

THEORETICAL ROOK ENDGAMES

SAM SHANKLAND

GRANDMASTER KNOWLEDGE

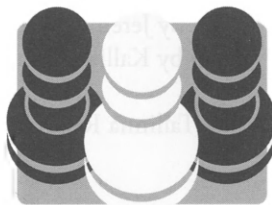


QUALITY CHESS

Theoretical Rook Endgames

By

Sam Shankland



Quality Chess
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THEORETICAL ROOK ENDGAMES

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Key to Symbols used

?	a weak move
??	a blunder
!	a good move
!!	an excellent move
!?	a move worth considering
?!	a dubious move
†	check
#	mate

Box with gray shading is a rule

Box without gray shading is a guideline

Foreword by Karsten Müller

Endgame theory can be fun

Rook endings are the type of theoretical endgame which occur most often by far. They are worth studying as there are many positions which occur over the board regularly. Philidor's draw, Lucena's win and Vancura's draw are just the three most prominent examples. So there is already a vast literature on the subject. Why add two more books to the collection?

Rook endgames can be regarded as having two aspects. One theoretical and one practical. So Quality Chess decided to cover each aspect in a separate book. Sam Shankland has a systematic style as he has proven in his excellent books on pawn play (*Small Steps to Giant Improvement* and *Small Steps 2 Success*). So, he was a great choice for the theoretical work, the aptly named *Theoretical Rook Endgames*. Equally, Jacob Aagaard's creative genius, as demonstrated most recently in his *A Matter of Endgame Technique*, makes him an ideal choice for the sister work on practical rook endings, *Conceptual Rook Endgames*. Whilst the study of each book will be equally valuable to the practical player, it would be preferable for the reader to start with obtaining a full understanding of the theoretical aspects of rook endgames from Sam's book. These provide the fundamental building blocks to the practical aspects of such endings as demonstrated in Jacob's book, which provides more advanced material.

In *Theoretical Rook Endgames*, Sam Shankland presents the basic theory of rook endgames with the most important positions and guidelines. The book is well-structured, and the presentation is logical and systematic. Well-chosen terms are used for the motifs. The book is particularly good at sharpening the intuition by setting out clear guidelines and the exceptions which apply to those guidelines. He also deals with two types of endings which often arise from rook endings, being rook against pawn and rook against knight (as well as other pawnless rook endgames). This shows that Sam's work is well grounded.

I particularly like his idea to present winning pawn structures, together with the plans and conditions which relate to each structure. They are well worth memorizing, as endgames such as those with four against three pawns on one wing, or three against three pawns on one wing and an extra attacking passed pawn, occur frequently and are not easy to handle over the board.

Of course, I already knew most of the material, but Sam's instructive presentation was a joy to follow and sometimes he also breaks new ground. Examples include his presentation of rook and doubled pawns against rook, and his deep discussion of triangle constellations with rook and two pawns against rook and pawn.

Sam has also added many recent games of his own. These prove both that such theoretical rook endgames often occur in practice, and that they are difficult to successfully navigate over the board.

I hope that Sam's work will give you as much pleasure as it has given me.

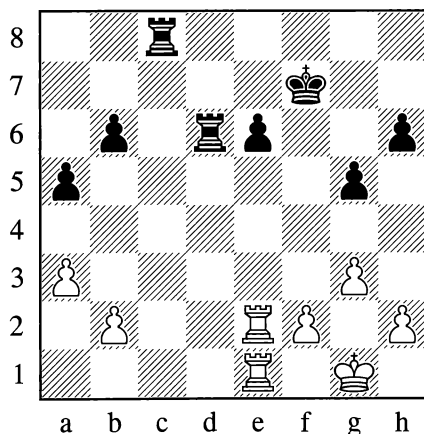
GM Dr Karsten Müller
Hamburg, April 2023

Preface

I never had much formal training when I was young. I was born and raised in the United States, which did not have the chess culture of Europe and Asia at the time. I went through the full American K-12 education system, and I was not able to dedicate myself full time to chess until I was an adult. I was largely self-taught, and while I had some early coaches once per week for whom I am immensely grateful, I was never exposed to any Soviet-style endgame training. My rook endgames were preposterously bad, as the following disaster clearly illustrates.

Sam Shankland – Alex Lenderman

Saint Louis 2010



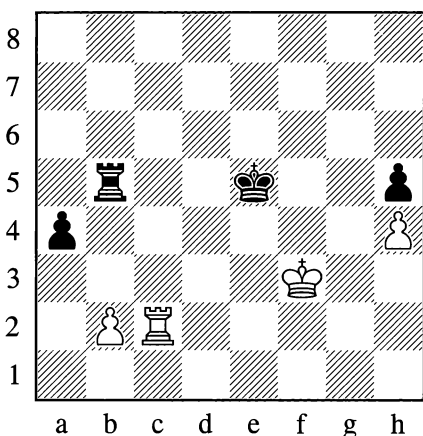
This position is obviously dead equal. There was a thirty-move draw rule in effect, so when I made my next move, I offered a draw and was surprised that the game did not end immediately.

31.♔g2 ♖c4 32.♞e4?!

This was hardly a losing blunder, but the first step in the wrong direction. The position becomes a little unpleasant once the rook reaches b3.

Any normal move would be fine. 32.♞e3 for example.

32...♞xe4 33.♞xe4 ♜d3 34.♞e2 ♞b3 35.f3 a4 36.h4 gxh4 37.gxh4 ♔f6 38.♔g3 h5 39.♔f4 b5 40.♞c2 b4 41.axb4 e5† 42.♔g3 e4 43.♔f4 exf3 44.b5 ♞xb5 45.♔xf3 ♔e5



Up to here, my play had been somewhat lame, but the position is still well within the realm of being drawn. My machine gives 0.00 with any remotely reasonable-looking move.

46.♞c3?!

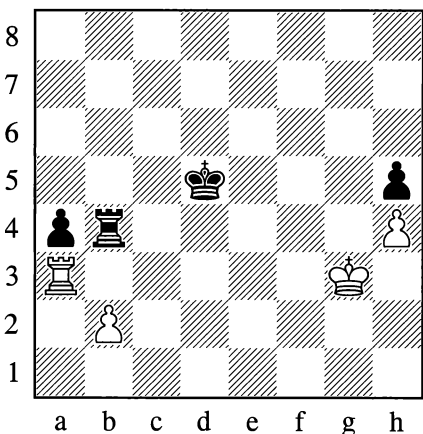
There is no universe where this rook should have ever left c2. It was well placed for maximum checking distance and it defended the b2-pawn. Still, the machine insists on dead equality.

46...♙d5 47.♞a3?

But not after I compound my error after putting my rook on a ridiculous square!

47.♞c2 was quite sufficient to make a draw.

47...♞b4! 48.♙g3



The next thing I know, both of my pieces are stuck and passive. Alex did not do anything special – I did it all to myself. White is now lost, though luckily I was given another chance.

48...♙e4?

48...♙e4! White is in zugzwang and very lost. 49.♞a2 ♙d3 The king comes to c2 and that would be that.

49.♞c3†!

I will give myself one consolation exclamation mark for undoing the ridiculous decision I made a couple moves before.

49...♙b5 50.♞c8 ♞g4† 51.♙h3 ♞d4 52.♞b8† ♙c4 53.♙g3 ♞g4† 54.♙h3 ♞f4 55.♙g3 ♞f5 56.♞a8 ♙b4 57.♞b8† ♞b5 58.♞a8 ♞b7 59.♞h8 ♙b3 60.♞xh5 ♙xb2 61.♞a5 a3 62.♙g4 a2 63.h5 ♞c7 64.♞xa2† ♙xa2 65.h6 ♙b3 66.♙g5 ♙c4 67.♙g6 ♞c6† 68.♙g7 ♞xh6 69.♙xh6

½–½

Looking back on this game, I think Alex did me a big disservice by not taking his chance and beating me. It would have been much harder to remain in denial about my rook endgame ineptitude if I had been punished for taking decisions that violate every rule of chess understanding.

I was over 2500 when I played this game. I have come a long way since then, but my lack of proper endgame training when I was young always dragged me down. I left two half points on the table in the 2018 Olympiad as a 2700+ player, both in rook endgames. Not only did this cost me ten rating points, but it also probably cost the United States the Gold Medal. Both games are featured in this book.

My main ambitions in chess lie behind the board. I am a full-time player, and far from retirement age. I have won a lot of accolades

and have already had a fantastic career. But to this point, I have topped out at number 22 in the world. My greatest ambition for the next ten years is to drop that number and rise even further in the world rankings.

Many of my peers have questioned my decision to dedicate as much time as I do to producing content rather than focus exclusively on my own training. Indeed, this is my fourth book for Quality Chess, and I have written nearly a dozen Chessable e-books!

The reason that this works for me, and the reason that I can keep a high level of play while also contributing to chess literature, is that I choose to take on projects that I believe will help me grow as a chess player. Every single word I have ever written for both publishers had the same purpose in mind: to make me a better chess player. I have chosen topics that I am interested in learning, and the great majority of the time I spend on writing a book is time studying chess and trying to grow my own knowledge and understanding.

While I have done a lot of writing before, this book was a different animal. Between *Small Steps to Giant Improvement*, *Small Steps 2 Success*, *Grandmaster Training Camp 1 – Calculation!*, and all my opening courses on Chessable, I'm guessing the most demanding project I ever took on lasted about two months from writing the first word and submitting the final draft for publication.

This one took three-and-a-half years.

When the COVID-19 pandemic hit in early 2020, nobody knew how long we would be in lockdown, and what the world would look like in a year, two years, or five. All I knew

was that for the foreseeable future, I would be stuck at home, unable to play over-the-board chess. But I also knew that someday over-the-board chess would return, and that I needed to keep up my training regime as best I could. I also knew I would need something to keep me busy. After my mistakes at the Olympiad, my trainer Jacob Aagaard thought I should study more rook endgames. We agreed that writing *Theoretical Rook Endgames* would feed two birds with one scone, keeping me busy for a long time while also improving a part of my game that clearly needed work.

This book might only be slightly more pages than any other work I have done, but it was oceans harder. I worked tirelessly for weeks at a time until I would burn out, take a break, and come back for more. In the 16 months between COVID hitting and my next over-the-board tournament, I only managed to get about 70% of the way through. Then when the tournament schedule picked up, my writing pace slowed to a crawl as I was unable to dedicate any serious time to it. But a sudden lack of events between October 2022 and June 2023 left me more time available to complete what I started.

Of all the work I have ever done in chess literature, video series, articles and content, this is the one I am the proudest of by a wide margin. It was a labor of love, a journey of growth and a source of massive frustration, all in one. It is my sincere hope that the years I spent on this work will help all dedicated readers improve their rook endgame play, and by extension, become stronger players.

Sam Shankland
Walnut Creek, California
July 2023

Introduction

Countless books on rook endgames have already been written. There is a valid question: do we need another one? What more can I contribute to the current state of endgame theory?

I've studied plenty of endgame books in my life. Some that have made a strong impression on me include *Dvoretsky's Endgame Manual*, *Fundamental Chess Endings* (Müller & Lamprecht), *Nunn's Chess Endings Volume 1* and *Volume 2*, and *100 Endgames You Must Know* (De La Villa).

All these books are fantastic in their own way, and they all contributed to my development as a player. But to some extent I found flaws with these and other books as well. Some seemed too ambitious, covering too wide a range of endgames as opposed to focusing on only one. Some seemed disorganized, with no clear order of positions or overarching principles to guide our understanding and ability. Some felt too dry, boring, and impractical for a tournament player, focusing too much on the science of chess with no regard for the human or sporting element.

It's easy to throw out criticism. It's quite another to back it up! I have never liked it when amateurs with their engines on social media throw barbs at top players for their inevitable mistakes, missed points, and poor results. Whenever this happens, I always want to ask: "Do you think you could do better?". Before ripping on someone for a perceived shortcoming, I suggest asking this question to yourself. I did ask it. When it comes to writing a book on rook endgames, yes, I believe I can, and I spent the better part of the last four years trying to prove it.

The theoretical rook endgames seen in this book range from positions with just one pawn all the way to nine pawns on the board. Ideally, one could just memorize all such endgames. You'd start by memorizing all endgames with one pawn, no matter where that pawn might be. When considering that the board could be flipped, the pawn could be on 24 total squares. This is what John Nunn did in *Secrets of Rook Endings*. That book is 352 pages. Fair enough.

When we add a second pawn to the board, there will be 47 possible squares it can be on, and that pawn can be either color, so let's say this book will be 94 times longer than a book covering endgames with just one pawn. I believe there are very important theoretical rook endgames to know with up to nine pawns on the board. I contemplated continuing with the same methodology that Nunn used, but I realized there would be a small problem. Once you got the book, you would have to place it on the table at the correct angle, to make sure that the top of the book would not collide with the sun. Additionally, binding the book would be expensive.

When it becomes clear that the brute force method of studying rook endgames would fail this spectacularly, we realize that it is critically important to find ways to build your playing ability as much as possible, while taxing your memory as little as possible. I believe the best way to do this

is to memorize specific structures, guidelines, and rules that will help you properly evaluate and play any theoretical rook endgame.

This entire book is filled with numerous such examples. There are some specific positions to memorize, positions I consider to be basic knowledge that all aspiring chess players should know. But beyond those positions, I think it is much more important to memorize rules and guidelines that help you evaluate a fresh yet technical rook endgame quickly and efficiently, and play it confidently and correctly.

My stated goals are as follows:

- I want to explain already known basic technical rook endgames in a clearer, better organized, more concise, and easier to understand and remember way than what has been seen in the past.
- I want to provide the reader with lots of rules and guidelines that can help them quickly and correctly evaluate, assess, and execute any theoretical rook endgame that they have not explicitly memorized in the past.
- I want to clearly indicate which theoretical rook endgames I believe are critical for aspiring chess players to memorize, and which ones are best handled by memorizing structures, rules, and guidelines as opposed to specific positions.
- I want to add to the current state of rook endgame theory by explaining technical positions that have not been covered before.
- I want to provide the reader with clear instructions on the easiest ways to win specific winning rook endgames, the easiest ways to hold specific drawn ones, the best ways to make your opponent's lives difficult when you are better and not winning, and the best ways to offer practical resistance when you are technically lost. This is especially important in an era where computers are so strong that they will not show any difference in evaluation when you start making your life (or your opponent's life!) harder, which is the first step towards a half point changing hands.

One of the ways I have tried to accomplish this goal is to create a 'Cliff Notes' index at the end of the book. These are the positions, rules, and guidelines that I believe are important to fully memorize, with a brief note about each one. The way I would recommend studying this book is to go through Chapters 1-19 slowly and carefully your first time around. Over time, your memory of the positions will fade. When it does, you should only then read Chapter 20, entitled Bare Bones, to jog your memory. In any position where you think the 'Cliff Notes' are not enough for you to grasp what you had learned before, you can go back to that section. I think this is an extremely important part of the process. Ultimately, you will forget a lot of the positions you study, both in this book and elsewhere, because you are a human being and that's what humans do. We are a flawed species. That being the case, I find it to be a much better use of your time to go through one final chapter once every six months than it would be to go through an entire book all over again!

While it is ultimately up to the reader to decide if I have succeeded at accomplishing my goals or not, I am very confident that any aspiring chess player who studies this book properly will become much better at rook endgames.

Chapter 1

Lucena Position

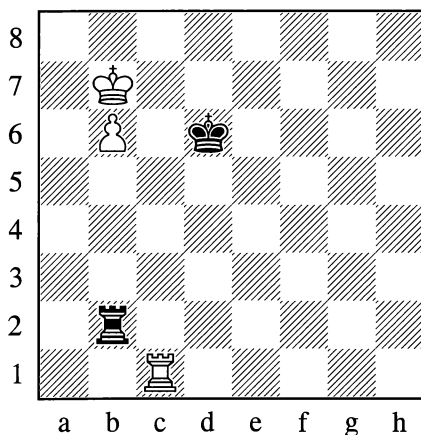
Any study of technical rook endgames will be incomplete without the knowledge of some basic positions. Surely some readers will have studied everything in the present chapter already and know it like the back of their hand, having executed the winning and drawing plans time and again. But a little review never hurt anyone, and some of these positions are not so easy to handle.

Defining what qualifies as “basic knowledge” is hard to do, and different players are likely to have different opinions on which positions fall into the category. The way I am choosing to define it is that any position with just one pawn left on the board, together with a rook of each color, is a basic one and should be memorized. However, some are easier than others, and we will see even very strong players mess them up at times.

No book on technical rook endgames could start with a position other than the most famous one known to chess. The Lucena position is the backbone of nearly every single rook endgame. In its purest form, it has been seen in countless games, including several of my own. The following encounter with a young Dennis Wagner is a good example.

Sam Shankland – Dennis Wagner

Dresden 2013



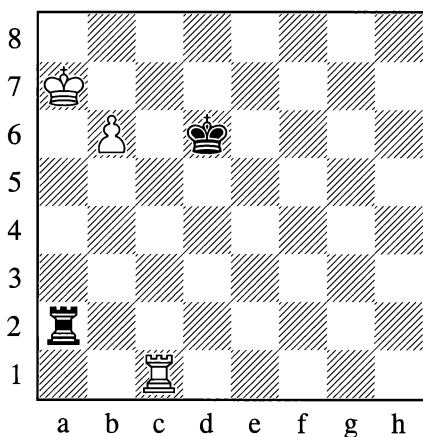
White is winning because Black's king is cut off along the c-file and will not be able to stop the b-pawn. If Black is forced to sacrifice his rook for the b-pawn upon promotion, he will lose in king and rook against king. So, all White has to do is to get the pawn to the back rank.

83.♔a7!

The king will not be secure on a7. But when it gets checked, it will be able to sit on b8 when Black will be unable to take on b6.

While the king's ultimate destination is b8, it would be a terrible blunder to go there immediately, as then the pawn would be lost: 83.♔b8?? ♖xb6† draws.

83...♖a2†



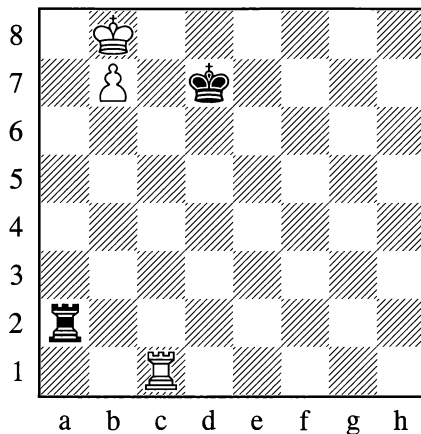
84.♔b8!

Now and only now ♔b8 comes, and b6-b7 cannot be prevented.

84...♔d7 85.b7

The most basic of all technical rook endgames is the Lucena position. Surely this will not be anything new for most readers, but one cannot address the topic of technical rook endgames without immediately including it as the first example.

The previously used technique with the pawn back on b6 would not work here. White cannot play ♔b8-b9 and then promote the pawn, as the king would slide off the board. So he has to be a little more sophisticated.



85...♖a3

We should consider a couple of alternatives which show that Black is lost whatever he plays.

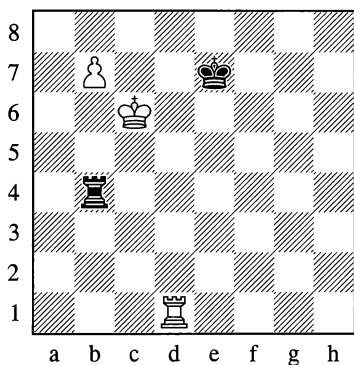
85...♖a4

Black can take the fourth rank under his control, making it harder for White to find a good way to interpose with his rook. This may be a good trick hoping to catch an unsuspecting opponent who is premoving on the internet, but it will not hold up to the slightest scrutiny. While ♖c1-c4 has been prevented, White now does not even need to build a bridge because the king can escape the checks on his own.

86.♖d1† ♔e7 87.♔c7 ♖c4† 88.♔b6 ♖b4† 89.♔c6

If Black's rook was further away from the king, say on b2, he could keep checking back and forth along the second rank until White would be forced to put his king back on b8 and start again. But here, he has much less *checking distance*. Checking distance is a very important term to know and understand. It

is the simple concept of how far away a rook is from an opposing king, and therefore, how far back the king must walk towards the rook to avoid checks. Here, White barely has to step back at all, and the checks will stop, all because Black has insufficient checking distance.



89...♖c4† 90.♕b5

Black's rook is too close to the king to give any further checks and cannot stop promotion coming shortly.

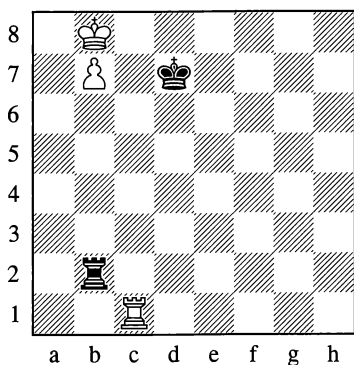
90...♞c2

Now it is important not to get impatient and queen too hastily, as then White would fall victim to a skewer. But he can build the bridge in the same manner as we see later.

91.♞d4!

After this final preparatory move, White is ready to block all checks on the b-file, and he will make a queen next. Black should resign.

85...♞b2



Black is lost no matter what he does, but he offers even less practical resistance if he moves his rook off the a-file. Now White's winning plan is even easier.

86.♞a1!

White secures the a-file, and will play ♕b8-a7 next, followed by b7-b8=♚. Black can't do a thing about it, for example:

86...♞b3 87.♕a7 ♕c7

It might look like White can't promote just yet. But he can, thanks to a helpful check.

88.b8=♚† 88...♞xb8 89.♞c1†

Time to resign.

After 85...♞a3, White needs to get his king out of the way of the b-pawn to ensure its promotion. Clearly, he will not be able to use the a-file, as the enemy rook controls both a7 and a8, and it cannot be booted off its perch. But while the c7- and c8-squares look unavailable as well, the black king is not secure on d7, and can be kicked away by a well-timed check.

86.♞c4!

White puts the rook on the fourth rank. This is the perfect place for it. It is far enough away from Black's king to be immune from harassment, but also close enough to White's king that he will be able to block the annoying checks at a suitable moment.

What happens if White checks immediately instead?

86.♞d1†

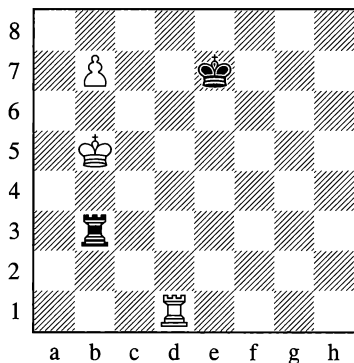
This does not spoil the win, but sooner or later, White will have to lift the rook to the fourth rank. After:

86...♕e7 87.♕c7 ♞c3† 88.♕b6 ♞b3†

White's king will not be able to escape the checks without going back to b8. He needs to be able to interpose with his rook, which is misplaced on d1. Note that because Black has slightly more checking distance than he

did in the variation with 85...♖a4, White is unable to run his king straight back towards the enemy rook.

89.♙c6 ♜c3† 90.♙b5 ♜b3†



White must go to a6 or c6 to save his pawn, and the checks will continue. The only way to win is to repeat the original position, put the king back on b8 and admit the mistake of coming out too early – then play the correct winning plan the second time around.

91.♙c6 ♜c3† 92.♙b6 ♜b3† 93.♙c7 ♜c3† 94.♙b8 ♜a3

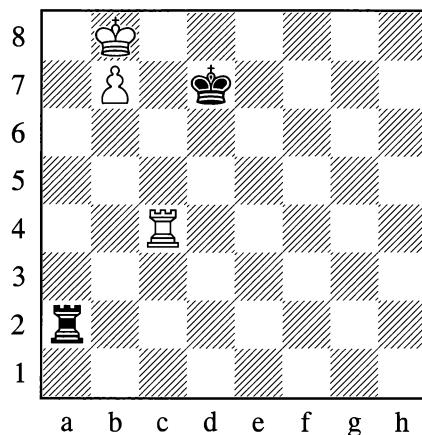
Now White has a chance to improve on his play with:

95.♞d4

In the game, Black resigned after 86.♞c4!, trusting that since I knew to put the rook on the fourth rank, I would know what to do next. But let's see what would have happened if he had kept playing.

86...♞a2

Black has nothing better than waiting, and now White executes his plan.



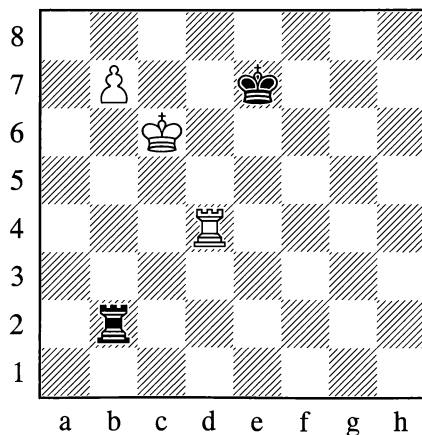
87.♞d4†! ♙e7

87...♙c6 88.♙c8 promotes the pawn.

88.♙c7 ♜c2† 89.♙b6 ♜b2† 90.♙c6!

The point. With White's rook on d1, his king would be checked endlessly. But now, Black's next check will effectively be his last.

It is important not to run back too fast and blunder the b7-pawn: 90.♙c5?? ♜xb7 With a draw.



90...♞c2†

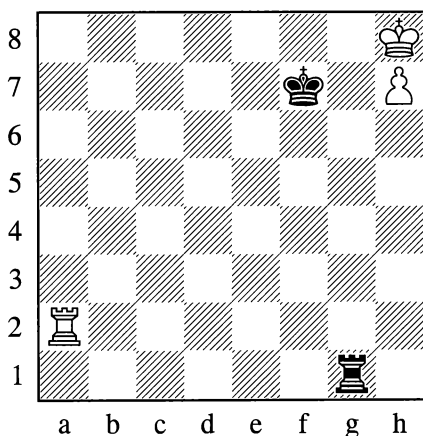
A waiting move like 90...♞b1 will not help, as White is ready to build the bridge next move anyway. 91.♞d5! There is nothing to be done about ♞d5-b5 next, and White will promote the pawn.

91. ♖b5

Since White is ready to block any checks on the b-file with his rook, it is time for Black to stop the clocks.

The Lucena position works with every pawn from the b- through g-files, but rook pawns are a different story.

Rook Pawn – King Two Files Away



Unfortunately for White, the pawn being so close to the edge of the board makes this position a draw. The problem is that had his pawn and king been on any file other than the h-file (apart from the a-file), there would be two directions that he could use to try to escape. Here, there is only one, as the squares i7 and i8 do not exist. As such, Black does not need to leave his rook on the i-file to prevent ♖a2-i2 and then ♜h8-i7 (the analogous winning plan to the previous case). Indeed, if the board extended one more file, ♖a2-i2 would be decisive immediately. But as it is, there is nothing for White to do, and the position is drawn.

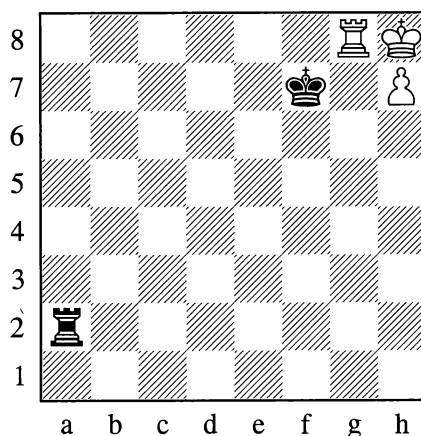
1. ♖a8

The only attempt I could dream up would be to try to kick the rook off the g-file to free the king. But this will not work, because

Black's king is also fighting for control of the key g7- and g8-squares. White can boot one black piece away, but not both.

White could also expel Black's king from the all-important g7- and g8-squares, but this does not help matters since Black's rook is controlling them all the same. After 1. ♖f2† ♜e7 White's king cannot escape.

1... ♖g2 2. ♖g8 ♖a2



Black would draw with any legal move that does not hang his rook. White cannot transfer the rook to the f-file to dislodge Black's king without allowing Black's rook back to the g-file, and the position is a dead draw.

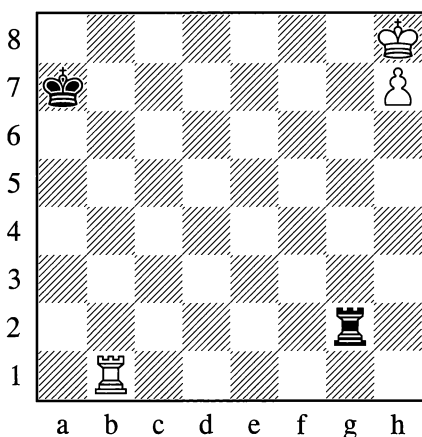
The difference between these positions can be highlighted with a clear rule.

In any rook and pawn versus rook endgame, getting the pawn to the seventh rank with the attacking king in front of it on the eighth rank is always winning, unless the pawn is lost immediately to a direct tactic, or if the pawn is on the a- or h-file.

However, not all is doom and gloom for the pressing side if he has an a- or h-pawn. We just

saw an extreme example, when Black's king was already in a perfect spot to keep the pawn under control. Let's look at another extreme example.

Rook Pawn – King Seven Files Away



This position is similar to the previous one in that White is left with a rook pawn. This makes his task harder because he cannot play the easily winning maneuver ♖b1-i1 followed by ♔h8-i7 . But it is also different, because Black's king is cut off all the way on the other side of the board. White is winning because he will be able to expel Black's rook from the g-file before Black can bring the king in to pick up the slack.

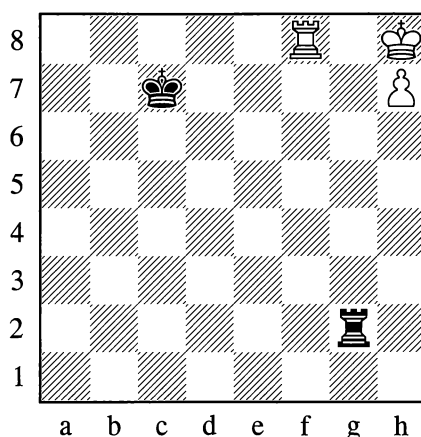
1.♖f1!

In order to win the game, White must challenge Black's control of the g-file, which means transferring his rook to g8 or g7. This cannot be done without freeing the king from being cut off along the b-file. But the king is a short-range piece, and it will take him far too long to rejoin the defense.

White does not have forever, and if he lets Black's king back to the defense, he will be unable to win. For example, the following string of moves cannot be recommended:

1.♖c1 ♔b7 2.♖d1 ♔c7 3.♖e1 ♔d7 4.♖f1 ♔e7
The position is now drawn, as White has done nothing to stop Black's king from joining the defense.

1...♔b7 2.♖f8 ♔c7

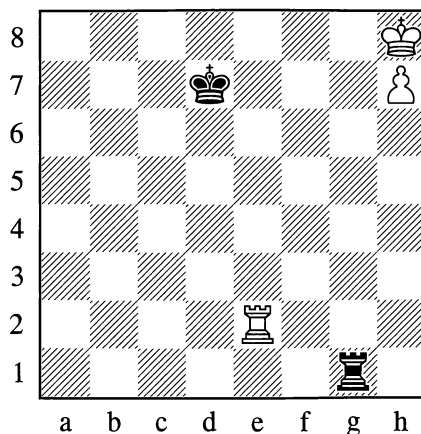


3.♖g8 ♖h2 4.♔g7

White's king gets out of the way, and the pawn promotes.

Unsurprisingly, with Black's king cut off as far away as possible, White was able to fight for control of the g-file before it could come to the defense. But where is the line drawn? How far away does the king have to be cut off before the position becomes winning? Let's find out.

Rook Pawn – King Four Files Away

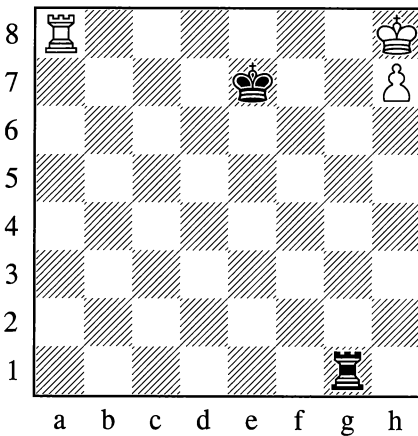


Here, we see the black king is cut off four files away from the white one. This turns out to be just close enough for him to hang on.

1.♖a2

White needs to challenge the g-file by transferring his rook to either g7 or g8, and he needs to let Black's king run free in order to do so. But Black's king is close enough for this not to work.

1...♔e7 2.♖a8



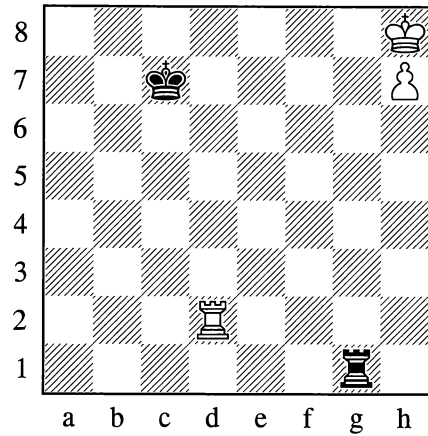
2...♔f7!

Black is in time to draw, as we saw on page 17.

If Black were to waste even a single move with say 2...♖g2?, he would be lost as the king could get out: 3.♖g8 ♖h2 4.♔g7 White wins. There is still some work to do, which we will see in the next example.

So, the king being cut off four ranks away from the pawn was insufficient to win, but only by a single tempo. Black was able to get ...♔f7 in only just before White was ready to get his own king to g7, and Black had no room for error. As such, it should not be a big surprise what the result will be if his king is cut off by one more file.

Rook Pawn – King Five Files Away



At this point, Black's king is now cut off five files away from the white king and pawn. We saw in the previous case that four files were just not sufficient to keep him away long enough to push the pawn through. So it is unsurprising that five files is where the line is officially crossed and the position becomes winning.

1.♖f2 ♔d7 2.♖f8 ♔e6!

This is Black's most resilient defensive attempt, but it does lose. He is trying to keep White's king from escaping via g6 and f5.

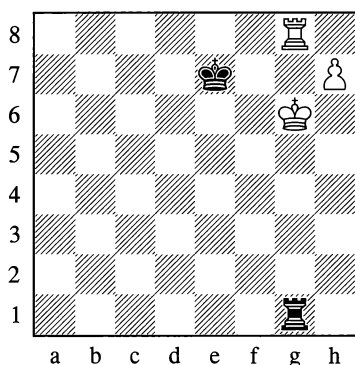
Going straight towards the rook instead makes White's life easier, though I won't call it a mistake as Black's position cannot be saved anyway:

2...♔e7 3.♖g8 ♖h1 4.♔g7 ♖g1† 5.♔h6

White now no longer needs his king to promote the pawn, and all he has to do is escape the checks. This is easily done by running to the center via g6 and f5.

5...♖h1† 6.♔g6 ♖g1†

As we will see, if Black's king was on e6 in this position, White would not be able to run back to f5. He would instead have to look for safety in another direction.



7.♔f5 ♖f1† 8.♔e4 ♖e1† 9.♔f3 ♖f1† 10.♔e2

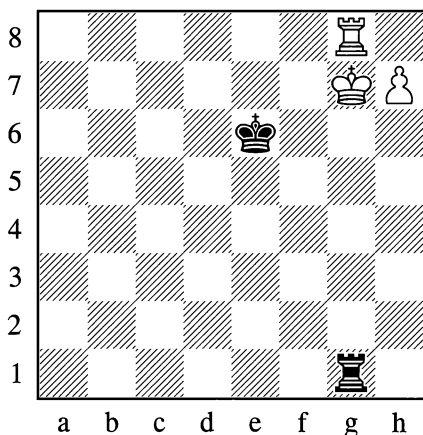
The king easily approached the rook, the checks are over, and so is the game.

3.♖g8 ♖h1 4.♔g7

White's king is free, but the game is not over yet.

4...♖g1†

Now, since Black's king sits on e6, the only way to escape the checks is via f8 and e8. This is a more hazardous location, but still sufficient for victory.

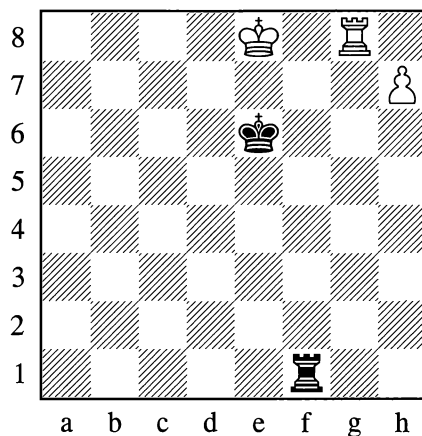


5.♔f8!

If instead 5.♔h6 ♖h1†, White cannot go to g5 as his pawn will hang, and after 6.♔g6 ♖g1† he again cannot run to h5, as ...♖g1-h1† will force the king back to g6.

5...♖f1† 6.♔e8

White has escaped the checks, but due to the perilous position of his king, he still has to be careful.



6...♖a1!

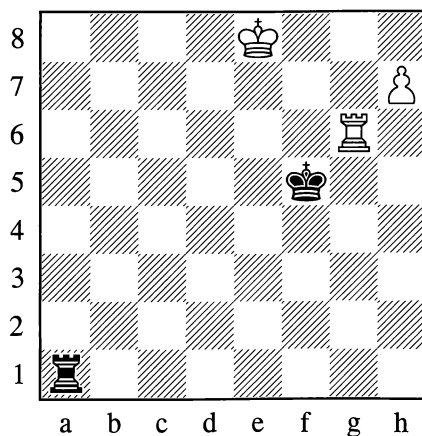
Now the threat of ...♖a1-a8 checkmate is real, and White needs to respond appropriately.

7.♖g6†!

7.h8=♚?? ♖a8# would not be a good way to lose a chess game.

7...♔f5

Now again, White has to be precise. He still cannot promote the pawn due to the check on a8, and the tempting looking 8.♖h6?? would also blunder away half a point.



8.♖f6†!

An important trick to memorize. The rook is immune to capture due to the promotion coming with check, and Black's king does not have a good square.

Let's see why 8.♖h6? does not work:

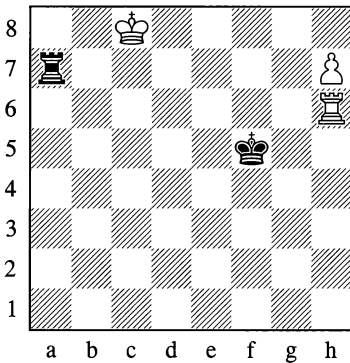
8...♖a8† 9.♔d7

9.♔f7 ♖a7† This position highlights why the black king should be pushed to f5. White cannot play ♔f7-g6-h5.

9...♖a7†

White's king has a hard time escaping the checks as he cannot use the sixth rank on pain of a skewer. So, he has to try to run along the seventh and eighth ranks to reach the b-file. But this takes a long time, and the black rook will transfer to h8 at the right moment.

10.♔c8



10...♖a8† 11.♔b7 ♖h8!

With a draw. ...♔f5-g5-g6 is on the way.

8...♔e5

The best choice of evils.

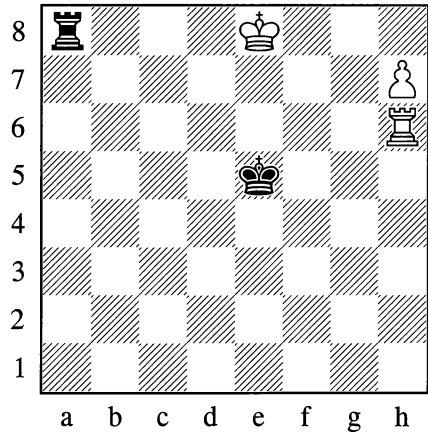
If 8...♔xf6 9.h8=♚† Black is in check, and unable to play ...♖a1-a8†. Queen against rook is a technical win, but also unnecessary as the rook on a1 is lost anyway.

After 8...♔g5 9.♖f8! Black cannot stop the h-pawn from promoting, and White's king will easily escape any checks.

9.♖h6!

Now and only now. Since the black king has been removed from the f5-square, Black cannot give endless checks on the a-file – White can run to h5 through the newly available g6-square.

9...♖a8†



10.♔f7! ♖a7† 11.♔g6 ♖a6† 12.♔h5

Game over.

As such, the next rule is born. Well, revisited and verified, as it has been known for a while.

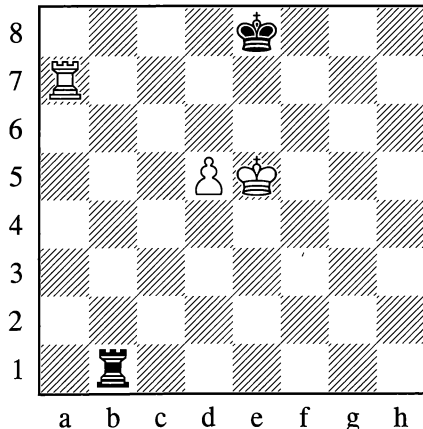
The Lucena position with an a-pawn or an h-pawn is only winning if the opposing king is cut off five files or more away from your own king and pawn. Four files away is insufficient.

Chapter 2

One Pawn, Basic Knowledge

The Lucena position is the most well-known rook endgame in all of chess. It is certainly the most important one to know when trying to convert an extra pawn into a victory. Winning better endgames is surely important, though no more or less important than defending worse ones. The next most basic and important idea to know in rook endgames is the Philidor position, as we see below.

Philidor Position



In any situation where just a single pawn remains on the board in a rook endgame, if the opposing king can stay in front of the pawn reliably, the game is an immediate and nearly effortless draw. In the diagram position, Black can hold with any number of moves, but by far the simplest is a technique known as the Philidor defense.

1...♖b6!

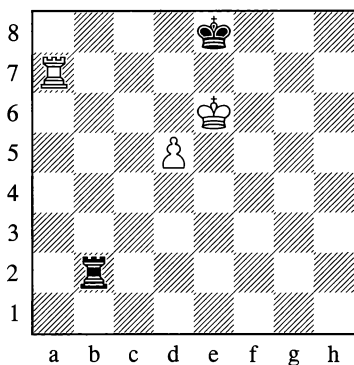
It is important to understand why this is the easiest drawing move. Any engine or tablebase will tell you there is no difference between this and almost any other move Black can make. But White had a serious plan of playing ♔e5-e6. This would ultimately have forced Black's king away from the squares in front of the d-pawn, and then Black would have to be accurate to save the game.

1...♖b2?!

In the present position, wasting a move is not enough to lose the game. But it certainly makes the defensive task more difficult.

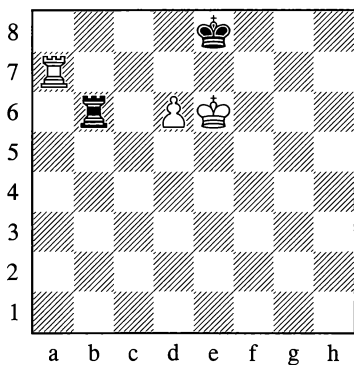
2.♕e6!

The threat of ♖a7-a8† with mate to follow is real. Black should kick the white king away.



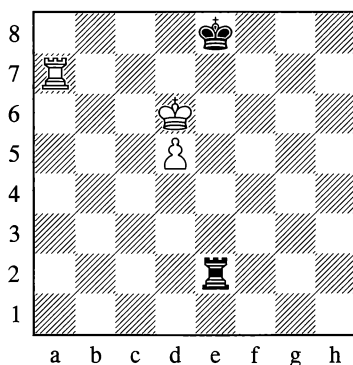
2...♖e2†!

2...♖b6†? It is too late to try to harass the king along the sixth rank, as after 3.d6! Black is not in time to get the rook to the e-file and will soon succumb to a check on the back rank. He can delay the disaster for a single move, but passive defense will not hold here.



3...♖b8 This position would be a draw if it was moved three files to the right, as White would run out of squares to work with on the kingside to give a check on the back rank. But here, Black can resign after 4.♖h7.

3.♕d6

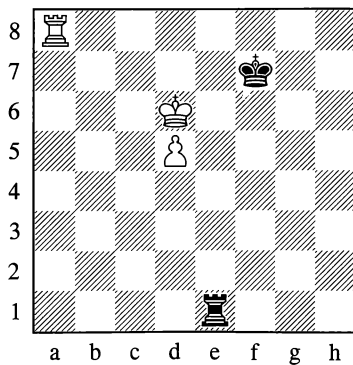


This position is still a draw with accurate play. But we now note that Black is unable to prevent ♖a7-a8†, which will force his king off the back rank and away from the d-pawn. Extreme care must be taken not to lose immediately. We will return to this position later to see the correct move, but for now, let's suppose Black plays carelessly and see what happens.

3...♖e1?

Maintaining the position as is will not do.

4.♖a8† ♕f7



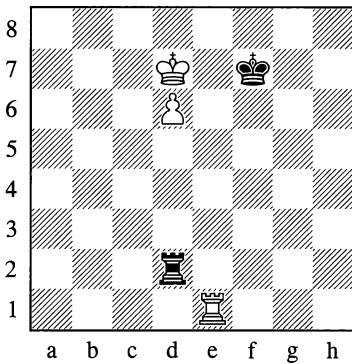
5.♕c6!

Black cannot prevent White from reaching the Lucena position. White is ready for d5-d6 next.

5...♖c1† 6.♕d7

This does not help matters for Black. d5-d6 is coming, followed by the rook transferring to the e-file.

6...♖d1 7.d6 ♖d2 8.♖a1 ♕f6 9.♖e1 ♕f7



10.♔c7

d6-d7 is threatened. The king is not totally secure on c7, but after:

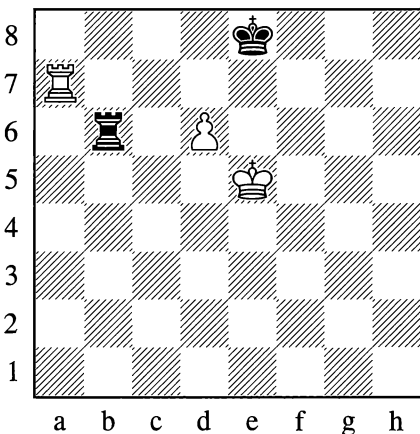
10...♖c2† 11.♔d8!

White is free to place his king on the back rank since d6 is not hanging. d6-d7 will come next, and the Lucena position has been reached. Time to resign.

After the text move, White is unable to play ♔e5-e6 as his king is cut off across the sixth rank. His only attempt to break the cut is:

2.d6

But if Black does not fall asleep at the wheel and allow ♔e5-e6 to come next, he will be fine. He should return with his rook immediately.



2...♖b1! 3.♔e6

We see the point of playing ...♖b1-b6 in the first place. Provoking White's pawn to d6 has deprived his king of the same d6-square to hide, and now there is nothing to be done about endless checks.

3...♖e1† 4.♔d5 ♖d1† 5.♔c5 ♖c1†

Black draws easily.

Two points are clearly on display in this example. First, it is important to note that endgame knowledge will build on itself. There is not much point in studying the Philidor defense without first knowing the Lucena position, as at some point, a misplayed Philidor defense will turn into a Lucena instead. But if you did not know that the Lucena position is lost, how would you know that playing the Philidor position in a way that reaches the Lucena position is a bad idea?

Secondly, the very concept of the Philidor defense and the reason it holds so easily is that it can prevent the king from being pushed away from in front of the enemy pawn. This brings us to the next rule.

In any endgame with just a pair of rooks and a single pawn remaining on the board, if the defending king can stay safely on any square in front of the pawn and on the same file as it without being kicked away, it is an easy draw.

In the Philidor position, we see this principle clearly. As soon as Black can force White to play d5-d6, depriving him of any hope of finding a safe home on the sixth rank for his own king to kick Black's away, the draw is entirely trivial. On the flipside, if White can push Black's king away, for instance to the f-file, things can start to go wrong fast.

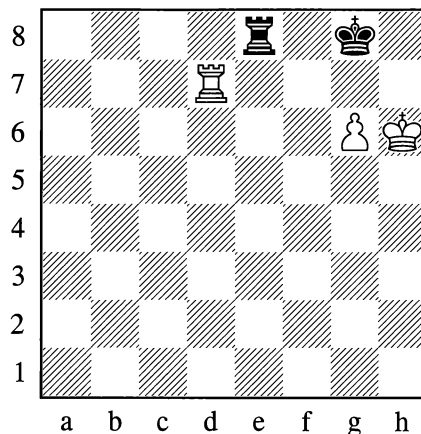
The Lucena and Philidor positions are the two most basic and important rook endgames to know in all of chess, and the comparison between them leads us to another important principle.

Most rook endgames where one side holds an extra pawn will be decided by who can safely get their king to a square in front of the pawn first.

When we apply this guideline to the Lucena and Philidor positions, we can clearly see that it holds true. In the Lucena position, the strong side has his king on the back rank and his pawn directly behind it. As such, the strong king occupies the only square available in front of the pawn, and the enemy king is unable to fight for it. In the Philidor position, the defending king ends up in front of the pawn, it cannot be dislodged, and the stronger side's king is not in front of the pawn. Then, the position is drawn. Most simplified rook endgames without many pawns present each side with a specific goal. The strong side is trying to reach the Lucena position, and the defending side is trying to reach the Philidor position.

It is important to note that as soon as Black was unable to set up the Philidor defense, he had to immediately give up his attempt to do so, as allowing White's king and pawn to both sit on the sixth rank led to an immediate loss. But this is not always the case. Consider the following position:

Passive Defense



We saw this exact position moved three files to the left on page 24. As alluded to in that example, moving the position closer to the edge of the board has turned it into a draw. The reason is that White cannot swing his rook over to the kingside to give a check because the board ends. Indeed, White would win on the spot if he could play $\Re d7-i7$, as Black would be unable to prevent the devastating $\Xi i7-i8\ddagger$ from coming next. As such, Black's king cannot be pushed away from in front of the pawn.

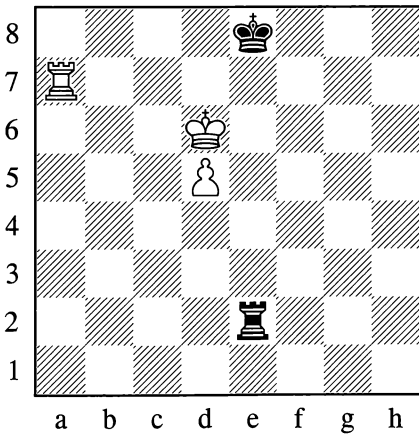
The difference between the d-pawn and the g-pawn is notable and brings me to the next rule.

The passive defense only draws against rook or knight pawns. Anything from the c- through the f-file will lead to a victory for the stronger side.

I will argue that the Lucena position, the Philidor defense and the passive defense are the three main pillars of basic rook endgame knowledge. While I do consider other positions to fall into the category of basic knowledge, nearly all of them will end up simplifying down to one of these three at some moment. When the passive defense works and when it does not work reinforces the first guideline on page 26. Black makes a draw in the scenario when his king cannot be pushed away from in front of the pawn but loses when it can be.

Let's see another case where it holds true by returning to the example of the botched Philidor defense.

Long and Short Side Defense 1

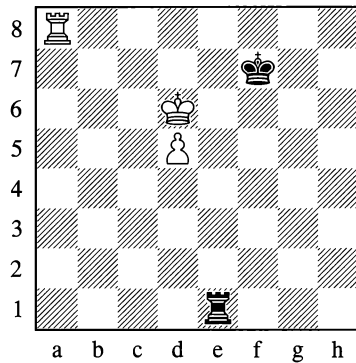


We have already seen that a nonchalant move like ... $\text{Re}2\text{-e}1$ would fail to save the game. Black now has to be extremely careful. He is no longer able to keep his own king in front of the d-pawn, but with accurate play, he can also prevent White's king from making any further progress.

1... $\text{Re}2\text{d}2!$

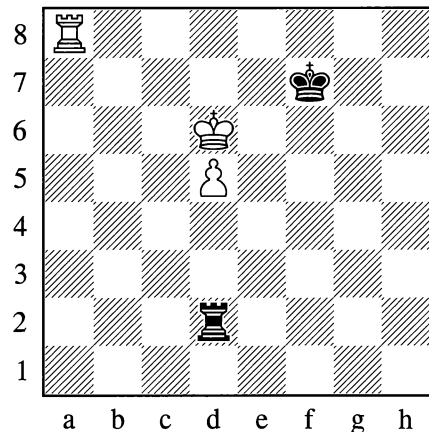
An extremely important move, and the start of the long and short side defense (which is also known as the Kling and Horwitz defense). Black restricts the freedom of White's king by jailing him to the defense of the d5-pawn. White's only try at victory is to push the black king off the back rank, but he does not have quite enough flexibility to make use of the newly vulnerable d7-square.

As we already saw on pages 24-25, waiting with 1... $\text{Re}1?$ would lose to: 2. $\text{Re}8\text{+}$ $\text{Kf}7$



3. $\text{Kc}6$ White will reach the Lucena position, with d6-d7 coming soon. (3. $\text{Kc}7$ and 3. $\text{Kd}7$ are equally effective.)

2. $\text{Re}8\text{+}$ $\text{Kf}7$

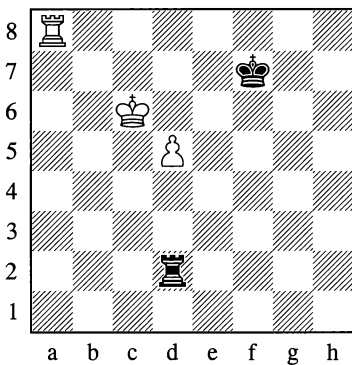


If White can get his king to d7, he will win. But unfortunately, this proves hard to do. Going to d7 directly will drop the pawn on d5, but if he plays ♔d6-c6 first, then Black is able to bring his own king back to the defense.

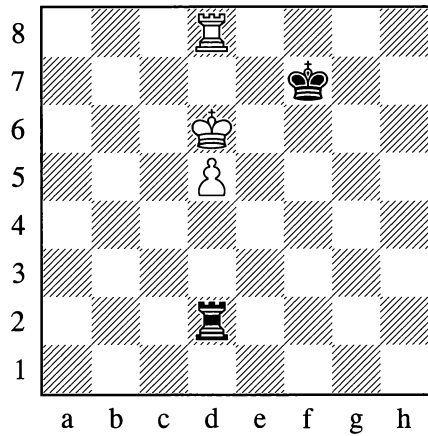
3...♖d8!?

The most testing try. White is now threatening ♔d6-c7 since he no longer has to worry about defending the d5-pawn. Indeed, if that were to happen, he would win.

Black should also be ready for the direct attempt to push d5-d6 through. After 3.♔c6!? Black now must not be complacent. If White is allowed to play d5-d6 next, Black will not be able to stop him from reaching the Lucena position. But checking the king will not help, as White could then put his king on d7, followed by pushing d7-d6. Now is the point where we can see the value of putting the rook on d2, as opposed to e1 in the previous example.



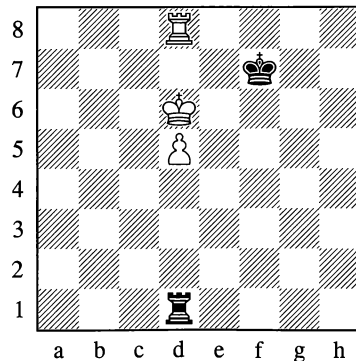
3...♔e7! Black's king comes back to the defense at the first opportunity. Since the rook on d2 conveniently prevents d5-d6†, White has nothing better than starting the whole process over and repeating the position. After 4.♖a7† ♔d8 5.♔d6 ♔e8 6.♖a8† ♔f7 we reach the same position we have already had in the main line, when White can try 7.♖d8.



3...♖a2!

White will win if he can advance the d-pawn one square further with his king still in front. His king should sit on one of two squares – either c7 or d7. As such, Black must immediately transfer the rook to give checks along the a-file. He has just enough checking distance to avoid a disaster.

Sitting and waiting would lose immediately: 3...♖d1?

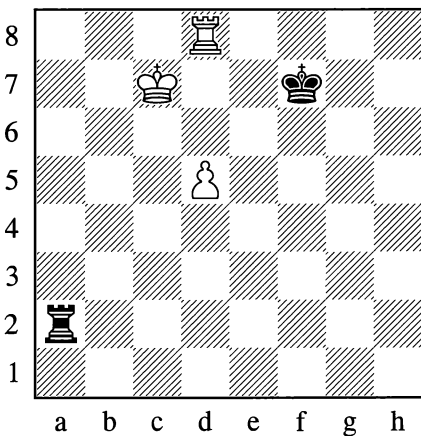


4.♔c7! The same defensive resource ...♔f7-e7 no longer works, as d5-d6† will come. 4...♔e7 5.d6†! We see that ♖a8-d8 proves useful for more reasons than one. Not only did it free the king to reach the c7-square, but it also allows for d5-d6† to come. After 5...♔f7 6.♖a8 Black cannot prevent the Lucena position from showing up.

Additionally, Black will lose if he does not bring his rook all the way to the a-file: 3...♖b2? Now he does not have enough checking distance. After 4.♔c7 the analogous move to the drawing variation would be 4...♖b7†. But this obviously fails as White's king is too close to the rook, and it can simply be captured on the spot. Alternatively, 4...♖c2† 5.♔d7 will promptly reach the Lucena position.

4.♔c7

White could try putting the rook on the c-file to block the checks: 4.♖c8 Now, ♔d6-d7 is a winning threat. But, since the rook has left d8, Black can come right back with: 4...♖d2! And White is once again unable to advance further, as ♔d6-c6 will be met with ...♔f7-e7.



4...♖a7†!

White's king has nowhere to hide, and he cannot easily approach the rook. As soon as White's king comes to the b-file, Black will be free to play ...♔f7-e7, attacking the white rook and getting his king back in front of the pawn, without fear of d5-d6†.

5.♔b6 ♔e7

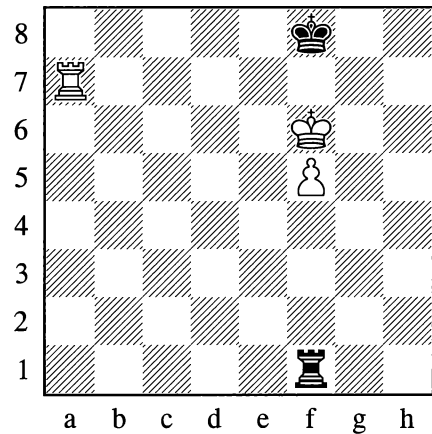
Black makes a draw. He will now easily reach the Philidor position.

I believe that the long and short side defense is the fourth most important basic technical rook endgame to know. It is certainly a little tougher than the previous examples and requires more precision, but it is not wildly difficult to understand how Black holds.

Still, care must be taken. It was critical that Black had enough checking distance to save the game, and as we saw, he would have lost if he had transferred the rook to the b-file rather than the a-file.

The checking distance will not always be there. Let's examine the following scenario.

Long and Short Side Defense 2



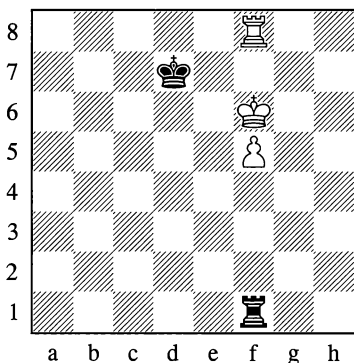
We have a similar situation to the previous case, except that White's pawn is no longer in the center, but rather is closer to the side of the board. Black faces a mate in one threat, and he cannot play ...♖f1-e1 as the pawn ending would be lost. So, he must move his king, and it will be kicked out of the way of the f-pawn. But which direction should he choose? As we will see, it is an important decision.

1...♔g8!

Black makes a draw by bringing his king to the edge of the board (the short side).

By doing so, he ensures that he will have enough checking distance for his rook.

It would be a grave mistake to go the other way with the king. 1...♔e8? 2.♖a8† ♔d7 3.♖f8



We see a similar position to the main line, except now the king is on the long side of the f-pawn. As such, Black must look to give checks along the seventh rank from the kingside, and there is not enough room. As we will frequently see in all kinds of rook endgames, the end of the board is very relevant. If it were possible, Black would make a draw here with the move ...♖f1-i1, as he would then have just enough room to check White's king. The only way to escape the checks would be to go to the h-file, at which point Black would be ready with ...♔d7-e7, holding. But much to Black's chagrin, the board ends. After 3...♖h1 4.♔g7 there is no check along the seventh rank to be had, White will get his pawn to f6, and he will reach the Lucena position. 4...♖g1† 5.♔f7 ♖h1 6.f6

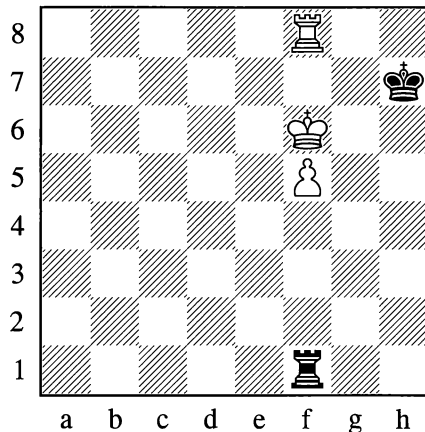
2.♖a8† ♔h7

As we saw in the previous example, White must place his rook on f8 to threaten ♔f6-e7. ♔f6-e6 would allow ...♔h7-g7, forcing White to start again.

3.♖f8

Black must now transfer his rook so that he can laterally check the king along the seventh rank. This is a piece of cake, as he has more than enough room.

3.♔e6 ♔g7 4.♖a7† ♔f8 5.♔f6 ♔g8! repeats the position.



3...♖c1

Of course, it would be much more natural and human to place the rook on a1 to ensure maximum checking distance, but Black can even make do with a full two files less.

4.♔e7 ♖c7†

The only way for White to escape the checks is to come to the d-file. As soon as that happens, Black is ready with ...♔h7-g7.

5.♔d6 ♔g7

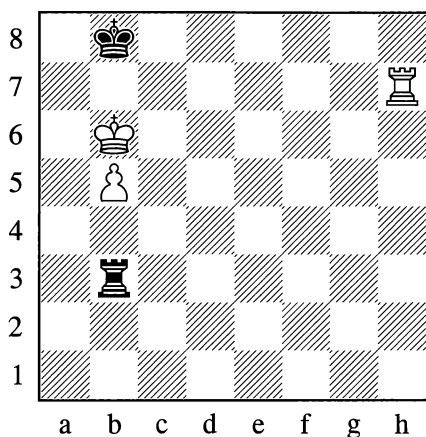
Black got his king back in front of the pawn, and easily makes a draw.

Black's choice of where to put the king was extremely relevant, and it introduces the next rule.

When using the long and short side defense, when your king is forced to choose a direction, always move closer to the corner to maximize the checking distance for the rook.

Unfortunately, this is not always possible. For instance, take the following example:

Long and Short Side Defense 3

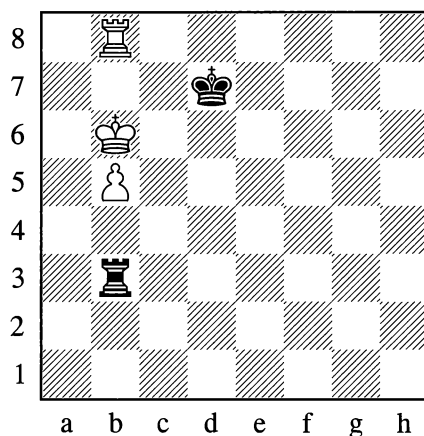


White threatens mate on h8. According to the above rule, Black should move his king into the corner to maximize the checking distance for his rook. Unfortunately, this will not save him, as again the end of the board comes into play. One could argue that this example breaks the rule, but I disagree, as Black is lost no matter how he plays.

1...♔c8

This is a sad necessity as it is bringing the king in the wrong direction, but going into the corner would be mate in one move: 1...♔a8 2.♖h8# Black cannot place his king on the seventh rank and to the left of the a-file, so he is mated. If such a square existed, he would make a draw, as the position would be more or less identical to the previous example.

2.♖h8† ♔d7 3.♖b8



Black cannot prevent the pawn from coming to b6, as ♔b6-a7 is an unstoppable threat. Black needs to have two files to the left of the a-file to deliver sufficient checks along the seventh rank, but there is not even one. ...♖b3-a3 would fail to ♔b6-b7 followed by b5-b6. The Lucena position will be reached. In fact, this is the exact final position that Boris Gelfand resigned in against Vishy Anand in the critical tiebreak game that allowed Anand to keep his World Championship title in 2012.

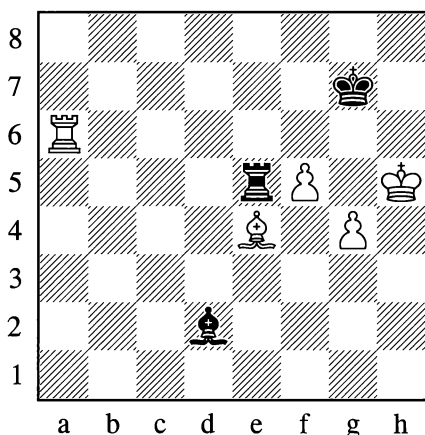
The long and short side defense turned out to be insufficient to save the game, leading to the introduction of the next rule.

The long and short side defense fails against b- and g-pawns.

Knowing which positions are drawn, and which ones are not, is very important. It can help you make decisions in more complex positions that have the potential to simplify. For example, many years ago, I had an encounter with Daniel Naroditsky when we were both young and not nearly as strong as we are today. We both made some critical mistakes as the half point was passed back and forth.

Sam Shankland – Daniel Naroditsky

San Francisco 2008



White should be winning routinely with his connected passed pawns, as Black is unable to set up a blockade on the dark squares. But I was worried about the drawish tendencies of opposite-colored bishops and chose to simplify down to a rook endgame that I mistakenly believed was winning.

61. ♖a7+!

A step in the wrong direction.

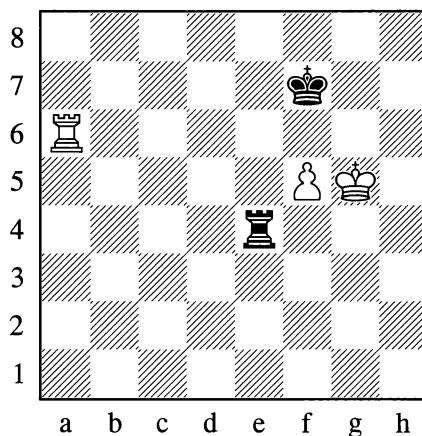
The easiest route to victory was to transfer the bishop to e6, when Black would not be able to prevent further advances. For example, after: 61. ♖d3 ♖d5 62. ♖c4 ♖c5 63. ♖a7+ ♖f6 64. ♖e6 White is ready for g4-g5+ next, making use of Black's inability to capture on g5 due to ♖a7-f7+. Black cannot prevent this rather straightforward plan, and the pawns should easily crash through.

61... ♖f6

Now, I should have admitted my mistake and checked again on a6 to repeat the position. Instead, I played:

62. g5+? ♖xg5 63. ♖a6+ ♖f7 64. ♖xg5 ♖xe4

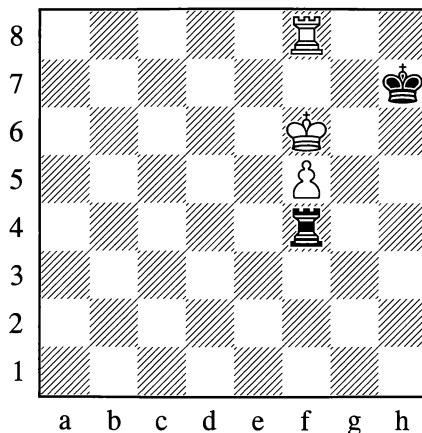
We have reached a good version of the long and short side defense, where Black should hold. Daniel clearly understood the position better than I did, as he even offered a draw at this moment, suggesting that he knew what the result should be.

**65. ♖a7+ ♖g8!**

An excellent decision. As we have seen in the previous examples, Black goes to the short side with the king.

66. ♖f6 ♖f4 67. ♖a8+ ♖h7 68. ♖f8

While Daniel clearly knew the position was a technical draw, his play in the coming moves suggested that he wasn't entirely sure how to best defend.

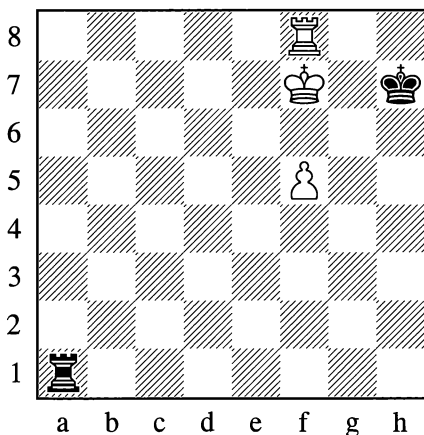


68...♖f1?!

A step in the wrong direction. The rook's primary purpose on the f-file is to prevent ♕f6-e7. Now that White's rook is on f8, Black should know that this is the moment for his own rook to go to the long side: 68...♞a4! Black should immediately transfer the rook to the a-file to give lateral checks. White has nowhere to hide, and it is an easy draw. White can try to prepare ♕f7, but after 69.♞e8 ♖f4! Black returns to the f-file, and no progress can be made.

69.♕e7! ♞e1† 70.♕f7 ♞a1

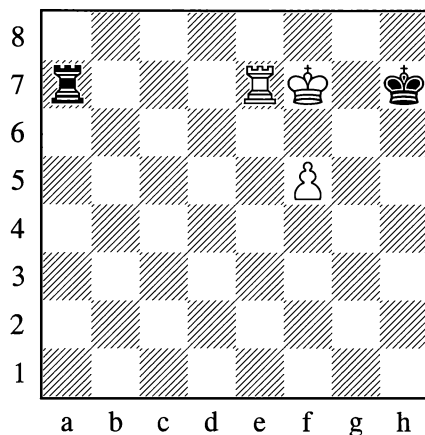
Now we see a key difference. Black could have had this same position with my king on f6 and his rook on a4. Then, my next move would not have worked.

**71.♞e8!**

The position is still a draw, but now White gets to keep his king on f7 and the defense becomes more difficult.

71...♞a7† 72.♕f6 ♞a6† 73.♞e6 ♞a1 74.♕f7 ♞a7† 75.♞e7

Now Black must be extremely careful where to put his rook. If White is allowed to play ♕f7-f8†, then he will get his pawn to f7 and reach the Lucena position.

**75...♞a8!**

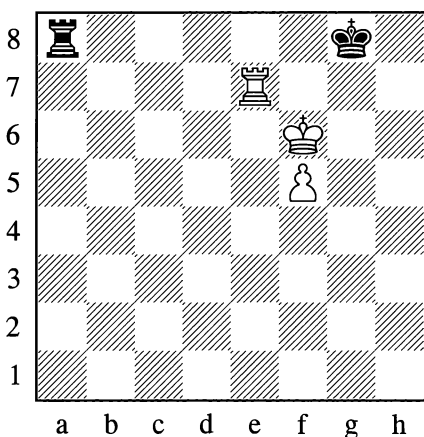
Black correctly prevents ♕f7-f8.

75...♞a1? feels natural, but after 76.♕f8† ♕h6 77.♞e6†! White is winning, as Black cannot prevent the f-pawn from reaching f7. 77...♕h7 78.f6

76.♕f6† ♕g8?

Daniel had made his life tougher by not bringing the rook to the a-file as soon as I had played ♞a8-f8. But even here, the position was still a draw until Black allowed White to force him into a passive defense against an f-pawn. As discussed previously, this is winning for the pressing side.

Black could have saved the game with 76...♕h6!. It might not be totally trivial, but if you know that the position is lost if the king goes to the back rank and White's king reaches g6, you must simply put the king on h6 and hit the clock.



77.♙g6!

Black's rook is stuck on the back rank and White's king is safe on g6. We have reached a passive defense where White has an f-pawn. As we saw before, Black would only make a draw against a g-pawn. So, White will be able to remove the black king from the back rank and win the game.

77...♙f8

Setting one last devilish trap. Black is obviously threatening to capture the rook, but he also has a more subtle threat of bringing his own rook down to a square like a1 now that immediate checkmate has been averted.

78.♖b7!

White saves the rook while also renewing the possibility of a check on the back rank.

It was not too late for White to go wrong with 78.f6?. For one key moment, Black's rook is free to leave the back rank, and he draws easily after 78...♖a1!, soon reaching the final position of the Philidor defense.

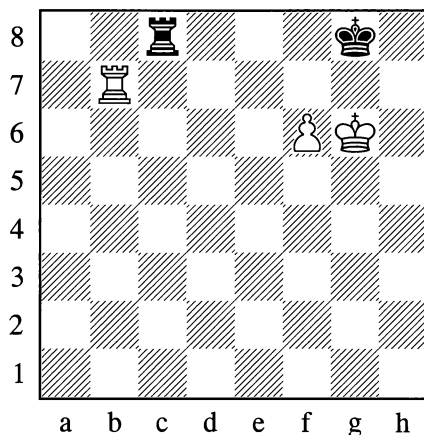
78...♙g8

Black could have tried leaving the back rank with 78...♖a1, but his king will be booted out of the way. After 79.♖b8†! ♙e7 80.f6†! ♙e6

81.♖e8† White is actually promoting the pawn on the spot. But even if Black could stop the direct f7-f8, White would still be able to reach the Lucena position.

79.f6 ♖c8

Now I executed the same winning plan that we saw before.



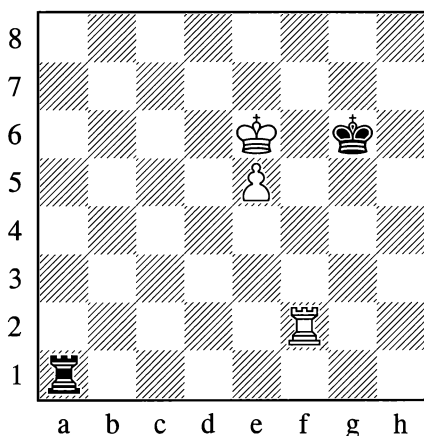
80.♖g7†! ♙f8 81.♖h7!

1-0

I hope that Daniel, one of my oldest friends in the chess world, will forgive me for publishing this game. But I do think it was very instructive to see how a couple of strong young players could misplay a technical endgame to the extent that we did. It all came down to a lack of basic knowledge on both of our parts. I did not know a thing about the long and short side defense, and my only explanation for how Daniel could have played 76...♙g8 is that he was not completely sure if passive defense would hold or not. Had he known with 100% certainty that the position would be lost after 77.♙g6, I'm sure he would have immediately played 76...♙h6 and hit the clock, strictly out of elimination, and regardless of whether he believed the resulting position to be drawn or not.

The difference between going to the short side and the long side gives us an insight into the concept of lateral checks. Take the following example:

Lateral Checks 1



Despite Black's king being seemingly cut off along the f-file, the position is an easy draw by giving lateral checks. The problem is that White's king has nowhere to hide.

1...♖a6†!

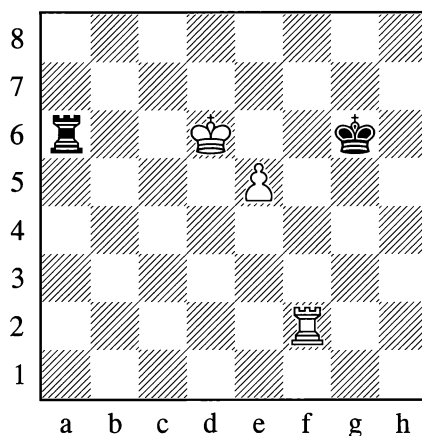
If Black were to waste a move with 1...♖a3?, he is lost. After 2.♖g2†! ♔h7 3.♔f7 his king is cut off one file further away, and lateral checks will not save him because White can block them with the pawn. 3...♖a7† 4.♔f6 ♖a6† 5.e6 White will easily reach the Lucena position.

2.♔e7 ♖a7† 3.♔f8 ♖a8†

There is nowhere to hide.

4.♔e7 ♖a7† 5.♔d6 ♖a6†

White's best hope is to try to approach the enemy rook, but Black has too much checking distance and is able to draw.



6.♔c5 ♖a5†

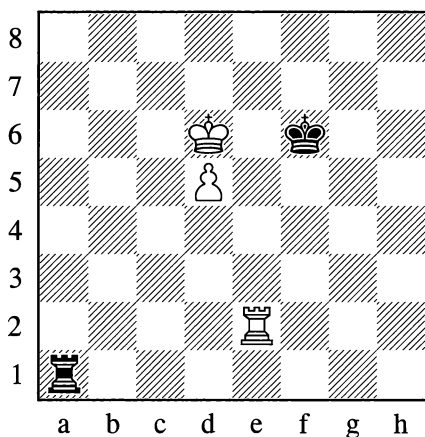
Clearly, Black needed to start checking right away. This brings us to the first two rules regarding a lateral check defense.

With your king cut off along a file, lateral checks will only save the game if there are at least three empty files between the attacking king and the edge of the board, and there is only one empty file between the pawn and the defending king.

If the defending king is ever pushed three files away from the enemy pawn, lateral checks will always fail, as the attacking king will have a safe square on the short side.

As we saw, as soon as Black's king was pushed to the h-file, leaving two empty files between himself and the e-pawn, he was lost. Similarly, a lack of checking distance is decisive as well.

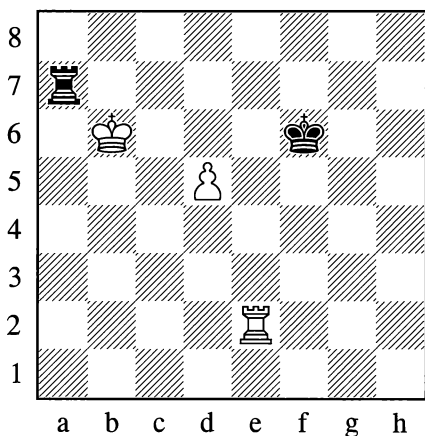
Lateral Checks 2



Apart from the rook on a1, all the pieces have been shifted one file to the left. This turns out to be a decisive difference, as there is now not enough room to give lateral checks.

1...♖a6† 2.♔c7 ♜a7† 3.♔b6

Black needs to be able to check the king once more, forcing it three files away from his pawn, to save the game. Since this is not possible, White wins.



3...♖d7

If White's king were one file further away, he would be losing the d-pawn on the spot. As is, after:

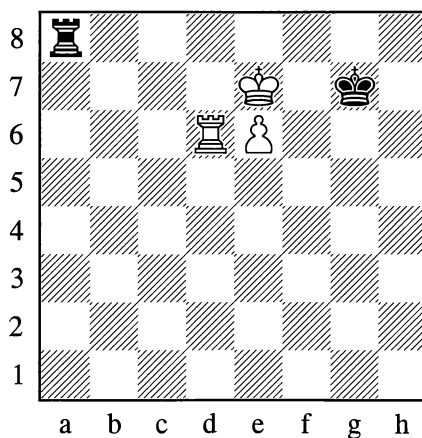
4.♔c6 ♜a7 5.d6

The pawn is advancing, and White will routinely reach the Lucena position.

There is one trick the defending player should be aware of.

Sam Shankland – Ognjen Cvitan

Biel 2014



Black should be making a draw, as both requirements are met. There are three empty files between the e6-pawn and the edge of the board, and the king is only cut off with one file in-between. Still, since the pawn is far advanced, care must be taken. A very young Magnus Carlsen even lost this exact position once! White's plan is to get his king to the back rank and his pawn to e7, and Black must be careful not to allow this to happen.

113...♔g6!

There is no major difference between the king sitting on g7 and g6. It might look further away now since it cannot come back to f8, but this was never really going to happen anyway.

Moving the rook would be a decisive error:

113...♖a7†? Leaving the back rank is punished by: 114.♕e8! Black is unable to prevent e6-e7, and White wins. 114...♙f6 115.e7†! Check!

113...♖b8?

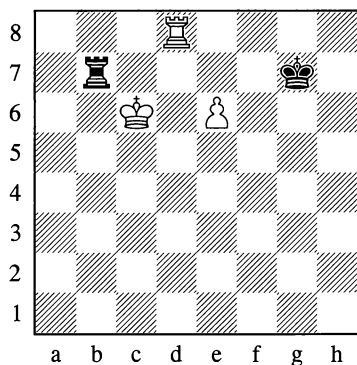
The next rule is extremely simple.

When relying on lateral checks, never leave the a- or h-file. The rook needs as much checking distance as possible.

114.♖d8 ♖b7† 115.♕d6 ♖b6†

115...♙f6 116.♖f8† ♕g7 117.e7 White makes a new queen.

116.♕d7 ♖b7† 117.♕c6

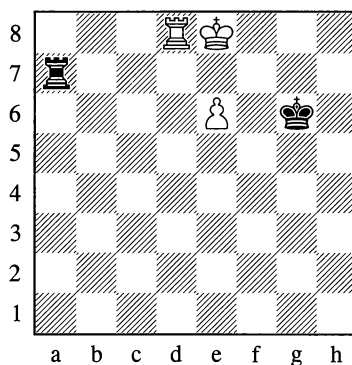


Black does not have the necessary checking distance to make a draw.

114.♖b6

After Black found the correct move 113...♙g6, there was not much left to try, and I played this move, which is basically a draw offer.

114.♖d8 is the only way to force White's king to the back rank, but it turns out the rook was needed on d6. After: 114...♖a7† 115.♕e8



115...♙f6! Black saves the game. It's rather helpful that the rook is on d8 rather than d6.

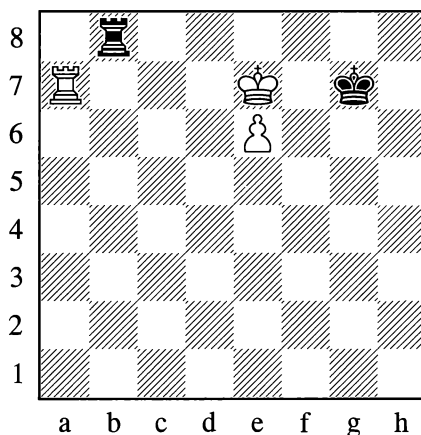
114...♖a7† 115.♕d8 ♖a8† 116.♕d7 ♖a7† 117.♕d6 ♙f6 118.e7

I've been more hacked off after a game before, but not many times...

½-½

In general, having three empty files between the attacking pawn and the edge of the board opposite the defending king is sufficient even if the rook does not yet occupy the furthest file. But this becomes less reliable the further up the board the pawn is advanced. The following position should be memorized.

Lateral Checks 3



White is winning here. There are in theory three empty files between the e-pawn and the leftmost a-file. But Black's rook is unable to use the a-file since White got there first and got his pawn all the way to e6. Black to play would be in a deadly zugzwang, because his rook must stay as far away from the pawn as possible while remaining on the back rank. Unfortunately, it is White to move, but it is not too hard to triangulate.

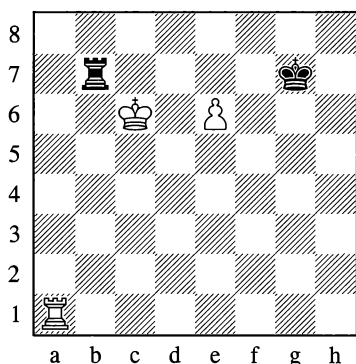
1.♔d6†!

White starts the triangulation. But before we see how this wins, let's see how a less patient move would squander a half point.

1.♞a1?

This is tempting, aiming to give a check on g1 next. If Black falls asleep at the wheel, White will win routinely by forcing the black king to the h-file and then getting a safe haven for his own king on the f-file, the short side. But it is too soon to attempt this transfer, as Black's king and rook are both on their best squares. He starts checking.

1...♞b7†! 2.♔d6 ♞b6†! 3.♔d7 ♞b7†! 4.♔c6



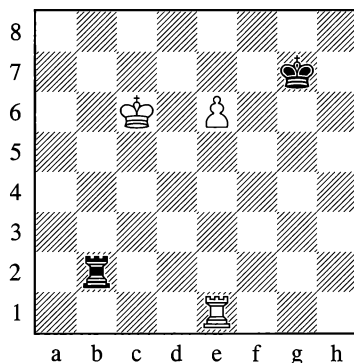
This position would be winning for White with his rook on the eighth rank, as Black's rook would then be unable to leave the seventh rank without allowing e6-e7 to promote the pawn directly. It also would be

winning if Black's king was on g6, as White would then be able to play ♞a1-e1 next without allowing ...♔g7-f8. Since White's rook is on the first rank and Black's king is on g7, the position is a draw.

4...♞b2 5.♞e1

White needs Black's king to be on g6 for this idea to work.

After 5.e7 ♔f7 Black has everything under control.

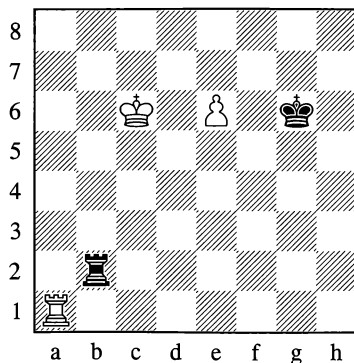


5...♔f8!

Draw.

1...♔f6 2.♔d7! ♔g7

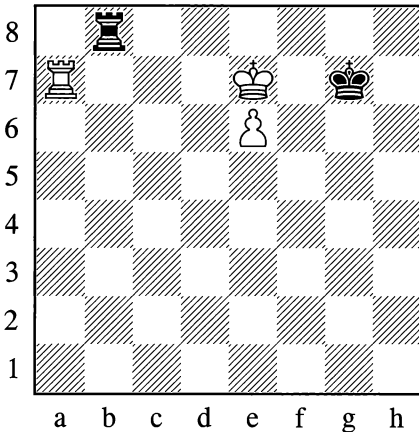
If 2...♔g6 It turns out the king is much worse on g6 than g7. 3.♞a1 ♞b7† 4.♔c6 ♞b2



Black would be making a draw with the king on g7 here. As is, after 5.♞e1! the pawn promotes directly since Black cannot play ...♔g6-f8.

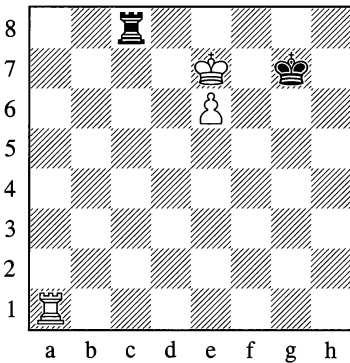
3.♔e7

Same position, but now Black to play. Both his king and rook are on their best squares, and he is in a deadly zugzwang.

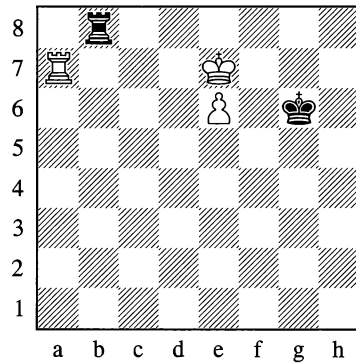
**3...♖b1**

The alternatives are no better:

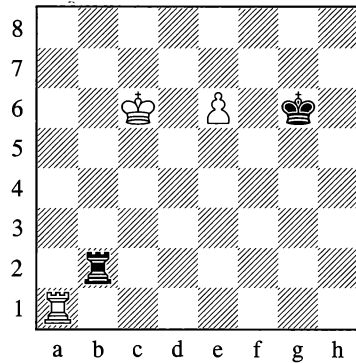
3...♞c8 shortens Black's checking distance.
4.♖a1!



White is ready to give a check from g1. Once Black's king is forced to the h-file, White's king will be able to hide on the short side and sit safely on f7, winning routinely. Black has to try 4...♞c7† but after 5.♔d8! ♞b7 6.e7! the pawn promotes directly.

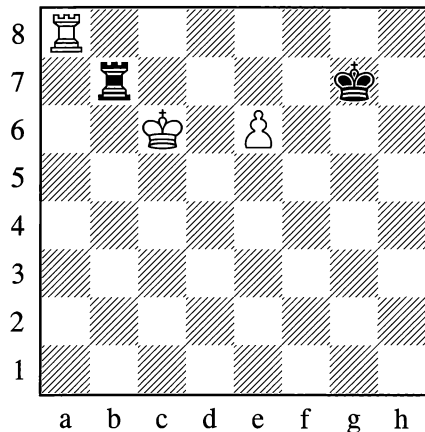
3...♔g6

4.♖a1! Once the king is on g6, White can safely look to transfer his rook to g1. 4...♞b7†
5.♔d6 ♞b6† 6.♔d7 ♞b7† 7.♔c6 ♞b2



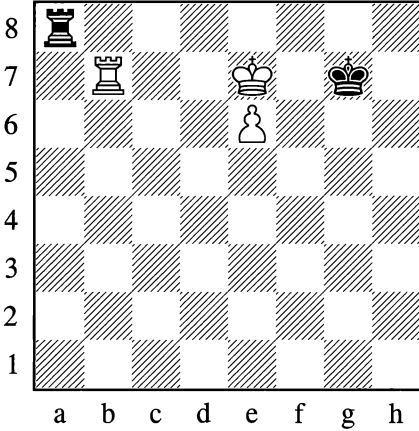
We have seen this position before. Black's king on g6 turns out to be his undoing after 8.♞e1!, since it cannot get back to f8 in time.

4.♖a8! ♞b7† 5.♔d6 ♞b6† 6.♔d7 ♞b7†
7.♔c6



Once more, we see that Black lacks the necessary checking distance to make a draw.

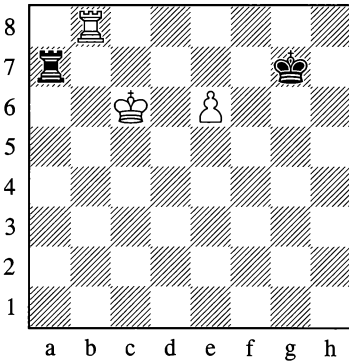
Lateral Checks 4



With Black's rook on a8, the position is an easy draw. Black is in zugzwang here, but he still has enough checking distance for both ...♙g7-g6 or ...♞a8-a1 to be good enough to save the game.

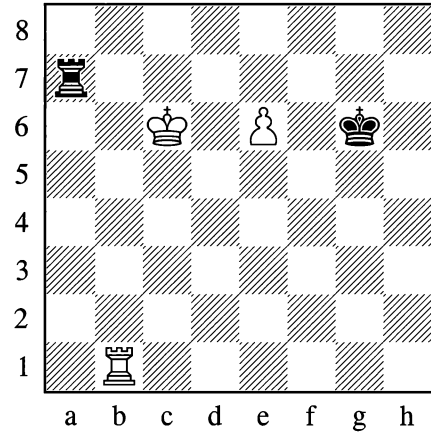
1...♙g6

The rook being allowed to the back rank is not a big deal either: 1...♞a1 2.♞b8 ♞a7† 3.♙d6 ♞a6† 4.♙d7 ♞a7† 5.♙c6



Unlike the previous example where White's rook was on a8 and Black's rook was on b7, Black has one more check to give: 5...♞a6† With a draw.

2.♞b1 ♞a7† 3.♙d6 ♞a6† 4.♙d7 ♞a7† 5.♙c6



In the previous case with Black's rook on b7 and White's rook on a1, Black was lost as he had no more checks and ♞a1-e1 was coming next. This is not the case here:

5...♞a6†

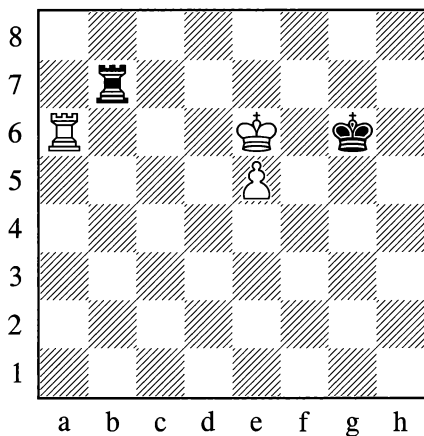
Draw.

This brings us to the next rule.

Lateral checks will fail against a center pawn if it can reach the sixth rank and the attacking rook can take the file furthest away from the pawn.

This rule clearly held true in the previous two examples, as White was winning when his rook was on the a-file, but it was a draw when Black had control of the a-file instead. But it's also important to note that this only mattered because the pawn had reached the sixth rank. Had it stood on e5 instead, controlling the a-file would not have been sufficient for victory, as we can see here.

Lateral Checks 5



White's rook has taken the a-file, but since his pawn is back on e5, the position is an easy draw.

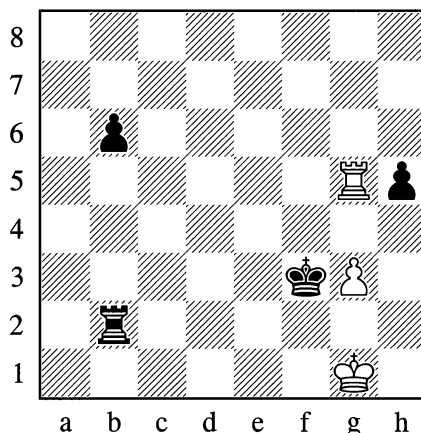
1...♔g7!

Black's king is ready to come back to f8 and get in front of the pawn. There is nothing for White to even try. This defensive attempt would not have worked in the previous examples, because it would have involved playing ...♔g7-g8-f9.

Having a more complete knowledge of technical rook endgames allows a player to make transitions much more favorably. Eight years after my encounter with Daniel in our local chess club, I found myself in clear first place heading into the penultimate round of a major open, hoping to all but clinch a tournament victory. This time, I was able to make the correct transition.

Rinat Jumabayev – Sam Shankland

Biel 2016



A topsy-turvy battle in the middlegame (where I was even prepared to resign at one moment had my opponent found the best move!) ultimately yielded this endgame. Black is winning in two different ways, but one is much more routine than the other. After calculating a short, forced variation, I quickly realized that I could reach the Lucena position.

47...b5!

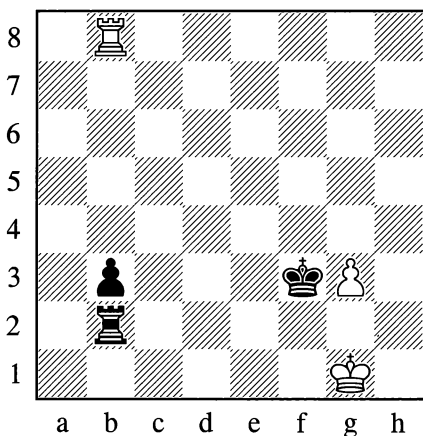
This is not the only winning move, but it is the simplest. The b-pawn is coming, and White's king is conveniently unable to join the defense, as ♔g1-f1 would promptly be met with ...♖b2-b1, mate.

48.♖xh5 b4! 49.♖b5

Trying to hang onto the g3-pawn with 49.♖g5 offers no hope of salvation either, as after 49...b3 the threat of ...♖b2-c2 followed by ...b3-b2 forces White to get behind the b-pawn anyway. There would be similar consequences to the game after 50.♖b5 ♔xg3 51.♔f1 ♔f3 52.♔e1 ♔e3.

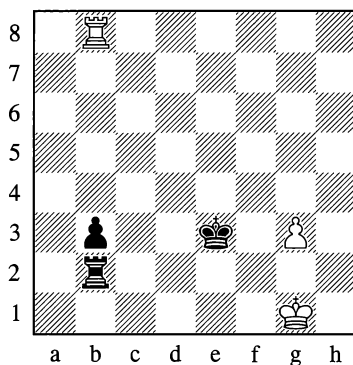
49...b3!

Black got his pawn all the way to his sixth rank. It is not totally trivial to advance it further since the rook can only move to b1. This would unfortunately allow some freedom for White's king to support the g-pawn for counterplay. But, Black is easily winning if he finds the right way.

50.♖b8**50...♔xg3!**

Black's winning plan is obviously to promote the b-pawn, but he will not actually get to keep a new queen. White will sacrifice his rook for the pawn, leaving Black with an extra rook. This would be enough to win if Black's b-pawn was the only pawn left on the board, but that is not the case. Rushing to push it through would allow White to send his own passer down the board. So, Black must capture on g3, using a nice tactical resource to make sure White's king cannot get too close to the b3-pawn. Let's see what happens if he ignores White's g-pawn.

50...♔e3? Moving the king directly towards the b-pawn is ill-advised. If Black puts all his efforts into pushing his b-pawn through, it will surely eventually promote. But White has counterplay now.



