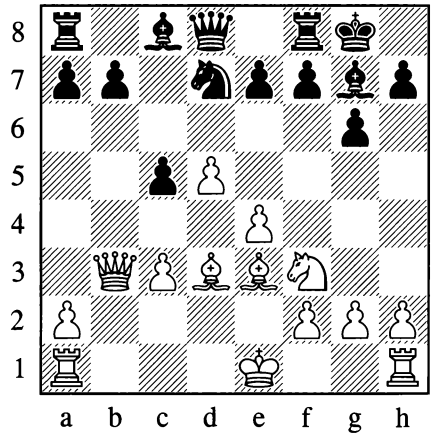
After a blunder in the opening, Vidit soon found himself in grave difficulties.

Vidit Santosh Gujrathi – Vladislav Artemiev

Poikovsky 2018

1.d4 ♘f6 2.c4 g6 3.♘c3 d5 4.♘f3 ♗g7 5.♕b3 c6 6.cxd5 ♘xd5 7.e4 ♘xc3 8.bxc3 0–0 9.♗e3 c5 10.d5 ♘d7 11.♗d3?

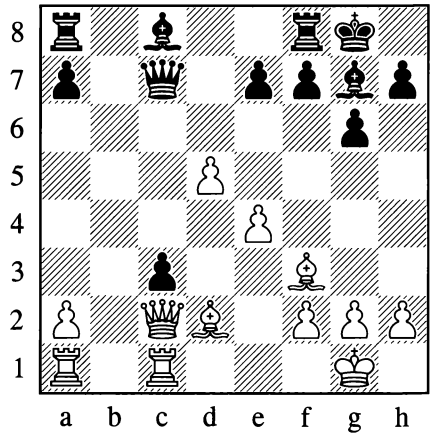
11.♖c1! with a slight advantage was the way to play.



11...b5!

The pawn cannot be taken.

12.♕c2 b4 13.♗d2 c4 14.♗xc4 ♕c7 15.♗e2 bxc3 16.0–0 ♘e5 17.♖fc1 ♘xf3† 18.♗xf3



18...♗d7!

With accurate play, Black wins material.

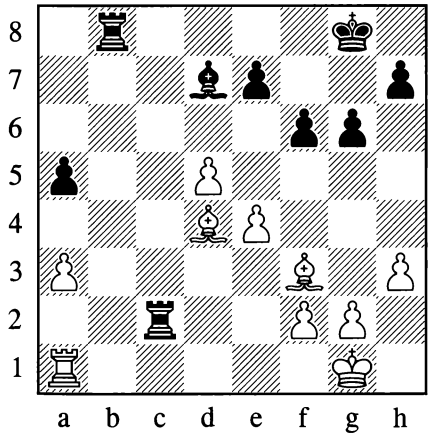
19.♗xc3

It seems that White had better chances of holding after 19.d6!? ♕xd6 20.♗xc3 ♖fc8 21.e5! ♗xe5 22.♗xa8 ♗xc3 23.♕xc3 ♖xc3 24.♖xc3 ♗e6 25.♗f3, when the endgame is very unpleasant, but still offers White a lot of chances to resist. In the game White quickly lost all possibilities of active counterplay.

19...♖fc8 20.♗xg7 ♕xc2 21.♖xc2 ♖xc2 22.♗d4 a5 23.h3 ♖b8 24.a3 f6?!

I don't like this move at all. It inspires not just one, but two, pawn exchanges.

24...♖c4! 25.♗e3 e5!? would be a strong way to achieve the structure Artemiev presumably wanted.



25.e5!

White is seeking to exchange his pawns before they become weaknesses.

25...♖c4

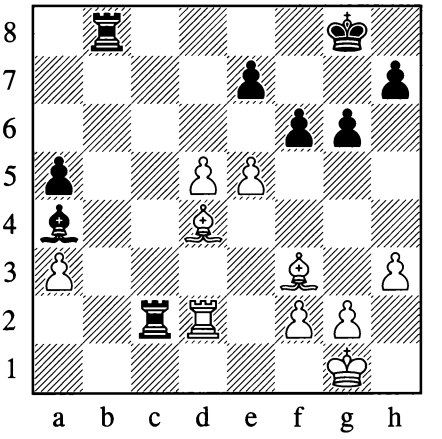
To me it would make more sense to exchange the rooks.

After 25...♖bc8!? 26.exf6 ♖c1† 27.♖xc1 ♖xc1† 28.♔h2 exf6 29.♗xf6 ♔f7 I would be very optimistic with Black. White has two pawns for the exchange, but his position has lost its dynamic potential and the a3- and d5-pawns will be difficult to defend.

26.♖d1 ♗a4

26...♖bc8 no longer works on account of 27.♔h2! ♖c1 28.♖d3, and White keeps the rook on the board and decent drawing chances.

27.♖d2 ♖c2

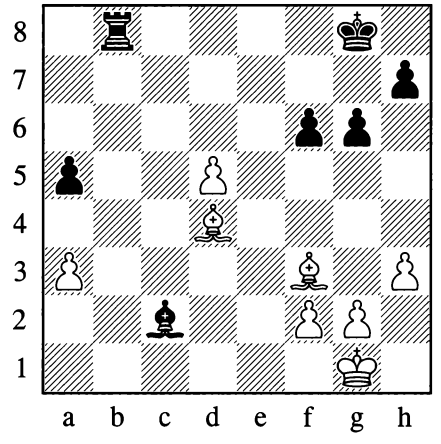


28.♖xc2!?

Vidit's course of action has the benefit of being difficult to play for Black and easy to play for White. Objectively, it is perhaps not best. But when you have a concrete and reasonable idea, as this is, it makes a lot of sense to go for it.

I have analysed 28.♖d3!?, which also has a bad smell to it, but where a clear refutation is not immediately obvious.

28...♗xc2 29.exf6 exf6



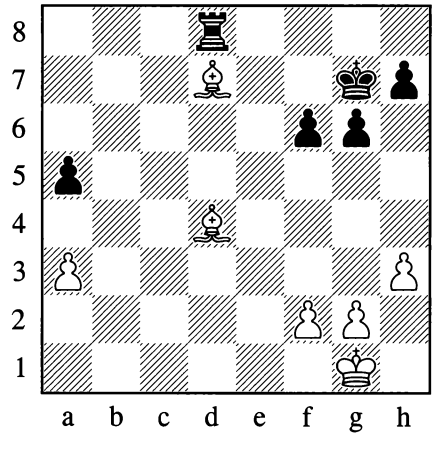
30.d6!

This is a good practical chance.

It is not immediately clear why White should not play 30.♗xf6 ♔f7 31.♗e5, where I still believe in Black, but where it is not obvious how the advantage shall be turned into something concrete.

But as we shall see, Vidit's idea leads to an endgame that is quite difficult to convert for Black.

30...♔g7 31.d7 ♗a4 32.♗g4 ♗xd7 33.♗xd7 ♖d8

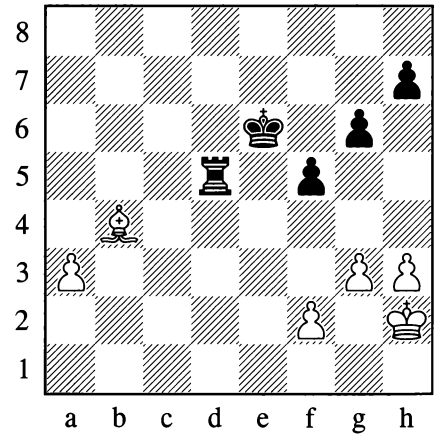


34.♗b6!

This was of course the intention.

34.♗xf6†? ♔xf6 35.♗b5 would lose very quickly. White cannot keep the bishop on the diagonal, so Black will give a check on the first rank and pick up the a-pawn with ...♖a1. The tactical justification for this goes like this: 35...♖b8 36.a4 ♖xb5 37.axb5 ♔e5 and Black wins.

34...♖xd7 35.♗xa5 ♖d1† 36.♔h2 ♖d3 37.♗b4 ♔f7 38.♗c5 ♖d5 39.♗b4 ♔e6 40.g3 f5



Looking at what follows, this is a move that I dislike in the rear-view mirror. For Black to give up the support on the dark squares so quickly feels wrong. But at the same time, it is very difficult to both manoeuvre the king to e2 and keep the pawn on f6, without allowing White to push the pawn to a5, when the bishop will be well-anchored on b6, from where it is possible to defend f2. With this in mind, it is not at all clear to me that Black should be winning this endgame at all, although my first impression was similar to Mihail Marin, who annotated this game for ChessBase. He wrote: "Black's position is simply won. The a-pawn does not really count and with the actual pawn set-up White would have needed the light-squared bishop to retain saving chances."

As we shall see, things are indeed a lot more complicated than first glances will reveal.

This is probably the place where I should remind you that with all our electronic tools, we can reach more or less complete certainty on positions with nine pieces on the board.

Move 41. We have reached the generic endgame, which is our main interest. At first glance I was convinced that it was completely winning for Black. The white bishop will not be able to defend f2 and a3 at the same time, my thinking went, which means that White eventually will have to give up the a-pawn, which should inevitably lead to Rapport – Wei Yi above on page 563.

But once again straightforward arguments are too simplistic for chess. Move a pawn one square and everything changes. In this case specifically the black g-pawn. We will see below on many occasions that if the pawn had still been on g7, the white bishop would not be able to dominate the dark squares as well as it can in the lines below, many of which hold by just a whisker.

41.♔g2?

This is already a serious mistake, although I doubt the players ever noticed. White had a fantastic way to make the draw, something I doubt many players would be able to even sense. It could perhaps be possible to anticipate Black's options. And maybe Vidit did, but without realising that he would be able to do anything about them.

Very deep schematic thinking would have revealed that White can set up a fortress of undeniable beauty. In order to get there, he has to sacrifice the a-pawn.

41.a4!!

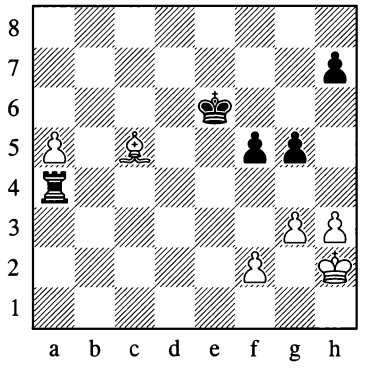
This move would be seen as the move of a patzer. Or a genius/computer-cheat.

41...g5!?

Trying to be clever.

The key idea is that 41...♖d4 42.♗c5! ♖xa4 43.♗e3 seems to draw, as is covered below on move 43.

42.a5 ♖d4 43.♗c5 ♖a4



44.g4!!

The second strike.

44.♗b6 ♔d5 45.♗d8 h6 46.h4 gxh4 47.♗xh4 ♖xa5 wins for Black. With the king on e4 and the rook on g6, White will not be able to prevent both ...f4-f3 and ...h4xg3. As the first of these ideas is clearly devastating, White will have to accept that ...h4xg3 is coming. If he takes with the bishop then, Black will have ...f4. And if he takes with the pawn, Black will quickly play ...♖a2†, with a method similar to Liang – Maghsoodloo, where the black king comes to g4 and when the white king is pushed to the first rank.

The only try would be if White gets the king to h3, when Black will get the king to f3 and quickly get the rook around to the g-file, winning tempos on the white bishop. The key subtlety is that in a position like this: ♔h4, ♗f4, ♙g3 vs ♔f3, ♖b5, ♙f5, Black to play wins with 1...♖b4! 2.♔g5 ♖xf4 3.gxf4 ♔e4.

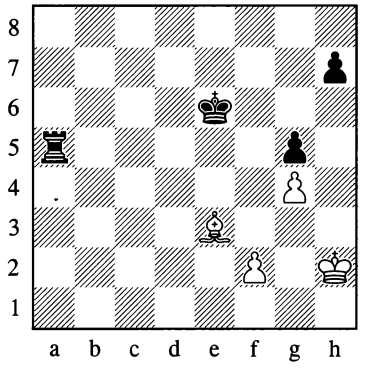
44...fxg4

After 44...f4 45.♗b6 ♔e5 46.h4! White is able to get rid of his bad pawn and draw effortlessly. 46...gxh4 47.♔h3 and 46...♔e4 47.♔g2 gxh4 48.♔h3 ♔f3 49.♔xh4 ♖a1 50.♔g5, both hold easily.

45.hxg4 ♖xa5

45...♖xg4 46.a6 and White holds.

46.♗e3

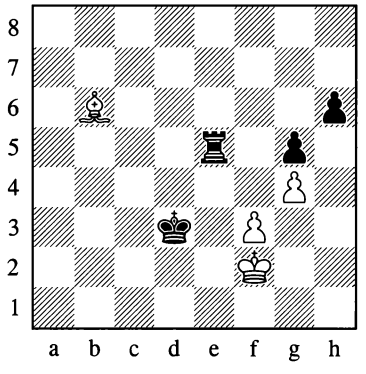


The next few moves are more or less forced.

46...♖e5 47.♔g3 ♔d5 48.♔f3 ♔c4 49.♔e2

White cannot let the black king come to d3 before he is ready for it.

49...h6 50.f3 ♔c3 51.♔f2 ♔d3 52.♗b6

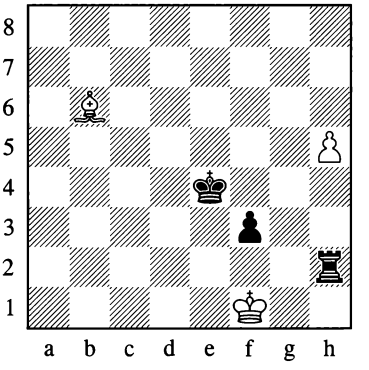


This is the key position. The black king will not be able to force its way into e3 or e2. We now see that the generic fortress Papp – Somogyi is merely one representation of a fortress idea. Here too, the white king is covering the e2-square from either f1 or f2, while the bishop is covering the e3-square from a long-enough diagonal. There is no way for Black to penetrate the position. The only idea I have managed to come up with is the following:

52...♖e7 53.♗c5 ♖f7 54.♗b6 h5!?

But White can draw with a bit of accuracy.

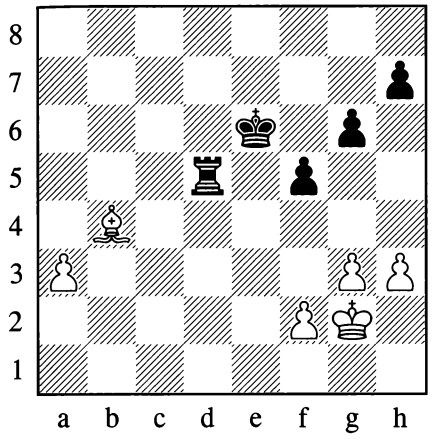
55.gxh5 g4 56.♔g3! gxf3 57.♔f2! ♔e4 58.♗e3 ♖c7 59.♗b6 ♖c2† 60.♔f1 ♖h2



And we have arrived at another generic fortress I have to confess I did not know. The extra exchange and pawn does not help Black.

There are only three positions where rook and pawn does not win against a bishop. This is if the bishop is from the other flank (pawns on kingside, bishop starting position on the queenside, in this example the dark-squared bishop) and the pawn has been advanced too far.

So, in this situation it is only if the pawn is on f3, h4 or h3 that Black does not win. (I am assuming we are discussing positions without immediate forcing variations. Clearly there are situations where the defending side can make a draw by winning the pawn).



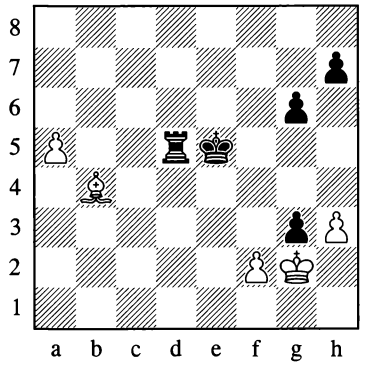
41...♖d3?

This is normal human play, but also missing a big chance. Because it is move 41, we shall not forgive Artemiev.

Stockfish gives the following as completely winning. 41...f4! 42.♔f3 (42.gxf4 ♔f5 43.♔g3 ♖d4 is an important point. White cannot defend the f-pawn.) 42...fxg3 43.fxg3 ♖d3† and White has the wrong bishop for a fortress on the kingside and will eventually lose the pawn on g3 or on a3.

But personally, I would not rely on tactics in an endgame like this, but on getting the pieces to the right squares.

41...♔e5 would allow 42.a4, which is probably why Artemiev rejected it. But after: 42...f4 43.a5 fxg3



White has a very unappealing choice between 44.a6 and 44.fxg3 ♖b5 45.♗c3† ♔e4, the latter looking entirely hopeless.

Play continues like this:

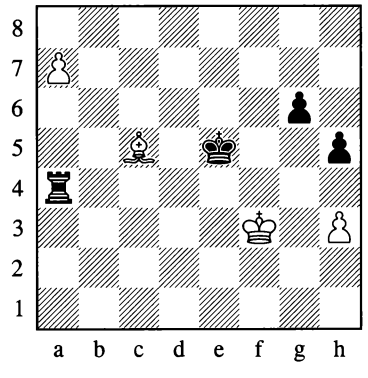
44.a6 ♖d7 45.♗c5

White's only chance is that the a-pawn will distract Black.

45...gxf2 46.a7 ♖d1 47.♗xf2 ♖a1 48.♔f3 ♔f5

This could look like a possible fortress, as White can easily hold on to the pawn on a7. But actually, Black wins slowly. The following variation is clean cut – and long.

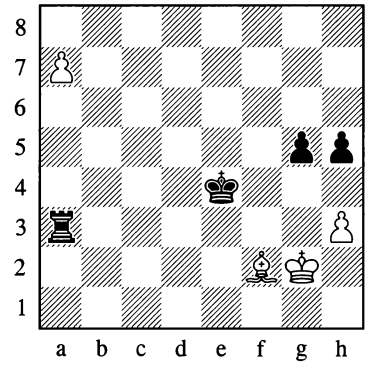
49.♗c5 ♖a4 50.♔e3 h5 51.♔f3 ♔e5!



The winning method is first to free up the rook to attack the h-pawn and force it to go to h4. Once this has happened, Black is able to penetrate with the king via g4-h3, when White will have limited defensive possibilities.

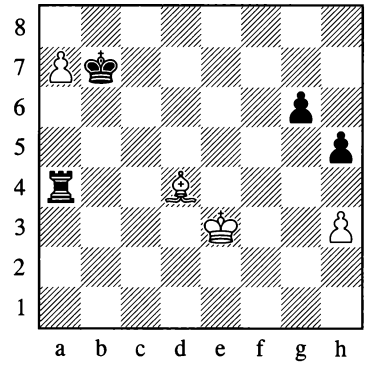
52.♔e3

White can also attempt passive defence, but the winning method is very intuitive. 52.♗f2 ♖a3† 53.♗e3 ♔f5 54.♔g2 ♔e4 Black has taken control of the 4th rank. 55.♗c5 ♖a4 56.♗f2 (56.♔g3 h4†! is a nice little trick.) 56...g5 57.♔g3 White has no choice but waiting now. (57.h4 g4! followed by bringing the king back to b7 and ...♖xa7.) 57...♖a3† 58.♔g2



58...h4! This position is different from the fortresses we have seen in that White only has one square from which to defend the f3-square with the king. And as we have learned from countless examples, White needs two squares, as Black can always push the king away from one of them; but usually only one. 59.♗b6 ♖a2† 60.♔g1 ♔f3 Black wins slowly.

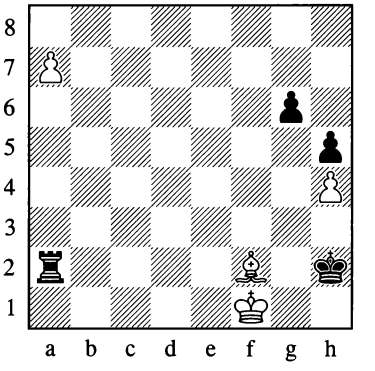
52...♔d5 53.♗b6 ♔c6 54.♗d4 ♔b7



55.h4

Otherwise, White will lose one of his pawns.

55...♖a2 56.♔f3 ♖c2 57.♗f2 ♖c4 58.♔e3 ♖g4 59.♔f3 ♖b4 60.♔g2 ♖a4 61.♔f3 ♔c6 62.♔e2 ♖a2† 63.♔f3 ♔d5 64.♗g1 ♔e5 65.♗h2† ♔f5 66.♗g1 ♖a3† 67.♗e3 ♔e5 68.♔g2 ♔e4 69.♗c5 ♖a2† 70.♔g3 ♖a4 71.♗g1 ♖a3† 72.♔g2 ♔f4 73.♗c5 ♖a2† 74.♔h3 ♖a1 75.♗g1 ♔f3 76.♔h2 ♔g4 77.♗f2 ♖a3 78.♔g2 ♖a2 79.♔g1 ♔h3 80.♔f1 ♔h2!



White is heading towards lethal zugzwang. Black will get the king to g3.

81.♔e1 ♔g2 82.♗e3 ♔g3 83.♗f2† ♔g4 84.♔f1

84.♔d1 ♔f3 85.♗d4 ♔g3 also wins.

84...♔f3 85.♗d4 ♔g3

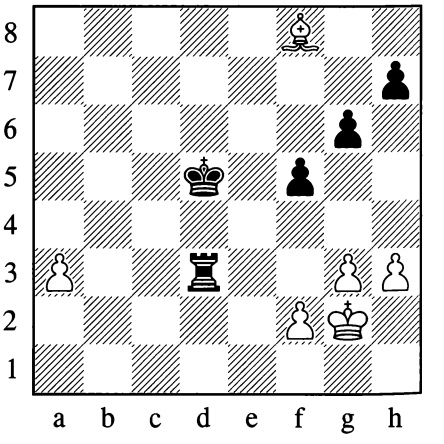
Black wins. White no longer has 86.♗f2† on account of 86...♖xf2† – with check.

42.♗f8?

42.a4! is once again the way to play.

42...♔d5?

Black misses his chance to go back too.



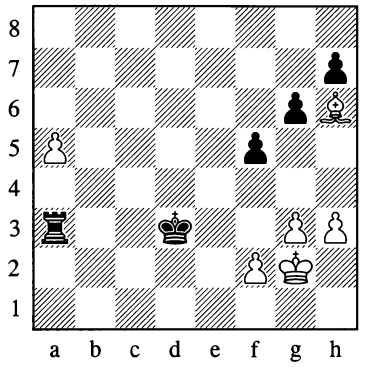
43.♗e7?

White had a different chance here: 43.♗h6!

This could be with the idea 43...♖xa3 44.f3!? and the black king will not be able to make

it to e2. This would make it very difficult, if not impossible, for Black to win the game. Black can prevent this idea with:

43...♔e4 44.a4 ♖a3 45.a5 ♔d3



46.♔f3!

Forced. White cannot allow ...♔e2.

46...♖xa5 47.♗g5

It feels obvious that Black should be winning. But it is difficult to see a clear path forward.

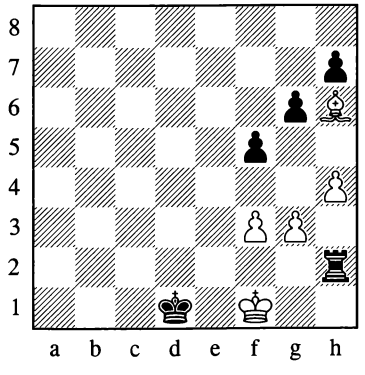
47...♖e5

The rook goes to e4, preventing White from having any ♔f4-g5 counterplay ideas that can occur at times.

48.♗f4 ♖e4 49.♗h6 ♔c2

Black is threatening ...♔d1-e1-f1, which would win. But White can prevent this.

50.♔g2! ♔d1 51.f3! ♖e2† 52.♔f1 ♖h2 53.h4



As far as I can see, this is a fortress. There is no zugzwang, as the bishop can always find a place to go to. The key point is that the king has both f1 and f2 available, making it impossible for the black king to get to e2, which is the winning plan.

A similar position occurred in Tomashevsky – Bacrot, Reykjavik 2015, with the two exceptions that the black pawn was on h5 and the colours were reversed. A draw was soon agreed. I cannot see having the pawn back on h7 will help Black much.

43...♔e6?

43...f4! was strong once again.

44.♗f8?

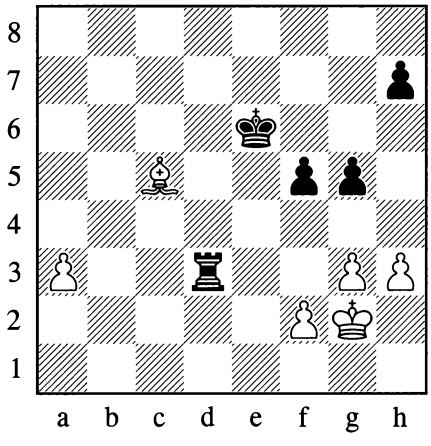
44.♗g5!

44...g5!?

If played as below, this is good.

44...f4! was still there though...

45.♗c5



45...♖c3??

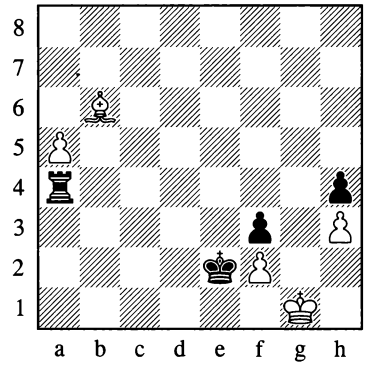
I am not certain on the origin of this mistake, but I presume it is a question of erroneous use of brute force, aka trying to calculate the opponent into submission. Wake up! He is already in a chokehold! Don't make it about details, when the big picture has you winning by a mile.

45...f4!

This was the natural move to play.

46.g4!?

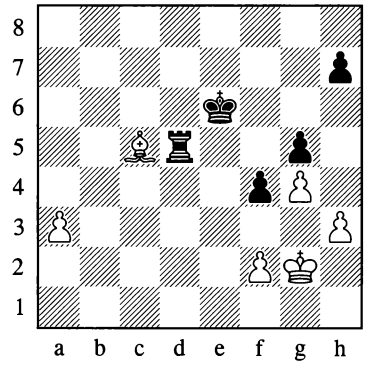
White has to avoid the exchange of pawns and make it possible to create counterplay against the g5-pawn. After 46.gxf4 gxf4 47.a4 ♔d5 48.♗b6 ♔e4 49.a5 Black wins in many ways. Dominating the bishop is the main theme in all of them. 49...♖b3 50.♗c7 ♖c3 51.♗b6 ♖c6 52.♗d8 ♖g6† 53.♔h1 ♔f3 54.♗b6 ♖e6 55.♔h2 ♖c6 56.♗a7 ♖c1 57.♗b6 ♖a1 58.♗c7 h5 59.♗b6 h4 60.♗c7 ♖a4 61.♗b6 ♔e2 62.♔g2 f3† 63.♔g1



The end is nigh. 63...♖a2 A tempo-losing move. We should be used to those by now. 64.♔h1 ♔f1 65.♔h2 ♖a4 Another random move. 66.♔h1 ♖a1 67.♔h2 ♔e2 And finally we have the zugzwang position we have been heading for.

46...♖d5

Harassing the bishop and making it hard for it to provide counterplay against the black pawns.



47.♗b6

47.♗f8 offers less resistance. 47...♔e5 48.♔f3 ♖d3† 49.♔g2 ♔e4 50.♗e7 h6 51.♗f8 f3† 52.♔h2 ♖d2 53.♗c5 ♔d3 and Black wins.

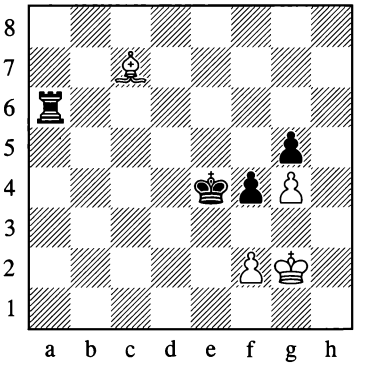
47...♔e5

Allowing White to bring the pawn to a5 is a luxury Black can afford.

48.a4 ♔e4 49.a5 ♖b5 50.♗d8 h6 51.a6

51.♗c7 ♖b2!

51...♖b8 52.♗c7 ♖a8 53.h4 ♖xa6 54.hxg5 hxg5



This position is dead lost for White. White could hold some positions where the pawn is back on f6. But with the pawn on f4, White has no chance.

55.♗d8 ♖h6 56.♗xg5 ♖g6 57.f3† ♔e3 58.♗d8 ♖d6 59.♗a5 ♖c6

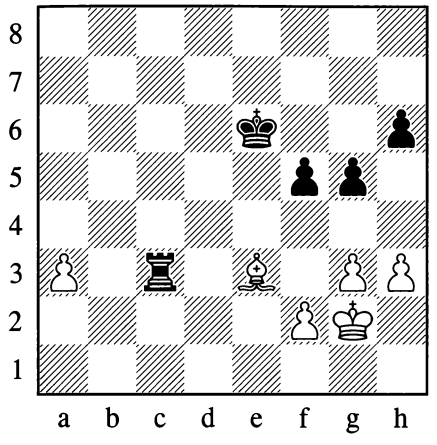
Black wins.

46.♗e3!

White has definitely won the battle for the dark squares. A few accurate moves and the draw is in hand.

46...h6

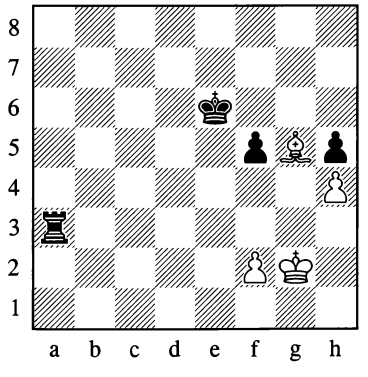
46...g4 47.hxg4 fxg4 is definitely a fortress. There are too many squares for the white bishop to occupy in the diagonal from f2-a7 in order to dominate it and put White into zugzwang.



47.h4! gxh4 48.♗xh6

Very concrete play, leading to a nice draw.

White could also have drawn with a fortress: 48.gxh4!? h5 49.♗g5 ♖xa3

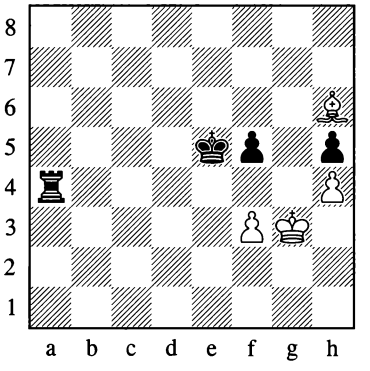


50.f3!

The key move that establishes the fortress. Something as innocent-looking as 50.♗h6? allows Black to come in with the king quickly: 50...♖a4 51.♗g5 ♔e5 52.f3 ♔d4! 53.♔f2 ♔d3 Black wins. Next comes ...f4 and ...♖a2†. And if 54.♔g3 ♔e2 55.♗h6 Black wins by returning to a position we have already mastered. 55...f4† Preventing White's defensive idea of ♔f4-g5. 56.♗xf4 ♖a3 Black wins, as the white king is trapped in the corner. See Szwed – Yoo above.

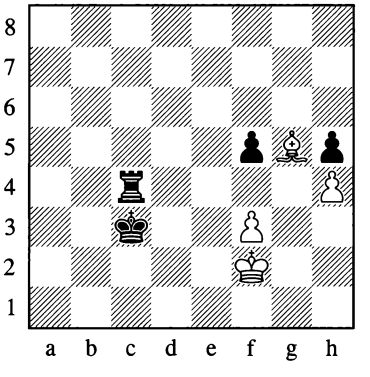
50...♖a4

50...♔e5 51.♔g3 ♖a4 52.♗h6!



White makes a draw. If Black puts the pawn on f4, White will continue to attack it with the bishop, limiting Black's options.

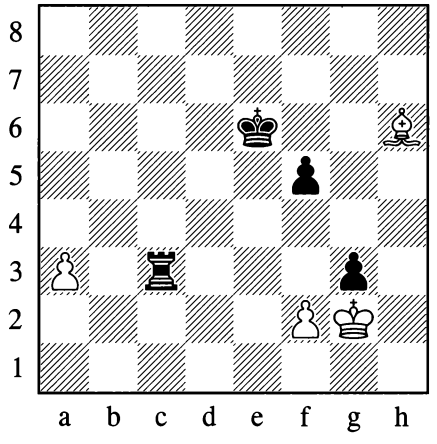
51.♔g3 ♖c4 52.♔g2 ♔d5 53.♔g3 ♔c5 54.♗e7† ♔b5 55.♗f6 ♔a4 56.♗g5 ♔b3 57.♔f2 ♔c3



58.♔e2!

White prevents the black king from coming to d3. White holds.

48...hxg3

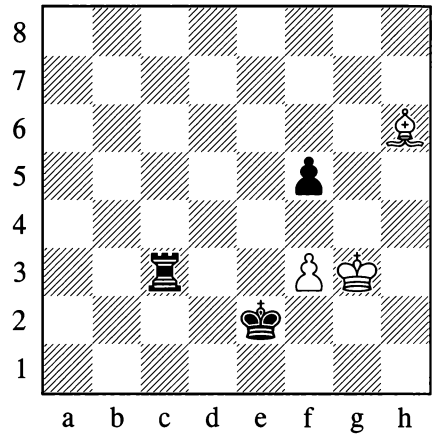


49.f3!

The conclusion of the game is beautiful in its simplicity.

49.fxg3? ♖xa3 would win easily for Black.

49...♖xa3 50.♔xg3 ♖a4 51.♗g5 ♔e5 52.♗h6 ♖c4 53.♗g7† ♔d5 54.♗h6 ♔c6 55.♗g5 ♔b5 56.♗h6 ♔b4 57.♗g5 ♔c3 58.♗h6 ♔d3 59.♗g5 ♔e2 60.♗h6 ♖c3



61.♔f4! ♖xf3† 62.♔e5 ♖h3 63.♗g5!

Anticipating Black's next move.

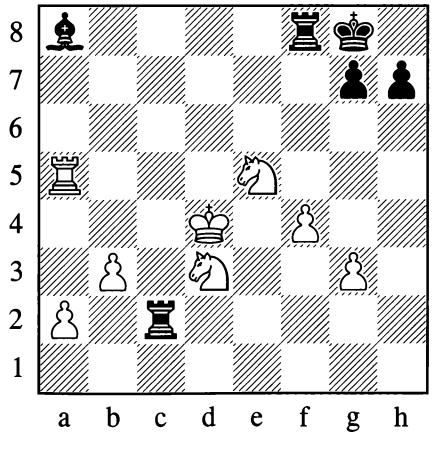
63...♖h5 64.♔xf5

½–½

Laszlo Szabo – Mikhail Botvinnik

Budapest 1952

1.d4 e6 2.c4 f5 3.g3 ♘f6 4.♗g2 ♗e7 5.♘f3 d5 6.0–0 0–0 7.b3 c6 8.♗a3 ♘bd7 9.♕c1 ♘e4 10.♘bd2 ♗xa3 11.♕xa3 b6 12.♖ac1 ♗b7 13.♖fd1 ♕f6 14.cxd5 exd5 15.♘e1 a5 16.♘df3 f4 17.♘d3 fxg3 18.hxg3 ♖ae8 19.♖c2 ♕h6 20.♕c1 ♕d6 21.♗h3 ♖f6 22.♔g2 c5 23.♗xd7 ♕xd7 24.♘fe5 ♕d6 25.f4 cxd4 26.♖c7 ♘c5 27.♖xc5 bxc5 28.♕xc5 ♕xc5 29.♘xc5 ♗a8 30.♖xd4 ♖c8 31.♘cd3 ♖c2 32.♖a4 ♖xe2† 33.♔f3 ♖c2 34.♖xa5 ♖f8 35.♔e3 d4† 36.♔xd4



Everything has gone according to plan for the World Champion up to this point. He has slowly outplayed his opponent. But for the next few moves, he commits one horrible mistake after the other, changing a winning position to an almost lost position.

36...♖d8†?

The winning continuation was 36...h5!, when White has a number of tries, but also where Black is most likely winning with best play by both sides. The idea behind the move is to fix the g3-pawn as a weakness. 37.♘c4 Trying to bring the rook to g5 to defend g3. (Or 37.♘c5 ♖d8†! 38.♔e3 ♖g2 and wins.) 37...♗f3 38.♔e3 ♗d1 39.♘de5 ♖g2 40.♖d5 ♗g4 Black wins.

37.♔e3 ♖g2

37...h5 no longer works. White has 38.f5! with counterplay and ♔f4 ideas.

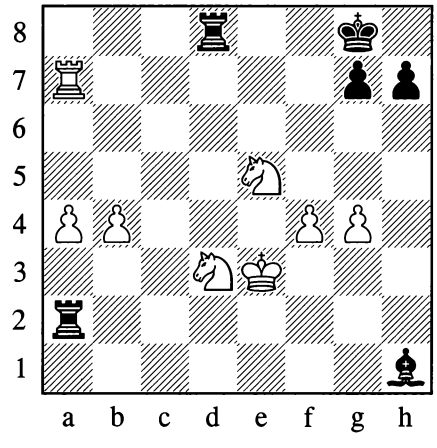
38.g4 ♖c2

The Patriarch is completely losing the thread.

39.b4 ♗d5 40.a4 ♗h1?

What is this all about?

41.♖a7 ♖a2



I would expect the adjournment to have happened somewhere around here. With 42.a5, White would have real winning chances, although the position is probably still on the edge of the defensible. But with the adjournment came the chance for Botvinnik to apply his iron will to the analysis, in which he found the way to hold the game.

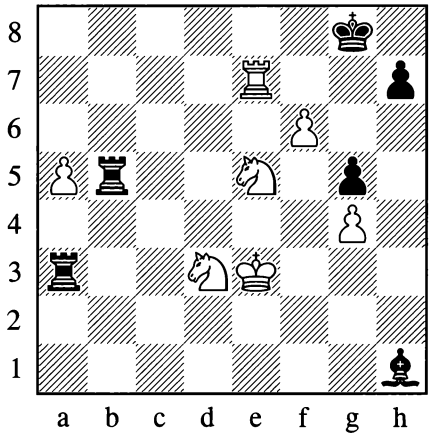
42.b5?! ♖a3 43.a5 g5!

A nice counterpunch.

44.f5

44.fxg5 ♖d5 would immediately free Black of all his problems.

44...♖d5! 45.♖e7 ♖xb5 46.f6

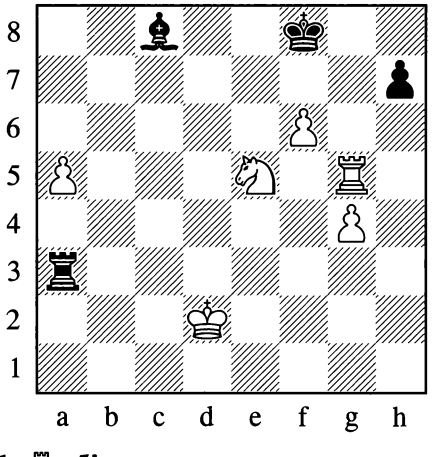


White has managed to create a lot of threats, but everything is under control.

46...♖xe5†!

46...♖b8 47.♖g7† and White wins.

47.♖xe5 ♔f7 48.♖f5 ♗b7 49.♔d2 ♗c8 50.♘e5† ♔f8 51.♖xg5



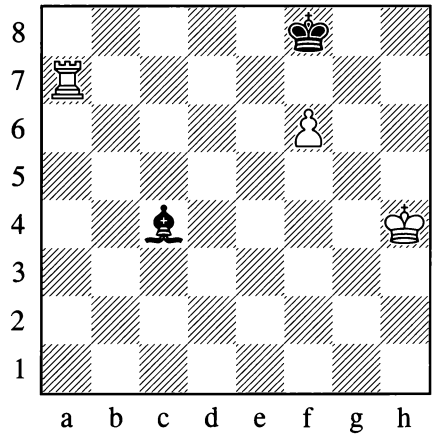
51...♖xa5!

Maybe Szabo was hoping for 51...♗e6 52.f7! ♗xf7 53.♖f5, when White wins.

52.♘d7† ♗xd7 53.♖xa5 ♗xg4

This position may look promising, but actually the fight is all over.

54.♔e3 ♗e6 55.♔f4 ♗c4 56.♖a7 h5 57.♔g5 h4 58.♔xh4



Winning the pawn does not change anything. As usual, the problem with facing these fortresses is that the diagonal from a2 to g8 is too long.

58...♗b3 59.♔g5 ♗c4 60.♖c7 ♗a2 61.♖c1 ♗d5 62.♔f5 ♔f7 63.♔e5 ♗b3 64.♖c7† ♔f8 65.♖b7 ♗c4 66.♖b4 ♗a2 67.♔f5 ♗d5 68.♔g6

The key reason for this being a fortress is that White can never manage to get the king to g6 without being checked away. Black will be able to keep the king on f8 or f7 and the diagonal from a2 to g8 is long enough so that White cannot push the bishop off it.

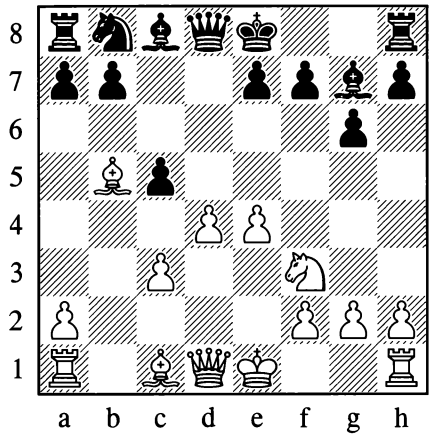
68...♗f7† 69.♔g5 ♗d5 70.♖h4 ♗b3 71.♖h8† ♔f7 72.♖h7† ♔f8 73.f7 ♔e7 74.♔g6 ♗c4 75.♖g7 ♗b3 76.f8=♕† ♔xf8 77.♔f6 ♔e8 78.♖e7† ♔d8

½–½

Hedinn Steingrimsson – David Navara

Reykjavik 2010

1.d4 ♘f6 2.c4 g6 3.♘c3 d5 4.cxd5 ♘xd5 5.e4 ♘xc3 6.bxc3 ♗g7 7.♘f3 c5 8.♗b5†!?

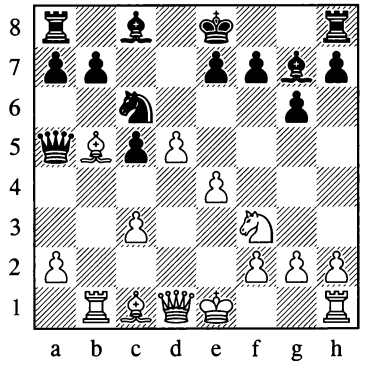


This variation is a bit of a trick. Essentially, it forces a draw with no risks at all.

8...♘d7?

And this is falling for the trick.

The theoretical answer is:
8...♘c6! 9.d5 ♕a5 10.♖b1



10...♗xc3†!

The right move order.

10...a6?! 11.♗xc6† bxc6 12.0–0 ♕xa2 13.♖b2 ♕a5 14.d6 ♖a7 was Anand – Gelfand, Moscow 2012, where 15.♗f4!N 0–0 16.♘e5 would have caused some real problems for Black.

11.♗d2 a6!

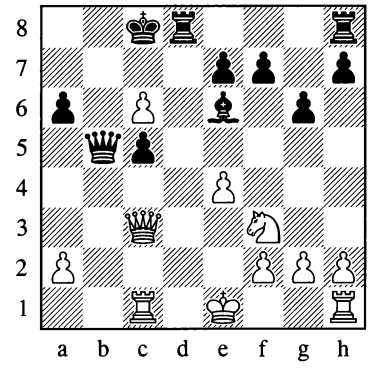
11...♗xd2† 12.♕xd2 ♕xd2† 13.♔xd2 a6 14.♗xc6† bxc6 15.dxc6 would give White a winning ending.

12.♗xc6† bxc6 13.dxc6 ♗e6! 14.♖c1 ♗xd2† 15.♕xd2 ♕b5!?

15...♕b4! 16.0–0 ♕xd2 17.♘xd2 0–0–0 18.♘b3 ♗xb3 19.axb3 ♖d3 with a draw on the horizon in Sasikiran – Grischuk, Eilat 2012.

16.♕c3 0–0–0?

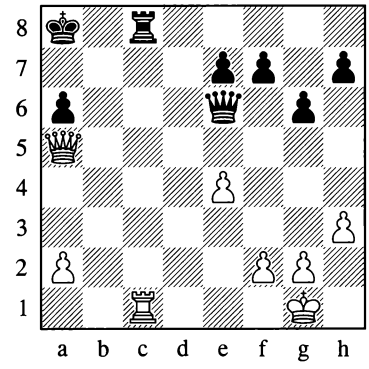
16...0–0 17.♕xc5 ♖fd8! would offer Black sufficient compensation for the pawn.



17.c7! ♔xc7 18.♘d4 ♕b6 19.♘xe6† ♕xe6 20.0–0 ♔b7 21.♕xc5 ♔a8 22.h3

22.g3! ♖c8 23.♕a3 was the most accurate.

22...♖c8 23.♕a5 ♖xc1 24.♖xc1 ♖c8



25.♖xc8†?

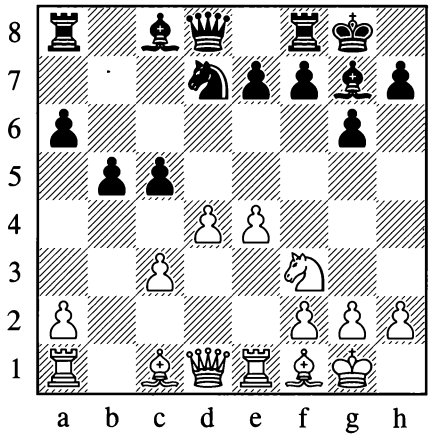
25.♖d1! and White keeps the advantage.

25...♕xc8 26.♕d5† ♕b7 27.♕xf7 ♕b1† 28.♔h2 ♕xe4 29.♔g3 ♕e5† 30.f4 ♕e1† 31.♔h2 ♕e3 32.♕c4 ♔b7 33.♕b4†

½–½ Gupta – Vachier-Lagrave, Gibraltar 2018.

8...♗d7 is popular, but White has a lot of interesting ideas here. 9.♗e2!? ♗g4 10.♖b1 is one of them.

9.0–0 0–0 10.♖e1 a6 11.♗f1 b5



Navara has tried to create a game, rather than allow a drawish variation. But it has completely backfired and now his position deteriorates dramatically.

12.a4! b4

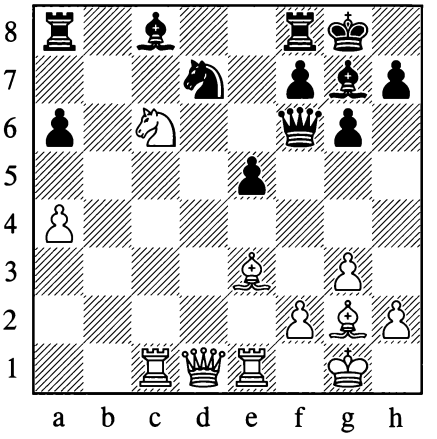
12...cxd4 13.cxd4 bxa4 14.♕xa4 ♘f6 15.♘e5 is another way for White to claim a big advantage.

13.cxb4 cxd4!?

Trying to sharpen things up. This does not really work. But it is easy to understand Navara's attitude.

After 13...cxb4 White will play 14.a5!. Black is strategically lost and will most likely soon lose a pawn as well.

14.♘xd4 ♕b6 15.♗e3 ♕xb4 16.♘c6! ♕xe4 17.♖c1 ♕h4 18.g3 ♕f6 19.♗g2 e5

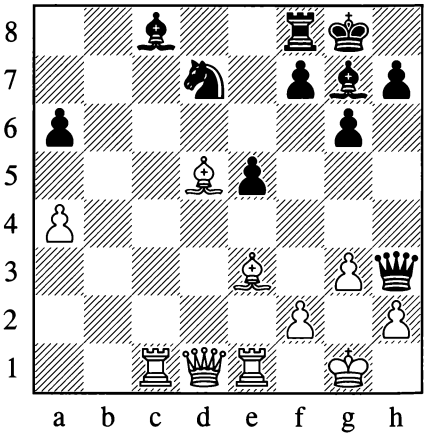


White misses the first chance to decide the game quickly.

20.♘e7†

20.♕d5! ♔h8 21.♘e7 was a much stronger way to play the same idea. After 21...♕xe7 22.♕xa8 ♕e8 23.♖ed1 Black is totally dominated and down the exchange.

20...♕xe7 21.♗xa8 ♕e6 22.♗d5 ♕h3

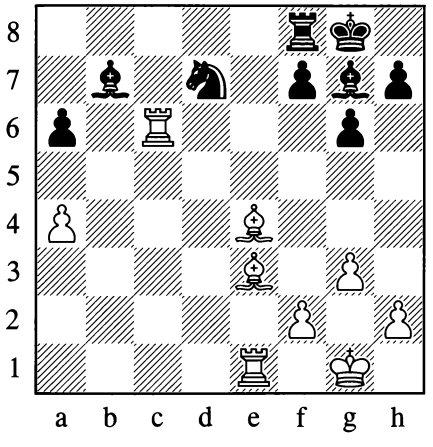


White missed the second chance to win on the spot.

23.♗g2

23.♗xf7†!! ♔xf7 24.♕d5† ♕e6 25.♕xe6† ♔xe6 26.♖c6† (26.♖c7 also wins, and is easy to understand, but is not a very human move.) 26...♔e7 27.♖ec1 ♗b7 28.♗g5† White wins back the piece and Black can only resign.

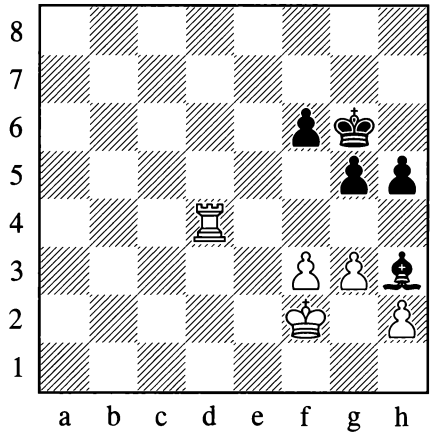
23...♕f5 24.♕f3 ♕e6 25.♖c6 e4 26.♕xe4 ♕xe4 27.♗xe4 ♗b7



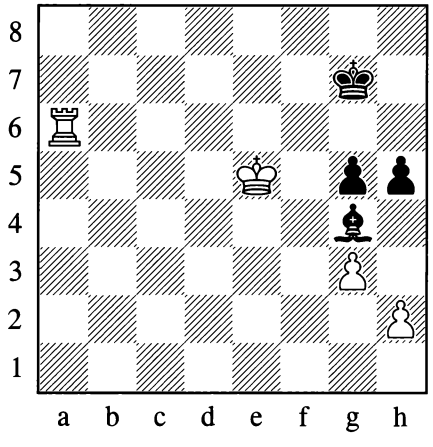
28.♖c7

It was possible to transform the advantage with 28.♖c4!? ♘e5 29.♗xb7 ♘xc4 30.♗c5 ♖d8 31.♗xa6 ♘e5 32.♔g2, but the certainty offered to us by a +7 computer evaluation would not exist for any player having to convert this advantage. Yes, it is clear White is winning, but mistakes are still possible.

28...♗xe4 29.♖xd7 ♗c6 30.♖d6 ♗xa4 31.♖xa6 ♗d7 32.♖d6 ♗h3 33.♖ed1 h5 34.♖d8 ♗f6 35.♖xf8† ♔xf8 36.♗c5† ♔g7 37.♗d4 ♗xd4 38.♖xd4 g5 39.f3 f6 40.♔f2 ♔g6



41.♔e3 ♔g7 42.♖d8 ♔h7 43.♔e4 ♔g7 44.♖b8 ♔g6 45.♖h8 ♗g2 46.♔e3 ♗h3 47.♔f2 ♗d7 48.♔g2 ♗c6 49.♖c8 ♗d5 50.♖c5 ♗e6 51.♖a5 ♗d7 52.♖d5 ♗c6 53.♖d6 ♗b7 54.♔f2 ♗c8 55.♖d8 ♗h3 56.♖h8 ♗d7 57.♔e3 ♗h3 58.f4 ♔g7 59.♖b8 ♔g6 60.fxg5 fxg5 61.♖h8 ♗g4 62.♔e4 ♔g7 63.♖b8 ♗h3 64.♔e5 ♗g4 65.♖b5 ♗h3 66.♖b7† ♔g6 67.♖b6† ♔g7 68.♖a6 ♗g4

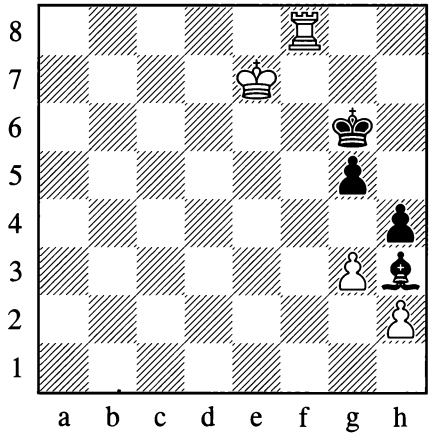


69.♖a8

69.h4? gxh4 70.gxh4 looks familiar. Black has to play 70...♔f7! to get out of the corner, after which he will make a draw.

69...♗h3 70.♔d6 ♔f6 71.♖f8† ♔g6 72.♔e7 h4

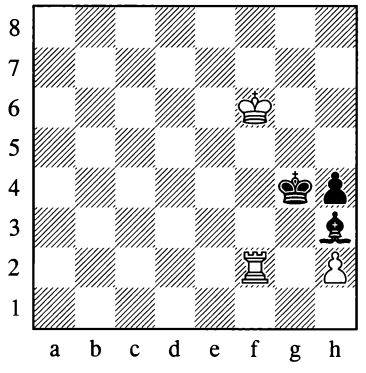
72...♗g4 73.♖f6† ♔g7 74.h4! gxh4 75.gxh4 would see the king trapped in the corner, as already covered in Szwed – Yoo.



73.♖h8?

Based on our previous experience, this should be an easy decision to make. With the black king trapped in the corner, h-pawns is the best option White has. The winning method is the following:

73.gxh4 gxh4 74.♔d6 ♔g5 75.♔e5 ♔g4 76.♖f4† ♔g5 77.♖f2 ♔g4 78.♔f6



78...♔h5 79.♖f4 ♗g2 80.♖d4 h3 81.♔f5 ♗f3 82.♔f4 ♗g2 83.♖d6 ♗f1 84.♖b6 ♗g2 85.♖f6 ♗f1 86.♖f8 ♔g6 87.♔g4 ♗g2 88.♖f2

Black is in zugzwang.

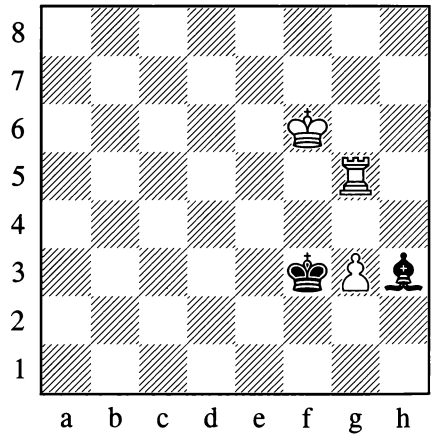
88...♔g7 89.♔g5 ♗d5 90.♖f6 ♗g2 91.♖e6 ♔f7 92.♖e3

White is winning. Black cannot avoid this position eventually. We can now conclude that it does not matter if the pawns are on the 4th and 5th rank, or 2nd and 3rd.

92...♔g7 93.♖e7† ♔f8 94.♔f6 ♗f3 95.♖e3 ♗g2 96.♔g6

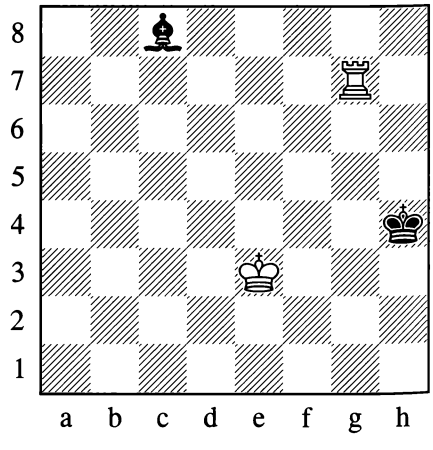
Black loses at least the pawn.

73...♔g7 74.♖h5 ♔g6 75.♖h8 ♔g7 76.♖b8 hxg3 77.hxg3 ♔g6! 78.♖b5 ♔h5 79.♔f6 ♔g4 80.♖xg5† ♔f3



Black escapes. It must have been deeply disheartening for Steingrimsson.

81.♔e5 ♗g4 82.♖g7 ♗h3 83.♔d4 ♗g4 84.♔d3 ♗h3 85.♖g5 ♗g4 86.♖g8 ♗f5† 87.♔d4 ♗h3 88.♖g7 ♗g4 89.♖f7† ♔xg3 90.♔e3 ♗c8 91.♖g7† ♔h4!



Going for the safe corner. Navara was a student of Mark Dvoretsky and there is no chance he would lose in the same way Mark did 50 years ago.

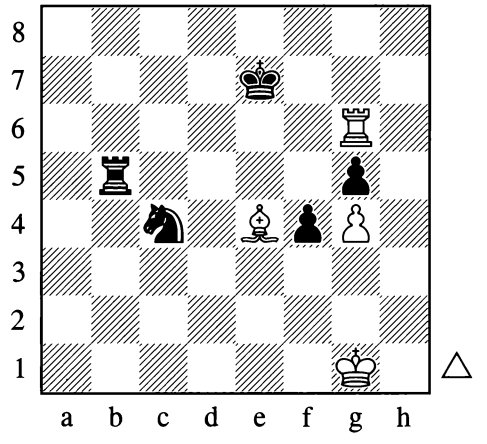
92.♔f4 ♔h5 93.♖g5† ♔h6 94.♖g8 ♗e6 95.♖g1 ♔h7 96.♔e5 ♗g8 97.♔f6 ♔h8 98.♔g6 ♗h7† 99.♔f7 ♗c2 100.♖g8† ♔h7 101.♖b8 ♗d3 102.♔f6 ♗c2 103.♖c8 ♗b1 104.♖c1 ♗a2 105.♖h1† ♔g8 106.♔g6 ♗f7† 107.♔f6 ♗a2 108.♖f1 ♔h7 109.♖f2 ♗c4 110.♖f3 ♗a2 111.♖h3† ♔g8 112.♖h2 ♗b3 113.♖b2 ♗c4 114.♖f2 ♔h7 115.♖d2 ♗b3 116.♖d7† ♔g8 117.♖g7† ♔h8 118.♔g6 ♗c2† 119.♔h6 ♗b3
½–½

13. A passed pawn each

Up to this point, we have largely dealt with positions with the pawns facing each other, either on the same or on adjacent files. They are the most common and most important to understand. But the next fortress, where the pawns are next to each other, is chock-full of valuable information for understanding how the rook can defeat the bishop.

Pavel Blatny – Joerg Hickl

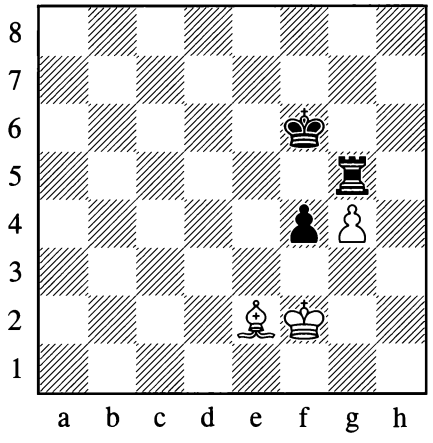
Austria 2001



67.♗d3! ♘e5 68.♖xg5 ♖c5 69.♗e4?

69.♖xe5†! ♖xe5 70.♔f2 (70.♗f5? ♖e2) 70...♔f6 71.♗f5! would have held the draw easily. The reason is simple. Black will never be able to play ...♔e4 and not be met with ♗f5†, asking the king to kindly move to the side. It is possible for Black to play ...f3 at some point, but White will always have ♔g3. If Black prevents this by putting his king on h4, he can play ...f3 without White playing ♔g3, but Black would then have to manoeuvre the king to f4, and ...♔g5 can always be met with ♔g3!, securing the draw.

69...♘f3† 70.♗xf3 ♖xg5 71.♔f2 ♔f6 72.♗e2

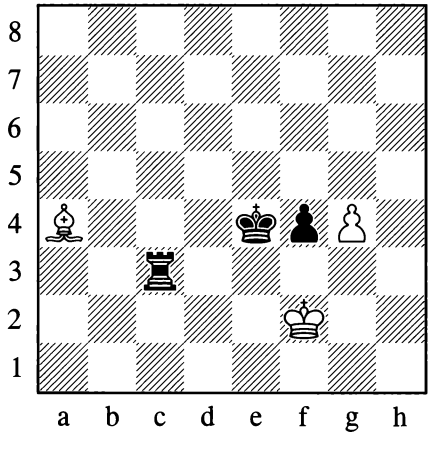


The next stage of the endgame is clear. If White is able to transfer the bishop to the c8-f5 diagonal without having to put his king on the first rank, he makes a draw. Sadly, this is not possible.

72...♖d5 73.♗a6 ♖d8! 74.♗c4 ♖d6

The transfer of the bishop has been effectively ruled out.

75.♔f3 ♔g5 76.♗b5 ♖d5 77.♗c4 ♖e5 78.♗e2 ♖e3† 79.♔f2 ♖a3 80.♗d1 ♖g3 81.♗f3 ♔f6 82.♗e2 ♔e5 83.♗f3 ♔d4 84.♗d1 ♖c3 85.♗a4 ♔e4



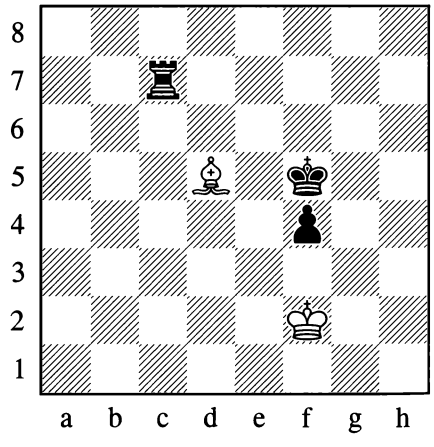
Hickl has played brilliantly and made serious progress. White decides to panic and give up his g-pawn.

86.g5!?

You cannot fault White, based on the outcome.

86.♗d1 would have been my first thought, but Black has a nice, very human, resource: 86...♔d4 87.♗e2 ♔e5! 88.♗d1 ♔e4 The tablebases produce some elaborate shortcut, but as we should always investigate triangulation in endgames with few pieces, this is the most natural way to play. White can still give up the g-pawn. If he does not, he will go down quickly.

86...♔f5 87.♗d7† ♔xg5 88.♗e8 ♔f5 89.♗f7 ♖c7 90.♗d5



This endgame is fascinating. Especially in comparison with Szabo – Botvinnik. In many ways this looks like a preferable version for White. The black pawn is one row further back. The bishop can operate on the longest diagonal possible. Surely this should be a draw too?

But the reality is that it is not. And the curious reason is that the long diagonal is shorter in this example than in Szabo – Botvinnik. The bishop has two jobs on the diagonal. The first is to execute the f-pawn, should it advance to f3. The other is to keep the black king away

from the e4- and g4-squares, as if the king is able to linger there, a check on the 2nd rank would be deadly.

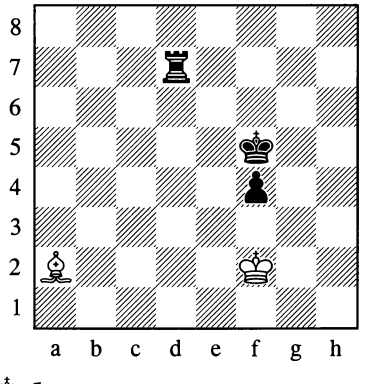
So, for this reason, the white bishop has to be able to be on two diagonals at once; or at least be able to shift between them effortlessly. And for this, the a8- and h1-squares are not useful. Thus, the diagonal is only 6 squares long and not 7 as in Szabo – Botvinnik. This is not enough and the bishop can be forced off the diagonal.

90...♖c3

The most effective winning move is:

90...♖d7! 91.♗a2!?

91.♗c6 loses on the spot to 91...♖d2† 92.♔f3 ♖d3† 93.♔f2 ♔g4 and the fortress has been breached.



91...♔e5

I know you were thinking this was a blunder due to 91...♖d2† 92.♔f3 ♖xa2, but by now you should know that stalemate is the poor man's fortress...

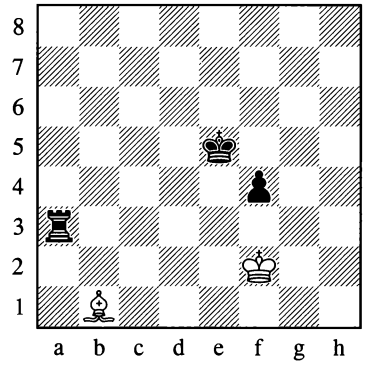
92.♗b1

Black has to use micro-domination to prevent the bishop from coming back to the diagonals.

92...♖d6 93.♔f3 ♖c6!

Just a waiting move.

94.♔f2 ♖a6! 95.♔f3 ♖a3† 96.♔f2



96...f3!

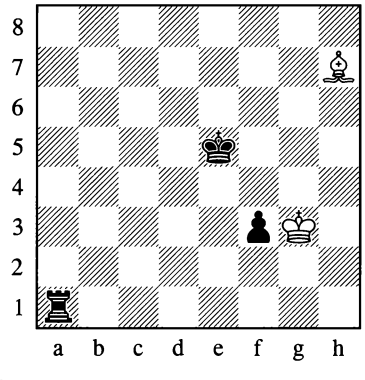
Eventually Black will have to play this move.

97.♔g3 ♖a1!!

The white bishop is entirely out of squares.

98.♗c2 is met with 98...f2! and 98.♗d3 with 98...♔d4-e3. So there is only one left.

98.♗h7



98...♖a7!

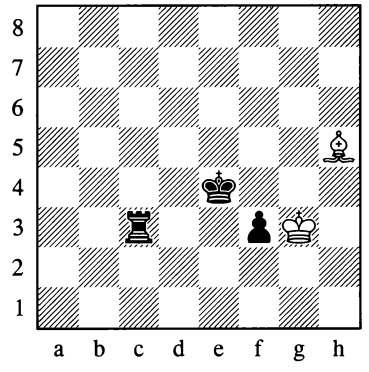
Followed by ...♖f7 and Black wins. White will either have to allow ...♔f4, or allow ...f2 and ...♔d4-e3, when the rook can be manoeuvred to g1, and Black wins.

At this point, 98...♖h1 with the cool point 99.♗c2 f2! also won.

91.♗f7 ♔f6

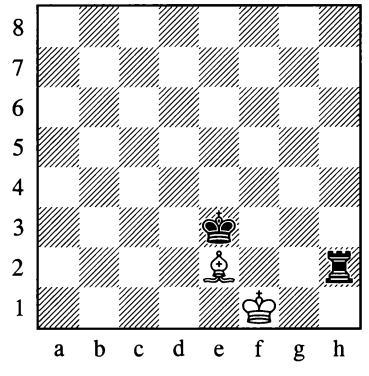
Black was successful in another game with far less weight and fewer good moves. But still with educational elements:

91...f3? 92.♔g3 ♔e4 93.♗h5!



This is a key fortress to remember. We shall see its relevance again and again.

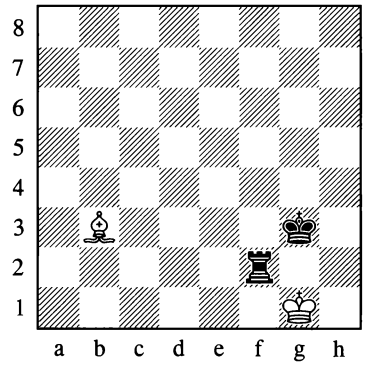
93...♖a3 94.♗g4 ♖d3 95.♗h5 ♖c3 96.♗g4 f2† 97.♔xf2 ♔f4 98.♗d1 ♖e3 99.♗h5 ♖h3 100.♗e2 ♖h2† 101.♔f1 ♔e3



102.♗c4?

102.♗g4 was the only move, but if you know that you do not want to allow ...♔f3-g3, as happened in this game, you will find it in an instant.

102...♖f2†! 103.♔g1 ♔f3 104.♗b3 ♔g3



This position should also be in your endgame theory database. Black wins.

105.♗d1 ♖d2 106.♗h5 ♖d5 107.♗e2 ♖a5 108.♔f1 ♖a1† 109.♗d1 ♖xd1† 110.♔e2 ♖a1 111.♔d3 ♔f4

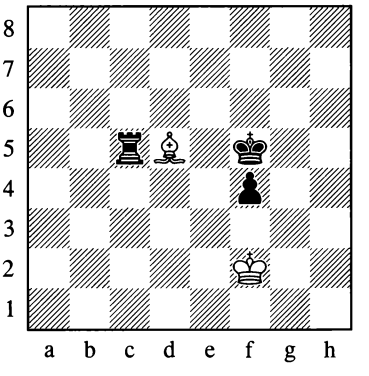
0–1 Frielingsdorf – Meier, Internet 2015.

After 91...♖d3 92.♗c4 ♖d6 93.♗f7 Black yielded and gave the draw in Rodriguez Vila – Panno, Mar del Plata 1994.

92.♗g8 ♔g5

Black was also successful in another game from this position. But again, it was rather because of a flawed defence than because of a fulfilling technical achievement. I guess Black would think that a point is a point. And who can argue with that?

92...♔f5 93.♗d5 ♖c5



94.♗g8?

This is offering no resistance at all. But it is also a strong reminder that the defender can make mistakes as well, even though his position is already lost. Chess is a game after all.

94.♗f7 ♖c7 95.♗d5 would bring us back to where we were earlier. Here, again, Black wins with 95...♖d7!.

94...♖c2† 95.♔f3 ♖c3† 96.♔f2 f3

0–1 Cordova – Milos, Sao Paulo 2006.

After 97.♔g3 ♔e4, White does not have the saving ♗h5!. This is the reason White should keep the bishop on f7. The same theme was there in our main game.

93.♗e6 ♔f6 94.♗g8 ♔e5 95.♗h7?!
95.♗f7!

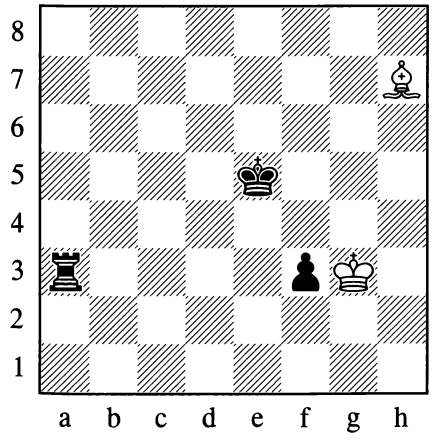
95...♖h3
95...f3! 96.♔g3 ♖c7 was stronger. See below.

96.♗g6 ♖h8 97.♗b1 ♖h2† 98.♔f3 ♖h3† 99.♔f2 ♖c3 100.♗h7
100.♗g6!

100...♖b3 101.♗g6 ♖a3 102.♗h7
A flexible move like 102.♗e8 would have done better.

102...f3!
Hickl finally takes the plunge. There is no other way to make progress in the position.

103.♔g3



103...♔d4?
A step in the wrong direction. It would be nice to make it to e3, but White is not cooperative.

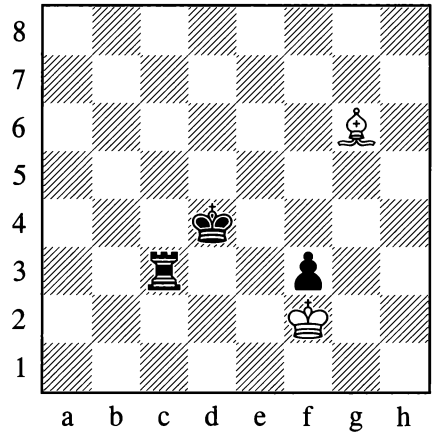
104.♔f2 ♖c3?
104...♖a7? immediately would fail to 105.♗g6, with the fortress we saw in the Internet game.

104...♔e5! Threatening to go to f4. 105.♔g3 ♖a7!

105.♗g6!
White, forced by zugzwang, finally puts the bishop on the right square.

105...♔e5 106.♔g3 ♔d5!
This may look like a meaningless move. But triangulation in the face of no ideas at all is very sensible.

107.♔f2 ♔d4



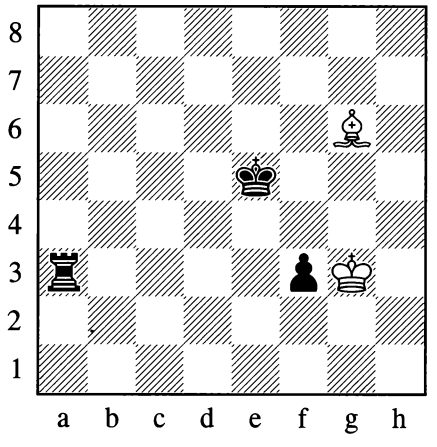
108.♗h7?
I have to say that I am not sure what it is that attracts all those white players in this ending to this square. Bishops function best when they can operate on two diagonals. And in this position, the bishop is far away from the weak pawn on f3.

108.♗h5! ♔e4 109.♔g3! was a draw, as seen above.

108...♖a3?

108...♔e5! won again. This was the final chance.

109.♗g6 ♔e5 110.♔g3



Now there are no more chances, without help.

110...♔f6

110...♖a6 111.♗h5 and White draws.

110...♔d5!? might have worked a second time. But we are getting close to a threefold repetition.

111.♗e4 ♔g5 112.♗xf3 ♔f5 113.♔g2 ♔f4 114.♗d1 ♖a7 115.♔h3 ♖g7 116.♗c2 ♖a7 117.♗g6 ♖g7 118.♗c2 ♔f3 119.♔h4 ♔f4 120.♔h5

½–½

In this chapter we have looked seriously at positions where one side has a rook and the other side a bishop. These have all been positions with fortress properties, thus connecting them to the previous chapter, making it a topic-specific study. Obviously there are many complex positions with compensation for the exchange, where the side with the bishop is playing for a win. You can find some in this book too. But here we focused on positions without dynamics (where the rook always provides an advantage) and focused on the execution of, and the limitations of, this exchange. It is my experience that deep study of one position (opening/middlegame) or one topic, like this, will give you a deeper understanding of the mechanics of chess; in this case technical play.

Exercises to Chapter 5

★☆☆☆☆ Easy. Based on a simple idea

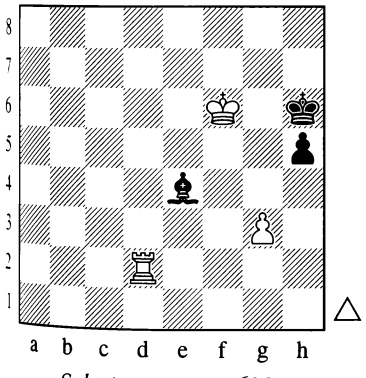
★★☆☆☆ Friendly. Can be solved by most

★★★☆☆ Mid-range. You need to think, but not too much

★★★★☆ Challenging. You will need to concentrate for these ones

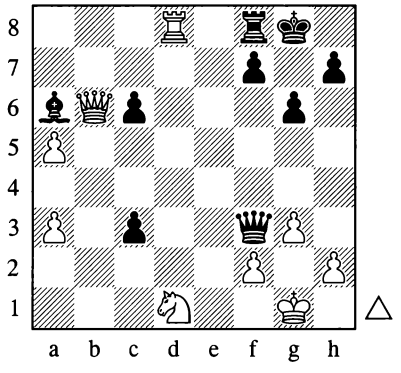
★★★★★ Brain crusher. After solving, see a neurologist...

★☆☆☆☆



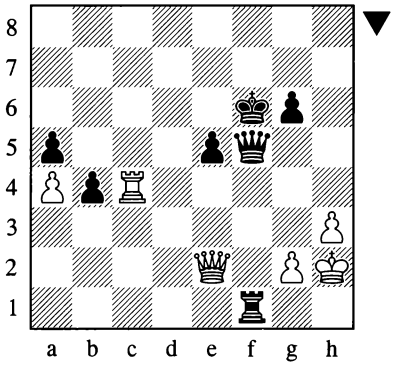
Solution on page 638

★★☆☆☆



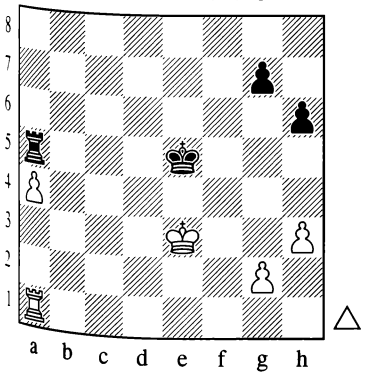
Solution on page 647

★★★☆☆



Solution on page 662

★★★★☆



Solution on page 642

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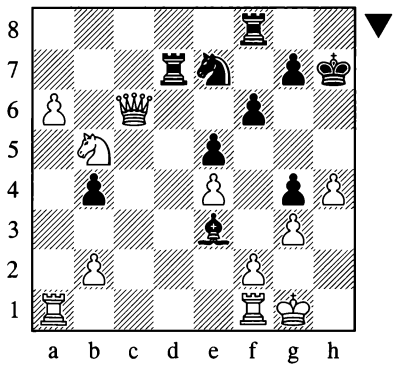

Solution on page 653

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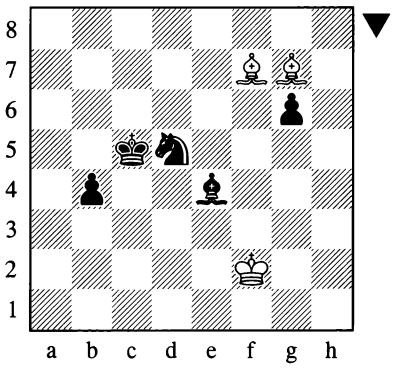

Solution on page 674

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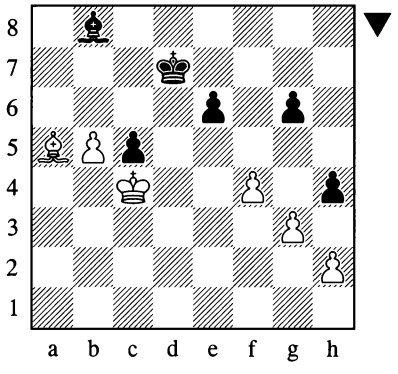

Solution on page 676

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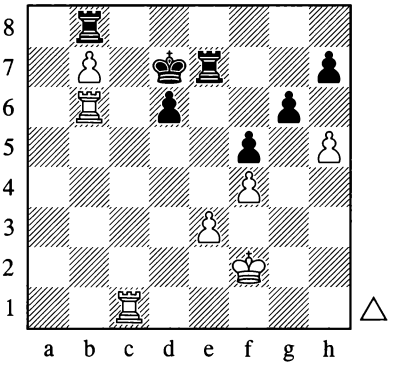

Solution on page 685

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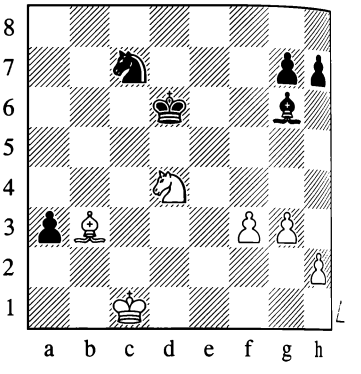

Solution on page 707

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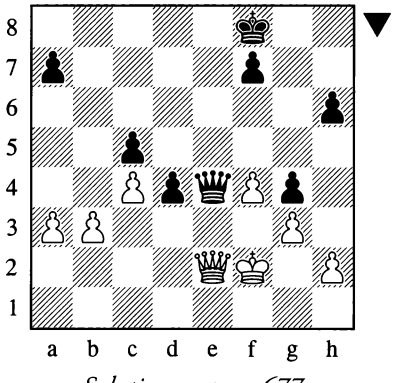

Solution on page 677

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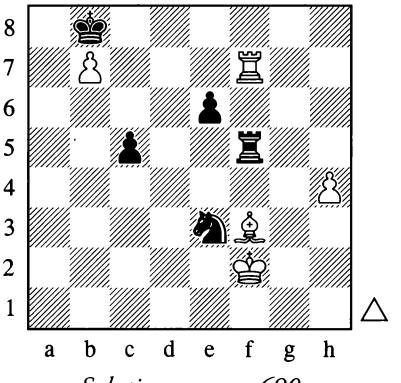
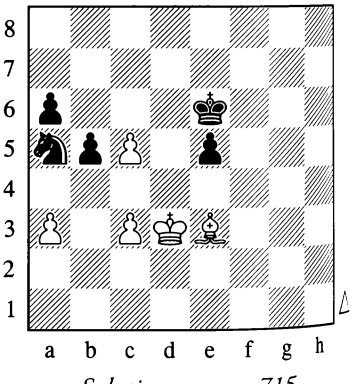


Solution on page 690

★★★★★



Solution on page 715

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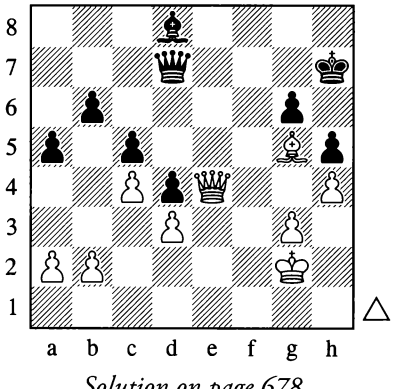

Solution on page 678

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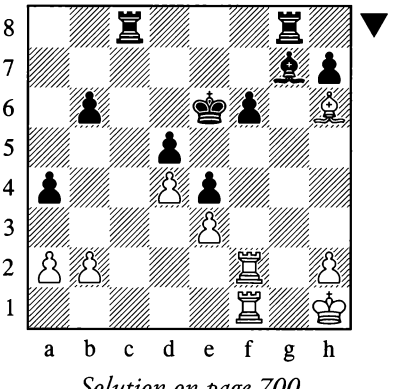
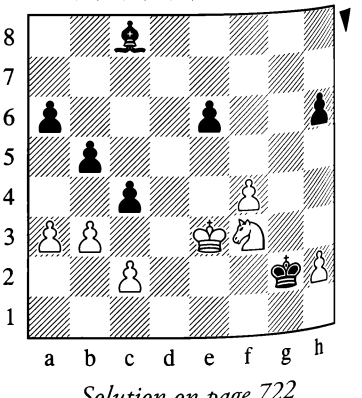


Solution on page 700

★★★☆☆



Solution on page 722

Chapter 5

Exchanges

We have already touched on the basics of exchanges in the endgame in Chapter 1 and have talked about the basic ideas. I will repeat them here, just to be on the safe side... In general, the side with an advantage is in favour of exchanging pieces, as the conversion of the advantage will becomes easier the less counterplay is possible. The pawn ending is the great joy of any holder of a material advantage.

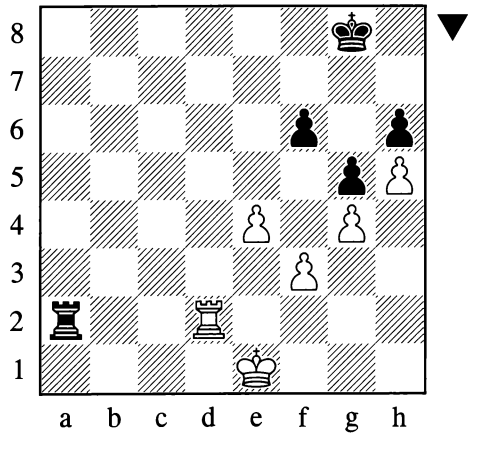
On the other hand, the defender is in general in favour of the exchange of pawns, as a position a piece down without pawns is far less dangerous than being a piece down with many pawns on the board.

That's in general. For a great majority of chess players, this is already knowledge beyond their abilities. But when we get to international level, we see that this simple guideline can be too simple. Decisions made on this basis will help a 1500-rated player a lot, while they have little to no influence on the outcome of games between 2500-rated players...

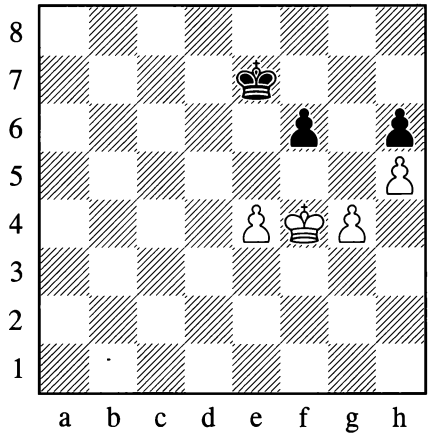
There are a few recent books on the exchange of pieces. Joel Benjamin's book *Liquidation on the Chess Board* was focused on the final exchange into the pawn ending. You could argue that this makes it more of a book about pawn endings. There are also two workbooks by Eduardas Rozentalis, who is a great technical player, which gave me great hopes for his books. But looking through the exercises, they just did not do it for me.

Sergey Volkov – Eduardas Rozentalis

Vrachati 2011



45...♖xd2!? 46.♔xd2 ♔f7 47.♔d3 ♔e6 48.♔e3 ♔e7 49.♔d4 ♔d6 50.♔c4 ♔e5 51.♔d3 ♔e6 52.♔e3 ♔e7 53.f4 gxf4† 54.♔xf4

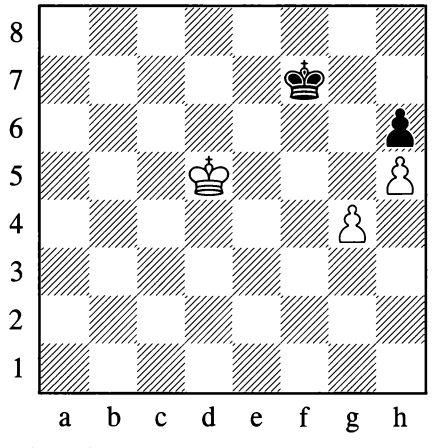


54...♔f8

Rozentalis points out that this is long-distance opposition. But with the e4-pawn right in the middle of everything, opposition does not matter.

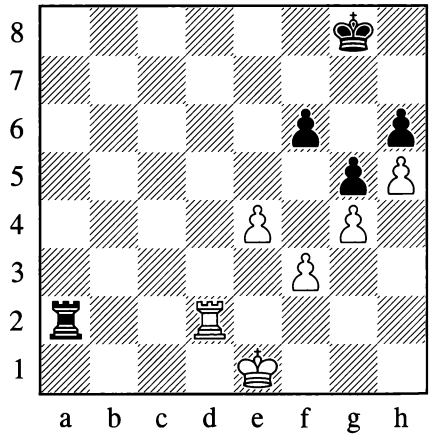
54...♔e6 55.♔f3 ♔e5 56.♔e3 ♔e6 57.♔d4 ♔d6 is a bit more natural from my perspective.

55.e5 fxe5† 56.♔f5 ♔f7 57.♔xe5 ♔e7 58.♔d5 ♔f7



59.♔e5 ♔e7 60.g5 hxg5
½–½

Some of the other examples in Eduardas's book have a tactical nature, making them more about calculation than anything else; a judgement you could certainly make about Benjamin's book as well. I am not mentioning all of this because I in any way would want to denigrate the books or authors. The books are fine and the authors are well-known for their great chess and human qualities. Rozentalis was always very friendly after beating me, carefully explaining what I did wrong... The point is thus not a criticism of these two books. They are exercise books and exercises are useful for your chess.



So, if you approach this position as an exercise, where you work out the consequences of the pawn endgame, it is certainly a decent exercise. But in practical terms, I would play **45...♖a3** and never exchange rooks. White cannot advance any pawns without exchanging them.

So, the best passed pawn he can ever get is a passed h-pawn, blocked by the black king.

These are the considerations we should take when we are discussing exchanges in the endgame. While people are always very excited by simple and clean explanations, these are not always helpful once you get into the complexity of how chess works. This fact has

driven some people to say that these general observations are not useful at all and can actually be unhelpful to strong players.

If you look through the two classic series of training books by Mark Dvoretsky, you will find strategic concepts all over the place. It is my firm belief that understanding these conceptual ideas and when they are relevant and when not, is a powerful way to build intuition and understanding. Saying that they are not applicable in all situations, and thus have no value, is an absolutist way of thinking that throws away thinking tools from the toolbox, thus limiting your thinking potential.

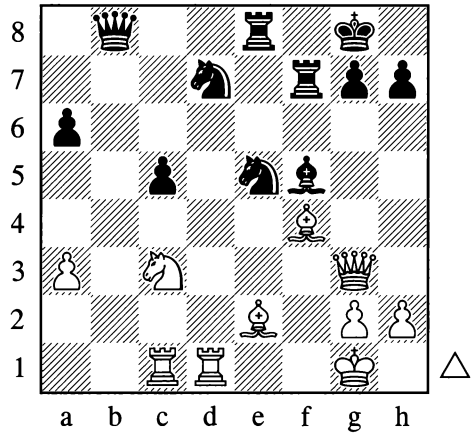
It is the equivalent of throwing away the screwdriver because it does not work on nails – rather than evolving our ability to recognise nails from screws and to learn how to deal with the hybrids. Thinking about these things will eventually get you to know what a 5 Lobe Pin Button Security Screw is and what to do with it... But let's return to talking about chess and the nature of exchanges in the endgame, regulated by the theme of this book. In this chapter we shall look at many scenarios where various exchanges are favourable for one side or the other, and debate how this could be understood. Going beyond the basic exchanging pieces good, pawns bad idea, we shall see various scenarios and understand the differences. Also, with this theme in mind, you can look at Ding Liren – Aronian later in this chapter.

1. Going deep

The black player in the following game is a good friend of mine and a very talented player, best known as a chess journalist. Tania's obvious intellect and talent for chess did not help her much in this game, which she was kind enough to share with me as a game that she had learned a lot from. We are joining this game from the Women's Team World Championship, just as White is about to achieve the secret dream of all those who give up material: to get it back (at all costs). However, in this case, White missed a chance to strike, and strike hard!

Inna Gaponenko – Tania Sachdev

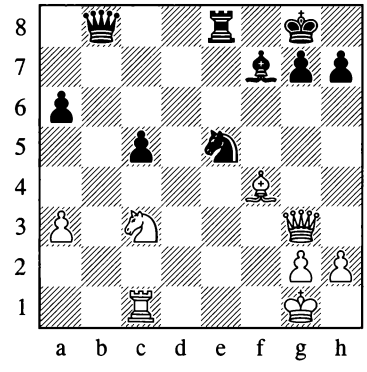
Khanty-Mansiysk 2017



28.♗xa6?

White had a winning combination, which was both straightforward and a bit obscure at the same time.

28.♗c4 ♗e6 29.♖xd7! ♗xc4! If Black on the other hand takes on d7, she will lose quickly. (29...♗xd7 30.♗xf7† ♔xf7 31.♖e1 is just over. The key point being that 31...♘f3† loses to 32.♕xf3! ♖xe1† 33.♔f2 and White ends a piece up.) 30.♖xf7 ♗xf7



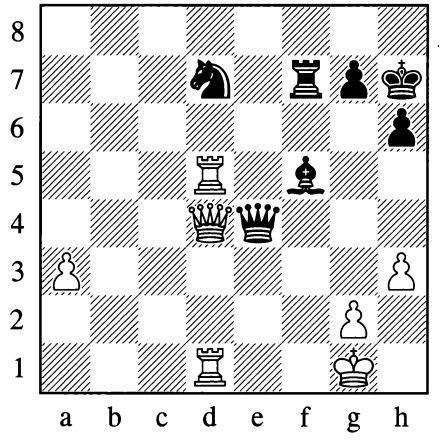
This time, 31.♖e1 does not work due to 31...♘f3†!, but it turns out that after 31.♔h1!, Black is unable to get out of the pin. White wins a piece. Black can create some complications; but in this case, a piece is a piece.

28...♕a7 29.♘b5!?

Gaponenko may have missed a big chance, but she is not ready to settle for a draw and chooses to sharpen the play.

After 29.♗b5 c4† 30.♗e3 ♕xa3 31.♗d4 the game is heading for simplifications and most likely a draw.

29...♕xa6 30.♘c7 ♕c8 31.♘xe8 ♕xe8 32.♗xe5 ♘xe5 33.♖xc5 ♘d7 34.♖cd5 ♕e4 35.h3 h6 36.♕c3 ♔h7 37.♕d4



The position has clarified. In terms of material, you could argue that Black is slightly ahead. As IM Esben Lund put it, knight and bishop have the value of a rook and one and a half pawns; meaning that you will never have true material equality in these positions, but that evaluations will always rely strongly on other factors.

Black is now faced with a question of judgement. Will the exchange of queens help or hurt her prospects going forward? Living on increments after hours of intense playing, Tania did not have time to properly consider this issue and reacted on instinct, seeking clarity and making sure she was not blundering anything.

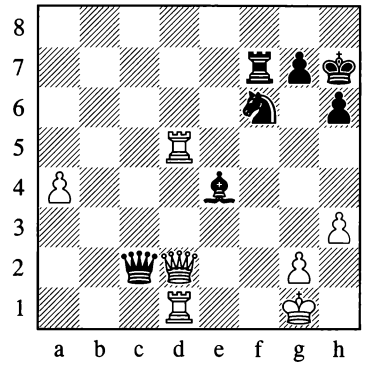
37...♕xd4†?

This is a mistake, even if it does not change the evaluation of the position much. It is clear that White's prospects in this position are on the queenside, all linked to the a-pawn. But how does this influence exchanges? First of all, Black's possibilities to create counterplay are all on the kingside. This is quite natural, given that Black is relying on her minor pieces. Their property is that they need some sort of stability to function well. But in the centre and on the queenside, no such stability exists. While the bishop can control the a8-square from e4, the lack of stability gives this a fleeting property. This is not a good thing when dealing with a passed pawn. On the other hand, a fleeting moment of grandeur is all you need when you are attacking, for example on the g2-square. In collaboration with just the knight, the bishop cannot create a lot of damage. Together with the rook, quite a bit more. But together with the queen, threats of mate will have to be respected.

It is important to understand one thing about the need for counterplay. It is not necessary for the counterplay to be successful, such as for example the possibility of checkmate with queens on the board, for it to be relevant. Anything that diverts White's offensive resources away from the queenside will diminish her chances of exploiting her a-pawn. The exchange of queens is thus a serious mistake. White's defensive responsibilities on the kingside are greatly diminished, giving her serious chances on the queenside.

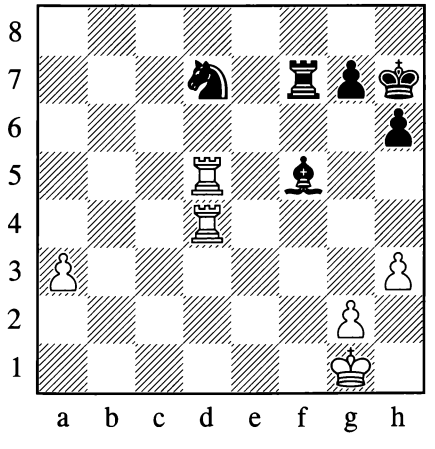
37...♕c2! was not the only good move, but the lack of tactics makes it the perfect candidate. Still, it is worth mentioning 38.a4 ♗e4, when

White has to play 39.♖d2 with a draw after 39...♕b1† 40.♖d1 ♕c2, as 39.♕d2? would be hit hard with: 39...♘f6!



White should play 40.♕xc2 ♗xc2 41.♖f1, aiming to secure the draw, as 40.♖d4 ♕c5 leads to a game where Black has managed to organise her minor pieces well. Next up comes the activation of the rook. I believe White should not yet be in serious danger of losing the game, but you can easily see things becoming gradually more challenging.

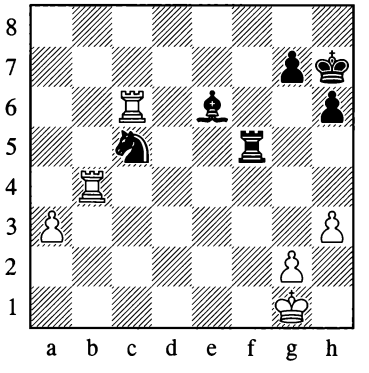
38.♖1xd4



38...♘b6?!

A typical time-trouble decision. The knight gets a bit lost on the queenside, not able to find stability. But this also underlines the increased challenges Black is facing.

38...♗e6! would have allowed Black to coordinate her pieces in several ways. Here is one of them: 39.♖d6 ♘c5 The most logical, but not the only option. 40.♖c6 ♖f5 41.♖b4!? (41.a4 ♖e5 42.a5 ♘b3 43.♖dd6 ♘xa5 leads to an immediate draw.)

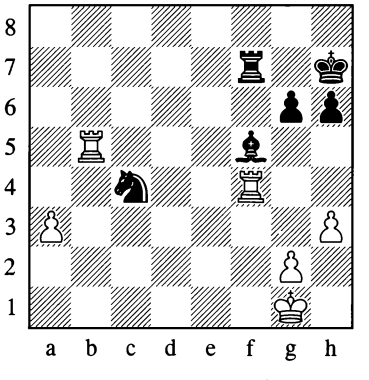


41...♖e5! 42.♖b5 ♖e1† 43.♔h2 ♘d3 and Black is creating active counterplay. The knight will be well placed on f4, preferably with ...g7-g5 played. But also ...♔g6-f6 is a logical way to improve the position for Black.

39.♖b5 ♘c8?!

Once again Black had a better defence.

39...♘c4! 40.♖f4 g6

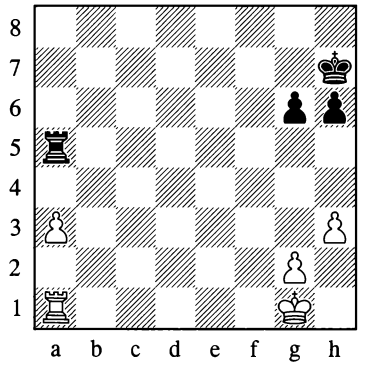


This position is dangerous for Black. I have analysed it deeply, so we can understand it properly.

a) 41.♖bxf5 ♖xf5 42.♖xc4 ♖d5!

This aims to get the rook behind the passed pawn. White has only one try.

43.♖c1! ♖a5 44.♖a1



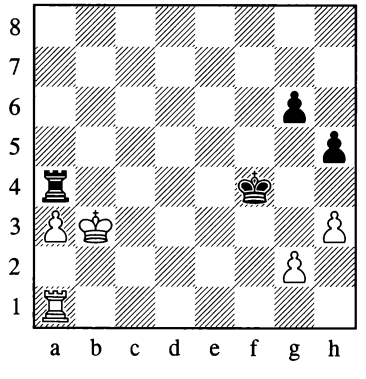
At this point Black has to play one accurate, but also very easy, move to hold.

44...♖a4!

This move is good for two reasons. First of all, it keeps the a-pawn as far back as possible. Secondly, it prevents White from putting a pawn on h4, which would seriously limit the black king's ability to join the game.

We could stop here, but the following variation is instructive and shows perfect play for Black, even if it is not quite required to make the draw.

45.♔f2 h5 46.♔e2 ♔h6 47.♔d3 ♔g5 48.♔c3 ♔f4 49.♔b3

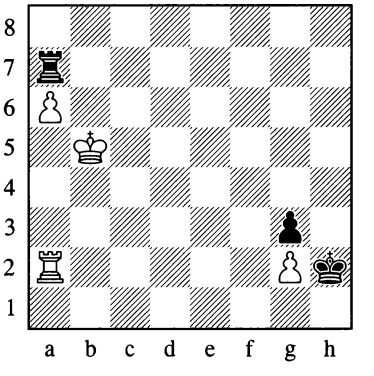


49...♖a7!

The best square. On the one hand it is quite far from the white king and it will take some time before tempos are lost to further threats on the rook. But at the same time, it is a better square than a8, as the moment the rook decides to leave the position blocking the a-pawn, the pawn does not immediately become a queen. This creates a tempo in the bank in many lines.

Obviously most grandmasters would play 49...♖a8 without thinking. And this too would make the draw. But the nuances are useful to understand for the scenarios where they would not be mere trifles.

50.a4 ♔g3 51.♖a2 g5 52.a5 g4 53.hxg4 hxg4 54.a6 ♔h2 55.♔b4 g3 56.♔b5



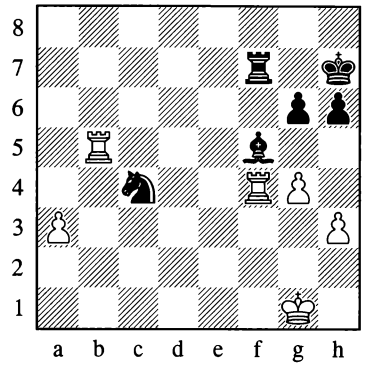
56...♖f7!

Black draws. The active ...♖f2 idea is quite pleasing to the eye.

However, it should be mentioned that Black could also play 56...♖h7, which would have been the drawing method if the rook had fallen back to the 8th rank. Black draws by giving checks from the side.

b) 41.g4

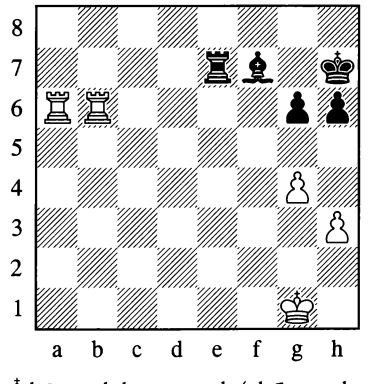
We have reached one of many cases where what is the correct exchange changes 180 degrees in a few moments, showing why it is impossible to make simplistic rules that will govern all scenarios.



41...♗e6!!

This time, Black actively seeks the exchange of the rooks. Although it is probably possible to set up a fortress for Black with the rooks on the board, it is a far easier proposition without rooks. Why? Mainly because of the threats White is able to create along the 6th rank. Specifically, against the h6-pawn.

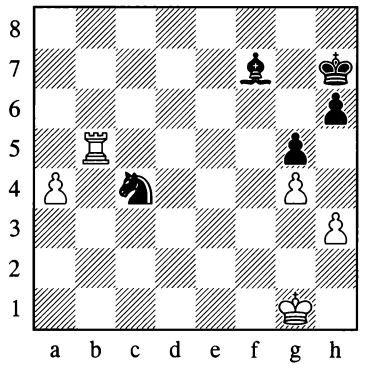
41...♘xa3? looks lost. White plays: 42.♖b6 ♗e6 43.♖a4! ♗d5 44.♖xa3 ♖e7 45.♖aa6 ♗f7



46.♔h2 and later on h4-h5, undermining Black's ability to defend herself along the 6th rank. In this case, the black rook is not able to create active play, so it would be better to exchange it.

41...♘d6? also loses. After 42.♖b6 ♘c8 43.♖a6 ♗e6 44.♖xf7† ♗xf7 45.♖c6 White is completely winning, as well as winning the knight immediately.

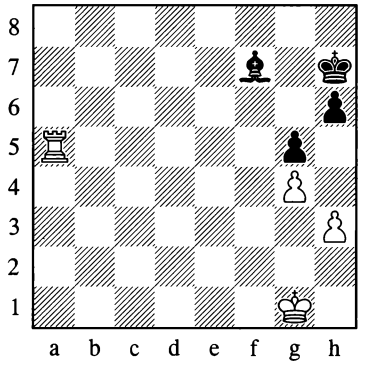
42.♖xf7† ♗xf7 43.a4 g5



44.a5

White can also try to bring the king in before winning the knight. But Black will not waste time. After 44.♔f2 ♔g6 45.♔e2 h5 46.♔d3 hxg4 47.hxg4 ♗e6 48.♖b4 ♘a5 White will not make progress.

44...♘xa5 45.♖xa5

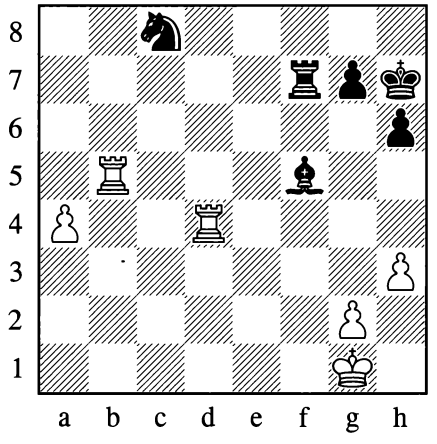


The resulting endgame is a simple draw. Without the h-pawns, we get into a truly difficult ending, which we looked at on page 565. But with the h-pawns on, Black makes the draw easily enough. The h6-pawn is useful for defending the g5-pawn and the h3-pawn is a potential target.

A useful thing to know is that when we are trying to win endgames, at most times having the pawns on the same file (say, g4 and g5) provides far more chances, compared to having pawns on adjacent files (say, g4 and h6). The potential for the pawns being

exchanged, combined with the possibility of the king approaching your pawn (here via the g5-square), increases the defensive chances. For this reason, a later h3-h4 will be met with ...gxh4 and a simple draw.

40.a4



The position on the board has seriously worsened for Black, but the situation on the clock has not improved at all. The fact that it will in just one move is of little consolation now. Black has to make a move.

40...♖d7?

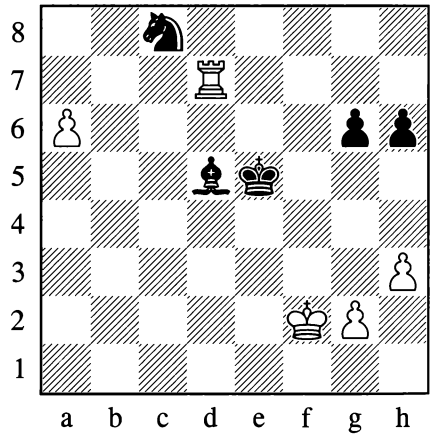
An awful decision. With little time on her clock, Black was hoping this would potentially lead to an endgame where she would be allowed to give up her knight for the a-pawn. As we shall see, this was a serious miscalculation.

Instead, Black should have avoided making a long-term decision now and have spent a lot of her time on the next move. A good waiting move could have been: 40...♗e6 Black is now threatening to organise her pieces with ...♖c7, where the rook would help to provide the minor pieces with some stability. With decent play, Black should still be able to make the draw.

41.♖xd7 ♗xd7 42.♖b8

42.♖c5! was a nice dominating move, but it makes no big difference. As so often in these positions where it is hard to tell the moves apart without deep analysis, the practical experience is a bit random. As long as nothing is blundered, we move on without any concerns.

42...♗e6 43.a5 ♔g6 44.a6 ♔f6 45.♔f2 g6 46.♖b7 ♗d5 47.♖d7 ♔e5



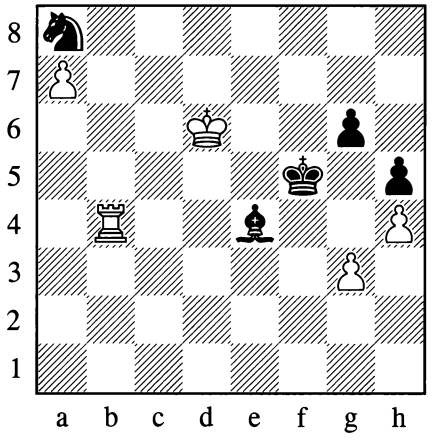
48.a7

48.g4! creates a better pawn structure for White on the kingside, but the game move is good enough.

48...♘b6 49.♖d8 h5 50.h4 ♘a8 51.g3 ♗h1 52.♖g8 ♔f5 53.♖f8† ♔e5 54.♔e3 ♗d5 55.♖e8† ♔f5 56.♔d4 ♗h1 57.♖e5† ♔f6 58.♖e1 ♗g2 59.♖g1 ♗b7 60.♖f1† ♔e6 61.♔c5 ♔e5 62.♖e1† ♔f5 63.♔d6 ♔g4 64.♖b1 ♗g2 65.♖b5 ♗e4

65...♔xg3 66.♖g5† ♔f3 67.♖xg2 ♔xg2 68.♔c6 and White wins.

66.♖b4 ♔f5



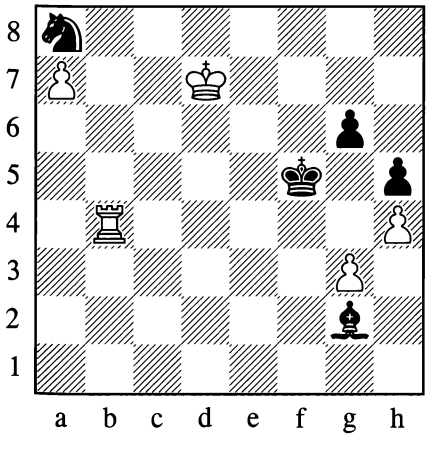
67.♔d7

White wins slowly and steadily. To many it would not be obvious that White is completely winning. But there are quite a number of winning plans; and no chance for Black to create counterplay.

Gaponenko does not fall prey to poor tactics. 67.♖xe4? ♔xe4 68.♔c6 ♔e5! 69.♔b7 ♔d6 and White has to refrain from taking the knight in order to stay in the game.

67.♖d4!? could be an improvement, as after 67...♘b6, White has 68.♖xe4! ♔xe4 69.♔c6, winning an important tempo and thus the game.

67...♗g2

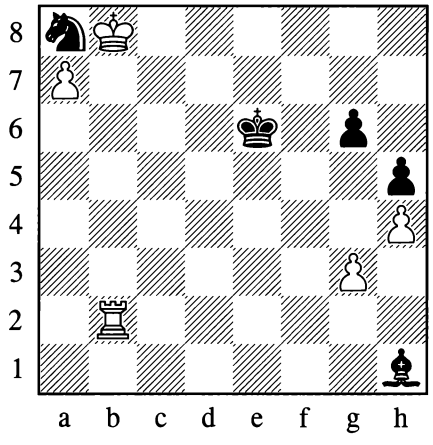


68.♖b5†

You would want 68.♔c8 ♗c6 69.♔b8 ♔e6 70.♖b7 to work, but Black is in time. 70...♗xb7 71.♔xb7 ♔d6 With a draw, unless White foolishly takes the knight.

Simplest would be something like: 68.♔e7 ♗h1 69.♖f4† ♔e5 70.♔f7 ♗e4 71.♖xe4† ♔xe4 72.♔xg6 ♔f3 73.♔xh5 ♔xg3 74.♔g5 and wins.

68...♔f6 69.♔c8 ♔e6 70.♔b8 ♗h1 71.♖g5 ♔f6 72.♖b5 ♔e6 73.♖b3 ♗g2 74.♖b2 ♗h1



75.♔c8!

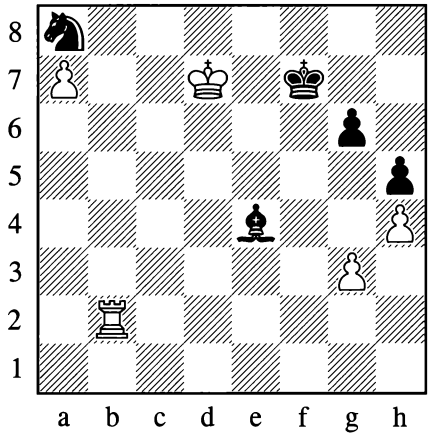
Finally, Gaponenko realises that the king needs to win on the kingside.

75...♗d5 76.♔d8 ♔f7

A sad concession, clearly illustrating the liability of having two defensive obligations (a-pawn and g6-pawn). Especially when they are at opposite ends of the board. This is what is usually called the principle of two weaknesses, which can be slightly confusing, as the a-pawn is not what we would usually call a weakness.

Two liabilities is probably better language, but as everyone call it "weaknesses", it is far more useful to understand that language is imprecise and what it actually means in this case, rather than expecting the world to get its act together...

77.♔d7 ♗e4



78.♖f2†!

Trying to force the black king further into the corner.

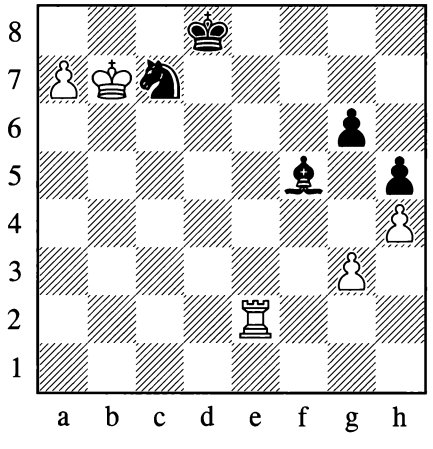
78...♗f5†

White also wins quickly after 78...♔g7 79.♔c8 ♔g8 80.♖b2 ♔f7 81.♔b8 ♔e6 82.♖e2!.

79.♔c6 ♔e7 80.♖e2†!

Keeping the bishop out of the game.

80...♔d8 81.♔b7 ♘c7



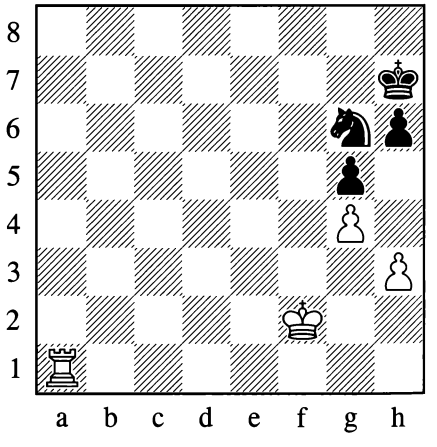
82.♖d2† ♗d7 83.♖d1
1–0

2. Comparing resulting endings

From analysing the previous game, we are able to make quite a lot of conclusions. Most of them will not be of a general nature. But having a large arsenal of similar positions that you understand will help you to navigate a plurality of situation.

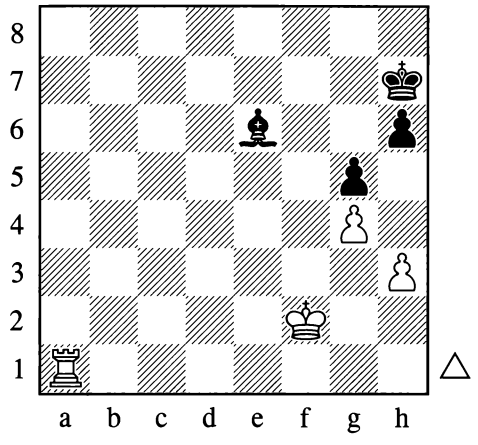
These conclusions will conceptually have similarities with other scenarios, that may at first look like they have nothing to do with this position. But simply approaching positions from a different perspective will inevitably improve your way of thinking about chess.

Example 1



White wins whoever is to move.

Example 2



This position is structurally a draw, but in this very example, we shall see the only circumstance where Black loses.

1.♖a7†! ♔g6 2.♖a6

White wins, as Black cannot escape the pin on the 6th rank.

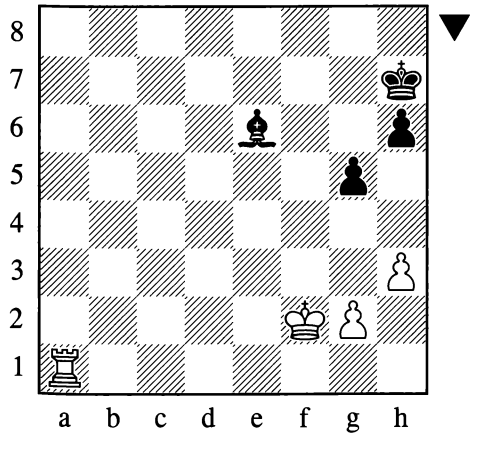
2...♔f7 3.♔e3 h5

Black cannot just wait.

4.gxh5 ♗xh3 5.♖g6

White wins.

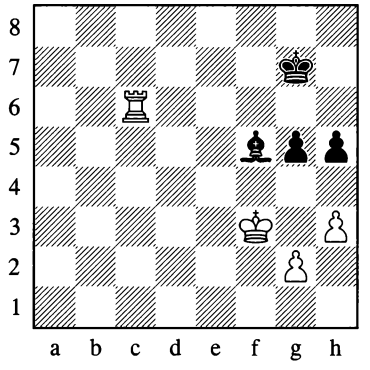
Example 3



But here Black is structurally lost. White has no reason to push the pawn to g4.

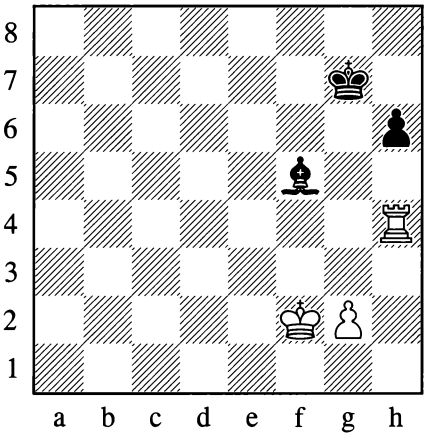
1...♗f5

1...h5 2.♖a6 ♗c8 3.♖c6 ♗f5 4.♔f3 ♔g7



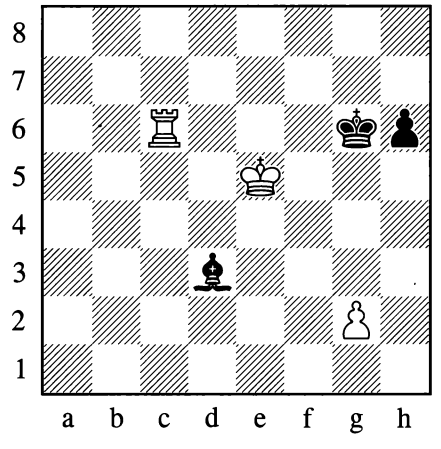
5.g4! This transposes to the structure from Aronian – Dubov on page 568. White's winning method in this ending is by no means obvious. An important takeaway from the analysis of that game is that the black bishop needs to be on the c8-g4 diagonal for Black to make a comfortable draw. In this position, the bishop is forced away from that diagonal. White wins trivially after 5...hxg4† 6.hxg4 ♗b1 7.♔e3 ♔f7 8.♔d4 ♗g6 9.♔e5 ♗h7 10.♖c7† ♔g6 11.♖b7 ♗g8 12.♖b6† and the pawn is lost.