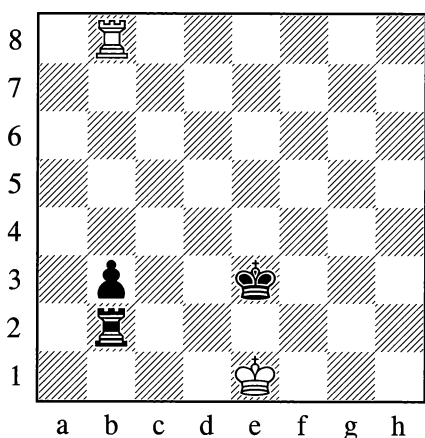
51.g4! The g-pawn requires immediate attention, and Black can even lose if he ignores it for too long. 51...♔d3 52.g5 Now, Black needs to slow down and accept that he won't win the game. The g-pawn is coming, and if it is allowed to advance one more square, White will be able to promote it. The position is drawn, as the only way to prevent g6-g7 is to bring the rook back, losing the b3-pawn. 52...♖c2 (52...♔c2? Here Black even loses! After 53.g6 White will promote his pawn.) 53.g6 ♖c7 54.♖xb3† ♔e4 Black lost the pride of his position, but thankfully it is still an easy draw, as White's king is nowhere near close enough to push the g-pawn through.

51.♔f1

Of course, as soon as Black's king leaves the f3-square and ♔g1-f1 cannot be met with an immediate checkmate, White runs towards the queenside as fast as possible. But he will not get far.

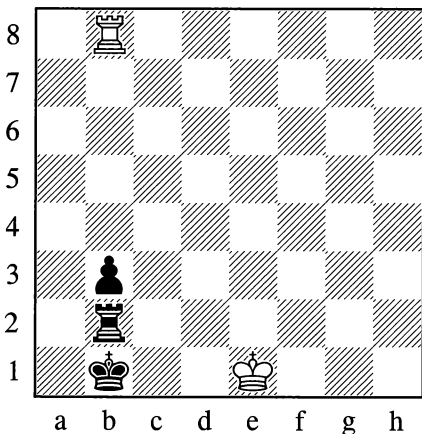
51...♔f3 52.♔e1 ♔e3

It transpires that White cannot keep approaching with his king, as ♔e1-d1 would be met with ...♖b2-b1 mate. So, Black will get his king to d3, c2, and b1 without any interference.



53.♖e8† ♔d3 54.♞d8† ♔c2 55.♖c8† ♔b1
56.♞b8

Black has put his king in the desired position. Now all that is left to do is to get the rook out of the way.



56...♔c1!

Black prepares for ...♞b2-b1, clearing the b2-square for his king to keep the pawn protected without the help of the rook. A check on c8 will not help as then Black can respond with ...♞b2-c2 and then ...b3-b2 to follow.

57.♞b7 ♞b1 58.♞h7

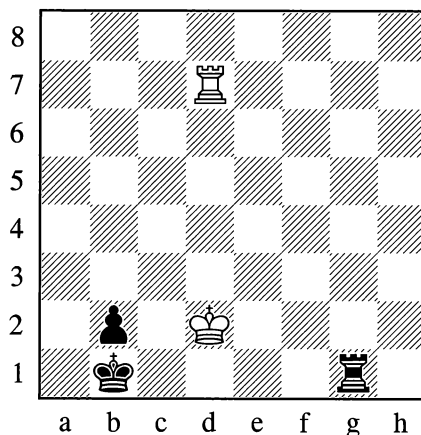
Now all Black must do is get the rook to a sensible square to reach a Lucena position.

58...♔c2†

58...b2?? is not to be recommended!

59.♔e2 ♞g1 60.♞c7† ♔b1 61.♞d7 b2
62.♔d2

Black is ready to transfer his rook to the fifth rank, reaching the same Lucena position we have seen previously.



62...♞g5 63.♞h7

63.♞a7 would have prevented ...♔b1-a2, but only prolonged the game for a few more moves. After 63...♞d5† 64.♔e3 ♔c2 Black will build a bridge by walking his king from c2-b3-c3-b4, as seen on pages 15 to 17.

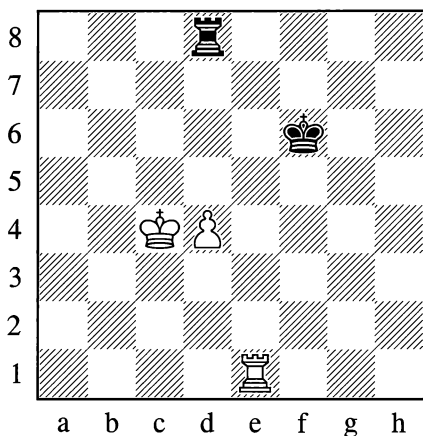
63...♞a5

White resigned, as he could not prevent ...♔b1-a2.

0-1

While this game certainly had some interesting moments, the phase where we started the analysis was not particularly noteworthy. Black could easily reach the Lucena position. But not all positions are so clean-cut. Before we move on to the next case where we will see a very strong player fail to find the correct continuation to reach the Lucena position, it is important to examine a defensive technique known as the frontal defense.

Frontal Defense 1

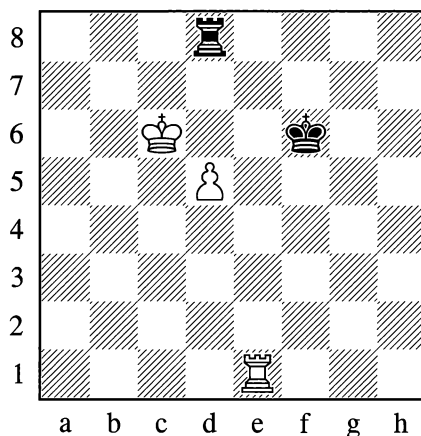


Black's king is cut off along the e-file and it looks like White should win by using his king to shepherd the d-pawn up the board, eventually reaching the Lucena position. But Black has set up the frontal defense. His plan will be to stop the d-pawn from advancing by checking White's king endlessly, forcing it to hide directly behind the passed pawn, and then returning to the d-file to prevent further advances. But this plan only works if there is enough distance to give these checks. As we will see, the defense will fail if the pawn is far enough advanced.

1.d5!

Black's problem is now that the d-pawn is too far up the board, and he will not have sufficient checking distance to harass White's king. For instance:

1...♖c8† 2.♔d4 ♜d8 3.♔c5 ♖c8† 4.♔b6
♜d8 5.♔c6



Black would be holding a draw here if he could play something like 5...♖c9†, and then meet 6.♔d7 with 6...♜d9†, forcing the king back. But, in addition to 5...♖c9† being illegal due to rooks not moving diagonally, it would also be illegal in any other position because the ninth rank does not exist.

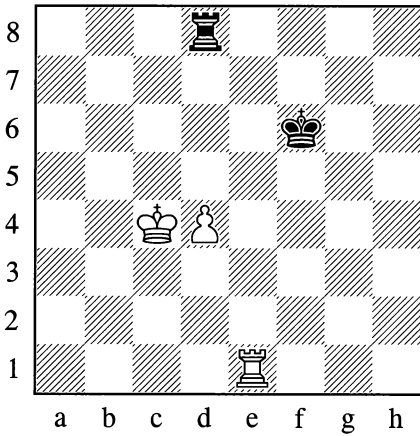
5...♖c8† 6.♔d7

Black does not have quite enough checking distance to save the game. White will reach the Lucena position.

In this case, the frontal defense failed to hold because there was not enough checking distance. White's king was able to safely approach Black's rook without fearing for the safety of the d-pawn, and the Lucena position showed up soon afterward.

Let us examine a case where the frontal defense works.

Frontal Defense 2



Looking at the same position with Black to move, we see a different story. Black has a move before White gets d4-d5 in. So he is in time to keep the pawn on the fourth rank, and subsequently save the game by maintaining enough checking distance.

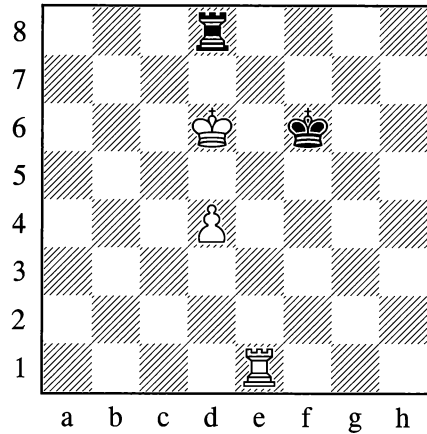
1...♖c8†!

Black must not allow the pawn to get to d5.

2.♔b5 ♜d8!

It is tempting to keep harassing White's king with 2...♜b8†?. But it will now be able to walk to c6 and d7 without fear of losing the d4-pawn. After 3.♔c6 ♜c8† 4.♔d7 Black cannot prevent d4-d5, and may as well resign. As we have seen in the first examples of frontal defense, as soon as the pawn reaches the fifth rank, it is game over.

3.♔c5 ♜c8† 4.♔d6 ♜d8†



The problem for White is that Black has just enough room to give checks without allowing the king to approach the rook. White would like to play either ♔d6-c7 or ♔d6-c6 (hoping to meet ...♜d8-c8† with ♔c6-d7). Both are impossible due to the hanging pawn on d4.

5.♔c5

5.♔c7 ♜xd4 would be an immediate draw.

5...♜c8† 6.♔b4 ♜b8† 7.♔c4 ♜c8† 8.♔b5

8.♔d3 is the only place for White to hide his king behind the pawn, but after 8...♜d8! the pawn will go no further.

After the text move, we have transposed to the position after move 2 above. Once again, Black should be careful because continuing to check the king would not work.

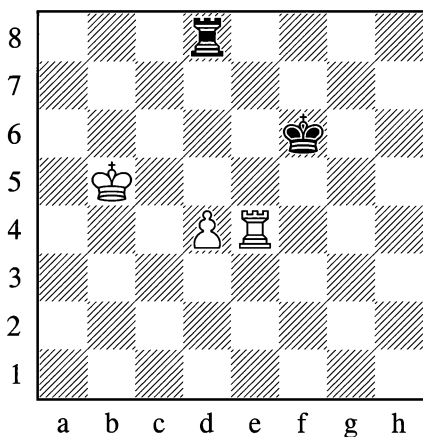
8...♜d8!

White is forced to attend to the d4-pawn.

9.♜c4

It looks natural to defend the d4-pawn with the rook, to plan on bringing the king to a square like c6 next. Indeed, if Black were to wait around or retreat his king, White would be winning after a subsequent ♔b5-c6 to help guide the pawn through. The problem is that the rook is not stable.

Leaving the e-file to go to d1 would allow Black's king to step in front of the pawn: 9.♖d1 ♔e6 Black makes a draw.



9...♔f5!

White is forced to move his rook again. If it leaves the e-file, Black draws easily by means of ...♔f5-e6.

9...♔f7? shows that Black must challenge the rook on e4. Leaving it alone means that White's king is free to roam. After 10.♔c6 White is winning again, as the d4-d5 advance cannot be prevented.

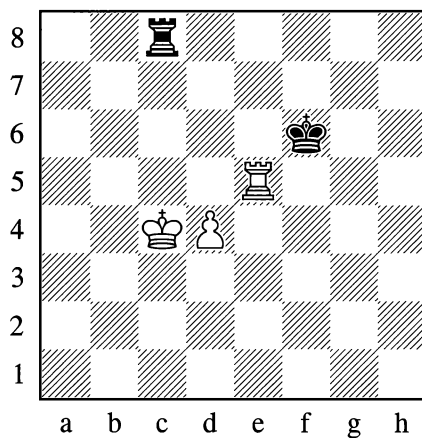
10.♖e5†

The relatively best try.

10...♔f6

White is still unable to push d4-d5 through, and his king will be forced back to d3 to keep the d4-pawn safe while also avoiding any checks. Black makes a draw after something like:

11.♔c4 ♖c8†



12.♔d3

White can also avoid the checks by interposing with his rook: 12.♖c5 But this breaks the cut on the e-file. After 12...♖a8 Black should easily draw by getting his king in front of the pawn.

12...♖d8

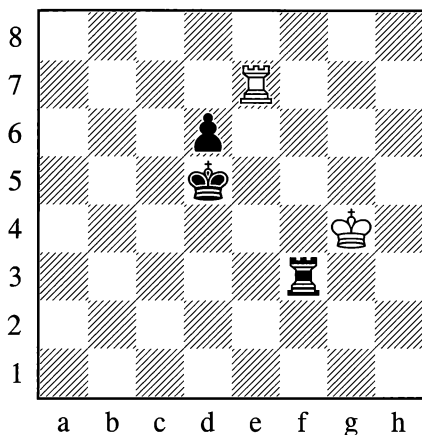
The same position with an extra tempo for Black was a draw because he was able to keep the pawn on d4. This leads us to the next rule.

The frontal defense only works if the defending side has at least three squares between his rook and the enemy pawn. If the pawn reaches the fifth rank, the position is always lost.

Simple as this rule may be, even very strong players can misplay the resulting position. For example, in the following encounter, knowing the rule would have easily earned Black an extra half point.

Andrey Stukopin – Lazaro Bruzon Batista

Burlingame 2019

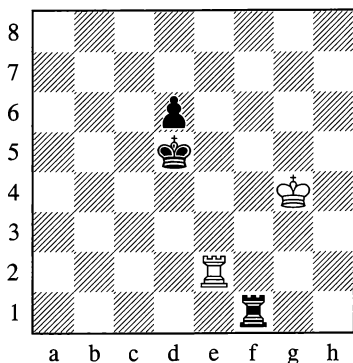


White's king is cut off along the f-file, and his only hope to draw the game is to set up the frontal defense. As mentioned, the frontal defense only works when there are at least three squares between the rook and the pawn. Black's rook is attacked and must move, but he should choose the square that leaves White with the least checking distance.

54...♖f8?

Deep into the second game of the day, Bruzon faltered.

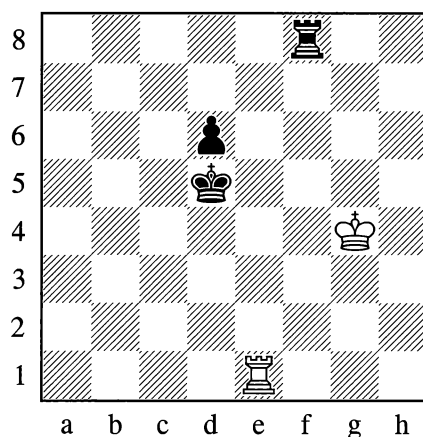
Black would have won if he had taken over the first rank with 54...♖f1!. The point is that White would need to play 55.♖e2 to set up the frontal defense, and here he does not have enough checking distance.



55...♔c4! Black is ready to meet ♖e2-c2† with ...♔c4-d3, and otherwise, ...d6-d5 will come. Once that happens, there will only be two squares between the white rook and black pawn. (55...♔c5? It would be a grave mistake to push the king sideways without going forward as well. Now, White can prevent ...d6-d5 by checking Black's king. As a result, the pawn will sit on d6, and White's rook will come to d2. Then, White will have enough space to draw the game. 56.♖c2†! White must not allow ...d6-d5. 56...♔b4 57.♖d2! ♔c5 58.♖c2† There is no way for Black's king to approach the rook.) For example, after 56.♖d2 d5 we see that there are only two squares between the rook and the enemy pawn. White will run out of checks and lose the game. 57.♖c2† ♔d3 White is out of checks and the pawn will not be stopped.

55.♖e1!

White immediately takes his chance to get the rook all the way to the back rank. Now, he can set up the frontal defense with enough space between the rook and the enemy pawn to ensure that it will be stopped.

**55...♖f6**

Black would like to play 55...♔c4. But the same move that would have won with White's rook on the second rank proves ineffective now.

After 56.♖c1† we see that the generally desirable ...♕c4-d3 is ill-advised due to ♖c1-d1†, when White is able to check on the d-file without losing his rook, as he would have if the rook were on the second rank. Black is forced back with his king in order to preserve his d-pawn. After something like 56...♕b5 57.♖b1† ♕c6 58.♖c1† ♕d7 59.♖d1 no further progress can be made.

56.♖d1† ♕c6 57.♖c1† ♕d7 58.♖d1

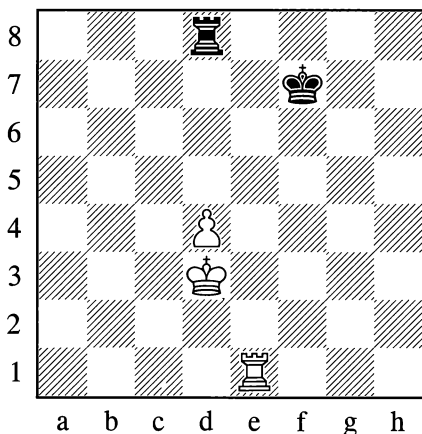
White has set up the frontal defense successfully. Black kept trying for a while, but the result was never in any further doubt.

...½-½

Simple rules and principles can go a long way. Especially in the endgame, which invariably happens after the opening and middlegame and when fatigue may be starting to set in, it is very important to have a solid base of knowledge to help you find your way. You may be less capable of calculating long variations than you might be in an earlier phase of the game when you still have lots of energy.

One of the biggest reasons that Stukopin was able to save the game after Bruzon's error was that his king was very well placed on the middle of the g-file. Let us see why this is important.

Frontal Defense 3



We have already seen the cases in which the frontal defense succeeds, and when it fails. Here, it may seem like Black should make a draw since the pawn is firmly blockaded on the fourth rank. But, in fact, White is winning due to the poor placement of Black's king, who is too far away from the action.

1.♕c4!

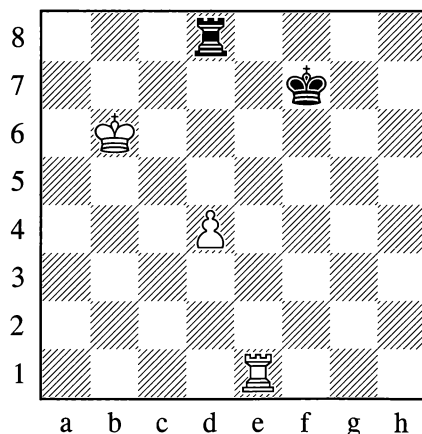
If Black allows d4-d5, he will lose routinely.

1...♖c8†

This is the most resilient attempt at holding, but White wins with accurate play.

After 1...♕f6 We have already seen this position with White to move. He wins after 2.d5, when his pawn reaches the fifth rank, and Black will not have enough checking distance to save the game.

2.♕b5 ♖d8 3.♕c5 ♖c8† 4.♕b6 ♖d8



5.♖c4!

Black's problem is that the move ♕b6-c7 will come next to harass his rook. The rook will either have to leave the d-file and allow d4-d5, or it will have to go to d5 – when after ♕c7-c6, the rook will have to move again and d4-d5 will come anyway. The issue is that he cannot challenge the e4-rook in time.

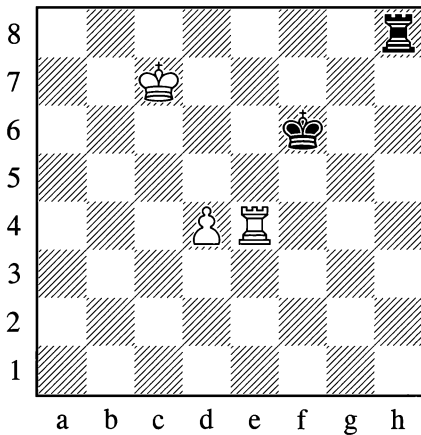
...♔f7-f5 would draw here, as White would not be able to simultaneously keep the d4-pawn safe, keep the black king cut off along the e-file, and keep his rook from being captured. But, because Black's king is a tempo away from f5, White is winning.

5...♔f6 6.♔c7!

Since ...♔f6-f5 would be met with ♖e4-e5†, White is winning. Black must move his rook, when d4-d5 will come. For example, after:

6...♖h8

Or 6...♖d5 7.♔c6! ♖d8 8.d5 wins.



7.d5

White wins.

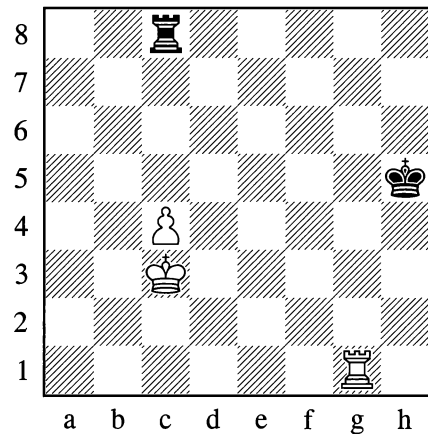
The difference between this example and Frontal Defense 2 is that Black's king was too far away from the action. This brings us to the next guideline.

When using the frontal defense, keep your king on the file as close to the enemy pawn as possible, and as close to the fourth rank (from your point of view) as possible.

Applying the guideline retroactively to the previous positions makes perfect sense. In both cases, the Black king was ideally placed on the f-file, as it was impossible to get any closer to the pawn as White's rook on the e-file cut it off. But Black was only holding when his king was able to reach the f5-square in time to harass the white rook, preventing it from keeping the pawn safe and letting the white king run wild.

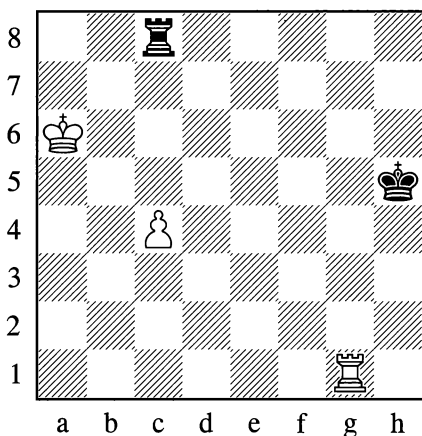
There is another important element of the frontal defense, and this is how many files the enemy king is cut off. Thus far, we have been looking at it cut off with the minimum distance, but there can be more extreme examples.

Frontal Defense 4



Black has managed to keep three empty ranks between his rook and the enemy pawn, but his king may as well be on another planet. White wins routinely.

1.♔b4 ♖b8† 2.♔a5 ♖c8 3.♔b5 ♖b8† 4.♔a6 ♖c8

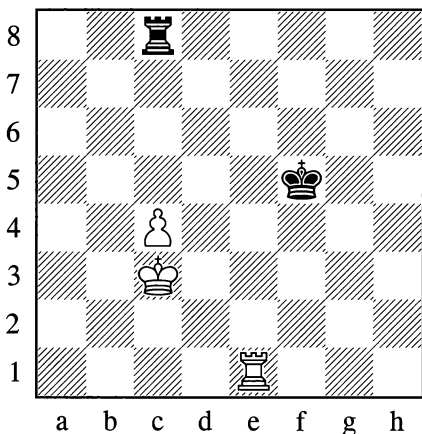


5.♖c1

If Black's king was cut off along the d-file instead, he would be ready to meet this with something like ...♔e6-d7, making a draw. As is, he is obviously lost. The c-pawn goes through.

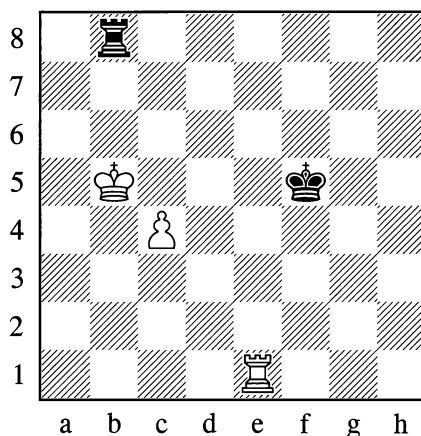
Obviously, this was an extreme case. But the difference between cutting off along one file and two files is significant.

Frontal Defense 5



It looks like Black should be making a draw. His king is close to the center, disallowing ♖e1-e4 to protect the c4-pawn, and his rook is well placed on the back rank. But it turns out he is lost because the king is too far away.

1.♔b4 ♖b8† 2.♔a4 ♖a8† 3.♔b5 ♖b8†



4.♔a6!

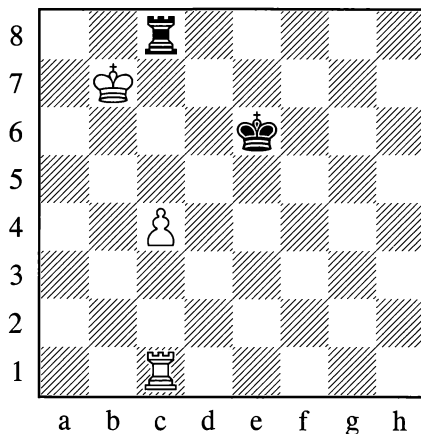
This is an important square. White must have access to it to win the game. He is ready for c4-c5 next, and after 4...♖a6† 5.♔b7 Black is unable to give another check on the back rank.

4.♔c6?! does not stop the checks. 4...♖c8† White must return to b5 and then find the right plan of ♔b5-a6 to win the game.

4...♖c8 5.♖c1!

Black's king is one tempo too slow to get back in time, due to being cut off two files away rather than one in the initial position.

5...♔e6 6.♔b7



It's a problem that Black cannot start checking the king from c7 and c6, as he could if his king was on d7.

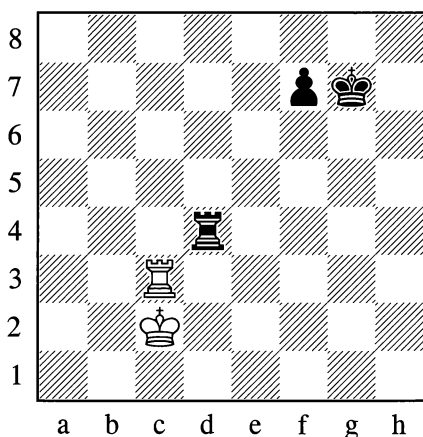
6...♞c5 7.♕b6 ♞c8 8.c5

White wins.

I am always amazed by the constant reminders of how relevant these rook endgames are to the practice of any tournament player, even at the very highest level. Not long after writing the previous text, I saw the following game:

Richard Rapport – Kirill Shevchenko

Mayrhofen 2022

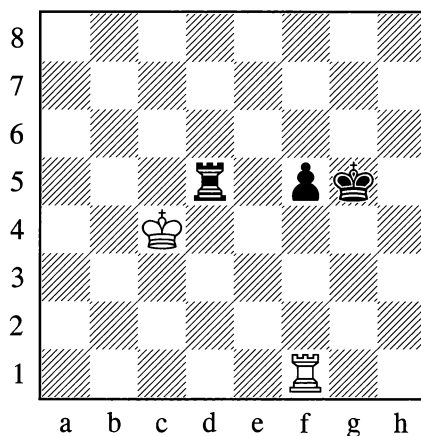


Black is winning but should be a little careful. Shevchenko showed excellent knowledge and understanding of the frontal defense.

48...♞d5!

It would be a grave mistake to push the pawn directly: 48...f5? Now White's king can join the defense. 49.♞d3! The pawn endgame is a draw, and White's king easily slides to the center.

49.♞f3 ♕g6 50.♞f1 f5 51.♕c3 ♕g5 52.♕c4

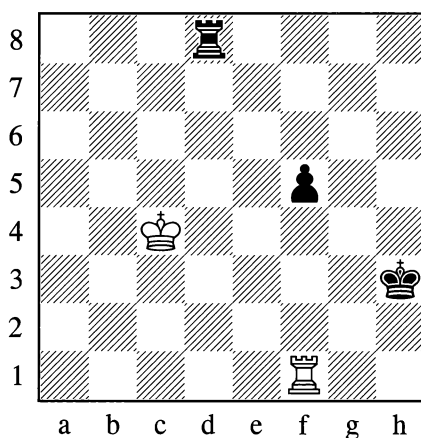


White's king is cut off an extra file from the enemy pawn, so three empty squares between the enemy pawn and his rook will not be enough to save the game.

52...♞d8!

An excellent decision by Shevchenko. White's king must not be allowed to come to the d-file: 52...♞e5? 53.♕d4! White makes a draw, similar to what we see on page 46.

53.♞g1† ♕h4 54.♞f1 ♕g4 55.♞g1† ♕h3 56.♞f1



56...♞f8!?

We have seen this before.

57.♔d3 ♕g2!

White's king is too far away.

58.♖f4 ♕g3

Rapport called it a day.

0–1

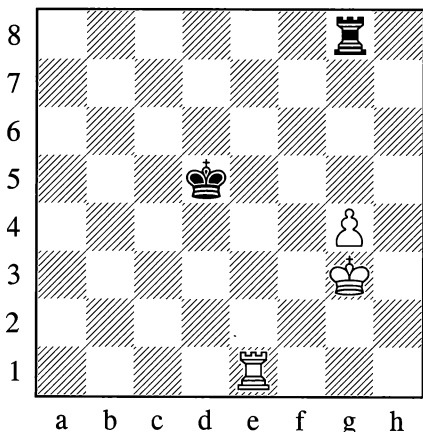
The difference between what we see in the Rapport – Shevchenko encounter and the technical positions we saw previously brings us to the next rule.

Cutting the enemy king off by two files will guarantee victory if the pawn reaches the fourth rank, while cutting it off by one file will only win if the pawn reaches the fifth rank. There is one important exception with a knight's pawn.

When we apply this rule back to the Stukopin – Bruzon encounter, we see that it holds true. White's king was cut off by two files, and he would only have saved the game if he was able to bring his rook to the back rank and have four empty squares between it and the enemy pawn.

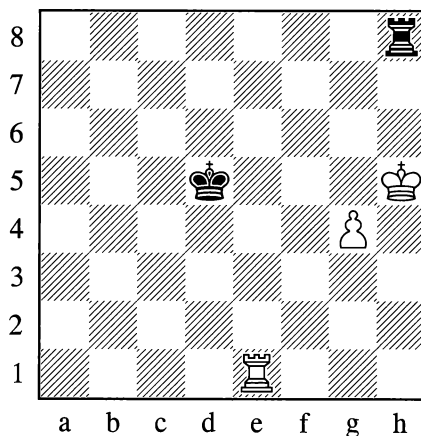
Let's see the exception here.

Frontal Defense 6



When considering the previous rule, it might seem like White should be winning. But the position is still a draw because he has a knight's pawn. Let's see why.

1.♔h4 ♖h8† 2.♔g5 ♖g8† 3.♔h5 ♖h8†



In the previous case, we saw that the ♔b5-a6 move was an important part of White's winning plan. Here, the analogous move would be ♔h5-i6, which is not going to happen. As such, the position is a draw.

4.♔g6 ♖g8†

White cannot hide his king on the sixth rank in a way that avoids checks. The game is drawn.

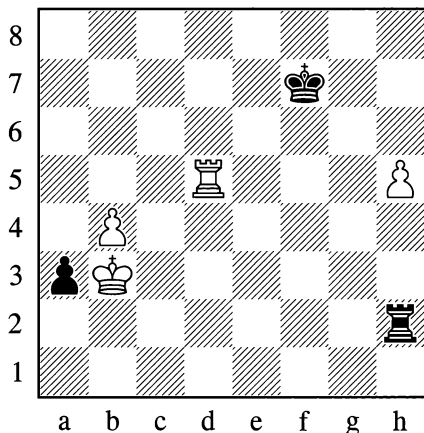
This brings us to the next rule.

Cutting off the enemy king by two files and getting the pawn to the fourth rank will not win with a knight's pawn. It wins with a central pawn or a bishop's pawn.

Let's see a real-world example of how this knowledge could have saved half a point.

Saleh Salem – Gata Kamsky

Biel 2022

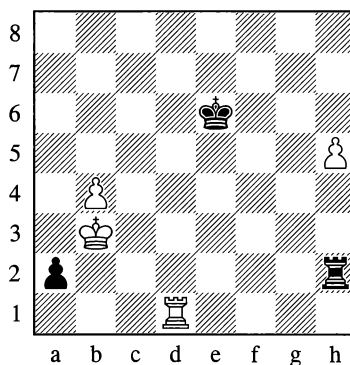


It seems very likely that at some moment, White's h-pawn will be traded for Black's a-pawn. When this happens, Black's king will be cut off, and his only hope will be to give frontal checks. His king will be cut off by two files, and the pawn will be on the fourth rank. But because White has a b-pawn, Black will still make a draw if he is able to get his rook to b8. No other square on the b-file will do.

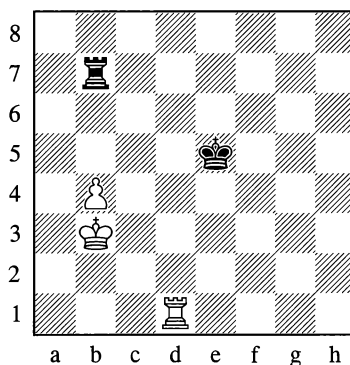
57...♖h3†?

This loses the game.

The draw was very hard to find, but it was there. 57...♔e6! Black immediately attacks the rook. Of course, White's most challenging option would be to keep the enemy king cut off along the d-file. 58.♖d1 (58.♖c5?! This makes Black's life too easy. 58...a2 59.♖a5 ♔d7 Black will take on h5 next, and his king ends up in front of the b-pawn, with an easy draw.) 58...a2!

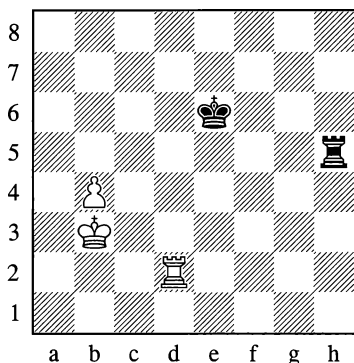


Now, White's plan should be to shove his h-pawn down the board, eventually forcing Black's rook to take it. White will respond by taking a2. But then Black will be able to get his rook to b8. The reason White is unable to win here comes down to Black's pawn on a2 threatening to become a queen. His rook is stuck on d1, when it would really like to go to either d4 or d8 to make itself more useful in anticipation of the frontal defense situation. 59.h6 ♔e5 60.h7 ♖xh7!? This is not strictly necessary, but I like the point it illustrates. 61.♔xa2 ♖b7 62.♔b3



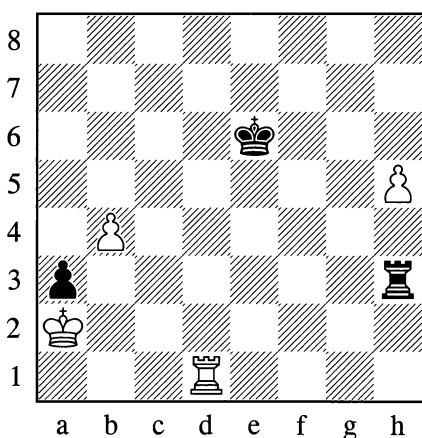
Because Black's pawn was on a2, White was forced to keep his rook on the first rank the entire time. Black was able to leave his king in the center, and his rook makes it to the back rank just in time. 62...♖b8! Draw.

57...a2? is the right idea, wrong execution. Black should be getting his pawn to a2, but by not taking a moment to win a tempo with his king, White wins the race. 58.♖a5! ♔e6 59.♖xa2 ♖xh5 60.♞d2!



Black can only make a draw here by getting his rook to b8 and stopping White's pawn on b4. Following 60...♖h8 61.b5! ♖b8 62.♔b4 the pawn is on b5 and Black does not have sufficient checking distance. White wins. 62...♔e5 63.♔a5 ♖a8† 64.♔b6 ♖b8† 65.♔c6 ♖c8† 66.♔b7

58.♔a2 ♔e6 59.♞d1



Black could have had a similar position with his pawn on the second rank instead of the third. Salem moved around aimlessly for a few moves, but ultimately showed the difference very convincingly.

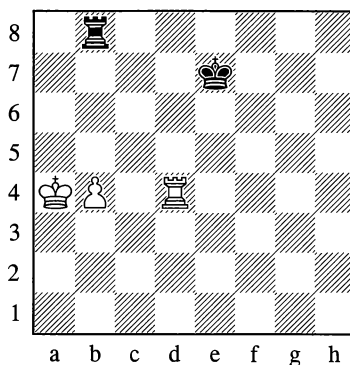
59...♔e7 60.♞d2 ♔e6 61.♞d8!

The first key point is on display. Because Black's pawn is not on a2, White is free to bring his rook to the eighth rank without fear of a new queen showing up on a1. White is ready to push the h-pawn, and he will have taken the back rank.

61...♔e5

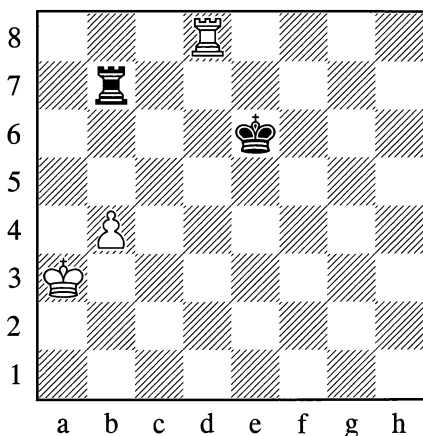
This was not played in the game. But I am keeping it as my main line to highlight the difference from the position Kamsky could have achieved if he was able to set up with his rook on h2 and pawn on a2 instead.

Kamsky chose to attack the rook instead with 61...♔e7. But now it can sit pretty on d4, defending the pawn. Normally, Black would need the king in the center to control this square. It does not have the reach to control both d4 and d8 at the same time. 62.♞d5 ♔e6 63.♞d4 ♔e7 64.h6! It is time. 64...♔e6 65.h7 ♔e7 66.♞d2 (66.h8=♔ There was nothing wrong with making a queen, and White would win because his rook is well placed on d4. Salem's move was also fine. 66...♖xh8 67.♔xa3 ♖b8 68.♔a4!



Black's king had been forced to remain on e7, keeping White from placing his rook on d8. As a result, it is too far away to harass the rook on d4, and White's king can invade to c6 without fearing the loss of the b4-pawn. 68...♖a8† 69.♗b5 ♜b8† 70.♗c6) 66...♗e6 67.♞d8 ♜xh7 68.♗xa3 ♞a7† 69.♗b3 ♗e7 70.♞d4 ♞a8 71.♗c4 1–0

62.h6 ♗e6 63.h7 ♜xh7 64.♗xa3 ♜b7



Because White's rook was free to come to the eighth rank, Black is not able to get his own rook back, and there are only two squares between his rook and the enemy pawn.

65.♗a4

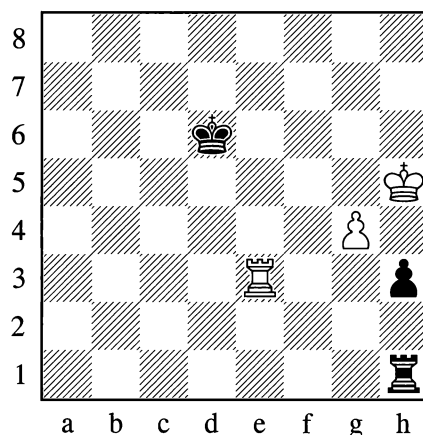
White wins.

1–0

Transitioning into a good version of frontal checks is a deceptively difficult task. Kamsky is far from the only top player to misplay a transition, as the following example illustrates.

Magnus Carlsen – Maxime Vachier-Lagrave

London 2015

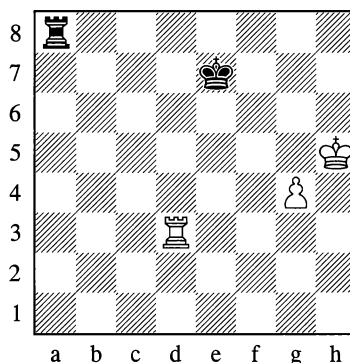


Black's king is cut off along the e-file, and White is ready to push his g-pawn to victory. Since Black's h-pawn is well under control from the side, his only hope is to transfer his rook to the back rank and draw the game with frontal checks.

51...♞f1?

This is the wrong square for the rook. I suspect Maxime had the wrong idea in mind altogether, as his play suggested he was hoping to bring his king back.

Black could have saved the game by bringing the rook all the way to the other side: 51...♞a1! It could have gone to b1 or c1 as well. Let's see the difference: 52.♞xh3 ♞a8!

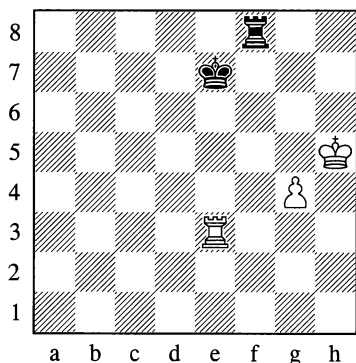


53.♖e3 (53.♖d3† ♔e7! Black could have obtained this position after the game continuation of 51...♖f1?, but only with his rook on f8. This would mean that after 54.♖e3† Black could not come to the f-file. Here he makes an easy draw: 54...♔f7=) 53...♖h8† 54.♔g5 ♖g8†! The king is forced back to g3, and Black makes a draw.

52.♖xh3 ♔e7

Maxime's choice to put the rook on f1 suggests that he was aiming for this position, and thought that it would be important to prevent White from transferring his rook to f3 to cut off his king from coming closer. Logically this makes some sense, but White still wins.

After 52...♖f8 it looks like Black should be making a draw. White is unable to push g4-g5 without allowing a drawn pawn endgame. Otherwise, Black will be able to check White's king back to g3, place his rook on g8, and reach a technically drawn position as seen on page 52. 53.♖d3†! It turns out White does not need to go to the e-file right away. 53...♔e7 54.♖e3†!



The unfortunate position of Black's rook on f8 means that his king cannot step onto the f-file. 54...♔d6 55.g5! White gets his pawn to the fifth rank and wins.

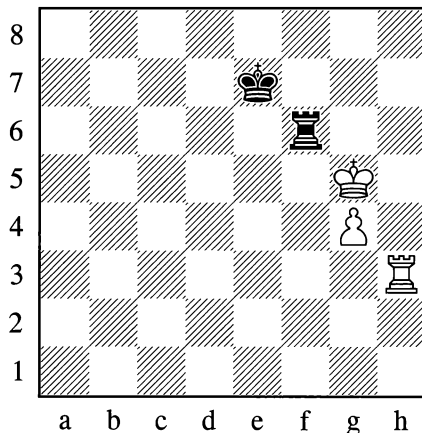
53.♔g6!

Black's king is not allowed to get in front of the pawn.

53...♖f6†

53...♔f8 54.♖h8† ♔e7 55.g5 White will reach the winning Lucena position.

54.♔g7 ♖f7† 55.♔g6 ♖f6† 56.♔g5!



White is winning. Black cannot get his king back to the g-file, and he cannot get his rook to the back rank.

56...♖a6

Attempting to set up frontal checks with 56...♖f8 would not work. 57.♖e3†! ♔d6 58.♔h6! White gets his pawn to g5, and wins.

57.♖f3

Maxime resigned here.

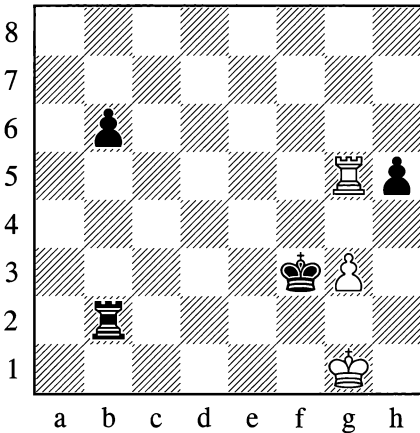
1-0

The continuation might have been 57...♖a8 58.♔h6! when White gets his pawn to g5.

To conclude this chapter, let's return to my game with Jumabayev and see the other way Black could have won, which was much more complicated.

Rinat Jumabayev – Sam Shankland

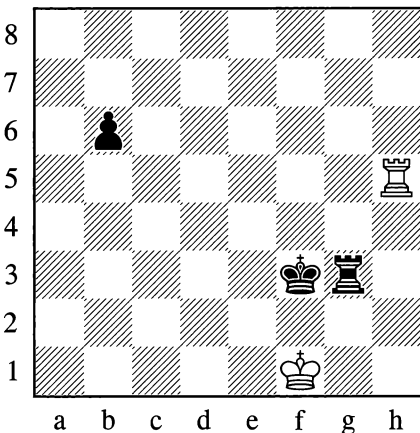
Biel (var) 2016



We have already seen that in this position, with some reasonably basic calculation, Black can reach the Lucena position after 47...b5!. This was played in the game and was the easiest route to a full point. But there is another concept to discuss by looking at the other winning move Black had available.

47...♖g2†

This move does not spoil the victory for Black, but it does make his task significantly more challenging.

48.♔f1 ♖xg3 49.♖xh5

Black's goal remains the same: he needs to reach the Lucena position. But this is easier said than done! The first step is making sure that White's king cannot run to the queenside.

49...♔e3!

Any other move would allow ♔f1-e1, and an easy draw.

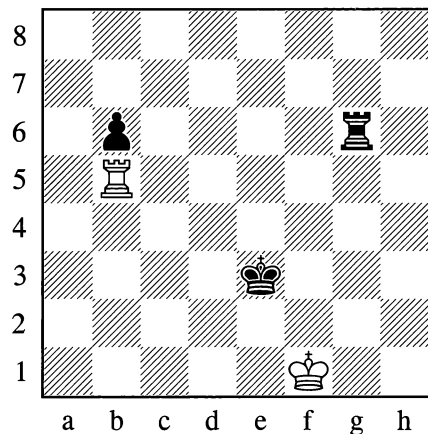
50.♖b5

Again, Black must now be careful not to allow White's king to come any closer to the b-pawn.

50...♖g6!

The b6-pawn is saved, and White still cannot bring his king to e1. We have a somewhat strange looking version of the frontal defense, as White's king is not explicitly cut off at the moment, but still finds itself incapable of coming any closer to the pawn.

Very cooperative would be 50...♖f3†. Now, for one key moment, White is free to bring his king to the queenside without fearing a mate on the first rank. 51.♔e1! ♖f6 52.♔d1! White draws easily.

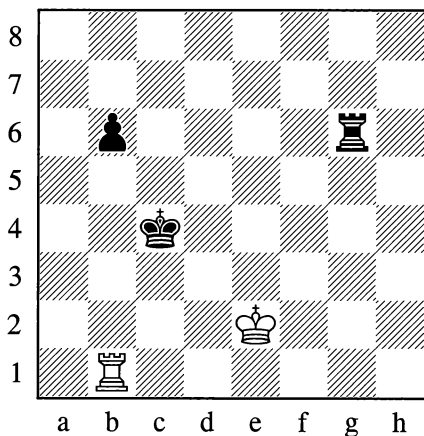
**51.♖b3†**

With this move, White forces the black king off the e3-square, thus freeing his own king to

cross the f-file. But the damage has been done, as Black's king is much closer to the b-pawn than White's is.

51...♔d4 52.♙e2 ♕c4 53.♖b1

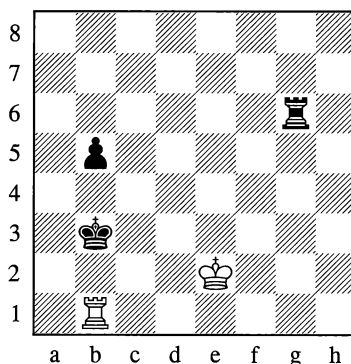
Black is winning here in more ways than one, but he must be careful.



53...♖d6!

Of the multiple winning moves, I like this one the most. Black cuts off the white king along the d-file, and if given time, will easily push his b-pawn down the board. White's best chance is to try to use the same frontal defense that would have worked against 53...b5. It looks like this should work because there are four empty squares between his rook and the enemy pawn. However, Black is still winning, and it all comes down to the poor placement of White's king. Not only is it cut off along the d-file, but it is a long way from Black's rook on d6. As such, Black's king is free to roam up to c2 without fearing the loss of his pawn.

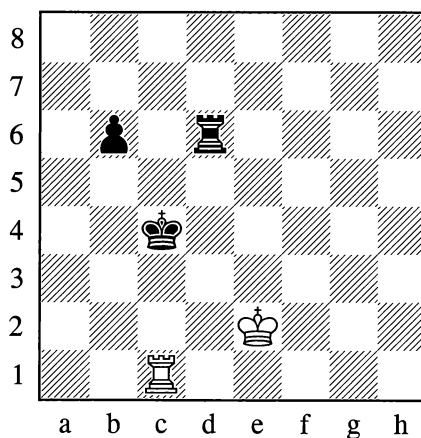
The natural 53...b5? is a grave error. White can now force a draw with a frontal defense. His rook is just far enough away to harass the enemy king. 54.♖c1† ♕b3 55.♖b1†!



Since there are three squares between the rook and the pawn, Black cannot go forwards with his king, and must instead resort to hiding his king behind his pawn. But this will not yield a full point. 55...♙a4 56.♖a1† ♕b4 57.♖b1† ♕a5 58.♖a1† ♕b6 59.♙d3 White's king is now free, and he holds easily.

54.♖c1†

White's best chance is to keep harassing Black's king to make sure it cannot help get ...b6-b5 through. The problem is, Black's king is not restricted to defending his b6-pawn in the event of a check on the b-file because his rook is well placed on d6. Also, White's king is too far away on e2 to get to e5 in time to stop the b-pawn from advancing further.



54...♔b3!

Black is ready for ...b6-b5 next. White should give a check, but it will not help him.

Bringing the king backwards with 54...♔b5? will not work, as it leads to a frontal defense scenario where Black cannot get his pawn to the fourth rank. 55.♔e3! As usual, White's king should be coming to the center to question the stability of Black's rook. There is nothing to be done, as after something like 55...♔a6 56.♞a1† ♔b7 57.♞b1 Black is not even able to get ...b6-b5 in, much less ...b5-b4.

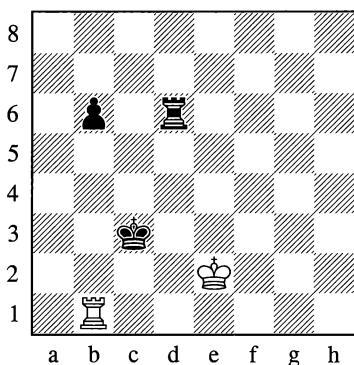
55.♞b1† ♔c2 56.♞b5 ♔c3

Now Black is threatening ...♔c3-c4, which will mean his pawn will reach the b5-square. This might not seem like much of an issue since after ♞b1, there will still be three squares between the rook and the pawn, but Black would indeed be winning with best play.

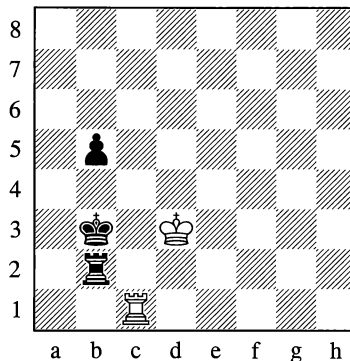
57.♔e3

White is losing no matter how he plays, but his most resilient defensive attempt is to bring his king up the board, following the previous guideline about trying to reach the fourth rank.

After 57.♞b1 Black is winning in more ways than one, but I like transferring his rook to a better square, making use of his king's ability to stay on a square as active as c3.



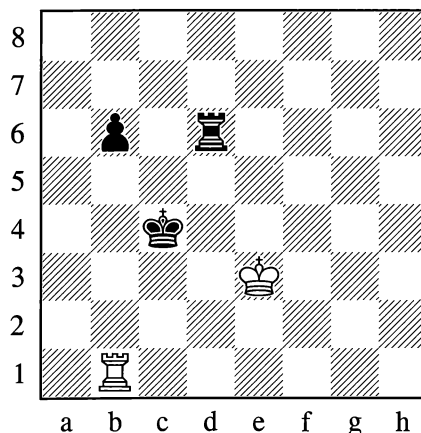
57...♞d2†! 58.♔e3 ♞b2! 59.♞c1† ♔b3 White's king is cut off along the second rank, and Black will easily advance ...b6-b5-b4. Once this happens, his rook will leave b2, and the frontal defense will no longer work as there will only be two squares between the rook and the pawn. 60.♔d3 b5



61.♞h1 White has nothing better than sitting and waiting. 61...b4 62.♞g1 ♞h2! Black is ready to transfer his rook to h8 and d8, kicking White's king away and preparing to set up the Lucena position. The frontal defense fails, as after 63.♞b1† ♔a3 64.♞a1† ♔b2 White does not have enough room to keep giving checks on the b-file.

57...♔c4 58.♞b1

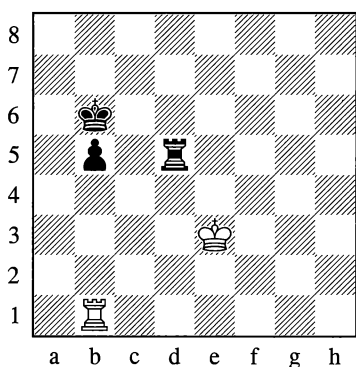
Now, Black must be careful.



58...♖d3†!

Black must transfer his rook to b3 to avoid the frontal defense, and this is his only opportunity to do so.

After 58...b5? we have a situation where White's king is quite close to the fourth rank, it is White's move, and there are three squares between the rook and the pawn. Unsurprisingly, the position is now drawn, as all the factors are at play. 59.♖c1† ♕b4 60.♖b1† ♕c5 61.♖c1† ♕b6 62.♖b1 ♖d5 If White were to tread water for just a single move now, he would lose, as Black's king would be able to advance up the board without fear of losing the b5-pawn. But, we see that White's king is just in time to harass Black's rook:



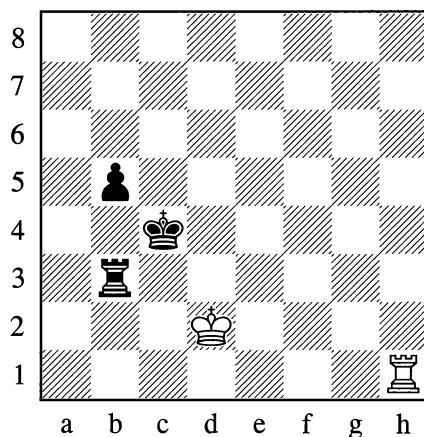
63.♕e4! Something must give. Black cannot keep the white king cut off on the d-file, have the rook defend the pawn on b5, and allow his king to advance to help push the pawn to b4. He can do any two of these things, but he needs to be able to do all three to win the game. (A move like 63.♕f3? leads to an immediate win for Black after 63...♕c5 64.♖c1† ♕b4 65.♖b1†, because he is no longer forced to defend the pawn with his king. The rook is doing that for the moment, offering the king freedom to advance. After 65...♕c3 the checks will promptly run out, and the Lucena position will be reached.)

59.♕e2 ♖b3

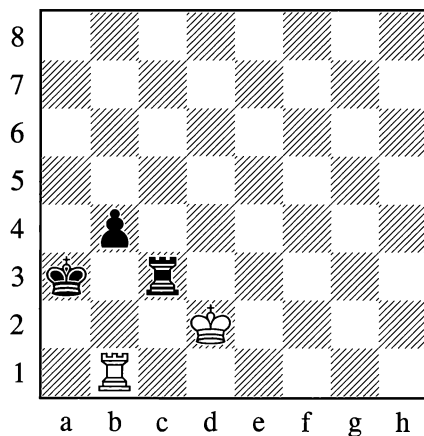
Black breaks the cut on White's king, but it is only temporary. He will soon get ...b6-b5-b4 in, and the rook will be able to cut the king off along the c-file rather than the d-file.

60.♖h1 b5 61.♕d2

Now Black should be careful not to allow ♕d2-c2, with an easy draw. But after:

**61...♖c3!**

Black will get ...b5-b4 in, with White's king still cut off.

62.♖g1 b4 63.♖f1 ♕b3 64.♖b1† ♕a3

We have reached a frontal defense with only two squares between the rook and the pawn. Black wins.

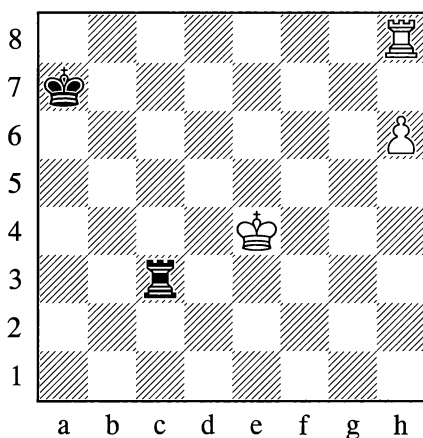
Undoubtedly, this was a much more complicated route to the full point. As we saw with the way I played, Black could reach the Lucena position very easily. The other winning method meant that Black would have to correctly navigate the treacherous waters of a complex version of the frontal defense. As such, it makes sense that I chose the easy way, but not every position contains an easy way. For instance, Bruzon Batista needed to carefully consider the merits of the frontal defense – when it works, when it doesn't work – and then he would have probably found the winning move. If someone of his level can mess up a technical rook endgame with a single pawn remaining on the board, anyone can. Games like this one are why it is so important to have all the basic knowledge positions memorized.

Chapter 3

Vancura Defense

We have examined positions with a pawn pushed all the way to the seventh rank, blocked by a friendly rook on the eighth rank. The next logical step is to consider the Vancura defense. It looks something like this.

Vancura – Draw

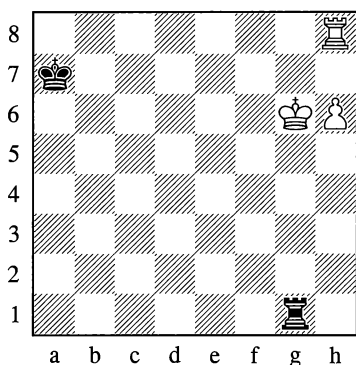


Black seems to be in a bad way. His king is light years away from the h6-pawn. Also, since the pawn has not been pushed to h7, White can, in theory, still use the h7-square to hide his king from checks from behind. But the position is still a draw thanks to the Vancura defense.

1...♖c6!

A very important move. Rather than trying to stop the h-pawn from behind, Black harasses it laterally along the sixth rank. Because the pawn cannot be left undefended, White's rook cannot get out of the way. Black is making a draw, but only because White's king does not have anywhere to hide.

Placing the rook behind the enemy pawn with 1...♖h3? is a natural move, but also a fatal error. White's king is now free to hide on h7, which will allow the rook to get out of the way. After: 2.♟f5 ♖h1 3.♟g6 ♖g1†

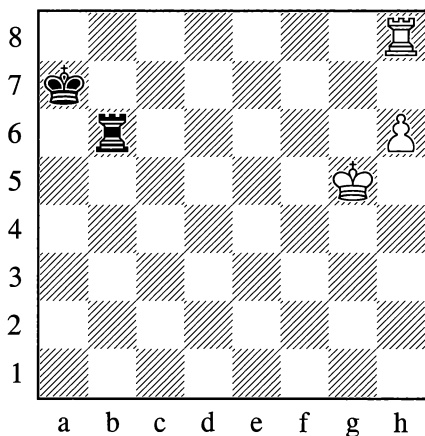


There is a stark contrast to the situation we will see in Chapter 13, where White's king has nowhere to go. Since the pawn remains on h6, White can play 4.♔h7. He will transpose back to the basic knowledge section, with a position resembling that on page 18.

2.♔f5 ♖b6

Black can continue to wait until White's king is in touch with the h6-pawn. The rook cannot be allowed to leave the h8- and h7-squares.

3.♔g5



3...♖b5†!

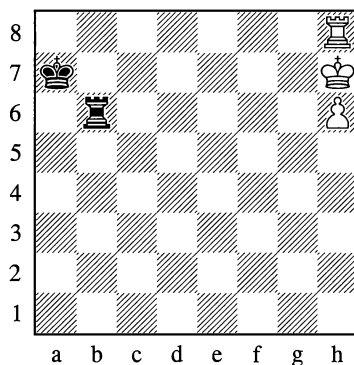
If Black were to fall asleep with 3...♖c6, White wins easily with 4.♖f8. The h-pawn will not be stopped.

4.♔g6 ♖b6†

The difference between checking on the side and checking from behind becomes clear. If Black's rook were on g1 here, White's king would find safety on h7. As is, no such safety can be found, and the checks will continue until White's king approaches the rook. That is far enough away from the kingside that Black will save the game.

5.♔g7

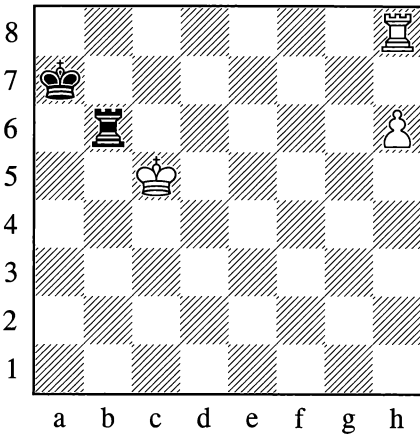
Or 5.♔h7.



This would normally be the safe hiding square for White's king if Black had been checking from behind. But here, the h7-square proves unsafe as well, since Black is checking from the side. It is important to note that Black is only holding here because White has a rook pawn. White would easily win if he could play ♔h7-i6 (or i8), hiding the king away from the checks while simultaneously supporting the pawn to free the rook. But he cannot do that, as the board ends. 5...♖b7†

5...♖b7† 6.♔g8 ♖b8† 7.♔g7 ♖b7† 8.♔f6 ♖b6† 9.♔e5 ♖b5† 10.♔d6 ♖b6† 11.♔c5

Finally, White is out of the checks. But now he is in the same situation he started in. The rook cannot get out of the way of the h6-pawn, and Black holds a draw by moving his rook to any safe square along the sixth rank.



11...♖f6

Black draws. The final important point to note is what Black should do if White ever advances h6-h7.

12.h7 ♜h6!

Black transitions to Chapter 13 and holds easily. It is important to note that once the pawn reaches h7, and only then, Black must immediately abandon the Vancura defense. He must then transfer his rook to the h-file and hold it from behind. As we saw earlier, if Black transfers the rook to the h-file while the pawn remains on h6, the position will be lost as White's king will hide on h7.

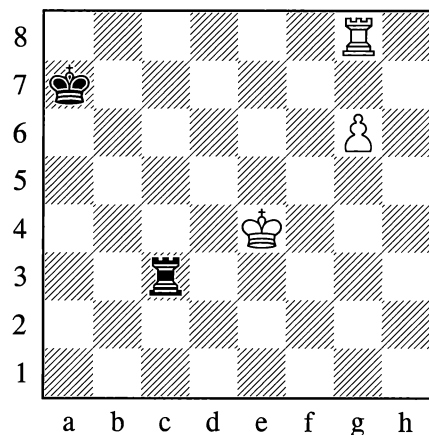
12...♖f7? fails. Whenever a pawn reaches the seventh rank with the attacking rook on the eighth in front of it, the defending side can only attack the pawn laterally if there are no checks at all. Conversely, if the defending rook is behind the pawn, Black will hold if White only has unsafe checks. Here, we see the difference on display. 13.♖a8†! Black's rook is only harassing the h7-pawn on the square it presently sits on and is not guarding h8, so any check will promote the pawn, even if it costs White his rook. Black loses after 13...♔xa8 14.h8=♚†. We will see how to win the resulting queen versus rook position in Chapter 19.

Black's knowledge that the position would become drawn immediately if White's pawn were to be pushed to the seventh rank, is a necessary tool to see how to save the game. It is important to know that even though Black should not initially be placing his rook behind the enemy pawn, he must be able to transfer his rook to the h-file as soon as White plays h6-h7.

The positions in this chapter and the ones we will see eventually in Chapter 13 have a lot in common. Black's plan to stop the enemy pawn is to keep his king tucked away on the other side of the board for safety, and to stop White from extricating his rook from in front of his pawn. He continually harasses the white king when it tries to defend the pawn while denying it a safe hiding place. But, because the pawn has not yet been advanced to the seventh rank, Black must defend against it very differently.

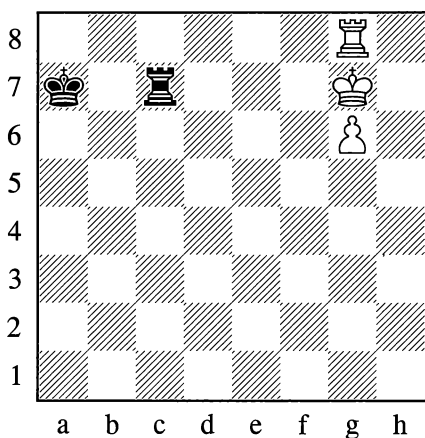
As was implied in the first example, the Vancura defense will only prove successful against a rook pawn. Let's see what happens if Black tries to use it against a pawn on another file.

Vancura – Without Rook Pawn



The same position with White's rook and pawn pushed one file to the left is hopeless for Black. The reason is that if he checks White's king from behind, the king will hide on g7. But, if he tries to check from the side, as we see in the Vancura defense, there is another file to the right of the g-pawn where White's king can hide. This was not the case in the previous position.

1...♖c6 2.♔f5 ♜c5† 3.♔f6 ♜c6† 4.♔g7 ♜c7†



With White's pieces all shifted one file to the right, the position would be a draw as White's king would not have access to safety on the nonexistent i6- and i8-squares. As is, there is the h-file to work with, and White wins easily after:

5.♔h6

He will free his rook next, and the pawn promotes with no further trouble.

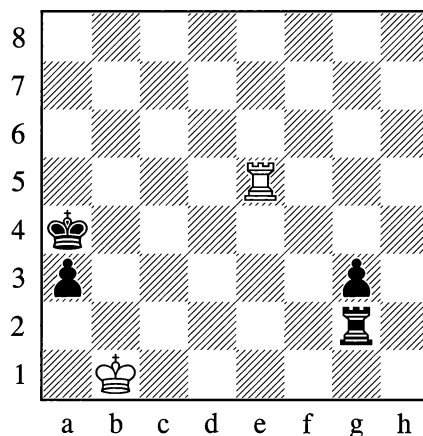
The difference of an extra file on the other side of White's pawn changed the evaluation easily. This brings us to the first rule of the Vancura defense.

The Vancura defense only works against a- or h-pawns.

I was able to demonstrate this principle in action just a few months ago in a recent encounter with a long time Olympic teammate.

Hikaru Nakamura – Sam Shankland

Saint Louis (rapid) 2022



White's position is hopeless, but Hikaru tried to set up something that looks a bit like a Vancura defense. Indeed, if my rook and pawn were on the h-file, it would be a draw. But as long as my king has access to a file on the right side of my g-pawn, there is nothing further to discuss.

68.♜c3 ♔b4 69.♜f3 ♜g1† 70.♔a2 ♔c4 71.♜xa3 ♔d4 72.♔b2 ♔e4

Continuing now to wait would not save the game:

73.♜c3

White played 73.♔c2 but resigned after 73...g2.

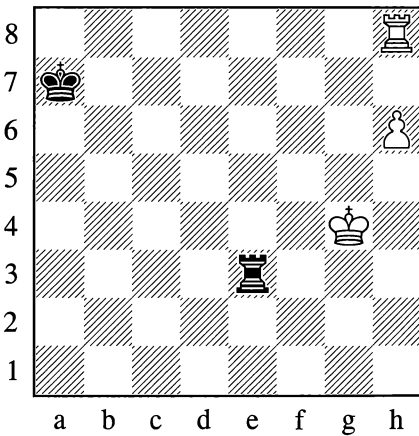
73...♔f4 74.♜c4† ♔f3 75.♜c3† ♔g4 76.♜c4† ♔h3

Black hides the king, and will win easily by reaching the Lucena position. It's nice that the h3-square is available!

0–1

This is straightforward enough. But there are other rules to know as well. Let's see a case where the Vancura defense does not hold.

Vancura – Insufficient Checking Distance



We have the same position as the successful Vancura defense in the first example, except White's king and Black's rook have both been moved two files to the right. This is a decisive factor, as now Black lacks the necessary checking distance to keep White's king away.

1...♖e6

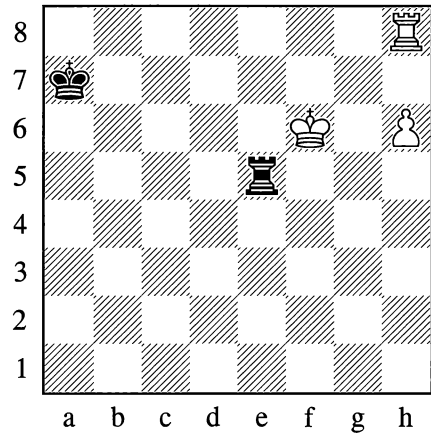
This is the most challenging try, as if White were to dawdle for a move, Black would be able to set up a healthy Vancura defense – by transferring the rook to a square like b6, where the checking distance clearly will not run out. But White has a move before that can happen.

2.♔g5!

White defends the pawn on h6, and is threatening to move his rook away from h8. As we saw in the previous case, that means White's king must be harassed.

2.♔f5? is too slow. White is best advised to strike while the iron is hot. Black transfers his rook to the b6-square and sets up a healthy Vancura defense with his rook having ample checking distance. 2...♖b6 As we saw in the first example, this position is a draw.

2...♖e5† 3.♔f6!



This is the problem. Black's rook is too close to White's king, and it is unable to return to the sixth rank to continue checking and harassing the pawn. After:

3...♖b5

White has one critical tempo of freedom, and he can make good use of it by getting his rook out of the way.

4.♖f8!

White will easily promote the pawn.

The drawback Black faced in this case clearly illustrates the next rule.

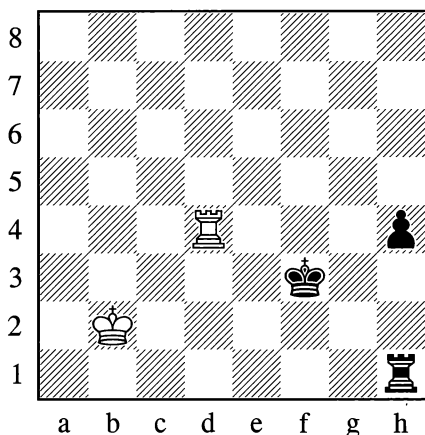
The Vancura defense requires at least four files of distance between the rook and the enemy pawn to succeed.

This is self-evident enough – Black needs to be able to attack the king endlessly whenever it is

in the vicinity of the h6-pawn. If he does not have the checking distance to do so, he will not save the game. Simple as this rule may seem, it can be hard to apply in practice.

David Howell – Hikaru Nakamura

Gibraltar 2015

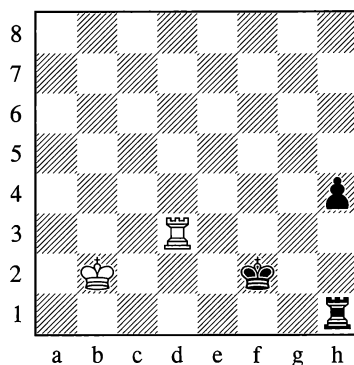


At the end of a long game, Howell has put his saving hopes on the Vancura defense. If his rook is far enough away, it will hold, but in the present situation it is not. Nakamura has only one chance to win the game, and he did not manage to find it.

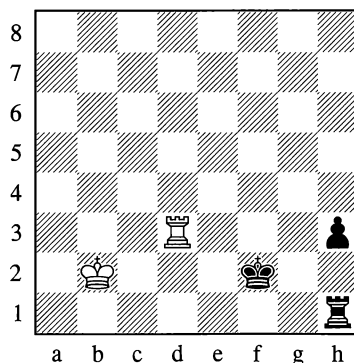
64...♔e3?

This only forces White's rook to go exactly where it wants to – further towards the queenside where it will have more checking distance. Chess is an unforgiving game, and White is immediately making a draw.

Black could have won by taking advantage of White's rook being just a touch too close to the king to keep on checking: 64...♔g3! 65.♞d3† ♕f2



White is unable to give another check on d2. Black's king will then be able to come to e3 to not only avoid the checks, but also to prevent Black from placing the rook back on d4 to set up the Vancura again. 66.♞d4 This is the most resilient move, consistent with the Vancura defense. But it turns out to be insufficient. Black's king is extremely well placed on f2. 66...h3! 67.♞d3



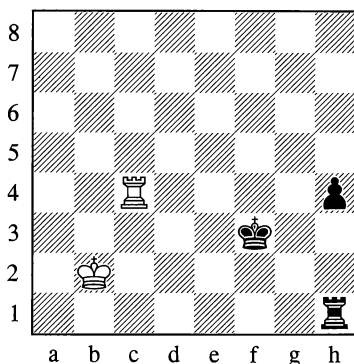
Black is now able to get away with 67...h2! As mentioned in the first example, as soon as the pawn reaches the seventh (in this case second) rank, the defending rook must transfer behind the pawn. But here, Black's king is close enough that he wins anyway. 68.♞h3 ♕g2! Black manages to find safety for his king on g2, taking advantage of the lack of checking distance once again. Next up, his rook will get out of the way.

65.♖c4

The Vancura defense holds easily.

65...h3

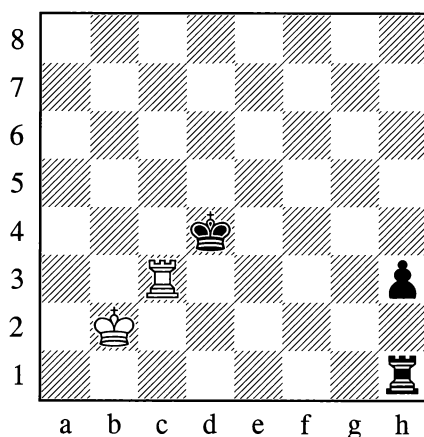
It is too late for Black to try to correct his mistake with 65...♔f3. White will not repeat moves with ♖c4-d4, but instead keep his rook on the c-file.



After 66.♔a2 the same winning plan that Black could have effectively used when the rook stood on d4 no longer works. 66...♔g3 67.♖c3† ♔f2 White's rook is now far enough away that he can keep checking the king without the rook getting harassed. After 68.♖c2†! ♔e3 we see that since the rook sits on c2 instead of d2, White can safely transfer it back to the fourth rank. 69.♖c4! Black's king is too far away. After 69...h3 70.♖c3† ♔f2 71.♖c2† White makes a draw.

66.♖c3† ♔d4

66...♔f4 67.♔a2 would reach a position nearly identical to the first example, with colors reversed. White saves the game with no further trouble, as illustrated on page 64.

**67.♖g3 ♖h2† 68.♔a1 ♖h1†**

Nakamura understandably offered a draw here. Howell had demonstrated the proper holding technique.

½–½

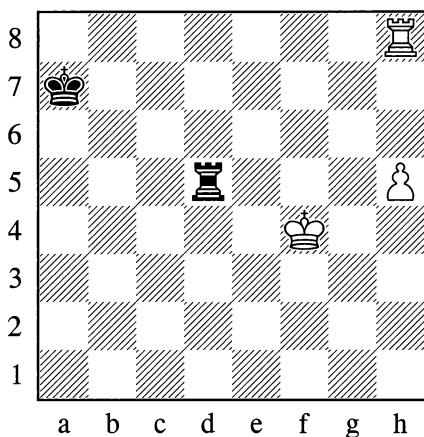
As we can see here, Howell only had three files in between the rook and the pawn, so Black was winning. But a single careless move from Nakamura with his time nearly running out, allowed the rook to reach the c-file. It then became an easy draw.

The winning technique Nakamura could have executed introduces us to our next guideline.

In general, the best attempt to break the Vancura defense is to leave the pawn three squares away from the queening square, not two, and put the rook on the back rank in front of the pawn. Then move the king to squares that are a knight's move away from the promotion square.

As we saw, it will not work if the enemy rook is far enough away from the pawn, but it requires the maximum amount of checking distance to defend against. For a moment, Howell did not have it. The stronger side only requires three files of checking distance between the rook and the pawn to win. Let's examine why.

Vancura – Rook Pawn on Fifth Rank

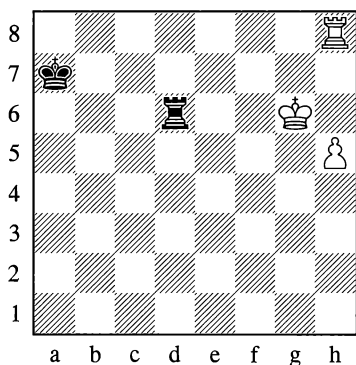


White wins, in the same manner as the Howell – Nakamura game, by walking his king to the g6- and f7-squares that are a knight's move away from the promotion square.

1.h6?

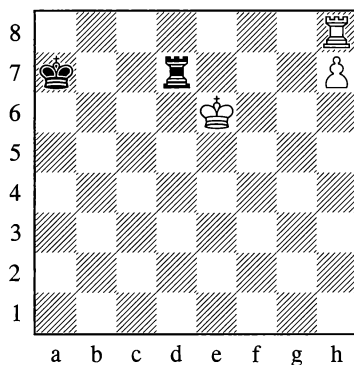
It would be a grave error to advance the pawn to h6. The previous rule is on full display, as now Black has enough checking distance to save the game. It all comes down to one key position.

1.♔g4! ♚d4† 2.♔g5 ♚d5† 3.♔g6! ♚d6†



4.♔f7! We have a direct transposition to what Nakamura should have done. White is threatening to move his rook out of the way, forcing Black to spend a critical tempo on

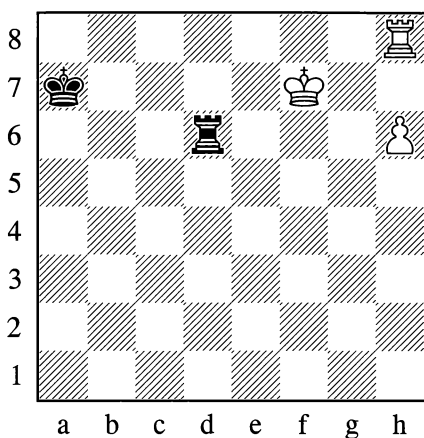
4...♚d5 to keep the Vancura position intact, but his rook lacks checking distance. 5.h6 ♚d6 6.h7 Now ♚d6-h6 would lose to ...♔f7-g7. But the drawing plan, that would work with the rook on c6 or b6, would be to keep on checking the king until it walks far enough away from the rook to allow it to transfer to the h-file. Here, this proves impossible. 6...♚d7† 7.♔e6



Black does not get to the h-file, and he will eventually lose the queen versus rook position after 7...♚b7 8.♚a8†! ♔xa8 9.h8=♚†.

1...♚d6! 2.♔g5 ♚d5† 3.♔g6 ♚d6† 4.♔f7

White is following the same path as the winning plan, placing his king on squares a knight's move away from the promotion square. But this position is different because while Black's rook is too close to the enemy king to continue checking, it is conveniently already on a square that is attacking the pawn. So he has a free tempo to bring his rook farther away from the king to maximize his checking distance. This is in contrast to the pawn remaining on h5, as then the rook needs to spend a tempo to go back to the fifth rank.



4...♖b6!

Black makes a draw. After:

5.h7

It is true that he needs to transfer the rook to the h-file, and he obviously cannot do it now because ...♖b6-h6 would lose to ♔f7-g7. But his rook is far enough away that he can check endlessly.

5...♖b7+

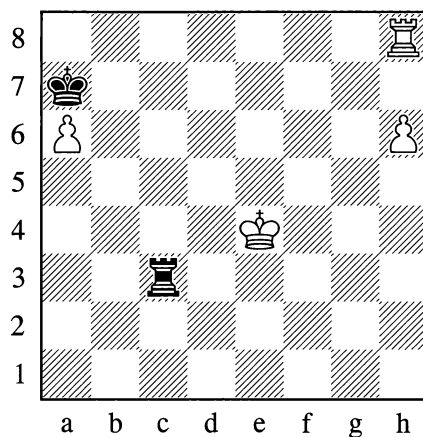
Black will follow White's king all the way up and down the board. The only way to escape the checks is to walk the king all the way to the c-file. Black will then be able to transfer his rook to the h-file without fearing White responding with ♔f7-g7.

6.♔e6 ♖b6+ 7.♔d5 ♖h6

Black draws.

It is important to note that the Vancura defense can still be held even if the pressing side has an additional pawn, providing it is on the wrong file.

Vancura – Additional Rook Pawn Other Side



White's pawn on a6 is of no consequence, as Black's king is quite happy to stay on a7 for the rest of the game. Black holds by setting up a Vancura defense with:

1...♖c6

Play follows in the exact same manner as the first example. It is important for Black not to concern himself with the a-pawn and instead to simply pretend it does not exist. For example, after:

2.♔f5

If White advances h6-h7 at any moment, Black can respond by transferring the rook to the h-file. After 2.h7 ♖h6 we see a similar position to the ones covered in the previous chapter. White's a-pawn will not be able to push Black's king off the a7- or b7-squares, as the king will sit on a7 indefinitely. White would only win if his pawn was to the right of the b-file.

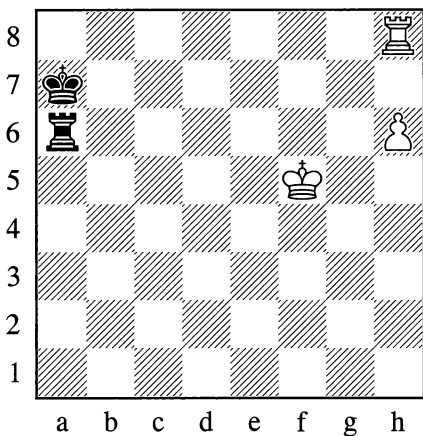
It would now be a grave mistake to capture the pawn:

2...♖xa6?

Black has broken his Vancura defense because his rook does not have access to the

seventh rank. For one critical move, White will be able to find safety for his king.

Black should instead keep the checks coming, with an easy draw: 2...♖c5!



3.♔g5! ♖a5† 4.♔g6 ♖a6† 5.♔g7

Black is unable to give a check on the seventh rank since he foolishly took the pawn on a6 instead of making sure his rook was available to keep harassing the enemy king. White will get his rook out of the way next, and win easily:

5...♖b6 6.♖f8

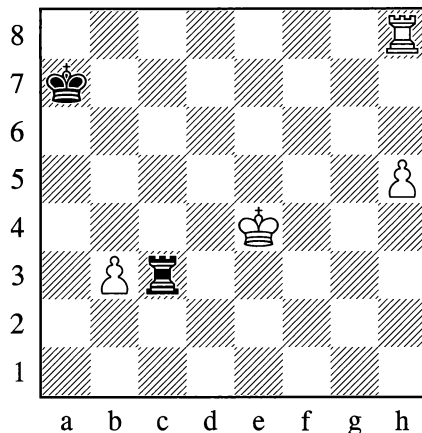
Taking the pawn was exceptionally foolish, as Black allowed the Vancura defense to be broken over a non-threatening enemy unit that was irrelevant to the struggle at hand. This brings us to the next rule.

The Vancura defense only works if the rook has free access to all the squares on the sixth, seventh, and eighth ranks without interference from his own king.

In all the previous cases we saw, the defending king was safely tucked away. Indeed, in this one as well, Black's king was in a fine position, but he voluntarily placed his rook on the wrong square, which costs him half a point.

Every rule about the Vancura position can be attributed to the rook's ability to give checks. I was somewhat surprised to find that unlike the previous chapter, the additional pawn being a knight pawn proves to be a decisive difference.

Vancura – Additional Non-Rook Pawn



Black looks ready to set up the Vancura defense, and indeed he can after:

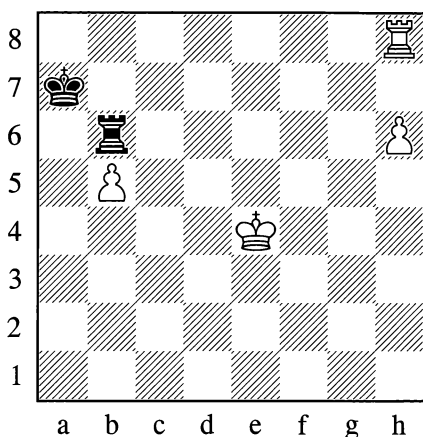
1...♖c5

But it is insufficient to save the game. White's b-pawn will control enough key squares that Black's checking distance will be reduced.

1...♖xb3 If Black were to spend a tempo to take the b-pawn, White wins by getting his rook out of the way: 2.♖g8

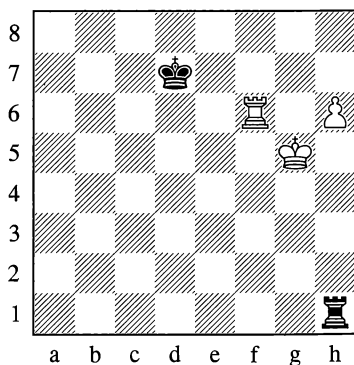
2.h6 ♖c6 3.b4 ♖b6 4.b5

Here we see Black's dilemma. His rook must stay on the sixth rank to keep White's rook from leaving h8, but he is in a deadly zugzwang. The king cannot move to b7, as then Black's rook will lack access to b7 and b8, giving White's king a free place to hide. But the rook also does not have enough room to operate on the sixth rank to find another square that maintains checking distance.



4...Rxb5

If 4...Rxb5 5.Rf8, again, as soon as White's rook is free to get out of the way, he wins easily. The following sequence is long but obvious, as neither side has any sensible alternatives along the way. We can simply count who ends up ahead. 5...Rh5 6.Rf6 Qb7 7.Qf4 Qc7 8.Qg4 Rh1 9.Qg5 Qd7 This is a key position to remember. Whoever gets to move will pick up an extra half point. In this case, it is White.



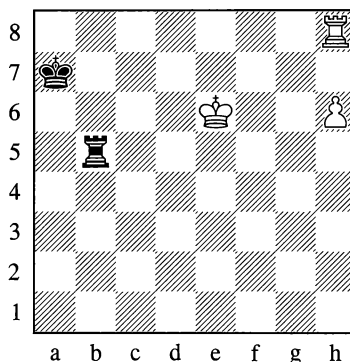
10.Qg6! Qc7 11.Qg7 winning.

5.Qf5!

Black is now stuck between a rock and a hard place. The only safe square for his rook on the sixth rank is b6, but this will allow his king to get cut off on the back rank and White will win with the b-pawn. But moving his king does not help either.

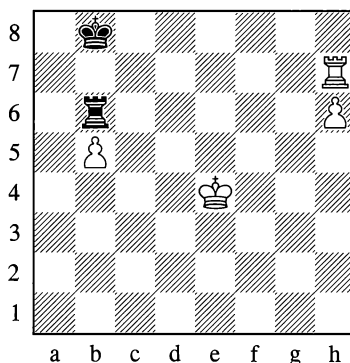
5...Qb7

After 5...Qb7 6.Qe6 Rxb5 Black has broken the Vancura for a single move, and White is able to get his rook out of the way.



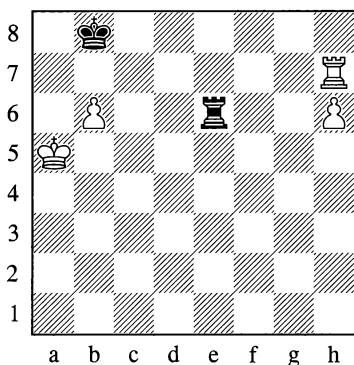
Being mindful of a check on b6 easily gives us the winning move: 7.Rd8!

5...Rb6 6.Rh7+! Qb8 7.Qe4

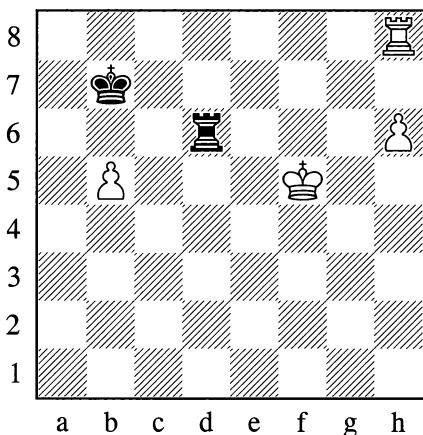


White wins by bringing his king to a5, then his pawn to b6, then his king to a6. Black has to defend against the h6-pawn by using the Vancura defense, ergo his rook must stay on the sixth rank or he will lose to the h-pawn. But, he will also have to use the Philidor defense to stop the b-pawn! So, his rook must be able to check White's king from behind once it reaches a6, all while staying on the sixth rank to keep White's rook from moving away. Obviously this is impossible. The final moves might be:

7...♖d6 8.♙e5 ♜b6 9.♙d4 ♜d6† 10.♙c5 ♜e6
11.♙b4 ♜d6 12.♙a5 ♜e6 13.b6



Now White is threatening ♙a5-a6, with immediate devastation. The only defense would be ...♜e6-e1, but then White's rook will leave h7. Time to resign.



6.b6!

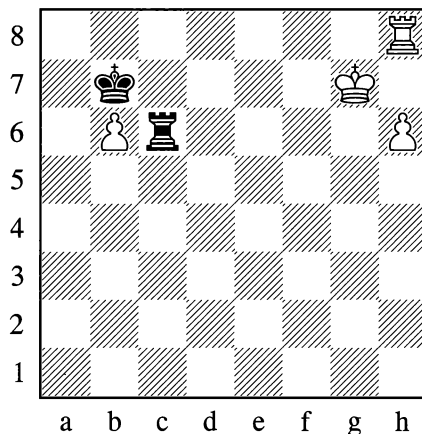
Zugzwang again. Black's king cannot move, and his rook cannot find a healthy square on the sixth rank. Going to either b6 or c6 will not allow him a check on the seventh rank when the time comes.

6...♜c6

After 6...♙xb6 7.h7! White is threatening ♜h8-b8†, so Black is not in time to save the game by transferring the rook to the h-file.

If 6...♜xb6 7.♙g5 ♜b5† 8.♙g6 ♜b6† 9.♙g7 There is no check on the seventh rank. White wins.

7.♙g5 ♜c5† 8.♙g6 ♜c6† 9.♙g7



Black does not have a check on c7. White will have time to get his rook out of the way next move and win in short order.

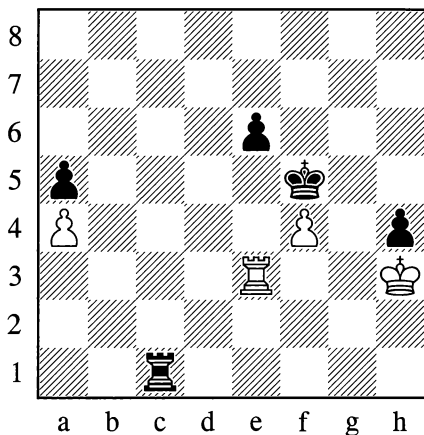
This brings us to our next rule.

A second pawn for the attacking side on any file except the a- or h-file on the opposite flank will result in a winning position. A second pawn on the a- or h-file on the opposite flank will allow the defender to hold the draw.

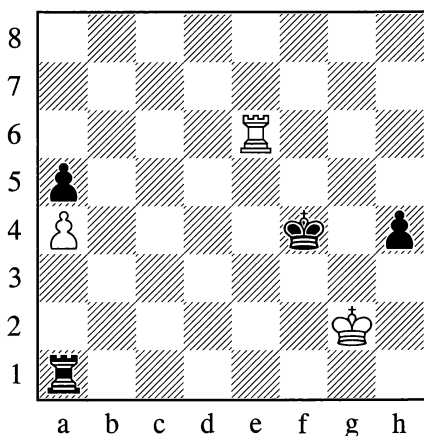
Especially when clocks are running low, even very strong players can misplay positions displaying these simple principles. Take the following game as an example, which was even played at classical time controls.

Aryan Tari – Santosh Gujrathi Vidit

Porto Carras 2018

**54...♙xf4?**

I suspect Vidit avoided 54...♖c6! because White can give a check on e5 and then take the a5-pawn, which looks unclear to a human eye. My computer screams -12, but for beings with flesh and blood, one really would not know with just a glance whether Black will win or not. But if we realize that taking on f4 fails because White can set up a Vancura, this move can simply be played by elimination! 55.♖e5† ♙xf4 56.♖xa5 e5! 57.♖a8 e4 Black will win the race. White's king is too far out of play.

55.♖xe6 ♖h1† 56.♙g2 ♖a1

Now, all White needs to do to save the game is transfer the rook to the fifth rank.

57.♙h3?

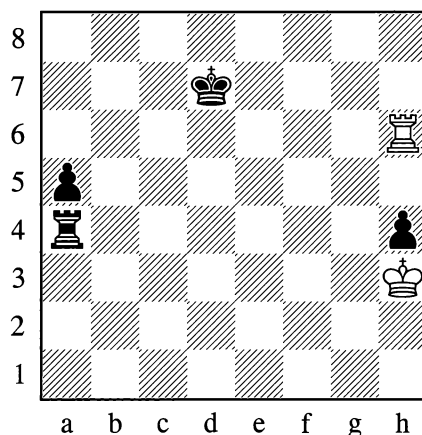
This will not do.

57.♖b6! ♖xa4 58.♖b5! draws.

57...♖xa4

Now it is too late. Black is threatening to move his rook off the a-file, and White is not in time to set up a Vancura defense.

58.♖e8 ♙f5 59.♖a8 ♙e6 60.♖a6† ♙d7 61.♖h6



Now, ♖h6-h5 is a threat. But Vidit was in no mood to unnecessarily allow a Vancura defense twice in one game.

61...♖c4! 62.♙g2 ♖f4 63.♖g6 a4

Black wins easily. Any time the attacking rook can wedge itself in between his two friendly pawns without being attacked by the enemy king, the position is winning. We will see this in Chapter 8.

64.♖h6 ♙c7 65.♖e6 ♙b7

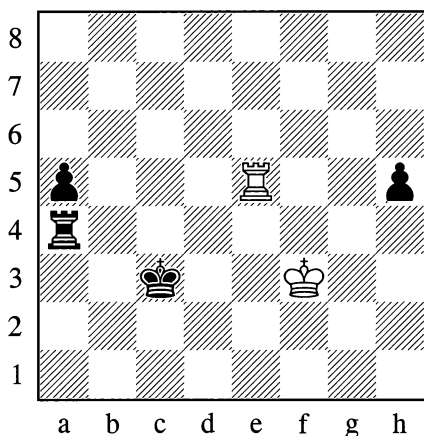
...a4-a3-a2 comes next and Tari had seen enough.

0-1

The presence of an extra pawn on the board does not change much when it comes to setting up or breaking down Vancura defenses from marginal positions, where the placement of the kings or rooks will lead the game to be won or drawn by a single tempo. Let's see an example of such a situation in action. This is a reminder that Nakamura's failure to find the win against Howell certainly did not make him the strongest player to misplay a Vancura position.

Maxime Vachier-Lagrave – Magnus Carlsen

Internet (rapid) 2020



White has almost set up a healthy Vancura defense, but his rook is still not far enough away to have sufficient checking distance against Black's best winning plan. Here, even the greatest player of all time could have done himself a favor by following the rule that the best plan to break the Vancura defense involves placing his rook on the first rank.

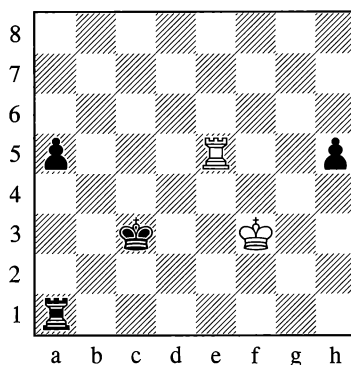
56...♖a2?

Correct was:

56...♖a1!

This is not the only winning move, but it is the most consistent one with Black's best plan. There is a concrete line where the rook is needed on the first rank in order to win

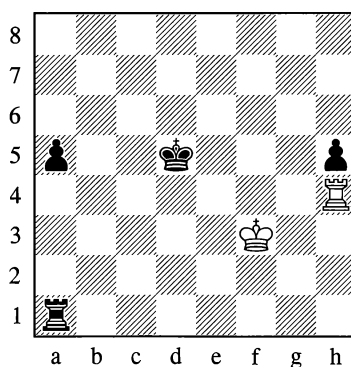
its freedom, but it is also generally the best square against any kind of Vancura set-up.



57.♔g2

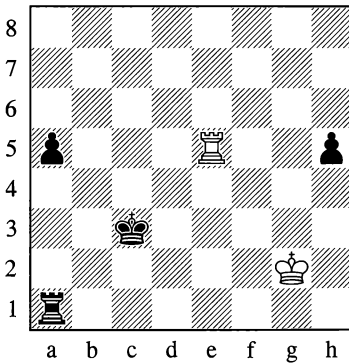
It makes a lot of sense for White to get his king as close to h2 as possible, and off the f-file so that his rook can go to f5 next and have access to the f3 and f2 squares to check endlessly. But it is a tempo too slow, as shown by the following lines:

a) 57.♞e3† This move would have held the way the game played out. But here we see that Black's rook is useful on the first rank for more reasons than one. 57...♔d4 58.♞e4† ♔d5 59.♞h4



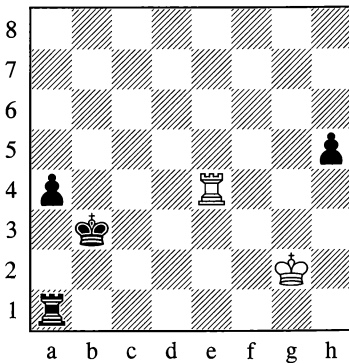
Black needs to be careful now, as White is ready to set up a successful Vancura with ♔f3-g2 next. But he is able to take his one chance to transfer his rook off the a-file. 59...♞f1†! 60.♔g2 ♞f5! Black fixes his rook and wins easily.

b) 57.♖f5 White would like to get his rook farther away from the black king, but he is not ready for this yet. In addition to the obvious 57...♖f1† immediately ending matters, White also loses after 57...a4 58.♖f4 a3, as the king on f3 deprives the rook of its access to the third rank. Black will be able to play a move like ...♖a1-c1 next.



57...a4 58.♖e4 ♔b3!

Black reaches the same winning position we saw in the Howell – Nakamura encounter. The pawn on h5 is irrelevant.



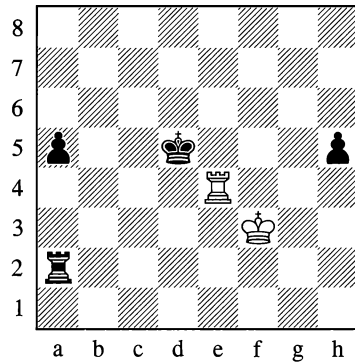
59.♖e3† ♔c2 60.♖c4 a3! 61.♖e3 a2!

White's rook is too close to the black king and he lacks the necessary checking distance to save game.

57.♔g3?

Understandably, Vachier-Lagrave gets his king closer to the opposite edge of the board, where it can keep the h-pawn in check as well as clear the f-file so that White's rook can step further to the right to increase its checking distance. But the move fails.

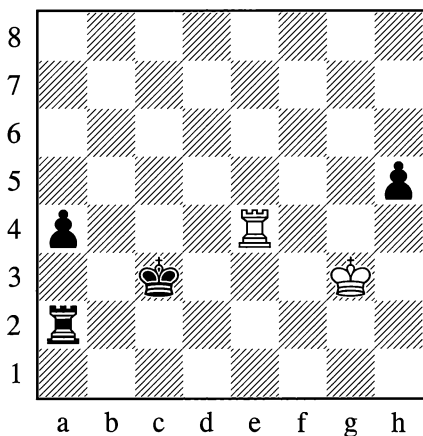
White would have held with a clever check: 57.♖e3†! The point is that Black's rook on a2 is misplaced. After 57...♔c4 58.♖e4† ♔d5 it looks like White is out of luck, but he actually has two drawing moves.



59.♖f4 would be the most consistent, successfully setting up a Vancura defense. Black cannot move the rook away from the a-file due to the nagging threat of ♖f4-f5†, and he is not in time to march the king over to the b-file before White clears the f-file for checks. It all comes down to the rook on a2. Had that rook instead been on a1, Black would immediately win with a check on f1. (59.♖h4 would also hold. Again, White makes use of Black's inability to check on the f-file – the rook should be on a1, not a2.)

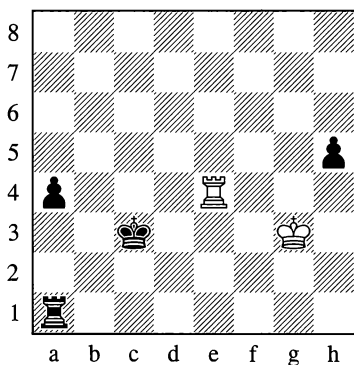
57...a4 58.♖e4

And here once again, Magnus could have reached the same winning planned outlined on page 75.

**58...♔d3?**

This only forces White's rook where it wants to go.

Winning was 58...♞a1!. White does not have time to bring the rook to the f-file as Black is threatening to win directly with ...a4-a3-a2, taking advantage of an available check on g1 when the time is right.

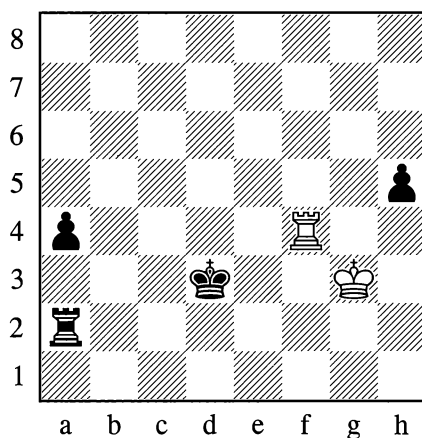


White would hold if he could play 59.♔g2 and 59.♞f4 at the same time, but he only is allowed to make one move before the opponent's response. 59.♔g2 This solves the problem of the king being misplaced and vulnerable to attack from g1, but now White's rook is once again too close to the king.

(59.♞f4 This would hold if White's king were on g2, but in fact, Black now does not even need the king's help to promote the pawn. 59...a3 60.♞f3† ♔b4 61.♞f4† ♔c5 62.♞f3 a2 wins. White is not in time to transfer the rook to the a-file as ...♞a1-g1† is in the air.) 59...♔b3! 60.♞e3† ♔c2! 61.♞e4 a3! We have seen this before.

59.♞f4

The Vancura defense has been reached. White's rook is safe on the f-file, where it has access to all of the key f4-, f3-, and f2-squares, as well as sufficient checking distance. Black will not win.



59...♔e3 60.♞f3† ♔e4 61.♞f4† ♔e5 62.♞b4 ♞a1 63.♔h2 a3 64.♞b3 ♔d4 65.♞f3 ♔c4 66.♞f4† ♔d3 67.♞f3† ♔e4 68.♞b3 h4 69.♞c3 ♞a2† 70.♔h1 ♞a1† 71.♔h2 ♞a2† 72.♔h1 ♞a1† 73.♔h2

½-½

Memorizing hard rules in technical rook endgames can be tedious, but very helpful. In this particular case, even Carlsen could have earned himself an extra half point!

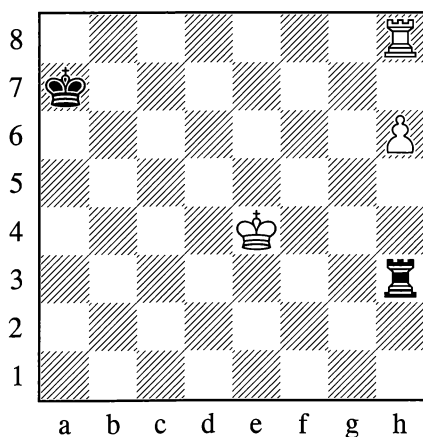
Chapter 4

Vancura Transitions

Now that we have studied the Vancura defense in depth, it is important to look at transitions with it in mind, in particular when the defender's rook is behind the pawn.

We already know that if the defending king is stuck in no man's land, the only chance is to bring the rook to the side and set up a Vancura. For example, we have already seen that the following position wins for White.

Example 1

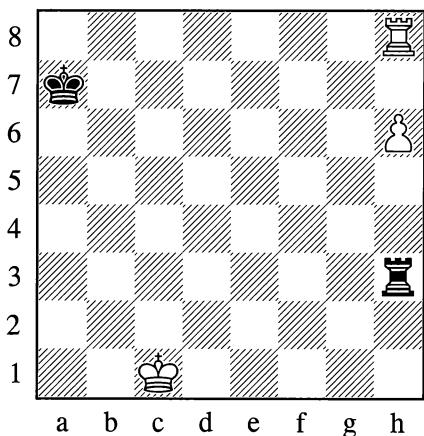


1.♔f5

White's king has a safe hiding square on h7, and he will free his rook and win easily. Please refer to page 67 to revisit this position in more detail.

Clearly, the rook was in the wrong place behind the pawn, and Black was immediately lost. But other situations exist. For example, say White's king was moved.

Example 2



With Black to move, he would immediately draw by setting up a Vancura defense after ... $\text{R}h3\text{-}c3\uparrow$ and then ... $\text{R}c3\text{-}c6$ to follow. This gets his rook to the right square without giving White an opportunity to move his own rook off the h-file. White can prevent this plan by moving his king to the second rank, but Black still holds easily. For example, after:

1. $\text{K}d2 \text{Rf3}!$

Black is threatening to set up a Vancura defense with ... $\text{Rf3}\text{-}f6$ next, and his rook will get to b6 long before White can hope to punish the rook's lack of checking distance. White is now free to move his rook away, but it is too slow to win the game.

It would be a mistake to try to bring the king closer to the h-pawn:

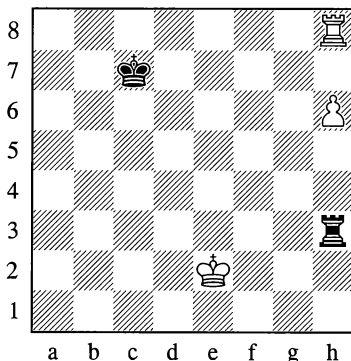
1... $\text{Kb7}?!$

Black's king is unable to run to the center without allowing $h6\text{-}h7$, when the h-pawn promotes without the help of the white king. The position is still a draw, as it is an extreme example and Black can burn a tempo before defending correctly, but he is moving along the wrong path.

2. $\text{Ke2 Kc7}?$

Now Black loses. His king will not be able to touch the d-file to continue its journey to the kingside.

It's not too late for Black to choose the right plan with: 2... $\text{Rc3}!$ 3. Rg8 Rh3 4. Rg6 Kc7 With a transposition to the main line.



3. $\text{Kf2}!$

Black's king cannot come to the d-file, as that would immediately allow $h6\text{-}h7$, and he has misplaced his king if he wants to set up a Vancura defense. The position is already lost.

3... Rd3

Black can only try to transfer the rook to the side if his king is on a7 or b7. Now, the pawn promotes on its own.

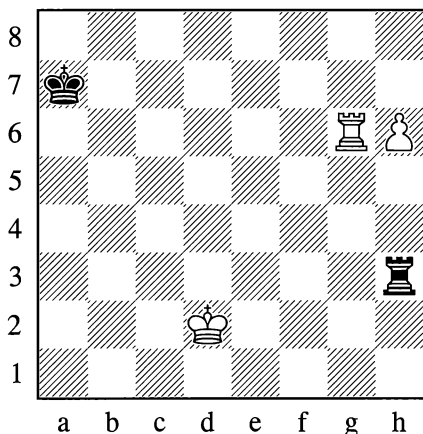
3... Kd7 4. $h7!$ Black's king must either be close enough to the h-pawn to stop it directly, or far enough away to avoid any skewers or checks along the seventh and eighth ranks, respectively. Here, he is in exactly the wrong place. If the king stood on c7, it could go to b7, and the position would be drawn as seen on page 251. Alternatively, if the king was on e7, then he could go to f7 and catch the h-pawn. But alas, the king is on d7, and ... $\text{Kd7}\text{-}f7$ and ... $\text{Kd7}\text{-}b7$ are not legal moves. White wins.

4. $h7 Rh3$ 5. $Ra8$

Winning.

2. Rg8 Rh3 3. Rg6

White was able to get his rook off the h-file, but it comes at a price. While his rook was on h8, the threat of h6-h7 was hanging over Black's head, keeping his king stuck on squares like a7 and b7. Now while White's rook was able to get off the h-file, Black's king is free to run to join the defense. It becomes a race to see if the black king can reach e7 before the white king reaches f6. Black easily wins this race.



3...♙b7 4.♙e2 ♜c7 5.♙f2 ♜d7 6.♙g2 ♞h5
7.♙g3 ♜e7 8.♙g4 ♞h1 9.♙g5 ♙f7

White has nothing further to try.

The less favorable placement of White's king made all the difference. Black was in time to try to set up a Vancura defense (in fact, if it were his move at the beginning, he would have immediately reached one). If White attempted to stop him, the Black king was free to come to the defense. This brings us to the first rule of Vancura transitions.

The best defensive plan when playing against an h-pawn with a rook behind it is to first place the king on b7, and then move the rook to the side to threaten to set up a Vancura defense. The attacking player will then have only one chance to free his rook. When he does, this will free the defending king from his prison

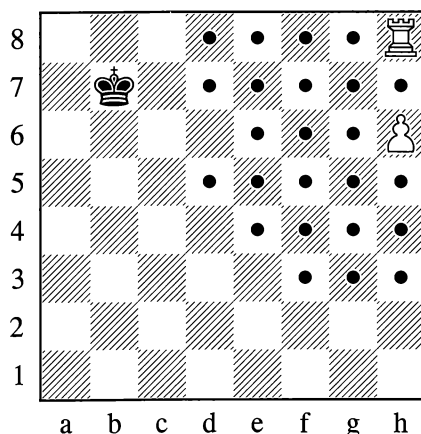
on the opposite side of the board. The position will then become a race, and whoever's king can approach faster will earn their desired extra half point.

This rule makes perfect sense applied to the previous examples. In example 1, White's king was on f5 almost right on top of the h-pawn. He would clearly win the race, so clearly that I did not bother showing it. But in example 2, when White's king was much farther away, Black could hold. He first threatened to set up a Vancura defense. Then once his king had been freed when White's rook transferred to the sixth rank, he was able to win the race to the f6-square.

But these were two extreme examples. In the first case, White's king was in an excellent position, and in the second, his king was in a horrible position. The question becomes, at what point does the position change from winning to drawn?

According to my analysis, the following boundary can be drawn. This is assuming that the attacking rook is already in the corner, that the pawn is on the sixth rank, and that Black's king is on the ideal b7-square.

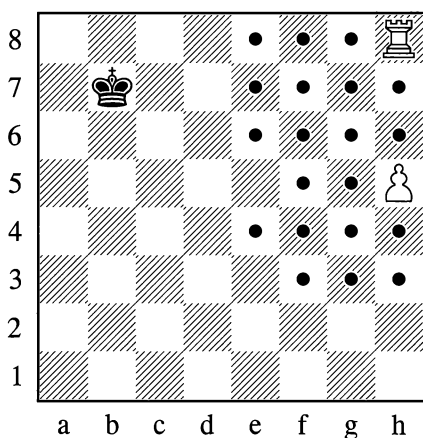
Winning Zone – Pawn on sixth rank



If White's king can reach any of the marked squares while Black's rook is still on the h-file, White is winning. If White is unable to reach any of these squares before Black can transfer his rook, the position is a draw. As an aide memoire, it might be helpful to imagine the line drawn along the border of the winning zone (from h3 to f3, f3 to d5, and then d5 to e6 to d7 to d8) as resembling an archer's bow.

For every square backwards that White's pawn is, part of the border of the transition line is removed. For instance, if White's pawn is on h5, his king must be in the following zone:

Winning Zone – Pawn on Fifth Rank



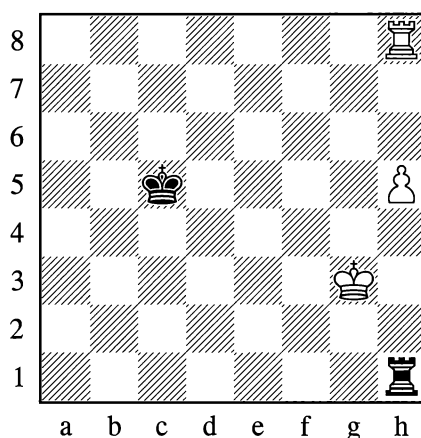
The bottom of the transition line did not change, but the left side has been removed. The h5-pawn being one square further from promotion means that White would not be winning by getting the king to the d-file.

In general, I think the only transition line worth memorizing is the one with the pawn on h6. Once you know this one, it should not be too hard to work out at the board if a tempo lost on the king not being on b7 yet, or the h-pawn being further back, will prove to be a relevant difference.

Simple as this principle may seem, when put into action, even strong players can mess it up.

Ju Wenjun – Aleksandra Goryachkina

Skolkovo 2019



Black has two defensive plans available to her. She can either try to bring the king back to stop the pawn, or she can try to set up a Vancura defense. As we saw earlier in the chapter, if White's pawn reaches h6, Black's king will not be able to cross the d-file, and g3 is within the winning region for the white king. So, White would win routinely with h5-h6.

57.h6!

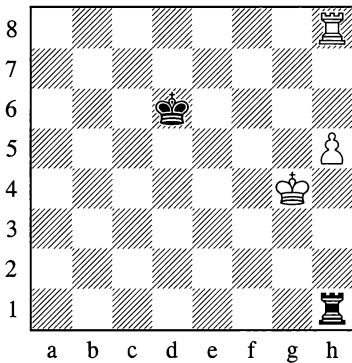
In fact, White wins this position with two(!) tempos to spare. The threat of h6-h7 means that Black's king must make a beeline for the b7-square, and only then, will she be able to bring the rook to the c-file to threaten to set up a Vancura defense. But White's king is already in the winning region, and Black still needs two moves to get her own king to b7.

57.♔g4?

At the end of a long game, Ju Wenjun falters.

Black's king is now in time to stop the pawn.

57...♔d6



58.h6

It is too late for this, as Black's king is in time to catch the h-pawn. But White would not have won anyway.

58.♔g5 ♕e7 59.♔g6 ♖g1† This kind of position is discussed on page 19. As mentioned, Black's king would need to be cut off along the d-file for White to be winning. As is, Black's king is far too close, and she saves the game easily. 60.♕h7 ♕f7 61.♖a8 ♖g2 62.♖a1 ♖g3 63.♖f1† ♕e7 64.h6 ♖g2 White would need her rook and Black's king to both move two squares to the left to win the game. This will not happen.

58...♕e7 59.h7 ♕f7 60.♖a8 ♖xh7 ½-½

57...♕c6

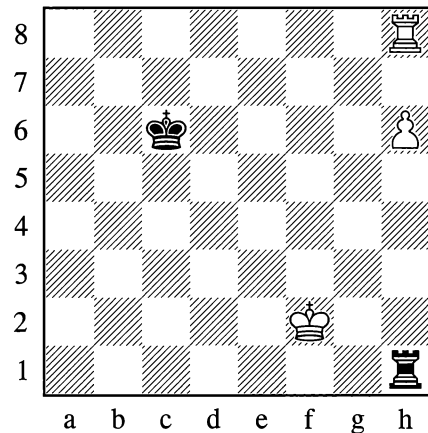
Now obviously White should charge forwards with the king. But it turns out that White wins by two full tempos, as the king only needs to reach the g3-square, which it is already on.

Coming closer to the pawn with 57...♕d6 fails, as now after 58.h7! there is nowhere for Black's king to hide. 58...♕e7 (58...♕e6 59.♖e8† wins) 59.♖a8 winning.

58.♕f2?!

I have kept 58.♕f2 as the main line to illustrate my point. Of course White should play: 58.♕g4 ♕b7 59.♕g5 ♖c1 60.♖f8 The race is not particularly close, and even

this inexact move is certainly good enough. (60.♖h7†! As we will see later, as a matter of best practice, White should give this check first. In the present scenario, it does not matter because White is so far ahead in the race. But it will matter tremendously when the race is closer.) 60...♖h1 61.♖f7† ♕c6 62.h7 ♕d6 63.♕g6 White wins.



58...♕b7

Now, when we consider the previously drawn line, we note that White wins if she can place her king on g3 or f3 before Black can leave with the rook. Indeed, both moves win, as does even ♕f2-g2, as long as White puts the king on f3 or g3 next.

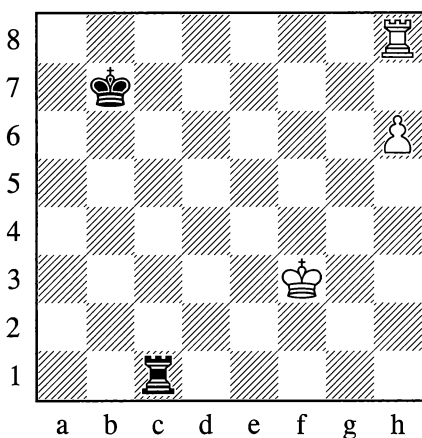
59.♕f3

White will win easily with ♕f3-f4-f5-g6 if Black keeps the same defensive set-up. She should try to threaten a Vancura, but it will not work.

59...♖c1

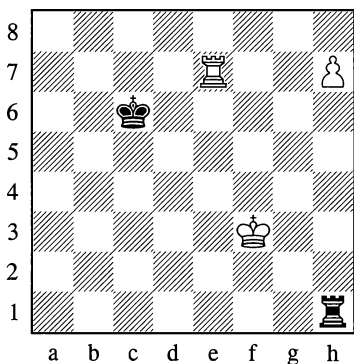
59...♖a1 is logical as White's main winning idea is ♖h7†-a7. But it fails to 60.♕g4 ♖a6 61.♕g5 ♖a5† 62.♕g6 ♖a6† 63.♕g7 when the rook is misplaced on the a-file.

Now comes a very important maneuver to remember.

**60.♞h7+**

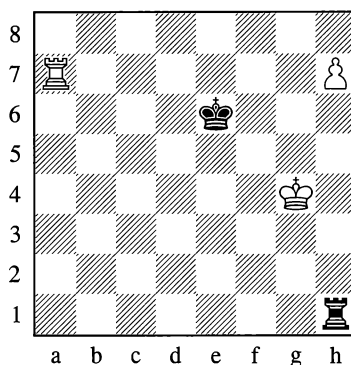
It is very important to give a check before moving the rook to the side. The reason is that once White's rook leaves the h-file, Black's king will be free. By checking now, Black is placed in a tough spot. She wants to get the king as close to the pawn as possible. But also does not want to allow White's rook to transfer all the way to the a-file, where it will not become victim to being hit with a gain of tempo.

Let's see what would happen if White were to avoid the check on h7: 60.♞e8?! ♞h1 61.♞e7? (61.♞h8! shows it is not too late to repeat moves and then find the winning plan.) 61...♙c6 62.h7



Here we see the problem White faces. Her rook on e7 is going to get hit, which will gain Black the critical tempo she needs to get her king

back in time. 62...♙d6! 63.♞a7 ♙e6 64.♙g4

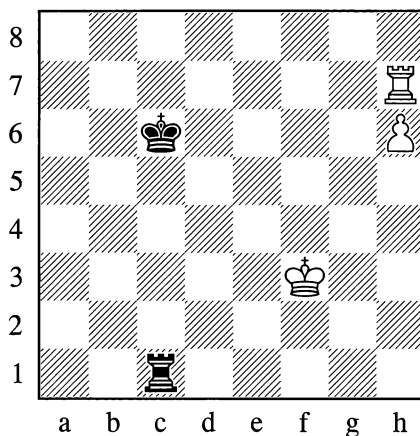


White to move would win with ♙g4-g5. But alas, Black gets there first. 64...♙f6. Nothing to be done about ...♙f6-g6 coming next, with a draw.

60...♙c6

Naturally, Black wants to get the king as close to the h-pawn as possible. Now, we see White's idea.

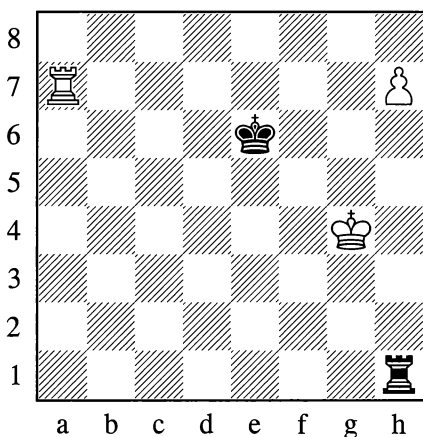
Alternatively, Black could prevent White's rook from reaching a7 with: 60...♙b6 But this also loses a tempo, as now the king is not any closer to the h-pawn. 61.♞e7 ♞h1 62.h7 ♙c6 63.♙g4 ♙d6 64.♞a7 We reach the same position as the main line, with each side having lost a tempo. White played ♞h7-e7-a7 instead of ♞h7-a7, but Black played ...♙b7-b6-c6 instead of ...♙b6-c6. 64...♙e6 65.♙g5 White wins.



61. ♖a7! ♜h1 62. h7 ♔d6

In this exact position with the rook on e7 instead of a7, White was forced to burn a tempo with her rook to avoid its capture. Now, she can avoid this loss of time, and it turns out to be decisive.

63. ♕g4 ♕e6



We saw this position moments ago, with the comment, “White to move would win with ♕g4-g5.” It *is* White to move.

64. ♕g5

Ju Wenjun could have won the game by minding the rules of the Vancura transition and knowing which squares her king needed to reach to win the game – in fact, she would have won with two full tempos to spare. But it is also important to note how White would have won the game if the race was closer, which brings us to our next rule.

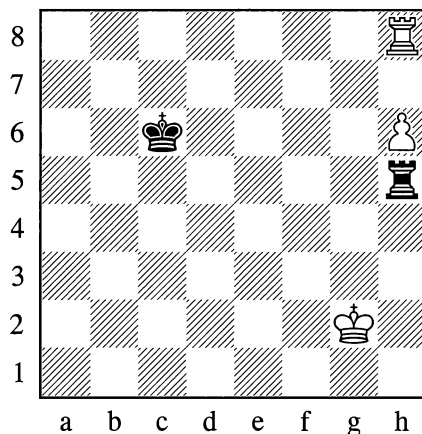
When trying to prevent a successful Vancura transition, the best way is to keep the rook on the eighth rank and the pawn on the sixth rank. This will force the defender to put their king on b7 or a7 before they can move the rook to the side. When they move the rook to

the side, it is important to immediately give a check on the seventh rank to gain a tempo.

Whenever dealing with the somewhat complex rules of rook endgames, it is critical to fully understand it and slow down during a tournament game, especially if it is something you have not reviewed in a while. For example, the following mishap may have changed the course of chess history.

Boris Gelfand – Viswanathan Anand

Moscow (play-off 3) 2012



After a tough (and possibly unnecessary) loss in Game Two of the rapid play-off of the 2012 World Championship match, Gelfand promptly recovered his footing and played a great game. But just as he was about to equalize the score, disaster struck.

61. ♜h7?

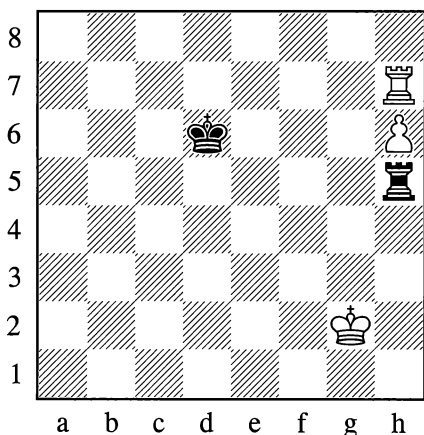
In his ChessBase annotations, Fracnik gave this move a second question mark and referred to it as “absurd”. I think this is the wrong adjective. ♜h8-h7 is absolutely part of White’s winning plan, but Boris mixed up his move order, probably due to the game being played under rapid time control. He could not go

through a mental checklist of how to convert the position into a win, something I doubt he had revisited in many years. This is the kind of mistake I can only imagine a very strong player making, as I doubt ♖h8-h7 would even occur as a candidate move to anyone who had not studied this relatively rare endgame in some depth.

With $61.\text{♔g3!}$ White's king reaches one of the winning squares, and he even wins with a tempo to spare. After $61...\text{♗b7}$ ($61...\text{♔d6}$ $62.\text{h7}$ wins.) $62.\text{♔g4} \text{♝c5}$ White wins routinely with any sensible move, but the most natural and precise is $63.\text{♝h7}\dagger!$. This would be the only winning move if White's king were back on g3 or f3 and Black's rook was on c1.

61...♔d6!

Now that White's rook is off the back rank, Black's king is free, and it will reach the pawn before White can correct his mistake.



62.♔g3

$62.\text{♝h8} \text{♕e7!}$ Black is just in time to draw.
 $63.\text{h7} \text{♕f7}$ With a similar end to the Ju Wenjun – Goryachkina encounter.

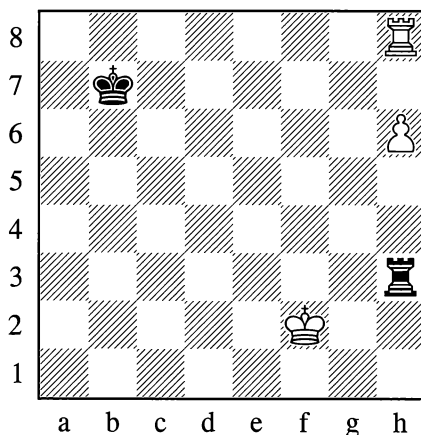
62...♔e6 63.♔g4 ♝h1

$\frac{1}{2}-\frac{1}{2}$

In this particular case, my guess is that Gelfand knew that his king was on a winning square and that the best plan was to put the rook on h7 as soon as Black's rook left the h-file. But he got a step ahead of himself and put the rook on h7 a move too soon. While it is important to know when the position is winning and when it isn't, knowing how winning a position is tends to be irrelevant. I would be shocked if Gelfand could tell someone off the top of his head how many tempos White wins by, as knowing that White wins is good enough. The $\text{♝h8-h7}\dagger$ resource is only relevant if White is winning by a single tempo, while in this case, White was winning with three tempos to spare. Perfectionism is important but can be crippling in rapid chess. With a 30 second increment, I think Gelfand would have won this 100 times out of 100.

The $\text{♝h7}\dagger$ resource is very difficult and advanced knowledge that is only necessary in the closest of races. So it is unsurprising that if the balance is tilted ever so slightly in the defender's direction and he is only saving the game by the skin of his teeth, the defense becomes very difficult. Consider the following position.

Example 3



White's king is not on a winning square, and it is Black to move. So, the position is a draw, but the defense is very tough. White is threatening ♔f2-g2, winning, and Black clearly cannot retreat the rook and allow White's king to the winning g3- or f3-squares. So, now is the moment to transfer his rook. But where to?

1...♖a3!!

This surprising and extremely difficult move is the only way to make a draw. The point is that Black is threatening ...♖a3-a6, when the rook is very awkwardly placed for a Vancura defense as the king will be preventing it from giving any checks on the seventh rank, but he will be able to bring the rook to the superior c6-square before White can get his king into action. The reason it is necessary to specifically choose a3 for the rook is that it prevents White's winning plan of ♖h8-h7† and then transferring the rook to a7. It will instead have to choose another square on the seventh rank, where it will be vulnerable to harassment from the enemy king.

When I was first looking at this position, it was shocking to me that the most natural move was not the correct one:

1...♞c3

Black is ready to set up a healthy Vancura next with ...♞c3-c6, but failing to control the a7 square will mean his demise.

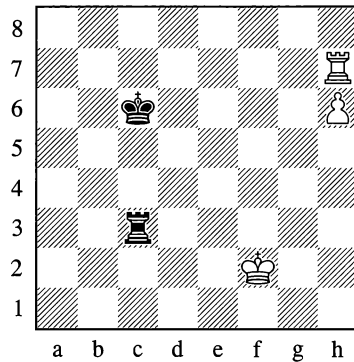
2.♖h7†!

Whenever we have a close race in a Vancura transition, the check on h7 gaining a critical tempo is often extremely relevant. This position is no exception.

In a close race like this, natural, strong looking moves can toss the half point back and forth like a hot potato. 2.♖f8? will lose a critical tempo when attacked by the enemy

king. 2...♖h3 3.♖f7† ♔c6 4.h7 ♔d6 5.♔g2 ♖h5 6.♔g3 ♔e6! White is forced to move his rook, giving Black enough time to catch the pawn. 7.♖a7 ♔f6 8.♔g4 ♖h1 Black got to f6 before White got to g5. Game drawn.

2...♔c6



3.♖a7!

We have seen this before. White's rook avoids the g7-, f7- and e7-squares as each one will cost him a tempo at a critical moment.

3...♖h3 4.h7 ♔d6 5.♔g2 ♖h5 6.♔g3 ♔e6

Without the rook hanging on f7, White can charge ahead with his king, and win:

7.♔g4 ♖h1 8.♔g5

2.♖h7†

Also equal is:

2.♔g2 ♖a6

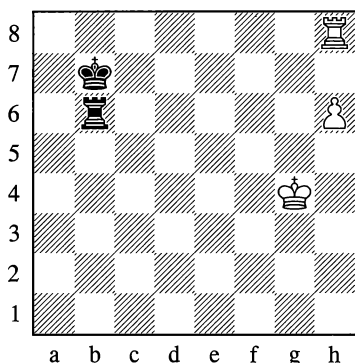
Black now needs one more tempo to set up a healthy Vancura defense with ...♖a6-c6, and White's king is way too far away to cause any trouble. He would need to play ♔g2-g5 in one move.

3.♔g3

Now Black should obviously play ...♖a6-c6, with an easy draw, but he can even burn another tempo.

3...♖b6 4.♔g4

At this point, however, it is time to be an adult and set up a healthy Vancura, as ♔g4-g5 is a legitimate threat.

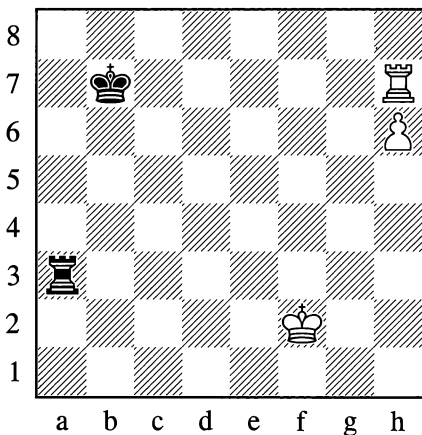


4...♖c6

4...♔a7 holds as well, as Black still has access to the seventh rank to give checks.

4...♖a6? 5.♔g5 ♖a5† 6.♔g6 ♖a6† 7.♔g7 wins.

5.♔g5 ♖c5† 6.♔g6 ♖c6† 7.♔h7 ♖c7†
Time to shake hands.



2...♔c6!

And now White is unable to place his rook on a7. This will cost him a tempo, no matter which square he chooses.

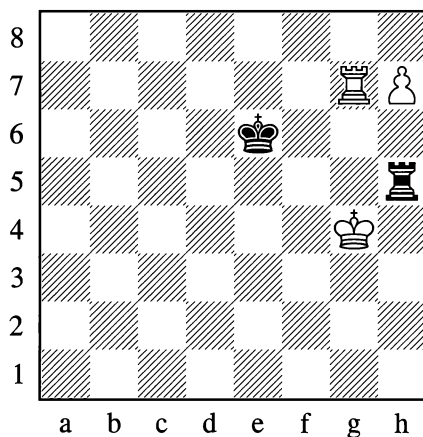
3.♖g7

The alternatives also do not win:

3.♖f7 ♖h3 4.h7 ♔d6 5.♔g2 ♖h5 6.♔g3 ♔e6
draws. We have seen this before.

3.♔g2!? is probably White's best try, but Black holds with 3...♖a8!, preventing White's rook from returning to h8. Next his king will march towards g6, and Black is one tempo in time to save the game.

3...♖h3 4.h7 ♔d6 5.♔g2 ♖h5 6.♔g3 ♔e6
7.♔g4



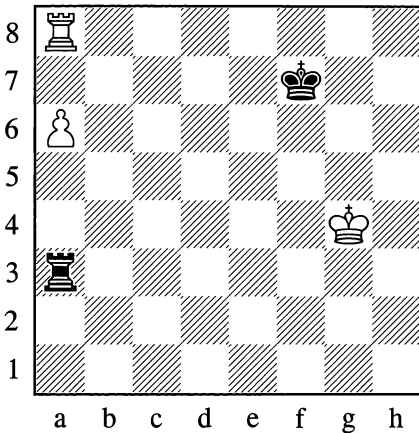
7...♔f6!

Black makes a draw.

Throughout working on this chapter, I found that the correct winning or holding technique was extremely difficult whenever the attacking king was either right on the edge of the winning zone or just one square outside of it. The following game is another clear example where Black had to be precise, but Nakamura was up to the challenge.

Teimour Radjabov – Hikaru Nakamura

Shamkir 2014

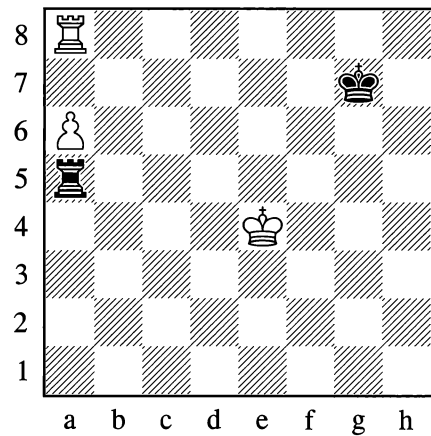


We know that Black's king belongs on g7. If he were to place it there right now, he could then try to transfer the rook to set up a Vancura defense. White would be winning if his king could touch the winning zone as seen on page 81.

57...♖a5

Hikaru's move does save the game, but 57...♔g7! works too. Black immediately puts his king on the right square, and the closest White's king can get to his pawn before Black starts the Vancura transition is f5. As we have seen, this is insufficient for victory. Still, White's king is one square away from the winning zone, and as such, every tempo is critical, and the defense is not easy. 58.♕f5 ♖a5! This is the only saving move. (58...♗f3? is tempting but poor. After 59.♕e5! Black is unable to bring his rook to f6 due to a check on g8. White's king has reached the winning zone, and he wins.) 59.♕e4 This would transpose to the game. White's king is one square away from the winning zone, and again, care must be taken.

58.♕f4 ♔g7! 59.♕e4



It is Black to play, and he can start his Vancura transition when White's king is not in the winning zone. But since it is just one move away, the defense is tricky and Black needs to be precise.

59...♜b5!

In a similar position on page 86, bringing the rook to the edge of the board was the only drawing move. Now it loses! 59...♜h5? 60.♖a7! ♕f6 (60...♕f8 61.♜b7 wins. White promotes the pawn without the king's help. a6-a7 and ♜b7-b8+ comes next.) 61.♕d4 Black's rook is misplaced on h5 and unable to reach the sixth rank effectively since it will be blocked off by his own king. White's king has reached the winning zone, and it's all over.

60.♖a7+ ♕g6!

A precise move.

60...♕f6? is extremely tempting, trying to bring the king closer to the a-pawn, but it loses to a nice trick. 61.♕d4! ♜b6 62.♜h7! White is able to get his rook out of the way, and he wins.

61.♕d4 ♜b6!

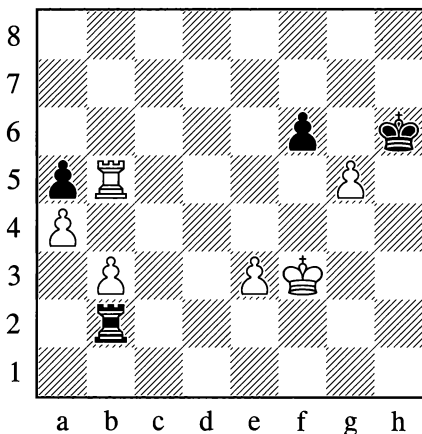
Thanks to Black's good sense to put the king on g6 rather than f6, White does not have a way to get his rook out of the way. Black has set up a healthy Vancura, and it's a draw.

62.♔e5 ♖c6 63.♞a8 ♔g7 64.♞a7† ♔g6
65.♞e7 ♞xa6 66.♞e6† ♞xe6† 67.♔xe6
½–½

One of the most common criticisms I have heard of choosing to study endgames is that they are impractical. How often will you end up facing a Vancura transition in your own tournament practice? In my case, it happened less than a year after writing this chapter. Sadly, my knowledge of the Vancura transition line only let me know well in advance that I was not going to win the game. But the point remains that it became relevant in my own practice almost immediately.

Sam Shankland – Alexandr Predke

Berlin 2022



49...fxg5

White has an extra pawn, but the simplified nature of the position and the drawish nature of rook endgames means that Black should be able to hold on. At this point, I understood that I was not winning. But having studied the Vancura transition line while writing this book, I found the best way to put my opponent under pressure. Unfortunately for me, he defended perfectly.

50.♞xa5!?

This move will not win the game, but it's the best try I could find.

Black holds easily after 50.e4 ♔g6 Black's king stops the e-pawn, and my own king is stuck defending against the g-pawn and cannot run to c3 without letting it through.

50...♞xb3 51.♞a8!

We will see positions like this later on in Chapter 12. My plan is simple – get the pawn to a7, then push the e-pawn and win the game. My hope was that Black would reflexively play the automatic looking ...♞b3-a3, but this would fall for my trap.

51...g4†!

Sadly for me, Predke defended very well. At this point, I was able to easily know that ♔xg4 would lead to a draw thanks to the Vancura transition line.

Sitting with the rook behind the pawn will not save the game in the long term:

51...♞a3?

White will push his pawn to a7, Black's king will be stuck on g7 or h7, and then the e-pawn pushes through. We will see examples of this in Chapter 12.

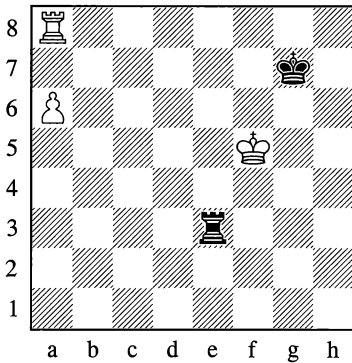
52.a5

Now, Black should correct his error, but it is too late. The tempo lost and White's a-pawn being one square further advanced means the position will win.

52...g4† 53.♔xg4 ♞xe3 54.a6

White threatens to promote the pawn directly. Black needs his king to be on either g7 or h7 so that he can meet a6-a7 with ...♞e3-a3.

54...♔g7 55.♔f5!



At this moment, Black is unable to set up a Vancura, and must make a move that threatens to do so instead. According to the Vancura transition diagram on page 81, it looks like White's king is just outside the winning zone. But, the winning zone is assuming that Black's rook is on the a-file! Here, the rook is misplaced on e3. Thanks to the well placed king on f5, White is threatening to give a check on a7. This would end the game immediately as Black's king would be forced to a horrible square. Black would like to check the king, but his rook lacks a check on the fifth rank, which is what he truly needs. The reason that f5 is not part of the winning zone when the rook is on the a-file would be that Black is able to play ...♖a3-a5†.

55...♖b3

This feels like Black's most natural move to me. He is threatening to set up a Vancura with ...♖b3-b6. But we can now take advantage of our king's stability on f5. Black could bring the rook back with 55...♖a3, hoping to point out that my rook cannot transfer. But, now we see that after 56.♕e5 White is just barely inside the zone and wins.

56.♖a7†!

We see the reason that White's king is so good on f5. It might look strange that f5 is in the winning zone when e4 is not – as e4 is closer to the a-pawn. Black's king cannot go

to the back rank on pain of ♖a7-b7, and is forced into no man's land on h6.

56...♕h6

56...♕f8 57.♖b7 wins, as White's pawn promotes itself. It does not need the king's help.

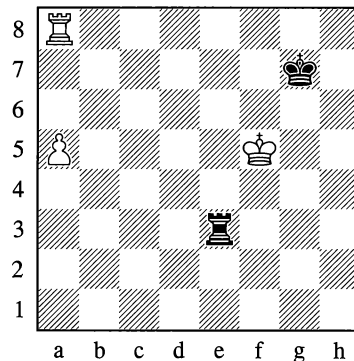
57.♖b7 ♖a3 58.a7

Black's king might as well be in another galaxy. White is ready for ♕f5-e6-d7-c8-b8, winning.

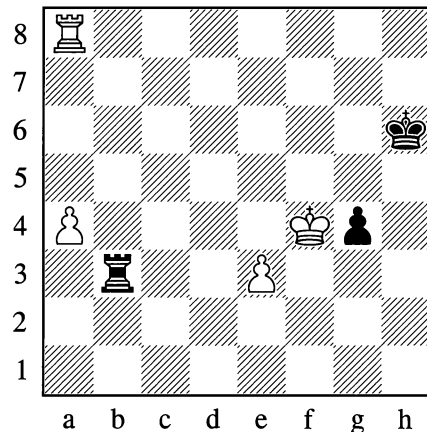
52.♕f4

This was the most testing move, but Black rattled off the correct response almost immediately.

After 52.♕xg4 ♖xe3 53.♕f5 ♕g7 54.a5



54...♖b3! Black starts the Vancura transition with White's king outside the winning zone. He saves the game by a single tempo. I did not need to calculate any variations here; I knew it was a draw.



52...♖b4†!

Accurate to the end. I really admire how well Predke defended this game, I really thought I was going to win at some point. White is immediately asked to make up his mind about how to deal with this check.

White wins after the alternatives:

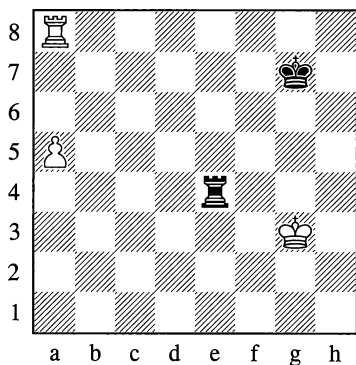
52...g3? This allows White to transition into a winning version of frontal checks. 53.♖g8! Black's king is cut off along the g-file, and White's e-pawn will win. 53...♖b4† 54.e4 ♖xa4 55.♖xg3 White's pawn is already in the winning zone on e4, and will even make it to e5 next. Further resistance is futile.

52...♙g7? 53.♖e8! White transfers the rook to e4, wins the g-pawn, and the game.

52...♖a3 53.♖g8! ♖xa4† 54.e4 wins.

53.♙f5

Or: 53.e4 ♙g7! Now this works since White doesn't have the ♖e8-e4 idea anymore. 54.a5 g3! 55.♙xg3 ♖xe4



White's king is way outside the Vancura transition line, and Black makes an easy draw.

53...♙g7

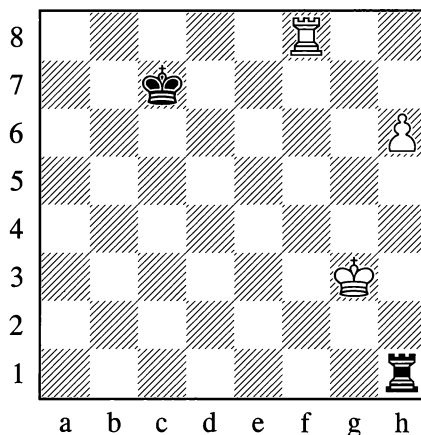
The rest was easy for Black.

54.♖a7† ♙g8 55.♖a6 g3 56.a5 g2 57.♖g6† ♙f7 ½-½

The Vancura transition coming up in tournament practice was hardly a freak occurrence. The following game was played just seven days before my encounter with Predke!

Kamil Dragon – Arthur Guo

Charlotte 2022

**45.♖h8!**

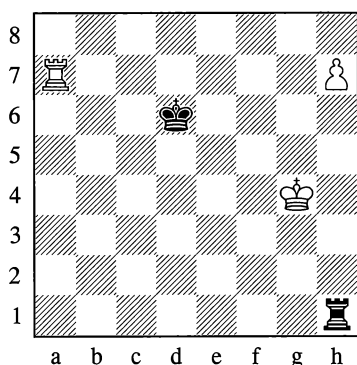
White must obviously defend his pawn. The position is simple enough that Dragon could have found the right move by hand, as ♖f8-f6 can be quickly calculated out to a draw. Still, it's nice to point out that the same rules apply. White's king is currently just within the winning zone, and Black's king is one tempo away from being on the ideal b7-square. White wins with a tempo to spare.

After 45.♖f6 ♙d7 46.♙g4 ♙e7 Black holds easily.

45...♖g1†

This only lost time, but the game was beyond saving anyway:

45...♙b7 46.♙g4 ♖c1 47.♖h7† ♙c6 48.♖a7 ♖h1 49.h7 ♙d6



Even if Black had another move to play ...♔d6-e6 here, he would still lose. Knowing the transition line helps us not only understand whether the position is winning or not, but even the margin of victory! 50.♖b7!? A burned tempo does not change the result. (50.♔g5) 50...♔e6 51.♔g5 White wins.

Or 45...♔d7. As always, whenever the king touches the d-file, we push h6-h7. 46.h7! ♔c7 47.♖a8 wins.

46.♔f4 ♖f1† 47.♔g5 ♖g1† 48.♔f6 ♔b7
49.♖h7† ♔c6 50.♖g7
1-0

Vancura transitions are difficult to understand and play well, and some very strong players have misplayed them. But you can approach these positions with a lot more confidence if you know:

- what the winning zone is for the attacking king
- that whenever the king is either just inside or just outside of the zone you have to be precise
- that it is often important to give a check on the seventh rank right after the defender starts the transition
- it is often important for either side to bring the rook all the way to the other edge of the board

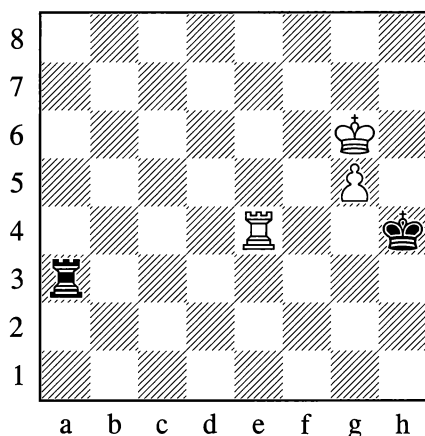
Chapter 5

Side Cut

In Chapter 4, we saw a lot of positions where the defending king was cut off along a file. This is the most common kind of cut, and the attacking side can hope to use it to keep the enemy king out of the way for long enough to reach the Lucena position. But cutting off along a rank can be just as effective and is an important tool to understand. Let's look at a basic example.

Sam Shankland – Conrad Holt

Internet 2012



52...♔g3

At this point, there is not much to say. Black's king is cut off along the fourth rank, and this is every bit as effective as if it were stuck on c6 and cut off along the d-file or something similarly hopeless. White will easily reach the Lucena position.

53.♕h6 ♕f3 54.♖b4 ♜a1 55.g6 ♜h1† 56.♕g7 ♕e3 57.♕g8 ♜g1 58.g7 ♜g2 59.♖h4 ♜g1 60.♕h8

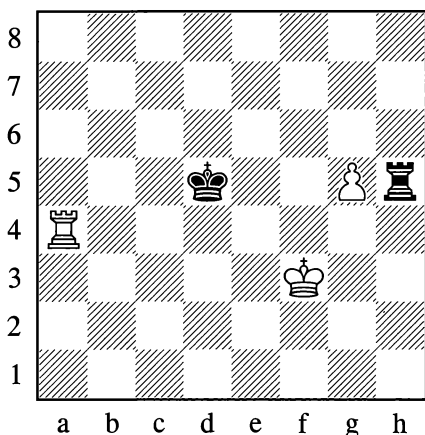
The game did not need to last this long.

1-0

This was obviously an extreme case – most cases are not so severe. Black's king being cut off two ranks behind White's pawn was obviously decisive, much like it would have been if it had been cut off by four files. However, just like we saw previously, there are much closer cases as well.

Tamir Nabaty – Ilya Smirin

Netanya (var) 2019



This position did not actually occur in the game, but it will nonetheless be a good illustration of when cutting the king off along a rank will work and when it will not. Black cannot capture the g5-pawn on pain of a skewer along the fifth rank, and should quickly restrict his candidate moves to ...♔d5-e5 and ...♔d5-e6. Both moves lose, but in different ways.

70...♔e5

With this move, Black is bringing his king closer to the g5-pawn while also hoping to dissuade White from placing his rook on f4.

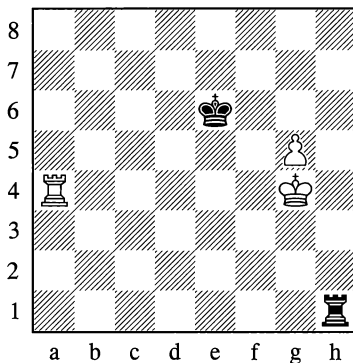
The alternative is:

70...♔e6

This feels like the human move. Black's king can now look to use either the f6- or f7-square

to get to the g-file and secure a draw, so White must act accordingly.

71.♔g4 ♖h1



Now, White has a choice of whether to try to cut the king off along the seventh rank or along the f-file. Care must be taken.

72.♖a7?

Cutting the king off along the seventh rank fails to win the game. The point is that while Black's king presently has no way to reach the g-file, he can simply sit and wait. At some moment White will have to advance g5-g6, and then Black will be able to respond with ...♔e6-f6.

72.♖f4! is correct. White's rook controls both f6 and f7. He has successfully cut the king off and will win routinely with g5-g6 coming next. Black is not even close to setting up a frontal defense.

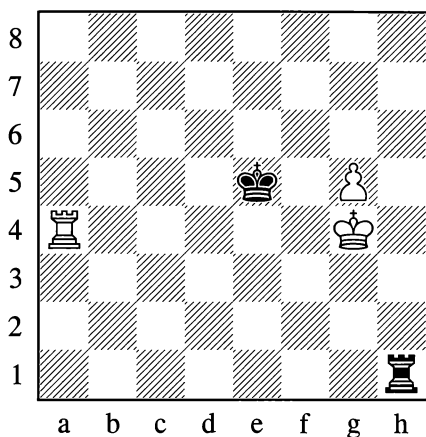
72...♖h2 73.g6

A position like this one highlights why the cut along the seventh rank is much less effective than the cut along the f-file. If White's rook stood on f4, Black's next move would be illegal.

73...♔f6

Draw. Black cannot sit and wait forever with 73...♖h1?. He missed his one chance to play ...♔e6-f6, and now after 74.♔g5! White wins again. Black's king is permanently shut out.

71.♔g4 ♚h1



After this natural continuation White is unable to bring the rook to the f4-square thanks to a check on g1. But he can win routinely by cutting the king off along a rank instead.

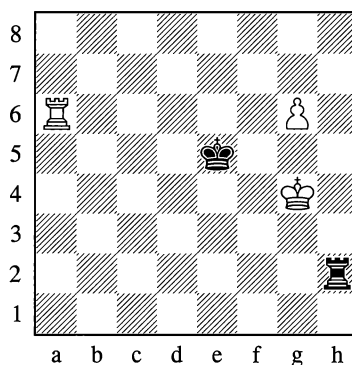
72.♚a6!

Black's king will never reach the sixth rank. When thinking about possible routes to squares on the g-file, Black's king simply has no way to reach them. White's rook forever prevents the black king from using f6 or e6, and White's king stops him from coming to f5. Black could give a check, but then White gets the king in front of the pawn, immediately winning.

Technically, cutting the king off along the f-file with 72.♚f4?? would win the game, but the rook is unstable here. Black even wins after 72...♚g1†.

72...♚g1†

After 72...♚h2 73.g6!



It is time. White's rook on a6 does a great job of stopping any hope of ...♔e5-f6, and he is ready for ♔g4-g5 next himself, and then g6-g7 to follow. He easily reaches the Lucena position. Black can resign.

73.♔h5 ♔f5 74.♚f6† ♔e5 75.♔g6

White wins easily and can even keep his rook on the f-file rather than the sixth rank if he so chooses. Either way, the result is not in question.

The difference between cutting the king off along the sixth and seventh rank is very important to note and brings us to the first rule of side cuts.

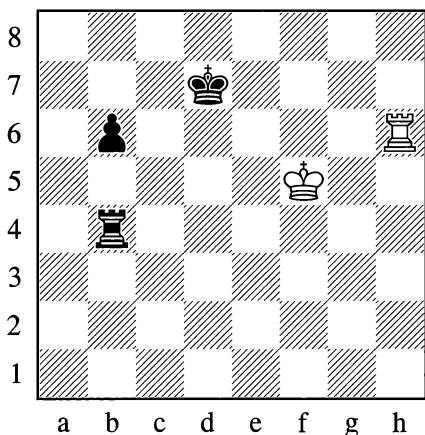
Cutting the enemy king off along a rank will be decisive if it is on the same rank as your pawn (or on the wrong side of it) and your king is directly behind your pawn.

As we saw with the white pawn on g5, when Black's king stood on e5, the position was lost once White brought his rook to a6. This is consistent as the black king was on the same rank as White's pawn, and White's king was directly behind it. But, when Black's king stood on e6, the position was drawn as it was not on the same rank as the pawn, and closer to the promotion square.

Unfortunately, chess is seldom so simple, and there is much more to it than that. Consider the following game:

Tatev Abrahamyan – Sergey Erenburg

Berkeley 2011

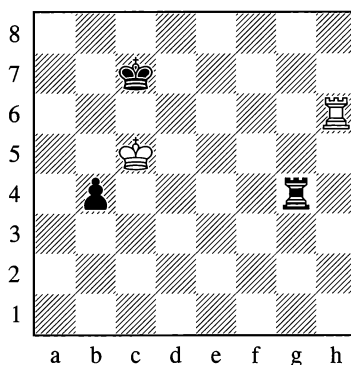


This position is a close call. In theory, Black should not be winning because he has not managed to cut White's king off on the same rank that his pawn stands on. But in fact, the position is winning because White's king is far enough away that Black will be able to get ...b6-b5 through under the right circumstances.

62...♙c7!

Every tempo is critical, and Sergey does not disappoint. The alternatives are worse:

62...b5? When considering the previous rule that the position will only be winning if the attacking side can cut the king off along the same file as the pawn, this move looks tempting. After all, White's king and Black's b-pawn are on the same rank. But let's see what happens: 63.♙e5 ♙c7 64.♙d5 ♖g4 65.♙c5 b4

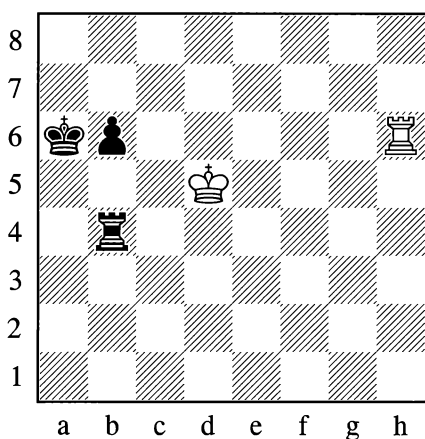


Here we see the issue. White's king is cut off along the fourth rank, but Black's king is also cut off along the sixth rank! The pawn having advanced past the b6-square denies Black the opportunity to play ...♙b7-a6. As such, even though White's king cannot do much to stop the b-pawn, Black's king cannot do much to help it promote either. 66.♖f6 b3 What else? 67.♖f2 White scoops up the pawn and draws the game.

62...♙c8? It looks a little strange to put the king on the back rank and I doubt this would ever enter the mind of a strong player as a candidate move. But it's also instructive to see why it fails. Much like the game, Black wishes to bring the king to a6. But, by doing it in this manner, he gives White an opportunity to cut Black's king off along a rank as well. 63.♖h7! The only drawing move, but quite sufficient. Black may have cut off White's king from joining the action, but without the help of his own king, this will not guarantee a full point.

63.♙e5 ♙b7! 64.♙d5 ♙a6!

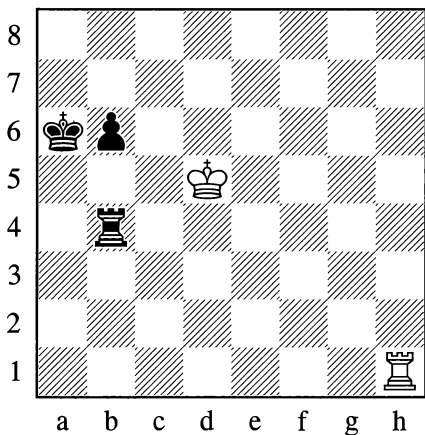
Black's point is on full display. He is ready to bring his king to a square like a5, and then ...b6-b5 will come. White's king will be cut off on the same rank as the pawn, and Black's king will not be cut off at all. This will lead to the desired outcome.



65.♖h1

The position was lost no matter how White played, but I think she should have at least tried to defend with the text move. Still, I can't believe that Sergey would have failed to beat this more resilient defense.

65.♖g6, as played in the game, is tantamount to resigning. 65...♔b5 (65...♔a5 looks more natural to me, with ...b6-b5 coming next. Of course Sergey's move does not spoil anything either.) 66.♖h6 ♔a5 67.♖h8 ♖g4 68.♖b8 b5 The success of Black's strategy is clear. Further resistance is futile. 69.♔c5 ♖c4† 70.♔d5 ♔b4 71.♖b7 ♖h4 72.♖b8 ♔a4 73.♔c5 b4 74.♖g8 ♔a3 75.♖a8† ♔b2 76.♖a4 ♔c3 0-1



Black is undoubtedly winning here. The simplest win is surely ...b6-b5, clearing the b6-square for his king, and then bringing his rook to a square like g4. This would reach an identical winning piece constellation to the Nabaty – Smirin encounter we saw previously. But let's see how things could go wrong as well.

65...♖g4?!

This does not yet spoil the win, but it does force Black to be accurate.

After 65...b5! 66.♖a1† ♔b6 White can resign. ...♖b4-g4 followed by ...b5-b4, ...♔b6-b5, etc. is coming, and it cannot be prevented. White's king is cut off on the same rank as the enemy pawn.

66.♖a1† ♔b7?

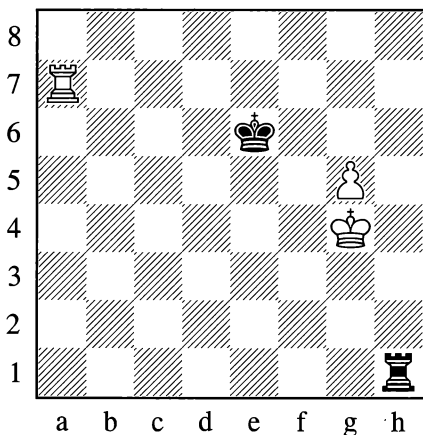
Winning was 66...♔b5! 67.♖a2 Now, the only way for Black to make any further progress is to bring the rook to a4 to clear the a5-square for his king. This does win routinely, but it is the only way. 67...♖a4! 68.♖b2† ♔a5 Black's king is safe, he gets ...b6-b5 next, and wins.

67.♖a2

White sits and waits. Black has no way to get ...b6-b5 through, and since White's king is not cut off on the same rank as Black's pawn, the position is a draw.

This game could be easily explained by simply saying that while White's king was not cut off on the same rank as the enemy pawn, she could not stop the pawn from advancing to the same rank. But there is an additional important point that has to be specifically addressed. This can be seen in the form of our next rule.

The only drawing set-up with a king cut off along a rank is to have the pawn a knight's move away from the king, and the defending rook cutting off the enemy king along the file on the other side of the defending king, and behind the attacking pawn.

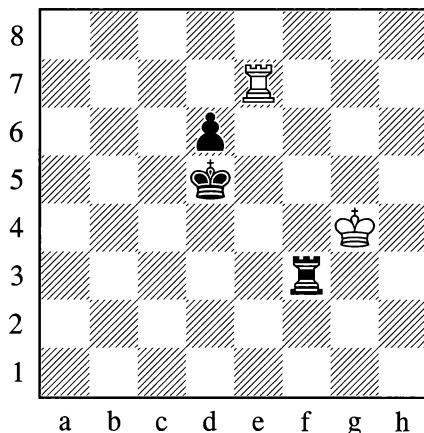


This defensive plan would have worked wonders (had it been allowed to appear on the board) in both the Nabaty – Smirin and Abrahamyan – Erenburg games. But it is also important to stress again that even after the suboptimal 65...♙g4?!, Erenburg would still have won following 66.♞a1† ♔b5!.

It might be tempting to think that Black will always win if he can cut off the enemy king along a rank and get his own king in front of his pawn, but this is not the case. Consider the following example:

Andrey Stukopin – Lázaro Bruzon Batista

Burlingame 2019



We already saw on page 47 that Black wins with the accurate move ...♞f3-f1!, making sure that White will not have sufficient checking distance to set up a successful frontal defense. But let's see what happens if Black brings the rook to the side instead.

54...♞a3?

White's king is cut off along the fourth rank. So, in order to win the game, Black must be able to stabilize the position with his pawn on the fourth rank as well. This turns out to be impossible against best defense. White has some very difficult moves to find, but when armed with the knowledge that his main goal is to force Black into a set-up with king on d6 and pawn on d5 against a rook on the c-file, he should be able to hold the game.

55.♔f4

First things first. White gets his king closer to the center.

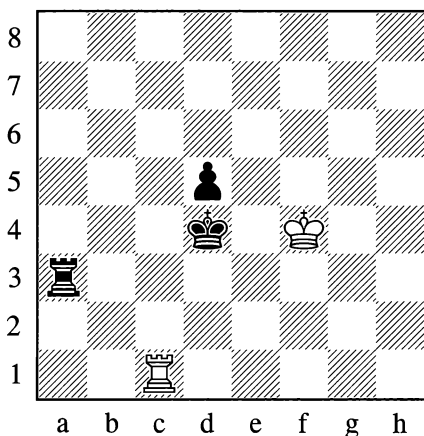
55...♔d4 56.♞e1! d5

Now, White must prevent Black from getting ...d5-d4 through, as then his king would be cut off on the same rank as the enemy pawn. There is only one way.

57.♞c1!

Black is prevented from playing ...♔d4-c4.

After 57.♞d1†? ♔c4 Black is ready for ...d5-d4 next, and White can resign.



Funnily enough, this position is a reciprocal zugzwang.

57...♞b3

It looks like White should lose. He must make a move, and if his rook leaves the c-file, ...♔d4-c4 will come. If the rook stays on the c-file, ...♔d4-d3 will come without the fear of ♞c1-d1†. But we will see another way White can defend, taking advantage of Black's pawn being in the center of the board.

57...♞c3, trying to force the king to the c4-square, would not help either. Once more, White will be able to question its stability. 58.♞a1! ♔c4 59.♞a4†! is equal, with a similar position to the main line.

58.♞a1!

It transpires that Black still cannot safely place his king on c4.

Going the other way with 58.♞h1? will not work. After 58...♔c4 White cannot comfortably

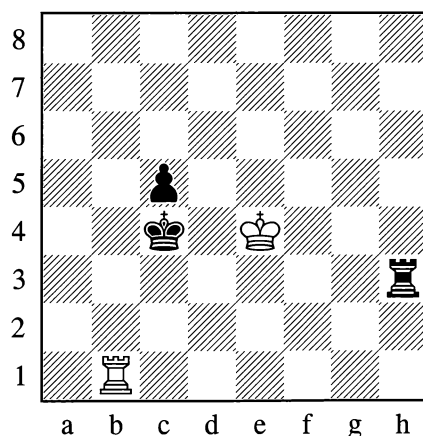
check the king, Black will get ...d5-d4 through. 59.♞c1† ♞c3 ...d5-d4 comes next. Time to resign.

58...♔c4 59.♞a4†! ♔d3 60.♔e5!

White saves the game.

½–½

The position looked similar to the Abrahamyan – Erenburg encounter, but there was one clear difference. Black's pawn had moved from the b-file to the d-file, which allowed White sufficient checking distance to destabilize the king. This can be best summarized by comparing the following two positions:

Example 1

Here, we see the same position as the Stukopin – Bruzon Batista game, only the pieces have been shifted one file to the left. This is a decisive change in Black's favor.

57...♞g3

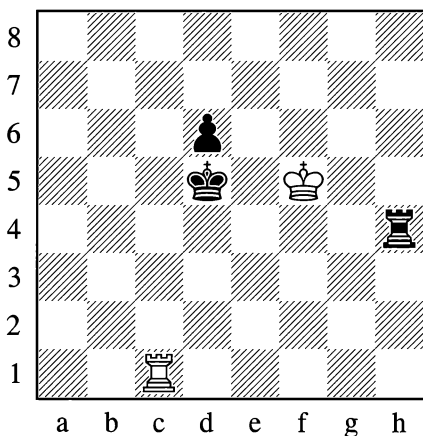
White is in a deadly zugzwang. The point is that he does not have enough checking distance and would have to bring his rook to a file that precedes the a-file off the left side of the board in order to save the game.

58.♖a1 ♔b4

There is no check to be had, and it is time to resign.

This brings us to the final rule involving side cuts.

Example 2



Here we see the same position that could have arisen in the Abrahamyan – Erenburg game, but with the key difference that the pawn has been shifted two files to the right, making it much closer to the center. As such, White will save the game. White will be able to prevent the advance of the pawn by using lateral checks.

66...♖c4 67.♖a1!

The only drawing move. White makes sure that Black's king will not be stable on c5 for long enough to push ...d6-d5 through.

If the attacking side has a rook or knight pawn, they win if they can cut off the enemy king and then either have their pawn on the same rank as the king or have their own king in front of the pawn. If they have a central pawn, only getting the pawn to the same rank as the enemy king guarantees victory due to the presence of lateral checks.

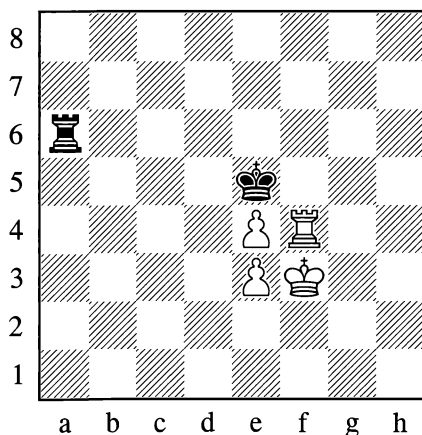
I have found side cuts to be relatively rare in tournament practice, but still very important to know. Once you know the basic idea that the attacking side needs to cut the enemy king off while it is on the same file as the pawn, the rest comes naturally and can probably be worked out over the board.

Chapter 6

Lone Doubled Pawns

Two pawns against zero tends to win in rook endgames, but there are some notable exceptions. The most obvious is the case of doubled pawns. For example, the following position is a clear draw.

Example 1 – Pawns on e4 and e3



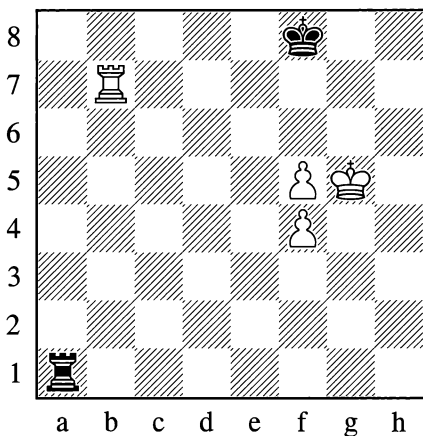
White's additional pawn on e3 doesn't help him in the slightest. Black has set up a blockade, and he can block two pawns on the same file just as easily as he can block one.

1.♖f5† ♔e6 2.♔f4 ♜a1

White's king has nowhere to hide. It's a dead draw.

Fair enough, but this was a case where Black easily managed to set up a Philidor defense on the very first move, and when the pawns were still not far down the board. Unfortunately for the defending side, things get a lot worse when the pawns are further advanced and the Philidor defense is harder to come by.

Example 2 – Pawns on f5 and f4



White's f4-pawn will obviously not become a queen if the f5-pawn does not promote first, and if the f5-pawn promotes, the game is already decided in White's favor. But the rear pawn can serve as a shield for White's king, which means Black must defend a bit more accurately than he would otherwise have to.

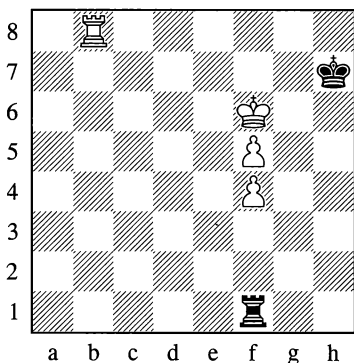
1...♖a6!

A mistake is:

1...♔g8?

If White's f4-pawn were not on the board, this move would not be the easiest route to a half point, but would still be sufficient, as we saw in the long and short side defense on page 29. As is, the extra pawn on f4 will provide White's king and the further advanced f-pawn with the shelter they need.

2.♔g6 ♖g1† 3.♔f6 ♖f1 4.♖b8† ♔h7



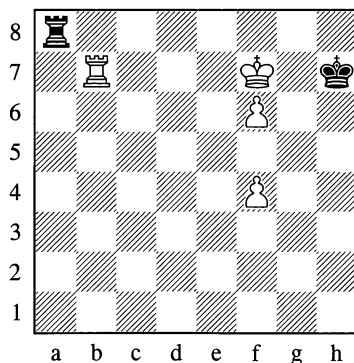
If White's pawn on f4 were removed from the board, his king would not be able to move to f7 or e7 without losing his last pawn, and ♔f6-e6 would allow ...♔h7-g7. So, he would need to play a move like ♖b8-f8 to overprotect the remaining f-pawn and prepare for ♔f6-e7. Then Black would save the game with ...♖f1-a1 and giving lateral checks. Now, White can freely advance his king to the seventh rank without having to bother about bringing his rook to f8 first.

5.♔f7!

Here we see the point. Black cannot take on f5, and the f4-pawn slows him down just enough for White to win the game.

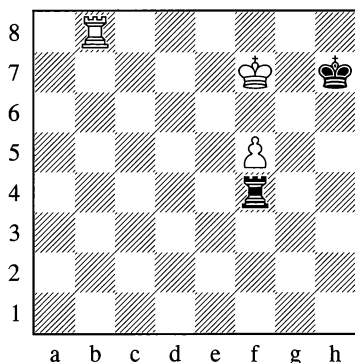
5...♖xf4

Transferring the rook to check from the side also doesn't help: 5...♖a1 6.♖b7 White is free to use his rook to secure the king on the seventh rank as it did not have to come to f8 first to help the king move. 6...♖a2 (6...♖f1 7.f6 ♖xf4 8.♔e8† White is ready for f6-f7 next, and his rook can block any check on e4 by sliding to e7. Time for Black to resign.) 7.f6 ♖a8



Normally, even this position would be a draw if White did not have the f4-pawn. Now, White has a very instructive winning plan, highlighting its usefulness. 8.♔e7 ♔g6 9.f7 ♔g7 Without the f4-pawn, White would be unable to break through here, as the rook cannot leave the seventh rank

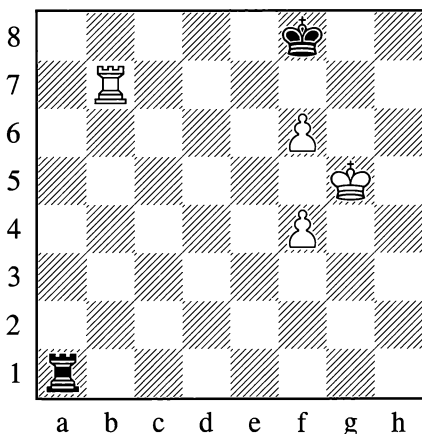
without allowing a check. But with the f4-pawn, the king can be booted off g7. 10.f5 and f5-f6† is coming, winning.



6.f6

White will reach the Lucena position, and win.

2.f6 ♖a1



Black has successfully implemented the Philidor defense, and White has nothing left to try. The pawn on f4 provides the king with a safe square on f5, but it is not useful as Black's king cannot be booted off the f-file. The game is drawn.

3.♔g6 ♜g1† 4.♔f5 ♜f1

The fact that this move is not check is entirely irrelevant. Time to shake hands.

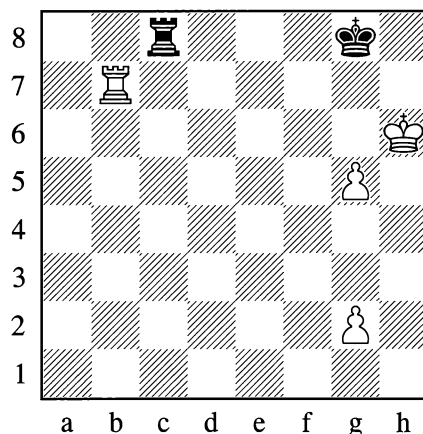
As we can see, Black could only save the game by setting up a Philidor defense, but checking from the rear lost routinely. This brings us to the first rule dealing with two doubled pawns against zero, and a rather simple one to understand.

The long and short side defense fails against doubled pawns.

This should be easy to see and is important to know and memorize. Just the knowledge is good enough, because I think the moves needed to win the game with the two pawns are very straightforward and can be worked out over the board.

Let's move on to another important exception.

Example 3 – Pawns on g5 and g2

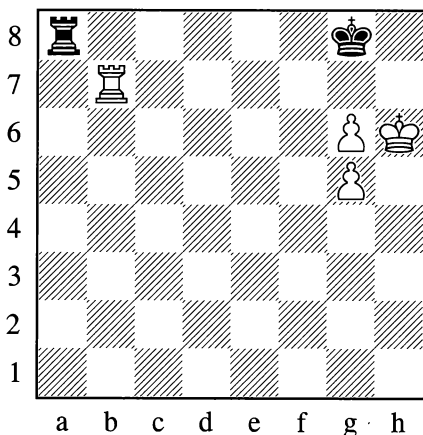


We have already discussed the passive defense on page 26. White would be routinely winning even without the second pawn if the whole position was shifted one file to the left, but a lone g-pawn proves insufficient for victory. In this case, however, the second g-pawn proves to be a decisive factor.

1.g6

Due to the constant threat of ♖b7-b8, Black's rook must always remain on the back rank, but the second pawn means that White has a very convincing winning plan.

1...♖a8 2.g4 ♜c8 3.g5 ♖a8

**4.♖b6!**

Here we see the crux of White's plan. He has placed his rook on the sixth rank to block all the checks, and then he will advance g6-g7. Without a second g-pawn, he would not be able to make any further progress, but now he can simply transfer his rook to f6 and then f8 to force a routinely winning pawn endgame.

It would be a serious error to push the pawn too soon: 4.g7? Now Black can give some checks on the sixth rank. After 4...♖a6† 5.g6 ♜xg6†! Black saves the game with a clever stalemate trick.

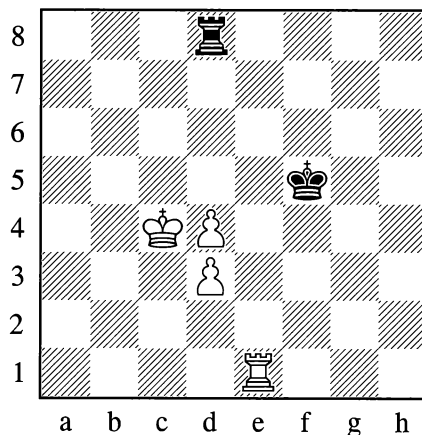
4...♖c8 5.g7 ♜e8 6.♖f6

Black can resign.

Again, this leads us to an equally simple rule.

Passive defense against g-pawns fails against doubled pawns.

Let's see yet another case of a key defensive set-up failing to doubled pawns.

Example 4 – Pawns on d4 and d3

Black has set up a healthy-looking frontal defense, and since it is his move, White's pawn will not be allowed to advance to d5. But it turns out that he is lost anyway as the d3-pawn will prove to be extremely helpful.

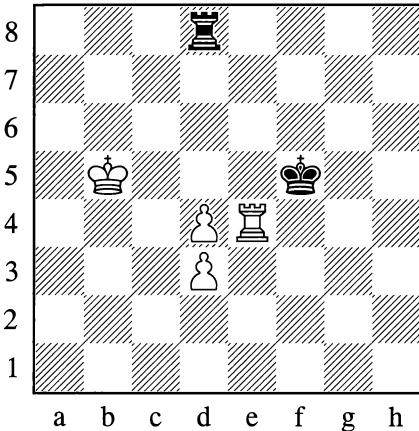
1...♖c8† 2.♔b5 ♜d8

Black plays in a similar fashion to the normal frontal defense, and we now see the key difference.

3.♖e4!

White defends his d4-pawn, and his king will easily run Black's rook out of squares in just a couple moves. The big point is that White can safely and securely keep his rook on e4, thanks to the pawn on d3. We have already seen on page 48 that the rook on e4 guarantees victory for White if Black's king is far away, and that Black needs to bring the king to the center ranks to make sure the rook cannot securely remain on such a square. As is, the black king is already on an ideal square, and it

doesn't matter in the slightest because the rook on e4 is secure.



3...♙f6 4.♙c6

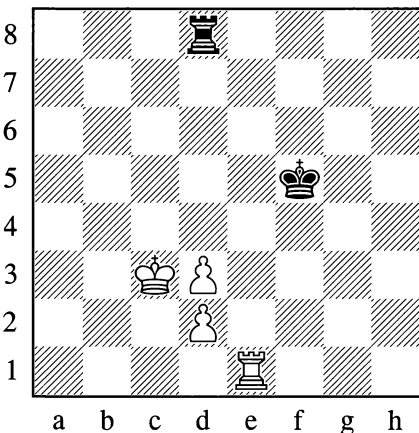
Now d4-d5 is a threat.

4...♞c8† 5.♙d7 ♞c3 6.d5

Game over. The Lucena position is coming.

Clearly, the frontal defense also saw a change to its evaluation by the presence of a second pawn. I wish I could be simplistic and say that it always fails, but unfortunately, this is not the case.

Example 5 – Pawns on d3 and d2



I must confess, I have never actually seen this endgame in practice. It's hard to imagine the way a game could end up with two doubled pawns on the second and third rank being the only ones remaining on the board. Still, it should be noted that here Black is saving the game because he has yet another square in between his rook and White's further advanced d-pawn.

1...♞c8†!

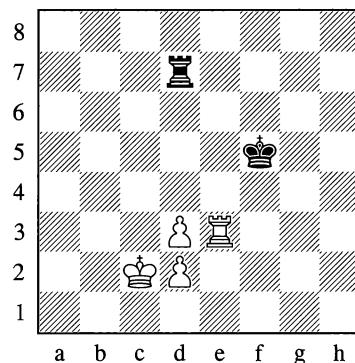
Otherwise White would get to play d3-d4, reaching a winning position as previously seen on page 106.

2.♙b3 ♞b8† 3.♙c2 ♞c8† 4.♙d1 ♞d8 5.♞e3

Now, since White's rook cannot be harassed if it sits on a square like e3, Black's king is rather useless in the center. Conversely, Black's rook is best placed on the eighth rank. So, he should use his king to mark time.

5...♙f6

5...♞d7?! does not lose the game just yet, but it is a step in the wrong direction. Black needs four empty squares between his rook and White's d-pawn to save the game. After 6.♙c2

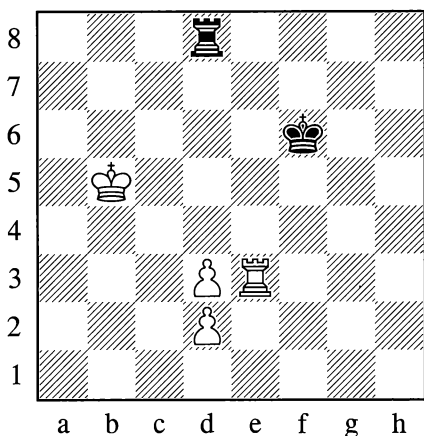


6...♞d8! would still save the game.

But 6...♞c7† loses, as now the rook only has three empty squares between itself and the d-pawn. 7.♙b3 ♞d7 8.♙c3 ♞c7† 9.♙b4 ♞d7 10.♙c5 We have seen this story before,

in the doubled pawns example just moments ago as well as in the frontal defense section on page 44. The rook will run out of squares, and d3-d4 is coming. 10...♖c7† 11.♕d6 Black would need to play ...♖c7-d8† here to save the game, and the rook does not have enough checking distance. White will get d3-d4 through, and he wins.

6.♖c2 ♖c8† 7.♖b3 ♖b8† 8.♖c3 ♖c8†
9.♖b4 ♖b8† 10.♖c5 ♖c8† 11.♖b5 ♖d8



Here we see the point. Since Black has four empty squares between his rook and the pawn, White's king coming to c6 will not be a problem since it does not threaten to advance the pawn. Instead, he must use the c5-square, and then Black will have the necessary checking distance to prevent d3-d4.

12.♖c5

12.♖c6 ♖f7! and White has nothing better than ♖c6-c5 anyway.

12...♖c8† 13.♖d6

Finally, we see here that because Black kept his rook on the back rank, he has enough checking distance to save the game with:

13...♖d8†!

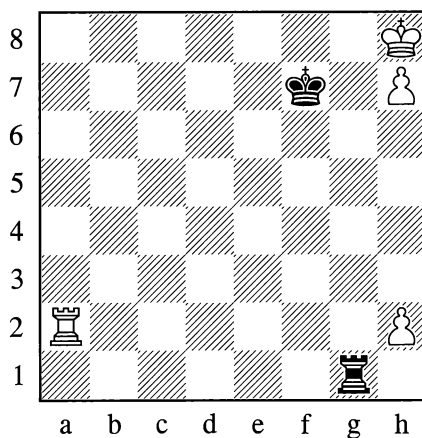
A draw can be agreed.

A frontal defense against doubled pawns on the second and third ranks is theoretically possible and deserves its own rule.

The frontal defense only works against doubled pawns with the maximum possible checking distance of four squares between the rook and the further advanced pawn. The pawn must stand on the third rank and the rook must stand on the last rank for it to hold.

Even when looking at rook pawns, an extra doubled pawn can still be very powerful. For instance, the Lucena position with a single rook pawn fails unless the opposing king is seriously misplaced, as we saw on page 19. But a second pawn can change this evaluation.

Example 6 – Pawns on h7 and h2



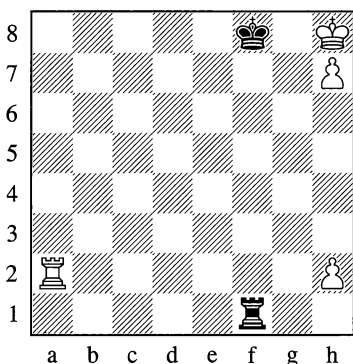
Previously, we saw a position like this one on page 17. White needed to have Black's king cut off all the way on the c-file to have any hope of winning. But the presence of a second h-pawn means that even if Black's king is as close to the pawn as possible, White can still win the game. This is because he does not need to move his rook all the way down to g8 in order to contest the g-file and free his king.

1.♖f2†!

White forces the king off the f-file. That is step one.

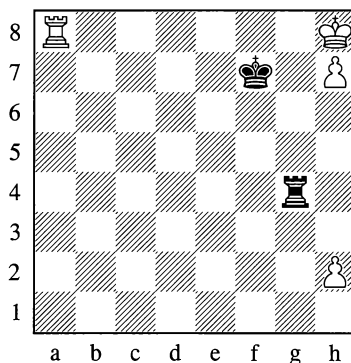
The alternatives do not win:

1.♖a7†? Black's rook is unable to keep White's king cut off, but if his king is secure on the f-file, it will be a draw. Now, Black will be able to keep the king on the f7- and f8-squares for the rest of the game by transferring his rook to f1. 1...♜f8 2.♖a2 It's too late for this. 2...♜f1!



The position is drawn. White's king will never escape as he cannot kick Black's king off the f-file.

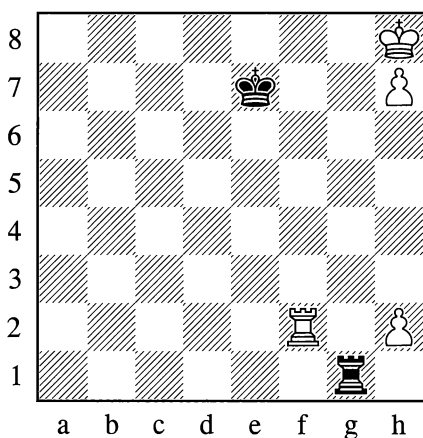
1.♖a8? Normally, White would have to do something like this to contest the g-file. The problem is, both Black's king and his rook are controlling both g7 and g8. So White bringing the rook to g8 does not guarantee victory. 1...♜g4 (1...♜f1 is the easiest drawing move, the same as against 1.♖a7?, but I am keeping ...♜g1-g4 as my main line to illustrate a point.)



2.♜f8†?? If White could play this move without fearing the loss of his rook, he would win the game by forcing Black's king off the f-file and then moving the rook to g8 to kick the rook away as well. But ♖a8-f8† contains the obvious problem that it is not safe and Black can take it. 2...♜e7?? Of course Black should take the rook, but let's see how he loses if his king steps aside instead. 3.♜g8! ♜h4 Now Black's king and rook have both been pushed away, and White's king escapes via the g7-square. 4.♜g7 ♜g4† 5.♜h6 ♜h4† 6.♜g6 ♜g4† 7.♜f5 Game over.

1...♜e7

Black's king no longer controls g7 and g8. That's easy enough and could certainly be accomplished without the h2-pawn. But, with it still on the board, now White is also able to push Black's rook off the g-file without having to resort to the very slow maneuver of ♜f2-a2-a8-g8, which would allow Black's king back to f7.



2.♖f3!

♖g3 is coming, and Black is done for. Thanks to the second pawn giving access to g3, White is able to first give a check on the f-file, and then immediately transfer his rook to the g-file without letting Black's king return to f7 first. We saw the attempt to pull this off in the previous line with 2.♖f8†, which obviously did not work because the rook had to go to a hanging square.

It is important not to push the pawn too far:

2.h4?!

White needs to be able to transfer the rook to the g-file. One way he can do that is ♖f2-f8-g8, but this is impossible as Black's king has the f8-square under control. The other way is to transfer the rook to a square defended by the second h-pawn. This is still possible as Black's king's reach is not wide enough to control both the f8- and f5-squares, but the h4-pawn has reached its limit.

2...♖g3

Black can bring his king forward to stop ♖f5-g5 with 2...♔e6, but this allows White to use the back rank instead. 3.♖f8 and ♖f8-g8 is on the way, with similar play to page 19, winning.

3.h5?

Now the position is a draw. White has two ways to contest the g-file without leaving the f-file first, namely ♖f2-f8-g8 and ♖f2-f6-g6. Black's king can comfortably sit on e7 and stop both of these plans.

After 3.♖f5 White wins by transferring the rook to g5.

3...♖g1

White can't get his rook to the g-file and it is a draw.

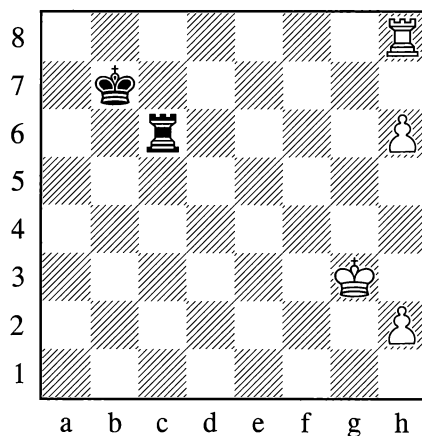
This is another very rare case, and I can't remember ever coming across it. But it feels a lot more feasible than a frontal defense against pawns on the second and third rank. Upon examination of the previous position, the next rule is obvious enough.

The Lucena position with two h-pawns is winning if the attacking side can get his rook to the f-file and his second h-pawn has not advanced past h4.

Of course, this applies in the mirrored scenario as well, only replacing every instance of "h" with "a", and "f" with "c".

Moving on, even the Vancura defense breaks when the attacking side has a second pawn on the h-file.

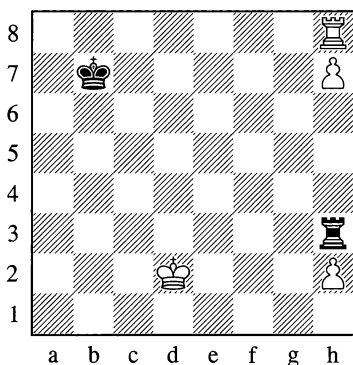
Example 7 – Pawns on h6 and h2



It is somewhat surprising that an extra doubled pawn is decisive even against the Vancura defense, but in fact it is extremely simple.

1.h4!

1.h7? is the right idea, but the wrong time. White needs to push the rear pawn to h4 first. 1...♖c3† 2.♔g4 ♜c4† 3.♔f3 ♜c3† White is unable to escape the checks in a profitable manner. The problem is that walking back towards the first and second rank does not help. 4.♔f4 ♜c4† 5.♔e3 ♜c3† 6.♔d2 ♜h3



This position perfectly highlights why the pawn needed to stand on h4.

1...♔a7 2.h7!

Now there is nothing for Black to try.

2...♜c3†

2...♜h6 3.♔g4 and White will easily kick the rook off the h-file with ♔g4-g5 next. The h4-pawn prevents Black's rook from reaching a square like h1.

3.♔f2

The pawn on h4 is much more effective than it was on h2. Black loses immediately as he cannot prevent the pawn from promoting.

It is impossible to definitively exhaust every single possibility, but the more positions

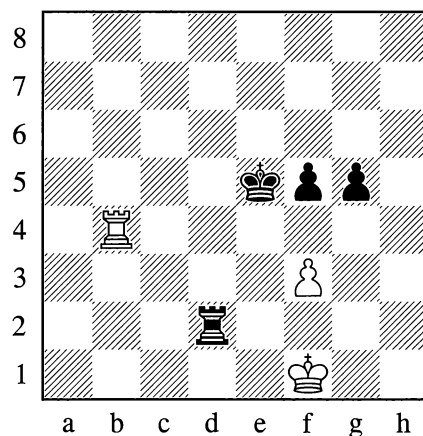
I check, the more I believe the following guideline should be followed.

The only reliable drawing set-up against two lone doubled pawns in a rook endgame is the Philidor defense. There are a couple of exceptions in the frontal defense still succeeding provided there is yet another rank of checking distance in addition to what was already required, or a Lucena position with h-pawns still being a draw if the second pawn has advanced too far. But these are very rare cases.

Rook endgames with lone doubled pawns are relatively rare, but they do happen. For example, this game was played after I wrote the rest of the chapter:

Sahil Sinha – Gregory Kaidanov

Charlotte 2021



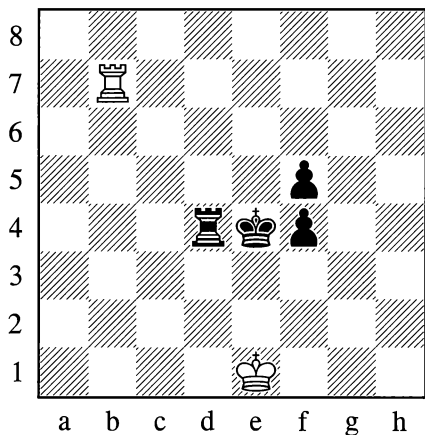
White has a relatively simple version of a 2 vs 1, and should be making an easy draw. Advancing f3-f4† was not the decisive error, but it was still a bad idea if he did not know exactly which circumstances would allow him to hold against doubled pawns. As mentioned before, the only reliable way is the Philidor defense.

85.f4+?!

This strikes me as asking for trouble.

I would rather wait with 85.♖a4. As we will see later on in the 2 vs 1 on the same side section, White should be making an easy draw. His pawn did not get fixed on the second rank, and it did not get separated from his king either. 85...♗d4 This is probably what Sinha was worried about, as now Black's king gets to f4, but it's no major concern. Anything holds, but I think the most convincing by far is to secure the second rank. 86.♖a2 ♔f4 87.♔f2 White shuffles ♖a2-b2-a2, and will give a check whenever Black's rook leaves the fourth rank. Game drawn.

85...gxf4 86.♔e1 ♗d4 87.♖b7 ♔e4



White should be careful here. The Philidor defense is the only reliable drawing method, and we are not in time to set it up yet. If Black's king safely reaches f3, he will win.

88.♖b3?

Correct is 88.♔e2! White has other holding moves, but this would be my choice. Black could advance ...f4-f3, but this only does our dirty work for us – the whole point of the Philidor Defense is to compel this move. 88...♖a4 89.♖b3 White has set up a Philidor. 89...♖a2+ 90.♔e1 No further progress can be made.

88...♗d3!

Just like that, it's all over. White is unable to set up a Philidor, and Black's king reaches f3.

**89.♖b7 ♔f3 90.♖h7 ♔g2 91.♖g7+ ♖g3
92.♖f7 ♖e3+ 93.♔d2 ♖e5 94.♖g7+ ♔f2
95.♔d3 f3 96.♔d4 ♖e4+ 97.♔d3 ♔f1
98.♖f7 ♖e5 99.♔d4 ♖e1 100.♖xf5 f2
101.♖f7 ♔e2 102.♖e7+ ♔d2**

0-1

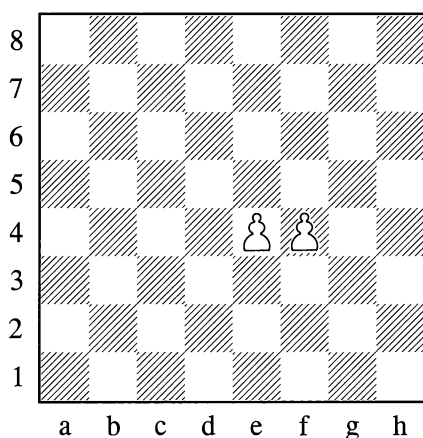
Lone doubled pawns do not occur often in rook endgames, but luckily a little knowledge goes a long way. Once you know that the only reliable drawing setup is the Philidor defense, everything else can be worked out at the board.

Chapter 7

Lone Connected Pawns

One of the most tedious kinds of rook endgames is that of connected passed pawns that are firmly blockaded by the defending king. Consider the following position:

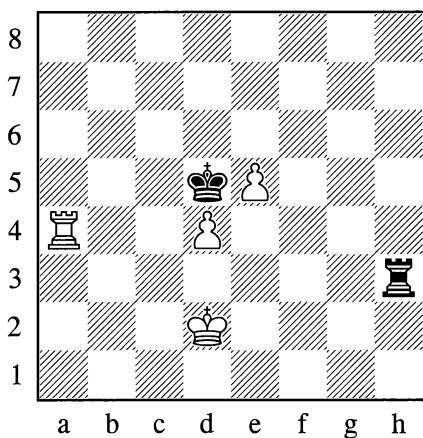
Side by Side Wins



Generally speaking, two lone connected passed pawns should win most endgames, rook endings included. But there are some exceptions, particularly if the pawns can become blockaded. If the pawns are ever safe side by side, it is always winning. But this is not always the case.