2.♖h1 ♔g6 3.h4 gxh4 4.♖xh4 ♔g7



From a theoretical point of view, what you would want to know about this position is that it is winning – and why it is winning. The key point is for White not to make unnecessary pawn moves. If the pawn was on g3 or g4, the position would be a theoretical draw. But with the pawn on g2, White has the possibility to give checks with the rook from g3.

5.♔e3 ♗b1 6.♖h1 ♗g6 7.♔f4 ♗c2 8.♔e5 ♔g6 9.♖c1 ♗d3 10.♖c6†



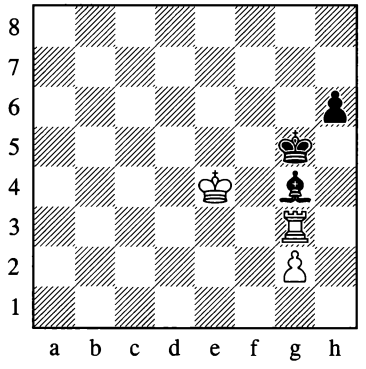
From here on we are in tablebase territory. White is winning, but the path to victory is as impenetrable as anything gets in chess.

10...♔g7

10...♔g5

This is offering less resistance.

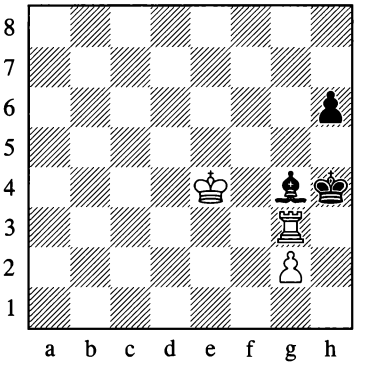
11.♖c3 ♗e2 12.♖g3† ♗g4 13.♔e4



13...♔h4

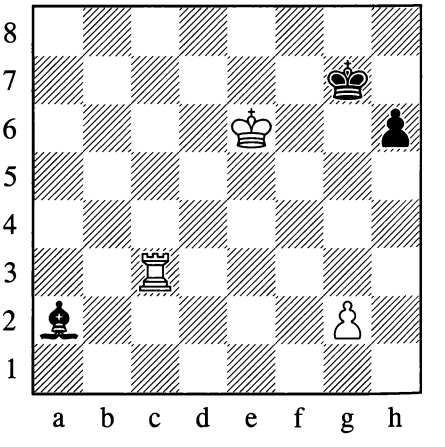
This goes down in the most entertaining way.

White also wins after 13...h5 14.♖a3 h4 15.♖a5† ♔g6 16.♔f4 ♗e2 17.♖a1, and the h-pawn is toast. 17...♔h5 18.♖h1 ♗g4 19.g3 h3 20.♖e1 ♗c8 21.♖e5† ♔g6 22.♖g5† ♔f6 23.♖h5 and 24.g4, winning.



14.♔f4 h5 15.♖h3†! ♗xh3 16.g3#

11.♖c3 ♗b1 12.♔e6 ♗a2†

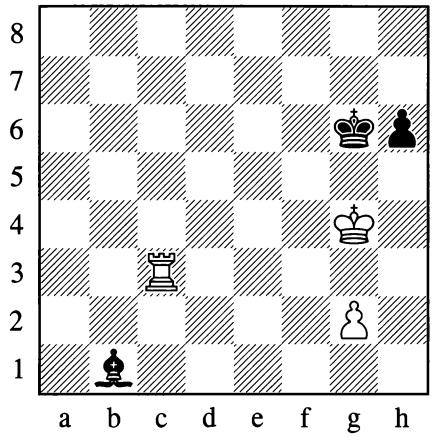


13.♔d6!

It is this kind of unobvious manoeuvre that makes it unclear to me if I would personally be able to win this position.

13...♔f6 14.♖c1 ♗b3 15.♔c5 ♗e6 16.♔d4 ♗f5 17.♖f1 ♔g6 18.♔e3 ♔g5 19.♖h1 ♔g6

20.♔f4 ♗d3 21.♖d1 ♗c2 22.♖c1 ♗d3 23.♖c3 ♗b1 24.♔g4



White has made a lot of progress and Black will finally have to make a concession. However, the following dance, provided to us by the tablebase, is very opaque. I do not think for a moment that I would be able to make serious progress against a computer.

Still, I strongly recommend that you add this position to your database of theoretical positions. This is the key position you will want to remember.

24...♗e4

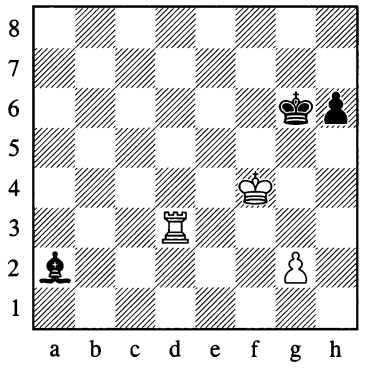
24...♗f5† 25.♔h4! ♗e4 26.♖g3† would be a shortcut for White.

25.♖g3!

With access to this square being entirely essential, it is interesting that the only time the rook actually goes to the g3-square is at this moment – 25 moves in. But without this resource, Black would make the draw. Thus, it is an important position to add to your arsenal.

25...♗d5 26.♔h4† ♔h7 27.♔h5 ♗c6

27...♗f7† 28.♔g4 ♔g6 29.♖d3 ♗e6† 30.♔f4 ♗a2



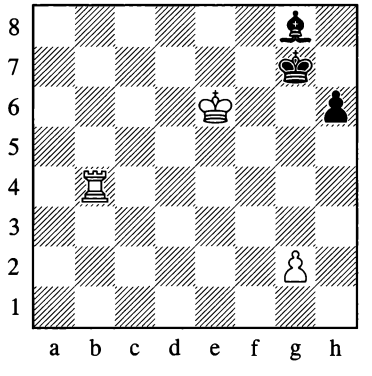
31.♖d4!

A nice tempo-losing move.

31...♗b3 32.♖b4

Hoping for ♖b6† and ♔f5 without Black being able to give a check in reply, as for example after 32...♗a2?.

32...♗g8 33.♖b6† ♔g7 34.♔e5! ♗c4 35.♖b4 ♗g8 36.♔f5 ♗h7† 37.♔e6 ♗g8†



38.♔e7

White has managed to zigzag himself into an advantageous position.

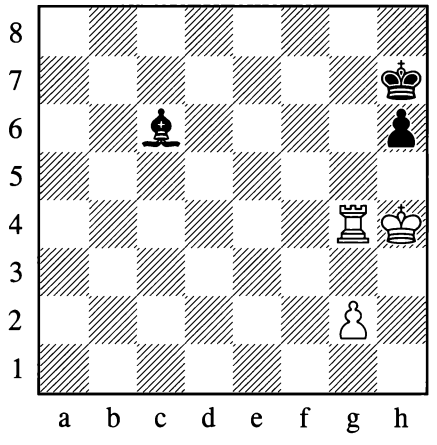
38...♗h7 39.♖g4† ♗g6 40.♔e6

Black is forced to make a concession.

28.♔g4 ♔g6 29.♔h4†!

This is the key idea.

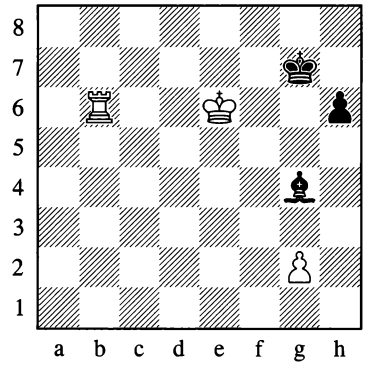
29...♔h7 30.♖g4!!



Another key position. White wants to quickly manoeuvre the king around via the g3-square.

30...♗d5

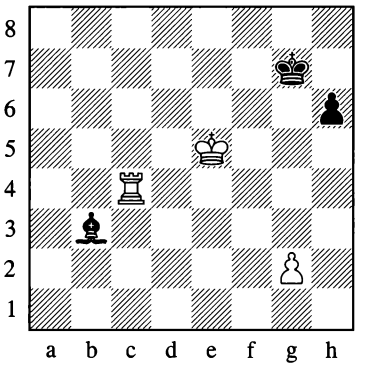
30...♗e8 31.♔g3 ♗h5 32.♖b4 ♔g7 33.♔f4 ♗g6 34.♔e5 ♗c2 35.♔e6 ♗d1 36.♖b6 ♗g4†



37.♔e5!

White is also winning after 37.♔e7? ♗f5 38.♖b3 ♗g4 39.♖g3 h5 40.♖d3 ♔g6 41.♖d4 ♔g5 42.g3 ♔f5, but the win is long and arduous. This is one of the cases where the tablebases are very informative. From this we can learn that White playing the move g2-g3 is a bigger compromise than Black playing ...h6-h5.

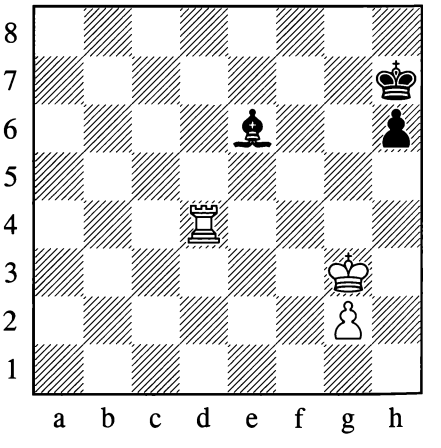
37...♗d1 38.♖c6 ♗a4 39.♖c4 ♗b3



40.♖c7† ♔g6 41.♖c6†

White is winning, as Black either has to advance with the king (which we shall see below is fatal), or allow White to play ♔f5 followed by ♖c7†, which is obviously lost for Black.

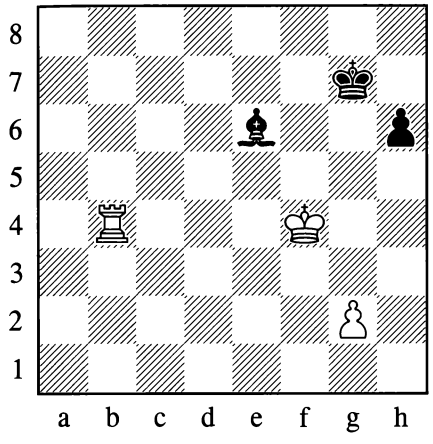
31.♔g3 ♗e6 32.♖d4



32...♔g7

32...♔g6 would step into a horrible pin. After something like 33.♖d6 ♔f5 34.♔h4 ♔e5 35.♖b6 Black should consider resigning.

33.♔f4 ♗b3 34.♖d2 ♔f6 35.♖b2 ♗c4 36.♔g4 ♔g6 37.♖b6† ♔g7 38.♖b4 ♗e6† 39.♔f4



39...♗g8

While we may be focused on just how impenetrable the logic behind White's moves is, we should not forget that Black can lose very quickly too.

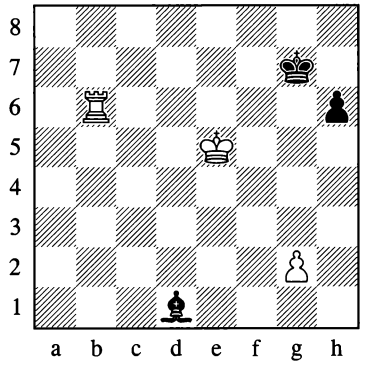
For example: 39...♔f6 40.♖b6 and 40...♔f7 41.♔e5, winning the h-pawn. 40...h5 41.♖xe6† is also quite manageable.

40.♔f5 ♗h7† 41.♔e6!

41.♔e5!?

This would be worth a try. If Black plays 41...♗g8 White is probably best off playing 42.♔f5 ♗h7† 43.♔e6, transposing to our main line. But if Black plays anything else, the win is a good deal smoother.

41...♗c2 42.♔e6 ♗d1 43.♖b6 ♗g4† 44.♔e5 ♗d1



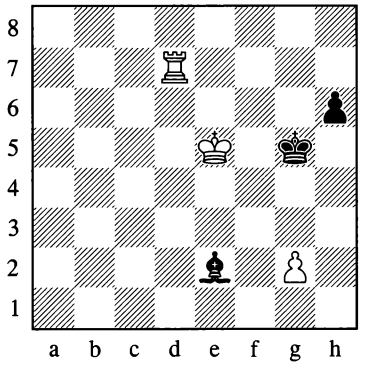
45.♖c6

A typical move, taking squares away from the black bishop.

45...♗a4 46.♖c5 ♔g6 47.♖c4 ♗b3 48.♖c6† ♔g5

48...♔g7 49.♔f5 and White is winning after 50.♖c7†.

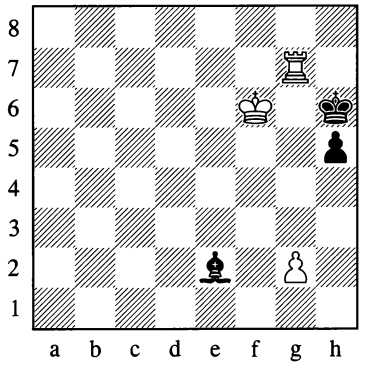
49.♖c3 ♗d1 50.♖d3 ♗e2 51.♖d7



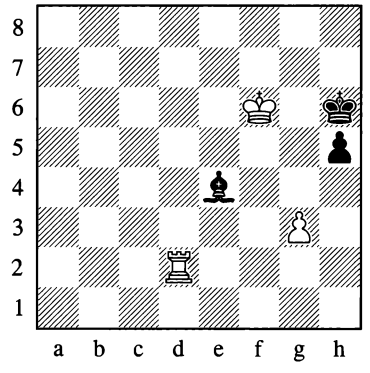
51...♔g6

Black can also make a concession by moving the h-pawn. But it is a doomed proposal, as the moment White gets the king to g5, White can return the exchange and win the pawn ending easily.

51...h5 52.♖g7† ♔h6 53.♔f6

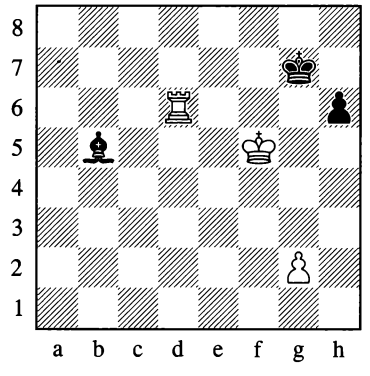


The key threat is ♖g6† and ♔g5. 53...♗d3 (53...h4 54.♖g6† ♔h5 55.♖g5† ♔h6 56.♖d5 ♗f1 57.♖d8 ♔h5 58.♔f5 and White wins.) 54.g3 ♗c2 55.♖d7 ♗b1 56.♖d2 ♗e4



57.g4! White wins.

52.♔f4 ♗b5 53.♖d6† ♔g7 54.♔f5



Through his intricate manoeuvres, White has managed to dominate the black bishop.

54...♗a4

54...♗e8 55.g4 would leave Black in zugzwang.

55.♖g6† ♔h7 56.♔f6

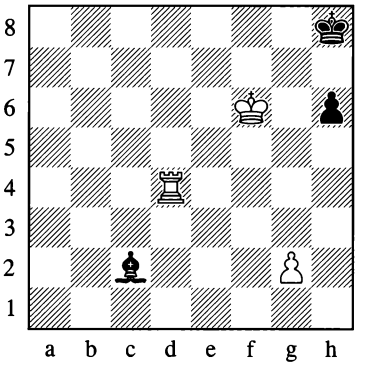
The king arrives at f6, after which it is just a matter of time.

56...♗c2 57.♖g7† ♔h8 58.♖g4

With the threat of ♖h4 and g4-g5.

58...♗d1 59.♖d4 ♗c2

59...♗e2 60.♔g6 and Black is checkmated.

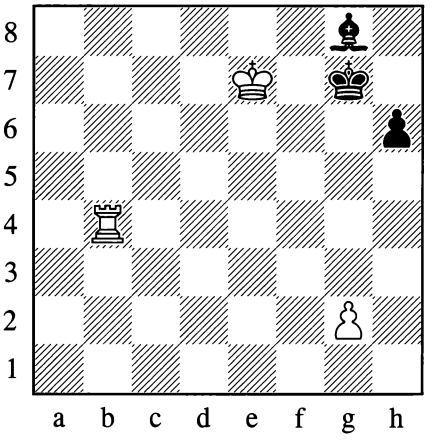


Finally, it is time for White to execute the winning plan.

60.♖h4 ♔h7 61.g4 ♗g6 62.g5 h5 63.♖h1

The rook will circle round and Black will resign.

41...♗g8† 42.♔e7

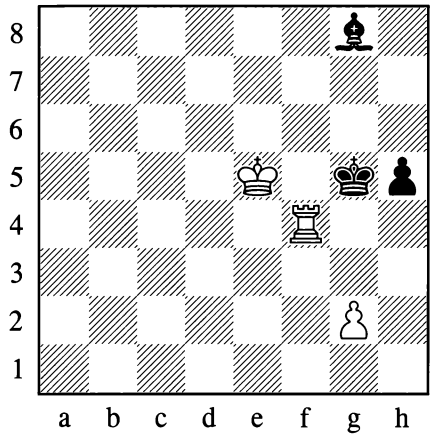


42...h5

Black has to make a concession, but it will still be difficult for White to win the endgame.

White wins after both 42...♗h7 43.♖g4† ♗g6 44.♔e6 and 42...♗d5 43.♖g4† ♔h7 44.♔f6.

43.♔d6 ♔f6 44.♖f4† ♔g5 45.♔e5



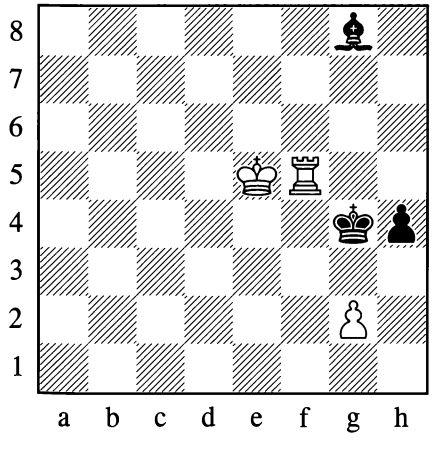
45...h4!

This is Black's only chance.

After something slow like 45...♗b3 46.♖b4 ♗d1 47.♖b8, White is winning without troubles.

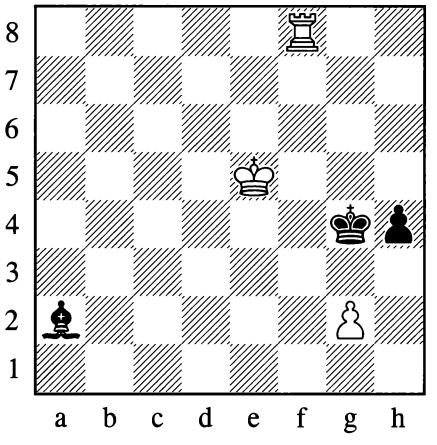
46.♖f5† ♔g4

46...♔g6 47.♔f4 wins without too many complications.



White wins with a relentless persecution of the black bishop. The bishop will slowly lose access to reasonable squares, allowing White to win the single tempo needed to give a check on the g-file.

47.♖f8 ♗a2



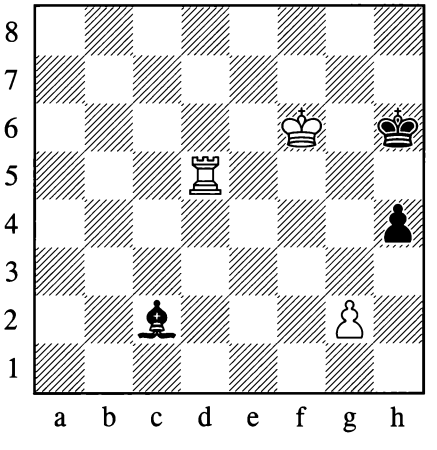
48.♖a8! ♗b3

48...♗b1 49.♖g8† would cut the line a bit short.

49.♖b8 ♗a2 50.♖b2 ♗f7

50...♗g8 51.♖b7 is not much different.

51.♖b7 ♗a2 52.♖g7† ♔h5 53.♔f6 ♗b1 54.♖g5† ♔h6 55.♖d5 ♗c2



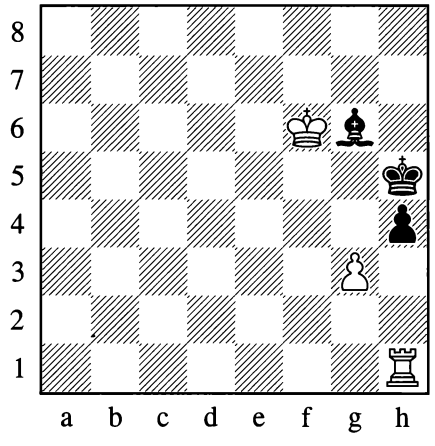
White is structurally winning, but has to avoid allowing counterplay to slowly derail Black.

56.♖d2 ♗b3 57.♖b2 ♗d1

The bishop is very short on squares.

57...♗d5 58.♖b4 ♔h5 59.♖b5! and White wins. And after 57...♗g8 58.♖b8 there is no reason to look for more moves either.

58.♖b1 ♗c2 59.♖c1 ♗g6 60.♖h1 ♔h5 61.g3



61...h3!?

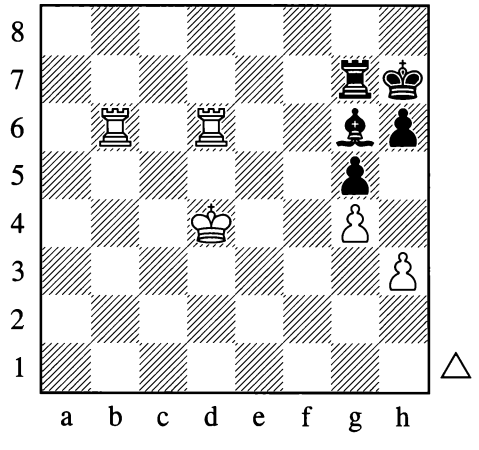
The last try against an opponent who knows endgame theory.

Believing the opponent to know nothing, Black can also play 61...♔g4 62.gxh4 ♔h5 and hope that White will push the h-pawn too far too soon and give Black a fortress.

62.♖xh3† ♔g4 63.♖h8!

White wins.

Example 4

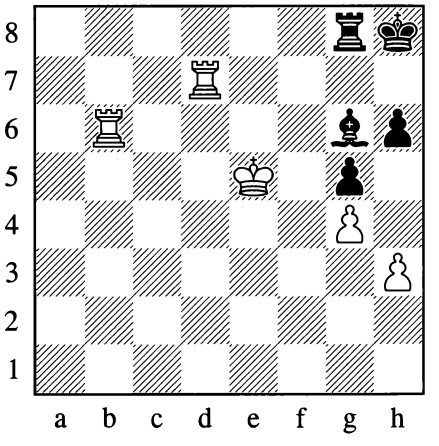


White wins in almost any way he wants. With this structure, Black cannot deal with the two rooks. The following is a simple illustration.

1.♔e5 ♖e7† 2.♖e6 ♖g7

2...♖xe6† 3.♔xe6 ♔g7 4.♖b7†! White wins, as he is able to access the f6-square with the king.

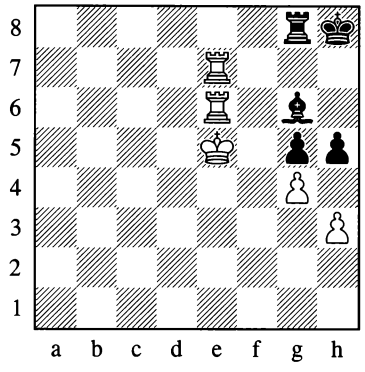
3.♖bd6 ♖g8 4.♖d7† ♔h8 5.♖b6



Optically it would be very surprising if White was not winning here. Black is totally tied up in the corner.

After **5...♖g7** The correct move is 6.♖xg7! and 7.♖b7†, when Black cannot keep the white king away from the f6-square.

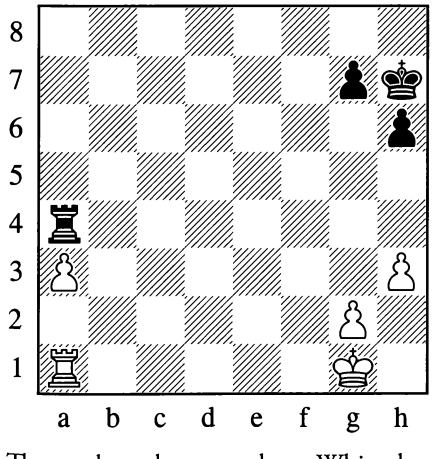
5...♖e8† is the only alternative. 6.♖e6 ♖g8 7.♖de7! puts Black in horrible zugzwang. Again White wins after 7...♖g7 8.♖xg7 and 9.♖e7†, when White gets to play ♔f5 and soon after ♔f6. 7...h5 is the move for people who refuse to resign.



White can take the pawn and then exchange rooks, an illustrative line being: 8.gxh5 ♗h7 9.♖h6 ♖g7 10.♖e8† ♖g8 11.♖xg8† ♔xg8 12.♔f6 ♔h8 13.♔f7 Black's only legal move is with the g-pawn, when White simply returns the exchange before taking on g4.

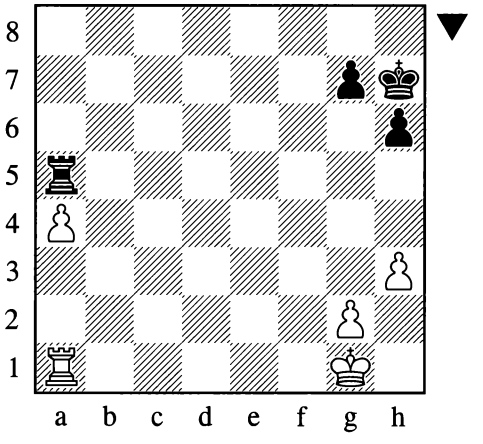
Alternatively, 8.♔f6 hxg4 9.hxg4 ♗c2 10.♖e8 is a very human approach.

Example 5



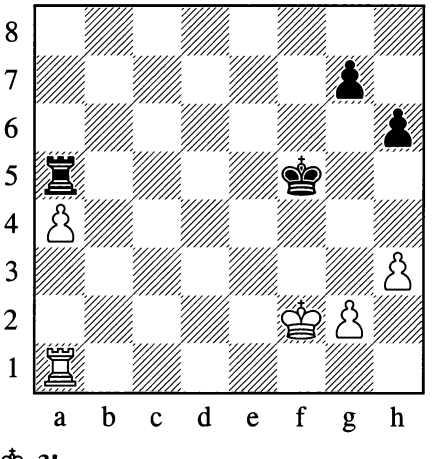
The rook endgames where White has real chances are with the rook behind the a-pawn. Black should block the a-pawn as early as possible. But it is still worth it, while we are at it anyway, to work out under which circumstances White wins. In this case Black draws, as we already covered in the game (see page 628).

Example 6



It is easy to see that White to play, wins with 1.♔f2 as the king arrives quickly at b4, forcing the rook away from a5. But with Black to play, I would expect the endgame to be a draw. However, analysis shows that it is just not so.

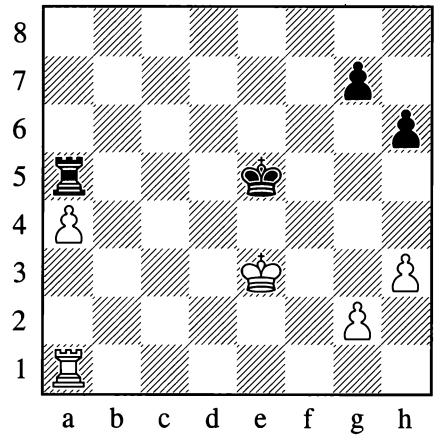
1...♔g6 2.♔f2 ♔f5



3.♔e3!

3.♖a3 ♔e4 4.♔e2 ♔d5 Avoiding going to the 4th rank, where ♖g4† exists as a ghost in all lines. 5.♔d3 h5 6.♔c3 ♔c5 7.♔b3 ♔b6 The king is ready to take the space of the rook. Black holds.

3...♔e5



4.♔d2!!

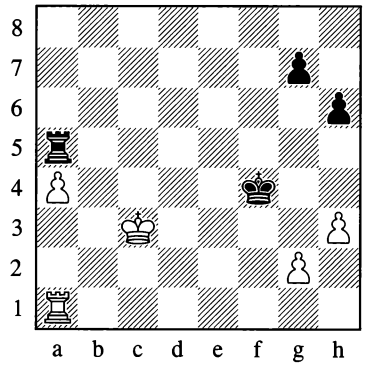
I always enjoy such counter-intuitive moves. Here it is a case of basic prophylaxis.

Black holds with a long line of not-too-difficult only moves after:

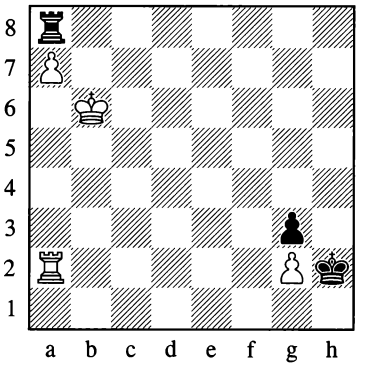
4.♔d3? ♔f4

4...♔d5 5.♔c3 ♔c5 6.♔b3 ♔b6 7.♖e1 ♖g5 8.g4 h5 9.♖e4 would win for White.

5.♔c3



5...♔g3 6.♖a2 h5 7.♔b4 ♖a8 8.♔b5 g5 9.a5 g4 10.hxg4 hxg4 11.a6 ♔h2 12.♔b6 g3 13.a7



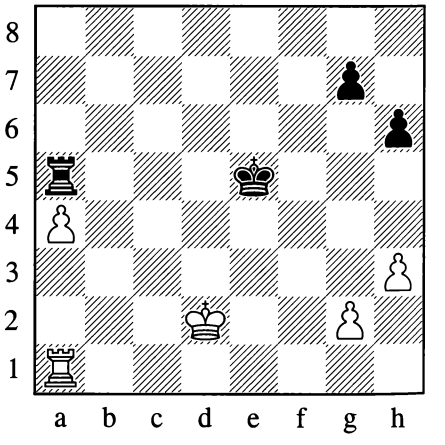
13...♖h8

Black holds by giving checks from the side, or sacrificing the rook for both White's pawns.

14.♔c5 ♖c8† 15.♔d4 ♖d8† 16.♔e5 ♖e8† 17.♔f6 ♖f8† 18.♔g7 ♖a8

With a draw.

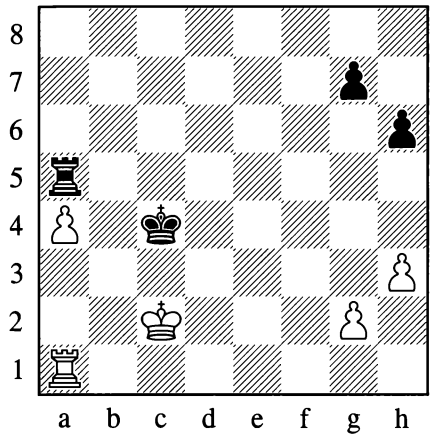
Black is also fine after 4.g4 ♔d6 5.♔d4 ♔c7 6.♔c4 ♖e5.



4...♔d4

The prophylactic idea is simple and beautiful: 4...♔f4 5.♖a3 h5 6.♔c3! and White wins.

5.♔c2 ♔c4



6.♖e1!

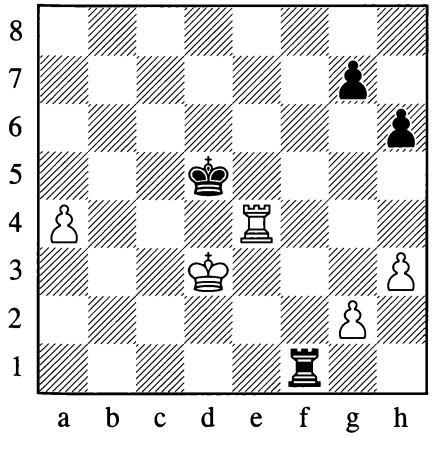
The simplest winning move.

6.♖f1!? g5 7.♖a1!! also wins, but despite the shock value of going back and forwards, the White moves do not make a lot of sense.

6...♖f5

6...h5 7.♖e4† ♔d5 8.♖b4 shows White's intentions. After 8...♔c5 9.♔c3! he is winning, on account of 9...g5?! 10.♖b5†!, when the pawn ending wins. Notice that this does not work on the previous move; and that White had no great reason to try it on the previous move, as playing without calculation wins quite easily.

7.♖e4† ♔d5 8.♔d3 ♖f1



9.♖d4†!

A typical rook endgame feature. Checks are very important.

9...♔c5 10.♔e3!

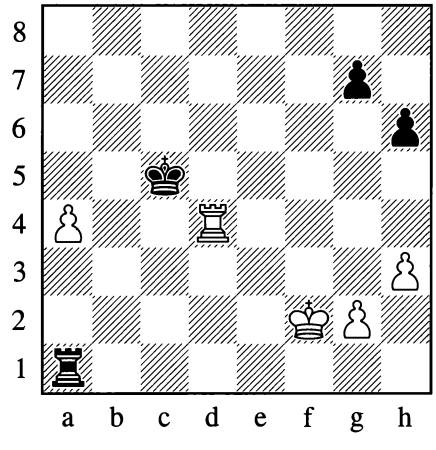
The king needs to do damage on the kingside. The strategy once Black has activated the rook is to use the a-pawn as a permanent distraction, always threatening a4-a5-a6 and so on, so that White can focus freely on being stronger on the kingside.

10...♖e1†

10...♖a1 11.♖d7!, as below.

11.♔f2 ♖a1

11...♖e7 12.♖g4 with the idea a4-a5 and ♖a4 also wins.



12.♖d7! ♖xa4

12...g5 13.♖h7 ♖xa4 14.♖xh6 ♔d4 15.♖h5 ♖a5 16.♔g3 also wins uneventfully.

13.♖xg7 ♖a6

Passive moves in unattractive positions are usually a bad sign.

But after 13...♔d5 14.♖g6, White just wins.

14.♔g3 ♔d5 15.♔g4 ♔e5 16.♔h5

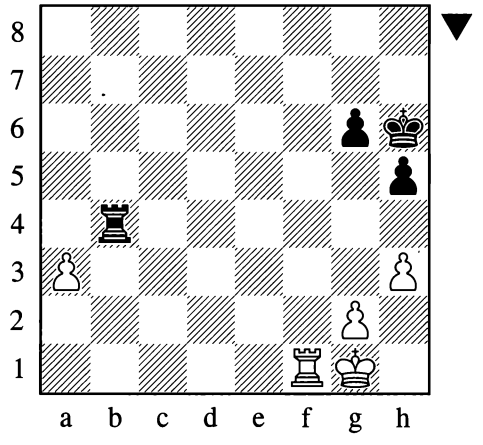
White wins.

3. Same story – more or less...

Not long after I analysed the previous endgame, the following game, which is very similar, was played in an online rapid tournament for promising players. It is important to understand that the players did not have enough time to make serious decisions, which you can see on move 45, for example.

Nodirbek Abdusattorov – Dinara Saduakassova

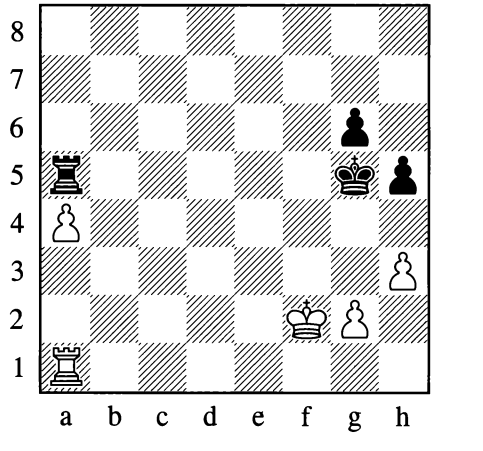
Internet 2021



39...♖b2?!

Black could have held the draw with 39...♖a4! 40.♖a1 ♔g5 41.♔f2 ♔h4!, as we saw in the previous example.

40.♖a1! ♖b5 41.a4 ♖a5 42.♔f2 ♔g5



43.♔e3?

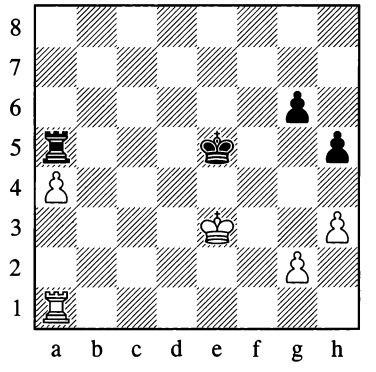
This position is slightly different from the position reached in Example 6 on page 641.

43.♔f3! ♔f5

43...♔h4 no longer works. The key point is: 44.♖a2 A waiting move. Black has few chances if she chooses to retreat. 44...g5 45.♖a3! g4† 46.hxg4 hxg4† 47.♔f4 White is in total control.

44.♔e3 ♔e5

44...g5 45.♔d4 ♔f4 46.♖a3 would leave the king cut off.



45.♖a2!

Another important waiting move.

45.♔d3? ♔f4! would lead to a draw with the method seen in the previous example.

45.♔d2 would prepare to cut off the king on the 3rd rank. But after 45...♔d4! 46.♔c2 ♖g5 Black has sufficient counterplay.

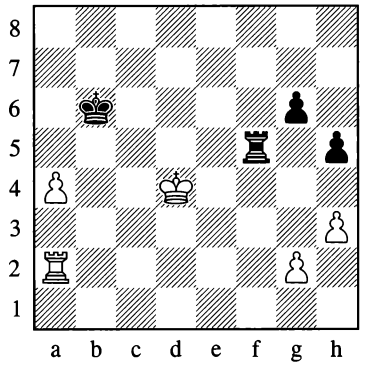
45...♔d5 46.♔d3

Black is in zugzwang.

46...♔c5

46...♔e5 47.♔c4 ♔f4 48.♖a3! and the king is cut off.

47.♔e4 ♔b6 48.♔d4 ♖f5



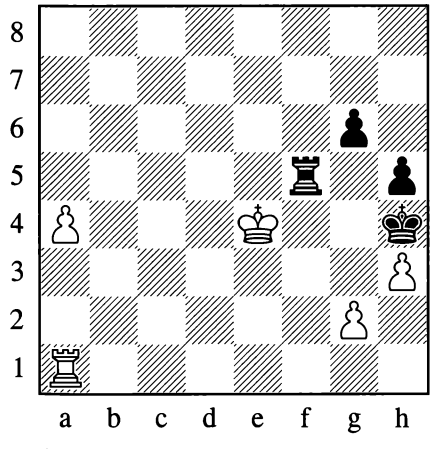
49.♖a3

White is in complete control and ready to attack the kingside.

43...♔h4 44.♔f3?

44.♔f2!, repeating the position, would still have won. 44...g5 45.♖a3 g4 46.♔e2 and White wins, is an important point.

44...♖f5† 45.♔e4



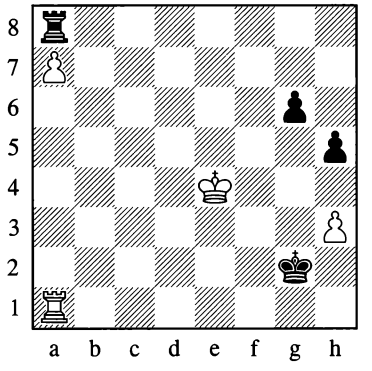
45...♔g3?

Black could have drawn with 45...♖f2! 46.a5 ♖xg2 47.a6 ♖e2† 48.♔f3 ♖e8.

46.♖a2?

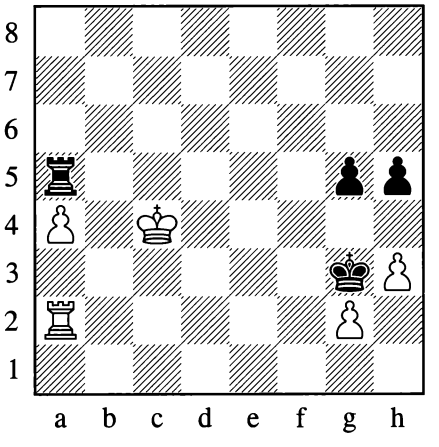
White is missing the chance to push the pawn.

46.a5 ♔xg2 47.a6 ♖f8 48.a7 ♖a8



49.♖a3! g5 50.♔f5 g4 51.hxg4 h4 52.♔f4! White wins after either 52...h3 53.♖a2†, or 52...♖f8† 53.♔g5.

46...♖a5 47.♔d4 g5 48.♔c4



48...h4?

As in the previous example, Black had the chance to play 48...g4! 49.hxg4 hxg4 50.♔b4 ♖a8 51.a5 ♔h2!, with a standard draw.

49.♔b4 ♖a8 50.a5 ♖b8† 51.♔c5
1–0

4. Guidelines for exchanges

Throughout this chapter, we will look at various scenarios where exchanges of pieces are possible, and determine whether the exchange was or was not in our favourite player's interest – and why. The purpose of doing this is not to create any sort of ironclad rules regarding exchanges. I think the Gaponenko – Sachdev game above (page 625) makes the case for looking at things in a far more intelligent way. Still, this does not mean that there is no use for strategic concepts.

The exchange of queens and rooks was definitely a mistake in the Sachdev game. This was because it created a situation where the remaining rook grew in strength, while the minor pieces lost their power, not being able to assist a major piece in attacking the white kingside.

We can clearly see that you need at least two pieces to collaborate in order to create counterplay, when the king is defending the kingside all lonesome. And with the knight otherwise occupied on the queenside, this was impossible once the major pieces came off. The fact that Black would gladly give up the two minor pieces for a rook, in order to reach a drawn rook endgame, is worth noticing. Just as a defending player would rather build a fortress with bishop vs rook, rather than rook and bishop vs two rooks.

These considerations fall under schematic thinking and not fixed conclusions. This does not mean that knowledge of these typical decisions is not useful. Only that we need to have a complex understanding of them and over time develop the understanding of when they are relevant and when they are not.

In this chapter, we shall look at a number of scenarios, where the exchanges of various pieces are desirable and undesirable, for a number of different reasons. This will not lead to a one-time-only decision making process. The exchange of rooks will not always be bad when we have two minor pieces against a rook. The presence and viability of the a-pawn made it that. It is my hope that by analysing and explaining a number of scenarios in this chapter, I will be able to convey to you a number of ways of thinking about exchanges that will make it easier for you to make these decisions in your games.

5. A guideline with more value

When we are exchanging into a single piece ending, there is a guideline that has some merit. It says that some endings are more winnable than others. Most winnable are pawn endings, where the smallest advantage will be enough to win the game. Second comes knight endings, which in this respect are not too far from pawn endings; which is one of the reasons Botvinnik made the famous comparison between the two.

Then comes bishop endings, or mixed minor piece endings. It is really about the circumstances.

What we do know is that rook endings are one of the emergency exits for defenders. Not as great as opposite-coloured bishop endings though.

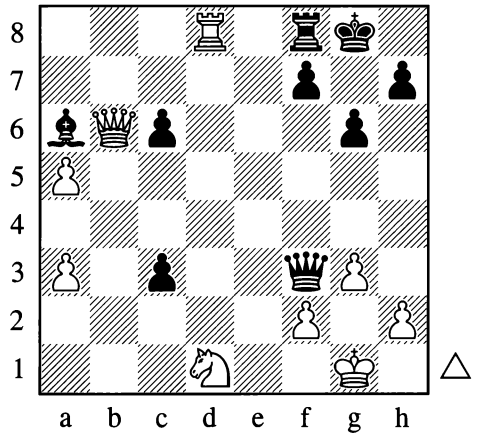
Where do we put queen endings on this scale? It depends largely on how far advanced potential passed pawns are. The positional advantage needed to win a queen ending is often significant, while material is often less significant.

So, when we are making exchanges, we can with some benefit consider the winnability scale of endings, even if it is not as fixed as we may like.

In the following example from the open German Championship, both players could have used it advantageously.

Dirk Lampe – Martin Niering

Magdeburg 2021



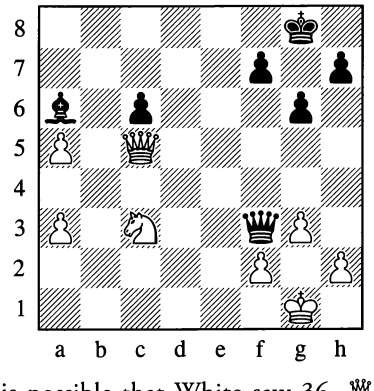
34.♖xf8†

There is nothing wrong with exchanging the rooks.

34...♔xf8 35.♘xc3?

But this is a mistake.

35.♕c5†! ♔g8 36.♘xc3 would have consolidated a large advantage.

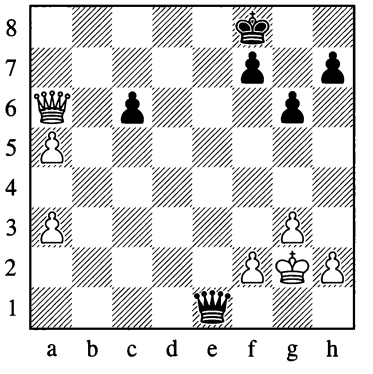


It is possible that White saw 36...♕d3 and decided to eliminate the bishop urgently. But after 37.h4!, all Black is threatening is a check.

35...♕d3?

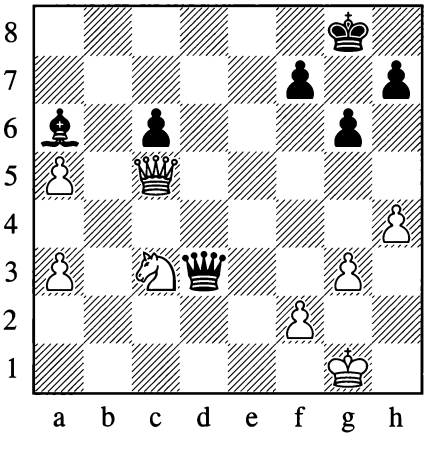
Black transposes back, missing the chance for the real escape.

35...♕xc3! 36.♕xa6 ♕e1† 37.♔g2



37...♕e4† with perpetual.

36.♕c5† ♔g8 37.h4



White is back in control and won easily.

37...♕f1† 38.♔h2 ♗c8 39.♕e3 ♕h3† 40.♔g1 c5 41.♕e8† ♔g7 42.♕e5† ♔g8 43.♘d5 ♗a6 44.♘f6† ♔g7 45.♘h5† ♔f8 46.♕d6†

1–0

6. Exchanging one set of rooks only

This idea was first passed to me from Grandmaster Artur Yusupov. It goes something like this: In positions where you have an advantage, it is frequently a good idea to exchange one set of rooks, as removing one rook from the opponent removes a lot of potential counterplay. Just imagine a pair of rooks on the second rank instead of a single rook. On the other hand, we frequently have to keep one rook on the board, as we will need it to be able to attack the opponent's weaknesses.

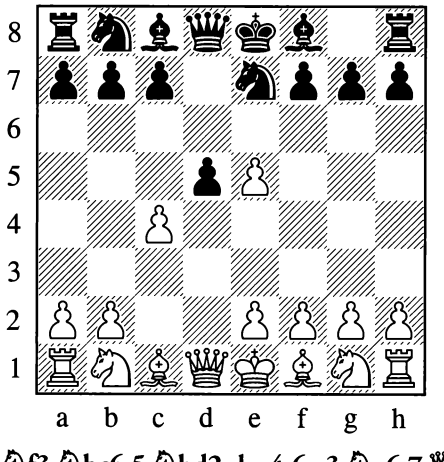
The idea is compelling and I found myself explaining this to many students over the years. There are undoubtedly many scenarios where it is a powerful strategy. The first example we shall see of this, happened in an Internet rapid game during the pandemic.

Sam Shankland – Daniil Dubov

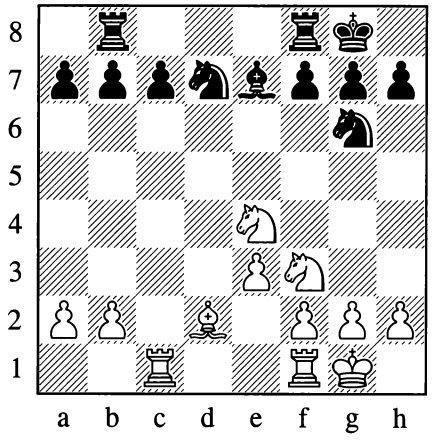
Internet 2021

1.d4 d5 2.c4 e5 3.dxe5 ♘e7

Dubov tries to take his opponent into a muddy territory, but Shankland decides to play it safe instead.



4.♘f3 ♘bc6 5.♘bd2 dxc4 6.e3 ♘g6 7.♕a4 ♗d7 8.e6 ♗xe6 9.♗xc4 ♗xc4 10.♕xc4 ♗e7 11.0–0 0–0 12.♕b5 ♖b8 13.♘e4 ♕d7 14.♗d2 ♘ce5 15.♕xd7 ♘xd7 16.♖ac1



The opening could be said to have been a success for Black, who has undoubtedly solved all problems. On the other hand, he failed to create the mess he so desperately wanted.

16...c5?!

To me, putting the pawn on the same square as the bishop is positionally very risky and requires accurate play subsequently.

17.♖fd1 ♖fd8

And this does not happen.

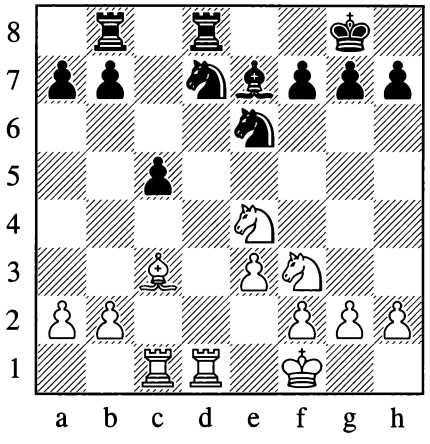
17...f5! equalises. So, you could argue that this is the mistake. But to me it is the previous move that is conceptually wrong. Making a structurally poor decision without having the intention or method to back it up is the mistake, rather than failing to back up the decision afterwards when this was not the intention.

18.♗c3

We have to remember that this is a rapid game. Deciding where the bishop belongs is not a job for now. But the king needs to join the game.

18.♔f1! was a bit more accurate, as after 18...f5? 19.♘g3! ♖f8 20.♗c3 Black is not in time to be organised. 20...♖bd8 21.♖d5 and White is more or less winning.

18...♘gf8 19.♔f1 ♘e6



White's future is on the kingside. His powerful bishop on the long diagonal, together with his pawn majority, can be used both to create threats and to squeeze the black pieces.

20.b3

20.g4! immediately is much stronger. Followed by ♔e2 and h4, White has a clear and powerful strategy to follow up on.

20...f6?

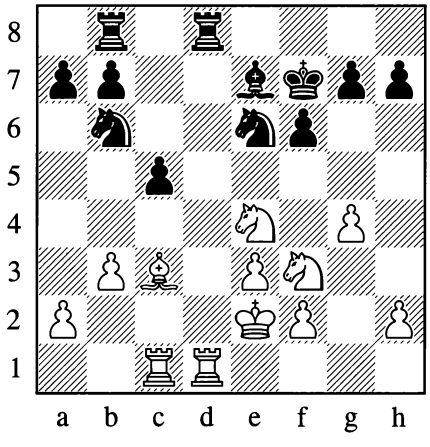
Dubov places another pawn on a dark square. I presume this was done with the intention of blunting the power of the white bishop. But what it is really achieving is to create a target for a g4-g5 punch, as well as putting yet another pawn on the dark squares. As we shall see, this may not be a problem if Black keeps flexibility with his pawns. It is not as simple as pawns placed on the same colour as the bishop being just bad. But it does have some downsides that Black has to be ready to solve later. At this point I see no reason for playing like this.

20...f5! 21.♘g3 (21.♘d6 ♗xd6 22.♖xd6 ♔f7 with the intention of ...♘df8 looks reasonable for Black.) 21...g6 does not solve all of Black's problems, but it comes close. White would not have the same ability to create a powerful pawn storm on the kingside. White can still fight for an advantage with 22.e4, although both taking on e4 and playing 22...f4!? 23.♘e2 ♘f6 give Black more counterplay than he would have had after 20.g4!.

21.♔e2 ♔f7 22.g4!

A traditional technical push, which at a minimum prevents Black from putting the pawns on light squares.

22...♘b6



The knight is not too comfortable on b6, but could later be so on d5-b4, where it is able to create some counterplay. White needs to have a plan for how to deal with this. Also, the direct contact between the rooks opens the question: which exchanges are good for White?

As so often in chess, there is no definitive answer and several approaches make a lot of sense.

23.♗a5!?

A decent move that forced Black to make an uncomfortable exchange of rooks, surrendering the d-line as the start of a minor retreat. Let's look at other possible approaches to the position.

23.♘fd2

This would focus on expanding on the kingside.

23...♘d5 24.f4!?

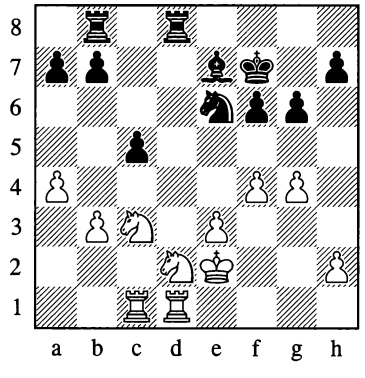
This may well be the strongest move, provoking Black to take on c3. An invitation he should consider declining (24...g6 25.h4!? could be a likely continuation).

24...♘xc3† 25.♘xc3 g6

White has a number of ways to play for a good knight vs bad bishop scenario. He could play 26.f5!?, fixing the f6-pawn. The e5-square would be useful for Black in the long term, but he would have to regroup without losing something first. Also 26.h4 followed by g4-g5, trying to create a pawn structure where the white pawns dominate the black bishop, and where White might get a powerful passed pawn in the centre, looks tempting.

26.a4!

The most natural move to my eyes, played with the idea of creating a strong square on c4 for the knight, courtesy of the poorly-placed c5-pawn.



After 26...a6 comes 27.a5!, fixing the pawn structure in an unfavourable format for Black. Slower play looks very dangerous for Black:

26...b6 27.♘c4 a6

Although the threat of ...b5 is not that powerful, this is a natural place for White to act, with either 28.f5!? or trying to cash in with:

28.♖xd8 ♘xd8 29.♘d5 b5 30.♘d2

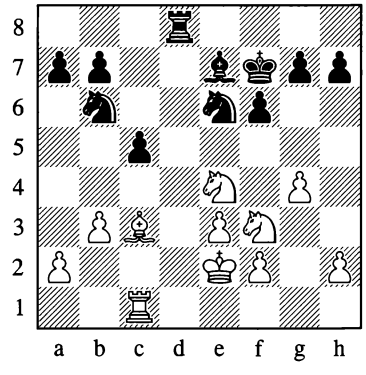
Black is under a lot of pressure.

When no clear path to victory exists, there can be many ideas, and during a game you have to make a guess based on your understanding of and beliefs about the game. I think this might have been the moment to follow Yusupov's advice and exchange one set of rooks, particularly as there is no pleasant recapture.

23.♖xd8! ♖xd8

23...♗xd8?! 24.♗a5 will either lead to a worse version of 23...♖xd8 after 24...♗e7, or Black will have to give up a pawn.

White is clearly far better coordinated after 23...♘xd8 24.♗a5! ♘d7 25.♖d1 ♔e8 26.h4, but all the same, this type of passive position, but without unfavourable exchanges or additional weaknesses, may very well be Black's best option.



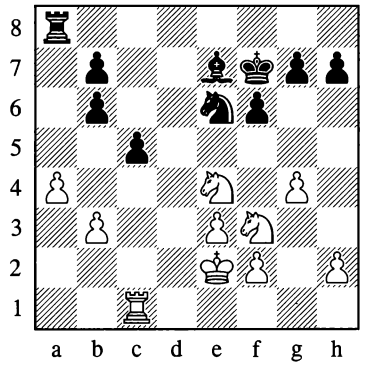
24.♗a5!

Very unpleasant. It is now hard to come up with a move like:

24...♖a8!?

This is the computer's recommendation. White can laugh at the black rook and play 25.a4, seriously threatening to take on b6 with a permanent advantage. What can Black do? 25...♘c8 perhaps? Certainly, this is unpleasant. On the other hand, White can force very concrete play with:

25.♗xb6 axb6 26.a4!

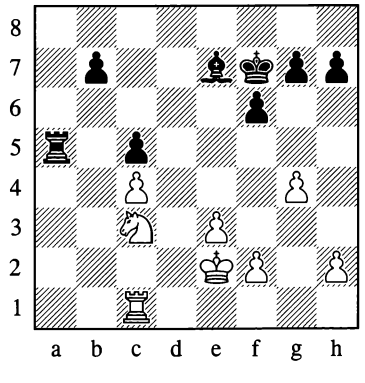


After these moves we are starting to see real problems for Black with the earlier decisions of 16...c5 and 20...f6. The bishop on e7 is now unequivocally bad and given endless time, White will place the knights on c3 and c4, after which the position is close to technically winning. Black is forced to seek concrete play:

26...b5!? 27.axb5 ♖a5 28.♘c3 ♘c7 29.b6! ♘a8 30.♘d2

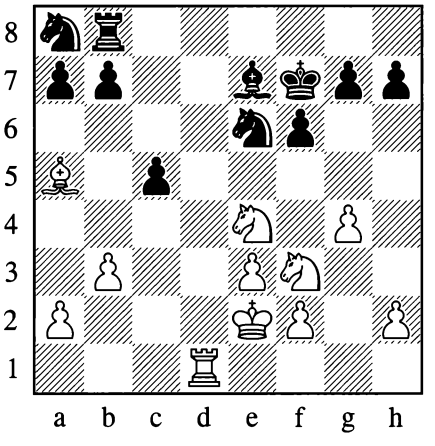
I like the clarity of this move, although 30.♘d5!? is also challenging for Black.

30...♘xb6 31.♘c4 ♘xc4 32.bxc4



White has a clear advantage with the better pawn structure (hello c5!) and a good knight against a useless bishop. Is this enough to win? Who cares. Chess is a game with a fairly wide drawing margin. To cross the river from the bank of stability, that we call the starting position, to the other side, where winners reside, we have to overcome many currents and avoid treacherous rocks. To debate how far we are on that journey is often irrelevant. What matters is that we are progressing in the right direction.

23...♖xd1 24.♖xd1 ♘a8!



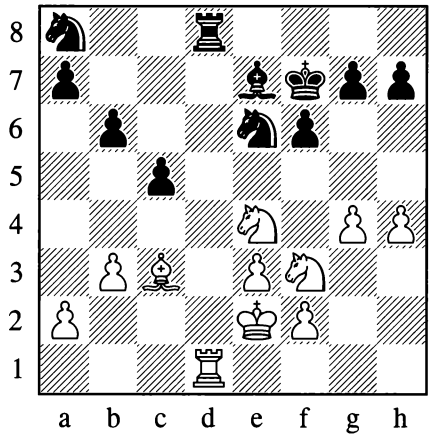
This looks peculiar, but actually this strong regrouping is the main reason 23.♖xd8! was stronger. If Black had had to put the knight on d7 and play ...b6, the knight would be utterly deprived of transition squares. As the same is the case of the other black minor pieces, we can start to understand the bind Black has put himself in with the placement of his most-advanced pawns on dark squares.

25.h4

I think most grandmasters would play this move almost automatically.

But we should note that 25.♘fd2!? b6 26.♗c3 with the idea 27.f4!? would also give White some advantage.

25...b6 26.♗c3 ♖d8



We have reached the most important position in the game. White's advantage is obvious, although it is also possible to overestimate it. His pieces are superior and his advance on the kingside is more progressed than Black's on the queenside. But although Black is doing poorly on the light squares, White is also rather unable to supply any pressure there. And a breakthrough on the kingside can easily turn out to be more complicated than on first appearances.

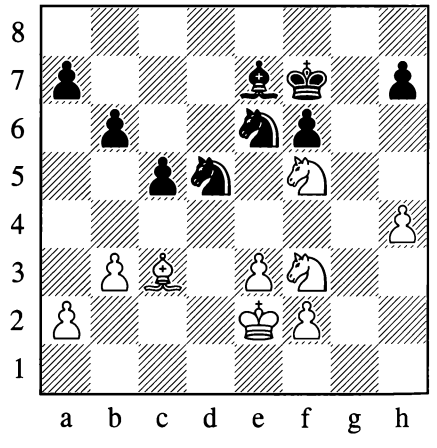
27.♖xd8?

But this move immediately removes all of Black's fears. White's minor pieces will not solely be able to create significant threats. The main outcome of this exchange is a sigh of relief from the black king, which could very well have become a target for an aggressive white push on the kingside, but is now elevated to being the strongest piece on the board.

It is not clear to me that White's advantage is really serious at this point; but at the same time it is definitely real. Whether it would be with 27.♖g1, 27.♖h1 or maybe 27.♘fd2 to play f2-f4, White is definitely able to push on the kingside; as long as he keeps the rooks on the board.

But Sam, making the decision largely on instinct, was not prepared to give up the d-file. This is obviously a superficial judgement, which should be blamed solely on faster time controls and 2D boards. Black cannot do anything on the d-line, and with the exchange of rooks, neither can White.

27...♘xd8 28.g5 ♘e6 29.gxf6 gxf6 30.♘g3 ♘ac7 31.♘f5 ♘d5

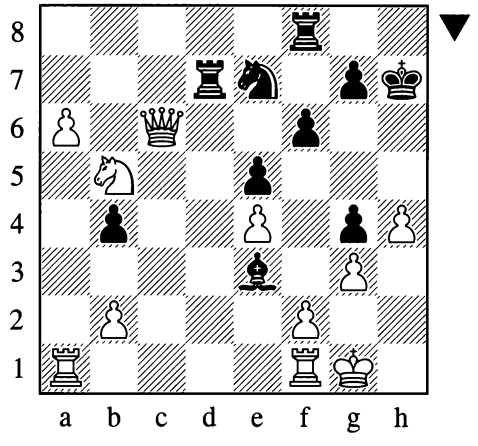


Black has fully equalised. His pawn majority on the queenside is, if anything, more important than White's on the kingside, as the kings operate there. Later on, White overpressed and got into trouble and eventually lost the game on move 71.

The following example shows an interesting comparison between one or two rooks on the board.

Wesley So – Teimour Radjabov

Internet 2020



34...♗xf2†?

Losing a vital tempo. The pawn is not significant, but White's threats on the queenside are far more important.

Black would have been fine after 34...♘xc6 35.fxe3 ♘a7!, when the e3-pawn has no value.

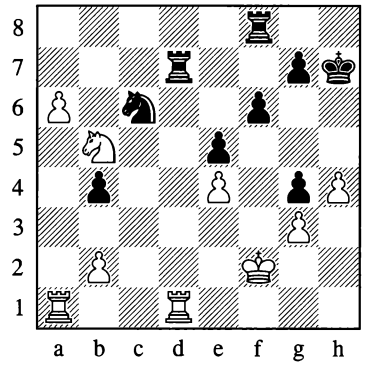
35.♔xf2 ♘xc6

The critical moment of the game. How should White exploit his positional advantage?

36.♖fc1?

Forcing Black to do what he want to do.

The challenging move was based on exchanging Black's only active piece.
36.♖fd1!



An important comparison, which should help us understand the position, is that if Black played 36...♖fd8, White would exchange on d7 and either push the a-pawn, or play 38.♔e3, preparing for a winning rook ending. We can see in those lines that Black is benefitting a lot from having two rooks. One to block the a-pawn and one to create active options. With only one set of rooks on the board, White will be able to play actively with the king in a way he cannot with two sets on the board.

The options are now:

a) Passive defence with 36...♖xd1 37.♖xd1 ♖a8 was hopeless. After 38.♖a1, White is threatening 39.a7 and 40.♖a6 with no obvious way for Black to stop it. For example: 38...♘a7 39.♘xa7 ♖xa7 40.♔e3 and the king comes.

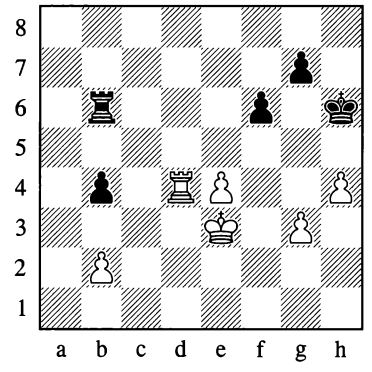
b) 36...♘d4

This would keep the rooks on the board, but fails to block the a-pawn, for now. Still, keeping two sets of rooks on the board is an absolute must.

37.♔e3 ♖fd8 38.♘xd4 exd4† 39.♔f4

White did not manage to exchange a set of rooks, but he makes progress elsewhere.

39...d3 40.♔xg4 ♖a7 41.♔f3 ♖d6 42.♔e3 ♖axa6 43.♖xa6 ♖xa6 44.♖xd3 ♔h6 45.♖d4 ♖b6



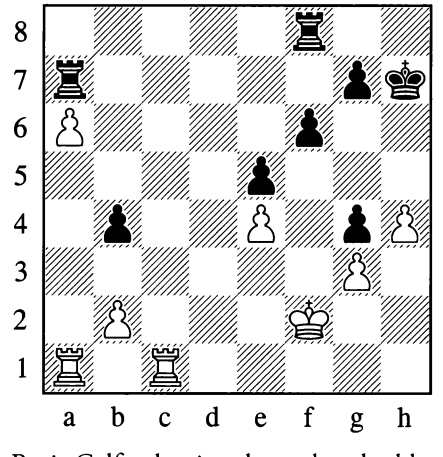
46.g4

White is probably winning, but it will be close after:

46...b3 47.♔f4 ♔g6 48.e5 fxe5† 49.♔xe5

We can keep going deeper and deeper, but we can also make a general observation. The white pieces are better and he has an extra pawn. A win should be within reach.

36...♘a7! 37.♘xa7 ♖xa7



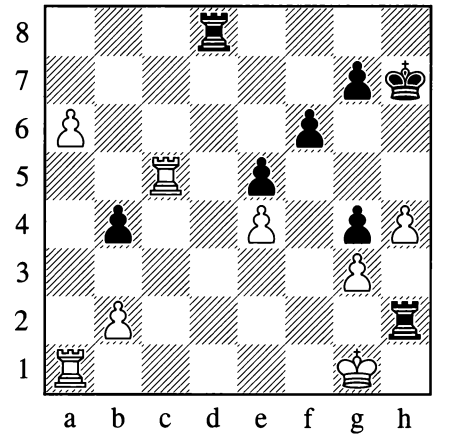
Boris Gelfand pointed out that double-rook endgames have a greater drawing tendency than single-rook endings. Often it is through the possibilities for counterplay that only exist when there are two rooks that can coordinate well together.

In this instance, the superfluous white rook is finding it difficult to do anything active, while the black rook is roaming free.

38.♖c6 ♖d8 39.♔e3

39.♔e2 ♖d4 also gave Black counterplay.

39...♖ad7 40.♖c5 ♖d3† 41.♔f2 ♖d2† 42.♔f1 ♖h2 43.♔g1



43...♖dd2 44.♖b1 ♖dg2† 45.♔f1 ♖f2† 46.♔g1 ♖fg2† 47.♔f1 ♖f2† 48.♔g1 ♖hg2† 49.♔h1 f5 50.a7 f4 51.gxf4 ♖h2† 52.♔g1 ♖fg2† 53.♔f1 ♖f2† 54.♔g1! ♖hg2† 55.♔h1 ♖h2† 56.♔g1

½–½

Anthony Miles – Bent Larsen

Tilburg 1978

The following game was part of Yusupov's excellent lecture on the exchange of one set of rooks. I dug it up with the intention of not only reliving the glory of Artur's clear and clean teaching, but also to find balance within my dual Danish/British citizenry. On page 586 I showed a brilliant endgame performance by the first Danish Grandmaster, Larsen, against the first British Grandmaster, Miles. So, the structural balance of showing a great endgame performance by Miles against Larsen was compelling.

However, it turns out that this is not what we are going to see.

Once when I was chatting with Yusupov, he speculated that the reason we have seen so many young players reach grandmaster level at a young age in the last 20 years is inevitably linked to the rise of chess-playing computer programs. "When we were young, we simply did not have as good information!" he exclaimed. It is the nature of a great teacher, that even when he says something that turns out not to be true, he will still have made you think and developed your understanding of the world. In this case, the concept of keeping a rook on the board is definitely useful, as we saw in the Shankland – Dubov game, but chess remains a complicated game. I believe that Yusupov followed the annotations of Miles from a source I am not familiar with, as some sparse notes are attached to the game in the Mega Database, which follows Yusupov's narrative. The reality was different.

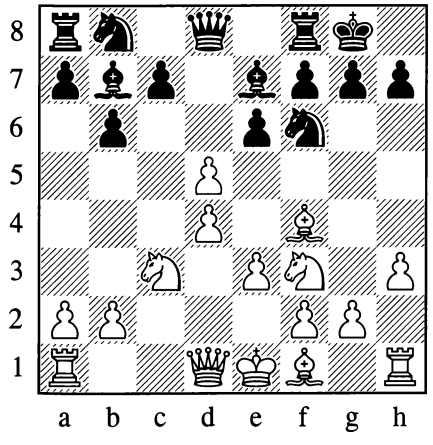
1.d4 ♘f6 2.♘f3 e6 3.c4 b6 4.♗f4

Miles liked to play offbeat variations, hoping instead to outplay his opponents later.

4...♗b7 5.e3 ♗e7 6.h3

White has to play this, or ...♘h5 will deprive him of his best piece. But it is also a rather obvious loss of time.

6...0–0 7.♘c3 d5 8.cxd5

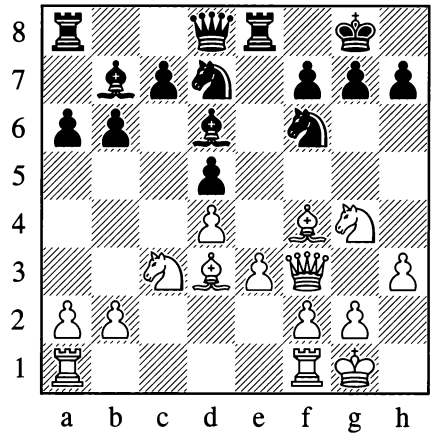


8...exd5?

A decision few GMs would make these days. The bishop on b7 is ugly and White's structure simply permanently preferable.

8...♘xd5 9.♘xd5 ♕xd5! would have equalised easily. The key point is that 10.♗xc7? is just horrible. 10...♗b4† (10...♖c8!? may be even stronger.) 11.♘d2 ♘c6 White is forced to play 12.a3 ♗xd2† 13.♕xd2 ♖ac8 14.♗g3 ♘a5, but is already clearly worse.

9.♗d3 ♘bd7 10.0–0 a6 11.♘e5 ♖e8 12.♕f3 ♗d6 13.♘g4



13...♘e4

This move is not objectively incorrect, only the intention is poor.

13...♗xf4 14.♕xf4 ♘xg4 15.hxg4 ♘f8 was more natural, but White still has a good bishop vs bad bishop structural advantage.

14.♗xd6 cxd6?

An awful move that no one should make unless they are in a hostage situation, trying to signal for help. The doubled pawns are obvious weaknesses and entirely without flexibility. Their ability to deny White access to certain central squares is an entirely passive property, which does not consider the

long-term downsides, once White has reorganised his minor pieces to play around the pawns. But the worst crime committed is against the bishop on b7, which in a position with hanging pawns could hope to come alive after a later ...d5-d4 break; or in a position where Black plays ...c5 and White refrains from taking on c5, could provide structural backup, while the pawns create a majority on the queenside with ...c4, ...b5 and so on.

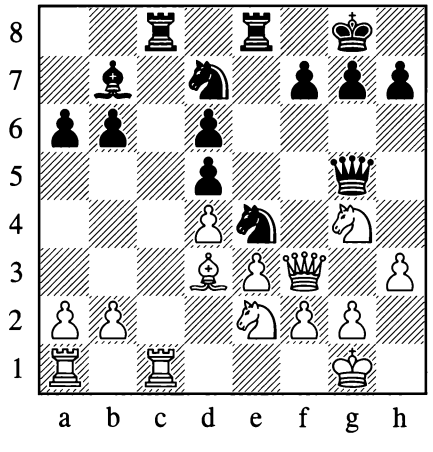
Now only misery for the clergy is visible in the crystal ball.

It thus follows naturally that the tactical solution 14...♘xd6! was stronger. Now White should play quietly.

Something like 15.♕g3!? and 16.b4 would give White a pleasant position.

15.♘xd5 on the other hand would be bad. After 15...h5 16.♘h2 ♕g5 17.e4 ♗xd5 18.exd5 ♘f6 Black is not worse at all.

15.♖fc1 ♕g5 16.♘e2 ♖ac8



The first surprising moment of the game. Miles likes the long-term outlook of his structural advantage and decides to go for the endgame. As this was a successful strategy and certainly not a stupid one, there would have been no reason for Miles or others to have doubted this move at the time.

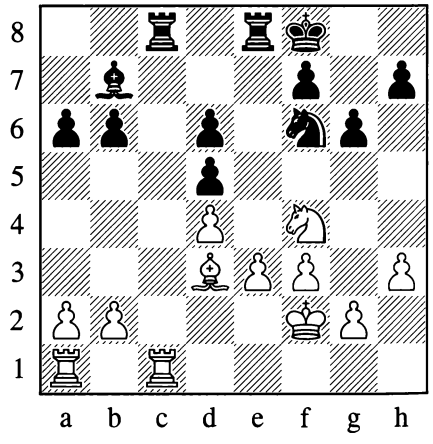
17.♕f4!?

But with the help of Stockfish 12, we are provided with a contrarian idea.

17.♗xe4! looks poor at first glance, solving more problems for Black than anything else. But look a bit closer and you will see that the bishop on b7 remains poor and that White has tactical options exploiting the weak dark squares in the black position. 17...dxe4 18.♕g3 Actually, finding a move for Black is impossible. 18...d5 19.♖c7 is just bad, bad, bad. And after 18...♕g6 19.♘f4 ♕g5 20.h4 Black needs to resign in the view of ♘h6†, heading for f5, and ♘h5.

17...♕xf4 18.♘xf4 g6 19.f3 ♘ef6 20.♘xf6† ♘xf6 21.♔f2 ♔f8

I cannot fully work out if it was better to play 21...h5.



White's structural advantage is obvious. His bishop is powerful and his pawns as flexible as can be. With the bishop parked on b7, it is obvious that White's advantage is on the kingside.

22.g4!

The typical space-grabbing move. White will advance the pawns on the kingside in an

effort to create weaknesses. In that respect, the g6-pawn helps.

22...♔e7

Since we are discussing the possible exchanges of rooks, it is useful to mention that 22...♖xc1? 23.♖xc1 ♖c8 is not available on account of 24.♖xc8† ♗xc8 25.g5 and White wins a pawn for starters.

22...g5 23.♘e2 ♖xc1 24.♖xc1 ♖c8

This would not fail in the same way. Rather, White would keep on one set of rooks, following Yusupov's advice, and play:

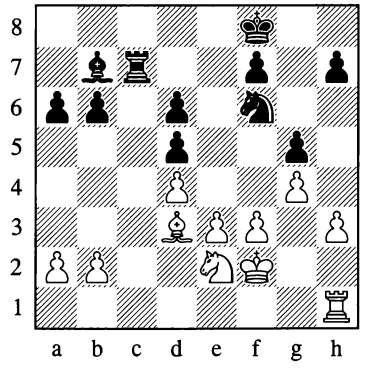
25.♖h1

Intending to follow with h3-h4. Black would have to play ...h6, when ♘g3-f5 would hurt badly. The only idea I can see for Black is to try to play ...♗c8. But leaving the c-file is not an option.

After:

25...♖c7

White can penetrate through the h-line.



26.h4 h6 27.hxg5

Allowing Black to get rid of the h-pawn for tactical reasons only.

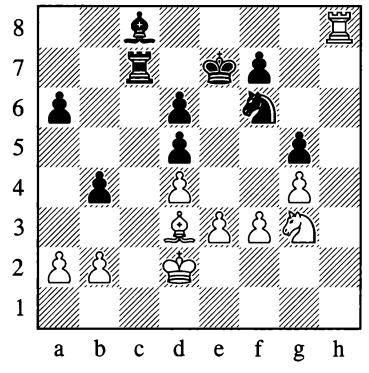
27...hxg5 28.♖h8† ♔e7 29.♘g3 ♗c8 30.♔e2!

The king is the only piece not working, so it is sent to defend against alien invasion on c2.

30...b5

Black has to play something...

31.♔d2 b4



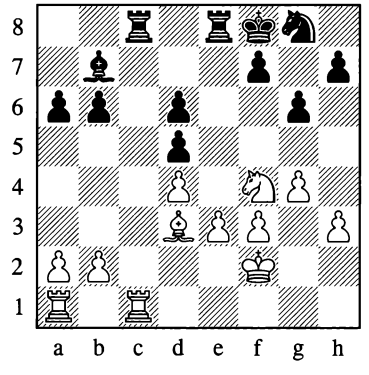
32.♗f5

White either wins the f5-square for the knight, making it impossible for Black to defend everything, or breaks through with the rook to the queenside after:

32...♗e6 33.♖b8

And White is on the cusp of winning.

So, finally, the best defensive option for Black might be: 22...♘g8!?



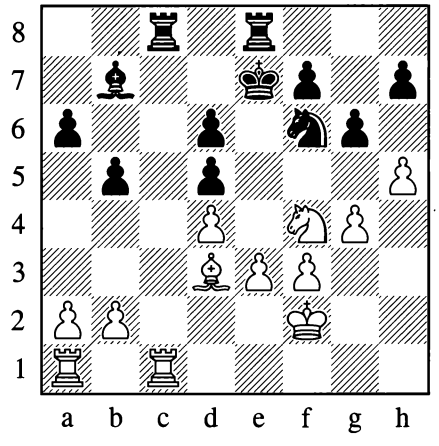
The idea is to play ...♘e7 and then start to exchange rooks. Should White allow this? According to Yusupov's advice, the answer is yes. But this is where understanding such advice in its entirety comes in handy. The purpose of exchanging a set of rooks is to prevent counterplay. But it is very hard to conceptualise how Black is going to double rooks in the c-line and then penetrate to c1. The real idea for Black needs to be concerned with exchanging the d3-bishop. At the moment

it is hard to see how this is going to happen.

So, for this reason, I would be tempted to play 23.♖h1, claiming that having the possibility to double rooks in the h-line is the more important idea.

But also 23.♖xc8 ♖xc8 24.h4 ♘e7 25.a4!? with the idea ♖a3-b3, as suggested by Stockfish, is interesting. Essentially, White is much better however he chooses to play, so the main approach should include a clear plan for the next 10-15 moves.

23.h4 b5 24.h5

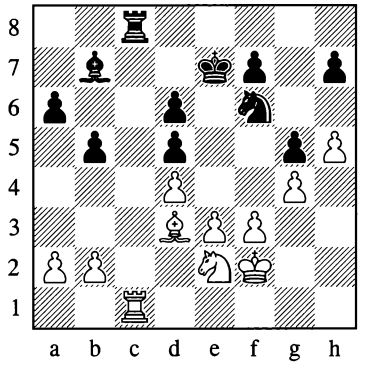


24...♘d7

Following the considerations above, it would be natural for Black to attempt:

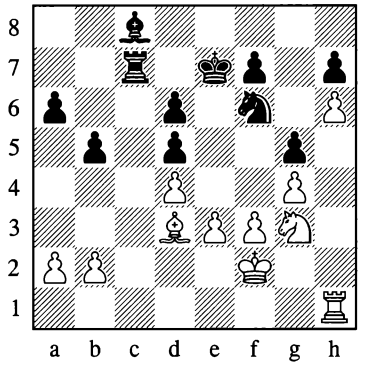
24...g5 25.♘e2 ♖xc1 26.♖xc1 ♖c8

With the idea of building a sort of minor-piece fortress. First off, the kingside is sort of closed off, and with the exchange of another set of rooks it would be hard to break through on the queenside. So, while I do not think White should be too concerned about allowing the first exchange, there are strong reasons to not allow the second.

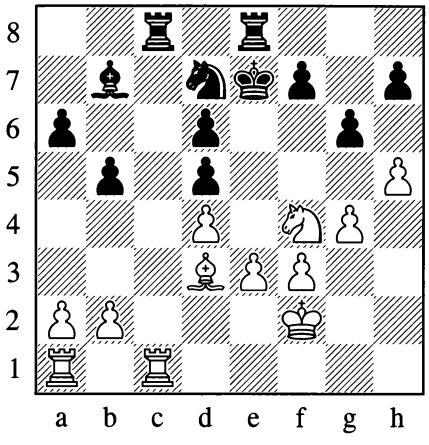


At this point White's most natural move is 27.♖a1, planning both ♘g3-f5 and later a break with a2-a4. But I am falling in love with a more abstract idea:

27.♖h1!? ♖c7 28.♘g3 ♗c8 29.h6!



As Black did not have time to play ...h6, White has managed to fix the h7-pawn as a target. Next comes ♔e2-d2, consolidating the advantage while Black is unable to do much, after which White can consider a variety of options. The win will not come effortlessly. Black is unlikely to helpfully fall over and die. But on the other hand, with decent technique, there is no reason to believe that Black will hold at all.



We have reached the position Yusupov was emphasising the most. White chooses to exchange one set of rooks, according to the advice.

25.♖xc8!?

But is this a good move? Certainly, it does not ruin anything. But I still fail to see the greater purpose of the move.

25.♖h1 still makes at least as much sense to me. While I like the general idea of preventing counterplay, we also have to ask ourselves if this counterplay is actually real. I cannot see that it is.

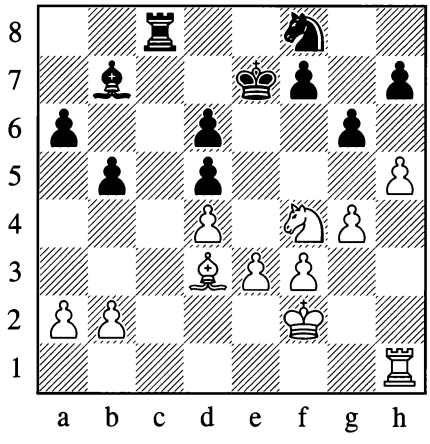
25...♖xc8 26.♖h1

In these post-AlphaZero times, it makes sense to mention that 26.a4 bxa4 27.♖xa4 ♖a8 28.h6!? is interesting too. The weakness of h7 is very long-term. But if anything comes of it, it will be detrimental to Black's chances of holding.

26...♘f8

Played out of sad necessity.

Miles has prophylactically prevented Black's only active idea. After 26...♘b6?, White wins by taking twice on g6 and playing ♖h7†.



To me this is where the game starts to get really interesting. White has with relatively simple play obtained a large advantage. With accurate play, it should be enough to win the game. And even after minor mistakes, he would retain a serious advantage. In practice this leads to high chances of success; partly because the opponent will be under sustained pressure and thus likely to make a mistake. This is what happened in the game. But what happened before this fatal error was a slow diminishing of White's advantage until the moment where decent defence was sufficient.

27.hxg6?

I believe this is played for expediency based on one little annoying detail. But letting go of the pressure and flexibility on the kingside is surely a loss.

27.♔e2 would be a natural idea, playing ♔d2 to prevent enemy intrusion. But after 27...g5!?, the knight suddenly has to take a very long and awkward route to find a good square.

The engine helpfully suggests that going in reverse with 27.♖a1!? was best. It does harmonise well with the idea of two weaknesses, by looking to create more weaknesses.

For this reason, I believe that the most logical move, for a human, would be to play:

27.g5!

The reasons are plentiful. First of all, it fixes the black pawns on the light squares. Secondly, it prepares ♔e2-d2, after which it is time to invade with the rook. Something like hxg6 hxg6 ♖h8-g8-g7 springs to mind. Also ♘e2, followed by f4, f5 and ♘f4 again looks dangerous for Black.

Basically, Black needs to do something, or he will find himself facing a perpetually improving white position.

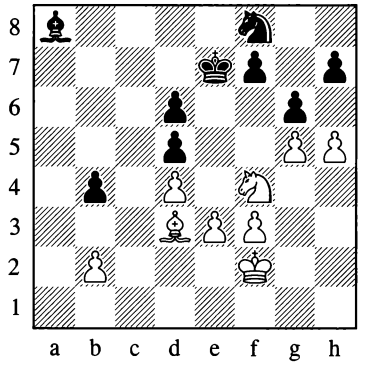
27...b4

I do not like passive play such as 27...♖c7 28.♔e2 .♘e6 29.♘xe6 ♔xe6 30.f4 ♗c8 31.♔d2 ♔e7 32.hxg6 hxg6 33.♖h7 ♔d8 34.♖h8† ♔e7, where White will continue to manoeuvre around, until Black's position springs a leak. Maybe: 35.♗c2 ♗g4 36.♗b3 ♗f3 37.♖a8 ♖c6 38.a4 ♔e6 39.♖e8† ♔d7 40.♖b8 and White wins material.

28.a3 a5

Active play can easily backfire. After 28...bxa3 29.bxa3 ♖c3 30.♖b1 ♗c6 31.♗xa6 ♖xa3 32.♗b7! White wins.

29.axb4 axb4 30.♖a1 ♖a8 31.♖xa8 ♗xa8



Structurally Black is worse, but could maybe hold it all together if White was acting too slowly. But there is no reason to do that.

32.♗c2!

Threatening both ♗b3 and ♘d3.

32...♘e6 33.♘xe6 ♔xe6 34.f4!

With the threat of f4-f5† followed by ♔g3-f4, winning.

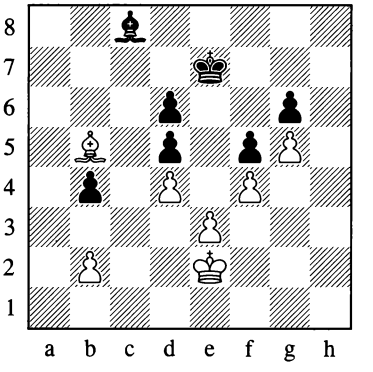
34...f5 35.hxg6 hxg6 36.♗a4!

Threatening ♗e8.

36...♔e7 37.♔e2 ♗b7 38.♗b5!

With total domination. White wins as slowly as he wants. Except Black has one last try.

38...♗c8!?



If Black is given time to play ...♗d7, he will hold. White's ♔c2-ideas will always face ...♗a4†.

39.♗c6! ♗a6† 40.♔d2 ♗c4 41.♔c2 b3† 42.♔c3 ♔d8 43.♔b4 ♔e7 44.♗b5

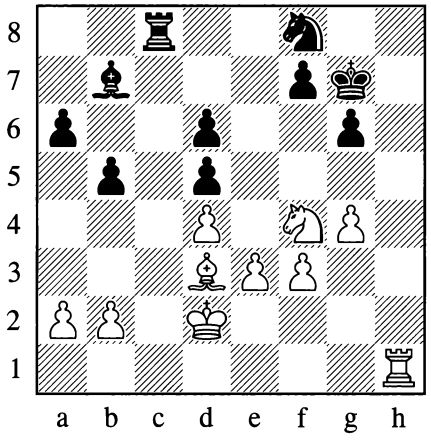
White wins.

27...hxg6 28.♔e2

Now White does not need to worry about ...g5 as he would have the h5-g3 route for the knight. But releasing the tension on the kingside is not without downsides.

28...♔f6 29.♔d2 ♔g7

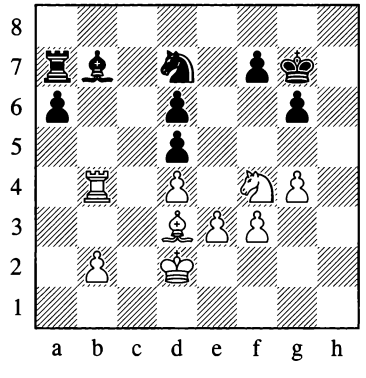
Black could also play 29...♘e6!?, but it is easy to understand why Larsen was not rushing to get closer to a bad bishop ending. Still, the exchange of the strong white knight would not be without merit, although ideas with ♖h7 should also be reckoned with.



30.♖c1?

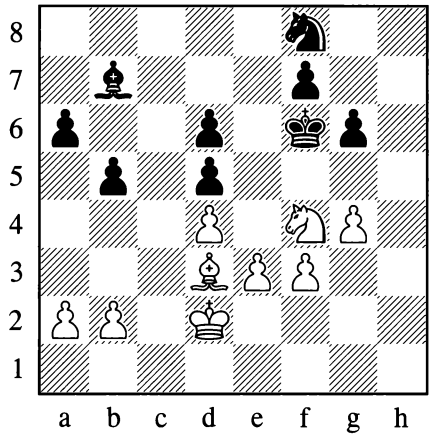
Yusupov was very impressed with this decision. Having lured the black king far from the queenside, White decides to exchange rooks in order to penetrate with his king. As this cannot be stopped, it is natural to believe that White will generally be successful. But as we shall see, the power of logic only goes so far. The test is on the board.

30.♖a1! followed by a2-a4 was still very dangerous for Black. It is possible that 30...♘d7 31.a4 bxa4 32.♖xa4 ♖a8 33.♖b4 ♖a7 holds.



But it is certainly very ugly. In practice Black would have to defend for a really long time.

30...♖xc1 31.♔xc1 ♔f6 32.♔d2

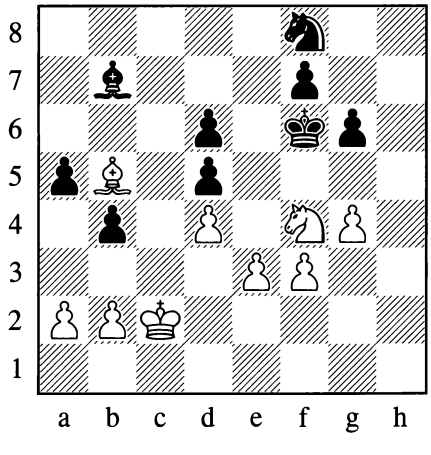


32...b4?

This is simply a tactical mistake. Yes, it would be great to prevent the white king from penetrating. But it is certainly not the only option.

Active counterplay was equally possible: 32...♔g5! 33.♘g2 ♘e6 34.♔c3 (34.♗e2 ♔f6 35.♔c3 ♘d8 36.♘f4 g5 37.♘h5† ♔e7 38.♘g3 ♗c8 39.a4 bxa4 40.♔b4 ♘c6† 41.♔xa4 ♔d8 also works) 34...f5! 35.gxf5 gxf5 White can allow ...f4, but it will also bind him to the kingside, where Black is the active player. 36.f4† ♔g4 I have analysed this endgame quite deeply and have not found any reason to believe that White should win it against decent defence.

33.♔c2 a5 34.♗b5!



Clearly Larsen missed this. White wins easily.

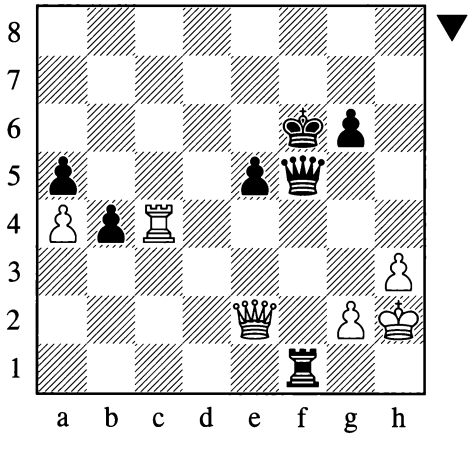
34...♘e6 35.♘xe6 fxe6 36.♔b3 ♔g5 37.♔a4 e5 38.♔xa5 exd4 39.exd4 ♔f4 40.♗d7 ♔e3 41.♔b6 ♗a8 42.♔a7 ♔xd4 43.f4
1–0

7. Transition into a winning ending

In the following example, Black should win any type of technical ending, on account of the two passed pawns and more active pieces. The only thing that can get in the way is what happened in the game: counterplay against the black king.

Nodirbek Yakubboev – Javokhir Sindarov

Tashkent 2021



56...♕f2?

Allowing a perpetual check.

56...b3 was suggested by one student at Killer Chess Training Academy. One idea is that 57.♕d2 can be met with 57...♖h1†!, going into a winning endgame.

But 57.♖g4!! is a stunning move. The queen is free to seek counter-chances and surprisingly, it will be enough to make the draw.

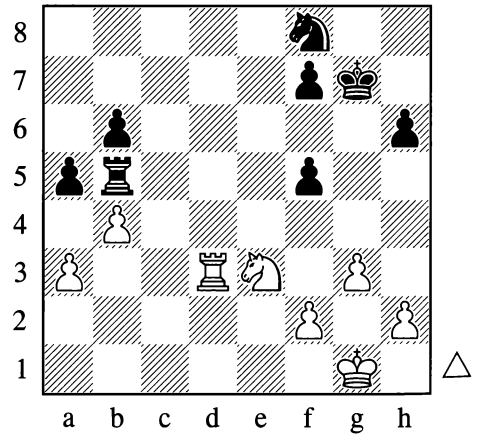
The winning move was 56...♖c1! forcing the rooks off the board. There is no reason to overcomplicate things. Let's just stop here.

57.♖c6† ♔f7 58.♖c7† ♔f6 59.♖c6† ♔f7 60.♖c7† ♔f6
½–½

The final example concerning a possible exchange of rooks is also far from obvious, until you analyse deeper. The Dutch number one played the most tempting move.

Anish Giri – Jan-Krzysztof Duda

Internet 2021



28.♘d5? axb4 29.axb4

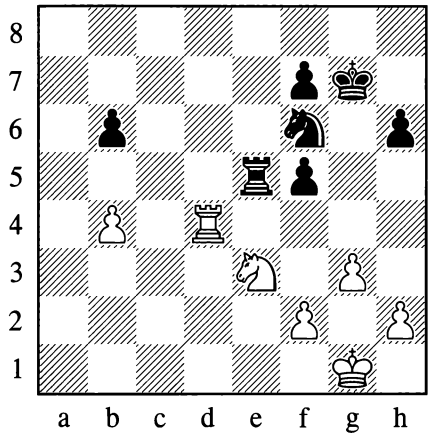
Given enough time, White would play f2-f4, with the double threat of slowly advancing the white king from g1 to c4, or if the black knight jumps around too much, ♖d4 and ♘c3, trapping the rook on b5. It is easy to see what attracted Giri to this possibility.

29...♘h7!

Bringing the knight in to fight against the d5-knight.

30.♖d4 ♘f6 31.♘e3 ♖e5

Curiously, regrouping the knight with 31...♘g8! to head for c6 was better. After 32.♘d5 ♘f6 White would have to look for a different direction.



32.♔f1

Somehow 32.♔g2! was better. The white king is not well placed on e2, giving Black chances for active counterplay.

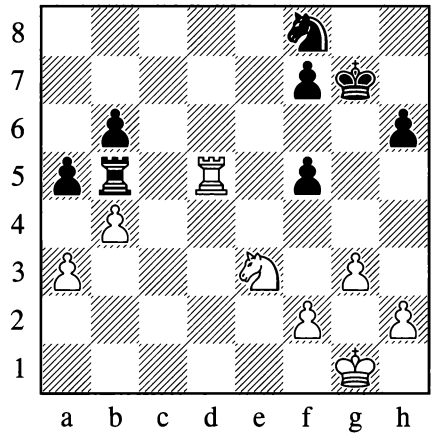
32...♔g6 33.♔e2 ♖e6

Black held a draw some 39 moves later. At this point active play would already have fully equalised:

33...h5! 34.h4 ♘g4 35.♖d6† f6 36.♖xb6 ♖e4! 37.♖b8 f4 and the extra pawn means nothing, as all of White's other pawns will be weak.

It is only after you find the brilliant knight manoeuvres Duda played in the game that you start to question White's strategy. The most compelling alternative would not be to play 28.♖d4 or in other ways defend the pawn with the rook, but to force an exchange.

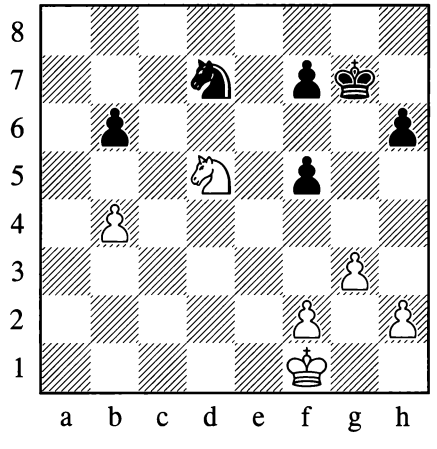
28.♖d5!



28...♖xd5 29.♘xd5

The immediate upside to the exchange of rooks is the attack on the b6-pawn. The black knight has to take a passive role. Compare this to the game, where the rook was certainly a bit awkward on b5, but was still pressing on b4, while effortlessly defending the b6-pawn.

29...♘d7 30.♔f1 axb4 31.axb4



At first glance, you may be forgiven for thinking that things have gone in Black's favour. The awkward rook is gone and a set of pawns have been exchanged. But there are a number of reasons why this is not the case. First off, the exchange of the rooks means that

Black is left with four weak pawns that it will be difficult to exchange and/or defend.

This alone is the entire decision process necessary to decide on exchanging the rooks. It sounds simple when written like this, but the reality is that reaching these realisations is anything but easy. And in this online rapid game, the players made most of their decisions on something we can call "somewhat qualified instinct".

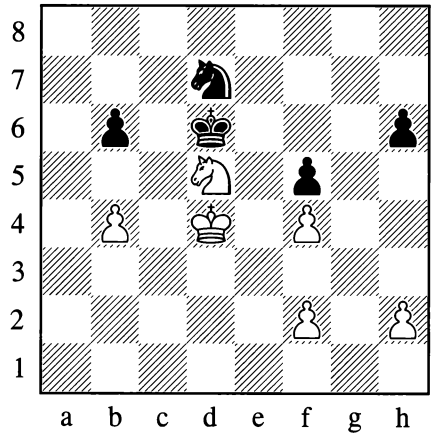
The following variations are just illustrations of how lost Black is. Not something anyone would seriously calculate. But as illustrations of how exploiting the obvious advantage might play out, some will find them as useful as I do.

31...f4

31...f6 32.♔e2 ♔f7 33.f4! ♔e6 34.♘c7† ♔d6 35.♘b5† ♔c6 36.♘d4† ♔d5 37.♔d3 White wins.

31...b5 32.♔e2 ♘b8 33.♔d3 ♘a6!? 34.♔e3 f6 35.♔f4 ♔g6 36.h4 h5 37.♔e3 ♔f7 38.♔d4 ♔e6 39.♘f4† ♔d6 40.♔c3 and White wins.

32.gxf4 ♔g6 33.♔e2 ♔f5 34.♔f3 ♔e6 35.♔e4 f5† 36.♔d4 ♔d6



37.♘e3 ♔e6 38.♔c4

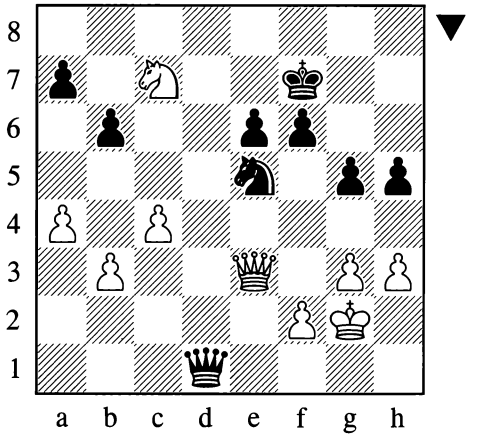
White wins.

8. Exchanging queens

One of the difficult things to determine is when to exchange queens. We shall see a few examples that may seem simple on the surface, but where grandmasters got it wrong.

Oswald Gschnitzer – SL Narayanan

Gibraltar 2020

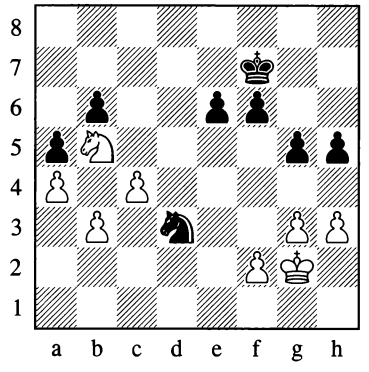


36...♕d7?

Narayanan is a strong tactician and a monster blitz player and all-round impressive character. But here he got overwhelmed with the tactical possibilities, rather than assessing the knight ending correctly.

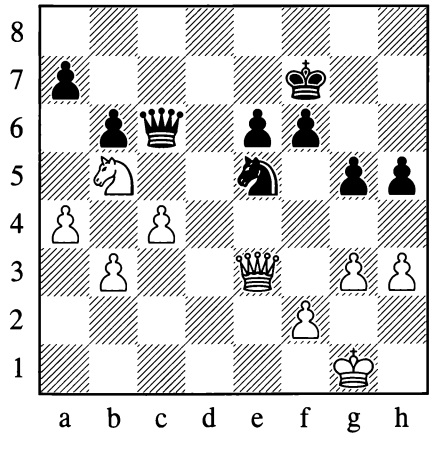
36...g4? 37.hxg4 hxg4 38.♕h6! would offer White a lot of counterplay. Black's chances of winning the game have gravely diminished.

36...♕d3! would have won the game quickly. 37.♕xd3 (37.♘b5 ♕xe3 38.fxe3 a6 39.♘c7 a5 is similar. Black wins.) 37...♘xd3 38.♘b5 a5



White will not be able to defend the b3-pawn. How could Black have made this decision? Three steps. Knight endings are much easier to win than endings with queens. Seeing the opportunity of fixing the b3-pawn. And seeing that the king is more active.

37.♘b5 ♕c6† 38.♔g1



The check on f3 does no harm.

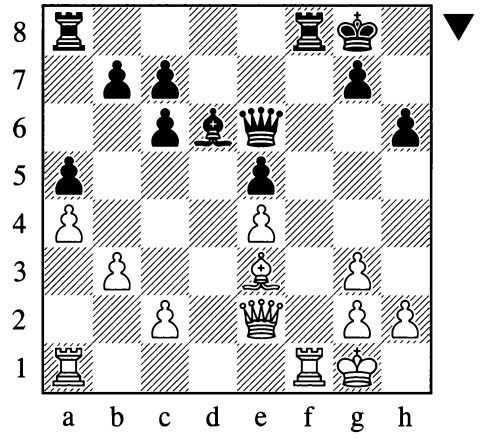
38...a6 39.♘d4 ♕d6 40.♔f1 g4 41.hxg4 hxg4 42.♔e2

The game was drawn on move 58.

The next game also centres strategically around the exchange of queens.

Harika Dronavalli – Ju Wenjun

Lausanne 2020



We start this example between two of the best female players in the world a bit early.

White is structurally slightly better, as her bishop is a lot stronger. Black's strategy should for this reason be focused on active play, I think.

17...♖xf1†

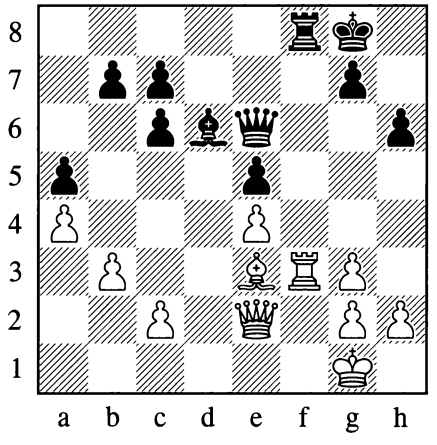
Nothing wrong with this exchange though. The f-line is not important.

18.♖xf1 ♖f8

The strongest was 18...b5! 19.axb5 a4 20.bxa4 ♖xa4 21.bxc6 ♖xe4, where the extra pawn is a fleeting factor and the activity of the black pieces more important. Black is fine.

19.♖f3

19.h4! was a nice option, aiming to fix weaknesses on the kingside.



19...♗e7

19...♖b8!, to create active play on the queenside, was a sound choice.

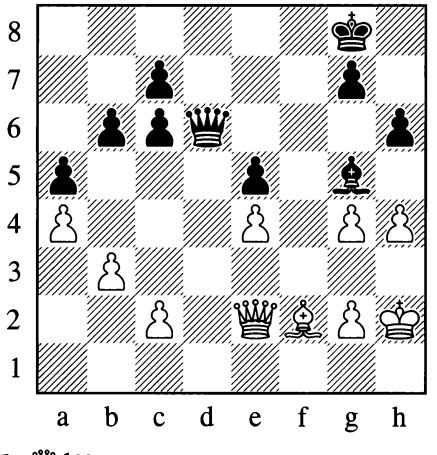
20.♖xf8†!

Exchanging the rooks makes the structural advantage more pronounced.

20...♗xf8 21.g4

21.h4! was still the strongest option, I think.

21...♗e7 22.h3 b6 23.♔h2 ♗g5 24.♗f2 ♕d6 25.h4

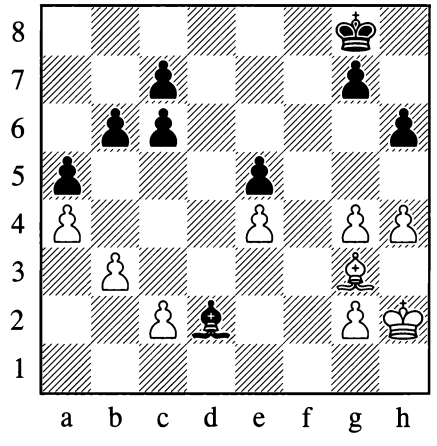


25...♕d2?

Ju Wenjun decides to exchange queens, which is a complete misunderstanding of the position. From the beginning, the only downside to the black position was the inferior bishop. By exchanging all the major pieces, Black has managed to make this the only factor remaining in the position.

After 25...♗f4† 26.g3 ♗d2 or 25...♗d2, White's advantage is rather limited.

26.♕xd2 ♗xd2 27.♗g3!



Not giving Black time to close the position with ...g5, which I presume was the World Champion's intention.

27...♗c3

The pawn ending after 27...♗f4 28.♗xf4 exf4 29.h5! and 30.g3! would win for White.

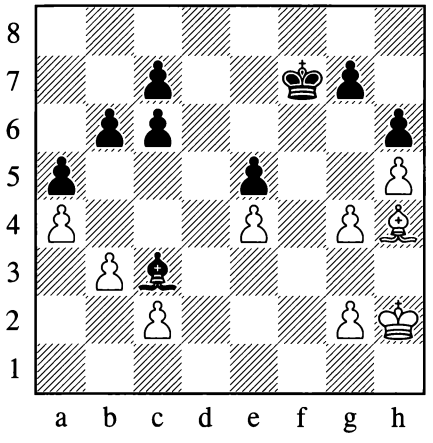
28.h5!

Finally fixing the h6-pawn on a dark square and making space for the bishop to invade the position.

28...♔f7

Also, after 28...c5 29.♗h4 c6 30.♔g3 b5 31.♗e7 c4 32.g5, White would eventually create a passed pawn on the kingside and win the game.

29.♗h4!



White is succeeding by one tempo only. Black is not in time to play ...♗d2, due to the threat of ♗h4-d8.

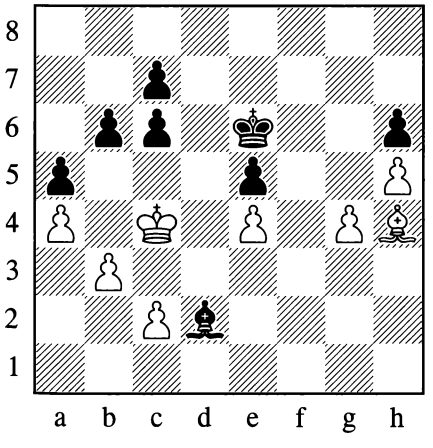
29...♔e6 30.g5! ♗d2 31.gxh6

The simplest, although 31.g6 also works.

31...gxh6 32.♔h3 ♗c1

Black has managed to stop g4-g5 for now, but all she can do is sit and wait while Harika finds a plan.

33.♔g4 ♗d2 34.♔f3 ♗c1 35.♔e2 ♗a3 36.g4 ♗c1 37.♔d3 ♗f4 38.♔c4 ♗d2 39.♔d3 ♗c1 40.♔c4 ♗d2



41.c3

Move 41 and Harika has had time to find a way forward. White creates a second weakness on the queenside.

41...♗e3

Black cannot stop the push.

41...c5 does not work. White will invade on the light squares. 42.♔b5 And if 42...♔d7, then White has 43.g5!, queening a kingside pawn.

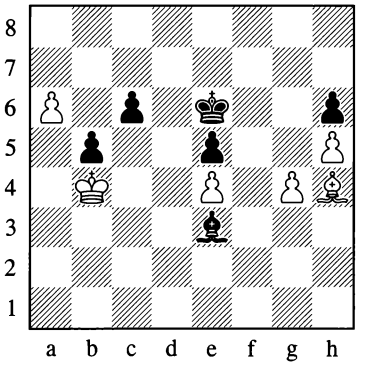
42.b4 axb4

Black has no good options.

42...♔d7 43.bxa5 bxa5 44.♔d3 ♗c1 45.♗e1 and the a5-pawn is not long for this world.

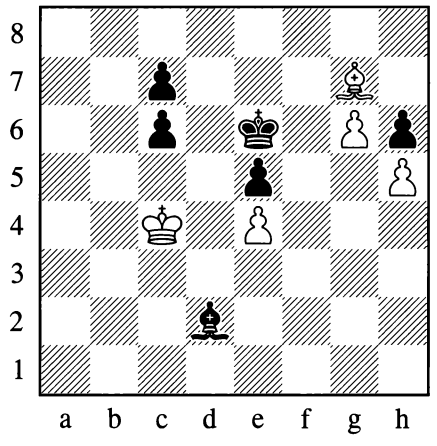
43.cxb4 ♗d2

White is winning any which way. For example: 43...c5 44.a5! cxb4 45.a6 b5† 46.♔xb4 c6



47.g5 hxg5 48.♗xg5! ♗a7 49.h6 ♔f7 50.♗e7 ♔g6 51.♗c5 ♗b8 52.a7 ♗xa7 53.♗xa7 ♔xh6 54.♗b8 and there are not many (any?) moves left to play before White wins.

44.♗d8 ♔d7 45.♗f6 ♔e6 46.♗g7 ♔d6 47.a5! bxa5 48.bxa5 ♗xa5 49.g5 ♔e6 50.g6 ♗d2



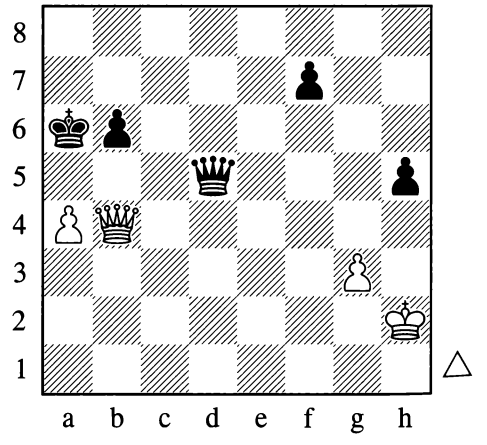
51.♗xe5 ♗e3 52.♗xc7 ♔f6 53.♗e5† ♔e6 54.♗d4
1–0

9. Pawn exchanges

As expressed above, the general idea of the defending side wanting to exchange pawns is valid, in the way that strategic concepts in general are valid: to go against them, we need to have a clear pay-off. And feeling like a rebel hotshot rule-breaker is not really what I am talking about. Below we shall see some harrowing examples of mistaken pawn exchanges. The overarching narrative is one of chess being a game of intelligence. And even highly intelligent individuals have moments of lesser intelligence. As readers of the Witcher Saga will know, the only eternal force in the Universe is stupidity. If any young and inexperienced person doubts this undeniable wisdom, please look through 35 years of chess games played by the author and you shall be converted.

Jovana Srdanovic – Milos Stankovic

Belgrade 2021



In the first example White is definitely struggling and, in addition, was low on time. One of the most difficult decisions to make in such situations is whether to wait or whether to play actively. For this reason, when you judge your advantageous position to not be

winning if you force matters, shuffling around is the grandmaster approach. Better scenarios may occur. And often, weaker players will feel uncomfortable about defending an inferior position for a longer period and will not understand well when they have to wait and when they have to be active.

Now, given a warm cup of tea and three cold sober minutes to think, Ms Srdanovic would presumably not have made the mistake she made, but in the game she did.

53.g4?

This move is bad not only because it loses by force. Also strategically, there is no valid reason for White to exchange the pawns. The h5-pawn is weaker than the g3-pawn, as it is harder to defend. The white king is not very useful, but it can defend the pawn. And the pawn defends the king.

53...hxg4 54.♕xg4 ♕d6†!

Obviously the best winning move. The queens come off and the game is over. But Black is winning no matter what.

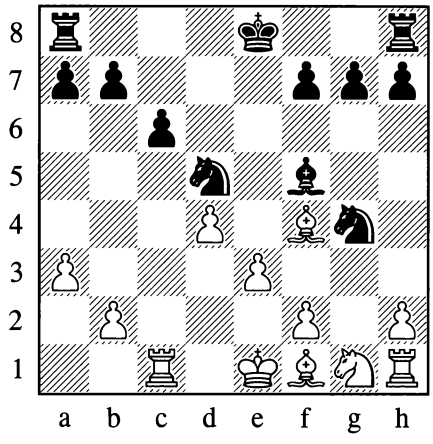
0–1

The following game was played in Italy at the beginning of 2021, when chess was restarting in Southern Europe. For some players, it was a time of triumph, as one year's hard work in isolation paid off. While for others, it was a rusty return to the board, often ending in disaster.

Luca Moroni Jr – Jan Subelj

Bassano 2021

1.c4 e6 2.♘c3 d5 3.d4 ♗e7 4.cxd5 exd5 5.♗f4 ♘f6 6.e3 ♗f5 7.♕b3 ♘c6 8.g4! ♘xg4 9.♕xd5 ♕xd5 10.♘xd5 ♗b4† 11.♘xb4 ♘xb4 12.♖c1 c6 13.a3 ♘d5



White has emerged with a structural advantage from the opening. But a common blunder turns the tables.

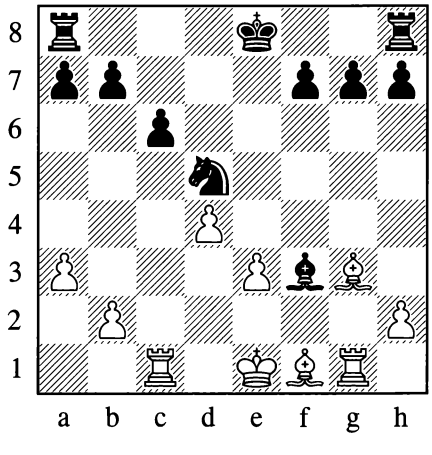
14.♗g3?

White should either have played 14.♘e2, ensuring the structural advantage, or 14.h3!? ♘gf6 15.♗e5 ♘d7 16.♗g3, when White is able to retain the two bishops and also the better pawn structure, although he remains a good deal behind in development.

14...♘gxe3!

A nice trick.

15.fxe3 ♗e4 16.♘f3 ♗xf3 17.♖g1



Black is obviously winning now. White has not only lost a pawn, but with it went the entire quality of the strong central constellation. But an experienced grandmaster like Moroni will know that the position might be lost, but the opponent will still have to show technique in order to win the game.

17...♗e4?!

The first of a number of strange decisions. At this point, the full point is Black's to lose. If nothing out of the ordinary happens, Italian style, Black wins 0–1. From a technical state of mind, the way to think of this is to find out which problems Black has and solve them. The most obvious is development.

For this reason, he should play 17...0–0. Black does not have to spend a tempo moving the bishop, unless White plays 18.♔f2, which he probably would. But then the white king has landed on a worse square.

18.♔d2 f6

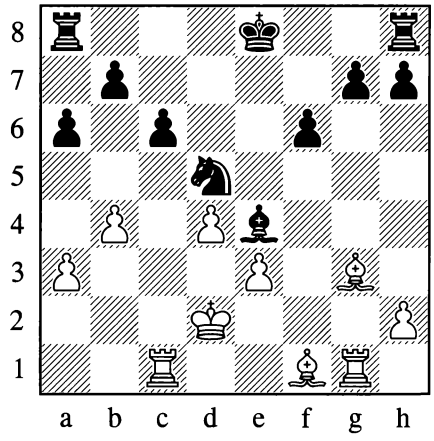
Also, not a decision that needs to be made at this point; and which at a later point may have been a different choice.

19.b4 a6

I don't like this move much. If White manages to play b4-b5, Black will at best end up with a weak pawn.

On the two previous moves, it made sense for Black to castle, but often moves are better if they work together with what we did on the previous moves.

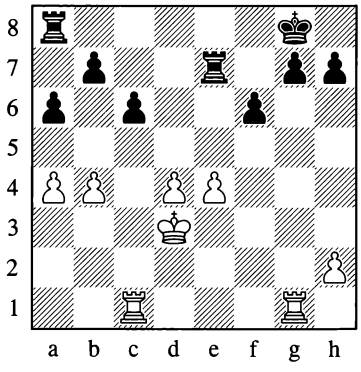
Thus, it is not a surprise that Black should consider 19...♔f7!? seriously here. Maybe he was afraid that White would try to escape to an endgame with opposite-coloured bishops. I do not think there would be a lot of escape about ♗c4xd5 to be honest. And after 20.b5, the move Black delayed in the game, I would expect 20...cxb5 21.♗xb5 a6 22.♗c4 g5 to be very unpleasant for White. If he takes on d5, the central pawns lose their entire potential. And clearly the black bishop is much stronger than the white equivalent. Even without rooks on the board, Black has winning chances. And the rooks are not coming off.