Assuming White's pawns are not immediately falling or forced to move, he should win wherever the two kings and rooks are placed on the board. Black has no real hope of ever blockading them with his king. But the situation can change rapidly if the attacking sides pawns are not side by side.

Passive Attacking King and Rook



This position is a relatively simple draw. White's king is cut off and he does not have any way to free his rook from defending the d4-pawn. For example, the best try I could come up with is rather meager.

1.♔c2

As we will see, attempting to transfer the rook in front of the pawns is a serious idea: 1.♖a7 But this involves the loss of the d4-pawn. White's pawns are not far enough advanced to allow this to happen. 1...♕xd4! 2.e6 Black cannot prevent the pawn from reaching e7, but it does not promote there. It needs to reach e8, and it will not. 2...♕e5 3.e7 ♖h8 Black draws easily with ...♖h8-e8 and ...♕e5-e6. The pawn will be captured.

1...♖g3 2.♖b4 ♖h3

It would be a grave mistake to ever touch the king, who sat perfectly on d5. After 2...♕e6? White has several winning moves. The simplest is 3.♖b6† ♕d5 4.♖d6†, reaching a winning constellation that will be discussed in further detail on page 115.

3.♖b3

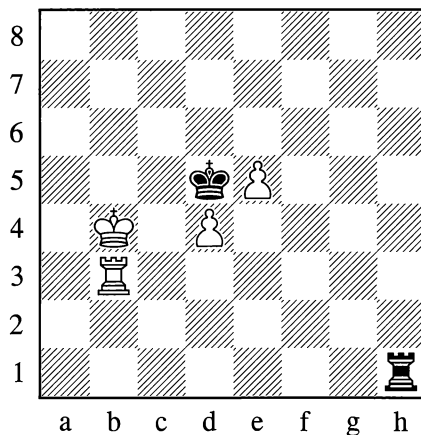
For a moment, it seems like White is making progress, as now his king will be able to join the action. But the pawns are too vulnerable.

3...♖h2† 4.♕c3

Now, if Black were to fall asleep and play any move other than ...♖h2-h3†, White would follow up with ♖b3-b5†, breaking the blockade and winning the game.

4...♖h3† 5.♕b4 ♖h1

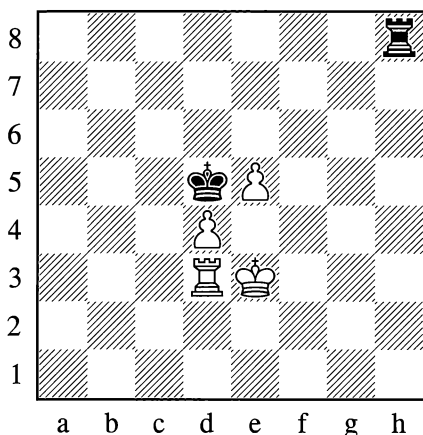
White now has the option to reroute his rook to the d3-square. This defends the d4-pawn from behind as opposed to from the side, but this won't help him.



6.♖d3 ♖h8

It's plain to the naked eye that White will never be able to free his rook and set his pawns in motion. He would have to maneuver his king around to e3 and then hope to play ♖d3-c3-c5†. But Black can easily stop this plan by giving a check once the king lands on the e3-square.

7.♕c3 ♖c8† 8.♕d2 ♖h8 9.♕e3



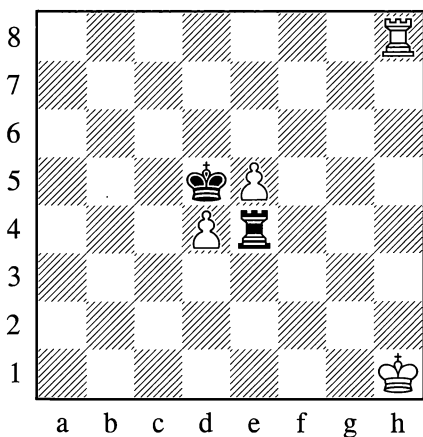
9...♞h3†!

White's king lacks any semblance of stability. The game is drawn.

Black's king wedged between the pawns was easily enough to save the game. White's own king was cut off, his rook was rendered passive, and the pawns were not mobile.

But it must be noted that White found himself in a poor version of such a position due to his passively placed king and rook. Consider the following one instead:

Active Attacking Rook



I did my best to set up the worst possible version White could get, but the placement of his own king is hardly relevant. It will take some time to join the action, but White will win all the same with his active rook.

1.♞d8†!

Black's king is forced to separate from White's pawns, and the blockade will not last.

1...♔e6

Black's most resilient defensive option is to put the king in front of the pawns, but it will not work.

Trying to stay in touch with the pawns with 1...♕c4 does not help. White can certainly run his king up the board, but in fact, now the pawns can even promote without the king's help. 2.♞d6 The plan is very simple. e5-e6, then d4-d5, and ♞d1-d7. Black can do nothing to stop this from happening, at which point White's rook and both pawns will all have advanced one square. Rinse and repeat, and after two more iterations, a new queen will show up.

2.♞d6† ♔e7

White's rook, and his pawns, are stuck in place for the moment, but it is time for the king to join the action.

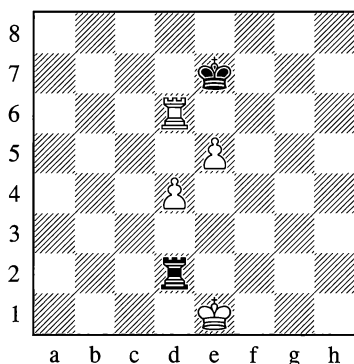
3.♔g2

It is useful to consider what happens after:

3.♔g1

Of course, it is much more natural to bring the king to g2. But even if White rather lazily lets his king get stuck on the back rank, he still wins routinely.

3...♞e2 4.♔f1 ♞d2 5.♔e1



Now, if Black's rook leaves the d-file, d4-d5 will come.

5...♖h2

5...♖d3 6.♔e2 transposes to the main line.

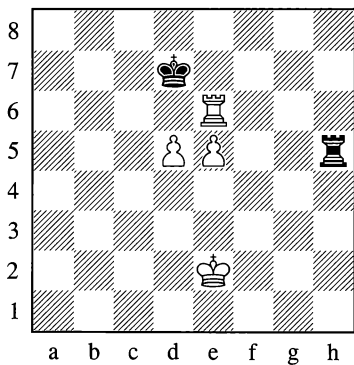
6.d5

White is ready for ♖d6-a6 next, finding a better square for his rook and preparing a check on the seventh rank to send the pawns through. The only way Black can prevent this from happening is to use his rook to attack White's pawns, for example, by playing:

6...♖h5

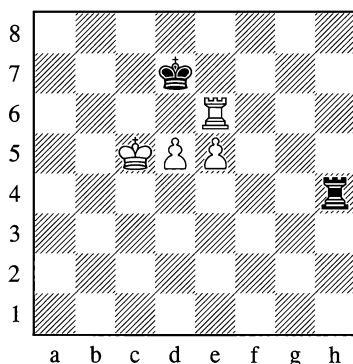
But then comes:

7.♖e6† ♔d7 8.♔e2



White's king is free. Soon enough he will come around to c5 to bring the game to its conclusion.

8...♖g5 9.♔d3 ♖h5 10.♔d4 ♖h4† 11.♔c5



11...♖e4

11...♖h1 12.♖a6 and Black can resign.

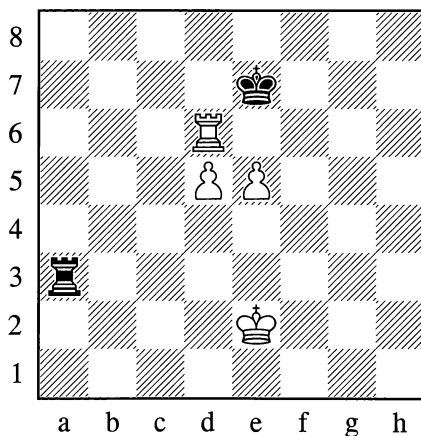
12.♖d6†! ♔e7 13.e6!

White gets the rook to d7 next. Game over.

3...♖e3 4.♔f2 ♖d3 5.♔e2

Black's rook is pushed away from the d4-pawn.

5...♖a3 6.d5



6...♖a5

Otherwise White was ready for ♖d6-h6.

7.♔e3 ♖b5 8.♔e4 ♖b4† 9.♔f5 ♖d4 10.♖e6† ♔d7 11.d6

White wins. We have seen this before.

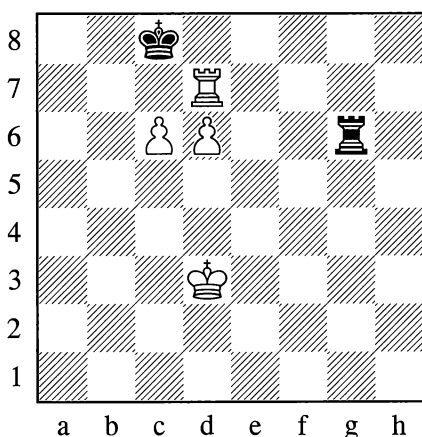
This difference brings us to the first rule.

The attacking side should be able to break the blockade on his two connected passed pawns if his rook can safely get in front of them.

Let's see a real game example of this rule in action.

Marc Arnold – Robert Hess

Philadelphia 2012

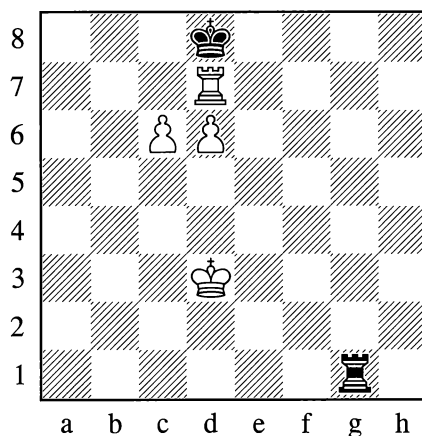


To see the final touches of a position with the rook in front in action, we can turn to a game played many years back between two childhood friends of mine. We'll see some of the earlier moves later, on, but for now let's see how Marc finished the game.

72...♞g1

White's rook is awkwardly placed in front of his own pawns, but the king will soon join the defense of the pawns. Black's problem is that his rook can either try to cut off White's king, for instance along the fourth rank, or try to keep the white rook passive by harassing the pawns. But not both.

73.♞c7† ♔d8 74.♞d7†

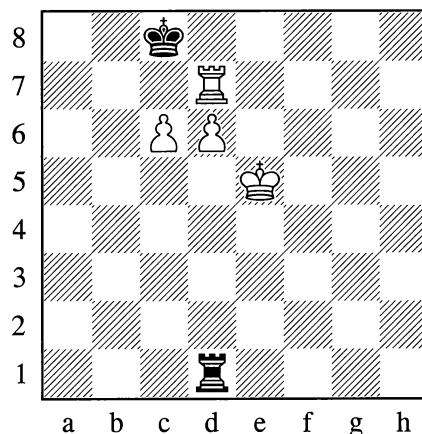


74...♔c8

Worse is 74...♔e8?, as bringing the king the other way would immediately allow the blockade to be broken. Here, it would only hasten the defeat as Black is lost anyway, but we will see in a later example that keeping the king directly in front of the pawns is the best defensive set-up. 75.♞e7† ♔f8 76.c7 The pawns go through.

75.♔d4 ♞d1† 76.♔e5

It may look like the king has nowhere to hide, but he makes a beeline for e8. From there, Black will not be able to continue checking as White will interpose on e7.

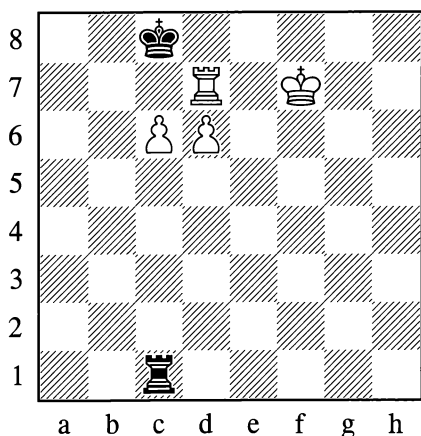


76...♞e1† 77.♔d5 ♞d1† 78.♔e6 ♞e1†

79.♔f7 ♖c1!

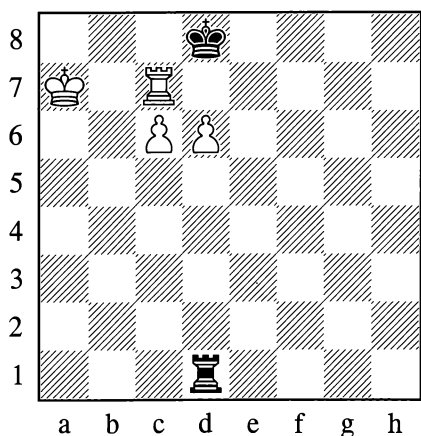
The most resilient defense, but still insufficient.

After 79...♞f1† 80.♔e8 White is ready to block on e7. The game is over.

**80.♞c7†**

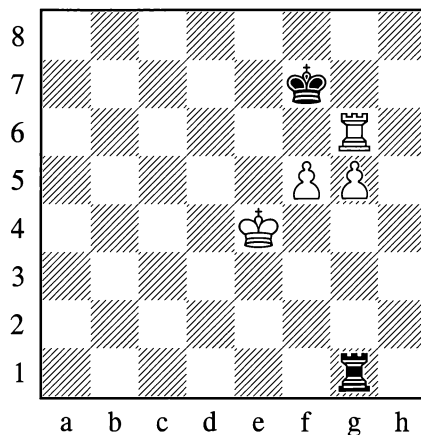
There was nothing wrong with immediately transferring the rook to the side with 80.♞a7, but for whatever reason, Marc decided that he wanted his king on the queenside instead. It took him a little longer to win, but the result was never in doubt. 80...♞xc6 81.♔e7 ♔b8 82.♞a1 White will easily reach the Lucena position.

**80...♔d8 81.♔e6 ♞e1† 82.♔d5 ♞d1†
83.♔c5 ♞c1† 84.♔b6 ♞b1† 85.♔a7 ♞d1**

**86.♞h7! ♞xd6 87.♔b7**

The c-pawn goes through, and Robert resigned.

1-0

f- and g-pawns

Black is making a draw here. The reason is that the only way for him to get his rook off g6 is to bring his king to the h7-square. This is analogous to the way Marc won against Robert in the previous game. But, here we see that Black makes a draw because the board ends.

1.♔f4 ♞f1† 2.♔g4 ♞g1† 3.♔h5 ♞h1†!

White's winning maneuver here would be ♔h5-i6-h7. Since he does not have access to the i-file, he will not win the game.

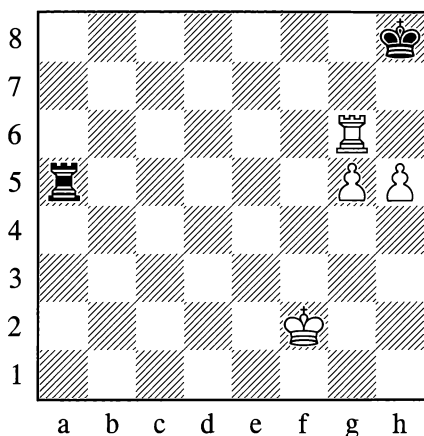
This brings us to an important rule.

Connected pawns side by side with a rook directly in front of one of them, playing against a well-placed enemy king and rook, will only win if at least one of the two pawns is on a central file.

Simple enough, but most of the time, the attacking side will not find themselves in such an unfortunate situation. They should be able to see it coming, and make sure to construct a triangle constellation instead (see page 172, but without the black pawn).

Even once a triangle constellation is reached, there are some exceptions to know in the case of pawns on the edge of the board.

g- and h-pawns 1

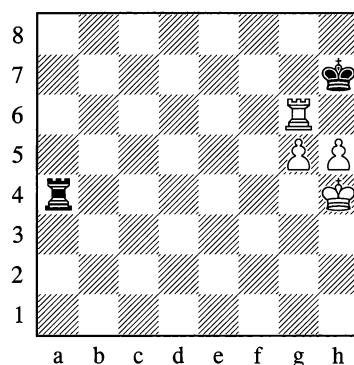


This position is going to be a draw. The reason is that White's rook cannot remain in front of the pawns without stalemating the black king.

1.h6

This move is necessary to provide White's king with the h5-square. Otherwise, it would have nowhere safe to go to hide from lateral checks.

If 1.♔f3 ♔h7 White's rook is now forever stuck defending the g5-pawn and cannot get out of the way. His issue is that the winning plan should be to bring the king to i5. This would prepare ♖g6-h6† because he could then meet ...♔h7-g7 with g5-g6, while protecting the rook. But since i5 does not exist, White has nothing left to try. 2.♔g4 ♞a4† 3.♔g3 ♞a5 4.♔h4 ♞a4†



White needs to be able to play ♔h4-i5 to win this position. This is obviously impossible, and the game is drawn as there is nowhere else for the king to hide. This is one of the main reasons that the defending side has some extra drawing chances when playing against g- and h-pawns.

1...♞b5

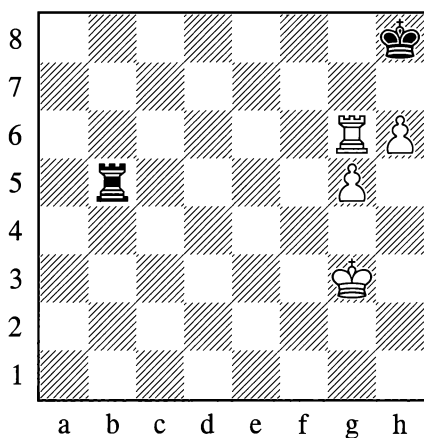
Black continues waiting. The alternatives are:

1...♞a3? Tempting as it might be to cut off the enemy king, White now has the chance to get his rook to a sensible square. 2.♞b6 ♔h7 3.♞b7† As ...♔h7-h8 can be met with g5-g6, Black's king is forced out of the corner. 3...♔g6 4.♞g7† ♔f5 5.h7 Time to resign.

1...♔h7 Black could do this immediately as well, but it shows just how comfortable the draw is that he can even burn a tempo.

2.♔g3

Now care must be taken.

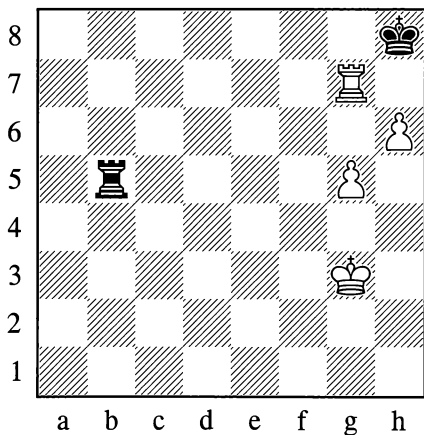


2...♔h7!

White's rook is forced to g7 to avoid the loss of the pawn, and it turns out the g7-square is far from ideal. Since the rook is not secure on g6 or g8, White does not have a great way to keep the rook in front of his pawns.

Not 2...♖a5? 3.♔g4 ♔h7 Now that the g5-pawn is protected, White can get his rook out of the way. 4.♖c6 White wins.

3.♖g7+ ♔h8

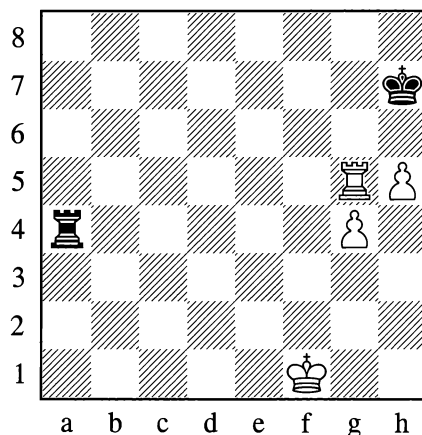


The problem is clear. If an i-file existed, Black's king would have access to the i8-square, and White would invade with his own king and win. As is, Black's king is stalemated and he immediately has a suicide rook.

4.♔g4 ♖b4+! 5.♔h5 ♖h4+! 6.♔g6 ♖xh6+!
Draw.

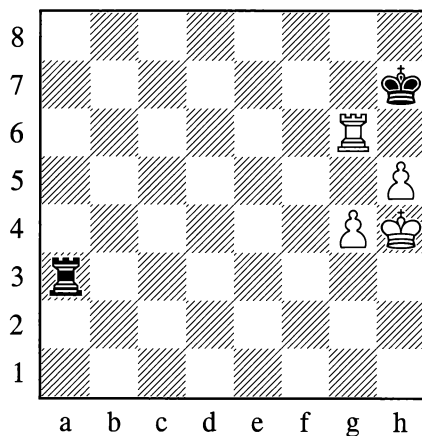
The pawns being on the edge of the board gave Black enough resources to draw the game thanks to the stalemate rule. But this is not always the case. Consider the following position:

g- and h-pawns 2



The position is notably different. Because White's pawns have not advanced all the way to the fifth and sixth ranks, Black is unable to self-stalemate. He is lost because White's rook can sit on g6 without stalemating the enemy king, and White's king has a safe hiding square on h4.

1...♔h6 2.♖g6+ ♔h7 3.♔g2 ♖a2+ 4.♔g3 ♖a3+ 5.♔h4



In the previous example, Black was able to constantly check with his rook even if it meant going to a square where it could be captured. Here, since Black's king has a legal move, White has escaped the checks and connected his king with his pawns. He is winning.

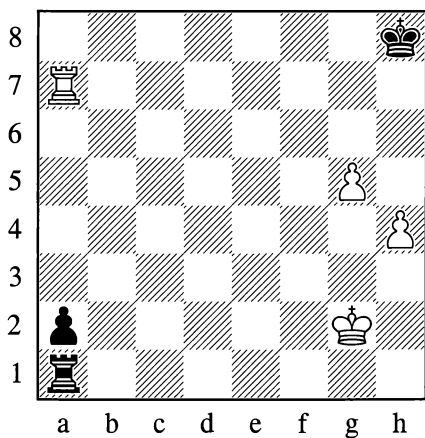
The difference leads us to the next rule.

When playing with g- and h-pawns, getting the rook in front of them will win if the pawns have only reached as far as the fourth and fifth ranks. If both pawns stand on the fifth rank or if either pawn is on the sixth rank, the position will be drawn.

Let's see an example of this in action, and one that I wrote about in *Small Steps 2 Success*.

Dean Ippolito – Surya Shekhar Ganguly

Philadelphia 2006



54.♔h2!

The right decision. White needs to put the king on h2 before pushing h4-h5.

Tempting as it may be to push the pawn forward immediately, Black makes a draw after: 54.h5? ♚b1! 55.♙xa2 ♚b5 White will only be able to save his pawns by putting his rook in

front of them. He needed his king on h2 to clear the g2-square for his rook. 56.♙a8† ♕g7 57.h6† ♕h7 58.♙a7† ♕h8 59.♙g7 Otherwise the pawns will fall directly. 59...♚b2† Black has the familiar suicide rook.

54...♕g8 55.h5

Now and only now.

55...♕h8

Rather than examining the previous game and imagining a way for Black to go wrong, luckily there is this example in the database of the exact same position (with colors reversed of course) where the attacking side mishandled the pawns. Advancing the g-pawn allows Black to draw, but only with precise and instructive play. Ganguly does not disappoint.

Not 55...♚b1 56.♙xa2 ♚b5 57.♙g2! White's rook will not be forced in front of the pawns. Since they are side by side, Black has no hope of setting up a blockade. White will easily push his king up to h4, freeing his rook from its defensive duties, and win routinely.

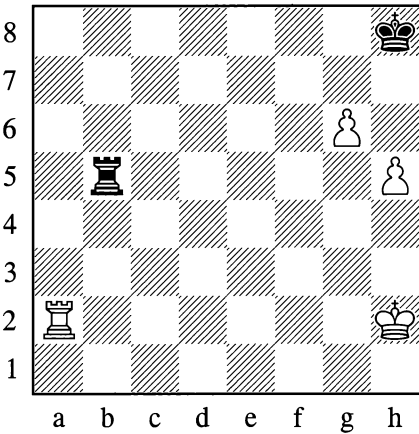
56.g6?

This move spoils it. Now, Black will be able to force White's rook in front of the pawns.

White would win after 56.h6! ♚b1 57.♙xa2 ♚b5 58.♙g2! when once more, he is ready to bring his king up to h5. Note that 58...♕h7 must be met with 59.g6†! when White will promote the pawn on the spot. If he had waited for a move, Black would have set up a proper blockade with his king on g6, saving the game.

56...♚b1! 57.♙xa2 ♚b5

We see the difference when comparing the g5-g6 advance with the h5-h6 one. Now, the pawn on h5 cannot be saved from behind, and the rook must instead run to h7 to save the pawn, where it will be very poorly placed.



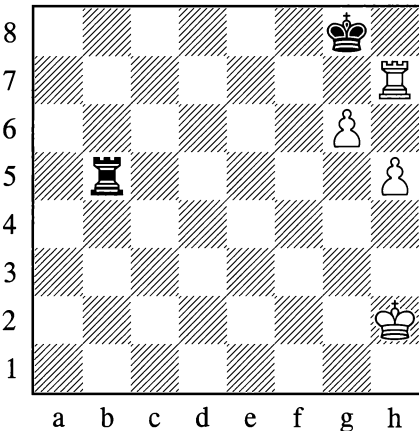
58. ♖a8†

58.h6? ♜h5† and Black draws.

58...♙g7 59.♞a7† ♙g8!

The right square. Leaving the back rank would lead to a quick promotion, and going to f8 or h8 would allow a checking tempo that would lead to Black's demise, which we shall cover later.

60.♞h7



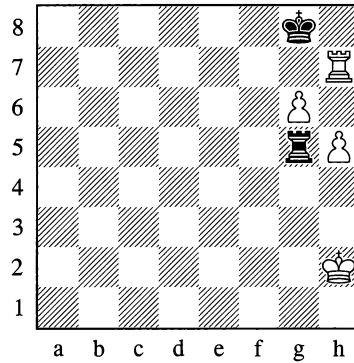
White would be routinely winning if he could get his rook out of the way of his connected passed pawns, but as is, its presence on h7 is extremely clumsy. Black must now be accurate to hold the game. If White's king is allowed to support his pawns, the white rook

will be free, and Black will lose. So, the king must be cut off.

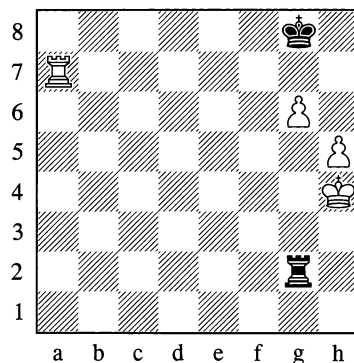
60...♞b3!!

Black's rook does it all. White's king is cut off along the third rank, and his rook still cannot leave h7 since ...♞b3-b5 would follow. But Black is not out of the woods yet.

Black could have tried to cut the king off along the g-file, but it would not have worked. After: 60...♞g5?



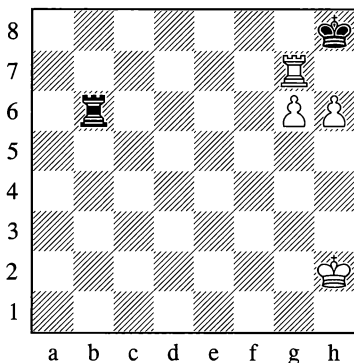
White's rook is stuck guarding h5, and his king is cut off along the h-file. But White's king can run up to h4, and then his rook will be free. 61.♙h3 ♞g1 62.♙h4 ♞g2 63.♞a7!



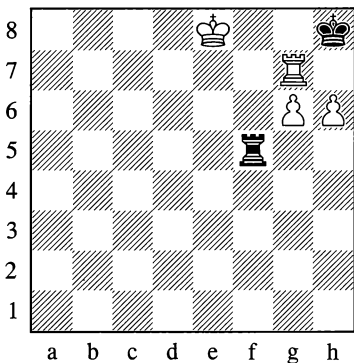
White's rook is free. It still takes some work to win the game as now his king is passive, but it is doable. The simplest route to victory is ♞a4-g4 to free the king: 63...♞g1 64.♞a4 ♙g7 65.♞g4

61.♔g2

It would be foolish to try 61.h6 as Black can make an easy draw with 61...♖b6! 62.♞g7† ♕h8!



We saw a similar endgame in a variation Mamedov could have tried against me in *Small Steps 2 Success* (page 173), but here there is a key difference. The basic winning plan for White would be ♕h2-f8, when he could meet a check from behind with ♞g7-f7. But he has no time for that here since the pawns are at the edge of the board, and Black's king has no legal moves. Black will have a suicide rook and an easy perpetual check. 63.♔g3 ♖b3† 64.♔f4 ♖f3† 65.♔e5 ♖f5† 66.♔e6 ♖e5† 67.♔f7 ♖f5† 68.♔e8

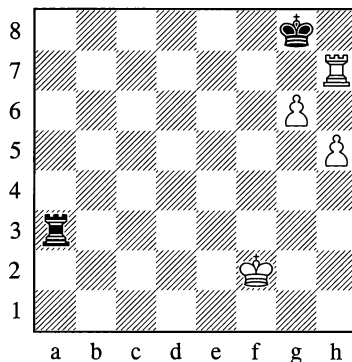


68...♞f8†! (Certainly not 68...♞e5†?? 69.♞e7, when White has got his rook out of the way, and wins.) 69.♔e7 ♖e8† 70.♔d6 ♖e6†! White will not escape the checks.

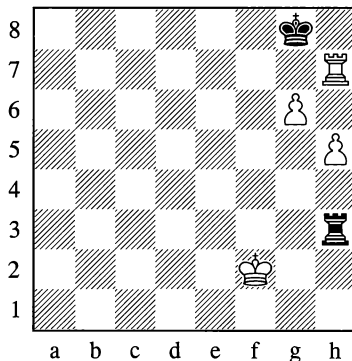
61...♞a3 62.♔f1!

The best practical try. White threatens ♞h7-b7.

White's choice in the game was tricky, but he also could have tried the straightforward: 62.♔f2

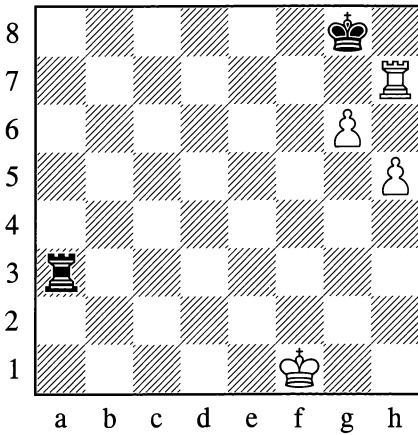


Now that White's king is no longer on the g- or h-file, he is threatening to bring his rook to the queenside and it will no longer be in the way. Black cannot bring his rook back to b5 as it would allow White's king to advance, but he also must jail the rook on h7. 62...♞h3!



The only move. White's king is still cut off, and his rook is still stuck defending the h5-pawn. But note that h3 was the only suitable square for Black's rook. As such, if he finds himself in this position where he is to move, he will be in zugzwang and lose the game. 63.♔e2 ♞g3! Draw.

Returning to the game:

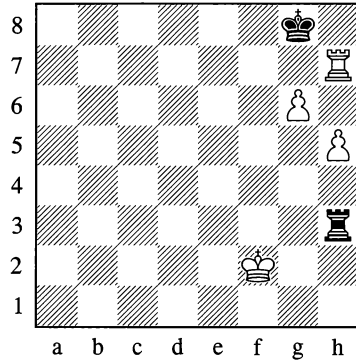


Black is in a serious dilemma. White is threatening to swing the rook away from its horrible spot, and he has to keep it tied down. But ... $\text{Ra}3\text{-a}5$ fails, and ... $\text{Ra}3\text{-h}3$ would leave him on the wrong side of the previously discussed reciprocal zugzwang following $\text{c}f1\text{-f}2$. Ganguly finds the only move.

62... $\text{Rf}3\text{!}$!!

White's rook and Black's king are doing a little dance along the second rank. If White chooses f2 for his king, Black must then respond with ... $\text{Rh}3$. Similarly, if Black chooses h3 for his rook, the response $\text{c}f2$ would win. As such, f2 and h3 are corresponding squares. Black will be forced to wait with ... $\text{Rg}3\text{-h}3\text{-g}3$, so e2 and g3 are corresponding squares as well, as are d2 and h3, c2 and g3, b2 and h3, and even a2 and g3. White's trick was that by sliding the king to the first rank, Black would have to choose between the g3- and h3-squares for his rook. No matter which square he chooses, White can then place him in reciprocal zugzwang. But Black knows what to do. He will deliver perpetual check along the third rank, and the only way for White to escape the checks is to go to the second rank, at which moment he will be the one to choose his square first. Let's see this concept in action.

If Black were to try to tie the rook down again, he chooses his square first and White then can put him in reciprocal zugzwang easily. 62... $\text{Rg}3$? 63. $\text{c}f2$! $\text{Rh}3$ 64. $\text{c}f2$



Black is to move now, and White wins. ... $\text{c}g8\text{-f}8$ will be met by $\text{Rh}7\text{-f}7\text{+}$ when White's rook can transfer to the fifth rank. Moving the rook along the h-file allows $\text{c}g3\text{-g}4$ and the pawns will be supported. Moving along the third rank will allow White's rook to reach the queenside and get out of the way.

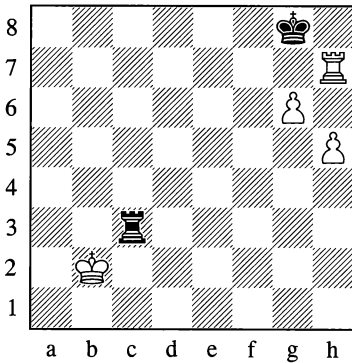
If 62... $\text{Rh}3$? 63. $\text{c}f2$ White wins.

63. $\text{c}f2$

White leaves the first rank immediately and has chosen e2 as his square. Black now has seen which square White has chosen, and chooses his own square accordingly.

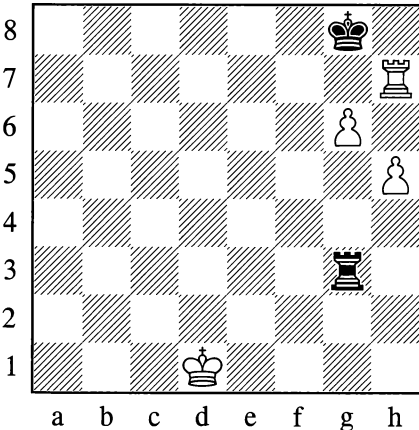
After 63. $\text{c}f2$ Black must continue checking: 63... $\text{Re}3\text{+}$ 64. $\text{c}d1$ $\text{Rd}3\text{+}$ 65. $\text{c}c1$ $\text{Rc}3\text{+}$ At some point White will have to move to the second rank, and then Black will be on the right side of the reciprocal zugzwang. 66. $\text{c}b2$

Now Black must bring his rook back to either g3 or h3 to keep White's rook at bay, but he must choose the right one, so that White is to move in the position of reciprocal zugzwang. The counting is not so hard. (White is not forced to move to the second rank so fast, but eventually he must.



66.♔b1 ♖b3† 67.♔c2 This time, it is g3 instead of h3 Black has to move to. In general, once White's king comes to the second rank, Black needs to put the rook on either g3 or h3 and on the opposite color square of the white king. That narrows him down to one drawing move every time. 67...♞g3 Draw) 66...♞h3! 67.♔c2 ♞g3 68.♔d2 ♞h3 69.♔e2 ♞g3 70.♔f2 ♞h3 White's move. Black holds.

63...♞g3 64.♔f2 ♞h3 65.♔e2 ♞g3 66.♔d1



66...♞d3†!

Ganguly checks again.

67.♔c2 ♞g3 68.♔d2

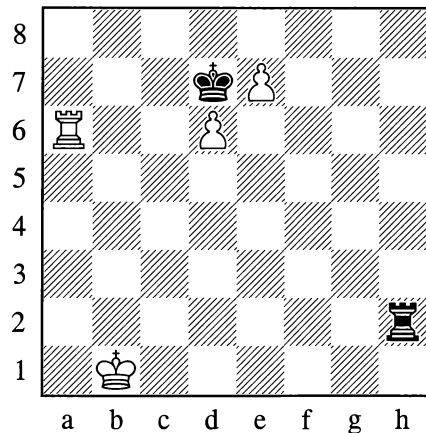
Understandably White offered a draw, as Black had demonstrated the proper defense.

½-½

This is an important exception to remember. But for the most part, you can comfortably assume that connected passed pawns should be able to get through a blockade and ultimately promote if the friendly rook can safely get in front of them.

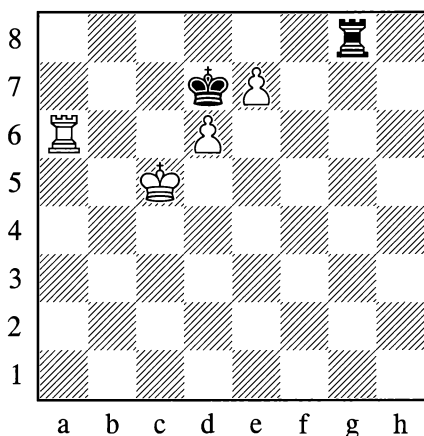
We already saw that with the pawns on the fourth and fifth ranks, Black held a draw easily if white's rook was stuck on the side of the pawns rather than in front. But what if the pawns are further advanced?

Pawns on Sixth and Seventh Ranks



Here, White is obviously winning. He is ready for ♞a6-a8 next, immediately making a queen. Black must bring his own rook back to stop this from happening, but that allows White's king to join the game.

1...♞h8 2.♔b2 ♞g8 3.♔c3 ♞h8 4.♔c4 ♞g8 5.♔c5



Black can no longer sit and wait but checking hardly helps.

5...♖g5†

Or 5...♜h8 6.♜a7† ♕e6 7.♕c6. White easily crashes through once the king gets to c7.

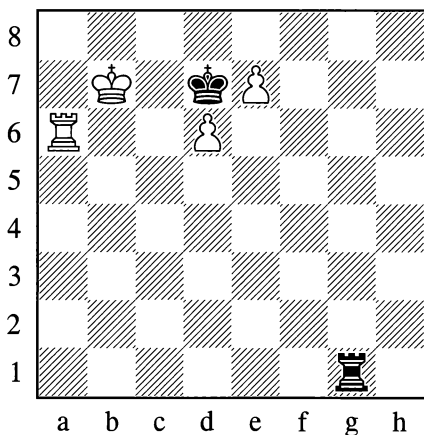
6.♕b6

Running towards Black's rook is quite fine as well: 6.♕d4 ♜g4† 7.♕e5 ♜g5† 8.♕f6 and White wins.

6...♜g8 7.♕b7!

White could win the game any which way, but I like this one. He is ready for ♜a6-a8 next.

7...♜g1



Now, tempting as it may be to play ♜a6-a8, that would fall for Black's only trick. I like the prosaic:

8.e8=♖†

Not 8.♜a8? ♜b1†! Oops. White cannot escape the checks.

8...♕xe8 9.♕c7 ♜g7† 10.♕c6

Black cannot prevent ♜a6-a8† followed by d6-d7, promoting the pawn.

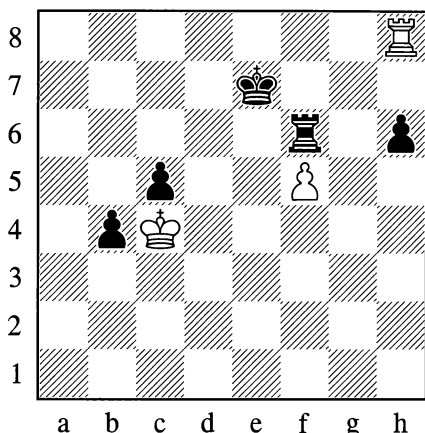
This one was quite straightforward. The pawns promoted directly because White could happily place his rook on the back rank right away without worrying about the loss of one pawn if the other one could promote. This brings us to the first rule about dealing with blockades with the rook on the side:

Blockading two connected passed pawns with the king against a rook stuck on the side will draw against pawns on the fourth and fifth ranks but lose against pawns on the sixth and seventh ranks.

While this rule is undeniably true, it is important to note that you still have to save the game. You will get such positions when you are already tired from a long fight, and you will probably have to play fifty more moves since there is no direct route to a draw. When fatigue sets in, even very strong players can falter.

Arkadij Naiditsch – Viktor Bologan

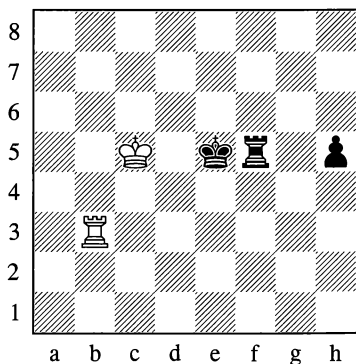
Poikovsky 2009



Bologan's choice here left a lot to be desired.

79...♖xf5?

79...♔d6 would have been quite enough. Black will bring his king to e5, take with the king on f5, and win with split passed pawns. 80.♖h7 ♕e5! 81.♔xc5 b3! 82.♖b7 h5 83.♖xb3 ♖xf5



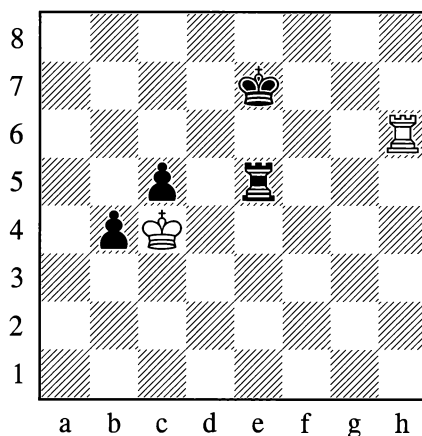
White's king is going to be cut off by ...♖f5-f4 next, and Black should win routinely.

80.♖xh6

White should be making a draw here. He has wedged his king in between Black's two pawns, they are on the fourth and fifth ranks,

and Black's king is cut off. But this was already move 80. He had to make it to move 130 to save the game.

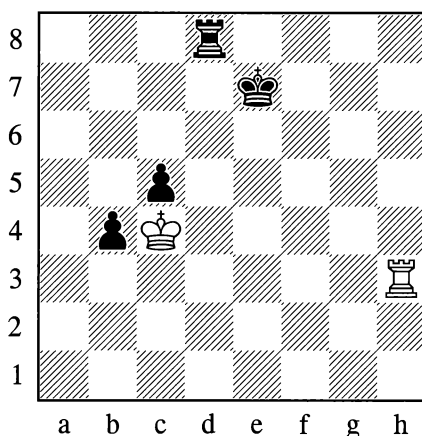
80...♔d7 81.♖h7† ♕e6 82.♖h6† ♕e7 83.♖c6 ♖e5 84.♖h6



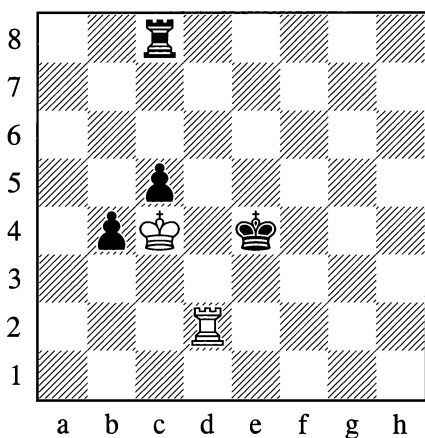
84...♖e6

Bologan transfers his rook to behind the pawns instead. This will not help.

85.♖h5 ♖c6 86.♖d5 ♖c8 87.♖d3 ♖d8 88.♖h3



88...♖c8 89.♖d3 ♕e6 90.♖d1 ♕e5 91.♖d2 ♕e4

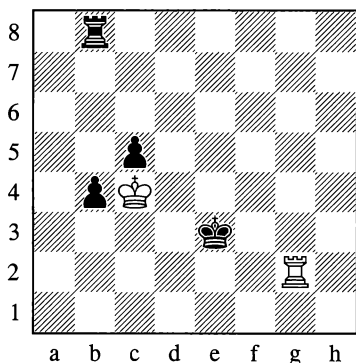


Now, Naiditsch's next move did not blunder the game away yet, but it was a step in the wrong direction.

92. ♖e2?!

The e-file is not a great place for the rook.

Leaving the rook on the second rank was quite sufficient: 92. ♖h2! White should have anticipated that Black's winning plan was to get the king to the center. Then, he will aim for ...♖c8-b8 to push ...b4-b3-b2 through. 92... ♙e3 93. ♖g2 Continuing to wait is fine. 93... ♖b8



This is exactly the position where it is good to have the rook on the second rank! 94. ♖b2! b3 95. ♙c3! with a draw.

92... ♙f3 93. ♖e5?!

White is still hanging on, but he is starting to get close to only move territory.

White should have waited with the rook on the second rank, as seen before: 93. ♖h2! This is still a draw.

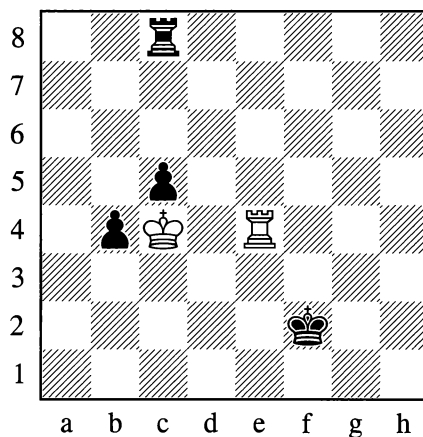
93... ♙f2!

Now, Black is ready for ...♖c8-b8 next, and White's rook on the e-file will not be in time to make it back to b2.

94. ♖e4?

White was too attached to the idea of cutting the king off along the e-file. Now Black wins.

94. ♖h5! would have held. White is in time to get the rook back to the second rank.



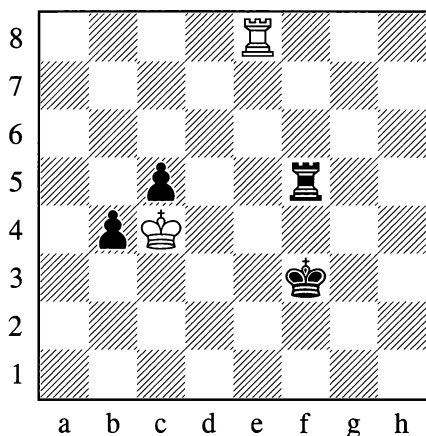
94... ♖b8! 95. ♙b3

A sad necessity. White had no other way to prevent ...b4-b3. But this is a bad sign, as his king is immediately on a worse square.

95... ♖f8!

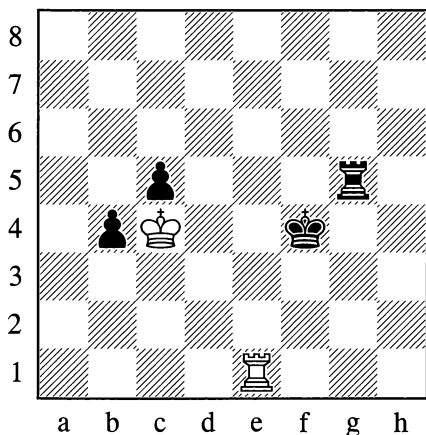
Bogan transfers his rook to the side of his pawns, and his king is no longer cut off as it was at the start of the endgame. White is done for.

96.♔c4 ♖f5 97.♞e8 ♔f3!



Black will bring his king to f4, then the rook to e5, and his king will be able to reach c2.

98.♞e1 ♖g5 99.♞e8 ♔f4! 100.♞e1



100...♞h5!

Zugzwang. White must move his rook on the e-file.

Not 100...♞e5 due to 101.♞f1♠. Black cannot cross the e-file, and will have to lose some tempi to regroup and find the appropriate zugzwang.

101.♞e2

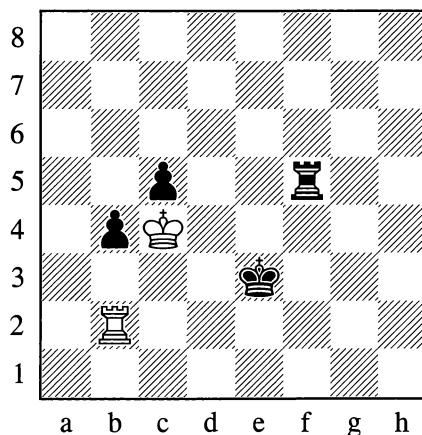
If 101.♔b3 ♞h3♠. Black's rook gets to c3, and it's immediately over.

101...♞e5!

Now and only now. White must allow the king to e3.

102.♞f2♠ ♔e3 103.♞h2 ♖f5 104.♞b2 ♞h5
105.♞c2 ♖g5 106.♞b2 ♖f5

I suspect Bologan was just trying to gain time here. He played the correct execution soon enough.



107.♞c2 ♖f2! 108.♞c1 ♔d2! 109.♞a1 ♖f4♠

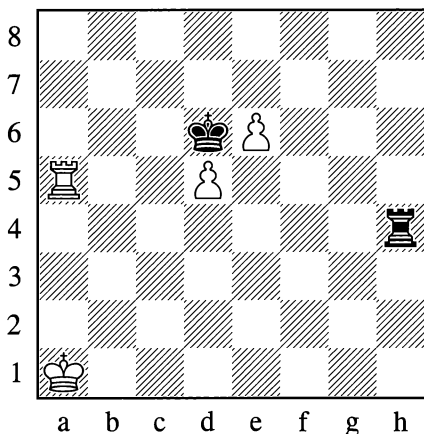
Black's king reached the right spot, and he will win with one pawn alone. Naiditsch called it a day.

0–1

While Naiditsch did not manage to save the game, this was due more to fatigue and time pressure than the actual evaluation. The rule held true.

But the rule only discusses cases with pawns on either the fourth and fifth ranks, or the sixth and seventh. If the fourth and fifth is a draw, and the sixth and seventh is a win, what about the middle ground case of the fifth and sixth? Now the fun begins.

Pawns on the Fifth and Sixth Ranks



Clearly, once the pawns were on the sixth and seventh ranks, there is no fight to be had. The further up the board the pawns get, the more dangerous they are, and pawns on the fifth and sixth ranks are very close. It is impossible to exhaust every possible arrangement, but I believe that in general, Black is only able to save the game if White's rook is defending the further back pawn from the side and the white king is cut off on the side of the board as well. Should White's king ever reach the center, even a square like e1, he will win. And if the rook reaches the back rank, White wins as well. Black should defend very carefully.

1...♞c4!

This move cuts White's king off along the c-file. Of course, the rook could have gone to b4 as well, but I chose to place it on c4 to illustrate the closest he can allow White's king to his pawns.

Sitting and waiting will not do:

1...♞g4?!

Black must cut off the king to have any hope of saving the game.

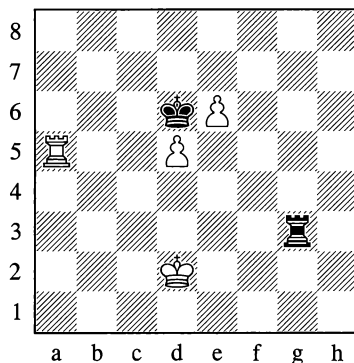
2.♔b2 ♞g3?

Now Black is lost. Cutting White's king off along the third rank will not save the game.

The king will still be able to access the e and d-files and prevent Black from transferring his rook at an ideal moment.

2...♞c4! shows it was still not too late to cut off White's king. Once again, after 3.♞a8, Black's only saving grace is 3...♞c7.

3.♔c2 ♞h3 4.♔d2 ♞g3



Now that White's king has reached the center, he has a nice winning plan.

5.♞a8!

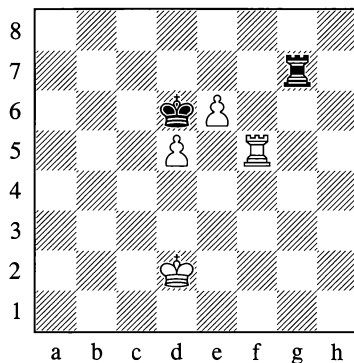
White is ready for ♞a8-d8† next, stabilizing the rook in front of the pawns and winning routinely. Black is unable to capture on d5 due to the threat of e6-e7 hanging over his head. His best chance is to hope that the same plan that holds in the main line will hold here as well, but this is a futile hope.

5...♞g7

White cannot stabilize his rook on the d-file, but he does have a winning maneuver.

6.♞d8† ♔c7 7.♞f8! ♔d6 8.♞f5

The rook comes to the important f5-square.

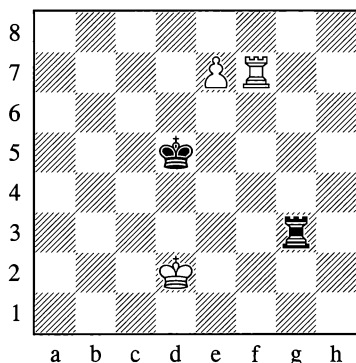


Black must try to keep White's king cut off, as White would easily win if his king could reach a square like e4. But after:

8...♖g3 9.♜f7!

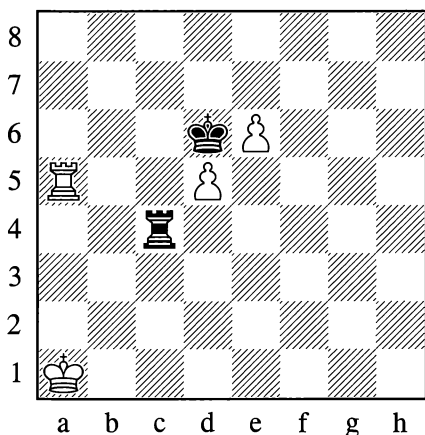
The point of bringing the king to the center is clear. White is ready for ♜f7-d7† next.

9...♙xd5 10.e7



Black's inability to get his rook behind the e-pawn proves to be his undoing. This position would be a draw if White's king were on the b-file and Black had access to the e3-square for his rook. Black really needed to cut the enemy king off along the c-file rather than along the third rank.

1...♖b4 holds as well. After 2.♖a8, we note once again that the only saving resource is 2...♖b7! preventing the regrouping ♖a8-d8†-d7. 3.♜d8† ♙e7 with a draw.



2.♖a8!

Here we see why the pawns being one rank further up the board make them so much more dangerous than if they sat on d4 and e5. White can attempt to transfer his rook to a better position on d8 without fearing the loss of the d5-pawn.

2...♜c7!

An important defensive idea, and the only saving move (apart from ...♜c4-c1† and then ...♜c1-c7). By placing his rook on the seventh rank, Black prevents White's rook from reaching a secure square on the d-file.

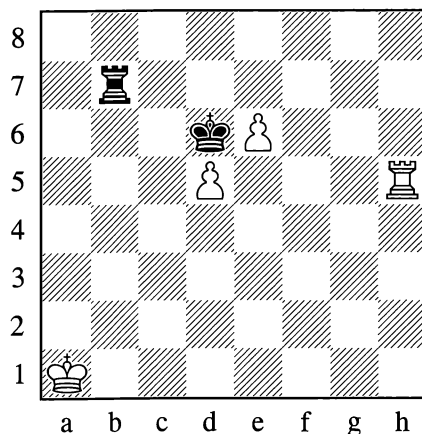
After 2...♙xd5 3.e7 White makes a queen. If he had to reach the ninth rank, Black could easily stop the pawn with ...♜c4-e4 and then ...♙d5-d6-d7 followed by ...♜e4xe8. But the pawn reaches the end zone next.

3.♜d8† ♙e7

The rook cannot stay on d8, and thanks to the strong prophylactic move ...♜c4-c7, the d7-square is off limits as well. White fails to secure his rook in front of his pawns, and the game is a draw.

4.♜h8 ♙d6 5.♜h5 ♖b7

No further progress can be made, but White does have one attempt that Black should be ready for.

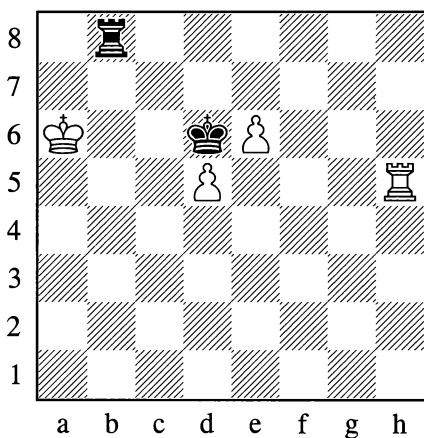


6.♔a2

The king is running up to harass the rook and would like to reach a square like a6 or a7. Once Black's rook has lost access to the seventh and eighth ranks, White should be able once again to try to maneuver the h5-rook to greener pastures on d8. For the moment, all Black can do is sit and wait, but he should be ready to jump into action when the king approaches.

6...♚b6 7.♔a3 ♚b5 8.♔a4 ♚b7 9.♔a5 ♚b8 10.♔a6

Black is in a tough spot. It looks like he is out of moves, as he does not want to let White's king cross the b-file, but he also does not want to vacate the back rank with his rook.

**10...♔c5!**

It looks scary to move the king out of the way, but White cannot do anything to punish Black for it. The e-pawn is not going anywhere.

Waiting with the rook on the b-file will not do. After 10...♚b1? 11.♚h8! Black no longer can count on the defensive resource ...♚b1-b7. As a result, he cannot prevent White's rook from reaching the d7-square, so he can resign.

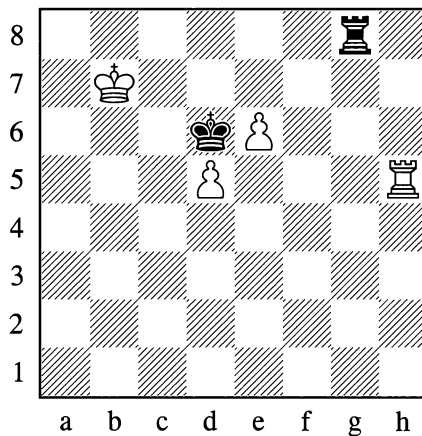
11.♔a7 ♚g8!

Of course, Black cannot allow White's rook to reach the back rank with 11...♚b1?. Now,

after 12.♚h8! ♔d6 13.♚d8† White's rook will stabilize on d7, with a winning position, as previously seen on page 116.

12.♔b7 ♔d6

It turns out that White is unable to get his king back around to a square like c4. As soon as it approaches, it will be cut off by the black rook.

**13.♔b6 ♚f8 14.♔b5**

Now, if Black were to tread water for a single move, White would win with ♔b5-c4, returning his king to the center. But Black saves the game with:

14...♚c8!

And I don't see a way to make any further progress.

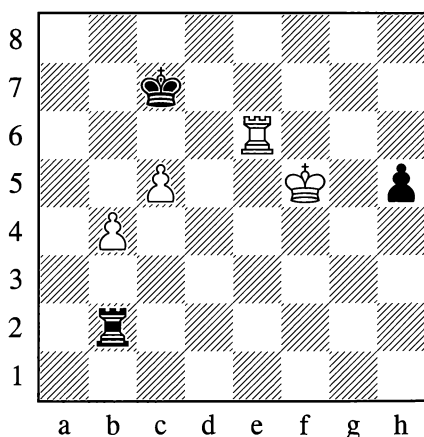
This is certainly the most complex example of the group, but it allows for the next rule.

Blockading two connected passed pawns with the king against a rook stuck on the side will be a draw against pawns on the fifth and sixth ranks, if the defending side can also cut off the enemy king along a file. If the enemy king reaches the same file as the pawns, the position will be lost.

It is important to note that the reason the defending side can fight for a draw in some of the preceding positions is that the attacking side's king is cut off, and the rook cannot help it escape its prison without leaving the pawns unattended. This will not always be the case, as we see in the following game.

Sophie Milliet – Quentin Loiseau

Chartres 2021



51. ♖e4!

White had an important decision to make. Obviously she must save the b4-pawn, but should she play ♖e6-b6 or ♖e6-e4?

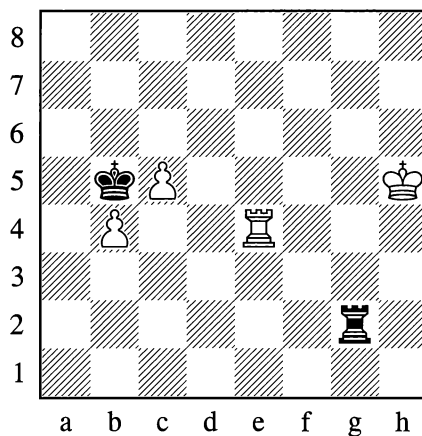
In the game, Milliet put the rook in front of her pawns. This does guarantee their eventual promotion, but this setup is very slow. Black's h-pawn should have offered enough counterplay to save the game. We will return to this position in Chapter 12.

White wins if she regroups the rook to e4. When applying the rules, it makes perfect sense. Watch what happens when Black wedges his king on b5.

51... ♔c6 52. ♔g5

Obviously, Black will not save the h-pawn.

52... ♔b5 53. ♔xh5 ♖g2



I have to imagine that Milliet saw this far and thought a situation like this one might be a draw. Indeed, White's pieces look stuck and her pawns are well blockaded. But there is a simple plan to win the game.

54. ♖g4!

White's king is able to rejoin the game. Her rook can help the king reach the center while simultaneously keeping her pawns safe.

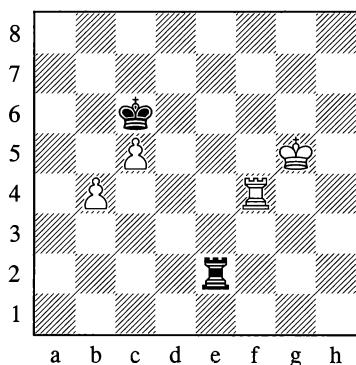
54... ♖f2 55. ♔g5!

Next up is ♖g4-f4. Rinse and repeat: ♔g5-f5, then ♖f4-e4, etc. White's king will reach the center.

55... ♖f1

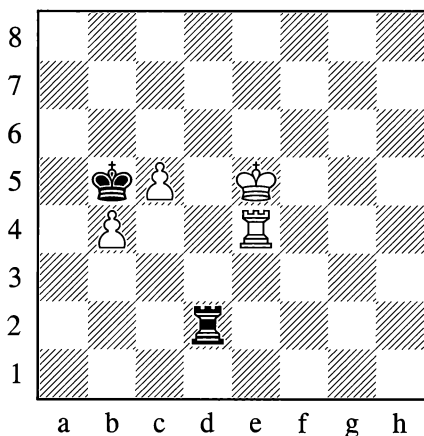
Black continues to wait.

Black can also try to transfer her king to d5 with 55... ♔c6, thereby cutting White's king off. But this will fail in another way. 56. ♖f4 ♖e2



57.♞f6†! White gets her rook in front of the pawns, and the rest is easy.

56.♞f4 ♞e1 57.♚f5 ♞e2 58.♞e4 ♞d2 59.♚e5

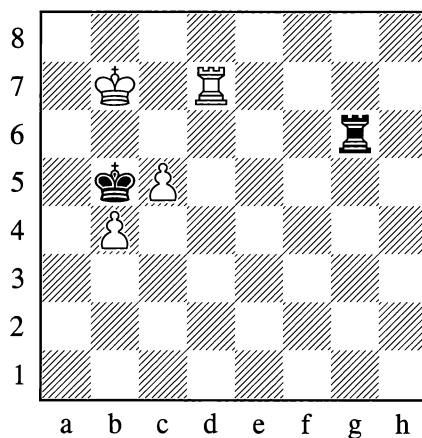


White is ready for ♞e4-d4 next. Once her king is centralized like this, the rest should be easy.

59...♞d1 60.♞d4 ♞h1 61.♚d6 ♞h6† 62.♚c7

White's king made it directly in front of her pawns. Now, her rook is free to leave, as Black can never take on b4.

62...♞g6 63.♞d6 ♞g7† 64.♞d7 ♞g6 65.♚b7



White is ready for c5-c6 next.

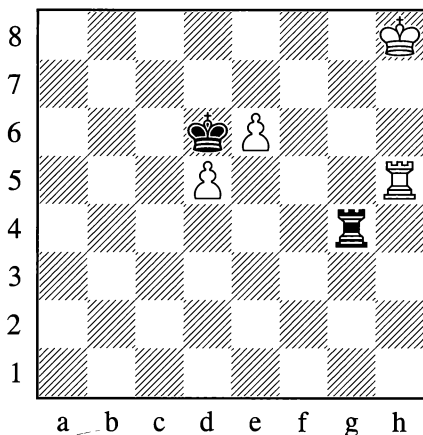
1-0

The reason that Milliet's position was winning, while the previous ones with White's pawns on the fourth and fifth ranks were drawn, came down to the placement of White's king. This brings us to the next guideline.

Connected passed pawns that are blockaded by a wedged king, and defended by the rook from the side, tend to be winning if the attacking king can be placed directly in front of its friendly rook.

It is impossible to definitively exhaust all possible pawn configurations and piece assortments, but I would not be surprised if this guideline is actually a rule. So far, I have not been able to find a counterexample. When applying this guideline to the previous examples, we see that it holds. The Naiditsch – Bologan encounter remained drawn for as long as White was able to successfully keep Black's king from stepping directly in front of his rook. Let's see how the position would have changed in the example, Pawns on the Fifth and Sixth Ranks.

Pawns on the Fifth and Sixth Ranks 2



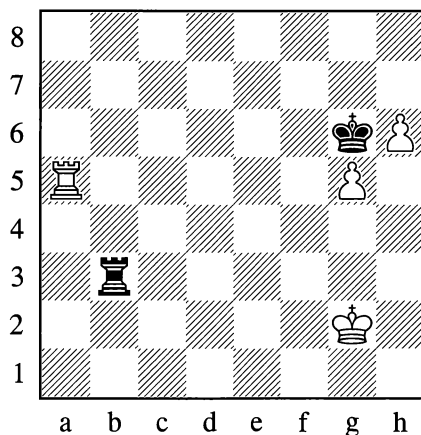
In this altered version of the example on page 130, White managed to get his king in front of his rook. Being cut off along the b-file was much more of an issue than being cut off along the h-file!

1...♞g3 2.♔h7 ♞g4 3.♔h6 ♞g3 4.♞g5

White's king gets to the center, and it is all over. Once he reaches f7, White will win with the e-pawn alone and need not worry about losing d5.

Much like we saw with the rook in front of the pawns, there is an exception to the rule on page 132 to know when it comes to pawns on the edge of the board.

g- and h-pawn 3



Despite White's king reaching the ideal g2-square, this position is a draw. The reason is that the whole winning plan involves a well-timed rook transfer to in front of the pawns. But as we previously saw, the rook in front of the pawns is a draw with g- and h-pawns thanks to stalemate tricks.

1.♞a8

In the analogous earlier positions, the defending side was compelled to bring his own rook back to the seventh rank first. This was due to the threat of giving a check with the rook and then stabilizing in front of the pawns on the seventh rank. But here, Black does not need to, because White's rook coming to g7 is not an issue.

1...♞c3

1...♞b7 would be a draw as well, but it's also totally unnecessary. 2.♞g8† ♔h7

2.♞g8† ♔h7 3.♞g7† ♔h8

The suicide rook is ready to go once more.

This brings us to our final rule about blockading connected passed pawns.

Wedging the king between the enemy g- and h-pawns against the enemy rook stuck on the side is always a draw unless the pawns have reached the sixth and seventh ranks.

Two connected passed pawns against zero may seem like a simple endgame, but as we saw in Naiditsch – Bologan, even very strong players can misplay them. Having a good base of knowledge about when the positions are winning, and when they are not, is very important.

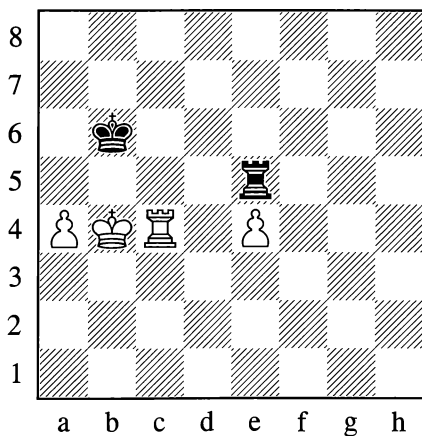
Chapter 8

Lone Split Passed Pawns

To conclude our coverage of two pawns against none, we need to address split pawns. For the most part, healthy split pawns should win. The following game is easy enough to understand.

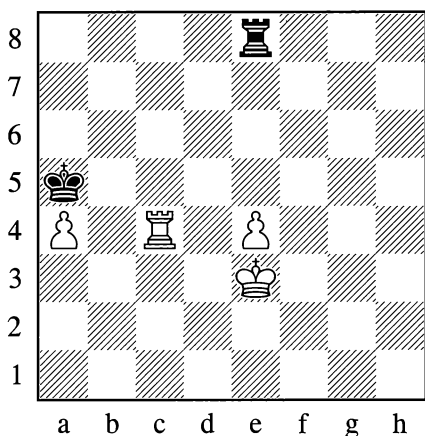
Garry Kasparov – Nigel Short

London (9) 1993



Black resigned here, and for good reason. White's rook is well placed, defending both of his pawns, and it cannot be harassed by the enemy king. As such, Black's king is stuck babysitting one pawn, and cannot do anything about stopping the other one. Let's see how the game would have concluded if Short had decided to extend his suffering.

52...♖e8 53.♔c3 ♔a5 54.♔d4 ♜d8† 55.♔e3 ♜e8



The best hope I could find for Black is to try to set up frontal checks and to use his king to defend against the a4-pawn. White's easiest winning plan is to play a frontal checks position and show that it is winning because his rook on c4 is secure.

56.♔f4! ♚f8† 57.♔g5 ♚e8 58.♔f6

Black cannot play ...♔a5-b5, so White's rook is secure on the fourth rank. As such, White wins easily against any attempt at frontal checks.

1-0

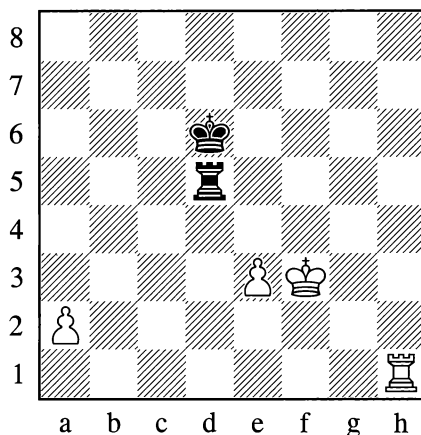
Kasparov's winning setup introduces us to the first rule.

If the attacking side can safely place their rook in between their two pawns, the two pawns are at least two files apart, and the enemy king is in front of the pawns, the attacking side wins. The technique to bring home the point is to force the enemy king to pick a side, and then to use the attacking king to push through the pawn furthest away from the enemy king. Frontal checks will fail because the attacking rook is secure.

Most of the time, the attacking side should be able to reach this situation. But it is far from the only way to win. Let's look at what happened in the preceding moves of the Kasparov – Short encounter.

Garry Kasparov – Nigel Short

London (9) 1993



White's position is clearly winning, but he needs to be a little careful. I suspect Kasparov lost focus a bit here. He was already way up in the match, had a winning position, and it seems hard to believe Black has any hope of making a draw.

44.a4

This is fine, but it has to be followed up correctly.

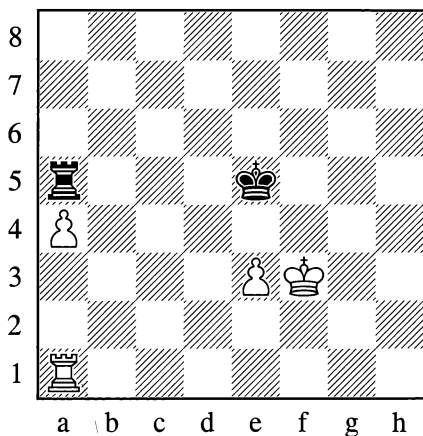
Of all of the winning ways, the one that looks cleanest to me is to transfer the rook to a8. 44.♖h6† ♔c5 45.♖a6 White is ready for ♖a6-a8 next, and he will win by pushing his pawn to a7. We will see positions like this covered in more detail in Chapter 13.

44...♖a5 45.♖a1?!

This strikes me as asking for trouble. The position is still winning, but a little harder.

I would prefer 45.♖h4!. White has the simple plan of bringing his king to d3, then his rook to c4. Then he can push e3-e4, his rook will stand in between his pawns, and he wins.

45...♔e5



46.e4?

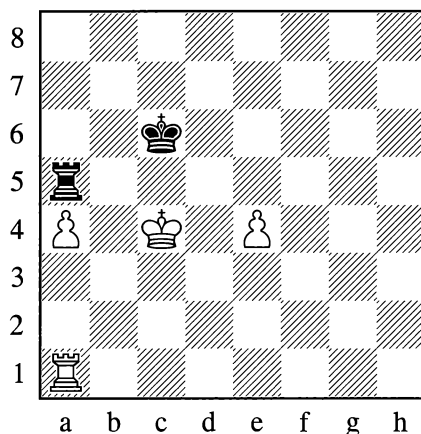
White blunders the game away, and the refutation is not even that hard to find. I suspect Short had mentally given up at this point, and did not expect that the greatest player of all time would give him a chance to pick up half a point from such an endgame.

46.♖a2! still wins. Black is in zugzwang. 46...♔f5 (After 46...♔d5 easiest is 47.♖d2†!. White transfers his rook to d4.) 47.e4†! Now and only now. White wins a tempo and Black is not in time to transfer his rook towards c3. 47...♔e5 48.♔e3 ♖c5 49.♔d3! ♖a5 50.♖a3! Zugzwang. White wins.

46...♔e6?

46...♖c5! draws immediately. There is not even that much to calculate! Black is ready for a check on c3. 47.♖a3 What else? 47...♖c4! Black wins a pawn and saves the game directly.

47.♔e3 ♔d6 48.♔d4 ♔d7 49.♔c4 ♔c6



50.♔b4!

White hits the rook with tempo and prepares to transfer his own rook to the fourth rank.

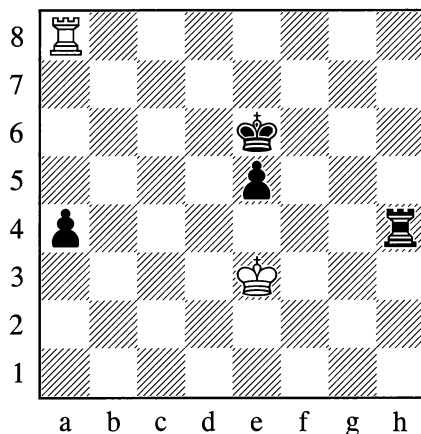
50...♖e5 51.♖c1† ♔b6 52.♖c4
1-0

To be fair, I don't think Kasparov's blunder had anything to do with his lack of chess knowledge, as he clearly knew to transfer the rook to the fourth rank just a few moves later. But I do think it showed some level of inattention.

While Kasparov got away with his error, not everyone is so lucky.

Viktor Erdos – Bassem Amin

Tbilisi 2017



One of the hardest parts of endgame play is that you never get endgames when you are fresh. As such, it is important to take extra care to pay attention and not lose focus.

67...a3?

Deep into the second game of a World Cup match, Amin blunders.

68.♖xa3!

Erdos immediately jumps on the error.

68...♖h3† 69.♔e4 ♖xa3

½–½

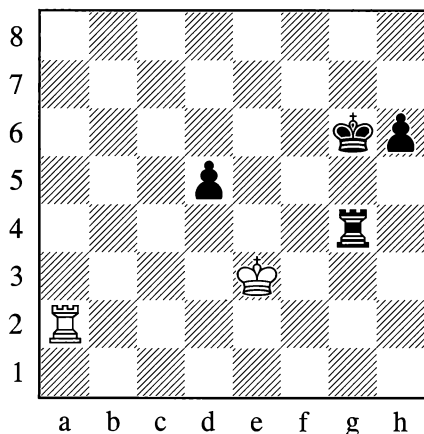
The following guideline might sound stupid because it could apply to any winning position, but I will give it anyway.

Two split pawns against zero is almost always winning in rook endgames, but usually the attacking side must pay at least some attention. There are often little tricks to avoid because both of your pawns can be attacked.

Let's see an example of a clinical and professional conversion of a similar endgame.

Boris Gelfand – Dmitrij Kollars

Riga 2021

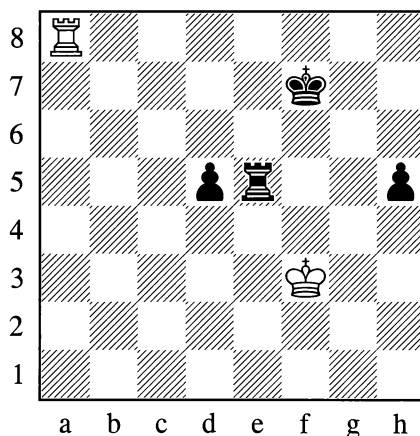


The machine claims that more or less any legal move wins here. It is not wrong, but I quite like how Kollars continued. It made the position totally idiot-proof and cleanly winning.

52...♖e4†! 53.♔f3 h5! 54.♖a8 ♖e5!

With Black's last three moves, he made sure to get his rook sandwiched between his two pawns.

55.♖g8† ♔f7 56.♖a8



White is threatening to make a draw with ♔f3–f4. Black's rook will be kicked off its perch, and White will be free to harass the pawns.

56...♖f5†!

Black places his rook on a safe square. White's king now has to choose a direction. Whichever direction he goes, Black will promote his other pawn.

A non-move like 56...♔g7? would allow a draw. 57.♔f4! ♖e1 58.♖d8 ♖d1 59.♔f5! White is threatening to start giving checks, and Black is unable to properly coordinate.

57.♔e3 ♔g7!?

Black makes sure not to allow ♖a8–h8. He is ready for h5–h4 next.

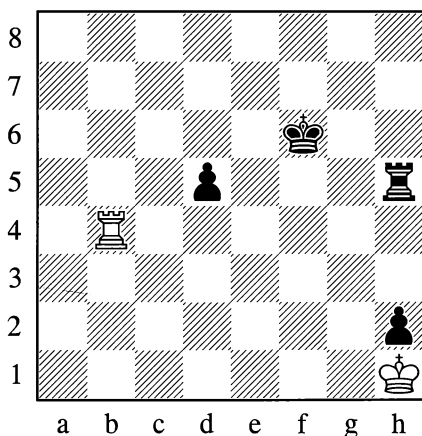
I would have preferred to immediately run the king up to g4 with 57...♔g6. Kollars' move is of course fine too.

58.♖b8 h4 59.♖b4 ♖h5!

The h-pawn is coming.

60.♔f2 h3 61.♔g1 h2† 62.♔h1 ♔f6

Gelfand resigned here. Black wins with his d-pawn alone. White's king is stuck on h1 for the remainder of the game, and since Black's rook is secure on h5, frontal checks offer White no hope of salvation.

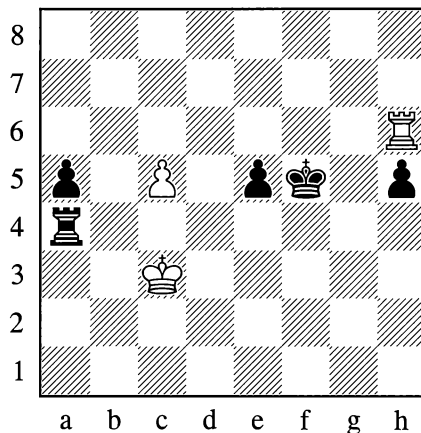


63.♖b1 ♔e5 64.♖e1† ♔d4 65.♖d1† ♔e3 is a possible end.

Sometimes, it is not possible to sandwich the rook in between the pawns. Still, if the pawns are safe and secure, the attacking side should win.

Magnus Carlsen – Vasyl Ivanchuk

London 2013



If Black is able to take the c5-pawn, he should win because his two remaining split pawns will be safe. Ivanchuk converted the advantage precisely.

71...♔e4! 72.♖d6

This was the most resilient defense, but still insufficient.

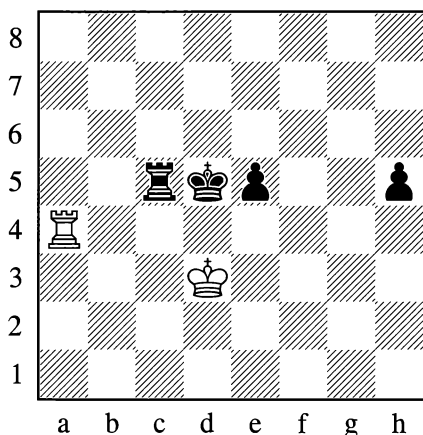
If 72.♖xh5 ♔d5! Black is ready for ...♖a4-c4 next. He will take on c5 with the rook, and his rook will be safely placed in between the pawns. Black wins.

72...♖d4! 73.♖a6 ♔d5!

Other moves win, but I like this one for its consistency with our rules. Black will take on c5 next, and his split pawns will be decisive.

74.♖xa5 ♖c4† 75.♔d3 ♖xc5 76.♖a4

White is threatening ♖a4-h4, saving the game. Black still has to be a little careful.

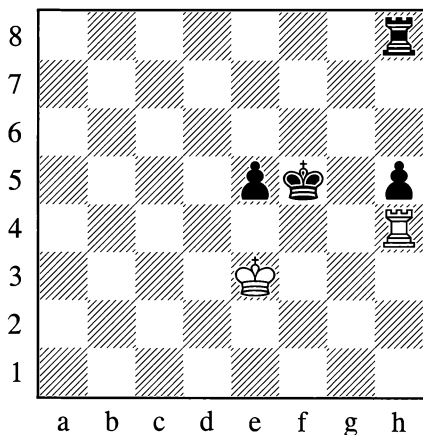


76...♖c7!

If Black is given another move, he will play ...♖c7-g7, transferring his rook to g5 and winning routinely.

77.♖h4 ♖h7 78.♙e3 ♙e6 79.♙e4 ♖h8!
Zugzwang.

80.♙e3 ♙f5



It might look like White's king has some freedom to shuffle back and forth between guarding the e-pawn and guarding the h-pawn. This is an illusion. White's king is in fact stuck on the e-file for the rest of the game, as if it ever touches the f-file, Black will be able to give a check and transfer his rook to f5.

81.♙e2

If 81.♙f3 ♙g5! Black is ready for ...♖h8-f8, and he gets his rook to its desired home.

81...♙g5 82.♖e4 ♖e8!

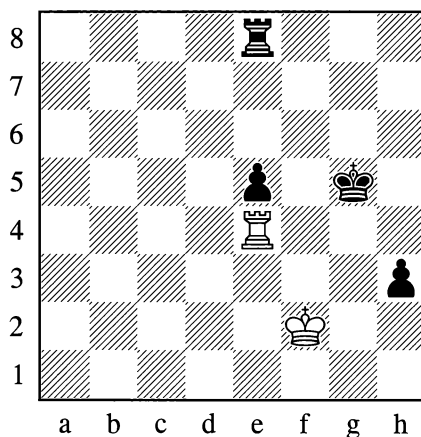
Black's h-pawn is ready to go, and White's king can never cross the f-file.

83.♙e3

After 83.♙f3 ♖f8† Black is ready for ...♖f8-f5 next, winning.

83...h4 84.♙e2 h3 85.♙f2

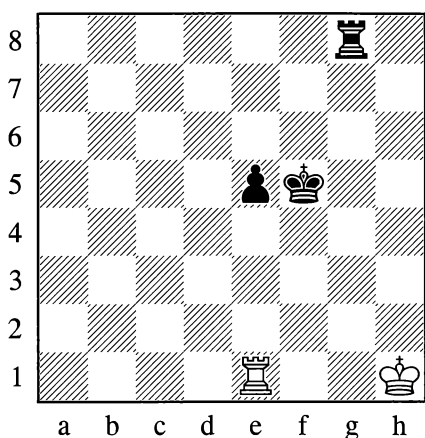
Magnus finally brings his king over. Black has advanced his h-pawn far enough that transferring the rook to f5 will not help, but now White is way too slow to coordinate and stop both pawns.



85...h2 86.♙g2 h1=♖†!?

This is not the only win, but it works. Ivanchuk transitions into a winning version of the frontal check defense, similar to the position on page 50.

87.♙xh1 ♙f5! 88.♖e1 ♖g8!

**89.♔h2**

It might look like White should save the game with 89.♖f1+ since Black's pawn is stuck on the fourth rank. But Ivanchuk had a nice tactical resource available. 89...♙e4 90.♖e1+ ♕f4 91.♖f1+ ♕e3 92.♖e1+ ♕f2! White cannot take on e5 on pain of checkmate. Black's e-pawn goes through.

89...♙f4

There was nothing wrong with getting the pawn to the winning zone either: 89...e4

90.♖f1+ ♕e3

With ♖f1-e1 well met by ...♙e3-f2, Magnus resigned here. Black gets his pawn to e4 next, which we know to be winning.

0-1

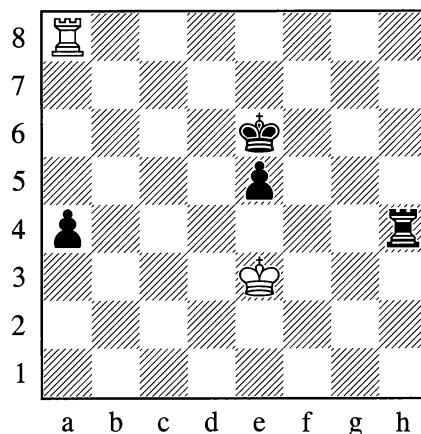
Ivanchuk's stellar technique introduces us to the next guideline.

When the attacking side cannot safely place his rook in between his pawns, they should keep both pawns safe and maneuver their king to support the pawn the enemy king is furthest from. The enemy king will not be able to follow without allowing a check to transfer the rook to a better place.

When applied to a previous example, we will see that this would have led Amin to an easy win.

Viktor Erdos – Bassem Amin

Tbilisi 2017

**67...♖b4!**

This seems like the easiest way for Black to win. He is threatening to push ...e5-e4 next, and his rook will be wedged between his pawns.

Not 67...a3?. We already saw what happened here: 68.♖xa3! with a draw thanks to the stalemate trick.

Ideally, Black would like to connect his king with his a-pawn, but it turns out not to be possible. 67...♙d5 68.♖a5+! Black is forced backwards and needs to find a better plan.

68.♙d3!

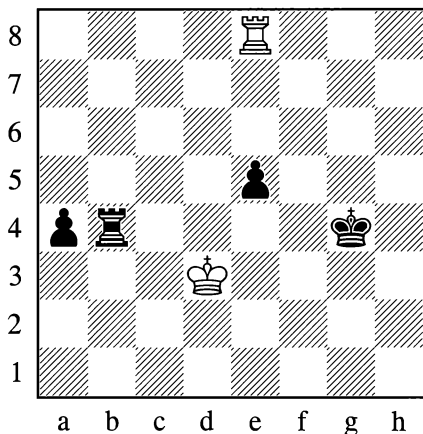
This is White's best defensive attempt. White makes sure that in the event of ...e5-e4+, he can place his king on c3. Black's rook is not on a secure square, and it will have to leave the fourth rank.

68...♙f5!

Black immediately takes advantage of White's king leaving the e3-square. He makes a beeline for f3.

If 68...c4† 69.♙c3! Black is still winning here, but the conversion is not as easy.

69.♖f8† ♙g4 70.♖e8



Now that Black's king is in a fine spot to support his e-pawn, he can push through.

70...c4†! 71.♙c3 ♖b3† 72.♙c4

After 72.♙d4 e3 Black easily reaches the Lucena position with ♙g4-f3 next.

72...♙f3 73.♖a8

Now that the king is in place, Black can let go of the a-pawn:

73...e3 74.♖xa4 ♖b8

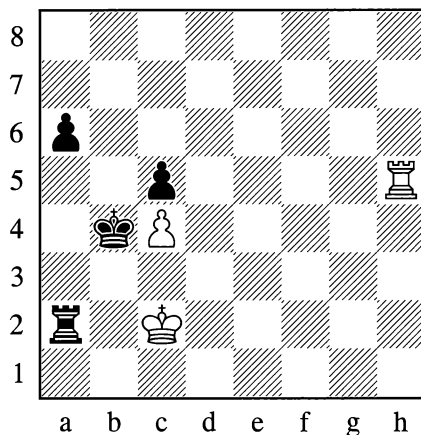
Black reaches the Lucena position.

For the most part, there is no specific technique to win with two split pawns. Some basic knowledge of what to aim for and staying focused tends to be good enough.

The only times that the defending side has serious drawing chances are when the attacking pawns are only two files apart. Most famously, rook, f- and h- pawns against rook is known to be a draw, though I have often seen strong players misplay it. Let's start by pointing out the most important pitfall someone can walk into.

Maurice Ashley – Alexander Shabalov

Philadelphia 2000



White's c-pawn is not long for this world, and he will soon have to defend against Black's a and c-pawns with his king and rook alone. Maurice committed a cardinal sin here and placed his king on the back rank.

68.♙b1?

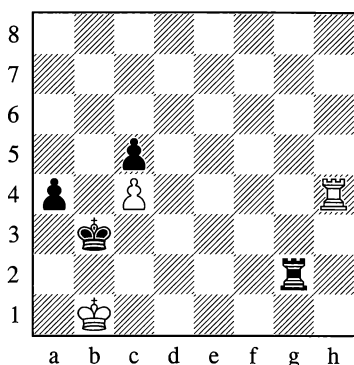
Correct was 68.♙d3!. It looks strange to move the king further away from the a-pawn, but the point is that Black will need to give a check on the third rank to win the c4-pawn. Then, White's king will be able to go back to c2.

68...♖g2!

With the king cut off along the second rank, White is lost. Shabalov showed excellent technique.

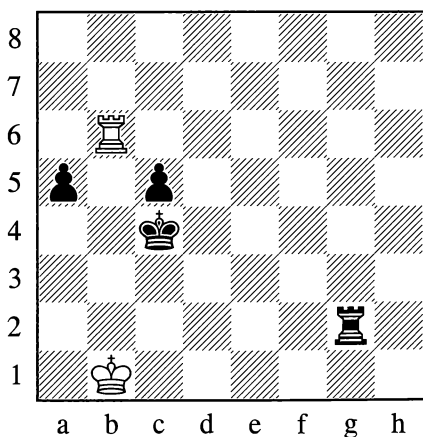
69.♖h6

White cannot leave the rook on the fourth rank for long. The c4-pawn will be lost soon enough. 69.♖h4 a5 70.♖f4 a4 71.♖h4 ♙b3



Black is threatening mate on the back rank. White needs to give a check, and c4 is lost.

69...a5 70.♖b6† ♔xc4



Black has reached a winning version of the rook, rook pawn and bishop pawn versus rook endgame because White's king has been cut off on the first rank.

71.♞a6 ♔b5 72.♞a8 a4 73.♞b8† ♔c4
74.♞a8 ♔b4 75.♞h8

This is capitulation. White was lost anyway, but he could have forced Black to make an important decision with:

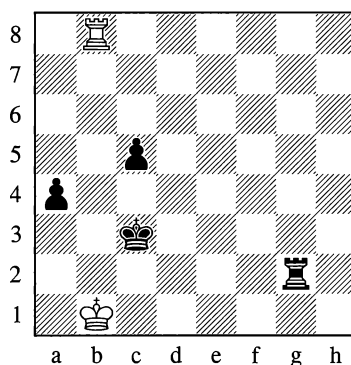
75.♞b8†!

After this, Black would need to be careful.

75...♔c3!

This is the proper technique. Black is ready for ...c5-c4 next.

75...♔a3? As we will see, even strong players have made this mistake! 76.♞b5! The position is a draw. Once Black's pawn is forced to c4, he will not be able to challenge for the b-file and his king will remain stuck on a3. 76...c4 77.♞b8 c3 What else? 78.♞c8! Now and only now. The pawn having been pushed all the way to c3 means that Black's king does not have a safe square to hide on.



76.♞a8 c4!

The a4-pawn is immune from capture thanks to the possibility of ...♔c3-b3. Now, Black is threatening to play ...♞g1†, winning the game with ...♔c3-d2 to follow.

77.♞c8

This would be the most consistent move with the long and short side defense seen in Chapter 2. Now, we see how the presence of the a4-pawn tilts the balance firmly in Black's favor.

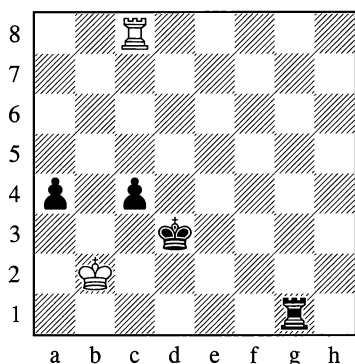
77.♞a7 ♞g1† 78.♔a2 ♔d2! 79.♞h7 c3 80.♞h2† ♔c1! White is badly missing ♔a2-b3, and Black will win with his c-pawn.

77...♞g1†! 78.♔a2 ♔d3!

Black is ready for ...c4-c3 next.

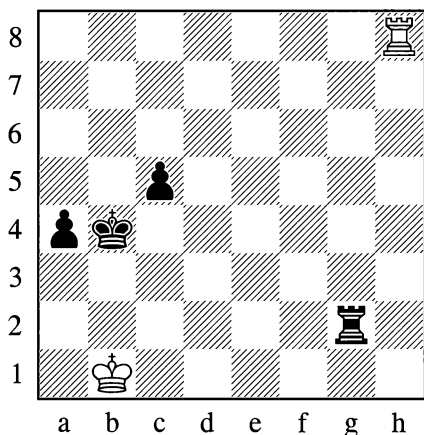
79.♔b2

This would normally be the drawing move. But the a-pawn is used as a distraction.



79...a3† 80.♔xa3 c3

Black will reach the Lucena position.



75...c4 76.♖h3

Transferring the rook to the third rank does not help White's cause.

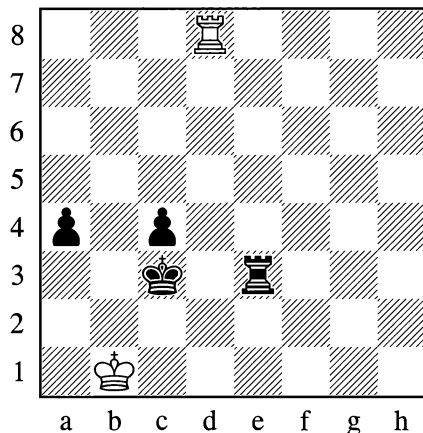
76...♖d2

Shabalov transfers the rook to d3, making sure to gain access to the c3-square for his king. This is consistent with the winning plan if White had remained on the eighth rank instead.

Simply advancing the pawns is also good enough. 76...a3 77.♖f3 c3 Black is ready for a check on the first rank next. Then, one of his pawns will promote directly.

77.♖f3 ♖d3 78.♖f8 ♔c3 79.♖h8 ♖e3 80.♖d8

If 80.♖h7 ♖e1† 81.♔a2 ♔d2 Black's c-pawn goes through.



80...♖e1† 81.♔a2 ♔c2 82.♖d4 c3 83.♖xa4 ♔d3

0-1

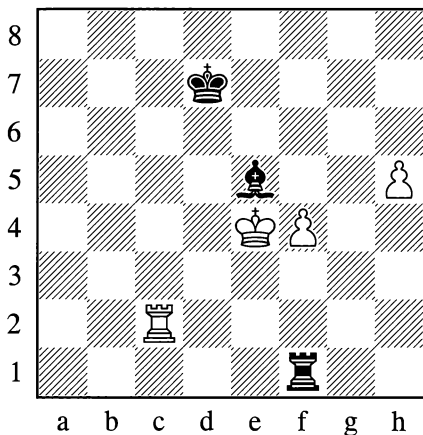
This encounter between two legends of American chess leads us to the first rule of the rook, f- and h-pawns against rook endgame.

The attacking side will win with a rook pawn and bishop pawn if the defending king is cut off on the back rank. The winning plan is to advance both pawns to the fifth rank, and then place the king in front of the bishop's pawn. Once there, the presence of the rook pawn means that the defending side will not be able to hold with the long and short side defense. It becomes a draw if the attacking king gets stuck in front of the rook's pawn.

This knowledge will help the attacking side know when he can transition into rook, f- and h-pawns against rook and when he cannot. Take the following example:

Richard Rapport – Kirill Shevchenko

Warsaw (rapid) 2021



In the second game we have seen in this book between these players, Rapport made the right capture on e5.

60. ♖xe5!

After 60.fxe5? ♜h1! Black takes the h-pawn and makes a draw.

60... ♖e7

If 60... ♜h1 61.f5 ♜xh5 62.♙f6 Black's king will be cut off along the e-file, and White wins.