20.♗c4?

Black has squandered so much time; yet White fails to take advantage of this.

It was possible for White to play 20.♗d3!, when play could continue: 20...♗xd3 21.♔xd3 0–0 22.e4 ♘e7 23.♗d6 ♖fe8 24.♗xe7 ♖xe7 25.a4



White has managed to exchange pieces in a favourable way. The rook ending with White having more space is by no means elementary to convert for Black. Each pawn exchange will lead us closer to a likely drawn ending. Objectively and in practice, I would expect this position to be drawn without great suffering.

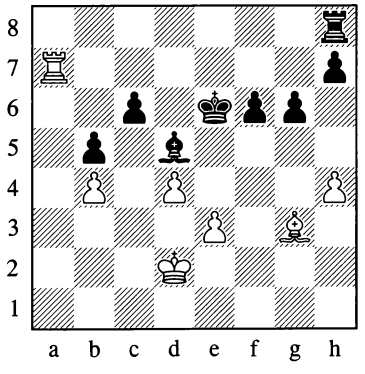
20...♔d7!

Empty threats are not concerning Black now...

21.h4 b5 22.♗f1

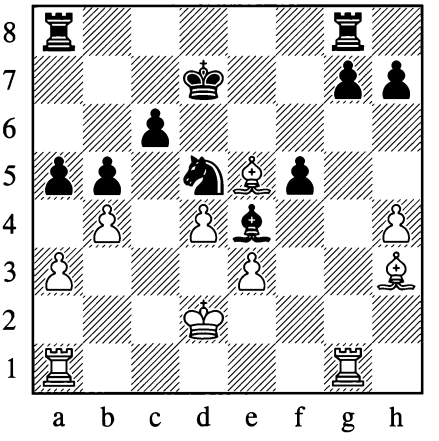
Black has nothing to fear from opposite-coloured bishops. It is the only thing that makes full sense of his previous moves.

The following fantasy variation shows how Black could play: 22.♗xd5 ♗xd5 23.♖a1 ♖ae8 24.a4 ♔e6! 25.axb5 axb5 26.♖a7 g6 27.♖f1 ♖a8 28.♖fa1 ♖xa7 29.♖xa7



29...h6! With ...♔f5-g4 and ...g5 coming, Black is completely winning.

22...a5 23.♗h3† f5 24.♗e5 ♖hg8 25.♖a1

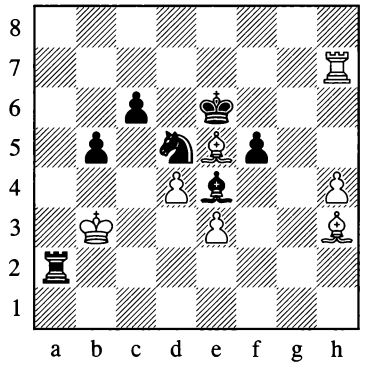


This is an interesting moment to discuss. Above we talked about this difficult moment, about deciding when to act and when to build up. This is always a difficult question when one side is much stronger than the other; whether you are the converter or the defender. If I had been Black in this game, I would already start to look for ways to create clarity. It is my belief that when we come to situations where it is possible to calculate winning lines without too much effort, it is most often a good idea to do so sooner rather than later. It is terribly easy to miss the moment.

25...g6

Subelj decides to delay the moment. There is a good argument for this too. Why agree to unnecessary pawn exchanges? Often you will find arguments in both directions in very winning positions.

I would have calculated the following line:
25...axb4 26.axb4 ♘xb4 27.♖xa8
27.♖xg7† ♖xg7 28.♖xa8 ♖g1 29.♖a7† ♔e6 30.♖xh7 ♖h1 and Black has trapped the bishop.
27...♖xa8 28.♖xg7† ♔e6 29.♖xh7 ♖a2† 30.♔c3 ♘d5† 31.♔b3



31...♖e2 32.♗f1 ♖e1 33.♖h6† ♔d7 34.♖h7† ♔c8

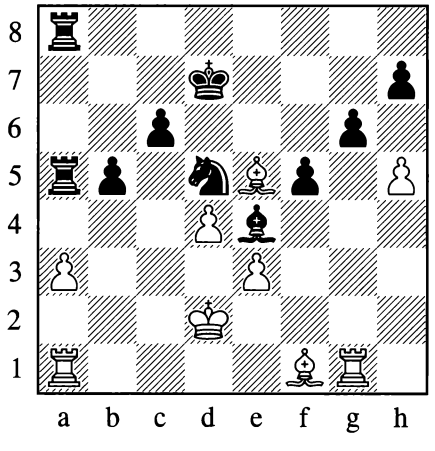
Black wins. White is losing his light-squared bishop.

Would I have been successful in seeing everything? Who knows!

26.bxa5 ♖xa5 27.♗f1 ♖ga8

It is easy to argue that this position is no less winning for Black.

28.h5



28...f4

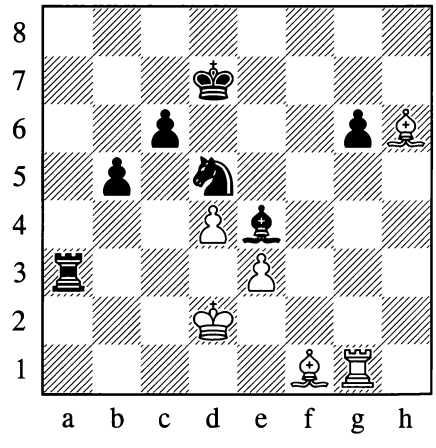
But this move I simply hate. And yet, I have to agree that it is not objectively bad.

28...♖xa3 29.♖xa3 ♖xa3 just won. The reason is clear: 30.hxg6 hxg6 31.♖xg6 ♖a2† 32.♔e1 ♘xe3

Black has won another pawn and although White would of course play a good deal of moves yet, the outcome can no longer be said to be even remotely in doubt. It's two pawns!

If you were to argue that Black chose correctly on move 25, because this line is easier to calculate, you would have a point. But I would only accept it if Black had tried to calculate on move 25 and found his lines to be inconclusive. Because if he did not try to find the win there, the chances are that he also would not, and did not, try to find it here, but chose a move simply because it required no calculation. This desire to win without calculating is sometimes seen in even world-class players. The outcome is frequently one of disappointment.

29.♗xf4 ♖xa3 30.♖xa3 ♖xa3 31.hxg6 hxg6 32.♗h6



White is of course still lost. But at least he can defend the f1-bishop and the e3-pawn. As most wins are squandered bit by bit, it is easy to argue that this is what we are seeing.

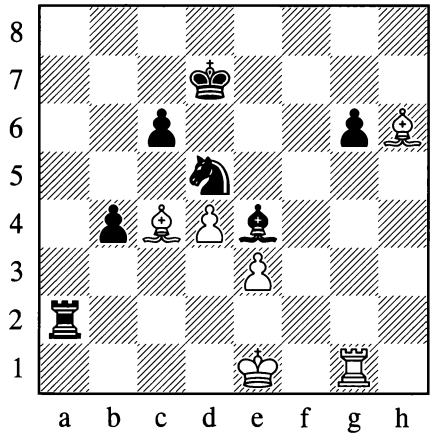
Again, if Black had now played flawlessly and won easily, he would have convinced me that he knew what he was doing and thus none of the previous criticism would have been valid. But I find that most often, moves like

25...g6 and 28...f4 don't happen in a vacuum. The approach is not what I would describe as optimal, and it shows with less committal decisions down the road.

32...♖a2†

32...b4 33.♗c4 ♘b6! 34.♗f7 ♘d5! was a nice way to play. But it requires some subtlety and accuracy that only comes when you decide to be concrete.

33.♔e1 b4 34.♗c4



34...♖a1†??

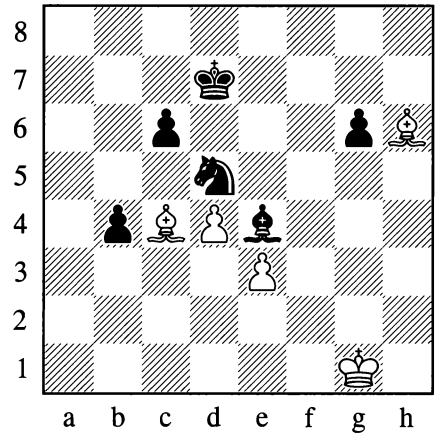
Black is having a long series of technical failures in this game, but has still managed to get a winning position against a strong grandmaster. But at this moment he makes the biggest mistake of the game. The exchange of rooks is correct according to the scheme of "exchanging pieces favour the stronger side", but in this case, the value of the rooks exchanged can in no way be said to be the same. The rook on g1 is passive and not even helping in the defence, while the black rook is dominating the white army from the powerful second-rank position.

34...♖c2 35.♗b3 ♖c3 36.♗a4 b3 would be a better exchange. Instead of being a pawn up, Black is about to be a piece up.

35.♔f2 ♖xg1

35...♖a3! was still there, but the decision was already made.

36.♔xg1



36...♗c2

Black is still winning. For example, I quite like this regrouping: 36...♘e7! 37.♗b3 ♘f5 38.♗f8 ♘d6 39.♔f2 ♗d5 40.♗c2 g5 41.♗h6 b3 and 42...♗e4 ends the game.

But in practice, everyone would play what Subelj did in the game. White has to act immediately in order to stop the black pawn from running away with the show.

37.e4!

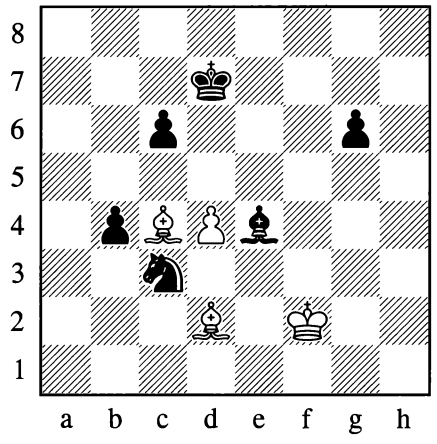
A beggar is not afraid of being robbed. White will do anything in order to keep the game alive.

37...♗xe4 38.♗d2 ♘c3

An understandable move.

But I would always look to make a move like 38...♔d6!? work. And it does. After 39.♗xd5?! ♔xd5 40.♗xb4 ♔xd4 Black wins easily.

39.♔f2

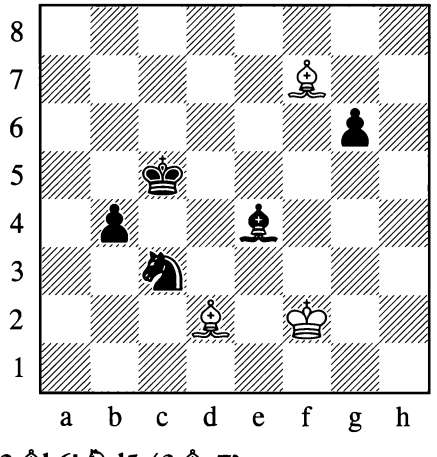


39...c5?

The second-worst move of the game, and the one that finally throws away the win. The exchange of pawns is a very poor idea, for the obvious reason that we are getting close to there being no pawns left to queen.

The technically clean way to play would be 39...♔c7! 40.♔g3 ♔b6 41.♔f4 ♗c2 42.♔e5 ♔a5, and Black wins without any sort of effort.

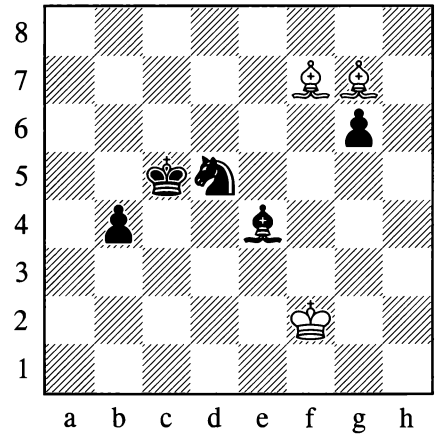
40.dxc5 ♔c6 41.♗f7! ♔xc5



42.♗h6! ♘d5 43.♗g7?

In all the classic thrillers, you have the bogeyman moment. The villain is dead. The hero has prevailed and order can be restored. This is the moment when the villain, or one of his sidekicks (think Karl in Die Hard) reappears for a last cheap shock effect. In our case, this is where White gives his opponent a last chance to win the game, squandering a tempo.

The best way to draw the game would have been 43.♔g3! ♔c4 44.♔h4 ♔b3 45.♗f8 ♔c3 46.♗xb4† ♔xb4 47.♔g5 with a draw.



43...b3?

This is a very natural-looking move. After all, we should push the most advanced passed pawn whenever it makes sense, right? Yes. The exception to this advice is most often when pushing the pawns means that we lose the fight for the squares in front of it. Obviously, we want the pawn to advance. But at times, pushing it too early means that it will get stuck. In this case, there is simply no way for it to make it from b3 to b2.

I analyse a lot of games, partly to find instructional examples for the students at Killer Chess Academy and for books like this. Often, when I analyse endgames, I will choose moments with a lot of similarity to this as the exercise. Because this was Black's last chance to win the game, and at this point, it is no longer elementary.

43...♔c4 44.♔e2 ♔b3!

The king belongs in front of the passed pawn, as any reader of Sam Shankland's excellent *Small Steps to Giant Improvement* will know. The reason is simple. The king has to help the b-pawn promote and it can do this only from c2 or a2.

45.♗f8

The only way to prevent the king from going to c2 or a2.

45...♔c3!

But this square is also great.

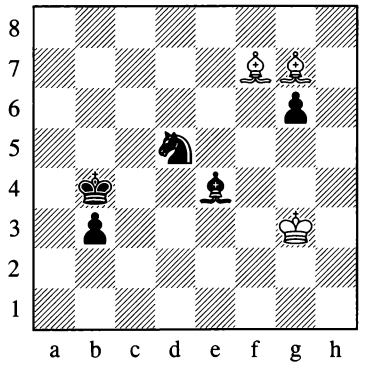
46.♔d1 g5 47.♗g7† ♔b3!

Returning to the scene of the crime.

47...♔d3 48.♗f8 would be an invitation to repetition, as after 48...b3? 49.♔c1 White gets the king in front of the pawn and holds.

44.♔g3 ♔d6

After 44...♔b4 White holds in many ways.

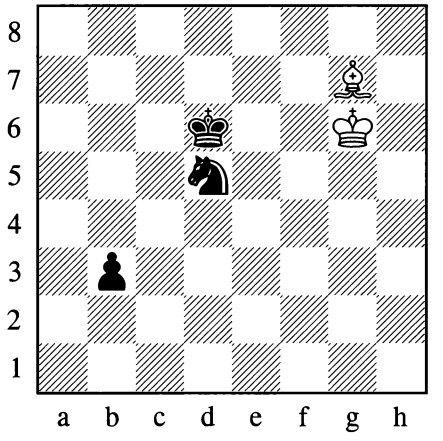


The easiest is probably 45.♗b2!, when we clearly see the objective for White. He wants to give up his dark-squared bishop for the b-pawn and simply steal the g-pawn. The benefit of having exchanged so many pawns in the flesh!

White could also hold with 45.♔h4, based on 45...♘c3 46.♗f8† ♔a4 47.♗e8† ♔a5 48.♗g7!.

But not 45.♔g4?, when Black has this magical win: 45...♗f5† 46.♔g5 ♘c3 47.♗f8† ♔a4 48.♗e8† ♔a5 49.♗g7 ♘e4†! followed by a dramatic advance of the g-pawn, or 50.♔f4 ♔b4!, when the king will make it to a2 or c2.

45.♔h4 ♔e7 46.♗g8 ♘e3 47.♔g5 ♗d5 48.♗xd5 ♘xd5 49.♔xg6 ♔d6



50.♔f5 ♔c5 51.♔e4 ♔c4 52.♗a1 ♘b4 53.♗g7 ♘c2 54.♗b2 ♘e1 55.♔e3 ♘d3 56.♗g7 ♔b4 57.♔xd3 ♔a3 58.♔e4 b2 59.♗xb2† ♔xb2

I feel that I have been overly critical of Subelj's play in this game. Hopefully he will not take it personally, although I am sure that any irritation with seeing one of his lesser games analysed is probably nothing compared to failing to win the game...

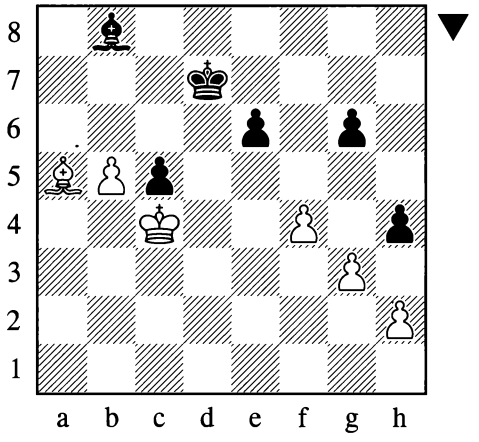
½–½

10. Don't exchange your opponent's weaknesses

With relatively few pieces left on the board, it looks as if my old team captain Stellan Brynell is about to make a draw in a worse endgame by exchanges of most of the remaining pawns.

Grigor Grigorov – Stellan Brynell

Sweden 2020



57...hxg3?

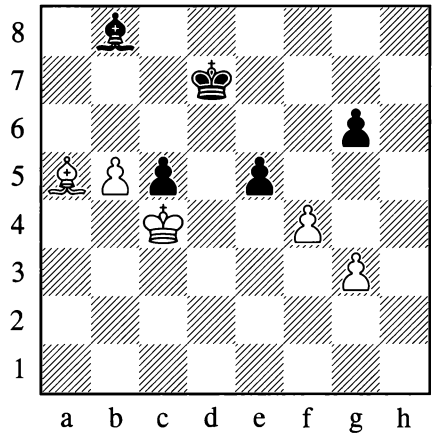
But this is a mistake. The main issue is that White's liability is the h2-pawn, which is under X-ray pressure from the bishop on b8. With this exchange, Black removes a pawn from the board, but White is happy with this.

The drawing move was: 57...e5! 58.fxe5 ♗xe5 59.gxh4 (59.♗e1 ♗xg3! leads to a drawn pawn ending.) 59...♗xh2 60.♗e1 ♔d6 Black will make a draw in this endgame. The main difference from what White could have done in the game is that the white h-pawn is exposed on h4 and will need permanent support.

Note that 57...h3? fails to 58.♔xc5 e5 59.♗d2 and White avoids any counterplay.

58.hxg3 e5

58...♗d6 59.♗b6! and White wins.



59.♗d2?

White missed the chance to win with 59.fxe5 ♗xe5 60.g4!, when the g-pawn will still be there later on. Now for example 60...♔d6 61.♗d2 ♗h2 62.♗h6 ♗g1 63.♗f8† wins the c-pawn.

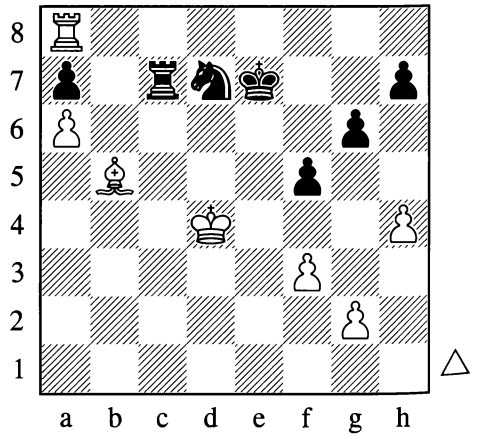
59...exf4 60.gxf4 ♗d6 61.♔d5 ♗e7 62.b6 ♗d6 63.♗e3 c4 64.♔xc4 ♔c6 65.♔d3 ½–½

Exchanging to the pawn ending

When you are able to exchange all the way to a favourable pawn ending, it is always happy days.

Hikaru Nakamura – Anish Giri

Stavanger 2017



48.♗xd7! ♖xd7† 49.♔e5
Dominating the king.

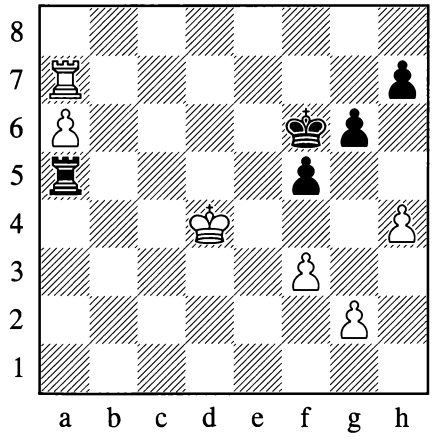
49...♔f7
Passive and painful.

49...♖c7 would lose to 50.♖h8 ♖c5† 51.♔f4 h5 52.♔g5, for example.

50.♖b8!
Seeking to exchange rooks as well. The threat to go into the pawn ending forces Black to give up the a7-pawn.

50...♖e7† 51.♔d5 ♔f6
51...♖d7† 52.♔c6 and wins.

52.♖b7 ♖e5† 53.♔d4 ♖a5 54.♖xa7



The rook ending is a great version for White.

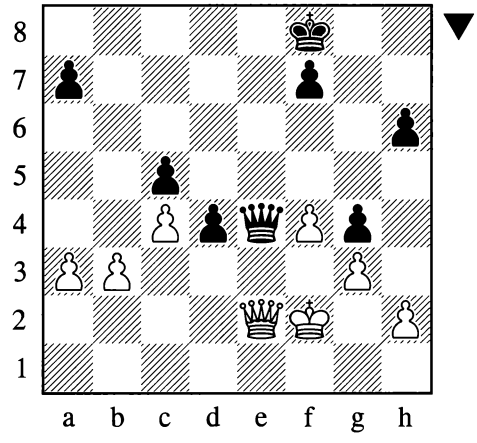
54...f4 55.♔c4 ♖a2 56.♔c5 h5 57.♖a8 ♖c2† 58.♔b6 ♖b2† 59.♔c5 ♖c2† 60.♔b6 ♖b2† 61.♔a7 ♖xg2 62.♖b8 ♖f2 63.♖b6† ♔g7 64.♔b7 ♖xf3 65.a7 ♖a3 66.♖a6 ♖b3† 67.♔c6
1–0

11. Transposing into pawn endings

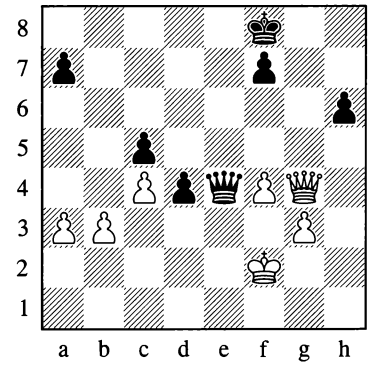
Correctly evaluating the resulting pawn endings is an important part of evaluating exchanges. Joel Benjamin wrote a full book on the topic, though it was somewhat mislabelled as being a general book about exchanges in the endgame.

Petronela-Alexandra Paraschiv – Govhar Beydullayeva

Bucharest 2021



39...♕xe2†!
Short of time, Black played:
39...♕h1? 40.♕xg4 ♕xh2† 41.♔f1 ♕h1† 42.♔f2 ♕e4

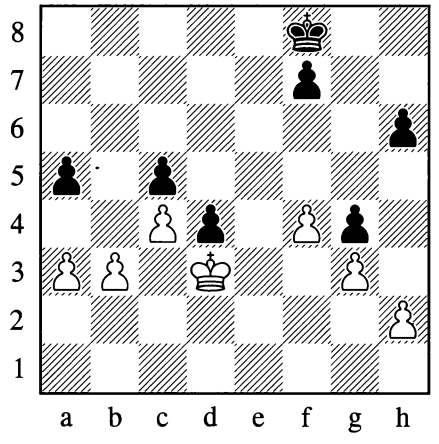


The dust has cleared and objectively White should hold this game. But still she lost

on move 71. Chess is difficult and Black has the better practical chances here, with the strong passed d-pawn.

39...f5?? would be bad. After 40.♕xe4 fxe4 41.b4 cxb4 42.axb4 ♔e7 43.c5 ♔e6 44.b5 ♔d5 45.b6 axb6 46.cxb6 ♔c6 47.f5, White wins.

40.♔xe2 a5 41.♔d3



41...a4!!

41...♔e7 42.b4! axb4 43.axb4 cxb4 44.♔xd4 ♔d6 45.c5† ♔c6 46.♔c4 would make a draw.

Now White is lost. After 42.bxa4 ♔e7, Black would slowly go over with the king and take the pawns.

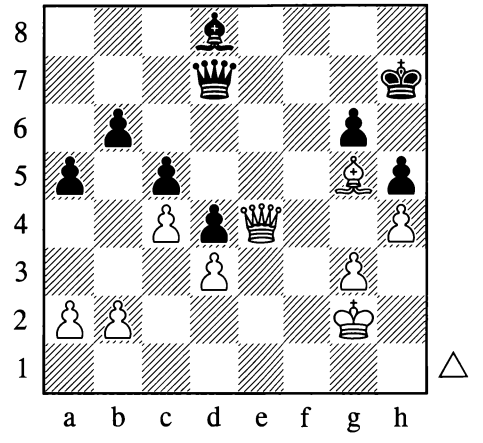
And after 42.b4 cxb4 43.axb4 a3!, White would not be able to stop both of the black passers.

12. Looking for the pawn ending

We join this complex endgame at the critical moment.

Elliot Papadiamandis – Emile Roubert

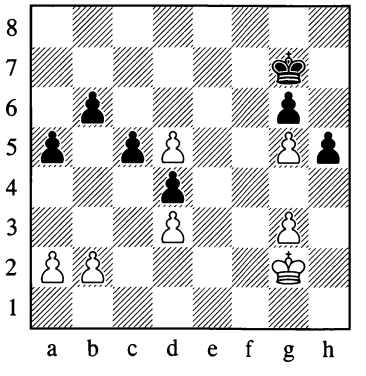
Chalons-en-Champagne 2021



48.♗f4?

It is easy to understand that White did not want to exchange the bishops and go into a queen ending. But White was able to force a pawn ending!

48.♕d5!! ♕xd5† 49.cxd5 ♗xg5 50.hxg5 ♔g7

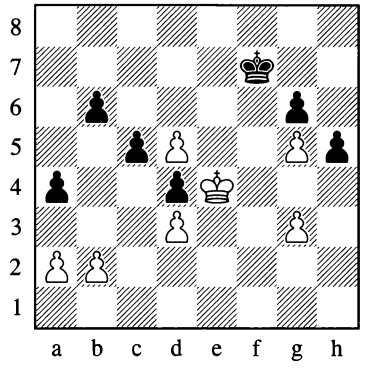


And now there is only one winning move. 51.♔f3?

This is the move you may play with your hands. After:

51...a4! 52.♔e4 ♔f7

Black is holding.



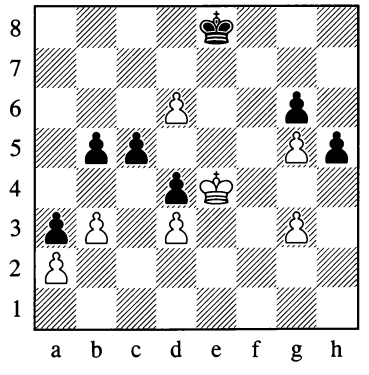
53.b3?

This would be a failed winning attempt.

53.♔e5 b5 54.d6 ♔e8 55.♔d5 c4 56.♔xd4 cxd3 57.♔xd3 ♔d7 is a possible line, leading to a draw.

53...a3 54.♔e5 b5 55.d6 ♔e8 56.♔e4

56.♔d5 c4 57.bxc4 b4! and the a-pawn queens.



The tables have turned. Black needs to play accurately to win:

56...♔d8!!

Stepping out of the check.

56...♔d7? would give White a chance to draw with 57.♔d5!! c4 58.bxc4 b4 59.c5 b3 60.c6† ♔d8 61.♔e6 bxa2 62.c7† ♔c8 63.♔e7 and White will hold the queen ending.

57.♔f4 ♔d7 58.♔e5

Now that the white king does not support c5-c6†.

58...c4

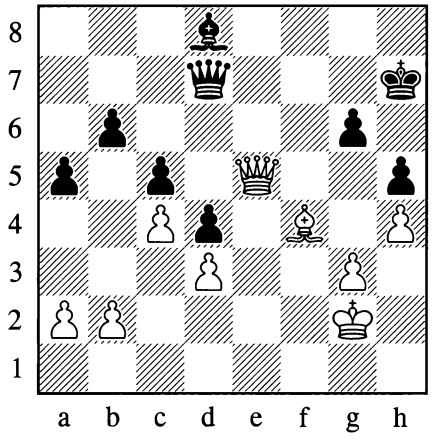
Black wins.

Instead of all of this, 51.a4! would secure a winning structure. No variations are necessary, once you look at it.

48...♔g7

48...♗f6! was the strongest, when Black is holding.

49.♕e5† ♔h7



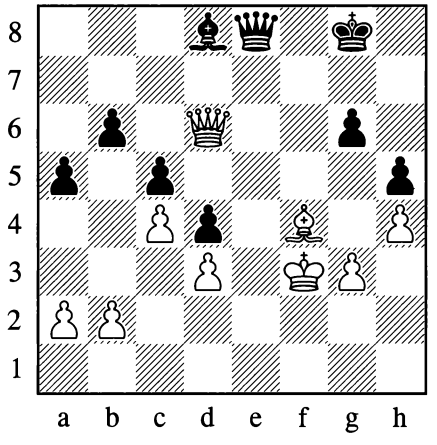
50.♕d6?

An understandable move, but missing out on a big structural improvement.

White could have played 50.a4!, where he would be better placed in the case of an exchange of queens. The point is based on the following tactic: 50...♕xa4 51.♕e6! and White has a winning attack. The black queen cannot come back to assist in the defence.

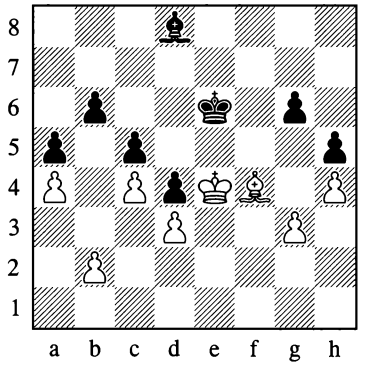
50...♕e8 51.♔f3 ♔g8?

51...a4! was the right move. White still has a big advantage, but getting one pawn off the dark squares gives Black hope.



52.♗e5?

52.♕d5†! would win the game. The key line is: 52...♔g7 53.♕b7† ♕f7 54.♕xf7† ♔xf7 55.♔e4 ♔e6 56.a4



Black is in deadly zugzwang. The key issue is that White will threaten to go after both b6 and g6.

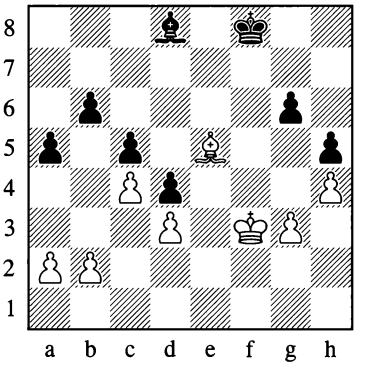
56...♔d7 57.♔e5! ♗e7 58.♗g5 would win the g6-pawn very quickly. It is important that White has the b2-b3 move later on.

The bishop ending after 56...♗e7 57.♗c7 ♗d6 58.♗xb6 ♗xg3 59.♗xc5 ♗xh4 60.♗xd4, is winning for White. The extra pawn is useful. But there is a lot of play left.

52...♕f7†?

Surprisingly, this time it is Black who would benefit from the exchange of queens.

After 52...♕f8†!! 53.♕xf8† ♔xf8



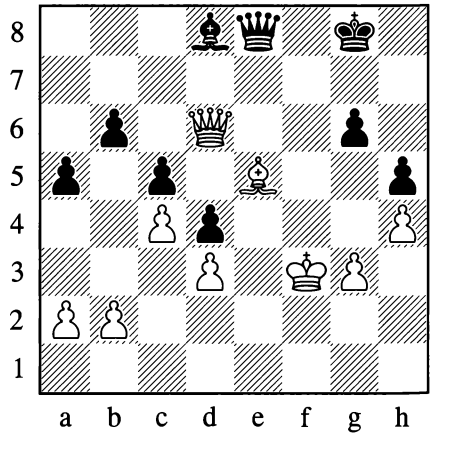
54.♔e4 ♔e7 the bishop on e5 is desperately in the way. Black will be in time to play ...♔d7, after which White cannot execute either of his two threats, ♗c7 or ♔e5. He can try 55.♔d5 ♔d7 56.♗f4 ♗f6 57.a4, but after 57...♗g7, there is no way to make progress.

53.♔e2!?

53.♗f4 ♕e8 54.♕d5† would still have won.

53...♕e8 54.♔f3?

White missed 54.a4!, greatly improving White's position.



54...♕f7†?

54...♕f8†! still held.

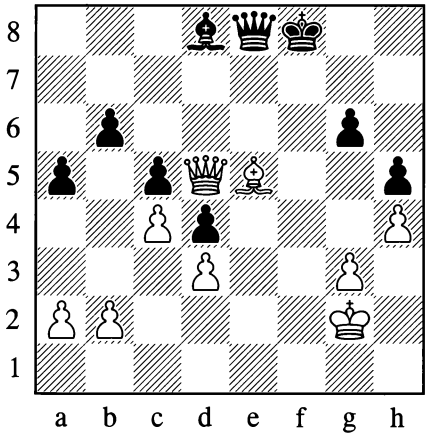
55.♔g2

55.♗f4! was better, seeking to return to previous positions in the game in which White had a forced win.

55...♕e8

55...♗e7 would have kept the game going for a while.

56.♕d5† ♔f8



57.a4! ♔e7 58.♗f4 ♕d7 59.♗g5† 1–0

13. Broadening

By now the principles should be quite clear. We evaluate the possible exchanges of pieces based on:

a) whether our piece is stronger or weaker than the opponent's piece

b) whether the situation after the exchange furthers or hinders our ambitions

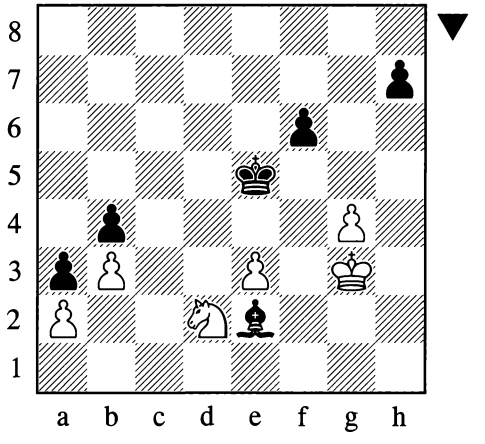
c) whether the exchange can provide us with clarity. There are many times where a & b can be ignored because the exchange provides us with an easy journey to our desired end result.

The list is by no means hierarchical. These are things to think about.

The same goes for the exchange of pawns. We know that the stronger side in principle is against the exchange of pawns. But he would be happy to exchange his own weakness, or to create exchanges for other reasons, such as penetration, also called broadening.

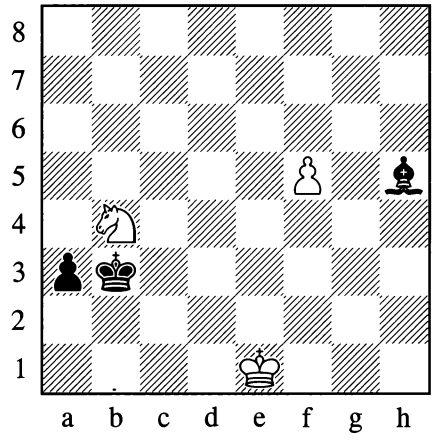
Clement Kuhn – Adrian Suarez Uriel

Bassano 2021



In the game, Black ruined his advantage with a horrible move.

56...h5?? 57.gxh5 ♗xh5 58.♔f2 f5 59.♔e1 f4 60.exf4† ♔d4 61.f5 ♔c3 62.♘c4 ♔c2 63.♘a5 ♔b2 64.♘c6 ♔xa2 65.♘xb4† ♔xb3



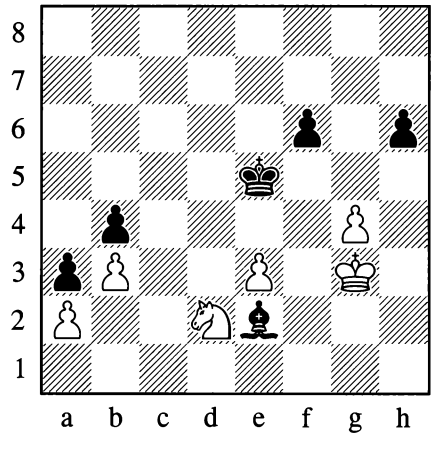
66.♔d2! ♔b2

66...♔xb4 67.♔c2 and the pawn is perfectly placed on f5!

67.f6 ♗g6 68.♘d3† ♔b3 69.♘c1† ♔c4 70.♘a2 ♔d4 71.♔c1 ♔c4 72.f7 ♗xf7 73.♔b1 ♗g6† 74.♔a1 ♔b3 75.♘c1† ♔c2 76.♔a2 ♔xc1 77.♔xa3
½–½

Black was totally winning and could win in several ways. Here is one:

56...h6!?



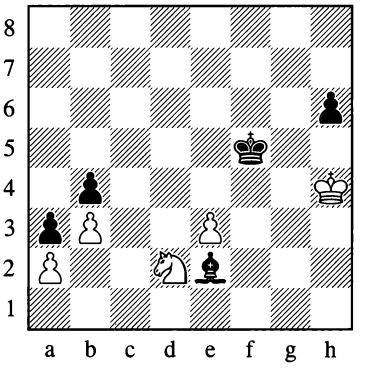
57.♔h4 f5!

This is a highly desirable exchange for Black, as it creates a passed pawn.

58.g5!?

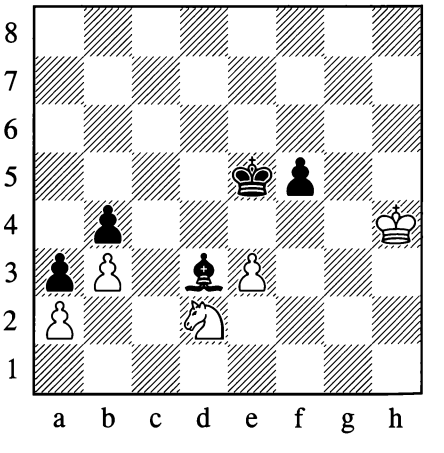
This does not work, but it is principled and has to be checked. Also, Black wins in an instructive way.

58.gxf5 ♔xf5 wins very slowly for Black.



Black will put the pawn on h5, the king on g6 and the bishop on d5, and wait for White to be in zugzwang, so he has to allow ...♔g5 and ...h4(†). After this, White will be forced backwards slowly, until he either allows ...♗xb3 or lets the black king penetrate to the queenside.

58...hxg5† 59.♔xg5 ♗d3 60.♔h4



60...f4!

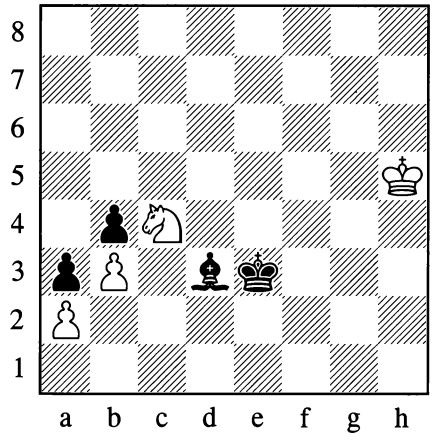
Broadening! The exchange of pawns is undesirable. But Black needs to create a path for the king to enter the position.

61.exf4† ♔xf4!

This is no time to rush! White is dominated and Black wins.

61...♔d4? 62.♔g5 would be a blunder. 62...♔c3 63.f5 ♗xf5 64.♔xf5 ♔xd2 65.♔e4 ♔c2 66.♔e3 ♔b2 67.♔d2 ♔xa2 68.♔c2 with a draw.

62.♔h5 ♔e3 63.♘c4†



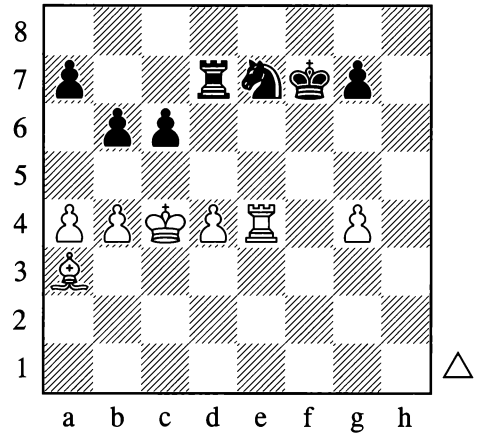
63...♗xc4 64.bxc4 b3

And so on...

Another powerful example of broadening is the following game:

Wang Hao – Leinier Dominguez Perez

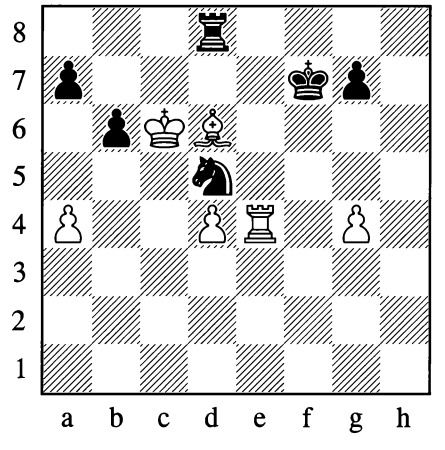
Khanty Mansiysk 2019



54.b5!

White removes the pawn that is keeping the white king out.

54...cxb5† 55.♔xb5 ♘d5 56.♔c6 ♖d8 57.♗d6!

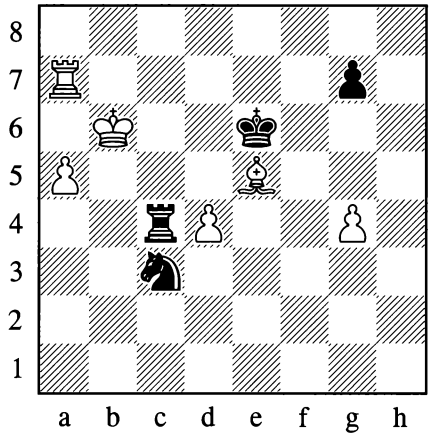


The bishop comes in to dominate the situation.

57...♘c3 58.♖e7† ♔f6 59.♖xa7

White wins everything.

59...♖c8† 60.♔xb6 ♖c4 61.♗e5† ♔e6 62.a5



With two extra pawns, White won easily.

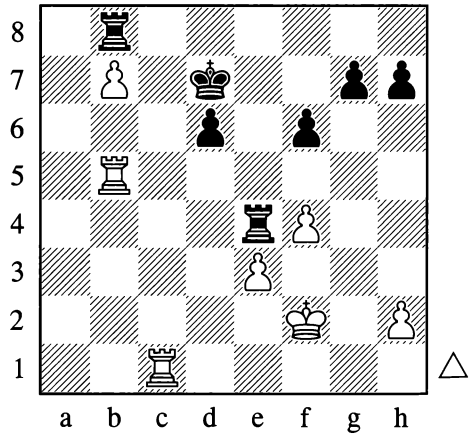
62...g5 63.♖g7 ♘d5† 64.♔a6 ♘e7 65.♖xg5 ♖b4 66.♖g7 ♘c6 67.♖g6† ♔d7 68.♖d6† ♔c7 69.♖d5† ♔c8 70.♖b5 ♖a4 71.♔b6 ♘e7 72.a6 ♖a2 73.a7 ♔d7 74.♔b7 ♘c6 75.a8=♕ ♘d8† 76.♕xd8†
1–0

14. Loss of flexibility

Often one side is able to decide when to exchange and when not to. In such a situation, it is advisable to keep flexibility whenever possible. Obviously, we should be cautious and make sure that we do indeed have the luxury of flexibility. Often this is the case in forcing lines, as in the following game.

Anna Muzychuk – Aleksandra Goryachkina

Sochi (6.1) 2021



Played at the semi-final of the 2021 Women's World Cup, this game was heading into time trouble, ruining the chances for good chess. It still makes sense to start a few moves before the critical moment, to get the sense of the random nature of Muzychuk's chance to win the game.

37.h4?!

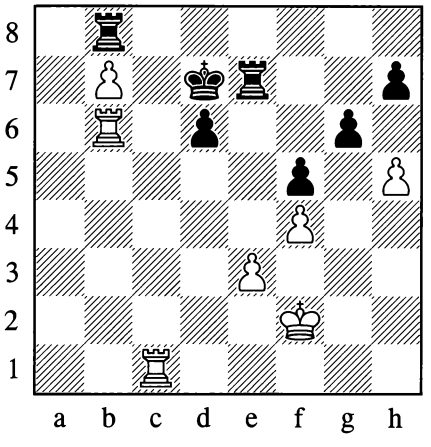
37.♖b6! with the threat of ♖cc6 was more challenging. But after 37...♖e7!, Black is still holding.

37...g6?!

Goryachkina misses the chance to play 37...♖a4! to transfer the rook to a7, with a certain draw. An important point is that ...♔c6 is always there, if a tempo is needed to defend the 7th rank.

38.♖b6 f5 39.h5 ♖e7?

Black was still fine after 39...gxh5 followed by ...♖e7. Some defensive moves would have to be played after 40.♖b5, but Black will hold.



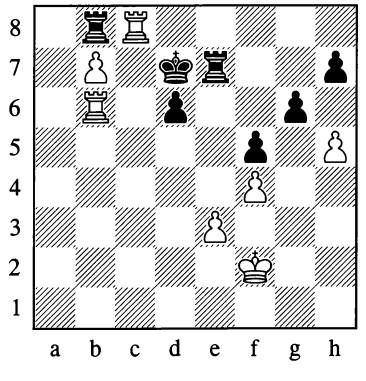
We have reached the critical moment in the game. Unfortunately for White, she had 51 seconds to decide, with both players living on increments for a few moves already.

Under such circumstances, it is quite attractive to make a seemingly non-critical exchange and defer all decisions till later.

40.hxg6?

The problem is that White loses the flexibility of not making the exchange. And a minor detail destroys all of White's winning chances.

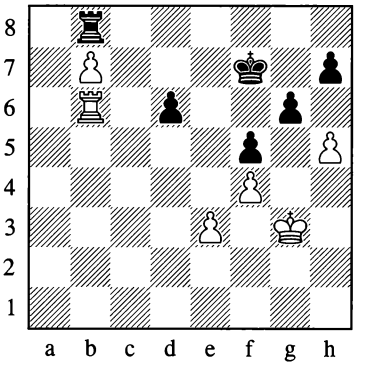
40.♖c8! would have been winning.



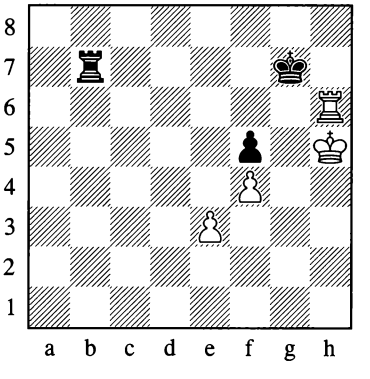
The variations are beautiful.

a) 40...♖xc8 41.♖xd6† ♔c7 42.bxc8=♕† All silly promotions would be punished, I am happy to say. 42...♔xc8 43.hxg6 hxg6 44.♖xg6 ♖f7 45.♖e6 and White wins.

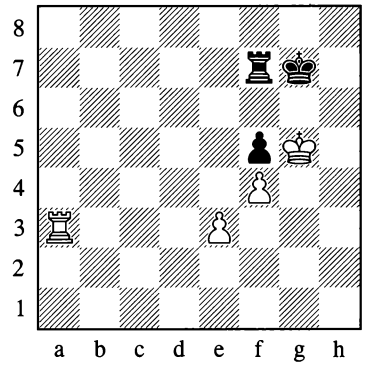
b) 40...♖e8 41.♖xe8 ♔xe8 42.♔g3 ♔f7 It makes no sense to go for the b-pawn. The pawn endings are all lost.



43.♔h4 ♔g7 44.♔g5 h6† 45.♔h4 gxh5 46.♔xh5 ♔h7 White has improved her position to the maximum. It is time to see if it is enough to win. 47.♖xd6 ♖xb7 48.♖xh6† ♔g7



White wins with a beautiful regrouping. 49.♔g5! ♖e7 50.♖h3! The perpetual threat to the f-pawn gives White time to regroup. 50...♖f7 51.♖h1 ♖e7 52.♖e1 ♖f7 53.♖a1 ♖e7 54.♖a3 ♖f7



The rook has successfully regrouped. Now it is time to move in for the kill. 55.♖a5 ♖e7 56.♖e5! White wins.

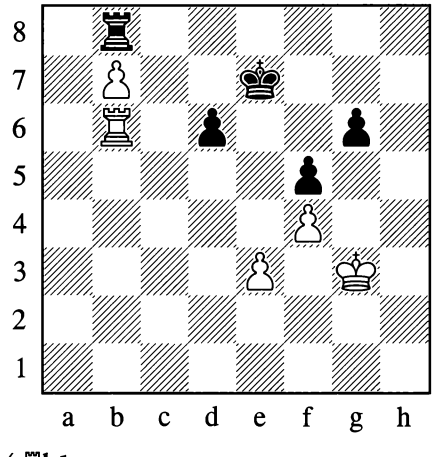
40...hxg6 41.♖c8 ♖e8!

41...♖xc8 42.♖xd6† wins as above.

42.♖xe8 ♔xe8 43.♔g3

43.♖xd6 ♖xb7 44.♖xg6 ♔f7 would make it easy to defend the f-pawn, after which White has no winning chances at all.

43...♔e7



44.♖b1

We can now see that the early exchange of pawns opened the h-file to Black's advantage.

After 44.♔h4, Black could set a small trap with 44...♔f7, when 45.♔g5?? would lose: 45...♖h8 46.b8=♕ ♖h5#

44...♔e6 45.♔f3 ♔d7 46.♔g3
½–½

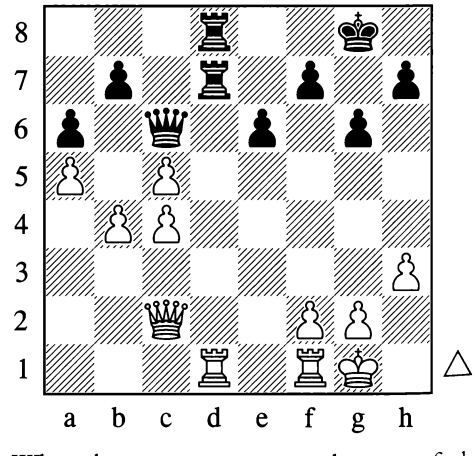
15. The transformation of advantages through exchanges

Most will have heard about the transformation of advantages. First you have the two bishops out of the opening. Then you exchange a pair of bishops to remove the opponent's strongest piece, to get bishop against knight. Then you exchange the bishop for knight to create a pawn weakness, which you subsequently win. Then you give back the pawn to create a mating attack. And so it goes on.

Exchanges were mentioned in that fantasy and they can be a way to change things, without changing the evaluation of the position.

Sergei Azarov – Dmitry Kononenko

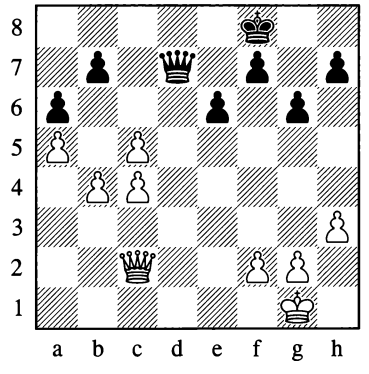
Minsk 2017



White has won a pawn and most of the dynamic aspects of the position have gone. Azarov however decided to prove his advantage with active play. I guess it is a matter of taste. Although I am an active player, I would have tried to convert the advantage in a less flashy fashion.

28.♖xd7 ♕xd7

28...♖xd7 29.♖d1! is an important point. Queen endings are difficult to play and frequently have a drawish tendency (see also Vetokhin – Injac, on page 725). But if you can create a passed pawn, at times it is the direct line to a full point. See the following line: 29...♔f8 30.♖xd7 ♕xd7



31.♕b2! ♕d1† (31...♔g8 32.b5! with the idea c5-c6.) 32.♔h2 ♕d3 33.♕h8† ♔e7 34.♕c8 ♕e4 35.♕c7† ♔f8 36.b5 And White simply wins.

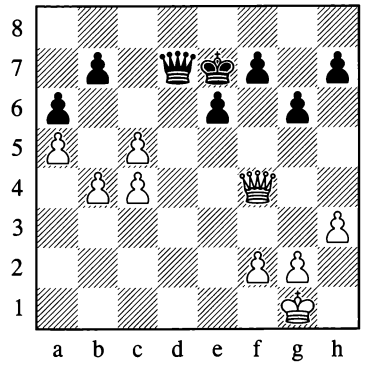
29.♕e4!

Centralising.

29...♕c7 30.b5!?

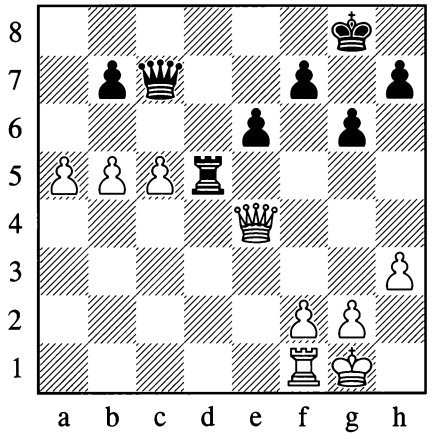
To me this looks quite risky, but as far as I have been able to determine in my analysis, White should still be winning.

30.♕f3! ♖d7 31.♖d1 is the principled way to play. For example: 31...♔f8 32.♖xd7 ♕xd7 33.♕f4 ♔e7



34.g3 White will improve his position slowly and eventually be able to make significant and risk-free progress on the queenside. It is a dead winning position, basically.

30...axb5 31.cxb5 ♖d5



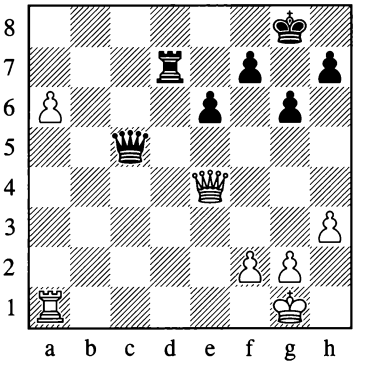
32.a6!

Choosing the distant passed pawn.

32...♕xc5 33.♖a1 bxa6 34.bxa6 ♕a7

The principled line would involve putting the least valuable piece in charge of blocking the a-pawn:

34...♖d7

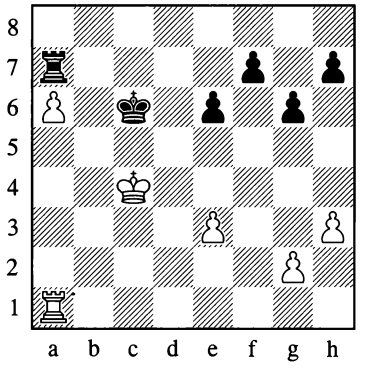


We have two interesting options here.

a) 35.♕e3!?

I believe that the exchange of queens, taking away all active options from Black, is a sound strategy.

35...♕xe3 36.fxe3 ♖a7 37.♔f2 ♔f8 38.♔e2 ♔e7 39.♔d3 ♔d6 40.♔c4 ♔c6



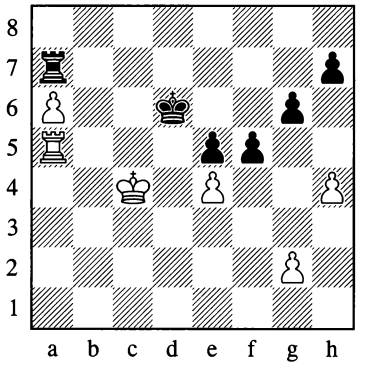
As far as I can determine, this is the critical position for this rook ending. It appears that White is winning with accurate play.

41.e4! f5

41...e5 42.g4! removes all the counterplay.

42.h4! e5 43.♖a5 ♔d6

43...♔b6 44.♖xe5 ♔xa6 45.♖e6† ♔a5 46.e5 and White wins.



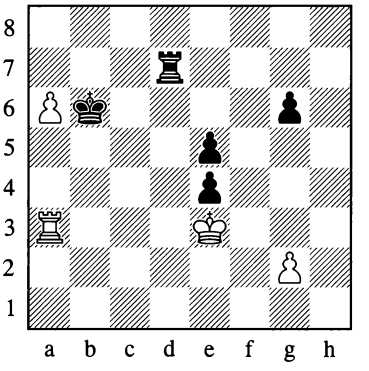
44.h5!

Creating further weaknesses.

44...fxe4

After 44...♖c7† 45.♔b4 ♖a7 46.♔b5 ♔c7 47.h6! Black is in zugzwang and will collapse.

45.hxg6 hxg6 46.♔c3 ♔c7 47.♔d2 ♔b6 48.♖a3 ♖d7† 49.♔e3

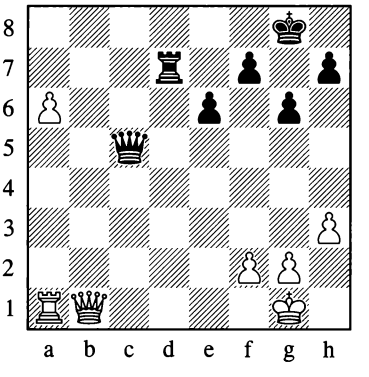


White is winning as all pawn endings are in his favour.

49...♔a7 50.♔xe4 ♖d2 51.g3 ♖e2† 52.♖e3 ♖a2 53.♔xe5 ♖xa6 54.♔f4

The black king is too far away to prevent White from winning the g6-pawn and then queening his own pawn.

b) 35.♕b1 is another strategy, seeking to outmanoeuvre the opponent:



b1) 35...♖d2 36.♔h1 ♕a7 37.♕b4 ♖d7 38.♔g1 is a transposition to the note to the next black move in the game, except that it is Black to play. But I cannot see any good an extra tempo will do Black...

b2) 35...♖a7 36.♕b8† ♔g7 37.♖a5! The queen ending would be highly desirable. 37...♕d4 38.♖a4! ♕c5 39.♖c4! ♕e7 40.♖c6 White is in control, but Black is also not resigning.

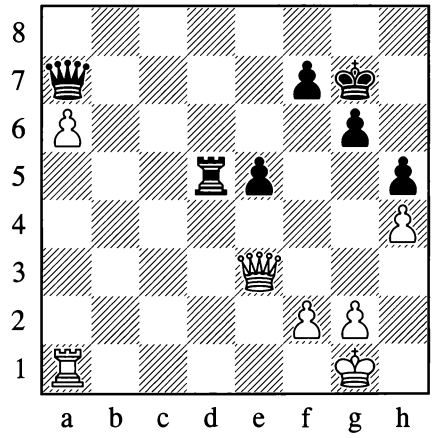
35.♕b4 ♔g7

After 35...♖d7 then 36.♕a3 and ♕e3 should still work. Notice that White does not need to play ♕e3 immediately, but can bring out the king first.

36.♕c3† e5

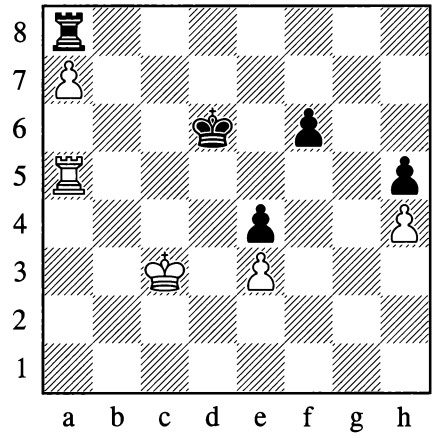
This only creates a further weakness in the black position.

37.h4!? h5 38.♕e3!



The rook endgame arises in a much better version for White.

38...♕xe3 39.fxe3 ♖d8 40.a7 ♖a8 41.♖a6 f6 42.♔f2 e4 43.♔e2 g5 44.g3 ♔g6 45.♖a5 ♔f7 46.♔d2 ♔e6 47.♔c3 gxh4 48.gxh4 ♔d6



49.♔d4 f5 50.♖a3 ♔c6 51.♔e5 ♔b7 52.♔f4 ♔b6 53.♔xf5 ♔b7 54.♔xe4 ♖e8† 55.♔f5 ♔a8 56.e4

1–0

16. Exchanges/Prevention of counterplay

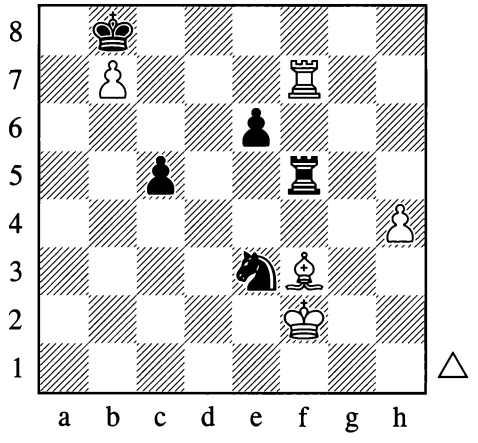
When I was taught technique by Dvoretsky and Yusupov, they both emphasised the restriction of counterplay as a top priority. I got to play one classical game with Artur, where I quickly lost a pawn and then went on to lose slowly but surely, over a pile of moves. Never did I feel any chance to fight arise, but plenty of times it felt as if he rejected lots of shortcuts, in order to stay in complete control.

What I experienced on the losing side of that game, and what I have never been able to unsee ever since, is the power of making the right exchanges, in order to remove the counterplay from the opponent.

Over the next four examples, we shall see increasingly complex variations of this theme.

Ernesto Inarkiev – Nikita Afanasiev

Hybrid 2021

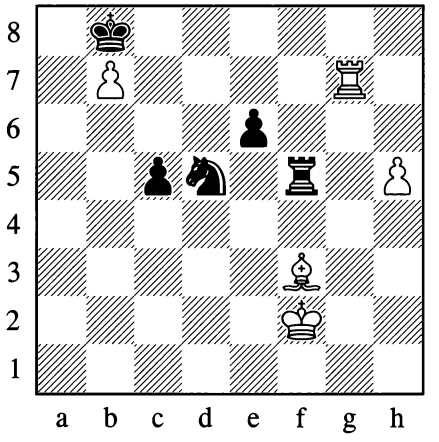


In this position, the black pawns are not the source of Black's counterplay, at least not in the role of rolling passed pawns. They are too far back and the knight will not be good at racing. But the combination of the rook and knight can create some counter-chances, as we shall see.

60.♖g7?

For the reasons mentioned above, the strongest move was 60.♖xf5!, continuing: 60...♘xf5 61.h5 ♔c7 62.♗e4 ♘h6 63.♔f3 Threatening ♔f4-g5. 63...e5 64.♗d5 Now ♔e4xe5 is the threat. Black is paralysed. If he tries to push the c-pawn, White will pick it up first and then return for the e-pawn.

60...♘d5 61.h5



61...♖f6?

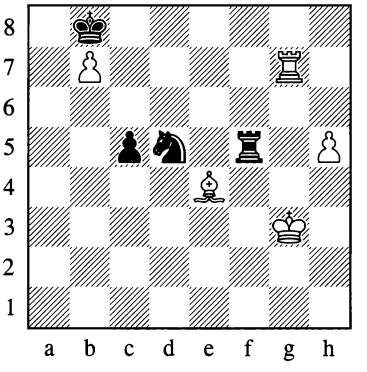
Afanasiev misses the chance for a beautiful tactical draw.

61...e5! 62.♔g3

62.h6 e4 is just a draw.

62...e4!! 63.♗xe4

63.♗g4 ♖f8 and ...♘f6 would be fine.

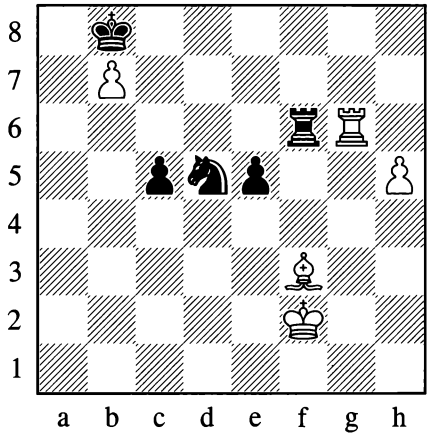


63...♘f6!

Black will take on h5, with a draw.

62.♖g6 e5

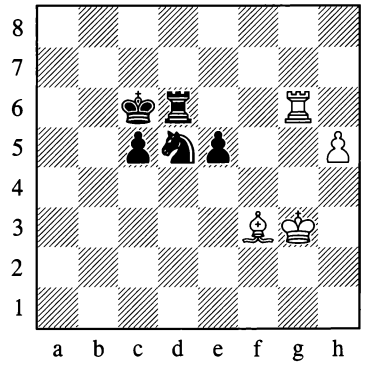
After 62...♖xg6 63.hxg6 ♘f6 64.♔e3, White will win the c-pawn first, then do whatever he likes.



63.♔g3?

Simply a horrible blunder.

Inarkiev misses an easy win. After 63.♖g8† ♔xb7 64.♔g3, the knight is pinned. 64...♔c6 65.♖g6 (or 65.♖d8) 65...♖d6

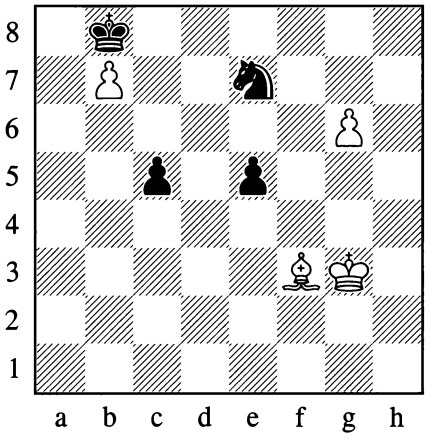


66.♗xd5†! The right move order. 66...♔xd5 67.♖xd6† ♔xd6 68.h6 The h-pawn queens.

Instead 66.♖xd6†? ♔xd6 67.♗xd5 ♔e7! would allow the king to escape to the corner and make a draw.

Inarkiev was of course able to see all of this, but he missed the knight check on f5...

63...♖xg6† 64.hxg6 ♘e7



The g-pawn is lost.

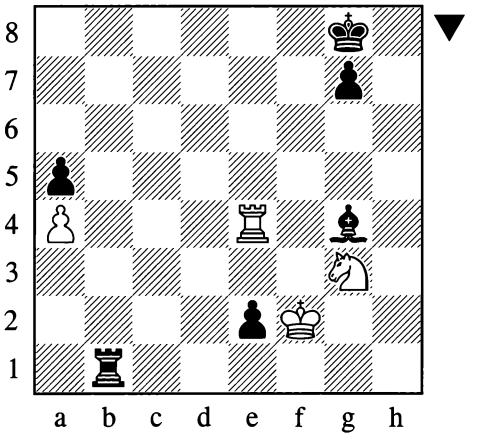
65.♗e4 ♘xg6 66.♗xg6 ♔xb7 67.♔f3 ♔b6 ½–½

17. Clarity

One of the key reasons for making exchanges is practicality. Sometimes an exchange makes sense because the position afterwards is easier to play, even though it would make little sense for any other reason.

Lisandro Fernandez Reyes – Leandro Krysa

Sao Paolo 2019



54...♗d7?

This seems like a total brain malfunction. We have all had them. Sympathies go to the family...

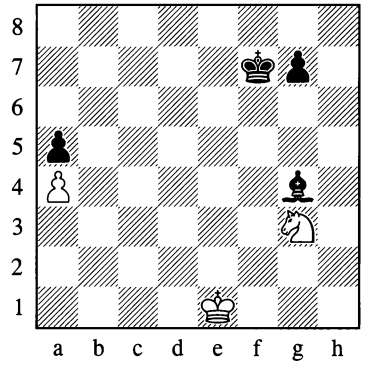
55.♘xe2 ♖a1 56.♘c3 ♖a3 57.♖c4 ♔f7 58.♖c5 ♔e6 59.♔e1 g5 60.♔d2 g4 ½–½

To win this massively winning ending, the practical approach would be to take off the rooks and then bring in the king. Black can do this in two different ways.

54...e1=♕† 55.♖xe1 ♖xe1 56.♔xe1 ♔f7!

The most natural move. Bring in the king.

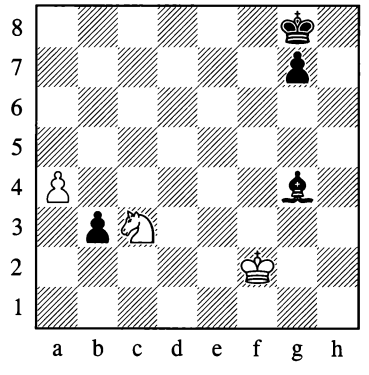
I believe Black rejected this option because of 56...♗d7? 57.♘h5!, when White would get the king to a1 and laugh all the way...



57.♔d2 ♔e6

Black is winning on both sides of the board.

54...♖b4!? 55.♖xb4 axb4 56.♘xe2 b3 57.♘c3



57...♔f7!

Once again this is a key move. Black cannot win the game without using his strongest piece.

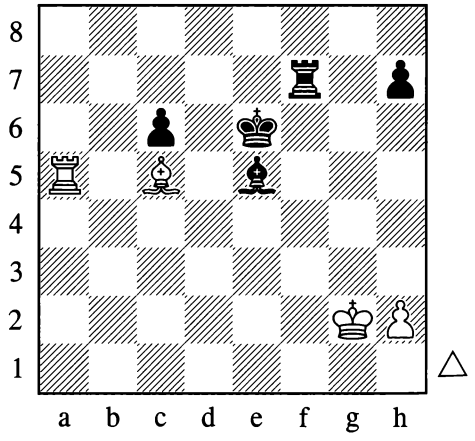
In a class, an unfortunate student walked the plank in the following fashion: 57...b2? 58.a5 White is already holding. The b2-pawn will eventually fall. 58...♗f5 59.a6 b1=♕?! 60.♘xb1 ♗xb1? Only this is the losing mistake. 61.♔e3 ♗a2 62.♔d4 White wins.

58.♔e3 ♔e6 59.♔d4 b2 60.a5 ♔d6

The king is in time to stop the a-pawn and the b-pawn will claim the knight. Black wins.

Ruben Pereira – Raunak Sadhwani

Portugal 2021



White is likely to lose this game, but there are still a number of practical aspects to overcome. Black has only two pawns left and the wrong bishop for the h1-square.

So, White simply had to play 42.♗e3, or another waiting move, allowing Black to show how he would overcome the challenges of conversion.

But instead, Pereira tried to force the dream endgame with the bishop of the wrong corner and found himself in a lost bishop ending.

42.♖a7? ♖xa7 43.♗xa7 ♔d5

This endgame is an easy win. Black will never allow White to give up the bishop. I cannot think of a defensive constellation that would work for White. Even with the king on d3, he would still be lost.

44.♗e3 ♗d4 45.♗c1 c5 46.♔f3 c4 47.h4

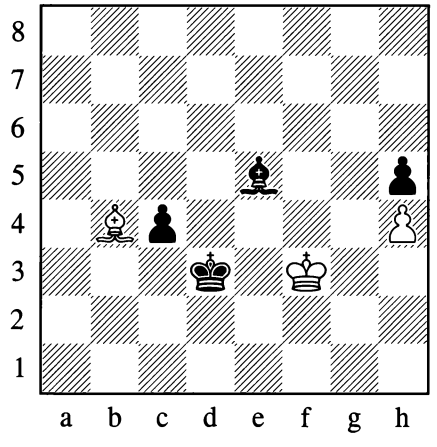
47.h3 is more prudent, but nothing helps.

47...h5 48.♗d2 ♗e5 49.♗e1

White cannot prevent the king from penetrating the position.

49.♔e3 ♗g3 and Black wins.

49...♔d4 50.♗a5 ♔d3 51.♗b4



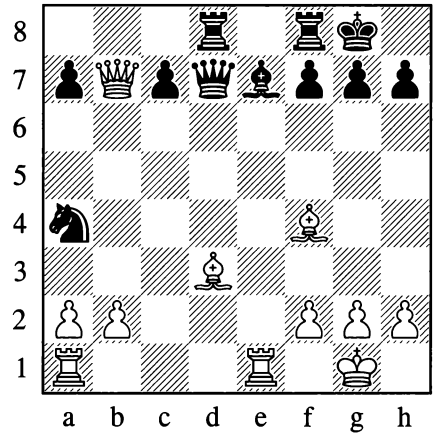
51...♗c3 52.♗e7 ♗d2 53.♗f6 ♗e3 54.♗b2 ♗d4 55.♗c1 c3 56.♗g5 c2 57.♗c1 ♗f6 58.♔g3 ♔e2 59.♔h3 ♗d4 60.♔g3 ♗f2† 61.♔h3 ♗e1 62.♗a3 ♔d3 63.♗b2 ♗d2 64.♔g3 ♔c4
0–1

The following game is complicated and covers lots of themes. One of them is exchanges in order to restrict counterplay, or to gain counterplay, depending on which side you are seeing it from. What I especially want you to notice is that whether or not the bishops should be exchanged is all to do with the placement of the black rook. When it is active, Black wants to exchange the bishops. When it is passive, White wants to exchange them. This fluidity makes the scenario rather complex.

Carissa Yip – Josiah Stearman

Charlotte 2020

1.e4 e5 2.♘f3 ♘c6 3.d4 exd4 4.♘xd4 ♘f6 5.♘xc6 bxc6 6.♗d3 d5 7.exd5 cxd5 8.0–0 ♗e7 9.c4 0–0 10.cxd5 ♗b7 11.♘c3 ♘xd5 12.♗d2 ♕d7 13.♕f3 ♖ad8 14.♖fe1 ♘xc3 15.♕xb7 ♘a4 16.♗f4



White's play in the opening was punishably unambitious.

16...♘xb2!?

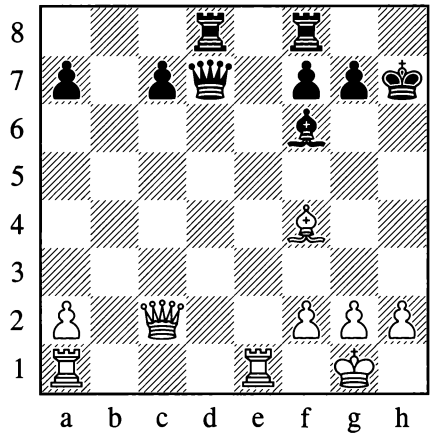
Trying to create a game.

If Black had been willing, the draw was there for the taking. For example: 16...♘c5 17.♕xc7 ♘xd3 18.♖xe7 ♕d4 19.♗e3 ♕xb2 20.♖f1 ♕xa2 21.♕xa7 with a draw by extermination.

17.♕xb2 ♗f6 18.♗xh7†

A nice little trick, but it should not be a disaster.

18...♔xh7 19.♕c2†

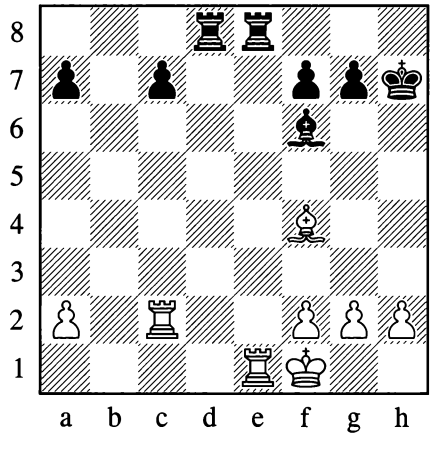


19...♕d3?

A tactical mistake. The exchange of queens benefits White.

19...♔g8 20.♖ac1 ♖fe8 gives Black decent play.

20.♖ac1! ♕xc2 21.♖xc2 ♖fe8 22.♔f1!

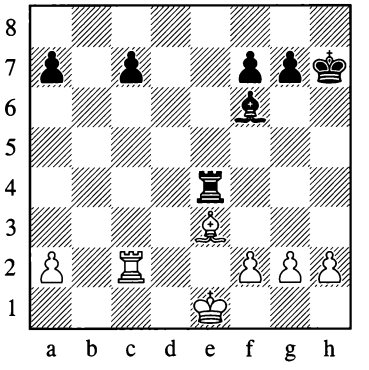


All have to contribute. It is now clear that White is winning a pawn.

22...♔g6?!

Black should have focused on active counterplay, making the strongest piece as active as possible.

22...♖xe1† 23.♔xe1 ♖d4! 24.♗e3 ♖e4!?



A little extra trick.

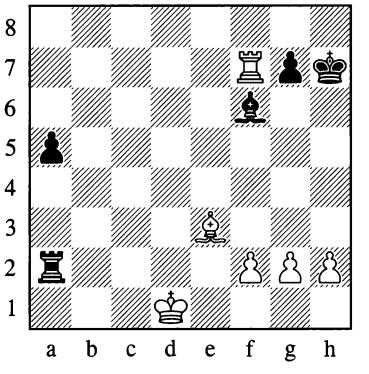
25.♔d1!

The trick is to play 25.♖xc7 ♗g5!, when the exchange of the bishops will increase Black's drawing chances, as confirmed with analysis.

25...♖a4

25...♗d4!? transposing into a rook ending was also interesting, although White keeps a significant advantage after 26.♖c4!.

26.♖xc7 ♖xa2 27.♖xf7 a5



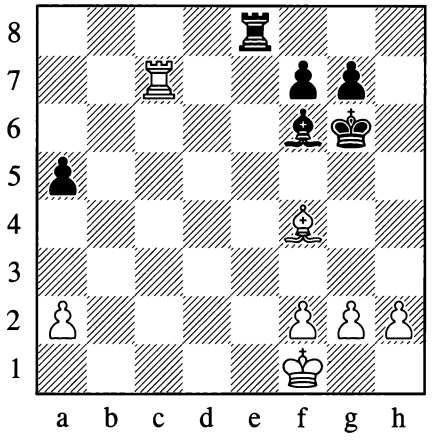
White has the advantage, but with a supremely placed rook on the second rank and a strong passed pawn, Black has realistic drawing chances too.

23.♖xc7 a5?

Missing the last chance to activate a rook.

After 23...♖xe1† 24.♔xe1 ♖e8† 25.♔d1 ♖e4 26.♗c1 ♖a4 27.a3, White will keep a stable advantage, but Black can regroup the bishop to b6 and retains some drawing chances, despite being a pawn down.

24.♖xe8 ♖xe8



25.♖c4!

A great move by Carissa, taking control of the 4th rank and thus consolidating the advantage.

25...♖d8 26.♔e2 ♖d5 27.♗d2

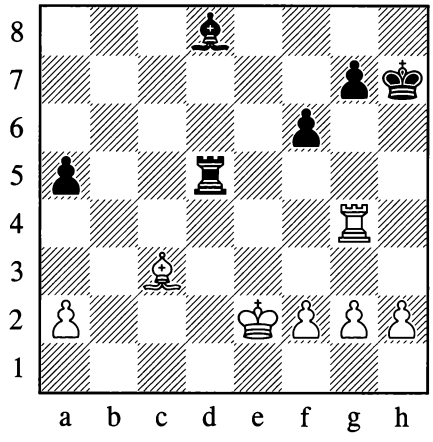
Stronger was 27.a4! to fix the a5-pawn as a weakness. There is a tactical variation to justify it. 27...♗g5 28.♗c7 ♖d2† 29.♔f3 ♖d3† 30.♔e4 ♖d2 31.f4 ♗e7 32.g4 White is in control and will win without a lot of difficulties.

27...♗d8 28.♖g4†

28.a4! was even simpler now.

28...♔h7 29.♗c3 f6

29...♗f6!? seeking a rook endgame could be tried, although giving White a passed pawn is not without a downside.



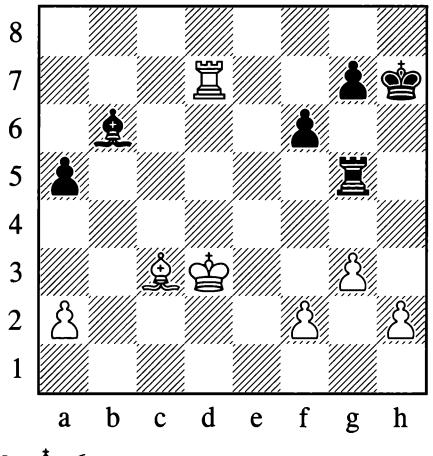
30.♖d4!

The exchange of rooks would eliminate 95% of all counterplay and thus win comfortably, one would hope.

30...♖c5 31.♔d3 ♗b6 32.♖d7?

32.♖d6! ♗c7 33.♖a6 with micro-domination properties was stronger. Now Black manages to create a lot of active counterplay.

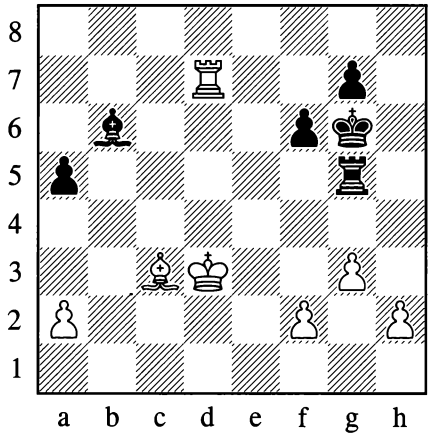
32...♖g5 33.g3



33...♔g6

The strongest move, although the following variation does show that White has lost control and needs to play much better now in order to convert her advantage.

33...♗xf2?! 34.♗xf6 ♖g6 35.♗d4 ♗xd4 36.♖xd4 ♖b6 37.♔c3 White is winning. Black did not get active. 37...♖e6 (37...♖h6 38.♖d2! and the king comes to a4.) 38.a4! ♖e2 39.♖h4† ♔g6 40.♖g4† ♔f6 41.h4 and 42.♖g5, with a winning position.



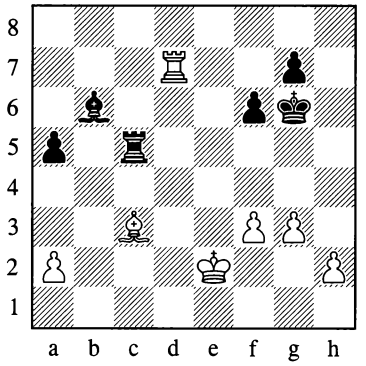
34.♗d4?

A big strategic mistake. White is going into the worst possible version of this pawn-up endgame.

White was probably still winning after:
34.f3! ♖f5!?

Seeking active counterplay is the best chance. 34...♗g1 35.g4! ♗xh2 36.♖a7 will be a favourable exchange of pawns for White. And 34...♖h5 35.h4 ♗f2 36.g4 is no different.

35.♔e2 ♖c5



36.♗d4

White is seeking the exchange of bishops only now, when the black rook will not be able to defend the 5th rank. Although White would prefer to keep the bishops on the board, it is clear that the exchange is inevitable if White wants to proceed, after the few inaccuracies on the previous moves.

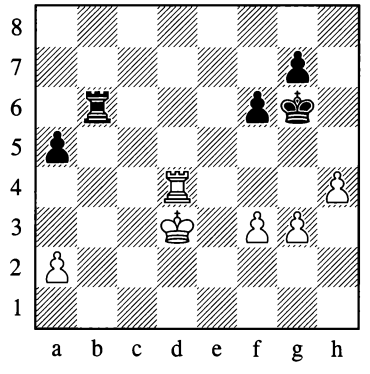
36...♖c6

36...♖c2† 37.♔d3 ♖c1 38.♔d2 ♖c6 39.a4! ♗xd4 40.♖xd4 ♖b6 41.♔c3 and 42.♖d5, wins easily.

37.♔d3! ♗xd4 38.♖xd4 ♖b6

38...♖c5 39.a4 is not the same as in the game. White will have time to play ♖d6-a6 before Black can get around to doing anything at all.

39.h4



White has a strong version of the rook ending, where she will most likely win without great difficulties. We can always analyse deeper, but the amount of control White has is significantly different to how the game looked at, say, move 35.

34...♗xd4 35.♖xd4 ♖b5

This is the worst possible version of this endgame. The rook is strongly placed on the 5th rank and White does not have time to reroute the rook to a6.

36.♖a4

36.♔c3 ♖h5! 37.h4 ♖f5 38.f4 ♖c5† is easy to hold for Black. After 39.♖c4, most of us might play 39...♖d5 and feel quite safe.

But even 39...♖xc4† 40.♔xc4 ♔f5 holds without further debate. As long as Black takes on f4 and not h4, down the line, when White would have 44.f5!, delaying Black for long enough to win the game.

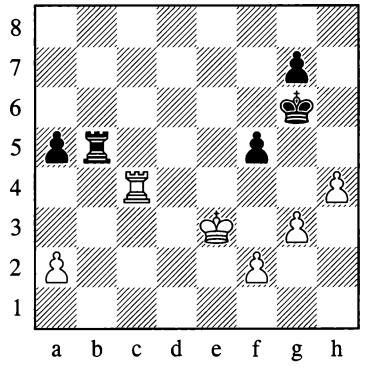
36...f5 37.♔e3 ♔f6?!

Black could have drawn by two tempos if he had played 37...♔h6! or 37...♔h5!, followed by ...g6, defending the f-pawn and preparing to create counterplay with the king.

38.h4 g6?

This was Black's last chance to place the king on the h-file.

Black still draws after:
38...♔g6! 39.♖c4



39...♔h6!!

A surprising move.

39...♔h5? looks natural, but there is a technical problem. 40.a4 ♖b3† 41.♔f4 g6 42.♖c8! ♔h6 43.♖a8 ♖b4† 44.♔e5 ♖xa4 45.♔f6 ♔h7 46.♖a7† ♔h6 47.♖g7 and White wins.

40.a4 ♖b3† 41.♔d2

There is no purpose to go to f4 anymore.

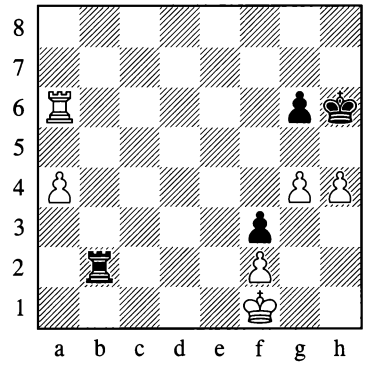
41...g6 42.♖c5 f4! 43.g4

43.gxf4 ♖b4 with a draw.

43...♖b2† 44.♔e1

After 44.♖c2 ♖b4 Black has enough counterplay to make a draw, although more moves will be played.

44...♖a2 45.♖xa5 f3 46.♖a6 ♖e2† 47.♔f1 ♖b2



Black makes a draw with active play, on account of 48.♔g1 ♖b4!.

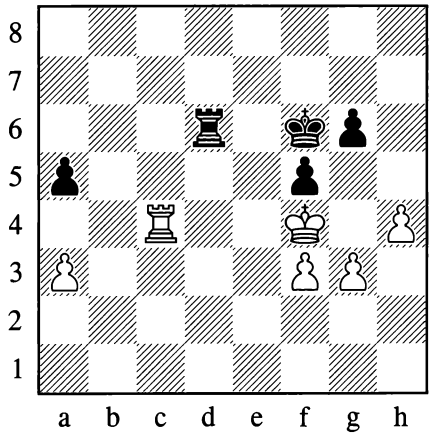
39.♔f4!

Denying Black the chance to reroute the king to h6.

39...♖c5 40.f3 ♖b5 41.♖c4

Activating the rook.

41...♖b6 42.a3 ♖d6



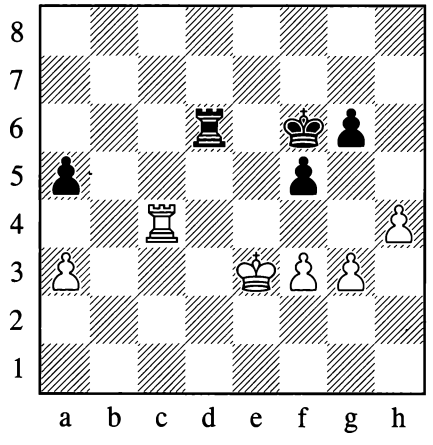
43.♔e3?!

At this point the winning plan is not difficult. White has to advance on the kingside and create a second weakness.

43.g4! fxg4 44.fxg4 ♖b6 45.g5† ♔e6 46.♖c7! Black will not be able to defend the g6-pawn. 46...♖d6 47.♔e4! with full domination.

43...♖d5 44.♔f4 ♖d6 45.♔e3?

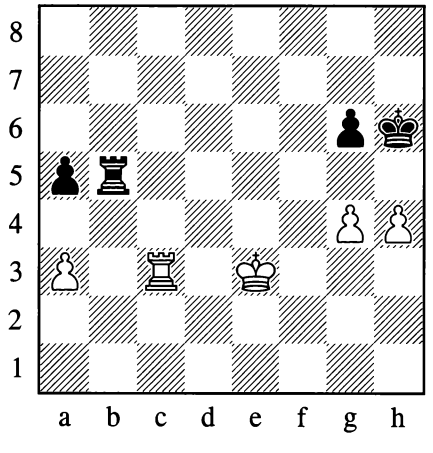
I am not fully in on this move. 45.g4! was winning as above.



45...♖d5?

45...♖e6†! was stronger. White's king can no longer return to f4, unless she is willing to allow Black to claim threefold repetition after 46.♔f4 ♖d6!.

46.♖c6† ♔g7 47.g4 fxg4 48.fxg4 ♖b5 49.♖c3 ♔h6



50.♔d4?

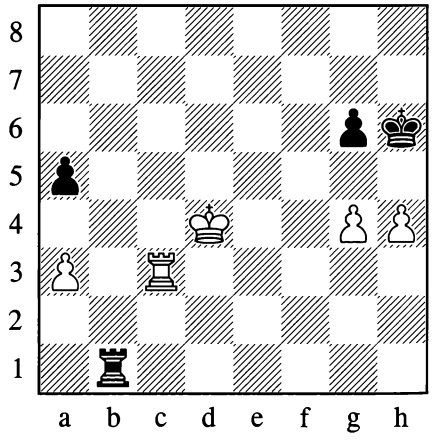
There is no job for the king on the queenside. Not surprisingly, Black gets counterplay against g4. White was still winning, but the requirement for good play has increased.

50.♔e4!? wins in complicated fashion.

But stronger was 50.♖c6! ♔g7 51.♖a6, placing the rook on the ideal square. 51...♖b3† Passive play would allow White to play g4-g5, check the king to the back rank, put the king on c4, the pawn on a4 and play ♖c7-c5. Even if the h-pawn falls, winning the a-pawn will make the rest trivial. 52.♔f4 ♖xa3 53.♔g5 White wins.

50...♖b1!

With counterplay against the g-pawn, Black draws.



51.♔e5

51.♖c6 ♖g1 is the problem.

51...♖e1† 52.♔f4 ♖f1† 53.♔g3 ♖g1† 54.♔f3 ♖h1 55.♔g3 ♖g1† 56.♔f4 ♖f1† 57.♖f3 ♖h1 58.♖c3

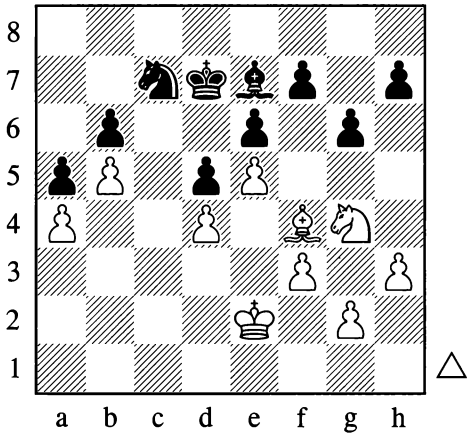
½–½

18. Exchanging for penetration

When we exchange pawns in order to penetrate the opponent's position, we call it broadening. When we exchange pieces, we call it exchanges, I guess. At times this is the way to break through a fortress.

Aleksey Dreev – Nikita Petrov

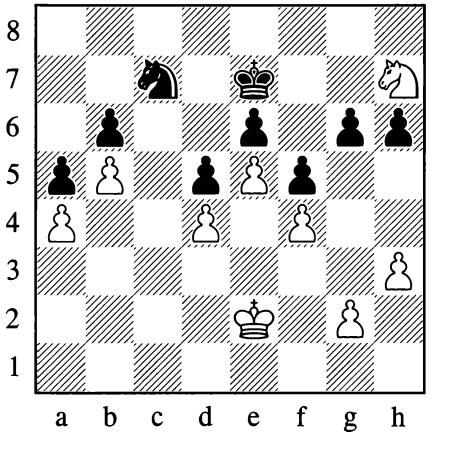
Yaroslavl 2019



39.♗h6?

After this, White was unable to break through:

39...♘e8 40.f4 f5 41.♘h2 ♘c7 42.♘f3 ♔e8 43.♗g5 ♗xg5 44.♘xg5 h6 45.♘h7 ♔e7

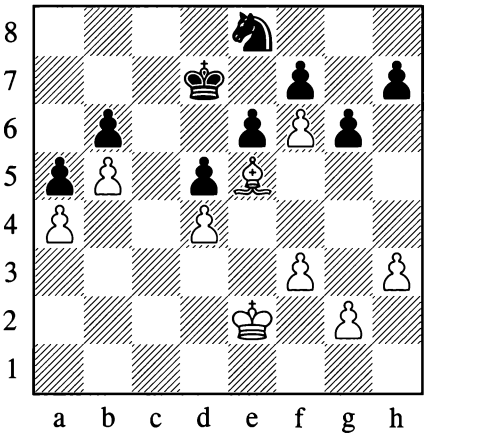


46.♘f6 ♘e8 47.♘xe8
½–½

Dreev should have played:

39.♘f6†! ♗xf6 40.exf6 ♘e8 41.♗e5

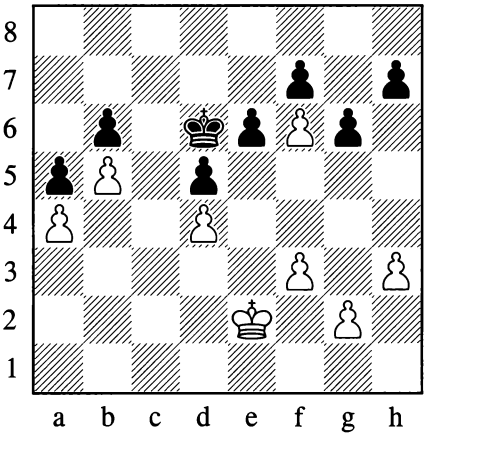
Which is entirely winning.



41...♘d6

Passive play also fails. 41...h6 42.♔f2 ♔d8 43.♔g3 ♔d7 44.♔g4 ♔d8 45.h4 ♔d7 46.h5 g5 47.f4 gxf4 48.♔xf4 and g4-g5.

42.♗xd6 ♔xd6

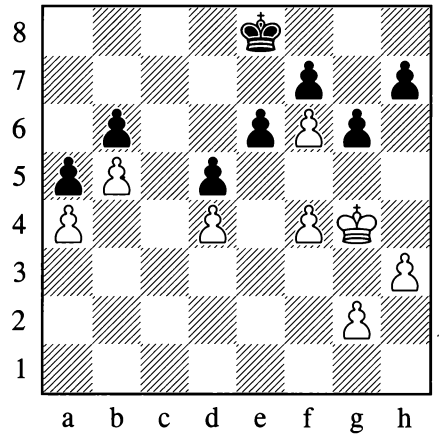


43.f4!

I believe this is the key move that Dreev missed. Sometimes we cannot explain our

mistakes in a way that preserves our dignity. I recently played a tournament, where I was doing well after 7 rounds, having defeated two GMs in a row, but simply ran out of energy (among other things because of this book!) and played appallingly in the last two games. There is no reason to go deeper with the explanation than this.

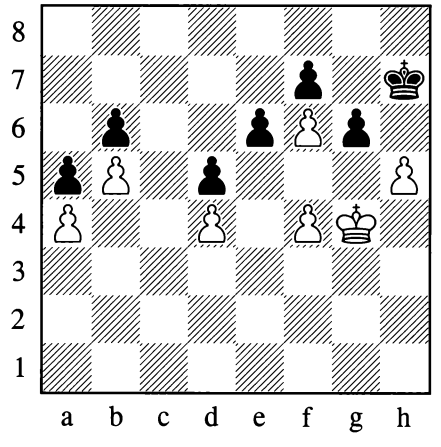
43...♔d7 44.♔f3 ♔e8 45.♔g4



45...h6

45...♔f8 46.♔g5 ♔g8 47.♔h6 ♔h8 48.h4 ♔g8 49.h5 ♔h8 50.hxg6 hxg6 51.g4 ♔g8 52.♔g5 and 53.f5!, undermining the defence of the d5-pawn.

46.h4 h5† 47.♔g5 ♔f8 48.g4 hxg4 49.♔xg4 ♔g8 50.h5 ♔h7



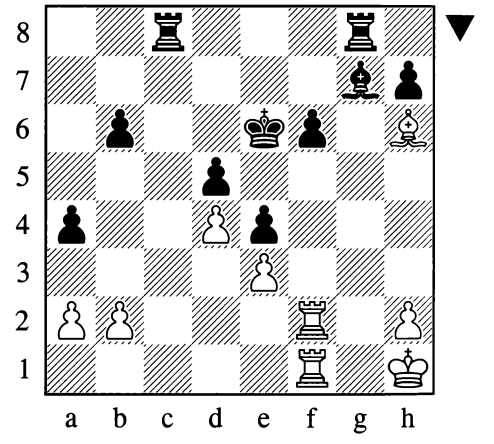
51.♔g5 gxh5 52.♔xh5 ♔g8 53.♔g5 ♔f8 54.f5

Black has to make a concession he will not enjoy. White wins.

Peter Finn – Oliver Stubbs

Internet 2020

It is not infrequent that one piece is controlling key squares and thus should not be exchanged.



Black should have played 33...♗h8!, when White has no real counterplay. Instead, Black allowed the exchange of the bishops and had to defend the f-pawn with a rook and give up the c-line.

33...♖cf8? 34.♗xg7 ♖xg7 35.♖c2

White is still worse, but was able to save the game.

35...♖d7 36.♖c6† ♖d6 37.♖c7 ♖f7 38.♖c8 ♖b7 39.♖f8 ♖f7 40.♖c8 f5 41.♖e8† ♔f6 42.♖e5 ♔g6 43.♖g1† ♔h6 44.♖f1 ♔g5 45.♖g1† ♔h4 46.♖f1 ♔g4 47.♖f4† ♔g5 48.h4† ♔g6 49.♔h2 ♖c6 50.♖f2 ♖d6 51.♔h3 h6 52.♖g2† ♔h5 53.♖f2 ♔g6 54.♖g2† ♔h7 55.♖f2 ♔g6

½–½

19. Exchanges for king safety

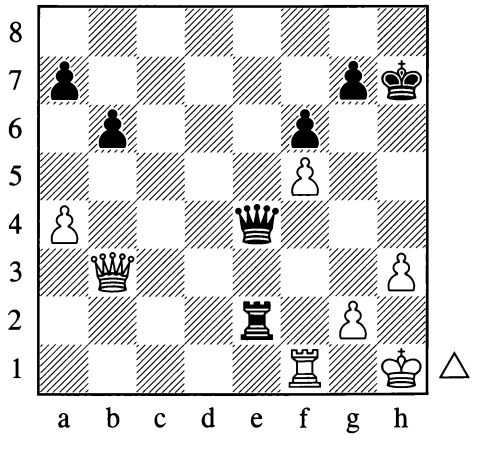
One aspect of exchanges is king safety. This is mostly relevant when queens are on the board. When we are suffering from having the worse king safety, often the exchange of one or two sets of pieces will bring essential relief. It does not have to be the most powerful attacker (often the queen) which we exchange. It can also be the supporting pieces. We need the danger to go away.

This sounds awfully simple, but the number of examples in my database where grandmasters get this wrong are aplenty. One factor that often plays in, is that when short of time or otherwise stressed, the exchange of queens can lead to a relaxing of tension, which can feel liberating, even if you are on the stronger side and it is a bad decision.

In the following game, White is suffering from the threat of mate in one.

Sabrina Vega Gutierrez – Jesus Martin Duque

La Palma 2020

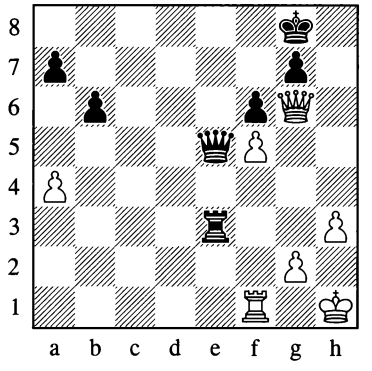


35.♖f3?

35.♕g3? would defend against the mate, but it is not in White's interest to avoid the exchange of queens. After 35...♖e3! 36.♕g6† ♔g8, Black keeps control.

A key point is that 37.♕g4 is met by 37...♕xg4 38.hxg4 ♖e4, and after winning a pawn, Black will win the rook ending.

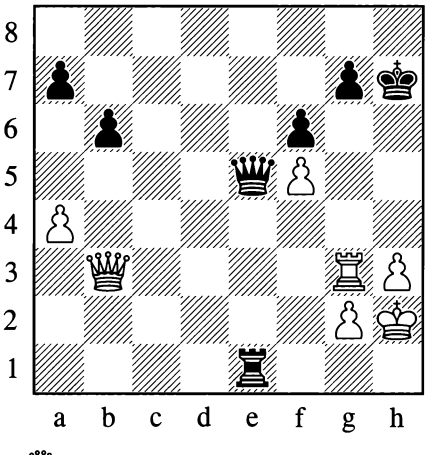
And after: 37.♔h2 ♕e5† 38.♔h1



38...♖e1! Black will win the a4-pawn and in the long term the queen ending.

The only move was 35.♕f3!, seeking the exchange of queens. White can hold the rook ending, and with the threats against the white king coming to an end, White should hold the game with good technique.

35...♖e1† 36.♔h2 ♕e5† 37.♖g3



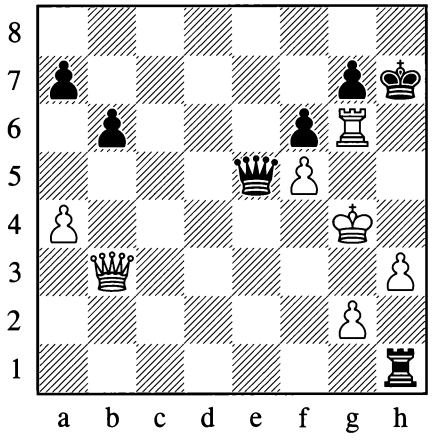
37...♕a1!

The attack on the king continues.

38.♖g6 ♖h1† 39.♔g3 ♕e1†

39...♕e5† immediately makes more sense.

40.♔g4 ♕e4† 41.♔g3 ♕e5† 42.♔g4



42...♖e1!

Black continues the attack.

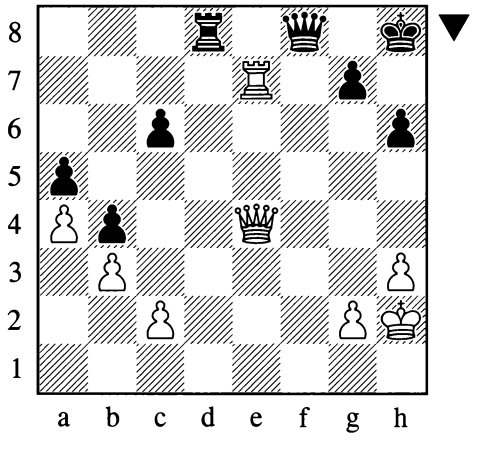
43.♔h4 ♕f4† 44.g4 ♖e3
0–1

20. On the other hand

On the other hand, the defender should be careful when relieving the pressure on a weak king. He needs to make sure that the resulting endgame is holdable!

Ian Nepomniachtchi – Wesley So

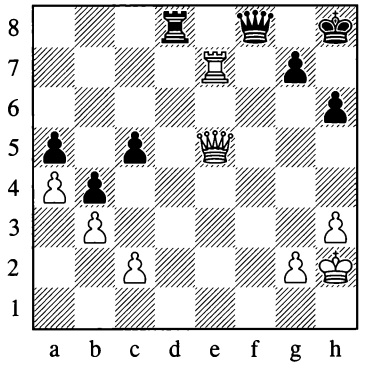
Jerusalem (2.4) 2019



37...♖d4?

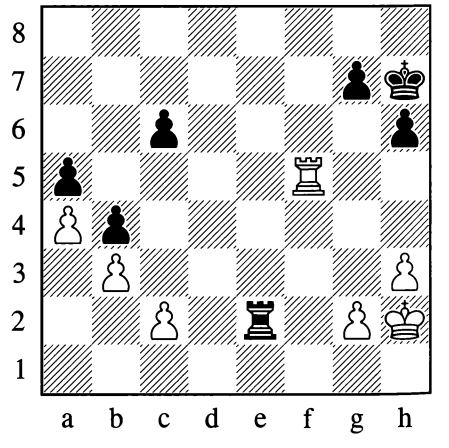
Seeking the exchange of rooks, but this allows White to exchange the queens instead.

37...c5 is the best of many moves that would have held the game. After: 38.♕e5



Black can defend passively with something like 38...♖c8. However, Black is now also able to seek exchanges: 38...♖d5! 39.♖e8 ♖xe5 40.♖xf8† ♔h7 41.♖a8 ♖e2 and Black draws.

38.♖e8 ♖xe4 39.♖xf8† ♔h7 40.♖f5 ♖e2

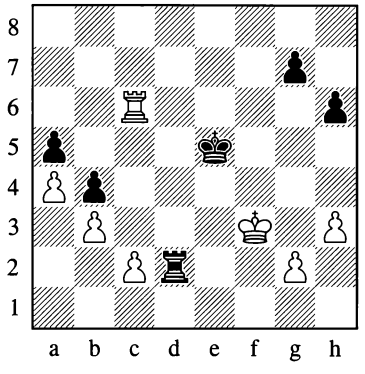


41.♖c5!

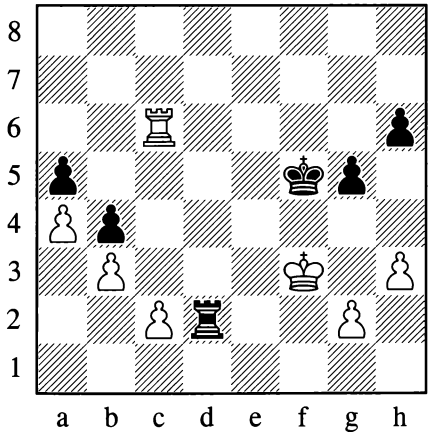
The problem. White wins a pawn and can then improve the king and squeeze.

41...♔g6 42.♖xc6† ♔f5 43.♔g3 ♖d2 44.♔f3 g5

44...♔e5



45.h4! ♔d5 46.♖c7 ♔d6 47.♖c8 ♔d7 48.♖c4 would set up White to play g2-g4, h4-h5 and then bring the king over to defend the c2-pawn.



45.g3?

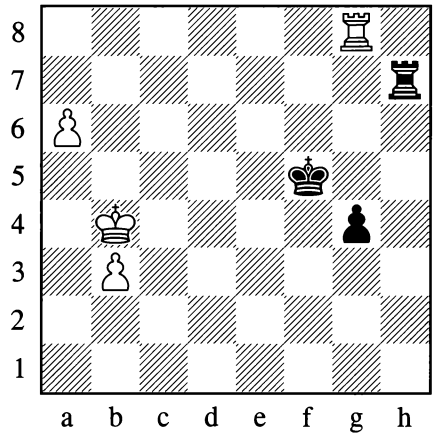
A serious mistake.

45.♖c5† ♔f6 46.g3 would be similar to the game, but with the black king pushed back. White is threatening ♔g4-h5, and after 46...h5 47.h4, White will win more pawns.

45...♖h2?

So misses his chance to save the game with 45...♔e5!, and a variation like: 46.h4 gxh4 47.gxh4 ♔d5 48.♖c8 ♔d4! 49.♖c4† ♔d5 and White can try various things. None will win.

46.♖c5† ♔g6 47.♖xa5 ♖xc2 48.♖e5 ♖b2 49.♖e3 h5 50.g4 hxg4† 51.hxg4 ♔f6 52.♔e4 ♖g2 53.♔d5 ♖xg4 54.a5 ♖g1 55.♔c5 g4 56.a6 ♖h1 57.♖e8 ♖h5† 58.♔xb4 ♖h7 59.♖g8 ♔f5



60.♔a5 ♔f4 61.b4 g3 62.b5 ♔f3 63.b6 ♖h5† 64.♔a4 ♖h4† 65.♔a3
1–0

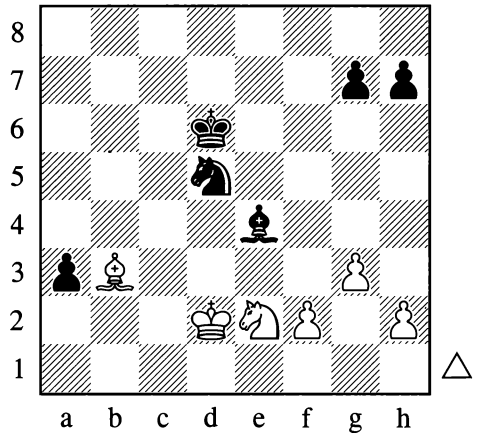
Another example of a weak king not being the most important element can be found earlier in this chapter, in Nodirbek Yakubboev – Javokhir Sindarov on page 662. The whole point is (as always) that these are guidelines of frequently correct decisions we should gravitate towards, and not a replacement for thinking. It does not mean that these observations are not useful, but that chess is a complicated game...

21. A complex example

The following ending was played in the 2nd game of the 2017 World Cup final. Aronian eventually won the match, but could have taken an early lead if he had converted his advantage in this game.

Ding Liren – Levon Aronian

Tbilisi (7.2) 2017



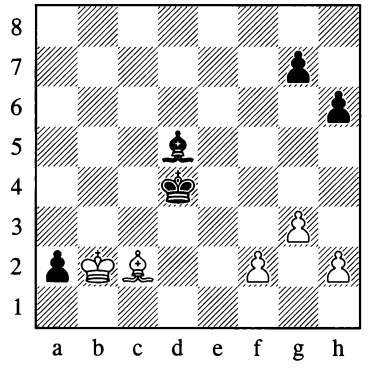
41.f3!

It is interesting to note the line:

41.♘c3 ♘xc3 42.♔xc3 ♗d5 43.♗c2 h6

This is a draw according to Stockfish. I could not imagine a more unpleasant-looking holdable version of this endgame. The a3-pawn is very strong.

44.♗g6 ♔c5 45.♗c2 a2 46.♔b2 ♔d4



Now the evaluation becomes apparent. As with most defensive bishop endings, White's strategy is based on a fortress. Black has no path forward and even if he was able to eliminate all life on what is currently the kingside, White would point to the a1-square and offer an unavoidable draw. (Relevant in a situation where Black has a pawn on g5 and White plays f2-f4. Black then plays ...g4 to avoid the exchange of pawns, but White finds a way to give up the bishop for the last black kingside pawns.)

47.♗g6!

White can also put the bishop on f5, but that is the only viable alternative.

47.h4? a1=♕† 48.♔xa1 ♔c3 49.♔b1 ♔d2 would give Black a head start to the kingside. This position is only won for him because the g3-pawn was exposed by White's last move.

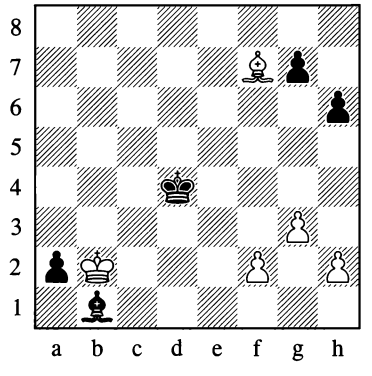
47.♗h7? ♗e4 48.♗g8 ♗b1!, threatening ...♔e4-f3, decides too. 49.♗f7 Aiming to get back to h5 in time. 49...♔d3! 50.♗h5 ♔d2 Black wins by a tempo compared to the main line.

47...♗e4!

The best try, even though accurate play still holds for White.

47...a1=♕† 48.♔xa1 ♔c3 49.♔b1 ♔d2 50.f4 ♔e2 51.♔c2 And the white king will follow the black king along the 2nd rank, suffering only the loss of one pawn.

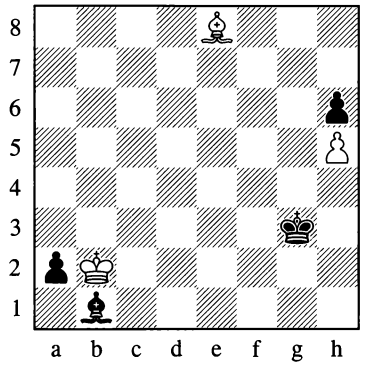
48.♗f7 ♗b1



49.♗h5! ♔d3 50.h4!

White establishes a set-up that will allow him to exchange a set of pawns without having to give up the h-pawn.

50...♔d2 51.g4! ♔e2 52.g5† ♔xf2 53.gxh6 gxh6 54.♗e8 ♔g3 55.h5

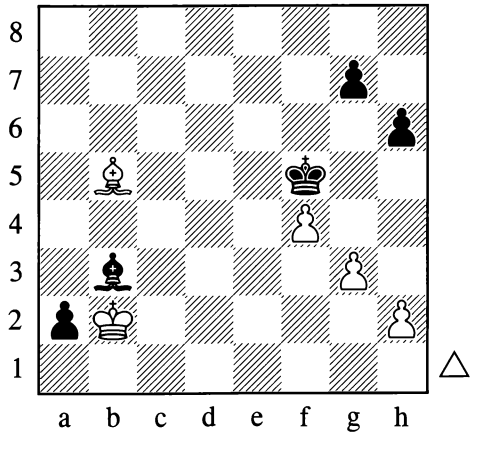


White makes a draw. It takes too much time for Black to win the h5-pawn and then advance his own h-pawn without allowing the white bishop to sacrifice itself. Meanwhile the white king will eliminate the a-pawn and make it back to the kingside.

Diverging briefly from our main game, the following endgame features in Boris Gelfand's book, *Technical Decision Making in Chess*.

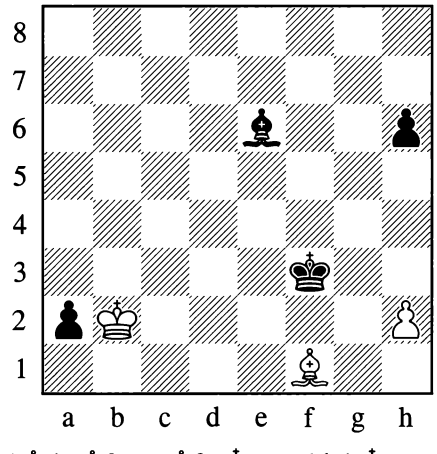
Boris Gelfand – Wang Yue

Sochi (analysis) 2008



This is more or less the worst possible version of the bishop endgame with the pawns on the dark squares (it is easy to dream up a version where the white pawns are blocked and have no hope of survival). White has already weakened his kingside with f2-f4, which makes e3 a vulnerable square, prime for invasion. I was shocked to see that White can hold a draw in this position, as it seems so compromised. You can find the full analysis in the above-mentioned book, pages 47-49. Here I just want to give the narrow path to a draw.

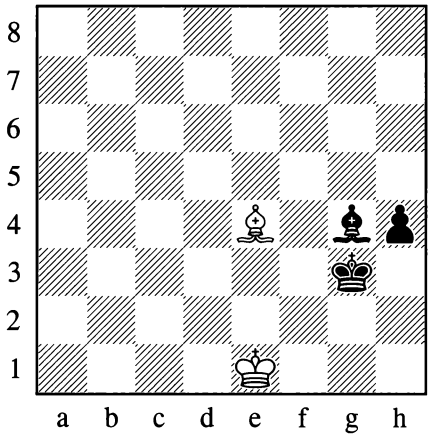
46.♗c6 ♔g4 47.♗g2 h5 48.♔a1 ♗e6 49.♔b2 h4 50.gxh4 ♔xf4 51.h5 ♔g4 52.h6 gxh6 53.♗f1 ♔f3



54.♗d3 ♗f7 55.♗f5 ♔g2 56.h4 ♔g3 57.h5 ♗xh5 58.♔xa2 ♗f7† 59.♔b2 h5 60.♔c2

The only points in the above line where White had more than one drawing move was on this and the previous move, where there was more than one way to implement the same idea of bringing the king across to the kingside.

60...♗d5 61.♔d2 ♗f3 62.♔e1 ♗g4 63.♗e4 h4



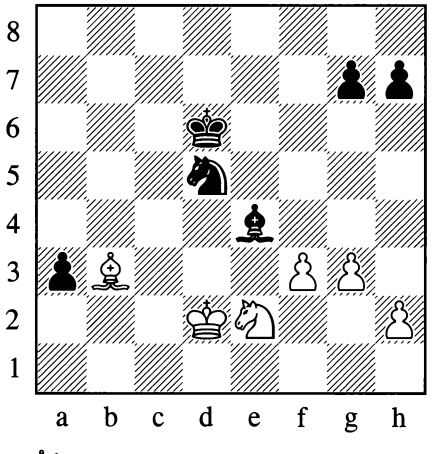
64.♔f1

White arrives with no time to spare.

64...h3 65.♔g1 h2† 66.♔h1

White holds.

Returning to Ding Liren – Levon Aronian...



41...♗b1

41...♗xf3 42.♘d4 and 43.♘b5† would lead to an immediate draw.

42.♔c1?!

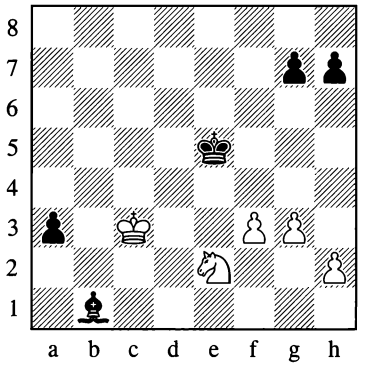
Ding Liren's approach to holding this game turned out to be very flawed. He basically tries to create counterplay on the kingside.

Rather, the strategy that seems safest is centred around seeking clarity. With so few pawns on the board and with no material deficit, White should have a reasonable chance of forcing a draw.

Usually, I would be a little cautious about trying to force a draw in a position where I thought I was worse. Often a strong strategy for winning such positions against lower-rated players is to shuffle around and allow them to enjoy the misery of their position for a while, thus enticing them to try to force matters from a position of weakness. This often backfires, as you may have guessed.

This situation is a bit different, as what I am looking for with White is clarity. Black is certainly able to win this position under the right circumstances. Thus, I see the strongest path forward to be one where White prevents the invasion of the kingside and limits the strength of the black bishop.

42.♗xd5! ♔xd5 43.♔c3 ♔e5!?



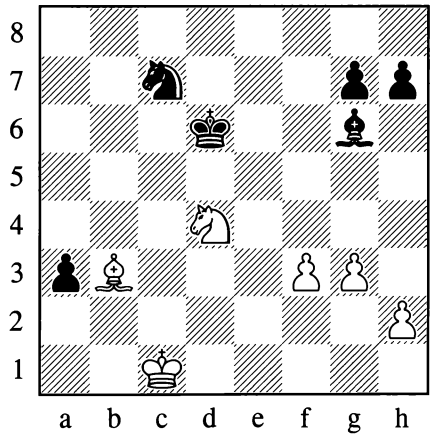
Now 44.♘f4! would make the draw. Black is unable to activate the bishop without giving up the a-pawn way too early.

Working out this continuation is certainly difficult, but no more difficult decisions will arise after this. As the game progressed, he came to regret not having taken this chance.

On the other hand, White would lose after: 44.♔b3? a2 45.♔b2 ♗d3! 46.♘f4 ♗c4 White is unable to create counterplay on the kingside and/or bring the king into the game.

I appreciate that it was challenging to find this for Ding Liren. Not because the sequence itself is tactically challenging, but because he would have to want to play it. Choosing the direction is the challenge here. But this is why we analyse and study games. Because we see these challenges for the player and learn how to handle them. I have never seriously looked at any game without learning something.

42...♗g6 43.♘d4 ♘c7

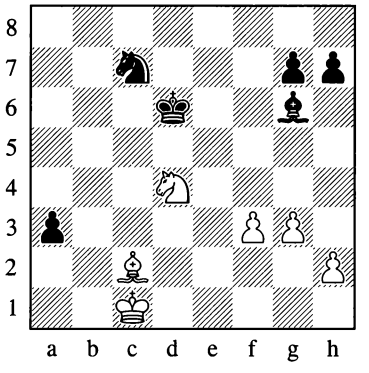


44.♘e2?

44.♗c2! would have been the right way to make the draw. Based on our principles, White should not want to exchange any pieces, all things being equal. But as things are not always equal, it is useful to understand both why White would not want to exchange pieces and why he would like to exchange the bishops.

First of all, a pawn ending is desperate for White. There could be scenarios where White can take the a-pawn and rush to the kingside just in time. But mostly not. Botvinnik classified knight endings together with pawn endings, because they share a lot of characteristics. However, there are also obvious differences. The biggest being that a sole knight cannot win the game, but a sole pawn can. White's strategy with exchanging the bishops would be to give up the knight for the last black pawn on the kingside.

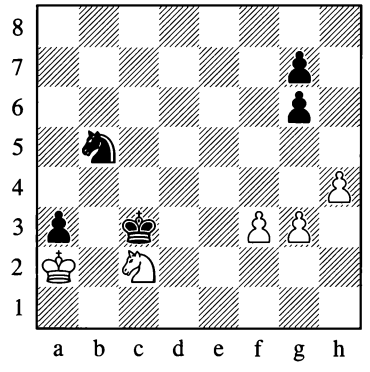
The key point in exchanging the bishops is that the black bishop at this point is limiting the activity of the white pieces. For example: without the bishops on the board, the knight will be able to make it difficult for the black king to invade the white position through the centre, while at the same time prepare to rush to the kingside to eliminate the pawns.



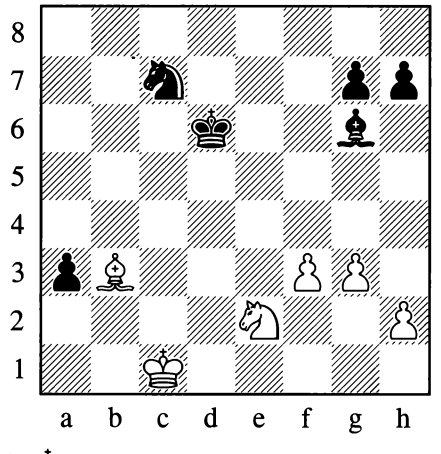
The following variations (after 44.♗c2!) are meant as illustration only:

a) 44...♗xc2 45.♘xc2 ♘b5 46.♔b1 ♔d5 47.♔a2 ♔c4 48.♘e3† ♔d3 49.♘f5 g6 50.♘e7 ♔e3 51.f4 ♔f2 52.f5 gxf5 53.♘xf5 ♔g2 54.g4 ♔h3 55.♘h6 ♔h4 56.h3 ♔xh3 57.♘g8 ♔h4 58.♘f6 h6 59.♘g8 Black cannot make progress.

b) 44...♔e5 45.♗xg6 hxg6 46.♘c2 ♘b5 47.h4 ♔d5 48.♔b1 ♔c4 49.♔a2 ♔c3



50.♘e3 ♔d3 51.♘g4 ♔e2 52.♘e5 ♔f2 53.g4
White is making the draw easily.



44...♔c5?

44...♘b5!

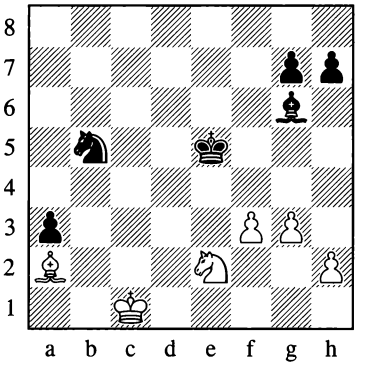
This was really tricky. White survives with one idea only:

45.♗a2!

45.♗g8 ♔e5 46.♘f4 ♗f5 47.♘e2 ♘d4 is one variation where White will lose.

45...♔e5

The main threat is ...♘d4.



46.♗b1!!

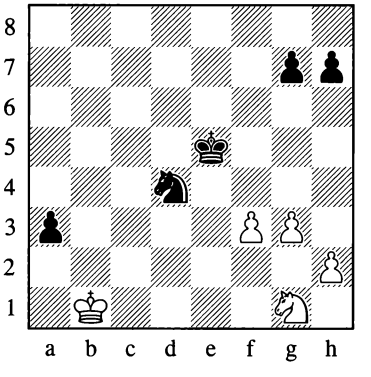
Once again White survives in the knight ending.

46.♘f4? ♗f5 will turn out poorly for White. 47.♘e2 ♘d4 48.♘g1 would leave White paralysed.

46...♗xb1 47.♔xb1 ♘d4

Black implements his idea.

48.♘g1!!

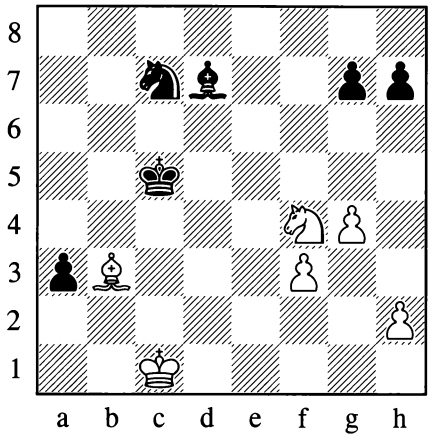


This position is a draw. The difference from the position with the bishops is that White can easily attack the a3-pawn.

48...♘b3 49.♔a2 ♘d2 50.♔xa3 ♔d4 51.♔b4 ♔e3 52.♔c5 ♘xf3 53.♘h3! ♘xh2 54.♔d5

White is in time to make the draw.

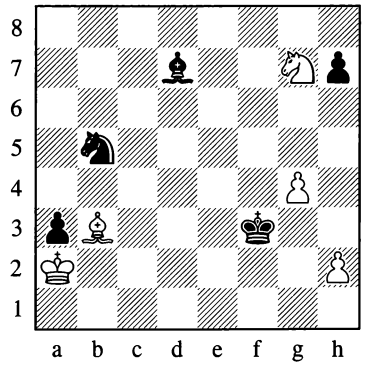
45.♘f4 ♗f5 46.g4 ♗d7



47.g5?!

I do not like this move much. At the moment the pawn restricts the black pieces conveniently.

It was more practical to play 47.♔b1, which he would always have to play sooner or later. 47...♔d4 48.♔a2 ♘b5 49.♘h5 ♔e3 50.♘xg7 ♔xf3

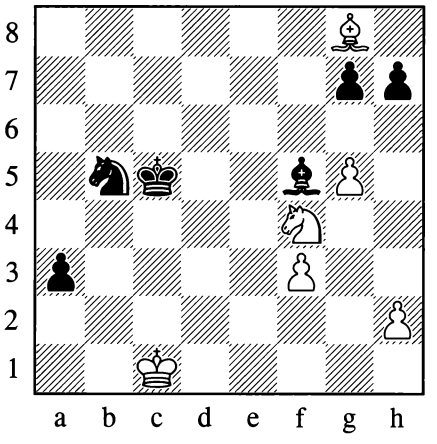


51.g5 ♔g4 52.♗c4 ♔xg5 53.♗xb5 ♗xb5 54.♘e6† (54.♔xa3? ♗d7! would leave the knight trapped.) 54...♔h4 55.♔xa3 ♗c4 56.♘d4 ♔h3 57.♔b4 ♗f7 58.♘f3 White draws easily.

47...♘b5 48.♗g8

White continues chasing the a3-pawn.

48...♗f5



49.♘h5?

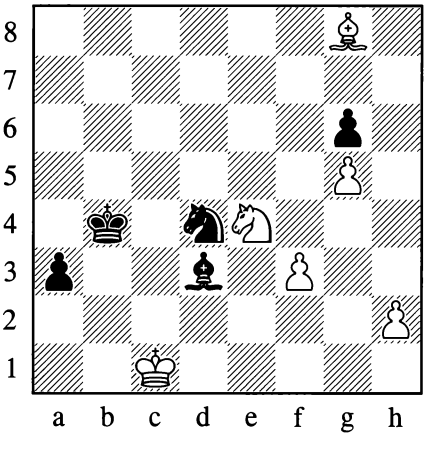
But only this is a serious mistake.

49.♘e6† ♗xe6 50.♗xe6 ♘d4 51.♗g8 would lead to a two vs one pawn ending that White should hold without too much difficulty. Obviously Black would try to see if he could inflict damage on the kingside, but in practice it would be hard to get anywhere.

49...g6 50.♘g3

White would lose quickly after 50.♘f6 ♘d4 51.♘xh7 ♔b4 52.♗a2 ♘b3† 53.♔d1 ♔c3.

50...♗d3 51.♗xh7 ♘d4 52.♘e4† ♔b4 53.♗g8

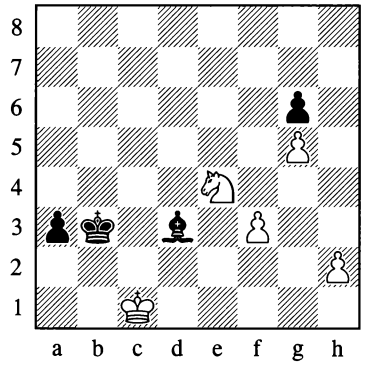


Matters have intensified. White has spent a lot of energy stealing the h7-pawn. But while the elimination of pawns is highly desirable, we can see that it has occurred to the sound of great compromise. The white pawns could just as well be isolated. They are in no way working together as a team. White surely would love to play h4-h5 to exchange a pawn, but making it happen is fraught with difficulty. Meanwhile, Black has managed to bring his pieces to the best possible squares and now has the right to choose the direction of the game.

53...♘xf3?

This is the wrong choice, but one which is very easy to understand. Black regains his pawn and immediately attacks two of White's pawns. Actually, the move is so tempting that Aronian made it after about two minutes. This is thus not really an endgame error; not beyond imagination at least. Rather it is a mistake of not realising that this is the moment to think. Aronian still had 8-10 minutes on the clock and if he had the feeling that this might be the moment of truth, he would certainly have invested more of it here.

53...♘b3† 54.♗xb3 ♔xb3



55.♘d2†

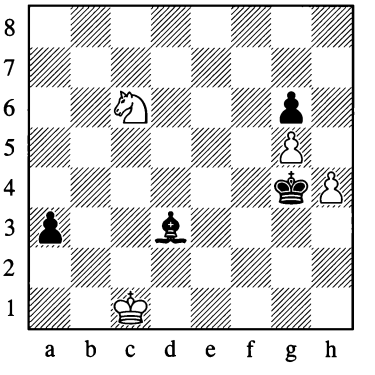
It is of course possible that Aronian missed: 55.♘c5† ♔c3 56.♘xd3 a2! – which would only happen if he looked at it too quickly. I do not think this is likely, because it seems very basic. But blunders tend to be basic, whatever we want to believe.

55...♔b4 56.h4 ♔c5 57.♘b3† ♔c4!

A nice bit of accuracy.

57...♔d5? 58.♔d2 would allow the white king to enter the game. The black king is zigzagging along, not allowing that to happen.

58.♘d2† ♔d4 59.♘e4 ♔e3 60.♘c5 ♗f5 61.♘b7 ♔xf3 62.♘a5 ♗d3 63.♘c6 ♔f4 64.♘e7 ♔g4 65.♘c6



No one would have been able to calculate their way to here, although someone like Aronian might have been able to play all the right moves to get here. Still more challenges await. Aronian would be able to solve each of these situations, should he give the focus to the right moments. He would also be able to play all the moves perfectly. But not every time. Such is the nature of mistakes by top players. They can happen. Especially if they do not understand when to pay attention.

65...♔f5!!

65...♔xh4? 66.♘e5 ♗e4 67.♘c4 ♔xg5 68.♘xa3 ♔f4 69.♔d2 ♔f3 70.♘c4, when the knight is back in time to stop the g-pawn.

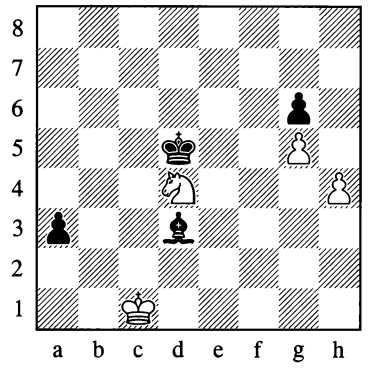
66.♘e7† ♔e5 67.♘c6† ♔e6!

The way to win this ending is very beautiful. I could easily have put this variation in a section with the theme "domination".

68.♘d4†

68.♘b4 ♗e4! 69.♔d2 ♔f5 70.♔e3 ♗b1 and Black wins.

68...♔d5

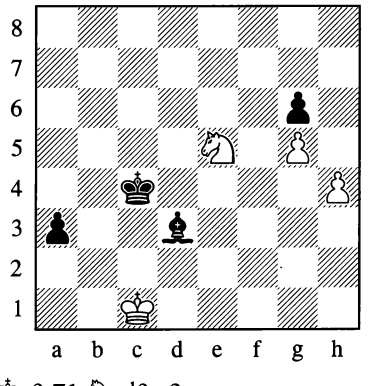


69.♘f3

69.♘b3 ♔c4 70.♘d2† ♔b4 and next ...♔c3, winning.

69...♔c4 70.♘e5†

Allowing the beautiful finish, but everything else loses as well.

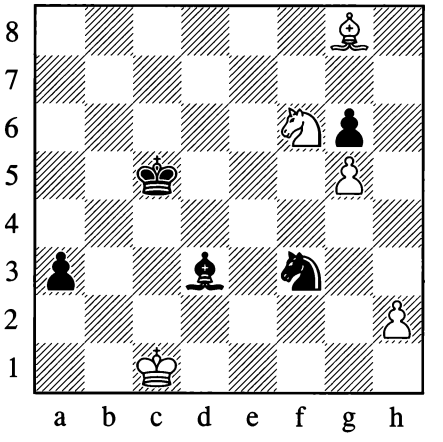


70...♔c3 71.♘xd3 a2

Black wins.

54.♘f6 ♔c5

54...♘xg5 55.♘d5† followed by ♘f4 and h2-h4 leads to an easy draw.



55.h3?

It is not that easy to work out Ding Liren's idea. I presume that he wanted to keep the h-pawn, hoping for h4-h5 ideas.

Once again the drawing idea is all about getting rid of the dominating black bishop. 55.♗a2! ♘xh2 56.♗b1 and the draw is within his grasp.

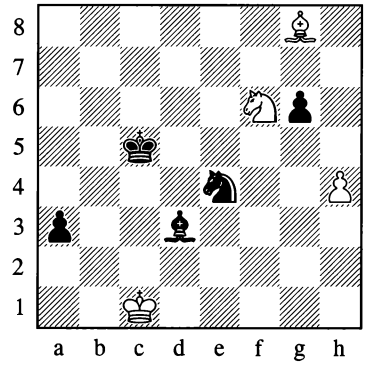
55...♔d4?

Aronian seems to believe his opponent.

The critical variation was:

55...♘xg5 56.h4 ♘e4!

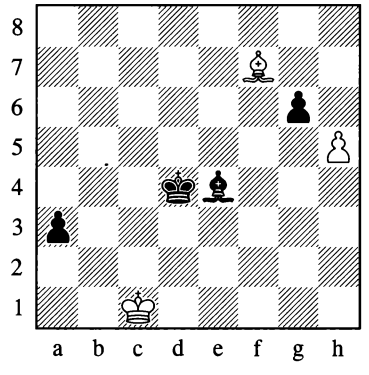
While the exchange of bishops is greatly in White's favour, the exchange of knights favours Black, as long as White cannot make it to the a1-square.



57.♘xe4†

57.♘d5 offers less resistance. I prefer the following path, as it seems more logical: 57...♘d2!? 58.♘f4 (58.♘e3 ♘f3 is the general idea. Black is dominating. 59.♘g2 ♔d4 60.♗f7 ♔c3 61.♗g8 ♗c4 will win like in the main line.) 58...♗c4 59.♗xc4 ♔xc4 Threatening ...♔b3. 60.♔c2 ♘f3! 61.♘xg6 ♘d4† 62.♔b1 ♔b3 Black wins.

57...♗xe4 58.♗f7 ♔d4 59.h5



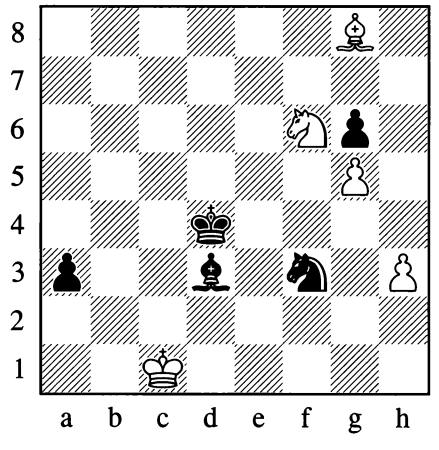
This looks like a serious attempt to force a draw. It almost works.

59...g5 60.♗g6 ♔c3!!

Black wins.

61.♗f7 ♗c2 62.h6 g4 63.♗d5 g3

White is in zugzwang.



56.♗a2?

Ding Liren is offered a chance to hold that no one will be able to find without knowing it is here and being gifted about 30 minutes to work out all the details.

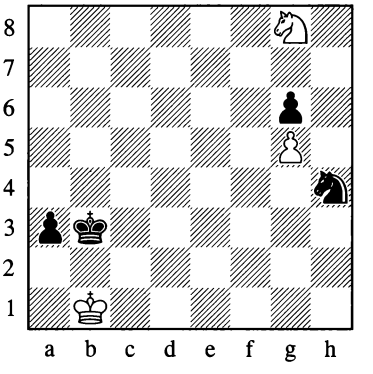
56.h4!!

Diversion.

56...♘xh4 57.♘d5 ♗c4

57...♘f3 58.♘b4 ♗f5 59.♘c2† also holds.

58.♘f6 ♗xg8 59.♘xg8 ♔c3 60.♔b1 ♔b3



The position still looks dangerous for White. But after:

61.♘f6! ♘f3 62.♘e4 ♘d4 63.♘d2†

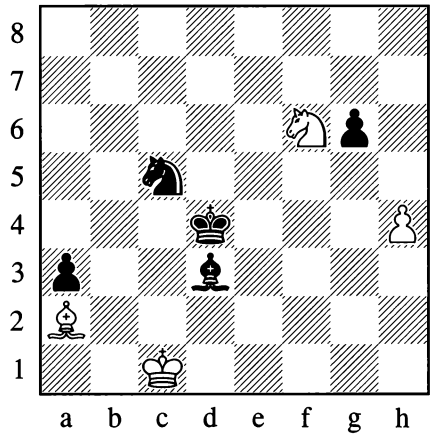
The draw is still there.

56...♘xg5 57.h4 ♘e4 58.♘d7 ♘c5

This is the point when Aronian misses maybe the easiest of the wins.

After 58...♘c3 59.♗b3 ♘e2† 60.♔d2 ♘g1 Black wins the h-pawn and the rest more or less takes care of itself.

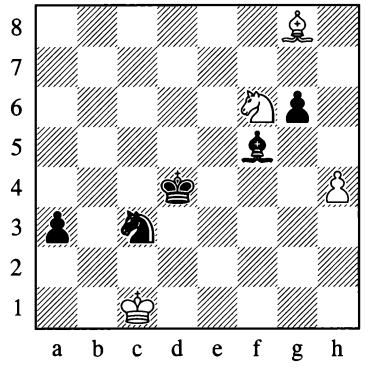
59.♘f6



59...♔e5?

Black was still winning. The winning idea is not very forcing, so I am just representing the general idea here.

59...♗f5 60.♗g8 ♘a4 61.♗f7 ♘c3 62.♗g8

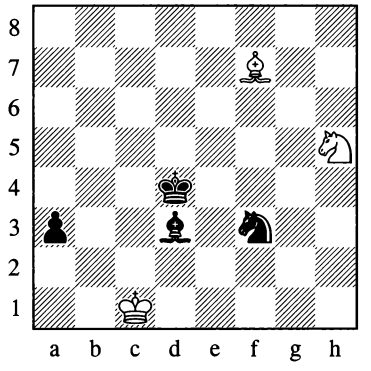


62...♘e2† 63.♔d2 ♗d3! 64.♗f7

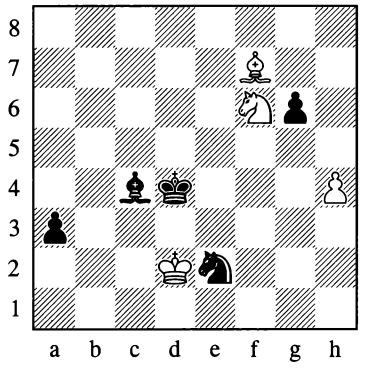
64.♗a2 ♘c3 65.♗f7 ♘e4† gives us that winning bishop endgame again.

64...♗c4!

64...♘g1!? 65.h5 gxh5 66.♘xh5 ♘f3† 67.♔c1



67...♗c4 This is an elegant minimalistic win, but absolutely not what would happen in a game. 68.♗g6 ♘d2!! 69.♘g3 ♔c3 and the a-pawn shall be crowned.



65.♗xc4 ♔xc4 66.♔c2 ♘d4†

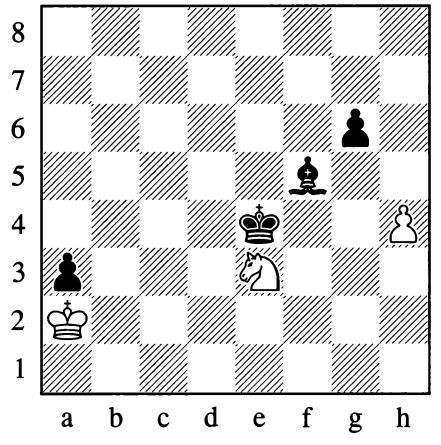
Black wins.

59...♘e4 with a repetition does not spoil anything, but is also not a solution.

60.♘d5 ♗f5

White would also hold the draw after 60...♘a6 with correct play. For example: 61.♔d2 ♗e4 62.♘c3 ♘b4 63.♗f7 ♘d5 64.♗e8 and White should hold.

61.♘e3 ♘d3† 62.♔c2 ♘b4† 63.♔b3 ♘xa2 64.♔xa2 ♔e4



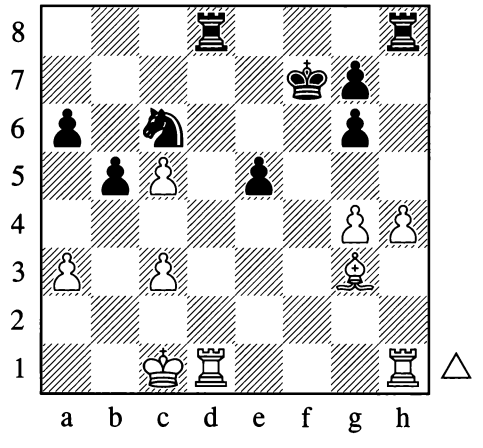
65.♘c2 ♔f4 66.♘d4 ♔g4 67.♔xa3 ♔xh4 68.♔b2 ♔g3 69.♔c3 ♔f2 70.♔d2 ♗g4 71.♘c2 g5· 72.♘e3 ♗e2 73.♘d5 ♗g4 74.♘f6 ♗f5 75.♔d1
½–½

22. Exchanges from the defender's point of view

The following online game between two of the rising stars of the US reminds us how great the drawing margin is in chess and is a good illustration of key methods of defence.

Arthur Guo – Christopher Yoo

Internet 2020



28.♔c2!?

Not a bad move per se, but still a tempo spent.

28.h5! to exchange pawns was the textbook solution to White's problems. 28...gxh5 29.♖xd8 ♘xd8 30.♖xh5!? ♖xh5 31.gxh5 ♘c6 32.♔d2 would give a drawn minor piece ending.

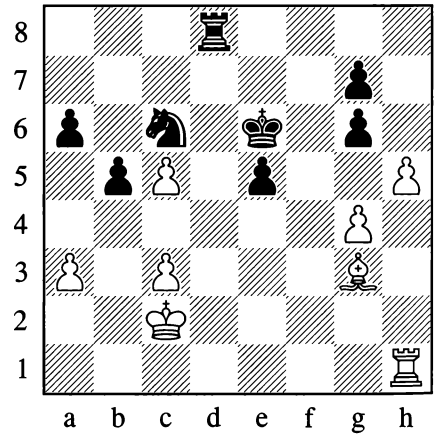
White could also choose to keep the rook on without it creating any major dangers for him. But 28.♖xd8?! ♖xd8 29.h5 would be inferior. After 29...♖d3, Black has strong winning chances.

28...♔e6 29.♖xd8?!

Not a good exchange.

White could have made sense of the previous move by playing 29.a4! bxa4 30.♖b1! with active counterplay.

29...♖xd8 30.h5

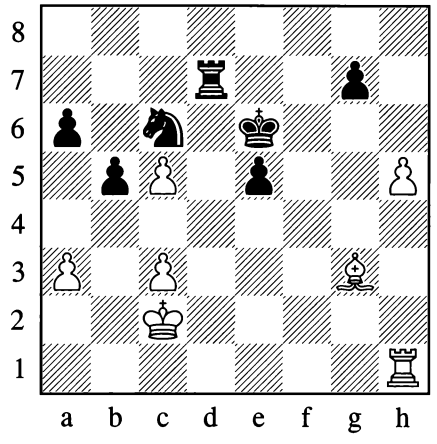


30...gxh5?!

Also not a good exchange. White is one step closer to eradicating the kingside pawns.

30...♘a5! was stronger. 31.hxg6 ♘c4 32.♖h7 ♘xa3† gives Black a real advantage after 33.♔c1 ♖g8. A key tactical point is that 33.♔b3? loses a vital tempo. After 33...♘c4! 34.♖xg7?! ♖d2 White is checkmated.

31.gxh5 ♖d7



32.♗f2?

A move without a clear direction.

32.h6! was the natural move. After 32...gxh6 33.♖xh6† ♔d5, White could choose to defend the c-pawn now, or try to force a draw: 34.a4!? bxa4 35.♗xe5 ♘xe5 36.♖xa6 And with no pawns left, Black's winning chances are gone.

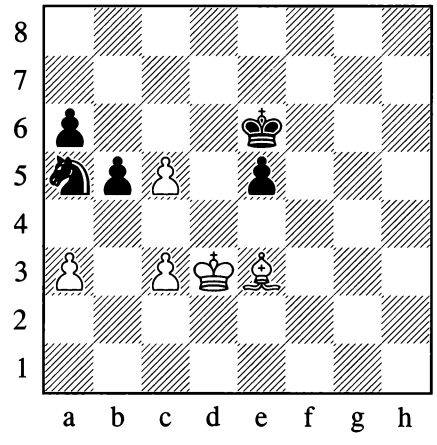
32...♖f7! 33.♗e3

Stockfish 14 gives 33.♖h2!! ♘a5 34.♖g2 ♘c4 35.♔b3 a5 36.♗g1 as best, and equal. This whole manoeuvre is incredible. No one would play like this, but it is an instructive organising of the pieces.

33...♘a5 34.h6?

There were other options and some of them perhaps practically preferable. The biggest drawing resource White has at the moment is the rook. As long as it is on the board, he will be able to create threats. Now the rooks come off and the minor piece ending is definitely a greater peril than anything we have seen so far.

34...gxh6 35.♖xh6† ♖f6 36.♖xf6† ♔xf6 37.♔d3 ♔e6



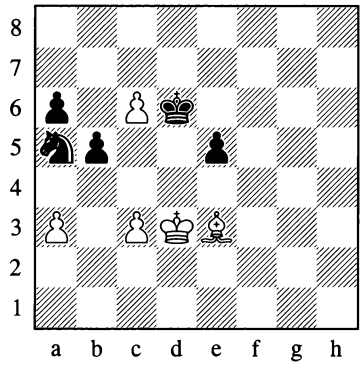
We have reached the zone of one chance left to save the game. White plays the natural-looking move and loses quickly.

38.♔e4?

White also loses after 38.a4 bxa4 39.c4 a3 40.♔c3 a2.

The only draw was a tactical one:
38.c6! ♔d6

The first point is that after 38...♘xc6 39.c4 White will manage to eliminate more pawns. The draw is getting closer.



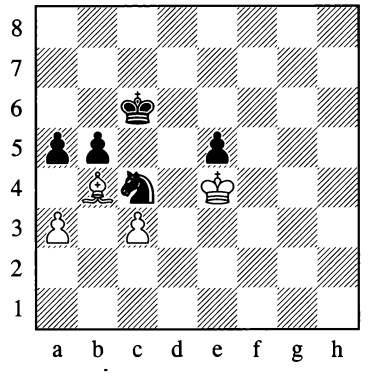
39.♗c5†!!

The key move. 39.a4 bxa4 40.♗b6 a3! 41.♗c5† ♔xc6 42.♗xa3 ♔d5 is a bad version of the seven-man ending. White is dominated and will lose.

39...♔xc6 40.♗b4 ♘c4 41.♔e4

41.a4? would lose to 41...♘b2† 42.♔e4 bxa4!. The point is, of course, 43.♔xe5 a3!.

41...a5



42.♗f8!

We have reached a position with mutual zugzwang.

However, 42.♗e7? was easy to discard, on account of 42...♔d7 43.♗f8 ♔e6, and Black is in control.

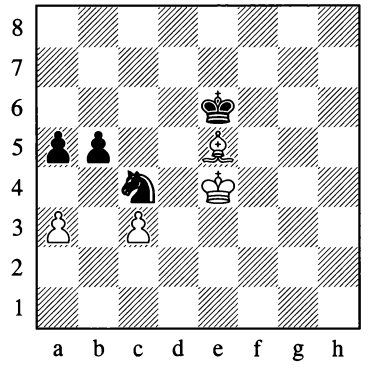
42...♘b6 43.♗e7 ♔d7

43...♘d7 44.♗d8! a4 45.♗e7 would also allow White to escape.

44.♗f6!

Forcing play with 44.♗c5? ♘a4 45.♔d5 backfires: 45...♘xc5 46.♔xc5 ♔e6! 47.♔xb5 e4 48.♔c4 ♔e5 and Black wins.

44...♔e6 45.♗xe5 ♘c4



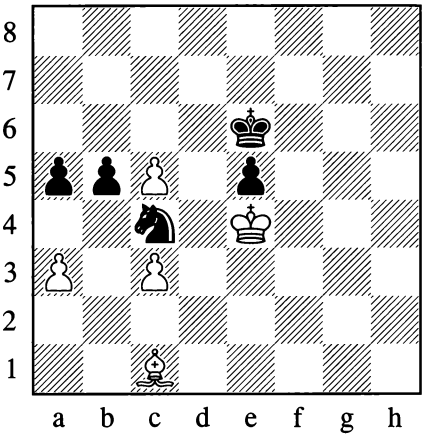
46.♔d4!?

Not necessary, but fun and conclusive.

46...♘xe5 47.♔c5

White draws.

38...♘c4 39.♗c1 a5



White is in zugzwang.

40.♗h6

After 40.c6 a4! (40...♔d6? 41.c7 ♔xc7 42.♔d5 would allow White to get the counterplay he so desperately needs.) 41.c7 ♘d6† 42.♔d3 ♔d7 Black wins.

40...♘xa3 41.c6 ♘c4 42.♗f8 a4 43.c7 ♔d7 44.♔d5 a3 45.♗xa3 ♘xa3 46.♔xe5 ♔xc7 47.♔d5 ♔b6 48.♔d4 ♔a5 49.♔c5 ♔a4 50.♔d4 ♔b3 51.♔d3 ♘b1 52.c4 bxc4† 0–1

23. Exchanges to make a draw

If you want a draw, the best way to achieve it is to get an advantage. Such was the advice of Bent Larsen. Of course, he would decline your draw offer no matter how big your advantage was, if he believed he could still win the game... This does not mean that he was wrong.

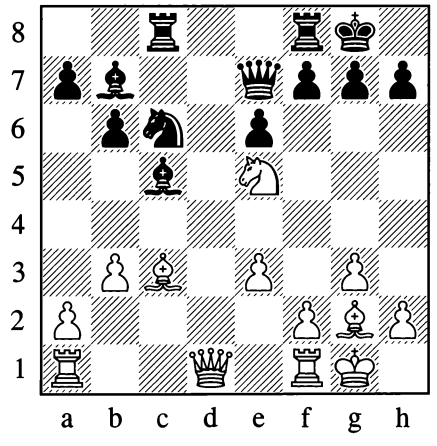
When you start looking for a draw though, you can lose your fighting spirit and easily destroy what is good about your position.

One of the most famous games involving a player seeking a draw through exchanges, and failing, is Gurevich – Short, Manila 1990, where Nigel famously won in an endgame on the black side of the French Exchange. The following game, between two other evenly matched players, was successful for the player seeking the draw, but only after a major scare on the way.

Nikolai Andrianov – Jason Liang

Charlotte 2020

1.♘f3 d5 2.c4 e6 3.g3 ♘f6 4.♗g2 ♗e7 5.0–0 0–0 6.b3 b6 7.♗b2 ♗b7 8.e3 c5 9.cxd5 ♘xd5 10.d4 ♘c6 11.♘c3 ♘xc3 12.♗xc3 ♖c8 13.dxc5 ♗xc5 14.♘e5 ♕e7



So far White's opening play has been uninspired. But there was nothing that signalled that he was playing for a draw. This became clear with the next move.

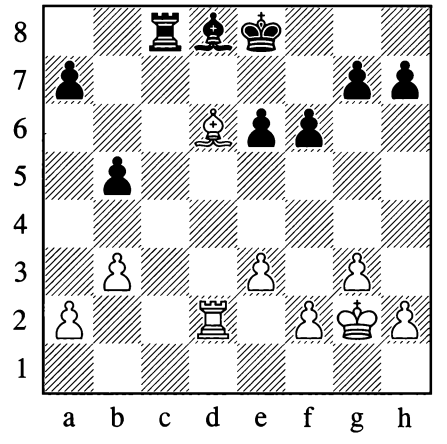
15.♕d7?!

Exchanging a lot of pieces, but also losing tempos, making it clear that White is on the defensive.

15...♖fd8 16.♕xe7 ♗xe7 17.♖fd1 ♘xe5 18.♖xd8† ♗xd8 19.♗xe5 ♗xg2 20.♔xg2 f6

White should also hold the rook endgame after 20...♗f6!? 21.♗xf6 gxf6, but with the black rook poised to be quite active, it would no doubt have felt unpleasant too.

21.♗d6 ♔f7 22.♖d1 ♔e8 23.♖d2 b5



The real starting point for the endgame. The position is objectively equal, but Black still has a few reasons to say that he is pressing. First of all, the c-file is better than the d-file. Secondly, his king is better centralised. Thirdly, the bishop is a bit awkward on d6. But that's it. Together they add up to rather insignificant...

24.♗a3!?

A rather passive solution to a minor problem. I believe White was concerned about ...♗a5 and potentially ...♖c1 in some situations.

White's king is poorly placed. The most logical idea was thus to bring it to the centre.

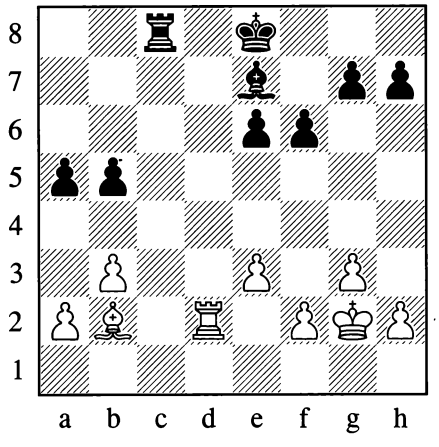
But after 24.♔f3 h5!, there are long-term concerns about the white h-pawn. Again, it does not add up to anything beyond equal, but it is how such positions are won and lost. One little thing on top of another. 24.g4 ♗a5 is also slightly disturbing. White can play 25.♖e2 ♔d7 26.♗a3 and be objectively equal. But it is also clear that he is defending.

24...a5 25.♗b2

At this point I preferred 25.g4!. Black can play 25...b4 26.♗b2 a4 27.bxa4 ♖a8 28.♗d4 ♗e7 29.f4 ♖xa4, but the further exchanges of pawns are not in his favour. The draw is getting nearer.

25...♗e7!

Improving the bishop and preparing ...a4-a3.



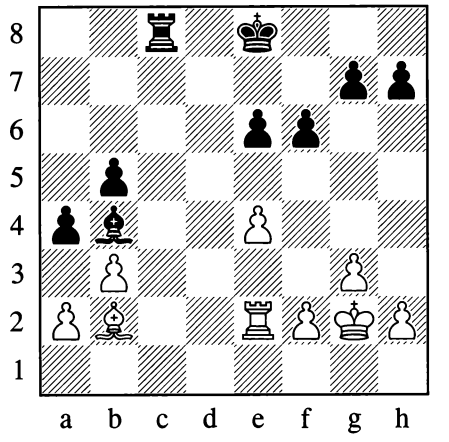
Black has made marginal progress, but deep down, the position is still a draw. One of the reasons why White should hold is the absence of real weaknesses in his position. Nothing is bad, although everything is just a tad inferior.

White sought to change this with active counterplay. This sounds desirable, but all he manages from his activities is to create weaknesses in his own position, which Black can exploit down the line.

26.e4? ♗b4

Forcing the rook off the d-line and making it possible to bring in the king.

27.♖e2 a4!



Black is aiming to fix the white a-pawn. It is still far off being able to be called a weakness. But this is how strategic play works. You see what you want and you set about creating it.

28.bxa4

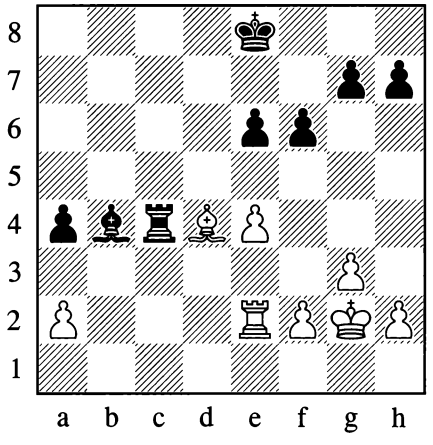
Another thing that makes defending so difficult is that it is hard to work out which inferior line is preferable. When things are bad, they all look bad.

I personally would not have been so keen to let Black get rid of the b5-pawn, by far his worst pawn. But after the alternatives I would consider, White is also worse: 28.♗d4 e5 29.♗e3 a3 or 28.a3 ♗a5 29.h4 e5.

28...bxa4 29.♗d4

29.♔f3 It is no longer easy to find constructive moves for White, which is a sign that you are drifting in the wrong direction. 29...♖c4 30.♔e3? is the kind of thing White would like to do. But after 30...a3 31.♗d4 e5 White loses the bishop.

29...♖c4



30.♗a7

Truly a poor man's move.

30...♔d7 31.f4

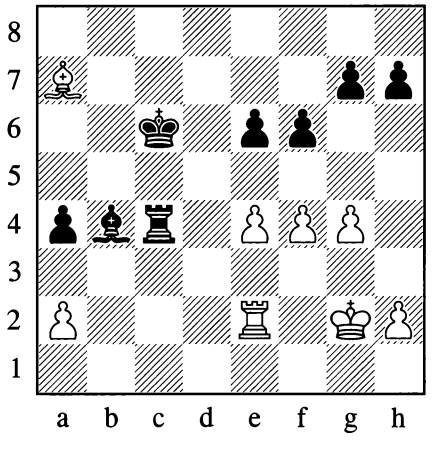
Weakening more pawns. But it was already difficult to recommend a good move.

I would have played 31.♔f3 ♔c6 32.h4, but of course White is suffering.

31...♔c6 32.g4?

White continues to commit the same error.

32.♔f2 was better, but after 32...♔b5, Black still has a large advantage.



32...♗c5?

Played with the best intentions. After the bishops are gone, the black king can progress. But it was the wrong time to make this exchange, essentially letting White off the hook. Black had several ways to improve his position before this necessary exchange.

The best one was this:

32...♗d6! 33.f5

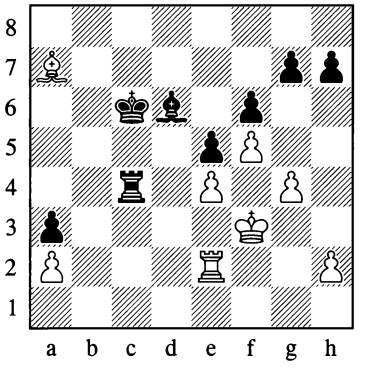
33.♔f3 ♖c3† is devastating. 34.♖e3 ♖c2 is a disaster for White. And 34.♗e3 ♗c5 would lead to a winning pawn ending for Black. 33.e5 fxe5 34.fxe5 ♗b4 35.♔f3 ♔d5 also looks hopeless, although more moves are to be played before a final conclusion can be drawn.

33...e5

It is not a problem putting the pawns on the same colour as the bishop when you know the bishops will eventually get exchanged.

34.♔f3 a3!

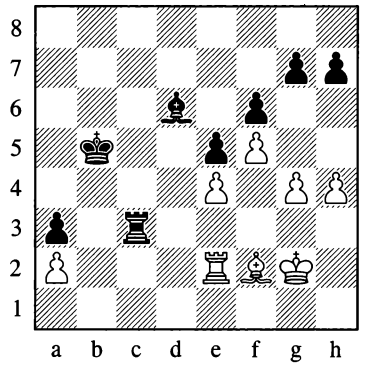
Fixing the a-pawn.



35.♗f2

35.h4 ♖c3† 36.♔f2 (36.♖e3 ♖c2 37.♖e2 ♖xe2 38.♔xe2 ♗c5 and Black wins.) 36...♗c5† 37.♗xc5 ♔xc5 38.♖d2 ♔c6 39.g5 ♖h3 Black is on his way to success in this rook ending.

35...♔b5 36.h4 ♖c3† 37.♔g2



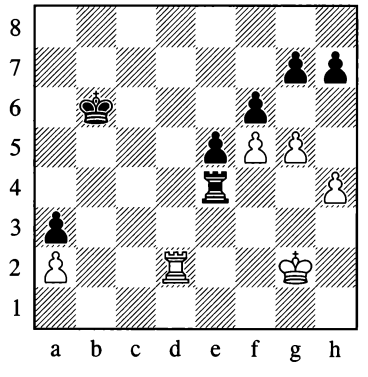
37...♗c5!?

This seems like a reasonable moment to exchange the bishops, leading to sharper play. 37...h6 is also possible, but we are getting to a situation where the black position is close to optimised.

38.♗xc5 ♔xc5 39.♖d2 ♔c6 40.g5 ♖e3

40...h5!? also wins, it seems.

41.♖c2† ♔b6 42.♖d2 ♖xe4



43.gxf6

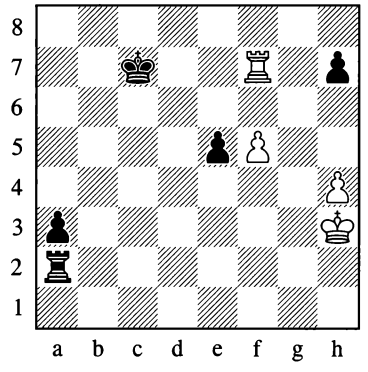
Seeking active counterplay.

A more passive try could be: 43.♔g3 ♖d4 44.♖c2 h5 45.gxh6 gxh6 46.♖c3 ♖a4 47.h5 ♔b7 48.♔h3 ♖f4 49.♖xa3 ♖xf5 50.♔h4 ♔c6 and Black is winning.

43...gxf6 44.♖d6† ♔c7!

The king needs to be able to stop the f-pawn. 44...♔c5? 45.♖xf6 ♖e2† 46.♔f3 ♖xa2 47.♖a6 would allow White to escape with a draw.

45.♖xf6 ♖e2† 46.♔h3 ♖xa2 47.♖f7†



47...♔d8!

This may look passive, but the best way to stop a pawn is to blockade it.

48.♖xh7 ♖a1 49.♖a7 a2

A well-known winning method. Black will advance the e-pawn and, as a minimum, win the white rook.

50.♔g2 e4 51.f6 ♔e8

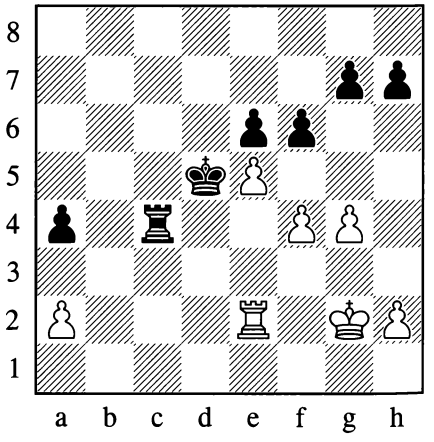
Black wins.

33.♗xc5 ♔xc5

33...♖xc5!? could have been tried, but White will be able to create enough counterplay all the same. A decent move would be: 34.h4!?

34.e5 ♔d5

34...♖xf4 35.exf6 ♖xf6 36.♖e4 ♔b5 37.a3 and White would have enough counterplay too.



35.♖d2†!?

White goes for a drawn pawn ending, which seems a little scary to me.

After 35.♔f3 ♖c3† 36.♔g2 I cannot see that Black can make meaningful progress. I do understand the psychological need to be in control of events. But when you are defending, often it is a good idea to lean back and let things happen, rather than making them happen. See the game Fedoseev – Tabatabaei, page 277.

35...♖d4 36.♖xd4† ♔xd4 37.exf6 gxf6 38.h4 ♔e4 39.♔g3 a3 40.g5 ♔f5 41.♔f3 fxg5 42.hxg5 e5 43.fxe5 ♔xg5 44.♔e4 h5 45.♔d5 h4 46.e6 h3 47.e7 h2 48.e8=♕ h1=♕† 49.♕e4 ♕d1† 50.♔c5 ♕c1† 51.♔b4 ♕b2† 52.♔a4 ♕xa2 53.♕e3† ♔f5 54.♕xa3 ♕c4† 55.♕b4 ♕a6† 56.♕a5† ♕xa5† 57.♔xa5

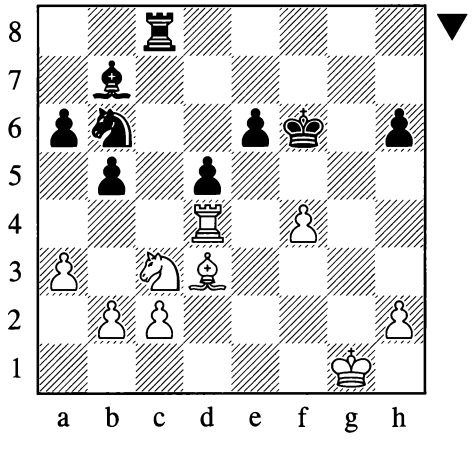
½–½

24. Relying on strategic principles

How seriously should we take this strategic concept of the stronger side not wanting to exchange pawns? Quite seriously! You cannot solve everything by calculation and at times you cannot foresee the consequences of your actions.

Savva Vetokhin – Teodora Injac

Serbia 2021



In this example, I want you to pay special attention to move 34 and see the differences between exchanging and not exchanging pawns. But first we need to get there. On the way, Black chose some exchanges that led to strong bishop against homeless knight.

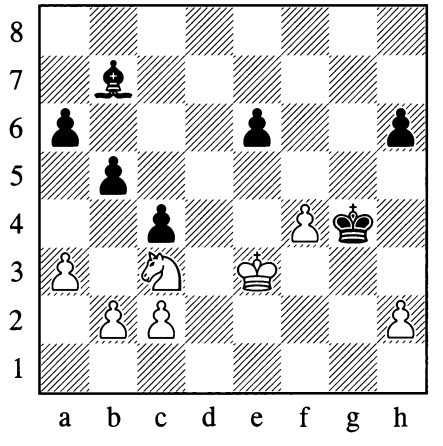
26...♘c4 27.♗xc4

White has to part with the strong bishop, as after 27.♘d1? ♘a5! the white rook is in trouble.

27...♖xc4! 28.♖xc4 dxc4!?

28...bxc4 29.♔f2 e5 was also tempting, but White has defensive resources there too. It is my preference, but it is clear that both options would create a lot of problems for White, so it is too early to judge.

29.♔f2 ♔f5 30.♔e3 ♔g4



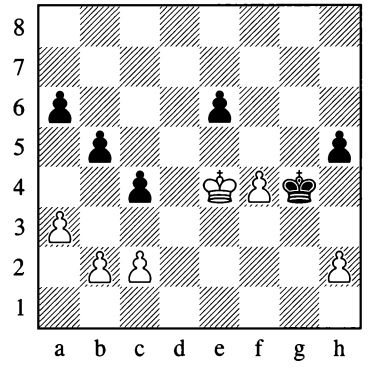
31.♘e2?

An understandable mistake. White simply missed the active defence.

White had a short but flashy draw. 31.♘e4 ♔h3 32.♘f6! and Black cannot make meaningful progress.

I presume that White was afraid of the pawn ending, which draws, but only by something of a miracle:

31...♗xe4! 32.♔xe4 h5



33.c3!

33.a4? c3! 34.b3 b4 35.a5 h4 36.♔e5 ♔f3 would win for Black.

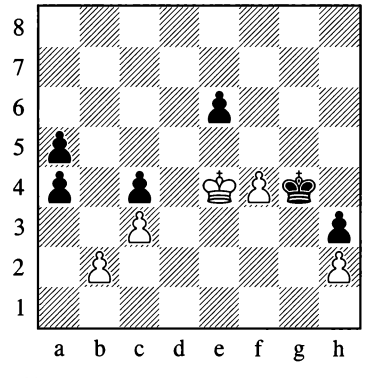
33...h4 34.a4!

34.♔e5 ♔f3 35.♔xe6 ♔xf4 loses on the spot. Black will not get trapped on h2 and has the two extra moves with the pawns on the queenside.

34...bxa4 35.♔e5 h3

If Black goes immediately, White will have counterplay with the c-pawn: 35...♔f3 36.♔xe6 ♔xf4 37.♔d5 ♔f3 38.♔xc4 ♔g2 39.♔b4 ♔xh2 40.c4 and White draws.

36.♔e4 a5



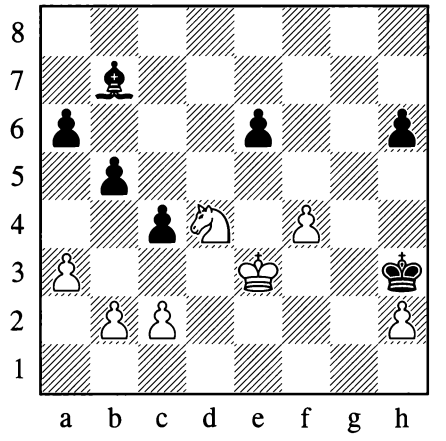
37.♔e3!

Now passive defence works.

37...♔f5 38.♔f3 e5 39.fxe5 ♔xe5 40.♔e3

White has established a blockade.

31...♔h3 32.♘d4



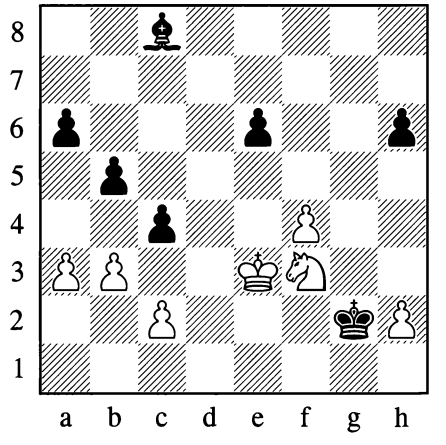
32...♗c8?!

Black sends the bishop to c8 to deter f4-f5, but this makes the win far more difficult. After 32...♗d5! 33.f5 exf5 34.♘xf5 h5 35.♘g3 ♗f7 Black wins trivially.

33.♘f3 ♔g2?

33...♗b7 34.♘d4 ♗d5! was still there.

34.b3



The most instructive moment of the game. According to our concept, Black should not want to exchange the pawn. But on the other hand, the c-pawn could be weak and it does waste a tempo? Come on! White has no way to improve his position or to attack the c-pawn.

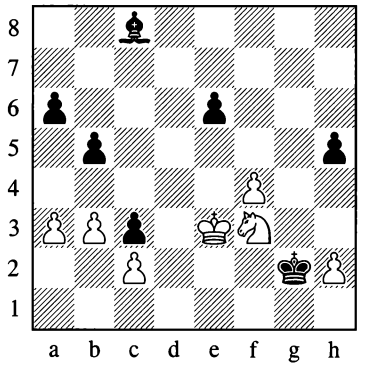
34...cxb3?

Just a mistake. As we shall see, there are many lines where White draws because of the bishop and the wrong corner on a1. This can only happen without pawns.

34...c3! 35.♘e5

35.b4 h5 36.♔e2 ♗b7 37.♘d4 ♗d5 wins effortlessly.

35...h5 36.♘f3



Black is winning here, but only through a difficult triangulation that you would be unlikely to see in advance, making a brute-force solution on move 34 unlikely.

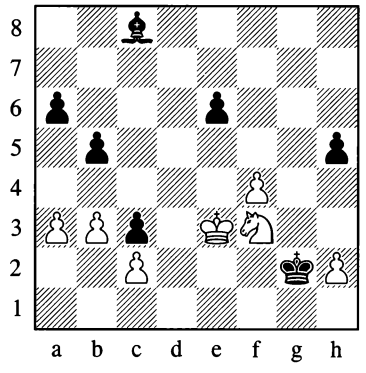
36...♗d7!

36...♗b7 37.♘d4 ♗d5? would allow White to force a draw: 38.h4! ♔g3 39.f5 exf5 40.♘xf5† ♔g4 41.♘g7 ♔xh4 42.♘xh5 ♔xh5 43.♔d3! and the pawns will be exchanged with ♔xc3, ♔b4 and c2-c4. (But not 43.♔d4? ♗xb3! 44.♔xc3 ♗a4 and Black wins.)

37.♘e5 ♗e8

The tempo move.

38.♘f3 ♗c6 39.♘d4 ♗d7 40.♘f3 ♗c8

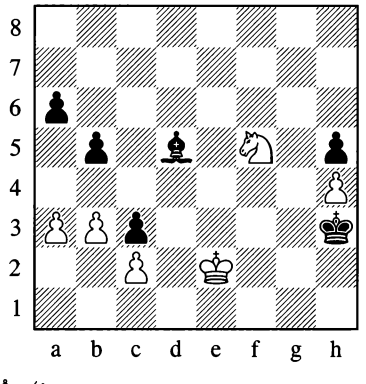


The same position, but with White to play. He has only one serious move.

41.♔e2 ♗b7 42.♘d4 ♗d5

Almost the same variation as after 36...♗b7, but with one important difference.

43.h4 ♔h3 44.f5 exf5 45.♘xf5



45...♗e4!

This is the difference with the king on e2. Black wins.

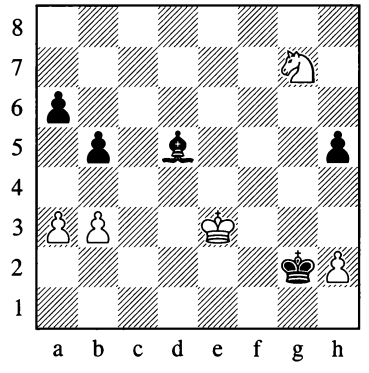
35.cxb3 h5

In the comparative line to the previous note, but with a pawn less, Black does not win:

35...♗b7 36.♘d4 ♗d5 37.f5 exf5

37...e5 38.♘e6 ♔xh2 39.♘d8 also leads to a draw in a long variation. If anyone, it is White who is pressing, so we will skip it.

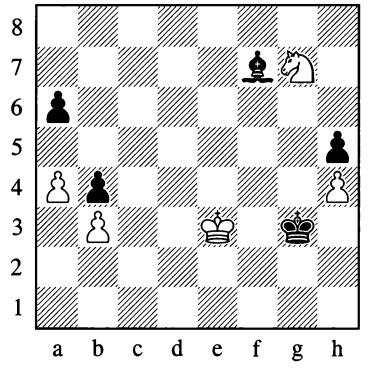
38.♘xf5 h5 39.♘g7



39...♗f7

After 39...h4 40.♘f5 h3 41.b4 ♔xh2 42.♔f2, White has managed to exclude the black king from the game and assured a draw.

40.h4 ♔g3 41.a4 b4



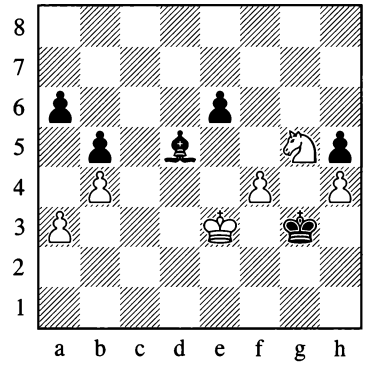
42.a5!

White draws. Black cannot prevent ♔xb4 and ♘xh5, eliminating the winning pawns. All he is left with is our old friend, the bishop made for the wrong corner.

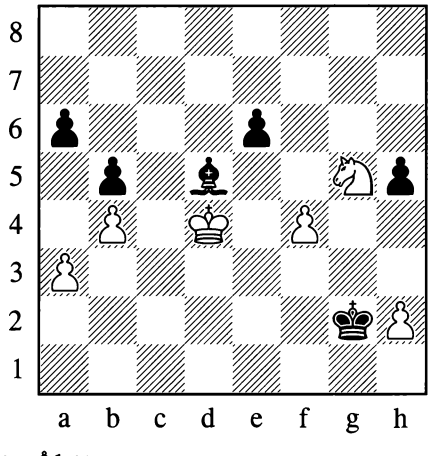
36.b4! ♗b7 37.♘g5 ♗d5 38.♔d4!

The tables are turning...

38.h4?! would be bad, but it is curious that after 38...♔g3:



White can draw, but only with 39.♘h7!! ♔xh4 40.♘f6, when Black will not be able to make progress.



38...♗b3?

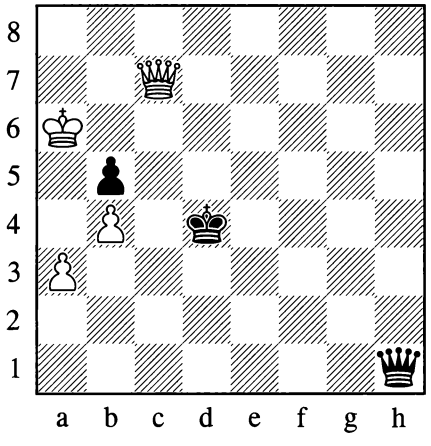
This normal move brings Black a lot of heartache.

It was time to realise that everything had gone wrong and that drastic measures were needed to secure a draw. After 38...♔xh2! 39.f5 exf5 40.♔xd5 ♔g3 the king will go to the queenside and eliminate the white pawns, and all risk.

39.♔e5 ♔xh2 40.♘xe6 ♗xe6

40...♗c2 41.♘d4 ♗d3 42.f5 ♔g3 43.f6 ♗g6 44.♘f5† ♔g4 also drew. There are plenty of options to hold. But the lines are becoming longer, narrower and with more pitfalls.

41.♔xe6 ♔g3 42.f5 h4 43.f6 h3 44.f7 h2 45.f8=♕ h1=♕ 46.♕d6† ♔f2 47.♕d2† ♔g3 48.♕e3† ♔g4 49.♔d6 ♕b7 50.♕d4† ♔g3 51.♕c3† ♔f4 52.♕c7 ♕h1 53.♔c5† ♔e3 54.♔b6 ♔d4 55.♔xa6



Queen endings are worthy of a separate treatment, but there are a few things we can say here.

First of all, they are close to impossible to play accurately. It rarely happens. Although many queen endings are drawn, there is a lot to play for. Knowing the theory and key ideas is important, but it is only a starting point.

Secondly, passed pawns are deciding factors in queen endings. In all other endings, the pieces cannot both defend the pawns and fight for the squares in front of them effectively. Only the rook can defend the pawn and the square in front of them at the same time; and only if it is placed inconveniently in front of the pawn. Only the queens can defend the pawn, attack the square in front of it and be defended by the pawn at the same time.

Regarding the theory positions: we saw on page 448 that there are some surprising situations where two extra pawns do not win. It is a clever escape route, but in this case, the white king is ideally placed, so it is unlikely to be relevant.

In our game the relevant theory position is where the black b-pawn has been exchanged for the a-pawn. It is quite easy to imagine that this will happen. In that case, the black king will have to seek refuge in the corner far from the passed pawn. Ideally on h1 itself. The reason for this is that when the black queen is giving checks, it does not want to risk getting pinned. This does not happen when the king is in the far corner.

55...♕d5?

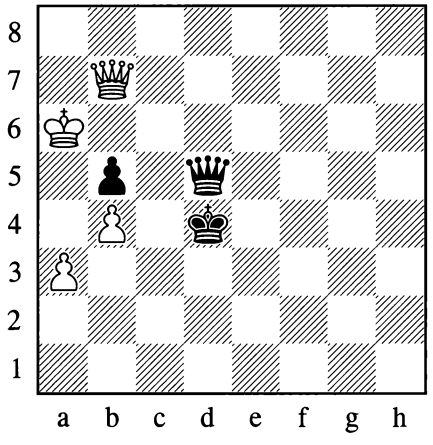
55...♕f3 would allow the exchange of queens or b5 would fall with check after 56.♕c5†.

But after 55...♕h3!! the king would be able to go to e4. After 56.♔xb5 ♕xa3 57.♕c5† ♔e4 we have a theoretical draw, but not an easy ride by any means. Shankland knew the main ideas of this endgame perfectly and still lost to Deac in Isle of Man 2019. You can find that game annotated on page 224 of *Decision Making in Major Piece Endings* by Boris Gelfand, if you are interested. 55...♕h3 is the only move that will hold the game. Objectively. In practice, White is likely to get a few more chances to win.

56.♕b7?

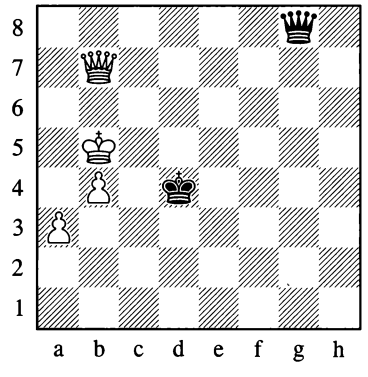
Now we are moving into the theatre of the absurd.

White's best move was 56.♔b6!, which is not too hard to understand. There is a check coming on c5. But...



56...♕b3?

Black could have made a draw with: 56...♕g8!! 57.♔xb5



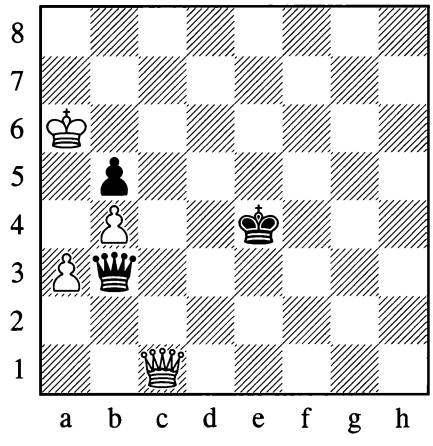
57...♔c3!! and the counterplay against the white pawns is sufficient. The geometry between the pieces is spectacular.

57.♕d7†?

White in return had to play 57.♕a7†! ♔e4 58.♕a8†! before picking up the b-pawn.

58.♔xb5? ♕d3† gives Black a chance to make a draw by perpetual check.

57...♔e4 58.♕c6† ♔d4 59.♕c5† ♔e4 60.♕c1

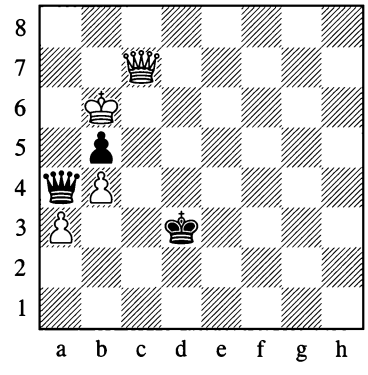


60...♕c4?

The straightforward way to get to the drawn theoretical ending is 60...♕d3!, securing the a-pawn for the b-pawn. The next moves are ...♔f3-g2-h1, preparing for the five-man endgame.

Working with computers sometimes gives you a chance to see some truly amazing variations. The following is not relevant to how this endgame should be played, but it has a nice position along the way.

60...♕a4† 61.♔b6 ♔d3 62.♕c7



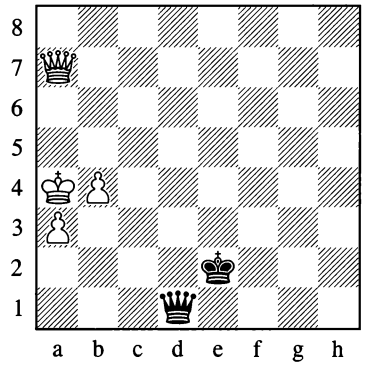
62...♔e2!!

The only move.

62...♔d2? loses after 63.♕a7 ♕b3 64.♔xb5 ♕d3† 65.♔a4!, when there is no check on d1. Pure tactics. But it can also be solved by knowing where the king should go.

63.♕a7 ♕b3

Black has a tablebase draw. To make this in practice would be hard, but actually not impossible. One key point is that 64.♔xb5 ♕d3† 65.♔a4 ♕d1†! is there.



66.♔a5 ♕d5† 67.b5 ♕d2† 68.♔a6 ♕d6† 69.b6 ♕xa3† And Black makes the draw.

61.♕e1† ♔d4 62.♕d2†

62.♕e8! was strong. White will take the b-pawn and the black king is far from the kingside.

62...♔e4 63.♔a5?

63.♕e1† ♔d4 64.♕e8 was still there.

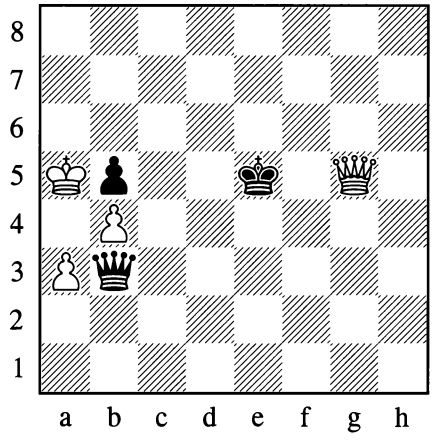
63...♕b3 64.♕g2† ♔d4?!

64...♔f4! is the best move. But you need to know where the king belongs. So far as I know, no one have ever worked this out at the board.

65.♕g4† ♔e5

The only square that does not blunder the queen.

66.♕g5†

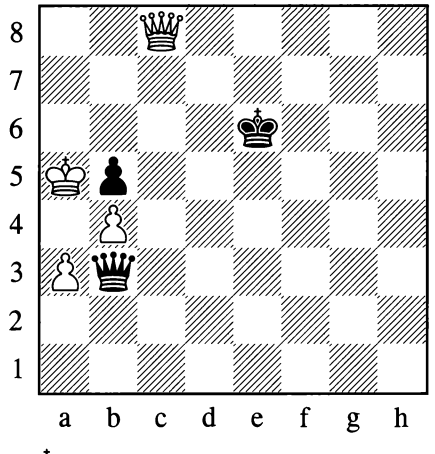


66...♔d6?

66...♔e4! was right. But if you do not know this endgame, you move the king in the wrong direction...

67.♕f6† ♔d7 68.♕f5† ♔d6 69.♕c5† ♔e6 70.♕c8†?!

70.♔xb5! ♕xa3 71.♔b6 is the best version of this endgame on offer.



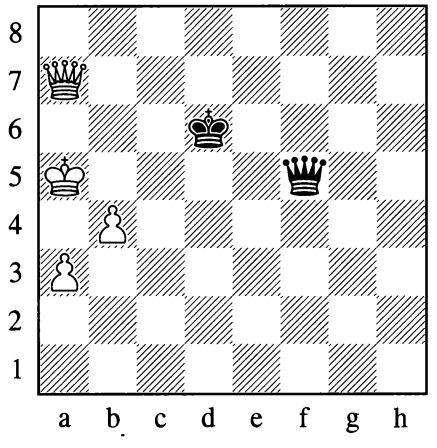
70...♔e7?!

70...♔e5! 71.♕b8† ♔e4 would require White to find 72.♕a8†! ♔e3 73.♔xb5, when he will win in the long run.

71.♕b7† ♔d8?!

It is getting worse and worse.

72.♕a8† ♔c7 73.♕a7† ♔d6 74.♔xb5 ♕d3† 75.♔a4 ♕c2† 76.♔a5 ♕f5†

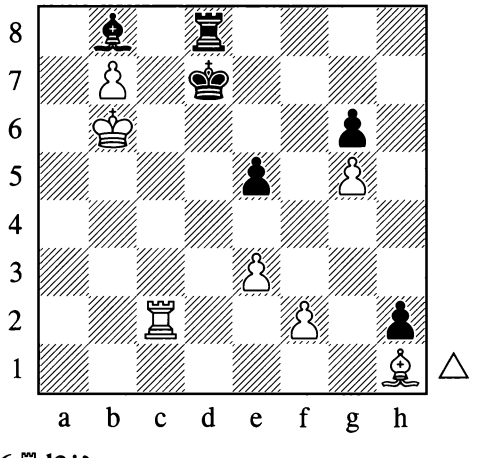


77.b5 ♕d3 78.a4 ♕c3† 79.♔a6 ♕c4 80.a5 1–0

Just as I was finishing this book, I saw this game from the German Masters, where we have a prime example of a failed exchange.

Alexander Graf – Luis Engel

Magdeburg 2021



46.♖d2†?

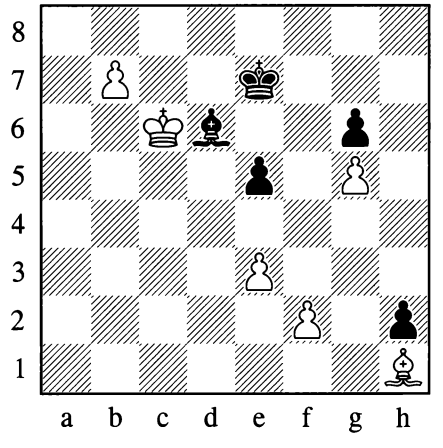
This is a good example of how even strong grandmasters can make simple mistakes when it comes to exchanging pieces. Don't feel bad for Graf – it is not a tragicomedy where we are laughing at him. Rather, this is just another example of how difficult chess is and how difficult it is to evaluate the correct exchanges.

46...♔e7 47.♖xd8

There is no way back.

47.♖c2 ♖d1 also leads to a draw.

47...♔xd8 48.♔b5 ♗d6 49.♔c6 ♔e7



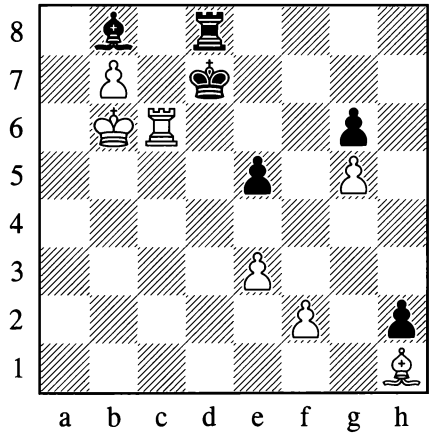
The position is a basic fortress. Graf tried a number of things, but there is no way to make progress.

50.♔d5 ♔d7 51.♗e4 ♔e7 52.♔c4 ♔d7 53.♔d5 ♔e7 54.♗h1 ♔d7 55.♗g2 ♔e7 56.♔e4 ♔e6 57.♔d3 ♔f5 58.♗e4† ♔xg5 59.♔e2 ♔h4 60.♔f1 ♔h3 61.♗g2† ♔g4 62.♗c6 ♔h3 63.♗d7† ♔h4 64.♔g2 g5 65.♔xh2 g4 66.♔g2 ♗b8 67.♔f1 g3 68.fxg3† ♔xg3 69.♔e2 ♔h4 70.♔d3 ♔g5 71.e4 ♔f6 72.♔c4 ♔e7 73.♗f5 ♔d6 74.♔b5 ♔c7 75.♔a6 ♔c6 76.♗e6 ♔d6 77.♗b3 ♔c6 78.♗f7 ♔c5 79.♗d5 ♔d6 80.♔b6 ♔d7 81.♗c4 ♔d6 82.♗f1 ♔d7 83.♗h3† ♔d6 84.♗f5 ♔e7 85.♔c6 ♗d6

½–½

White was entirely winning and could have converted the advantage in several ways. The main thing to understand is that the fortress opportunities do not exist with the rooks on the board. Also, the white rook is active and it is hard for Black to activate his rook.

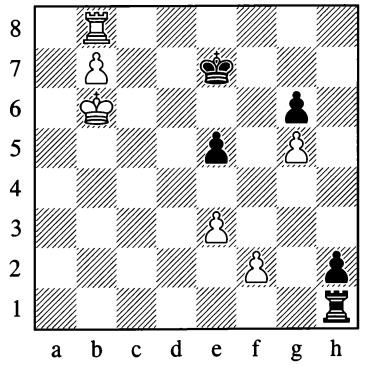
46.♖c6



This is one of many ways to play.

46...♗d6

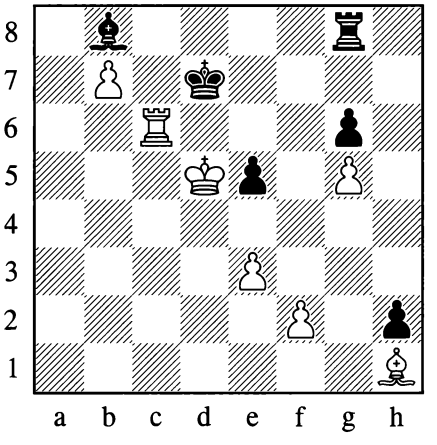
46...♔e7 47.♖c8 ♖d1 48.♖xb8 ♖xh1



49.♖h8! also wins for White.

But curiously 49.♖e8†? ruins everything. 49...♔d7! would set up a lot of annoying checks. 50.♖d8† ♔e6! would allow Black to escape. The white king does not have the chance to escape via d5. For example: 51.♖h8 ♖b1† 52.♔c7 ♖c1† and White has no way forward.

47.♔b5 ♖b8 48.♔c4 ♖g8 49.♔d5 ♗b8



50.♗e4

White is totally dominating. The idea is 50...♗c7 51.♖f6, or 50...♗a7 51.♖c8! ♖xc8 52.bxc8=♕† ♔xc8 53.♔xe5, when White will win with his connected passed pawns.

To sum up: exchanges of pawns generally favour the defender. This guideline is useful to some extent, but only as a starting point for thinking. And this is the key point. Use calculation and logic. Chess is a thinking game and decisions can be based on many different ways to think. Be smart. If you are much better, seek clarity. If you are not, seek complexity.

Exercises to Chapter 6

★☆☆☆☆ Easy. Based on a simple idea

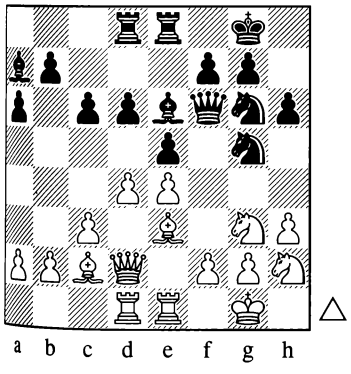
★★☆☆☆ Friendly. Can be solved by most

★★★☆☆ Mid-range. You need to think, but not too much

★★★★☆ Challenging. You will need to concentrate for these ones

★★★★★ Brain crusher. After solving, see a neurologist...

★★★★★



Solution on page 741

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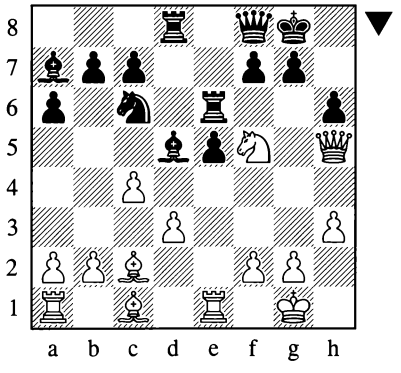

Solution on page 746

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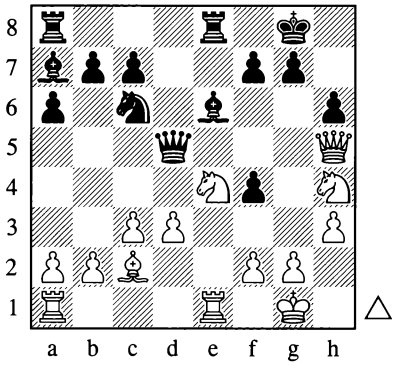

Solution on page 748

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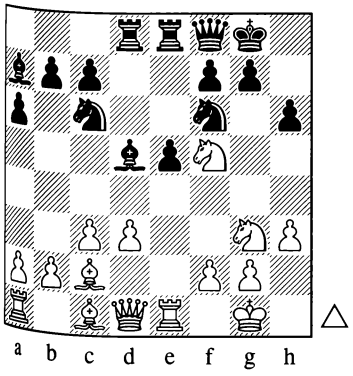

Solution on page 746

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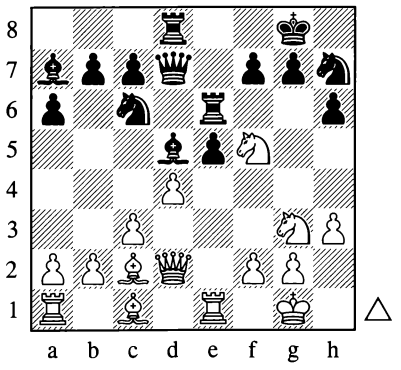

Solution on page 747

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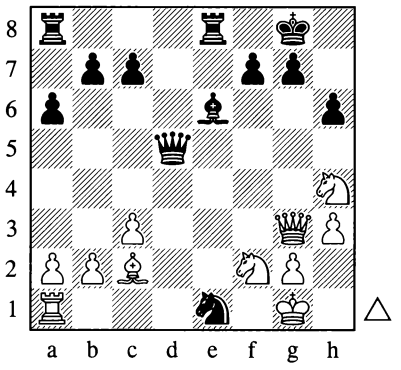

Solution on page 749

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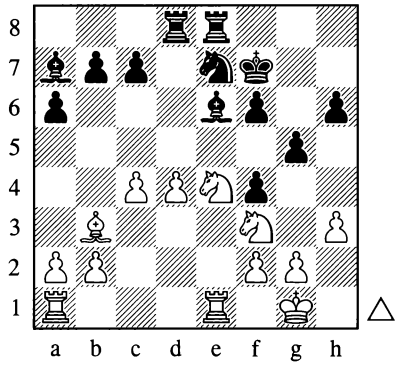

Solution on page 750

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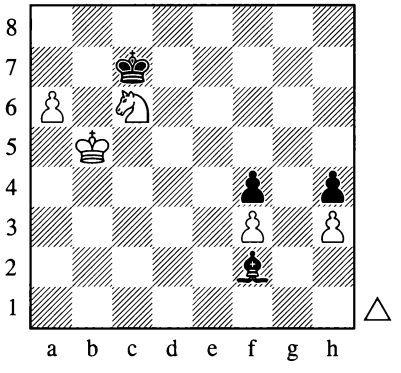

Solution on page 755

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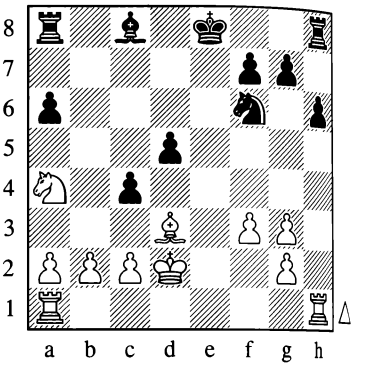

Solution on page 764

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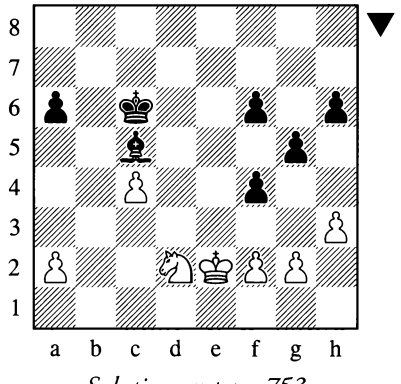

Solution on page 753

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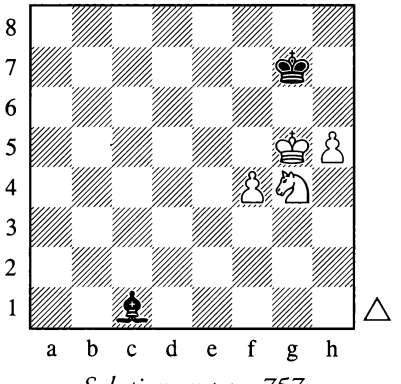

Solution on page 757

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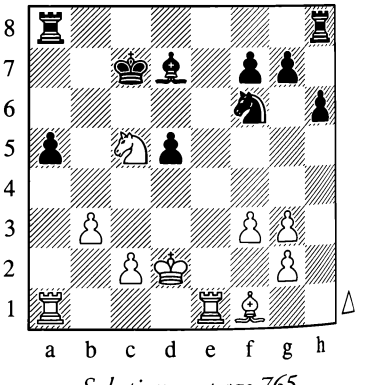

Solution on page 765

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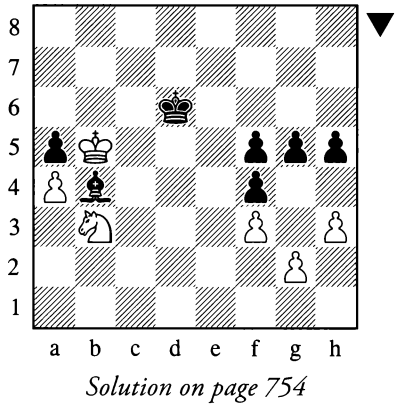

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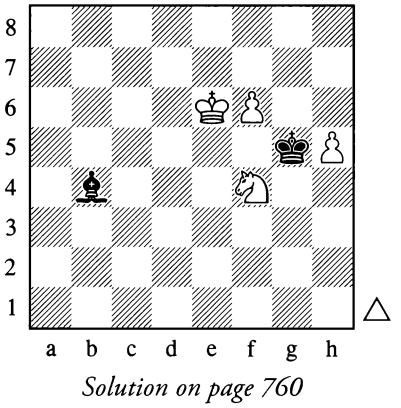

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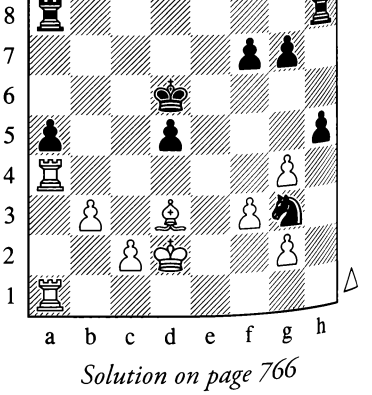

Solution on page 766

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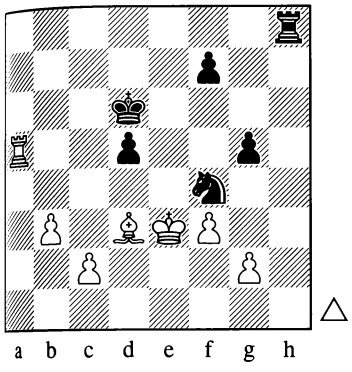

a b c d e f g h

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Solution on page 767

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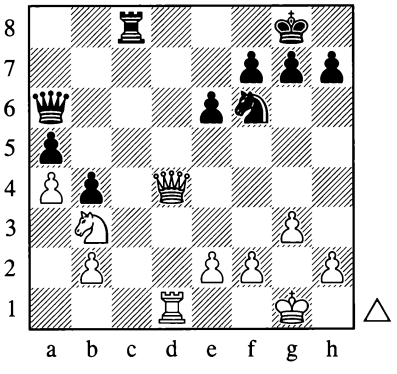

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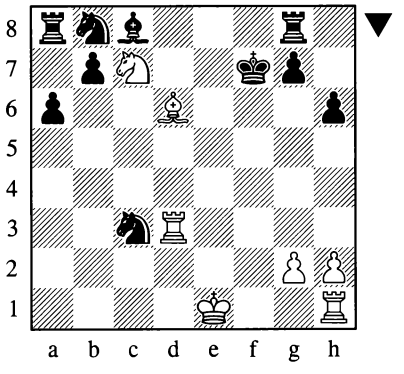

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Solution on page 782

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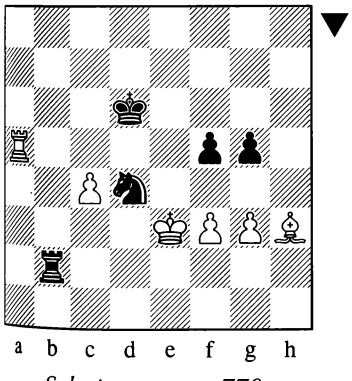

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Solution on page 770

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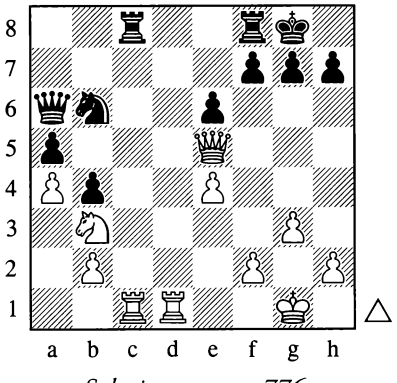

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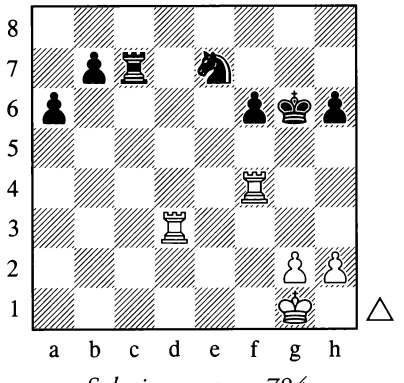

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Solution on page 784

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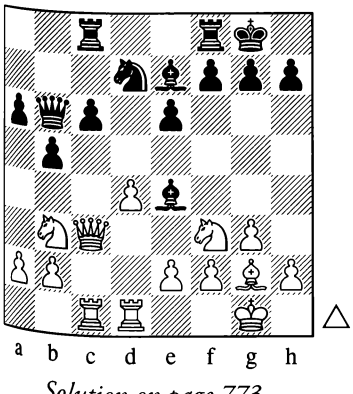

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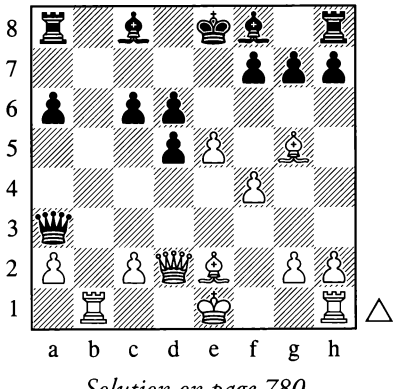

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Solution on page 780

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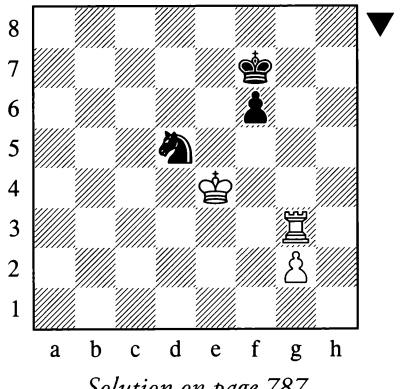

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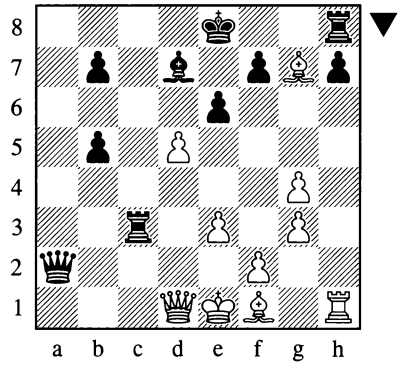

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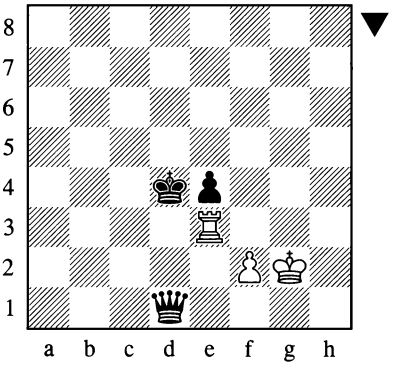

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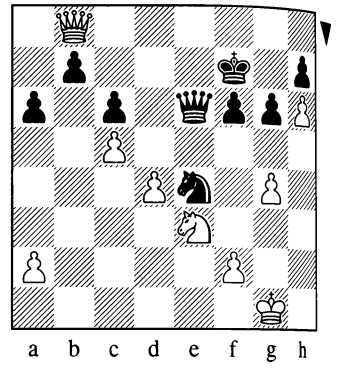

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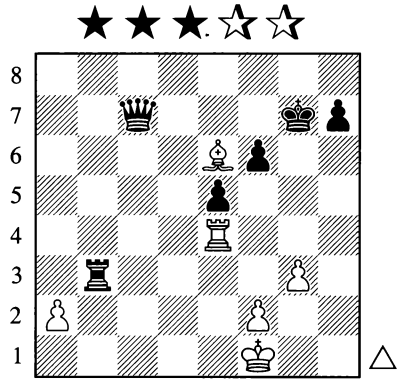

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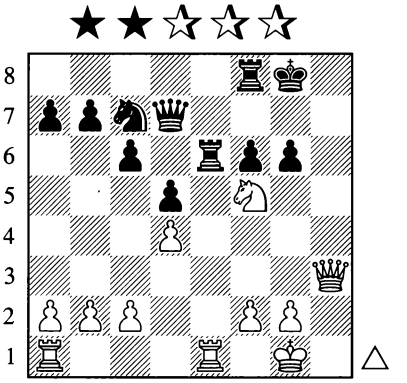

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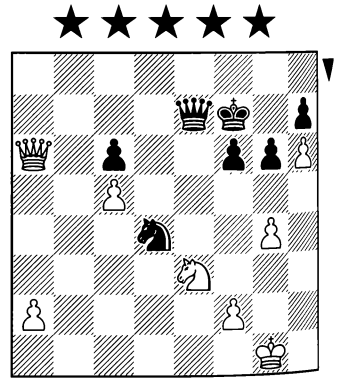

Solution on page 811

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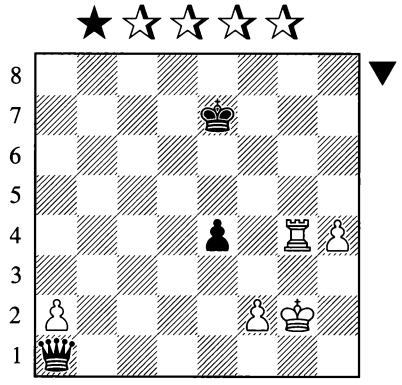

Solution on page 800

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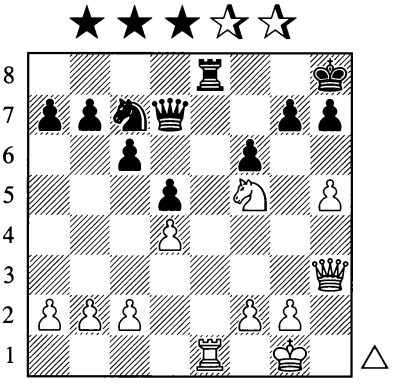

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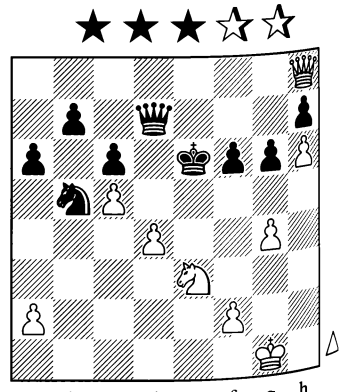

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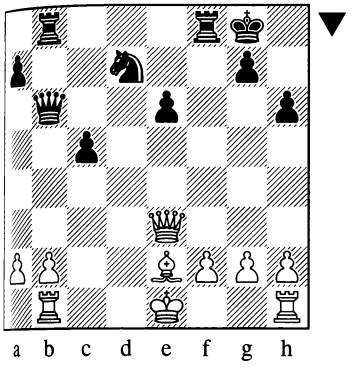

Solution on page 816

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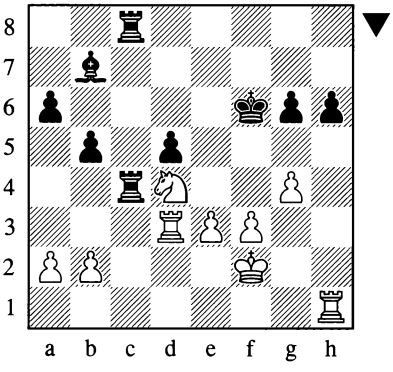

Solution on page 824

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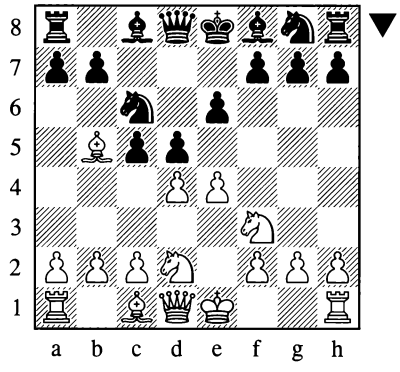

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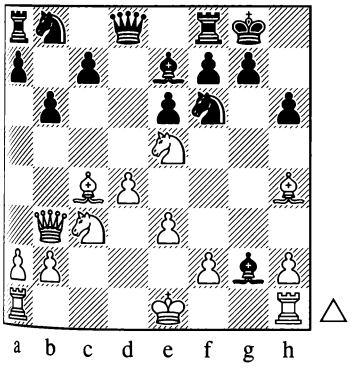

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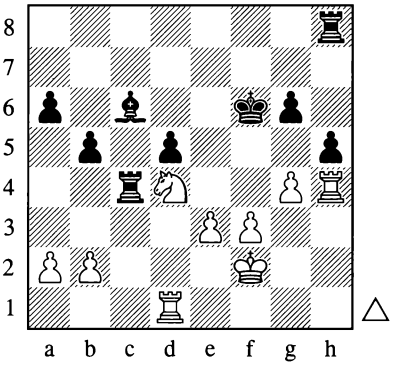

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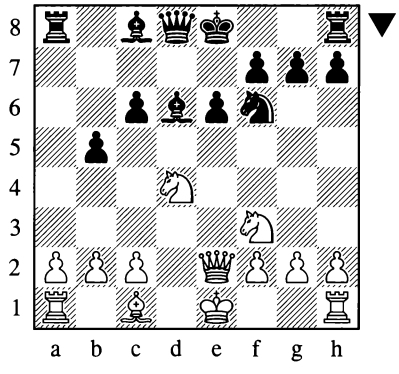

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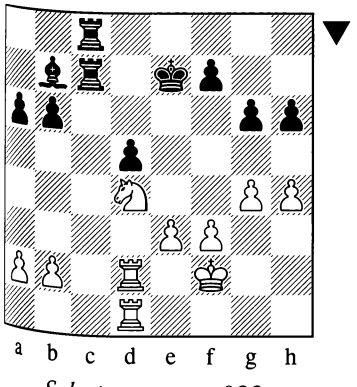

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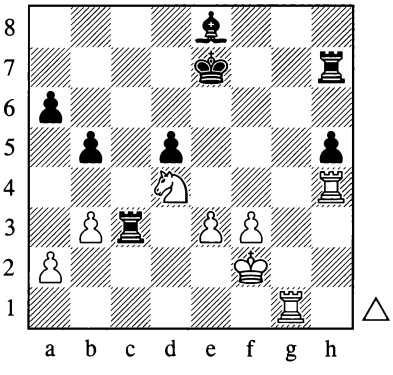

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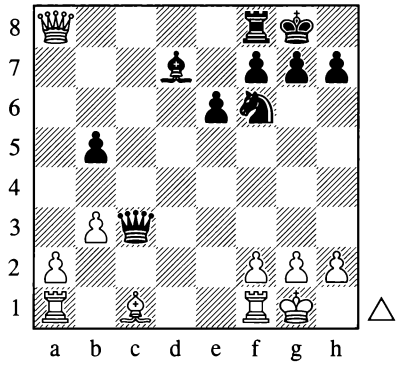

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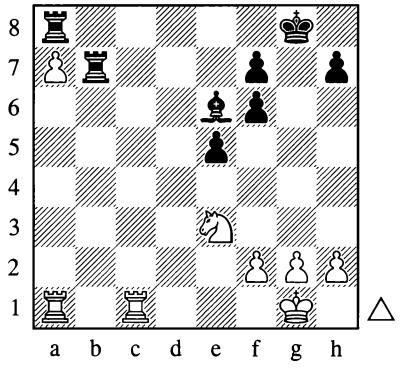

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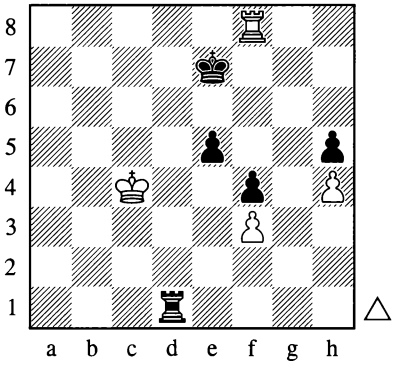

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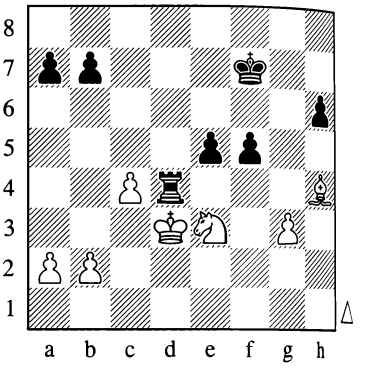

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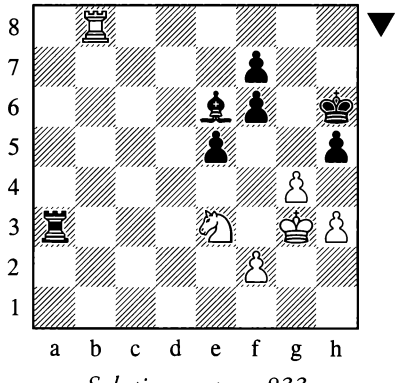

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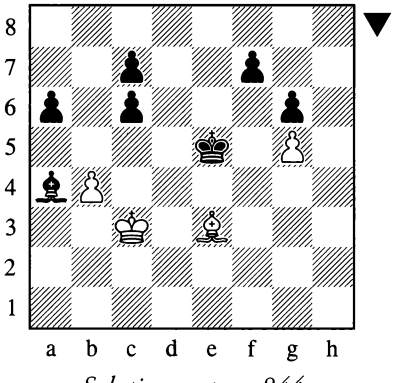

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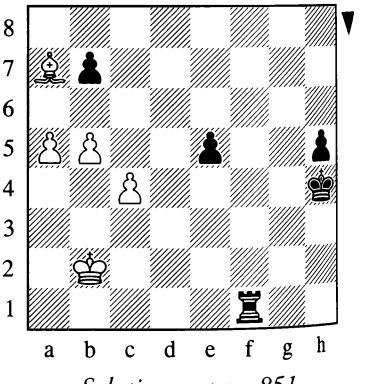

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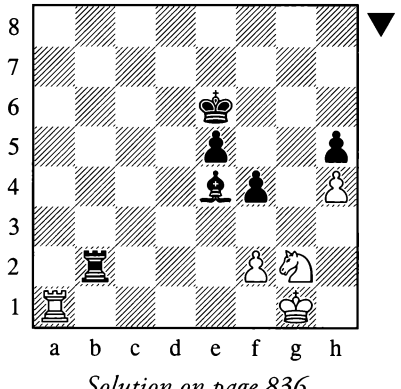

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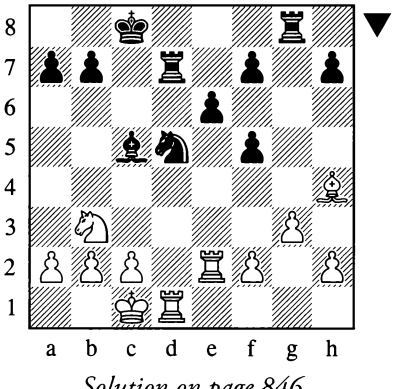

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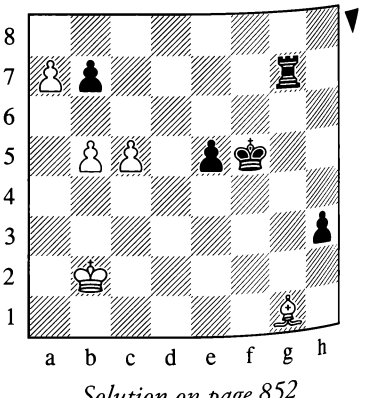

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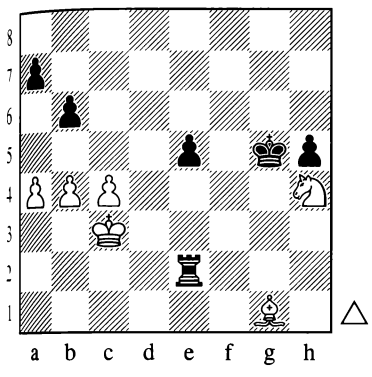

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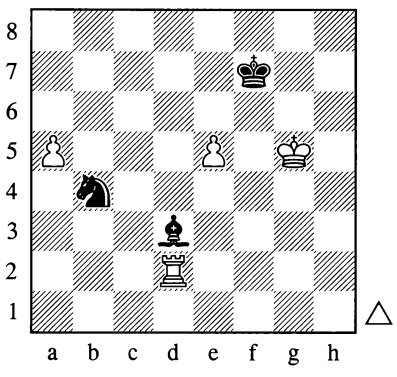

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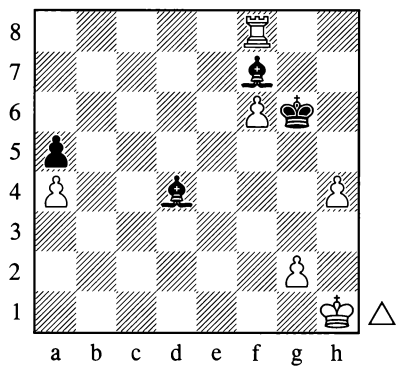

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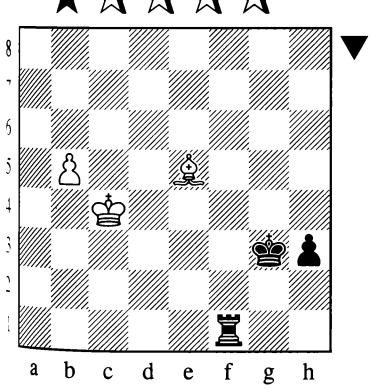

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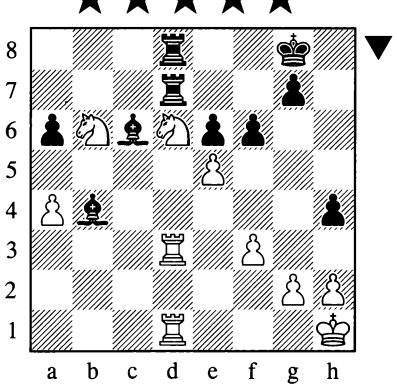

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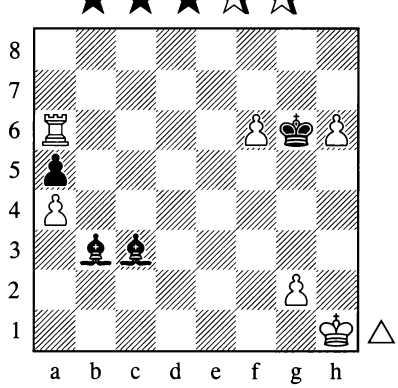

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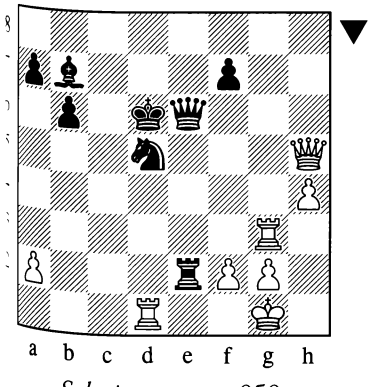

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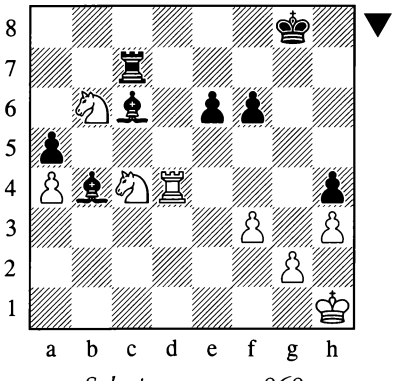

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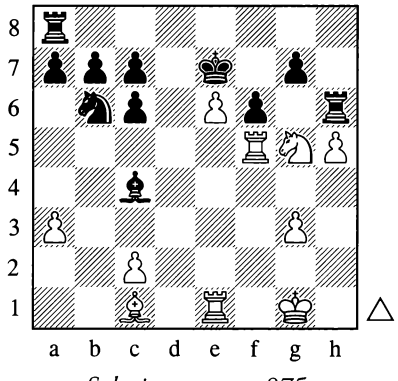

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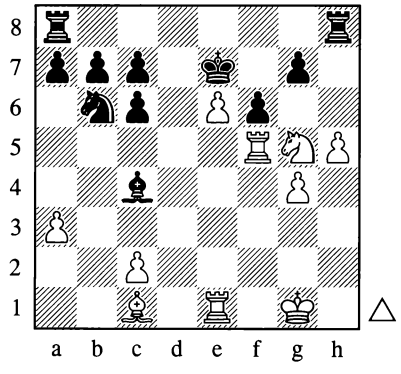

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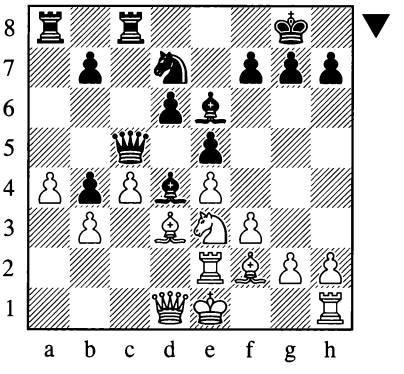

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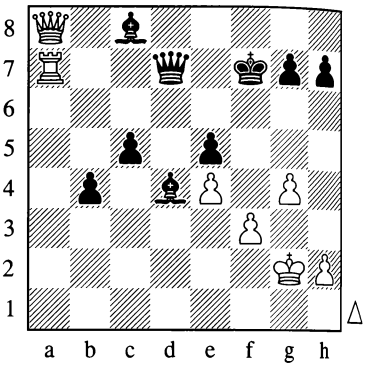

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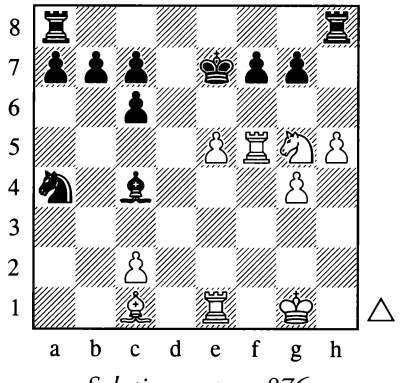

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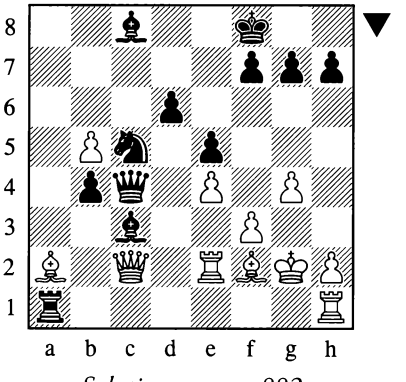

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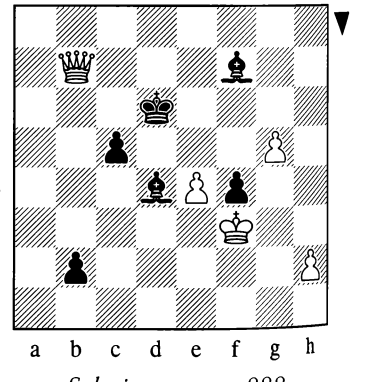

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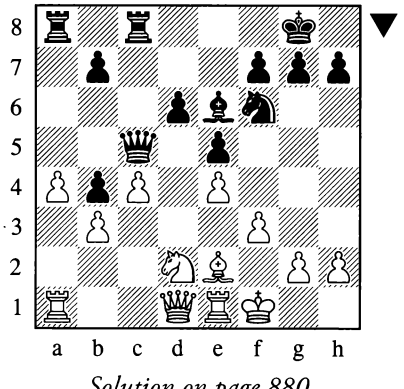

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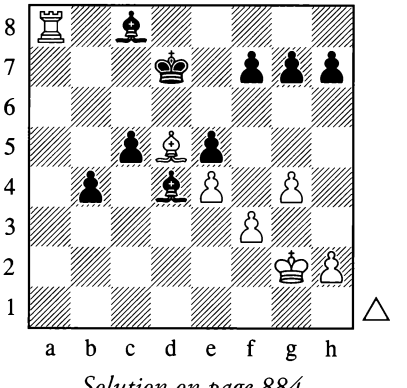

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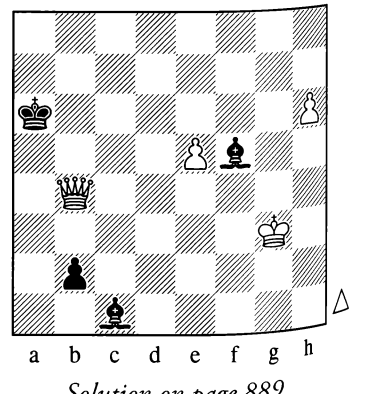


Solution on page 889

Chapter 6

Illustrative Games

The final chapter of this little book contains 14 endgames I find fascinating and instructive for various reasons. And the fact that the reasons are varying is in itself an important point. We shall look at themes such as *key squares, small details, fortresses, plus equal, exchanges, passed pawns* and more. This chapter is an investigation into the way themes from previous chapters look "in the wild".

Originally I was contemplating writing a full book of instructive games with themes from the opening, middlegame and endgame, but eventually decided that rather than inventing more projects, I should shoot the gun while I held it in my hand. This book is already way too big. No doubt the chief editor at Quality Chess, John Shaw, will not be able to tell the difference between a 750-page book and a 900-page book...

I should confess that four of the games, those played in the Candidates Tournament in Yekaterinburg 2020-21, were already analysed and annotated for *Chess Life* and *US Chess Online.* I thank the editor John Hartmann for the permission to use the games in this book as well. They were originally written with the urgency of journalism, but have here been rewritten to meet the intention of being instructive instead. Before anyone invests time into looking for similarities, I can assure you that the moves played in the games and my evaluation of them have not changed.

In total you will find 15 games below. The first game I found interesting to include to provide a bit of context for Game 2 and does not last all the way into the endgame.

1. An illustration of opening play

When I was researching the game between Khanin and Dai Changren, which is the main topic of this chapter, I realised that the opening theory was extensive after 12...♘e7?! – and that the game with optimal play was played by Khanin. I found it interesting to include this game, in order to give as complete a picture as possible. The annotations are quite light, as the interesting part here is the repetitive results White has achieved in this opening and the fact that people went there with Black to get slaughtered for a decade.

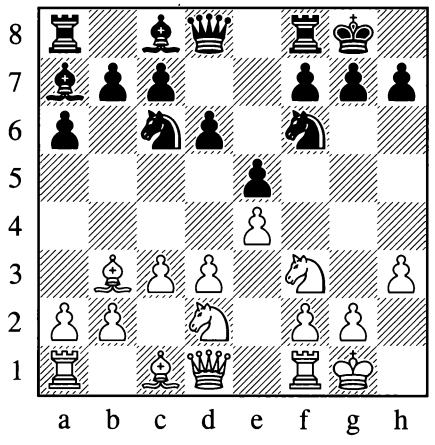
Usually blitz games are irrelevant, but in this case, due to the theoretical relevance and the great play by Khanin, we get a strong feeling that he knows his stuff.

As this is not an opening book I have not indicated the deviations from the existing games as novelties with a capital N, but I think it is fairly obvious where they are.

Semen Khanin – Ilia Iljiushenok

St Petersburg (blitz) 2018

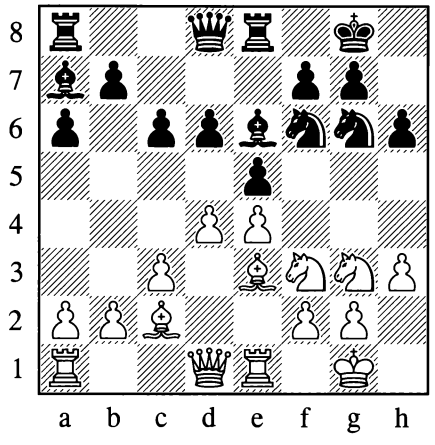
1.e4 e5 2.♘f3 ♘c6 3.♗c4 ♘f6 4.d3 ♗c5 5.0–0 d6 6.c3 a6 7.♘bd2 0–0 8.♗b3 ♗a7 9.h3



9...♘e7?!

We shall see a better treatment of the opening in the next game of this chapter.

10.♖e1 ♘g6 11.♘f1 h6 12.♘g3 ♗e6 13.d4 ♖e8 14.♗c2 c6 15.♗e3

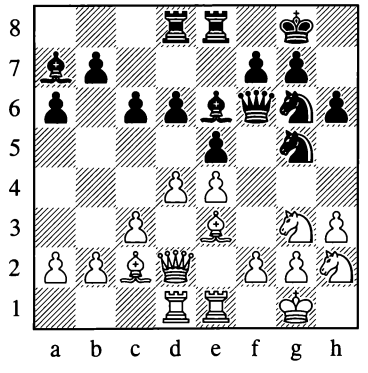


15...♕c7?!

With what comes, it is quite easy to see that the queen does not belong on this square.

Other practical examples are:

15...♘h7?! 16.♕d2 ♕f6 17.♘h2 ♘g5
Alekseev – Shinkevich, Togliatti 2001.
18.♖ad1 ♖ad8



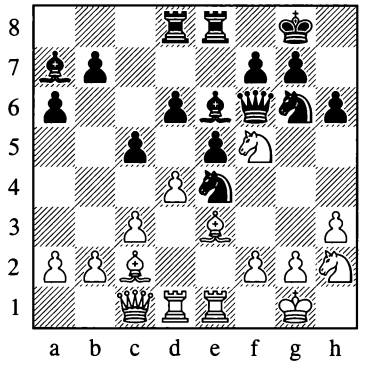
White has a number of decent options here, but one that supersedes the others.

19.♕c1!!

The key behind this move is that 19.♘f5 ♘xe4 is not as clear as it should be, although White is much better.

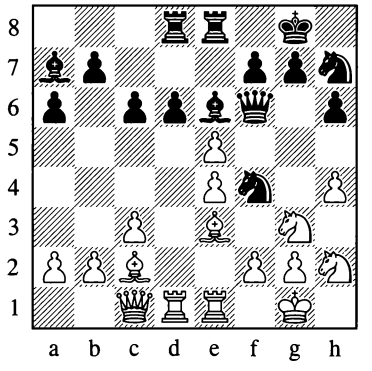
19...♘f4

19...c5 allows White to reveal his intentions. 20.♘f5 ♘xe4



21.♘xg7! cxd4 The only move, but clearly a poor choice. 22.♘xe8 ♖xe8 23.♗xe4 dxe3 24.fxe3 We have reached the conversion phase.