61. ♜c7†! ♙f8

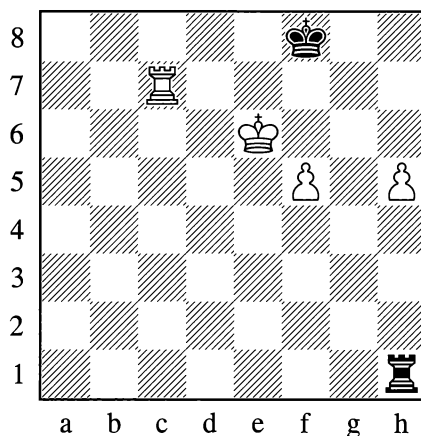
White reached the f- and h- pawns rook endgame, but he is winning because Black's king is on the back rank. I suspect Richard knew this position is a win but did not know how – it would explain what happened next!

62.f5 ♜h1 63.♙e6?!

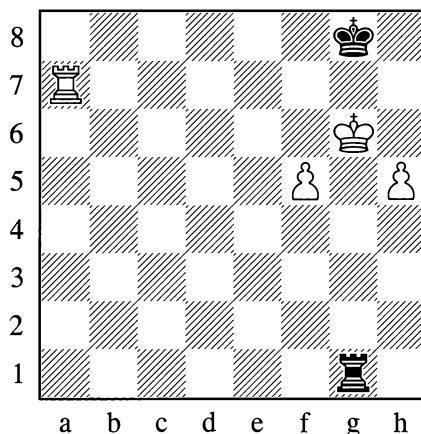
This is not a mistake per se, as White is still clearly winning. But it is the first sign that Richard might not have known what the best winning plan is.

As we saw before, the king should go to f6. White will win against the long and short side

defense. 63.♙f6! ♙g8 64.♜c8† ♙h7 65.♙e6 We have seen this before. 65... ♜a1 66.f6 ♜a6† 67.♙e7 ♜a7† 68.♙f8 Black is missing ...♙h7-g6. White wins.



63... ♙g8 64.♙f6 ♜h2 65.♜b7 ♜h1 66.♜g7† ♙h8 67.♜a7 ♙g8 68.♙g6 ♜g1†

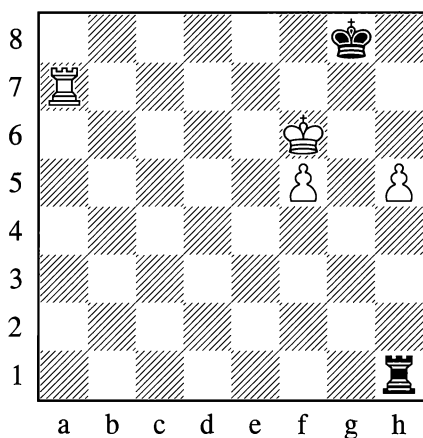


White's last several moves have shown that he did not know the proper winning technique, but the position still could have been won. I'm sure that Richard would have found the way in a classical game, but in rapid, he gave Shevchenko a chance to hang on.

69.♙h6? ♜f1

Correct was 69... ♜g2!. As we saw on page 145, Black will make a draw here.

70.♔g5 ♚g1† 71.♔f6! ♚h1

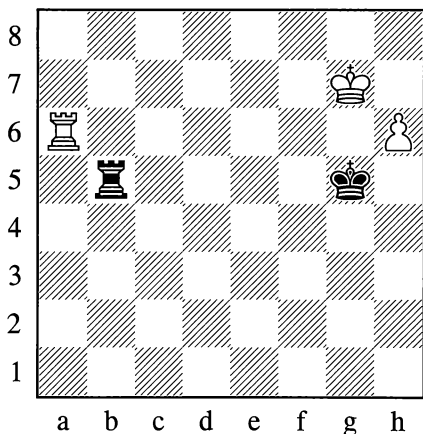


I suspect that White's last several moves were made with the intention of gaining time on the clock. 10 seconds per move can add up pretty fast, and now Richard found the way.

72.♚a8†! ♔h7 73.♔e7 ♚e1† 74.♔f8

74.♔f7 seems more natural to me, aiming for f5-f6 next. But the text does not spoil anything.

74...♚f1 75.♚a5 ♔h6 76.♚a6† ♔g5 77.h6 ♚xf5† 78.♔g7 ♚b5



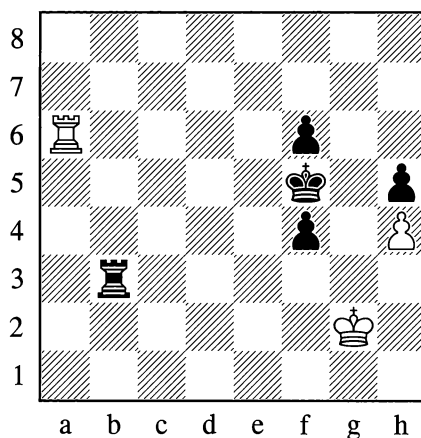
79.♚a7! ♚b6 80.h7 ♚g6† 81.♔f8 ♚h6 82.♔g8

1-0

While Rapport's technique was not totally convincing, his decision to transition into the endgame was correct. Still, the fact that he put his king on h6 at one moment showed that he did not know that this will immediately reach a drawn position. I suspect he may have made the same mistake that Navara made in the following encounter.

Alexander Moiseenko – David Navara

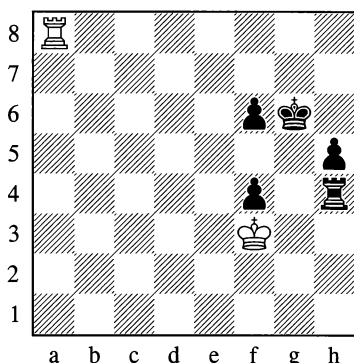
Khanty-Mansiysk 2011



Black has the option to play ...♔f5-g4, forcing the f and h-pawns endgame with White's king cut off on the back rank. But as we will see, this does not win.

69...♔g4?

Black should have immediately questioned the stability of White's king. 69...♚g3†! 70.♔f2 (70.♔h2 ♚g4 71.♔h3 f3 Black is ready for ...♚g4-f4 next, winning.) 70...♚g4 71.♚a5† ♔g6 72.♔f3 ♚xh4 73.♚a8

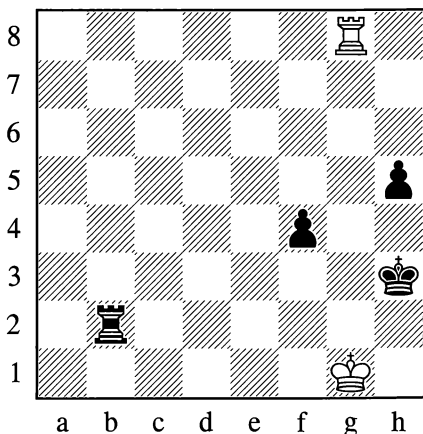


Navara probably saw a position like this one and was not sure if it wins or not. It does. 73...Bg4! 74.Bb8 Qg5! Black is ready for a check on g3 next, reaching a winning coordination. The extra pawn on f6 means that Bb8-b5+ can be met with ...f6-f5, and White loses.

70.Bxf6 Bb2+ 71.Qg1 Qg3 72.Bg6+ Qxh4

White's king is cut off along the second rank, but Black's king is also cut off along the g-file! We know this position to be drawn.

73.Bg8 Qh3



74.Qf1?

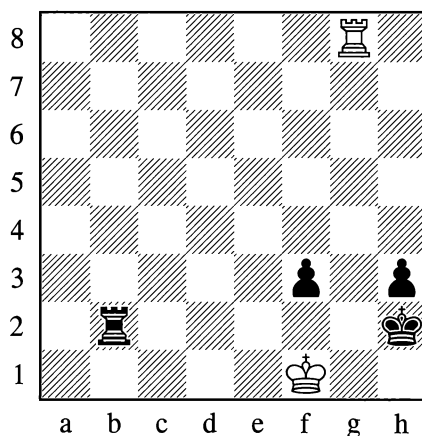
There is no reason for White's king to move. Staying with the rook on the g-file will hold: 74.Bg7! h4 75.Bg8 f3 76.Bf8! We have seen this before.

74...Qh2!

Now Black wins. He has a very simple plan to bring his pawn to h3, and then ...Bb2-g2 will free his king. It is important that his pawn is still on f4, leaving his king access to the f3-square.

75.Bg5 h4 76.Bg4 h3 77.Bg8 f3

Or 77...Bg2. I would have played the rook to g2 earlier to make sure the king has access to f3, but Navara's plan wins easily as well.



78.Bg7 Bg2 79.Bf7 Qg3 80.Bg7+ Qf4 81.Bf7+ Qe4 82.Be7+ Qd5 83.Bd7+ Qc6 84.Bh7 h2

With ...Bg2-g1+ coming next, White resigned.

0-1

Rook and f- and h-pawns against rook is supposed to be basic knowledge. But I have found that while most players know that it should be a draw, very few, even among the 2700+ crowd, are aware of the intricacies one must know. It says a lot that in these two games, Rapport, Navara, Moiseenko, and Shevchenko all blundered a half point at some point!

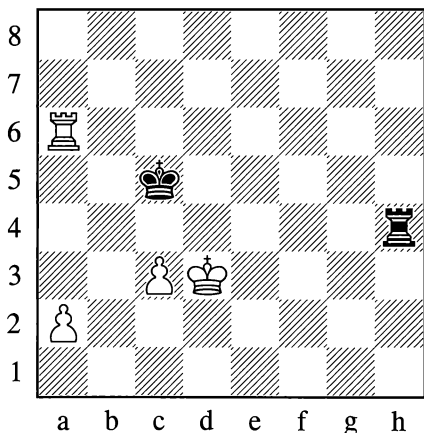
In healthy positions where the defending side is holding, the following is the correct strategy:

Leave your rook in the opposite corner behind the enemy pawns and leave your king on the knight's file in front of them. If the enemy king ever touches the knight's file in between his pawns, give him a check from behind, and then immediately return to the opposite corner. If your king is ever checked by the enemy rook, bring him to the edge of the board and forward if possible. If your king is ever checked by a pawn, place him directly in front of the pawn. Never put the king on the back rank – this supersedes all other rules about your king's placement.

If you follow these rules, you will hold every time. It's possible to break a rule and still be in a drawn position, but then the defense immediately becomes more difficult. Take the following recent game as a cautionary tale.

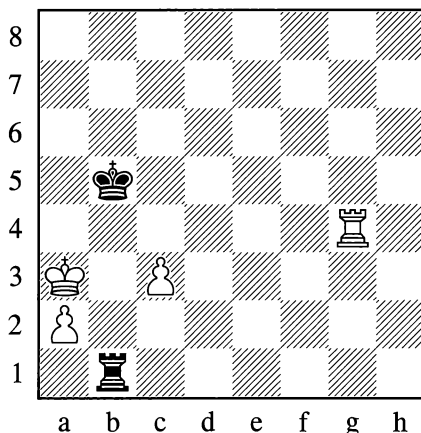
Awonder Liang – Dariusz Swiercz

Saint Louis 2022



We pick up the endgame at an early stage of rook, f- and h-pawns (or a- and c-pawns in this case) vs rook. Black should easily draw by following the rules.

61...♖h3† 62.♔c2 ♔c4 63.♞a4† ♔b5
64.♞g4 ♞h1 65.♔b3 ♞b1† 66.♔a3

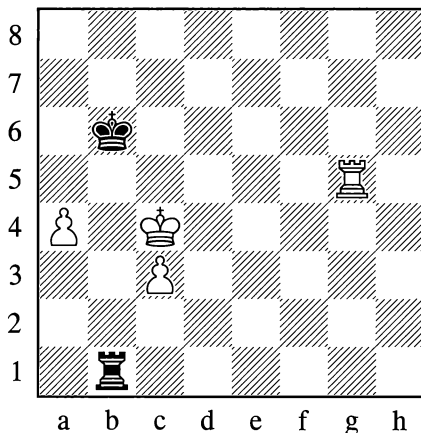


66...♔c5

This is the first moment where Swiercz does something different from what the rules would dictate. It is far from a decisive mistake, but it is the first sign that he was not 100% sure of the best way to defend at every single moment. The king should not go towards the center, and he should always bring his rook back to the side right after giving the check.

66...♞h1 would be more consistent.

67.♞b4 ♞c1 68.♔b2 ♞h1 69.a4 ♔c6 70.♞b3
♔c5 71.♞b5† ♔c6 72.♞b4 ♞g1 73.♞b5 ♞h1
74.♞g5 ♔b6 75.♔b3 ♞b1† 76.♔c4



76...♖c1

Another unusual looking move. Again, it is far from a decisive mistake. But if Black continues to make moves like these once White's pawns are further advanced, the result will change.

Correct was 76...♖h1!

77.♖g6† ♕a5 78.♖g8 ♖h1 79.♖a8† ♕b6
80.♖b8† ♕a5 81.♖b4 ♖h4† 82.♕b3 ♖h1
83.♖b5† ♕a6 84.c4 ♖b1† 85.♕c3 ♖c1†

Always bring the rook all the way back to the other side right after checking on the knight's file: 85...♖h1

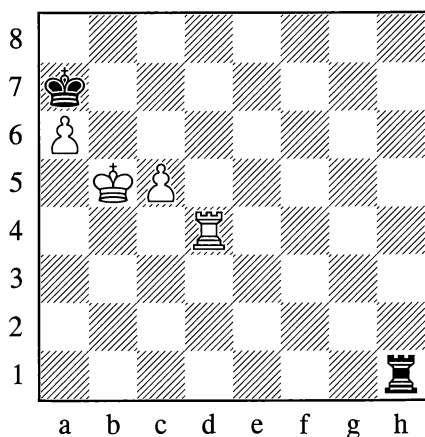
86.♕b4 ♖b1† 87.♕c5 ♖a1?!

87...♖h1 should again have been played for the same reason as before.

88.♖b6† ♕a7 89.♖b4

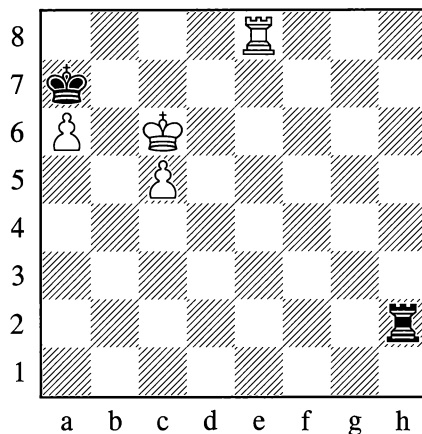
This position is a perfect example of how not following the rules will make your life harder. Black is definitely still making a draw. But think about how nice it would be to have the rook already on h1 here and to be able to immediately start giving lateral checks.

89...♖h1 90.♕b5 ♕b7 91.a5 ♖c1 92.a6†
♕a7 93.c5 ♖h1 94.♖d4

**94...♖b1†!**

Of course, Black always gives a check when the enemy king steps onto the knight's file.

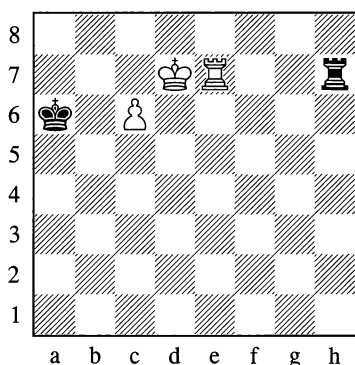
95.♕c6 ♖h1 96.♖d8 ♖h2 97.♖e8



Up to this point, Swiercz had made several moves that felt wrong to me, which didn't follow the prescribed rules of how to save the position. But they all came at moments when White's pawns were not so far advanced. Black had time to fix his coordination and set up his pieces correctly. Now they are both well placed, and Black needed to save the game by following the rules – leave the rook in the opposite corner!

97...♖c2?

Passing with 97...♖h1 was quite sufficient. The point is that after 98.♕d6 ♕xa6 99.c6 ♖h6†! Black draws with lateral checks, thanks in no small part to his rook being on the h-file rather than the c-file. He is one tempo in time. 100.♕d7 ♖h7† 101.♖e7



In the game, a position like this one could have been reached, but with Black's king on a7, and the a6-pawn still alive. Here we see a key difference. 101...♖h8! 102.c7 ♔b7! It's nice that this move is legal! Black holds with no further effort.

98.♔d6!

Awonder took his chance when it came.

98...♞d2†

After 98...♔xa6 99.c6! Black is missing a lateral check along the sixth rank, as bringing the rook from the h-file to the c-file was ill-advised. White promotes the pawn directly.

99.♔c7 ♞h2

Black brings the rook back where it needs to be, but this is a tempo too slow.

100.c6! ♞h7† 101.♔d6 ♞h6† 102.♔d7 ♞h7† 103.♞e7 ♞h1

If White's pawn on a6 were not there, 103...♞h8 would save the game. As is, after 104.c7 Black is missing ...♔a7-b7, and White promotes the pawn.

104.c7 ♞d1† 105.♔e8

1-0

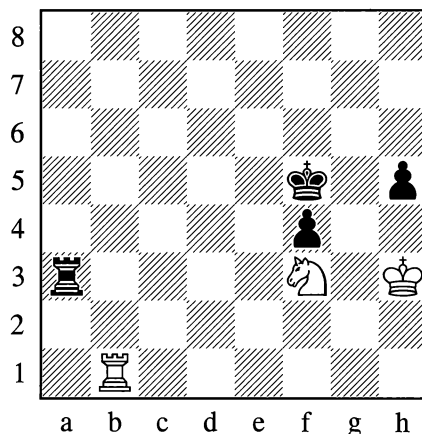
Every year, more and more strong GMs are added to the list of players who have misplayed this endgame. If you follow the rules for the defending side, you will not join them.

It is important to note that there can be cases where f- and h-pawns are winning from the start, or the defensive side is already in a bad position. When this happens, playing the position correctly can require seeing if the rules are possible to follow. If they are not, the position may already be lost. If the position is not lost, the defense often becomes harder.

Let's see a recent example contested between two of my closest friends in the chess world.

Doug Eckert – Megan Lee

Los Angeles 2023

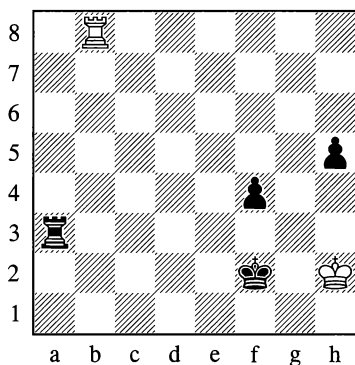


With the clocks ticking down at the end of a long game in a two game per day event, Megan faltered here. I suspect she took on f3 without even thinking.

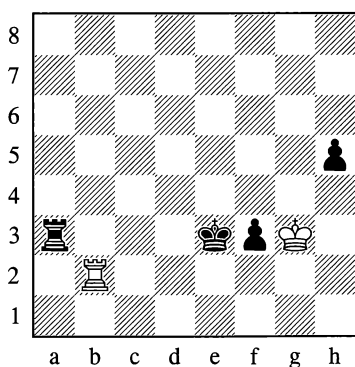
57...♞xf3†

Black could have won by bringing the king to the f3-square with 57...♔e4!. It is important to understand why this position is winning. The reason is that she can bring her king to f3 without having to advance ...h5-h4-h3 first. In the previous Liang – Swiercz game, we saw on page 151 that in order for White to gain access to the c6-square for his king, he needed to push a4-a5-a6 first. As such, when the pawn was so far up the board, Black was able to take

it and draw with lateral checks. Here, Black will get the king to f3 while leaving the pawn back on h5. 58.♖b8 (If 58.♔g2 ♜a2†! 59.♔g1 ♕xf3 White's king is cut off on the first rank, and he loses, as seen on page 148.) 58...♕xf3 59.♔h2 (White is too slow to go after the h-pawn and try to come back. 59.♔h4 ♕e3 60.♕xh5 f3 Black wins.) 59...♕f2

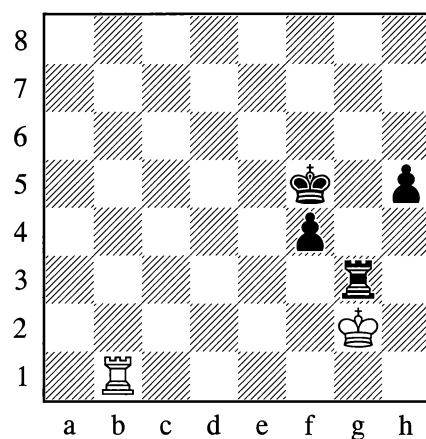


Lateral checks will not save the game. White would be making a draw if Black's h-pawn was on h3, but as is, he cannot run the king up the board to take it and come back in time. 60.♖b2† ♕e3 61.♔h3 f3 62.♔g3



This is what a lateral checks defense would look like, and it would save the game if White had been able to take the h-pawn. As is, it is a lethal distraction for White's king. 62...h4†! 63.♕xh4 f2 Black wins.

58.♔g2! ♜g3†



Now, the rules would normally dictate that White should save the game by always going to the edge of the board. But this is not a normal circumstance! White has already “broken” one of the rules by leaving his rook on b1 rather than b8 (of course he did not have a choice, as the rook was on b1 at the start of the endgame, and he has not had a chance to move it yet). As such, White must choose a different direction.

59.♔f2!

White absolutely cannot allow Black's king to reach f3.

59.♔h2? ♔g4! Again, Black's king will safely make it to f3 without having to push the h-pawn to h3. Black wins in the same manner as what we saw after 57...♔e4.

59...h4

We know where White's rook belongs. Doug brought it to its best square at his first opportunity.

60.♖b8!

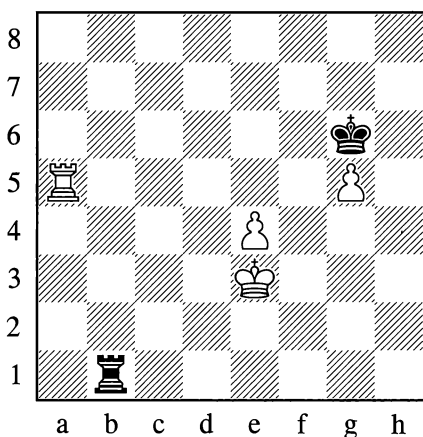
White is ready for endless checks from behind. Black will not get her king to the winning zone, and now the defense is easy.

60...♜g5 61.♕f3 ♜g3† 62.♕f2 ♜g6 63.♕f3 h3 64.♖b5† ♕f6 65.♖h5 ♜g5 66.♖xh3 ♕e5

67.♖h8 ♜g3† 68.♔f2 ♜g5 69.♔f3 ♜g3†
 70.♔f2 ♜a3 71.♞e8† ♔f5 72.♞f8† ♔e4
 73.♞e8† ♔f5 74.♞f8† ♔e4 75.♞e8† ♔f5
 76.♞f8† ♔e5
 ½-½

When it comes to two pawns split by one file that are not f- and h-pawns, they almost always win if they are connected to their king and not lost immediately. I could find only one structure that bucks this trend.

Exception 1



Rather bizarrely, this position is a draw. There are a lot of factors that work in Black's favor. For starters, White's king is unable to cross the fifth rank without losing the g5-pawn, and when he does, Black will have just enough checking distance to defend with lateral checks.

1.♞d5

This feels like the most natural winning attempt to me.

Or: 1.♔f4 ♜f1†! Of course, Black does not allow White to give a check on the sixth rank.

1...♜a1!

Black plays a lateral check defense. If he is ever allowed, he will take on g5.

2.♔f4

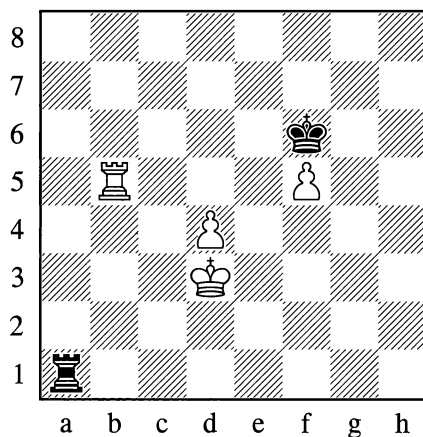
After 2.♔d4 ♜a6 3.♔c5 ♜a5† 4.♔d6 ♜a6† 5.♔e7 ♜a7† White is not making any progress.

2...♜f1† 3.♔e5 ♔xg5 4.♔e6† ♔g6 5.e5 ♜a1

Black has enough checking distance to hold with lateral checks.

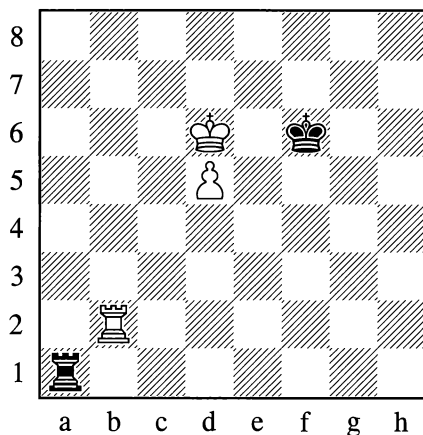
White's overextended g5-pawn ruined his coordination. It must specifically be a g-pawn. Let's see what happens if we tinker with the position.

Exception 2



The whole position being moved one square to the left means that White can win without the f5-pawn.

1.♔e4! ♜e1† 2.♔d5 ♔xf5 3.♔d6† ♔f6 4.d5 ♜a1 5.♞b2



Black does not have enough checking distance to hold with lateral checks.

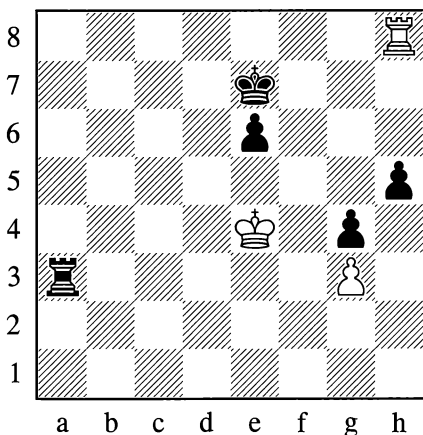
This brings us to the next guideline.

The only drawn rook endgames where the attacking side has two non-rook pawns split by one file and are well defended, occur when the defending king can be permanently placed in the direct vicinity of a knight's pawn.

This is a niche scenario, and not one that is seen very often – I can't remember ever having it in my career. But it is not unheard of.

Sergey Karjakin – Maxime Vachier-Lagrave

Saint Louis 2018



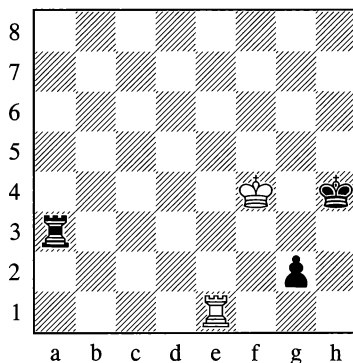
78...♖xg3?

One cannot fault Maxime for not knowing this extremely obscure drawing structure, but he could have taken the full point if he had anticipated it might be coming.

Black should defend his h5-pawn with 78...♖a5!. His winning plan will be to place his rook on f5, transfer his king to g7 to remove White's rook from h8, and then eventually play ...♖f5-f3.

79.♖xh5 ♖a3 80.♔f4 ♖a4†

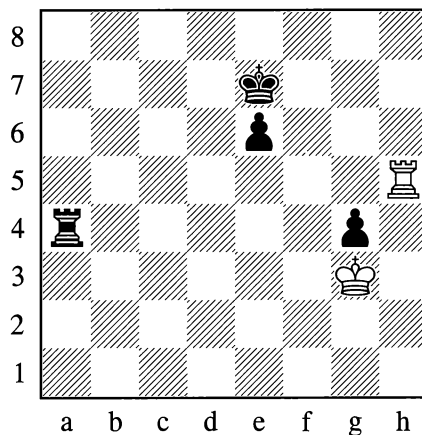
Advancing the pawn with 80...g3 does not win the game either. White's king will remain annoying on f4. But it would have forced White to find more good moves. 81.♖g5 ♔f6 82.♖f5† ♔g6 83.♖g5† ♔h6 84.♖e5 g2 85.♖xe6† ♔h5 86.♖e1 ♔h4



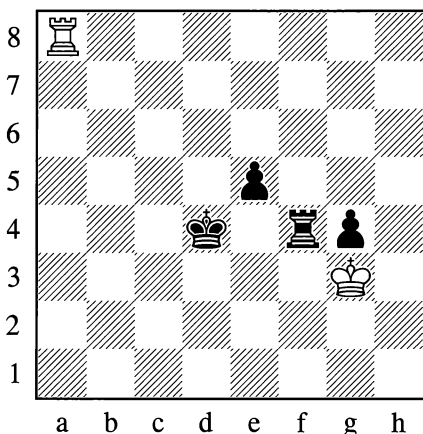
We see another case of why being left with a g-pawn was unfortunate. It looks like Black is about to win by bringing his king to h2, but... 87.♖e8! It is rather annoying that Black does not have the i-file to work with! 87...♖a5 88.♖g8! Black cannot play ...♔h4-h3, and the game is drawn.

81.♔g3

Black has reached a position that we know to be drawn.



81...♔d6 82.♖h8 ♔d5 83.♖d8† ♔e5 84.♖b8
 ♖d4 85.♖a8 ♖e4 86.♖a5† ♔f6 87.♖a8 e5
 88.♖f8† ♔e6 89.♖e8† ♔d5 90.♖d8† ♔c4
 91.♖a8 ♔d5 92.♖d8† ♔c5 93.♖c8† ♔d4
 94.♖a8 ♖f4



Sitting and waiting should be the best policy.

95.♖e8?!

Much like we saw from Swiercz, Karjakin places his rook behind the pawn. This gives Black's king a safe square on e4.

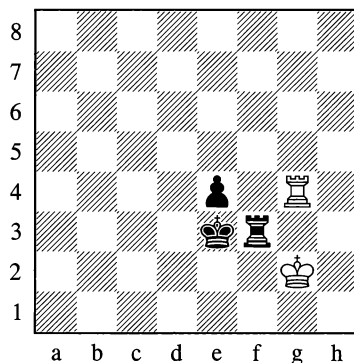
95.♖a7 would have been fine. Black has no plan to make further progress.

95...♔e4 96.♖g8

Again, White should wait with his rook in the corner: 96.♖a8!

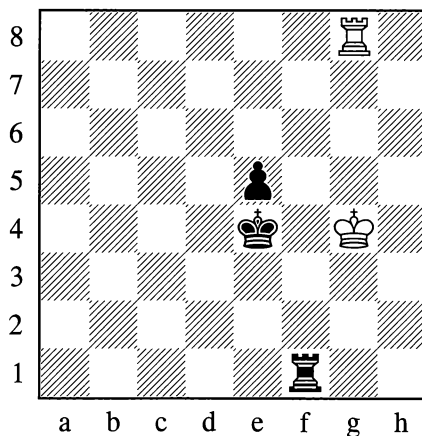
96...♖f3† 97.♔xg4!

Not 97.♔g2 ♔f4 As soon as White's king is no longer able to harass the g-pawn, Black wins routinely. 98.♖f8† ♔e3 99.♖g8 e4 100.♖xg4



White took on g4, but he had to take with his rook instead of his king. As such, after 100...♖f8 White will not be able to transfer his rook to the queenside and set up lateral checks. 101.♖g3† ♔e2 102.♖a3 If White got to move again, he would draw with ♖a3-a2†. But he does not get to move again. 102...♖g8†! Black's king gains access to the f-file, and he will routinely reach the Lucena position.

97...♖f1



If Black is allowed to check on g1 next, he will win easily.

98.♔h3!

White's king makes it back to g2, and he will draw with lateral checks.

98...♙e3 99.♔g2

The rest was easy for Karjakin.

99...♖a1 100.♖g3† ♙e2 101.♖g4 ♙e3
 102.♖g3† ♙d2 103.♖g4 ♖e1 104.♖a4 e4
 105.♖a2† ♙e3 106.♖a3† ♙f4 107.♙f2 ♖b1
 108.♙e2 ♖b2† 109.♙e1 ♙e5 110.♖a4 ♙f5
 111.♖a8 ♙f4 112.♖a3 ♖h2 113.♙f1 ♖d2
 114.♙e1 ♖d3 115.♖xd3 exd3 116.♙d2 ♙e4
 117.♙d1 ♙e3 118.♙e1 d2† 119.♙d1 ♙d3
 ½–½

One must feel a little sorry for Maxime, as it is very understandable to not know this extremely unusual drawing structure. In particular, this was a final round game after he started with eight draws! Winning one at the end would have felt so much better than being indecisive for the whole tournament.

I tried setting up all sorts of different structures where the attacking side had safe pawns, and the only time I found draws was when the defending king was harassing the g-pawn. In tournament practice, I believe this is the only kind of situation you need to be aware of.

Chapter 9

Two Pawns Against One on the Same Side

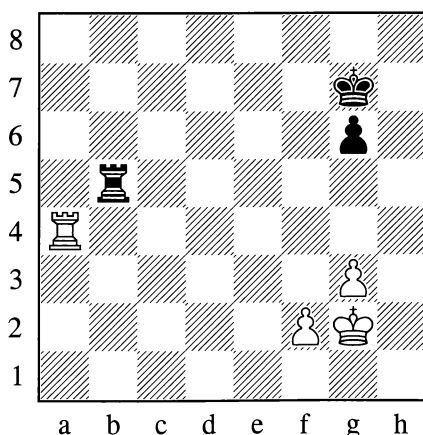
Finally, we are ready to proceed into new territory. In this and the next two chapters, we are going to be looking at rook and pawn endgames with both sides having pawns, and all the pawns being on the same side.

A common misconception that I was taught as a kid is that two pawns versus one, three versus two, and four versus three are all draws, while five versus four is a win. This may hold true more often than not, but it completely ignores the most important elements in the position: namely, the pawn structure and piece placement. As such, I would like to rewrite this rule as a guideline.

Any rook endgame with all the pawns on the same side of the board and one pawn less is very likely to be a draw if the defender's pawns are connected and his king is well placed.

Let's start with the simplest case, which is two pawns against one.

Simple Draw



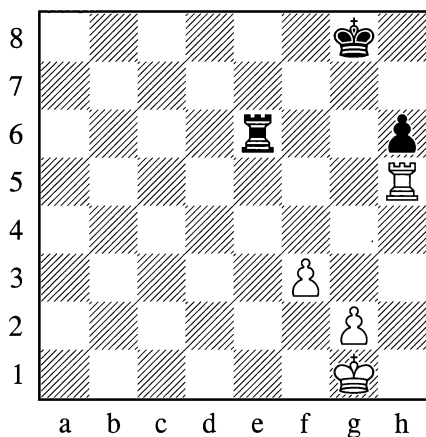
This is obviously a draw. Broadly speaking, White has two ways to try to win. Firstly, he can try to take the g6-pawn to get two passed pawns. This will not happen, as Black's king is well placed and cannot be kicked away. Secondly, he can try to cut off the black king along the

e-file or something similar, and then make a passed pawn to reach the Lucena position. This will not happen either, as Black's king cannot be discouraged from leaving the g7 and g8 squares. There's nothing to even try and I'd expect a draw to be agreed shortly.

Let's now examine a case that is not quite as clean-cut.

Vladimir Fedoseev – Magnus Carlsen

Wijk aan Zee 2019

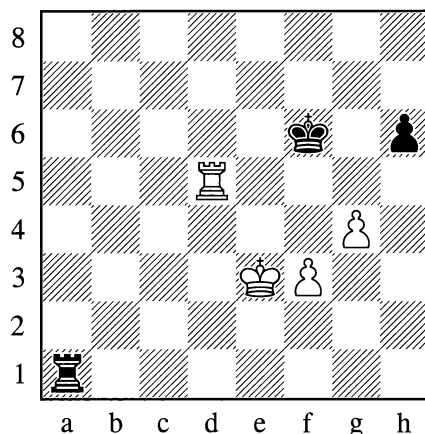


This time, the pawn structure is less symmetrical than in the previous example. White has a passed pawn. But this turns out to be of little consequence. The same ending without the g2- and h6-pawns would be an obvious draw, and their presence on the board does not change much. Black's king will happily sit on g7, and White will not be able to win the h6-pawn. White's g-pawn doesn't offer him much help either as it can only control the f5-square, which Black was never planning on using anyway.

46...♔g7 47.♕f2 ♖a6 48.g4 ♖a2† 49.♕g3 ♖a3 50.♖d5 ♕f6 51.♕f4 ♖a4† 52.♕e3 ♖a1

It might look like Carlsen is not doing anything special, but in fact, I think this move

shows excellent understanding. The rook should be going to the first rank to harass White's pawns from behind.

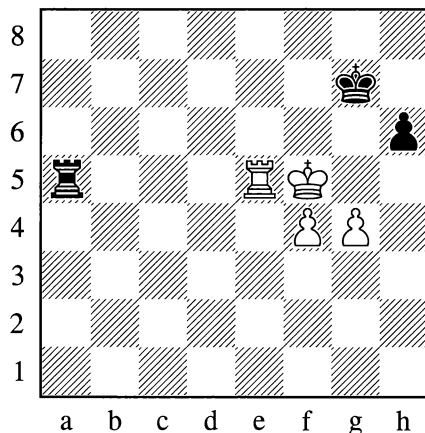


53.f4 ♖g1 54.♖d6† ♕g7 55.♕f3 ♖e1

Or 55...♕h7. There was nothing wrong with waiting with the rook on g1 either. White can make no further progress.

56.♖b6 ♖g1 57.♖e6 ♖a1 58.♕e4 ♖a4† 59.♕f5 ♖a5† 60.♖e5

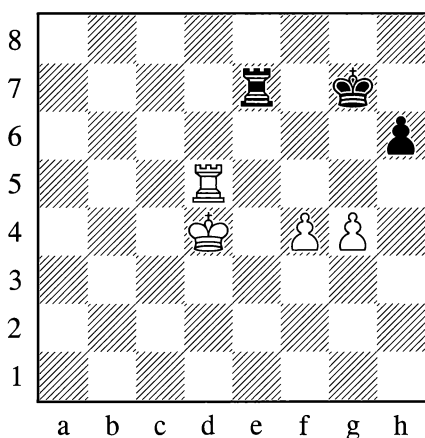
Up until now, at every move Black had at least three drawing continuations. Finally, he is in a position where he has only one, but it is hardly rocket science. White should not be allowed to play ♖e5-e7† and invade with his king.



60...♖a7!

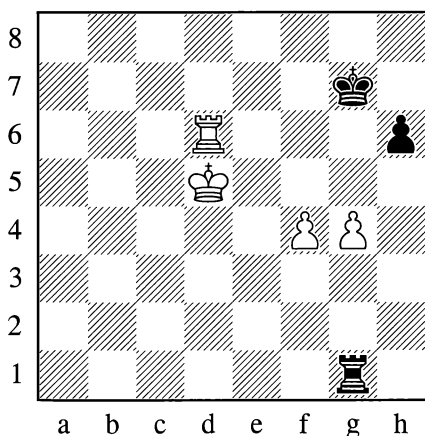
Tying the king down to the defense of the f4-pawn is a bad idea: 60...♖a4? 61.♖e7† ♔f8 62.♖e4! White's king invades, and he wins.

61.♖d5 ♖f7† 62.♔e4 ♖e7† 63.♔d4



Now that White's king no longer stands on f5, Black does not need to leave his rook on the seventh rank. Carlsen transferred it back to its ideal post.

63...♖e1! 64.♖d7† ♔f6 65.♖d6† ♔g7 66.♔d5 ♖g1!



The utility of the rook on the first rank is now obvious to the naked eye. White's only chance was to try to bring his king up the board, but now his g-pawn will fall.

67.♔e6 ♖xg4 68.♖d7† ♔g8 69.f5 ♖f4

The position is a draw even without the h-pawn, as we saw on in the long and short side defense on page 29.

70.♔f6 ♖f1 71.♖d8† ♔h7 72.♖d7† ♔g8 73.♖d8† ♔h7 74.♖d7†
½–½

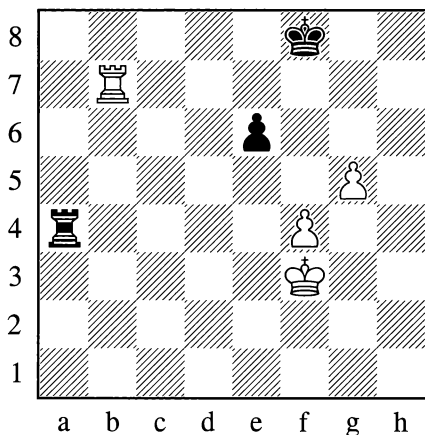
Even when White had what looked to be a nominally better pawn structure, the position was still an easy draw. But Black could have held without putting his rook on the first rank, and at some moment it did have to leave. But for the most part it should be noted that this was the best defensive place for it to be, leading us to the next guideline.

In two pawns against one rook endgames where the attacking side has pawns on adjacent files, and the defending pawn side has a pawn on another file adjacent to one of the attacking pawns, the defending rook should be placed on the attacker's first rank to harass the enemy pawns from behind.

Let's see a case where this guideline could have helped a top player save half a point.

Vladimir Kramnik – Veselin Topalov

Wijk aan Zee 2003



It looks like Black should make a draw, and he will with accurate play. His king is not cut off far enough away from the e6-pawn for White to hope to round it up. But Topalov should have been mindful of his rook's placement.

53...♖c4?

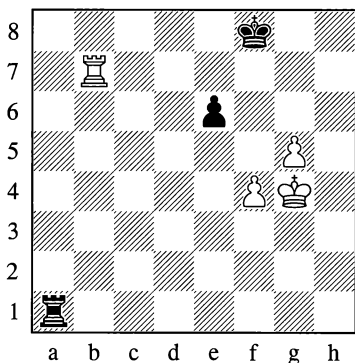
Now Black loses. Correct was:

53...♖a1!

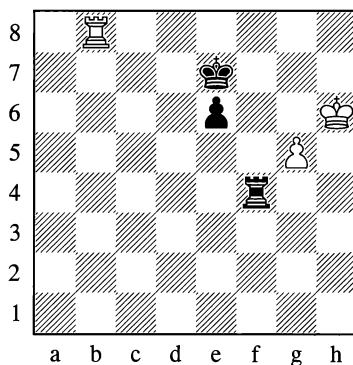
My machine claims that ...♖a4-a3† would have drawn as well. I won't argue with it, but ...♖a1 is best practice. Black should be ready to harass White's king and pawns from behind.

54.♕e4

54.♕g4



This is a scary move to face, as White is planning g5-g6 next without allowing the rook to take the pawn from g1. But Black makes a draw by continuing his harassment from behind. 54...♖g1†! 55.♕h5 ♖f1! White is unable to keep his f4-pawn defended and invade with his king at the same time. His best attempt to play for a win is 56.♕g6 ♖xf4 57.♖b8† ♕e7 58.♕h6



White's g-pawn is powerful and will probably promote. But White will take a long time to turn this hope into a reality. In the meantime, Black's e-pawn is coming. 58...♖h4† 59.♕g7 e5 60.g6 ♕e6 White is at least five tempi too slow to promote his pawn and catch the black e-pawn without losing his rook. It's a dead draw.

54.g6 was the winning move after Black's mistaken ...♖a4-c4 on the previous move. Here, Black simply scoops up the pawn and draws. 54...♖g1! It's nice that this move is legal!

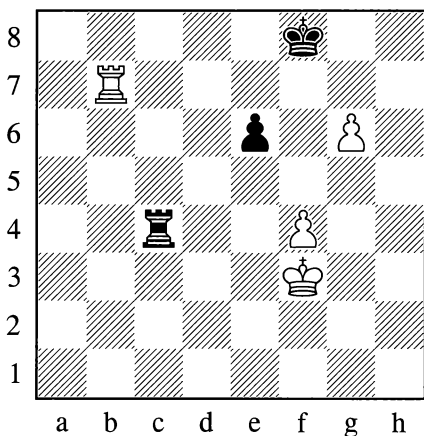
54...♖e1†!

Of course, Black does not allow the king to e5.

55.♕d4 ♖e2

White is unable to make further progress. His king is cut off. If he wants to break the cut, he will need to transfer his rook to a square like e3, allowing Black's king to advance to f7 or even g6.

54.g6!



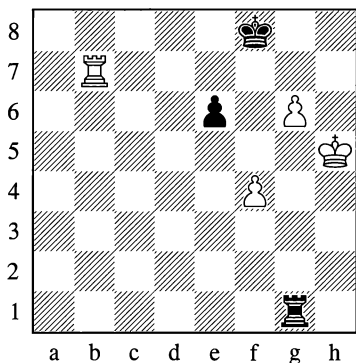
Just like that, Black is lost. White is planning a check on f7 next, and his king is ready to rush up the board. Black needed to be able to put his rook on g1 here, and is a tempo too slow.

54...Rc1

Waiting would not help: 54...Ra4 55.Rf7+! Kg8 56.Re7 Ra6 57.Kg4 Black's pieces have become passive and his king is separated from his pawn. There is nothing to do about White's king running straight to f6, winning.

55.Kg4 Rc5

55...Kg1+ 56.Kh5



Black is too slow to harass the pawns. If White's g-pawn was back on g5, ...Rg1-f1 would make a draw. As is, Black loses. 56...Rf1 57.Kg5 wins.

56.Rf7+! Kg8

56...Kg8 57.Re7 wins.

57.f5!

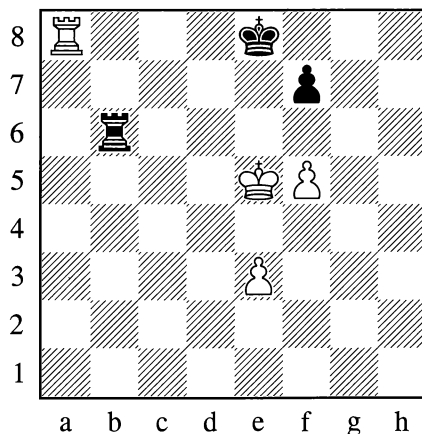
White simplifies the position, and Black's king will be cut off on the e-file. Black cannot avoid the Lucena position, and he resigned.

1-0

In general, if the defending side has their king close to their pawn, they should only lose under one specific circumstance, which we will see here.

Grigory Serper – Sam Shankland

Las Vegas 2006



I never had a proper chess education. At the time of this game, I was 15 years old, about 2200, and had never been taught any rook endgames in my life. It showed. Black should be making a draw trivially, but he will only do so if he can prevent White from securing a pawn on f6.

56...Kg7?!

This was the first step in the wrong direction. The position is not lost yet, but I am now a single mistake away from losing the game.

Correct was 56...♔d7!. It was much stronger to place the king on d7 to avoid letting White play f5-f6 with a gain of tempo. Black is ready for ...f7-f6† next, easily drawing. If White ever tries to advance f5-f6 first, he will run into ...♖b6-e6†. 57.♖a7† ♕e8 58.f6 (58.e4 If Black were to allow f5-f6 here, he would have some work to do. Instead, 58...f6† draws routinely.) 58...♖e6† Time to shake hands amicably.

57.f6†!

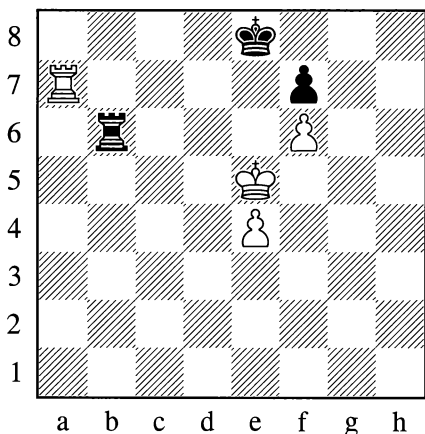
The first step for White is to secure his pawn on f6 to fix f7 as a permanent weakness. Black's king is misplaced and would much rather be on the kingside, safe from any lateral harassment and ready to run to g6.

57...♔d7 58.♖a7†!

58.♖f8? is what White wants to do eventually to win the f7-pawn. But here it would fail as after 58...♖b5†! White's king is forced away, and ...♔d7-e6 will come. White needs to make sure he can secure his king on f5. This means he can push e4-e5 to avoid any checks on the fifth rank before he goes in for the kill by transferring the rook to f8.

58...♔e8 59.e4!

Black must be extremely precise to hold the draw. If White is able to play ♕e5-f5 followed by e4-e5, his f6-pawn will be secure enough to win the game.



59...♖b1?

Now it is lost. Black needed to check on b5 before transferring the rook to the first rank:

59...♖b5†! Black could have just saved the game with this check. The point is that White's king will not be able to control the e6 square. 60.♕f4 ♖b1! (60...♖c5? Sitting and waiting will not do. After 61.♖a8†! ♔d7 62.♖f8 ♕e6 63.e5! White wins, as his king has a place to hide. If Black's rook was on the first rank here, he would save the game with ...♖c1-f1†, and endless checks would follow. Instead, he has but a single check, and after 63...♖c4† 64.♕g5 the threat of ♖f8-e8†-e7 is decisive. Note that after 64...♕xe5 65.♖xf7 Black would draw if he could give a check on the g-file. This is why it would have been better to transfer the rook to the first rank and check from behind rather than the side. As is, ♖f7-e7† is coming next, and White will reach the Lucena position.) 61.♖a8† ♔d7 62.♖f8 Since Black is able to bring his king safely to e6 here, he saves the game. 62...♕e6 63.e5 ♖f1†! This is why Black had to transfer the rook to the first rank. White's king is destabilized, e5 will fall, and Black will save the game.

59...♖e6† In the analogous position where Black did not lose a tempo due to f5-f6 coming with check, this would have been an easy draw, as White's pawn was on e3, and material would be immediately equalized. As is, White's king has a perfect square to defend both pawns and control the key squares perfectly. After 60.♕f5! neither pawn can be taken, and ♖a7-a8†-f8 cannot be prevented. Time to resign.

60.♖a6?

Of course, 60.♖a8†! should have been played. 60...♔d7 61.♖f8 ♖b5† 62.♕f4 ♕e6 63.e5! We have seen this before. Black's rook is on the wrong spot. He can only give lateral checks, and not checks from behind. 63...♖b4† 64.♕g5 ♕xe5 65.♖xf7 White wins.

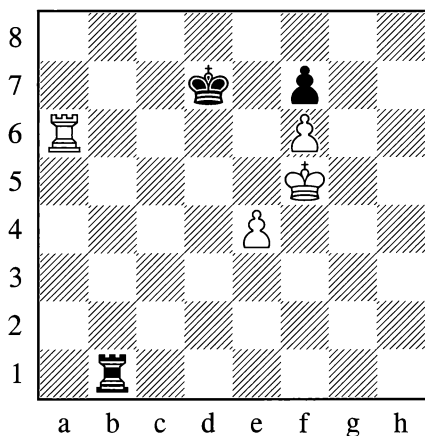
60...♔d7?

A surprising move is the only way to draw the game: 60...♖h1!! The point is that after 61.♖a8† ♔d7 62.♖f8 ♖h5† 63.♔f4 ♔e6 64.e5 with the rook on the queenside, Black could resign here. But, at this moment, he has 64...♖f5†! holding the draw.

61.♔f5?

Rook endgames are difficult. It's unsurprising that an uneducated 2200 like myself would make this many mistakes, but clearly well-schooled Russian Grandmasters do too!

61.♖a7† ♔e8 62.♖a8† ♔d7 63.♖f8 would have transposed to a previously discussed winning variation.

**61...♔e8**

I had one more chance to find the brilliant saving resource of putting my rook on the h-file. But I was not even up to the challenge of finding the extremely simple ...♔e8-d7 from the moment we picked up the game, much less a very difficult only move. 61...♖f1†! 62.♔e5 ♖h1!! draws.

62.♖a8† ♔d7 63.♖f8 ♖b5† 64.e5

A painful game for me at the time, but an instructive one. Even with just two pawns against one left on the board, when White

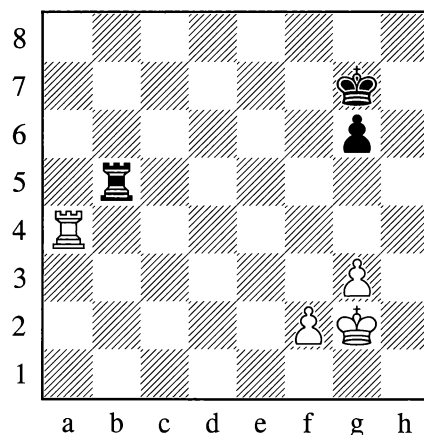
secured a pawn on the sixth rank to fix a weakness on f7, the position quickly became lost.

1-0

In one of my first ever encounters with a grandmaster, I ended up losing a two pawns against one rook endgame that should have been a draw. When considering what went wrong, I was able to come up with the following guideline.

The best way to play for a win in a two pawns against one rook endgame, with the pawns on the same side of the board and the enemy king in a reasonable place, is to fix the enemy pawn on the seventh rank. This will generally not be enough to reach a winning position, but it makes the opponent's defense extremely difficult.

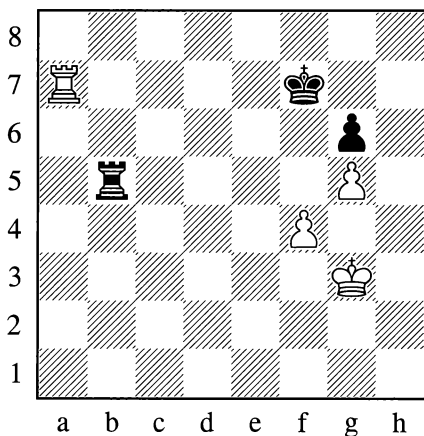
Let's compare this position with our previous example.

Simple Draw – Redone**1.f4 ♔f6**

Of course 1...g5 should be played, forcing a pair of pawns off and ending the game immediately. But for now, let's be a little cooperative.

2.g4 ♖g7 3.♙g3 ♜f6 4.g5† ♜f7 5.♞a7†

Here, we see the key difference. Because Black's pawn has reached the sixth rank and is fixed on g6 rather than g7, his king has more freedom to stay close to the defense.



5...♙e6?

Had the eighth rank not existed, this move would be forced, and now White wins the pawn.

Correct is 5...♜f8!. Black can also draw by placing the king on g8, or even e8. The point is that there are two ranks behind the pawn for the king to hide rather than one. As a result, White's rook is unable to kick the king away from the f- or g-file. Black makes an easy draw and there is nothing left to try.

6.♞g7! ♜f5 7.♞f7† ♜e4 8.♞f6

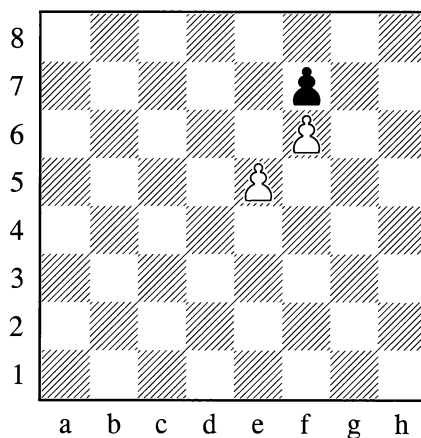
White wins the pawn, and the game.

As we can see, Black makes an easy draw if his pawn is not stuck on the seventh rank. In my game with Serper, Black's position was defensible even if the pawn got fixed on f7, but the defense became considerably more difficult. I did not even come close to saving

the game. There are no hard rules I can write about these situations, as sometimes they will be winning and other times they won't be. But suffice to say that the attacking side should be happy to fix the enemy pawn on its starting square, and the defending side should not let this happen if they can help it.

I think the pawn structure we reached deserves a diagram of its own.

Fixed Pawn Weakness

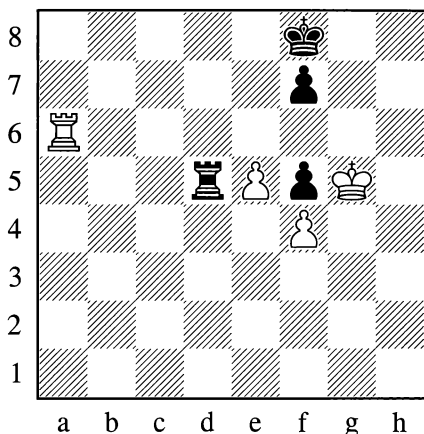


If White can accomplish this pawn structure with a secure king and keep Black's king from becoming too active on e6 or g6, his winning chances are very good. In most three pawns against two positions, he will be technically winning. Two against one positions can sometimes be drawn but they are very difficult to defend in practice. The best defensive hope Black has is connected with self-stalemating on h8, and his king will be much better placed on the kingside than in the center.

Let's look at another encounter that reached a similar position.

Srinath Narayanan – Dmitry Andreikin

Abu Dhabi 2016



Black has a tough defensive task ahead of him. The f5-pawn is dead meat and White will end up with two pawns against one, but it should be a draw if played correctly. The first point is to make sure the f7 pawn doesn't drop off the board. The second one is to make sure White cannot place either his king or pawn on f6.

51...♔e7?!

This does not lose yet, but it makes Black's life harder. As mentioned above, Black's king would be happier on g7.

51...♔g7? is the right idea, but the wrong execution. Black's king goes to the right square, but surprisingly he loses immediately after 52.♖a7!. The threat of e5-e6 proves impossible to stop, as retreating the king would allow ♔g5-f6.

51...♖b5! is the way. Once White takes the pawn, Black will be able to safely put the king on g7. 52.♔xf5 (52.♔f6 ♖b8! Since Black always has a check on the sixth rank available whenever White plays a move like ♖a6-a7, White has nothing better than taking the pawn on f5, with a similar position.) 52...♔g7! Now

this is fine because Black's rook can transfer to the sixth rank whenever needed – a luxury he did not have when it stood on d5. 53.♖a7 (After 53.♔g5 ♖c5 Black has successfully prevented f4-f5-f6, and he is easily saving the game.) 53...♖b6! A valuable resource! Black holds easily.

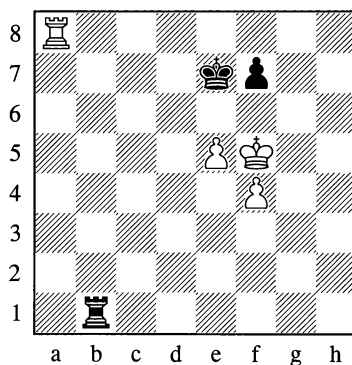
52.♔xf5

The king on e7 is badly misplaced. Firstly, we now know that if White is able to advance f5-f6, Black is hardly guaranteed a draw. Secondly, f5-f6 becomes much more achievable because Black's rook is stuck. The threat of ♖a6-a7† hanging over his head means that he cannot easily transfer his rook to the first rank to harass White's king.

52...♖d4?

This is a decisive mistake.

52...♖b5! is more than just a waiting move. Black is ready to transfer the rook to the first rank without fear of ♖a6-a7† – he would then be able to hide the king back on f8 and meet ♔f5-f6 with ...♖b1-b6†. 53.♖a8 ♖b1



This should hold easily. White's best plan to win the game is to get f4-f5-f6† in without allowing Black's king back to g7. But this will prove impossible as White's king will have nowhere to hide. 54.♔g5 ♖g1† 55.♔f5 ♖b1 is equal.

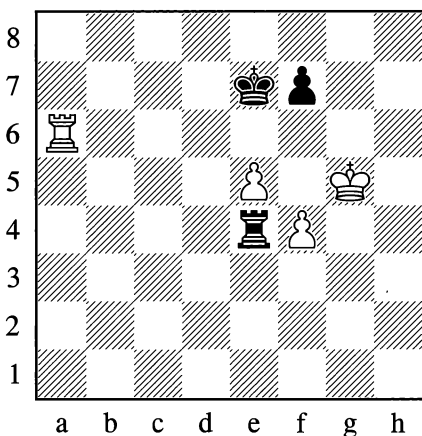
53.♔g5!

Now f4-f5 is a serious threat.

53...♞e4

If 53...♞b4 54.f5 the pawn reaches f6 under good circumstances, and Black is done for.

Or 53...♞d1 54.♞a7†!. This kind of move is exactly why the king should be on g7. 54...♔e6 55.f5† ♔xe5 56.♞e7† ♔d6 57.♞xf7 White will reach the Lucena position, winning.

**54.♞a5?**

Allows Black's king back to the drawing zone.

54.♞a8! would have won. Black's king is cut off, unable to reach the g-file, and he is in a deadly zugzwang. Moving his rook off the fourth rank will allow White to give a check on a7 and get his king to f6, but moving it off the e-file will allow f4-f5 without the e-pawn hanging.

a) 54...♞e1 55.♞a7†! ♔f8 With the rook no longer on e4 to harass the f4-pawn, White is free to invade with his king. (55...♔e6 56.f5† ♔xe5 57.♞e7† Even if Black was not losing his rook directly, the resulting rook and pawn ending would be lost after 57...♔d6 58.♞xf7) 56.♔f6 White wins.

b) 54...♞b4

White needs to be careful, as the tempting f4-f5 is ill-advised.

55.♞a7†!

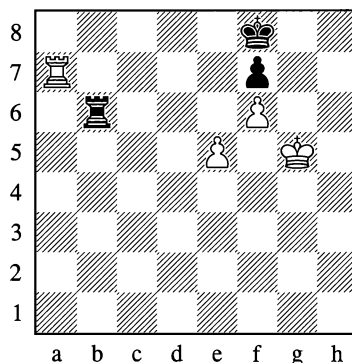
55.f5? f6†! As we covered in the doubled pawns section, this position is a draw. After 56.exf6† ♔f7 draws, as White's king has nowhere to hide, and the f5-pawn is of no significance.

55...♔f8 56.f5!

Pointing out that Black cannot take on e5, thanks to his rook having to leave e4 due to zugzwang. ♔g5-f6 is a massive threat.

56...♞b6

If 56...♔g7 57.e6 wins.

57.f6**57...♔g8**

Or: 57...♔e8 58.♞a8† ♔d7 59.♞f8 ♔e6 60.♞e8† ♔d5 61.♞e7 Black's rook is too far away, and cannot harass White's king. White wins.

58.♔h6!

Black's king did not reach the h-file, and he will lose.

58...♞b8 59.e6 fxe6 60.♔g6

♞a7-g7†-h7 comes next, winning.

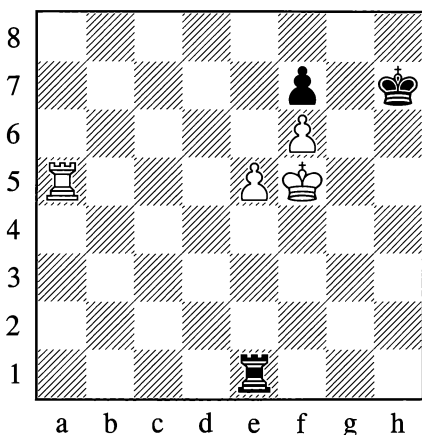
c) 54...♔e6 55.♞a7 Black cannot prevent f4-f5†, when he will find himself lost with his king cut off, for example after: 55...♞b4 56.f5† ♔xe5 57.♞e7† ♔d6 58.♞xf7

54...♔f8!

Andreikin did not need to be asked twice about this one.

55.f5 ♖g7 56.f6† ♕h7 57.♕f5 ♖e1

Black's rook is annoying enough that White cannot get his own rook to a square like f8. The checks will come.



58.♖a4

After 58.♖a4 even 58...♖d1!? is good enough to draw. (I find it far more natural to give a check with 58...♖f1†. After 59.♕e4 ♖e1† 60.♕d5 ♖d1† 61.♕c6 we see the key difference between this position and the later one with pawns on g4 and h6. Now, Black can safely play 61...♕g6! because the king can reach f5, thanks to the absence of a g4-pawn. 62.♖g8† ♕f5 draws.) 59.♖f8 ♖d7 We will see this exact position on page 184 in a famous Capablanca – Yates game, but with pawns on g4 and h6. The presence of those pawns tilts the balance in White's favor, and he wins by sacrificing the rook on f7. Here, this does not work. 60.♖xf7† ♖xf7 61.e6 ♕g8! 62.e7 ♖xe7 63.fxe7 ♕f7 Black takes the last pawn and draws. Had pawns on g4 and h6 been present, e7-e8=♖ followed by ♕f5-g6 would win.

58...♕g8?

But this is a big mistake. White's rook can now reach f8 before Black can give annoying checks, and without allowing the enemy rook to reach the seventh rank. I suspect Andreikin was worried about White's rook transferring to g7 via g4 and wanted to be ready to play ...♕g8-f8. But this was hardly the most pressing concern.

58...♖e2

A simple waiting move was quite sufficient.

The key point is that after:

59.♖g4 ♕h8!

Black draws again using the stalemate trick. White cannot get his rook to g7 without allowing a suicide rook. His best chance is to keep Black's king cut off and try to come around the queenside with his own king, but this will not work against best defense.

60.♕f4

As explained above, 60...♖g7? allows 60...♖xe5†! with an easy draw.

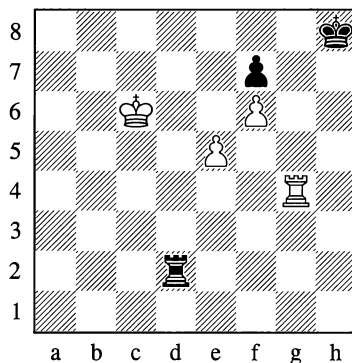
After the text move Black can keep the white king cut off along the e-file indefinitely. But even if he lets it run to the queenside, he will still make a draw.

60...♖f2†

Of course, 60...♖e1 is easier and stress-free.

White doesn't have much left to even try.

61.♕e4 ♖e2† 62.♕d5 ♖d2† 63.♕c6



Black needs to be careful. White will win if he can get his king to e7, but he also has

a devilish threat of ♖c6-c7, controlling the d8-square, and then sending the pawns through with e5-e6. But Black is fine as long as he is ready.

63...♖d8! 64.♖c7 ♖e8!

The rook is well placed on e8. It can move to e6 next, where it will remain safe and keep White's king cut off while simultaneously harassing the e5-pawn.

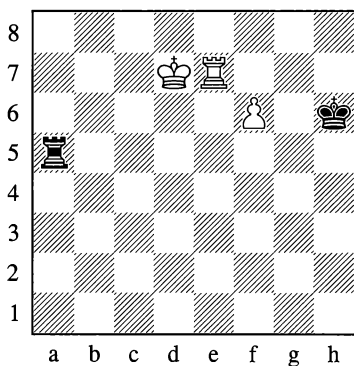
65.♖g5

This is the best try, but still insufficient for victory.

65...♖e6 66.♖d7 ♖h7!

The only move, but not a hard one. Moving the rook would allow ♖d7-e7, winning immediately. We'll see a similar position to this one but with one more pawn for each side in my game with Dominguez on page 210. The additional pawn makes the position winning. But, in this specific case, White is out of luck.

67.♖g7 ♖h6! 68.♖xf7 ♖xe5 69.♖e7 ♖a5



Black is already threatening ...♖h6-g6, drawing immediately, and White has no good way to escape lateral checks along the a-file. The game is drawn.

59.♖e4?

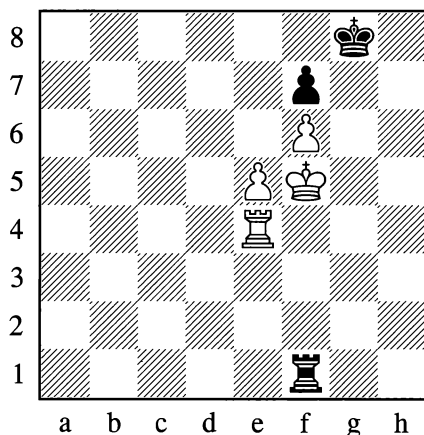
A missed opportunity.

After 59.♖a8! ♖h7 60.♖f8 ♖f1† 61.♖g5 ♖g1† 62.♖h4 White wins in the same manner

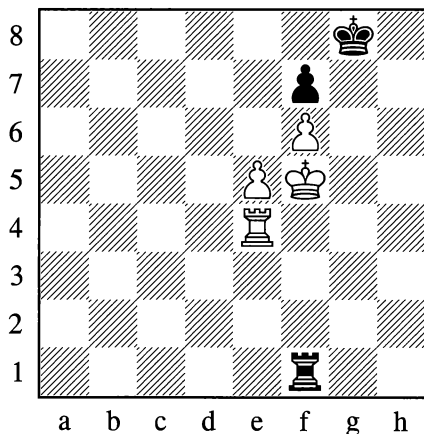
as we saw in my game with Serper. The king walks back on the g and h-files, and Black is never able to play ...♖h7-g6 without getting skewered. 62...♖h1† 63.♖g4! ♖g6 (63...♖g1† 64.♖h3) 64.♖g8† wins.

59...♖f1†

Andreikin defended well for 30 more moves before allowing another chance.



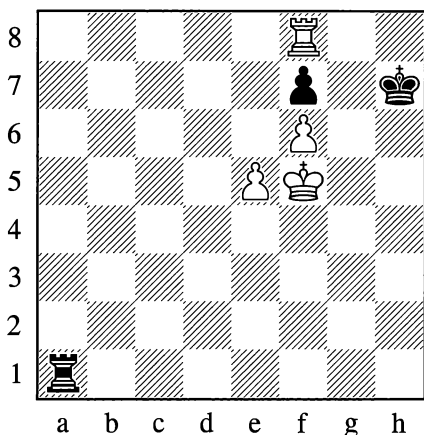
60.♖f4 ♖e1 61.♖a4 ♖f1† 62.♖e4 ♖e1†
63.♖d5 ♖d1† 64.♖d4 ♖a1 65.♖g4†



65...♖f8

65...♖h8 feels more natural to me, being more consistent with the concept of the suicide rook, but there is nothing wrong with the text.

66.♞c4 ♞d1† 67.♔c6 ♞e1 68.♞c5 ♞d1
 69.♔c7 ♞a1 70.♞d5 ♞c1† 71.♔d8 ♞e1
 72.♔d7 ♞a1 73.♞d2 ♞e1 74.♞h2 ♞d1†
 75.♔c6 ♞c1† 76.♔d5 ♞d1† 77.♔e4 ♞e1†
 78.♔d4 ♞d1† 79.♔e3 ♔g8 80.♔e4 ♞e1†
 81.♔d5 ♞a1 82.♞b2 ♞a5† 83.♔e4 ♞a4†
 84.♔f5 ♞a1 85.♞b8† ♔h7 86.♞b4 ♔g8
 87.♞b8† ♔h7 88.♞f8



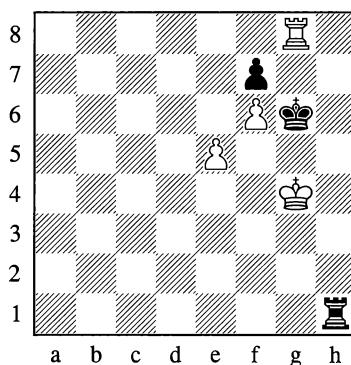
88...♞f1†?

Allowing another chance. All White has to do is get his king away from the checks without allowing Black to play ...♔h7-g6. This might seem like a tall order since the king must come back to the second rank, which is far away from the g6-square. But there is a way.

88...♞a7! was correct. White cannot improve the position.

89.♔g4?

Winning was 89.♔g5! ♞g1† 90.♔h4!. By provoking Black's rook to g1, White has prevented ...♔h7-g6 thanks to a skewer on the g-file. 90...♞h1† 91.♔g4! ♔g6 (91...♞g1† 92.♔h3 Black once more cannot play ...♔h7-g6, and after 92...♞h1† 93.♔g2 the f7-pawn will be lost. White wins.) 92.♞g8† Black does not get his king to the corner in time.



92...♔h7 (After 92...♔h6 93.♔f5, ♞g8-g7 comes next, and White's king will run around to e7. Black is done for.) 93.♞g7† ♔h8 Black to move would draw, but after 94.♞xf7 he can obviously resign.

89...♔g6!

Black's king got to the right square. Now it's an easy draw.

90.♞g8† ♔h6! 91.♞h8†

91.♞g7 ♞g1† is equal.

91...♔g6 92.♞h3 ♞a1 93.♞f3 ♞a6 94.♞f1 ♞a4† 95.♞f4 ♞a6 96.♞d4 ♞a1 97.♞f4 ♞e1 98.♞a4 ♞xe5 99.♞a6 ♞e4† 100.♔f3 ♞b4 101.♔e3 ♔f5 102.♞c6 ♞b3† 103.♔e2 ♔e5 104.♞a6 ♞h3 105.♔f2 ♞h6 106.♔e3 ♞h3† 107.♔f2 ♞d3

½-½

This game saw two very strong players pass the half point back and forth more than once. Surely they could have played better. But I think the main reason this happened was that the position is difficult to defend, and in case the defending side slips, it is difficult to find the precise path to victory. In the end, Andreikin managed to save the game, but he certainly could have lost if Narayanan had found the way. The pawn was fixed on f7 from the start, which was the start of Andreikin's woes. But he certainly could have done himself a favor by not allowing the pawn to reach f6.

When looking at Black's defensive technique, I came up with the following guideline for handling the dangerous e5/f6 versus f7-pawn structure.

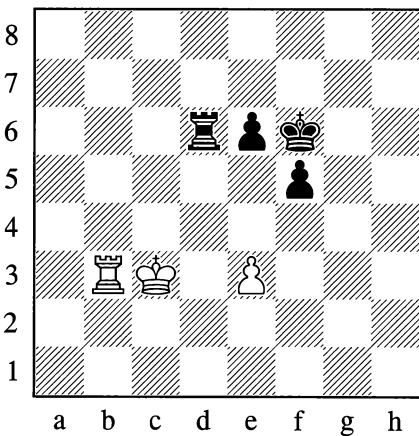
The defending side's best chance against the e5/f6 versus f7-pawn structure is to get the king to the short side. It can remain on h7 indefinitely. If the attacker ever brings the rook to the g-file, hiding the king on h8 saves the game, as Black can self-stalemate in the event of the rook coming to g7. The king must not touch the back rank unless the attacking rook is on the g-file, as otherwise the rook will transfer to f8 with a gain of tempo.

I could not find any real winning chances in any other two pawns versus one structure with the defending king in a reasonable place.

The second way a two-pawns-against-one endgame can go wrong for the defender is that their king can get cut off. The following case is easy enough.

Alexander Fier – Sam Shankland

Riga 2012



White's king is cut off along the d-file, and that's the end of that. Black simply trades off

White's last pawn, leaving himself with a passer and White's king cut off. This wins routinely by transitioning back into one pawn against zero territory.

48.♖b8 e5 49.♖f8† ♔g5 50.♖g8† ♔h4
51.♖e8 e4 52.♖h8† ♔g4 53.♖g8† ♔f3
54.♖f8 ♔xe3 55.♖xf5 ♖c6†

Alexander resigned rather than waiting for the inevitable.

0–1

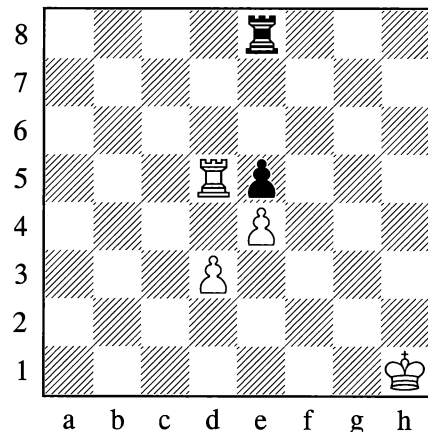
This game brings us to another rule.

If the enemy king is cut off in a situation where one pawn against zero is winning, two against one is always winning as well. If the enemy king is cut off in a situation where one pawn against zero would be a draw, two against one is usually a draw as well.

That's simple enough to understand, as the attacking side should always be able to advance their pawns and transition into a one versus zero situation whenever they wish. But there is a special kind of situation that merits its own coverage.

Consider the following piece setup:

Triangle Constellation



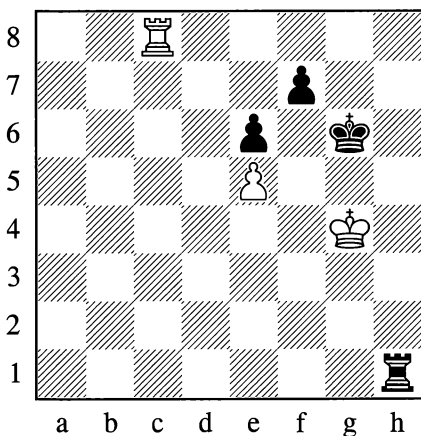
I'd like to name this the Triangle Constellation, based on how White's rook and pawns are situated. The rook and both pawns all protect each other, and the rook on d5 is also attacking the pawn on e5. In this position, the placement of Black's king will be everything. If he ends up on the top left corner of the board, Black will lose. The king will be unable to join the game in any way; he cannot come to join the defense of the e5-pawn, nor can he try to harass White's d3-pawn by running to c3. In the meantime, White's king will run up the board to f5, and Black's rook will be unable to stop him as it will be stuck on the e-file, defending the e5-pawn. If Black's king sits anywhere to the right of the d5-rook, it will be an easy draw.

This is a different evaluation from a rook endgame if the d3 and e5-pawns were to leave the board. Similar positions are covered in Chapter 2. Black would be making a draw with the king on c6 by the frontal defense.

Let's see this principle in action.

Ruslan Ponomarev – Magnus Carlsen

Nice (rapid) 2010



In what had originally started as a four-pawns-against-four rook endgame, Magnus refused to give in and kept on pressing, to

the point where he now has an extra pawn. The position should still be a straightforward draw, as White should not lose the e5-pawn. But with the clocks ticking down, Ponomarev failed to find the right way.

72. ♖g8†?

This allows Black to execute his main idea.

72. ♕f4!

White needed to take his one chance to prevent his king from becoming cut off, as we saw in the previous example. As long as his king is able to join the fight to defend the e5-pawn, he should not lose.

72... ♜h4†

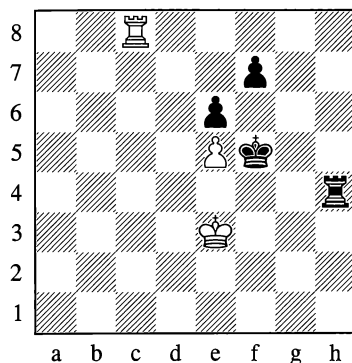
Still, care must be taken.

73. ♕e3!

The only way.

73. ♕g3? Unsurprisingly, stepping further away from the pawn is a poor decision. After 73... ♜e4 74. ♜c5 ♕f5 White's only attempt is 75. ♜c7. But now Black wins with the help of an important check. 75... ♜g4†! White's king is caught between a rock and a hard place. If he steps onto the f-file, he will be met with a check on f4, followed by the e5-pawn falling. But the alternative does not save him either. 76. ♕h3 ♜g7 77. ♜c5 ♕f4! The simplest win. Black is ready to transfer his rook to the fifth rank, and then meet ♜c5-c7 with ... ♜g5-f5, taking advantage of the king vacating the all-important square and reaching a winning Triangle Constellation.

73... ♕f5



It may look like the e5-pawn is doomed. But here we see the point – Black is not able to attack the e5-pawn while simultaneously keeping his own f7-pawn defended. This contrasts with the game, when the rook on f5 did it all.

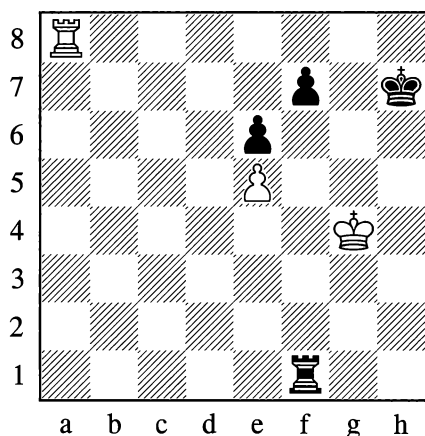
74.♖c7! ♜e4† 75.♙d3!

White draws.

White should be careful not to go the wrong way with 75.♙f3?. Black now can get his rook to the f-file with a gain of tempo: 75...♜f4†! Followed by ...♙f5xe5 next, winning.

72...♙h7 73.♜a8 ♜f1!

The only winning move. Black cuts off White's king from being able to defend the e5-pawn. Once the rook comes to f5, White's rook will be forced into passivity.



74.♜a2

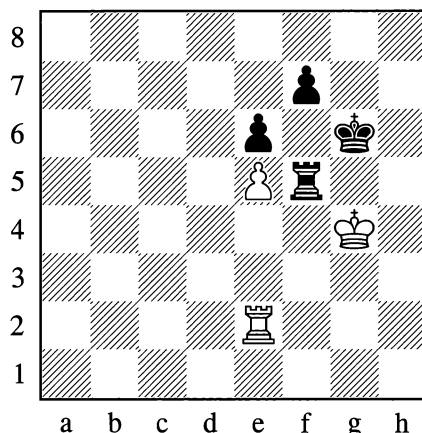
White transfers the rook to the e-file, hoping to defend passively. But this will not save him.

Waiting on the fifth rank only makes Black's life easier: 74.♜a5 After 74...♜f5 nothing can be done about ...♙h7-g6 and ...f7-f6 to follow.

74...♙g6 75.♜g2 ♜f5 76.♜e2

Now White's rook is stuck on the e-file for the rest of the game, and his king is cut off

along the f-file. So, White can do nothing about Black's king walking around the queenside to eventually reach d5.



76...♙g7 77.♙g3 ♙f8 78.♜e4 ♙e7 79.♙g4 ♙d7 80.♜d4†

Waiting was no better: 80.♜e3 ♙c6 81.♜e2 ♙d5 Black wins.

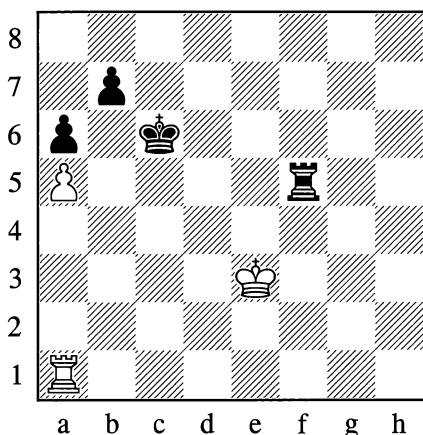
80...♙c6 81.♜d6† ♙c7 82.♜d1 ♜xe5 83.♜f1 f5† 84.♙g5 ♙d6 85.♙f6 ♜e4 86.♜d1† ♙c5 87.♜d8 f4 88.♙g5 e5 89.♙g4 ♜e3 90.♜d1 ♙c4 91.♜d2 f3 92.♙g3 e4 93.♙f2 ♜d3 94.♜a2 ♙d4 95.♜a4† ♙e5 96.♙g3 ♜d2 97.♜a5† ♙d4 98.♜a4† ♙e3 99.♜a3† ♙e2 100.♙f4 f2
0-1

As we can see, White would have made a draw if he had quickly rushed his king to the center of the board. But instead allowed a triangle constellation with his king cut off, dooming him to defeat.

It's tempting to think that the triangle constellation should always guarantee a victory if the enemy king finds itself on the wrong part of the board, but this is not always the case. Consider the following game.

Magnus Carlsen – Vladimir Kramnik

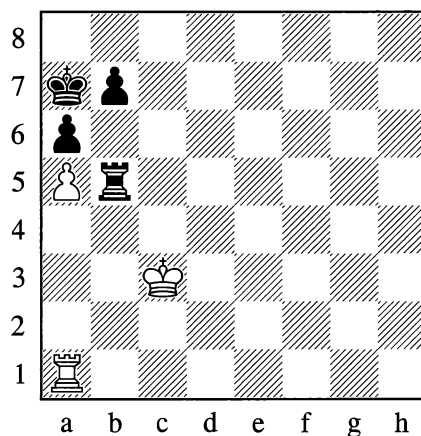
Bilbao 2010

**58.♔d3 ♖b5**

I take no issue with the move Kramnik played in the game, as the position is a draw either way, but let's consider this one instead. Black has set up a triangle constellation, and White's king is on the wrong side of the pawn. The problem is that the pawns are pressed up against the side of the board. Black's winning plan is to keep White's king cut off along the b-file, on the right side of the pawns, while his own king comes around the left side. This will not work, as the board ends.

58...♖f3† was the game continuation. 59.♔c4 ♖f4† 60.♔c3 ♔c5 61.♖h1 This was unnecessary, but still certainly good enough to make a draw. (61.♔d3 Sitting and waiting is fine, Black cannot break down the present setup.) 61...♖f3† 62.♔c2 ♖a3 63.♖h7 ♔c6 64.♖h6† (64.♖h5 would hold as well.) 64...♔c7 65.♖h7† ♔b8 66.♖h8† ♔a7 67.♖h5 ♖e3 68.♔b2 ♔b8 69.♖c5 ♖e6 Kramnik understandably gave up and offered a draw.

59.♔c4 ♔c7 60.♔c3 ♔b8 61.♔c4 ♔a7
62.♔c3



Now we see the problem. Black needs two extra files off the left side of the board to bring his king around and capture the a5-pawn. Since these files don't exist, the position is a draw. The players agreed to it a few moves later.

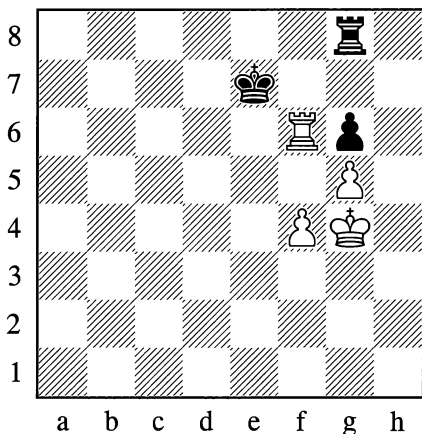
This time the Triangle Constellation with the enemy king cut off proved insufficient for victory because the pawn was too close to the side of the board. And because Black needed a full two extra files, it is unsurprising that he cannot win against a b-pawn either.

This brings us to our second rule of two against one rook endings.

Two pawns against one rook endings are winning if the attacking side can reach a triangle constellation with the enemy king cut off, and the enemy pawn is on one of the four central files.

This seems easy enough, but there is more to it than that. A triangle constellation with the king cut off can also be winning against an enemy pawn closer to the side of the board, but only under different circumstances and with a different method.

Triangle Constellation – Pawn on Fifth Rank



Compared to the previous example, here the attacking side has two advantages: the two pawns are further advanced, and there is no chance of a drawing endgame with an extra rooks' pawn. This brings us back to the rule on page 172 about the evaluation being the same as it would be in a one pawn versus zero situation with the king cut off. Since White's g-pawn has reached the fifth rank, he can push f4-f5 with confidence as frontal checks will not work.

1.f5! gxf5† 2.♔xf5

White wins.

In this case, the Triangle Constellation was irrelevant. Black had the right pawn to save the game but lost anyway. This is because of the rule on page 172. There are certain exceptions to the second part of the rule, hence the word “usually”, and we see these exceptions in the Triangle Constellation. But the first part of the rule has no exceptions. If the one against zero ending is winning, the two against one ending is always winning as well.

Chapter 10

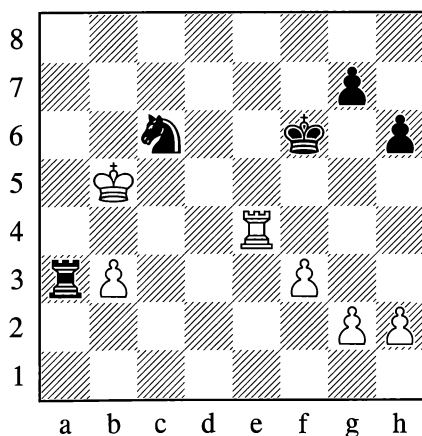
Three Pawns Against Two on the Same Side

As more pieces are added to the chessboard, the game becomes exponentially more complicated. This is true in all kinds of positions, rook endgames included. Three pawns against two tends to be a draw, but there are a lot of exceptions, and some specific positions and rules that should be memorized.

Let's begin with an obvious case.

Garry Kasparov – Joel Benjamin

Horgen 1994



At this point, Kasparov took on c6 and offered a draw. This was an understandable decision, as Black has no pawn weaknesses and three against two is an easy draw. Let's see what might have happened if he had tried to somehow squeeze blood from a stone.

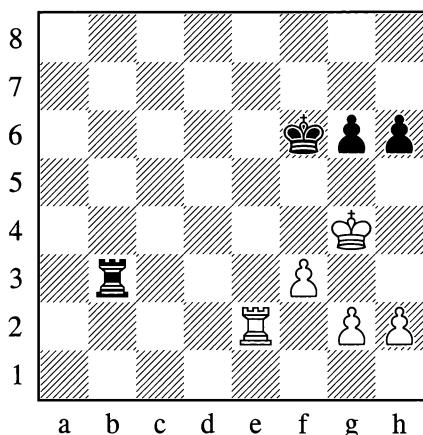
58.♔xc6 ♖xb3 59.♖e2

This would be the only way to even begin to try to win. White prevents ♖b2.

59...♖a3 60.♔d5 ♖b3 61.♔e4 ♖a3 62.♔f4

Black could have made some attempt to stop White's sidelined king from reaching the kingside, but there is really no point.

62...♖b3 63.♔g4 g6



In a position like this one, it is obvious that White has no chance of somehow attacking one of Black's pawns and winning it to reach a three against one scenario. There is no way for White's king to find any reasonable square, and the pawns are well protected. Similarly, Black's king is in a good place, and there is no way to cut him off and make a passed pawn that will matter. The position is a dead draw.

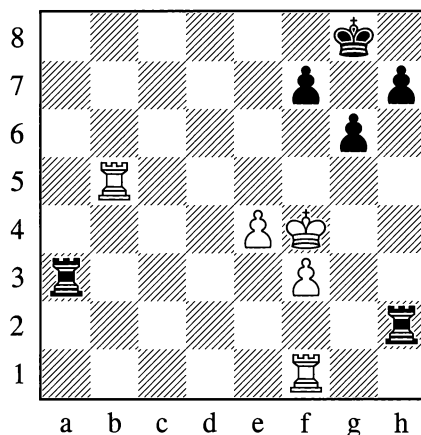
This brings us to our first rule.

By default, any three against two rook and pawn ending with pawns on the same side, where the defending king is in a reasonable place and the two pawns are connected, is highly likely to be a draw.

This is easy enough. Black's position in the previous example fits the bill perfectly. Indeed, most three against two rook and pawn endgames look something like this. Even when the structure is less favorable, the same principle should hold true. Take the following example.

Raja Panjwani – Sam Shankland

California 2014



Black should be winning this position, but I misplayed it badly thanks to missing a key resource.

32...♖g2?

Of course, 32...♖h4† is the simplest route to victory. Even when in the technical area of rook endings, one should always look for basic tactics. White loses material by force. I think the main reason I did not find this move was that when I saw the move ...♖h2-g2, I believed it was winning, and did not think any further than that. Had I understood that ...♖h2-g2 does not actually win the game and I had to look for other candidates, I'm sure ...♖h2-h4† would have quickly come to mind. 33.♔g3 (33.♔e5 ♖h5† White loses his rook.) 33...♖xe4! Game over.

33.♖g5! ♖aa2

Keeping the king cut off.

34.♖xg2 ♖xg2

At this point, I believed Black was winning because White's king is cut off, and the h-pawn will cause problems. But White could have broken his king out of jail.

35.♔e5?

This is the wrong plan. White will only save the game by including his king in the defense.

35.♔e3!

White prepares f3-f4 and ♔f3. This will force Black's rook off the g-file, and then it should be an easy draw.

35...g5

This is Black's only chance, trying to prevent White from regrouping with f3-f4 and ♔f3, but it is too slow.

35...♔g7 36.f4 h5 37.♔f3 ♖a2 38.e5 is equal. Black doesn't even have anything to try. The game is a dead draw.

36.f4 g4 37.f5

White's pawns are coming quickly, ♔e3-f4 is on the way, and Black is not ready for ...h7-h5 because of the threat of ♖f1-h1.

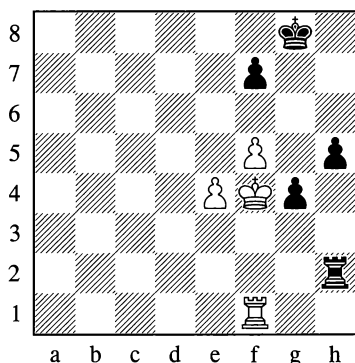
After something like:

37...♖h2

37...h5 38.♖h1 White draws immediately.

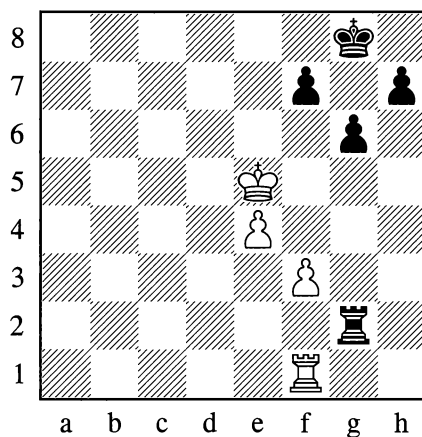
38.♔f4 h5

We have seen positions resembling this in Chapter 9. The position of the rook in front of the h- and g-pawns does guarantee their eventual promotion. But it will be extremely slow, and White's pawns easily give him enough counterplay to save the game.



39.e5 ♖h3 40.e6 fxe6 41.fxe6 ♔f8 42.♔e5† ♔e7 43.♖f7† ♔e8 44.♖h7

Black even loses if he pushes ...g4-g3. Time to give up and make a draw.

**35...♔g7!**

White's king is kept off f6, and now he is in no man's land.

36.♔f4 h5

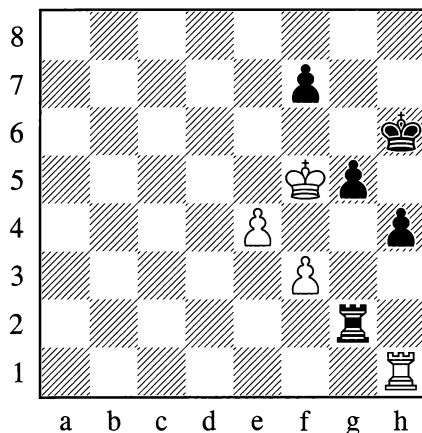
Now it's too late to break the cut.

37.♖e1

After 37.♔e3 g5! 38.f4 g4 the two extra tempi swing the evaluation in Black's favor. In fact, one could even argue that Black won a third tempo since he was able to advance ...h7-h5 without needing to play ...♖g2-h2 first. His pawns are too fast and White is done for.

37...h4 38.♖h1 g5† 39.♔f5 ♔h6

Now it's all over.



40.♔e5 ♖f2 41.♞h3 ♔h5 42.♔d4 g4
43.fxg4† ♔xg4 44.♞h1 h3 45.♔e3 ♞g2
46.♞f1 h2 47.♞xf7 ♞g3† 48.♔f2

White resigned before I could play ...♞h3.

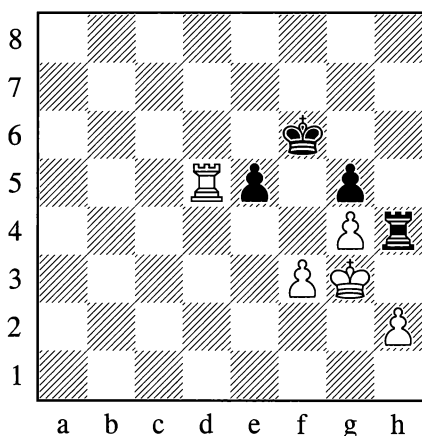
0–1

So the rule held true even when Black already had a passed pawn. White's position was easily defensible if he had been able to get his king to a reasonable place. But once it started wandering and ended up cut off on a permanent basis, Black's position became winning. This brings us to the next key point.

When one of the requirements is not met, problems can begin to arise. The most notable would be if the pawns can be directly attacked. Alex Onischuk put on a clinic against me once.

Alexander Onischuk – Sam Shankland

Saint Louis 2016



After a long time defending an unpleasant position, I believed I had finally reached a drawn rook ending. Indeed, with Black to play, he should hold easily with ...♞h4-h8. His king will sit pretty on f6, defending both pawns, and White's king faces its own restrictions because h2 constantly needs defense. But Alex found a very nice plan that immediately convinced me my evaluation was wrong.

61.♞d8!

A very important move. White prevents the regrouping ...♞h4-h8, and simultaneously threatens to win a pawn on the spot with ♞d8-f8(†)-f5.

61...♔f7

The right square for the king. White cannot be allowed to place his rook on e8, f8, or g8. It looks hard for White to make further progress, but always ask yourself, "what is my opponent's next move?"

After 61...♔g7 62.♞e8! the king is forced back to f6, after which White can transfer his rook to the promised land. 62...♔f6 63.♞f8† The rook lands on f5, and Black loses.

62.♞a8!

Black does not have a next move, and he is in a deadly zugzwang. The king must stay on f7 to prevent the enemy rook from harassing the pawns from behind, and the rook on h4 has no good square.

62...♞h6

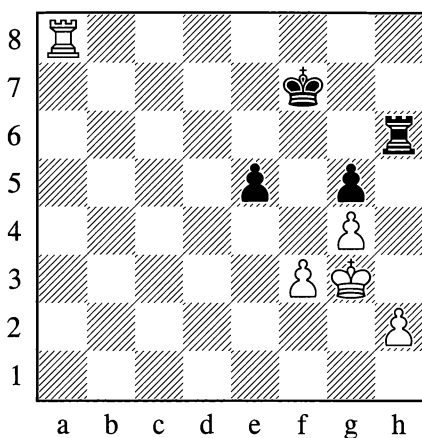
What else?