20.h4 ♘h7 21.dxe5



White is winning a piece. Black can make a bit of a mess with:

21...♗xe3 22.fxe3 ♘h3† 23.gxh3 ♕xh4

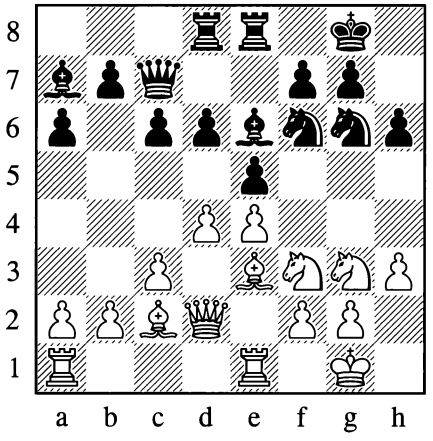
White will prevail after:

24.♘f5 ♗xf5 25.exf5 dxe5 26.♖e2

Although there are a lot of moves to be played still.

15...c5!? is probably more in the needs of the position. White is better after 16.♕d2 (16.d5 ♗d7 17.c4 also gives a small pull.) 16...cxd4 17.cxd4 ♖c8 Stefanidi – Makropoulou, Korinthos 2002. The most natural seems to be 18.♖ad1!? b5 19.♗b1 with an edge. But Black is by no means busted.

16.♕d2 ♖ad8



17.♘f5!

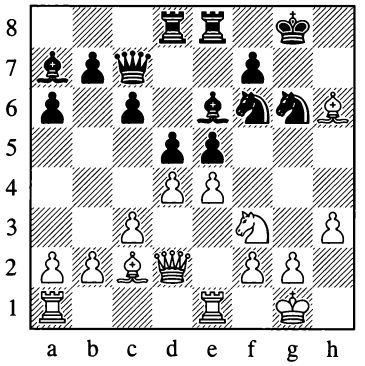
The direct way is the proven path. White may already be objectively winning.

17.♖ad1?! with a clear advantage has been played a lot, among others in Anand – Nakamura, St. Louis 2016, where the normally so well-prepared Indian failed to win the game.

17...♗xf5

17...d5 18.♘xg7! ♔xg7 19.♗xh6† ♔g8

19...♔h8 20.exd5 ♗xd5 Mammadova – Batsiashvili, Antalya 2017. White could now have won with: 21.♗g5! ♔g7 22.♘xe5 ♘xe5 23.dxe5 ♖xe5 24.♗xf6† ♔xf6 25.♕f4† ♔e6 26.♕f5† And kaput.



20.exd5!

Strongest.

20.♗g5? ♘xe4 was bad in Bojkov – Deviatkin, Sydney 2011.

But 20.♕g5!? gave White a serious advantage in E. Paehtz – Balajayeva, Baku 2017.

20...♗xd5

White won after: 20...♖xd5 21.♘xe5 ♖xe5 (21...♘xe5 22.♕g5† ♘g6 23.♕xf6 with mate) 22.♖xe5 ♗b8 23.♖ae1 ♘xe5 24.♖xe5 1–0 Brandenburg – Van Wessel, Netherlands 2010.

21.♘xe5 ♗b8 22.♕g5 ♘h7

Thus far this is Areshchenko – Sutovsky, Gibraltar 2007. White can win with:

23.♕g4! ♘f6 24.♕g3 ♕e7

24...♖e6 25.c4 ♘h5 26.♕g5 ♗xc4 27.♕xh5 and White wins.

25.♗xg6 fxg6 26.♕xg6† ♔h8 27.♗g5 ♖f8 28.♘g4

With total success.

17...exd4

This was played in Volokitin – Zhou Jianchao, Khanty-Mansiysk 2007. White now had the chance to start a big attack.

18.♗xh6 dxc3

18...gxh6 19.♕xh6 ♗xf5 20.exf5 White wins.

19.bxc3 ♘h5 20.♕g5 d5 21.♕xh5 dxe4 22.♘xg7

Another kingdom ravaged by a forest fire.

Black has also tried:

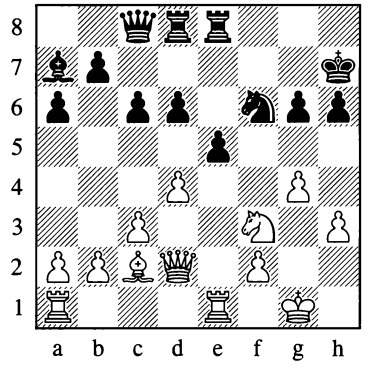
17...♕c8

This was played in N. Kosintseva – Cmilyte, Nalchik 2008. Strongest is now:

18.g4! ♔h7

18...♗xf5 19.exf5 with a big attack.

19.♗xh6 ♗xf5 20.exf5 gxh6 21.fxg6† fxg6



22.♘h4!

Bringing more wood to the fire.

22...♖g8 23.♔h1

Classic attacking technique. First secure the king, then strike.

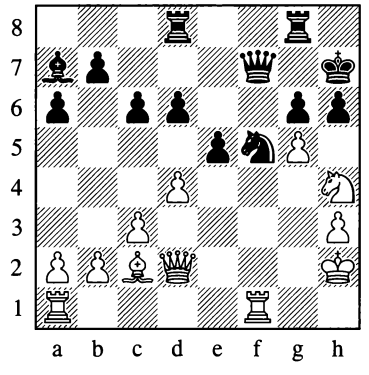
23...♕c7 24.f4 ♕f7

24...exd4 25.♖e6 and ♖ae1 gives a winning attack.

25.g5! ♘h5 26.f5 ♘g3†

26...gxf5 27.♗xf5† ♔h8 28.g6 ♕g7 29.♗e6 ♖gf8 30.♗f7 White is winning.

27.♔h2 ♘xf5 28.♖f1



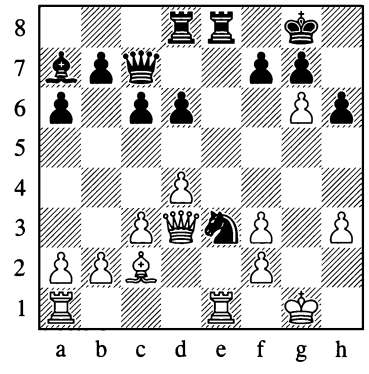
It is clear here already that White is in the middle of a violent attack.

28...e4 29.♗xe4 d5 30.♗xf5 gxf5 31.♖xf5 ♕c7† 32.♔h1 ♕g3 33.♖f7† ♔h8 34.g6 ♕xh3† 35.♔g1 ♕g3† 36.♕g2 ♕xg2† 37.♔xg2 ♖g7 38.♖e1

White wins.

18.exf5 ♘f8

18...e4 19.fxg6 exf3 20.gxf3 ♘d5 21.♕d3 ♘xe3 was already a pawn up in Erdogdu – Abdullayev, Izmir 2015.

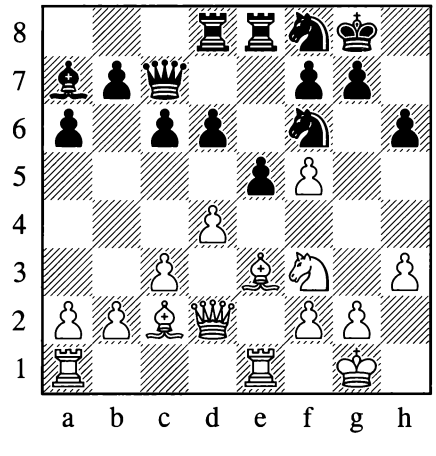


22.gxf7† ♕xf7 23.♕h7† ♔f8 24.♖xe3 is the most accurate way to continue the attack.

The following game was very attractive: 18...exd4 19.♗xh6! dxc3 20.bxc3 gxh6 21.♕xh6 ♘e5 22.♕g5† ♔h7 23.♕xf6 ♘xf3† 24.gxf3 ♖g8† 25.♔h1 ♗xf2 26.♖e7 1–0 Kapnisis – A. Mastrovasilis, Vrahati 2010.

18...♘e7 19.♗xh6! with a winning attack.

18...♘f4 19.♗xf4 exf4 20.♕xf4 is a sad but realistic choice. White was much better in Sariego Figueredo – Servat, Matanzas 1995.

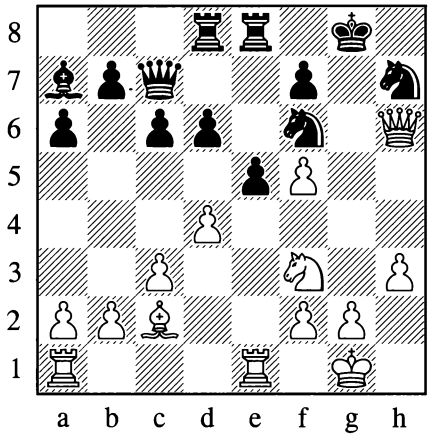


19.♗xh6 gxh6?!

It was already time for Black to accept that he has lost a pawn and play 19...♘8h7, as in Chatzieleftheriou – Stefanou, Patras 2019. 20.♗e3 would be a pawn up.

20.♕xh6 ♘8h7

20...♘8d7 was played in Kollars – Latzke, Schwaebisch Gmuend 2019. White is winning after 21.g4!? as well as 21.dxe5 dxe5 22.♗b3 ♖e7 23.♘g5 ♘f8 24.♘e4 ♘xe4 25.♖xe4 with mate on the horizon.

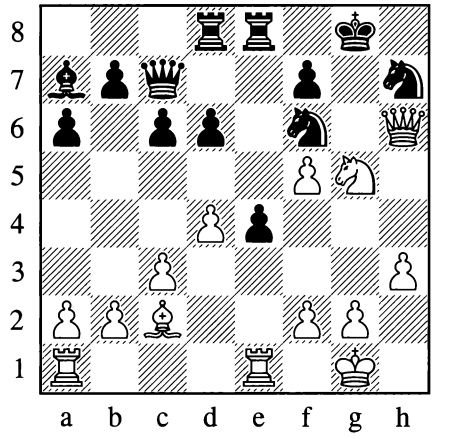


21.♘g5 e4

Other games finished:

21...♕e7 22.♘xh7 ♘xh7 23.f6! ♘xf6 24.♖e3 1–0 Fedorov – Ospennikov, Kazan 2016.

21...exd4 22.♘xh7 ♘xh7 23.f6 ♘xf6 24.♕g5†! ♔f8 25.♕xf6 ♔g8 26.♕g5† 1–0 Lamoureux – Forgues, France 2008.



22.♘xh7

22.♖e3 was a bit cleaner. For example: 22...♘xg5 23.♖g3 ♘fh7 24.f6 with mate on the next move.

22...♘xh7 23.f6 ♘xf6 24.♖e3 ♘g4 25.♕g5† ♔f8 26.hxg4 ♖e6 27.♖h3 ♔e8 28.♖h7 1–0

2. Fighting for key squares

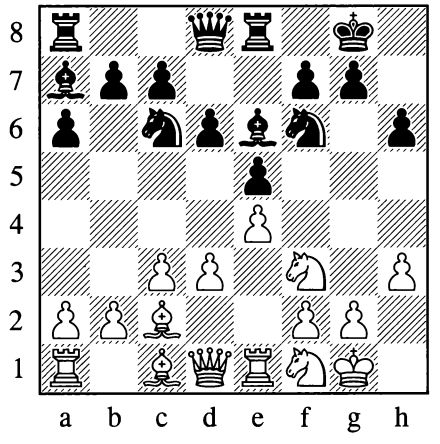
Semen Khanin – Dai Changren

Shanghai 2019

1.e4 e5 2.♘f3 ♘c6 3.♗c4 ♗c5 4.0–0 ♘f6 5.d3 d6 6.c3 a6 7.♗b3 0–0 8.h3

8.♗g5!? h6 9.♗h4 g5 10.♗g3 is a new direction of opening theory.

8...♗a7 9.♖e1 h6 10.♘bd2 ♖e8 11.♘f1 ♗e6 12.♗c2



12...d5!

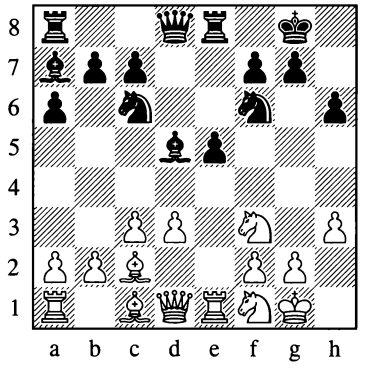
12...♘e7?! has a really poor reputation, but remains very popular. After 13.♘g3 ♘g6 14.d4 we would transpose to the previous game.

13.exd5 ♘xd5

This is the natural recapture and as far as I can see, also the most precise. We shall continue our brief investigation into the opening of this game, so we can have a better feeling for the build-up.

13...♗xd5

This is a bit less natural, as White gets a tempo on the bishop with his knight if it joins the game via e3.



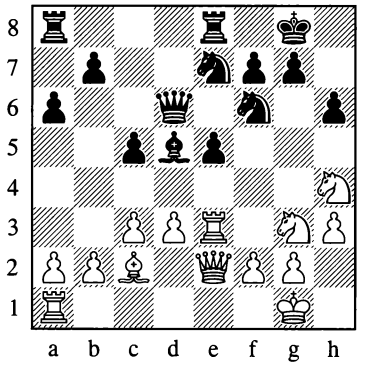
Please pay attention to the theme of exchanges of defenders.

14.♘g3

14.♗e3!? ♗xe3 15.♘xe3 ♗e6 16.♘d2 looks a little bit better for White. The hope is that with ♘e4, ♕f3 and b2-b4, he will be able to create outposts on c5 and/or f5. The margins are paper thin, as they often are in topical lines.

14...♕d6 15.♘h4 ♖ad8?

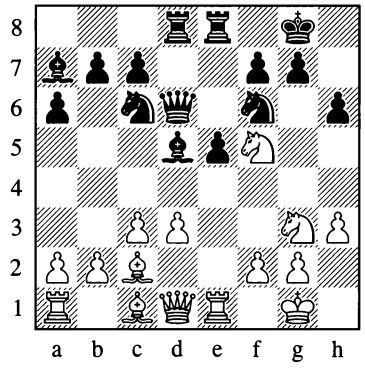
15...♘e7! was the right way to play. The key point is that Black will be happy to exchange the queenside knight to lessen the danger of the attack. A nice strategic point arises after 16.♗e3 ♗xe3 17.♖xe3, when Black should seriously consider 17...c5!?, clamping down on the d3-pawn. 18.♕e2



18...g6! is an important point. Black is ready for ...♘c6, and after 19.♖xe5? g5! 20.♘f3 ♗xf3 21.gxf3 ♘g6 22.♖xe8† ♖xe8 23.♘e4 ♘h5 Black is ready for a deadly invasion.

16.♘hf5

You can easily forgive Tang for allowing the queen to be knocked back in an Internet game. I am sure he quickly realised that things had gone very badly indeed.



a) 16...♕f8

This was played in Dominguez Perez – Tang, Internet 2018.

17.♘h5!N

Exchanging the main defender of the kingside.

17.♘xh6† immediately was less clear.

Dominguez played the toothless 17.♗d2 and later lost the game.

17...♘xh5 18.♕xh5

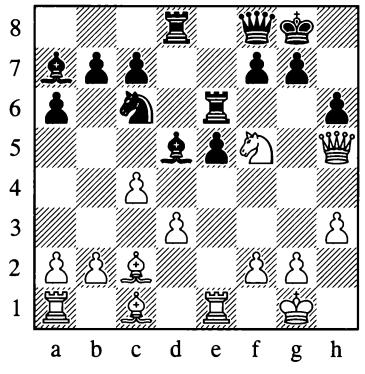
Black is in grave difficulties.

18...♖e6

18...♔h8 19.d4! and 18...♗e6 19.♘xh6† gxh6 20.♗xh6 ♕e7 21.d4 are both examples of how the light-squared bishop can be included in the game.

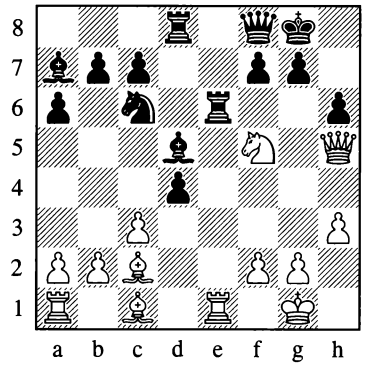
19.d4!

19.c4 would be met with:



19...♖f6!! 20.cxd5 ♖xf5! (20...♗xf2†? 21.♔h2!! and White wins) 21.♕xf5 ♘d4 22.♕xe5 ♘xc2 23.♗d2 ♗b6 Black is only marginally worse.

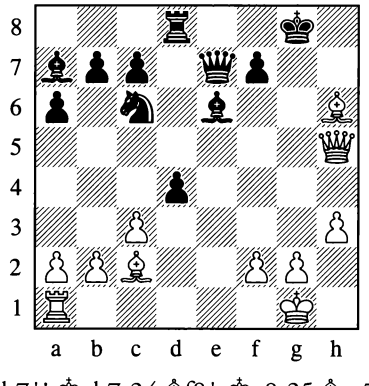
19...exd4



20.♖xe6 ♗xe6 21.♘xh6† gxh6 22.♗xh6 ♕e7!

Losing the queen is the only chance to save the position.

22...♖d5? 23.♕h4 ♕d6 would see Black murdered with: 24.♗h7† ♔xh7 25.♗g5†! ♔g6 26.♕h6† ♔f5 27.♕f6† ♔e4 28.♕f3† ♔e5 29.♗f6#



23.♗h7†! ♔xh7 24.♗f8† ♔g8 25.♗xe7 ♘xe7 26.♕g5† ♔f8 27.♖d1

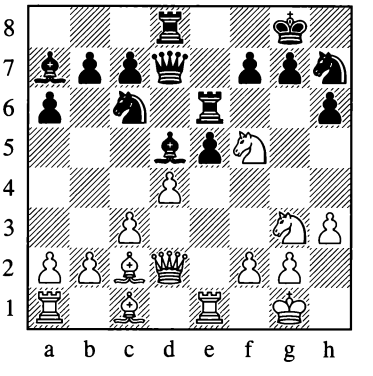
White has real winning chances and the task of defending the black position is highly challenging, but probably not impossible.

b) The following variation shows White's potential.

16...♕d7? 17.♕d2! ♘h7 18.d4

If Black takes the pawn, White will exchange rooks and take on g7.

18...♖e6



19.♕d3!! ♘f6

19...♘f8 20.♗d2 b5 21.♘h5 gives White a menacing attack. For example: 21...♖g6 22.g4 ♘e6 23.♕g3 exd4 24.♘fxg7 and the black position collapses.

20.♘xg7! ♔xg7 21.♗xh6† ♔h8

21...♔xh6 22.♕e3† ♔g7 23.♘f5† with mate following.

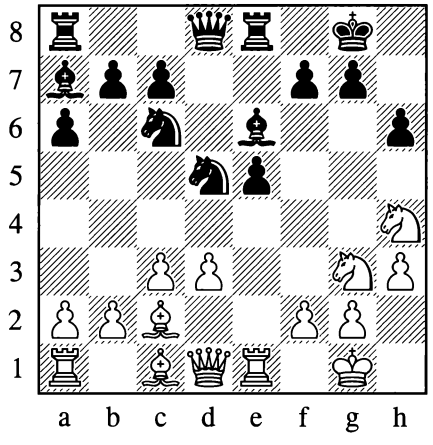
22.♗g5 e4 23.♕d1 ♖de8 24.♖e3 ♘h7 25.♕h5 f6 26.♗h4

White has a winning attack.

c) Black could try 16...♕c5, with the idea 17.♗e3 ♕f8. This aims to slow down White's attack, although White is still better after 18.♗d2. However White could instead reply 17.♕e2, when Black seems to have nothing better than 17...♕f8 18.♘h5 ♘xh5 18.♕xh5, transposing to line 'a' above, each side having lost one tempo with his queen.

14.♘g3 ♕d6 15.♘h4 ♕d8

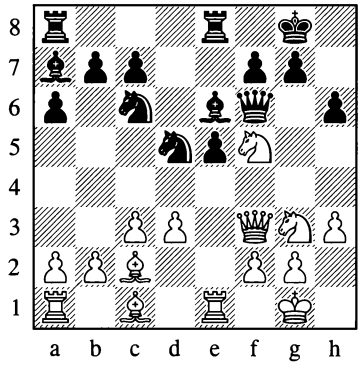
15...♕e7 16.♘hf5 was the move order in Duda – Carlsen, Wijk aan Zee 2020. At this point White would already be better after 16.♕h5!, as Black no longer has the bishop manoeuvre to f8.



16.♕h5!N

16.♘f3 ♕d6 would be a repetition.

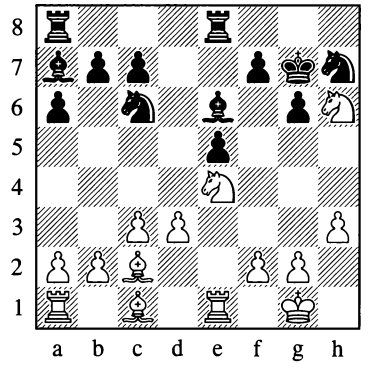
The main alternative is: 16.♘hf5 ♕f6 17.♕f3



Here there are two approaches of different value:

a) 17...♔h8! has been played in some games between less strong players. White has already drifted into an unpleasant position.

b) 17...g6? 18.♘xh6† ♔g7 19.♕xf6† ♘xf6 20.♘e4 ♘h7



21.h4!

21.g4?! f5 was already a bit more pleasant for Black in Duda – Carlsen, Wijk aan Zee 2020.

21...♖ad8 22.g4

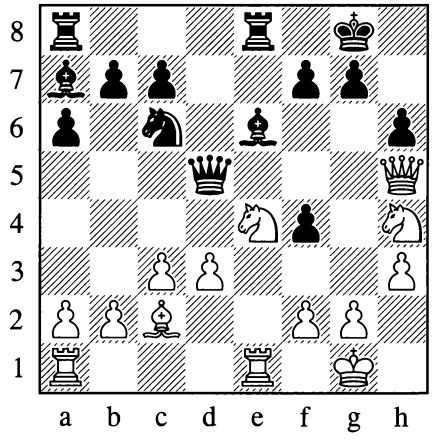
White was clearly better already in Rabiega – Feller, Germany 2017.

16...♘f4?

The best approach for Black would probably be to bring the bishop to the kingside to aid with the defence. After 16...♗c5! 17.♘hf5 ♗f8, Black is close to equality, even if I would prefer White after 18.♘e4.

17.♗xf4 exf4 18.♘e4 ♕d5

18...♘e7 19.d4 ♘d5 20.♘f3 would leave White with a clear structural advantage.



19.♕xd5?

Going into the endgame is not sensible. White has a better pawn structure, but Black has the two bishops to balance this out.

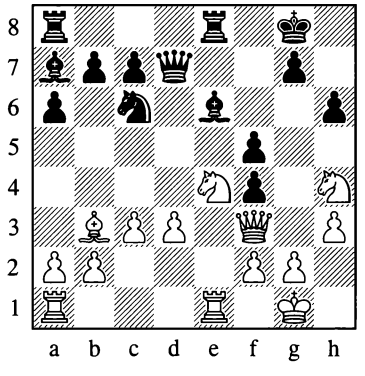
Much stronger would have been to play:

19.♕f3!

The first positive about this move is that it threatens the f4-pawn, which is not so easy to defend. This compels Black to play actively. Somehow Khanin missed something in the following lines:

19...♘e5

19...f5 20.♗b3 ♕d7 looks solid, but White has a strong option for the knight.

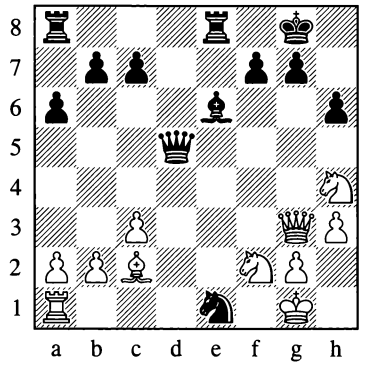


21.♘f6†! gxf6 22.♖xe6 ♖xe6 23.♕h5 The threats are immense. But it is easy to understand White's hesitation. He has invested a rook after all... 23...♖ae8 24.♕g6† ♔f8 25.♘xf5 ♕f7 26.♕xh6† ♔g8 27.d4 ♘a5 28.♕xf4 White will have time to take the rook and have a winning position.

20.♕xf4 ♘xd3 21.♕g3 ♗xf2†

21...♘xf2 22.♘xf2 ♕d2 23.♖ac1 and everything is protected.

22.♘xf2 ♘xe1



23.♘e4!!

A crucial intermediate move.

23.♖xe1? ♕d2! and Black wins material.

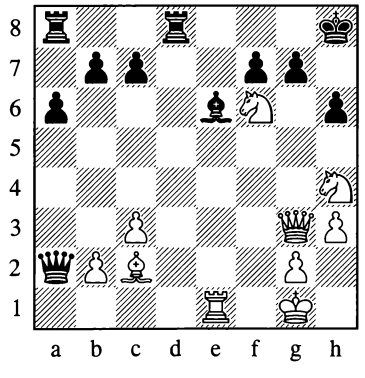
23...♔h8 24.♖xe1 ♕xa2?!

Too optimistic, and allowing a big tactic.

24...♖e7 25.♕f4! would also coordinate the pieces well.

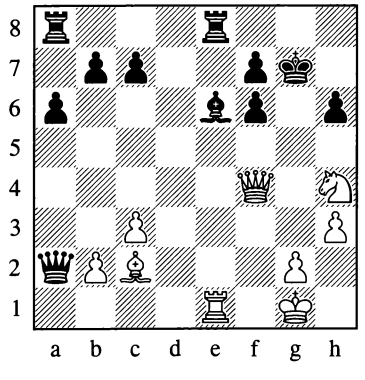
25.♘f6! gxf6

25...♖ed8



26.♕g6!! is a wonderful tactic.

26.♕f4 ♔g7

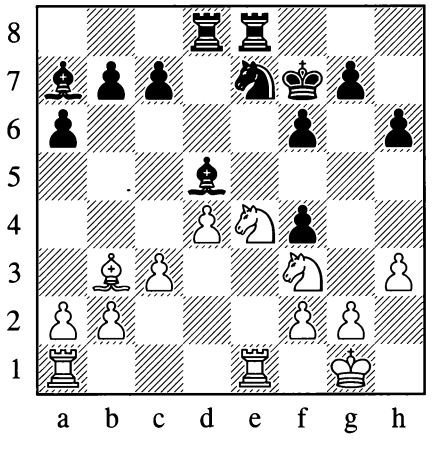


27.♖e3 ♕xb2 28.♖g3† ♔f8 29.♕xf6 ♕xc2 30.♘g6†

White wins the queen and later the game.

19.♕d1!? is also very strong, but looks far less obvious.

19...♗xd5 20.♘d2 ♘e7 21.d4 ♖ad8 22.♘e4 f6! 23.♘f3 ♔f7 24.♗b3



24...g5?

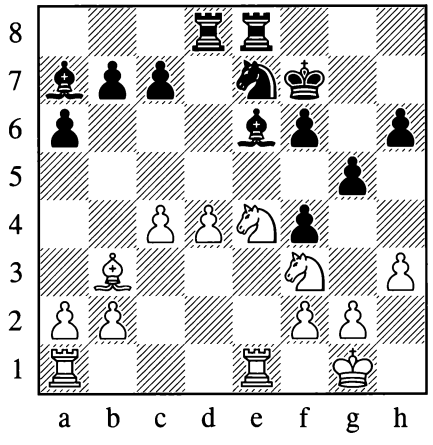
This is structurally a good move, but the timing is awful.

Black had to fight for the light squares in the centre, after which he would have been fine. So either 24...b5!? or 24...c6!? would have been OK.

25.c4! ♗e6

The move Black was prepared to play.

25...♗xe4 would be a major concession. 26.♖xe4 ♘f5 (26...c5 27.♗a4! ♖f8 28.d5 would give White a clear structural advantage.) 27.c5† ♔f8 28.♖xe8† ♔xe8 29.♖d1 would give White a serious advantage. The opposite-coloured bishops are not too important, as the black bishop is almost dead.



26.d5! ♗f5

Hoping to play ...♗xe4 and ...♗c5, when the structure would favour Black. But it is White to play...

After 26...♗d7 27.d6 ♘f5 28.c5† ♔g6 29.dxc7 ♖c8 30.♖ad1 ♖xc7 31.♗c2 ♔g7 32.b4 White has a serious advantage.

27.d6!

This is the point. It seems that Black missed it.

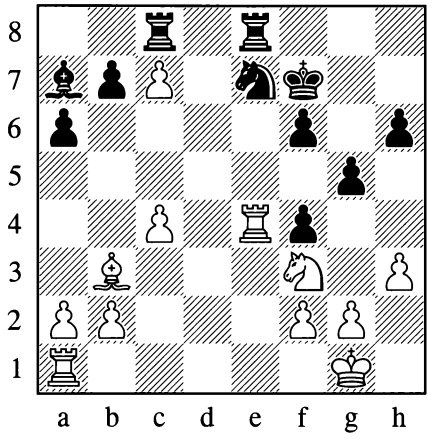
27...♗xe4

27...cxd6 28.c5† would see the knight land strongly on d6.

28.dxc7

28.c5†? would be a mistake because of 28...♗d5 and Black is better.

28...♖c8 29.♖xe4



29...♗c5?!

This is a natural-looking move, bringing the bishop in to block the pawn and control a lot of squares. But it fails tactically, which in the end matters the most.

For this reason, Black should have limited the damage with: 29...♘c6! 30.c5† (30.♖ae1 ♖xe4 31.♖xe4 and now 31...♗c5! would work.) 30...♔f8 31.♖xe8† ♔xe8 Otherwise ♗e6-tricks work. 32.♖e1† ♔f8 33.♖e6 ♖xc7 34.♖xf6† ♔g7 35.♖f5 White retains some pressure, but Black is not much worse.

30.♗a4!

30.a3 ♖xc7 31.♗a4 is similar.

30...♘c6

30...♖f8 31.a3 a5 32.♖b1 is nasty for Black.

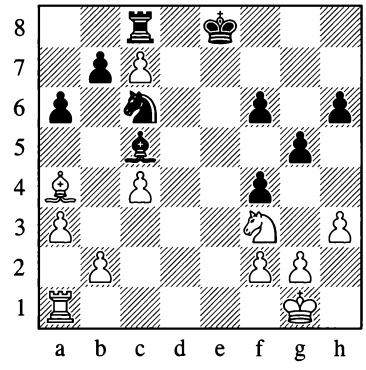
31.♖xe8

After 31.♗xc6 bxc6 32.♖ae1 ♖xe4 33.♖xe4 ♖xc7 the white knight is out of the game and Black could even try for an advantage.

31...♔xe8 32.b4?!

A tempting and energetic move. But the exchange of pawns is probably to Black's favour, so for this reason, I like moderate play better:

32.a3!



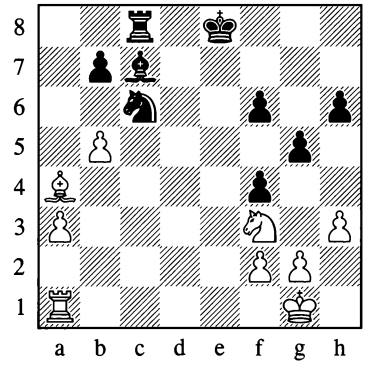
32...♗b6

This unnatural move is probably strongest.

32...♖xc7?! 33.b4 is dangerous. White is threatening b5-b6, winning. 33...♗b6 is thus forced. 34.c5 ♗a7 35.♘d4 White has a massive advantage.

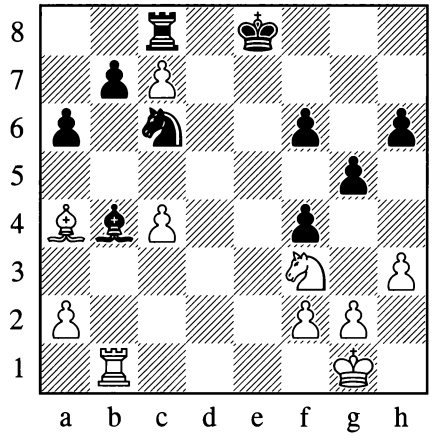
32...a5? prevents b2-b4, but weakens the b5-square, giving Black more tactical problems: 33.♖d1 ♔e7 Otherwise the a-pawn will fall. 34.♖d5 ♗b6 35.♖b5 White wins a pawn, which should be enough.

33.b4 ♗xc7 34.b5 axb5 35.cxb5



35...♖a8 36.bxc6 ♖xa4 37.cxb7 ♔d7 38.♖b1 White is close to winning.

32...♗xb4 33.♖b1



33...♗c5

The following variation is beautiful.

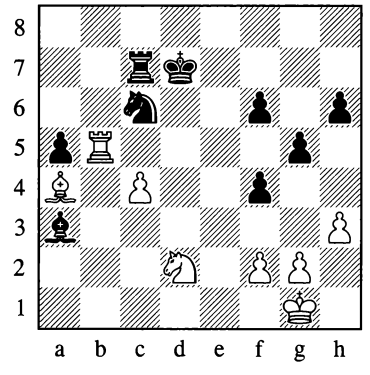
33...a5?

This loses to a wonderful tactical sequence.

34.a3 ♗c5 35.♖xb7 ♔d7 36.♘d2

Including the inactive piece in the game. It is not the only move order, but it is nice.

36...♖xc7 37.♖b5 ♗xa3



38.♖b6!!

This rook manoeuvre is strange and beautiful.

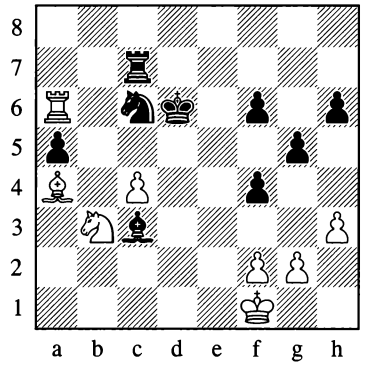
38...♔d6

38...♗c5 39.♖a6 is no improvement.

39.♘b3 ♗b4 40.♖a6!

Threatening ♘b3-d4.

40...♗c3 41.♔f1

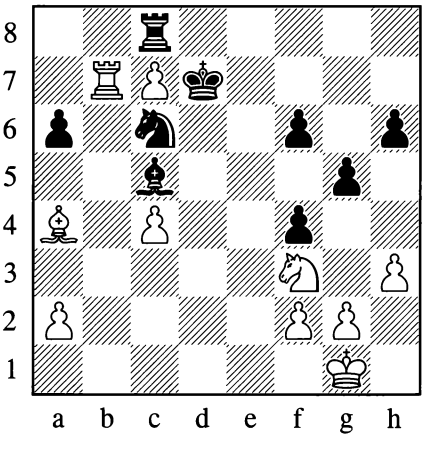


Black is entirely tied up. After:

41...f5 42.♔e2 g4 43.hxg4 fxg4 44.♔d3

White wins.

34.♖xb7 ♔d7

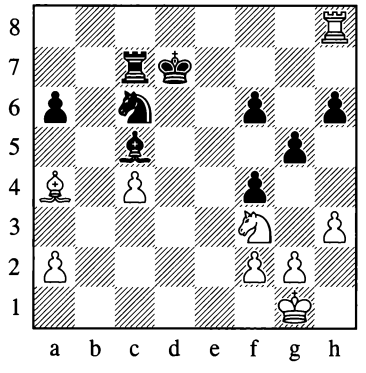


35.♘d2?!

Having played slightly inaccurately on move 32, White now makes an understandable miscalculation. It is far from obvious that the knight vs bishop ending is defensible for Black. Especially that it is rather easy to defend.

For this reason, it was stronger to play:

35.♖b8! ♖xc7 36.♖h8



36...♔e7!?

This is what I believe is the best try. But arguably, it is a question of taste.

36...♖b7 37.♘d2! ♗e7 38.♖h7 ♖c7 39.♘e4 is quite unpleasant for Black. After 39...♔e6 40.♘xf6 ♔xf6 41.♗xc6 White has serious chances with his extra pawn.

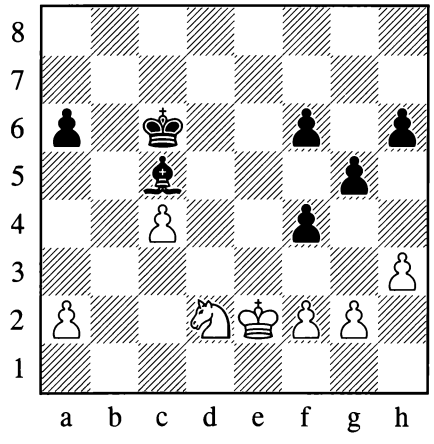
37.♖h7† ♔d8 38.♖xh6 ♘d4!

Black is exchanging knights at the cost of another pawn. In return White's pawns are all rubbish.

39.♖xf6 ♘xf3† 40.gxf3 ♗e7 41.♖xa6 ♖xc4 42.♔g2

A draw seems like a plausible result, but White still has a real advantage and a chance to push.

35...♖xc7 36.♗xc6† ♔xc6 37.♖xc7† ♔xc7 38.♔f1 ♔c6 39.♔e2



39...a5?

The situation is clear. Structurally Black is in trouble. He will have to find the right set-up quickly in order to hold. But if he does, he will be able to do so.

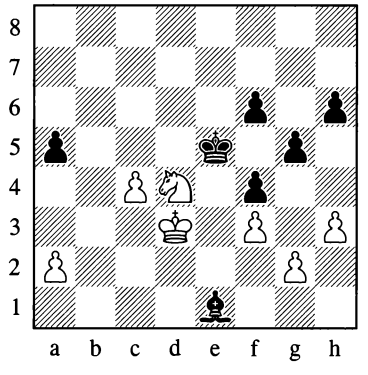
The draw was not far away after 39...♗b4 40.♔d3 ♔d6 41.♘b3 ♔e5 42.f3 h5 43.♘d4 ♗e1! and White will find it hard to make progress.

Now, after Black has placed the pawn on a5, he has created a weakness in his position, making it difficult to defend. This was wholly unnecessary. We should be wary of advancing pawns without a purpose in the endgame.

40.a4?

A typical move 40 mistake. It looks good to fix the weak pawn on a5. But the window for exploiting the weakness was small.

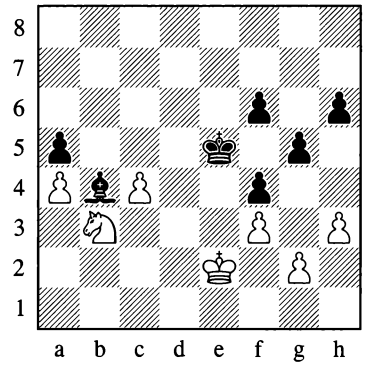
White was able to win with: 40.♘b3! ♗b4 41.♔d3 ♔d6 42.f3 ♔e5 (42...f5 43.♘d4 ♔e5 44.♘c6† and White wins.) 43.♘d4 ♗e1



White wins in the typical way to exploit a passed pawn. 44.c5 Now after 44...♗f2 White wins with 45.♘c6† and taking the a-pawn. And 44...♔d5 45.c6 ♔d6 46.♔c4 would also see White winning the a-pawn.

40...♗b6?

40...♗b4! 41.♘b3 ♔d6! 42.f3 ♔e5 would have created the blockade once again.



43.♔d3 ♗e1 44.♘d4 ♔d6 45.♘f5† ♔c5 46.♘xh6 ♔b4 is an important line. Black just holds: 47.♘g8 ♔xa4 48.♘xf6 ♔b3 49.c5 a4 50.c6 ♗a5 51.♘e4 a3 52.♘d2† ♔a4 53.♔c2 ♔b5 54.♘e4 ♔xc6 55.♔b3 ♗b4 The a-pawn provides enough counterplay to make the draw.

41.♘b3!

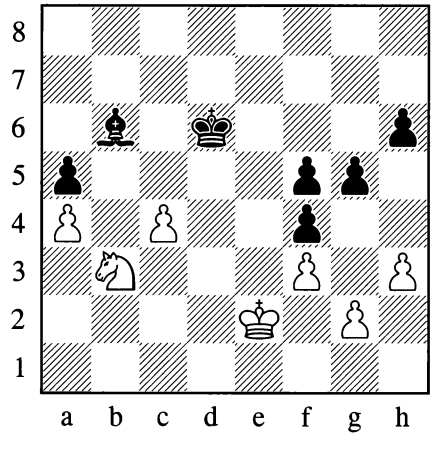
Strong play, setting up the idea of c4-c5(†) at the appropriate moment.

It was also possible for White to lose the game. After 41.♘e4 f5 42.♘f6 ♗d4 43.♘g8 ♔d6 the knight will be lost. However, this was unlikely to happen.

41...f5 42.f3

Black cannot prevent what is coming.

42...♔d6

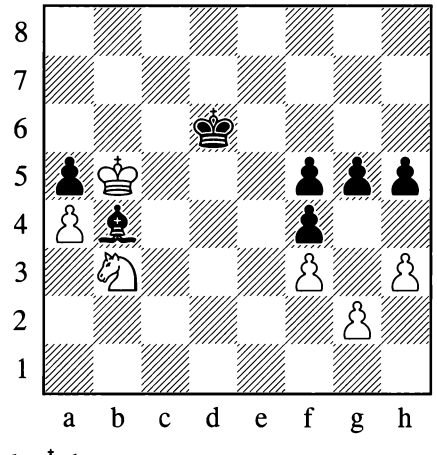


43.♔d3

There is nothing wrong with this move, but the idea behind it is dubious.

43.c5†! ♗xc5 44.♘xa5 would have secured White a winning advantage. The distant passed pawn stays ready to march, while White penetrates on the kingside, eliminating as many black pawns as possible. A strong player should be able to see that this will be winning 9 times out of 10. This one included. It will take time, but with decent play, the win is assured. The path White is on in the game relies heavily on tactics and as such, runs a real risk of revealing surprising details.

43...h5 44.c5† ♗xc5 45.♔c4? ♗b4 46.♔b5



46...♔d5?

Black would also lose the pawn ending after 46...♗e1 47.♘xa5 ♗xa5 48.♔xa5 ♔c5 49.♔a6 ♔c6 50.h4!, where Black would eventually have to let him out of the cage on the queenside.

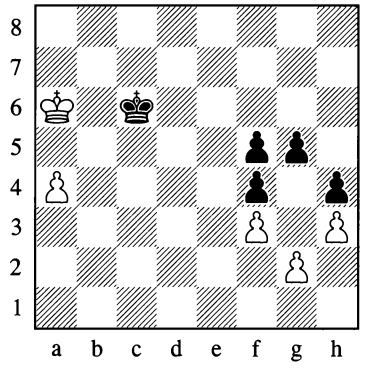
But by anticipating this, he could have held the draw with:

46...h4!!

White has no way to make progress without taking the a-pawn, and after:

47.♘xa5 ♗xa5 48.♔xa5 ♔c5 49.♔a6 ♔c6

It is harder for White to escape the cage.



50.a5 g4

Surviving the first zugzwang.

51.♔a7 ♔c7 52.a6 g3!

And the second. Black keeps the opposition and the white king will not be allowed to escape the corner. The only choice is between a draw by repetition or by stalemate.

47.♘xa5

White is technically winning, but has to show good technique to win.

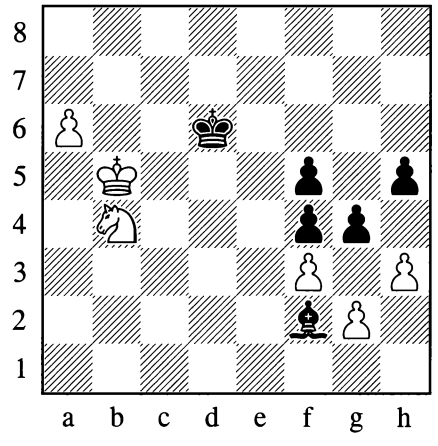
47...♗e1

47...♗xa5 48.♔xa5 ♔c5 49.♔a6 ♔c6 50.h4! we have already seen above.

48.♘c6 g4

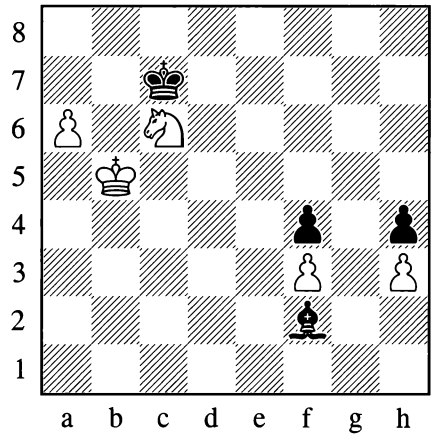
The fewer pawns that remain on the kingside, the fewer pawns Black has to lose.

49.♘b4† ♔d6 50.a5 ♗f2 51.a6



White has pushed the a-pawn as far as it can go. Now it is time to make use of the power of the distant pawn to maximise his advantage on the other flank.

51...♗e3 52.♘c6 ♔c7 53.♘e7 gxf3 54.gxf3 ♔b8 55.♘xf5 ♔a7 56.♘g7 h4 57.♘f5 ♗f2 58.♘e7 ♔b8 59.♘g6 ♗g3 60.♘e5 ♗f2 61.♘c6† ♔c7



With the knight having done as much damage as it is able to, it is time for the king to come to the kingside to help eliminate the last two black pawns. This also presents White with his first technical challenge.

62.♘b4?!

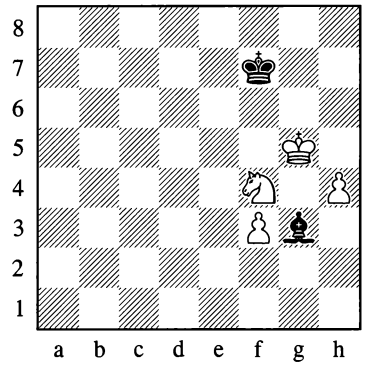
The start of an imprecise plan that makes it a bit harder to convert the advantage on the kingside.

62.a7! ♔b7 63.♔c4

This was the right way to play. Remember, we want to maximise our advantage before we take concrete action. In this situation this means that we want to get the king to the perfect square on the kingside (g5) before we give up the a-pawn. This is possible by putting the pawn on a7, and only moving the knight once the king is ready.

63...♔a8 64.♔d5 ♔b7 65.♔e4 ♗g3

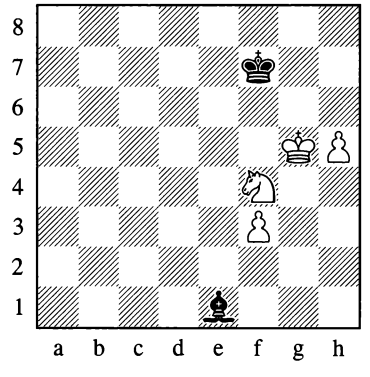
66.♔f5 ♔a8 67.♔g5 ♔b7 68.♘e7 ♔xa7 69.♘g6 ♔b6 70.♘xh4 ♔c6 71.♘g6 ♔d6 72.♘xf4 ♔e7 73.h4 ♔f7



White has won a not seemingly important tempo (or two – the position is not entirely identical) over the game by being precise. In the grand scheme of things, this would not have mattered if he had converted his advantage with confidence in the game. But as he did not, we can say that the sliding scale of losing the advantage started on move 62. The win is not too difficult under these circumstances. White's immediate goal is to get the king to the g6-square. If this happens, Black will not be able to resist for long.

74.h5 ♗e1

74...♔g7 75.h6† ♔h7 76.♘h5 and the check on f6 will push the king back.

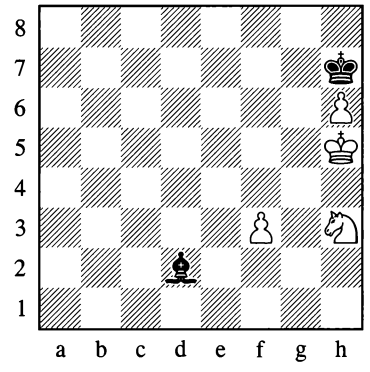


75.♘h3!

Not the only winning move, but the one that fulfils all the requirements.

White could still mess up with 75.h6? ♗d2! 76.♔f5 ♔g8 or 75.♔f5? ♔g7!, in both cases he would lose control of his pawns and his advantage.

75...♔g7 76.h6† ♔h7 77.♔h5 ♗d2



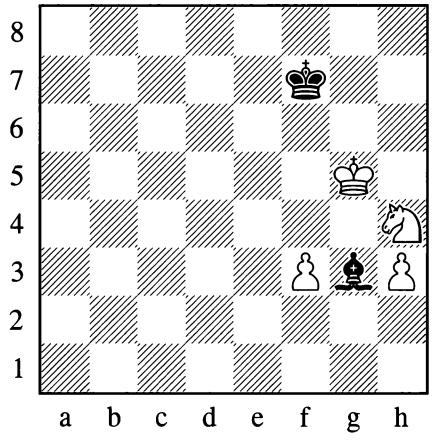
78.f4

The check is also good. The text move simply follows the principle of maximising the advantage before executing it.

78...♗c1 79.♘g5† ♔g8 80.f5

And so on. White wins.

62...♔b8 63.♘d5 ♗g3 64.♔b6 ♗f2† 65.♔c6 ♗g3 66.♔d6 ♔a7 67.♔e5 ♔xa6 68.♘xf4 ♔b5 69.♔f5 ♔c6 70.♘g6 ♔d6 71.♔g5 ♔e6 72.♘xh4 ♔f7



Black arrives a bit earlier to make it harder for White to push through. It was hard to

predict that this would make a real difference. But this is exactly the point. Because we cannot predict it, we should always assume that it would make a difference. If it does not, well, better safe than sorry.

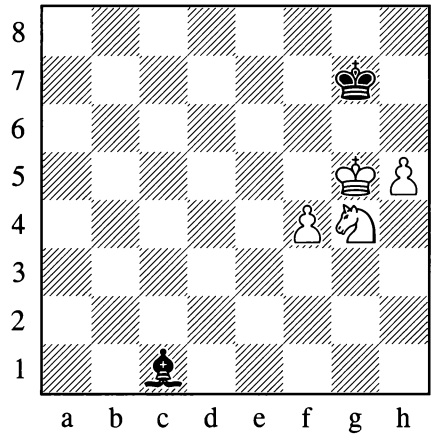
73.♘g6 ♗e1 74.h4 ♔g7 75.h5!

The position has already become very concrete. Black is close to being able to set up a blockade. 75.f4? ♗c3 76.h5 ♗f6† 77.♔f5 ♗c3 78.♘e5 ♔h6 with a holdable position.

75...♗d2† 76.f4

White did not want to play this. But the time wasted forces him to do so.

76...♗c1 77.♘e5 ♗d2 78.♘g4 ♗c1



White has not made things easy for himself. By committing the pawn to f4 too early, he has made it a target for Black to attack.

The key thing to understand about this position is that it is a battle for the squares in front of the white pawns. If Black is able to blockade them, he will make the draw. If White is able to push Black back and take control of these squares, the black defences can still be breached.

79.♔f5?!

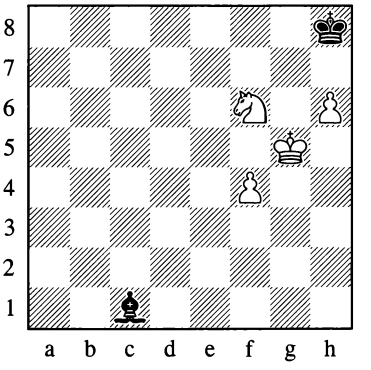
The technical move was:

79.h6†! ♔h7

79...♔f7 80.♘e5† and ♘d3, will give White time to play ♔g6 and f4-f5 whenever he wants.

79...♔g8 80.♘f2 and ♘h3 also wins. It is curious how well placed the knight is on h3.

80.♘f6† ♔h8



White has made progress and pushed the black king into the corner. But his pieces are still not well-enough coordinated to do anything with his advantage. What he needs to achieve is for the knight to defend the f4-pawn, while being ready to give the check on g5. This is why the knight was so well placed on h3. It is now too late to manoeuvre the knight there without Black being able to eliminate the pawns. But there is another square that fulfils the requirements.

81.♘d7!

Sending the knight around to the ideal square, e6.

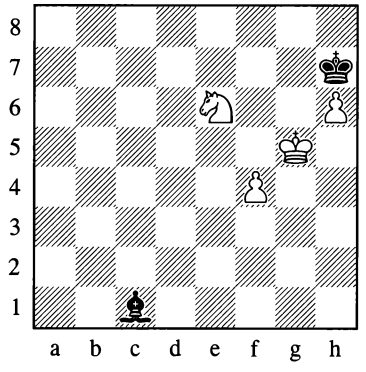
This time around 81.♔g6 ♗xf4 82.h7 ♗e5 does not win. Black will be happy to lose the bishop, preventing the white knight from finding a path to f7. This is a fortress worth remembering.

81...♔h7

81...♔g8 82.♘c5 ♔f7 almost holds, but White has 83.♘d3!, and 84.♘e5†, winning.

82.♘f8† ♔g8 83.♘e6 ♔h7

83...♔f7 84.♔f5 and knight to g5.



84.♔h5

White is finally able to clear the g5-square for the knight. The rest is easy.

84...♗d2 85.♘g5† ♔h8 86.♔g6 ♗xf4 87.♘f7† And wins.

By the way, we should not get too fixated on placing the knight on h3. After 79.♘f2 ♔h7 80.♘h3? ♗a3 White is not in time and loses the fight for the h6-square, providing Black with a defensible position.

79...♗d2

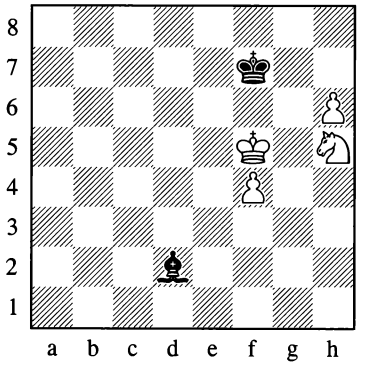
79...♔f7

This loses fairly straightforwardly to:

80.h6 ♔g8

80...♗d2 81.♘e5† ♔g8 82.♔g6 is an easy mate.

81.♘f6† ♔f7 82.♘h5! ♗d2



83.♘g3!

The knight comes to g5 in time, forcing the black king away.

White is also winning after 83.♘g7 ♔g8 84.♔g6 ♗xf4 85.h7† ♔h8 86.♘f5! where Black cannot prevent mate. As this is often a stalemate fortress, I prefer the move without a real variation or risk. But if you see mate, obviously you play it.

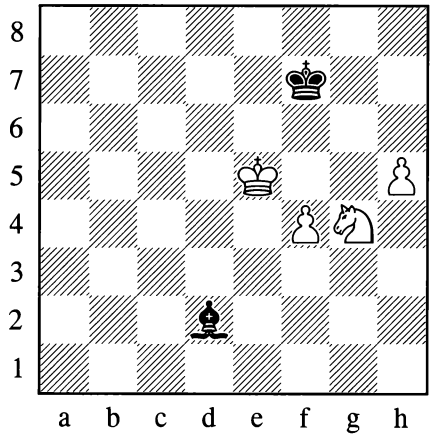
80.♔e5

80.h6† was still the way to play. Nothing is lost yet.

80...♔f7!

Preventing White from putting the king on e6 later.

80...♗c3† 81.♔e6 ♗d2 would only assist White in making progress. After 82.f5 the win is easy.



81.f5?

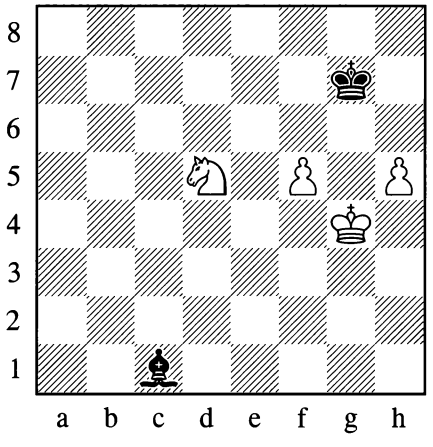
Although White would not have thought of it in those terms, this move gives up the fight for the squares in front of the pawn.

81.♔f5, back-tracking his steps, would still be winning at this point. The king needs to stay in front of the pawns.

81...♗c3†!

Not allowing f5-f6.

82.♔f4 ♗d2† 83.♔g3 ♔g7 84.♔f3 ♗c1 85.♘f2 ♔f6 86.♔g4 ♗h6 87.♘d3 ♗g5 88.♘f4 ♗h6 89.♘d5† ♔f7 90.♔f3 ♗c1 91.♘f4 ♔g7 92.♔g4 ♗b2 93.♘d5 ♗c1



94.f6†

Having shuffled around for a bit, looking for an opportunity, Semen decides that this is the best chance. He was not wrong.

94...♔h6?

Black had only one way to hold. He had to first keep the pawn under control:

94...♔f7! 95.♔f5

Then he had to prevent a knight manoeuvre to e5, by attacking the pawn:

95...♗b2!

But this would allow White to push the other pawn. And here comes the real challenge.

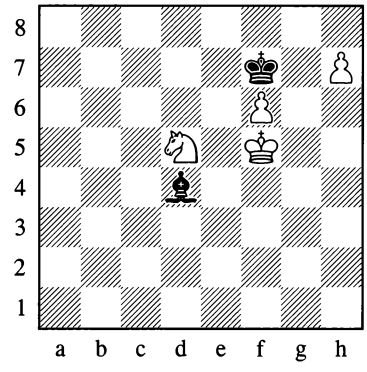
96.h6

At this point Black would have to keep his cool.

96...♗d4!

Black is simply waiting. White cannot make progress without moving the h-pawn. And after:

97.h7



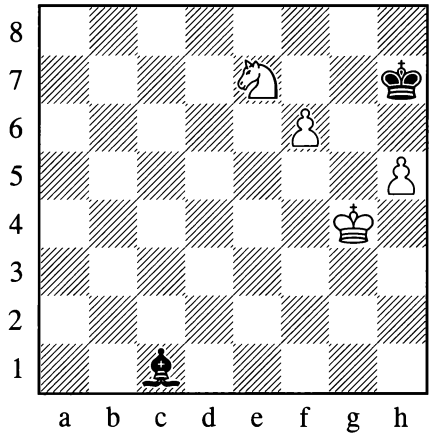
Black can escape into a well-known fortress.

97...♗xf6! 98.♘xf6 ♔g7 99.♔g5 ♔h8

Black is stalemated if White tries anything.

95.♘e7 ♔h7

95...♗b2 96.♘f5†! ♔h7 97.f7! would box in the black king and allow White to transfer the king to e8 as slowly as he wants to, barring the 50-move rule of course.



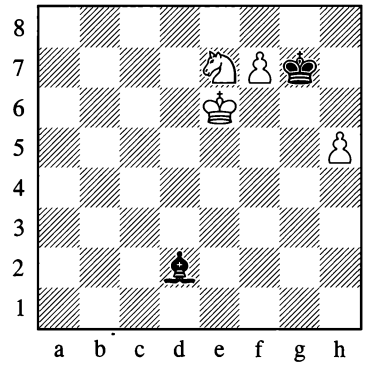
96.♘g6?!

Both players are living on increments at this stage and it would have been truly impressive if White had managed to find any of the direct wins available to him. They have certainly not become easier over the last 20-30 moves.

96.♔f5 is a principled move. White wants the king on e6 and the knight on g6.

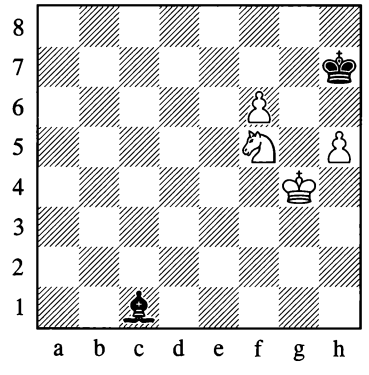
The first point is that after 96...♗a3 97.♔e6, Black has no defence against 98.f7 ♔g7 99.h6† ♔f8 100.♘g6#.

Thus 96...♔h6 is the only try. 97.f7 ♔g7 98.♔e6 ♗d2

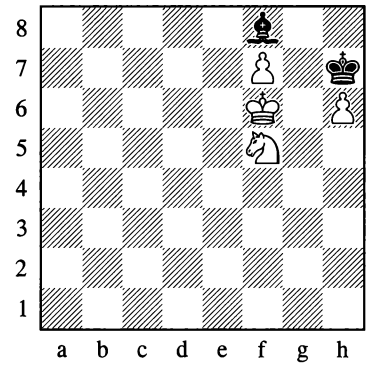


Black is waiting to see how White will progress, before committing the bishop. But White will still play: 99.h6†! Either winning the bishop, or mating after 99...♔f8 100.♘g6#.

96.♘f5 would threaten to put Black in a box with 97.f7 and thus force the black king to retreat.



96...♔g8 This opens up the door for: 97.h6 White is threatening to play ♔h5-g6. 97...♔h7 (97...♗b2 98.♔g5 and 99.♔g6, winning.) 98.f7 The desired set-up. 98...♗a3 99.♔g5 ♗b4 100.♔f6 ♗f8

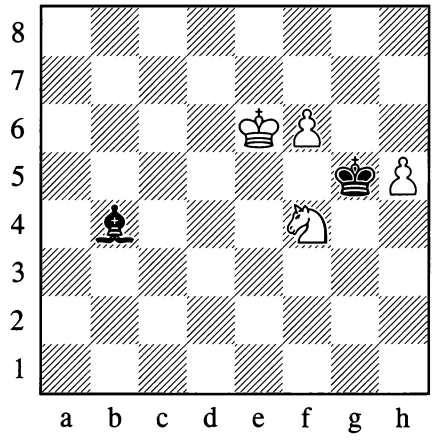


101.♔e6 ♔g6 102.h7! ♔xh7 103.♔d7 ♔g6 104.♔e8 ♗a3 105.♘e7† White wins.

96...♗a3 97.♔f5 ♔h6 98.♔g4

White is also winning after 98.♘f4 ♗d6 99.♔g4, but it looks a bit clumsy. The idea is 99...♗e5 100.f7 and White is winning after both 100...♗g7 101.♘e6, winning slowly, and 100...♔g7 101.f8=♕†!, which forces immediate resignation.

98...♗b4 99.♘f4 ♗c3 100.♔f5 ♗b4 101.♔e6 ♔g5

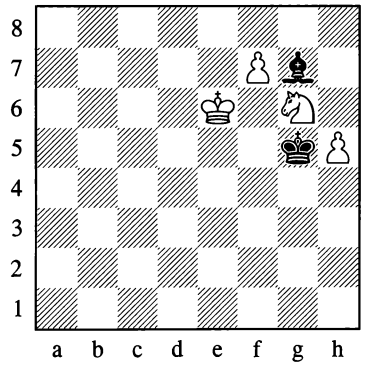


102.♘d5?

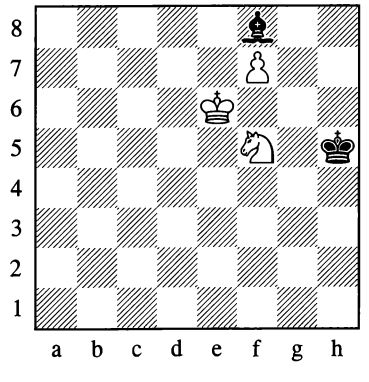
White does not win after 102.♘g6 ♔xh5 103.♘e7, where the intention is to meet 103...♗d2 with 104.f7 ♗h6 105.♘f5 when White wins. But Black can play 103...♔h6! with a draw.

After 102.♔f7, Black does not need to fall for the tricks with 102...♔xf4 103.h6, but can instead play 102...♗c3 103.♘d5 ♗d4 (103...♗b2 also works. As long as the bishop does not go to a1, or falls for 103...♗e5 104.♔e6, where the bishop is poorly placed.) 104.♔g8 ♔xh5 105.f7 ♗c5 Black draws.

The only winning move was:
102.f7!
Black's toughest defence is:
102...♗f8
102...♔xf4 103.h6 wins for White.
And after 102...♔g5 the easiest win is 103.♔d7, with the idea ♔e8, ♘g6 and ♘e7.
103.♘g6! ♗g7

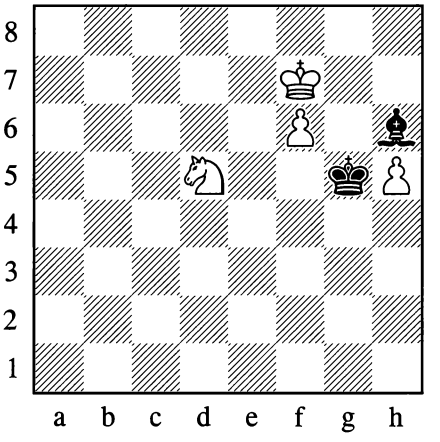


104.♘e7
White can also play 104.♔e7 ♔xh5 105.♘f4†! ♔g4 106.♘e6 ♗h6 107.♔f6! followed by ♘g7 and White also wins.
104...♔xh5 105.♘f5 ♗f8



106.♔d7!
White is just in time. The black bishop does not have enough squares.
106...♔g6 107.♔e8 ♗a3 108.♘e7†
White queens the pawn and wins.

102...♗f8! 103.♔f7 ♗h6!



104.♔g8
White has missed the train. Black would also make a draw after 104.♘f4 ♔xf4 105.♔g6 ♔e5 106.f7 ♔e6.

104...♔xh5 105.♔h7 ♗f8 106.♔g8 ♗a3
Black makes a draw. His king is on the same side of the pawn as the white king and there will be no way to block the bishop's influence.

107.♔h7 ♔g5 108.f7 ♔f5 109.♔g7 ♗b2† 110.♔f8 ♗a3† 111.♔e8 ♔e6 112.♘c7† ♔f6 113.♘b5 ♗b4 114.♘d4 ♗a3 115.♘c2 ♗c5 116.♘e3 ♗a3 117.♘d5† ♔e6 118.♘e7 ♗xe7 119.f8=♕ ♗xf8
½–½

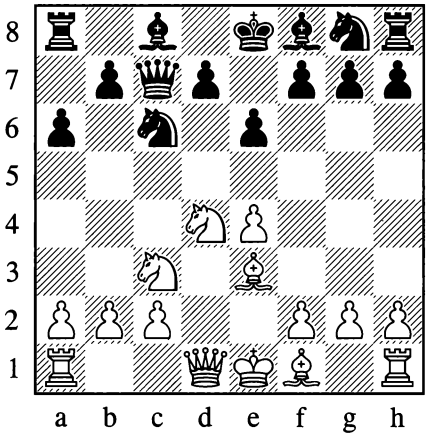
3. Exploiting an advantage

In the following game, White plays well in the early stages and gets a technical advantage sufficient to win. But then things go wrong for a variety of reasons.

Markus Ragger – Thibault Fantinel

Chalons-en-Champagne 2021

1.e4 c5 2.♘f3 e6 3.d4 cxd4 4.♘xd4 ♘c6 5.♘c3 ♕c7 6.♗e3 a6

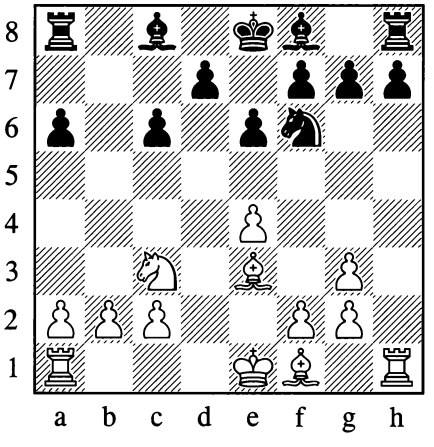


7.♘xc6

The current trend.

7.♕f3 has lost some of its popularity, because of 7...♘e5 8.♕g3 h5!? with lots of complications.

7...bxc6 8.♕f3 ♘f6 9.♕g3 ♕xg3 10.hxg3



10...d5

10...♖b8 11.b3 is another main line. Black is close to equality everywhere, but everything is a bit dull and Black is mainly playing for two results.

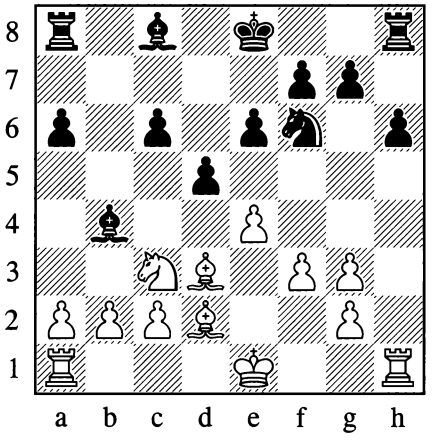
11.♗d3 ♗b4 12.♗d2

White is not losing a tempo with this move, as the exchange of dark-squared bishops would be highly desirable for White. The worst piece on the board is definitely the c8-bishop.

12...h6

Flexible and good, according to current theory.

13.f3



We are leaving the opening phase and entering the early middlegame (without queens). This is the time where both players should seek to identify their positional problems and solve them, to work out where the pieces are best placed, and how best to get them to work together.

This is often the phase where an experienced grandmaster can outplay weaker opponents simply on his understanding of the game and experience in approaching this phase.

13...c5?

A significant positional mistake right out the block. White has a slight lead in development, which makes it unlikely that Black should be able to seize the initiative with pawn moves – which I assume is what Black was trying to do (...c4-ideas). Unsurprisingly, active play favours the player with more pieces ready for action. This does not mean that this is always the case, but the exceptions are infrequent and you should be very cautious to seek them. Any uncertainty about their durability should make you return to the normal strategy in slightly inferior positions of solving your problems one by one.

In this scenario, Black's biggest problem is the bishop on c8. It is bad in a traditional way. Luckily there is an easy way to deal with this.

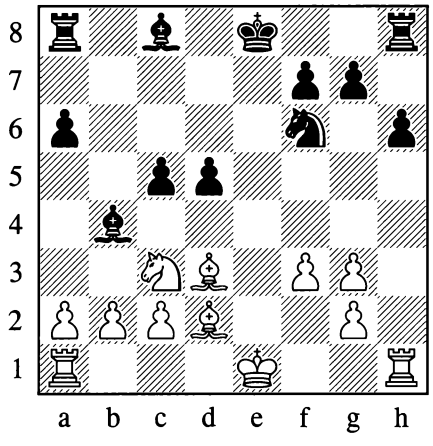
13...a5 was the natural move, preparing ...♗a6. If you analyse deeply, you will see that White is able to pose Black various problems and Black is able to solve them without having to resort to only or implausible moves. Simply put, it would give a normal game.

14.exd5

White is happy to open the position under such circumstances.

14...exd5

14...♘xd5? 15.♘e4 is not happening.



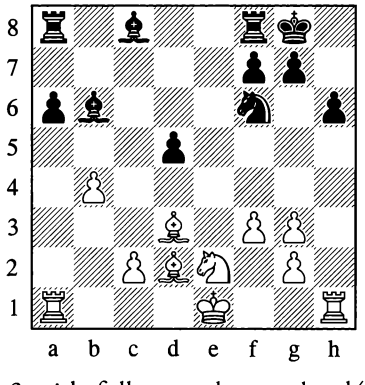
15.♘a4!?

An understandable choice, but with the wrong focus. Of the two strong options White had to choose between, this one relies far more on the slight lead in development to pay off, while the other transforms the advantage into a structural advantage. With the queens off and not many serious weaknesses in Black's position, it made more sense to improve the structure and have an advantage that would last.

The tactic 15.♘xd5? ♗xd2† 16.♔xd2 ♘xd5 17.♗e4 does not work out. After 17...♗e6 18.c4 ♘c7 19.♗xa8 ♘xa8, Black will play for a win in the endgame.

But White had the chance to play for the dark squares. During the game it would be hard to evaluate if this was stronger than the continuation Ragger chose. In the analysis we can see that it was:

15.a3 ♗a5 16.b4! cxb4 17.♘e2 ♗b6 18.axb4 0–0

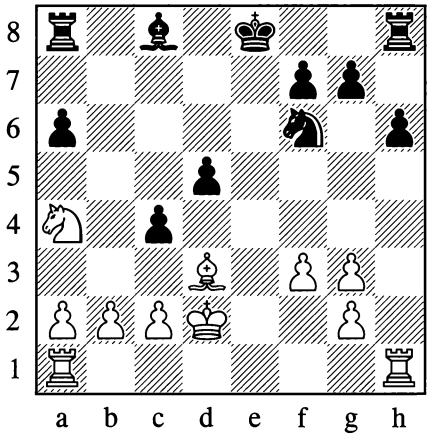


19.♗c3 with full control over the d4-square and the threat of winning a pawn with ♗xf6 on the next move.

15...♗xd2† 16.♔xd2 c4

Black wanted to push this pawn only under much different circumstances. Not when it made his bishop worse. But now there is no alternative.

After the visually unpleasant 16...♘d7 17.♗f5 Black would be even worse off.



17.♖he1†!

It is difficult to say with certainty that this is the better move, but I like it best. The bishop is given a square on f1 and after b2-b3, the rook is better placed on a1 than it would be on h1.

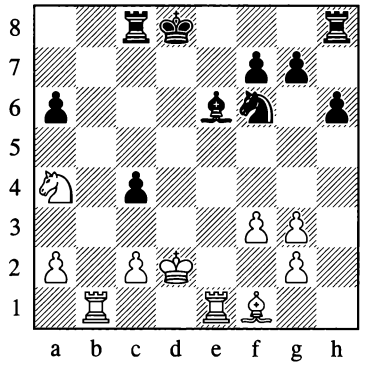
17...♔d8

17...♗e6? would drop a pawn to 18.♗f5. But in the game we could see that the king was not happy in the centre.

It is quite possible that 17...♔f8 18.♗f1 ♗e6 19.b3 is stronger for Black here than in the game. Black has ideas such as ...♖c8, ...♘h5 and ...g5.

18.♗f1 ♗d7?!

More solid was: 18...♗e6 19.b3 ♖c8 20.bxc4 dxc4 21.♖ab1



White keeps some advantage, but with the knight offside and the pawn on c4 managing to restrict the bishop, White does not have a clear path to convert his advantage.

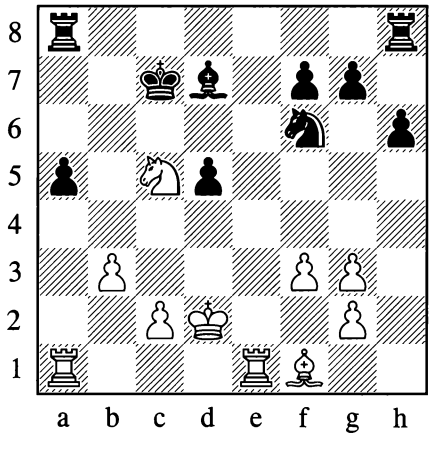
19.♘c5 a5

Black is running out of good choices. 19...♗c6 20.b3 cxb3 21.axb3 would lose the a-pawn too.

20.b3 cxb3

Better was 20...♖c8! 21.♘b7† ♔c7 22.♘xa5 ♖a8 23.b4 ♗e6 24.♔e3, but Black is still in trouble.

21.axb3 ♔c7



Black is only one move away from being OK. If he could play ...♗c6, then he would be able to follow up with ...♔d6 and ...♘d7, holding everything together. The bishop would in principle be a bad bishop, but with only the d-pawn to worry about, the positional problems would be well within solvable margins.

But it is White to play and he has other plans.

22.♘xd7!

Reminiscent of the famous Fischer – Petrosian game in their 1971 Candidates match. The main difference is that at this point, the move is good, while in Fischer's case, it was innovative and has since been debated as either good or bad by various authors.

I remember analysis from the time when I was a 2400+ rated IM in my mid-20s, where I strongly believed that you should never capture such a bad bishop. Since then I have learned that there is such a thing as a transformation of advantages. The good knight, bad bishop story will only be able to take White so far. In order to progress, he needs to improve his position further. Strong bishop against inactive knight, with the advantage of an extra pawn on the queenside, sounds like a decent upgrade.

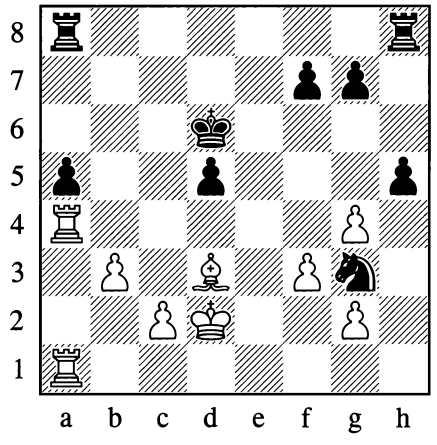
22...♔xd7

Black cannot allow White to enter with the rook on the 7th rank.

23.♖a4 ♔d6

23...♖a7 24.♖ea1 ♖ha8 25.b4 would also win the pawn.

24.♖ea1 ♘h5 25.g4 ♘g3 26.♗d3 h5



Up to this point White has played well. He knew his opening and he managed to make the most out of his opponent's positional mistakes by simple means. His inaccuracy on move 15 is long forgotten and good technique will now see him win the game in swift order.

But what does good technique look like at this point? It is threefold.

1) Avoid unnecessary exchanges of pawns

2) Create the best possible passed pawn on the queenside

3) Prevent or delay the black counterplay on the kingside for as long as possible.

In what follows White achieves none of these objectives and as a consequence, his advantage shrinks and shrinks.

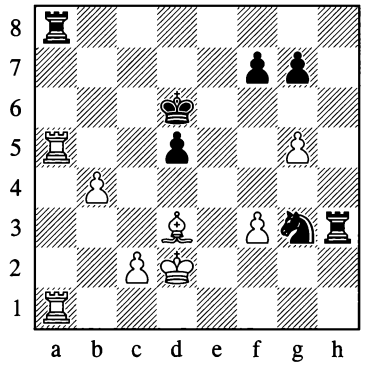
27.gxh5?

The first mistake. There is no reason to open up the h-file for Black and to allow the knight to regroup.

27.g5! h4 28.b4 h3

28...♘h5 29.bxa5! looks counter-intuitive, until you notice that the h-pawn is hanging and the knight cannot go to f4.

29.gxh3 ♖xh3 30.♖xa5



White arrives in very good time. Black does not want to take on a5, as it would give White a powerful distant passed pawn.

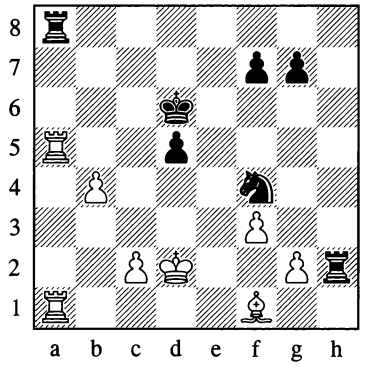
Also after 30...♖b8 31.♖a7! the game is coming to an end. Black's pawns are hanging and the king is in serious danger. The game is unlikely to last more than a few more moves.

27...♘xh5 28.♔e3?

Losing valuable time.

It is easy to understand that Ragger was unsure about 28.♖xa5 ♖xa5 29.♖xa5 ♘f4 30.♗f1 ♘xg2, when Black makes a draw.

But he could have acted more aggressively: 28.b4! Seeking to create the optimal passed pawn, which unsurprisingly is the distant one, far from the black forces. 28...♘f4 29.♗f1 ♖h2 30.♖xa5



Black is in an unpleasant dilemma. If he takes on a5, the pawn becomes too strong.

And after 30...♖b8 31.♖a6† ♔e7 32.♖e1† ♘e6 33.b5 White has assumed control and can expect to win the game.

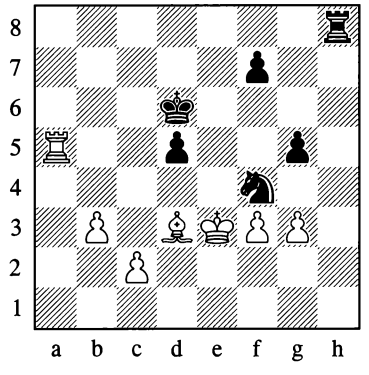
28...g5! 29.♖xa5

29.b4 would now be a mistake and met with 29...♖ae8†.

29...♖xa5 30.♖xa5 ♘f4 31.♗f1?!

Further retreats. I am sure Ragger was looking for control, but with black material superiority on the kingside, this is unlikely to happen. Rather it will see White reacting to one black threat after the other.

It was time to seek concrete action with 31.g3! when Black has a choice of options for the knight:



a) The critical line is:

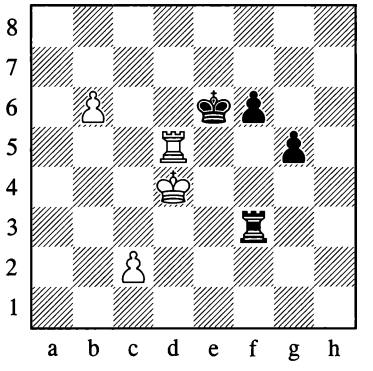
31...♘xd3?! 32.♔xd3 ♖h3

But White would be well placed to enter the rook ending.

33.♔d4! ♖xg3 34.♖xd5† ♔e6 35.b4!

Material is only one dimension of a possible advantage. Time and place are equally important.

35...f6 36.b5 ♖xf3 37.b6



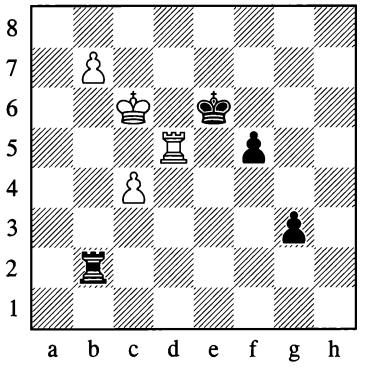
Visually we can see that White arrives first. There is no need for calculation. The black king is cut off, the white pieces harmonise well and most importantly, the white pawns are far advanced.

37...♖f2 38.c4 ♖b2 39.♔c5!

The typical move. The king assists the pawns. Unsurprisingly, Black will be able to create some counterplay, but White arrives first.

39...g4 40.♔c6 g3 41.b7 f5

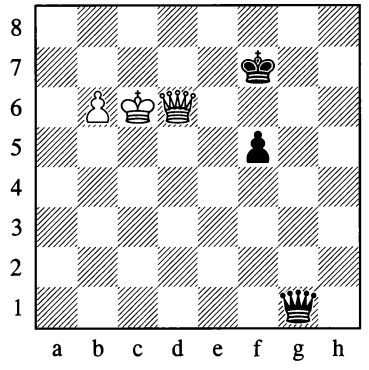
41...g2 42.♖d1 and ♖g1xg2 coming.



42.♖b5!

The transition to the queen ending is decisive.

42...♖xb5 43.cxb5 g2 44.b8=♕ g1=♕ 45.♕d6† ♔f7 46.b6



White wins easily. In the queen endgame with a b-pawn, the defensive method is to put the king as far away as possible, so the stronger side's queen cannot pin your queen as it gives a hundred checks. In this version, the black king is badly placed on f7 and the f-pawn's only function is to operate as an umbrella for the white king, shielding it from the checks.

For the above reason, Black would have to retreat the knight back on move 31.

b) 31...♘h5 32.♔d4 would give White two connected passed pawns, or push Black backwards after 32...♘f6 33.♖a6†, when White has made great advances.

c) 31...♘e6! is best. After 32.b4 White will have a real advantage with the b-pawn advancing. Because, what good is it to have a passed pawn, if it has no influence on the game? If it would be enough to win, we can only guess.

31...f5 32.♔f2?!

A rather pointless move. What need is there for the king to retreat at this point? If the g2-pawn becomes endangered, the king is close enough to heed the call. At the same time, the c2-pawn has now been left to its own devices.

32.b4 would still give White a significant advantage. The next two moves are ♖a6† and b4-b5, after which the pawn is starting to make a name for himself.

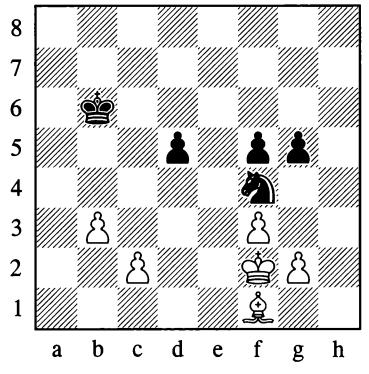
32...♖b8 33.g3?

Just two moves ago this was best and now it is a mistake. What has changed? The move was always weakening, but two moves ago, it was part of an aggressive plan to attack the d5-pawn. With the bishop and king packed away, only the weakening part of the move remains.

White should have played 33.♖a4!, realising that the b-pawn needs to get moving.

Black would probably play 33...♘e6, when White has a real advantage still.

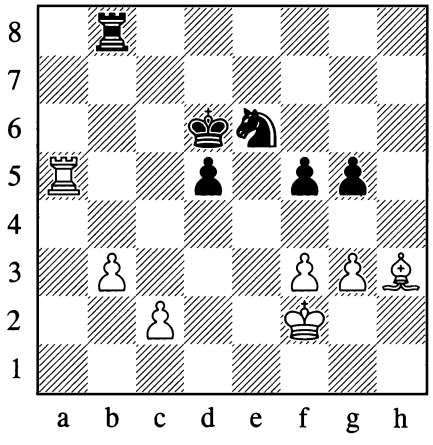
But it is also possible that he would seek to block the advance of the b-pawn: 33...♔c5?! This fails to active play. 34.♖a6! Black cannot attack the c-pawn now, and the f-pawn is exposed. 34...♖b6 Black has no good options. But the exchange of pieces at this point limits his counterplay and is therefore undesirable. But only if White plays accurately. So, in a sense, it is the critical move. 35.♖xb6 ♔xb6



36.♗d3! White wins another pawn and will definitely win the minor piece ending. Also, the pawn ending is a win. By one tempo: 36...♘xd3† 37.cxd3 d4 38.f4! g4 (38...gxf4 39.♔f3 and the g-pawn will win the day.) 39.♔e2 ♔b5 40.♔d2 ♔b4 41.♔c2 ♔a3 42.g3 A useful move to have in reserve. 42...♔b4 43.♔b2 White wins.

33...♘e6 34.♗h3

The last 10 moves have gone entirely in Black's favour. White's advantages persist, but Black has managed to create real counterplay on the kingside, while White has failed to make any progress on the queenside at all. What happened is that the moment White achieved a winning position, he played fast and superficially. Rather than tying Black down to restrict a powerful passed pawn on the queenside, he tried to fight on the kingside, where he was weaker and under-represented.



As a result, Black now has the draw within his grasp. He is still a pawn down and has the long-term liability of knight against bishop, with pawns on both flanks. But his king and knight are centralised and the white position is full of weaknesses, making it possible to seek a transition into a drawn ending with active play.

The rook ending will be the easiest to draw, but there are many situations where the minor piece ending will be holdable too. What Black needs is a transition on his terms. And one of those terms is as few pawns as possible.

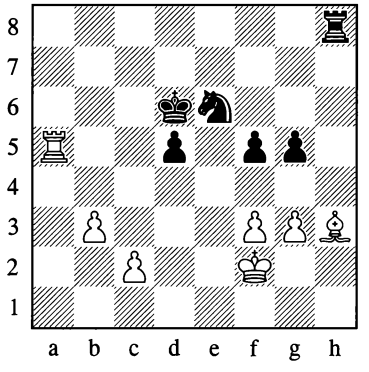
34...♘d4?!

This move looks natural. It attacks the c2-pawn, which is hard to defend, and defends the f5-pawn. As a result, White will have to let the black rook in to do damage. But you do not have to calculate more than a few moves ahead to see that White achieves a lot in this line too. The rook, which has been out of play on the 5th rank for a while, becomes a powerful piece, without moving.

Ultimately, this move should draw. But it defers the moment of accuracy. And as we know, a moment delayed is often a moment lost.

34...♖h8!

This was not objectively stronger, but was the start of accurate play, achieving the draw. I believe that deciding on this move was the most difficult step towards making the draw.

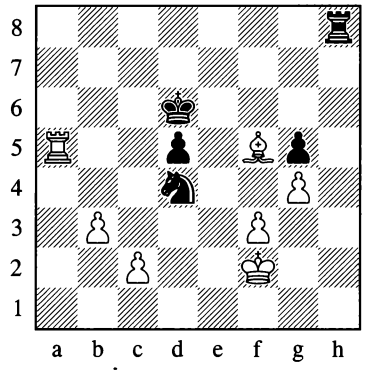


35.♔g2

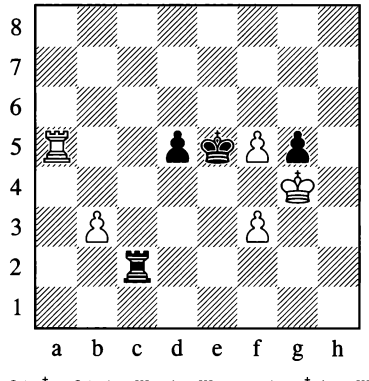
This would give Black the chance to win the bishop with 35...g4 36.fxg4 ♘g5. But White has three pawns and the knight is not going to be well placed on h3. So, although this draws, I would prefer to keep the white bishop in check and play for activity.

White can take the pawn with 35.♗xf5, but now everything comes with the gain of a tempo. 35...♘d4 White has a number of choices, but none of them are inspiring. 36.g4 (36.♗g4 ♖h2† would see the bishop sidelined on g4. Black has passed the worst of his worries. 36.♗d3 ♖h2† 37.♔e3 ♘xc2†

38.♗xc2 ♖xc2 leads to the desirable rook endgame. White's king is not very active, his rook is not well placed and all his pawns are weak.)

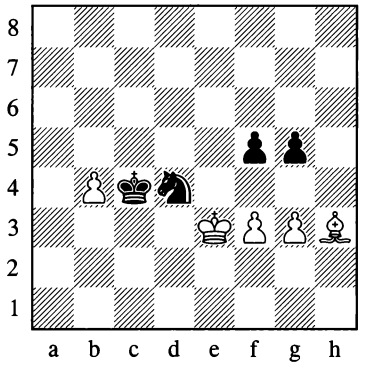


36...♘xf5 (Black also holds with 36...♖h3!? 37.♔e3 ♘xf3 38.♖a6† ♔c5, where the key idea is to play ...♘h4† and transfer into a drawn rook ending.) 37.gxf5 ♖h2† 38.♔g3 ♖xc2 39.♔g4 ♔e5



40.f6 ♔xf6 41.♖xd5 ♖g2† 42.♔h3 ♖b2 The rook ending draws without any difficulties at all. In order to make progress, the white rook will soon have to leave the 5th rank, allowing the black king to make progress. The black rook is ideally placed and can both harass the white king and keep an eye on the b-pawn.

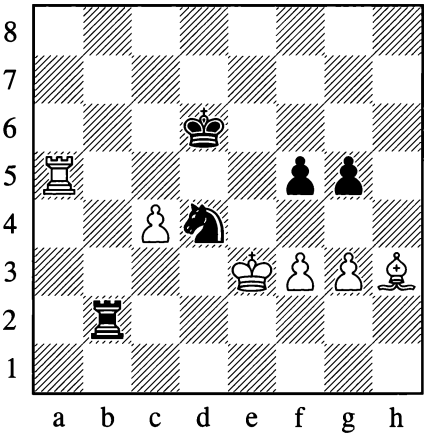
35...♔e5 36.c4 ♖d8 37.♖xd5† ♖xd5 38.cxd5 ♘d4 39.b4 ♔xd5 40.♔f2 ♔c4 41.♔e3



We have reached a typical scenario. Black draws with annihilation tactics.

41...f4† 42.gxf4 gxf4† 43.♔e4 ♘xf3 44.♔xf3 ♔xb4

35.c4 dxc4 36.bxc4 ♖b2† 37.♔e3



37...♘xf3??

A horrible blunder, losing the game on the spot.

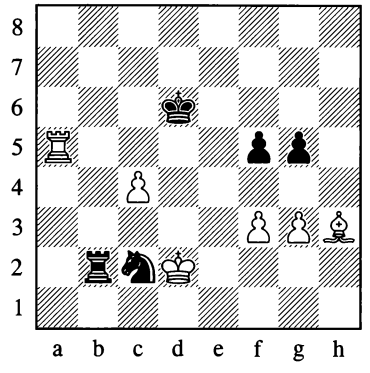
Black could still make a draw, but there would be a lot of suffering after the following forcing option:

37...♘c2†

We shall consider two replies:

a) 38.♔d2

This makes things easier for Black, but he has to find:



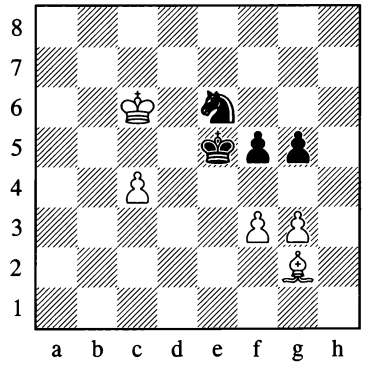
38...♘a1†!! 39.♔c1 ♘b3† 40.♔xb2 ♘xa5 41.♔c3 ♔e5!

The minor piece ending is quite holdable for Black. There are not many attractive options for White.

42.♔b4 ♘c6†

42...♘b7 43.♔b5 ♔d4 also holds.

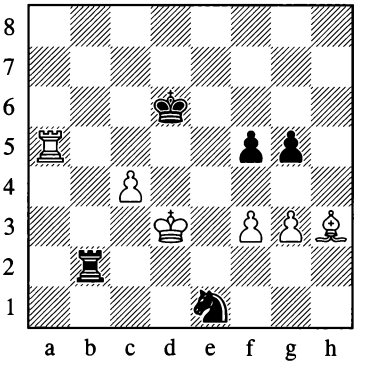
43.♔c5 ♘d4 44.♗g2 ♘e6† 45.♔c6



45...g4!

Black will make the draw. One idea is to block the c5-square. Another idea is to give up the knight for the c-pawn and have the king eliminate the kingside pawns.

b) 38.♔d3 ♘e1†



39.♔c3 ♖c2† 40.♔b4 f4

Black has enough counterplay.

41.♖d5† ♔c7 42.♖xg5 ♘d3† 43.♔b3 ♖f2 44.♔c3 ♘c1

44...♘e1 is inferior. Objectively 45.gxf4 ♖xf3† 46.♔d2 ♖xf4 47.♔xe1 ♖xc4 is a drawn endgame. But in practice the extra bishop gives winning chances at some point in a big majority of cases.

45.♔d4 ♖xf3

The draw is imminent.

38.♖d5†

38.♔xf3 g4† 39.♗xg4 also won.

38...♔c6 39.♔xf3 g4† 40.♗xg4

White wins easily. The black king is cut off.

1–0

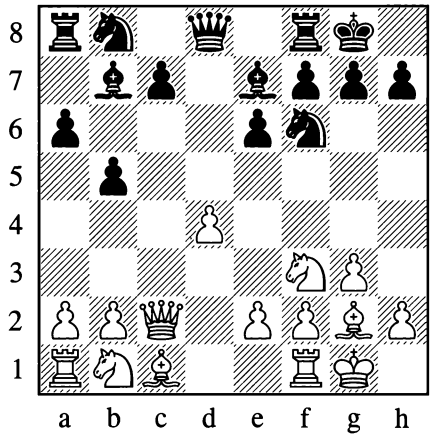
4. The annoying small details

One of the main problems for active players when defending against technicians, is that there are all these annoying little details arising from being slightly worse. Throughout this game we shall see how Black is trying to solve his problems with active play, but the better mobilisation of the white army and the weaknesses of first the a5-pawn, then the back rank, the f7-pawn and the a5-pawn, creates problems Black struggles to solve.

Lars Bo Hansen – Sune Berg Hansen

Randers 1996

1.♘f3 ♘f6 2.g3 d5 3.♗g2 e6 4.d4 ♗e7 5.c4 0–0 6.0–0 dxc4 7.♕c2 a6 8.♕xc4 b5 9.♕c2 ♗b7



10.♗g5

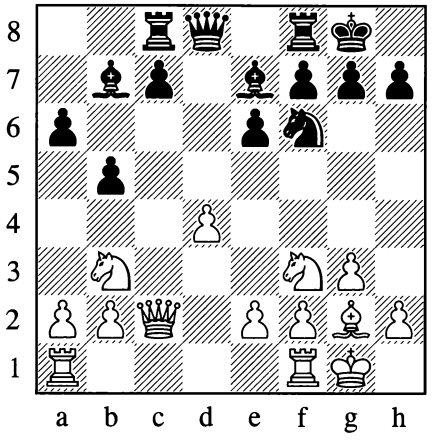
This line is rather flat. But this was the sort of game the technically proficient, but dynamically limited, Lars Bo Hansen was looking for. This variation was a favourite of Swedish GM Ulf Andersson, who preferred getting to the endgame as quickly as possible over all else.

10.♗d2 ♗e4 11.♕c1 c6! is a popular way to fight for equality these days and has led White players to look elsewhere for an advantage, predominantly with 8.a4.

10...♘bd7 11.♗xf6 ♘xf6

Other recaptures are met with 12.♘g5!, with a big advantage.

12.♘bd2 ♖c8 13.♘b3



13...c5!

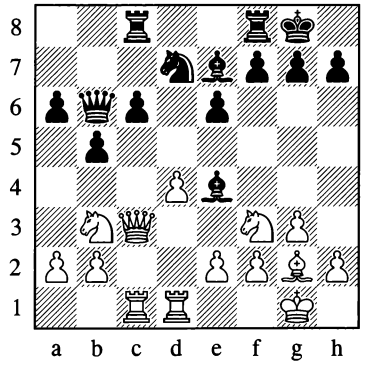
The most desirable move.

Another game went:

13...♗e4 14.♕c3 ♘d7?

14...♘d5 15.♕d2 c5 would be fine for Black.

15.♖fd1 c6 16.♖ac1 ♕b6



At this point Andersson missed a strong continuation:

17.♘e5!

17.♘c5? ♘xc5 18.dxc5 ♕c7 Black was not worse in Andersson – Winants, Tilburg 1993, although Andersson still won the game.

17...♘xe5 18.♗xe4 ♘d7

18...♘c4 19.♗d3 is not an improvement.

19.♕a5! ♕b7 20.♖c2 ♖c7 21.♖dc1 ♖fc8 22.e3

This position would have suited Andersson perfectly. Not only is White clearly better, with Black tied down to the defence of the c6-pawn in an awkward way. But the no-risk character of White's large advantage would have appealed immensely to his personality.

14.dxc5

14.♘xc5? would be a blunder: 14...♗xf3 15.♗xf3 ♕xd4 and Black wins.

14...a5!?

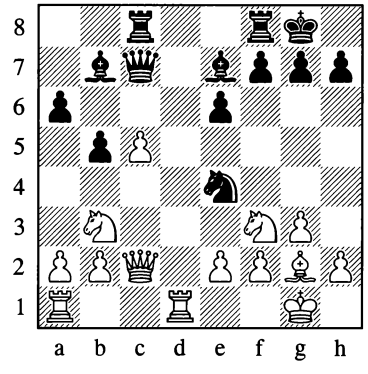
This looks logical and at the time the game was played, I believed this was obviously the right way to play. But with the benefit of hindsight, I now believe that this is the beginning of creating weaknesses unnecessarily on the queenside.

14...♘d7? would lose to 15.♘g5!.

14...♘e4!

This was played in a blitz game between two of the best German players. Black wins back the pawn and is not worse:

15.♖fd1 ♕c7



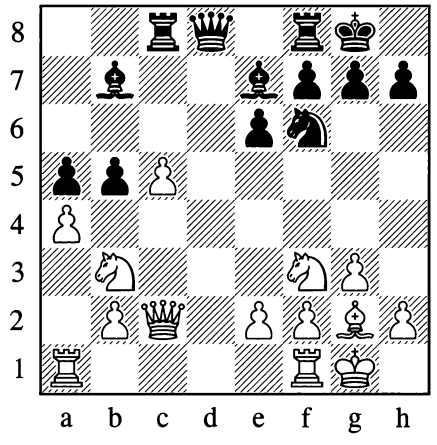
16.c6!?

Trying to create some play.

16...♕xc6 17.♕xc6 ♗xc6 18.♘e5 ♗d5 19.♘d7 ♖fe8! 20.♘b6 ♖c2 21.♘xd5 exd5 22.♖xd5 ♘f6 23.♖d2 ♖xd2 24.♘xd2 ♗b4 25.♘b3 ♖xe2

With full equality in Meier – Svane, Internet 2020.

15.a4



15...♗e4?!

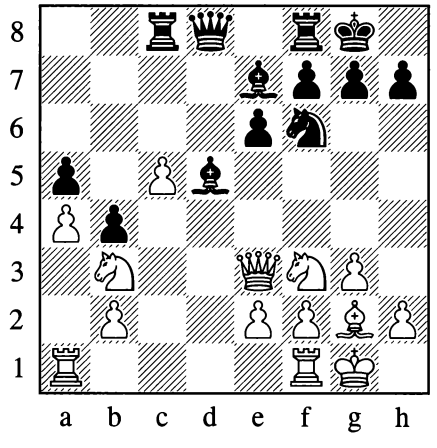
Starting down the wrong track.

15...bxa4 16.♖xa4 ♗d5! 17.♖fa1 ♗xb3 18.♕xb3 ♖xc5 would lead to an easily defensible position. 19.♘e1 ♕b8 20.♕a2 ♘d5 21.♖xa5 ♖xa5 22.♕xa5 ♕xb2 23.♗xd5 exd5 24.♕a2 is the best Stockfish 14 can come up with. Black will hold easily with both active and passive play.

16.♕c3 b4 17.♕e3

White now has a long-term advantage of the a5-pawn being weak. We shall see this coming up in lines upon lines in what follows. By extension, the b4-pawn will also become weak, as indeed it was in the game.

17...♗d5

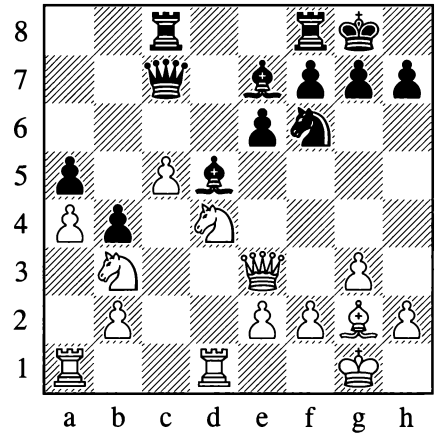


18.♖fd1?!

There is nothing happening in the d-line, so this natural-looking move helps Black more than White.

Energetic play with 18.♘fd4! would have consolidated the advantage. 18...♗xg2 19.♔xg2 ♗xc5 (19...♕d5† 20.♕f3! does not help Black at all.) 20.♖ac1 and Black would be under slight but sustained pressure.

18...♕c7 19.♘fd4

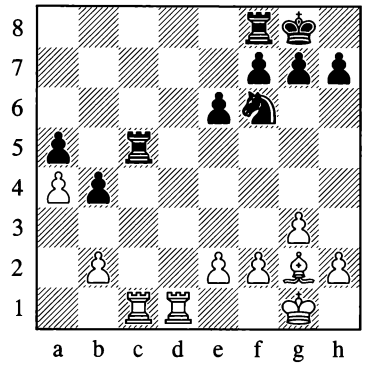


19...♗xg2?

A serious misjudgement. The bishop on g2 is famously strong in the Catalan, but in this game, there are no longer any vital squares within its reach.

Black had more than one way to equalise.

19...♗xb3 20.♘xb3 ♗xc5 is the way most would want to defend. The bishop is looking forward to dropping back to b6, with full equality. But after: 21.♘xc5 ♕xc5 22.♕xc5 ♖xc5 23.♖ac1



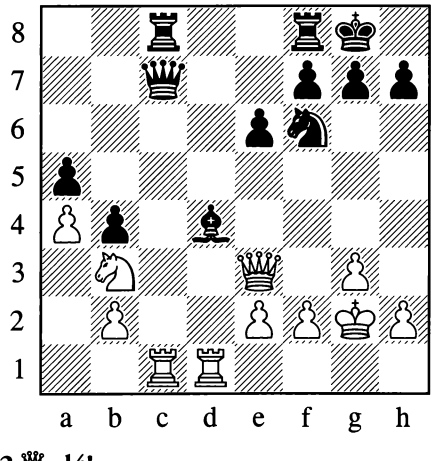
23...♖xc1 24.♖xc1 It would be hard for Black to defend the queenside in the long run.

But surprisingly, he has 23...♘d7!!, solving all problems tactically.

Another game saw Black equalising with the simpler: 19...♗xc5 20.♘xc5 ♕xc5 21.♖ac1 ♕b6 Haba – Seel, Internet 2005.

20.♔xg2 ♗xc5 21.♖ac1! ♗xd4

21...♕b6 would not solve any problems. White would play 22.♖c4! with a serious advantage, planning to double the rooks in the c-line. And after 22...♗xd4 23.♕xd4 ♕xd4?! 24.♖dxd4 Black would be unable to defend the queenside.



22.♕xd4!

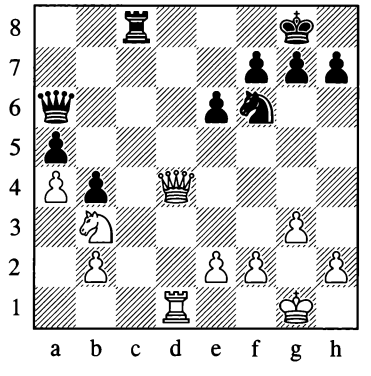
Later 22.♖xd4!? ♕b8 23.♖dc4 with a slight edge for White was played in Andersson – Ehlvest, Kalev 1997. But Lars Bo Hansen's approach is stronger.

22...♕b7† 23.♔g1!

There is no reason to weaken the pawn structure with 23.f3?!.

23...♕a6 24.♕e5?

Lars Bo Hansen misses the chance to gain a commanding advantage with:
24.♖xc8 ♖xc8



25.♕d8†!

An intermediate move that does not hope for checkmate, but which does force the black knight to the back rank.

25...♘e8 26.♕d3!

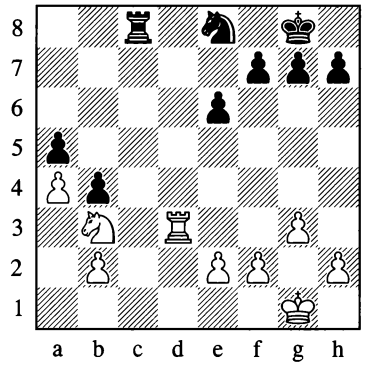
The point. Black now has an uncomfortable choice ahead of him.

26...♕xd3

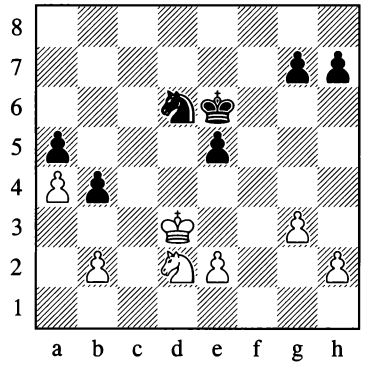
26...♕a7 27.♕b5 would leave the black forces paralysed and White threatening the unpleasant ♖d7, as well as taking the pawn on a5.

26...♕b6 27.♕d7 is perhaps even worse. White is threatening not only the rook, but also ♕e7, followed by either ♖d7 or ♖d6 (after 27...♖b8, for example). So Black has to play 27...♕a6 28.♘xa5 ♔f8 to keep the game going. White will play 29.b3 and be a pawn up. If Black plays 28...♕xe2, White wins with 29.♘c6 ♖a8 30.♘d8!.

27.♖xd3



This endgame is highly favourable for White. It is not completely winning just yet, but we could imagine continuations like this one: 27...♖c2 28.♖d2 ♖xd2 29.♘xd2 ♘d6 30.f4! f6 31.♔f2 e5 32.♔e3 ♔f7 33.fxe5 fxe5 34.♔d3 ♔e6



35.e4!

35.♘c4? ♘b7! would let Black off the hook. 35...g5 36.g4 h6 37.h3 ♔e7 38.♘b3 ♘b7 39.♔c4

And White wins.

24...♘d5?

Bringing the knight to the queenside to attack the a4-pawn. But this is quite an awkward constellation that fails tactically.

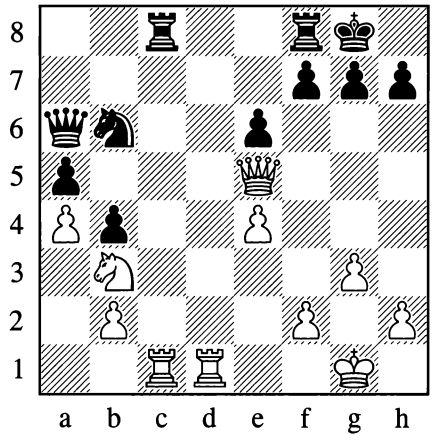
24...h6! was a simple improving move.

After 25.♕xa5? ♕xe2!, Black would even be better. The white king looks alone and frail.

And after 25.♘xa5 ♘d5 26.♘b3 ♕xa4 Black would have equalised fully.

25.e4 ♘b6?!

If he had seen what was coming, Black would probably have tried 25...♖xc1 26.♖xc1 ♕e2, but after 27.♕d4 ♘f6 28.♕d2!, White would have kept the squeeze on.



26.♖xc8!

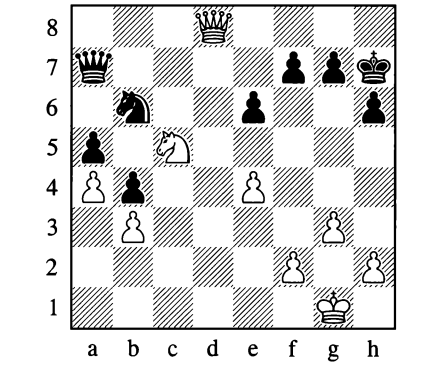
The right moment to make this exchange, based on tactical ideas.

26...♕xc8

26...♖xc8?! would lose to: 27.♕c7!!

Now after 27...♘d5 28.♕xa5, White nets a pawn.

So critical is: 27...h6 28.♖d8† ♖xd8 29.♕xd8† ♔h7 30.♘c5! Dominating both the black queen and knight. 30...♕a7 31.b3



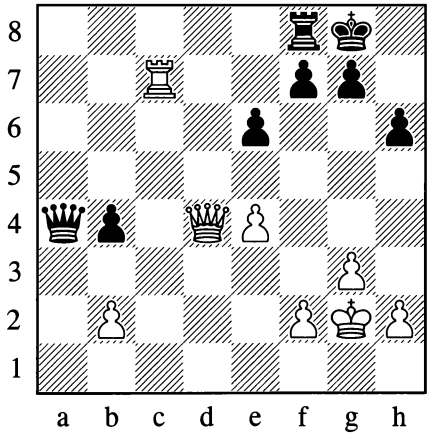
The key tactical point for this entire operation is that after 31...♘c4, White would

play 32.♘d7! ♘d2 33.♘f8† ♔g8 34.♘g6† ♔h7 35.♘e7! with a mating attack.

27.♖c1?

Lars Bo Hansen is perhaps the strongest technical player to ever come out of Denmark. But he is far from the greatest tactician. Here I think he simply missed 27.♕xa5 ♕c2 28.♖d4! ♕xb3 29.♕xb6, where the extra pawn should give big winning chances.

27...♕d7 28.♕xa5 ♕xa4 29.♕xb6 ♕xb3 30.♕d4 h6 31.♔g2 ♕a4 32.♖c7



32...♕b5?!

32...♖b8! was the right move. The weaker piece should be put in the defence.

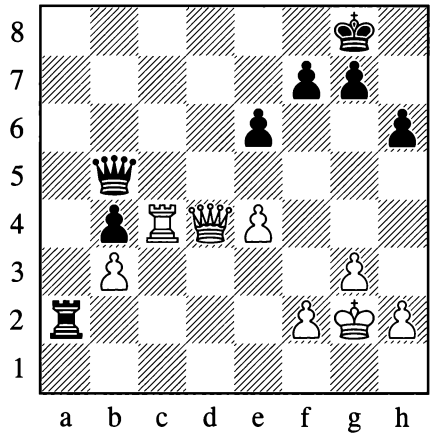
33.b3 ♖a8 34.♖c4

Objectively Black should hold. But it is clear that he will have to solve some problems before he does so.

34...♖a2!?

Active defence. Probably it is a matter of taste at this point.

34...♖b8, claiming there was only one weakness to defend, also seems fine to me. It would require less in terms of active play, but would take a longer time to defend, with more chances to make mistakes that way.

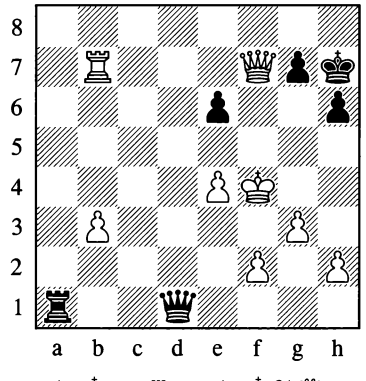


35.h4!

Typical technician! Rather than going for forcing play, Lars Bo Hansen improves his position.

After the greedy 35.♖xb4 Black would reply 35...♕e2 and have enough activity to draw.

Instead 35.♕d8† ♔h7 36.♕e7 may look dangerous at first, but Black has several ways to proceed. The clearest is 36...♕h5! 37.♖xb4 ♖a1 38.♖b7 ♕e2, with lots of counterplay. For example: 39.♕xf7 ♕f1† 40.♔f3 ♕d1† 41.♔f4



41...e5†! 42.♔xe5 ♖a5† 43.♔f4 ♕c1† 44.♔f3 ♕h1† 45.♔e3 ♕e1† with a perpetual check.

35...e5?

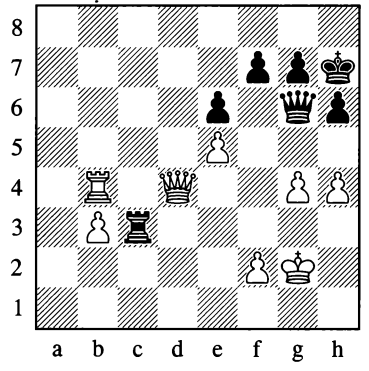
A tactical mistake in time trouble.

Black could have defended tenaciously with 35...♔h7!, when after 36.♕d6, he would hold with 36...♖b2.

And after 36.♖c7 ♕h5 37.♖b7 ♖c2! he would create a lot of counterplay.

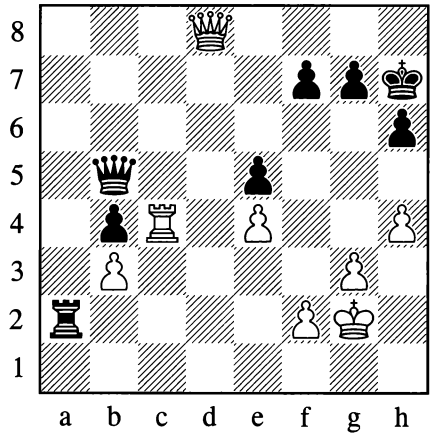
First of all, 38.♖xb4 ♕e2 39.e5 ♖b2 would lead to a position where White would be unable to make progress, due to the ideal placement of the black artillery.

38.e5 would be tried, but Black can hold everything together: 38...♖c3 39.g4 ♕g6! Not allowing a deadly check on e4. 40.♖xb4



40...♕d3! The resulting rook ending still has to be defended, but Black should be able to do so without facing other problems than those he could create for himself.

36.♕d8† ♔h7



37.♕c8!?

This is good enough to win, but 37.♕e7! would have won on the spot.

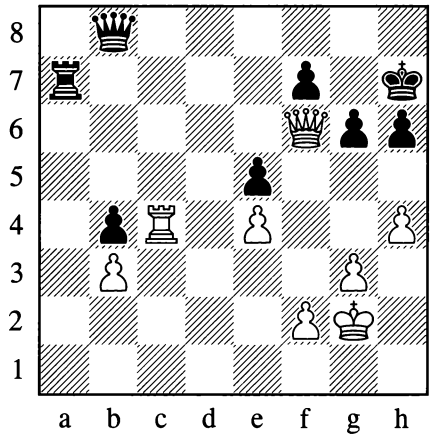
However, 37.♕f8? would fail to 37...♕d7! with the idea ...♖xf2† with perpetual check.

37...♖a7

37...g6 38.♖c7 ♔g7 39.♕e6! and White wins.

38.♕f5† g6 39.♕f6 ♕b8

The rook ending arising after 39...♕e8 40.♖xb4 ♕e7 41.♕xe7 ♖xe7 42.♔f3! is also hopeless for Black.



40.h5! gxh5 41.♖c6

Black resigned.

1–0

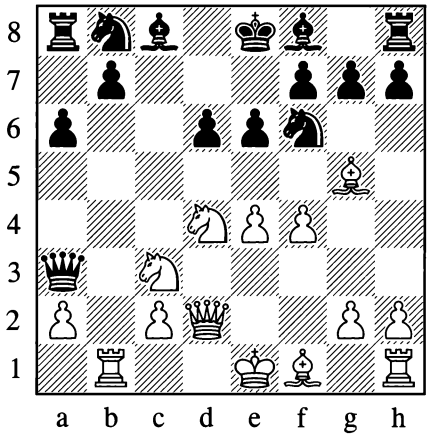
5. Fortress

The following game is probably the game of 2021. It includes bold preparation that manages to confuse one of the strongest theoreticians in the world. After an unnecessary exchange sacrifice, it is time for White to convert his advantage. And this is where things get interesting. Caruana does not manage well the transition from playing preparation to thinking for himself and soon he blows most of his chances in the endgame. All his opponent has to work out is how the fortress works, and he will be home and dry.

Fabiano Caruana – Maxime Vachier-Lagrave

Yekaterinburg 2021

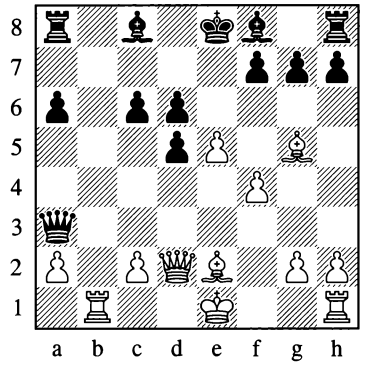
1.e4 c5 2.♘f3 d6 3.d4 cxd4 4.♘xd4 ♘f6 5.♘c3 a6 6.♗g5 e6 7.f4 ♕b6 8.♕d2 ♕xb2 9.♖b1 ♕a3



Caruana has in the past been successful in trapping MVL in preparation in the Poisoned Pawn, so it was a reasonable idea to do it again. MVL has lost too many games in this line for it to be a reasonable choice for him. But like Alexei Shirov before him, he sticks to his openings no matter how often they fail him.

10.e5

The last time the two played the Najdorf was in Wijk aan Zee. After 10.♗e2!? ♘c6 11.♘xc6 bxc6 12.e5 ♘d5 13.♘xd5 MVL chose the wrong recapture. 13...exd5?



14.e6!! White already had a winning attack. 14...f6 (14...♗xe6 15.f5 ♗xf5 16.0–0 was the key point. White has a winning attack.) 15.♗h5† ♔d8 16.♗h4 White had a winning position and won the game in Caruana – Vachier-Lagrave, Wijk aan Zee 2021.

10...h6 11.♗h4 dxe5 12.fxe5 ♘fd7

12...g5 13.exf6 gxh4 14.♗e2 ♕a5 15.0–0 h3 16.♕e3 ♖g8 17.g3 ♖g5 is another main line, which also looks good for Black.

13.♘e4 ♕xa2 14.♖d1 ♕d5

14...♕b2 has also been played with success.

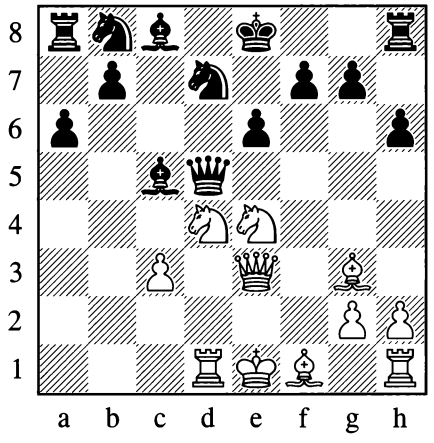
15.♕e3 ♕xe5 16.c3

16.♗e2 ♗c5 17.♗g3 ♕d5 18.c4 ♗xd4 19.♖xd4 ♕a5† 20.♖d2 0–0 21.♗d6 f5 has been tested many times and has been understood as equal for a long time. In Giri – Vachier-Lagrave, Paris 2019, MVL even won the game.

16...♗c5

16...♗e7 is another line. To me it looks quite solid. But there is nothing wrong with the game line either. MVL decided on which line to play only after 18 minutes of thinking.

17.♗g3 ♕d5



18.♗c4!!N

This is an idea discovered by Rustam Kasimdzhanov, which he found a good deal of time ago. Objectively not a good move, but a stunning novelty nonetheless. And certainly an effective one once we get to the end of the opening.

Before the restart of this Candidates tournament, I was lukewarm on the power of great opening preparation. When I look back to the games I annotated last year, it is clear that the advanced concepts from Giri in Round 1 and Caruana in Round 3 backfired. You can argue that the same is the case in this game. But we will come to this later on...

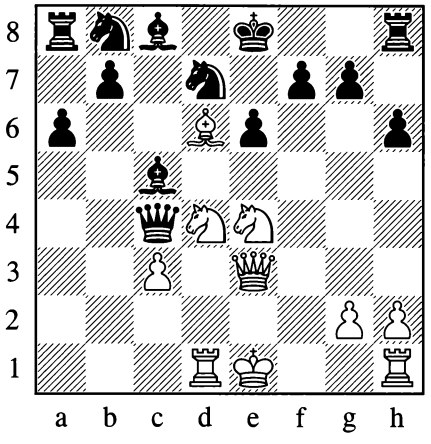
18.♗d6 had been played exclusively up to this point. White has no advantage after: 18...♗xd6 19.♘b5 ♕xd1† 20.♔xd1 axb5 21.♘xd6† ♔e7, with enough pieces for the queen.

18...♕xc4

Black has to accept the sacrifice.

18...♕h5? 19.♗d6 with a winning attack was not really on the cards.

19.♗d6



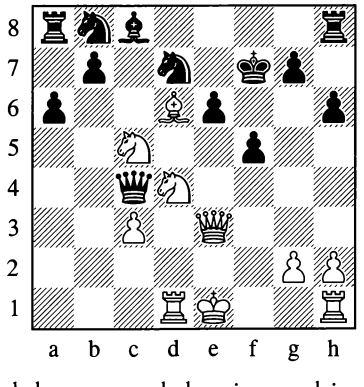
At this point Black has a lot of options and, obviously, MVL spent a lot of time.

19...♘f6

This is objectively the best move. But it does not mean that there is an easy ride ahead.

19...♗xd4 20.♖xd4 ♕a2 21.0–0 looks very dangerous for Black. Using an engine, we can find a path through the labyrinth that leads to a slightly better endgame for White, which is not easy to hold in practice.

The most practical solution is also the most imaginative. Black could play: 19...f5! 20.♘xc5 ♔f7!!



Black has returned the piece and is ready to bring the pieces into the game. White does not have anything better than 21.♘xf5!? (21.♘d3 ♘c6 22.0–0 ♖e8 Black is absolutely safe) 21...exf5 22.♖d4 ♕a2 23.♖d2 ♕c4 with a draw.

20.♘xc5 ♘d5

It must have been confusing to calculate variations like 20...b6!?. Even analysing it with an engine is not straightforward. The following variation is just a taste: 21.♘f5 ♘d5 22.♘xg7† ♔d8 23.♖xd5!? ♕xd5 24.♘cxe6† ♔d7! 25.♘c7 ♕xd6 26.♘xa8 ♕c5 27.♘xb6† ♔c6 with a drawn ending approaching.

21.♕e5 ♖g8!

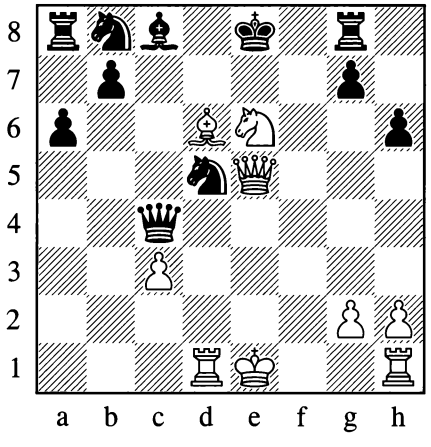
The intermediate move 21...♕xc3†? 22.♔f2 is a disaster. 22...♖g8?! 23.♖he1 ♘f6 24.♕f5! is a scary proposition. White is about to sacrifice on e6. The black king is stuck in the centre.

22...♘f6 is better, but after 23.♕e2! Black is still in grave danger. He is not managing to get the pieces into the game.

22.♘dxe6!

White has to go all in. Caruana was obviously still in preparation.

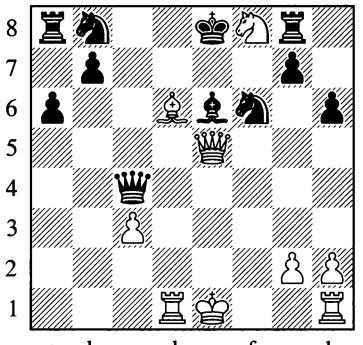
22...fxe6 23.♘xe6



23...♕xc3†!?

It is very hard to fault MVL for this decision. If you were under combined attack from Stockfish and Caruana, you would also be desperately attracted to chopping the queens off at the first possibility.

Black would have been closer to solving his problems if he had played 23...♘f6!, when after the knight reacts, for example with 24.♘f8†, Black will play: 24...♗e6!!

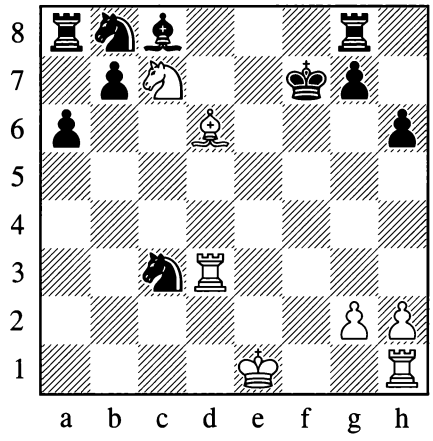


White cannot play 25.♘xe6 ♔f7, and Black wins.

So instead, he has to exchange queens, but this time on Black's terms. 25.♕xe6† ♕xe6† 26.♘xe6 ♔f7 27.♘c7 ♖a7 and White has to play a few accurate moves not to be worse. Certainly, Caruana knew of this and was prepared for it, so he would have shown a straight path to a draw, for sure. 28.0–0 ♖d8 29.♗c5 ♖xd1 30.♖xd1 b6 31.♗xb6 ♖b7 32.♘a8 ♘c6 33.♗e3 ♖e7 34.♗c5 ♖b7 35.♗e3 ♖e7 36.♗c5 ♖b7 ½–½ Xu Xiangyu – Lu Shanglei, Xinghua Jiangsu 2021.

24.♕xc3 ♘xc3 25.♘c7† ♔f7 26.♖d3

Considering the onslaught he has been faced with, MVL has reacted well and in decent time. At this point he had 34 minutes and is almost out of the woods. And this is the time where I would like to revisit my claim about the danger of too deep preparation. What can happen is that a player and his team spend all their time on opening preparation and limited time on practical skills.

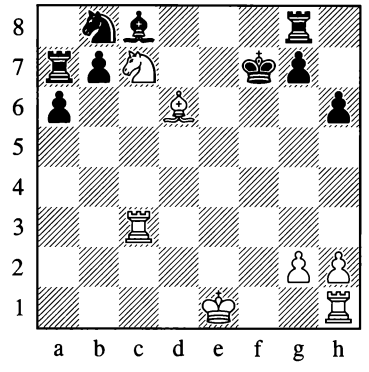


The success of Nepomniachtchi in the first half of the tournament was closely connected to playing well; while his preparation was not a great success. With Black he got into big trouble twice in the French Defence. But he managed to outplay his opponents in three games, especially through practical and well-timed choices. Against Ding Liren he played superficially, as he is known to do. But in general, the thing that gave him first place after eight rounds is good play.

26...♘e4?

Played after two minutes.

MVL is a dynamic player, so sacrificing the rook in the corner must have been tempting. But this is not the middlegame. Activity is not as relevant in the endgame. Obviously MVL had decided in advance to give up the exchange, but still it was the right time to look seriously at: 26...♖a7! After 27.♖xc3 there are all kinds of tricks with 0–0† and ♘d5-e7 to worry about. If MVL had tried to solve these problems, he would have.



The simplest way to do this is: 27...♔g6!

The strongest for White is now 28.0–0 ♔h7, with a balanced position. It is time to look for the brakes.

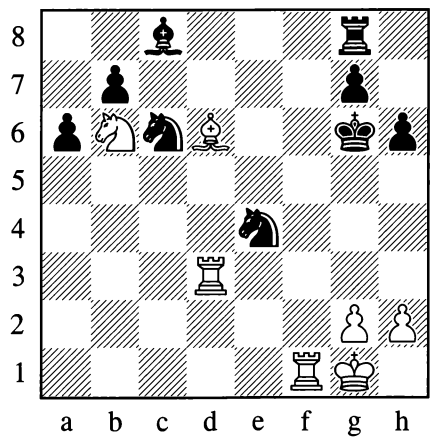
If White pushes too hard, we see the point of the king move: 28.♘d5 ♘c6! 29.♗c5 ♖e8† 30.♔f2 b6! and there is space for a check on f7 and White will have to defend an endgame a pawn down.

27.0–0† ♔g6?!

It turns out that the king is not better off on g6 after the exchange sacrifice.

27...♘f6 28.♘xa8 ♗e6 with a small edge for White was a better go.

28.♘xa8 ♘c6 29.♘b6



This is a good moment to talk about the endgame. At first glance, Black is equal in material. But in reality it will be very difficult to defend the pawns on the queenside. The knights will eventually belong on the kingside, where they will not be lost. But g7 is a weakness and the opposite-coloured bishops, which so often are a drawing factor, or a good way to ensure compensation for an exchange, are here really just the absence of a dark-squared bishop for Black.

All of these considerations, if we approach them in the spirit of Swedish endgame legend Ulf Andersson, leave Black scrambling for a final endgame where Black is drawing. It does not take too long to conclude that it may be with two pawns each on the kingside.

I was watching the Chess24 broadcast with Magnus Carlsen, David Howell and Tania Sachdev. I felt they were a little too busy idolising MVL's defensive skills, rather than debating the properties of the endgame. Those who followed the broadcast would probably be surprised that my view is so different from that of the World Champion and his co-hosts, but they simply did not get past the first glance.

29...♖d8?!

As it is hard to imagine many set-ups on the kingside where Black will draw with a rook vs knight, it made a lot of sense to keep the bishop. 29...♗g4 with a very dangerous position was thus better.

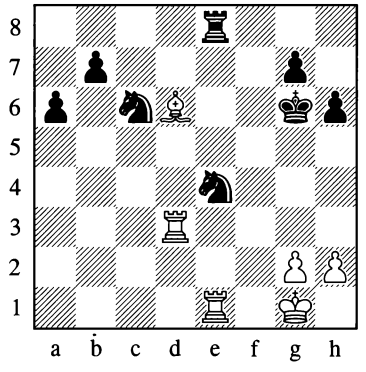
30.♘xc8! ♖xc8

Everything has gone wrong for Black. At this point Caruana had to slow down and work out the best way to convert the advantage.

31.♗a3!?

This is still winning, but it was worth looking for simplicity.

31.♖e1! would have been a strong intermediate move. 31...♖e8 (31...♘xd6 32.♖xd6† ♔h7 33.♖d7 will soon mean the end of the black queenside, as he will have to defend the second weakness on g7.)



32.♗a3! Threatening ♖de3, winning a piece. 32...♘f6 33.♖xe8 ♘xe8 34.♖d7 b5 35.♖b7 White wins the queenside and later the game.

31...♖c7 32.♖f4 ♘f6 33.♗b2!

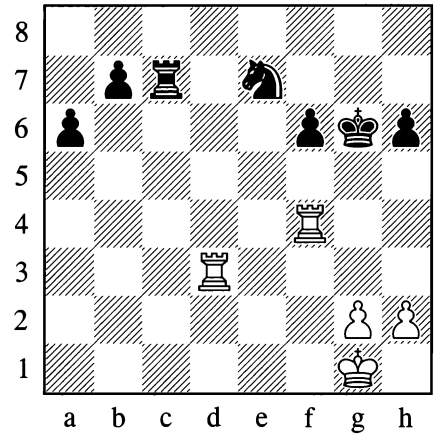
White creates more weaknesses in Black's position.

33...♘e7

White is also winning after 33...♘a5 34.♗xf6 gxf6 35.♖d6 ♖f7 36.♖g4† ♔f5 37.♖h4 and either 37...♔g6 38.♖d3! or 37...♔g5 38.♖hd4 with 39.♖d7. Black cannot hold the queenside and the split pawns on the kingside are easy targets.

34.♗xf6 gxf6

Everything has worked as it should for Caruana. The position is winning and he has over 50 minutes on the clock to take him to move 40 and beyond. So, what does the World Number 2 do? He makes a committal move after 29 seconds.



35.h4??

Quick, confident and bad. Violating the Steinitz Rule, which states: Don't make unnecessary pawn moves in the endgame. It is clear that Caruana is dreaming of playing h4-h5 and that he believes that the tactics are in his favour.

35.h3!? makes some sense, controlling important squares and then bringing out the king. But the strongest move is 35.♖d6!, where 35...♖c1† is met with 36.♖f1! and after 35...♘f5 36.♖b6 the queenside is doomed. White will still have to play accurately, as he picks off the pawns. For example: 36...h5 37.h3 a5 38.♔h2! ♖c2 39.♖f3 White is in control and will pick off the black pawns one by one.

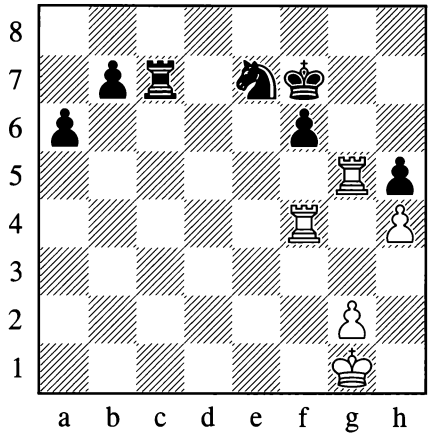
35...h5!

MVL must have found it hard to believe his luck. A moment ago, his pawns were scattered and weak, now they work beautifully together with the knight, which can be well placed on either f5 or g4.

36.♖g3†

There are other options, but this was obviously the idea.

36...♔f7 37.♖g5



37...♖c1†!

Caruana had by now understood that this was coming.

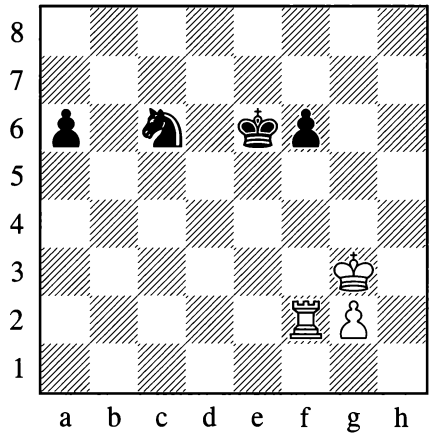
It is safe to assume that Caruana had planned for 37...♘g6? 38.♖xh5!, winning because of the check on the 7th rank.

38.♔h2 ♘g6 39.♖f2 ♘xh4

While MVL expected this to be leading to an easy draw, Caruana was expecting a more dynamic approach from the Frenchman:

39...♔g7 40.♖xh5 ♘e5 hoping to advance the queenside. This is a misunderstanding of the position entirely. Caruana wanted to play 41.♔f3, but even stronger is 41.♖f4! and ♖hf5, after which the pawns will advance on the kingside and Black will be unable to do anything on the queenside.

40.♖xh5 ♘g6 41.♖h7† ♔e6 42.♖xb7 ♘e5! 43.♖b6† ♖c6 44.♖xc6† ♘xc6 45.♔g3

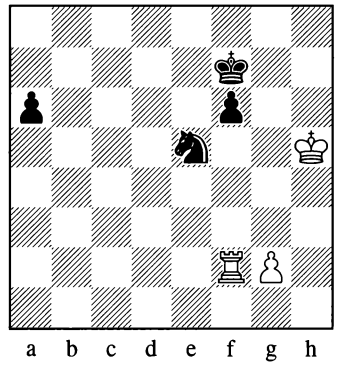


45...♔f7!

It is important to keep the white king out.

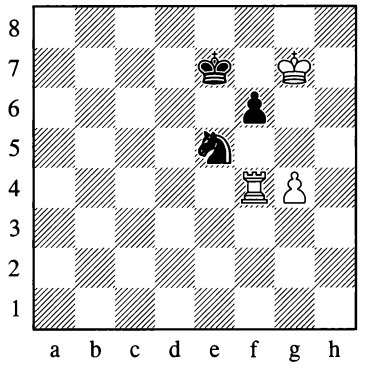
45...♘e5?

This would lose as the white king penetrates and cannot be kicked out:
46.♔h4! ♔f7 47.♔h5!



47...♔g7

If Black tries to defend with the king from the other side, White wins with: 47...♔e6 48.♖a2 ♘d3 49.♖xa6† ♔f7 50.♔h6 ♘e5 51.♖a4 ♘c6 52.♖f4 ♘e5 53.g4 ♔e6 54.♔g7 ♔e7

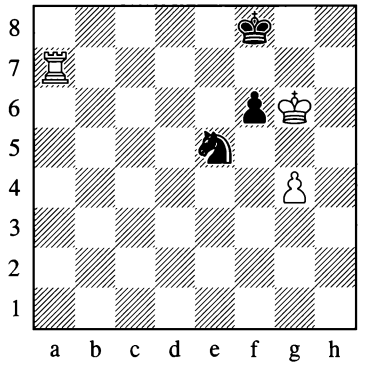


White needs to lose a tempo. 55.♖e4 ♔e6 56.♖a4 ♔e7 57.♖f4 ♘d7 58.♖e4† ♔d6 59.♖d4† White takes on d7 and wins.

48.♖a2 ♘f7

Trying to go for the g2-pawn also fails. After 48...♘d3 49.♖xa6 ♘f4† 50.♔g4 ♘xg2 51.♖e6 the knight is trapped.

49.♖xa6 ♘e5 50.♖a7† ♘f7 51.g4 ♔f8 52.♔g6 ♘e5†



And now either the technically correct 53.♔f5! or:

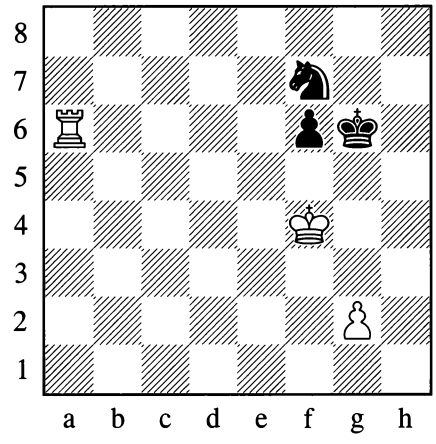
53.♔xf6!? ♘xg4† 54.♔f5!

The black knight is far away from the protective assistance of the king. White wins.

54...♘h6† 55.♔g6 ♘g4 56.♖a5!

For example...

46.♖c2 ♘b4 47.♖d2 ♘c6 48.♔f4 ♔g6 49.♖d6 ♘e5 50.♖xa6 ♘f7



Caruana was unsure about the correct evaluation of this endgame, but could also not see how to make progress. This endgame is a draw, but it is by no means easy to play, as was apparent from how the players played. What Black needed to work out was how to organise the pieces. It turns out that the key idea is to put the knight on g7. The pawn will take care of the e5- and g5-squares, so the king and knight will take care of the light squares.

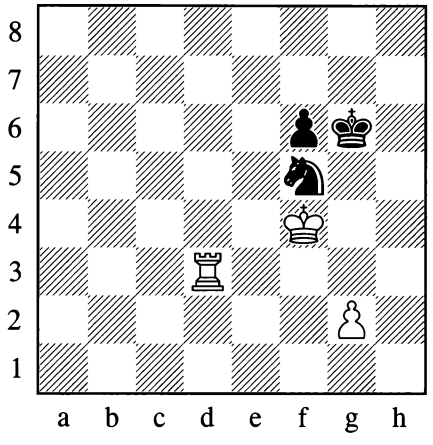
Thus, the knight on g7.

51.♔e4 ♘h6 52.♖a5

It is key to understand that the king cannot penetrate from the back.

After 52.♔d5 ♘f5 53.♔e6 ♘g7† 54.♔e7 ♘f5† 55.♔f8 almost any knight move will hold the fortress, while Black can even go for counterplay with 55...♔g5?!, which is entirely unnecessary, but after 56.♔f7 ♔g4 57.♔xf6 ♘h4 Black holds nonetheless.

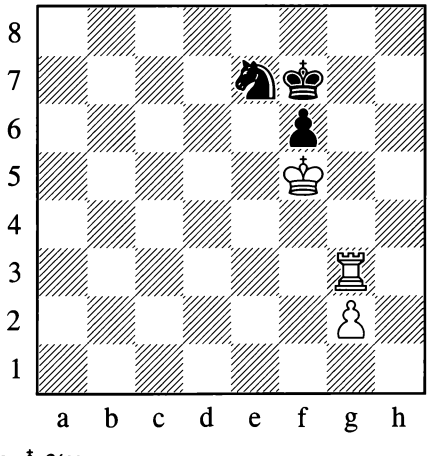
52...♘f7 53.♖a3 ♘d6† 54.♔f4 ♘f5 55.♖d3



55...♘h6?

55...♘g7! was a draw as described. In the press conference, MVL said that he expected this to lose, but Caruana assumed, correctly, that it would be a draw.

56.♖g3† ♔f7 57.♔e4 ♘g8 58.♔f5 ♘e7†



59.♔f4?!

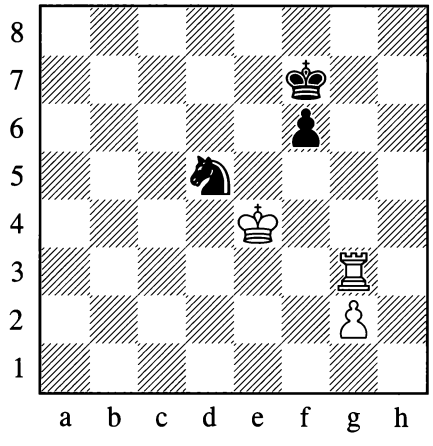
59.♔g4? ♔g6! would be a draw.

But the accurate 59.♔e4! was the thing to play.

59...♘d5† 60.♔g4?

A small misstep. As we shall see, the right path was: 60.♔f5 ♘e7† 61.♔e4!

60...♔g6 61.♔f3† ♔f7 62.♔e4

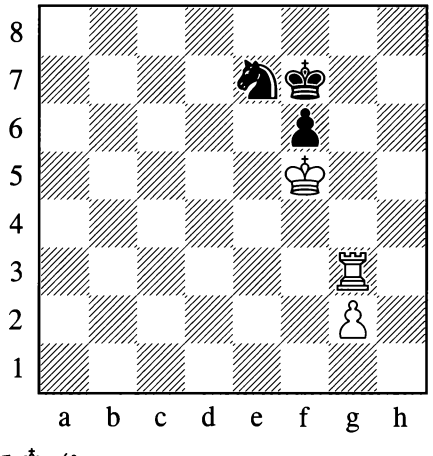


62...♘e7?

Knowing where the knight belongs make this position easy.

If you do not know where it belongs, you might consider that 62...♘c7! being the only move is an act of digital wizardry. But actually, 63.♔f4 ♘e6† 64.♔g4 ♘g7! with a fortress, is not so difficult to understand.

63.♔f4 ♘d5† 64.♔f5! ♘e7†



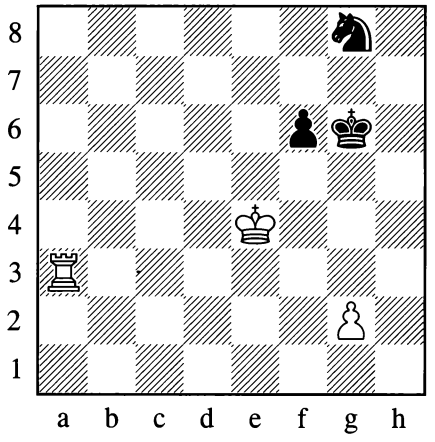
65.♔e4!

This time Caruana finds the winning line.

65...♘g8

65...♔e6 66.♖a3 ♔f7 67.♖a7 ♔e6 68.♔f3! The right path to the kingside is avoiding checks. 68...♘d5 69.♖a5 ♘e7 70.♔g4 White wins after a lot of more action.

66.♖h3 ♔g6 67.♖a3



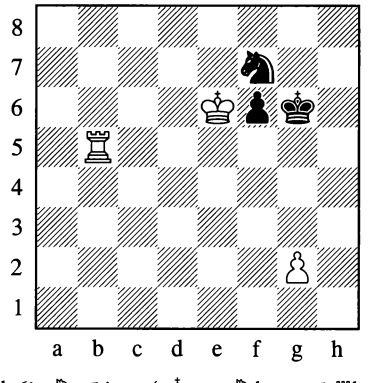
67...♔f7

There are other variations here. They all show White's dominance.

67...♘e7 68.♖a5 ♘c6 69.♖d5 ♘e7 70.♖b5!

To be out of reach from checks.

70...♘c6 71.♔d5 ♘e5 72.♔e6 ♘f7



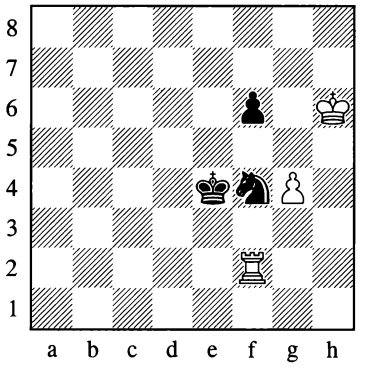
73.♖b6! ♘g5† 74.♔e7 ♘h7 75.♖b8 ♘g5 76.♖g8† ♔f5 77.g4†

A nice trick.

77...♔e5 78.♖a8 ♔f4 79.♖a4† ♔e5

79...♘e4 80.♖xe4† and the pawn ending wins.

80.♔f8 ♘e4 81.♔g7 ♘g3 82.♔g6 ♘e2 83.♖a2 ♘f4† 84.♔h6 ♘h3 85.♖h2 ♘f4 86.♖f2 ♔e4

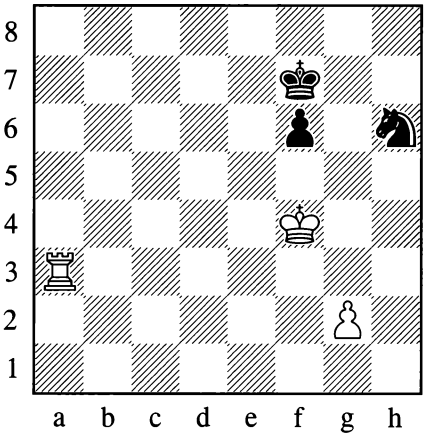


87.♖f1!

87.♔g7 f5 88.g5 ♘h3! would allow Black to keep his pawn and escape with a draw.

87...♔e5 88.♔h7! ♔e4 89.♔g7 ♔e5 90.♖e1† White wins.

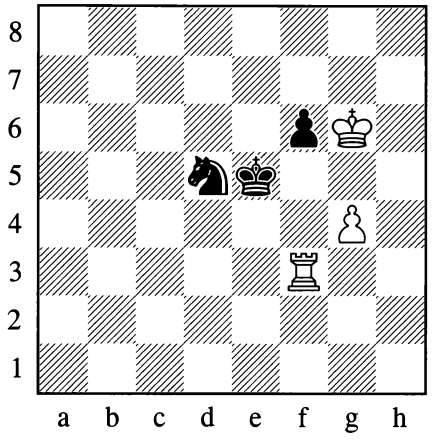
68.♔f4 ♘h6



69.♖g3! ♘g8 70.♔g4 ♘e7

70...♔g6 71.♔h4†

71.♔h5 ♘d5 72.♖f3 ♔e6 73.g4 ♔e5 74.♔g6



Black resigned.

1–0

74...♔e6 75.♖f1 ♘e7† 76.♔g7 ♘d5 77.♖e1† and White wins. In the press conference Caruana said that the only thing he could have done to avoid getting into the endgame was probably not to exchange rooks after move 40. This points to an interesting hole in his endgame understanding – 35.h4?? unnecessarily advanced the pawn to an exposed square, where it was indeed quickly eliminated.

It just shows that even the best players in the world have gaps in their play. Again, I want to point to the fact that you do not learn a lot about the endgame from analysing openings and finding deep novelties...

6. Breaking a fortress

This game was played in the first round of the 2020-21 Candidates tournament and is an example of what distinguishes this tournament from other top tournaments (besides the absence of rapid games) – all the players want to win. There is only one real prize, and all other things, such as rating gain or loss, fall away. This is what FIDE tried to achieve with the Grand Prix in 2019, but the knock-out format only pushed the risk taking into the rapid stages of the tournament.

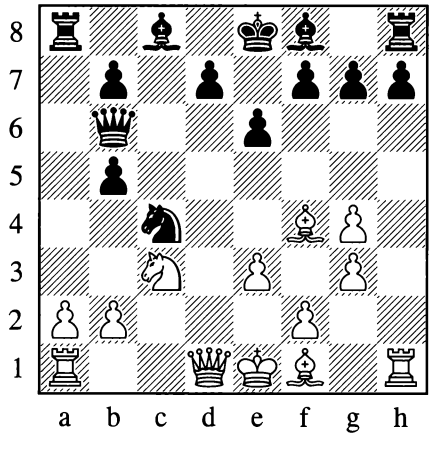
There are a lot of Giri jokes floating around. I am maybe more guilty than most. But I want to be serious and say that Giri is one of the most interesting players of our age. He has great openings with really deep ideas. His positional feel is as good as anyone's. His technique is excellent. He has problems winning won positions, but on the other side he is hard to take down, fighting like a tigress defending her cubs.

This game can be divided into four phases. In the first phase, Giri delivered a novelty and Nepomniachtchi had to find his path. In the second, we had a sharp middlegame where both players could make mistakes, as many options appeared and none of them were too clear. Eventually Giri got into trouble and decided to give up the queen. Then there was a third phase, where the fortress should have held, but where Giri made a number of poor decisions before the time control. After the time control the endgame was lost for White, but it was still difficult for Black to convert the advantage.

Anish Giri – Ian Nepomniachtchi

Yekaterinburg 2020

1.♘f3 ♘f6 2.c4 c5 3.♘c3 ♘c6 4.d4 cxd4 5.♘xd4 e6 6.g3 ♕b6 7.♘db5 ♘e5 8.♗f4 ♘fg4 9.e3 a6 10.h3 axb5 11.hxg4 ♘xc4



12.♖c1!?N

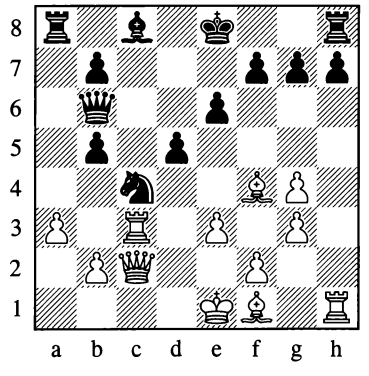
An entirely new concept, impossible to predict by the engines, but only valid for one game.

I have to admit that I am giving Giri a lot of benefit of the doubt, as I am not really sure where he had imagined this idea would be successful. But my admiration for Giri is so high that I want to believe that I am not fully understanding his opening concept.

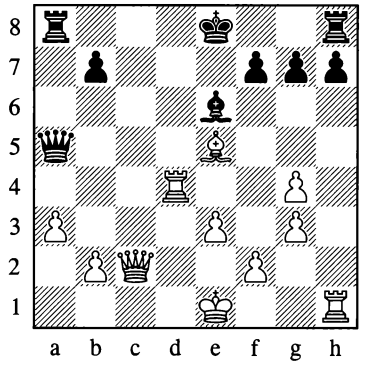
The previous games in this line have all continued with 12.♕b3, but after 12...d5 13.♗xc4 dxc4 14.♕xb5† ♕xb5 15.♘xb5 ♖a5 Black has no problems whatsoever and has never lost a game.

12...d5!?

Black could also have played: 12...♗b4 13.a3 ♗xc3† 14.♖xc3 d5 This seems very solid, but is not without difficulties for Black. 15.♕c2 Now we shall consider two options.

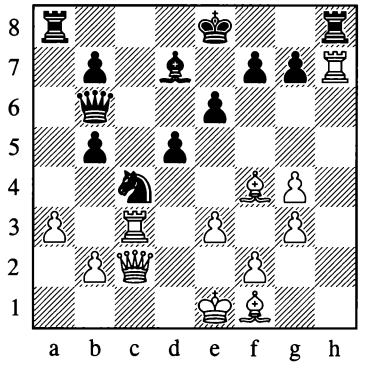


a) 15...b4? 16.♖b3 e5 looks tempting at first glance, but if you go deep, you can find 17.♖xb4 ♕d6 18.♗xc4 dxc4 19.♖xc4 ♗e6 and White has a huge advantage on account of 20.♖d4!, where Black does win a piece in two different ways, but cannot keep the balance: 20...♕a6 (20...♕b8 21.♖xh7 ♖xh7 22.♕xh7 exf4 23.gxf4 is hopeless.) 21.♗xe5 ♕a5†



22.♕c3 with a big advantage, because of 22...♕xe5 23.♖d8†! winning the queen.

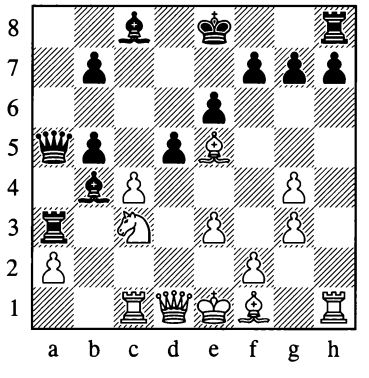
b) So, for this reason Black should find: 15...♗d7! 16.♖xh7



16...♖g8 when Black is not worse at all.

13.b3!? ♗b4 14.bxc4! ♖a3 15.♗e5 f6

Black had an alternative in: 15...♕a5!?



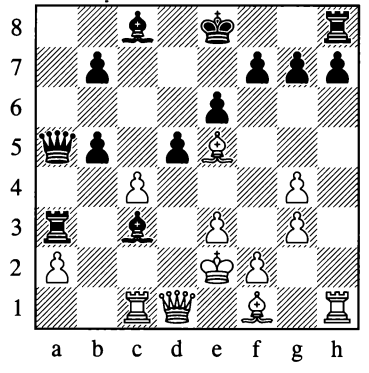
16.♔e2!?

This is another bonkers idea, fully in line with the spirit of Giri's preparation.

16.♗e2 would be more in the spirit of the game. 16...♗xc3† (16...bxc4!? 17.♗xg7 ♖g8 18.♗d4 ♗xc3† 19.♔f1 ♗xd4 20.♕xd4 ♖xa2 is very hard to evaluate.) 17.♖xc3 ♖xc3 18.♔f1 has some similarity to the game, but probably having included ...f6 for free would be in Black's favour.

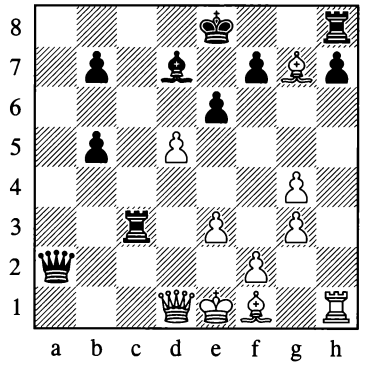
16...♗xc3

16...bxc4 17.♘b1 ♖xa2† 18.♔f3 0–0 with a totally random position is also possible of course. But the white king is far less in danger than it looks at first sight.

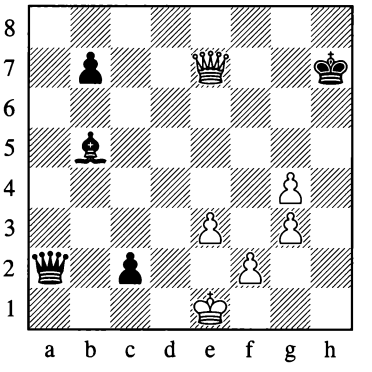


17.cxd5! ♗d7 18.♖xc3 ♖xc3 19.♗xc3

19.♗xg7? loses in a beautiful way. 19...♕xa2† 20.♔e1 (20.♔f3? ♖c2! would be horrible.)



20...b4!! A nice piece sacrifice. For example: 21.♗xh8 ♗a4 22.♗b5† ♗xb5 23.♗xc3 bxc3 24.dxe6 c2! 25.exf7† ♔xf7 26.♖xh7† ♔g6 27.♕d6† ♔xh7 28.♕e7†



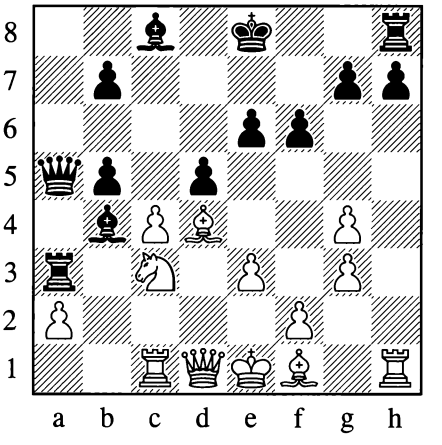
28...♔g8 and the black king is dancing to safety eventually.

19...♕xc3 20.♕b3 ♕xb3 21.axb3 exd5 22.g5

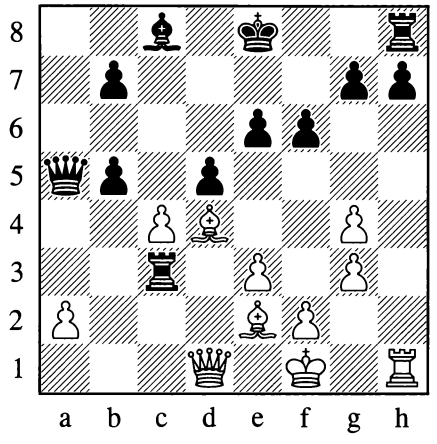
With a likely draw.

16.♗d4 ♕a5

White's position looks critical, but a planned exchange sacrifice keeps him out of trouble.



17.♗e2! ♗xc3† 18.♖xc3 ♖xc3 19.♔f1!

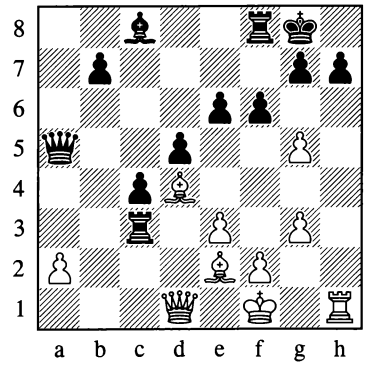


19...b4!

I think that around here we reached the end of Giri's preparation. Not in the sense that there was nothing more in his files, but rather that there were so many options and the lines Giri remembered were probably to some extent coming to an end outside the main line of the computer.

Giri said after the game that he had seen this move in his preparation, but had not considered that anyone would play it, when taking on c4 with both the pawn and the rook was quite respectable.

The computers give 19...bxc4 20.g5 as the main line. After: 20...0–0



21.gxf6! (21.♕b1 is not great. Black has 21...♖d3! 22.♗xd3 cxd3 23.♕xd3 ♕a6! and White would have to defend an inferior endgame.) 21...♖xf6 22.♗xf6 gxf6 23.♔g2 Both sides have their chances and challenges.

Giri started to think here, spending 18 minutes on deciding how to continue the game.

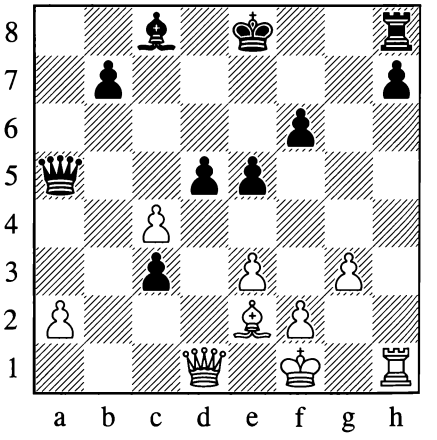
20.g5

I think he quickly decided to play this, but I suspect he was hoping to find real chances somewhere, but was unable to do so.

20...e5

20...♕xa2!? would be quite sharp and not very practical, although objectively entirely playable.

21.♗xc3 bxc3 22.gxf6 gxf6



Again, Giri thought for a long time – a symptom of how he was starting to lose his way.

23.♕b1?!

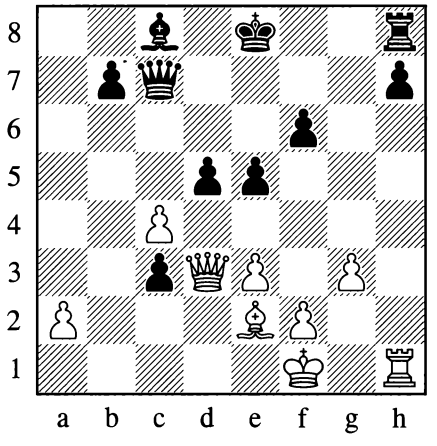
White should have played the natural 23.cxd5 ♕c5 24.♗d3, although Black is OK after 24...♔e7! 25.♕b3 h5 where both sides have their chances.

23...♕c7

23...d4!? was sharper. I am wondering if Nepomniachtchi was worried about 24.exd4 exd4 25.♖h5! (25.♖xh7? would be a losing mistake. After 25...♖xh7 26.♕xh7 ♕f5! Black takes control of the crucial d3-square. The checks will run out.) 25...f5 26.♗d3 Where White has enough counterplay, although there will be plenty of challenges ahead for him.

24.♕d3?!

24.♖h4! was a strong move, taking control of a lot of key squares.



24...b5!

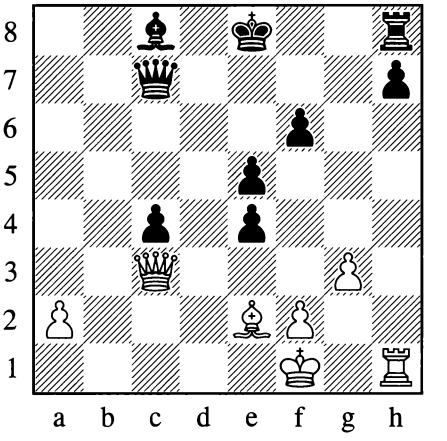
This is the time where Black decisively takes over the initiative.

24...♕xc4 25.♖xh7 ♖g8 26.♕xc4 dxc4 27.♔e1! White keeps the balance. For example: 27...b5 28.a4! bxa4 29.♗xc4 ♖g5 30.♗b5† ♔d8 31.♗xa4 and after a few additional defensive moves White will make a draw.

25.♕xc3 bxc4 26.e4!

White has to keep fighting. As a start he has to break up the black pawns.

26...dxe4



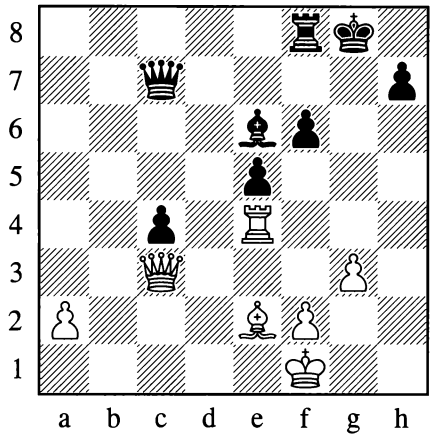
27.♖h4?!

It is understandable that White is hoping to exploit the weakness of the black king by keeping the queens on the board. However, soon we shall see that this strategy fails in practice.

27.♕xc4 ♕xc4 28.♗xc4 ♗f5 looks unpleasant. But after 29.♗d5! White is threatening ♖h4. And after 29...♗g6 30.♔g2 ♔e7 31.♖e1 f5 32.g4! White manages to neutralise the pressure. This was not an obvious line at all, but had Giri found it, he would have made a draw.

27...♗e6 28.♖xe4 0–0?!

The following is very deep and not something I would expect a human to find without first receiving a hint that something extraordinary exists. The key point is that after 28...♔f7! 29.♖h4 ♔g7 30.♕e3 h5! Black has a serious advantage.



29.♗xc4?

But this was poor.

A beautiful coordination of the pieces happens after 29.♖h4!, with the key idea being 29...♔g7 30.♕e3 ♔g8 31.♗d1! and with the bishop on c2 White has no problems at all. A small point is that 31...♗f5 is just a transposition after 32.♗e2! ♗e6 33.♗d1.

29...♔g7!

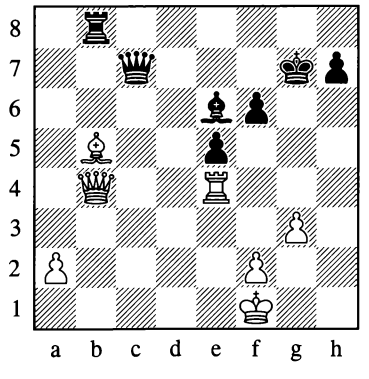
The pin is harder to get out of than you would imagine at first glance. The key problem is that 30.♕d3 is met with 30...♗f5!.

30.♕b3!?

Giri decides to sacrifice the queen.

A very long variation arises after:
30.♕b4 ♖b8 31.♗b5

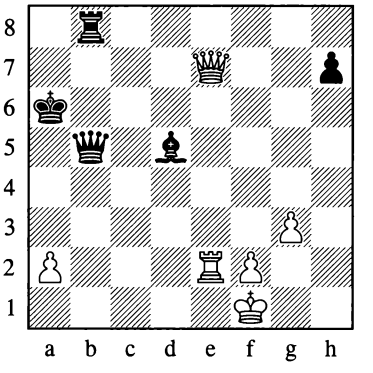
This also looks very unpleasant.



Black would have a choice between the practical 31...♗xa2!? and the more principled:
31...♗d5 32.♖e2 ♕b7

White has to give up a piece on account of the threat ...♗c4!. The line is now rather forced, but hard to calculate:
33.♕g4† ♔h8 34.♕f5 ♕xb5 35.♕xf6† ♔g8 36.♕g5† ♔f8 37.♕f6† ♔e8

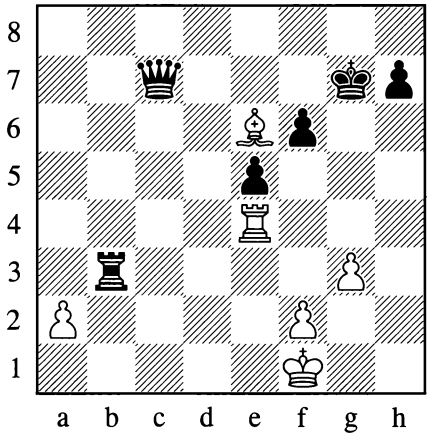
This seems scary, but no one at this level is guided by illusions anymore.
38.♕xe5† ♔d7 39.♕e7† ♔c6 40.♕f6† ♔b7 41.♕e7† ♔a6



The king has escaped the checks and White has nothing left to do but exchange the queens and hope for a chance in the endgame.
42.♕a3† ♕a5 43.♕xa5† ♔xa5 44.♖e7 h6 45.♔e2

White should hold a draw here, but everything is up in the air. An advantage just means that the opponent has to make a lot of good moves before he will make a draw, nothing else.

30...♖b8 31.♗xe6 ♖xb3



We have reached the third phase of the game. Giri has given up the queen and should now find the right strategy. Had he chosen to play for a fortress immediately, I think he would have been successful.

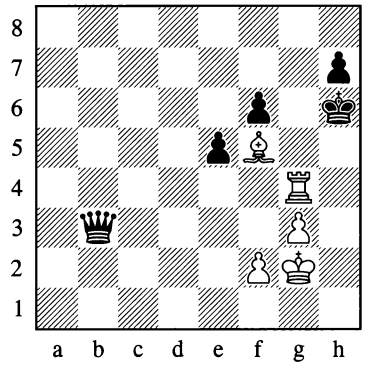
Instead, he tried to force matters, looking for counterplay, only to find that the queen was quite effective at generating threats on her own.

As so often at the highest level, the games are not lost by one big mistake, but a lot of small ones, played under immense and increasing pressure.

32.♖g4†?

It turns out giving this check is a small blunder.

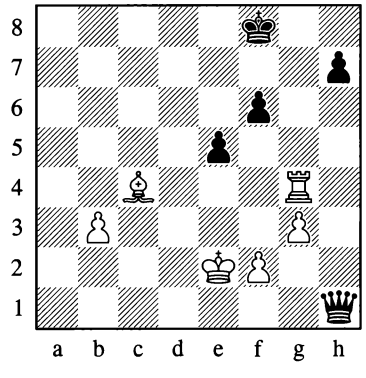
32.axb3! is what White should do intuitively, but with the check included, it does not work. The direct line continues: 32...♕c6 (As we shall see, the main line is ineffective, so Black should try 32...♕c1† 33.♔g2 ♕c6 34.♗f5 h5, but the chances of him actually winning here are slim.) 33.♗f5 ♕b5† 34.♔g2 ♕xb3 35.♖g4† ♔h6



36.♗e4! It is very hard for Black to make progress. A key idea is that 36...♕e6 is met with 37.♖h4† ♔g5 38.f4†! exf4 39.♖xf4 and the position is a definite fortress. The bishop will be on f3 and the rook oscillates between f4 and h4.

32...♔f8 33.♗xb3

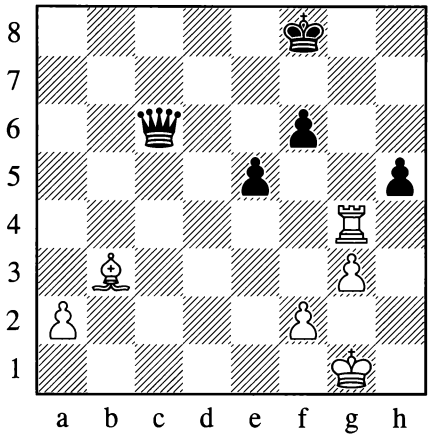
33.axb3? does not work now. Black wins after 33...♕c6! 34.♗c4 ♕h1† 35.♔e2



35...♕h5! and White is forced to play 36.f3, when the king is exposed and there will eventually be material losses on the kingside.

33...♕c1† 34.♔g2 ♕c6† 35.♔g1 h5

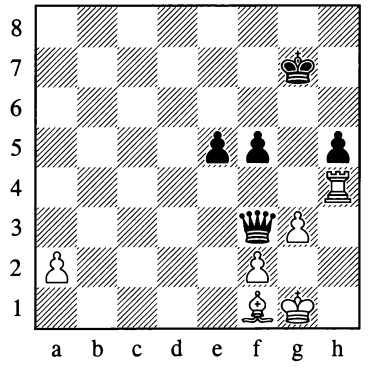
The engines suggest that the pawn was better placed on h6. This is a bit too subtle for time trouble...



36.♖g8†??

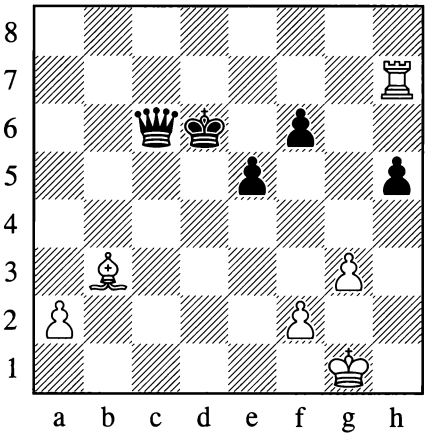
This is the worst mistake of the game. The rook goes into the breach, but how shall it ever return? Only at great cost, as we shall see.

Giri would still have made a draw, I believe, had he played 36.♖h4! ♕f3 37.♗c4! f5 38.♗f1. It is easy to understand why he may have felt uncomfortable going into such a passive position, but this is the nature of fortresses. A key point is that the a-pawn is providing real counterplay. After: 38...♔g7



39.a4! ♔g6 40.a5 ♔g5 41.a6 White makes the draw. 41...f4 42.♖h3 for example. It is not pretty, but it is all right.

36...♔e7 37.♖g7† ♔d6 38.♖h7



38...♕f3!

It is hard to understand exactly what Giri thought was going to happen around here, so I shall speculate just a little, then move on.

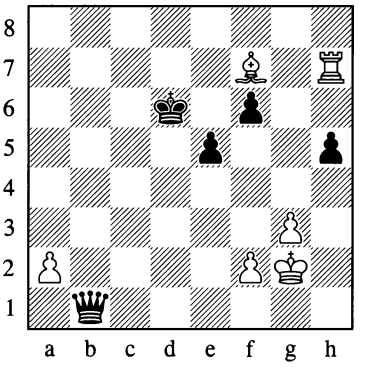
39.♖h8

One possible guess is:

39.♗f7

Black wins in a direct line that you could quite reasonably think Giri had missed:

39...♕d1† 40.♔g2 ♕b1!



The queen is hitting the rook and coming to b7 quickly.

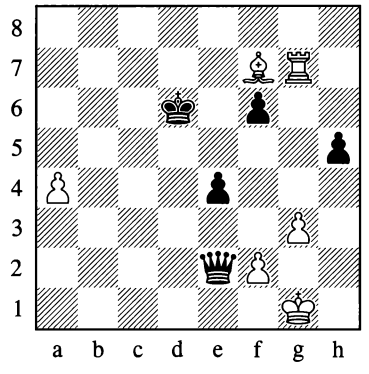
41.♖g7

41.♗g8 ♕g6! 42.♖h8 ♕g7 is more pretty than relevant.

41...♕b7† 42.♔h2 e4!

White is entirely tied up. Soon comes the ...e3 push with deadly effect. But first the

queen has to be perfectly placed.
43.a4 ♕b2 44.♔g1 ♕c1† 45.♔g2 ♕c2 46.♔g1 ♕d1† 47.♔g2 ♕e2 48.♔g1



48...f5

The most human. Black plays ...h4 and then ...f4-f3. White can do nothing.

39...e4 40.♖d8† ♔e7 41.♗d1

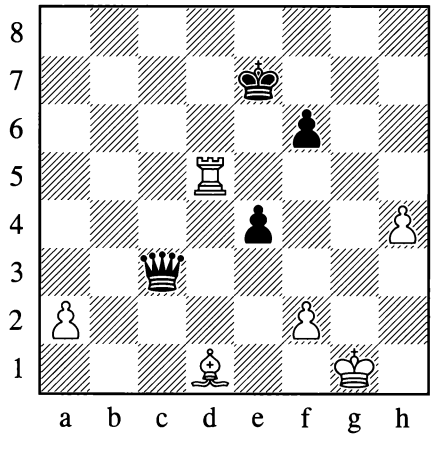
The only move.

41.♖g8 f5 42.♖g6 h4 43.gxh4 f4 is hopeless.

41...♕c3 42.♖d5

We have reached the fourth phase. Giri's adventure with the rook has backfired and his pieces are completely uncoordinated, giving Black the chance to break through on the kingside.

42...h4! 43.gxh4



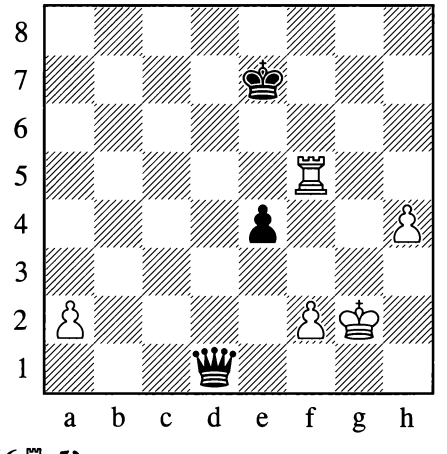
43...f5!?

This is the move of a player with incredible confidence in his position and thus his technical knowledge. Add to this that Nepomniachtchi spent only two minutes making this decision.

43...♕c8! to advance the pawn without tactics was a different path to the win. Only a high degree of certainty that the fortress could be broken justified "winning" the bishop. However, there is another possible explanation. Nepomniachtchi is potentially the most confident of the players in the world elite. And we are talking about a lot of confident guys! Sometimes too much confidence translates into banking on luck. And luck paid dividends on this day.

If you look at the post-game interview you will know that Nepomniachtchi had more certainty in his decisions than about the objective evaluation of the position.

44.♖xf5 ♕e1† 45.♔g2 ♕xd1



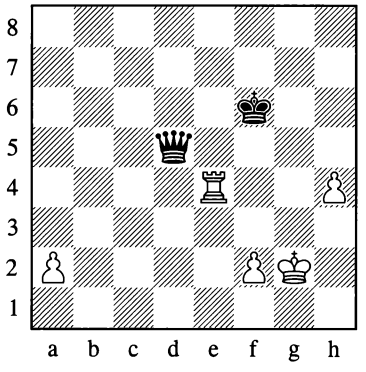
46.♖g5?

This is the final mistake of the game. I was watching the live commentary on Chess24 and the panellists there were convinced for a very long time that White was making a draw. The first lack of confidence arose when they saw that after:

46.♖e5† ♔f6 47.♖xe4

Black is able to force a weakening in the white position with:

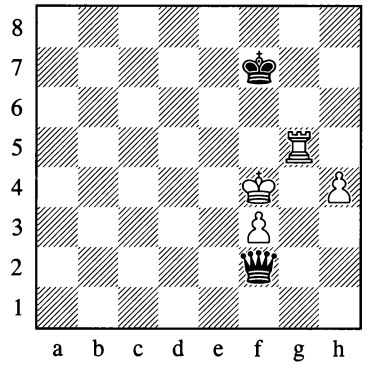
47...♕d5!



It is well-known that White would make a draw with the rook on e3 and pawn on f2. Black is even allowed not only one, but two h-pawns, and the fortress still cannot be challenged.

However, once the f-pawn is forced to leave the second rank, a series of zugzwangs should decide the matter. The change from this conventional endgame knowledge is the presence of the pawn on h4. Without it, Black wins trivially, even if it will take a long time. With it, matters are quite complicated indeed and I would personally have enjoyed watching the Russian trying to put White into a decisive zugzwang. It can be done, but it is incredibly difficult. I have given the line that is best play from a human standpoint, not a standard tablebase line. Black's win is long and non-obvious.

48.f3 ♕xa2† 49.♔g1 ♕d2 50.♔f1 ♕h2 51.♖g4 ♕e5 52.♔f2 ♔f7 53.♔f1 ♕e3 54.♔g2 ♕e2† 55.♔g3 ♕f1 56.♖g5 ♕g1† 57.♔f4 ♕f2

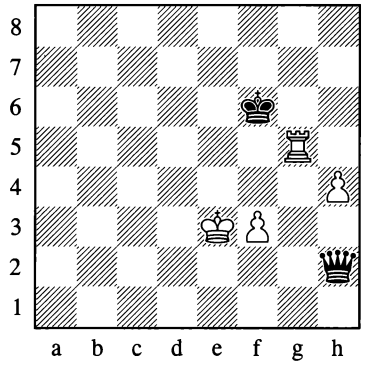


Achieving the first goal was rather straightforward. The white king is pushed away and the black queen has taken her strong position, looking for a way to squeeze White even further. From here White's position is surprisingly resilient.

58.♔g4 ♔e6 59.♖h5 ♕g2† 60.♔f4 ♕h3 61.♔e4 ♕g3 62.♔e3 ♔d6

A waiting move.

63.♔e2 ♕g2† 64.♔e3 ♕h2 65.♖h6† ♔e5 66.♖h5† ♔e6 67.♖h6† ♔f5 68.♖h5† ♔g6 69.♖g5† ♔f6



70.♖g4

The rook has been forced down to the 4th rank.

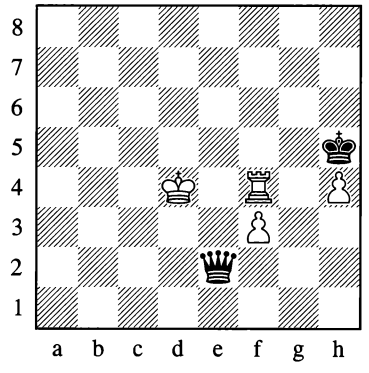
70...♕b2 71.♖e4 ♔g6 72.♖g4† ♔h5 73.♖e4 ♕g2 74.♖g4 ♕f1 75.♖e4

This is where Black was always headed.

75...♕e1† 76.♔d3 ♕f2 77.♖f4 ♔g6!

Zugzwang!

78.♔e4 ♕e2† 79.♔d4 ♔h5!



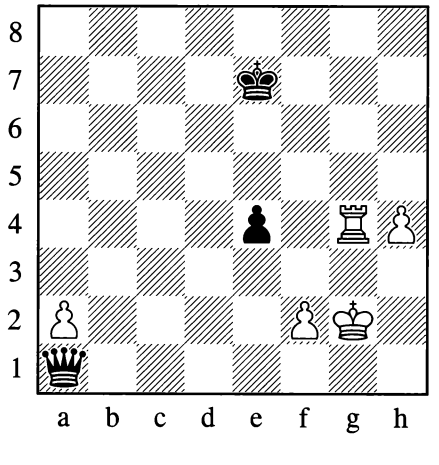
And the final zugzwang. Black wins one of the white pawns and mates in 37 additional moves.

Would Nepomniachtchi have found all of this? I will put it at about 80%, thus giving Giri better odds than in the game, where we know with 100% certainty that he found it. (Yes, I do know statistics does not work like that...)

46...♕a1

This was Nepomniachtchi's second-last big think of the game. Here he seemingly worked out the winning plan and then executed it without ever taking more than two minutes before move 58.

47.♖g4

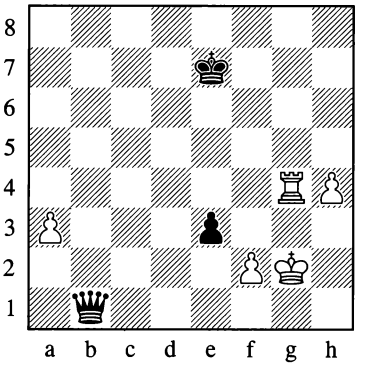


47...♕b1!

47...♕xa2? 48.♖xe4† and ♖e3 would just draw, as already discussed.

48.♖g3

Another key point is that White is not in time to play 48.a3 followed by 49.♖g3, which otherwise would make a draw, as we shall discuss later. Black prevents this set-up with: 48...e3!



White will lose his pawns one by one. We could give a long variation here, but as this is the weakest of all the fortresses discussed here, we shall skip it.

48...♕xa2

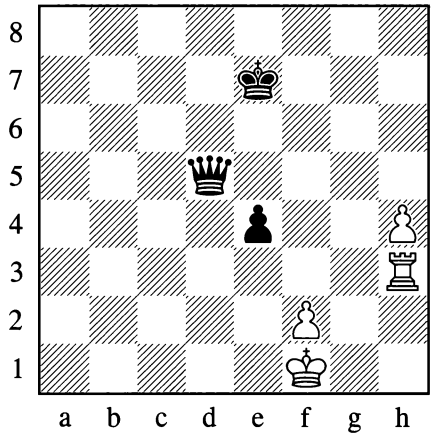
The white h-pawn is doomed, but how it is won is very important. If White was to succeed in getting his king to e1 or e2, he would make a draw. Black has to prevent this.

49.♖h3

49.♔f1 is for that reason met with 49...♕d2! as the only winning move. This is too simple for Giri to try for it.

49...♕d5 50.♔f1

But here he does!



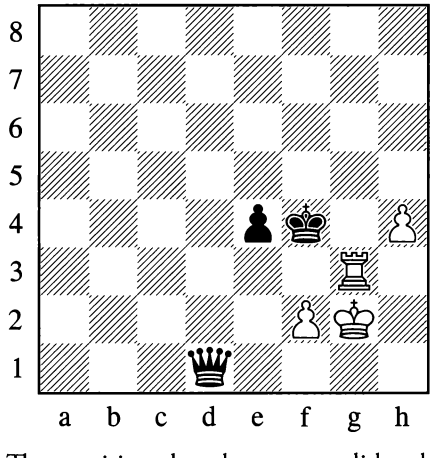
50...♕d1†

Go back in your cage!

51.♔g2 ♕g4† 52.♖g3 ♕h5

52...♕xh4?? 53.♔f1! would again make the draw.

53.♖a3 ♕d5 54.♔g1 ♔f6 55.♖g3 ♕d1† 56.♔g2 ♔f5 57.♖g5† ♔f4 58.♖g3

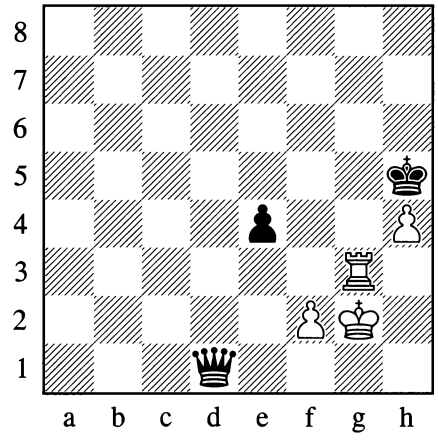


The position has been consolidated and Black has all the time he wants. At this point he thought for nine minutes and worked out how to win the h-pawn with the king in a final zugzwang.

58...♕d5 59.♔f1 ♕d2! 60.♔g2 ♕d1!

Triangulation and zugzwang achieved. Next comes the manoeuvring of the king to h5.

61.♖e3 ♔f5 62.♖g3 ♔f6 63.♖h3 ♔g6 64.♖g3† ♔h5

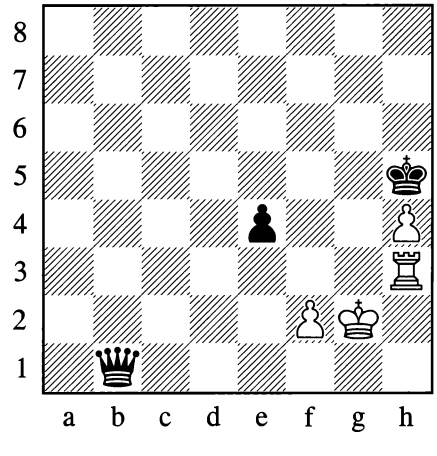


65.♖h3

Giri was unhappy that he played this move, having seen already that he had to avoid the position arising after his opponent's next move.

However, I do not think it would have been that difficult to find 65.♖e3 ♕d4 66.♖h3 ♕c4!, where White is in mortal zugzwang again.

65...♕b1!

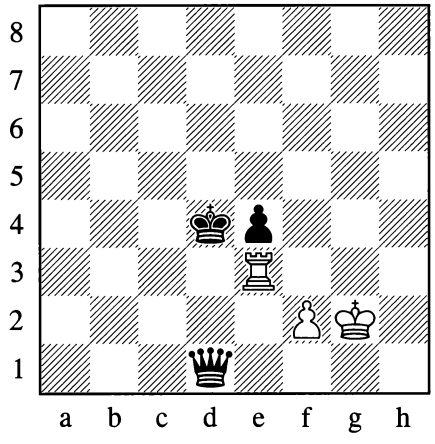


Another zugzwang. Defending e4 and preventing ♔f1 at the same time.

66.♖e3 ♔xh4

We now have a theoretical position. Black wins by bringing the king to d2. This can only be done in one way.

67.♖g3 ♔h5 68.♖h3† ♔g4 69.♖g3† ♔f4 70.♖e3 ♕d1 71.♖a3 ♔e5 72.♖g3 ♔d4 73.♖e3



73...♕d3!

Giri resigned. We can also see now why White would have made a draw, had he retained the pawn on a3. Once Black takes twice on e3, the little piece of wood would run for the deep blue sea and become the great saviour.

0–1

7. Plus equal

Ian Nepomniachtchi – Wang Hao

Yekaterinburg 2020

In order to understand this game fully, there are three concepts we need to remind ourselves of.

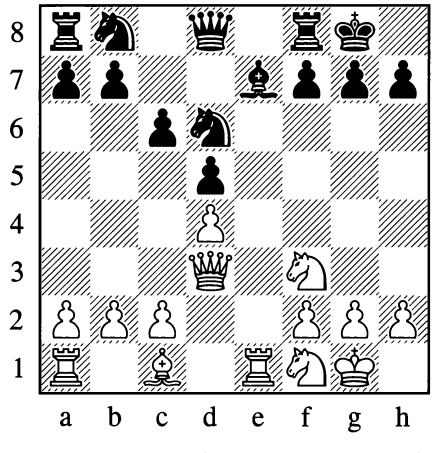
1. Plus equal. One player has a slight advantage and will be able to pose the opponent continuous problems throughout the game. Only once the problems have been fully solved will the draw become obvious. A lot of players in the elite aim for this in their opening preparation, but it is not always so easy to achieve it.

2. The four types of black openings. The first type are bad openings. If White knows what he is doing, he will get a real advantage out of the opening. Think of the Alekhine. The second type are the ones where one player has to show an inordinate knowledge and precision in order to achieve equality. Then there is the third type, the one Wang Hao went for, where one player makes some minor concession in order to achieve solidity, with the intention of slowly neutralising the pressure. Finally, we have the critical variations, where Black takes on the danger of losing the game horribly, but if he does not, he will get a fully equal game and often a lot of winning chances.

3. The principle of the worst-placed piece. In simple positions (where there are minimal tactics) this is often an important factor. Improve the worst-placed piece and your position improves.

1.e4 e5 2.♘f3 ♘f6 3.♘xe5 d6 4.♘f3 ♘xe4 5.d4 d5 6.♗d3 ♗f5
This is the current trend in the Petroff.

7.0–0 ♗e7 8.♖e1 0–0 9.♘bd2 ♘d6 10.♘f1 ♗xd3 11.♕xd3 c6



Black has achieved solidity in a symmetrical structure. But his development is a bit behind and White is more active. White will continue to apply pressure and it will then be up to Black at

some point to play a few good moves in order to equalise. In short, both players were heading here and knew what they were heading for. It is quite common that players want to apply pressure with White and are OK trying to neutralise it with Black.

12.♗f4 ♘a6

Almost everything has been played here. Nepomniachtchi plays an obvious novelty, recommended by Stockfish.

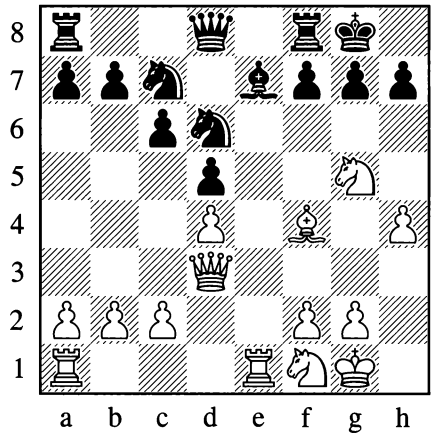
13.h4!?N

A generally sensible move.

13...♘c7

Black's other natural move 13...♘e4 is met with a nice refutation: 14.♘g3! f5 Without this move it makes no sense to play ...♘e4. 15.♕b3! ♕b6 16.c3 White has a pleasant advantage. He will continue with ♘e2, h4-h5 and ♘e5. There are several reasons why White is better. Most obviously that he will be able to play f2-f3, while Black cannot repair the damage done to the e5-square.

14.♘g5!



The key idea. Black will have to make a concession of some sort.

14...♗xg5

The real alternative was 14...g6 15.♘e3 h6 16.♘f3 h5 17.♖e2, where White is also a bit better.

We can discount:

14...f5?!

This looks bad.

15.♕g3!

White has managed to create tactical threats already.

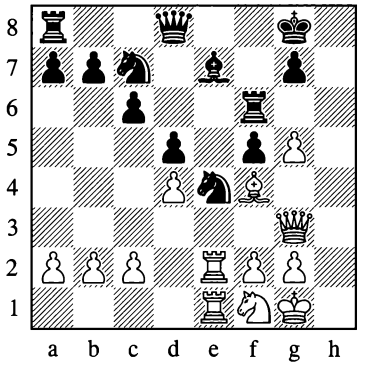
15...♖f6 16.♖e2

This leads to a big advantage for White. You can easily see things going wrong for Black tactically. There are too many threats.

16...h6?! 17.♖ae1! hxg5?

17...♗f8 18.♘f3 is a concession and good for White, but Black would have to play it.

18.hxg5 ♘e4

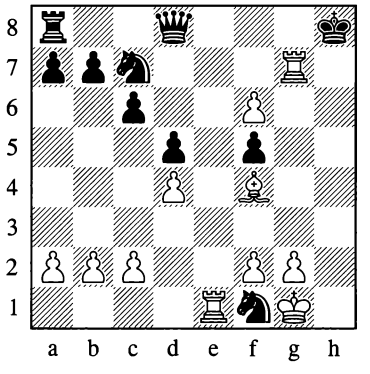


19.gxf6!?

This queen sacrifice is not necessary, but it is very compelling.

The simpler 19.♖xe4 just wins a piece.

19...♘xg3 20.♖xe7 ♘xf1 21.♖xg7† ♔h8



22.♖ee7

Threatening mate in three.

22...♘e8 23.♖h7† ♔g8 24.f7† ♔xh7 25.f8=♕†

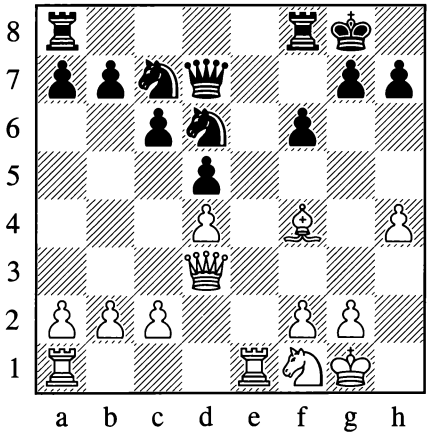
With mate looming.

15.♗xg5 f6

The necessary concession.

16.♗f4 ♕d7

This is a typical scenario in the plus equal mode. White has to work out how he can improve his position and keep up the pressure. The worst-placed pieces are the a1-rook and the f1-knight. As Black is planning to play ...♖ae8 and exchange rooks, there is little point to playing ♖e2. So White needs to bring the knight to f5. But which path it takes is not obvious.



17.♘g3?!

An inaccuracy of no importance to the course of the game, but it did offer Black a chance to equalise immediately.

The correct path for the knight to f5, was 17.♘e3!, when Black should play 17...♖ae8, transposing to the game, as 17...g6?! does not work here. (And 17...♘e4? would leave Black under pressure after 18.f3 ♘e6 19.♗h2 ♘d6 20.♖e2.) 18.h5 and after 18...♔g7 or 18...♔f7 White has 19.♘g4!, when the black position is crumbling.

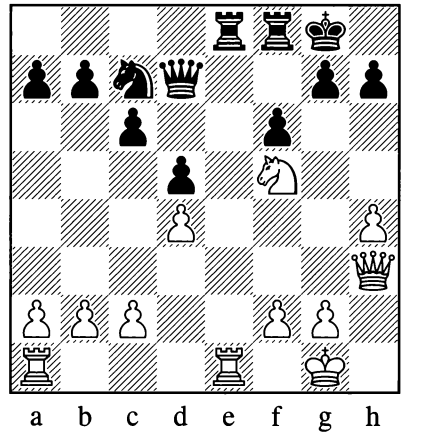
17...♖ae8?!

Allowing White to occupy the f5-square with the knight.

Black had a chance to reduce the pressure with 17...g6! 18.h5 ♔f7. White has no serious way to apply real pressure. As we shall see, Black has a number of chances to defend in this game, but the failure to take the easy ones means that he will later have to defend difficult positions.

18.♗xd6 ♕xd6 19.♘f5 ♕d7 20.♕h3

Threatening ♘h6†, gaining an important tempo to make it possible to apply pressure. Nepomniachtchi said he remembered his preparation to around here.



20...♔h8!

The best move.

20...♖e6

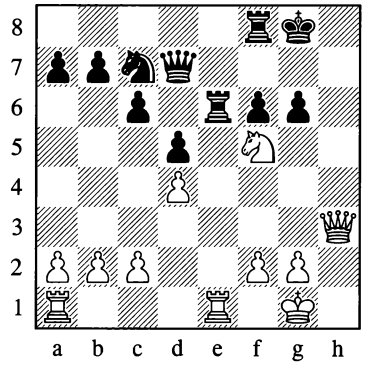
This could also be considered. Black is intending to play ...g6 or ...♖fe8.

21.h5! g6

Without this, nothing makes sense.

21...♖fe8 22.♖e3! also does not allow Black to relieve the pressure.

22.hxg6 hxg6



Black is threatening to take the knight and retreat would relieve the pressure. White has to find a way to increase the pressure.

23.♖e3!! ♕h7

23...gxf5 24.♖g3† ♔f7 25.♕h5† ♔e7 26.♖g7† wins the queen.

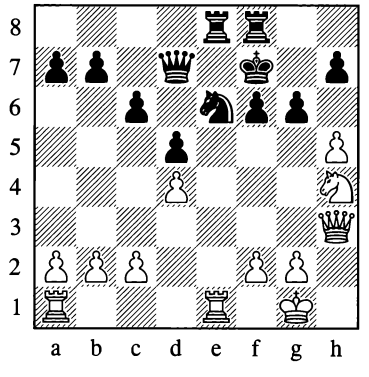
24.♖g3 ♖fe8

24...♕xh3 is met with an intermediate move: 25.♖xg6†

25.♖f1! ♖e1 26.♘d6 ♕xh3 27.gxh3

Black is under serious pressure with two pawns currently hanging.

Black had another option. 20...♘e6?, which is unpleasant for Black after: 21.h5 g6 22.♘h4! Putting pressure on the weak g6-square. The best move is to take on h5, but this has clearly gone wrong. 22...♔f7?! is the critical move.

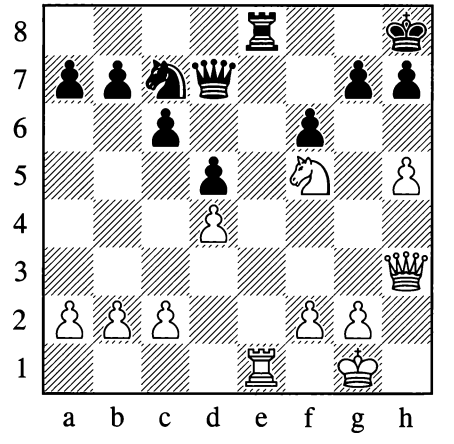


Here the strongest move is: 23.f4! (23.♖e3 ♕d6 24.♖ae1 ♘g5 holds, although Black is still under some pressure.) One of the most important attacking techniques is to bring more wood to the fire whenever you can. Black now has to play the very sad 23...gxh5, when after 24.♖e3 Black is unlikely to resist the pressure.

21.h5!

Keeping up the pressure and preventing ...g6.

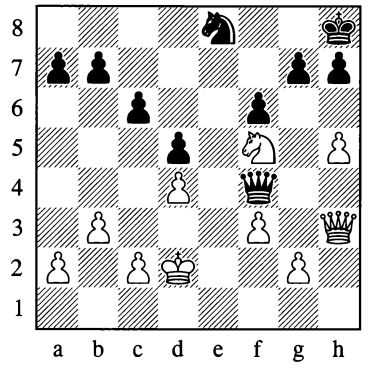
21...♖xe1† 22.♖xe1 ♖e8



23.♖xe8†

This move seems entirely natural, but a deeper investigation of the position reveals that both kings are currently out of the game and that both players should have aimed at improving them.

Strongest was therefore 23.♔f1!, when after 23...♖xe1† 24.♔xe1 ♘e8 25.♔d2 White has a serious advantage. Against 25...♕f7 White has 26.♕h2! and after: 25...♕e6 26.b3!? ♕e4 27.f3 ♕f4†



28.♔d3 White is threatening h6 and also ♘e3 followed by an invasion of the white queen. 28...♕c7 is therefore forced, and after 29.♘e3 White is better and can increase the pressure. Next comes ♕e6 or ♕c8.

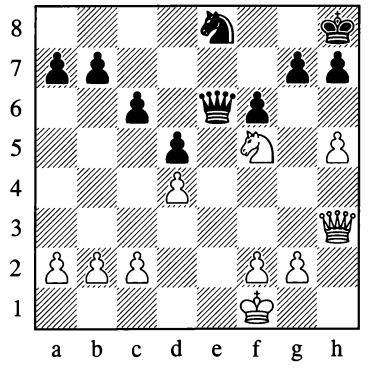
23...♘xe8 24.g4?

This move looks natural, but the logic has not changed since the previous move.

White is better after:
24.♔f1! ♕e6

24...♘c7 does not work. White has 25.♕a3! ♔g8 26.♕xa7! and White is on his way towards the full point, although there is a lot of play left.

24...a5!? is possible though.

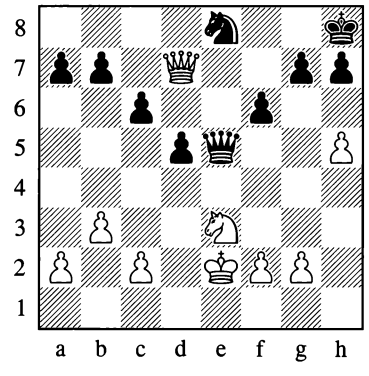


White has a number of decent moves here. I quite like:
25.b3

Slowly improving the position. White has an advantage, but it is not clear to me how serious this advantage is. A key point is that the counterplay does not work for Black.
25...♕e4?! 26.♘e3! ♕xd4

26...♕e7 27.♕c8 is very unpleasant.
27.♕d7 ♕a1†

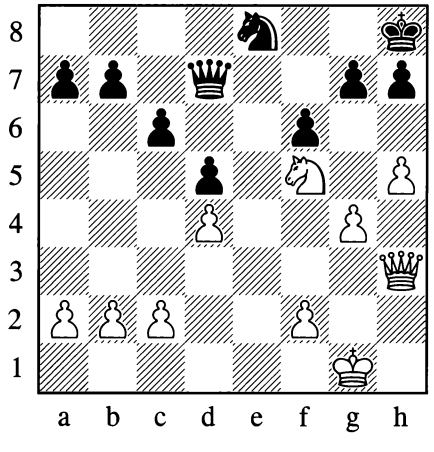
27...♕e5 28.♕xb7 gives White a winning advantage. Black has too many weaknesses.
28.♔e2 ♕e5



White will first remove the counterplay, then start picking off the weak pawns one by one.
29.f4! ♕e4 30.c3! h6 31.♕xb7 ♕xf4 32.♕xc6 ♘c7 33.♕d7

White has a winning advantage. Long term he will advance the pawns on the queenside.

24.♕a3 is premature. After 24...♔g8 Black is OK.



24...a6?

In the same way, Wang Hao fails to equalise. 24...♔g8! improves the worst-placed piece, the king, which is not only not contributing, but also in risk for his life in the corner. 25.♕h2 (25.g5 ♕f7 is not dangerous. More about this below.) 25...g6! Black is able to push back the knight and thereby equalise. 26.hxg6 hxg6 27.♘e3 ♕c7 28.♕h6 ♕g7 and it is easy to see a possible draw by repetition arising.

24...♕e6 25.♕a3 would however be good for White.

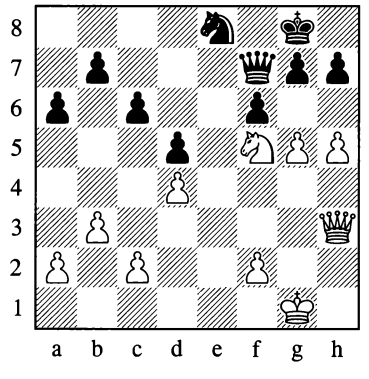
25.b3?!

Nepomniachtchi explained after the game that he played too rashly here, missing the necessity for playing 25.♔f1!. The key idea is that 25...♔g8 has been prevented. After 26.g5! the black king is forced back into the corner, which is hardly ideal.

The tactical point to justify 25.♔f1 was 26...♕f7? 27.g6!, when the pawn cannot be taken with check, meaning White wins. 25...♕e6 is therefore better. After 26.♕h2 ♔g8 27.♕b8 g6 28.hxg6 hxg6 29.♘h4 ♕f7 30.♘g2 White retains just a little bit of pressure.

25...♕e6

25...♔g8! would have equalised. 26.g5 ♕f7!



White no longer has g5-g6, as the pawn would be taken with check. Instead White would probably try 27.f4, but after 27...♔f8 Black is fully OK.

26.♘e3 ♘d6?!

Both Nepomniachtchi and his opponent thought that White would be better after 26...h6.

Nepomniachtchi had considered playing 27.♕g3 ♘d6 28.♕f4 with slight pressure.

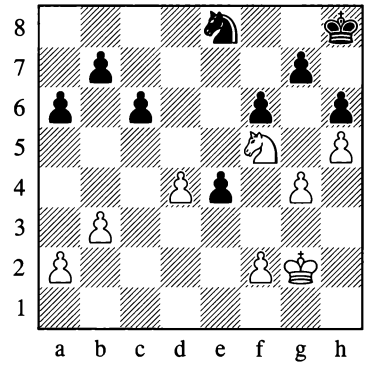
Wang Hao had considered the following variation:

27.♘f5 ♕e1†

This was Wang's idea.

27...♘d6!? 28.♕e3 ♕d7! was also possible. After 29.♕e7 ♕xe7 30.♘xe7 ♘b5 31.♘f5 ♘a3 32.c3 Stockfish says that Black draws with any which move, but in reality he will have to play a good deal of decent moves to do so.

28.♔g2 ♕e4† 29.♕f3 ♕xc2 30.♕e3 ♕e4†! 31.♕xe4 dxe4



But he felt that the endgame was risky. Black can hold a draw only with extremely accurate play, so he was definitely right.

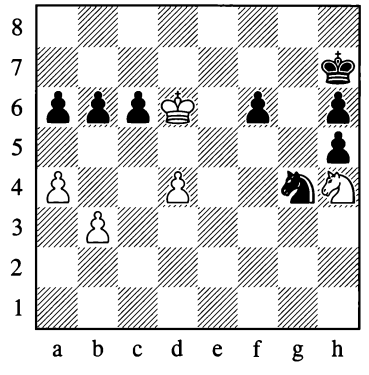
32.♔g3 ♘c7 33.♘d6 b6 34.♔f4 ♘d5† 35.♔f5! e3 36.fxe3 ♘xe3† 37.♔e6 ♘xg4 38.♘f5 ♔h7 39.a4

39.♘e7 f5! 40.♘xf5 ♘f6 41.♘g3 b5 42.♔d6 g6 gives Black enough counterplay on the kingside.

39...g6 40.♘h4!

Keeping the black king out of the game.

40...gxh5 41.♔d6



Black's position looks very dangerous. For example, 41...c5 42.a5! with a breakthrough.

41...♘e5!!

This piece sacrifice saves the day.

42.dxe5

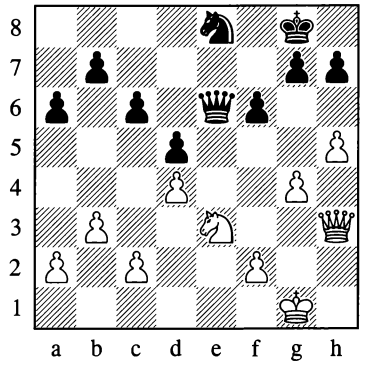
42.♔c7 b5 43.♔b6 bxa4 44.bxa4 ♘d3 45.♔xa6 c5 with a draw is another line.

42...fxe5 43.♔xe5 ♔g7

Black draws. If the white king eliminates the kingside, Black will eliminate the queenside. But although this draws, it is a very straight and narrow path.

Much better for this reason is:

26...♔g8!

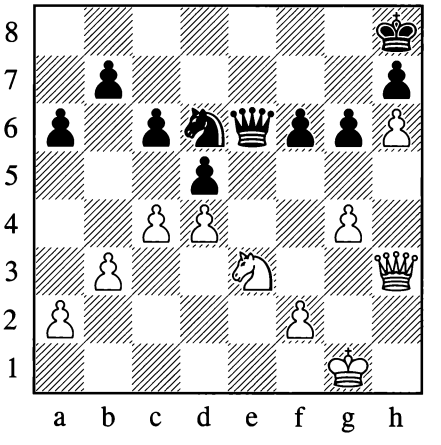


27.h6 g6 with a decent position, based on 28.♕g3 ♕d6! and Black is fine.

27.h6!

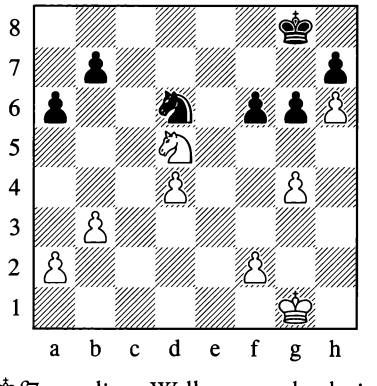
This leads to an advantage quite similar to the games by AlphaZero and later Magnus Carlsen. The latter's coach, Peter Heine Nielsen, wrote a nice article about the strategy behind this in *New in Chess*.

27...g6 28.c4



28...dxc4

If you look at the computer evaluation, you may think that 28...♔g8 29.cxd5 cxd5 30.♕f3 ♘e4 31.♕f4 ♕d6 32.♕xd6 ♘xd6 33.♘xd5

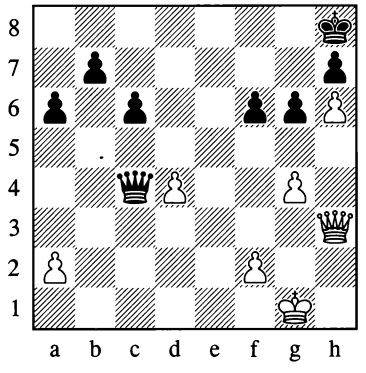


33...♔f7 equalises. Well, you are both right and wrong. White's best try is probably 34.♔g2!, with ideas such as 34...♘b5 35.♔f3 ♘xd4†

(35...♔e6? does not work here because of 36.♘f4†, but it can be played on the previous move.) 36.♔e4 ♘c6 37.f4 ♔e6 38.f5† gxf5† 39.gxf5† ♔f7 This knight ending is a draw, but Black still has to play some accurate moves to prove it.

29.bxc4 ♔g8?!

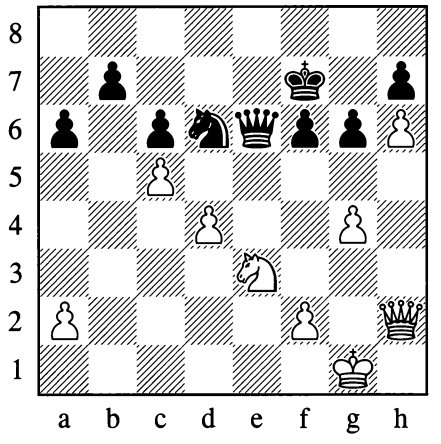
29...♘xc4? would lose directly to: 30.♘xc4 ♕xc4



31.♕h2!, where the queen plans to penetrate the black position, while keeping the defence of the h6-pawn up. 31...♔g8 The only move. (31...♕g8 32.♕d6! leads to a direct mate) 32.♕b8† ♔f7 33.♕xb7† ♔e6 34.♕xh7 ♕xd4 35.♕xg6 and White wins.

The best way to neutralise the pressure was 29...♘f7!. The knight is ready to deal with the main problem in Black's position, which is the strong h6-pawn. If White plays ♕h2, Black has ...♕d6 with full equality. Thus, the most dangerous option is 30.c5!?, where Black is entirely OK in many ways. The most direct is 30...♕xa2 31.♕h2 ♕a1† 32.♔g2 ♕xd4 33.♕b8† ♕d8 34.♕xb7 ♕e8 and White has no advantage at all.

30.♕h2! ♔f7 31.c5

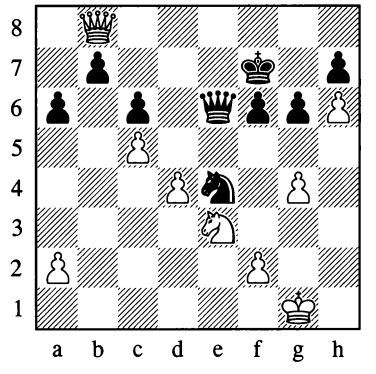


31...♘b5

Black also had a fantastic active defence with:

31...♘e4!? 32.♕b8

32.♕f4 ♔e7! 33.a4 ♔d7 also holds. Apparently.



32...♕xa2!!

This is a bit surprising. But White cannot defend f2 conveniently after he picks up the h7-pawn with check.

33.♕xb7† ♔f8 34.♕g7† ♔e8 35.♕h8† ♔e7 36.♕xh7† ♔d8 37.♕h8† ♔c7 38.♕g7† ♔d8 39.♘d1 ♕e2 40.♕xg6 ♕xd1† 41.♔g2 ♕xd4

Black survives because of the counterattack against f2.

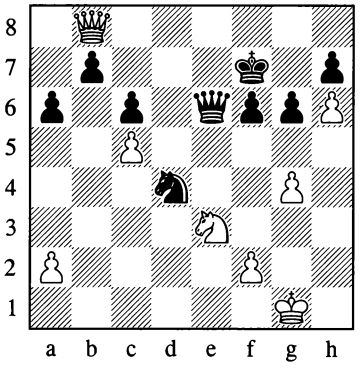
32.♕b8

Black has plenty of problems left to solve. The fact that they can be solved is of much less importance. In the game Wang Hao tried his best and failed.

32...♕d7?

Finally, the pressure leads to a decisive mistake. Black had two ways of saving the game, but both required some accuracy and understanding. Spending the last five minutes of his time, Wang Hao was not able to see in which direction he had to go.

Black had another computer defence after: 32...♘xd4!?

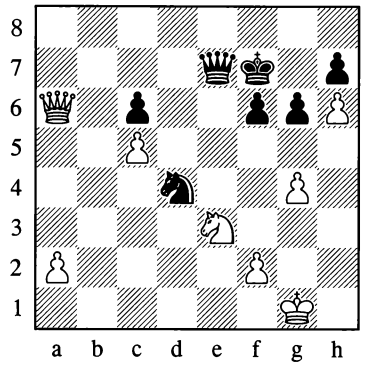


33.♕xb7†

33.♕h8 leaves Black with two defences. The smartass one has a very important illustrative point that I saw in another game yesterday, where it really was the only option available to hold the game. 33...♔e7!! 34.♕xh7† ♕f7 35.♕h8 ♕f8 Black draws.

The human defence is obviously 33...♘f3† 34.♔g2 ♘g5, defending the h-pawn, when after 35.♕g7† ♔e8 36.♕xb7 ♕e4† it is not surprising that Black makes the draw with a combination of counterplay and perpetual check.

33...♕e7 34.♕xa6



34...♕e4!!

34...♕xc5 35.a4 is unpleasant for Black, although 35...f5! still offers him counterplay. 36.a5 fxg4 37.♕b7† ♔e6 38.a6 g3! Black has enough counterplay, even though White can still create problems for him.

35.♕b7† ♔e6 36.♕xh7

Nepomniachtchi was a true professional, telling the journalists exactly what he was thinking, holding nothing back. He believed that there was no way Black could deliver a perpetual with the knight on e3 defending everything.

But actually, there are several ways for Black to create the necessary counterplay.

One way is ...♕b1† then ...♘e2.

Another is 36...♘f3† 37.♔f1 ♘d4.

And finally 36...♘e2† 37.♔f1, when the knight can retract to threaten ...♕h1 mate. But nicest is 37...♘g3†! 38.fxg3 ♕f3† with a draw.

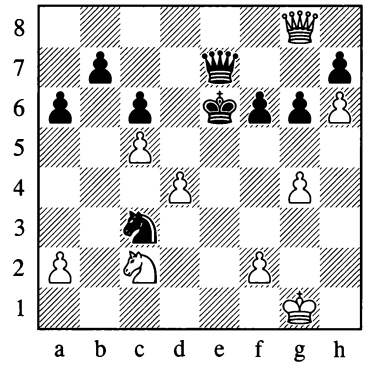
The more human attempt was: 32...♕e7 But White could still create problems for his opponent.

a) 33.♘c4 ♕e1† 34.♔g2 ♕e4† 35.♔h2 looks bad for Black, but after 35...♕f3! Black has enough counterplay to ensure the draw.

b) 33.♕h8 ♔e6 34.♘c2!

This is more dangerous for Black, but accurate defence holds.

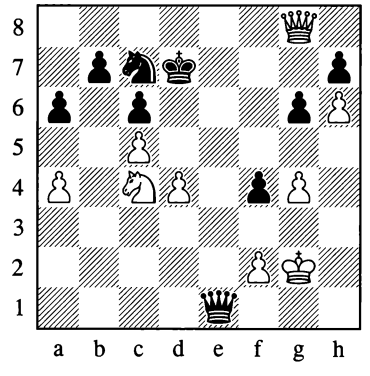
34...♘c3 35.♕g8†



35...♔d7!

35...♕f7? 36.d5†! ♘xd5 (36...cxd5 37.♘d4† ♔e7 38.♕c8 and White wins) 37.♘d4† ♔e7 38.♕b8 ♕e8 39.♕xb7† ♕d7 40.♘xc6† ♔e8 41.♕a8† ♔f7 42.♔h1 where White is close to winning, as Black cannot play 42...♕xg4 on account of 43.♘d8† and 44.♕xd5.

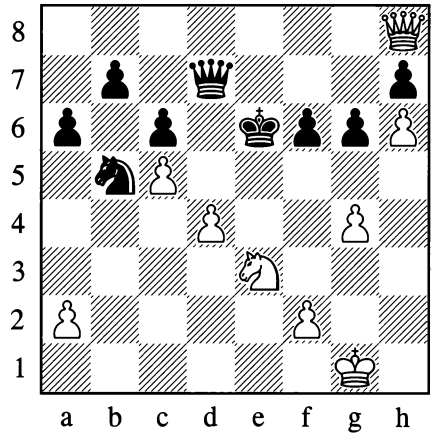
36.♕b3 ♘b5 37.a4 ♘c7 38.♘e3 f5! 39.♕g8 f4 40.♘c4 ♕e1† 41.♔g2



41...f3†!

Black survives by perpetual check: 42.♔xf3 ♕d1† 43.♔e4 ♕xg4† 44.♔d3 ♕f5† 45.♔e2 ♕g4† 46.♔e3 ♕g5†

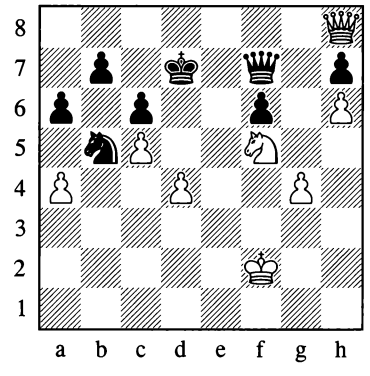
33.♕h8! ♔e6



34.f4! ♘xd4

34...♕xd4 35.♕e8#

34...♕e7 35.f5† ♔d7 36.♔f2! leaves Black utterly lost. The main threat is 37.hxg6 fxg6 38.♕g7! and the h-pawn queens. And if Black plays 36...g5, he will face down the secondary threat 37.♘c4! when it is at least checkmate. So, he has to play 36...gxf5, when after: 37.♘xf5 ♕f7 38.a4



Black's position is disintegrating. He cannot allow the knight to land on d6. It will hurt too much.

35.♕g8† ♕f7

35...♔e7 36.♕xh7† and the h-pawn queens.

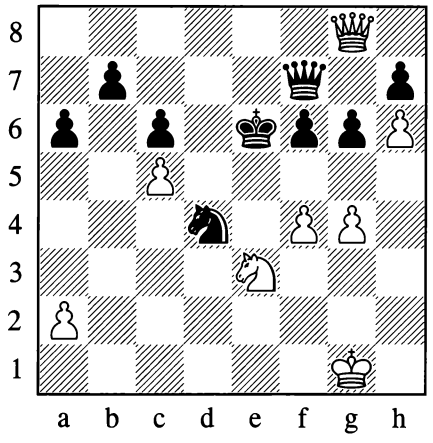
36.♕c8† ♕d7

36...♔e7 37.♕xb7† ♔f8 38.♕b8† ♕e8 39.♕d6† and White picks up the knight.

37.♕g8†

At first Nepomniachtchi believed that he was winning after 37.f5† gxf5 38.gxf5† ♔e7 39.♕h8, but then realised that Black can defend the pawn with 39...♘f3†! 40.♔f2 ♘g5 and Black is not worse at all.

37...♕f7



38.♕d8!

Wang Hao had missed this move. With the threat of mate on d6, Black has no options left.

38...♕d7

38...♘b5 39.a4 also wins a piece.

39.f5† gxf5 40.gxf5† ♘xf5 41.♕xd7† ♔xd7 42.♘xf5 ♔e6 43.♘e3

1–0

8. Exchanges and the flow of the game

The following game was played at the 1999 Danish Championship. I was sadly one of the top seeds in the B-group, where I think I finished second, rather than getting a chance to play with the grandmasters.

This game offers a chance to learn a lot about how to manage exchanges of pieces and the general flow of the game.

We have talked about both topics earlier in this book, but seeing them in the context of a complicated struggle between two strong grandmasters is still something we will benefit from.

The first phase of the game will see Black misjudge every possible exchange available to him and drift from a good position out of the opening, to a more and more difficult position, until finally it will be up to his opponent to show his skills in the conversion.

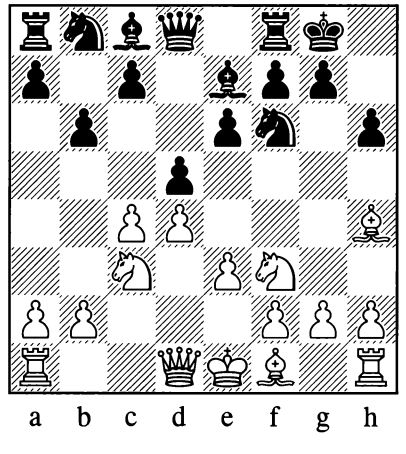
There we shall see the importance of understanding when a good position, incrementally improved, does not win by itself. At some point we have to show concrete play in order to defeat a grandmaster. This is not a skill we can conjure when we need it, but one we need to hone through regular training.

I had a chance to follow the game live and see the players discussing it in the commentary room afterwards. I will not be able to quote them, but the impression of Black creating all his own difficulties stayed with me and has now brought me back to look at the game in detail.

Lars Bo Hansen – Peter Heine Nielsen

Aarhus 1999

1.d4 ♘f6 2.♘f3 d5 3.c4 e6 4.♘c3 ♗e7 5.♗g5 h6 6.♗h4 0–0 7.e3 b6

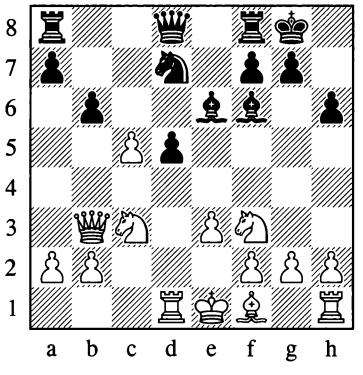


8.♕b3

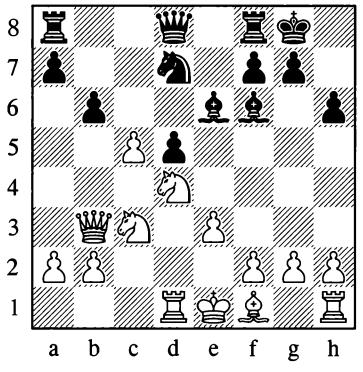
Even 22 years ago, this move felt horribly artificial to me. The plan is to create a slightly beneficial pawn structure and slowly manoeuvre around to create long-term pressure. But the queen is not well placed on b3 and Black will be able to solve his problems with active play,

rather than wait around until White is ready to exploit the structural advantages of the position.

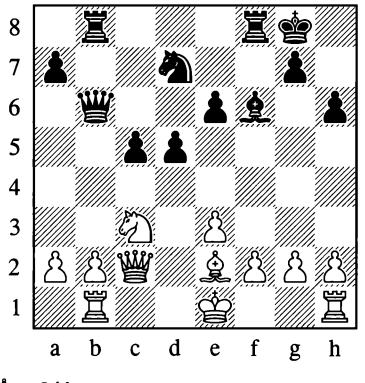
An even weaker version would be the following:
8.♗xf6 ♗xf6 9.cxd5 exd5 10.♕b3
After 10...♗b7, we would transpose to the game. But Black does not put the bishop on b7 and then play ...exd5 because he wants to organise the pieces in this way, but because White does not take on f6 and d5 until the bishop is on b7. In this constellation, Black has the chance to seize the initiative.
10...♗e6! 11.♖d1 c5 12.dxc5
White has little choice.
12.♗e2 c4 followed by a rapid queenside expansion would be bad news for White. Black is already slightly better.
12...♘d7!



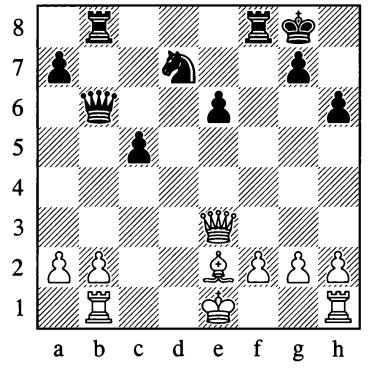
The thematic developing scheme. The key tactic here is to block the d-file, so ...d4 is threatened.
13.♘d4?
13.♘xd5 ♘xc5 14.♘xf6† ♕xf6 15.♕a3 (15.♕c3 was played in Allan – Askarova, corr. 1985. After 15...♕xc3† 16.bxc3 ♗xa2 Black would already be somewhat better, with the passed a-pawn, the strong knight on c5 and a small lead in development.) 15...♖fd8 16.♖xd8† ♖xd8 17.♗e2 ♕g6 18.0–0 ♗h3 19.♘h4 ♕c2 with full compensation.



13...bxc5
This is what most would play and it does lead to a serious advantage.
It is unnatural to give up the good bishop, but 13...♗xd4! 14.exd4 bxc5, was also very strong. Black is ready to fight for the d4-square and to put his rooks in the open files. It has all the makings of a miniature to my eyes, even if it is objectively not stronger than the game continuation.
14.♘xe6 fxe6 15.♗e2 ♖b8 16.♕c2 ♕b6 17.♖b1



17...♗xc3†!
Black has to exploit his advantage before White manages to solve 90% of her problems by castling.
18.♕xc3 d4 19.♕d2 dxe3!
Keeping up the momentum.
20.♕xe3
20.fxe3 c4! would bring in the knight via e5.
21.♕xd7? ♖bd8 would win the queen and end the game as a contest.



The critical moment of the game.

20...♕a5†?!

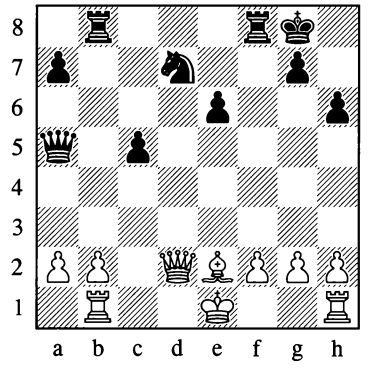
The natural move and a move that should have been punished.

20...♕b4†! Comparison! White does not have the option of giving up the pawn and now has to play 21.♕d2, transposing to the game, as after 21.♔f1 ♘f6! 22.♕xe6† ♔h8 23.a3 ♕f4 (23...♕xa3!? also works.) 24.g3 ♕d4 25.♕e3 ♘e4 26.♕xd4 cxd4 Black wins.

The threat to f2 and of ...♘d2† is decisive.

21.♕d2?

White misses the chance to create complications. After 21.b4! ♕xa2 22.0–0 cxb4 23.♖bc1! White is able to create counterplay. For example 23...♖fc8? 24.♗c4! and White wins material. If Black does not fall for any tricks, he will still have an advantage, but getting a full point from that will not be easy.



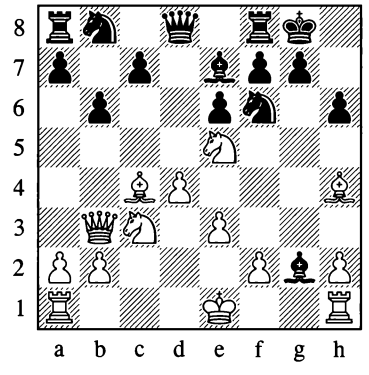
21...♕xd2† 22.♔xd2 ♖xf2

Black has a solid advantage and won the game 20 moves later. P. Cramling – E. L'Ami, Stockholm 2013.

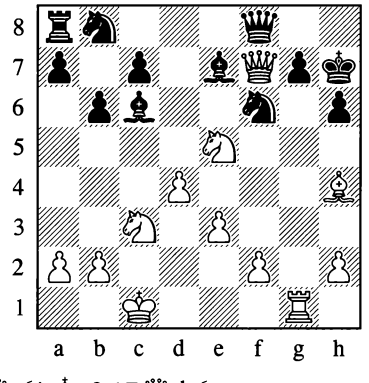
8...♗b7

The most consistent move.

8...dxc4 9.♗xc4 ♗b7 10.♘e5 would give White a chance to develop an initiative, although Black is not in desperate trouble yet. But he has to be cautious, as something like 10...♗xg2? would meet a swift end:

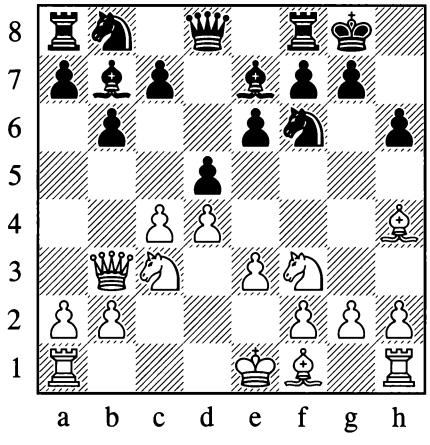


11.♗xe6! ♗xh1 12.♗xf7† ♖xf7 (12...♔h8 13.♕c2 would win on the spot due to the threat of smothered mate.) 13.♕xf7† ♔h7 14.0–0–0 ♗c6 15.♖g1 ♕f8



16.♕g6† ♔g8 17.♕xh6

With a devastating attack.



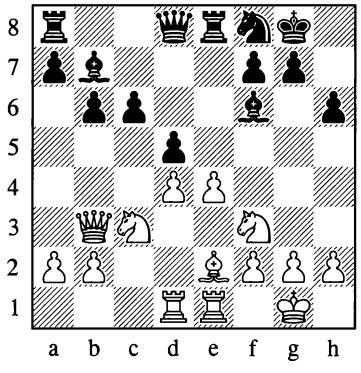
9.♗xf6

White executes his strategic plan.

9...♗xf6 10.cxd5 exd5 11.♖d1

White is playing according to his idea. Safer was:

11.♗e2 c6 12.0–0 ♖e8 13.♖fe1 ♘d7 14.♖ad1 ♘f8 15.e4

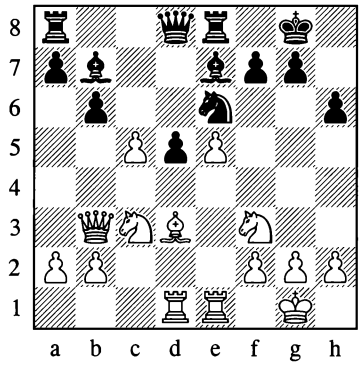


15...♘e6!

The knight is perfectly placed here no matter how the play continues. But really, Black would be able to play any move that improves his position. All he has to avoid is opening up the position for the white pieces with:

15...dxe4? 16.♗c4 ♕c7 17.♘xe4 would give White an initiative. For example, in Huss – Brugger, Neuchatel 1998. Notice a quite common strategic concept here. Often in positions where one side gets the two bishops, it has been at the cost of giving the opponent a slight lead in development. In such situations John Watson correctly pointed out that although the two bishops will prefer to roam freely in an open position, we will need to complete the development before seeking to open the position; aligning ourselves with another strategic concept, that opening the position most often favours the player with a lead in development.

16.e5 ♗e7 17.♗d3 c5 18.dxc5



18...♘xc5

A tad imprecise.

18...d4!N 19.♘e4 ♗d5 20.♕c2 bxc5 would have equalised comfortably. Compare the powerful bishop on d5 to how it was in the game just five moves hence.

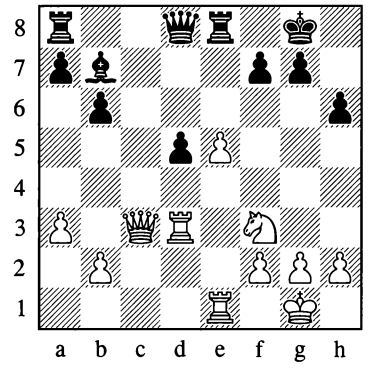
19.♕c2 ♘xd3 20.♖xd3

White is a bit better.

20...♗b4?

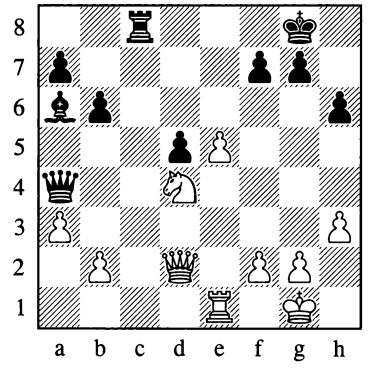
This is poor positional play. Black has not yet finished his development, but still seeks to exchange his good bishop for White's knight without achieving any strategic concession whatsoever.

21.a3 ♗xc3 22.♕xc3



White has a significant advantage. Good knight vs bad bishop, play against the isolated pawn and a small lead in development. It does not surprise me that one of the main options provided to us by the engine is to give up the pawn with ...d5-d4 around here. The game below is not annotated in detail. Even though every move was not precise, it is still useful to see how White converted the advantage.

22...♖c8 23.♕d2 ♕c7 24.♖c3! ♕d7 25.♘d4 ♖xc3 26.♕xc3 ♖c8 27.♕d2 ♗a6 28.h3! ♕a4



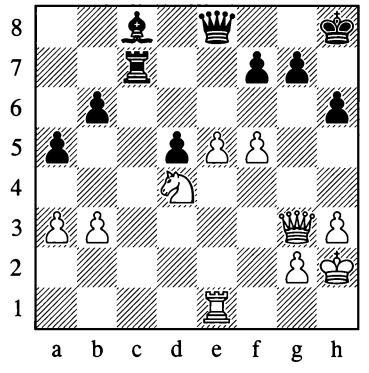
29.f4!?

Preparing this with 29.♔h2! or 29.♕e3! ♔h7 30.f4 was perhaps even stronger. It makes little difference; the advantage is beyond doubt all the same.

29...♕c4 30.♖d1 ♖c7 31.♔h2 ♔h7 32.♕e3 ♗c8 33.f5 ♕a4 34.♖e1 ♕e8 35.♕d3

35.e6 was another natural move.

35...♔g8 36.b3 a5 37.♕g3 ♔h8



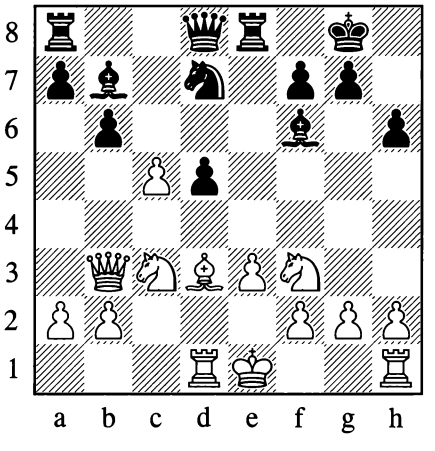
38.f6 g6 39.e6 ♖a7 40.♕b8

1–0 Yilmaz – Batchuluun, Moscow 2015.