62...♞h7 63.♞a7† White transitions into a winning pawn endgame.

62...♔e7 63.♞g8 ♔f6 64.♞f8† The rook gets to f5.

62...♔g7 63.♞e8 ♔f6 64.♞f8† Again, the rook gets to f5.

Now, White has another very important move.

**63.♖a7†!**

This forces Black's king to the back rank, where it will be cut off from the defense of his pawns.

Waiting for a single move would squander half a point. After 63.♖b8? ♖a6 64.♖b7† Black's king is free to reach the sixth rank without allowing the rook exchange. After 64...♙f6 he has fixed his coordination, White has no way to attack his pawns, and the position is an easy draw.

63...♙f8

The only square, otherwise White will get his rook to either g7 or e7 to win a pawn directly. It looks hard to make further progress now, but again, "what is my opponent's next move?"

63...♙f6 64.♖a6† allows White to force a pawn endgame.

64.♖c7!

Zugzwang. Black's king obviously has to stay in place, but his rook also does not have a good move.

64...♖f6

Moving the rook off the sixth rank does not help. 64...♖h4 65.♖c5! Black no longer has the defensive resource ...♖h6-e6 available, and the e5-pawn drops. This is all due to his king

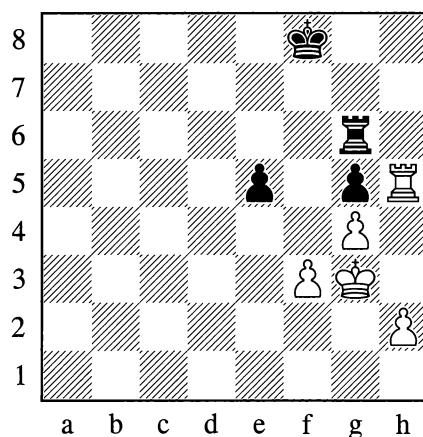
getting cut off on the back rank, far away from his pawns.

65.♖h7!

White transfers the rook to h5, reaching something similar to a triangle constellation.

65...♖a6 66.♖h5 ♖g6

Black's rook has been rendered passive, the h2-pawn is no longer in need of protection, and now it is time to bring the king.

**67.♙f2 ♙e7 68.♙e3 ♙f6 69.♙e4 ♖g8 70.h4**

I had seen enough. Onischuk showed fantastic endgame skills in this encounter.

1–0

The pain I experienced in this game brings us to the first guideline.

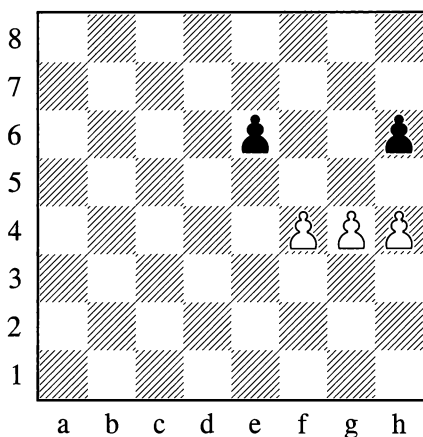
The easiest way for a three against two rook endgame with pawns on the same side to become decisive is if the pawns are isolated and the king can be pushed three ranks away from their defense.

Indeed, this guideline held true. I would have been able to easily save the game if not for the well-timed ♖a8-a7†, forcing my king to the back rank, three ranks away from the e5 and g5-pawns. It would have been a draw if I could have kept my king on the seventh rank.

Such cases are not particularly common, and they can often be calculated to completion, as they involve specific variations to win pawns. To some extent, this does not fall into the category of technical positions, but the guideline is still extremely helpful.

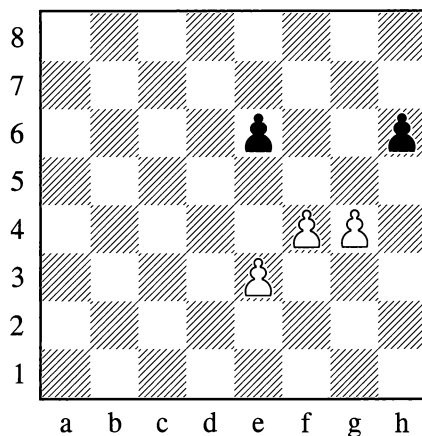
The second easiest way that a three against two rook endgame can become lost is if the enemy pawns are more than two files apart, such as the following cases.

Winning Structure 1 – Pawns on e6 and h6



This structure is generally going to be winning for White. He will advance h4-h5, fixing the weakness on h6, then eventually play to either get his rook to h7 or push g4-g5 through to make connected passed pawns.

Winning Structure 2 – Pawns on e6 and h6

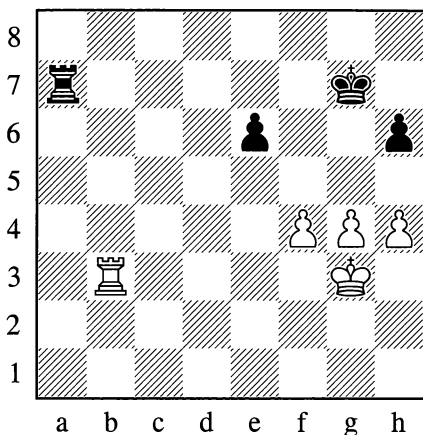


This structure should win routinely. White will push f4-f5 to make connected passed pawns.

This is straightforward. If the pressing side can make a pawn advance that will force a transition into a position with two connected passed pawns against a lone isolated passed pawn, he will win. As such, we can see the second guideline.

Three pawns against two tends to be winning if the three pawns are all connected and the two pawns are three or more files apart.

Let's see how an example like this might play out in practice.

Example – Pawns on e6 and h6**1.h5!**

The first point is that Black must not be allowed to play ...h6-h5. This would force White to play g4-g5. He will then no longer be able to force a structure with two connected passed pawns by Black having to play ...hxg5 and then recapturing with the f-pawn. After 1.♖c3? h5 2.g5 ♔g6 White has nothing further to try.

1...♞c7

Or 1...♔f6 2.♞b5 and Black cannot prevent g4-g5 forever.

If all Black had to worry about was g4-g5, 1...♞a5 would save the game. But now his rook is in a very passive place and White can invade the seventh rank. 2.♞b7† The king is sadly forced to the back rank. 2...♔g8 (2...♔f6 3.♞h7 Time to resign.) 3.♞e7 ♞a6 (3...♔f8 4.♞h7 wins the h6-pawn.) 4.g5 White wins.

2.g5

All White has to do is force Black to take on g5. This takes a little effort but is not wildly difficult. The best way to cause a fatal weakening is to harass the e6-pawn, showing that Black's king is stuck forever and unable to join the defense. He must remain protecting h6.

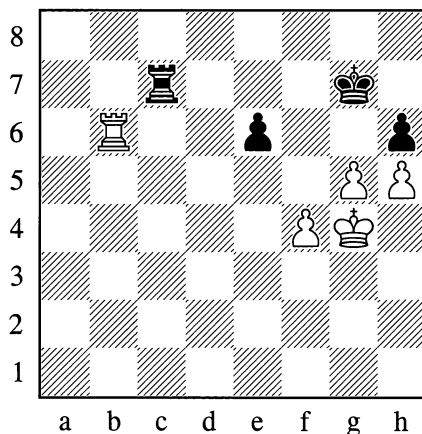
Black can never play ...h6xg5 to exchange off his weakness as this will leave White with connected passed pawns.

2...♞a7

With 2...♞c5 3.♔g4 e5 Black is trying to transition to a more favorable pawn structure, but as soon as he touches his e-pawn... 4.♞b6!

3.♔g4 ♞c7 4.♞b6

The simplest. Black has a hard time defending e6.

**4...♞e7**

The king is stuck defending the h6-pawn, so 4...♔f7 is not possible. 5.gxh6 wins.

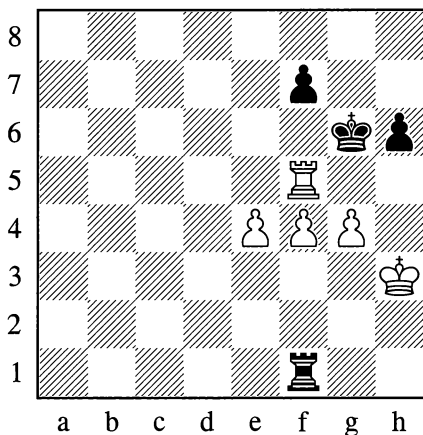
5.♔f3

The king comes to e5, and that's that.

The above cases are unusual examples, though far from unheard of. Much more common is a situation where the defending side's pawns cannot be easily separated from their king, and they are close enough together that the attacking side cannot change the structure to give himself connected passed pawns. Most of these scenarios are easy draws, but there is one classic game that became the foundation for most existing theory on three against two rook endgames. Let's take a look.

Jose Raul Capablanca – Frederick Yates

Hastings 1930



This game is the first famous example of one of the winning pawn formations in action. Once we understand that Winning Structure 4 on page 187 is winning for the attacking side, Black can find the best move by elimination.

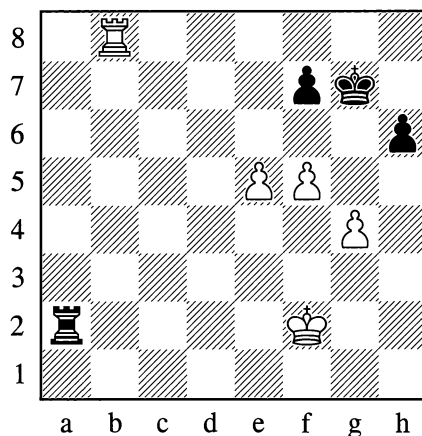
57...♖e1?

Black should not have allowed e4-e5. 57...f6! should be a straightforward draw.

58.e5!

Now the structure is winning. Capablanca did not bring home the point in the fastest way, but he got the job done. See the note to move 67 for the fastest way to win.

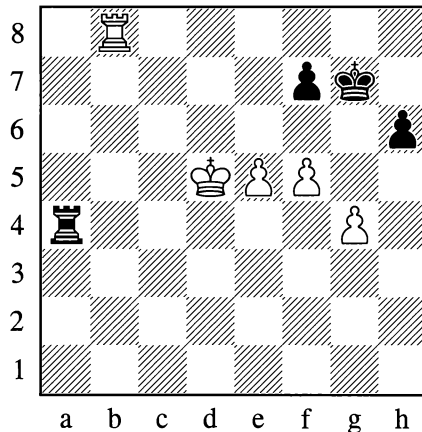
58...♖e3† 59.♔g2 ♖a3 60.♖f6† ♔g7 61.♖b6 ♖e3 62.♖b4 ♖c3 63.♔f2 ♖a3 64.♖b7 ♔g8 65.♖b8† ♔g7 66.f5 ♖a2†



67.♔e3

Escaping the checks immediately was the easiest route to the full point: 67.♔g3 ♖a3† 68.♔h4 White is ready for f5-f6† next, followed by lasering down on the f7-pawn.

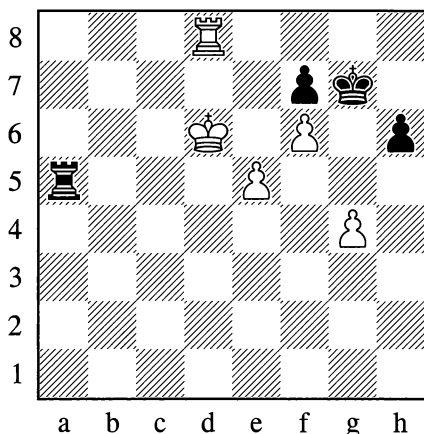
67...♖a3† 68.♔e4 ♖a4† 69.♔d5



69...♖a5†

After 69...♖xg4 70.f6† ♔h7 71.♖f8 White wins the f7-pawn.

70.♔d6 ♖a6† 71.♔c7 ♔h7 72.♔d7 ♖a7† 73.♔d6 ♔g7 74.♖d8 ♖a5 75.f6†!



Finally. This advance takes us to the most important pawn structure to keep memorized in three against two rook endgames. It can be considered a parent structure that a lot of other structures can morph into. White is winning by fixing the f7-pawn as a permanent weakness, much like we saw in my game with Serper.

75...♔h7 76.♖f8 ♖a7 77.♔c6

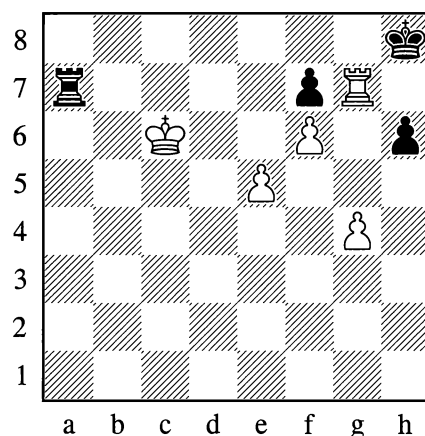
This is another way to bring in the full point. White could have swung the king to f5 and I like that method for its simplicity. But in the present position, Black is in a deadly zugzwang.

Let's see the alternative winning method: 77.♔d5 ♖b7 78.♔e4 ♖a7 (Trying to prevent the king from reaching f5 offers Black no hope of salvation either. 78...♔g6 79.♖g8† ♔h7 80.♖g7† ♔h8 81.♔f5 The king reached f5 all the same.) 79.♔f5 Once the king reaches f5 (and it can hardly be stopped), a subsequent ♖f8xf7† brings the game to a swift conclusion. 79...♖b7 80.♖xf7† White wins.

77...♔g6

It was impossible for Black to move the rook without dropping the f7-pawn, but now the rook gets to transfer to g7.

78.♖g8† ♔h7 79.♖g7† ♔h8



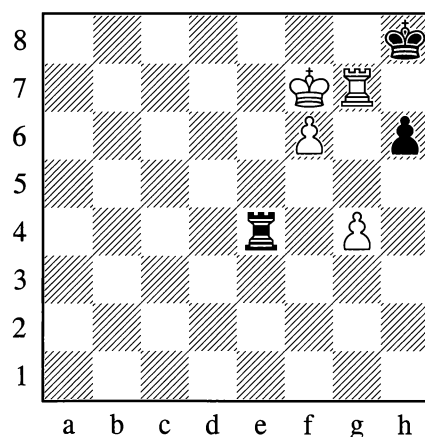
80.♔b6

Or 80.♔d5. Again, king around to f5, followed by ♖g7xf7, would be fine. But, now that White managed to get his rook to g7, the plan of e5-e6 works too.

80...♖d7 81.♔c5 ♖c7† 82.♔d6 ♖a7 83.e6

This works too once the rook is on g7, but would not have worked with the rook on f8.

83...♖a6† 84.♔e7 ♖xe6† 85.♔xf7 ♖e4

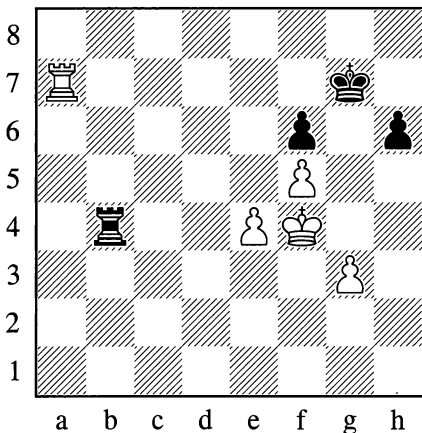


86.g5! hxc5 87.♔g6

White uses the g5-pawn as a shield to keep his king safe on g6, as now Black cannot give any checks from behind. The f-pawn promotes. **1-0**

This game is one of the great classics of chess history and has been covered countless times in chess literature. Yates's decision not to advance ...f7-f6, which would have easily saved the game, shows us the key pawn structure to know.

Example – Pawns on f6 and h6

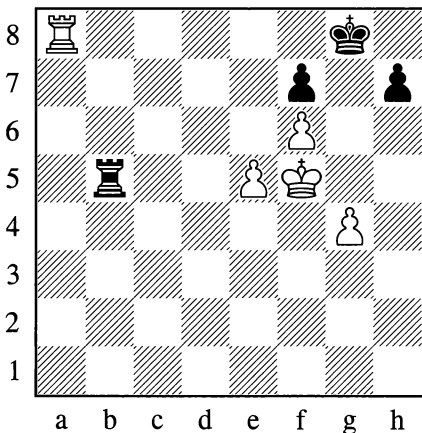


Because Black still has access to the back rank, he can easily save the game. After:

1...♔g8

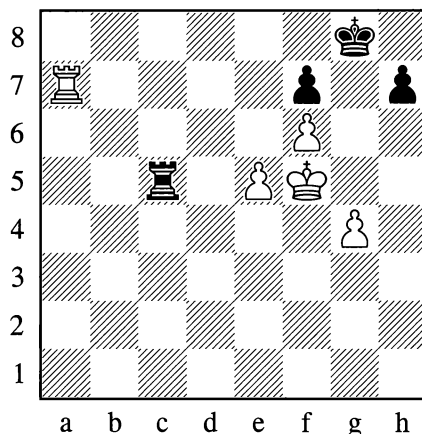
White has no meaningful way to attack either of Black's pawns.

Example – Pawns on f7 and h7 (1)



Here we see the same position with the pawns one rank further down the board. Since the board is at an end, Black's king cannot hide on the ninth rank. So he is actually in checkmate here! But let's go back one ply and let him work out how to escape a direct mating threat.

Example – Pawns on f7 and h7 (2)



Black's problem isn't so much that he is facing unstoppable mating threats, but rather that his king lacks access to the ninth rank. In order to avoid the mate, he can make luft on h7 by advancing ...h7-h6, but hiding the king on h7 will not save the game, as this allows White to come after the f7-pawn.

1...h6

Bringing the rook back to passivity hardly helps: 1...♖c8 White wins easily with 2.♔g5 ♖e8 3.♔h6 The e5-pawn is immune due to the mate on the back rank, and e5-e6 is coming next.

2.♖a8† ♔h7 3.♖f8 ♖c7 4.♖xf7†!

White wins. We have seen this before.

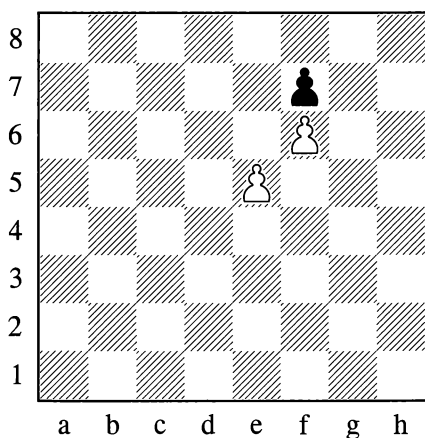
These specific structures should be memorized. As we can see, the structure of e5, f6, and g4 against f7 and h6 is winning for White, while

it would be a draw with the enemy pawn on f6. This all comes down to the same key idea. White is hoping to take advantage of a pawn fixed on the seventh rank. Once Black's king is forced off the eighth rank, it cannot retreat to the ninth rank to keep the pawn safe and is instead pushed to the side. Furthermore, because of the presence of the g4 and h6-pawns, Black does not have the self-stalemating idea of hiding the king on h8 and inviting a rook to g7.

In general, a pawn weakness fixed on the seventh rank is often a recipe for disaster. We have seen it here and in my encounter with Serper, and we will see an encounter with Dominguez in the next chapter on page 210. I'd like to reiterate a guideline from the previous chapter:

If White can get his pawns to e5 and f6 against the f7-pawn, it should usually not matter where the final pawn pair is. White will probably win.

Fixed Pawn Weakness

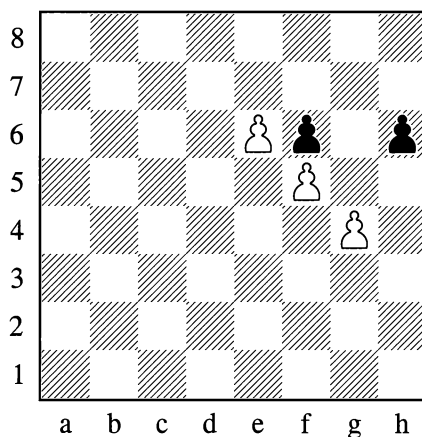


The previous structure is something of a tangent, but an important one nonetheless. It allows us to introduce the next guideline.

Much like two against one scenarios, if the three can fix a pawn weakness on the seventh rank, the position will almost certainly be winning. It is worth memorizing the specific structure of fixing a bishop's pawn on the seventh.

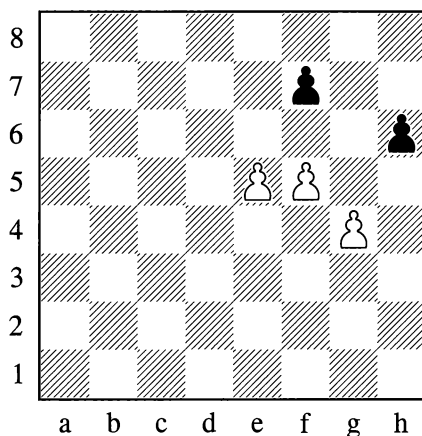
When considering the key structure seen in the Capablanca game, it's important to realize that other structures can morph into this one. Both of the following structures win for the extra pawn.

Winning Structure 3 – Pawns on f6 and h6



This structure is nearly always winning.

Winning Structure 4 – Pawns on f7 and h6

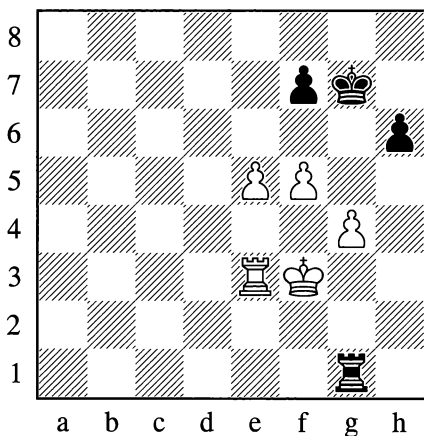


This is the most common winning structure White can aim to reach. Note that once f5-f6 is played, we will reach The Fixed Pawn Weakness structure above, and if Black plays ...f7-f6 himself, we will reach Winning Structure 3. White should always win if he can safely get his rook to the back rank without his pawns getting harassed. If Black can start harassing the pawns from behind, White will only win if he can get his rook to d3.

Suffice to say, as soon as White can advance e4-e5, and get his rook to the d-file, the position becomes lost. Let's see another example of this in practice.

Sam Shankland – Timur Gareyev

Saint Louis 2011



White has reached a winning pawn structure. Indeed, he will win if he can coordinate his rook correctly and get it to the back rank to prepare for f5-f6†. Black has two ways to save the game. The most direct is to harass White's kingside pawns from behind. This will only work if he can prevent White's rook from taking the d-file. Secondly, he can try to trade off the h6-pawn. Timur aimed for the latter plan but executed it poorly.

65...♖h1!

This would be the cleanest way to save the game. ...h6-h5 comes next. Four alternatives are considered below.

The game saw: 65...h5? 66.gxh5 ♖g5 67.h6†! The easiest win. Black's king is forced to the h-file. 67...♔xh6 68.♔f4 Despite only three pawns remaining on the board, Black is lost. The threat of ♖e3-h3† followed by ♖h3-g3† will force the rooks off the board. Black's only chance to avoid a lost pawn endgame is 68...♖h5. But after 69.e6 he had to resign, as the e-pawn goes through.

Sitting and waiting will not save the game either:

65...♖a1? 66.♖d3!

White gets his rook to the all-important d-file. He is ready for f5-f6† next, followed by the rook coming to the back rank. Still, the win is not easy, and he will need to know some important ideas after either a check on f1, or if Black brings his king back to f8.

66.f6†? is too soon. After 66...♔g6 White needs to be able to place his rook on the back rank to prevent Black's king from stabilizing on g6, and he is too slow here. 67.♖d3 ♖f1† Black will start threatening White's pawns in ways that he will not enjoy, and before White can get his rook to g8. For example, after 68.♔g2 ♖f4 69.♔g3 ♔g5 The scoresheets can be signed.

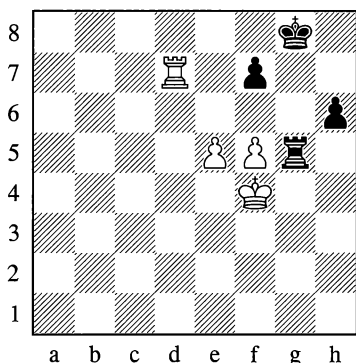
66...♔f8!

This is Black's best try. He understands that the big point behind keeping the king in the corner is to have the stalemate idea with his king on h8 and the enemy rook on g7, and this will not work when the h6- and g4-pawns are on the board. Bringing the king to the center forces White to work for the win, but it will not save the game. The winning plan is extremely instructive.

66...f6 Trying to prevent f5-f6† at all costs does not help matters. After 67.♖d7† ♔f8

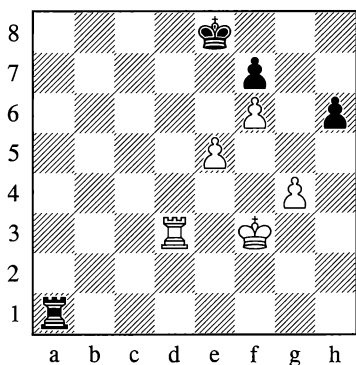
68.e6 White easily wins, thanks to being able to attack Black's pawns with moves like ♞d7-f7 or ♞d7-h7 .

66... $\text{♞f1}\dagger$ It might be tempting to start giving checks from behind. White wins, but only with a specific sequence, taking advantage of the rook being placed on the d-file. 67. ♕e4! ♞g1 68. ♞d7! $\text{♞xg4}\dagger$ 69. ♕f3 ♞g5 70. ♕f4! ♕g8



71. $\text{♞d8}\dagger!$ ♕h7 72.e6! fxe6 73.fxe6 ♞g8 We see a key point of the rook being on the d-file. 74.e7! It's nice that this move ends the discussion. The position would have been a draw if White's rook were on c8.

67.f6! ♕e8



All White needs to do to win the game is get his rook to the seventh rank without allowing Black's king to d7. Then, a check on e7, followed by bringing the king to d8, will win. But this is easier said than done! As

soon as the rook transfers to a square like b3 aiming to go to b7 next, Black's king will be free to go to d7. The winning plan for White is as follows: First, he must walk his king to d6. Then he can transfer his rook to the side, threatening mate on the back rank. In order to avoid mate, Black will need to start checking from behind. When he does, the potential for skewers along the d- and e-files makes it impossible for him to get his king to d7. Let's see how this would look in action.

68. ♞d4!

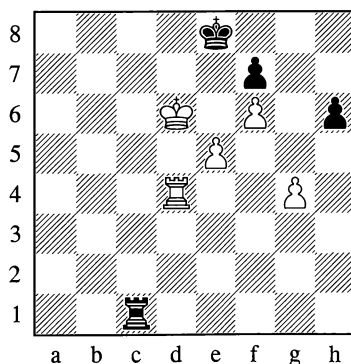
White overprotects his g4-pawn and is ready for his king to start its journey.

68. $\text{♞b3?}!$ does not squander the win, but it is a step on the wrong direction. After 68... ♕d7! White's best plan is to play ♞b3-b6 to give a check on d6 next, repeating the position to then find the best plan.

68... ♞b1 69. ♕e4 ♞a1

Black has nothing better than waiting.

70. ♕d5 ♞b1 71. ♕d6 ♞c1



72. ♞d5!

Before anything else, White overprotects the e5-pawn.

72... ♞a1 73. ♞b5!

It is time. As soon as the rook lands on b7 without Black's king being allowed to go to d7 first, it's game over. Black must start checking.

73... $\text{♞d1}\dagger$ 74. ♕c5!

Now, White is threatening to give a check on the back rank. Sadly for Black, thanks to

the white king on c5, he cannot hope to run with his king to e6.

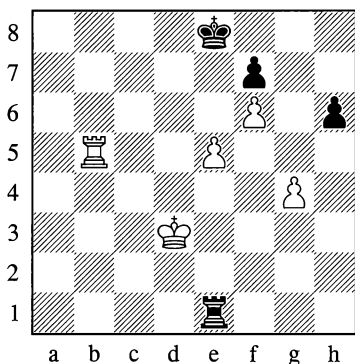
74...♖c1†

74...♔d7 75.♞b7†! Black gets mated if he brings his king to e6. It's all over.

75.♔d4! ♞d1†

75...♔d7 76.♞b7†! Again, Black cannot bring the king to e6.

76.♔e4! ♞e1† 77.♔d3!



White went on a long and convoluted journey with his king, but in doing so, he forced Black to start giving checks from behind. Black's rook is badly misplaced on e1, which means he is unable to bring his king to d7.

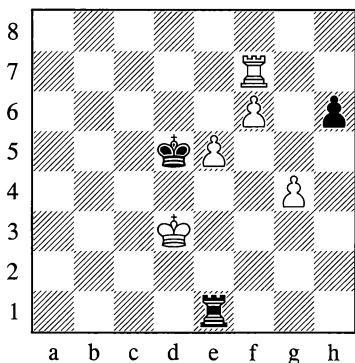
77...♔d7

This is the move Black would like to make.

After 77...♞d1† 78.♔e2! ♞d4 79.♔f3 White is ready to bring the rook to b7 next.

79...♔d7 What else? 80.♞b7† ♔e6 81.♞e7† ♔d5 82.e6! White wins.

78.♞b7†! ♔e6 79.♞e7† ♔d5 80.♞xf7!



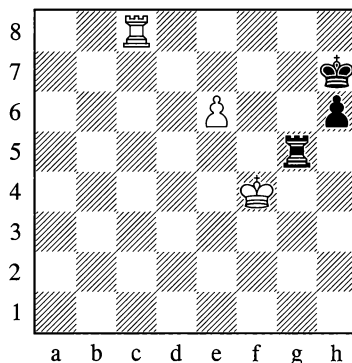
Black's rook on e1 means that he cannot play ♔d5xe5.

80...♞xe5 81.♞d7†! ♔e6 82.f7!

White wins.

65...♞f1† This draws as well, but only if Black realizes he needs to take the d-file later. (65...♞d1 would be a more concise way to reach the same positions). 66.♔e4 ♞g1 67.♔f4 ♞f1† 68.♞f3 ♞d1! Black saves the game.

65...♞d1 My machine claims that this move saves the game too. The point is that White is unable to transfer the rook to the d-file. 66.♞c3 ♞f1†! 67.♔e4 ♞g1! 68.♞c7 ♞xg4† 69.♔f3 ♞g5! 70.♔f4 ♔g8! 71.♞c8† ♔h7 72.e6 fxe6 73.fxe6



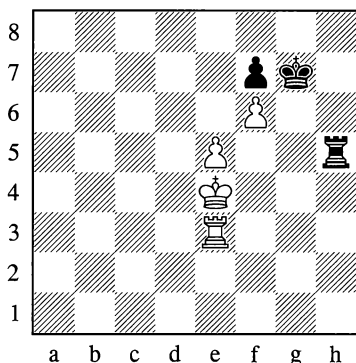
White needed his rook on the d-file. With it on c8 instead, Black has a nice saving resource. 73...♞g8! It's a problem for White that he cannot advance e6-e7 here. Black makes a draw.

66.♞d3!

This is White's best attempt, and generally the best square for his rook in many three against two positions. If White is allowed to play f5-f6† next, he should be winning routinely. In general, the rook is best placed on the d-file as this will allow it to reach d8 while also shielding White's king from checks from behind if it needs to reach d5.

A mistake would be 66.f6†. White needs to wait on this move until he is ready to immediately meet ...♙g7-g6 with transferring the rook to the back rank. The rook on e3 is misplaced for this task. 66...♙g6 67.♞d3 ♞e1 White is a tempo too slow to get the rook to g8.

66.♙e4 is a challenging try as well. Black should be careful not to make the tempting ...h6-h5 advance. 66...h5? 67.gxh5 ♞xh5 68.f6†

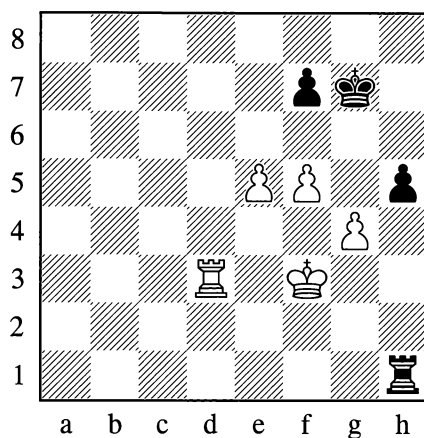


Generally speaking, this position should be a draw because Black's king is on the g-file rather than the e-file, as we saw on page 190. But White wins in this specific case, as Black's rook is in a horrible place and cannot stop White's king from invading through the center. 68...♙h8 69.♙d5 wins.

66...h5!

The only move.

A waiting move will not do: 66...♞a1? After 67.f6† ♙g6 68.♞d8! the threat is ♞d8-g8† followed by ♞g8-g7†. Black can prevent it with 68...♙h7. But following 69.♞f8! ♞a7 (69...♙g6 70.♞g8†) 70.♙f4 White has the straightforward winning plan of placing his king on f5, the ideal square, and then sacrificing on f7 to send his pawns through. 70...♞b7 71.♙f5 ♞a7 72.♞xf7†! The cleanest route to victory. 72...♞xf7 73.e6 ♙g8 74.e7 White wins.

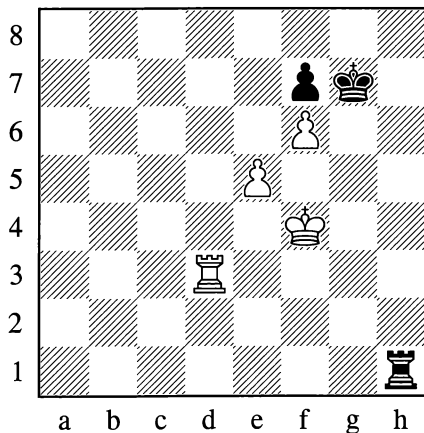


67.gxh5

If 67.g5 ♞g1! Black is one tempo in time to harass the pawns enough to save the game. 68.g6 ♞g5! (68...fxg6? 69.f6† wins. White's pawns are obviously much faster, and the connected passers guarantee the arrival of a new queen.) 69.♙e4 ♞g4†! 70.♙d5 ♞f4! Black just barely hangs on.

67...♞xh5 68.♙f4 ♞h1 69.f6†

White is able to safely get his f-pawn to f6, fixing the pawn on f7 as a weakness. Often when this happens, he is simply winning. But even when the position is a draw, as it is here, the defense is absurdly difficult for a human to manage. Black can just draw by the skin of his teeth, with a very difficult only move.

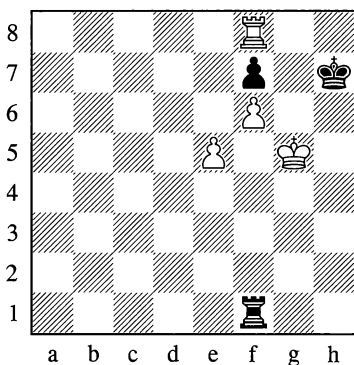


69...♔h7!!

This move looks ridiculous, as it is begging for ♖d3-g3-g7†. But, when considering the guideline from the previous section, it should be almost automatic. Black's king stays on the h7-square indefinitely, and only moves back to h8 once White's rook reaches the g-file. The alternatives do not work:

69...♔g6? 70.♖g3† ♔h6 71.♖g7 White wins the f7-pawn, and the game to follow.

69...♔h8? Immediately looking to self-stalemate would not do the job, as White has a better way to harass the g7-pawn than ♖d3-g3-g7. 70.♖d8†! ♔h7 71.♖f8! Now, ...♔h7-g6 would be met with ♖f8-g8† followed by ♖g8-g7, winning the f7-pawn. Black should try to destabilize White's king, but it will not work. 71...♖f1† 72.♔g5!



This position was reached in the analysis of Narayanan – Andreikin on page 170. To reiterate, this is what the winning plan looks like. (72.♔g3 Immediately running the king away would fail, as Black can now run his king to g6 and f5. 72...♔g6! 73.♖g8† ♔f5 Black makes an easy draw.) 72...♖g1† 73.♔h4! Now, a deadly skewer prevents Black's king from moving to g6. He must keep checking. 73...♖h1† 74.♔g4! Another accurate move. Once more, Black is unable to get his king to g6 and subsequently f5. (74.♔g3? White does

have to eventually escape the checks, but this is too soon. Black can play 74...♔g6! when he will easily draw the game by bringing the king to f5. White's king is badly misplaced on g3 – it needs to be on g4 so that he could play ♖f8-g8† without allowing ...♔g6-f5.) 74...♖g1† 75.♔h3! Again, Black is unable to bring his king to g6 due to a skewer on the g-file. 75...♖h1† 76.♔g2 This move comes with tempo, and White will take on f7 next, winning.

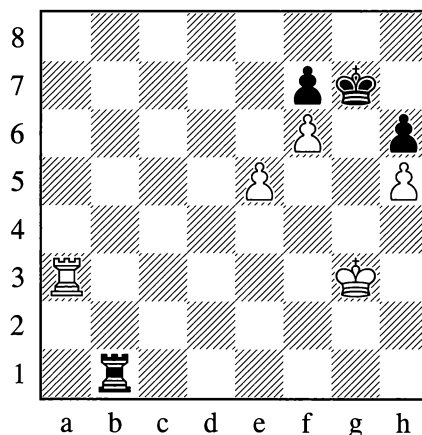
70.♖g3

Or 70.♖d8 ♖f1† 71.♔e4 ♖e1†. White's king cannot escape the checks in a sensible way.

70...♔h8!

White is unable to play ♖g3-g7 without allowing stalemate. The game is drawn.

It's also important to know that there is a structure that closely resembles the winning one, but is actually an imposter.

Imposter Structure**1...♔g8**

The pawn on h5 ruins White's day and turns the position into a surprisingly easy draw. The point is that White will not be able to place his rook on f8 to harass the f7-pawn, as then

Black's king will have no legal moves and he makes a draw with a suicide rook.

2.♖a8† ♔h7 3.♜f8

White tries to execute the same winning plan, attacking the f7-pawn to provoke the rook to the seventh rank, then stick the king on f5, and sacrifice on f7.

3.e6 also fails to win. 3...♞e1 4.exf7 (4.e7 ♞e3† meets a similar fate as e6xf7.) 4...♞e3† Black will check up and down the e-file forever, as the rook can never be captured.

3...♞g1† 4.♔f2 ♜f1†!

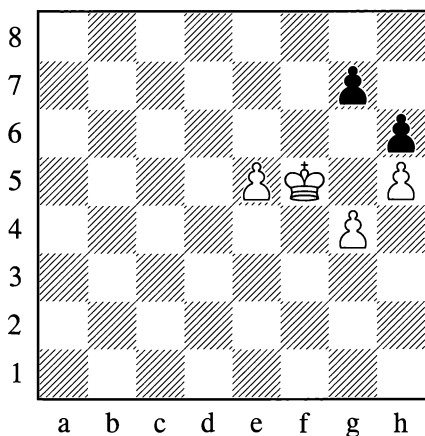
The pawn on h5 means that Black will be stalemated if the rook is captured.

5.♔e2 ♜xf6!?

The simplest.

Finally, there is one last structure that should be memorized. It is pretty rare to come up in three against two endgames, but is a common one that the attacking side can aim to transition into from a four against three position.

Winning Structure 5 – King on f5

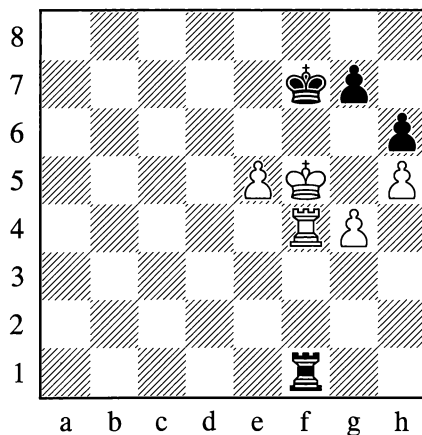


This pawn structure is winning for White if his king can safely stand on f5. If it cannot

make it there or if Black can give a check, it is a draw. Such a position is extremely unlikely to arise in any three against two endgame, as I can't really imagine Black letting White waltz his king up to f5 without giving him some checks from behind. Normally, this would come from a scenario where the last moves were e4-e5, ...f6xe5, and f4xe5.

While it is good to know that this position is winning, there is some finesse to be aware of. Consider the following example:

Winning Structure 5 – Transition



This position looks like an easy win for White. Push e5-e6 through and invade with the king on g6. But, while the general plan is simple, the execution takes some effort.

1...♞e1!

Not 1...♞a1?. Allowing e5-e6 is not the brightest idea Black could come up with. 2.e6† ♔e7 3.♔g6 Time to resign.

2.♜f2!

An important move. Black is in a deadly zugzwang, as he must either allow the e5-e6 advance or reduce his checking distance.

2.♖c4?! ♜f1† 3.♙e4 ♜e1† White has no good way to escape the checks other than bringing his king back to f5 and starting all over again. 4.♙d5? (4.♙f5! ♜f1† 5.♜f4 ♜e1 White still wins by repeating the original position and then finding the key idea. 6.♜f2!) 4...♜d1† 5.♜d4 ♜a1 Now the position is a draw, as White will not be able to get his king back to the f5-square. 6.♙e4 If Black were to fall asleep, White would win by putting his king back on f5 and starting again from the original position. But he can prevent this from happening. 6...♙e6! Black's king controls f5. If it is kicked away, after 7.♜d6†! ♙f7 8.♙f5 since White's rook has been provoked to the sixth rank, he cannot avoid checks coming from behind. 8...♜f1†

2...♜e3

This is the most resilient defense.

2...♜a1 3.e6† ♙e7 (After 3...♙g8 4.♜e2 the e-pawn wins routinely.) 4.♙g6 White wins the kingside and Black can resign, as he will soon face two connected passed pawns.

2...♙g8 3.♜a2! Black is unable to check on f1, as White's king then reaches g6. White will invade the seventh rank with his rook, and then the king comes to g6 anyway. Game over.

3.♜d2!

This is a very important move. The d-file is often the best place for the attacking side's rook in three against two endgames, and this is no exception.

Surprisingly, bringing the rook all the way to the side proves insufficient for victory.

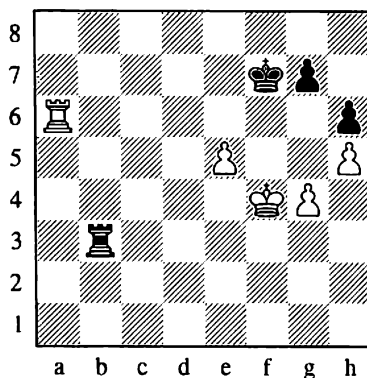
3.♜a2? ♜f3†!

Of course, Black cannot allow White to leave his king on f5 and then give a check on the seventh rank.

4.♙e4 ♜b3 5.♜a7† ♙e6 6.♜a6† ♙f7 7.♙f4!

As we see in the main line, this is the key idea for White. The king is well placed on f4, as if it is checked along the fourth rank, it can go to f5 and be safe for a move. He is ready for a check on a7 next.

7.♜a7† ♙e6 8.♜xg7 ♜b4† The king on e4 is misplaced, and would rather be on f4 so that it could run back to g3 and then eventually hide on h4. 9.♙f3 ♙xe5 10.♜g6 ♜b3†! White does not get his king to h4, so the position is drawn. 11.♙g2 ♙f4

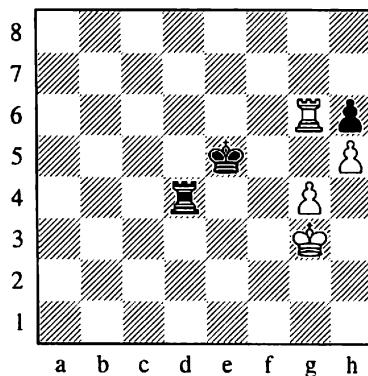


7...♜d3!!

The only drawing move, and the one White could have prevented if he had put his rook on the d-file rather than the a-file.

7...♜b4†? 8.♙f5 Black is done for. 8...♜b7 9.♜d6! The simplest. Black can hardly prevent ♜d6-d7† from coming next, transitioning into a lost pawn endgame.

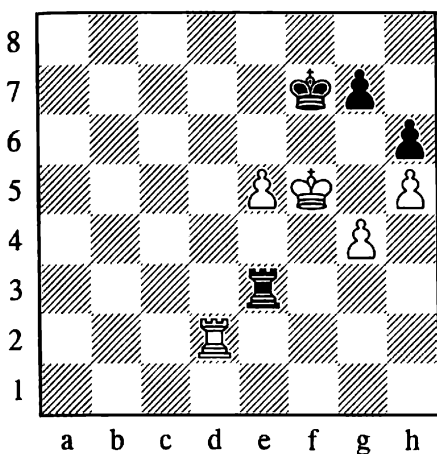
8.♜a7† ♙e6 9.♜xg7 ♜d4† 10.♙g3 ♙xe5 11.♜g6



It looks like White should win, as his king can hide on h4, and the h6-pawn is falling. But now we see the point of the rook on the d-file...

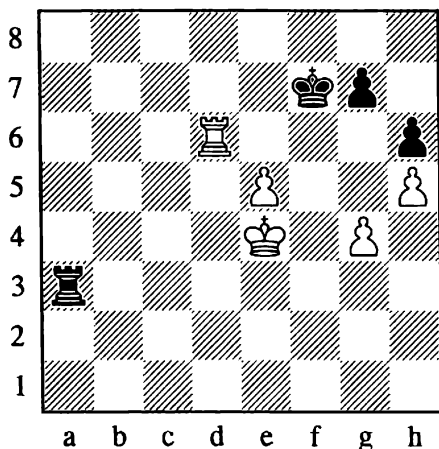
11...♖d3† 12.♔h4 ♖d6!

The pawn endgame is a draw.



3...♖f3† 4.♔e4 ♖a3 5.♖d7† ♔e6 6.♖d6† ♔f7

Now, White has a key point to remember. His best plan is to play ♖d6-d7†, forcing Black's king to choose between keeping the e5-pawn and f5/g6-squares under control, and keeping g7 protected. His only chance to defend will be ...♔f7-e6, aiming to take the e5 pawn. White needs to tuck his king away to safety.



7.♔f4!

If White had placed his rook on any other file, ...♖a3-d3 would be a draw here. As is, this move is not possible.

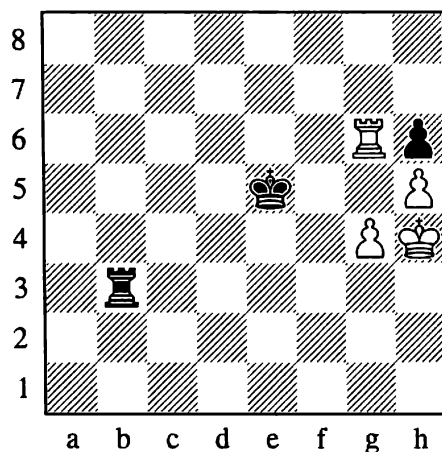
7.♖d7†? is too hasty. 7...♔e6 8.♖d6† This would still win. (8.♖xg7? ♖a4† 9.♔f3 ♔xe5 10.♖g6 White needs his king on g3 in this position so that he can hide on h4. As is, 10...♖a3† 11.♔g2 ♔f4 is an obvious draw as White cannot take on h6 without losing his g-pawn.)

7...♖b3

Or 7...♖a4† 8.♔f5 and White wins.

8.♖d7† ♔e6 9.♖xg7 ♖b4† 10.♔g3 ♔xe5 11.♖g6 ♖b3† 12.♔h4

Finally, White wins. If Black's rook was on d3 in this position, ...♖d3-d6 would save the game.



This seems like a good time to move on to four against three!

Chapter 11

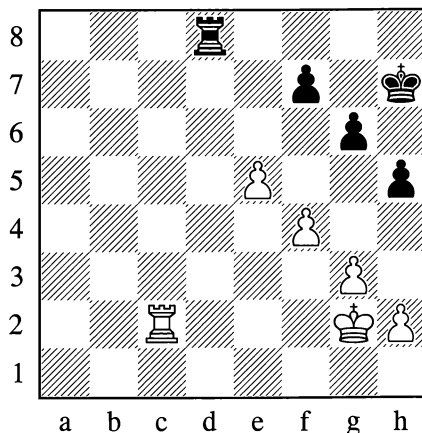
Four Pawns Against Three on the Same Side

The more pawns are added to the board, the more likely a rook endgame is to be winning. We have seen that in two against one scenarios, when White reaches the ideal e5/f6 versus f7 pawn structure, even that is often not enough to win (although it makes the defense difficult). In three against two positions, there are specific structures that win for White. If the two pawns are split far enough apart, White can make connected passers. If White is able to setup e5-f4-g4 against f7 and h6, he wins by getting his pawn to f6. But most cases are drawn.

In four against three, the default scenario is undoubtedly still a draw. But the more pawns are placed on the board, the easier it becomes to misplay the positions. If Kasparov can mess it up, anyone can! The following game was played online, but at a g/60 time control.

Jeroen Piket – Garry Kasparov

Internet 2000

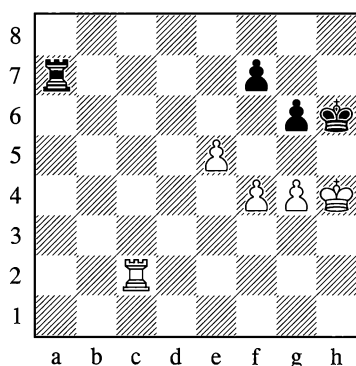


Black has set up a healthy pawn structure and should make an easy draw. If Kasparov ever had a weakness, it was that he would not always wait solidly and passively when it was the most prudent course of action.

41...♖d3?!

The position is still surely drawn, but this was a step in the wrong direction. Black should not be trying to do anything active with his rook.

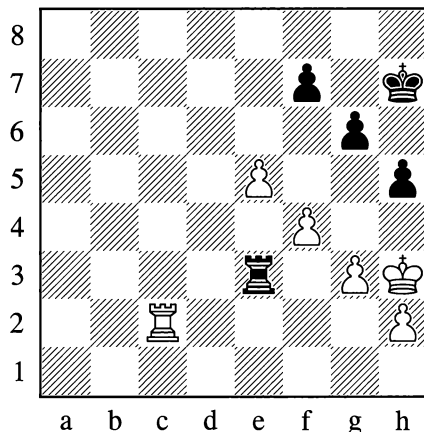
41...♖d7 seems the easiest to me. Black overprotects the seventh rank, waits with the king on g7, and always makes sure to meet ♕h3-h4 with putting his own king on h6. 42.♕h3 ♖g7 43.♕h4 ♕h6! Black can still make a draw if White's king reaches g5, but it becomes tougher as then f4-f5 will be a reasonable plan. As is, all White can ever hope to do is push for h2-h3 and g3-g4. 44.h3 ♖a7 45.g4 hxg4 46.hxg4



As soon as a pair of pawns has been exchanged and White's king no longer has a safe haven, Black transfers his rook to give checks from behind. 46...♖a1 Nothing left to see here. Black makes an easy draw.

42.♕h3 ♖e3?

Just two moves after we picked the game up, White is winning!



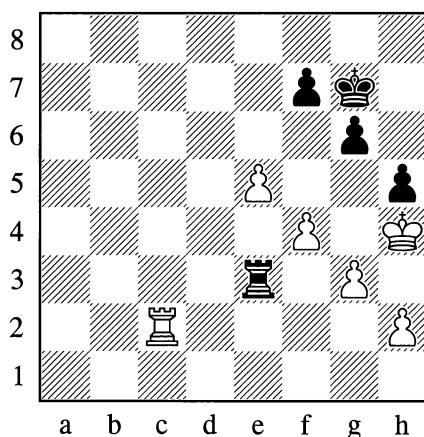
43.♕h4?

This allows Kasparov's king to be used in the defense.

43.♖c7! ♕g7 44.♕h4! would have won directly. 44...♖e2 45.♕g5! Black is unable to prevent ♖c7-e7 followed by e5-e6.

43...♕g7?

Black could have saved the game with 43...♕h6!, keeping White's king out of g5. White needed to start with ♖c7 to force Black's king to remain on g7.



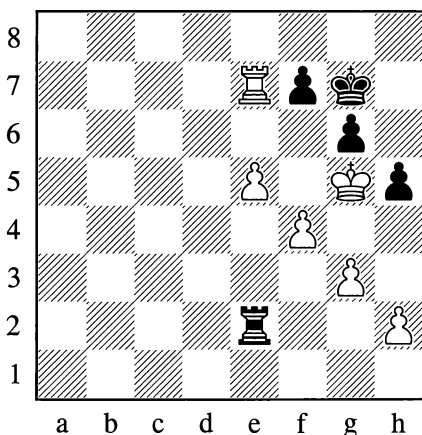
44.♕g5?

44.♖c7! was a more accurate move order. The threat of e5-e6 hanging over Black's head means that his rook must remain on the e-file. White is ready for ♔g5, ♖e7, and e5-e6 to follow.

44...♖e1

44...♖b3 45.♖c7 ♖b5 draws. Black has been able to prevent the advance of the e-pawn by pinning it.

45.♖c7! ♖e2 46.♖e7



This position is worth memorizing. It is what White should be aiming for to try to win against a healthy pawn structure in a four versus three endgame.

46...♖a2

After 46...♖e1 47.e6! ♖xe6 48.♖xe6 fxe6 49.h3! White wins the pawn endgame.

47.f5 gxf5 48.e6 h4 49.♖xf7† ♔g8 50.♔f6 1-0

It is impossible to exhaust every healthy, drawn pawn structure, and every rook and king placement that can come with it. But I will offer the following guideline for the defending side to follow.

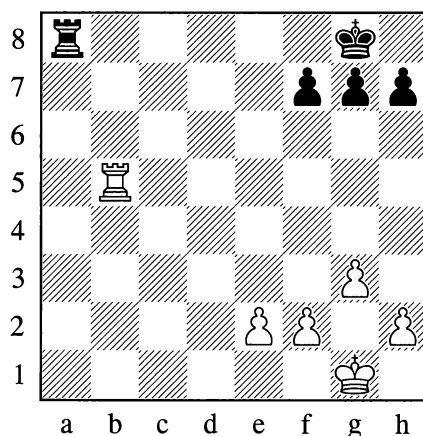
When defending a healthy four against three pawns on the same side rook endgame, do not try to use your rook to restrict the enemy king. Instead, that should be done by your own king and by your pawns. Your first priority should be to get your king and pawns to their best squares. The rook's placement is your last priority. You should leave your rook passively placed until your opponent has made enough pawn moves that their king has no natural hiding square. Only then should you transfer your rook to give checks from behind. Accept any pawn exchange that does not split your remaining pawns.

Kasparov would have made a draw by following these principles. Instead, he prioritized his rook before his king and brought it to an active post at a moment when White's king had a safe square.

The following game saw Black defend better.

Anish Giri – Hikaru Nakamura

Wijk aan Zee 2011



The position is a standard looking four against three pawn structure. Black's pawns are all connected, none of them are vulnerable,

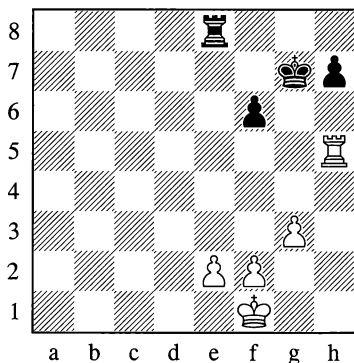
and the king is well placed. Predictably, this is a trivial draw, and Nakamura had no issues at all for the remainder of the game.

38...f6!

I like this move, although Black was making an easy draw regardless. The point is that White's best hope is to gain space with h4-h5, and this will not help him anymore.

39.h4 ♖e8 40.♔f1 g6 41.g4

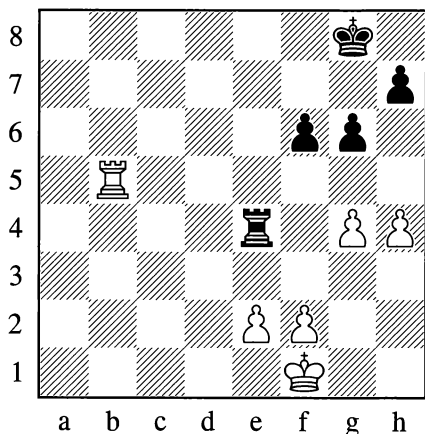
41.h5 gxh5 This is unnecessary, but I believe the simplest solution. After 42.♖xh5 ♔g7



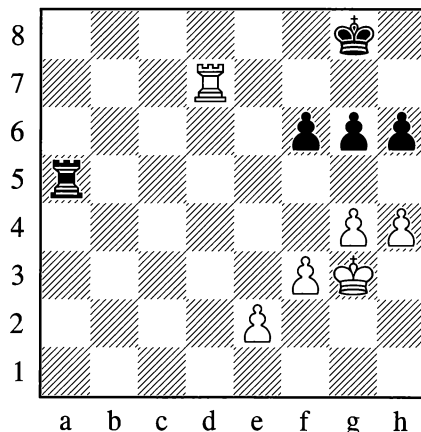
With ...h7-h6 to follow, Black will reach a drawn version of a typical 3 vs 2 scenario, as seen in the Capablanca – Yates encounter. This is because he was able to advance f7-f6 long before White could play f2-f4 and e2-e4-e5.

41...♖e4

Or 41...h6, consistent with the above note.



42.f3 ♖a4 43.♖b8† ♔g7 44.♖b7† ♔g8
45.♔f2 ♖a5 46.♔g3 h6 47.♖d7



Here, Hikaru transitioned the position further into three pawns against two. This was fine, but also not necessary.

47...h5

I fail to see any kind of plan for White if Black sits and waits with 47...♖b5. There is no pawn exchange he can make to reach a winning structure and his king will never do anything useful. The game is just a draw.

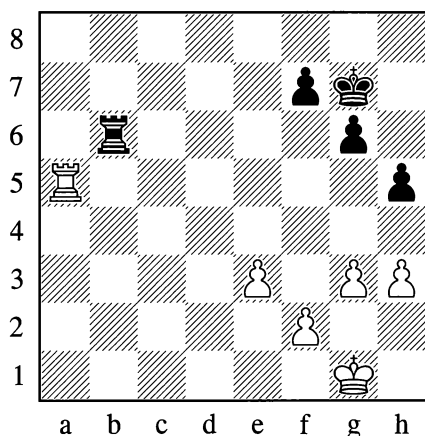
48.gxh5 ♖xh5 49.e4 g5 50.hxg5 ♖xg5†
51.♔f4 ♖a5 52.♖c7 ♔f8 53.♖d7 ♔g8
54.♖d5 ♖a3 55.♔g4 ♖e3 56.♖d7 ♔f8
57.♖a7 ♔g8 58.f4 ♖xe4 59.♔f5 ♖e8 60.♔g6
f5 61.♖g7† ♔h8 62.♖h7† ♔g8 63.♖g7†
♔h8 64.♖f7 ♔g8 65.♖xf5 ♖e7 66.♖g5 ♖f7
67.♔h6† ♔f8 68.f5 ♖f6† 69.♔h5 ♔f7
½–½

Hikaru did not have to work particularly hard for the half point. He had no pawn weaknesses, no split pawns, a well-placed king, and White was not even close to fixing a pawn weakness on the seventh rank. He sat, waited, didn't try to do anything special, and took his chance to advance ...h6-h5 when it came. This allowed Black to make an easy draw.

After writing the rest of this chapter, I had an opportunity to defend four versus three against Jeffery Xiong less than a year later.

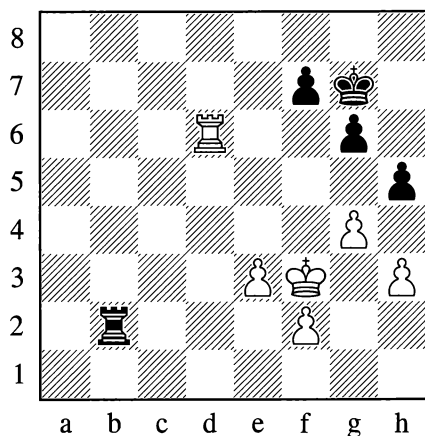
Jeffery Xiong – Sam Shankland

Saint Louis 2022



Black's king and pawns are all on perfect squares, and he does not even need to worry about the Piket – Kasparov plan because the h3-pawn means White will not be able to run his king to h4 and g5. I managed to illustrate all the principles – sit, wait, and only start looking for active moves with the rook once White's king lacks a safe haven.

47...♖b2 48.♞a6 ♞c2 49.♔g2 ♞b2 50.♔f3 ♞c2 51.♞d6 ♞b2 52.g4



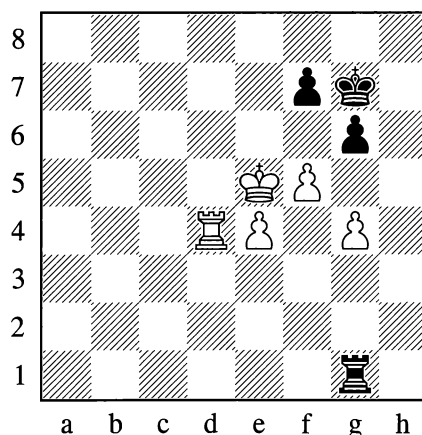
We accept any trade that does not split our pawns.

52...hxg4† 53.hxg4 ♞a2 54.♔g3 ♞a3 55.♔f4 ♞a5 56.♔e4 ♞a4† 57.♞d4 ♞a5 58.f4 ♞a1!

This felt like a good moment for bringing the rook to a1, as now White has two potentially weak pawns for me to harass from behind. But really the exclamation mark is for avoiding ...f7-f5.

58...f5†?! looks tempting. My computer claims the position is still a dead draw, but it strikes me as asking for trouble. 59.♔f3! Now, taking on g4 changes the pawn structure in a way that makes Black's life tougher. And if we don't want to take on g4, there was no reason to push ...f7-f5. I don't like that the seventh rank has been weakened, though it should still be a draw.

59.♔f3 ♞e1 60.e4 ♞g1 61.f5



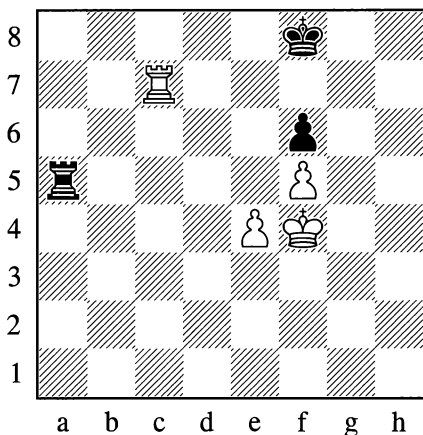
61...gxf5!

We accept any pawn trade that does not worsen the structure for us.

It would not be too late to blunder. 61...♞xg4? 62.f6†! ♔h6 63.♞d7 White wins.

62. gxf5 Ra1 63. Bc4 $\text{Ra5}\dagger$ 64. Qf4 f6
65. $\text{Bc7}\dagger$ Qf8

Black has simplified to an easily drawn two on one. The rest was not relevant.

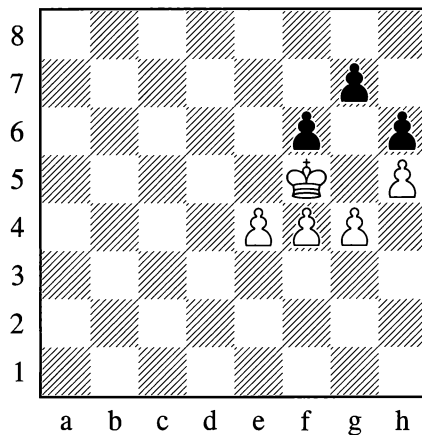


66. Qe3 Ra4 67. Qd3 Bb4 68. Bc4 Bb7
69. Qd4 Re7 70. Qd5 $\text{Re5}\dagger$ 71. Qd6 Qf7
72. $\text{Bc7}\dagger$ Qf8 73. $\text{Bc8}\dagger$ Qf7 74. $\text{Bc7}\dagger$ Qf8
75. $\text{Bc8}\dagger$ Qf7 76. $\text{Bc7}\dagger$ Qf8
 $\frac{1}{2}-\frac{1}{2}$

In all three of the previous games, Black had a healthy setup, and should make a draw without much fuss.

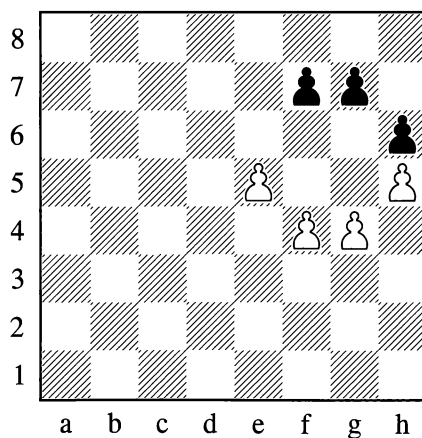
But the situation does not have to change that much for serious winning chances to arise. There are two specific structures that are well worth memorizing.

Structure 1 – White Wins



Note that this pawn structure only guarantees a win if White's king is on f5. White wins unless Black's king can reach h7 and his rook reach the f-file. It is not a win if the king is behind the pawns.

Structure 2 – White Wins



This structure is winning for White if he can prevent Black from playing ...f7-f6, but there are some very difficult moves to know. Note that if Black were to ever play ...g7-g6, White should take it. Then if Black takes back with a piece, we will reach the winning three against two structure seen on page 187.

This brings us to the second guideline relating to four against three scenarios.

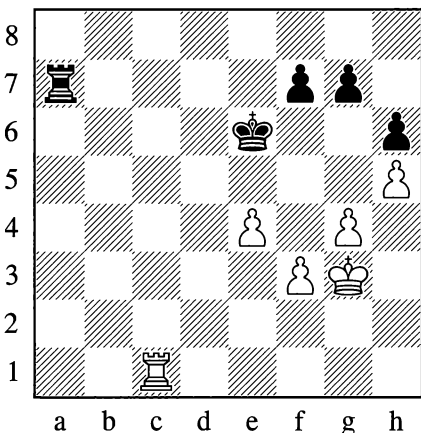
In a standard e-, f-, g- and h-pawn against f-, g- and h-pawn rook endgame, the move h5 is very important. Both sides want to make it. If the defending side gets his pawn to h5, he draws easily. But if the attacking side gets his pawn to h5 first, he can create serious winning chances.

When applying this guideline to the Giri – Nakamura encounter, it makes perfect sense. Since White's rook started on the fifth rank, he was destined to get h4-h5 in before Black could play ...h7-h5 himself. But Hikaru made sure to arrange a pawn structure that would result in a drawn three against two scenario in the event of ...g6xh5. Furthermore, when Giri chose not to push h4-h5, Hikaru eventually played ...h6-h5 himself.

Let's see the kind of winning chances that can arise if White is allowed to push h4-h5 under favorable circumstances.

Pawel Blehm – Igor Foygel

Internet 2006



Black has a reasonably healthy version of a four against three pawns on the same side rook endgame. It's not great that White's pawn has already reached h5, but the position is still defensible with careful play. White's best plan is to kick Black's king away from e6, place his own king on f5, and then push e4-e5 and f3-f4. This reaches the previously shown winning structure. Once there, he can follow up by giving a check on the back rank to get the rook to g8. In the game, White cruised straight through, but Black should be able to prevent this plan without much trouble.

35...♖a3?!

This might not be an exciting move, but it's hard to imagine that it is a huge mistake. I believe the position is still drawn, but the defense has become considerably more difficult.

I believe that Black's best option was to clear the f7 square for his king and attempt to leave it there for the rest of the game. As such, he will not have any pawn weaknesses.

35...f6! 36.♔f4 ♕f7

Black must be careful. If White is allowed to get his king to f5 and advance f4, he will win, as seen in Structure 1. But it can be prevented.

37.♞c5

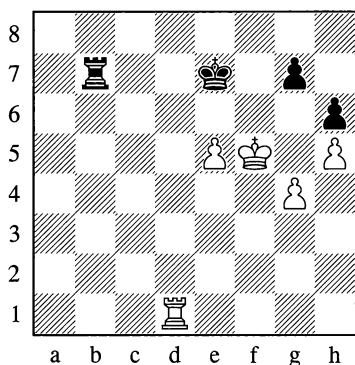
White's most challenging try is to preemptively take control of the fifth rank to prepare for ♕f4-f5 next. But Black can hold in one of two ways.

After 37.♕f5 it is worth considering two moves:

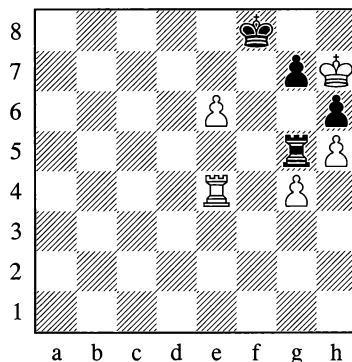
a) 37...♞a5†! is an important drawing move, albeit a straightforward one.

b) It is worth noting that sitting and waiting will not save the game. White is ready for f4 followed by e5, stretching Black's defenses. 37...♞b7? 38.f4! ♞a7 39.e5 fxe5 40.fxe5

We have seen this kind of position in the three against two section already. White's king has stabilized on f5 and he is winning. For completeness's sake, let's show how the game would end. 40...♖b7 41.♞d1 Threatening ♞d1-d7. A good reminder that in many three against two positions, the best place for White's rook is on the d-file! 41...♙e7



This position looks like it should be a straightforward win, but the best plan is not obvious. White would very much like to play e5-e6 followed by ♞d1-d7† to transition into a winning pawn endgame, but this will not work due to a check on b5. The following rook maneuver is well worth memorizing. 42.♞d4! (42.e6? ♖b5† would let all of White's hard work go to waste.) 42...♖a7 43.♞e4! The rook is surprisingly well placed on e4. Normally, when pushing for a win in rook endgames, putting one's own rook on a passive, defensive square is not going to yield a full point, but here it does. The point is that White is ready for e5-e6 next, and then his king will run into g6. 43...♖b7 44.e6 ♖b5† 45.♙g6 ♞g5† 46.♙h7 White's rook is perfect, defending both pawns. Funnily enough, Black would make a draw here if he could hit the pass button, but he is in a deadly zugzwang. 46...♙f8



White must be careful. Tempting as it may be to try to force the same zugzwang with e6-e7, this will not work. 47.♖a4! White takes advantage of Black's temporary inability to capture the e6-pawn. Soon enough, he will transfer his rook to the seventh rank, take on g7, and win. (47.e7†? ♙e8! Now Black to move would lose, but White cannot burn a tempo as his rook is needed to defend both of his pawns, and ♙h7-g8 or h8 would allow ...g7-g6.) 47...♙e7 48.♖a7† ♙xe6 49.♞xg7 White wins.

37...g5†!

This is the simplest draw by far.

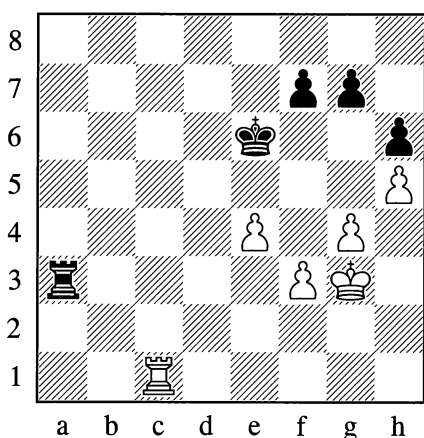
There is nothing wrong with keeping White's king in place from behind with 37...♖a3 in this specific position, but I think it is asking for trouble. We will see why in a couple of altered examples.

38.♙f5

Or 38.hxg6† ♙xg6. We have already shown that this position is drawn, as Black's pawn reached f6 long before White could get e4-e5 in.

38...♖b7

White has nothing left to try. His rook cannot leave the fifth rank on pain of checkmate, and f3-f4 or e4-e5 will only exchange off more pawns without making any kind of weakness to attack.



36.♙f4?

White does not capitalize on Black's error.

36.♞c6†!?

White could have done himself a big favor by checking on c6 to immediately prevent Black from building a decent defensive setup. Black can still save the game, but only by the skin of his teeth.

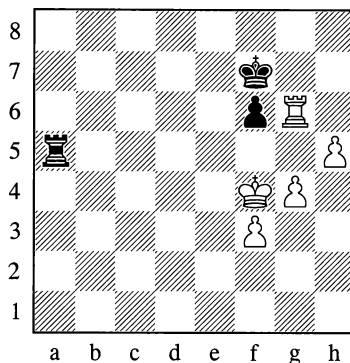
36...♙e7?

While Black only had three legal moves, the most human one is actually the only loser. It seems natural to want the king as close to the pawns as possible, but now White is able to reach the winning structure.

36...♙e5! Black must prevent White from advancing e4-e5. 37.♞c8! White makes the devilish threat of ♞e8†. This would disallow Black from getting his king back to f6. 37...♙f6! The only holding move. (37...♞b3? Sitting and waiting would allow White to show his idea. 38.♞e8†! Black's king cannot come back to f6 on pain of e4-e5. But anywhere else allows ♞g8, winning the g-pawn.) 38.♞c7 ♞b3 Draw.

36...♙d7 holds by some miracle as well. 37.♞b6 ♞a5! Black must not allow the e4-e5 advance. 38.♙f4 It looks like e4-e5 is coming, and Black is done for. But... 38...♙e7 39.e5 f6! It turns out Black can get away with this move. After 40.♞b7† ♙f8! 41.exf6 gxf6

42.♞h7 White is unable to take the h6-pawn without getting his rook stuck. Following 42...♙g8 43.♞xh6 ♙g7 44.♞g6† ♙f7



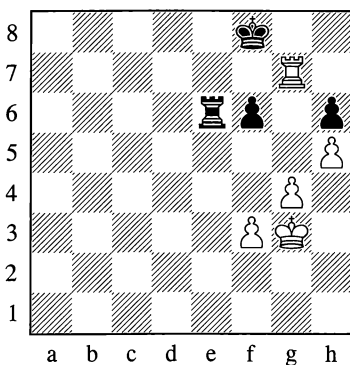
White's rook will not be able to get off g6. The best he can hope for is to be able to push g4-g5 through, but we already know that f- and h-pawns is a draw.

37.e5!

White prevents Black from playing ...f7-f6. Now, all he has to do is bring his king to f5, his f3-pawn to f4, and transfer the rook to the back rank – much like he did in the game.

37...♞a5

a) 37...f6 Black would love to get some pawns off the board, but this will not save him. 38.♞c7†! ♙f8 39.e6! And it transpires that Black cannot prevent the winning maneuver ♞c7-c8†-g8. At the end of the line, the weakness on h6 will prove to be Black's undoing. 39...♞a6 This was my best attempt to resist, but it still fails. 40.♞c8† ♙e7 41.♞g8 ♞xe6 42.♞xg7† ♙f8

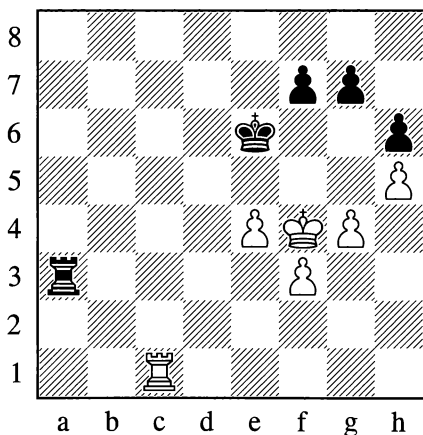


At first glance, it may seem like White can win the h6-pawn with either ♖g7-g6 or ♖g7-h7. But care must always be taken, especially at the end of a long game when the full point is finally within reach. 43.♖g6! No more tricks. Black cannot prevent ♖g6xh6 followed by g4-g5. (43.♖h7? falls into Black's devilish trap. 43...♖e5! Black gets his rook off the sixth rank. 44.♖xh6 ♜g7! 45.♖g6† ♜f7 Chess has some unfair positions, and this is one of them. Despite White's two extra pawns, he cannot extricate his rook from the g6-square. He will be able to get g4-g5 in, but this will only get him to rook and f- and h-pawns, which we already know is a draw, as seen on page 144. 46.g5 fxg5 47.♜g4 ♖e1 48.♜xg5 ♖g1† 49.♜f5 ♖a1) 43...♜f7 44.♖xh6 ♜g7 Now Black is almost holding, but he is not quite in time to get his rook off the sixth rank. 45.g5!

b) 37...♖b3 38.♜f4 also wins.

38.f4

The king comes to f5 next, and White wins. This will require some effort, as we will see later on.



36...♖a8?

Now Black is definitely lost, as White will be able to reach the winning setup.

Correct was 36...♖a6!. Black needed to prevent the check on a6 to keep his king happy and healthy on e6, preventing ♜f4-f5.

37.♖c5?

And again, White does not find it! 37.♖c6†!

37...♖b8

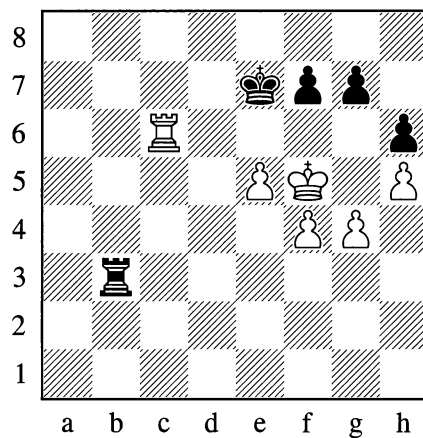
37...♖a6 draws.

38.♖c6†!

White did not have to be asked again.

38...♜e7 39.♜f5 ♖b5† 40.e5 ♖b3 41.f4

The threat of ♖c6-c7-c8-g8 is impossible to meet.



41...♖b4?

Black's position was lost in any case, but this really gives up all hope. He still could have made White work a bit by trying to defend the back rank.

41...♖b8!

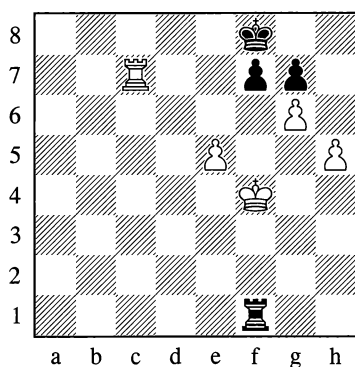
While this move does not save the game, it makes White work for it.

42.♖c1!

A very important and difficult move. Black is stuck in total passivity, as once the rook

leaves the back rank, White will invade with ♖c8-g8, winning easily. But White's only plan to make progress is to get g4-g5 through. As soon as he pushes g5, Black will take it and get the rook behind the pawns. White must make sure that there will not be enough checking distance. Alternatively: 42.♖c7† ♔f8! The most resilient. White can make no further progress without finding the correct idea of transferring the rook to the first rank. (42...♔e8! gives White an easier winning move. 43.e6!? White scoops up the kingside pawns. [43.♖c1 wins as well, just like the main line.] 43...fxe6† 44.♔g6! wins.) 43.♖c1 White wins.

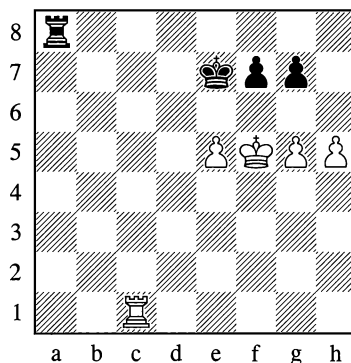
42.g5? Now that Black has become totally passive, it is tempting to try to make a passed pawn, or another weakness with g5-g6. But Black now can save the game. 42...hxg5 43.fxg5 ♖b1! Black has enough checking distance. 44.♖c7† ♔f8 45.g6 ♖f1† 46.♔e4 ♖e1† 47.♔f4 ♖f1†



White needs to be able to retreat the king and prevent a check at this moment. As such, the position will be winning if Black's rook is on f2, as we will see down the road. But now, Black has enough distance, and White cannot escape. 48.♔e3 fxg6! 49.hxg6 ♖g1! Draws.

42...♖a8

Black can't do anything but wait anyway. 43.g5 hxg5 44.fxg5



Now, sitting and waiting will not do. Since the f4-pawn is off the board, White's king is no longer secure, and Black can look to check from behind. But White has anticipated this plan, and correctly placed his rook on the back rank to minimize Black's checking distance.

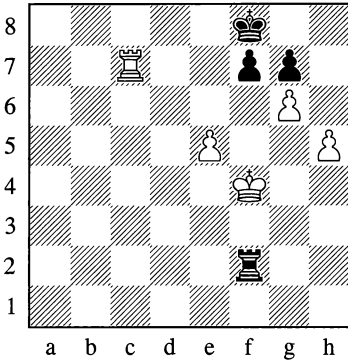
44...♖a2

44...♖b8 45.♖c7† ♔f8 46.g6 fxg6† 47.hxg6 wins. White is ready for a check on f7 next, when Black will have to either part with his g-pawn or get his king cut off on g8 and allow the e-pawn to cruise through. Nothing more to be said here.

45.♖c7†! ♔f8 46.g6 ♖f2† 47.♔e4 ♖e2† 48.♔f4 ♖f2†

We have seen this position before, but with Black's rook on f1 instead. There, he was making a draw, but here he is not.

Taking g6 first does not help. 48...fxg6 Now, White's king has access to the e6-square. 49.hxg6 ♖f2† 50.♔e4 (50.♔e3? is the wrong direction. White can only come back to approach the rook if Black has not exchanged on g6. 50...♖g2! draws.) 50...♖e2† 51.♔f5 ♖f2† 52.♔e6 White wins.



49.♔e3

Since the rook is attacked, Black is not able to flick in ...f7xg6 before playing ...♖f2-g2 to harass the g6-pawn.

He must allow ♖c7xf7 next, transitioning into a lost pawn ending.

Waiting on the seventh rank meets a similar fate to the game. 41...♖b7? 42.♖c8 On the way is ♖g8. 42...♖b6 43.♖g8 ♖a6 Black sets one final trap. 44.g5! But White doesn't fall for it, and now Black loses the g7-pawn for real. Time to resign. (44.♖xg7?? I would pity a poor soul who would lose a game like this. I could see it happen in a blitz game, but not a serious one. 44...♔f8 45.♖h7 ♔g8 The rook is trapped.)

42.♖c7† ♔f8 43.♖c8† ♔e7 44.♖g8

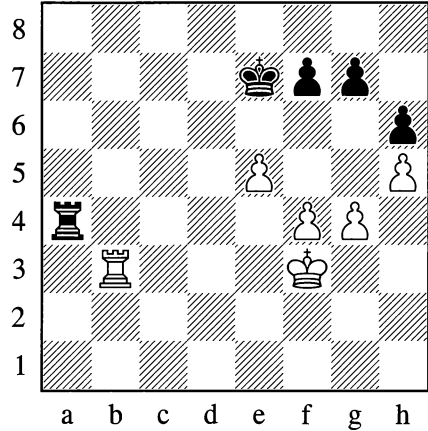
Black resigned.

1-0

Foygel did not manage to put up much resistance, quickly allowing White's king to f5 and then losing without finding the best defense. But we can see that even if Black had kept his rook on the back rank, White would win with proper technique. The game could have been saved by keeping in mind the two winning pawn structures and avoiding them with the plan of ...f7-f6, ...♔e6-f7, and ...g7-g5.

Knowing the winning plan once the king is on f5 is important. But it is equally important to know how to get it there.

Structure 2 – Transition



Once White's king gets to f5, he will win as shown in the Blehm – Foygel game on page 203. But it is also important to know and memorize how to get the king to f5. As far as I can tell, there is only one way.

1.♖b7†!

Eventually, White's goal is to place his king on e3, transfer his rook to d4, and then invade with ♔e4-f5. But it is important for him not to get ahead of himself. The king must remain on f3 for the time being to keep the g4-pawn protected. The rook must check on the seventh rank to prevent Black from advancing ...f7-f6 at an inopportune moment.

What happens if White starts with a king move? 1.♔e3?!

This does not spoil anything, but it is the beginning of the wrong plan. White is unable to transfer his rook to d4 without allowing ...f7-f6 in response.

1...♖c4 2.♖d3?

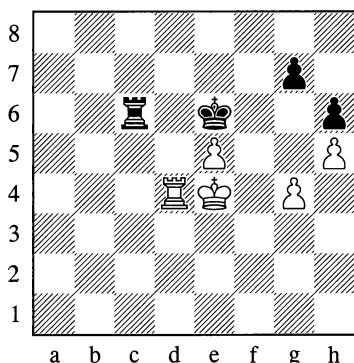
And now it is a draw. Transferring the rook to d4 to allow White's king to cross the fourth rank and reach f5 is the right plan.

But this is the wrong execution as White did not force Black's king to the back rank first.

2.♖b7†! doesn't help much, as Black can play 2...♙e6! which prolongs the fight a bit. White is unable to play f4-f5† since the g4-pawn is hanging. His cleanest route to victory is to take back his previous two moves and find the right plan. 3.♖b6† (3.f5† only works with the king on f3. 3...♙xe5 4.♖xf7 ♖xg4! draws.) 3...♙e7 4.♖b3 ♖a4 5.♙f3

2.♙f3! White should admit his mistake and start again, when he still wins after 2...♖a4 3.♖b7†.

2...f6 3.♖d4 ♖c6 4.♙e4 fxe5 5.fxe5 ♙e6!



White would win if his king reached f5, but he will not make it there. In fact, he is totally stuck, and the scoresheets can be signed immediately as his rook cannot leave the fourth rank. There is nothing to even try.

1...♙f8

Trying to keep the rook off d7 does not work either, as g7 is left undefended: 1...♙e8 2.e6! wins.

1...♙e6 is Black's most resilient defense. It stops the rook from transferring to d7 while also preventing e5-e6. But since White has kept his king on f3, Black will lose. 2.f5†! ♙xe5 3.♖xf7 And now we see why it is so important that White's king remained on f3 instead of e3: the g4-pawn is protected. 3...♖a3† (3...♖f4†

4.♙g3 wins) 4.♙e2 White's king will escape the checks, the pawn on g7 will be captured, and the rook will land on g6. It's all over.

2.♖d7!

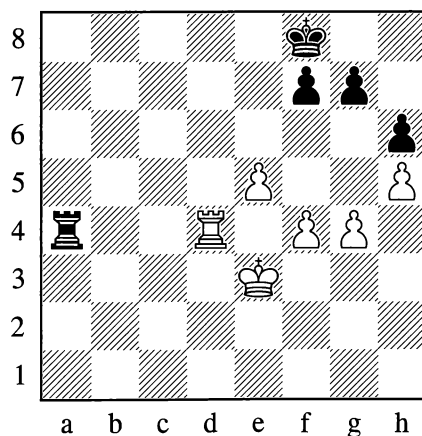
Now and only now, White transfers the rook to the d-file, pointing out that Black is unable to advance ...f7-f6 thanks to e7-e6. This way, White is ready for ♙e3, ♖d4, and then ♙e4-f5 without allowing the ...f7-f6 advance to come in time.

2...♖b4 3.♙e3

White no longer needs to worry about keeping the g4-pawn protected.

3...♖a4 4.♖d4!

Now that Black's king has been pushed back to f8, White is able to bring his rook to d4. Black will get ...f7-f6 in, but then White gets his king to f5 in time.



4...♖a6 5.♙e4 f6 6.♙f5

White's king reaches f5, and he will transpose into a winning three against two position covered on page 193.

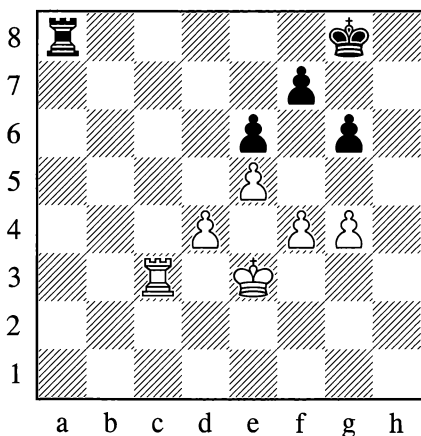
These specific formations were the only ones I could find where the defending side has connected pawns, but still loses. This brings us to the third guideline.

If the defending side's pawns are connected and his king is in a reasonable place, he should draw the game unless the attacking side can reach one of the two previous winning structures.

When considering this guideline, it's clear I could have improved my play in the following encounter.

Sam Shankland – Leinier Dominguez Perez

Tsaghkadzor 2015



I made my debut playing board 1 for the US National Team at the 2015 World Team Championship. In the final round we faced the Cuban squad. While we did win the match, I left a half point on the table.

37...♖a1?

Black does not have a great version of the typical four against three endgame, but the same principles still apply. He should be focusing first on improving his king, and then his rook later.

Correct was 37...♔g7!. Black could have done himself a favor by getting his king onto its best square, making it harder for me to play f4-f5. White can still push a bit, but Black should make a draw. 38.♞c7 ♞a3! 39.♕e4 ♞a1!

The knowledge that three connected pawns for the defending side is almost certainly a draw, and that a secured pawn on the sixth rank fixing a weakness on the seventh rank is often decisive, would have put the cherry on top of a fine game against Cuba's greatest superstar since Capablanca. Instead, with the clocks ticking down and time control approaching, I played a "do no harm" move which immediately allowed Black to reach a salvageable position.

38.♞c8†?

This move accomplishes absolutely nothing, and the moment to strike has passed. White had to make something happen right away as the position should be a technical draw barring anything unusual.

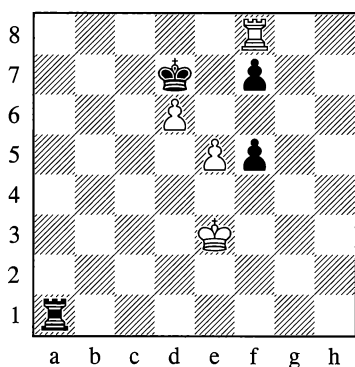
White could have won the game by boldly pushing forward with his f-pawn:

38.f5!

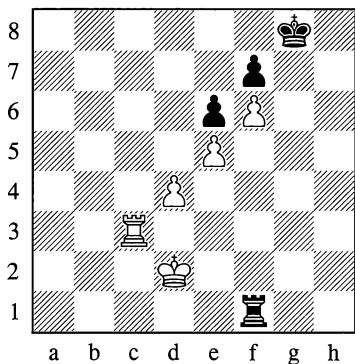
This takes advantage of Black's somewhat uncoordinated pieces. Clearly, if White is ever to make this advance, now is the time. It will be all too easy for Black to place his rook on a square like f1 next. The point is that Black is caught between a rock and a hard place. He will have to either allow White to get his pawn to f6 or let him have a passed d-pawn that Black is ill-equipped to deal with.

38...gxf5 39.gxf5 ♞e1†

Allowing f5-f6 is a death sentence. 39...exf5 When armed with the knowledge that securing a pawn on the sixth rank often guarantees victory, it is easy for Black to take on f5 without much thought. But White wins after 40.d5! His d-pawn will promote directly, for example after 40...♞d1 (40...♕f8 41.♞c8† ♕e7 42.d6† ♕d7 43.♞f8



Black loses the f7-pawn. 43...♔e6 44.♞e8† ♕d5 [44...♔d7 45.♞e7†] 45.d7 41.d6 f6 42.♞d3! When considering pushing f4-f5 a few moves back, I had sadly overlooked this resource. 42...♞xd3† (42...♞e1† 43.♔f2 The d-pawn promotes.) 43.♔xd3 ♔f7 44.d7 ♔e7 45.e6 White wins the pawn endgame. 40.♔d2 ♞f1 41.f6!



White's rook is ready for the familiar invasion on the back rank. Black cannot save the game.

41...♔h7

This is the most consistent move with the plan Black would execute to save the game in a two against one scenario. Leave the king on h7 and hide back on h8 once a check on g7 is threatened.

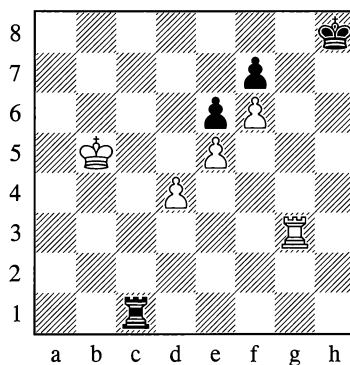
41...♞a1 42.♞c8† ♔h7 43.d5! Another nice point of having a pawn fixed on the seventh rank is that sacrificial breakthroughs are

easier to come by. 43...exd5 44.e6 fxe6 45.f7 If all of the pawns and pieces were moved back one rank and White would only be able to guarantee his pawn reaching f7 rather than f8, he might even be losing. As is, the pawn promotes directly, thanks to it being fixed on the sixth rank to begin with.

42.♞g3 ♔h8 43.♔c3

White's king is ready to invade. The presence of the d4 and e6-pawns tilt the balance in his favor.

43...♞d1 44.♔c4 ♞c1† 45.♔b5

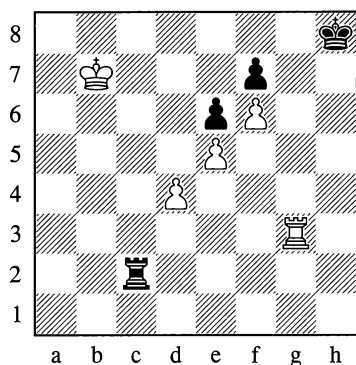


Black must be careful not to allow a breakthrough with d4-d5 at an inopportune moment. For now, he has it covered. But once White's king reaches b7, Black's rook will be unable to defend along the back rank.

45...♞c8

Black's most resilient defense is to transfer the rook to d5. His point is that the rook will remain on a safe square that obviously prevents the d4-d5 breakthrough, and that keeps White's king cut off. But this will not work as well as it does in the two against one case.

45...♞c2 46.♔b6 ♞c1 47.♔b7 Now it's all over. White is threatening d4-d5, breaking through, and Black cannot prevent it while simultaneously keeping the white king cut off. 47...♞c2

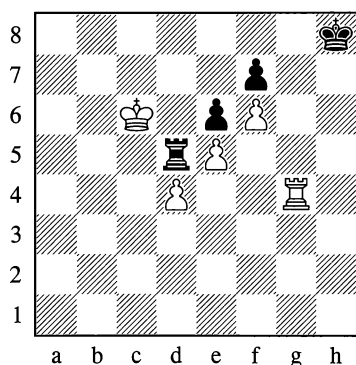


(47...♖d1 48.♗g4 White is ready to run the king to e7.) 48.d5! exd5 49.e6! fxe6 50.f7! Black loses, as the move ...♗c2-c8 is no longer available.

45...♖d1 As soon as White's king is allowed to run to e7, it's all over. 46.♕c5 ♖d2 47.♕d6 wins.

46.♕b6 ♖d8 47.♗g4 ♖d5 48.♕c6

With the d4 and e6-pawns removed from the board, Black's rook on e6, and White's king on d7, we would reach a position that is covered in the Narayanan – Andreikin game on page 167. That one is a draw, but mainly because White is running out of pawns. In this case, White wins.



48...♕h7

This is consistent with Black's best plan, but after:

49.♗g7† ♕h6 50.♗xf7 ♖xd4 51.♖d7

The presence of the e-pawns immediately ends the game, as White will follow up with ♕d6 next to capture e6 and win a second pawn. Black can resign.

38...♕g7

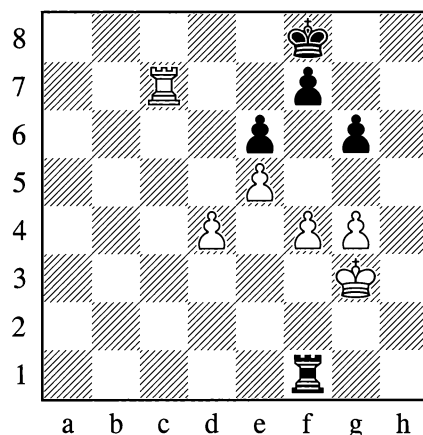
I lost my only chance to get f4-f5 in, as now Black will be able to safely take twice. I will not get a pawn to the sixth rank, and the position is an easy technical draw.

39.♖c7

It was too late for 39.f5 due to 39...gxf5 40.gxf5 exf5 41.d5 ♖d1! White now sorely regrets placing his rook on the back rank. Wouldn't it be nicer on d3? 42.d6 f6! with a draw.

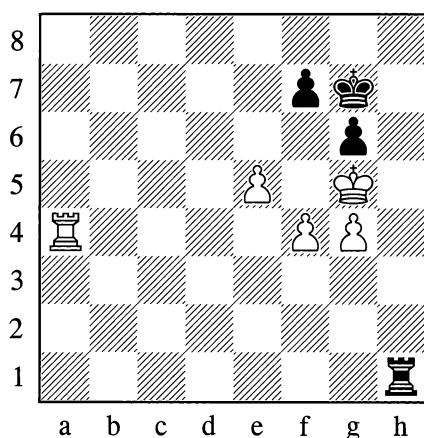
39...♖e1† 40.♕f3 ♖f1† 41.♕g3 ♕f8

Black now makes an easy draw.