11...♖e8 12.♗d3

In this pawn structure, this is the optimal square for the bishop. But the white king is still in the centre and the bishop becomes a tactical target for Black to exploit for his strategic ends. For this reason I am wondering if the bishop is not better placed on e2 for the time being.

12...c5 13.dxc5 ♘d7!



14.c6!

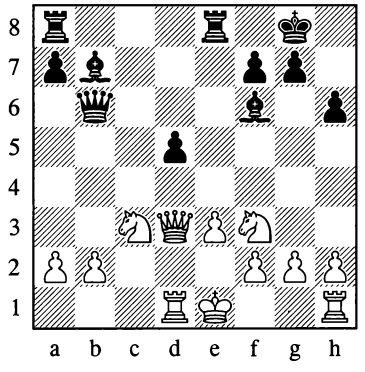
A thematic way to give back the pawn. The black knight wants to go to c5, so it is no inconvenience for it to have to take the pawn. But after this move, the bishop is somewhat worse placed on c6 than it was on b7. It is marginal, but so many things in chess are.

To illustrate the need for this move, here are three alternatives that will show the potential of the black position.

14.cxb6?

So optimistic it borders on the naive. Black will gain important tempos and the white king is still trapped in the centre.

14...♘c5 15.♕c2 ♘xd3† 16.♕xd3 ♕xb6



White is unable to castle without giving up the exchange.

17.♖d2

This is not much better. Black has many good moves. One of them is:

17...d4!? 18.♘xd4 ♖ad8

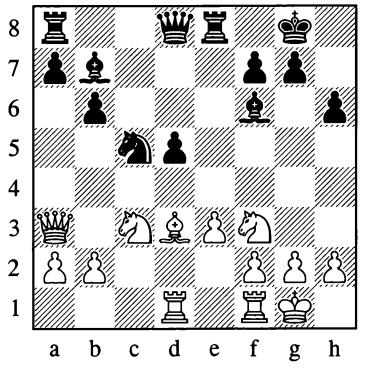
If 19.♔d1, Black will take on g2. And after:

19.0–0 ♗a6

We will soon be heading for a winning endgame for Black.

14.0–0 ♘xc5 15.♕a3

15.♕c2 ♖c8 is very comfortable for Black.

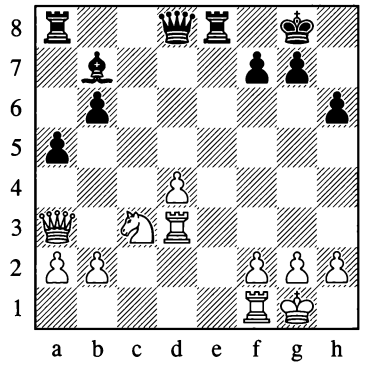


15...d4! 16.♘xd4

16.♗b5 would be bad for White: 16...♗xf3! 17.gxf3 ♖e6 and Black is already better.

16...♗xd4 17.exd4 ♘xd3 18.♖xd3 a5!

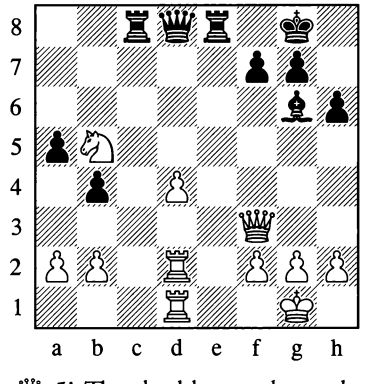
Creating space on another diagonal for the bishop. White has no satisfactory way to meet the threat of ...♗a6.



19.♖e3!

19.♖d2? ♗xg2 and Black wins.

19.♖fd1 is met with another strong blow: 19...b5!! The pawn is indirectly defended because of the weakness of the g2-square. 20.♕c5 b4 21.♘b5 ♗e4 Energetic play. 22.♖3d2?! Natural, but also losing on the spot. 22...♖c8 23.♕h5 ♗g6 24.♕f3



24...♕g5! The double attack on the knight and the rook wins a piece.

19...♕xd4 20.♕a4!

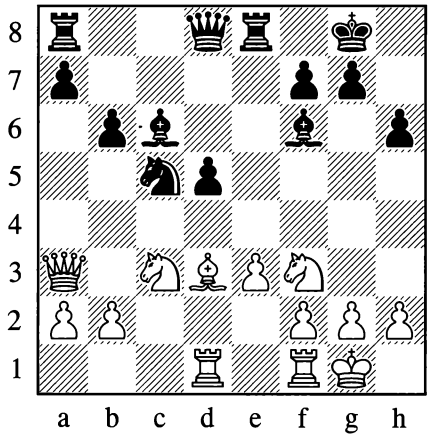
The best move by far. White seeks to enter an inferior ending, with hopes of survival.

After 14.♕c2, the simplest solution for Black would be 14...♗xc3† 15.♕xc3 bxc5, with total equality. This is not a total failure, but also not something anyone would choose to play with White in their preparation.

14...♗xc6

14...♘c5? 15.cxb7 would give White too many pieces for the queen.

15.0–0 ♘c5 16.♕a3



16...♗b7?!

The bishop is heading for a6 in the long run, but not necessarily.

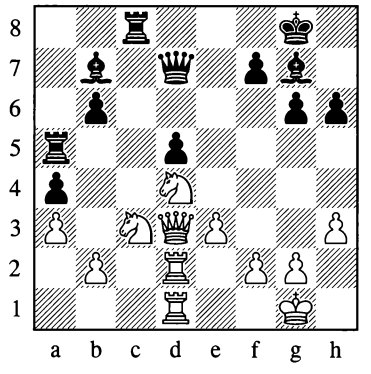
The following game shows a great performance by Simon Webb, a strong correspondence player and the author of *Chess for Tigers*, whom I played twice in the Swedish league. Sadly, he died in tragic circumstances and there will not be a third game.

The game shows how Black can play for a win and involves some clever manoeuvring and the creation of weaknesses on both flanks.

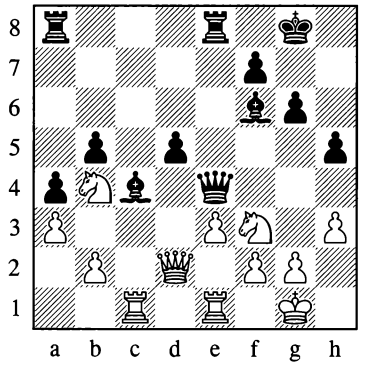
16...a5 17.♘e2 ♘xd3!? 18.♕xd3

18.♖xd3 ♗b5! 19.♖d2 ♗e7 looks unpleasant for White and would be an argument in favour of this being the superior move order.

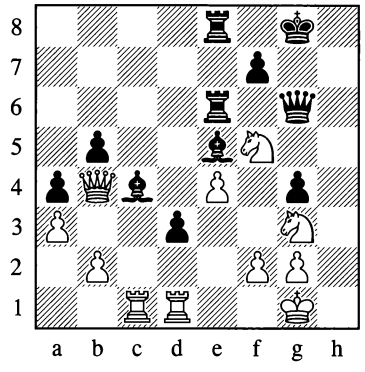
18...♗b7 19.♕d2 ♖c8 20.♘ed4 ♗a6 21.♖fe1 ♗e7 22.a3 ♗f6 23.h3 ♖e7 24.♘e2 ♖ec7 25.♘fd4 a4 26.♘c3 ♖c4 27.♖c1 g6 28.♖ed1 ♗g7 29.♘de2 ♗b7 30.♘d4 ♕d7 31.♕d3 ♖4c5 32.♖c2 ♖a5 33.♖cd2



33...♗a6 34.♕b1 ♕b7 35.♔h1 ♗c4 36.♔g1 ♖d8 37.♔h1 ♖aa8 38.♔g1 b5 39.♘a2 ♖d6 40.♘b4 ♕e7 41.♖e1 ♕e4 42.♕d1 h5 43.♕c1 ♖d7 44.♕d1 ♖c7 45.♖c2 ♖cc8 46.♕d2 ♖e8 47.♘f3 ♗f6 48.♖cc1



48...g5 49.♘d4 g4 50.hxg4 hxg4 51.♘e2 ♖ad8 52.♘c6 ♖d6 53.♘g3 ♕h7 54.♘d4 ♗e5 55.♘df5 ♖f6 56.e4 d4 57.♕g5† ♕g6 58.♕d2 d3 59.♖ed1 ♖fe6 60.♕b4

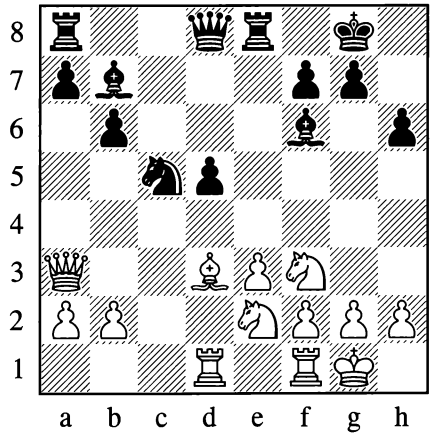


60...♕g5 61.♖xc4 bxc4 62.♕xc4 d2 63.♕xa4 ♗xg3 64.♘xg3 ♖c8 65.♔f1 ♖c1 66.♔e2 ♖xd1 67.♕xd1 ♕b5† 68.♔e3 ♖d6 69.♘f5 ♕c5† 70.♔f4 ♕xf2†

0–1 Merilo – Webb, corr. 1999.

17.♘e2

17.♗c4 is probably best met with 17...dxc4!? 18.♖xd8 ♖exd8 with compensation for the queen. I doubt White has a serious chance of playing for an advantage.



With the opening over, the actual game starts now.

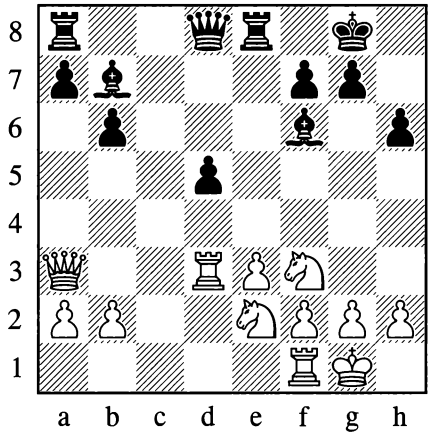
Throughout this game, Black will take a lot of decisions concerning exchanges and get more or less all of them wrong. Both when choosing to make exchanges and when choosing not to.

17...♘xd3?!

I do not like this at all. White's only inactive piece is the rook on f1. With this exchange, a square is freed up on d1 for it. Compare this with the Webb game and you will see that Black does not have a ...♗b5 follow-up.

17...a5! would be analogous to the Webb game, but without the same tricks. It also creates a trap in 18.♗b1?! being poor, on account of: 18...♗a6 19.♖fe1 ♗e7! The beginning of kicking the queen around. 20.♕c3 ♖c8 21.♕d4 (21.♕d2 ♘a4 with ideas of ...♗b4, would be unpleasant.) 21...♗f6 White is worse, but there is a lot of play remaining.

18.♖xd3

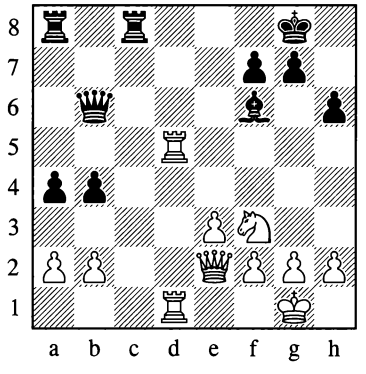


18...♕e7?!

Objectively this is fine. Your engine may even consider it first among equals. This does not make it less of a poor decision. The main place where Black can ever play for an advantage is on the kingside. This is far more likely to happen with the queens still on the board. Without queens, the importance of king safety diminishes to almost nil.

It was time for Black to look for an active escape. After 18...a5 19.♖fd1 b5!?, he would be able to create one. 20.♘f4 b4 21.♕b3 ♕b6!

The pawn goes from being a weakness to a distraction, thrown in the eyes of the opponent. 22.♘xd5 ♗xd5 23.♖xd5 a4 24.♕c2 ♖ec8 25.♕e2

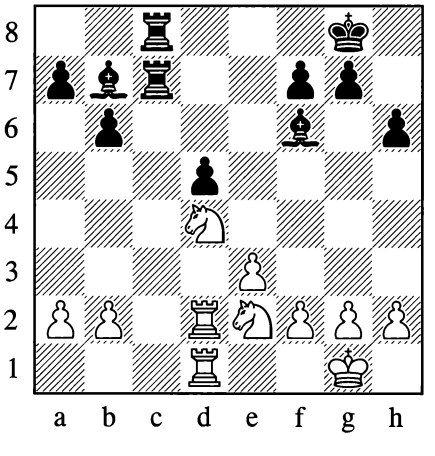


25...b3 Fixing the b2-pawn. 26.axb3 ♕xb3 Black has decent compensation for the pawn. It is hard to imagine a resulting endgame that does not lead to a draw.

19.♕xe7 ♖xe7 20.♖d2!

Defending against whatever the bishops might want to do.

20...♖c8 21.♖fd1 ♖ec7 22.♘fd4



Playing this position with Black must have been a strange experience. You have the two bishops and occupy the only open file. But you have no active options whatsoever. For an active player like Peter Heine Nielsen, it is not easy to navigate a position where the best course of action is to do nothing.

22...♗xd4?

A serious positional mistake. When they were analysing the game together on stage, I asked what in the world caused him to make such a horrendous decision. He was not sure, but did explain that there was some variation he was uncomfortable with. Positionally, this move has nothing but ills. The passive knight on e2 is essentially the piece which is exchanged – and for the best piece on the board. Black loses the bishop pair and now sits with a bad bishop against a well-placed knight. Simply put, it is incredible that anyone would play like this.

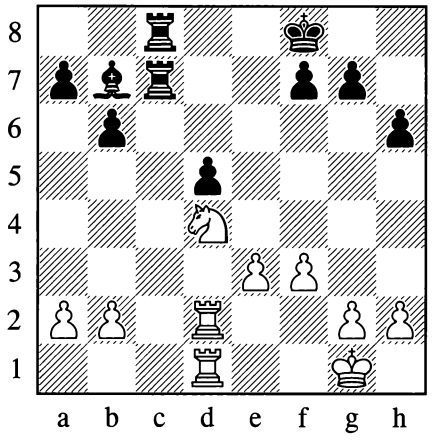
Still, the position is quite defensible for Black after this. But he has certainly made things worse for himself.

And we should mention that White is not actually threatening anything. ♘d4-b5 can easily be prevented, but even if it comes, it is not that dangerous.

23.♘xd4 ♔f8 24.f3

A typical technical move. Lars Bo Hansen has a good understanding of where to put the pieces to exert slow pressure.

Peter's tactical point is that 24.♘b5 could be met with 24...♖c2, even though White is better after 25.f3.



24...a6

Another concession. Black has a bad bishop and is starting to brick it in.

25.♔f2

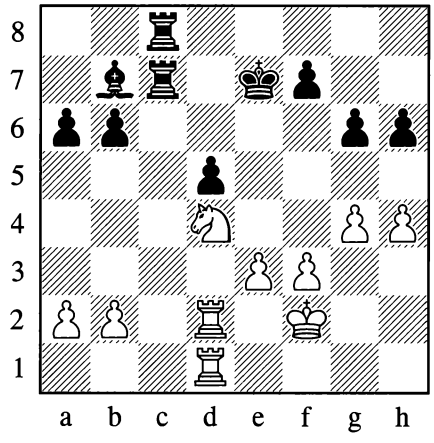
It is hard to evaluate if 25.g4 was stronger. My feeling is that it should be. The key idea is to prevent Black from playing ...h5, where he will later be able to exchange this weak pawn, when White tries to gain space on the kingside.

25...g6

25...h5 is the thematic move here. This move does not limit the possibilities of the bishop, but would make it likely that any kingside expansion would see Black getting rid of the outside pawn, which is the one most likely to become a weakness later on.

26.g4! ♔e7 27.h4

White is initiating a serious mobilisation on the kingside.



27...♔f6?

Black has made several decisions that have left him fighting for a draw, with little to no chance of ever fighting for an advantage or win. Now he has to look out for the dangers White can present him with. At this moment, he had to see the h4-h5 ideas and make them hard to achieve.

Thus, the right move was 27...♖c1!, where White has some advantage, but Black is clinging on. In practice it is hard to defend a position like this, but this is the path Black has chosen. And now he has to walk it.

28.♖d3

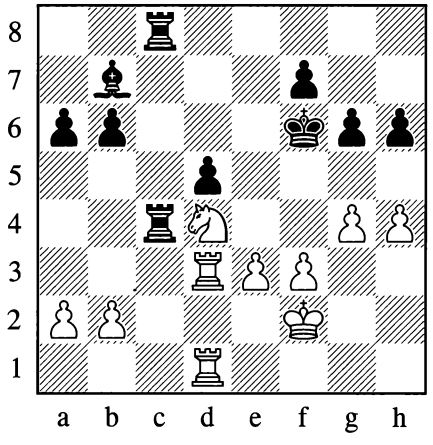
Played with the idea of introducing ♖b3 as a threat.

28.h5! was already possible now. Black cannot exploit the advance, as after 28...gxh5?! 29.♖h1!, White has a serious attack and Black a lot of weak pawns. 29...hxg4 30.♖xh6† ♔e7 (30...♔g5 31.♖xb6 would see the black king caught in a mating net.) 31.♘f5† and 32.♘d6, winning.

28...♖c4

I am not sure what the rook is supposed to do here.

28...♖c1 was still the best choice, just not as good as it was: 29.♖xc1 ♖xc1 30.♖b3 b5 31.a4 ♗c6 32.axb5 ♗xb5 33.♘xb5 axb5 34.♖xb5 looks like a very dangerous rook ending for Black to enter. But it might also have been his best chance for a draw.



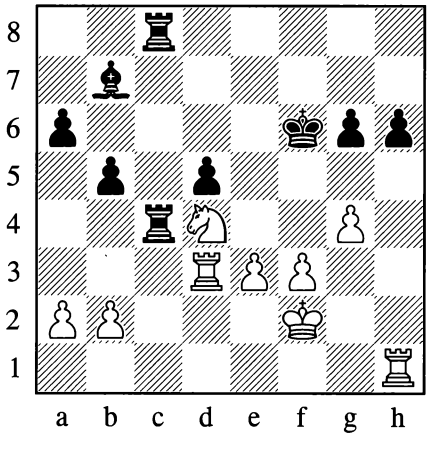
29.h5!

White does not need a second invitation. This move softens up the black pawns on the kingside.

29...b5

Presumably PHN was tired of calculating ♖d3-b3 options and decided to create the weakening of the queenside independently.

30.hxg6 fxg6 31.♖h1



31...♖h8?!

Remember that we as a rule want to keep the strongest pieces active. At this point, this means that defending the pawn with the king would have been preferable.

After 31...♔g7 32.♖d2 ♖c1 Black would still have some saving chances.

32.♖dd1!?

A good flexible move.

I have a preference for 32.♔g3!, planning to activate the king. Then after 32...h5 33.gxh5 gxh5, it is time for 34.♖dd1 ♗c8 35.♖h4 with serious pressure.

32...h5

32...♔g7! was still best.

33.♖h4!

Preparing to put pressure on the h5-pawn.

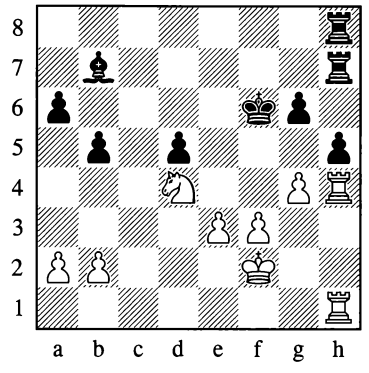
33.gxh5 ♖xh5! would limit the pain a little bit for Black. After the exchange of rooks, the king can defend the h-pawn on its own and the h-pawn is in principle a passed pawn.

33...♗c6?

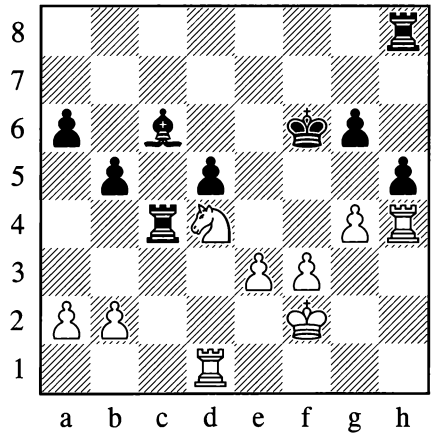
It is understandable that Black wants to transfer the bishop to the c8-h3 diagonal. There it can both defend and work together with the h-pawn to restrict the white king in the case of a transition to a minor piece ending. But in the short term, the main point of this move would be to use the ineffective bishop to defend the h-pawn. The ideal place for the bishop short term is probably f7, defending both the weak pawns.

The main problem with this move is that it involves a pawn sacrifice.

The best move was 33...♖c7!, when Black is in trouble after 34.♖dh1 ♖ch7, but where White also has to find a way to play for a win.



This could be: 35.f4!? ♔g7 36.g5 ♔f7 37.♖c1 ♖c8 38.♖xc8 ♗xc8 39.♖h1 h4 40.♘f3 h3 41.♖c1 ♗d7 42.♔g3 With a big advantage. It is quite possible that Black cannot hold this position in the long run, but he can offer a lot of resistance.



An obvious critical moment. White has the chance to transform the position and needed to calculate the outcome accurately. Unfortunately, this was the main weakness for Lars Bo Hansen. His strong understanding of the game and his technical abilities were not supported by good calculation. He was well aware of it and worked on improving those skills, but still struggled with this side of the game.

34.gxh5?

A serious error.

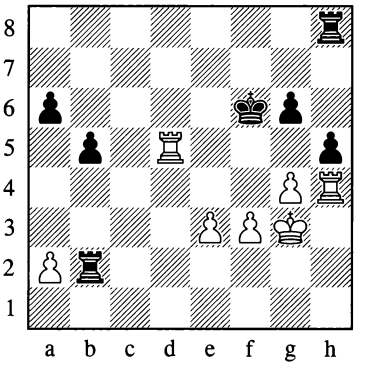
Better was:

34.♘xc6! ♖xc6 35.♖xd5 ♖c2†

35...♔e6 is possible, but not a reason to avoid taking the bishop. White plays 36.♖d2 and will soon have two connected passed pawns.

36.♔g3 ♖xb2

36...♔e6 37.♖d3 ♖xb2 38.g5! would also see the king being in big difficulties.



37.g5†! ♔e6 38.♖hd4!

The two rooks are able to create strong threats to the black king.

38...h4† 39.♔h3

39.♔g4? ♖g2† would allow Black to escape.

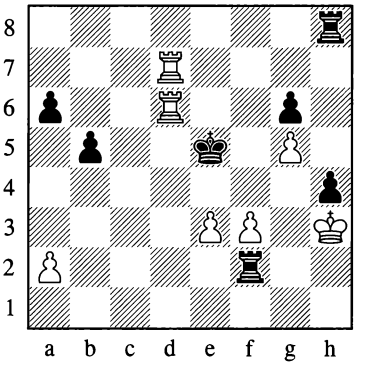
39...♖f2

39...♖e2 40.♖d6† ♔e7 41.♖d7† ♔e6 42.♔g4! is similar to the main line.

40.♖d6† ♔e7 41.♖d7† ♔e6 42.♖4d6†

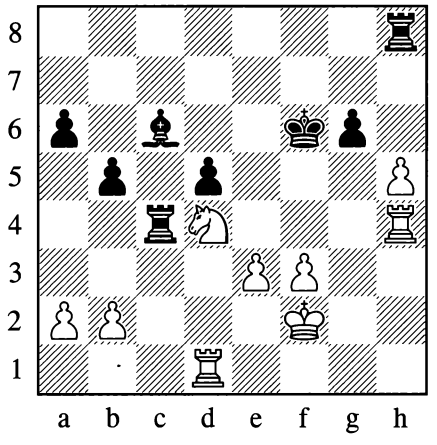
42.♔g4! also wins.

42...♔e5



43.♖f6!

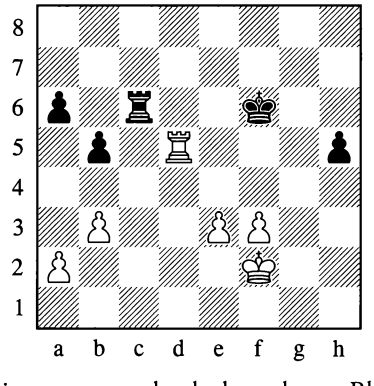
White wins. There are two mating threats: e3-e4 then ♖d5#, and ♖f6-f7, with the idea ♖fe7† and ♖d5#.



34...gxh5?

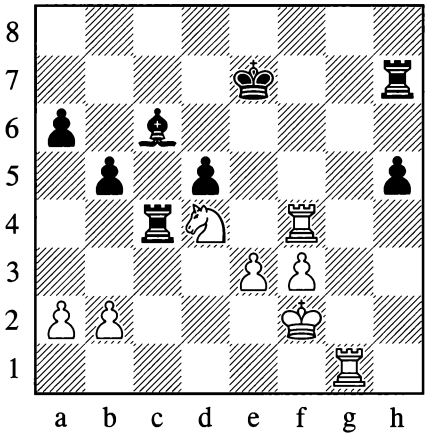
A difficult move to comprehend. The rook on h8 is desperately passive. Black should be thankful to get rid of it.

I am wondering if PHN was afraid of the rook endgame after: 34...♖xh5! 35.♖xh5 gxh5 36.b3 ♖c3 37.♘xc6 ♖xc6 38.♖xd5



This turns out to be the best chance Black has had since the opening. Both 38...h4!? 39.♖d2 ♔f5, where it is hard to see any way for White to make progress, and 38...♖c2† 39.♔g3 ♖xa2 40.♖xh5 ♖b2 41.♖h6† ♔e5 42.♖xa6 ♖xb3, should lead to a draw. In both cases, Black will still have problems to solve. But they are fully solvable.

35.♖f4† ♔e7 36.♖g1 ♖h7

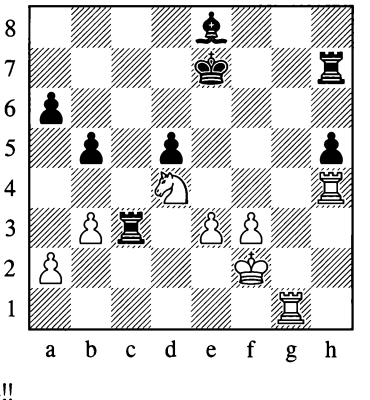


37.♖g5?!

Missing a serious winning chance.

37.b3 ♖c3 38.♖h4 ♗e8

38...♔f6 39.♖g8 and ♖b8 is good for White.



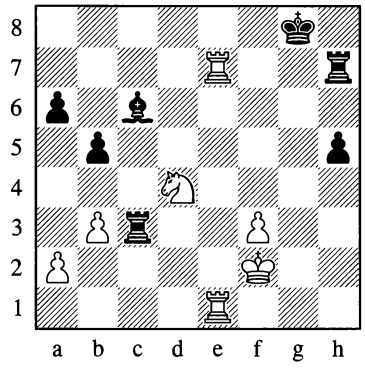
39.e4!!

A beautiful move. Black cannot allow White to play e4-e5 (for example 39...♔d6 40.e5†), so he has to take.

39...dxe4 40.♖xe4† ♔f7 41.♖ge1

White has too many threats.

41...♗c6 42.♖e7† ♔g8

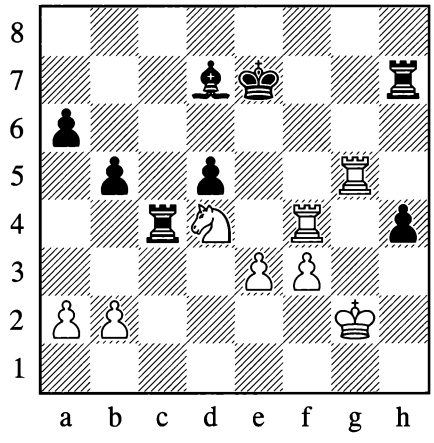


43.♖g1† ♔h8 44.♘xc6 ♖xc6 45.♖e8#

37...h4! 38.♔g2?

38.♖e5† ♔d8 39.♖ff5, with ♖h5 coming, would have retained serious winning chances. I believe Black is within the drawing margin, but it is marginal.

38...♗d7!



The bishop is finally activated after a life of sloth and frustration. Unsurprisingly, this marks the end of Black's suffering.

39.♖xd5 ♖c1

Black has managed to organise his pieces and the h-pawn has transformed from a serious weakness into a strong passed pawn. Hansen wisely decided that it was time to hit the brakes.

40.♖e4† ♔f8 41.♖f4† ♔e7 42.♖e4† ♔f8 43.♖f4† ♔e8
½–½

9. Exchanges and clarity

Whether we are in a defensive situation, or trying to make the most of an advantage, exchanging to make our task easier is a common strategy. Many players are not on top of it, as in the following game. In chess we have a lot of ways to think. We have memorisation. We have logic. We have calculation. We have intuition/pattern recognition. Even dynamic sensibility. And more... A trainer should identify the areas where a player is performing less well and work with him in developing his skills within this area.

This game shows a lack of technique from both players, which is not uncommon for 2700+ players. The main reason for this is a deep focus on opening play and that a lot of the most talented players have an antipathy towards analysing their own games and the games of others.

The other aspect of the game I want you to pay full attention to is how after the underwhelming opening for White, his position disintegrates slowly, an inch at a time. Every time a defensive option is missed, things become a little bit worse. Over twenty-five plus moves, this incremental decline is as dramatic as a one-move blunder.

Yu Yangyi – Richard Rapport

Shenzhen 2019

1.e4 e6 2.d4 d5 3.♘d2 c5 4.♘gf3 ♘c6

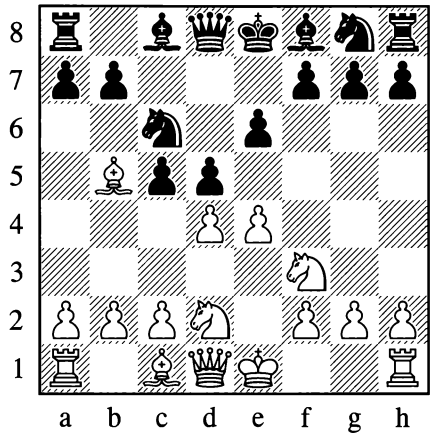
Rapport is inviting his opponent to play the classical isolated pawn variation.

If Black wanted to avoid this, he could play either 4...cxd4 5.♘xd4 ♘c6 or 4...♘f6, which are more in fashion.

5.♗b5?

The opening can involve some tricky shadow boxing. Rapport is a difficult player to prepare against. Of the top 50 players now, he is the most unpredictable, often playing somewhat dubious variations, just to get a novel game. Yu Yangyi is trying to avoid Rapport's preparation, but at the serious cost of losing all chances of playing for an advantage.

5.exd5 exd5 6.♗b5 has been played thousands of times and should promise White a chance to play for an advantage.



5...a6!

The key difference with this move order, which Rapport identifies easily, is that on exd5 later, Black will have ...cxd5, not ending up with a fragile structure.

6.exd5

Trying to mix it up.

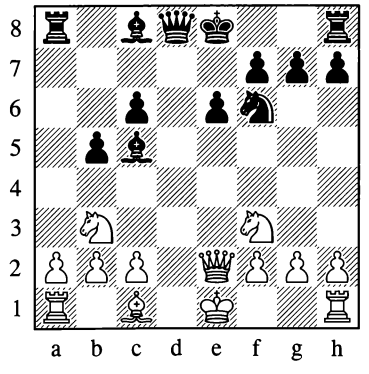
6.♗xc6† bxc6 7.0–0 ♘f6 8.e5 ♘d7 has been played a lot of times, but White is the player struggling for equality. Black will be able to take on d4 and follow up with ...c5.

6...axb5!

Strategically forced, but also highly desirable. We now have a strange structure, which turns out to be in Black's favour.

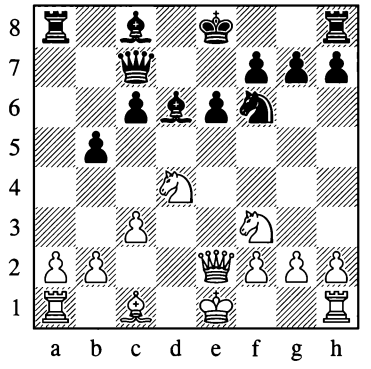
7.dxc6 bxc6 8.dxc5 ♗xc5 9.0–0

A few games were played with:
9.♕e2 ♘f6 10.♘b3

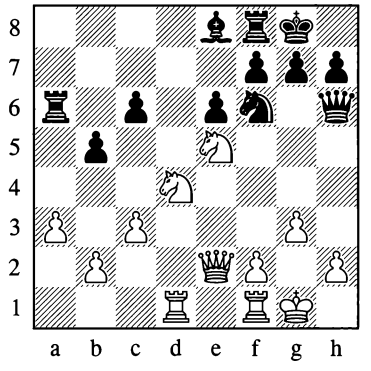


10...♗d6!

10...♗b4†?! 11.c3 ♗d6?! (11...♗e7! was better now. The chance to play actively has passed.) 12.♘bd4 ♕c7



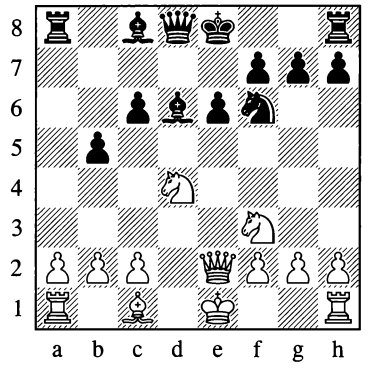
13.♘f5! Forcing the exchange of Black's good bishop. 13...♗f4 14.♗xf4 ♕xf4 15.♘5d4 ♗d7 16.♘e5 White has achieved a significant advantage with good knight against bad bishop. 16...♖a6 17.♖d1 0–0 18.g3 ♕h6 19.0–0 ♗e8 20.a3



White is much better and won the game on move 36 in Tal – Debarnot, Las Palmas 1975.

11.♘bd4

11.0–0 ♕c7 12.♖d1 ♘d5 gave Black a slightly better start to the game in Ksir – Pytlik, email 2004.



11...0–0!

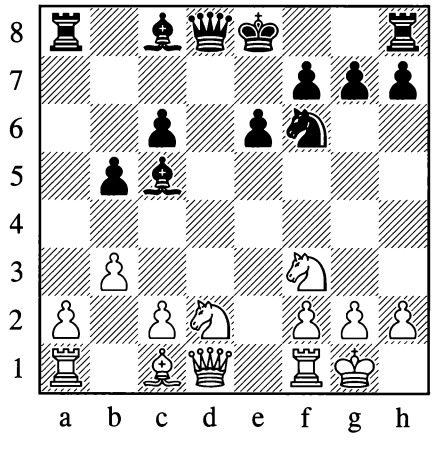
Active play. The threat to the c6-pawn is not important. Black already has a massive advantage.

a) 12.0–0 e5! 13.♘xe5 ♖e8 14.♘dxc6 ♕c7 would get White tangled up in nasty pins. After 15.♗f4 ♗b7 16.♕xb5 ♗a6 17.♕b3 ♗xf1 18.♔xf1 ♖xe5 Black is a piece up for three pawns. But White is passive and will be under strong attack, with little chance to survive.

b) 12.♗g5 e5 13.♘b3 h6 would give Black a decisive positional advantage.

c) 12.♘xc6 ♕c7 13.♘cd4 ♗a6! White will not be able to escape the onslaught from the black pieces.

9...♘f6 10.b3



We have departed from opening theory and entered the grey zone between the opening and the middlegame.

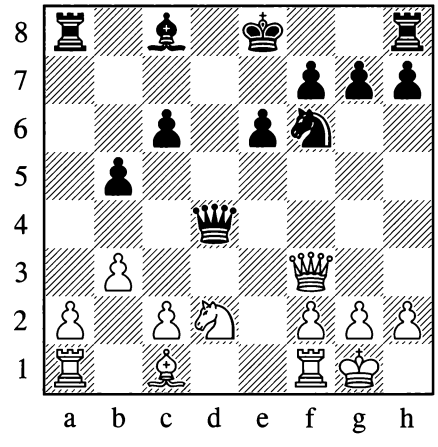
If Black played sensibly here, with 10...0–0 11.♗b2 ♗e7, I would still call it the opening. Black would slowly set up for the middlegame with the long-term advantages of the bishop pair and an additional centre pawn.

But, despite being behind in development, Rapport decides to take immediate action, returning the bishop pair.

10...♗d4?

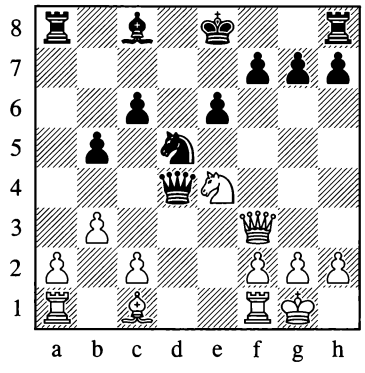
An attempt to win a pawn, but based on a miscalculation.

11.♘xd4 ♕xd4 12.♕f3!



12...0–0

I believe that Rapport was planning 12...♘d5, but White has a strong riposte! 13.♘e4! (13.♖b1 ♖xa2 14.c4! would lead to unclear complications, not necessarily disastrous for White.)



Black should now castle, with approximate equality. All active options backfire. 13...♕xa1? (13...f5?! 14.♘d6† ♔d7 15.♗e3! also gives White a dangerous initiative.) 14.♘d6† ♔e7 15.♕xf7† ♔xd6 16.♗f4† White wins the queen.

13.c3

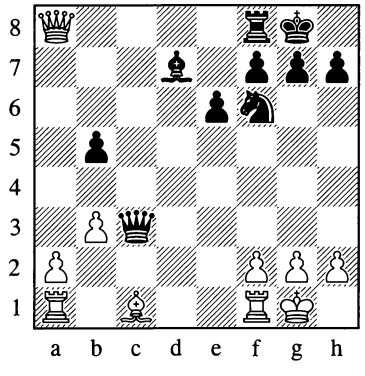
The natural move, but it was possible to set a devious trap with:

13.♕xc6!? ♗d7 14.c3 ♕xd2?

Greed is punished!

14...♗xc6! 15.cxd4 ♘d5 with sufficient compensation for the pawn, which is likely won back quickly. Black should have easier play, but a draw is likely.

15.♕xa8 ♕xc3



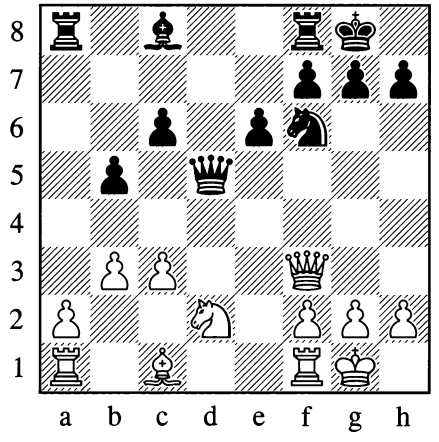
16.♕a3!

White has won the exchange.

16...♕xa1 17.♕xf8†!

13...♕d5

Rapport decides to go for the endgame. He would not be better in the middlegame either.



Yu should now look at how he can solve his problems for the endgame. Unfortunately, he failed to do so and ended up with weaknesses that could not be defended.

14.♕xd5?!

This is a poor move that creates an inferior structure. White had a few decent moves.

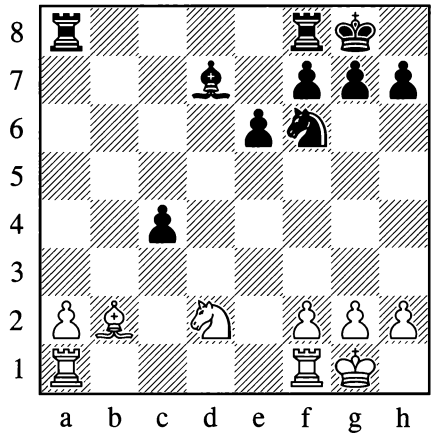
My preference is 14.a4! bxa4 15.c4 ♕xf3 16.♘xf3, when White is not worse at all.

14...cxd5 15.♗b2 ♗d7 16.c4

White decides to play this freeing move while it is there. Clearly this was his intention when he took on d5.

After 16.♖fc1 ♖fb8 White is passive. Black will manoeuvre the knight to d6 and expand his centre with ...f6 and ...e5. It is not a serious advantage, but the position is easier to play for Black.

16...bxc4 17.bxc4 dxc4



18.♗xf6?

A committal decision. It is the type of exchange which can only be justified by subsequent play. Basically, if White's play over the next 7-8 moves showed full control, he would be heading towards a draw, caused by exchanges.

But in the game, we do not see this from Yu. So, played on general principles, this is a dubious decision. Gone are the opposite-coloured bishops and the drawing chances they include. Black's pawn structure is damaged on the kingside. But you could also choose to see it as Black having received an extra f-pawn, helping to create a small central majority.

18.♘xc4 ♘d5 was better for Black. He would play ...f6 and ...e5 with a stronger centre. But the a-pawn is not falling and it is not so easy to make something serious of the black advantage.

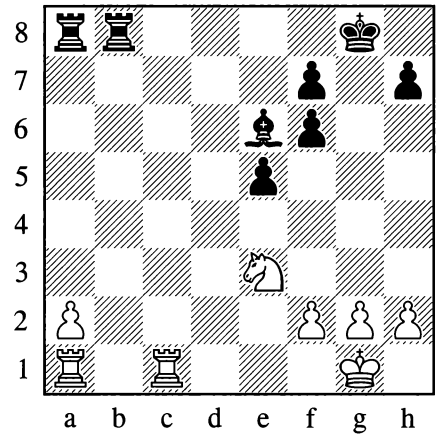
18...gxf6 19.♘xc4 ♖fb8

19...♗b5 20.♖fc1 ♖a6 was also possible. But White would play 21.♖ab1! ♗xc4 22.♖xc4 ♖xa2, when the double-rook ending looks like a draw, even if Black will try seriously.

20.♖fc1 e5 21.♘e3

White could also have tried 21.f4!? exf4 22.♘d6, when the triple pawns are far less effective than could be feared.

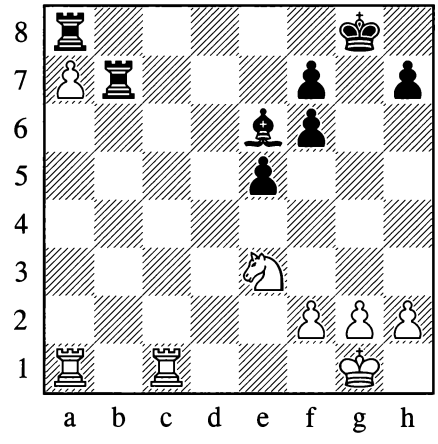
21...♗e6



22.a4! ♖b4

22...♖a5!? 23.♘c4 ♖a6 24.♘d2 ♖b4 25.a5 ♖b5 26.♘e4 ♔g7 27.♘c5 ♖axa5 28.♖xa5 ♖xa5 29.♘xe6† fxe6 should still end in a draw. It is hard for Black to create a strong passed pawn.

23.a5 ♖b5 24.a6 ♖b6 25.a7 ♖b7



26.g4?!

This is the move most would make based on intuition. One pawn holding back all of the black pawns.

But there was one last chance to force a draw, before drifting into a permanently pawn-down endgame.

26.♖c5!!

This would have prepared for a big push.

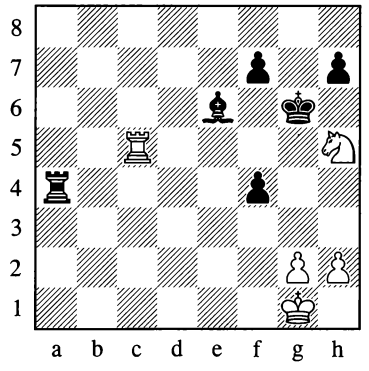
26...♖axa7 27.♖xa7 ♖xa7 28.f4!

The trick. White is threatening to take on e5 and if 28...e4, White has 29.f5, separating the e-pawn from the pacified f-pawns.

28...exf4 29.♘d5 ♖a4

29...♗xd5 30.♖xd5 leads straight to a draw. The key point is that the rook endings with f- and h-pawns are theoretically drawn; and actually not so difficult to defend. The same is the case for the rook ending with doubled f-pawns.

30.♘xf6† ♔g7 31.♘h5† ♔g6



32.g3! ♖a1† 33.♔f2 ♖a2† 34.♔f3 fxg3 35.♘f4† ♔f6 36.hxg3

White has exchanged sufficient pawns to ensure the draw.

26...♖axa7 27.♖xa7 ♖xa7 28.♔g2 ♔g7 29.♔g3 ♖a3 30.♖c5 ♔g6 31.h3 h5 32.♖b5 ♔h6!?

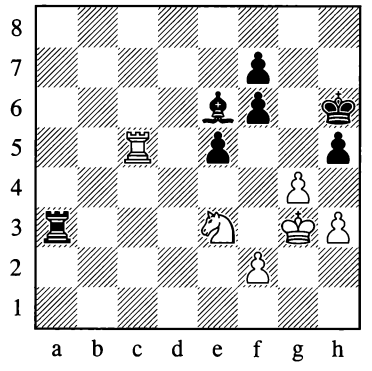
A waiting move.

32...♔g5 is analysed in the note below.

33.♖b8?

A truly inexplicable mistake.

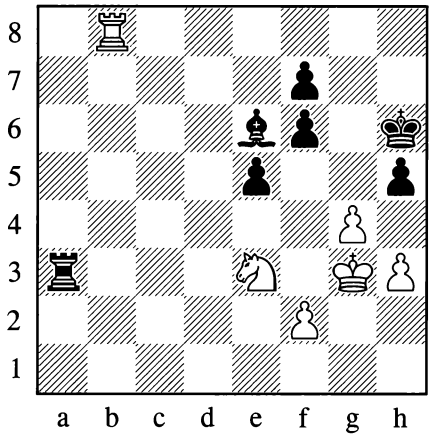
White needed to play a waiting move like 33.♔h4 or 33.♖c5, when it is not clear to me how Black should press for an advantage. Let's see the latter move:



White seems to be holding in all lines:

a) 33...♖a4 34.♖b5 ♔g5 35.h4† ♔h6 36.f3 and White has managed to stabilise the situation, although Black maintains an advantage.

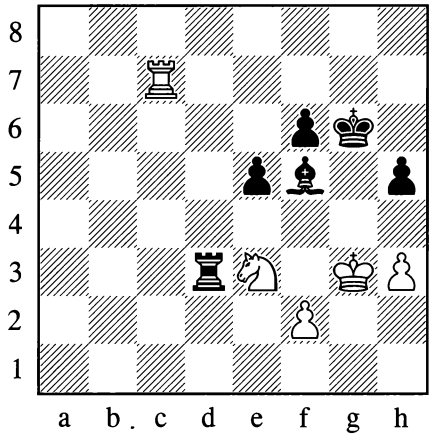
b) 33...♔g5 34.f4† ♔h6 35.♔f2 hxg4 36.hxg4 exf4 37.♖h5† ♔g6 38.♘f5 As far as I can see, Black is not able to make any progress without exchanging the bishop for the knight. After that, the game is headed for a rook ending with doubled f-pawns and a draw.



33...f5!

Rapport was no doubt happy to be given the chance to exchange one of his double pawns for White's middle pawn. Afterwards, White is in deep trouble, with the two weak pawns, lack of stability and the scary prospect of the advancing f-pawn.

34.gxf5 ♗xf5 35.♖b5 f6 36.♖b7 ♔g6 37.♖c7 ♖d3



38.h4?!

Although the pawn was fragile on h3, it was helping defend key squares.

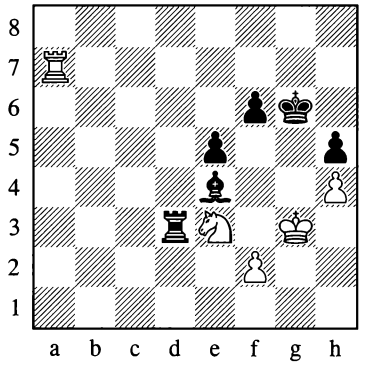
38.♖a7 ♗e4 39.♖e7! would have forced Black to find a path forward, fighting for every inch.

38...♗e4 39.♖c5

Letting the king into the game to prevent ...f5. It is easy to see why.

I presume Yu Yangyi was calculating the following variation and decided that ...f5 was the greater threat:

39.♖a7?!



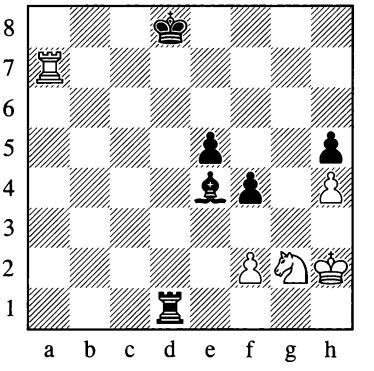
39...f5! 40.♖a6† ♔g7 41.♖a7† ♔f6 42.♖a6† ♔e7 43.♖a7† ♔d8!

43...♔e6 44.♖a6† ♖d6? 45.♖xd6† ♔xd6 46.f4 would allow White to set up a basic fortress.

44.♔h2 f4

A big achievement for Black.

45.♘g2 ♖d2 46.♔g1 ♖d1† 47.♔h2



47...♖f1

Forcing the rook back.

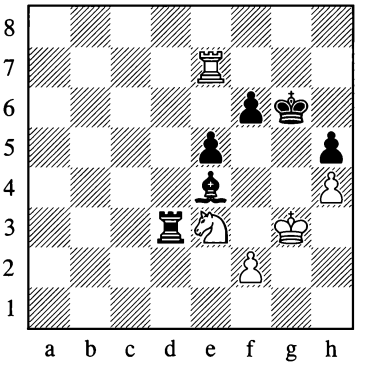
48.♖a2 ♔d7

The king is storming in. Black wins.

But White could have offered a lot more resistance with:

39.♖e7!

When it is quite difficult for Black to find a win.



It seems to me that Black is only winning if he places the rook in the b-line.

39...♖b3!! 40.♔h2 ♖b5

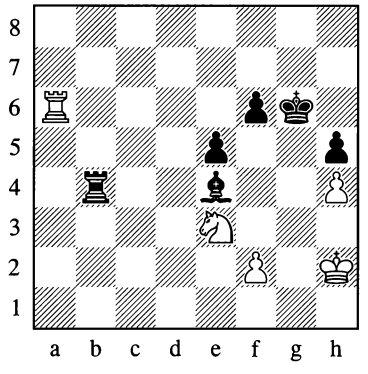
Defending the e-pawn and preparing ...f5.

41.♖e6

41.♖a7 ♖b2 42.♔g3 f5 43.f4 ♖b3 and Black wins.

41...♖b4 42.♖a6

42.♔g3 ♔f7 and 43...f5.

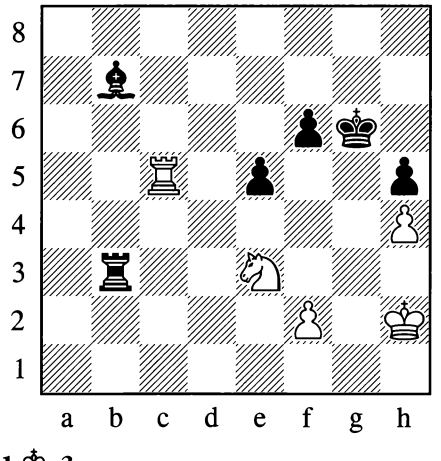


We can now see why the rook belonged on the b-file. Black needs to win a tempo. 42...♗b7! With a winning double attack.

39...♖b3

It would make sense for Black to bring the worst-placed piece into the game again. 39...♔f7! was the strongest move.

40.♔h2 ♗b7

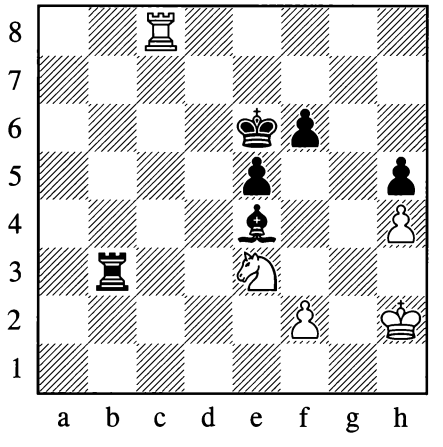


41.♔g3

Black is winning, but there is a lot of work still to do.

The following variation shows the kind of technique needed to break through: 41.♖c4 ♖b2 42.♔g3 f5 43.f4 ♖e2 44.♖c3 ♔f6 45.fxe5† ♔xe5 46.♘c4† ♔d4 47.♖c1 ♗e4 48.♘d6 ♖g2† 49.♔h3 ♖g6 50.♘f7 ♖g4 51.♘g5 ♗g2† 52.♔h2 f4 and Black is almost there.

41...♗a8 42.♖c8 ♗e4 43.♖c5 ♔f7 44.♔h2 ♔e6 45.♖c8



45...♖b1!?

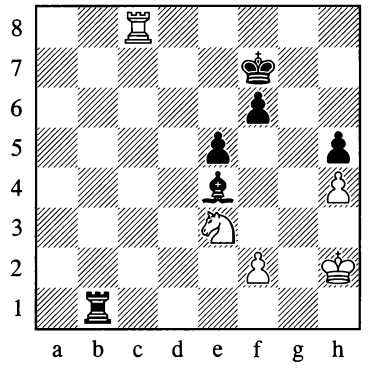
A reasonable improvement of the position.

But Black also had a direct win: 45...f5! The difficult line to see was: 46.♖e8† (Also 46.♘c4 ♖c3 and 46.♖h8 f4 47.♖h6† ♔f7 48.♘c4 ♖b1 win for Black.) 46...♔f6 47.♘c4, where he had 47...♗d3!, with the point 48.♘xe5 ♗b5 and Black wins a piece.

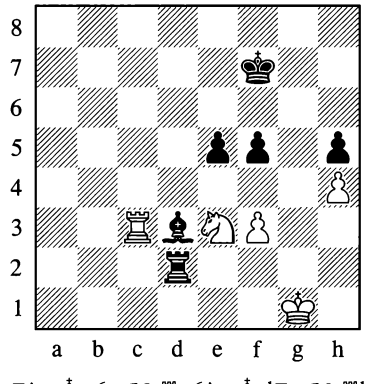
46.♖e8† ♔f7 47.♖d8?!

White has given up on the dream of preventing ...f5 and is preparing for the life afterwards.

Effective defence would have included resisting at every stop. At this point he could have set a clever trap: 47.♖c8!



Now 47...f5? would fail to 48.f3! ♗d3 (After 48...f4 White escapes with 49.♘c4!. But Black can try 48...♖b2†! 49.♔g1 ♗xf3 50.♘xf5 ♖b4, when the result of the game is balancing between a win for Black and a big advantage.) 49.♖c3 ♖b2† 50.♔g1 ♖d2



51.♖c7† ♔e6 52.♖c6† ♔d7 53.♖h6 and White makes the draw.

But Black could avoid all of this with 47...♖b2 48.♔g1 ♖b4 49.♔h2 ♗d3 and ...f5 coming would win.

47...f5 48.♖d1

The only move.

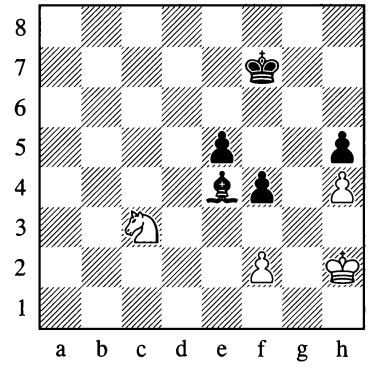
White is dead lost. After 48.f3, Black has 48...f4 49.♘c4 ♗xf3 (49...♔e7 also wins) 50.♘xe5† ♔e7, winning.

48...♖b2

Rapport decides against exchanging the rooks. In general, this is a poor decision, but it becomes more overwhelmingly clear in a few moves.

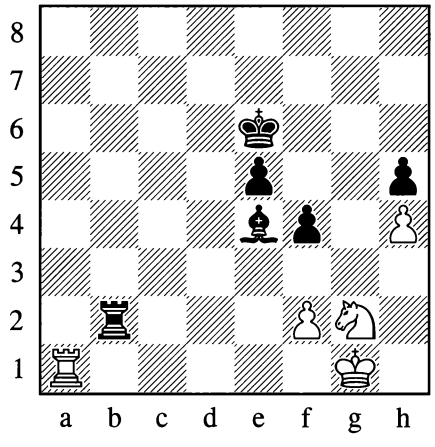
48...f4!? would force a favourable exchange.

But even stronger would be: 48...♖xd1! 49.♘xd1 f4 50.♘c3



50...♗c6 and the king breaks through.

49.♔g1 ♔e6 50.♖a1 f4 51.♘g2



Black is winning and should be looking for clarity. The right exchange would provide him with this.

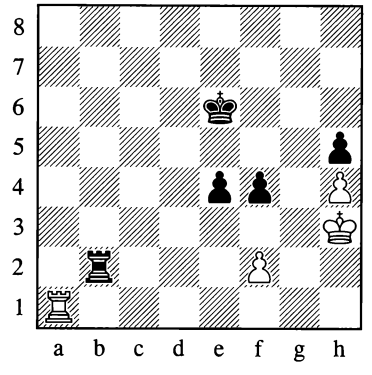
51...♔f5

Black delays the decision in a sensible way.

51...♗xg2?

This would not be it.

52.♔xg2 e4 53.♔h3!!

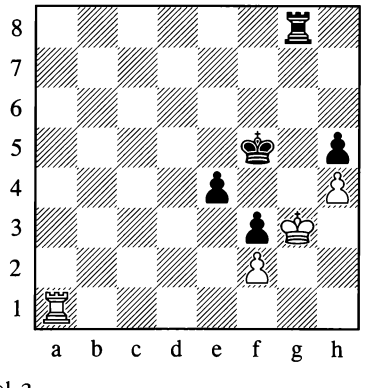


Black cannot take on f2, as White would give perpetual rook. There appears to be no other way to win.

53...♖b3† 54.♔h2 ♔f5 55.♖g1 f3

55...e3 56.fxe3 fxe3 57.♔g3! ♔e4 58.♖a1! would allow White to hold the draw with the tiniest of margins.

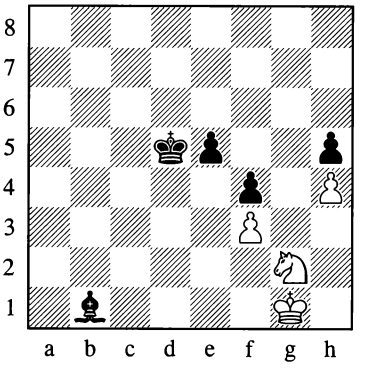
56.♔g3! ♖b8 57.♖a1 ♖g8†



58.♔h3

Black does not seem to have any possible way to make progress.

Instead, Black could have exchanged White's only good piece: 51...♖b1†!? 52.♖xb1 ♗xb1 53.f3 ♔d5



The black king will invade. Black wins without any difficulties.

52.♘e1

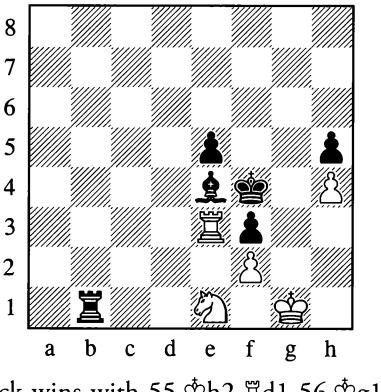
Forced.

52...♖b3?

This move ruins nothing, but it is drifting and ugly.

I don't understand at all why Rapport did not play 52...♔g4, which is easy and requires no calculation.

But I prefer 52...f3! even more. The plan is to exchange rooks on b1, then ...♔f4 and ...e5-e4-e3, when Black breaks through easily. White can try to avoid this, but after 53.♖a3 ♖b1 54.♖e3 ♔f4, he is entirely tied up.

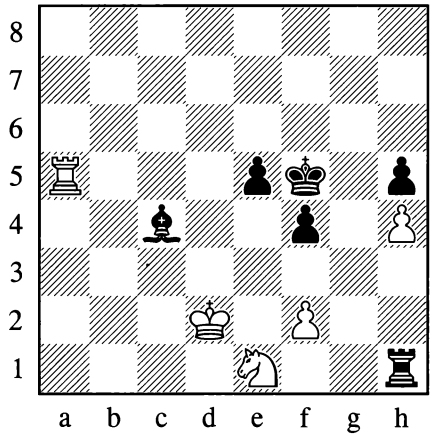


Black wins with 55.♔h2 ♖d1 56.♔g1 ♗d5 57.♔h2 e4 58.♔g1 ♗c4 59.♔h2 ♗e2 60.♘c2 ♖f1.

53.♔f1 ♖h3?!

53...f3! and ...♖b1 wins again. Black is also easily winning after 53...♖b1 54.♖xb1 ♗xb1 55.f3 e4 56.fxe4† ♗xe4 57.♔f2 ♔g4.

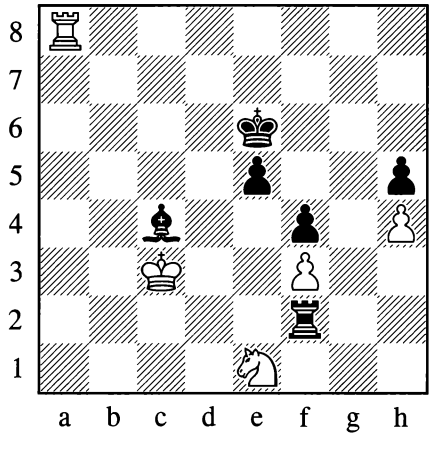
54.♖a7 ♗d5 55.♖a5 ♖h1† 56.♔e2 ♗c4† 57.♔d2



57...♖f1!

Forcing the f-pawn to a more exposed square and also preventing White from gaining counterplay with ♘f3.

58.f3 ♔e6 59.♖a8 ♖f2† 60.♔c3



Black has achieved almost everything he could without exchanging rooks. White still has some active counterplay. Rapport now had a number of favourable ways to continue the game. What he chose instead was to exchange his strong bishop for the dominated and useless knight.

60...♖e2??

There are so many things wrong with this decision. The exchange makes no sense. But on top of this, the game heads into a rook endgame, which has a higher drawing rate than most other endgames.

Black could have won with 60...♗f1 61.♖h8 ♖e2 62.♘c2 ♗g2, when the two connected passed pawns will decide.

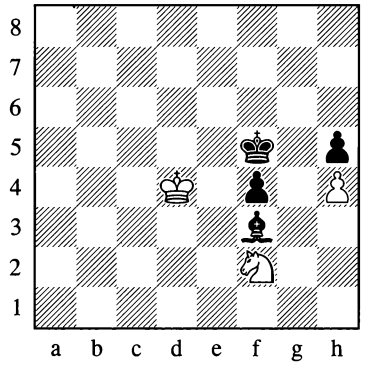
But the win I prefer is to force the exchange of rooks with a tactic:

60...♗d5! 61.♖e8† ♔f6 62.♖xe5

No doubt this is why Rapport avoided this. But it simplifies everything.

62.♖f8† ♗f7 63.♔d3 ♖h2 and Black wins another pawn.

62...♔xe5 63.♘d3† ♔e6 64.♘xf2 ♗xf3 65.♔d4 ♔f5



White will lose due to zugzwang.

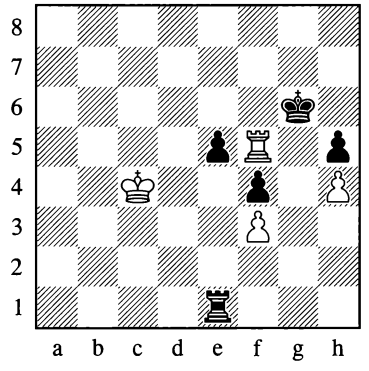
66.♔c3 ♗e2 67.♔d4 ♗a6 68.♔c3 f3

And ...♔f4-g3.

61.♔xc4 ♖xe1 62.♖e8†! ♔f5 63.♖f8† ♔e6 64.♖e8† ♔f6 65.♖f8† ♔g7 66.♖a8

Played after 4 minutes and 17 seconds.

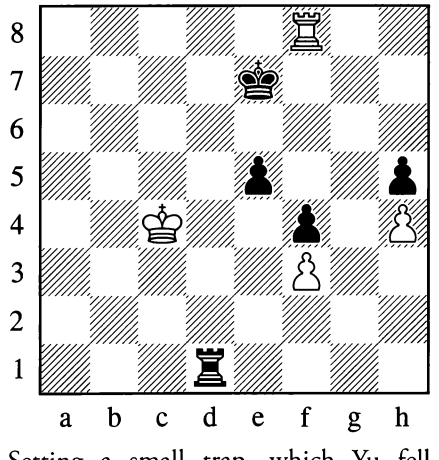
Clearly Yu Yangyi was considering the consequences of 66.♖f5!, when he can reply to 66...e4 with 67.♖xf4. And after, 66...♔g6:



All White has to do is keep his head cool and play 67.♖f8!, when Black cannot make any progress at all. A defensive approach, keeping the black king out of action and preventing ...e4. Some players are good at defensive play, others find it difficult to do nothing.

I suspect that Yu was trying to make 67.♖g5†? work. Alas, it does not. 67...♔f6 68.♖xh5 ♖e3 and Black wins after both 69.♔d5 ♖d3† 70.♔e4 ♖d4# and 69.♖h6† ♔f5 70.♖h5† ♔g6 71.♖g5† ♔f6.

66...♖d1 67.♖e8 ♔f6 68.♖f8† ♔e7!

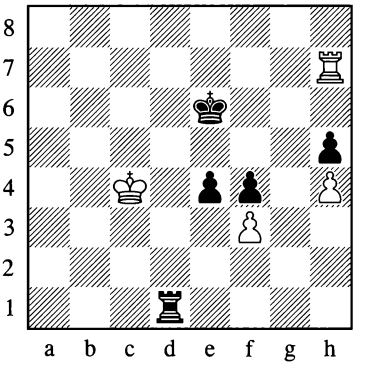


Setting a small trap, which Yu fell for. Unfortunately, Rapport did not realise that this is what he was doing.

69.♖f5?

The wrong moment to go active. This is the right move when the king is on g7, but now where the e-pawn can be defended by the king, it could have lost the game.

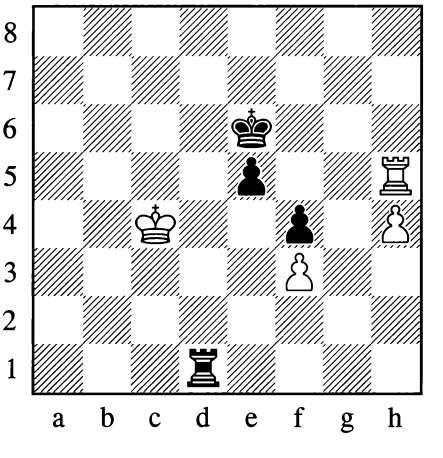
Passive defence was working, but not easy to find with no time on the clock. The main thing is to find a way to deal with ...e5-e4. After 69.♖h8 e4, White can draw with: 70.♖h7†! Trying to force the king to the f-line. 70...♔e6



71.♖h6†! ♔f7 72.fxe4! f3 73.♖xh5 White draws through the rook coming to f5. Actually, Black would not play like this, as White now will have an extra pawn in the draw.

Less flashy, but quite simple, was 69.♖a8 e4 70.fxe4 f3 71.♖a2 and White draws.

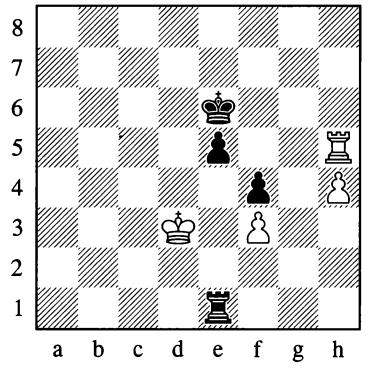
69...♔e6 70.♖xh5



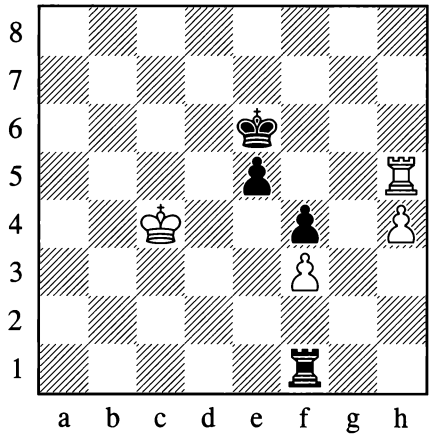
70...♖f1?

70...♖e1, to attack the f-pawn from e3, is also attractive. But as in the game, White can play 71.♖h6†, harassing the black king.

But Black could have given a check himself, forcing the white king to a worse square. 70...♖c1†! If the king goes to the queenside, Black gets the d5-square for his king and can go for the f-pawn with 71...♖f1. 71.♔d3 Thus this is forced. 71...♖e1!



The point. The rook comes to e3 with a check and the black king is threatening to come to d5. 72.♔c4 ♖e3 The simplest is to win the f-pawn. (72...e4 73.fxe4 f3 also wins) 73.♖h6† ♔f5 74.♖h5† ♔g6 75.♖g5† ♔f6 Black wins.



71.♖h6† ♔f5 72.♖h5† ♔f6 73.♖h6† ♔f5 74.♖h5† ♔e6 75.♖h6†

½–½

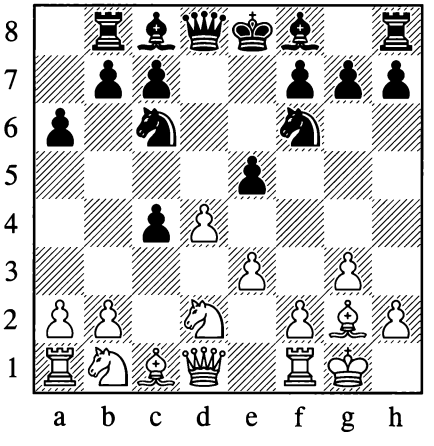
10. Creating passed pawns

In the following game between two young friends of mine, we shall see Black squander a winning endgame, because he fails to create the necessary passed pawns.

Hans Moke Niemann – Jonas Buhl Bjerre

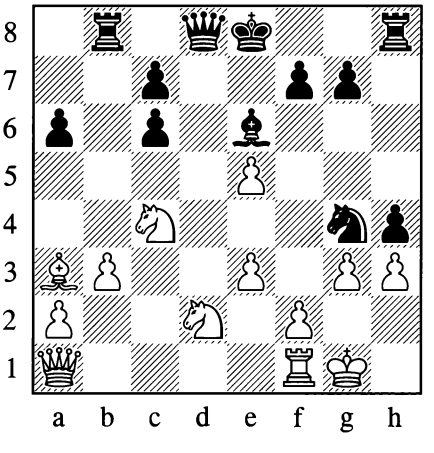
Bassano 2021

1.d4 ♘f6 2.c4 e6 3.♘f3 d5 4.g3 dxc4 5.♗g2 a6 6.0–0 ♘c6 7.e3 ♖b8 8.♘fd2 e5!?



This is a popular sharp line of the Catalan, which is especially treacherous for those who have not studied it in detail.

9.♗xc6† bxc6 10.dxe5 ♘g4 11.♘xc4 ♗e6 12.♘bd2 ♗b4 13.b3 h5 14.h3 ♗c3 15.♗a3 ♗xa1 16.♕xa1 h4!



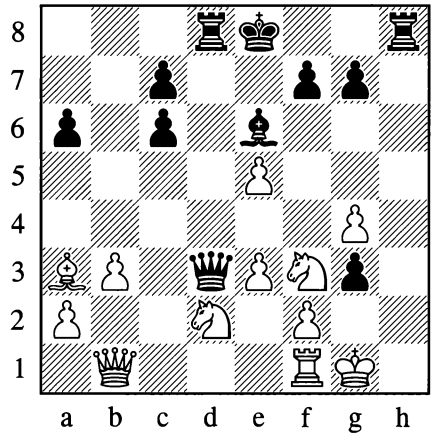
Black has managed to create strong counterplay.

17.hxg4 hxg3 18.♘f3
White is living by only moves.

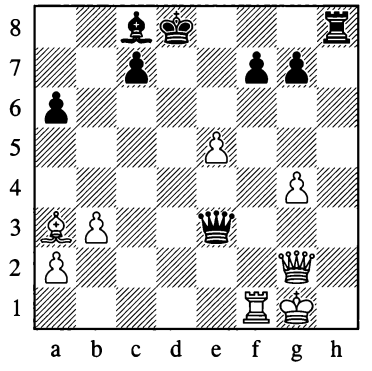
18...♕d3!
Threatening to take the bishop on a3.

19.♘cd2 ♖d8 20.♕b1?!
White is under a lot of pressure and errs.

White could have held the balance after 20.♔g2!, when the following lines are by no means forced. 20...♕g6 (20...♕h7 21.♖h1 leads to an equal but uneven endgame.) 21.♖h1! ♖h2†! 22.♘xh2 gxh2 23.♕c1! ♕xg4† 24.♔f1 ♖xd2 25.♕xd2 ♕g1† 26.♖xg1 ♗h3† 27.♔e2 hxg1=♕ 28.♕c1 with equal chances.



20...gxf2†
20...♕e2! was more dangerous, although White is still holding on after: 21.♕e4 ♖xd2 22.♕xc6† ♔d8 23.♘xd2 gxf2†! 24.♖xf2 ♕d1† 25.♖f1 (25.♘f1 ♗d5 would be unfortunate.) 25...♕xd2 26.♕a8† ♗c8 27.♕g2 ♕xe3†

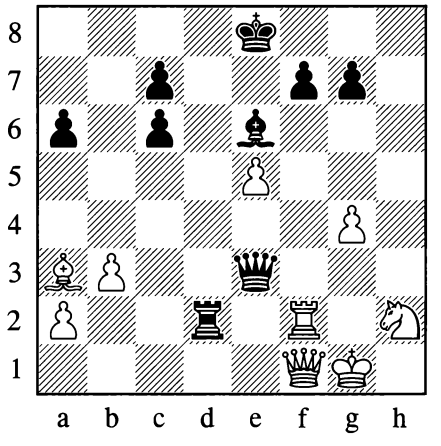


28.♖f2 and although White is worse, the game is by no means lost, although he will suffer a lot with his worse king's position.

21.♔xf2?
Allowing a neat combination.

After 21.♔g2! ♕xe3 22.♕e4! ♕xe4 23.♘xe4 ♗xg4 24.♖xf2 ♖d3 White is still the defender, but should be able to keep everything together.

21...♖h2†! 22.♘xh2 ♕xd2† 23.♔g1 ♕xe3† 24.♖f2 ♖d2 25.♕f1

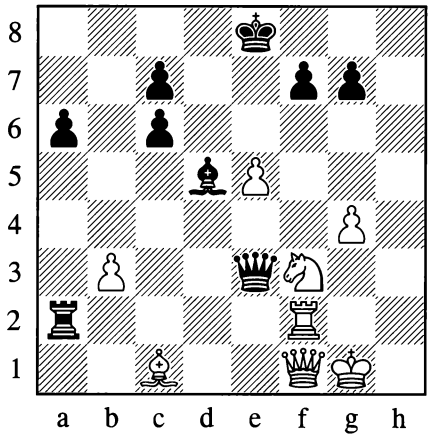


25...♗d5!
The quiet move at the end of the line. White is all tied up and has nothing to do with his extra piece, except avoid immediate defeat.

26.♘f3 ♖xa2!

26...♗xf3?! 27.♗c1! would allow White to escape into the endgame. Black might still win, but it would create unnecessary difficulties.

27.♗c1



27...♖xf2?!

Black has played an outstanding game with strong dynamic play and now has to finish off his opponent in the endgame. But this is where he comes up short. The endgame with opposite-coloured bishops is on the horizon and the game would not be interesting for us, had Black won it without difficulties. But it is interesting to see that a strong grandmaster with usually good technique is unable to understand that he needs to create two distant passed pawns to win the game.

Had he understood this, everything else would have fallen into place.

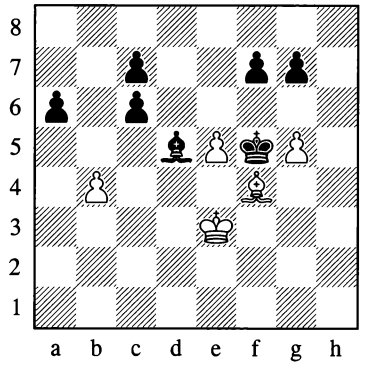
27...♕c5!? was a strong tactical idea.

First off, 28.♘d2 ♕d4!, is an important tactical point. After 29.♔h2 ♖c2!, Black is winning.

28.b4 would allow Black to convert the advantage easily. 28...♖xf2 29.bxc5 ♖xf1† 30.♔xf1 ♗xf3 31.g5 a5 Black will create another passed pawn on the kingside and win easily.

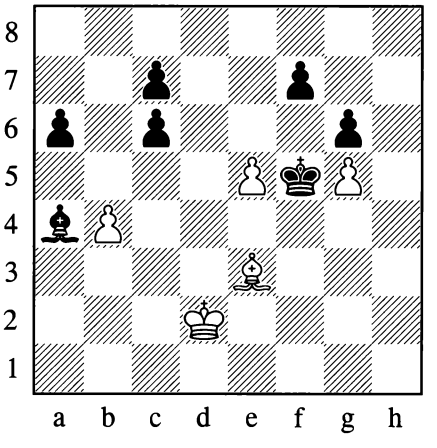
28.♗xe3 ♖xf1† 29.♔xf1 ♗xf3 30.g5 ♔d7 31.♔f2 ♗d1

Black can win in several ways. For example: 31...♗d5 32.b4 ♔e6 33.♗f4 ♔f5 34.♔e3



34...c5! 35.bxc5 c6 and White is in zugzwang.

32.b4 ♔e6 33.♗d4 g6 34.♔e3 ♔f5 35.♔d2 ♗a4 36.♗e3

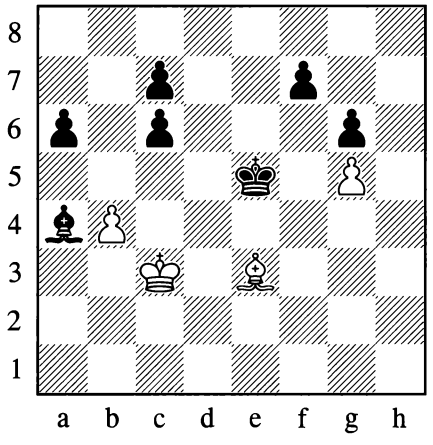


36...♔xe5?

This is bad technique. Black should invite the bishop to f6.

36...c5! 37.♗xc5 ♔xg5 38.♔e3 ♔f5 and Black wins in the long run.

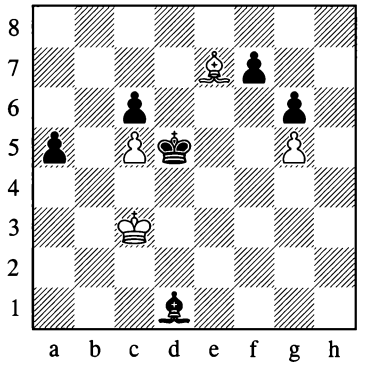
37.♔c3



37...f5?

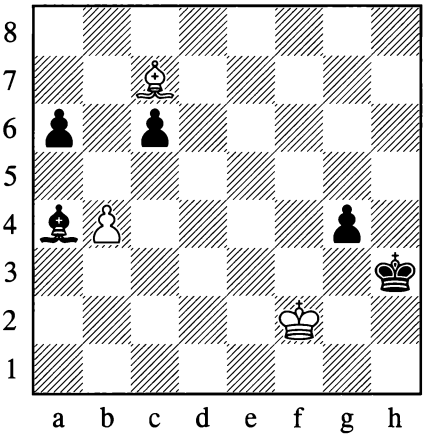
A poor decision. After this, the b-pawn is able to pacify the entire queenside and White can set up a blockade.

37...♔e4 38.♗c5 ♔f5 39.♗e7 c5! 40.bxc5 a5 41.♗d8 c6 and Black would still win. 42.♗f6 ♗d1 43.♔b2 ♔e6 44.♔c3 ♔d5 45.♗e7



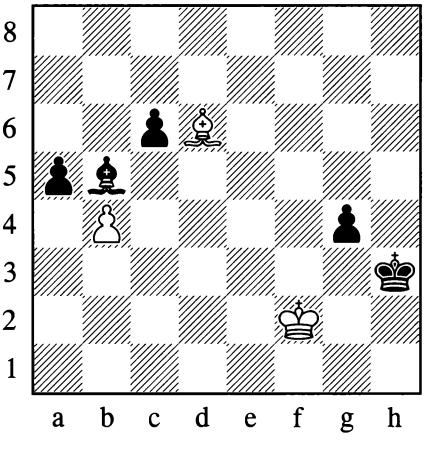
45...f5! 46.gxf6 ♔e6 47.♔b2 ♔f7 and the g-pawn is ready to run.

38.gxf6 ♔xf6 39.♗f4 ♔f5 40.♗xc7 g5 41.♔d4 ♔g4 42.♔e3 ♔h3 43.♔f2 g4



Although the responsibilities of the bishop are not entirely on one diagonal, it is still able to live up to them. Black does not have a way to break through on the queenside, which would side-track the white bishop enough to make something of the g-pawn.

44.♗d6 ♗b5 45.♗c7 ♗c4 46.♗d6 ♔h4 47.♗c7 ♗d3 48.♗g3† ♔h3 49.♗c7 ♗b5 50.♗d6 a5!?



Black has to try something. But it is not enough.

51.bxa5 ♗a6 52.♗c5 g3† 53.♔f3 ♗b7 54.♔f4 ♔h2 55.♔e5 g2 56.♔d6 g1=♕ 57.♗xg1† ♔xg1 58.♔c7 ♗a6

½–½

11. Rook vs two minor pieces

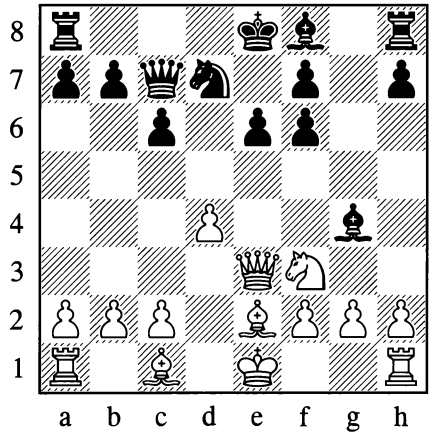
I have always been fascinated by the material imbalance of rook vs two minor pieces. I greatly enjoyed Mihail Marin's chapter in *Learn from the Legends* on Mikhail Tal's handling of these positions, and I especially liked Esben Lund's book *Rook vs Two Minor Pieces*. In his book Esben explained that in principle, bishop and knight have the value of rook and a pawn and a half. By definition, there is no such thing as material balance when we have this material constellation. Positional factors can be difficult to determine. The rook can be strong, but is ultimately fighting one against two. Other factors are often decisive, especially the presence of passed pawns far from the kings.

We went through the following game at one of the North American Chess Hub online camps. It is always interesting to discuss the games of young players with them and no less so with Awonder Liang, one of the most pleasant and talented young players I have ever come across.

Vladislav Kovalev – Awonder Liang

Internet (classical) 2020

1.e4 c6 2.♘f3 d5 3.♘c3 dxe4 4.♘xe4 ♘f6 5.♕e2 ♗g4 6.♘xf6† gxf6 7.♕e3 e6 8.♗e2 ♘d7 9.d4 ♕c7



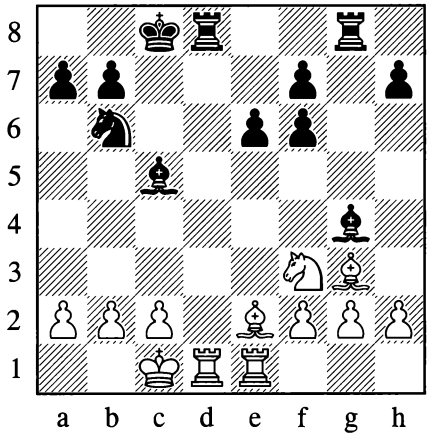
10.♕f4!?

Kovalev decides to go into the endgame early. I cannot see that the things that are good about the white structure carry on well to the endgame. Traditionally in this line of the Caro-Kann, king safety has been Black's main problem. The kingside is damaged in return for an open file and control over central squares. But this does not mean that the endgame is necessarily better for Black. But he is past the worst.

10...♕xf4 11.♗xf4 0–0–0 12.0–0–0 ♘b6 13.♖he1 c5

Eliminating the strong d4-pawn, equalising. It is not clear what White can do with the pawn majority on the queenside.

14.dxc5 ♗xc5 15.♗g3 ♖hg8



16.♘d2?!

This knight is a problem piece, but not going anywhere useful from here.

16.c3, with even chances, was Awonder's suggestion.

16...♗xe2 17.♖xe2 f5!?

Because of White's reply, 17...♗e7! was more accurate.

18.♗h4!

18.♘f3!? also made sense, but getting rid of the pressure down the g-file is a relief.

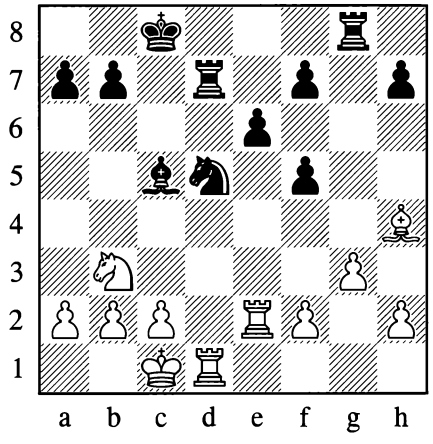
18...♖d7 19.g3

Although this is a relief, the bishop is still not great on h4.

19...♘d5 20.♘b3!?

It is hard to tell if Kovalev missed Awonder's next move or decided it would be playing for three results.

20.c3 with equality was probably more sensible.



20...♘c3!!

Awonder was very happy with this decision. It probably had great surprise value. The main point behind this move is that it brings the game out of balance, which in the end is why Black managed to win it. And after having looked at what happened in the game, it is clear that the main dangers are with White. The main reason for this is the difficulty he has getting the bishop into the game.

20...♗f8 would keep things as they are. Black is comfortable, but White is solid.

21.♖ed2

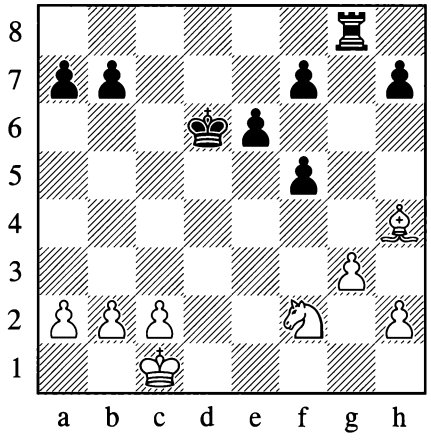
The only move.

21.bxc3? ♗a3† is not going to happen. But the bishop on c5 is still hanging, and now with check.

21...♘xd1 22.♖xd7 ♔xd7 23.♘xc5† ♔d6! 24.♘d3

24.♘xb7† ♔c7 would drop a piece.

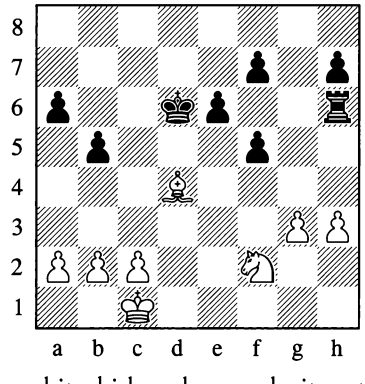
24...♘xf2 25.♘xf2



The smoke has cleared and the endgame has stabilised. In principle, White has a slight material advantage. But in this equal position, Black is the one playing for a win. The main reasons are the difficulties in getting stable squares for the minor pieces and the solid pawn majority on the kingside.

25...e5

The position is objectively equal, so it is difficult to talk about best moves. But I do believe that Black could have created slightly more difficulties for his opponent with 25...b5!. White should take the chance to get the bishop into the game, but this does not come for free. 26.♗f6 ♖g6 27.♗d4 ♖h6 28.h3 a6



The white bishop has made it out of the corner, but is no more effective. But the weakening of the white kingside seems a serious concern.

26.♘d3

Kovalev decides to activate the knight and threaten to play 27.♗f6.

The most natural move is 26.♔d2, but after 26...b5 27.b3 ♖g6 the black rook is preparing to use the 6th rank to attack White all over the board.

The strongest option for White was 26.a4!, when White is starting to advance his pawn majority on the queenside, although this is hard to do. More importantly, this move fights for the light squares on the queenside and in the centre, where the minor pieces are not so effective.

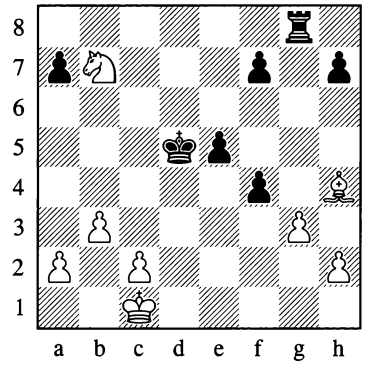
26...♔e6

Inviting the check on c5, which makes little sense.

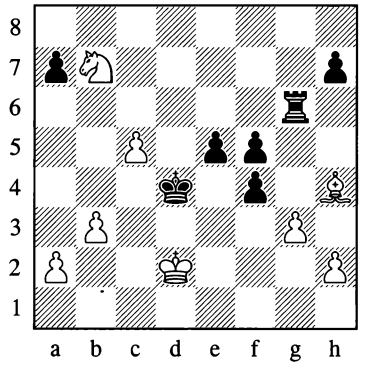
26...♖g6!, to dominate the white bishop, was stronger.

27.♘c5† ♔d5 28.♘d7

Stockfish points to another interesting idea. White could have played: 28.♘xb7!? f4 29.b3! (29.♘a5 f5 is slightly better for Black, which means that accurate play will equalise for White.)

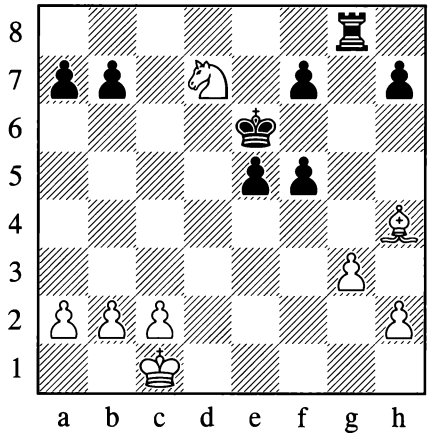


29...f5! As we have seen earlier, in Muzychuk – Goryachkina on page 684, it is important to not commit too early to exchanges of pawns, like ...fxg3. In this case, Black wants to keep ...f3 options open as well. 30.c4† ♔d4 31.♔d2 ♖g6! 32.c5



Black is the player holding in this position. But he can without too many difficulties.

28...♔e6



29.♘f6?!

Kovalev is misunderstanding who is playing for a win here.

29.♘c5† with a repetition was modest.

29...♖g7 30.♔d2 f4

30...h6! was a bit more accurate.

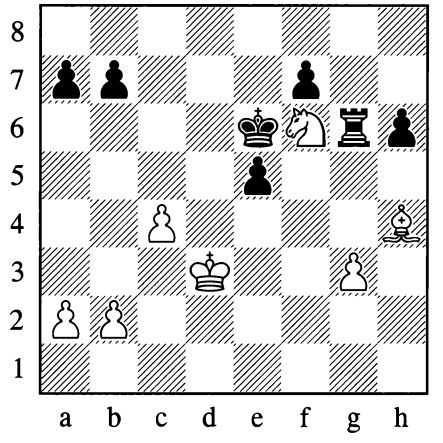
31.♔d3

31.c4! to create a square for the knight seemed prudent.

31...fxg3 32.hxg3 h6!

Freeing up the rook to enter the game.

33.c4 ♖g6



34.♘d5?!

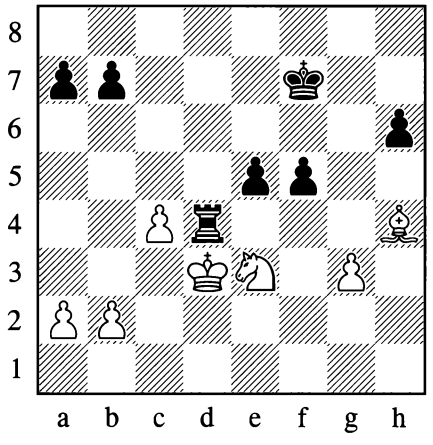
Kovalev continues to play with unshakeable optimism.

However, it was time to realise that White is not playing for a win, and defend with the passive 34.♘e4 b6 35.♘f2 f5 36.♔e3, when the draw should be achieved without too many problems.

34...f5 35.♘c7† ♔d7 36.♘d5 ♔e6 37.♘c7† ♔f7 38.♘d5 ♖g4!

The rook comes in to dominate.

39.♘e3 ♖d4†



40.♔c3?

Another misunderstanding of who is playing for a win. If White was better, it would make sense to send the king to the queenside to help create the passed pawns. But if White is defending, it is important that the king comes over to help stop the black pawns.

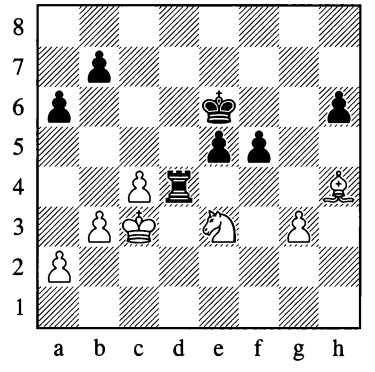
I have to say that this is quite a serious misunderstanding by Kovalev, which I can only put down to misguided optimism.

After 40.♔e2! ♔e6 41.b3 h5 Black is pressing, but the game remains within the drawing margin.

40...♔e6 41.b3 f4

There is nothing wrong with this move, but the computer comes up with a deep move no human would play.

The alternative is full of prophylactic measures. 41...a6!?

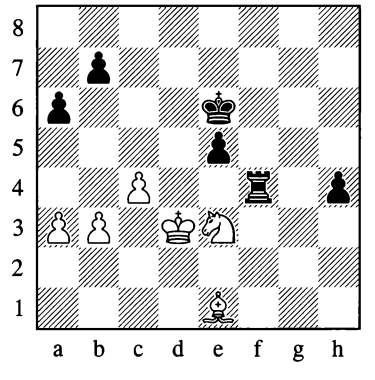


This structure turns out to be better for Black. Partly because the a-pawn would not be hanging.

42.a3

42.a4 a5 would allow the two black pawns to control the three white pawns.

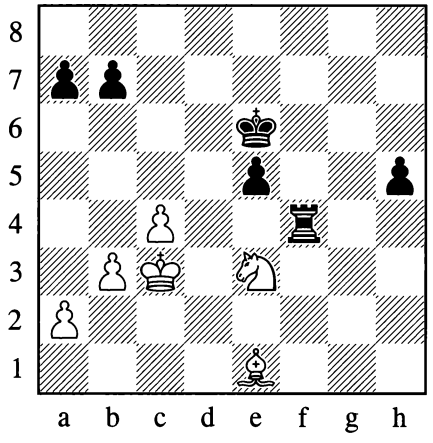
42...f4 43.gxf4 ♖xf4 44.♗e1 h5 45.♔d3 h4



46.♔e2

At this point both 46...♖d4 and 46...a5!? should be good enough for a win, although many more moves would have to be played.

42.gxf4 ♖xf4 43.♗e1 h5



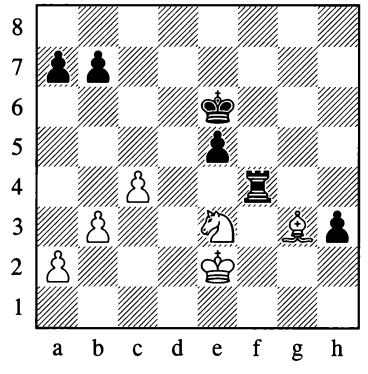
Black should be winning at this point and analysis seems to suggest as much. The rook is stable and able to cut off the white king, while the two minor pieces are not doing well, dealing with the black passed pawns. Especially the h-pawn.

Still, chess is a concrete game and converting these advantages to a full point is by no means easy. Trying to fully understand how this is done is an important point to this game. Black has to balance using effectively the strongest piece on the board, the rook, with pushing the h-pawn, keeping the white king away from the action and avoiding counterplay on the queenside. Not an easy task.

44.♘g2

Another defensive try was:

44.♔d3 h4 45.♔e2 h3 46.♗g3



46...♖d4!

Awonder proved with long long lines that Black was also winning after 46...♖h4, but I prefer to put the rook on d4, even if it is less flashy.

47.♘d1 ♖d8!

In some lines the rook needs to get to the c-file and it is better if it is not hanging on c7.

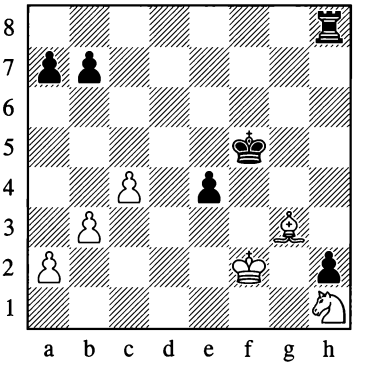
48.♘f2 ♖h8 49.♔f3

49.♗h2 ♔f5 50.♔f3 ♖d8! and Black exchanges the h-pawn for a future on the queenside.

49...♔f5 50.♔e3

50.b4 h2 51.♘h1 was another defensive try; but we cannot analyse everything. After 51...♖c8 Black is also on the right path.

50...h2 51.♘h1 e4 52.♔f2



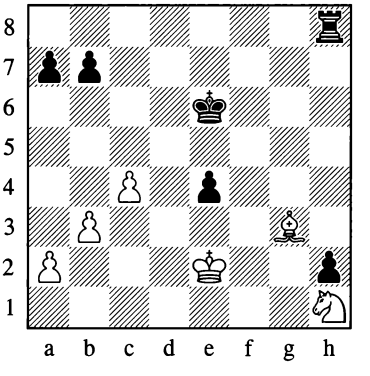
52...♖d8!

Using the rook's versatility to the maximum.

53.♔e2 ♔e6

The king is aiming for the now-abandoned queenside.

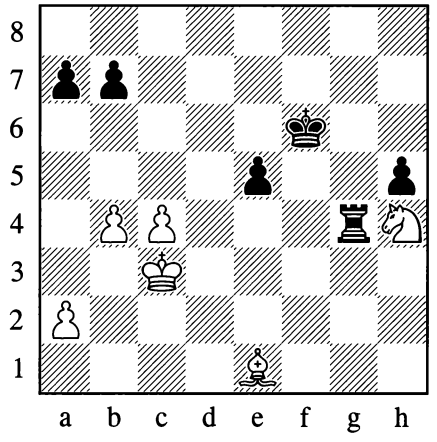
54.♘f2 ♖h8 55.♘h1



55...♖f8!

The white king is cut off. White cannot take the h2-pawn. Black is winning, but will have to progress slowly on the queenside, keeping control on the kingside.

44...♖g4 45.♘h4 ♔f6 46.b4



46...b6!?

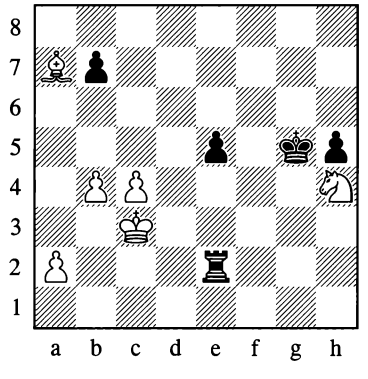
Awonder showed the following brilliant piece of analysis.

46...♖e4 47.♗f2 ♖e2!?

47...♔g5? 48.♘f3† ♔g4 49.♘g1 a6 50.a4 h4 51.c5 ♔f5 52.b5 ♖xa4 53.c6 bxc6 54.bxa6 ♖xa6 55.♗xh4 holds the draw.

47...b6!? would be similar to the game.

48.♗xa7 ♔g5



The knight is trapped, but the fight is far from over.

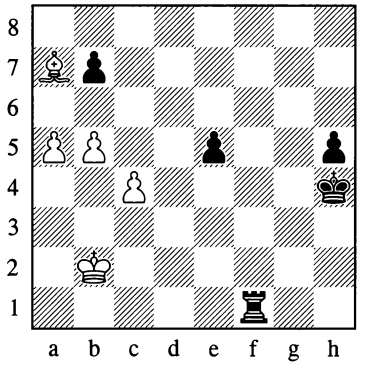
49.a4 ♔xh4 50.a5 ♖a2

50...♔g3 51.b5 h4 52.a6 bxa6 53.b6 gives enough counterplay to draw.

51.♔b3 ♖a1!

Black is dominating the white pawns.

52.♔b2 ♖f1 53.b5



53...♖f7!!

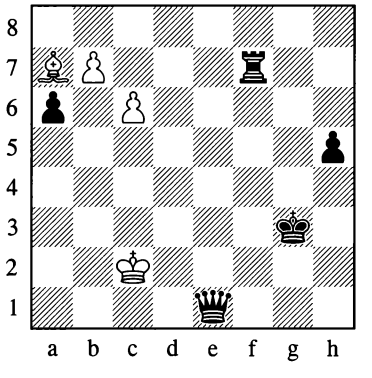
Another prophylactic move, reducing White's options and making the most out of having the strongest piece on the board.

We now have two beautiful variations to inspect. The variations are razor sharp and the difference between success and a draw paper thin:

a) 54.a6 bxa6 55.b6

This looks like counterplay, but Black can queen the e-pawn:

55...e4! 56.♔c2 ♔g3 57.c5 e3 58.c6 e2 59.b7 e1=♕



60.b8=♕†

White queens with check, but after:

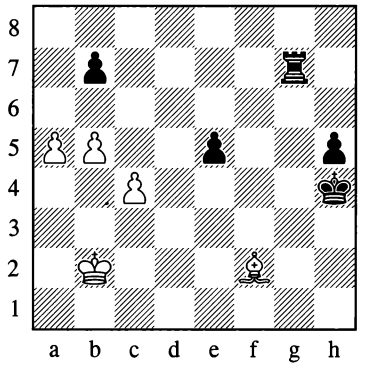
60...♖f4!

He has no follow-up.

61.♕d6 ♕e2† 62.♔c3 ♔g4

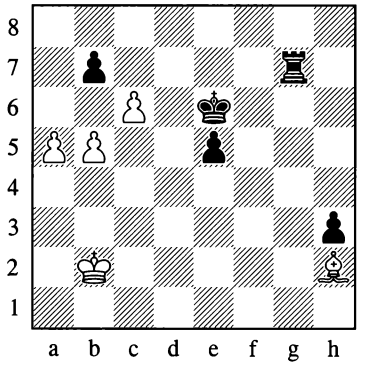
Black will give deadly checks in just a minute.

b) 54.♗g1 ♖g7! 55.♗f2†

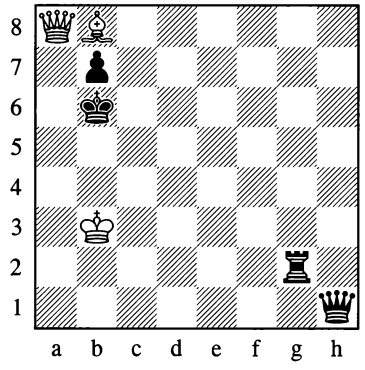


55...♔g4!

The differences here are marginal, which can be seen by the following variation: 55...♔g5? 56.c5 h4 57.c6 h3 (57...bxc6 58.b6!) 58.♗g3 ♔f6 59.♗h2 ♔e6



Things look desperate for White, but he has a brilliant breakthrough: 60.b6! ♔d6 61.a6! ♔xc6 62.a7 ♖g8 63.♗xe5 ♔xb6 (63...♖a8 64.♗c7 and White draws.) 64.♗b8! ♖g2† (64...h2 65.a8=♕ h1=♕ 66.♗a7†! with a draw.) 65.♔b3 h2 66.a8=♕ h1=♕

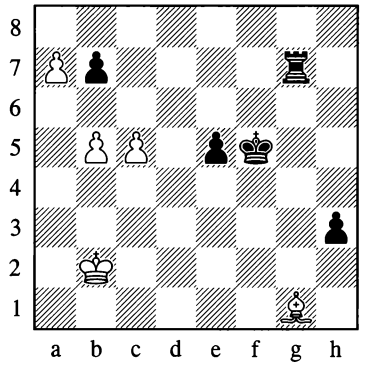


67.♗a7† ♔c7 68.♕b8† White will take the b-pawn and make the draw under all circumstances.

56.c5 h4 57.a6

57.c6 h3 58.♗g1 ♔f3 59.♗h2 e4! 60.b6 e3! and Black wins.

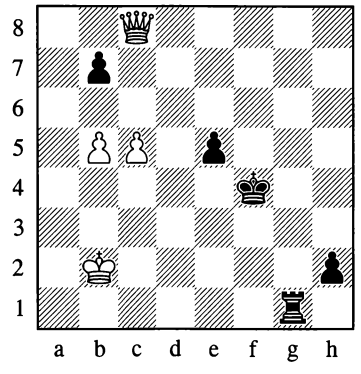
57...h3 58.♗g1 ♔f5 59.a7



59...♖g2†!!

The importance of checks in endgames is deeply underappreciated, as explained on page 178. Here is another example.

59...♖xg1? 60.a8=♕ h2 61.♕c8†! Checking the king one square further away from where the white pawns will queen. 61...♔f4

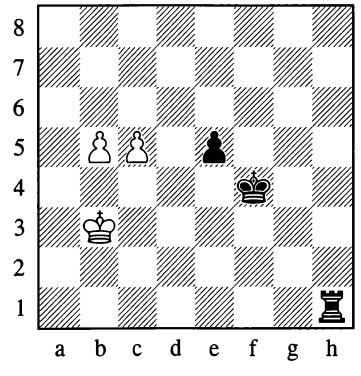


62.♕xb7! h1=♕ 63.♕xh1 ♖xh1 64.b6! and it would be White who wins.

60.♔b3 ♖xg1 61.a8=♕ h2 62.♕c8†

62.♕f8† ♔e4 and Black wins.

62...♔f4 63.♕xb7 h1=♕ 64.♕xh1 ♖xh1

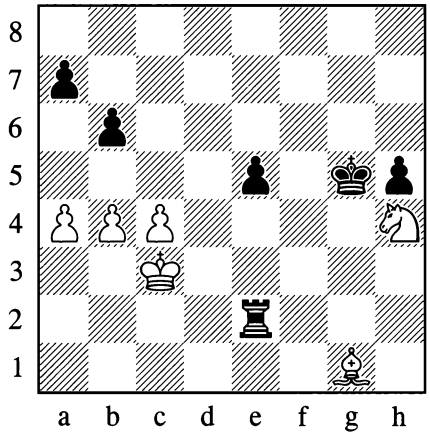


This rook endgame is winning for Black. The difference from before is easy to see. Black wins a tempo because there is the possibility of a check on b1. After 65.c6 ♖c1 Black wins.

46...♖g1 47.♗f2 ♖a1 is also winning after mind-bending complications and lots of only moves that a computer might point out, but a human would find difficult to play.

47.a4 ♖e4 48.♗f2 ♖e2 49.♗g1 ♔g5?

Black could have dominated the white pieces with 49...♖e1 50.♗f2 ♖f1 51.♗g3 ♖h1 52.♔d2 ♖h3 and ...♖a3 and Black should win.



50.♘f3†?

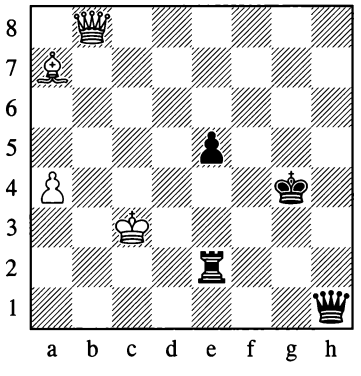
A horrible move. Kovalev clearly missed that he had a chance to create counterplay. It is hard to believe that he was not looking for it and under the assumption that he could hold with passive play. But the moves suggest this is indeed what he was thinking.

White could have made a narrow draw:

50.c5!! bxc5 51.♗xc5 ♔xh4 52.♗xa7 ♔g4

52...♖a2 53.b5! would create an immediate draw.

53.b5 h4 54.b6 h3 55.b7 h2 56.b8=♕ h1=♕



Black has an extra exchange, but White is to play.

57.♕c8† ♔f3 58.♕f5† ♔g2 59.♕g4† ♔f1 60.♕f5† ♔g2 61.♕g4†

With a perpetual check.

50...♔g4 51.♘d2 ♖g2 52.♗e3

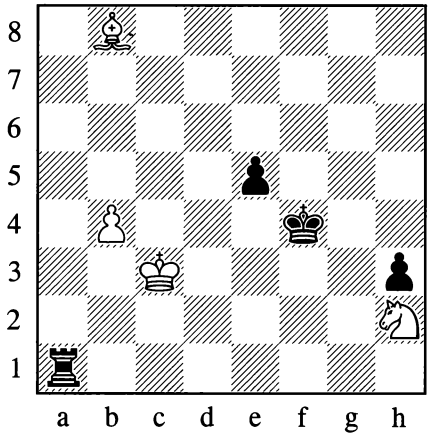
White is out of active tries.

For example: 52.♗xb6 axb6 53.a5 bxa5 54.b5!? ♖g3† 55.♔c2 ♔f5 and the king comes back to stop the pawns.

52...h4 53.c5 bxc5 54.♗xc5

After 54.bxc5 ♔f5, Black is ready to bring the rook back to pick up the c-pawn as well as let the h-pawn surf to the end of the board.

54...h3 55.♘f1 ♖a2 56.♗xa7 ♖xa4 57.♗b8 ♖a1 58.♘h2† ♔f4

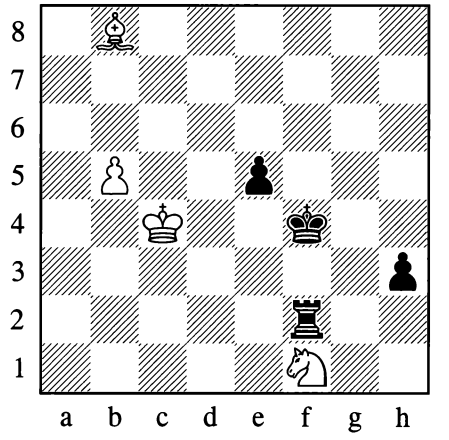


59.b5

White has to push the pawn.

After 59.♔c4, Black has the additional option 59...♖a8 60.♗d6 ♖a2, when he has 61.♘f1 ♖f2 62.♔d5 ♖xf1 63.♗xe5† ♔g4 and ...♖f4, winning.

59...♖b1 60.♔c4 ♖b2 61.♘f1 ♖f2



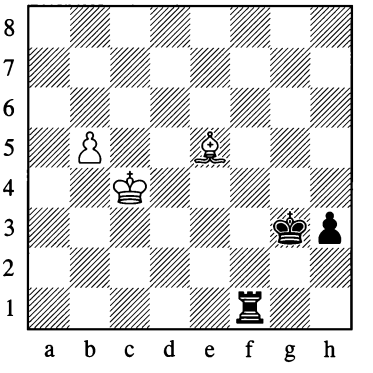
62.♔d5

White is beyond offering real resistance. For example:

62.♘g3 ♖f3!

The clearest winning move, even if far from the only one.

63.♘h1 ♖f1 64.♘g3 ♔xg3 65.♗xe5†



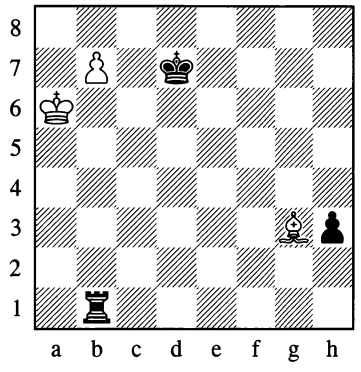
65...♔g4!

The king returns to the queenside. Black cannot win on the kingside alone.

66.b6 ♖b1 67.♔c5 ♔f5! 68.♗g3 ♔e6 69.♔c6 ♖c1†

Once the b-pawn has been stopped, Black will win the bishop and the game. White has to underpromote.

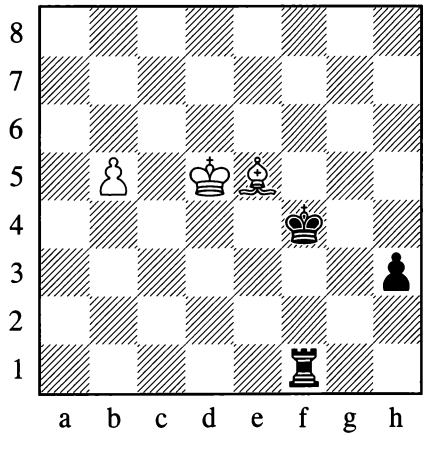
70.♔b5 ♔d7 71.b7 ♖b1† 72.♔a6



72...♔c6! 73.b8=♘† ♔d5

Black will put the king on g2 and rook on g3, queening the pawn.

62...♖xf1 63.♗xe5†



63...♔f5!

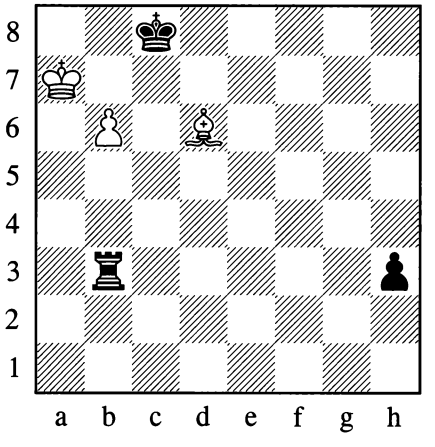
An important tempo gain. The threat of ...♖d1† forces White to move the bishop.

63...♔g4 64.b6 and White would make a draw.

64.♗b8 ♖d1† 65.♔c6 ♔e6 66.b6 ♖c1† 67.♔b5 ♔d7 68.♗e5 ♔c8 69.♔a6 ♖b1 70.♔a7 ♖b3

70...h2! was there too.

71.♗d6



71...h2! 72.b7†

72.♗xh2 ♖a3#

72...♖xb7† 73.♔a8 h1=♕

0–1

12. Rook vs two minor pieces – another example

This game starts off with a fine little novelty that leads to a materially unbalanced position, which is equal to the computer, but difficult to play for Black. Despite this, Sochacki makes some accurate decisions and keeps the balance, until he has to make the decision between active and passive defence.

Pier Luigi Basso – Christophe Sochacki

Paleochora 2021

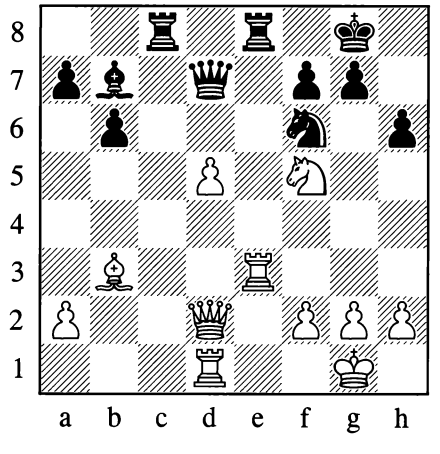
1.d4 ♘f6 2.c4 e6 3.♘f3

The Semi-Tarrasch is often played together with the Nimzo-Indian, as after 3.♘c3 d5 4.cxd5 ♘xd5 5.e4 ♘xc3 6.bxc3 c5, Black is not in time to get a check on b4. After 7.a3, White has an advantage, as without the relief of the bishop exchange, the black dark-squared bishop and the queen are struggling to find good squares.

3...d5 4.♘c3 c5 5.cxd5 ♘xd5 6.e4

6.e3 is the other big variation.

6...♘xc3 7.bxc3 cxd4 8.cxd4 ♗b4† 9.♗d2 ♗xd2† 10.♕xd2 0–0 11.♗c4 ♘d7 12.0–0 b6 13.♖ad1 ♗b7 14.♖fe1 ♖c8 15.♗b3 h6 16.♖e3 ♘f6 17.d5 exd5 18.exd5 ♕d6 19.♘h4 ♖fe8 20.♘f5 ♕d7



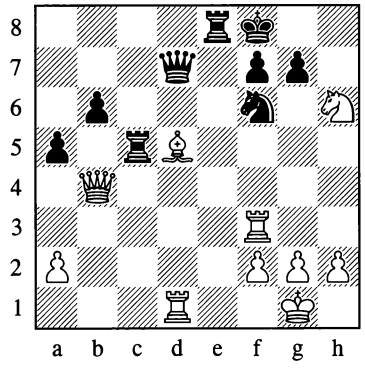
21.♘xh6†!?

An interesting novelty.

Two previous games both started with:
21.♖f3 ♗xd5 22.♗xd5

22.♘xh6† gxh6 23.♖xf6 ♕e7 24.♖f4 ♗xb3 25.axb3 ♕e2 led to a draw in a rapid game between two top guys: Leko – Nepomniachtchi, Internet 2020.

22...♖c5 23.♘xh6† ♔f8 24.♕b4 a5



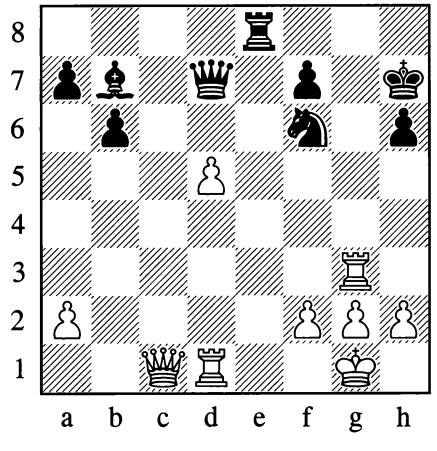
25.♕b1?

25.♕xb6 ♖xd5 26.♖f1! would have led to an equal position.

25...♖xd5 26.♖f1

Eljanov – Keymer, Isle of Man 2019. Black could now have played 26...b5, with a big advantage.

21...gxh6 22.♖g3† ♔h7 23.♗c2† ♖xc2 24.♕xc2† ♔h8 25.♕c1 ♔h7

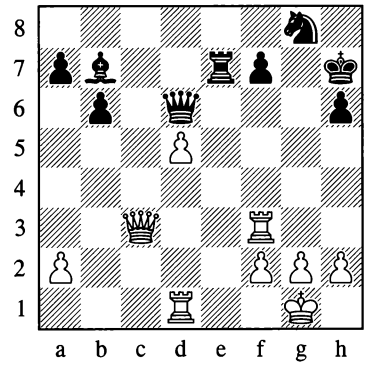


26.♖h3

Showing hostile intentions.

26.♕c2† would lead directly to a draw.

26.♕b1†! ♔h8 27.♖h3 was also possible. After 27...♕d6 28.♕c1! (28.♖xh6† ♔g7 29.♕h7† ♘xh7 30.♖xd6 ♘f6 would give White two pawns for the minor pieces. But the rook is awkwardly stuck on d6, giving Black full compensation, as well as a chance to win back the pawn.) 28...♘g8 29.♕c3† ♔h7 30.♖f3 ♖e7



31.h4 White is pushing, but with accurate defence, Black should eventually equalise.

26...h5!

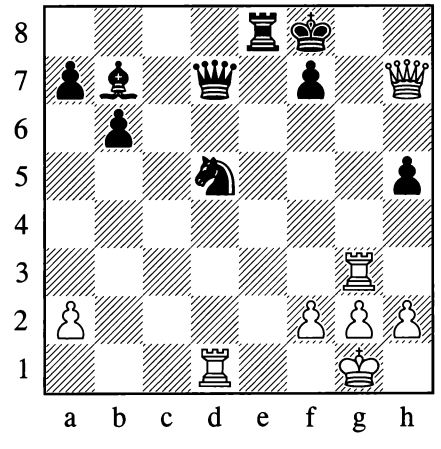
Not a difficult move, but it is possible to make mistakes anyway.

White would have an advantage after 26...♘g4 27.♕b1†! f5 28.d6 ♖e2 29.♖g3 ♗e4 30.♕b4, where Black has problems to solve.

27.♖f3 ♘xd5 28.♕c2† ♔g7 29.♖g3† ♔f8!

Leaving the kill zone.

30.♕h7

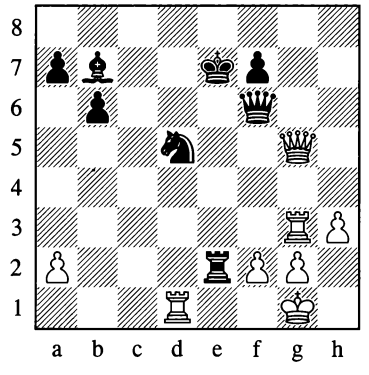


30...♖e2!

Only move. The computer will lie to you and tell you that the position is equal, but the reality is that Black is dancing on the edge of the zone of one mistake. He can possibly survive one, but not two mistakes.

31.♕g8†

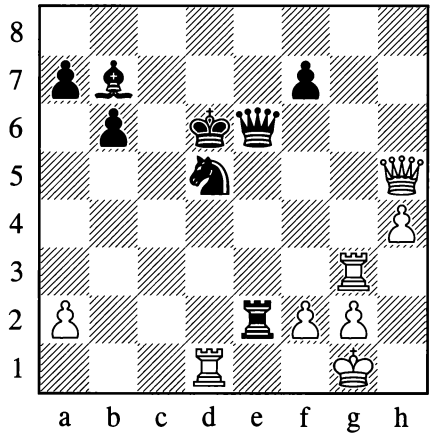
31.♕xh5 ♕e6 32.h3 ♔e7! also leads to equality. For example: 33.♕g5† ♕f6!



34.♖xd5 ♗xd5 35.♕xd5 ♕xf2† 36.♔h2 ♕f4! and Black is safe. The game could end 37.♕b7† ♔f6 38.♕xa7 ♖xg2†! 39.♔xg2 ♕d2† with a perpetual.

31...♔e7 32.♕g5† ♔d6 33.♕xh5 ♕e6 34.h4

Although the position looks dangerous for Black, he can still hold it together with good defensive play.



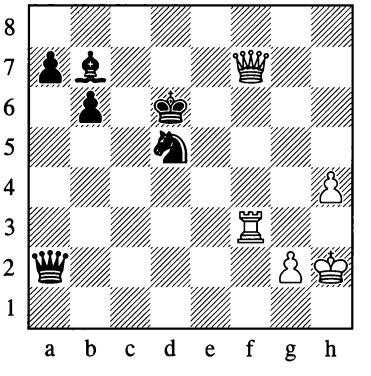
34...a5?

A wasted tempo. One is enough to create problems, but it will take a second one for Black to lose.

It is interesting that Black thought he was facing no dangers here and had to defend passively, believing he had the time to improve his position in this way.

34...♖e4! would create counterplay.

34...♖e1†! and if 35.♔h2 then 35...♖e4! is even more convincing. But White can also exchange rooks: 35.♖xe1 ♕xe1† 36.♔h2 ♕xf2 37.♖f3 ♕xa2 38.♕xf7



Black has 38...♕c4!, creating enough active play to claim equality.

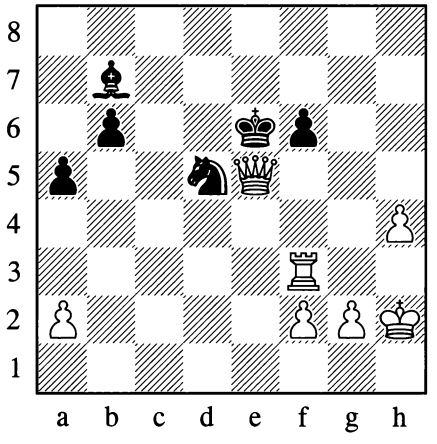
35.♖f3! f6

35...♖e1† 36.♖xe1 ♕xe1† 37.♔h2 f6 38.♕g6 transposes to the game.

36.♕g6 ♖e1† 37.♖xe1 ♕xe1† 38.♔h2 ♕e5† 39.♕g3!

After 39.g3? ♔c7!, the black king is leaving the kill zone and the white king is suddenly exposed. White has to start finding only moves.

39...♔e6 40.♕xe5†



40...fxe5!

Although this means that the black king will be cut off, it is still the only chance.

40...♔xe5?

This would in principle be a better pawn structure. But now the king cannot get to the g-line, as it is too far advanced.

41.h5 ♘f4 42.♖e3† ♔d4

42...♔f5 43.h6 ♔g6 44.h7 and White wins.

43.h6

As we saw in Gaponenko – Sachdev, on page 625, the minor pieces are not good at dealing with flank pawns.

White wins after a little dance and in more than one way.

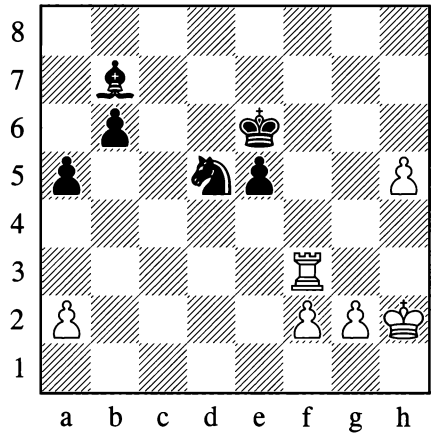
43...♗e4 44.♔g3 ♘g6 45.♖b3

The rook wins tempo after tempo to gain small concessions.

45...♔c5 46.♖c3† ♔d6 47.h7 ♔d7 48.♖b3 ♔c6 49.♖e3 f5 50.♔h2

And 51.♖g3, winning.

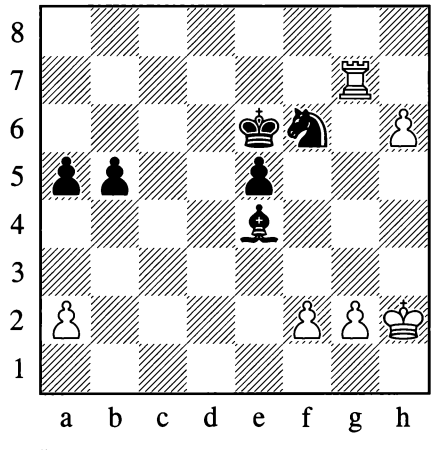
41.h5



41...b5?

41...♘f4 42.♖b3 ♗xg2 43.♖xb6† ♔f7 44.♖b5 (44.h6 ♗d5 for example, will eventually go the same way.) 44...♗d5 45.♖xa5 ♗xa2 46.♖xa2 ♘xh5 would still hold.

42.h6 ♘f6 43.♖g3 ♗e4 44.♖g7



44...♘h7?!

Black could have offered more resistance with:

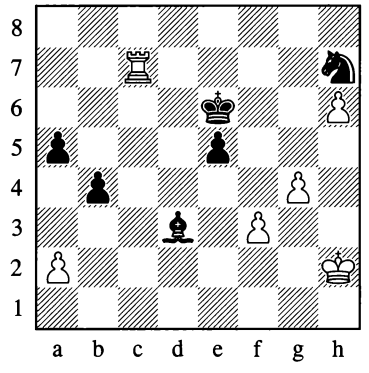
44...b4 45.f3 ♗c2

45...♗b1 46.g4 ♘h7 47.♖a7 and White wins.

46.♖c7!

46.g4? a4 is what Black would be hoping for.

46...♗d3 47.g4 ♘h7



48.♖a7?!

I decided to include this variation because it is rather elaborate and ridiculous, but at the same time displays great technical sensibility that I find particularly instructive.

48.♔g3! ♔f6 49.♔h4 wins faster, but still after a decent amount of trouble.

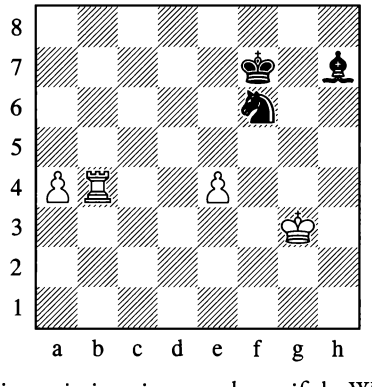
48...♘g5 49.♖xa5 ♘f7

49...♘xf3† 50.♔g3 ♘g5 51.♖a4 and White wins.

50.h7 ♗xh7 51.♖b5 e4

51...♗b1 52.a4!

52.fxe4 ♘e5 53.♖b6† ♔f7 54.♖b7† ♔g6 55.♖xb4 ♘xg4† 56.♔g3 ♘f6 57.a4 ♔f7



This variation is very beautiful. We shall see how the four white men are able to dominate the three black men. The variation is given by tablebases and a lot of the moves are only moves for White. The way White manoeuvres to make small improvements before he advances are refined and accurate. Describing this type of variation is difficult. Luckily it speaks for itself to a great extent.

58.e5! ♘d5 59.♖b7† ♘e7 60.♖b6! ♗d3

60...♔e8 61.e6 ♔d8 62.♖d6†! is a nice domination sign.

61.a5

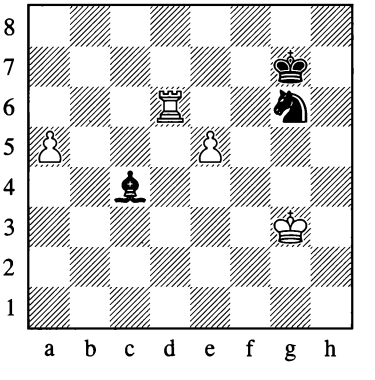
61.♖f6†!? is also strong.

61...♘g6 62.♖f6†! ♔g7

62...♔e7 63.a6 ♘xe5 64.a7 ♔xf6 65.a8=♕ is a theoretical win.

63.♖d6! ♗c4

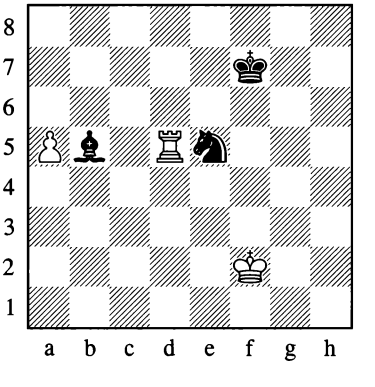
63...♘xe5 64.♖xd3! ♘xd3 65.a6 and the pawn cannot be stopped.



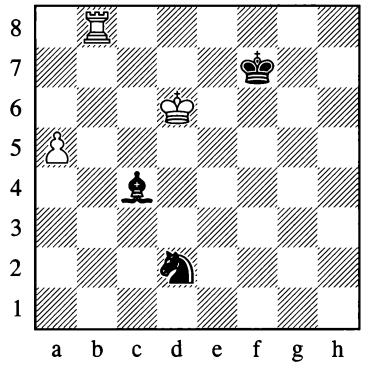
All these checks are squeezing Black.

64.♖d7†! ♔f8 65.♖c7

After 65.♖d4 ♗b5 66.♖d6 ♔f7, White is only winning with 67.♔f2!, which is the only square where there will be no decent follow-up after 67...♘xe5 68.♖d5.

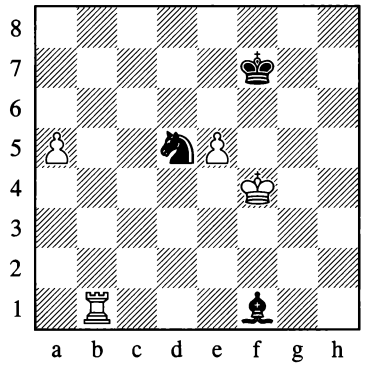


For example: 68...♘g4† 69.♔g3 ♗e2 70.♖d2, or 69...♗c4 70.♖c5 ♘e3 71.♔f4 ♘g2† 72.♔e5 ♗d3 73.♖c3 ♗b5 74.♖b3 ♗c4 75.♖b2 ♘h4 76.♖b7† ♔e8 77.♖b4 ♘f3† 78.♔d6 ♘d2 79.♖b8† ♔f7



80.♔c5 The bishop is running out of decent squares to stop the a-pawn.

65...♗d3 66.♖c3 ♗b5 67.♖c5 ♗d3 68.♔f3 ♘e7 69.♖c3 ♗a6 70.♖b3! ♗c4 71.♖b8† ♔f7 72.♔f4 ♗f1 73.♖b1 ♘d5†



74.♔g5!!

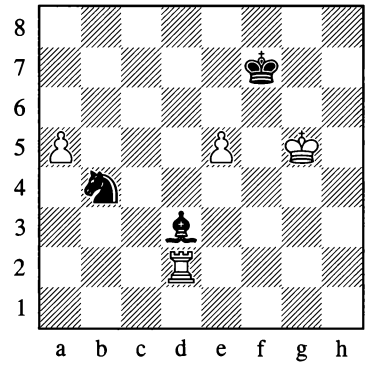
The only winning move. The king steps away from all possible checks.

74...♗e2 75.♖b2 ♗d3

75...♗a6 76.♖h2 with either ♖h7† or ♖h6.

76.♖d2 ♘b4

76...♗c4 77.a6 and wins.

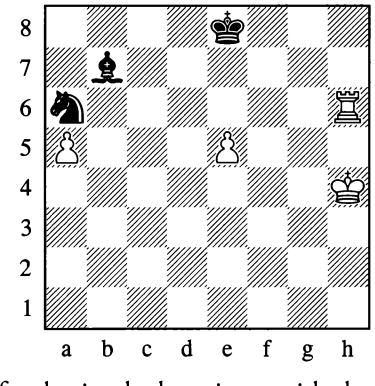


77.♔h4!!

Stepping far away, preparing to take on d3.

77.♖xd3? would fail to 77...♘xd3 78.a6 ♘c5 79.a7 ♘e6† and the check will save the day.

77...♗a6 78.♖d6 ♗c8 79.♖b6 ♘a6 80.♖c6 ♗b7 81.♖h6 ♔e8

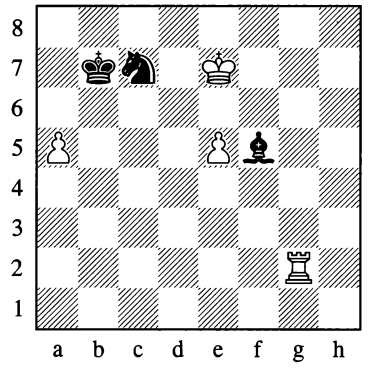


After having had to zigzag with the king to the distant edge of the board, the white king is finally ready to return.

82.♔g5 ♘c7 83.♔f6 ♗c8 84.♖h8† ♔d7 85.♖h1 ♔c6 86.♖c1† ♔b7 87.♔e7

Black has been pushed into a corner. The price for stopping the a-pawn has been the rise of the e-pawn as a great force.

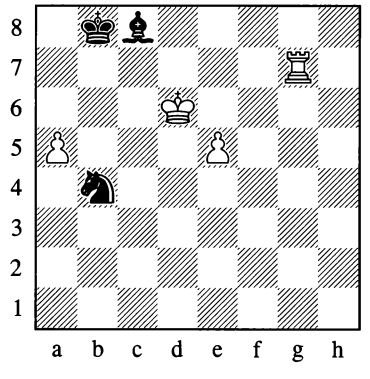
87...♘b5 88.♖c5 ♘c7 89.♖c2 ♗f5 90.♖f2 ♗g4 91.♖g2 ♗f5



92.♖g5

The win is paper thin. For example: 92.♖g7 ♔c6 and Black is holding.

92...♗c8 93.♖g7 ♔b8 94.♖g6 ♗f5 95.♖g5 ♗c8 96.♔d6 ♘b5† 97.♔c5 ♘c7 98.♖g8 ♔b7 99.♖g7 ♔b8 100.♔b6 ♘d5† 101.♔c6 ♘b4† 102.♔d6

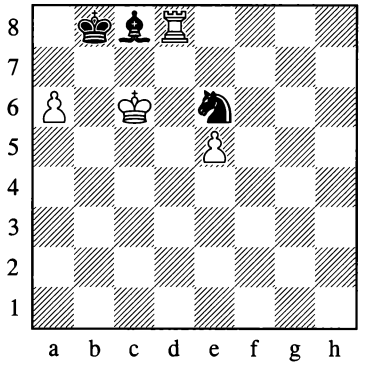


The knight has been side-lined. Finally, Black is fully dominated.

102...♘c2 103.♖g8 ♘d4 104.♖d8 ♘f5† 105.♔c6 ♘g7 106.a6

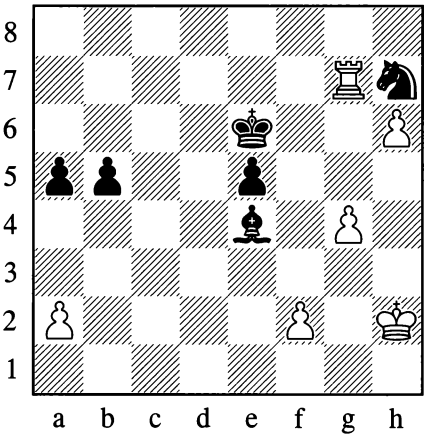
White wins:

106...♘e6



107.♖xc8† ♔xc8 108.a7 ♘c7 109.e6 ♔d8 110.e7†

45.g4



45...♔f6

45...♘f8 46.♖a7 a4 47.♔g3 ♔f6 48.f4 exf4† 49.♔xf4 also wins for White, although it will again take a long time to break through the defences.

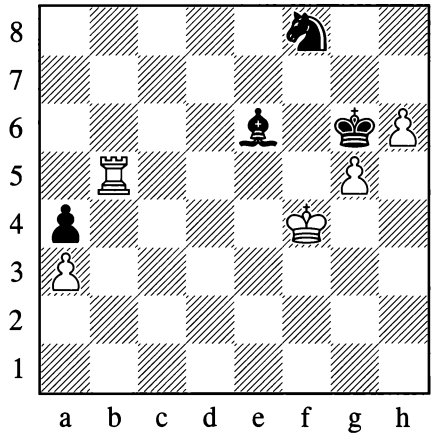
46.♔g3 a4 47.f4!

Bringing in the king.

47...exf4† 48.♔xf4 ♗g6 49.♖b7 ♗f7 50.♖b6† ♗e6 51.a3

Securing the queenside. There is no rush.

51...♘f8 52.g5† ♔g6 53.♖xb5



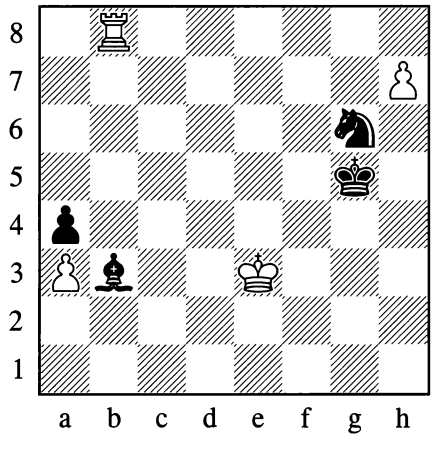
53...♔h5

53...♘h7 54.♖b6 ♘xg5 55.h7! would lead to the same conclusion after 55...♔xh7 56.♔xg5 ♗b3 57.♖b7† ♔g8 58.♔f6 ♗c2 59.♖g7† ♔h8 60.♖g1, winning.

54.♖b8 ♘g6† 55.♔e3 ♔xg5

White wins also after 55...♗f7 56.h7 ♔xg5 57.♖g8 ♔h6 58.♖xg6† ♔xh7, with a transposition to the game.

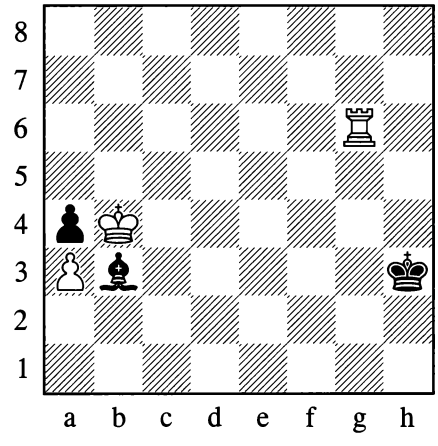
56.h7 ♗b3



57.♖g8! ♔h6 58.♖xg6† ♔xh7 59.♖g1

Keeping the king cut off, while the white king is going to the queenside to win the a-pawn.

59...♔h6 60.♖g3 ♔h5 61.♔d2 ♗e6 62.♔c3 ♔h4 63.♖g6 ♗b3 64.♔b4 ♔h3



65.♖a6 ♔g4 66.♖xa4 ♗xa4 67.♔xa4 ♔f5 68.♔b5 ♔e6 69.♔c6

1–0

13. The bishop pair

The following game involves the bishop pair being active in several scenarios. First against the two knights, where they are superior. Then Oparin finds a really farfetched combination that should not work, and does not work, with the ambition of winning two knights for a rook. Kramnik decides to let it happen, presumably because it created an odd dynamic on the board that he found fascinating.

And it is. Rarely is a rook competitive against two bishops, but this time round, it is. The end is a disappointment, but the options along the way are fascinating. As so often in chess, the details are what make it worth studying.

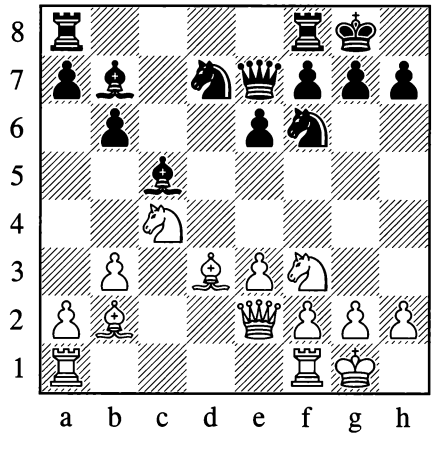
Vladimir Kramnik – Grigoriy Oparin

Zurich 2017

1.♘f3 ♘f6 2.d4 e6 3.e3 d5 4.♗d3 b6 5.0–0 ♗b7 6.b3 ♗d6 7.♗b2 0–0 8.♘bd2 c5 9.dxc5!?

Traditionally, White played 9.♘e5 ♘c6 10.f4, but after 10...♖c8 11.a3 ♘e7, Black is not worse.

9...♗xc5 10.♕e2 ♘bd7 11.c4 dxc4 12.♘xc4 ♕e7



13.♖ad1

At the time of the game, this was a novelty. A non-event in the history of opening theory. White is not better and one move is not much different to another.

A famous game went: 13.a3 a5 14.♘d4 ♖fd8 15.♖fd1 ♖ac8 16.♖ac1 ♘f8 Black was not worse and later, when his impatient opponent over-pressed, he was even able to win the game and take the lead in the World Championship match. Carlsen – Karjakin, New York (8) 2016.

13...♖fd8 14.♘d4 ♘e4

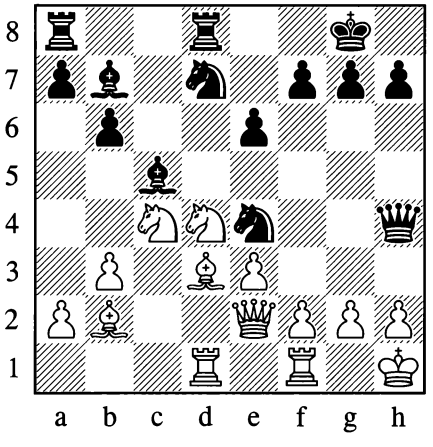
Black is not under pressure, but just has to avoid falling for small traps like 14...♖ac8 15.♘b5 a6?, when 16.♘bd6 gives a big advantage.

15.♔h1

A strange move. It is hard for me to imagine a situation where the king is better placed in the corner, but apparently, this is what Kramnik did.

The position is equal after almost any normal move.

15...♕h4



16.♗xe4?!

This I really dislike. I still believe that the bishop is stronger than the knight, especially in a situation where most of the pieces are still on the board. It is clear that Kramnik is looking for ways to make the game interesting.

This game was played around 18 months before his retirement from competitive chess in January 2019. He later explained that he had lost the passion for chess and was trying to do whatever he could to make his games more interesting. Here, rather than playing the best moves, he seeks to bring the position out of balance, by giving up bishop for knight and then fighting for the light squares with the pawns.

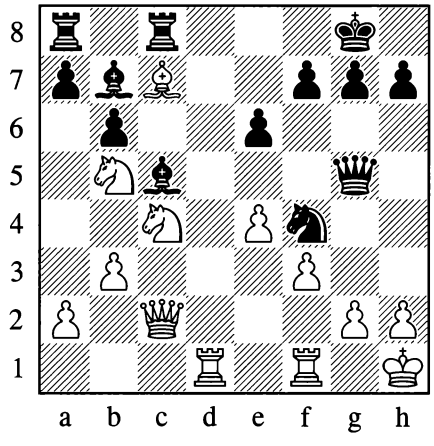
16...♕xe4 17.f3 ♕h4 18.♘b5 ♘f6

Black has a strong consolidating move in 18...♕e7!?, based on the trick 19.♘bd6?! ♗a6!, when White is about to lose material or play the clumsy 20.♘e4, when Black is better in many ways. The best being 20...♗b4, keeping the advantage of the two bishops.

19.♗e5

White could grab a pawn with 19.♖xd8† ♖xd8 20.♘xa7, but after 20...♗a6! he will have to find a narrow path to a decent position.

19...♘d5 20.e4 ♘f4 21.♕c2 ♕g5 22.♗c7 ♖dc8



Kramnik has played some strange moves, but the benefit of the first move has insulated him from getting into a worse position up to this point. With the next move, he can no longer say that.

23.♗xf4?

Kramnik will have known that this was a strategic concession of great consequence. It is hard for me to estimate if this in some way turned him on. The challenge of playing an inferior position may fill most of us with dread. But Kramnik, feeling his fighting passion wane, may have been tempted by the thrill of fighting with the disadvantage of knights against bishops. And who could say that he was wrong. The game is thrilling and in the end, Kramnik had plenty of chances to win it.

But on the other hand, he may just have not seen anything better...

One of the key tactical points is that 23.♗d6? would get into trouble after 23...♗a6!, with a vital point being that 24.a4 ♗xb5 25.axb5 ♗xd6 26.♖xd6 ♕xb5 nets a pawn for Black.

But White could have played 23.♗e5!, which looks shaky, but has no discernible tactical downside.

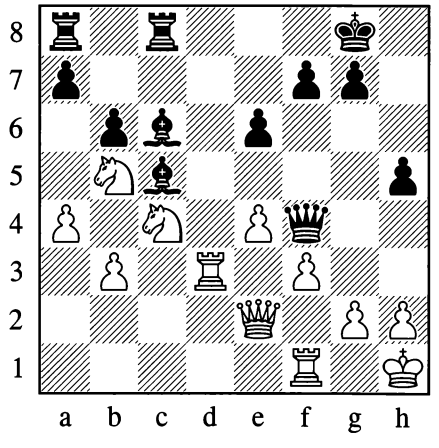
23...♕xf4 24.♕e2

24.♘bd6? was not the idea. After 24...♗xd6 25.♖xd6 ♕xd6!, Black wins.

24...♗c6 25.a4 h5! 26.♘d4 ♗e8 27.♘b5 ♗c6

27...♗xb5!? would also have been interesting. The white pawns would be targets long term. One of the powers of the two bishops is of course that you can decide when to make exchanges.

28.♖d3



28...a6!?

28...h4!, to tighten the grip on the dark squares in a situation where White is not doing anything apparent, would have been my choice.

29.♘bd6 ♖d8?!

Later we will understand that the rook would be better placed on c7. But this is hardly the most important moment of the game.

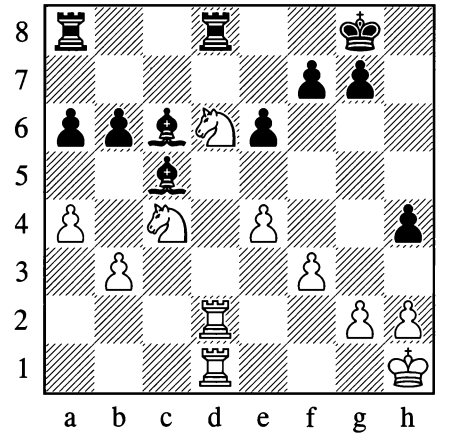
30.♖fd1?!

30.g3 ♕f6 31.♖c1! would have been an important way to fight for the key squares in the centre.

30...h4!

Black takes control of the dark squares.

31.♕d2 ♕xd2 32.♖3xd2



32...f6!

Another good positional move, fighting for the dark squares. As White has spent all his resources on controlling the light squares and stabilising his structure on the light squares.

Having said this, Oparin probably just prevented ♘c4-e5.

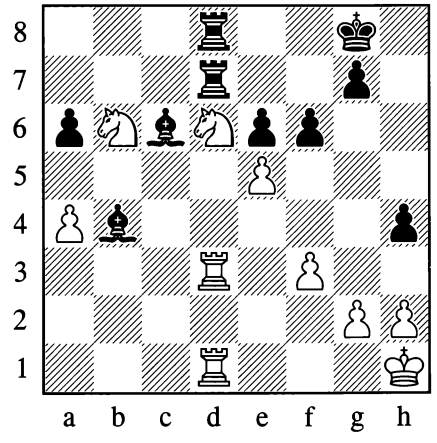
33.♖d3 ♖a7!

Bringing the rook into the game.

34.e5 ♖ad7

The white position is close to collapse. Kramnik decides to act before his opponent is able to do so.

35.b4!? ♗xb4 36.♘xb6



36...♖a7?

A typical time-trouble move. The rook has no business on a7.

36...♖e7? would drop the exchange to 37.♘f5!.

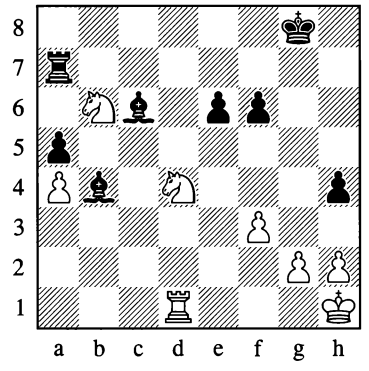
36...♖c7! would have been winning for Black. The centre is unravelling. If White takes on f6, the bishops will roam free and White will struggle long term. And after 37.f4 fxe5 38.fxe5 ♖f8 Black would attack the g2-pawn with great power.

37.exf6

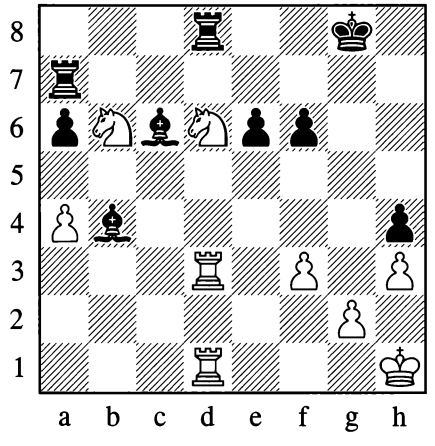
37.♖d4 a5! 38.♘dc8 was another try. But after 38...♖xd4 39.♖xd4 ♖b7, Black stays in control.

37...gxf6 38.h3

38.♖d4 was probably a better try, but after 38...a5 39.♘b5 ♖xd4 40.♘xd4, Black still wins with accurate play:



40...♗e8! 41.♘xe6 ♖a6 42.♘c7 ♖xb6 43.♘xe8 ♖c6! Dominating the knight. 44.♔g1 ♔f7 45.♖d8 ♖c1† 46.♔f2 ♗c5† 47.♔e2 ♖c2† 48.♔d3 ♖xg2 49.♘c7 The knight escaped, but after 49...♖xh2 Black has a technical win.



38...a5

38...♖c7! was still strong.

But Black also had a tempting tactic, leading to simplifications:

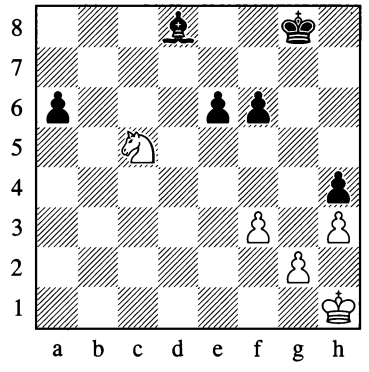
38...♗xa4!? 39.♘xa4 ♖ad7 40.♖b3 ♖xd6!

40...♗xd6? 41.♖bd3 is White's trick.

41.♖xd6 ♗xd6 42.♖d3 ♗e7!

42...♔f7? would however fail to 43.♘c5 ♔e7 44.♘b7! (44.♘xa6? ♖a8 would trap the knight) 44...♖d7 45.♘xd6 ♖xd6 46.♖a3, when White will survive the rook ending with good play.

43.♖xd8† ♗xd8 44.♘c5

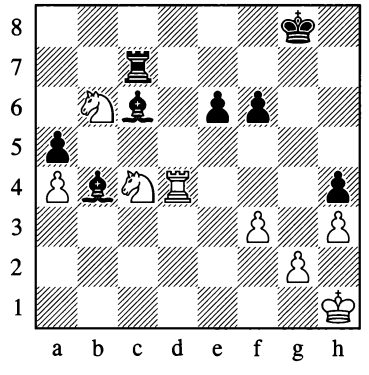


44...♗e7!

Black wins. If White takes on e6, the a-pawn runs to the finish line with great fervour. And if 45.♘xa6 ♗d6, the knight is trapped.

39.♖d4 ♖a6?

Black was still winning after:
39...♖c7! 40.♘dc4 ♖xd4 41.♖xd4



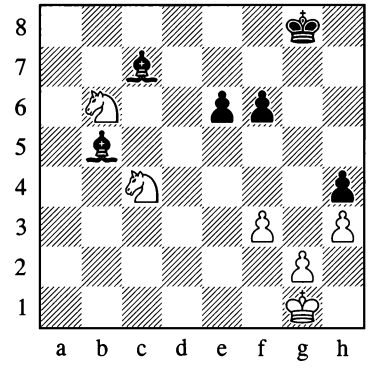
41...♗e1!

The key move. The bishop dominates the white king, leading to a technically winning position. During a game, this is all we would need to see and if Oparin had seen this, he would have played it. But at this time, half of his gaze was focused on the clock.

41...♗d5? 42.♖xh4 is still better for Black, but White has real drawing chances.

An interesting variation to analyse is what happens if we get into a clean bishops vs knights endgame.

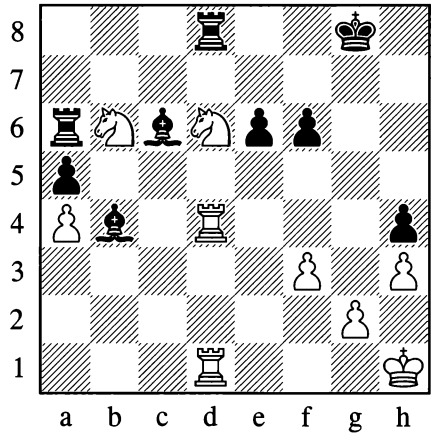
42.♔g1 ♗g3 43.♘xa5 ♗xa4 44.♖c4 ♗b5 45.♖xc7 ♗xc7 46.♘ac4



The knights are horribly connected to each other.

46...♔f7 47.♔f2 ♔g6 48.♔e3 ♔g5 49.♔e4 ♗a6 50.♔e3 f5 51.♘a8 ♗f4† 52.♔d3 ♗b8 53.♘ab6 ♔f4 54.♔e2 ♗a7

Black wins.



40.♘dc8!

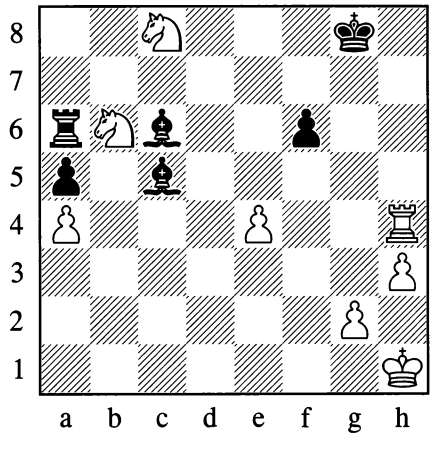
Sort of trapping the rook on a6. The tables have slowly turned and Black should be the one who is careful from now on.

40...♖xd4 41.♖xd4 e5

41...♗c5? would lose to 42.♖c4! ♗xb6 43.♖xc6.

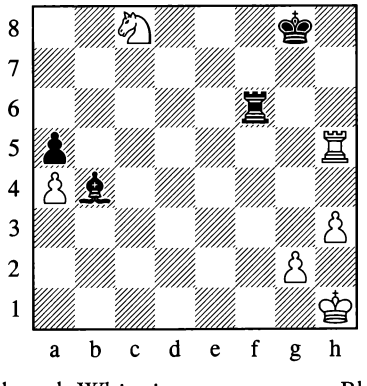
42.♖xh4 e4! 43.fxe4 ♗c5

43...♗b7! was stronger, threatening to trap the knights. White would have to give up the e-pawn to get the rook in to support the knights and keep the balance.



44.e5!?

44.♖h5! was a bit more dangerous for Black. 44...♗b4 (44...♗xb6?! 45.♘e7† would be really dangerous for Black.) 45.e5 ♗b7 (45...fxe5 46.♖xe5 again would be good for White.) 46.exf6 ♗xc8 47.♘xc8 ♖xf6

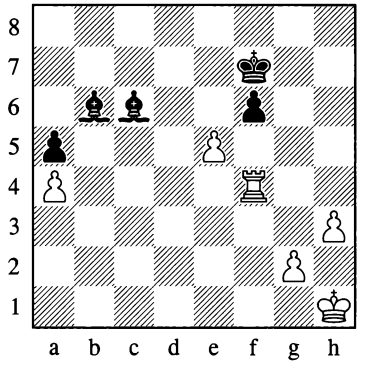


Although White is two pawns up, Black still has reasonable drawing chances. The a4-pawn is in danger and the black a-pawn would be far away. But most importantly, the white knight is going to struggle to find a decent role or square.

44...♖xb6! 45.♘xb6 ♗xb6 46.exf6

Another option was:
46.♖g4† ♔f7 47.♖f4

Black could hold with active play:



47...f5!

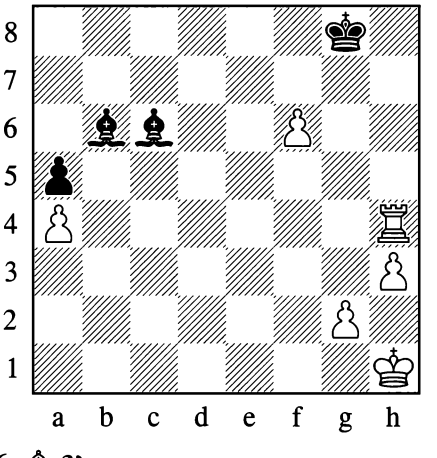
47...♗d8 is passive, but should also hold in the long run.

48.♖xf5† ♔e6 49.♖f6† ♔d5 50.e6 ♗d4 51.♖h6 ♗xa4

Black will get a lot of counterplay with the a-pawn. Even if he loses a bishop to the e-pawn, the a-pawn will secure a draw.

52.e7 ♗d7 53.♖a6 a4 54.♖a8 ♔c4 55.e8=♕ ♗xe8 56.♖xe8 a3

The a-pawn will draw by claiming the rook.



46...♗e3?

A horrible mistake that leads to huge problems.

46...♔f7! 47.♖h7† ♔f8! was holding easily. The threat of taking on a4 is important.

We should note that both 47...♔g8? 48.f7† then 49.♖h6, and 47...♔g6 48.f7 ♗c5 49.♖h8! ♔xf7 50.♖c8 win for White.

47.♖c4 ♗d5 48.♖c7 ♗f7 49.h4 ♗d4

White also wins after 49...♗f2 50.♖c8† ♔h7 51.♖f8! ♔g6 (51...♗g6 52.♖a8 will ensure the three-pawn advantage.) 52.h5† ♔xf6 53.h6 White wins.

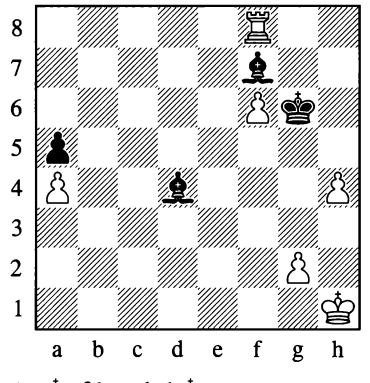
50.♖c6?!

We have entered the territory where White should be looking for forced wins.

50.♖c8† ♔h7 51.♖f8 ♔g6

After 51...♗g6 both 52.g4 and 52.f7 win quickly.

51...♗e6 52.f7 ♗c5 53.♖a8 ♗xf7 54.♖xa5 is also hopeless.



52.h5†!! ♔xf6 53.h6 ♔e7

53...♔g6 54.h7 wins a bishop.

The black king has been pushed far away from the h-pawn, giving White time to steal the a-pawn without Black having any counterplay.

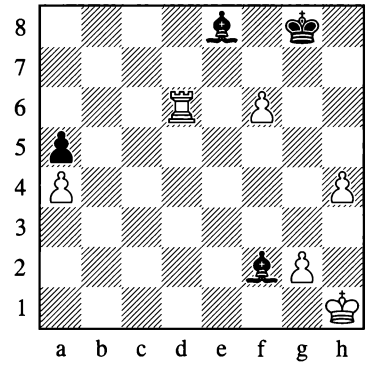
54.♖a8

White wins the a-pawn and later the game.

50...♗b3?!

In principle this should have made the task a good deal easier for White, although he did not manage to win in the game. But if a poor defence was successful, a strong one would probably have been so too.

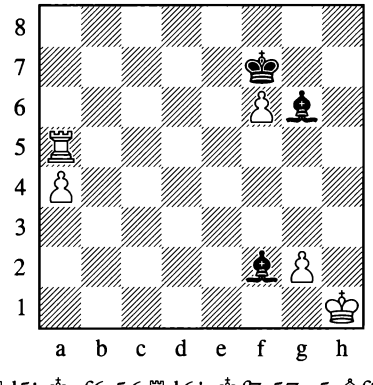
Black could have offered more resistance with: 50...♗e8 51.♖d6! ♗f2



52.h5!

One of the rare cases where Stockfish misevaluates the endgame on my laptop, since it is not connected to a tablebase. 52.♖d5 ♗xa4 53.h5 ♗e3 54.♖xa5 ♗c2 55.g4 ♗d1 56.♖a3 ♗xg4 57.♖xe3 ♗xh5 Stockfish is all excited, but it is a textbook draw, known from Szabo – Botvinnik (see page 610).

52...♗xh5 53.♖d5 ♗g6 54.♖xa5 ♔f7



55.♖d5! ♔xf6 56.♖d6† ♔f7 57.a5 ♗f5 58.a6 ♔e7 59.♖c6!!

59.♖h6? ♗e4 60.♔h2 ♔d7 and the king will come over to stop the a-pawn. And as it is as far advanced as it is, Black will be able to hold it back, even an exchange down, should it come to that.

59...♗e4

59...♔d7 60.♖f6 would win a bishop.

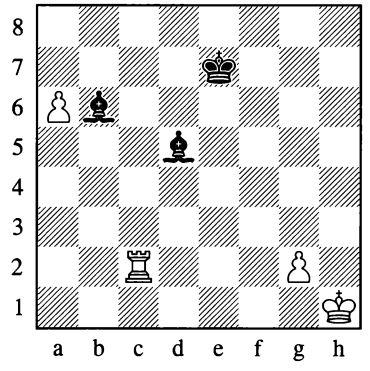
60.♖c4

The rook gets some useful tempos.

60...♗d5

60...♗d3 61.a7! and White wins.

61.♖c2 ♗b6



The winning margin is still slim – a single tempo.

62.♔h2! ♔d6 63.g4 ♗c6

Black's plan to get the king to the queenside is clumsy and time consuming. But also necessary.

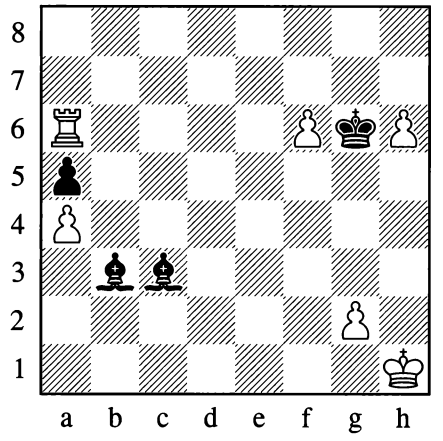
64.♔g3 ♔c7 65.♔f4 ♗d4 66.g5 ♔b6 67.a7 ♗a8 68.♖d2 ♗c3 69.♖d3

The bishop has no good squares. For example: 69...♗a1 70.♖b3† and 69...♗g7 70.♖d8 ♔xa7 71.♖d7† and White wins.

51.♖d6 ♗e5 52.♖a6 ♗c3 53.h5 ♔f7

After 53...♗xa4, then 54.♖a8† ♔f7 55.h6 ♗xf6 56.h7 ♗c2 57.h8=♖ ♗xh8 58.♖xh8 is a slow but straightforward technical win.

54.h6 ♔g6



55.f7†!

Forced, so not the start of a combination, sadly.

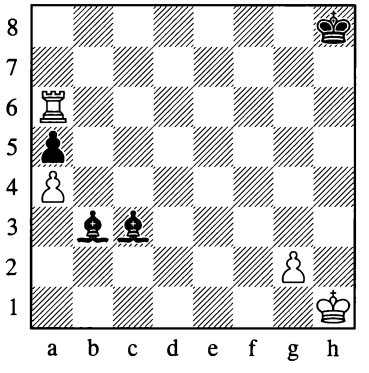
55...♔xf7 56.g4??

Kramnik somehow misses a sweet, but not too difficult, tactic.

56.h7! ♔g7

After 56...♗xa4 57.♖xa5 ♗d7 58.♖a7! ♔e6 59.♖a8 it is time for Black to resign.

57.h8=♕†! ♔xh8



58.♖h6† ♔g7 59.♖h3

White wins.

56...♗xa4 57.g5 ♗c2

Black makes an easy draw.

58.♔h2 ♗d3 59.♖a7† ♔g6 60.h7 ♔xg5 61.♖xa5† ♔h6

½–½

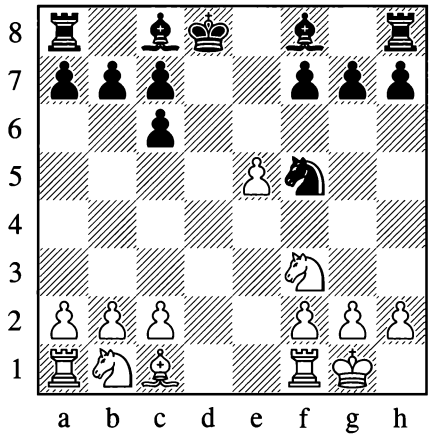
14. Attack in the endgame

The following game from the Candidates tournament was the Game of the Day that day. It is a good illustration of the queenless middlegame, or attack in the endgame – whatever you prefer to call it...

Maxime Vachier-Lagrave – Alexander Grischuk

Yekaterinburg 2020

1.e4 e5 2.♘f3 ♘c6 3.♗b5 ♘f6 4.0–0 ♘xe4 5.d4 ♘d6 6.♗xc6 dxc6 7.dxe5 ♘f5 8.♕xd8† ♔xd8



The Berlin Wall endgame. I still remember Jonathan Rowson's stern opinion, written not long before the 2000 Kasparov – Kramnik World Championship match in London:

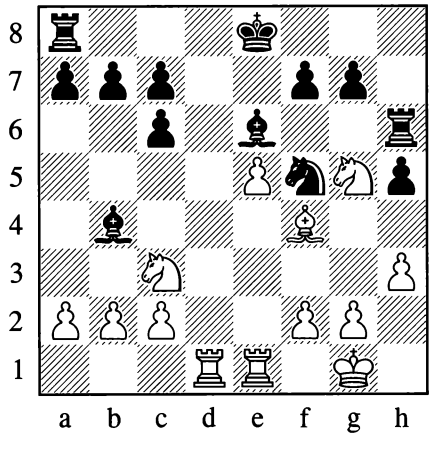
"Miles has been playing this system for decades with an intimidating success rate. It was no surprise that he should wheel it out against me in the context of a two game match because Black has excellent winning chances if White plays inaccurately but retains fair drawing chances even if White plays very well. That said, I had heard Mickey Adams comment that 'strong players always win this ending as White' and it has recently become fairly clear how White should set about playing this ending."

These days the Berlin is one of the main openings in chess and there have been top tournaments where almost all of the games were the Berlin – and drawn. Especially towards the end of the season, where the same players meet each other for the 5th time or so in the season and have had no time to find ideas of significance. Lately many have of course decided to opt for the pleasing move 3.♗c4, which leads to entirely different challenges.

I have always had the opinion of the Berlin that the doubled pawn is not a great liability for Black. Yes, White has an extra pawn on the kingside, but in return Black has solid influence on the light squares. The real problem for Black is his lack of development and the fact that it is difficult to get the rooks into the game. White needs to create problems with active play in order

to topple the black position. Often with the pawn sacrifice e5-e6. The way MVL played in this game matched this philosophy perfectly.

9.h3 ♔e8 10.♘c3 h5 11.♗f4 ♗e7 12.♖ad1 ♗e6 13.♘g5 ♖h6 14.♖fe1 ♗b4



15.a3!

This is the modern approach. The queenside does not matter. But getting rid of an annoying pin is very important.

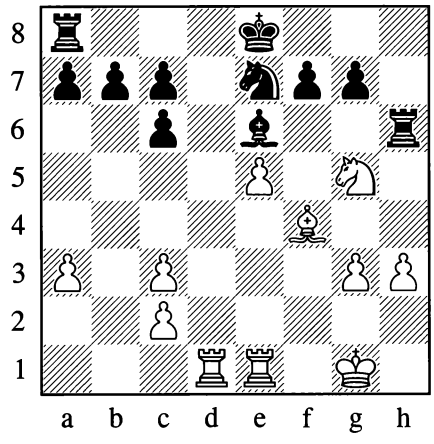
This is also the way Kramnik played in his attempt to overrun Karjakin in the 2018 Candidates.

15...♗xc3 16.bxc3 h4 17.g4

17.♔h2 ♔f8 18.♖b1 b6 19.♖b4 ♖e8 20.♖a4 a5 went absolutely nowhere in Nepomniachtchi – Grischuk, in Round 2 of the same tournament.

17...hxg3 18.fxg3 ♘e7

Grischuk is a psychopath. He spent 53 minutes on this move, entirely convinced that MVL would reply 19.g4. But as Grischuk himself pointed out, if he had not wasted the time here, he would have just wasted it later...



19.h4!N

The first new move. It looks a bit counter-intuitive to weaken the light squares and I guess this is why MVL previously played the more natural 19.g4, but after 19...♘d5 20.♗d2 ♘b6 Black was already very comfortable in Vachier-Lagrave – Nakamura, Internet 2018.

19...♘d5 20.♗c1!

White keeps the strong bishop and does not care about material too much.

20...♘xc3!

Grischuk decides to accept the pawn sacrifice. The alternative of trying a blockade on the light squares is not going to work, as far as I can see:

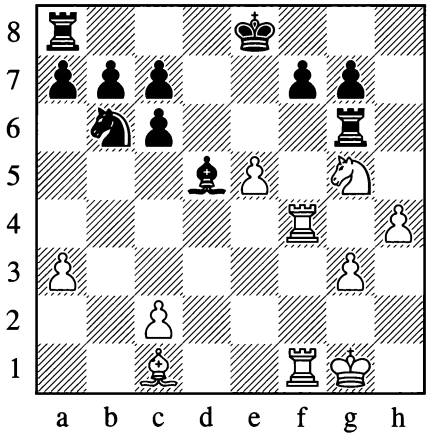
20...b5? 21.♘e4 ♖h8 22.c4! bxc4 23.♖d4 ♘b6 24.♘c5 ♖d8 25.♘xe6 fxe6 26.♖xd8† ♔xd8 27.g4 would give White a clear advantage. Although Black is a pawn up, he is in real danger. The knight is passive. Even on d5 it has literally no function, as this impressive square leads to nowhere of importance.

21.♖d3 ♘a4 22.♖f3 ♗d5

A possible improvement for Black would be 22...♔e7 23.♘xe6 ♖xe6 24.♗g5† ♔f8 25.♖ef1 ♔g8 26.♖xf7 ♖c8 27.♖1f5, although he is definitely under pressure. Is the Berlin itself

becoming a bit suspicious? It would be great if it was the case.

23.♖f4 ♘b6 24.♖ef1 ♖g6



25.♖f5

MVL had a very interesting alternative idea: 25.♖4f2!?

The key idea is to play h4-h5 and ♘xf7.

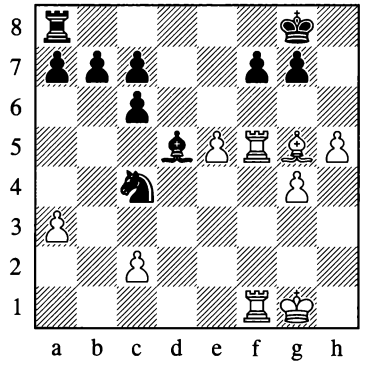
25...♘c4 26.♖f5

26.h5!? ♖xg5 27.♗xg5 ♘xa3 28.♗d2 a5 (28...♘c4 is met with the brilliant 29.e6!! ♗xe6 30.♗c3 ♔f8 31.♖e1 ♗d5 32.g4, where Black is very passive and White can improve his position without difficulties.) 29.e6 ♗xe6 30.g4 ♘xc2 31.g5 ♘d4 Black is not worse.

26...♔f8 27.g4

27.a4 ♔g8 28.h5 ♖h6 29.♘xf7 ♖e6 is fine for Black.

27...♔g8 28.h5 ♖xg5 29.♗xg5



29...♖e8!

29...♘xa3? 30.h6! gxh6 31.♗f6 ♔h7 32.♖h5 gives White a winning attack. He is threatening both g4-g5 and ♖f2-h2.

30.♗c1

This endgame is of course a draw with accurate defence for Black, but White can still push a little bit.

25...♗c4 26.♖e1

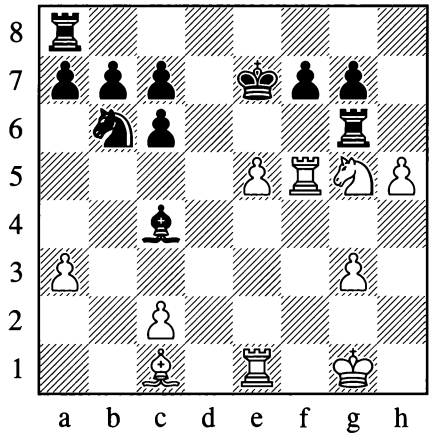
26.♖d1 is the other idea, but after 26...c5 27.h5 ♖c6 28.g4 ♔e7 29.♖f2 ♖e8 Black looks fairly solid.

26...♔e7?!

26...♖d8! was safer. Black can neutralise the white pressure eventually. 27.♔h2 ♖d7 28.♘e4 (the alternative 28.h5 ♖h6 29.g4 ♗e6 30.♖f4 c5 is also close to equality) 28...♔f8 29.♘c5 ♖e7 30.h5 ♖f6! 31.g4 ♖xf5 32.gxf5 ♘d7 33.♘xd7† ♖xd7 and Black will make the draw.

27.h5

It is possible that 27.g4! ♗e6 28.♖f2, with a slight edge, was stronger.



27...♖h6?

After this natural move, Black is finally in real danger.

27...♗e6! 28.♖f2 ♖h6 29.g4 ♘c4! would have allowed Black to fight on, on equal terms.

28.g4?!

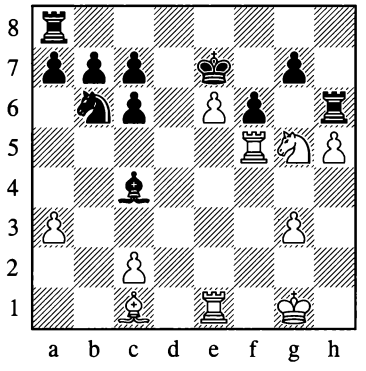
MVL misses his first chance to display great creativity.

28.e6!

This thematic advance was possible. Black has to play:

28...f6

28...♗xe6? 29.♖xf7† would be a disaster.



Here White has a fantastic move. Having achieved a great concession from the opponent, he calmly defends his h5-pawn.

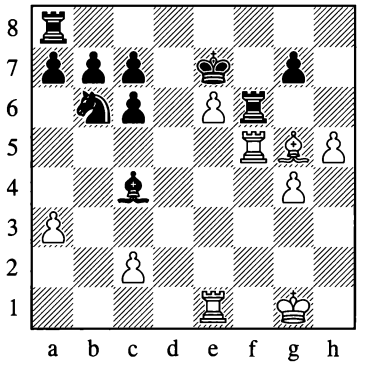
29.g4!!

Black now has a choice.

29...♖hh8

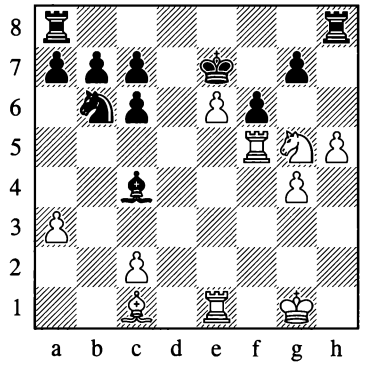
This is met with the powerful inclusion of the c1-bishop.

29...fxg5 is met brilliantly with: 30.♗xg5† ♖f6



31.h6!! ♘d5 32.hxg7 ♖g8 33.♖e4 b5 34.♖xf6 ♘xf6 35.♖f4 ♔xe6 36.♗xf6 would leave White very close to winning.

29...♖g8 30.♘e4 ♖hh8 31.♗b2 ♘d5 32.♔f2 ♔d8 33.♘d2 ♗a6 34.c4 ♘e7 35.♖f4 White has very strong pressure. The game is very complicated and Black of course has an extra pawn. But White is a big favourite here.



30.a4!! ♘xa4

Black has no choice in the matter. But at least now he has ...c5 against the bishop check, so he should be fine, right?

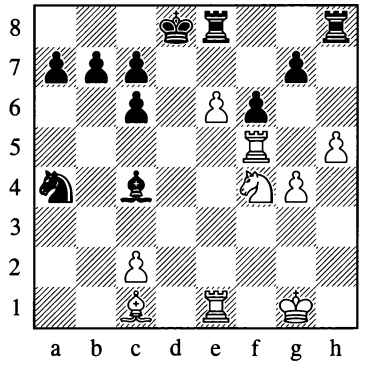
31.♘h3!

No! The knight comes round to f4, now Black no longer has ...♘d5.

31...♖ae8

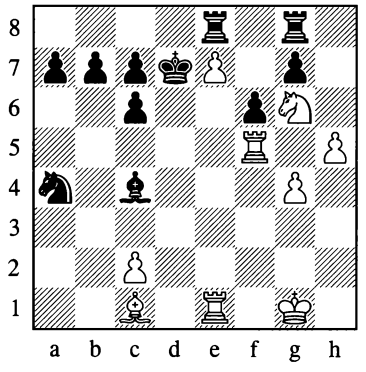
31...g6 does not work. White picks up a tempo on the knight. 32.♖a5 b5 33.♘f4 Black will have to drop something. It is not the end of the game, but it is clear that Black is only barely hanging on.

32.♘f4 ♔d8



White has a lot of tempting options here. 33.e7†, 33.g5 and 33.♖a5 all lead to a big advantage. Let's go with:

33.e7†!? ♔d7 34.♘g6 ♖hg8

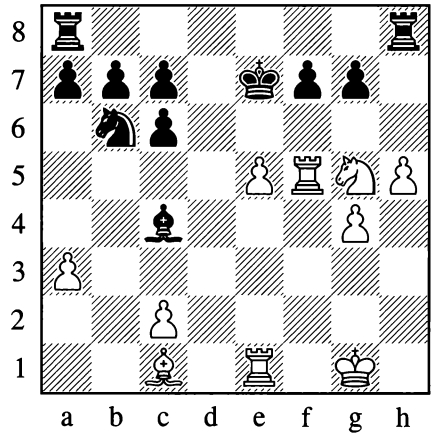


35.g5! ♗f7 36.♘f8† ♔c8 37.h6 gxh6 38.♘h7 hxg5 39.♘xf6 ♖g6 40.♘xe8 ♗xe8 41.♖xg5 ♖xg5† 42.♗xg5

White is still pressing.

28...♖hh8?

Once again Grischuk should have played 28...♗e6!. After 29.♘xe6 ♖xe6 30.♗g5† ♔f8 31.♖ef1 ♔g8 32.♖xf7 ♘d5 33.♖1f5 (33.c4 ♖xe5!) 33...g6 the position offers even chances.



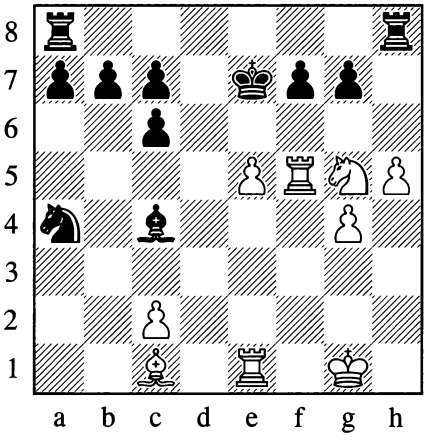
29.a4!?

A wonderful aggressive idea.

29.e6! f6 30.a4 was another strong version of the idea. Black cannot take a piece here. 30...fxg5? (30...♘xa4 31.♘h3 with a big advantage for White is the key concept.) 31.♗xg5† ♔d6 (31...♔e8 32.♖f7) 32.♗f4†! ♔e7 33.♖f7† with a winning position. White will take on g7 and advance the pawns. Black's extra piece is offering him no play whatsoever.

29...♘xa4?!

29...♗e6!? could still have been attempted, but this time White has the advantage. 30.♘xe6 ♔xe6 31.♖ef1! The f7-pawn cannot be saved without giving up the exchange. 31...♖hg8 32.♖xf7 ♘d7 33.a5 White has an advantage, but actually, I think this is a little less than in the line with 29.e6!.



30.♗a3†?

Missing a great chance.

30.♖e4!

MVL said that he simply "forgot" about this move and the fact that ♖xc4 or ♖xa4 was a real threat.

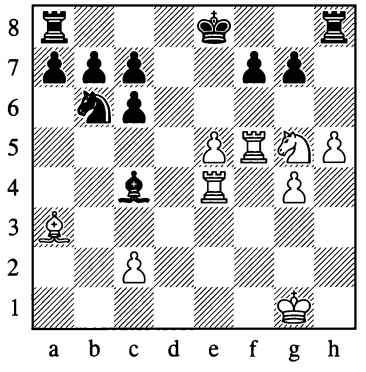
The first point is that White is totally winning after 30...b5 31.♖xc4 bxc4 32.♖xf7† ♔e8 33.♖xc7. The extra exchange matters little, compared to the activity of the white pieces. 30...g6 31.♖f6 is also not an improvement, so the critical line becomes:

30...♘b6

In many lines Black wants to play 30...♗e6, but this time White has a nice winning line. 31.♘xe6 fxe6 32.♗g5† ♔e8 33.♖f3 b5 34.♖ef4 followed by ♖f7. Black has to run. 34...♔d7 35.♖f7† ♔c8 36.♖xg7 White wins.

31.♗a3† ♔e8

White has the following beautiful winning combination:



32.♘xf7!! ♗xf7 33.e6

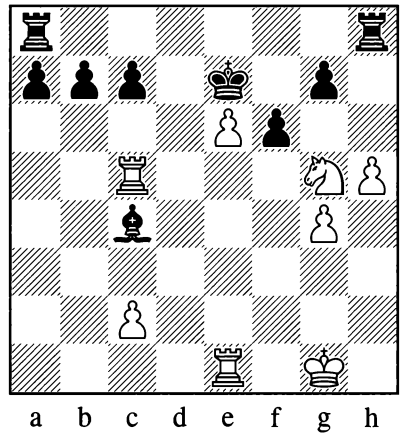
White is winning. The most attractive finish would be:

33...♗xh5 34.♖ef4! ♔d8 35.♖f8† ♖xf8 36.e7† ♔d7 37.exf8=♕

30...c5 31.e6

White would still have some pressure after 31.♖e4 ♗e6 32.♘xe6 fxe6 33.♖g5 ♘c3 34.♖c4 ♘b5 35.♗xc5† ♔f7 36.♖f4† ♔g8 37.c4 ♘c3 38.♔f2, but this is of course a far cry from the chance he had just missed.

31...f6 32.♗xc5† ♘xc5 33.♖xc5



33...fxg5?!

An easier draw appears after 33...b5! 34.♖xc7† ♔d6 35.♖d7† ♔c6 36.♘f3 ♗xe6 37.♖xg7 ♗d5 and Black is fine.

34.♖xc7† ♔d6 35.♖xc4 a5!? 36.♖d1†

MVL could have tried a bit more with 36.♖d4† ♔c6 37.♖d7 a4 38.♖xg7 a3 39.♔f2 a2 40.♖a1 ♔d6 41.♔e3, but I am sure he knew he had missed his chance to take the sole lead.

36...♔e7 37.♖e4 ♖hd8 38.♖b1 ♖db8 39.♖b5 a4 40.♖xg5 ♖g8 41.h6 gxh6 42.♖xg8 ♖xg8 43.♖xa4 h5 44.♔f2 ♖xg4
½–½

What did we learn from this game?

First of all, Grischuk is incorrigible. Some people think his clock-handling is cool or entertaining. I just find it stupid. The most intelligent person in the room showing no intelligence. It really is awful to watch.

Secondly, the Berlin is no longer as safe as it was considered to be. Black can defend, but he certainly has to.

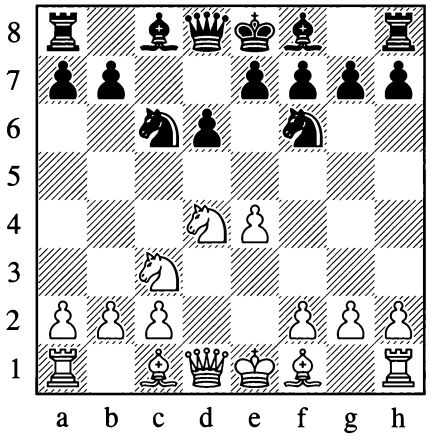
15. Timing

The final game of this book is also one of the most recent games played. It involves a sharp middlegame in the Sicilian, where White misplays his position and comes under pressure. But his mistake is not enough to justify a large advantage for Black and frustrated by this, his opponent overpresses. Nigel finds a beautiful combination that gives him a technically winning position, but once again the margin for error is not great and both players struggle to find the right path in the difficult endgame.

Nigel Short – Etienne Bacrot

Malmo 2021

1.e4 c5 2.♘f3 d6 3.d4 cxd4 4.♘xd4 ♘f6 5.♘c3 ♘c6



The Classical Variation is experiencing a revival these years. I still think it is the ugly sibling among the Sicilian main lines.

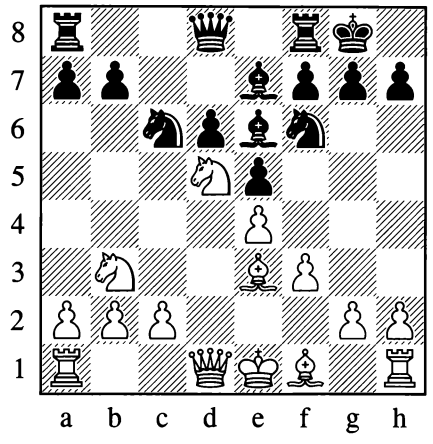
6.f3

Short stopped doing serious chess work maybe 20 years ago, once he dropped out of the elite tournaments. But his love for travel and chess have not diminished and he continues to play lots of chess, as well as travel to exotic destinations in his role as FIDE Vice-President.

This makes him quite an unpredictable opponent, especially as he will play any first move and any sideline known to man, and some not yet known, such as his 2nd Short Variation against the Caro-Kann, 1.e4 c6 2.♘c3 d5 3.♕f3!?!?.

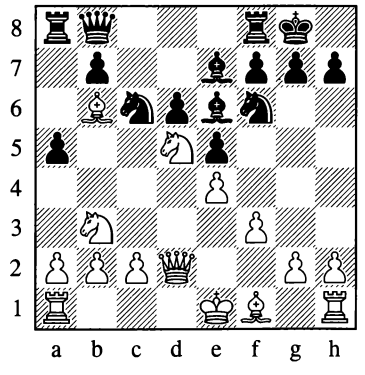
This time he plays a reasonable sideline that was even recommended in John Shaw's *Playing 1.e4* books, but should not be as dangerous as 6.♗g5!.

6...e5 7.♘b3 ♗e6 8.♘d5 ♗e7 9.♗e3 0–0



10.c4

Avoiding a theoretical challenge for White after: 10.♕d2 a5 11.♗b6 ♕b8!



White should probably accept the dangers he is facing and play: 12.♗c7 ♕a7 13.♗b6 ♕b8 with a draw.

12.♘c7 a4 looks dangerous for White. After 13.♘c1 ♖a6!! White is in need of a good move badly.

Also 13.♘xa8 ♕xa8 14.♘c1 d5 is bad for White. The exchange does not matter a lot.

10...a5 11.♗b6 ♕d7 12.a4!?

This was not a novelty – it had been played in a correspondence game. But I seriously doubt that Nigel had prepared this. For two reasons:

1) He diverges in a poor way from that game.

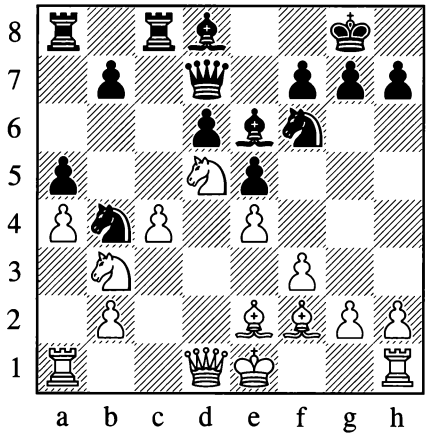
2) He stopped preparing for games in great depth somewhere around 20 years ago...

12.♗f2 ♕d8 13.♗b6 would have forced a draw and is as far as Bacrot's preparation lasted. After this he started to think.

12...♖fc8

I analysed 12...♘h5!?N 13.♗e3 ♘b4 14.♘b6 ♕c6 15.♘xa8 ♖xa8, where Black has a lot of compensation, but probably not enough for equality. The analysis is long and heavily computer-influenced. But maybe this is where Black should look further.

13.♗e2 ♗d8 14.♗f2 ♘b4



15.♘xb4?!

This turns out to be a mistake. But during the game this would not be so easy to evaluate. In the short term, White needs to reorganise his pieces. But long term, he would have a better structure. In order to not be in trouble, Black needs pawn breaks.

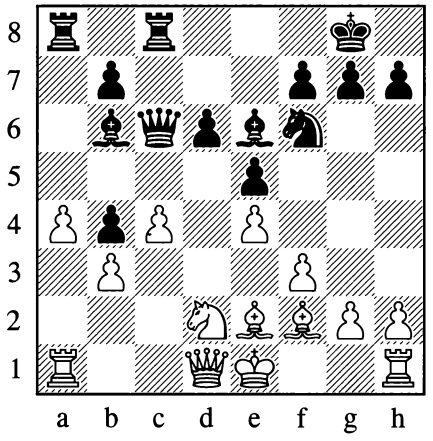
15.0–0 ♘h5 16.♔h1 h6 was played in Manaois – Lembong, email 2020. After 17.♘c1 Black has more problems to solve.

15...axb4 16.♘d2

The white pieces are poorly placed, but if the knight manages to get to d5 without Black acting in the meantime, White will be doing well.

16...♕c6 17.b3 ♗b6!?

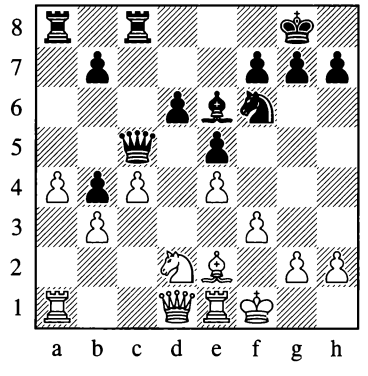
I believe that 17...♘h5 18.g3 ♗b6 19.♘f1 f5! would have given Black a slight advantage.



18.♘f1!

Forfeiting the right to castle.

18.0–0 ♗c5 would expose how poorly the knight is placed on d2. Both players have a number of possible continuations here. One example is: 19.♖e1? (with the idea ♘f1-e3) 19...♗xf2† 20.♔xf2 ♕c5† 21.♔f1



21...♘h5! Black is threatening ...♘f4-h3!. Black already has a winning attack.

18...♘d7

The best move.

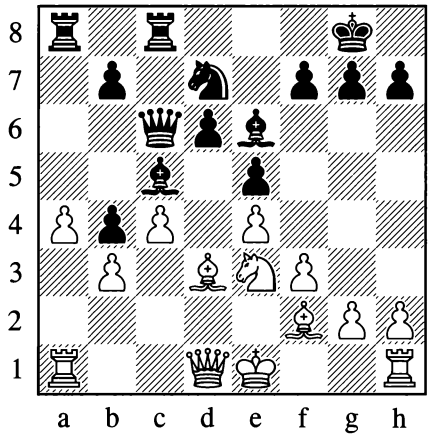
Black could play energetically. One such option was 18...♘h5!? 19.g3 f5 20.exf5 ♗xf5. The downside is 21.♗xb6 ♕xb6 22.g4 ♘f4 23.gxf5 d5 24.♖c1!, when Black does not appear to be as active as he could be. Still, the compensation is considerable and even if White is better, it would not be much and the position would be difficult to play.

19.♗d3

Short is trying to solve the problems slowly.

19.♕d2 ♘c5 20.♕c2 ♘d7 21.♕d2 was an alternative. Neither player would have to repeat, but both could also choose to do so with a clear conscience.

19...♗c5 20.♘e3



20...♗d4

Bacrot decides to manoeuvre a bit before striking.

Objectively, both ways of playing lead to equal/unclear play. But I think, on principle, that we should always strive to play as energetically as possible.

Given that Black should play energetically, the natural move to consider would be:

20...b5!?

This is thus the principal alternative.

21.axb5

After 21.cxb5? ♕b6 22.♕d2 ♗xb3, Black would have an advantage.

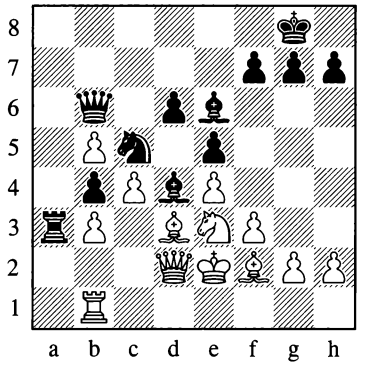
21...♕b6 22.♔e2

The only move.

After 22.♖xa8? ♖xa8 23.♕c1 ♗d4 24.0–0 ♖a3 25.♗c2 ♘c5 Black has a big advantage. White is not able to defend both b3 and e3.

22...♗d4 23.♖xa8 ♖xa8 24.♕d2 ♘c5 25.♖b1 ♖a3

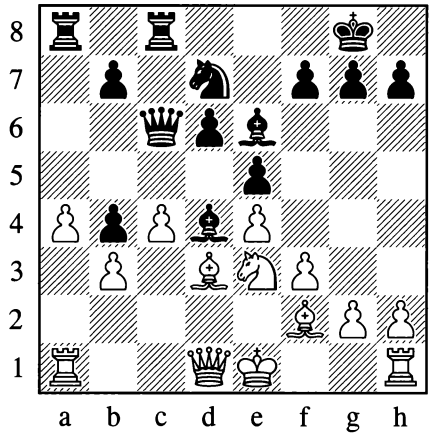
White is under a lot of pressure, but is not yet collapsing.



The computer gives the following variation as "equal", but to play this way would not be natural to humans. And even if you found the whole line, equality does not mean that it is as easy to play as the black side.

26.♘d5 ♗xd5 27.♗xd4 exd4 28.cxd5 ♘xb3 29.♕xb4 ♖a2† 30.♔d1 ♘c5 31.♕xd4 ♖xg2

A lot of difficult moves. And more to come...



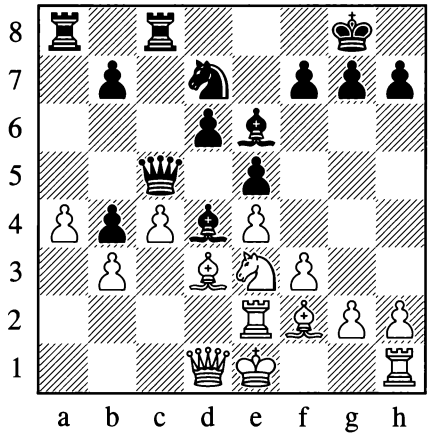
21.♖a2!?

A bit compliant to my taste, but not a mistake.

White could also play 21.♖b1 b5 22.axb5 ♕b6 23.♕e2 ♗c3† 24.♔f1 ♘c5 25.h3 where Black has compensation, but no more.

Personally, I would probably have chosen 21.0–0! ♗xa1 22.♕xa1, when Black has no reasonable pawn breaks and White has an easier version of equality, with domination on the dark squares in return for the exchange.

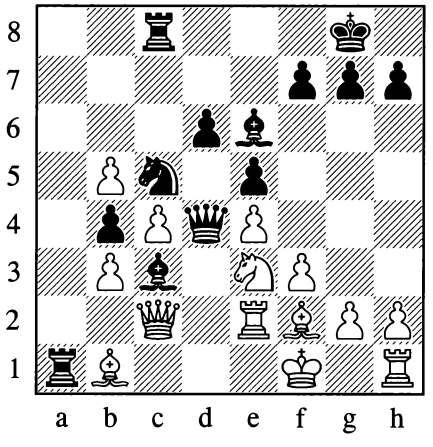
21...♕c5 22.♖e2



22...b5!

This cannot and should not be delayed any further. White now has to play a lot of only moves. They are however not hard to find and playing them is thus easy.

23.axb5 ♗c3† 24.♔f1 ♖a1 25.♗b1 ♕d4 26.♕c2 ♘c5



27.g4!

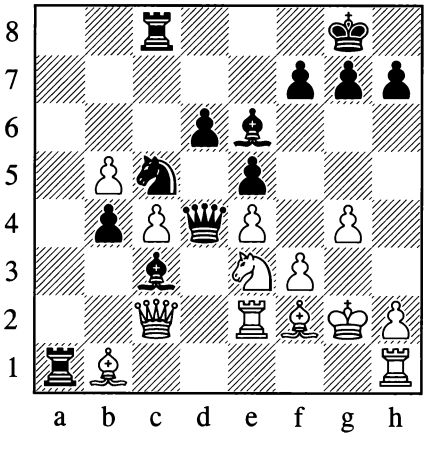
27.♘f5? ♕d3! would win a piece for Black.

27...♘xb3 28.♔g2!

28.♕xb3? ♕d3 and Black wins material.

28...♘c5!

28...♘a5? 29.♖d1 ♕b6 30.♘f5 would win the d6-pawn, giving White an advantage.



29.♘d5

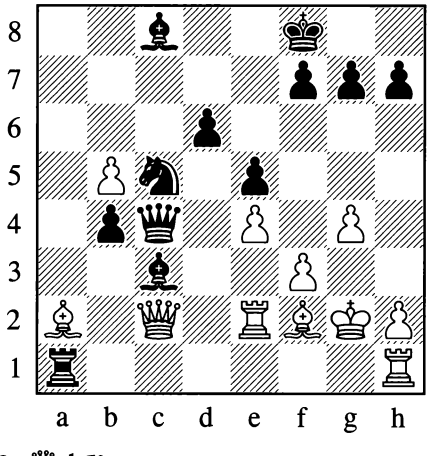
Effectively another only move. The knight can go to f5 instead, but it is a direct transposition.

29.♖d1? b3 30.♕c1 ♘d3! and Black wins.

29...♕xc4 30.♘e7† ♔f8 31.♘xc8 ♗xc8 32.♗a2!

Another only move. But after having played a long line of only moves, White is finally out of trouble and it will now be Black who has to show accuracy.

32.♗xc5?! ♕xc5 33.♗a2 ♖xh1 34.♔xh1 ♕xb5 is not as bad for White as some of the alternatives we have seen above. Still, it is passive and clammy for White and not something Short would have gone for, as long as an alternative exists.



32...♕xb5?

This is a difficult move for me to understand. After this White does not have to produce any surprising moves to take control of the position. The mistake cannot be put down to a miscalculation, but a horrible misevaluation of the position arising in the game. If Bacrot had understood the problems he was getting into, he would not have gone down this road.

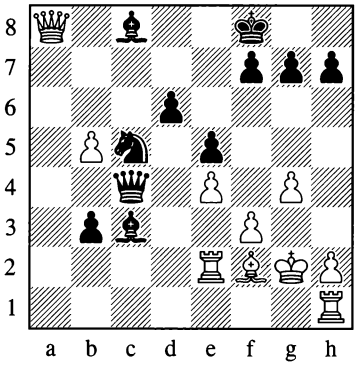
32...b3? would have been a blunder. After 33.♖xa1! bxc2 34.♗xc4 ♗xa1 35.♖xc2, White wins.

The only playable option was to sacrifice another exchange with:

32...♖xa2! 33.♕xa2 b3

The most natural, but 33...♕xb5 is also playable. 34.♖e3 ♘e6 with even chances, for example.

34.♕a8



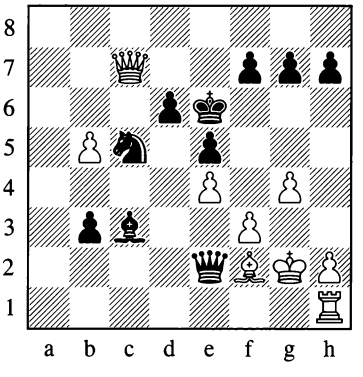
34...♕xe2

34...♘e6!? and 34...♘d3 are also fully playable. Black is not under pressure to find only moves.

35.♕xc8† ♔e7 36.♕c7†

Also possible is 36.♔g3 ♕xb5 37.♕c7† ♕d7 38.♕b6 ♗d4 39.♗xd4 exd4 40.♖a1 ♕e6 with even chances.

36...♔e6



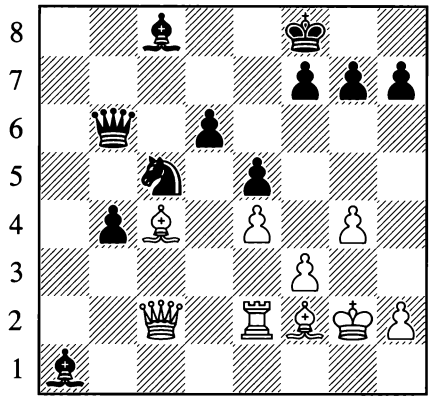
White needs to take the perpetual now or after 37.♔g3 b2, as something like 37.b6? ♗d4 38.♖f1 b2 would win for Black.

33.♖xa1 ♗xa1 34.♗c4!

White takes control over the most important squares and now has a winning advantage. The two pawns for the exchange create a balance on the balance sheet, but the black king is exposed and the blackmail payment to avoid mate will be horrendous.

34...♕b6

34...♕b8 loses quickly after 35.♕d1!. The key point is: 35...♗c3 36.♗xc5 dxc5 37.♕d8#



35.♗xc5?

An understandable move. By eliminating the knight, Short removes a lot of possible counterplay ideas and most likely had calculated the variation all the way till the bishop sacrifice (even though he stopped to think for another 7 minutes then – most likely to check variations, rather than discover them for the first time). The downside is however considerable too. The black bishop is allowed to come to d4 immediately, which solves only one of Black's many problems.

But as we shall see, this complicates the conversion considerably. It is a common theme in chess. If you are not careful to be accurate when your advantage is overwhelming, you will have to be far more accurate later.

35.♕d1!

This was much stronger. The bishop cannot go to d4, as White takes it and wins.

35...♗c3 36.♕d5!

An extra opportunity.

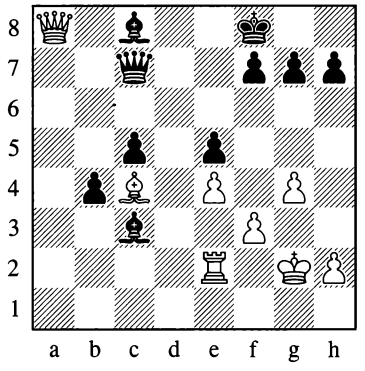
36...♕c7

Also 36...♗e6 37.♕a8† ♔e7 38.♗xe6 fxe6 39.♖a2 would give a winning attack.

37.♗xc5!

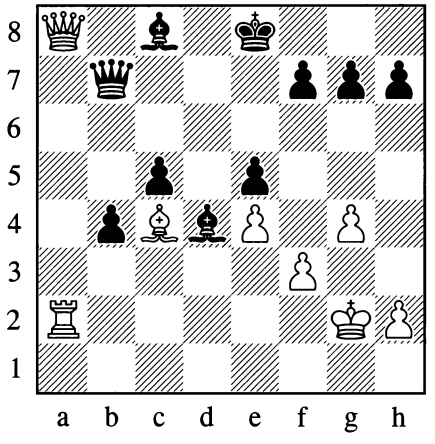
This is the right moment to eliminate the knight.

37...dxc5 38.♕a8



White is in complete control and the rook entering on the 7th rank (via a2) will decide the game.

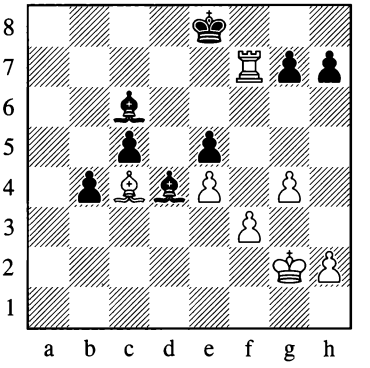
35...dxc5 36.♕a2 ♗d4 37.♕a8 ♕b7 38.♖a2 ♔e8



39.♗xf7†!

As said, I speculate that Nigel had seen this option already. But it is not the only way for White to play, so he was right to consider his options carefully.

Exchanging the queens would be a big mistake. 39.♕xb7? ♗xb7 40.♖a7 ♗c6 41.♖xf7

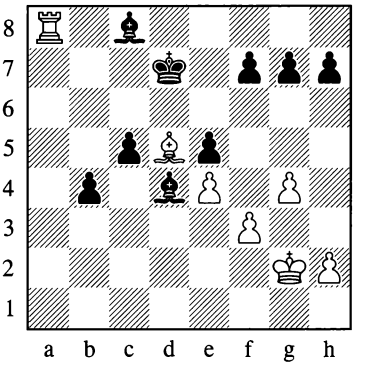


41...♗b5! 42.♗d5 ♗d3 43.♖b7 ♗a6 44.♖b6 ♗d3

Black is ready for ...♗c3 and advancing the passers. Black has enough counterplay to draw the game.

However, White is also winning in the following variation:

39.♗d5?! ♕xa8 40.♖xa8 ♔d7



But the winning line is ridiculously difficult and not something I believe anyone would find over the board.

41.h4!!

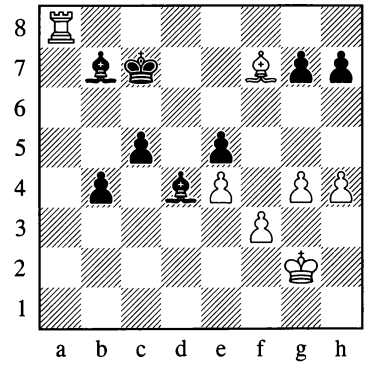
The only winning move it appears. The h-pawn is closer to promotion and White wins a tempo over the forcing variations, which is enough to win in the end.

41.♗xf7? ♗b7 42.♖a7 ♔c8 would quickly force White backwards to stop the black pawns, giving Black enough counterplay to hold the game.

41...♔c7

White also wins after 41...f6 42.♖a7† ♔d6 43.♖xg7 ♗e6 44.♗xe6 ♔xe6 45.♖xh7 c4 46.♖b7 b3. But the margin is small. The winning move is 47.g5!, in order to queen with check on g8. All other moves would lose on the spot.

42.♗xf7 ♗b7



43.♖h8!

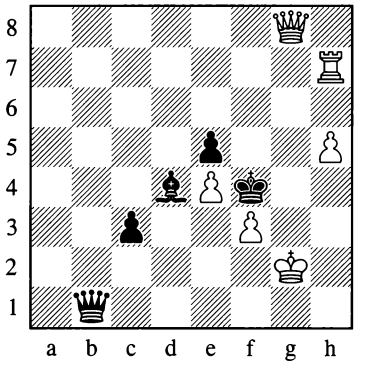
White has to clear the path for the h-pawn.

43...♗a6 44.♖xh7 c4 45.♖xg7 ♔d6 46.♖g6† ♔e7 47.♖xa6 ♔xf7 48.♖c6 c3 49.g5 b3 50.g6† ♔g7 51.h5 b2 52.♖c7† ♔h6

52...♔g8 53.h6 quickly leads to mate.

And 52...♔f6 53.♖f7† ♔e6 54.♖b7 would see the g-pawn promote decisively.

53.♖h7† ♔g5 54.g7 b1=♕ 55.g8=♕† ♔f4

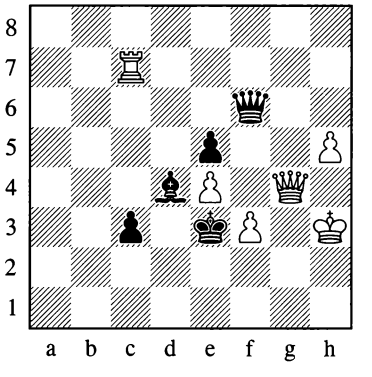


White has queened the pawn, but so has Black. 15 moves into this variation, White still has to play a lot of only moves to win.

56.♕g3† ♔e3 57.♖c7 ♕a2†

57...c2 58.♕f2† ♔d3 59.♕xc2† would provide White with a shortcut.

58.♔h3 ♕e6† 59.♕g4 ♕f6

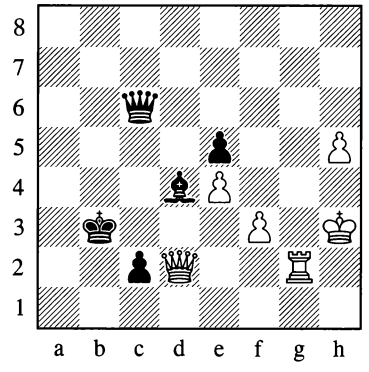


60.♖g7!

Again, the only winning move. The rook either comes to g6 or is transferred into the attack on the 2nd rank.

60...c2 61.♕g1† ♔d3 62.♕f1† ♔d2 63.♖g2† ♔c3 64.♕e1† ♔b3 65.♕d2 ♕c6

65...♕xf3† 66.♖g3 also wins.



66.♕xc2†

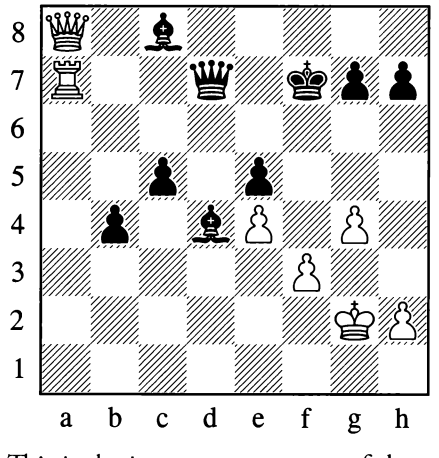
White wins.

39...♔xf7

Black has to let go of the queen.

After 39...♔d8 40.♗e6 b3 41.♗xc8 ♕xc8 42.♕d5† only resigning makes sense.

40.♖a7 ♕d7



This is the important moment of the game. White has won the queen, but has yet to win the game. Short here showed the lack of impulse control you would expect from a child, happy to have won the queen, or from a senior player, tired after four hours of full effort, who gives in to an impulse and then has to live with the mistake for the rest of the game.

41.♕d5†?

Nigel spent 40 seconds on this move and then made the following four moves at a reasonable speed as well. The players received an additional 50 minutes after move 40, so there are no excuses relating to time trouble.

The position is actually deeply complex and deserved to get 30-45 minutes of Nigel's remaining hour to work out how to approach it.

The theme here is one of the most important we encounter in technical play: the containment of counterplay. Essentially, White needs a winning plan. The queen will not be able to win on its own. White needs a path to creating a passed pawn, while at the same time preventing the black passers from advancing too quickly. To do this requires a lot of accuracy.

Below you will find various lines that work, or not.

My favourite way of playing is the following:

41.g5!

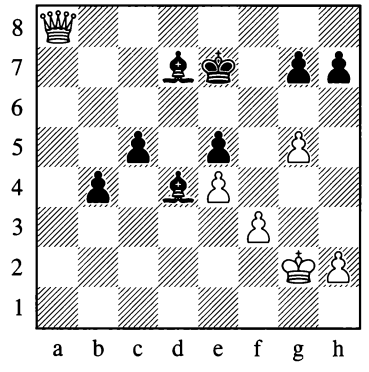
White is advancing pawns on the kingside before taking the queen, in order to have them ready, once their obstacles (the pawns on g7 and h7) are removed.

41...♔e7

The most natural move.

Trying to come up with something else, I found that, for example, this line would make things easier for White. 41...h6 42.h4 hxg5 43.hxg5 ♔e7 44.♖xd7† ♗xd7 45.♕g8 and White will win.

42.♖xd7† ♗xd7

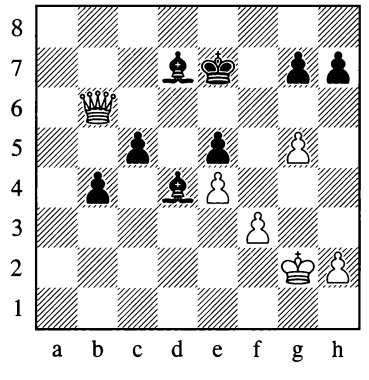


43.♕b7!

Keeping control.

43.♕g8?! ♔d6 44.♕xg7? b3 would give Black sufficient counterplay. The pawns need to be contained.

43...♔d6 44.♕b6† ♔e7



45.h4!

While keeping control, delaying Black in advancing the pawns, White advanced his own.

45...♗e6

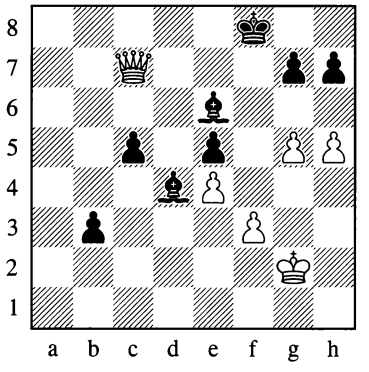
Only now is Black able to play this move, which will support his pawns advancing.

46.♕c7† ♔f8

The critical move. Black is keeping the hope of counterplay alive.

46...♔e8 47.♕xg7 b3 48.♕xh7 b2 49.♕b7 and 46...♗d7 47.♕b7 would both make things easier for White.

47.h5 b3



48.h6!

The combination of the pawns on g5 and h6 undermines the dark squares, which cannot be defended by the locked-out dark-squared bishop.

48...b2

48...gxh6 49.♕d8† and White wins.

49.g6

Not the only winning path, but certainly the most satisfying.

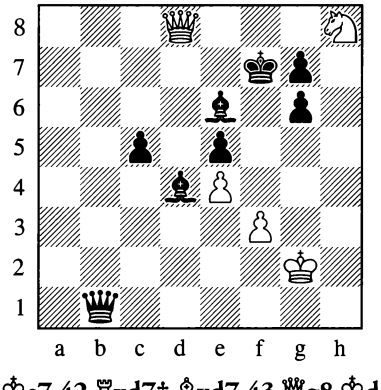
49...hxg6

49...b1=♕ 50.♕d8#

50.h7 b1=♕ 51.♕d8†

Promoting to a queen also works, but the coming moment of glory should not be ignored.

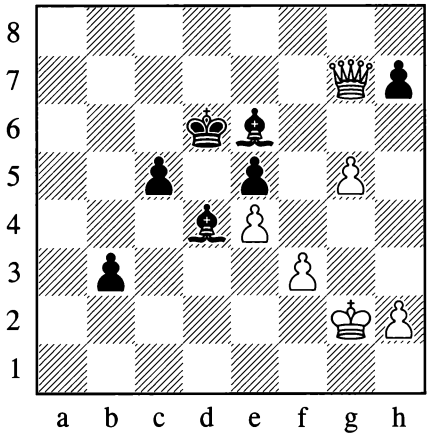
51...♔f7 52.h8=♘#



41...♔e7 42.♖xd7† ♗xd7 43.♕g8 ♔d6!

A nice anticipation move. Now if White takes on g7, Black can advance with his own plans.

44.g5 ♗e6 45.♕xg7 b3



I presume that Nigel assumed this was the only way to play, rather than believed that this position would be easily winning.

46.♕xh7!

The only winning attempt.

46.♕b7 c4 would give White no positives and only force him to give a perpetual as soon as possible.

46...b2

I like 46...c4 47.g6 c3 better, but perhaps this is partly because I know how the game continued, more than the flexibility provided by keeping the pawns together. Either way, both ways of playing should lead to a draw.

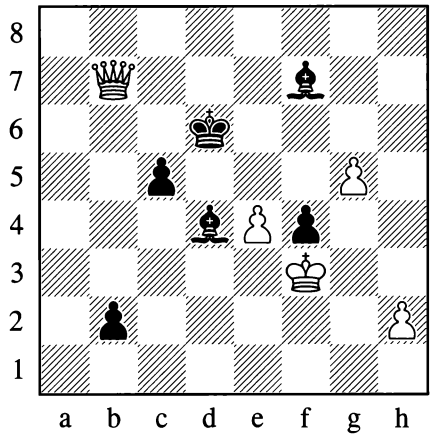
47.♕b7 ♗f7

Black also draws after 47...c4 48.g6 c3 49.g7 c2 50.♕b4† ♔d7 51.♕a4† ♔e7 52.♕xc2 ♔f6, when White will not be able to make serious progress.

48.f4!

Nigel takes all the chances he can get to create difficulties for Black.

48...exf4 49.♔f3



49...♗c4?

A curious mistake that cannot be blamed on time trouble, as Bacrot spent 13 minutes thinking about this move, after which he was done for.

After 49...c4 then 50.♕b4† ♔c6 51.g6 ♗e6 and it seems that Black is still making the draw. It did not have to look this shaky, but in principle, the draw is still there.

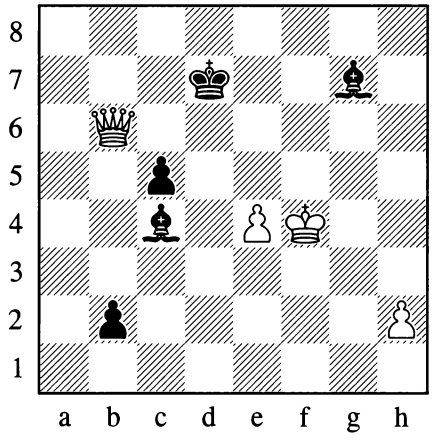
You could imagine that Bacrot was afraid of 50.♕xf7 b1=♕ 51.♕d5†, but the queen ending is in no way dangerous for Black. For example, 51...♔e7 52.♕xd4 ♕h1† 53.♔xf4 ♕xh2† 54.♔f5 ♕h3† 55.♔g6 does not feel as though White is trying to win. The direct draw is 55...♕e6†!? 56.♕f6† ♕xf6† 57.gxf6† ♔f8 58.e5 c3 and the next queen ending will be seriously deficient in pawns...

It is my experience that the mistakes made by strong grandmasters are often as silly as those made by weaker players, just a bit more complicated. An oversight does not have to be of something spectacular. Often it is something simple.

50.g6 ♗d3 51.g7 ♗c4

51...♗xg7 52.♕d5† and White wins.

52.♕b6† ♔d7 53.♔xf4 ♗xg7



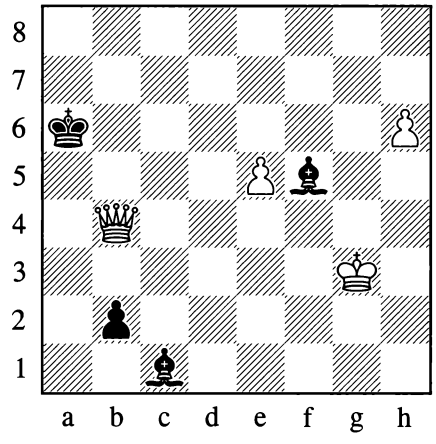
54.e5!

Forcing the dark-squared bishop to a worse square.

54...♗h6† 55.♔g3 ♗c1 56.♕d6† ♔c8 57.♕xc5† ♔b7 58.♕b4† ♔a7 59.h4!

The h-pawn decides the game.

59...♗e6 60.h5 ♔a6 61.h6 ♗f5



62.h7!

Black resigned, because 62...♗xh7 63.♕d6† ♔a5 64.♕c7† picks up the bishop on h7

1–0

If you reached this sentence after reading all that came before, you have my respect. If you are reading this from the back, you are more wise than impressive – and you should know that reading this book will increase your understanding of the endgame immensely.

Name Index

A

Aagaard 76, 99, 104, 120, 231, 349, 356
Abdullayev 743
Abdumalik 163
Abdusattorov 644
Adhiban 222, 227, 317, 318, 319
Afanasiev 448, 690
Agdestein 104
Aigner 114
Akobian 503, 580
Alard 315
Alekhine 803
Alekseev 741
Allan 815
Almagro Mazariegos 169
Almasi 439
Amann 488
Anand, P. 45
Anand, V. 338, 339, 340, 611, 742
Andersson 231, 772, 773, 775, 783
Andreikin 32
Andreu 157
Andrianov 717
Antipov 488, 494, 499
Antonsen 400, 403
Aouididi 148
Areshchenko 742
Aronian 11, 327, 328, 338, 441, 442, 443, 444, 446, 447, 502, 515, 555, 568, 575, 576, 577, 579, 625, 633, 704, 706, 710, 711, 712
Artemiev 137, 598, 599, 603
Askarova 815
Azarov 686

B

Balajayeva 141, 742
Banko 148
Banusz 317
Barskij 125
Basso 153, 856
Batchuluun 818
Batsiashvili 147, 742
Bednorz 348
Belezky 61
Belyakov 264
Benjamin 623, 624, 677
Berkes 301, 303
Beukema 148
Beydullayeva 147, 677
Bjerre 212, 841
Blatny 139, 615
Bluebaum 57, 136, 137, 367, 368
Bocharov 400, 402
Bodnaruk 141, 430
Bogner 370
Bogosavljevic 260
Bojkov 742
Bortnyk 500
Boskovic 401, 407, 408
Botvinnik 364, 609, 616, 617, 646, 707, 870
Boyer 481
Brandenburg 742
Braun 206
Bruch 348
Brugger 817
Brynell 676

C

Capablanca 4, 275, 277
Carlsen 121, 155, 156, 189, 192, 193, 195, 197, 198, 199, 200, 203, 338, 441, 747, 748, 783, 809, 864
Carlsson 460
Caruana 452, 779, 780, 781, 782, 783, 784, 785, 786, 787, 789
Castellanos 44, 74, 75, 76, 79, 126, 157, 169, 204, 223, 230, 231, 240, 301
Chabris 256
Charochkina 430

Chatzieleftheriou 744
Chen 333
Cheparinov 594
Cherniaev 242
Chigaev 261, 457
Chistiakov 566
Chithambaram 102
Christensen 145
Ciric 362
Cmilyte 742
Coleman 59
Concio 28
Cordova 618
Cramling 816
Cuenca Jimenez 171
Cumming 187

D

Dai Changren 740, 745
Danielyan 351
Dardha 124
Deac 199, 379, 382, 725
Debarnot 829
De la Villa 440, 447, 568
Delgado Ramirez 345
Demuth 210
Deuer 183
Deviatkin 742
Dhopade 425
Diamant 345
Di Benedetto 240
Diermair 183
Ding Liren 46, 47, 58, 66, 72, 164, 198, 239, 447, 625, 704, 706, 707, 711, 712, 782
Domingo Nunez 204
Dominguez Perez 683, 746
Draskovic 45
Drazic 362
Dreev 699
Dubov 11, 165, 459, 555, 568, 569, 575, 576, 579, 633, 648, 649, 655
Duda 280, 281, 282, 420, 441, 442, 443, 444, 445, 662, 663, 747, 748
Dvoretsky 94, 101, 332, 348, 398, 433, 447, 560, 566, 568, 615, 625, 690

E

Eckert 267, 522
Eden 322
Ehlvest 775
Eljanov 857
Engel 57, 728
Eraschenkov 226
Erdogdu 743
Erdos 257
Esipenko 325, 326, 459, 489
Euwe 369

F

Fantinel 762
Fedorov 744
Fedoseev 277, 279, 347, 721
Feller 748
Fernandez Reyes 691
Fichtl 139
Finn 700
Firat 594
Firouzja 155, 250, 251, 252, 287, 289, 395, 441
Fischer 765
Forgues 744
Fridman 229
Frielingsdorf 618

G

Gabuzyan 534, 537, 539
Gagunashvili 68
Gaponenko 625, 626, 631, 646, 859
Garcia Ramos 171, 176
Garcia Vasquez 126, 129
Gelfand 12, 32, 128, 199, 258, 280, 448, 611, 654, 705, 725
Getz 400, 405
Gholami 396
Ghosh 103, 122
Gines Esteo 103

Giri 75, 164, 165, 250, 251, 252, 253, 254, 255, 341, 342, 343, 344, 441, 662, 676, 780, 790, 791, 792, 793, 794, 795, 796, 797, 798, 800, 801, 802
Gitelson 138
Goganov 564
Gonzalez Vidal 454
Gordon 379, 380
Graf 136, 179, 728
Grigorov 676
Grischuk 385, 515, 589, 590, 611, 872, 873, 876, 877
Gschnitzer 62, 664
Guerrero Sierra 223
Gukesh 275
Guo 714
Gupta 612
Guretzky-Cornitz 557
Gurevich 717
Gurner 86
Guseinov 486
Gu Tianlu 432

H

Hammer 400, 405
Hansen, L.B. 772, 775, 777, 814, 822, 825, 827
Hansen, Su.B. 178, 276, 772
Harika 665, 667
Harikrishna 70, 327, 328, 433, 440, 441, 454, 456
Hart 291
Hartmann 739
Haug 373, 375, 377, 378, 379
Hector 221, 231
Heimann 206
Heinemann 69, 234
Hernandez 236
Hickl 615, 616, 619
Hillarp Persson 298, 356
Hjartarson 43
Houdini 458
Hou Yifan 341, 342, 343, 344
Howell 783
Huss 817

I

Ibadov 264
Idani 396, 398
Ikeda 218
Ilinsky 312
Iljiushenok 740
Inarkiev 436, 690, 691
Iniyan 58, 66
Injac 687, 721
Irwanto 123
Ivanov 373, 375, 378
Ivanovic 358
Izoria 423, 431

J

Jacobsen 145
Jakovljevic 143
Jani 182
Janik 115
Jeevitesh 109
Jones 514, 518, 520
Jovanic 401, 407
Ju Wenjun 452, 505, 665, 666

K

Kapnisis 743
Karacsonyi 73
Kardashevskiy 428
Karjakin 52, 864, 873
Karttunen 295
Kasimdzhanov 780
Kavalek 40
Keymer 409, 410, 415, 857
Khalifman 217
Khanin 365, 740, 745, 749
Khazhomia 44
Khismatullin 264, 448
Khmelnitsky 267, 268, 272
Kholmov 312, 313, 314
Kiik 163
King 349
Kirk 216

Knott 242
Kobalia 226
Kollars 167, 229, 258, 744
Kononenko 686
Korobov 31, 139
Kosintseva 742
Kotronias 70, 71
Kovacevic 368
Kovalenko 325, 326, 564
Kovalev 845, 846, 847, 848, 849, 853
Kozak 111
Kramnik 446, 447, 559, 864, 865, 866, 871, 872, 873
Krasenkow 32, 95, 126
Krejci 91, 368
Kryvoruchko 283, 286
Ksir 829
Kubbel 140
Kucuksari 298
Kuhn 681
Kulaots 439
Kupreichik 125
Kuzubov 187, 188
Kvisvik 123
Kvitka 138

L

Lalith 222
L'Ami 816
Lamoureux 744
Lampe 647
Lamprecht 121
Laptii 125
Larkin 166
Larsen 10, 586, 588, 654, 660, 662, 716
Lasker 164, 319
Latzke 744
Lejlic 324
Leko 217, 500, 856
Le Quang Liem 401, 406
Lesovoi 134
Levin 134
Li, E. 466
Liang, A. 550, 601, 845
Liang, J. 208, 416, 417, 717
Li Ruifeng 401, 406
Liu 333
Lobanov 502
Lu Shanglei 782
Lund 626, 845
Lupulescu 485

M

Maghsoodloo 149, 486, 550, 601
Makropoulou 741
Malakhov 370
Mamedov 31
Mamedyarov 46, 47, 58, 66, 400, 402
Mammadova 742
Marandi 463
Martic 56
Martin Duque 115, 117, 701
Martinez Fernandez 32
Martirosyan 140
Mastrovasilis, A. 743
Mastrovasilis, D. 69
Mayrhuber 109
McShane 123
Meier 167, 169, 618, 773
Mendonca 275
Merilo 821
Miezis 276
Mikhalevski 503, 580, 581
Miles 586, 654, 655, 656, 659, 872
Milliet 107
Milos 358, 618, 668
Minski 215, 348
Mishra 111
Mista 420, 463, 583
Moroni 669, 670
Morozevich 458
Müller 121
Murali 149
Murzin 274
Muzychuk, A. 452, 505, 684, 848
Muzychuk, M. 163

N
Nabaty 120
Nadig 400, 402
Naiditsch 210, 211
Nakamura 113, 189, 190, 194, 198, 385, 676, 742, 873
Narayanan 32, 33, 664
Navara 485, 611, 612, 615
Nepomniachtchi 75, 300, 702, 782, 790, 794, 798, 800, 803, 804, 805, 808, 811, 813, 856, 873
Nestorovic 73
Nguyen, N.T.S. 227
Nguyen, T.T.T. 207
Nielsen, P.H. 144, 201, 809, 814, 822
Nielsen, S. 122, 299
Niemann 841
Niering 61, 647
Ntirlis 41, 42

O
Ochsner 212, 400, 403
O'Donnell 460
Oleksiyenko 425
Onischuk 82, 84, 86
Ospennikov 744

P
Paehtz 742
Paichadze 204
Pang 114
Panno 618
Papadiamandis 678
Papp 560, 602
Paraschiv 677
Pedersen 144, 145
Pereira 692
Perez Mitjans 236
Petrosian 765
Petrosyan 140, 153, 534
Petrov 699
Pipia 481
Plat 103
Polgar 446
Ponkratov 261, 365
Porte 315
Postny 446
Potkin 35, 37, 803
Praggnanandhaa 274, 457
Psakhis 12
Pytlik 829

Q
Quparadze 204

R
Rabiega 748
Radjabov 113, 300, 301, 653
Ragger 762, 764, 766, 767
Ragnarsson 416
Rakhmanov 133
Rapport 98, 560, 563, 601, 828, 829, 830, 831, 833, 836, 837, 838, 839
Raunak 692
Reti 115, 119, 160, 328
Rhine 182, 256
Rodriguez Vila 618
Rodshtein 216
Romanov 133
Romsdal 123
Rosner 62
Roubert 678
Rout 207
Rozentalis 623, 624
Rozum 428
Rubinstein 380

S
Sachdev 625, 646, 783, 859
Sadovsky 264
Saduakassova 644
Safarli 102
Salem 488, 494
Salemgareev 391
Salgado Lopez 583
Sano 400, 402
Sargissian 178
Sargsyan 502
Sariego Figueredo 743
Sattarov 160
Savic 143

Saya 176
Sebenik 126
Senthil 103, 122
Senthilkumar 466
Servat 743
Sethuraman 257
Seyfried 324
Shah 113
Shankland 4, 13, 40, 52, 82, 86, 98, 223, 230, 240, 346, 347, 446, 527, 529, 552, 648, 655, 675, 725
Shaw 106, 739, 878
Shetty 294
Shinkevich 741
Shirazi 173
Shirov 204, 779
Short 147, 218, 361, 717, 878, 880, 882, 883, 886
Sindarov 662, 703
Sivuk 32
Smeets 409, 411, 412, 413, 414, 415
Smyth 291
So 38, 287, 653, 702, 703
Sochacki 856
Solak 283
Solodovnichenko 166
Somogyi 560, 602
Song 509
Sonis 91, 294
Soto 58, 66
Srdanovic 668, 669
Srivatshav 55
Stankovic 358, 360, 668
Stearman 693
Stefanidi 741
Stefanou 744
Stefanova 163
Stefansson 43
Steingrimsson 611, 614
Steinitz 50, 55, 94, 98, 103, 123, 180, 332, 784
Stephan 173
Stocek 95, 97, 516
Stopa 68
Stubbs 700
Subelj 669, 671, 673, 675
Sutovsky 742
Suttles 40
Svane 179, 258, 773
Svidler 239
Swiercz 527, 528, 530
Szabo 609, 610, 616, 617, 870
Szwed 555, 580, 607, 614

T

Tabatabaei 277, 279, 721
Tal 536, 829, 845
Tang 746
Tarasiuk 299
Tay 329
Thorfinnsson 231
Thybo 55
Tin Jingyao 28
Toma 86
Topalov 295, 297
Travadon 107, 108
Troitzky 159
Truman 428
Tsydypov 139, 391

U

Uriel 681

V

Vachier-Lagrave 38, 452, 589, 590, 612, 779, 780, 781, 782, 783, 784, 785, 787, 872, 873 874, 875, 876, 877
Vaishali 247, 248, 249, 509, 510
Vakhidov 160
Valk 148
Van Dael 74
Van Foreest 13, 72
Van Kampen 458
Van Wely 221, 234
Van Wessel 742
Vega Gutierrez 701
Velicka 79
Vetokhin 687, 721
Vidit 280, 281, 598, 599, 600, 601

Vlachos 124
Volkov 623
Volokitin 742

W
Waelzel 215
Wang, J. 370
Wang Hao 683, 803, 808, 811, 813
Wang Yue 705
Warmerdam 516
Watson 268, 817
Webb 820, 821
Wei Yi 352, 353, 354, 563, 601
Wen Yang 352
Winants 773
Wojtaszek 35, 36, 38, 367, 368
Woodward 370

X
Xiong 59, 423, 431, 514, 518, 520, 521
Xu Xiangyu 782
Xu Yi 179

Y
Yakubboev 662, 703
Yeoh Li Tian 338
Yeremyan 351
Yermolinsky 3, 446, 447
Yilmaz 818
Yip 693
Yoo 555, 580, 607, 614, 714
Yordanov 260
Yuffa 436, 489, 490
Yusupov 94, 332, 367, 409, 648, 650, 654, 655, 657, 659, 661, 690
Yu Yangyi 66, 828, 831, 832, 834, 839

Z
Zhang Xiaowen 432
Zhao Jun 179
Zhigalko 433
Zhou Jianchao 66, 742
Zhou Qiyu 247
Zivkovic 56

Bibliography

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