42.♖d7 ♕e8 43.♖d6 ♕f8 44.d5 exd5 45.♖xd5 ♕g7 46.♖d7 ♕f8 47.♖d6 ♕g7 48.♖f6 ♖h1 49.♖a6 ♖f1 50.♖a4 ♖g1† 51.♕h4 ♖h1† 52.♕g5

Now, Black should be careful not to allow f4-f5-f6. If White pulls this off, the defense will become difficult again. But it's not wildly difficult to prevent.



52...Rc1 53.Ra7 Rc4 54.Rb7 Rc1 55.Rc7
Rc4 56.f5

Black needs to be careful not to allow the f5-f6 advance, but a simple tactic saves him routinely.

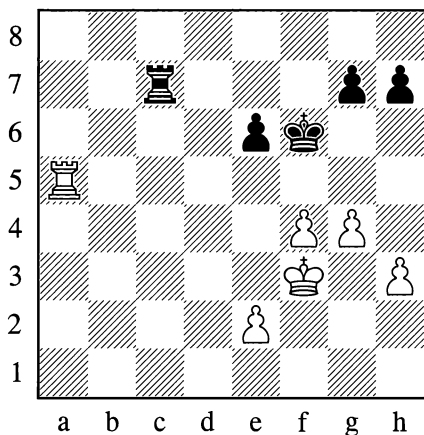
56...Rxe5! 57.Rxe5 f6† 58.♔f4 fxe5†
59.♔xe5 gxf5 60.♔xf5 ♔f7

The pawn ending is drawn.

½-½

A much more common way for winning chances to present themselves in a four against three scenario is if the defending side has an isolated e-pawn. These can get very tricky.

Structure 3 – White Wins



White should be winning if he can accomplish both f4 and g4 without allowing any pawn trades, otherwise it should be a draw. Since he has managed to pull this off, Black is lost, as we will see here.

1.h4

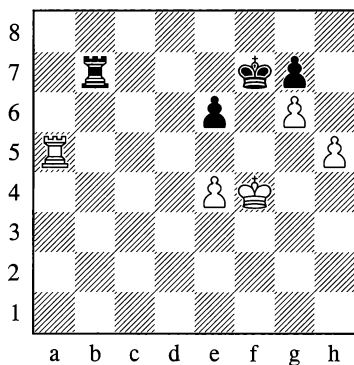
Black can choose whichever structure he wants for his g- and h-pawns. He can leave them in place, he can advance one, he can advance both. But none of these configurations will save him.

1...g6

Black can move his g-pawn to prevent White from gaining endless space. Now the cleanest win would be g4-g5†, but even if White allows ...h7-h6 to come, he still wins easily.

First things first. Let's see what happens if Black sits and waits. 1...Rb7 2.h5 Rc7 3.g5† ♔e7 4.Ra8 Easy enough. Much like we saw with the e5/f6 versus f7 structure, fixing a weakness on the seventh rank tends to be enough to win a same side rook endgame with one extra pawn. Rh8 is coming.

After 1...h6 2.h5 White will eventually push g4-g5-g6, fixing a weakness on g7. 2...Rb7 3.g5† hxg5 4.fxg5† ♔f7 White should win routinely by getting his pawn to g6 under the right circumstances, but it is important not to rush. Black's king should not be allowed to sit on f6. 5.e4! (After 5.g6†? ♔f6! Black's king becomes active. We need to be ready to meet this move with e4-e5† with our king on f4. Here Black is fine.) 5...Rc7 (5...Rb1 If Black abandons the seventh rank, White wins easily with 6.Ra7†! ♔f8 7.g6! Only now that the king cannot come to f6. Black already has to worry about Ra7-a8† followed by h5-h6, promoting the pawn directly. 7...Rh1 8.♔g4 Rh2 9.Rf7† ♔g8 10.Rc7 Enough said.) 6.♔f4 Rb7 7.g6†! The time is right, as Black's king will not be able to remain on f6.



7...♔f6 8.e5† ♔e7 9.♔g5 Coming next is ♖a5-a8-g8, taking advantage of the fixed pawn weakness on g7.

2.e3 ♖b7 3.h5

If Black continues to wait, White has the straightforward plan of g4-g5†, h5-h6, and go after the h7-pawn.

3...♖c7

With 3...h6 Black can attempt to prevent a pawn weakness from being created on the seventh rank, but this will not save him. After 4.hxg6 ♔xg6 we have now transitioned into a three against two structure where Black's pawns are three files apart. This means White should be able to win by pushing f4-f5 and getting connected passed pawns. We have seen this exact structure covered in the three against two section on page 182. 5.♖a6 ♔f7 White will easily get f4-f5 through, leaving himself with connected passed pawns against a useless h-pawn. 6.f5 Time to resign.

4.g5† ♔f7 5.h6 ♖d7

5...♖c8 6.♖a7† ♔g8 7.♖e7 would not have been any better.

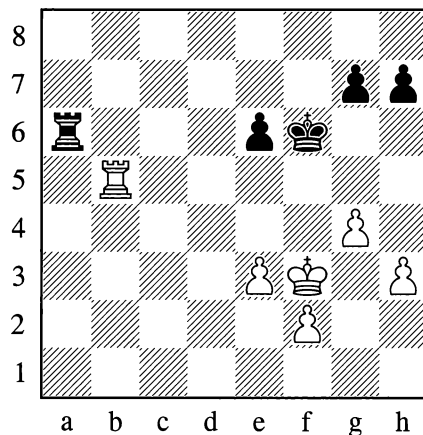
6.♖a8

All over. ♖a8-h8 is coming.

This pawn structure is very common, and it is important to know when it is winning and

when it is not. Once we have ascertained that White wins if he can play both f2-f4 and g2-g4, it becomes easier to understand how Black can defend.

Structure 4 – Draw



This structure looks similar to the previous one, but it should be a draw with best play. The reason is that White was not fast enough to get f4 in.

1.h4!

The most challenging try. Black now needs to be careful. White has already managed to get the g-pawn to g4, and if he can get his f-pawn to f4, he will be technically winning. The only thing Black can do to stop him is to advance ...e6-e5, but this must be done under the right circumstances.

After 1.♔g3 if Black treads water, f2-f4 comes next and White wins. He must choose which pawn to advance to prevent it. 1...e5! is Black's best defensive setup. He prevents f2-f4 forever, and White will not be able to bring his king to harass the e5-pawn. (Surprisingly, the natural move 1...g5? loses. 2.h4 Now, if Black ever takes on h4, he will get to the lost h- and e-pawn against e-, f- and g-pawn structure. This compels him to play 2...h6 but after 3.h5!

there are too many weaknesses to keep track of. White is ready to transfer his rook to h7, and Black's attempts to stop him will not help. 3...♔f7 4.♖b7† ♕g8 5.♗e7 Black is totally paralyzed. The rook is stuck defending e6, and the king cannot move away to allow ♗e7-h7. White's king will invade via f3, e4, and e5, and Black can hardly stop him.) 2.♕f3 h6 3.♕e4 ♗a2 Black should hold this together without a ton of trouble. I cannot see a plan for White. His problems are that Black's king has a secure square on f6, and that he could not play f2-f4 to help get g4-g5 through.

1...h6!

A very important move. Black is ready for ...e6-e5 to come next.

If Black waits with say 1...♗c6?, after 2.g5† ♕e7 3.♕g4 he would no longer be able to prevent the f-pawn's advance. White is winning.

It would be very tempting to make the immediate ...e6-e5 advance, and hope to prevent f2-f4. 1...e5? But it loses directly. 2.g5†! Black's king is not able to stay in touch with the e5-pawn while also defending the seventh rank. 2...♕e6 (2...♕f5 only delays the inevitable for a move. 3.e4† ♕e6 4.♖b7 White wins the kingside.) 3.♖b7 wins.

2.♕g3

Now, if White has one more move, he would be winning with f2-f4, as we saw in the previous example. Black must stop him.

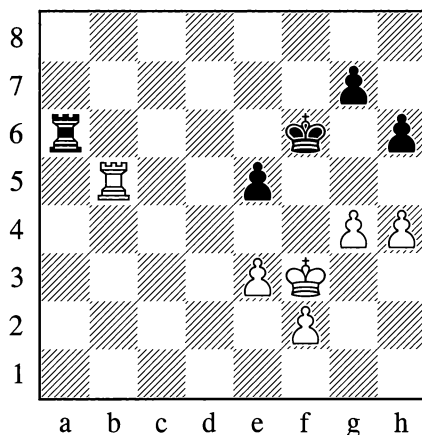
Black reaches a drawn structure after 2.g5† hxg5 3.hxg5† ♕f7. He can park his rook on the seventh rank, and White will never be able to make progress.

2.h5? doesn't help White much. In fact, now Black does not even need to get ...e6-e5 in to save the game. 2...♖a4 (2...♖a1 3.♕g2) 3.♕g3 ♗e4!

White does not get the f2-f4 advance in so easily. Black will suffer, but I could not find a winning plan against good defense.

2...e5! 3.♕f3

Black has reached a drawing setup. He should leave his rook on the sixth rank indefinitely and give a check whenever White's king comes to e4.



3...♗c6

After 3...♗a7? 4.♖b6† ♕f7 5.♕e4 White wins as he can easily attack the e5-pawn.

4.♕e2

The best plan I could come up with for White was to first play f2-f3 to secure the g4 pawn, and only then try to bring the king to e4 so that he can meet a check on the fourth rank with ♕e4-d5. Still, I believe Black holds easily.

If 4.♕e4 now that the king has come to e4, a check is necessary. 4...♗c4† 5.♕d5 ♗xg4 is equal.

4...♖a6

White would win if he could play f2-f3 and get his king to e4, but I don't see a way to achieve this. The problem is that if he plays ♕e2-d3 first, he will get checked, or if he plays f2-f3 first, his king will get cut off.

5.f3

If 5.♔d3 ♖a3†! White cannot play ♔d3-e4 without running into a check on a4.

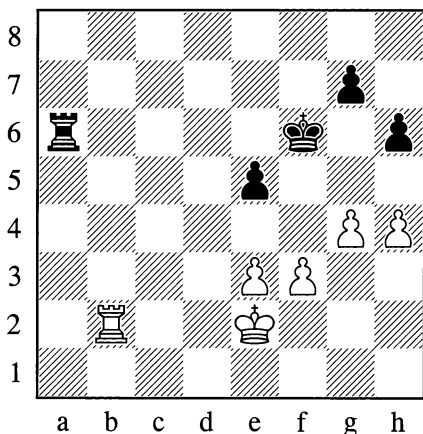
5...♞d6!

White's king is cut off and Black can shuffle his king between e6 and f6 indefinitely.

6.♞b2 ♞a6!

Now that White's rook has left the fifth rank, the ♔d3-e4-d5 plan fails as the king on d5 will not be safe from side checks.

6...g5 also saves the game, but I am hesitant to suggest it as an appropriate defense as the pawn structure becomes lost. The point is that after 7.h5, Black is just in time for 7...e4! 8.fxex4 ♔e5! With a draw.

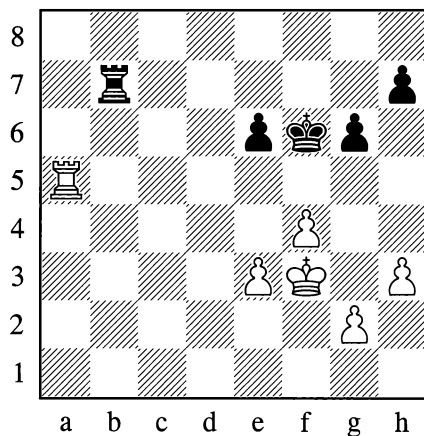
**7.♔d3 ♖a3† 8.♔e4 ♞a4† 9.♔d5**

If White's rook was on b5, he would be winning. As is, ...♞a5† saves the game.

9...♞a5†

Draw.

As we can see, Black had to be careful in how he chose to stop the f2-f4 advance. Let's look at an even trickier case.

Structure 4 – Draw 2

Black cannot allow g2-g4 to come. As a matter of best policy, he should push ...h7-h5. But it is interesting to note that preparing ...g6-g5 is sufficient for a draw as well, due to White's pawn being on f4 already.

1...h6

It is surprising that Black can also draw by playing for ...g6-g5, as in the previous position with White's f-pawn back on f2, ...g6-g5 was not a drawing resource. But here, there is a key difference.

1...h5! is by far the simplest move to secure a draw. White really does not have anything he can even try.

2.g4

Now not only is ...g6-g5 good enough to hold, but it is in fact the only holding move. If White is allowed to play h3-h4, it's all over.

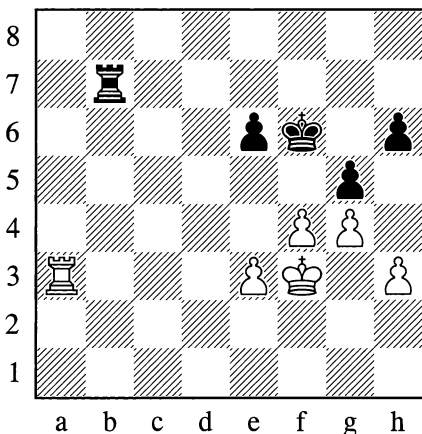
2...g5!

The reason that ...g6-g5 is a draw now is that White's pawn has already been pushed to f4. This means that White will not be able to play h3-h4 and force Black to take it, reaching the previously discussed e-, f- and g-pawn against e- and f-pawn structure that generally will lose.

3.♖a3

White's best attempt is to secure the third rank. Black needs to be careful: if White is able to get h3-h4 through, he will win. This will not happen with accurate play.

Or 3.h4 gxf4!. This draws on the spot. 4.exf4 This structure is generally supposed to be winning, but it is more direct than that. If White had a move to play g4-g5†, or even h4-h5, he would be winning. But he does not have a move. 4...♖b3†! White's king will be checked endlessly, and he cannot escape without abandoning the kingside and losing his pawns.

**3...♖b1!**

Not the only drawing move but it is the easiest one.

3...♖c7?!

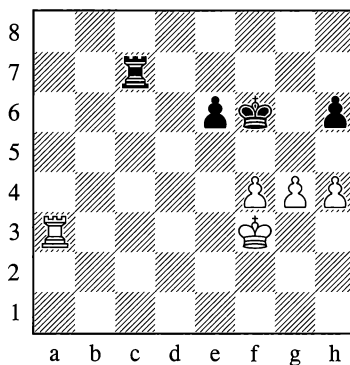
Black can sit here as well, but his defensive task just got much tougher.

4.h4! gxf4

Not 4...gxh4? 5.♖a5 as White reaches the winning pawn structure after a subsequent ♖a5-h5.

5.exf4

This structure generally should be winning for White, but Black has one saving grace.

**5...♖c6!**

The point of this move is that Black must be ready to meet h4-h5 with ...e6-e5.

5...♖b7? 6.h5 Now that Black is not able to play ...e6-e5 on pain of a check on the sixth rank, White is winning. His plan is to bring his king to h4, threatening to play g4-g5†. Black will want to respond by placing his rook on the fourth rank, but this will allow a decisive penetration on h7. 6...♖c7 (6...♔g7 anticipates White's winning plan of bringing the king around to h4 to threaten g4-g5, but it does not save the game. 7.♖a5! White is ready for g4-g5 next. The plan of hiding the king on h4 will not work, but since Black put his king back on g7, the e5 square will do just fine – hence placing the rook on a5. 7...♖b3† [7...♖c7 Waiting will not work either. 8.g5 ♖b7 9.♔e4 ♖c7 10.♔e5 It's all over but the crying.] 8.♔e4 [8.♔g2?! This is the wrong direction now that Black's king has gone to g7. 8...♖b2† 9.♔g3 ♖b3† 10.♔h4 ♖b4 Since White cannot transfer his rook to h7 anymore, he should bring his king back to g3 and through to e5 to win the game, as in the main line.] 8...♖b4† 9.♔e5 wins.) 7.♖a5 g4-g5 is coming, and Black is done for. 7...♖c3† 8.♔f2 ♖c2† 9.♔g3 ♖c3† 10.♔h4 ♖c4 11.♖a7! Time to resign.

6.h5 e5!

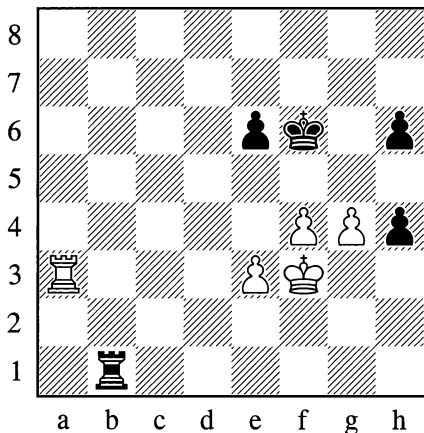
After 6...♖b6? 7.♖a5! White wins, as in the previous note.

7.f5 ♖b6

White can make no further progress.

4.h4 gxh4

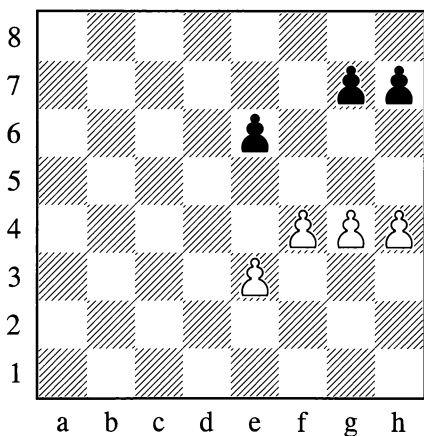
White is not in time for ♖a3-a5-h5 to scoop up Black's h-pawn.



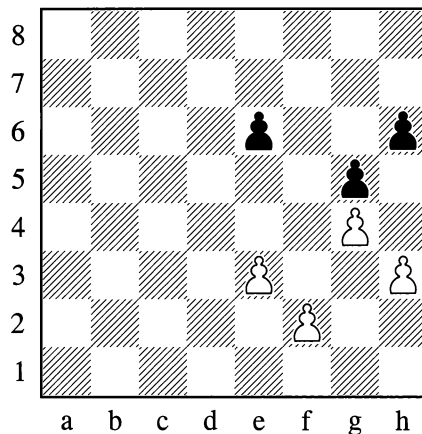
5.♖a5 ♖f1† 6.♔g2 ♖e1 7.♔f2 ♖h1 8.♖h5 ♔g6

White will not win the h4-pawn. Dead draw.

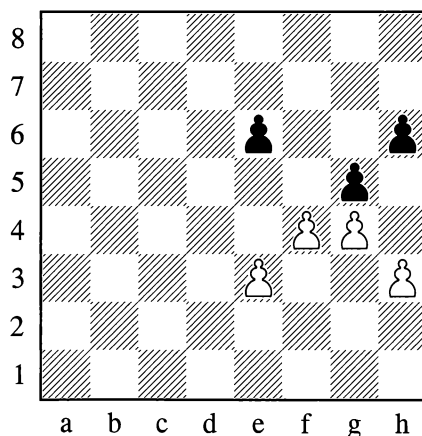
Miniscule differences in the structure can have a massive effect on the position's evaluation. I think these specific structures should be memorized.

Memory Structure 1

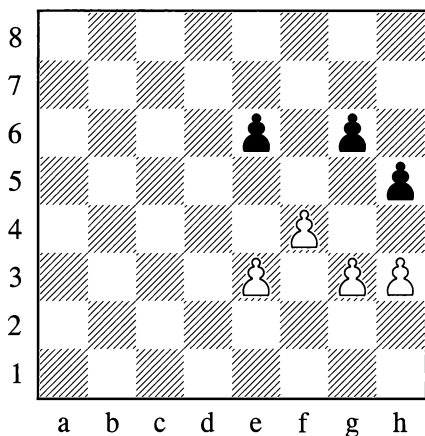
This structure wins for White regardless of where Black's g- and h-pawns are.

Memory Structure 2

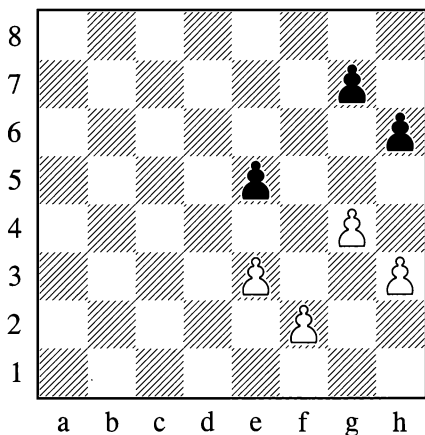
White wins if he can manage to play h3-h4. Then h4-h5 will fix a weakness on h6. If Black takes on h4, this results in a winning three on two structure. Black draws if he can prevent h3-h4.

Memory Structure 3

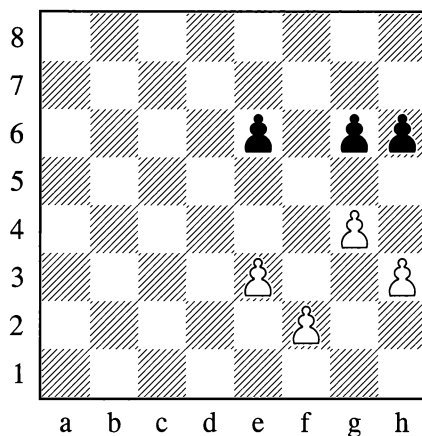
This structure is generally a draw, because White will struggle to get h3-h4 in without allowing ...g5xf4 with immediate checks to follow. Black should not play ...g5xf4 until White pushes h3-h4 to deny White's king a place to hide on the h4-square.

Memory Structure 4

This structure is a routine draw, and is Black's best and most stress-free defensive setup.

Memory Structure 5

This structure is a draw as well, but not as easy as the g6- and h5-pawn one.

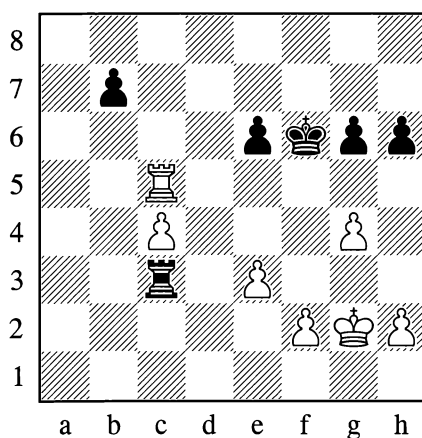
Memory Structure 6

This structure is always lost, as the h6-pawn is weak. White will push h3-h4 and then f2-f4. The only way Black can prevent this is to push ...e6-e5, but then he will not be able to guard both the sixth and seventh ranks.

Let's see an example of these structures in action.

Magesh Panchanathan – Jeffery Xiong

Greensboro 2018



Black has a difficult defensive task ahead of him. The c- and b-pawns will be exchanged sooner or later, and it takes a deep knowledge

of the resulting four against three structures to save the game. Ideally, he would get ...h6-h5 in, to reach the best defensive setup, but this proves impossible.

31...b5?

Black immediately forces the queenside pawns off the board, but this will not save him.

Correct was:

31...g5!

When we realize that the e6-g6-h6 structure is losing, it becomes clear that this is Black's only option. The structure with h6 and g5 will be a draw if he can prevent h2-h4.

32.♔g3

Black now needs to be very careful. White is threatening h3-h4, and if he is allowed to play it, he will win.

32...♖c1!

h2-h4 has been prevented due to the checks on the back rank.

If 32...b6? 33.♖c6 ♖c1 34.♖xb6 ♖xc4 Black to play here would make a draw with ...♖c4-c1, preventing h3-h4. As is, it is White to move. 35.h4! wins.

33.♖b5

After 33.♖c7? b5! 34.c5 ♔e5 Black wins the c-pawn and draws directly, as the passed b-pawn will offer him a lot of counterplay.

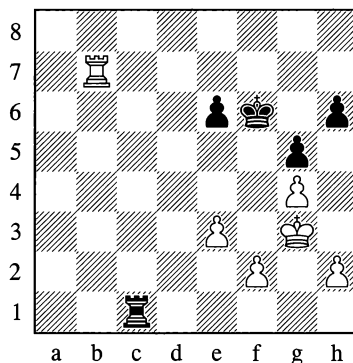
33.h4 ♖g1† wins a pawn, equalizing immediately.

33...♖xc4 34.♖xb7

Now h2-h4 is again a colossal threat. Black needs to put his rook on the back rank to prevent this from happening.

34...♖c1!

34...♖c2? is not an effective way to prevent h2-h4. After 35.♖b5!, h2-h4 comes next, and the rook will come to h5 to scoop up the pawn. For instance, after 35...♖a2 (35...♖c1 It's too late for this. 36.h4! ♖g1† 37.♔f3 gxh4 38.♖h5 wins.) 36.♔f3 ♖c2 37.h4 gxh4 38.♖h5 White wins.



35.♖b5!

This is White's best try, looking for h2-h4 next when he can meet ...♖c1-g1† with ♔f3 and then ♖h5. Black should be careful.

35.h4 ♖g1† is a draw.

35...♖g1†!

Marking time would lose the game:

35...♖d1? 36.h4! ♖g1† 37.♔f3 gxh4 38.♖h5 wins.

36.♔f3 ♖h1! 37.♔g2 ♖a1

Black has forced White's king back to g2 rather than g3. This proves a decisive difference.

38.h4

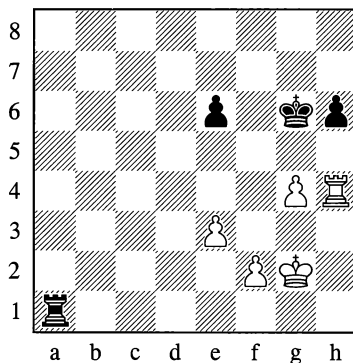
What else can White try?

38...gxh4! 39.♖h5 ♔g6!

White cannot take on h4 without allowing another pair of pawns to be traded.

40.♖xh4

40.♔f3 ♖h1! draws.

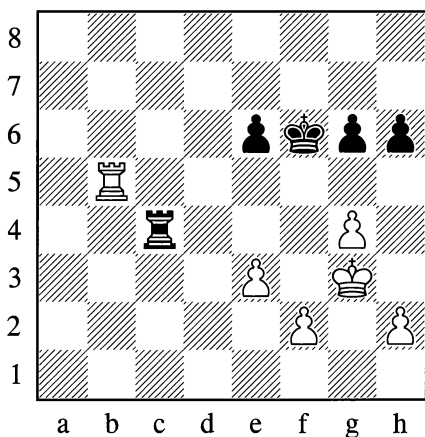


If White now had a move here to play something like f3 or g3 , he would immediately consolidate and reach a winning three versus two structure as discussed on page 182. As is, because the king is on g2, Black makes a draw with:

40... g5 !

32. f5 fxc4 33. g3 !

Now, Black is done for, as h2-h4 comes next. Because the pawn is on g6 rather than g7, the ...e6-e5 advance, aiming to prevent f2-f4, will not save him.



33... fxc1

White is also winning after:

33...e5 34. f6 ! f7 35.h4

With Black's pawn on g7, White would not have a great way to make further progress. But, since the pawn is on g6 instead, the seventh rank is open. This means that following f6 , Black will not be able to play f7 due to f6 .

35... f4

Guarding the seventh rank does not help: 35... f7 Again, it comes down to the move ...g7-g6 creating more weaknesses. 36.h5! g5 White should take h6 here, winning immediately, but even if he were to take h5, the resulting structure always wins. The victory does not depend on a concrete

variation. 37. f6 ! (37. g5 g7 38. f6 f5 39.e4 With f2-f3 and then g4-f5 coming next, White scoops up the pawns and wins routinely.)

36. f6 ! f7

With the pawn on g7, White would not have anything here. As is, after:

37. f7 !

Black can resign.

34.h4! f7

If 34... g5 35.h5!. We have seen this before.

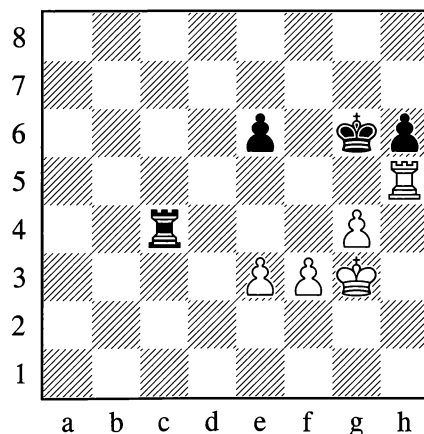
35.h5 g5

35... g5 leads to the same kind of position as ...g6-g5 on the previous move.

36. f6 !

White has reached a winning pawn structure.

36... g6 37.f3 fxc4



38.e4?!

This makes White's life harder.

38.f4

Pushing f2-f4 and then transferring the rook to the sixth rank seems easy enough.

38... f4 39. f3 fxc4 40. f4 f6

This is a little more resilient but still lost.

40... f4 41. f6 f7 42.f5 Game over.

41.♔e4 ♕f6

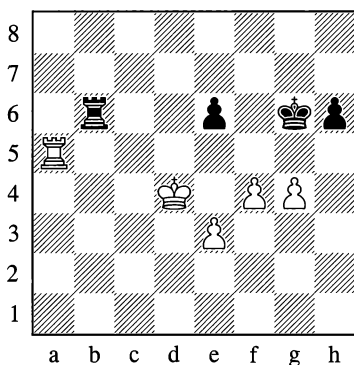
It looks like Black has prevented both ♕e5 and ♖a6, but now the defenses get stretched and White can maneuver his king to d4.

42.♞h5! ♞b4†

Or 42...♔g6 43.♔e5, winning.

43.♔d3 ♕g6 44.♞a5 ♞b6 45.♔d4!

By playing ♞h5-a5 and ♔d3-d4 while Black is forced to play ...♞b4-b6 and ...♕g6-f6, White has managed to spend four moves and put his king on d4 rather than e4, and Black's pieces have remained in the same place. The difference is on display.



45...♔f6 46.♞h5!

Black can no longer give a check on the fourth rank, as ♕c3 will come with tempo. He must allow ♔e5 next. Time to resign.

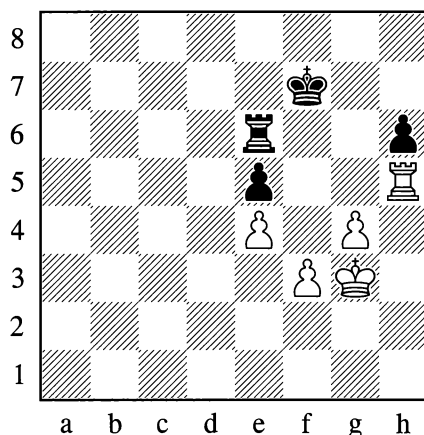
38...♞c3 39.♔f4 ♞a3 40.♞b5 ♔f6 41.♞c5 ♞b3 42.♔g3 e5?!

If Black had sat with 42...♔g6, the win would not be totally clear.

43.♞c1!

The rook transfers to h5, where Black's pawns will both be harassed. Black will need to retreat his rook to protect one of them, leaving White's king free to roam.

43...♞b6 44.♞h1 ♔f7 45.♞h5 ♞e6



46.♔f2

46.♞f5† looks like the cleanest route to victory to me. Black's king is forced to choose a direction. 46...♔e7 (After 46...♔g7 47.♔f2 White has a winning Triangle Constellation like we saw in the two against one chapter. The presence of the h6 and g4 pawns are irrelevant. The king runs to d5.) 47.♔h4 ♔e8 48.♔h5 ♔e7 White can finish the game by exchanging off the remaining pawns to win the h6-pawn. With Black's king cut off on the f-file, there's nothing left to say. 49.f4 exf4 50.♞xf4 ♔d6 51.♞f5 Coming next are e4-e5 and ♞f6. White will easily reach a Lucena position.

46...♔e7 47.♔e3 ♔d6 48.♔d3 ♞g6 49.♔c4 ♞e6 50.♞f5 ♔c6 51.♞f8 ♞d6 52.♞e8?

This was too optimistic.

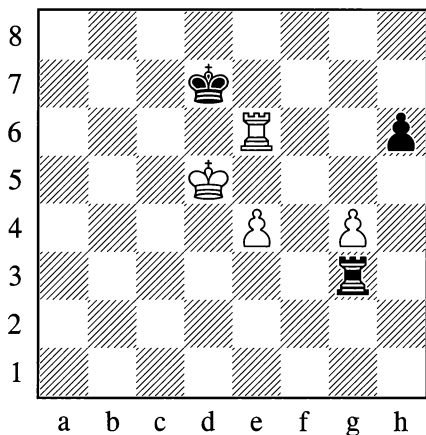
I don't love the way White has played so far. He should play 52.♞f5 and then after 52...♞e6 53.♔d3 bring the king back to h5.

52...♞f6! 53.♞xe5 ♞xf3 54.♞e6† ♔d7 55.♔d5

If 55.♞xh6 ♞f4 Black simplifies down and draws. After 56.♔d5 ♞xg4 57.♞h7† ♔e8 58.e5 ♞g6 he reaches a Philidor position.

55...♞g3

Black has managed to transition into a drawn two against one scenario, but with the clocks ticking down at the end of a long game, he did not manage to defend it.



56.♖g6 ♔e7 57.e5 ♕f7 58.♞f6† ♔e7 59.♞f4
♞a3 60.♞c4 ♞a6 61.♞c7† ♕f8 62.♔e4 h5?

It's hard to remain patient when you have been defending a miserable position for a long time, but this move is hard to explain.

Getting the rook to its best spot to harass the enemy king seems easy enough: 62...♞a1 63.♕f5 ♞f1† 64.♔e6 ♞f4 draws.

63.gxh5

63.g5!? wins as well.

63...♞h6 64.♔d5! ♞xh5 65.♔d6!

Black needs to put his rook on the e-file right now to make a draw, and he is a tempo too slow.

65...♞h1 66.♞c8†

66.♞b7? shows there is no time to waste! 66...♞e1 makes a draw, as seen on page 25.

66...♔g7 67.e6

White will reach a Lucena position.

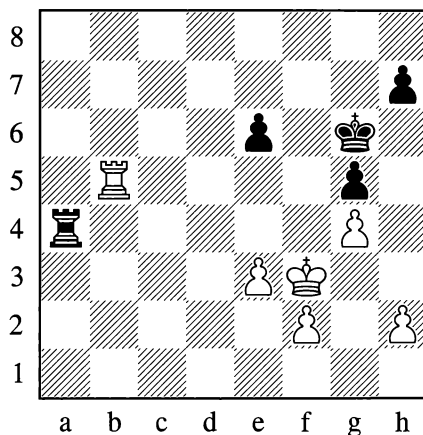
67...♞d1† 68.♔e7 ♞a1 69.♔e8

1–0

As is the case throughout this entire book, I constantly found myself noticing examples of the same themes I was writing about coming up in tournament practice. The following game was played just six months after I had completed the rest of the present chapter.

Raghuram Prasanna – Rochelle Wu

Las Vegas 2021



Once the four on three rook endgame was reached, both sides made mistakes in the preceding moves. But at this point, Rochelle demonstrated a good understanding of how Black should be trying to defend.

37.♔g3?!

This does not yet squander the win, but it does make White's task harder.

White should have taken his chance to play 37.h4!. Black is caught between a rock and a hard place, as the structure following h4-h5 is lost, as seen on page 218. But, taking on h4 and allowing ♞b5-h5 is also lost, as seen on page 218. White wins.

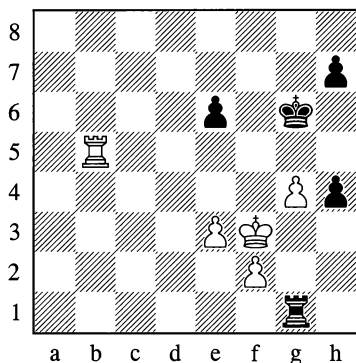
37...♞a1!

Rochelle brings her rook to the right place.

38.h3?

Now it is a draw.

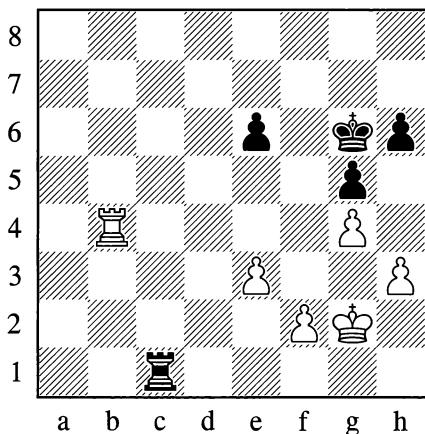
38.h4! is still won, but not as easily. 38...♞g1†
39.♔f3! gxh4



40.♞e5! Black is unable to play ...♔f6 due to ♞h5, winning another pawn. (After 40.♞h5? ♞h1 Black makes a draw, as seen on page 218.) 40...h3 41.♞h5! Only now. Black's pawn has been provoked to h3, and it can be rounded up. 41...♞h1 42.♔g3 White takes on h3, and wins.

38...♞g1† 39.♔f3

39.♔f3 ♞h1! draws.

39...♞a1 40.♔g2 ♞c1 41.♞b7 h6 42.♞b4**42...♞c2?!**

This is the first step in the wrong direction. There was no need to leave the first rank. Black

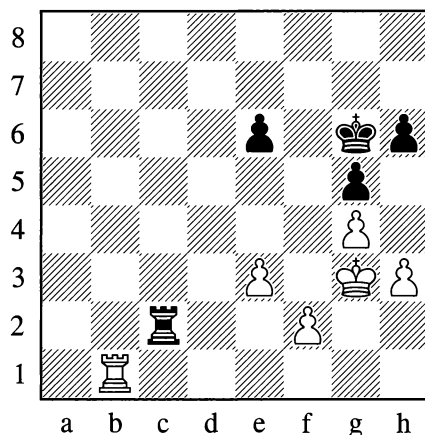
is still holding because White has misplaced his rook on b4, but care must be taken.

43.♔g3 ♞a2?

Black needed to come back with the rook: 43...♞c1!

44.♞b1

44.♞b5! would have won. White is ready for ♔g2-f3 and h3-h4 next, and Black is not in time to transfer the rook back to the ideal g1- and h1-squares.

44...♞c2**45.♞h1?**

White makes the last mistake in this phase of the game.

45.♞b5! wins.

45...h5!

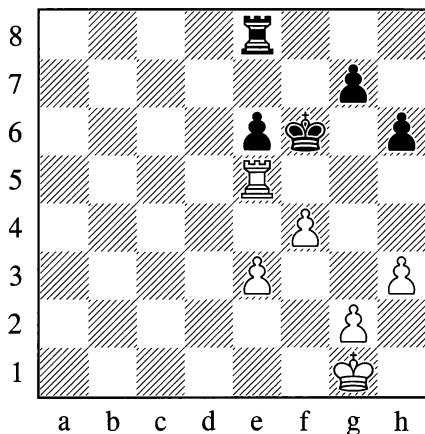
Black liquidates a pair of pawns and leaves herself with two pawns that are separated by only one file. This should be a draw, though White eventually won after mutual errors some 25 moves later. For the purposes of this chapter, we are done here.

1-0

Rochelle was not the only top American junior to reach this endgame in 2021, nor was she the only one to somewhat misplay it!

Abhimanyu Mishra – Alex Krstulovic

Budapest 2021



We know that White wins if he can advance h4-h5. Black will never be able to play ...g7-g6 without transitioning into a lost three against two structure. If he waits instead, the plan of pushing g2-g4-g5-g6 wins.

43.♔f2?

43.h4! would have prevented ...g7-g5, which represents Black's only hope of saving the game. Next is bringing the king to f3, pushing h4-h5, and eventually g2-g4-g5. We have seen all of this before.

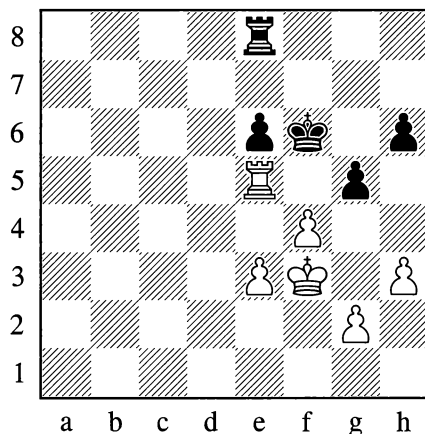
43...g5!

I suspect that White is still winning, but it is no longer a certainty. Black's drawing chances have gone way up.

44.♔f3

Now Black has a very difficult saving resource.

I would have forced an immediate change to the structure: 44.h4! gxf4 (44...gxh4 45.♖h5 White reaches a winning version of three on two, as seen in Chapter 10.) 45.exf4 ♖a8 White should win, but there is some work to do. Positions like this one were covered in the previous chapter.

**44...♖a8?**

44...♖h8!! serves as good prophylaxis against h3-h4, and I don't see another plan for White. The point is that after 45.h4 gxf4! 46.exf4 Black's rook on h8 makes itself felt. After 46...h5! we reach a drawn structure. White can make no further progress.

45.♖b5 ♖a3 46.♔g4 ♖a2?

46...gxf4 would have been a bit more resilient, but I suspect Abhi would have won eventually anyway.

47.fxg5! hxg5 48.g3!

White wins g5, and it's all over.

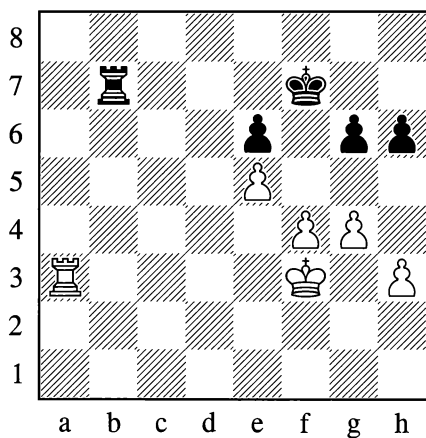
48...♖a4† 49.♔h5 ♖a8 50.♖xg5 ♖h8† 51.♔g4 ♖xh3 52.♖h5 ♖xh5 53.♔xh5 ♔f7 1-0

Four on three rook endgames, where the attacking side's pawns are far back and the defending side has an isolated central

pawn, are a lot more common than I had previously realized. I think they are criminally understudied. Magesh was the only player who I thought handled the endgame well. The lack of difference in playing ability between 2700s and 2300s in these last three examples leads me to the following beliefs: that other elements of rook endgame knowledge are not particularly useful in this structure, that it does not come intuitively to humans, and it is well worth study.

While this structure is important, it's also important to note that we were looking at very favorable versions for the attacking side because the central pawn was not far advanced. It's more common to see a scenario where the pawn has been committed further up the board, which helps the defending side's drawing chances significantly. For example, take the following case:

Less Favorable



The position is an easy draw for Black. White's pawn on e5 ruins his position. He cannot bring his king to e5 and his rook is stuck on the third rank to guard against annoying checks. White cannot hope to get h4-h5 through and recapture with a piece since he can never count on ♖a5xh5.

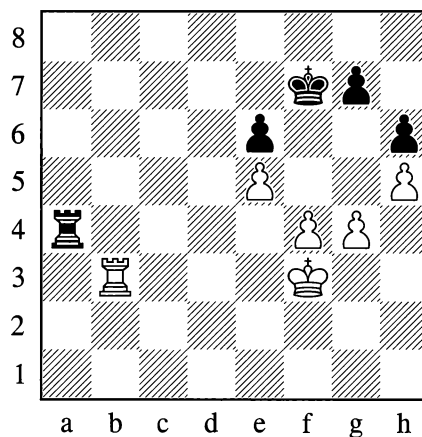
We already know that this structure is winning for White if his pawn is back on e3. But in this case, the evaluation changed completely.

This brings us to the next guideline.

The only way White can get winning chances with the pawn on e5 is for his h-pawn to reach h5 before Black can prevent him.

Let's look at an example of this in action.

Structure 5 – White Wins



This is a reasonably common structure, and it is very important to understand correctly. As we previously saw, White would be winning routinely if his e5-pawn were back on e3, as he would have the plan of running his king up to the e5 square. Here this is not the case. White's best plan is g4-g5-g6, fixing the g7-weakness, and not f4-f5, trying to make a passed pawn. Depending on the placement of Black's rook, he may or may not save the game. In the present situation, White wins on the spot with g4-g5. But if Black's rook is allowed to reach the first rank before g4-g5 comes, the game will be drawn.

1.g5!

White wants g5-g6, plain and simple. Fixing a pawn weakness on the seventh rank will do the job. This is a much more effective plan than advancing f4-f5, which is a common mistake:

1.f5?

This never works, but Black should know that his best plan is to immediately harass White's pawns with his rook. Defending passively will not work.

1...exf5

1...♖a5 is an easy draw as well. 2.♞e3 (2.♔f4 ♖a4† 3.♔f3 ♖a5 White's king does not have a safe square, so he must repeat the position.) 2...♞b5 White's rook is too passive. Whenever he takes on e6, the structure is only winning if he can get the king to f5, and this will not happen. 3.♔f4 ♞b4† 4.♞e4 Black should be careful. A passive move will not do. 4...♞b1! As usual, the best place for Black's rook in this endgame is on the first rank. (4...♞b5? 5.♖a4 White is ready for ♖a7† next. 5...♞b7 6.fxe6† ♔xe6 7.♖a6† The king will make it to f5 and White wins.) 5.♖a4 ♞f1† 6.♔e4 ♞e1† 7.♔d4 ♞d1† with equality. White's king has nowhere to hide.

1...♖a7? 2.♞b4! White wins. He secures the f4-square for his king. Then he will be able to play f5xe6† and ♞b6† next, reaching a winning three against two structure as seen on page 193.

2.gxf5 ♞h4

Draw.

1.♔g3? tries to prepare f4-f5 without running into ...♞h4 at the end. It is wrong for two reasons. As we will see, Black can now save the game by transferring the rook to the e-file. But the plan of f4-f5 is also incorrect. 1...♞e4! If Black's rook is on the e-file, it cannot be removed and White will not achieve g4-g5. 2.♔f3 ♞e1 3.♞e3 ♞h1 White's pieces are too passive and the rook on the first rank is too annoying. g4-g5 is not happening. Draw.

If Black is allowed to have his rook on the fifth rank, it becomes harder to get g4-g5 through. But White is still winning. 1.♞c3 ♖a1 Now if White were to fall asleep at the wheel and play literally any move other than g4-g5, the checks would start coming and Black would hold. But he is just in time to get g5 through. (1...♖a5!? strikes me as a bit more resilient, but White still wins by forcing g4-g5 through. He needs to overprotect the e5-pawn to make this happen, but it's not too hard to do. 2.♔e4 ♖a4† 3.♔e3 ♖a5 4.♔d4 ♖a4† 5.♞c4 The king is safe on d4, and g4-g5 comes next.) 2.g5 Coming next is g5-g6 and it's all over, as seen in the main line.

1...hgx5 2.fxg5 ♞h4 3.g6† ♔e7 4.♞b7† ♔f8 5.♞b8† ♔e7 6.♞g8 ♞xh5 7.♞xg7† ♔f8

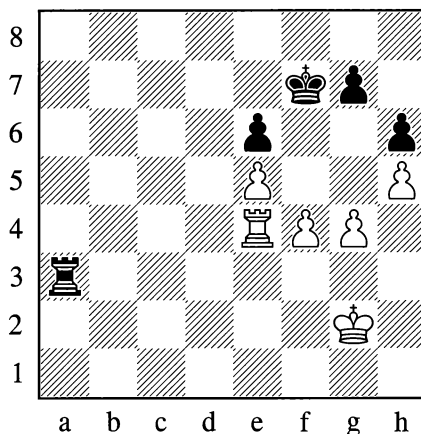
Or 7...♔e8 8.♖a7 when Black must play ...♔f8 anyway.

8.♞f7† ♔g8 9.♔f4

♞f7-f6 is coming next, winning.

This is the most common four against three structure that results in winning chances for the attacking side, and an important one to understand. For whatever reason, most of the time that White reaches this position, he aims to push f4-f5. This is the wrong plan, and he should be looking to play g4-g5 instead.

Structure 5 – Draw



As previously discussed, White will win if he gets g4-g5 through. Black should make an easy draw if he can prevent it, and he has lots of ways of doing so. The easiest is to beat him to the punch.

1...g6

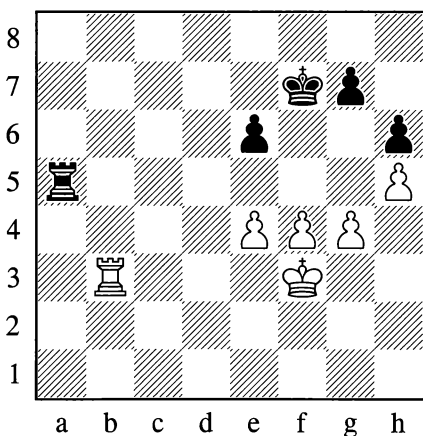
Draw. Sitting around won't do: 1...♖b3? 2.g5 wins.

When we realize that the g4-g5 advance is critical, it becomes a lot easier to understand a more complex situation, and the next rule can be introduced.

In a four against three situation with the defender having an isolated e-pawn and the attacker's pawns on e4 and h5, the only way to reliably save the game is to get the rook to the first rank. If the attacker can get g4-g5 in safely, he will almost certainly win.

Let's see an example of how trying to stop the g4-g5 advance laterally could fail.

Structure 6 – White Wins



In this position, it looks like Black has managed to prevent the g4-g5 advance, but the rook is much worse placed on a5 than it

would be on g1. As a result, Black is lost, but it takes a little technique to win.

1.♖b7†

The pawn being on e4 instead of e5 changes the evaluation. In basic terms, it is the same: White wins if he can play g4-g5, while Black makes a draw if he can prevent it. It seems like Black should manage, but White will be able to fight for the fifth rank by organizing placing his king on d4 and rook on c5. Then, when Black gives a check on a4, it is critical that White's king has the e5-square available. Additionally, there are cases where Black can transfer the rook to the ideal first rank, looking to meet g4-g5 by exchanging and bringing his rook to h1, immediately going after the pawns. But the rook will not be able to stay on the first rank if White has the e5-square available for his king.

Let's look at a couple of alternatives:

1.♖c3 ♖a1 Now if White waits, Black draws by starting the checks, and g4-g5 will not come. But, if White doesn't miss his chance, it's all over. 2.g5! wins (2.♖b3? ♖f1 and the back rank checks are sufficient to save the game. 3.♔e3 ♖g1 The players can already shake hands.)

1.e5?

This tempting move turns out to squander a half point. The point is that it is now harder for White to advance g4-g5, as he will need the king to protect the e5-pawn. This will give Black the time he needs to transfer his rook to the first rank.

1...♔e7!

An important move. At some moment, Black will be forced to play ...♖a1. When this happens, White will have an only chance to push g4-g5. Then Black wants to make sure the subsequent g5-g6 advance does not come with check.

1...♖c5? Sitting and waiting does not work.
 2.♔e4 ♖c4† 3.♕e3 ♖c1 (3...♖c5 4.♔d4 and g4-g5 comes next.) 4.g5 hxg5 5.fxg5 ♖h1
 Black would be just in time to make a draw here if g5-g6 did not come with check. As is, after 6.g6† ♕e7 7.♖b7† ♕f8 8.♖b8† ♕e7 9.♖h8! it's all over.

1...♖a1? 2.g5 wins.

2.♕e3

The rook on a5 will not be able to hold off the g4-g5 advance forever. White will bring his rook to c7 and king to d4, securing it from any lateral checks and overprotecting the e5-pawn to achieve g4-g5 next. Black can save the game by the skin of his teeth.

2...♖a1!

The rook transfers to its ideal location.

3.g5

Or 3.♖b7† ♕f8 4.♔d4 ♖c1! Of course Black cannot allow the king to d6. This position would be an easy win with the pawn back on e4, as ♕d4-e5 would end the game immediately. 5.g5 hxg5 6.fxg5 ♖h1 draws.

If White could consolidate the position, he would win easily. But Black is just in time with:

3...hxg5 4.fxg5 ♖h1!

The position is equal.

1...♕f8

Much like we saw in the previous case, Black can only stop g4-g5 temporarily with the rook on a5. He needs it on the first rank, and it will not get there. White wins by bringing his king to d4 and his rook to c5.

2.♕e3

Black cannot abandon the fifth rank without allowing the white king to reach the e5-square.

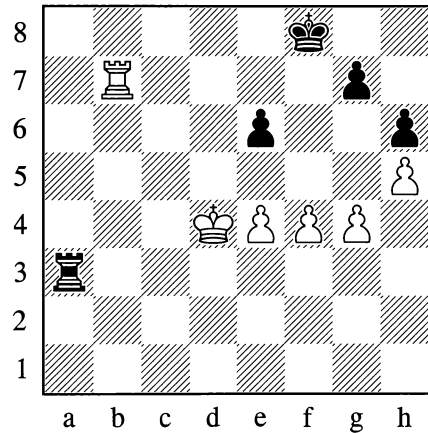
2...♖a3†

After ...2...e5 3.fxe5 ♖xe5 4.♔f4 White wins once the king comes to f5, as we saw on page 193.

2...♖a1 If White's pawn was on e5 here, Black would make a draw as he would be ready to meet g4-g5 with ...h6xg5 and ...♖a1-h1. As is, because the pawn is only on e4, there is another way. 3.♕d4! Black has to play ...♖a1-a5 anyway, transposing to the main line.

Or 2...♖a4 3.g5! should be automatic by now.

3.♕d4



This is exactly the kind of position where it is clear that White's pawn is better placed on e4 than e5. The point is that in the event of ...♖a4†, White has the e5-square for his king.

3...♖a5 4.♖c7 ♖b5 5.♖c5

White wins.

As we can see, the only reason Black was able to defend with the rook on a5 was that he could have a well-timed switch to the first rank.

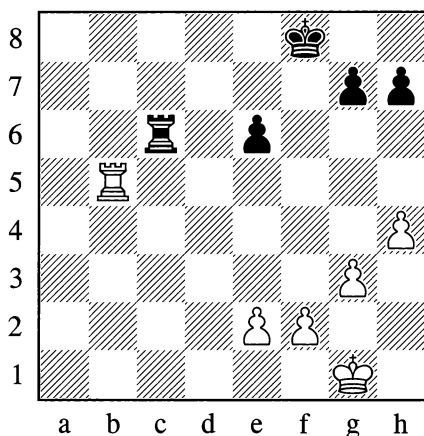
Additionally, it is clear that White's pawn was better on e4 than on e5. When comparing previous examples, it was better on e3 than e4. This brings us to the next guideline.

In a standard four against three against an isolated center pawn, the attacking side should keep their own center pawn as far back as possible.

The following game does a good job of covering all the rules, principles, and structures at once.

John Readey – Dmitry Zilberstein

Internet (classical) 2006



I made my debut in the now defunct US Chess League in 2006, playing board 4 for San Francisco. We won the championship, and a big part of that came down to our penultimate match against the Seattle Sluggers. I managed to avenge a loss to Michael Lee from earlier in the season. Josh Friedel lost a tough game to Gregory Serper on board 1, and Vinay Bhat won an absolute gem against Georgi Orlov. Just as I finished off the game, this was the position on board 3 between Readey and Zilberstein, the last game to conclude. We needed Black to hold a draw for us to win the match. On discussing the position with Josh, Vinay, and our captain John Donaldson, I realized none of us had the slightest clue about the position – not even after the game was over! I told myself that someday I would study this game to fully understand this four on three structure and here I am, 15 years later, finally fulfilling my promise.

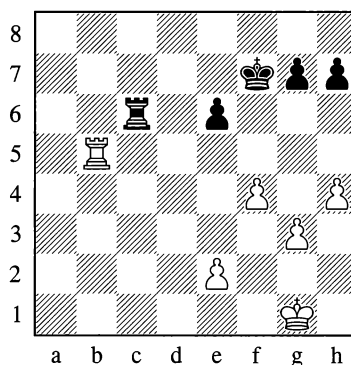
45...♔f7

White should be winning. As we have seen from previous guidelines, the most important elements in the position are for White to get both the h2-h4 and g2-g4 advances in, while the further back his e-pawn is, the better. h2-h4 has already been achieved, the e-pawn is on the starting square, and White should not have any trouble getting g3-g4 in. As such, we'd expect him to bring in the full point. Additionally, the rook on the fifth rank clearly prevents Black from ever hoping to get the ...h7-h5 advance through himself.

46.h5

This strikes me as a little rushed, but it should still be winning.

46.f4!



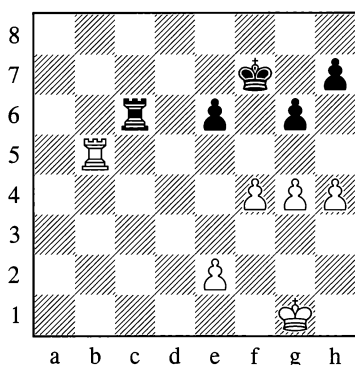
I think this is the cleanest way to bring home the full point. White clears the f2-square for his king, where he will be totally safe and can keep the pawns protected without blocking them in. After:

46...g6

White should be careful not to allow ...h7-h5, immediately reaching a drawn structure, but this is not too difficult.

47.h5!

47.g4?



This tempting move would squander half a point. White got in the prerequisite pawn advances, but after 47...♙c4! 48.e3 ♖c2! His king is cut off on the first rank. (Not 48...♙c3? 49.♙f2 as if White's king comes to a reasonable square, he is easily winning, as seen on page 213.)

47...♙g7

After 47...gxf5 48.♙xh5 White reaches a winning three against two position, as seen on page 213. The two pawns are three files apart.

48.♙f2

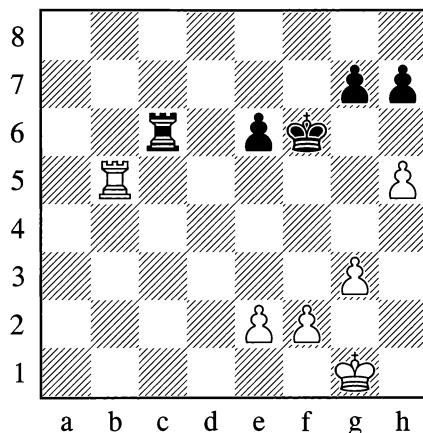
White will slowly but surely advance ♙f3 and g3-g4. Eventually, he will give a check on the seventh rank and get h5-h6 in. Once this happens, the h7-pawn will prove to be the decisive weakness. In the meantime, since White wins if the g6- and h5-pawn ever leave the board, Black can't do anything proactive – both ...g6xh5 and ...h7-h6 transition into a winning three versus two structure.

A mistake is 46.♙b4?. Black will make an easy draw if he is able to play ...g7-g6 and ...h7-h5. Now that White's rook has left the fifth rank, this becomes a possibility. 46...h5 is equal.

46...♙f6

After 46...♙c1† 47.♙g2 ♖c2 White will find it a little annoying to defend the e2 pawn since

♙g2-f3 blocks his f-pawn and messes up his coordination, but he still wins. 48.♙e5! ♙f6 49.f4† White wins as he is ready for ♙f3 and e2-e3 next, with g3-g4 to follow.



47.♙g2?

But now this is wrong. We know that Black's best defensive chance in this structure once White's pawn has reached h5 is to push ...e6-e5, as seen on page 215.

With 47.f4! White prevents ...e6-e5 and executes his plan. 47...♙a6 48.♙f2 ♖c6 49.♙f3 ♙a6 50.e3 ♖c6 51.g4 White is ready for g4-g5 next, and then the rook will swing down to h8. Game over.

47...♙c3?

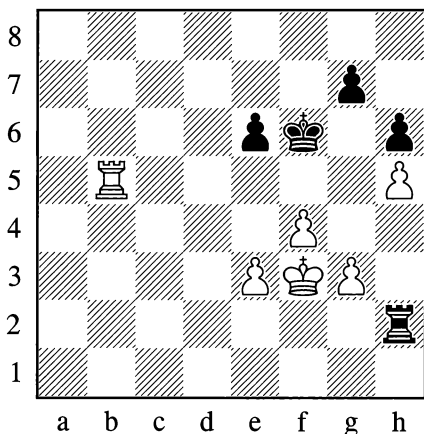
Black doesn't capitalize on the error.

After 47...e5! Black faces a difficult defense that will last a long time, but he may well save the game.

48.f4!

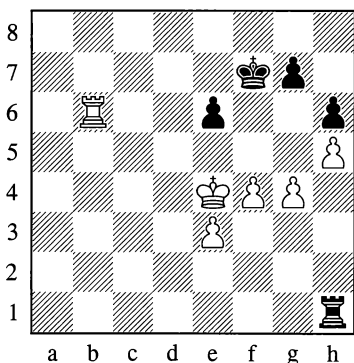
White did not have to be asked twice.

48...h6 49.♙f2 ♙a3 50.e3 ♙a2† 51.♙f3 ♙h2

**52.e4?**

When considering the guideline that the further back White's e-pawn is, the better his winning chances are, this becomes an easy move to condemn. Black should save the game now but should be aware that White is threatening Bb7 , winning immediately.

Continuing along with the standard plan of pushing g4-g5 is quite sufficient: $52.\text{g4!}$ Some care must be taken thanks to the rook on the h-file harassing the h5-pawn, but it's not too demanding. $52...\text{Kh1}$ $53.\text{Bb6!}$ The threat of f4-f5 forces Black's king back. $53...\text{Qf7}$ $54.\text{Qe4}$



Black is in a tough spot. Qe5 is obviously on the agenda, but if he brings his rook to a square like a1 to prepare to give lateral checks, then g4-g5 will come next. $54...\text{Ra1}$ $55.\text{Bb5!}$ White is in no rush. Now Qe5 is a threat once more.

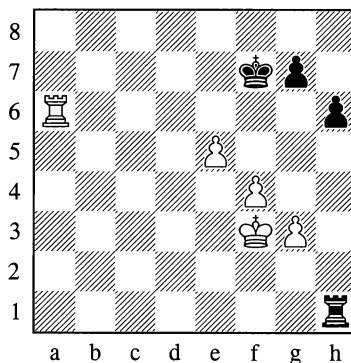
($55.\text{g5?}$ is the right idea but the wrong moment for it. After $55...\text{Ra4!}$ $56.\text{Qf3 hxc5}$ $57.\text{fxg5 Bb4!}$ Black saves the game.) $55...\text{Ra3}$ ($55...\text{Qf6}$ $56.\text{g5!}$ wins.) This is Black's only hope, tying the king down to the defense of the e3-pawn, but now that the rook can no longer be a nuisance, it is time for $56.\text{g5}$ when Bb7! and g5-g6 come next to bring the game to its conclusion. $56...\text{Ra4!}$ $57.\text{Qe5!}$ It's good that this move cannot be met with $...\text{Ra5!}$, thanks to White's foresight that the rook is better on b5 than b6.

52...Kh1?

With $52...\text{Qf7!}$ Black has stopped the direct threats and will put his rook on h1 next. As we have seen on page 228, the position will be drawn if White's pawn has been pushed to e4 and Black's rook made it to the back rank.

53.e5?

$53.\text{Bb7!}$ would have given White a winning three on two situation. The threat of e4-e5! forces Black to transform the pawn structure in an unfavorable way. $53...\text{Rhx5}$ ($53...\text{e5}$ $54.\text{Bb6! Qf7}$ $55.\text{Qg4 exf4}$ $56.\text{gxf4}$ White wins here as well. It is a very good version of a three against two since Qg4-f5 is constantly hanging over Black's head, and White's e-pawn is very powerful. $56...\text{Rh2}$ $57.\text{Bb7! Qf6}$ [$57...\text{Qf8}$ $58.\text{e5}$ wins. White is ready for Qg4-f5 next.] $58.\text{e5! Qe6}$ $59.\text{Qf3}$) $54.\text{e5! Qg6}$ $55.\text{Re7 Rh1}$ $56.\text{Rxe6! Qf7}$ $57.\text{Ra6}$



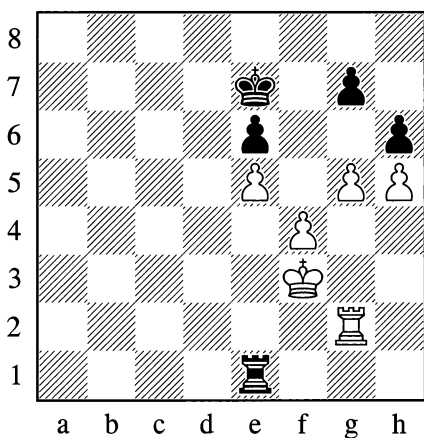
White's e-pawn is too powerful here, and his king will get to f5. Black is not in time to set up a defense with ...g7-g6 andh6-h5.

53...♙f7 54.♖b7† ♙f8

Now the position is a draw. Zilberstein did not allow another chance.

55.♙g4 ♖f1 56.♖a7 ♖e1 57.♖a3 ♙f7 58.♙f3 ♖h1 59.♖a7† ♙f8 60.♙g4 ♖f1 61.♖b7 ♖e1 62.♖b2 ♖f1 63.♙h3 ♖h1† 64.♖h2 ♖g1 65.g4 ♖b1 66.♖g2 ♖e1 67.♖f2 ♙e7 68.♙g3 ♖h1 69.♙f3 ♖e1 70.♖g2 ♖f1† 71.♙e3 ♖e1† 72.♙f2 ♖e4 73.♙f3 ♖e1 74.g5

White was making no progress and understandably tried to change the structure, but this only makes Black's defensive task easier.



74...hxg5 75.♖xg5 ♙f7 76.♖g3 ♖h1

The rook on the first rank is far too annoying. White has nothing left to even try.

77.♙g4 ♖f1 78.♙g5 ♖h1 79.♖g2 ♖f1 80.♖g4 ♖h1 81.♖g2 ♖f1 82.♖a2 ♖g1† 83.♙h4 ♖h1† 84.♙g4 ♖g1† 85.♙f3 ♖h1 86.♙g4 ♖g1† 87.♙h3 ♖h1† 88.♖h2 ♖g1 89.♙h4 ♖f1 90.♙g4 ♖g1† 91.♙f3 ♖f1† 92.♙e3 ♖e1† 93.♙f2 ♖b1 94.♖h4 ♖b4 95.♙f3 ♖b1 96.h6 gxh6 97.♖xh6 ♖f1† 98.♙e3 ♖e1† 99.♙f2 ♖e4 100.♙f3 ♖e1 101.♖h7† ♙f8 102.♖a7 ♖f1† 103.♙e4 ♖d1 104.♙f3 ♖g1 105.♙e2 ♖g4 106.♙f3 ♖g1 107.♙e4 ♖d1 108.f5 ♖e1† 109.♙d4 ♖d1† 110.♙c5 ♖d5† 111.♙c6 ♖xe5 112.♙d6 ♖xf5 113.♙xe6 ♖f1
½-½

Despite being contested by strong players, this game featured tons of mistakes. To the untrained eye, they would be hard to spot without an engine. But when considering the rules and structures we should have memorized, it actually becomes really easy to see when and where each side could have improved.

Now that I've fulfilled a promise I made half my life ago, I think it's time to move on to the next major section, where we look at positions with the attacking player having an extra pawn on the outside rather than on the same side.

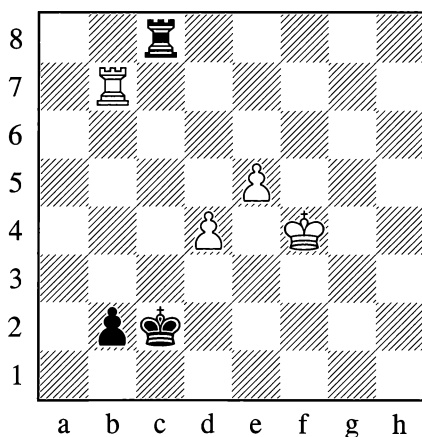
Chapter 12

Two Connected Passed Pawns Against One Outside Passed Pawn

When considering rook endgames with pawns on both sides of the board, the first place to start is two connected passed pawns against one pawn on the outside.

To be clear, we are only discussing technical positions in this chapter, as in the book as a whole. The following situation is not technical:

Example 1 – A Race



This is a race. And races are for calculation books and practical rook endgame books. For our purposes, we will stick with positions, setups, motifs, rules, and guidelines that should be studied and memorized.

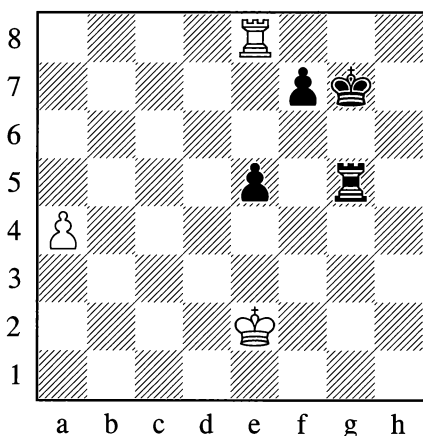
When it comes to technical positions with two connected pawns against one outside pawn, the first rule is very straightforward.

If the connected passed pawns are side by side, connected with their friendly king, and their friendly rook is safely placed behind the enemy pawn, the connected passers almost always win.

Most people understand this rule intuitively very early on in their chess careers. Most of the time when this situation is reached, the defender doesn't even bother to play it out. Take the following example from when I was young.

Kenan Zildzic – Sam Shankland

Santa Clara 2010

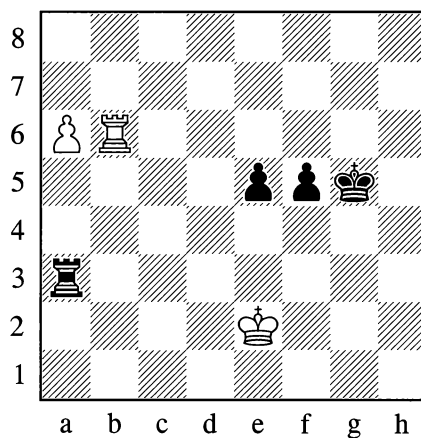


I was early in my developmental years at this point of my career. I played the right move, but when I checked the game with an engine afterwards, I was shocked that it was Black's only winning option!

55...♔f6! 56.a5 ♖g3!

Black gets his rook behind the a-pawn, and that is that.

57.♞b8 ♞a3! 58.♞b6† ♔g5 59.a6 f5



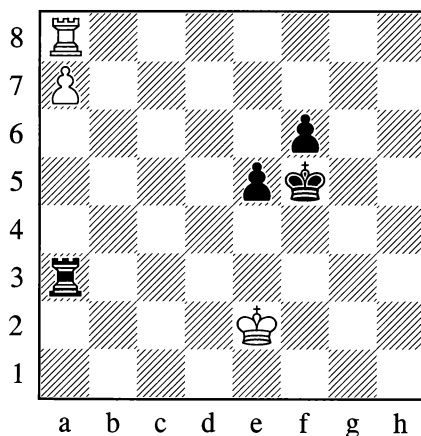
White resigned. His a-pawn is clearly not going anywhere, and Black will steadily advance with ...e5-e4, ...♔f4, and ...♞a2†.

0-1

Most of the time, the attacking side can reach a situation like this one. The default assumption should be that the two connected pawns will win, unless one of a few exceptional circumstances is reached.

Let's look at the first one.

Example 2 – Draw



Somewhat surprisingly, this position is a draw. The reason is that Black is unable to

coordinate his king to advance the pawns any further. White will shuffle his king back and forth. The only safe squares that Black's king can ever go to is f4 or e4, but this will be met with ♖f8.

1...e4 2.♔f2 ♔f4

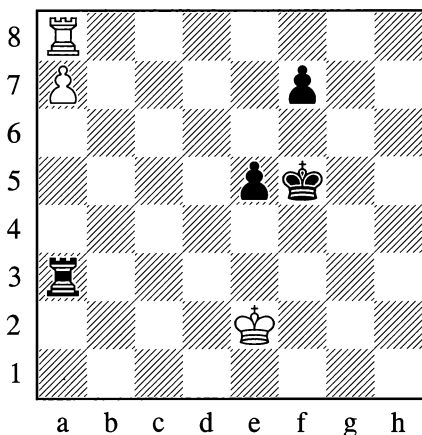
What else?

3.♖f8!

White makes a draw.

I believe this is the only type of position where two connected pawns with a rook behind the enemy pawn will fail to win in a technical sense. The tiniest change to the position, and the evaluation changes.

Example 3 – Black Wins



We have the same position as the previous example, except Black's pawn is back on f7. This changes the position in Black's favor.

1...e4 2.♔f2 ♔f4!

Black's pawn being on f7 rather than f6 means that White is unable to play ♖f8.

3.♔e2

After 3.♖f8 ♖xa7 the pawn on f7 is protected and Black wins.

3...♖a2† 4.♔e1 f5

We now have exactly the same position as example 2, except White's king and Black's army have been moved one rank down the board. This change means that Black wins. White's defensive plan would be to wait with the king, and then meet ...♔f3 with ♖f8.

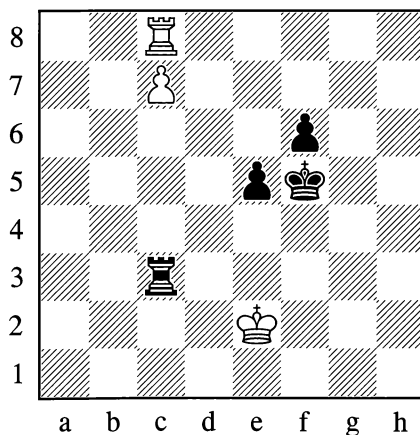
5.♔f1 e3 6.♔e1 ♔f3

The fact that the position is one rank further down the board means that ...♖a1 is checkmate. White is not in time for ♖f8, and he can resign.

As we can see, the pawn being back on f7 lead to a Black victory. It needed to be on f6 for White to hold.

The black pawn was not the only one that could have been moved to see a different result.

Example 4 – Black Wins



We have another similar position, with the one exception that White's pawn has been moved closer to Black's pawn mass. It is too close, and Black wins by simply collecting the c7-pawn.

1...♖c6 2.♔d3 ♔e6!

Black's king is close enough to approach the pawn without fearing a check followed by a promotion.

3.♔e3

After 3.♖e8† ♔d7! Black takes the c-pawn next and wins.

3...♔d7 4.♖f8 ♔xc7

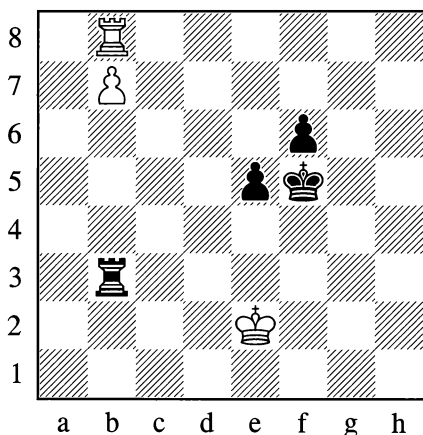
Black collects the pawn. After:

5.♔e4 ♖c4†!

He gets his rook in front of his connected passers, with a win, as seen in Chapter 7.

White's pawn being closer to the Black pawn mass turned the tide in Black's favor. The b-file would still have been a draw:

Example 5 – Draw



White's pawn is just far enough away that Black cannot collect it. ...♔e6 is not to be recommended!

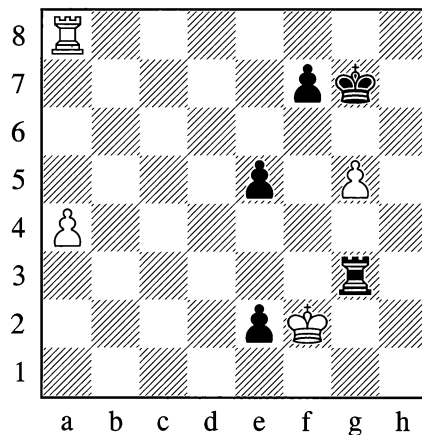
These examples allow us to introduce the second rule.

A pawn on the seventh rank with the rook on the eighth will guarantee a draw against two connected pawns, if the connected pawns are at least three files away from the pawn on the seventh rank, and the less advanced connected passed pawn is on the sixth rank.

This is a niche situation and quite rare. Still, it does come up. Let's examine my game with Zildzic again.

Kenan Zildzic – Sam Shankland

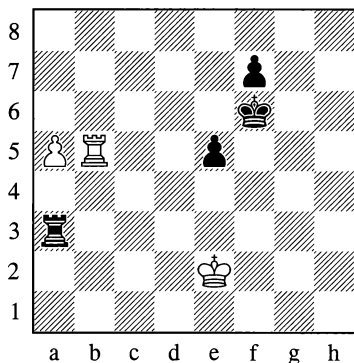
Santa Clara 2010



My opponent seemed to have mentally given up at this point. The situation does look hopeless. I will take on g5, and I will get my rook behind the a-pawn. But White can still make a draw.

54.♖e8?

54.♔xe2! ♖xg5 55.a5! ♖g3 White needs to understand that he will not stop my pawns and can only hope for a race. 56.♖b8! (56.a6? would lose. 56...♖a3 57.a7 Because Black's pawn is on f7 rather than f6, he wins, as seen previously on page 237. 57...♔f6) 56...♖a3 57.♖b5 ♔f6



White has no hope of holding with passive defense. Black's rook cannot be allowed to remain behind the a-pawn. 58.♔d2! ♕f5 59.♕c2! ♕f4 60.♕b2! ♖a4 61.♕b3! Black's rook is bullied off the a-file. White's a-pawn provides enough counterplay to make a draw.

54...♖xc5 55.♔xe2

We have seen this position before, where I found the only winning move, more or less by accident. Let's see what happens if Black plays it differently.

55...f6?

The move played in the game wins: 55...♕f6! 56.a5 ♖g3 57.♖b8 ♖a3 58.♖b6† ♕g5 59.a6 f5

56.♖a8! ♖g3

56...♖g2† would get Black's rook to the a-file one tempo faster. But while solving one problem, Black would allow another one. 57.♕e3 ♖a2 58.♕e4! Black's pawns are blockaded and will not end up side by side. He cannot kick White's king away without his rook leaving the a-file. White makes a draw.

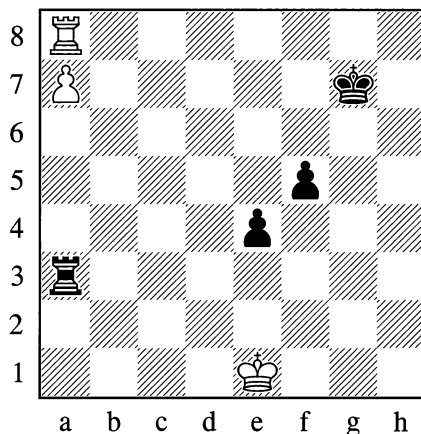
57.a5 ♖a3 58.a6

If Black's king cannot get in front of his pawns, they will be stopped forever. But he is too slow to get in front properly.

58...f5

After 58...♕g6 59.a7 ♕f5 Black gets his king in front of the pawns, but the f6-pawn is on the wrong square. White makes a draw, as seen on page 238.

59.a7 e4 60.♔e1



This is a draw as Black's king can never join the game, and ...f5-f4 or ...e4-e3 will both be met with ♖e8.

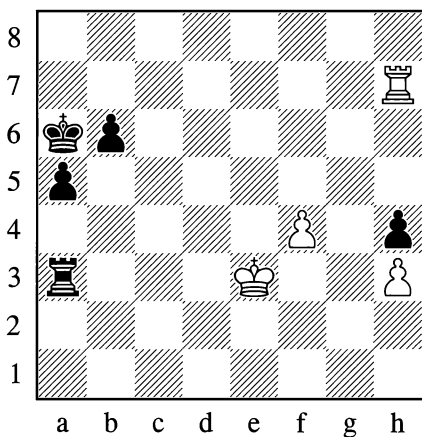
Once we know the first two rules, it is clear why ...♕f6 is an only move. The way Zildzic could have saved the game even against best play brings us to the next rule.

Unless you have the extremely rare scenario where a pawn on the seventh and a rook on the eighth rank holds a draw, your only chance to fight against two connected pawns is to make sure the enemy rook cannot get behind your own pawn.

Let's see this principle in action.

Markus Ragger – Sam Shankland

Prague 2020



White is losing here, but he can certainly make Black's life harder. In fact, he made my life enough harder that I did not win the game!

63.♔e2!

Forcing Black to find the same line with ...♖a2† and ...♖a1.

Stockfish wants 63.♕e4?, which loses routinely to natural and easy moves. You know Ragger defended well when he saved a position that the machine would not! 63...♖xh3 64.f5 ♖h1! As soon as Black gets the rook behind the pawn, the game is immediately over.

The win was very difficult, but it was there. The rest of this game falls somewhat outside the scope of this book, but I kept the notes that I wrote in anyway because there are some really stunning ideas.

63...♖a2†!

I played 63...♖xh3?. All it took was one careless move from me, and the game is immediately drawn. The h3-pawn was of little

consequence, and taking it cost me a valuable tempo. Since Black is unable to get behind the f-pawn, his only route to victory is to race. In a race, a tempo can mean the world. 64.f5! ♖c3 65.♖xh4 ♖c6 I was hoping to bring my rook to f6 to keep the queenside safe and eventually walk the king to e5, but it wasn't to be. White's passer is too far away from my pawn mass, and he will get his rook behind the pawn. 66.♕d3 ♕b5 67.♖f4 ♖f6 68.♕d4! Now there is nothing left to play for. I can't go ...♕b4, and if ...♕c6, ♕c4 holds easily. We will see the rest of the game later in this chapter. (I was expecting 68.♕c3, getting the king in front of the pawns. It is actually still a draw but Markus' move was stronger.)

63...♖a1? leaves Black a tempo behind on the line with 63...♖a2†. A tempo is all it takes to draw the game. 64.f5 a4 65.f6 Black will not win this race.

64.♕e3 ♖a1!

Black aims to get his rook behind the f-pawn. White is not in time to stop him.

65.♖xh4!

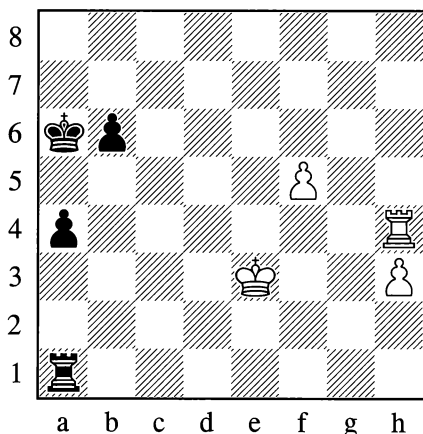
This is White's best try, and the reason I avoided this line. He is ready for f4-f5 next, and he will be able to meet ♖a1-f1 with ♖h4-f4.

The alternatives lose:

65.f5? ♖f1 Black wins routinely if the rook gets behind the pawn.

65.♕e2? White can stop ...♖f1, but it costs him a critical tempo and now he loses the race. 65...a4 66.f5 a3 67.f6 a2 68.f7 ♖f1 Black wins.

65...a4! 66.f5!



Black cannot get ... f1 in because the a-pawn is hanging. But he still wins, albeit with precise lines.

66...a3

66...b5

This wins too, but it is not easy.

67.f4!

Now Black needs to be absurdly precise.

After 67.f6!? apparently Black wins with an

only move, 67... e1 !. Without it, he loses!

Good luck finding that in advance. This

position looks terrifying from afar.

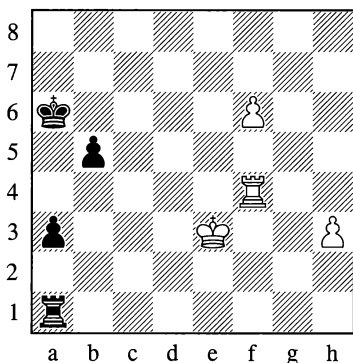
67...a3!

If 67... e1 † 68. d3 draws. White's king is

close enough to stop the pawns after 68...a3

69. f2 b4 70. c4 .

68.f6



68... e1 !!

Only at this specific moment. Chess is a ridiculous game. The point is that if White plays d2 , then he is in a mating net when both sides queen, and if he plays f2 , then Black can play ... e8 and White's king is too far away to stop the pawns.

It is very human to advance the pawn, but insufficient: 68...a2? 69.f7 e1 † 70. f2 White queens too, but this way with the king on f2, he will not be mated. 70... f1 † 71. xf1 a1= f † 72. f2 b2 † 73. f3 a3 † 74. g4 f8 75. h5 White has enough counterplay to make a draw.

69. d2

69. f2 avoids mate, but now Black can bring the rook back. 69... e8 ! (69...a2? 70.f7 f8 wins.) 70.f7 f8 wins.

69...a2

After 69... e8 ?? 70.f7 White even wins.

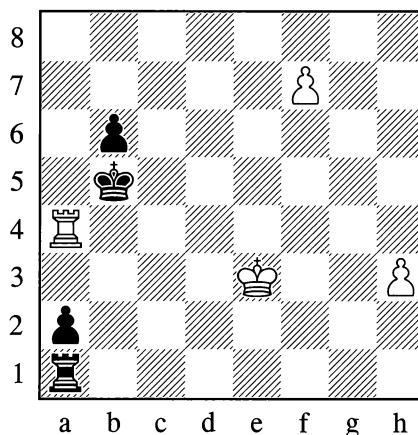
70.f7 a1= f !

Again, Black wins by a single tempo. White is mated, specifically because his king is on d2 rather than f2.

66... b5 is similar to ...b6-b5. 67. f4 a3!

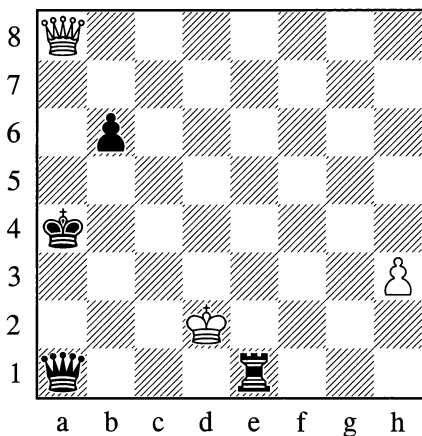
68.f6 e1 †! Only this exact move order wins.

67.f6 a2 68. a4 † b5 69.f7



Black miraculously wins.

69...♔xa4! 70.f8=♖ ♜e1† 71.♔d2 a1=♖
72.♖a8†



It's hard to believe there is no perpetual here when Black's pieces are on the back rank and can't interpose. But he can just escape.

72...♔b4!!

Only move. White draws after 72...♔b3 73.♖d5† or 72...♔b5 73.♖d5†.

73.♖f8† ♔b5!

Only now. Black wins. Good luck finding this sequence at the moment when ...♜a1 is played.

Markus's defense was fantastic and showed a great understanding of the position. Stockfish preferred to start with ♔e3-e4, which loses immediately to moves that any old joker could find. ♔e3-e2 keeps the game complicated, but while a machine can easily calculate all the lines and see that Black wins, it proved too difficult for me at the board.

Still, I suspect that I would have won this game if it took place today. Having worked on this chapter in some detail, as well as Chapter 7, I probably would have understood that my

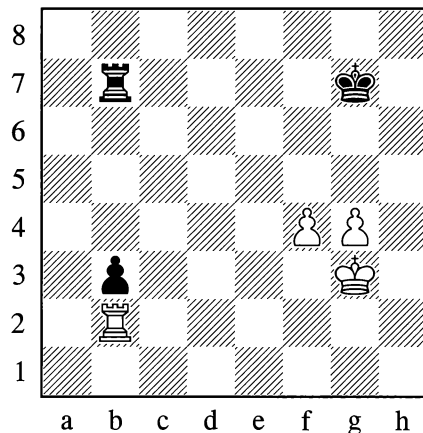
winning chances will shoot to zero if White is allowed to get his rook behind his f-pawn. In the game, I did see the possibility of ...♜a2† followed by ...♜a1, but I did not manage to calculate the variations to completion. Today, I still think I would not have been able to brute force my way to calculating a sure win, but I would have tried it by elimination since I would have known that taking on h3 would not work.

Ragger's resourcefulness and Zildzic's missed drawing chance introduces the next rule.

When playing with a lone outside pawn against two connected pawns, you will have holding chances with your rook behind the pawn. You will lose if your rook is on the side, or in front (barring the previous exception).

Let's see this principle in action.

Example 6 – Draw



Black is making a draw here. White's rook is too passive to help his own pawns through, and he cannot approach Black's b-pawn without losing his kingside.

1.g5 ♖g6 2.♙g4 ♜b8

This is a little cooperative from Black, but I am keeping it as my main line to illustrate a point. He can even let White's pawns advance a rank further.

2...♞b4 would be the most natural, and Black draws easily. White has nothing further to try.

3.f5† ♙g7 4.g6 ♞b7 5.♙g5

Now it is time to be an adult.

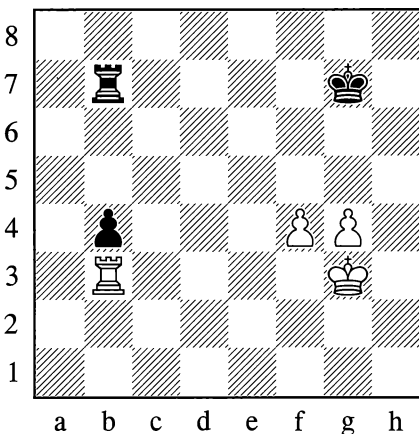
5...♞b5

It's time to agree a draw.

5...♞b8? White will win. 6.f6† ♙g8 7.♙h6 ♞b6 8.f7† ♙f8 9.♞e2! White wins the race. 9...♞b8 10.♙h7 b2 11.♞xb2

White's king was well placed, his pawns were side by side and connected, but his passive rook was his undoing. Fair enough, but this was an extremely good version for Black. Sliding the pawn either backwards or closer to the enemy pawn mass would have changed the evaluation.

Example 7 – White Wins

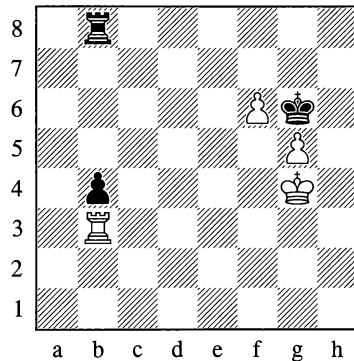


We have the same position, except that Black's pawn is on b4 rather than b3. This

small tinker means that White wins in two different ways! The first is to point out that his rook is less restricted, as once it moves away, White will have more time before the b-pawn promotes.

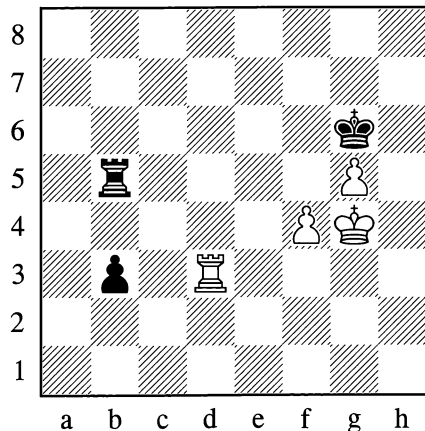
1.g5 ♖g6 2.♙g4 ♞b5

Allowing White to play f4-f5 instead would not help either: 2...♞b8 3.f5† ♙g7 4.f6† ♙g6



5.♞h3! Black's b4-pawn doubly kills him. Not only does he lose the race by a single tempo after ...b4-b3, but he is also missing a check on b4 for his rook. 5...b3 6.♞h6†! ♙f7 7.♞h7†! ♙e6 8.♞e7† ♙d6 9.♞e1 b2 10.f7 White wins by a single tempo.

3.♞d3! b3

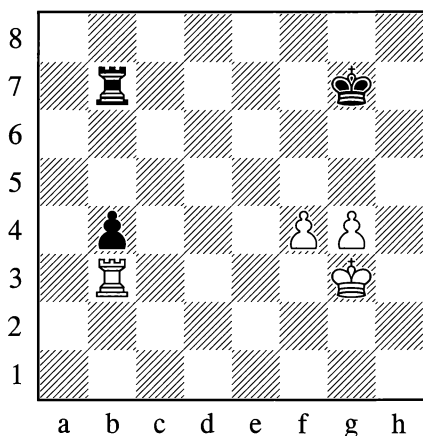


4.f5†! ♔f7 5.g6† ♔f6 6.♞d6†

White wins the race.

6...♔g7 7.♞d7† ♔f6 8.♞f7†

Example 8 – White Wins



Let's see the other way that White can win. This one strikes me as more human.

1.♔f3! ♔f6 2.♔e4!

White simply brings his king to the b4-pawn. Black's rook is lacking access to the b4-square.

2...♞b8 3.♔d5

Black's b4-pawn is doomed. It is very helpful for White that when his rook takes it, it will land on a square that defends f4.

3...♞g8

This should be Black's most resilient defense, but it still loses.

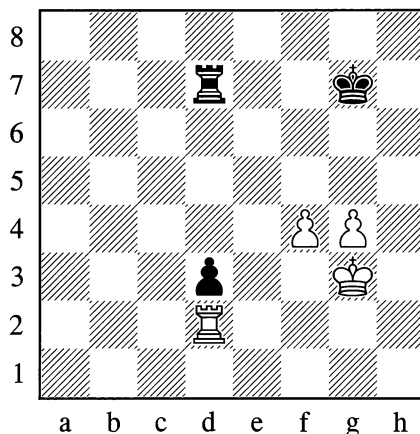
White wins routinely after 3...♔f7 4.♔c5.

4.g5† ♔f5 5.♞xb4

We have reached the same kind of position we saw in the Milliet – Loiseau game from Chapter 7. White will walk his king to g7, then his rook will abandon the f4-pawn, and the g5-pawn will win the game.

Clearly, Black's pawn being one rank further back hurt him significantly. The pawn moving towards the center reaches a similar result.

Example 9 – White Wins



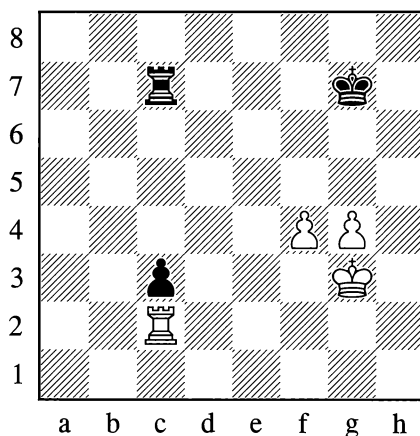
The d-pawn is too close to White's pawns. He scoops it up and wins it.

1.♔f3 ♔f6 2.♔e3

White wins.

A c-pawn would still have been a draw.

Example 10 – Draw



The c-pawn is just barely too far away for White to reach without losing his kingside.

1.♠f3 ♖c8 2.♠e3 ♖c4!

Black makes a draw.

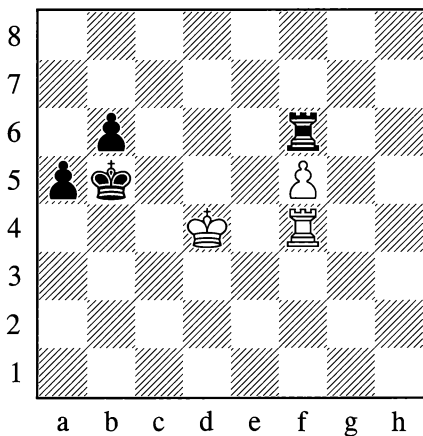
These examples allow us to introduce the next rule.

When playing with a lone outside pawn against two healthy connected pawns defended by their king, you will make a draw if you can get your rook behind your pawn, advance your pawn to the sixth rank, and your pawn is at least three files away from the enemy pawn mass.

Had I known this rule at the time of my game with Ragger, I would have immediately understood that ...♖a3xh3 would not have won without having to calculate particularly far. Let's look at how the rest of the game went.

Markus Ragger – Sam Shankland

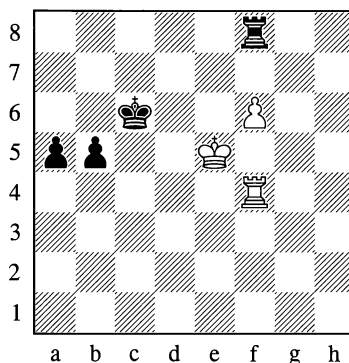
Prague 2020



We left off here. White is ready for ♠d4-e5 to come next, and then he gets his pawn to f6. According to the previous rule, this is a draw.

68...♖f8

68...♠c6 69.♠e5! ♖f8 70.f6! b5



White can make a draw here with ♠e6, and he will save the game with active play. But that requires calculation. Once we know that the pawn on f6 is good enough to save the game on its own, White can simply bring his king back to stop my pawns. 71.♠d4 ♖f7 72.♖f5 My king cannot approach his f6-pawn, and my own pawns are going nowhere. It is a dead draw.

69.f6

Markus's move is fine, but 69.♠c3 feels more natural to me. White gets his king back in front of the pawns and is ready for f5-f6 next, with a draw. ...♖f8-f6 would be met with ♠c3-d4, repeating the position.

69...♠b4

Now I could at least dream of boxing out White's king, but it's still an easy draw.

70.♠d5† ♠b5 71.♠d4 ♖f7 72.♖f1 ♖d7†
73.♠c3 ♖c7† 74.♠d3 ♖f7 75.♠d4 a4
76.♠c3 ♠a5

I had seen enough. Markus had earned his half point.

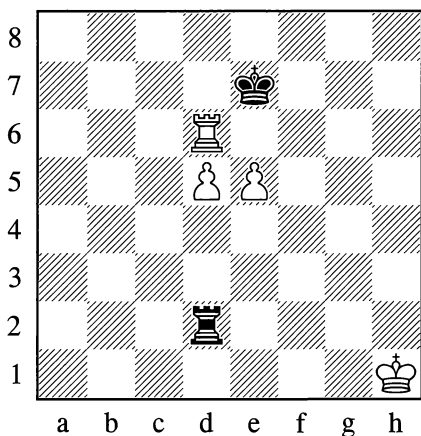
½-½

The placement of the rooks is critical in determining the evaluation of these endgames. While it is often a direct race as to who can get their rook to the strategically desirable position of being behind the lone pawn of the

defending side, there is another very important kind of position to cover.

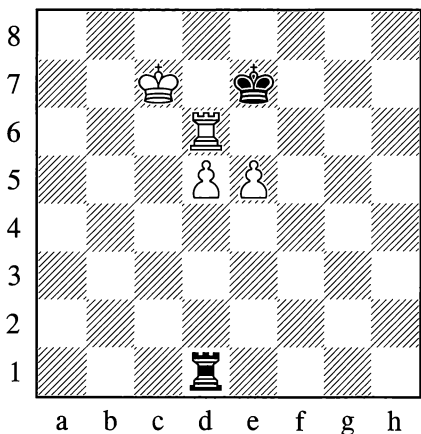
The following position should be easy to grasp after studying Chapter 7.

Example 11 – White Wins



We already know that White is winning because his rook is in front of his pawns. He has a simple plan – bring the king to the center. Then, Black will have to either let White's rook swing to the side, or the king will come up the board.

1.♔g1 ♖e2 2.♖e6† ♔d7 3.♔f1 ♖d2 4.♖d6† ♔e7 5.♔e1 ♖d4 6.♔f2! ♖d3 7.♔e2 ♖d4 8.♔e3 ♖d1 9.♔e4 ♖e1† 10.♔d4 ♖d1† 11.♔c5 ♖c1† 12.♔b6 ♖d1 13.♔c7



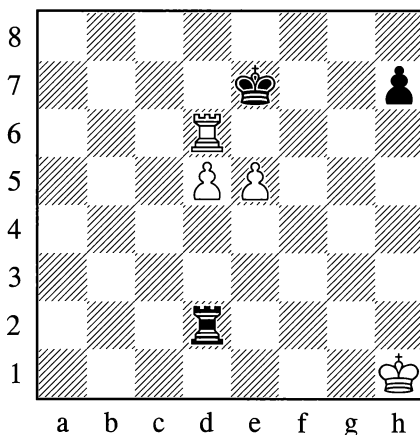
White's king has made it to the promised land. He is ready for ♖d6-e6† next, and he can block a check on c1 with ♖d6-c6.

White had a routine winning plan. But we note that it took him 13(!) moves to get his king where it needed to be, and even then, it would take another four or five to promote a pawn.

This is extremely slow. In Chapter 7, that was a non-issue. The defending side had to sit back and wait, and the attacking side had all the time in the world to execute a slow but methodical plan that would ultimately win the game.

As soon as Black is given a pawn as a source of counterplay, the position changes.

Example 12 – Draw



In the same position, I added a pawn for Black. I chose the most charitable square I possibly could for it, but it still changes the evaluation. Black simply shoves his pawn down the board, and it will reach h1 long before White is able to execute his plan. Either his king or rook will have to perform some babysitting, and Black makes an easy draw.

1.♔g1 h5 2.♕f1 h4 3.♕e1 ♖d4 4.♕e2 h3

It is time for White to make a draw.

5.♖h6

After 5.♕e3?! ♖h4! White has to be precise to hang on. 6.♖e6†! ♕d7 7.♖d6† draws.

5...♖xd5 6.♖xh3 ♖xe5†

Equal.

This leads us to an important guideline.

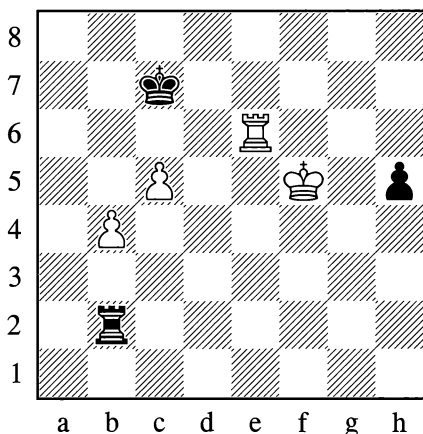
While a friendly rook in front of two connected passed pawns will guarantee their eventual promotion, it is a very slow process. Often, one outside pawn for the opponent will be enough to draw the game. When you have that pawn, push it at any reasonable moment you can!

There is no hard rule or specific position to memorize, but with this guideline in mind, calculating at the board should not be too hard.

Let's return to the Milliet – Loiseau encounter that we first saw in Chapter 7.

Sophie Milliet – Quentin Loiseau

Chartres 2021



As we previously saw in Chapter 7, the winning move was ♖e6-e4. Milliet's choice should have allowed Black to save himself.

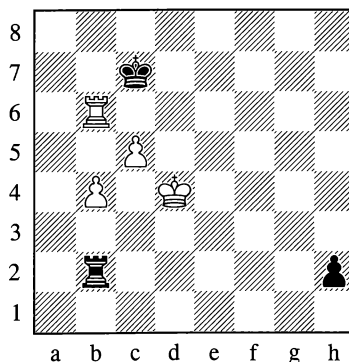
51.♖b6?

Now, Loiseau burned valuable time trying to cut White's king off from the g-file. This was not an important goal to achieve, and it loses two tempi when it comes to what really matters – White's ability to get her king to c4, and her rook to h6.

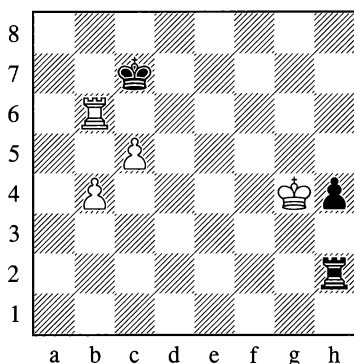
51...♖g2?

This move is wrong. The rook was on its ideal square, preventing White's rook from regrouping.

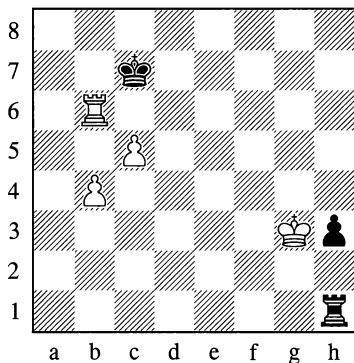
Correct was 51...h4! Black needed to push his pawn directly and make sure that White could not bring her king to a square like c4 in time. Every tempo matters, and in the game, he wasted two. 52.♔g4 I assume this was the move Loiseau was worried about. It was easy to see that White bringing her king to the queenside makes a draw just by counting up the moves and seeing who is ahead at the end. (52.♕e4 Racing towards the queenside is one tempo too slow. 52...h3 53.♕d4 h2



White needs both ♖b6 and ♕c4 here. The game is drawn.) Black now needs to be careful. 52...♖h2!



We know that if the pawn is lost, so is the game. This move can be made by elimination. While White has the h-pawn under control, she cannot capture it. As a result, her king is stuck, and Black makes a draw. 53.♖f6 (Or 53.♖h6 ♜b2! When White has nothing better than bringing the rook back to b6.) 53...h3 Black threatens ...♜hb2. 54.♖b6 ♖h1 55.♔g3



It looks like Black is in a deadly zugzwang, but in fact, any king move still saves the game. 55...♔c8 56.b5

52.b5?

White does not take advantage of Black's error, and even makes a counterproductive move. As we have seen in Chapter 7, this position is now a draw even without Black's h-pawn!

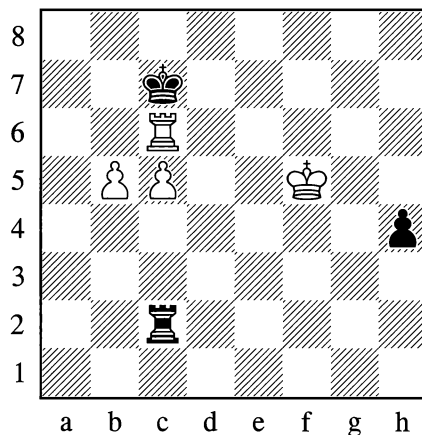
Milliet should have brought her king over directly: 52.♔e5! ♜d2 This was the best I could find for Black, hoping to cut off White's king from further advances. But it allows her rook to transfer. (52...♖b2 53.♔d5; 52...h4 53.♔d5! h3 54.♖h6! White is in time to get her rook behind the h-pawn, and her king will keep her queenside pawn mass secure. Black is done for.) 53.♖f6! White is ready for ♖f4 next, correcting her earlier mistake. She can execute the winning plan outlined in Chapter 7.

52...h4?

Black needed to jail White's rook to the defense of her b-pawn with 52...♖b2!. He makes a draw, as seen on page 246.

53.♖h6! ♜c2 54.♖c6†?

White allows Black to reach a drawn endgame again from Chapter 7.



54...♔d7

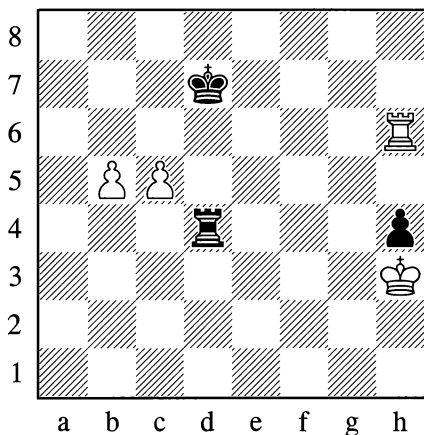
54...♔b7! 55.♔g4 ♖b2 56.♖b6† ♔c7 57.♔xh4 ♖b1 draws.

55.♔g4 ♜c4† 56.♔h3 ♜d4?

56...♖b4! would have still held.

57.♖h6!

The half point has been passed back and forth a lot, but finally it is in White's hands, and it is there to stay.



57...♞d5 58.c6† ♔c7 59.♞h7† ♔b8 60.b6
1-0

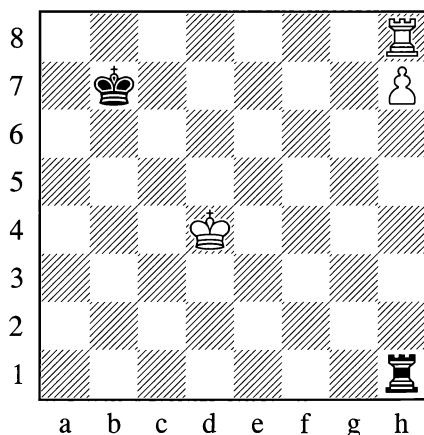
It's not totally obvious that Black will make a draw after 52...h4, and I could easily imagine that Loiseau seriously considered it, but thought it was probably lost. Still, he could have saved the game by elimination if he had known that it was critically important to keep White's rook stuck on b6 – and that his opponent's best plan to win was not to use her king to control the h-pawn, but rather to connect it with her queenside and then transfer her rook to h6.

Chapter 13

Pawn on the Seventh Rank with Rook on the Eighth

The first chapter of the next section involves situations with a passed pawn on the seventh rank, and the friendly rook directly in front of it. The following position is a simple example, but the situations become much more interesting when other pawns are on the board.

Example 1 – Simple Draw

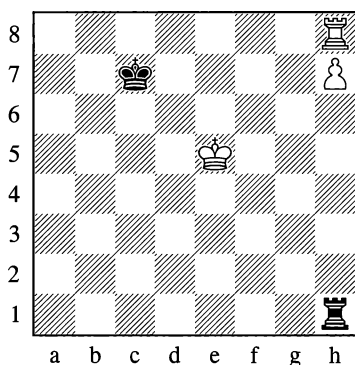


No matter whose move it is, this position is a dead draw. White has no way to get his rook out from in front of the pawn, as his king has nowhere to hide from merciless checks. If Black can keep his king on b7 or a7, there is nothing left to play for.

1.♔e5 ♔a7

Almost any sensible move holds.

1...♔c7? Black should not leave the b7- or a7-squares, as then White will be able to get his rook out of the way, in this case with the help of a skewer.

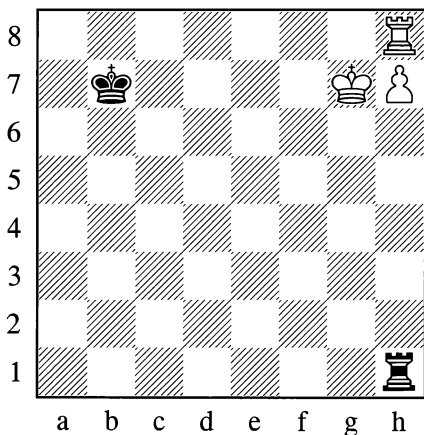


2.♖a8! The threat of h7-h8=♚ is decisive. Following 2...♜xh7 3.♜a7† Black can resign.

Black also cannot wander off the back rank: 1...♜b6? 2.♜b8† White promotes the pawn next and wins.

2.♜f6 ♜b7 3.♜g7

At this point, if Black were to keep shuffling with his king, White would be able to move his rook away from in front of the pawn and win the game. But Black will not be so cooperative.



3...♜g1†

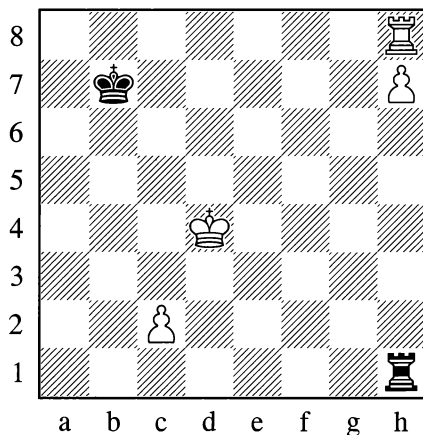
Nowhere to run, nowhere to hide. To avoid the checks, White's king will have to walk all the way back to the second rank, and at any sensible moment, Black can transfer his rook back to the h-file. For example, the following sequence seems natural enough.

4.♜h6 ♜h1† 5.♜g6 ♜g1† 6.♜f5 ♜h1

White is unable to make progress and should not waste any further time by trying. It is time to agree a draw.

Undoubtedly, White's pawn pushed all the way to the edge of the board proved to be too much. It did not leave the king any space to hide, and the draw was trivial. This is because Black had nothing else to worry about but the h-pawn, but situations are often not so simple. For example, if I were to change the position by adding a pawn, the result could alter.

Example 2 – c-pawn Wins



The presence of the pawn on c2 changes the evaluation completely. In order for Black to hold the h-pawn back, he needs to keep the rook on the h-file, and his king on the squares b7 and a7. But a second pawn proves too much to handle.

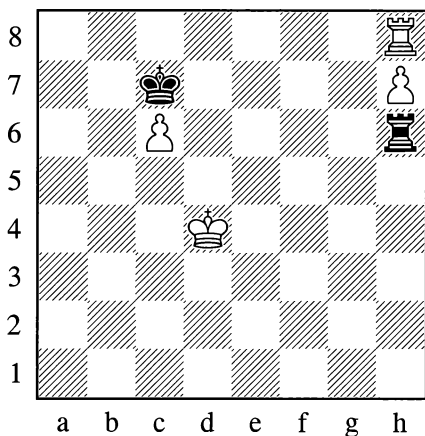
1.c4! ♜h2 2.c5 ♜h6 3.c6†

Here we see the point. White will simply push c2-c4-c5-c6-c7-c8=♚. Promoting the c-pawn will win the game and Black should stop it, but how can he? Neither his king nor his rook can leave its duties.

3...♔c7

3...♕xc6 4.♖c8† and White promotes the h-pawn next.

3...♖xc6 For one critical moment, White's rook is free to leave. 4.♗g8 with h8=♔ next.



4.♗a8!

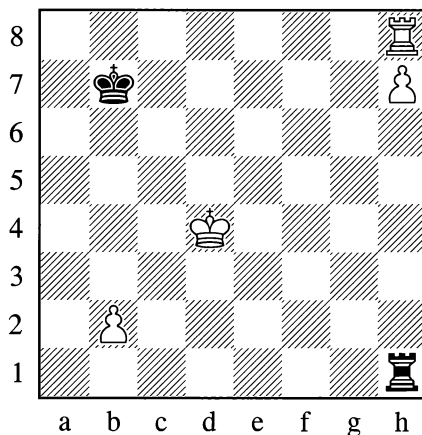
As seen before, White wins with a skewer.

4...♗xh7 5.♗a7†

The extra c-pawn changed the result completely because Black was unable to keep his king on the a7- and b7-squares as well as his rook on the h-file. But not all pawns will change the position in this way.

Let's look at another simple case before moving on to some more complex situations that happened in actual games.

Example 3 – b-pawn Draws

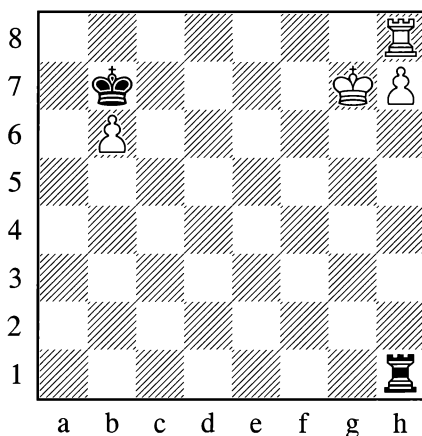


The position is identical to the previous one with the one exception that White's pawn has moved to the b-file. This is in Black's favor. His king is now able to remain on b7 indefinitely, where it both avoids any kind of checks or skewers to help the h8-rook get free and prevents the b-pawn from moving past b6. The position is a draw, for instance after:

1.b4 ♖h2 2.b5 ♖h6 3.b6 ♖h1

Black can continue to wait with his rook, and there is nothing for White to attempt. The position proceeds in the exact same manner as the first example of the chapter.

4.♕e5 ♖h2 5.♕f6 ♖h1 6.♕g7



6...♖g1†!

Of course, not allowing White to move the rook away.

7.♔h6 ♜h1† 8.♔g6 ♜g1† 9.♔f5 ♜h1

Time to shake hands.

The difference between examples 2 and 3 highlights an important rule to understand about positions with a pawn on the seventh rank and a rook on the eighth.

In rook endgames with a pawn pushed all the way to the seventh rank, the stronger side will be able to win if they can make a second passed pawn that is not on the opposite knight's or rook's file.

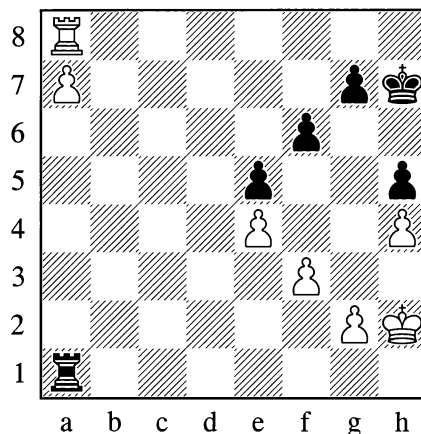
This rule clearly applies to the first two examples. In the first case, White could do nothing to disturb Black's coordination, and the position was a dead draw. But in the second case, White's c-pawn proved to be a decisive factor, as Black was unable to keep both his king and rook in ideal posts.

I consider any position involving a rook stuck on the eighth rank with a pawn on the seventh rank to be a technical rook endgame, as there is hardly ever any counterplay. Since the opposing king and rook will be stuck in place, the only question becomes whether the attacking side has sufficient resources to win.

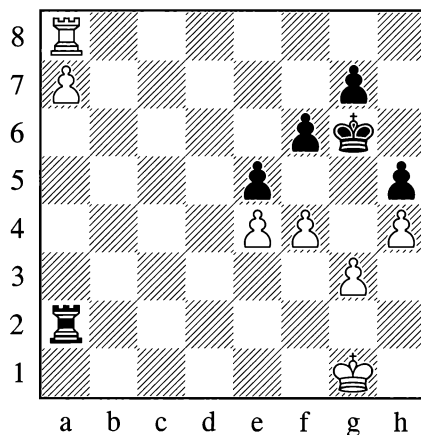
The easiest way for the attacking side to win is to get a second passed pawn in the center. But sometimes, it takes some work to get there. The following game is a true classic.

Boris Spassky – Eugenio Torre

Hamburg 1982

**46.g3**

I must confess, I did not actually know about this endgame before I recorded the video for Shereshevsky's *Endgame Strategy* on Chessable. It's rare to see a pawn on the seventh rank with a rook on the eighth with four pawns each on the other flank, but it's good to know that this will generally guarantee a victory for the attacking side. There is actually more than one way to win! I think what Spassky did was easy enough.

46...♜a2† 47.♔g1 ♔g6 48.f4!

If White is allowed to take on e5, he will be able to round up the weak e5-pawn with his king. If Black takes on f4, then White makes a passed pawn on the e-file directly. Long story short, Black is busted.

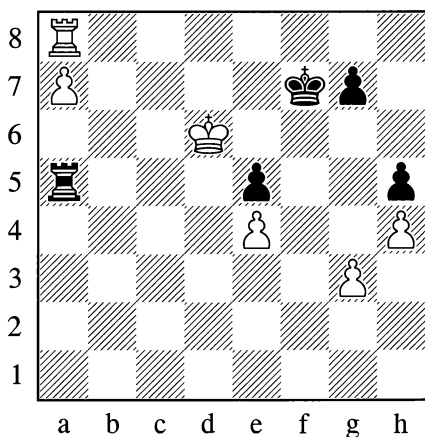
48...♔f7

After 48...exf4 49.gxf4 White shoves the e-pawn straight up the board, and wins in short order.

49.fxe5 fxe5

Now White's king begins his slow but sure march to the center.

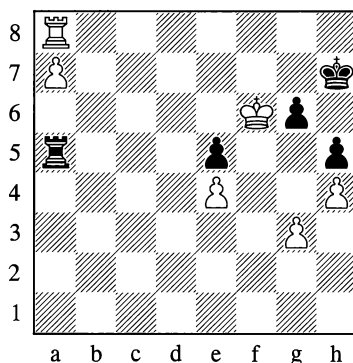
50.♔f1 ♖a1† 51.♔f2 ♖a3 52.♔e2 ♔g6
53.♔d2 ♖a4 54.♔c3 ♖a1 55.♔c4 ♔f7
56.♔d5 ♖a5† 57.♔d6



Black would make a draw if he could pass here. As is, he is in a deadly zugzwang.

57...♔g6 58.♔e6 ♖a1

Or 58...♔h7 but tucking the king away only delays the inevitable for two moves. 59.♔f5! g6† 60.♔f6



Zugzwang. White wins.

59.♔xe5 ♔f7 60.♔f5 ♖a5† 61.e5 g6†
62.♔e4

Torre had seen enough.

1-0

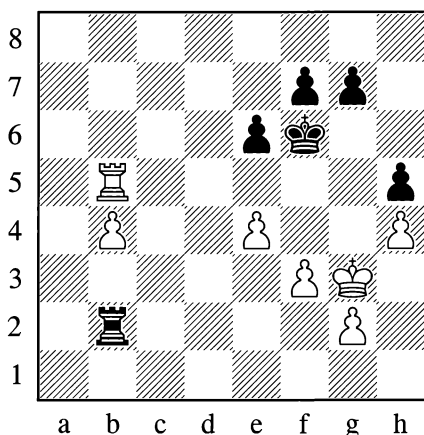
Spassky's winning plan brings us to the next rule.

The most important element of any rook endgame with the attacking pawn on the seventh rank and the rook on the eighth is whether the attacker can make a second weakness to attack. The more fluid the pawn structure, the more likely this is, and four pawns each on the same side will generally win.

Knowledge of technical positions like this one is critical to playing well in the endgame. Boris Gelfand has a well-deserved reputation for having great knowledge of technical endgames. This was even demonstrated in the most painful blunder of his career, as seen in Chapter 4. His handling of the following game shows that he was aware of the Spassky – Torre ending played nearly forty years before.

Boris Gelfand – Maxime Lagarde

Biel 2021



Gelfand surely knew that the structure would be winning if he could keep all four kingside pawns on board for each side. His play in this phase was fantastic.

34.♖b7!

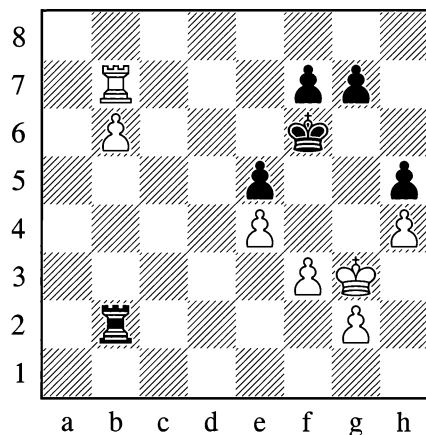
The rook will not stay here forever. Eventually it will go to b8. For now, it is important to prevent Black from pushing ...g7-g5 to exchange a pair of pawns.

It would be too eager to put the rook on b8 immediately: 34.♖b8? Black can start trading pawns. 34...g5! 35.hxg5† ♕xg5 The structure is changing, pawns are coming off the board, and White should not win. 36.b5 h4† 37.♕h3 ♖b1 38.♕h2 ♕f4 39.b6 h3 Draw. Black's defense wasn't difficult.

34...♖b3

After 34...g5 35.hxg5† ♕xg5 36.♖xf7! White reaches a winning version of a three against two endgame, as Black's pawns are split too far apart. Refer to Chapter 10 to see these positions in more detail.

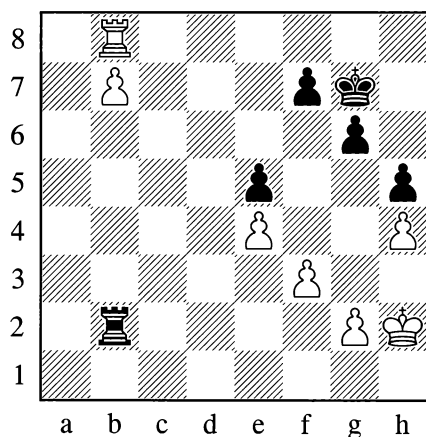
35.b5 ♖b2 36.b6 e5

**37.♖b8**

It is time.

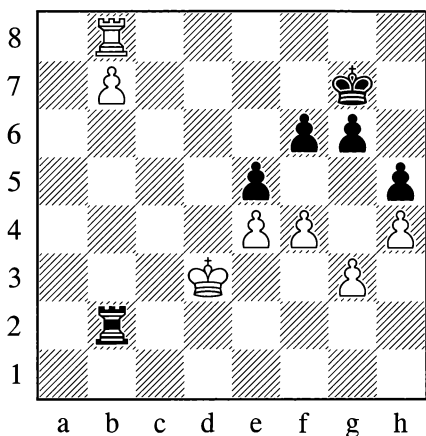
37...g6

37...g5 no longer works: 38.b7 gxh4† 39.♕xh4! Because White pushed his pawn all the way to b7, Black is not able to take on g2. White takes on h5 next and will easily make a passed e-pawn.

38.♕h2 ♕g7 39.b7

Look familiar?

39...♖b1 40.g3 f6 41.f4 ♖b2† 42.♕g1 ♖b1† 43.♕f2 ♖b2† 44.♕f3 ♖b3† 45.♕e2 ♖b2† 46.♕d3



Lagarde tried some last-ditch effort to complicate the game, but it was not too hard to handle.

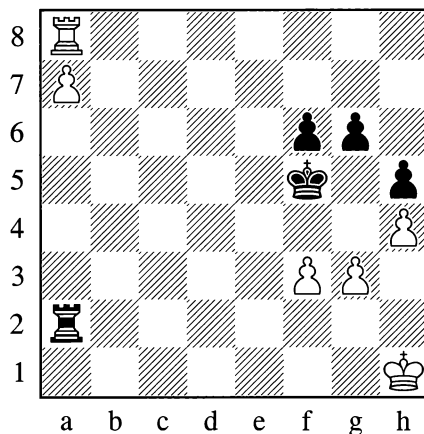
46...exf4 47.gxf4 g5 48.fxg5

48.hxg5 fxg5 49.f5 is faster. I like that f5-f6† will come with tempo, though Gelfand's approach was certainly not so slow as to give Black any drawing chances.

48...fxg5 49.e5 gxh4 50.e6 h3 51.e7 h2 52.♖g8† ♔xg8 53.e8=♖† ♔g7 54.♗e5† ♔g6 55.♗xb2 h1=♗ 56.b8=♗ ♗f3† 57.♔d4 ♗g4† 58.♔c5 ♗g1† 59.♗d4 ♗c1† 60.♔d5 ♗g5† 61.♗be5
1–0

In general, a four on four kingside pawn structure should mean that pushing the pawn to the seventh rank will result in a victory. Three on three generally will not, but there is one important exception, which becomes extremely relevant in the next chapter.

Three on Three Win



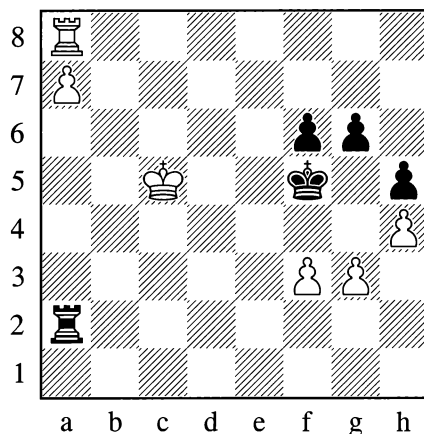
This position would be a draw if Black's king stood on g7, as White would not have any way to attack Black's pawns or try to make a passer on the f-file. In fact, Black would even be making a draw without his f-pawn! But with the king on f5, White wins. The point is that Black's king is stuck for the remainder of the game, and he can never advance ...g6-g5. White walks his king to h6.

1.♔g1 ♖a3

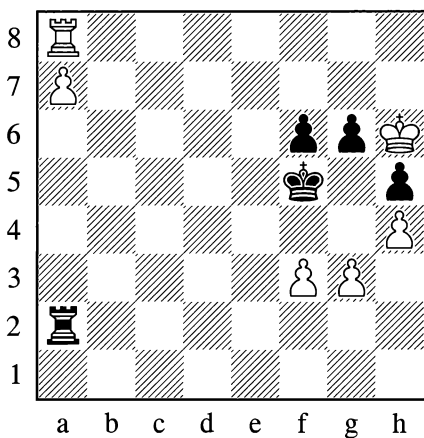
1...g5 2.hxg5 wins. Black cannot take back without allowing a check.

2.♔f2 ♖a2† 3.♔e3 ♖a3† 4.♔d4 ♖a2 5.♔c5

Black's rook must stay on the a-file, and he can do nothing to stop the king march.



5...♖a1 6.♕d6 ♖a2 7.♕e7 ♖a1 8.♕f7 ♖a2
9.♕g7 ♖a1 10.♕h6 ♖a2



White's king has reached its desired home.

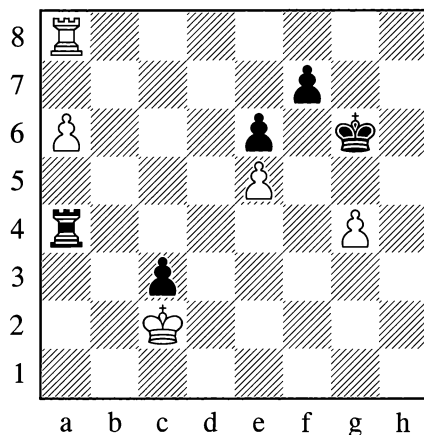
11.♖b8! ♖xa7 12.♖b5† ♕e6 13.♕xg6

White wins a second pawn, and the game.

In general, I think one should memorize that White will win with four on four on the kingside and will win with three on three only if Black has the f6-g6-h5-♕f5 constellation. In less standard situations, it is important to think critically about when it is possible to make a second weakness in what otherwise looks to be a solid enemy pawn structure. I found myself the unfortunate recipient of a fine clinic from Emil Sutovsky at the 2018 Olympiad, putting a black mark on an otherwise excellent result for me.

Emil Sutovsky – Sam Shankland

Batumi (ol) 2018

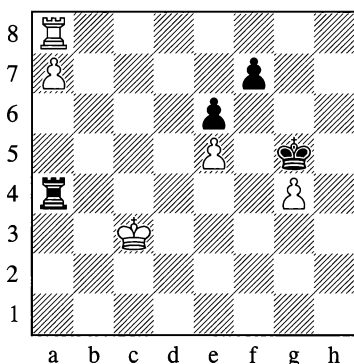


This position was reached near the end of a sloppy game where neither Emil nor I played particularly well, but he handled the upcoming phase beautifully. During the game I remembered thinking that I am holding this position without much trouble. In fact, Black is lost, but in only one way.

51.a7!

At first, when this move came I was surprised, but then quickly realized that my position was lost. The problem is that White will be able to stretch Black's defenses by putting his king on e7. Once this happens, g5-g6 will come. Then Black will either have to lose his e6 pawn, thereby allowing the creation of a second passed pawn on e5, or he will have to allow his king to be checked and the a-pawn to promote.

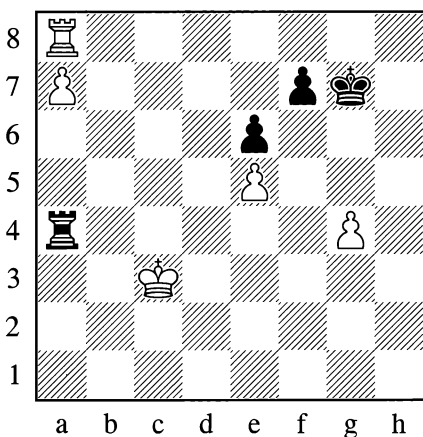
Taking the pawn directly would not have won, as Black can get active with his king: 51.♕xc3 ♕g5! black is ready to go take on g4, and it is too late for 52.a7.



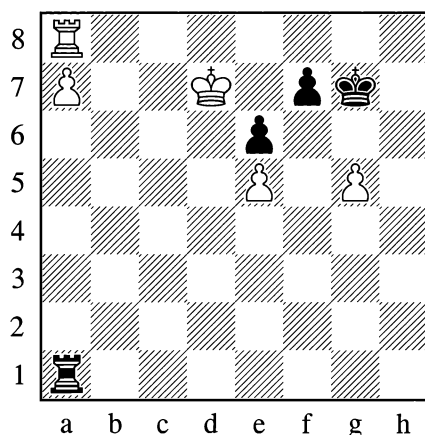
52...♔f4! Black avoids all the checks and will take on e5 next, then walk his king back to g7.

51...♔g7 52.♔xc3!

There is nothing Black can do to prevent White's king from reaching d7 or e7, as both his king and his rook are stuck in their present situations.



52...♖a1 53.g5 ♔h7 54.♔c4 ♖a2 55.♔c5 ♖a6 56.♔b5 ♖a1 57.♔b6 ♖b1† 58.♔c6 ♖a1 59.♔d6 ♔g7 60.♔d7



Now that the king is eyeballing the e6-pawn, g5-g6 is a threat, and there is nothing Black can do about it.

60...♖a2

60...♖a6 would have only postponed the inevitable for a move. After 61.♔e7 Black is in a deadly zugzwang. (White cannot play 61.g6? yet, as e6 is safe and Black can respond with 61...fxg6, with equality.)

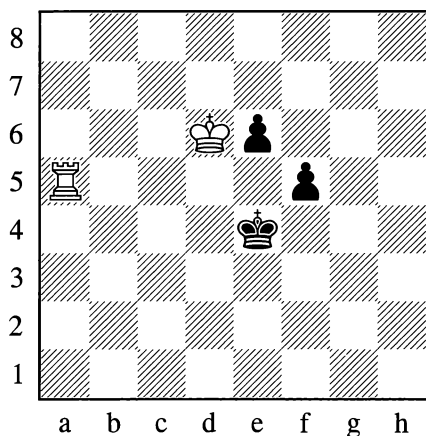
61.g6!

Now taking with the pawn would allow White to take on e6, and then his e-pawn would go through. Instead, I tried:

61...♔xg6

Hoping for one final trick in the rook versus pawns endgame, but it was not a hard pitfall for White to avoid.

62.♖g8† ♔f5 63.a8=♖ ♖xa8 64.♖xa8 ♔xe5 65.♖a5† ♔e4 66.♔d6 f5



67.♖a4†!

A final accurate move seals the deal.

Taking the pawn would undo all of White's previous efforts: 67.♔xe6? f4 White's king is too far away to stop the pawn, and Black makes a draw.

67...♔e3 68.♔e5!

Black's pawns are stopped.

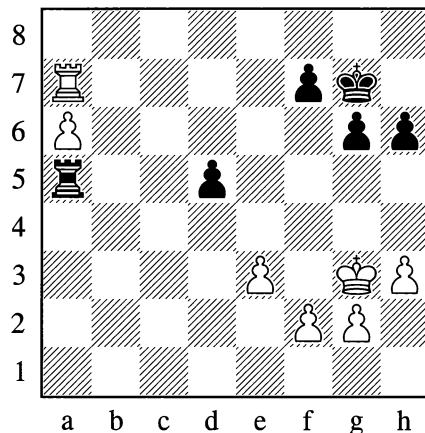
1–0

While White did not have an extra pawn as he did in the composed examples, Sutovsky was able to win by making a second threat with his king, which ultimately proved too much to handle. Black had to either allow a deadly check or lose the e6-pawn, leaving White with a second passer in the center of the board.

Let's see a position where the defending side could have done a better job by avoiding a second weakness.

Magnus Carlsen – Viswanathan Anand

Shamkir 2019



The weakness of Black's d5-pawn means that White should win if he is able to play ♖a8 followed by a6-a7. Black's king will be confined to squares where he cannot be safely checked, such as h7, g7, f6, or e7. None of these squares defend the d5-pawn. White's king will be able to walk up the board and reach b6. Once Black starts giving checks from behind, ♔c6 will win the d5-pawn, allowing White to make a second passer. Black must liquidate his weakness to have any hope of saving the game.

37...♔f6?

This is too slow and does nothing to prevent White from executing his plan. Let's see how Black could have saved the game.

37...♖a3!

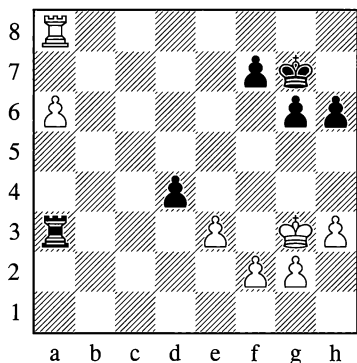
With this move, Black is hoping to play ...d5-d4 next, trading off his weak pawn. Should he manage to pull this off, he will reach a drawn position, similar to those we will see in Chapter 14.

38.♔f4!?

This move does not win the game, but it forces Black to walk a tightrope to save a half point. I suspect Vishy saw this position

and thought it is lost, but there is a saving resource.

38.♖a8? d4!



Black trades off his weakness. With all the pawns on one side of the board, fewer than four pawns each, and nothing else for White to attack, the position should be an easy draw.

38.♖h2 This move would be analogous to how the game went, and now we see why it was so important to start with ...♖a3 directly and not to waste time with ...♖f6. 38...♖a2! Black attacks the f2-pawn, and he is in time to take it and come back to a2 thanks to the tempo spared on omitting ...♖f6. White's best attempt is to repeat the position with ♖g3 and then play to f4 next, transposing to what we will see after 38.♖f4. Other moves fail to impress. 39.f3 (After 39.♖a8 ♖xf2! 40.a7 ♖a2! Black gets back just in time.) 39...♖a3! Black is making a draw.

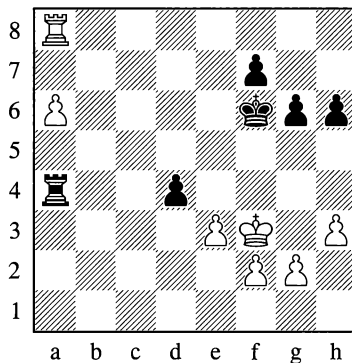
38...♖f6!

Now and only now. White's king has committed itself to f4, and this move proves useful in keeping it from advancing any further. Black is planning ...h7-h5 followed by ...g7-g5, when he will be able to force White's king back onto the third rank and push ...d5-d4 through.

39.♖a8 h5!

Black controls the h5-square.

39...♖a4†? It might seem tempting to give a check and get d5-d4 through right away, but this will not actually lead to the exchange of the pawn. 40.♖f3! d4



41.e4! White avoids the pawn exchange, and his king will easily prevent the d-pawn from becoming too much of a nuisance. After pushing a6-a7, he can win by pushing e4-e5, f2-f4, g2-g4, f4-f5, and eventually making a passed e-pawn.

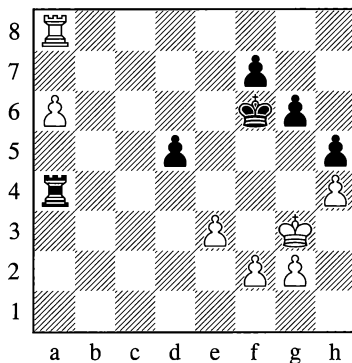
40.h4

After 40.a7 g5†! 41.♖f3 d4! Black is able to exchange off his d-pawn. The best White can do is bring the rook away and reach a drawn four against three endgame with the pawns on the same side.

40...♖a4†!

White's king is now forced to the unfortunate g3-square to avoid losing the h4-pawn.

41.♖g3



Black can push ...d5-d4 through. White is unable to avoid the pawn exchange.

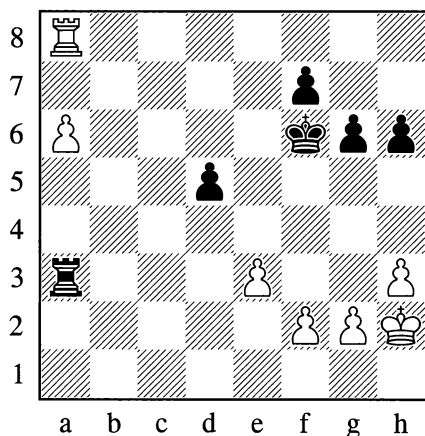
41...d4! 42.e4 d3!

White's king is too far away to stop the pawn, and he should even be careful.

43.♖d8

This is White's best hope. (43.♔f3? ♖d4! Oops! The pawn promotes.) But after 43...♖xa6 44.♖xd3 ♔g7 Black reaches a drawn four versus three endgame with the pawns on the same side, as we saw covered in Chapter 11.

38.♖a8! ♖a3 39.♔h2!

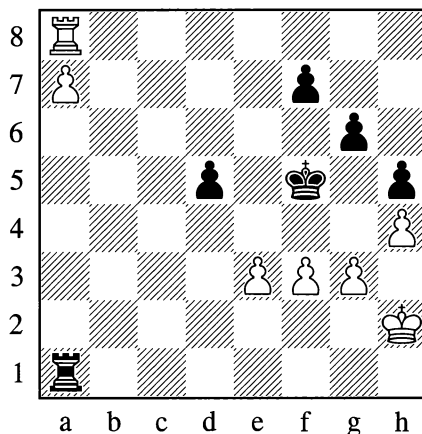


We see the reason that it was so important for Black to start with ...♖a3 instead of ...♔f6. He is not in time to harass the f2-pawn.

39...h5

After 39...♖a2 40.a7! Black cannot take on f2, and White will win in a similar manner to the game.

40.a7 ♖a2 41.h4 ♔f5 42.f3 ♖a1 43.g3

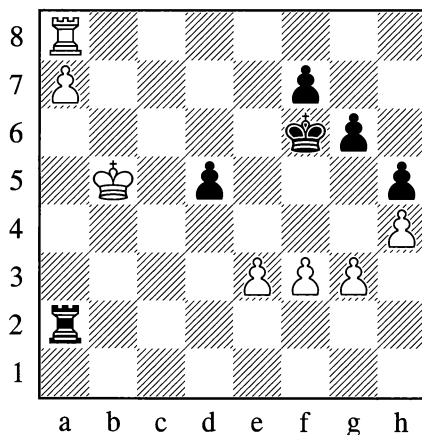


Anand resigned here, seeing the writing on the wall. For our purposes, we should know how White will win if Black keeps playing.

43...♖a2† 44.♔g1 ♔f6

All Black can do is wait with the king. White walks his own king to b1, kicking the rook off the second rank.

45.♔f1 ♔f5 46.♔e1 ♔f6 47.♔d1 ♔f5
48.♔c1 ♔f6 49.♔b1 ♖a5 50.♔b2 ♔f5
51.♔b3 ♔f6 52.♔b4 ♖a1 53.♔b5 ♖a2



54.♔b6!

Black is forced to give a check.

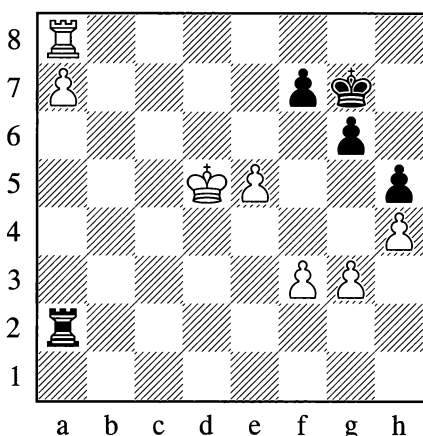
54...♖b2† 55.♔c6! ♖a2 56.♔xd5

White wins a pawn and the rest is trivial. The e-pawn is coming.

56...♖a1 57.e4 ♖a2 58.e5†!

Black's king is forced back to g7 on pain of e5-e6.

58...♔g7



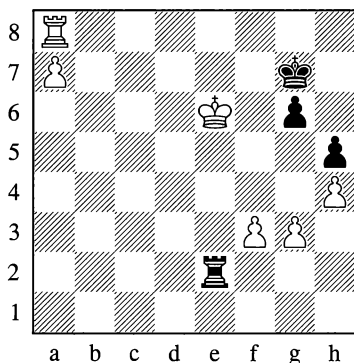
Now, White should be a little careful.

Or 58...♔e7 59.e6. Once the f-pawn is forced off f7, White wins by bringing the rook to h8.

59.g4!

This is the easiest. White is ready to take on h5 next, then to send the f-pawn to make a passer on the e-file.

Not 59.e6?. It would not be too late to spoil all of his efforts with this premature advance. 59...fxe6† 60.♔xe6 ♖e2†

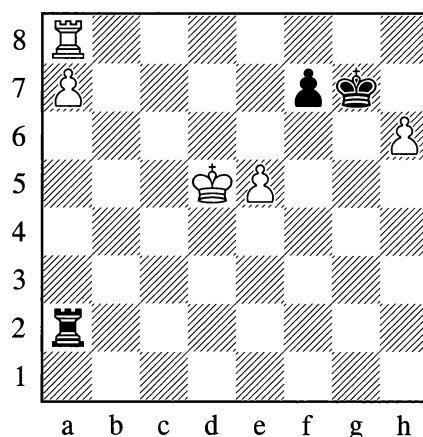


Black is making a draw. His kingside pawns are safe from any hope of harassment, and White's majority will only be capable of making a passed pawn on the g or h-file, which we know to be drawn. This structure is worth memorizing. Pawns on g6 and h5 will make a draw against f-, g-, and h-pawns if the g- and h-pawns are on g3 and h4.

59...hxg4

Or 59...♖a1 60.gxh5 gxh5 61.f4 ♖a2 62.f5 ♖a1 63.e6. The e-pawn will distract one of Black's pieces, and White wins.

60.fxg4 ♖a1 61.h5! gxh5 62.gxh5 ♖a2 63.h6†



The h-pawn forces Black's king to h7, which means White should be able to round up the f-pawn and win that way.

63...♔h7 64.♔d6 ♖a5 65.♔d7!

Zugzwang. Black must move his rook, and then ♔e7 is decisive.

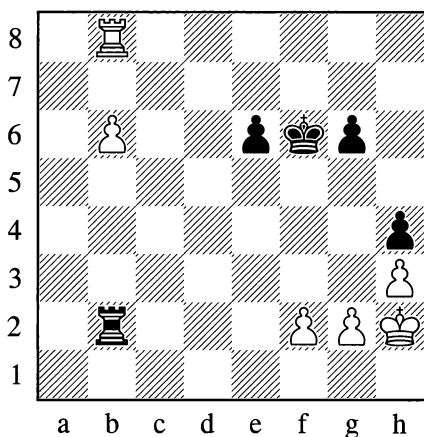
Vishy's only chance to save the game was to realize that Magnus would soon play ♖a8 and a6-a7, that White would be able to take his weak d5-pawn, and that he would then be able to make a second passed pawn in the center. Then, he would have had to calculate precisely

to find a way to exchange off his weakness before White could set his plan in motion.

It is important to remain precise in these situations, even if you know them well. Take the following example:

Baskaran Adhiban – Sumiya Bilguun

Xingtai 2019



Adhiban was surely familiar with the same themes seen in the Carlsen – Anand encounter.

44.b7!

This is the right decision. White should win by bringing his king to harass the e6-pawn, but he must be careful.

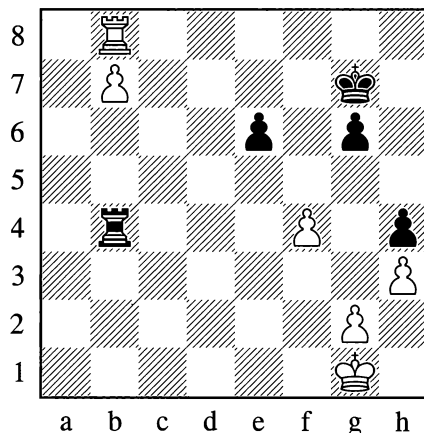
44...♠g7 45.f4?

This move blunders the game away.

White would have won by leaving his pawn on the safe f3-square: 45.f3! He is ready for ♠g1 next to walk all the way up to d6. 45...♠b1 What else? 46.g4! White's king is free, he will take the e6-pawn, and he will win.

45...♠b3 46.♠g1 ♠b4!

It turns out that White's king is unable to break out of the kingside because whenever he steps on the f-file, f4 will be taken with check. White needed his pawn to be on f3 in this position! Adhiban kept trying, but there was nothing left to be done.

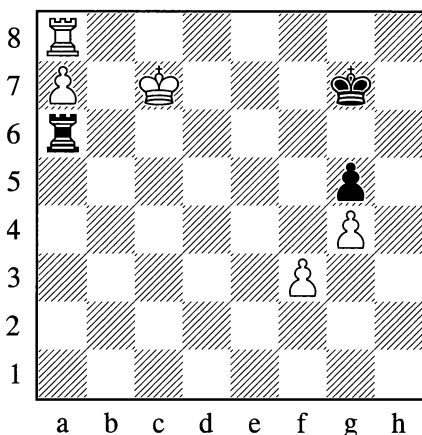


47.♠h1 ♠b1† 48.♠h2 ♠b3 49.♠g1 ♠b4
50.♠f2 ♠xf4† 51.♠e3 ♠b4 52.♠d3 e5
53.♠c3 ♠b1 54.♠c4 e4 55.♠d4 e3 56.♠xe3
♠b4 57.♠f3 ♠h7 58.♠e3 ♠g7 59.♠d3
♠h7 60.♠c3 ♠b1 61.♠d4 ♠g7 62.♠e5
♠b2 63.♠e6 ♠e2† 64.♠d5 ♠d2† 65.♠e4
♠e2† 66.♠f4 ♠f2† 67.♠e4 ♠e2† 68.♠f4
½–½

Making a second passed pawn in the center by attacking a weakness is a simple enough concept. Sutovsky used this to his advantage by harassing the e6-pawn and forcing g5-g6 through. Carlsen rounded up the weak d5-pawn and eventually made a passed pawn on the e-file. Adhiban could have brought his king to the e6-pawn. But there is another very important threat to keep in mind, specifically in situations where the defending side does not have any pawns on the seventh rank.

Parimarjan Negi – Rustam Kasimdzhanov

Tromso (ol) 2014



We have a more complex situation than what we have previously seen. White has an extra pawn on the kingside, but it is unable to do much at the moment since pushing f3-f4 will lead to a draw. We have already seen on page 254 that a lone rook or knight pawn on the opposite end of the board will not guarantee the promotion of the a-pawn. But Black must be wary of two things White might try. He can try to harass the g5-pawn with his king to overload Black's defenses. He can also look to bring his king to the sixth rank and then move the rook away to transfer into a winning pawn endgame. Black needs to be very precise to hang on. Obviously he must move his rook to not allow ♖b7 to come with a gain of tempo and at a moment when the king cannot be checked, but there is only one square on the a-file that will save the game.

60...♞a3!

A very important move. Black anticipates White's plan of walking to the f5-square with his king and plans accordingly.

60...♞a1?

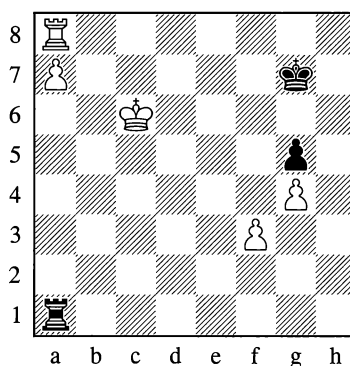
This move would lose, as we will see in a few moves.

61.♜b6!

White is threatening to move the rook away from a8, so the checks must start.

61...♞b1† 62.♜c6

But now we see Black's dilemma. He cannot come back to a1 while White's king is on the sixth rank, as then White would be able to force a winning pawn endgame. So he must keep checking and try to force White's king off the sixth rank.

62...♞c1†**62...♞a1**

63.♞c8! ♞xa7 64.♞c7† ♞xc7† 65.♜xc7 White has the opposition and easily wins the pawn endgame.

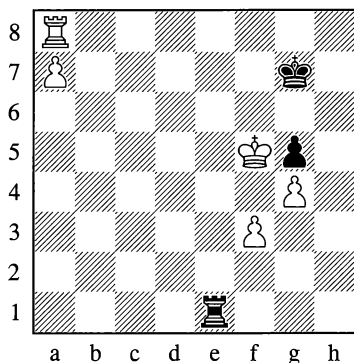
63.♜d6 ♞d1†

63...♞a1 64.♞c8! Again, this would force a winning pawn endgame. (64.♞d8? It's never too late to blunder. Black now should not automatically take on a7, but instead include the intermediate move 64...♞a6†! when he will take the a7-pawn next while avoiding an exchange of rooks, with an easy draw.) 64...♞a6† 65.♞c6 Time to resign.

64.♜e6

Finally Black is done for. Going back to a1 allows ♞d8 and a losing pawn endgame. If he keeps checking, White's king comes to f5 and the g5-pawn falls.

64...♞e1† 65.♜f5



This position is the reason Black needed to be checking along the third rank instead of the first rank. If his rook were on e3 instead of e1, he would then be able to take on f3 with check and get his rook back to a3. This transposes to page 253 with a draw.

61. ♖c6

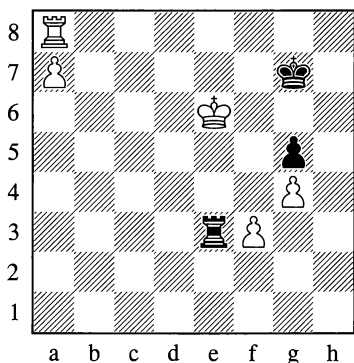
Black now is facing a serious threat of ♖c8 or ♖d8, leaving him in a lost pawn endgame after a check on the seventh rank forces the rooks off. He must start checking.

61... ♜c3†

We have seen 61... ♜a1? 62. ♜c8 before.

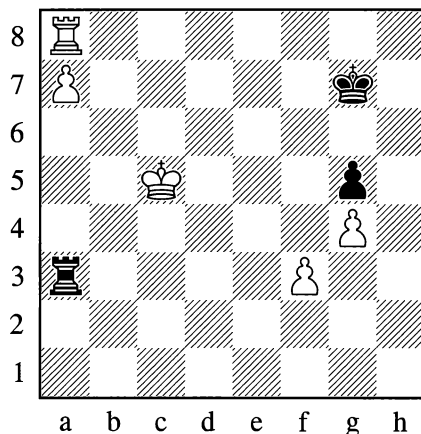
62. ♕d5

62. ♕d6 would be consistent to the analogous winning plan if Black had placed his rook on a1. But now, the difference is clear. 62... ♜d3†! 63. ♕e6 ♜e3†!



Black continues to harass White's king, refusing to consent to a king and pawn endgame by letting the king stand on the sixth rank. But we see a clear difference between Kasimdzhanov's correct defensive play and what would have happened if he had put the rook all the way back on the first rank. Now, ♕f5 is not an issue. 64. ♕f5 ♜xf3† draws.

62... ♜a3 63. ♕c5



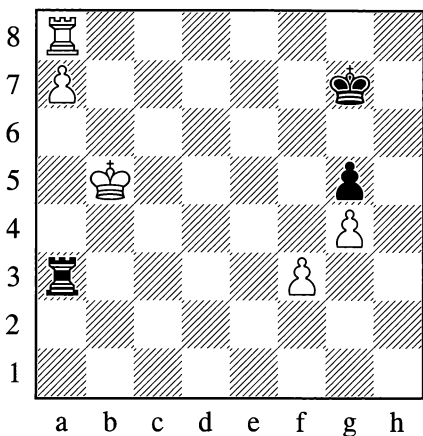
63... ♜a6

This is still a draw, but it strikes me as looking for trouble. The rook is best placed on a3, and while White does not have a winning continuation, there was no reason to leave.

63... ♕h7 feels much more natural to me. Black simply shuffles between h7 and g7, and has enough checking distance on the third rank to save the game.

64. ♕c4 ♜a3 65. ♕b5!?

I think this was an excellent practical choice by Negi. Kasimdzhanov's reluctance to move his king to h7 in the previous position suggests he had seen some ghosts and felt the king had to stay on g7. This is not the case, but the rook must stay on a3.

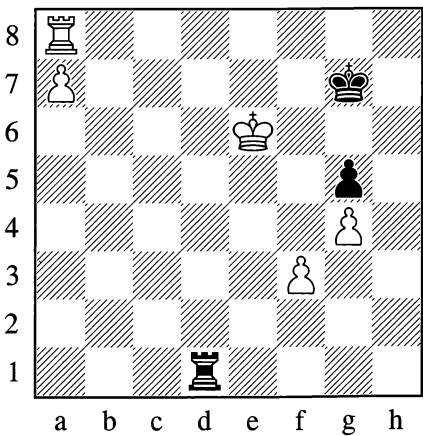


65...♖a1?

Black leaves the third rank, and now White is free to execute the winning plan discussed on move 60.

65...♖h7 would have been a routine draw.

66.♔b6 ♜b1† 67.♔c6 ♜c1† 68.♔d6 ♜d1† 69.♔e6



Black resigned instead of facing the music after 69...♖a1 70.♜d8 or 69...♖e1† 70.♔f5. 1–0

Kasimdzhanov obviously did not defend perfectly, as he did end up losing the game. But finding 60...♖a3! does suggest he knew what

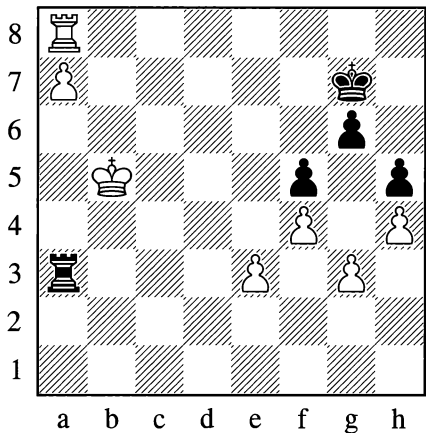
the general plan should be and managed to trick himself later on. Nonetheless, this game is a great way to introduce the next guideline.

When evaluating any rook endgame with a pawn on the seventh rank and the rook stuck in front of it, always be mindful of transitions to a pawn endgame when the rook leaves and then gives a check along the seventh rank. It is critical to evaluate in advance the result of these pawn endgames in order to evaluate the preceding rook endgame.

Let's see a case of this in action.

Sam Shankland – Varuzhan Akobian

Saint Louis (var) 2015



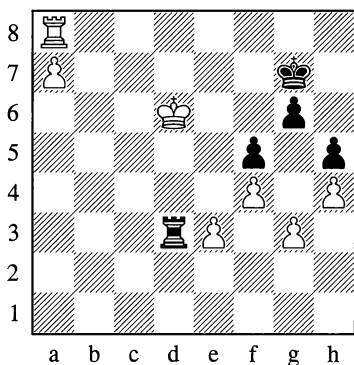
This position never appeared on the board during the game, but at one moment, I realized it was a possibility. I understood that it was a draw, but I should have gone for it anyway as I believe Black's defense here is much tougher than it was the way I played.

49.♔c5!?

Black now must be very careful to make the draw. The position reminds me a lot of the Negi – Kasimdzhanov game, which I had

checked closely after it was played. Not only is it another last round game where fatigue makes defending very difficult, but there is also a not-so-obvious only move. Black would like to sit here, but he is in zugzwang, and will have to allow a pawn endgame. Correctly evaluating which pawn endgame he should enter will earn him half a point.

Immediately trying to use the Negi plan of putting the king on b6 and then walking along the sixth rank to force a pawn endgame, was the right idea. But White is not ready for it yet. 49.♖b6 ♖b3† 50.♗c6 ♜c3† 51.♗d6 ♜d3†



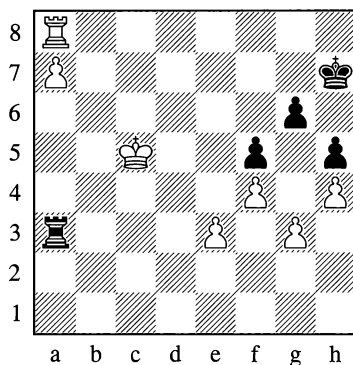
The king runs out of squares, as 52.♗e6 would lose the e3-pawn and not get White any closer to doing anything productive. But we must consider why 52.♗e6 would fail. It is for two reasons. First, Black's rook is checking along the third rank, meaning that he will be able to take the e3 pawn and deny White's king safety on e6. Second, Black also has his king on g7, which means White cannot get his king to safety on f6 either. Black would really like to both have his rook on the third rank and his king on g7. White can force him into a zugzwang as a result by playing 49.♗c5 instead of 49.♗b6.

49...♞a1!

In order to save the game, Black needs to evaluate the resulting pawn endgames. It turns out that he does not need to worry about being a pawn down, but instead must make sure that his king remains as close to the center as possible to take the opposition at the right moment.

49...♔h7?

In this case, Black cannot put his king on h7. It will be too far away to save the pawn endgame, and in fact the e3-pawn proves to be irrelevant.



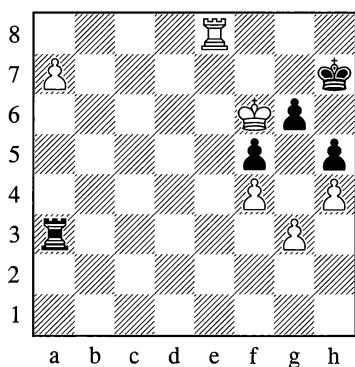
50.♗b6! ♖b3† 51.♗c6 ♜c3†

After 51...♞a3 52.♜d8! ♞xa7 53.♜d7† ♜xd7 54.♗xd7 White has the opposition, and wins the pawn endgame easily.

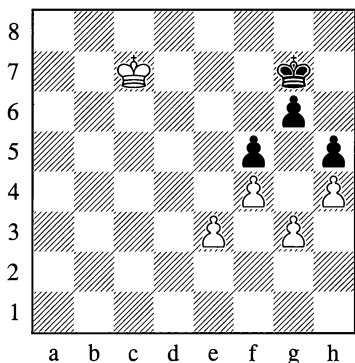
52.♗d6 ♞a3!

This is probably Black's best defensive attempt, but it also fails.

52...♜d3† 53.♗e6 ♜xe3† 54.♗f6 ♞a3 55.♜e8! (55.♜f8? It is never too late to blunder. Always examine all checks in rook endgames, they tend to be extremely relevant. 55...♞a6†! Black avoids the pawn endgame and makes a draw.) Despite equalizing material, Black loses the pawn endgame as his king is boxed out too severely.



55...Rxa7 56.Rxe7 Rxc7 57.Kxe7 Kg7
 58.Kxe6 Black is forced to give up the
 opposition, and he will end up in a deadly
 zugzwang. 58...Kh6 59.Kf6 White wins.
 53.Rc8 Rxa7 54.Rc7+ Rxc7 55.Kxc7 Kg7
 Black has taken the opposition, and it looks
 like he should hold a draw. But White wins
 with:

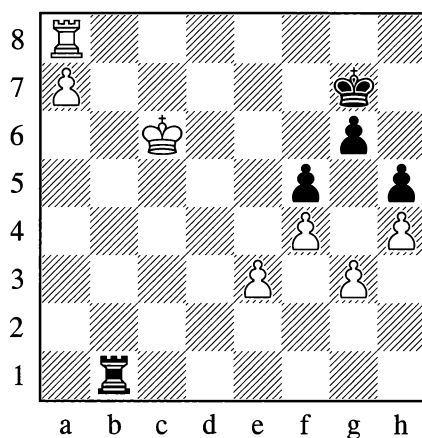


56.Kc6!

Black is unable to keep the opposition, for
 example after:

56...Kg8 57.Kd6 Kf8 58.Kxe6
 White wins.

50.Kb6 Rb1+ 51.Kc6

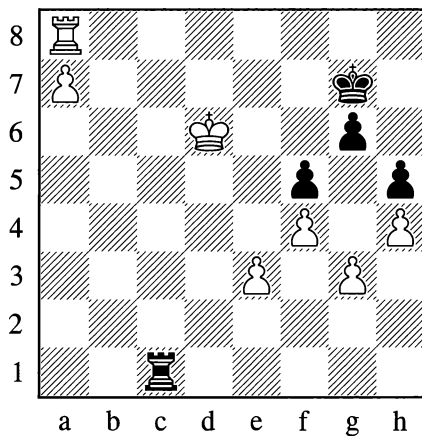


At some moment, Black will run out of
 checks, and then will have to play a pawn
 endgame. In order to save the game, he must
 decide which square he wants White's king to
 land on. The answer is d7, as then he will be
 able to play ...Kf7 to take the opposition.

51...Rc1+!

Black will lose after 51...Ra1? because
 White will start the pawn endgame with the
 opposition. 52.Rc8! Rxa7 53.Rc7+ Rxc7+
 54.Kxc7 and White wins.

52.Kd6

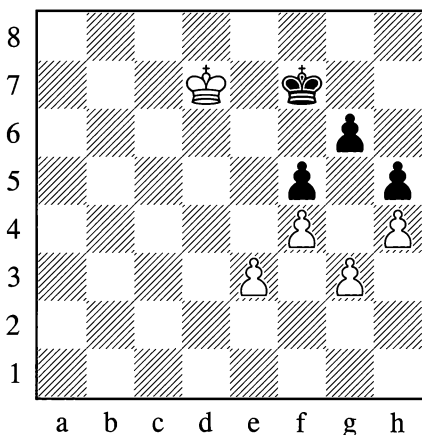


52...♞d1†!

Black must force the king all the way to e6.
 52...♞a1? Again, this would fail, as White's king will end up on c7. 53.♞c8! ♞xa7 54.♞c7† ♞xc7 55.♔xc7

53.♔e6 ♞a1!

Only now. White cannot play ♞e8 to force a pawn endgame with the opposition due to the intermediate check on a6, with a draw. So he must use the d-file, but this is insufficient for victory.

54.♞d8 ♞xa7 55.♞d7† ♞xd7 56.♔xd7 ♔f7!

Black takes the opposition, and the pawn endgame is a draw.

The guideline on page 267 is clearly on display when considering both my game with Akobian as well as Negi's game with Kasimdzhanov. In both cases, correctly evaluating the transition to the pawn endgame is the only way to play the rook endgame correctly. The Negi – Kasimdzhanov encounter was a much simpler affair, as every conceivable pawn endgame was winning for White, and Black had to avoid it at all costs. The side variation of my game with Akobian followed a similar script in that Black had to carefully consider the consequences of entering a pawn endgame, and when the time came, choose the right path.

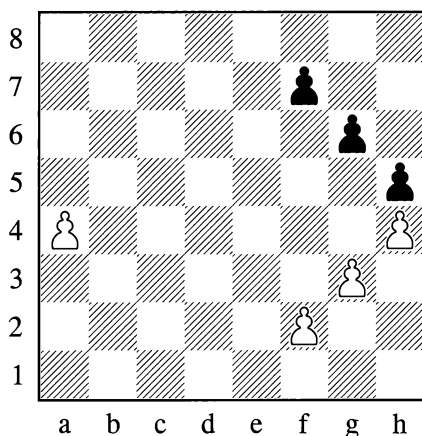
It is impossible to fully exhaust all the possible pawn formations that can occur in endgames with the pawn on the seventh and rook on the eighth. But I believe this chapter gives a fully sufficient knowledge base for any top grandmaster, complete with all the relevant rules and themes, as well as some specific positions worth memorizing.

Chapter 14

Rook in Front of the Passed Pawn

The next three chapters comprise a meaty part of this book. Rook endgames where both sides share an even pawn mass on one side, and one side possesses an outside passed pawn, are among the most common in all of chess.

Typical Structure

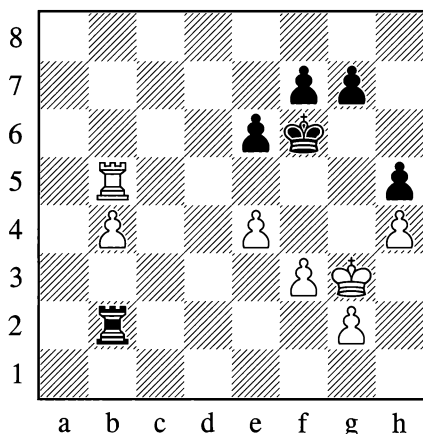


A position like this one is the most typical. The placement of the rooks and kings, and tinkering to the kingside pawn count or structure, can all easily sway the evaluation from between 1–0 and $\frac{1}{2}$ – $\frac{1}{2}$.

For the present chapter, we will focus on situations where the attacking rook is placed in front of the passed pawn. This is a natural progression from Chapter 13, as the attacking side has the option to push the rook to the eighth rank and the pawn to the seventh.

Boris Gelfand – Maxime Lagarde

Biel 2021



34.♖b7! ♜b3 35.b5 ♜b2 36.b6 e5 37.♖b8! g6 38.♙h2 ♙g7 39.b7!

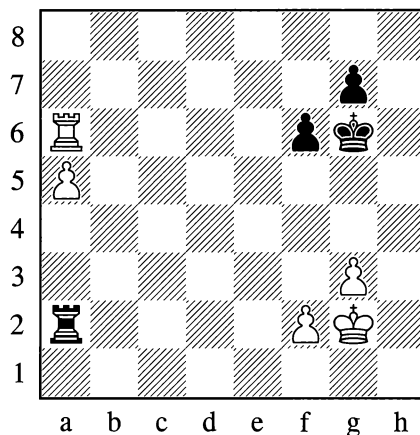
White went on to win, as seen on page 256.

We already saw this game in the previous chapter. Of course, the point there was that White's winning plan was to transition into a position with the rook on the eighth and the pawn on the seventh.

This brings us to our first rule.

When the attacking side has their rook in front of an outside passed pawn, transitioning into a rook on the eighth and pawn on the seventh scenario tends to win if each player has four pawns on the other side of the board.

Fair enough, but that's mainly a throwback. When both sides have two pawns or one pawn, it is basically always a draw.

Two Pawns Each Draw

A position like this one is always an easy draw for the defending side. The absence of a third pair of pawns renders White's winning chances to approximately zero.

1.♙f3 ♙f5 2.♙e3 g5 3.♖a8

After 3.f3 ♜a3† Black gives a perpetual.

3...♜a3† 4.♙d4 ♜a2

Normally, burning two tempi like this would seem silly. But with just two pawns each left on the kingside, Black can do whatever he wants.

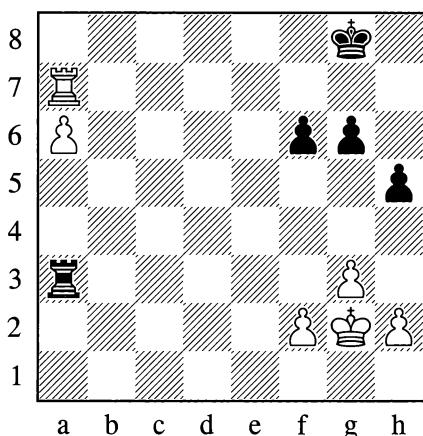
5.♙c5 ♜xf2 6.♖d8 ♙g4

Draw.

Perhaps I am lazy for not checking more iterations of different pawn placements with two pawns for each side. But I did play around with Chessbase a bit, setting up various positions. Every single one was a draw and was held easily. For our purposes, assume that two pawns on the kingside leads to an easy draw every time.

The most common scenario, and by far the most interesting one, is to see three pawns each on the kingside. The default case should be a draw, but that does not mean that strong players cannot misplay the defense! Before we get to more normal positions, there is one important exception to know.

Exception – King Cut Off



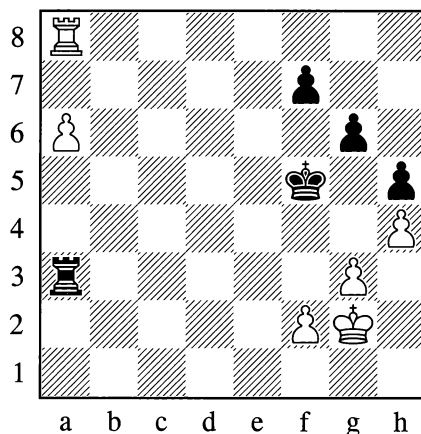
If the defending king is cut off on the back rank, it is game over. The king will never be able to make counterplay, and the rook will never be able to take kingside pawns without allowing Bb7 , when the pawn promotes without the help of the king.

1.♔f1 ♖a2 2.♔e1 ♔f8 3.♔d1

...♖xf2 is well met with Bb7 . Black has no counterplay and may as well resign before White's king slowly but methodically moves up the board.

In order to understand how to defend, it is important to know a few important setups.

Drawing Setup 1



This is Black's best setup. If White decides to promote his a-pawn at all costs, he will eventually force black to sacrifice his rook. But that would involve bringing his king from g2 to b5 or b6, which this is extremely slow. Trying might even lose!

1.♔f1

Or 1.♖a7 ♔e5!. Other moves draw, but I like this one the best. Black leaves his king on an active post. He does not need to worry about White taking on f7. 2.♖xf7 (2.♔f1 ♖a2 Black continues cutting off White's king.) 2...♖xa6 Black reaches a drawn three on two endgame. His king is cut off on the f-file, but White is unable to bring his own king to g5.

This is Black's strongest setup because his pawn chain is intact, his king is well centralized, and his pawn is back on f7. That last part is an extremely important detail, as it means White will not win with a6-a7. 1.a7 ♔f6! Black makes use of the availability of the f6-square. His king goes back to g7 next, and he makes a draw.

1...♖a2!

In general, Black should always be trying to use his rook to cut off White's king. White can make no further progress.

2.♔g2

Now, Black should of course come back to a3. But I would like to point out that this setup is robust enough that even allowing White's king to the center is a non-issue.

If 2.♔e1 then 2...♔g4 comes, and White might want to think about forcing a draw before it is too late.

2...♖a1

White might as well offer a draw right after 2...♖a3.

2...f6? But don't do this! 3.a7! White wins. We have seen this in the previous chapter on page 257. Black is missing the f6-square and cannot run back to g7 with his king.

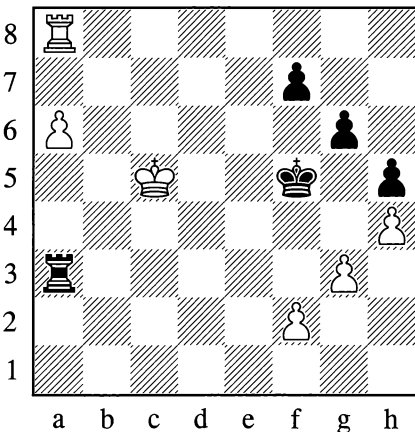
3.♔f3 ♖a2 4.♔e3 ♖a1?!

Of course, Black should cut off the king with 4...♖a4!. 5.♖a7 ♔e5

5.♔d4 ♖a3?!

Black should look for counterplay directly with 5...♔g4!, and I could even see White losing if he is not careful.

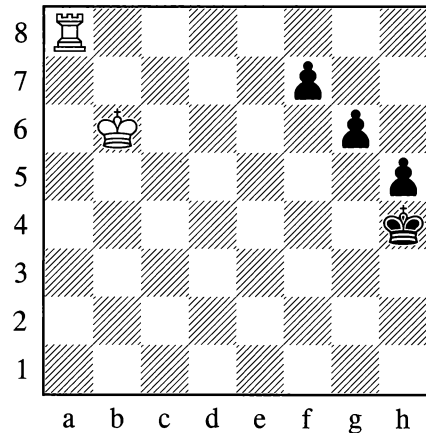
6.♔c5



Black has been incredibly cooperative on the preceding moves. He has not cut off White's king with his rook, nor has he placed the rook on the second rank to start taking White's kingside once the king leaves. Even now, after all of that, he still can save the game by making use of his active king.

If White wants to keep the enemy king off g4, he has to play the sad 6.f3. Of course we take it. 6...♖xf3! Black will bring his king to g4 and his rook back to a3. He will save the game.

6...♔g4! 7.♔b6 ♔f3 8.♖f8 ♔xf2 9.a7 ♔xg3 10.a8=♖ ♖xa8 11.♖xa8 ♔xh4



White's king is too far away, and Black holds with ...♔g3 and ...h5-h4. We will see more positions like this in Chapter 18.

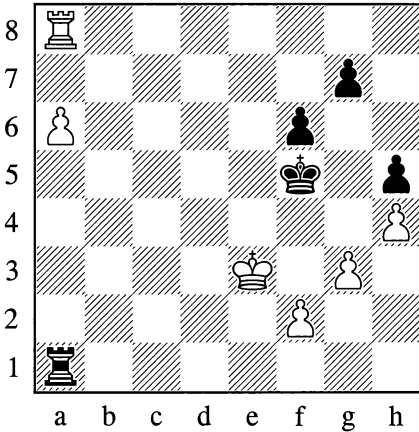
This brings us to our first guideline.

Black's best setup is pawns on f7, g6, and h5. Then his best plan is to bring the king to f5 and immediately go to g4 if ever allowed. Never play ...f7-f6!

This makes good sense. White can never hope to stop our king from coming to g4 with f2-f3, since the pawn will hang to the rook at some point. Even if White is fortunate enough to get

the king to the center, he will not win the race. Black can also hold with another common structure.

Drawing Setup 2



For the sake of making things interesting, I have already placed White's king in the center of the board. He is still unable to make any progress, and this setup is similar to the previous one.

1.♔d4

1.a7 would only win if Black's pawn was on g6. Now Black can get his king back to the corner. 1...♕g6 Black makes an easy draw.

1...♕g4!

As usual, we bring the king to g4 at the first opportunity.

2.♔c5 ♕f3

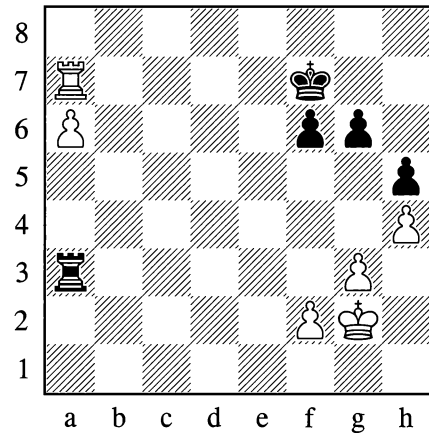
Black is holding easily. With White, I'd already start thinking about being careful not to lose.

Knowing these two setups should be plenty enough to hold the game under normal circumstances. This brings us to the next rule.

Black also holds with the king on f5 and the pawns on f6, g7, and h5. Never play ...g7-g6!

If your pawns are already on f6 and g6, this is unfortunate, but still generally a draw.

Drawing Setup 3



We already know that going to the back rank will lose. So, we have no choice.

1...♕e6! 2.♔f1

Now it is very important that the black king remains on e6. If it ever goes to f5, Black will lose to ♖a8. Always meet ♖a7-a8 with ...♕e6-f7.

2...♖a2!

2...♕f5? 3.♖a8! Oops. White wins with a6-a7 next.

3.♔e1

What else?

3.♖a8 threatens a6-a7. 3...♕f7! Black responds in kind.

3...g5!

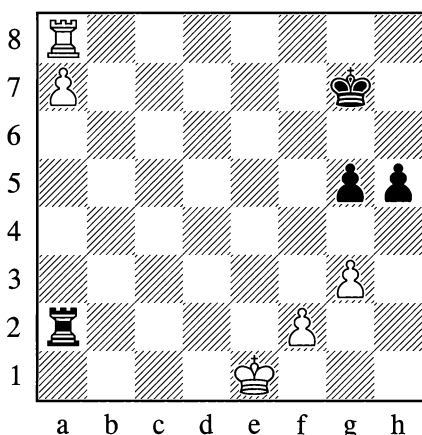
Black will survive. It is important that he waits for White to bring the king to e1 before pushing ...g6-g5.

4.hxg5 fxg5 5.♖a8

If 5.♔f1 then 5...g4!. Black shuts down any hope of making a passed f-pawn. He holds easily.

5...♔f7 6.a7 ♔g7

White will win if he is allowed a passed f-pawn. Black is ready for ...g5-g4 next, but it looks like f2-f4 kills him.

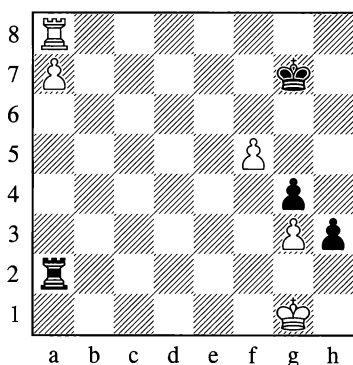
**7.f4 h4!**

This is why Black needed to wait for White's king to go to e1. White is one tempo too far away to stop the pawn.

8.f5

8.gxh4 gxf4! Is equal. (After 8...gxh4? 9.♔f1! White's king is in time. 9...h3 10.♔g1 h2† 11.♔h1 wins. The f-pawn is coming.)

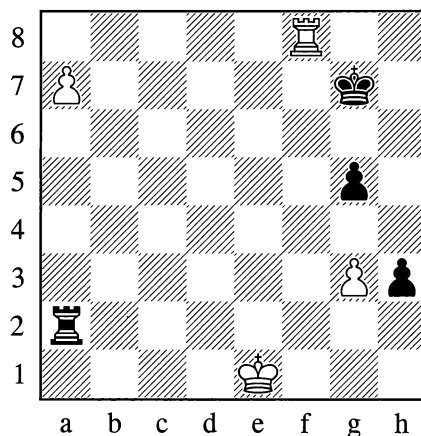
8.♔f1 h3! 9.♔g1 g4! 10.f5



It looks like Black will lose to f5-f6† next, but luckily, White's king has no safe place to hide in the corner. 10...♖a1† 11.♔h2 (11.♔f2? h2! Black even wins!) 11...♖a2† with a draw.

8...h3! 9.f6† ♔xf6! 10.♖f8† ♔g7!

The h-pawn makes a draw.



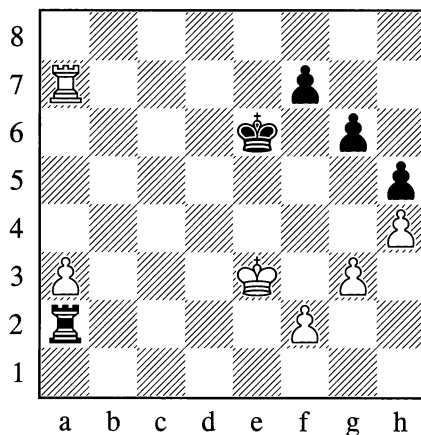
11.a8=♖ ♖xa8 12.♖xa8 h2 13.♖a7† ♔g6 14.♖a6† ♔g7 15.♖a7†

Draw.

From White's point of view, you should know that you will not win against good defense, but there are some tricks you can try if Black decides to wait passively instead.

Etienne Bacrot – Ray Robson

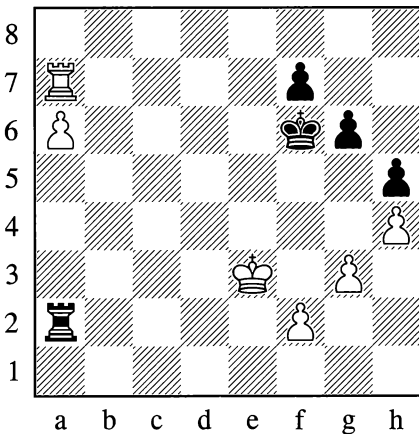
Khanty-Mansiysk 2011



56...♔f6!?

This is far from a losing move, and Black is still well within bounds of saving the game. But it is the first indication that Ray might not have known the best way to set up his pieces.

I like waiting with the king in the center: 56...♔e5! Black never needs to fear White taking on f7, and the king in the center means that a3-a4 can always be met with a check on a3, forcing White's king backwards. 57.a4 ♖a3† 58.♔e2 ♖a2† 59.♔f1 ♖a1† 60.♔g2 ♖a3 61.a5 ♔e6 White's king is cut off, and Black is holding easily.

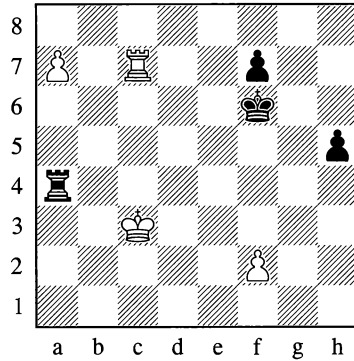
57.a4 ♔e6 58.a5 ♔f6 59.a6

Black now needs to be careful. White has achieved the optimal setup, placing the rook on the seventh rank. As such, he is ready to play ♔d4, and once Black takes on f2, White can transfer his rook to a square like c7 and be ready for a6-a7 next.

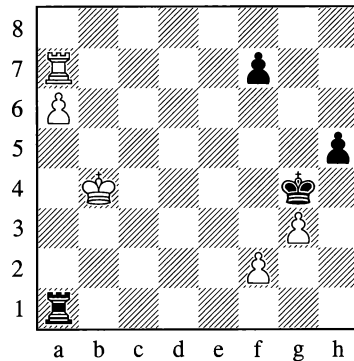
59...♔e6?

Best is 59...♖a4!. Other moves hold too, but this one is the most convincing to me. Black makes sure to cut off White's king. 60.♔d3 White's king is coming, and Black will not be able to stop the a-pawn. He must make kingside counterplay at all costs. 60...g5! Black

saves the game. He will either make a passed h-pawn or clear a route for his king to reach f3. 61.hxg5† (61.♔c3 gxh4! 62.gxh4 ♖xh4! 63.♖c7 ♖a4 64.a7



Much like we could have seen in the game had Bacrot found ♔e3-d4, we have a situation where Black has won one kingside pawn, but the white rook has managed to transfer to c7 and defend his passed pawn laterally on the seventh rank. But the situation is different now. Black has a passed pawn. 64...h4! White is too slow to push his a-pawn through before the h-pawn becomes a queen. He should give up and make a draw.) 61...♔xg5 62.♔c3 (62.♖xf7 ♖xa6 This reaches a drawn two versus one structure, covered in Chapter 9.) 62...♔g4! If White allows it, Black should put his king on g4. 63.♔b3 ♖a1 64.♔b4



64...f5! Black makes a final preparatory move, making sure not to allow White to take on

f7 with check. Next is ...♔f3, and Black has enough counterplay to save the game.

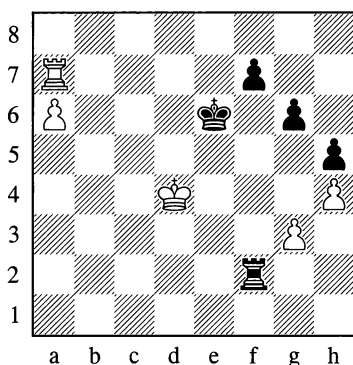
60.♖a8?

Not only does White miss his chance, but he also puts his rook on a worse square.

60.♔d4!

This was White's best moment to bring the king, and he wins. There are some important details to know.

60...♞xf2

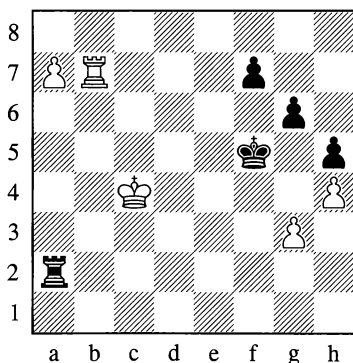


61.♞c7!

The right square for the rook. We will see why later.

61.♞b7? would squander half a point.

61...♞a2 62.a7 ♔f5 63.♔c4

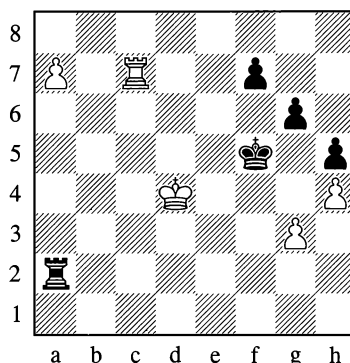


This is similar to the right plan, but White's rook is misplaced on b7. The point is that after 63...♞a1! 64.♔b5 ♔g4! White is missing a check on c4, and he cannot transfer his rook to a4.

61...♞a2 62.a7

At this point, White will promote his pawn by bringing his king to the queenside. Black cannot prevent it, and his only hope to save the game lies in taking White's kingside. With that in mind, it should be clear that the king on e6 is misplaced and would much rather be on a square like g4. This is why waiting passively fails!

62...♔f5



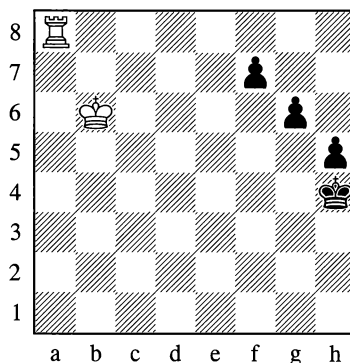
White still needs to find an extremely accurate move to win.

63.♔c4!!

Excellent prophylaxis against ...♔g4. White does not want to bring his king to b8 – rather, he wants to give a check and then transfer his rook to the a-file.

63.♔c5? Moving straight towards the pawns is too blunt and will not yield a full point.

63...♔g4! 64.♔b6 ♔xg3 65.♞c8 ♔xh4 66.a8=♞ ♞xa8 67.♞xa8



White's king is too far away to make any serious attempt to stop the pawns. Black holds with two tempi to spare.

63...♔g4

This is the most natural move, but it still loses.

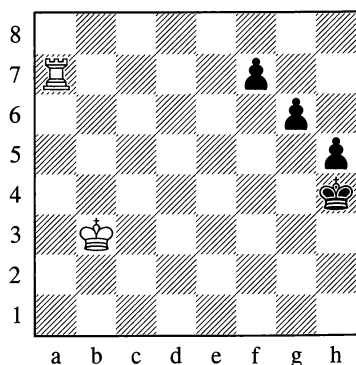
63...f6 Waiting will not do either. 64.♔b5! White is ready for a check on c5 next. Then, no matter which way Black's king goes, White will give another check and transfer his rook to the a-file.

63...♞a1 also will not do. 64.♔b5! Now this works nicely. Black still cannot bring his king to g4 on pain of ♞c4†-a4. White is ready to bring the king in next.

64.♔b3!

We see why it was so important for White to put the king on c4. He attacks the a2-rook, gaining a tempo.

64...♞a6 65.♞c4†! ♔xg3 66.♞a4 ♞xa7 67.♞xa7 ♔xh4

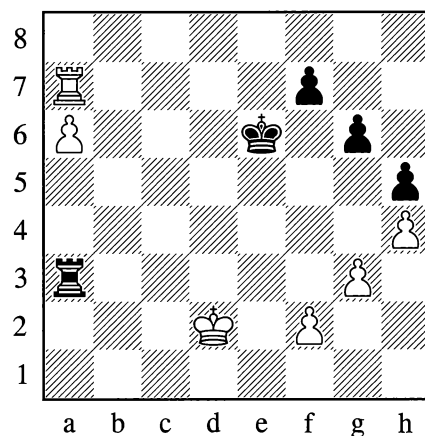


We saw a similar position previously, only White's king was on b6, and it was Black to play! White's king is closer to the h1-square and harder to shoulder out, and he is a tempo up because it is his move. He is just in time to win. We will see this position covered in detail in Chapter 18.

60...♔f6

As always, wait with the king in the center: 60...♔e5!

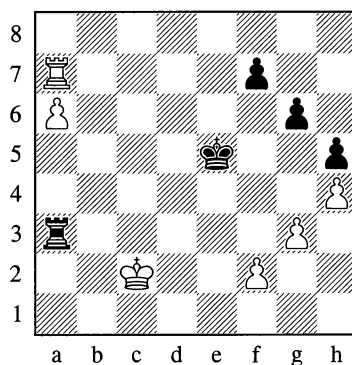
61.♔f3 ♞a4 62.♔e2 ♞a3 63.♞a7 ♔e6 64.♔d2



With White's king coming to b2 soon, Ray forced matters. This gave White another chance.

64...♞a2†?

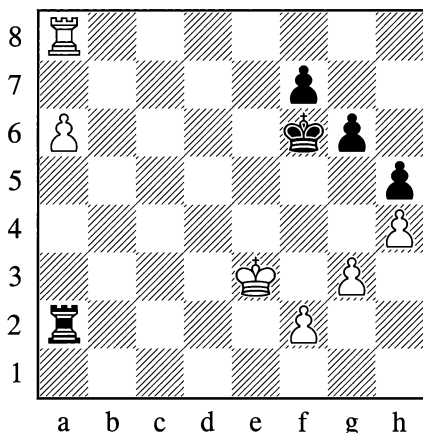
64...♔e5! As always, wait with the king in the center! 65.♔c2



White should never have been allowed to make it this far. Still, Black can save the game with an only move. 65...f6! This looks like a huge blunder as it allows White to reach the winning structure if he pushes his pawn to a7, but he is a tempo too slow. 66.♞a8 (After 66.♔b2 ♞a5 67.♔b3 g5 Black has enough kingside counterplay to save the day.) If White pushes f2-f3 next, it is all over. 66...♔e4! 67.a7 ♔f3! Black finds a safe square just in time.

65.♔e3

After 65.♔c3! ♚xf2 66.♚c7 ♚a2 67.a7 White has an even better version of the 60.♔d4 line. 67...♔f5 Now, ♔c4 would transpose to the winning line. But since the king is on c3 rather than d4, ♔b4 or ♔b3 wins as well.

65...♔f6 66.♚a8**66...♚a3+!**

I really dislike this check, forcing White's king exactly where it wants to go.

66...♔f5! As always... we know where we should wait.

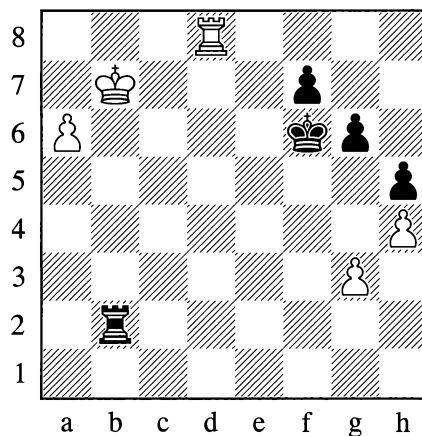
67.♔d4 ♚a2

67...♔f5! Even now, this was enough to save the game.

68.♔c5!

Bacrot needed to be asked thrice, but when the third chance came, he went for it.

68...♚xf2 69.♚d8 ♚a2 70.♔b6 ♚b2+ 71.♔c6 ♚c2+ 72.♔b7 ♚b2+

**73.♔a8?**

Surprisingly, this move allows Black to save the game.

Correct was 73.♔a7! ♔f5 74.♚b8! ♚a2 75.♚b4! Thanks to White having the foresight to put his king on a7, this move is possible without dropping the a6-pawn. White has cut off the enemy king and is ready to get his own king out of the way.

73...♔f5 74.a7

Now after 74.♚b8 ♚a2! the a6-pawn is hanging, and White is not able to get his rook to the fourth rank.

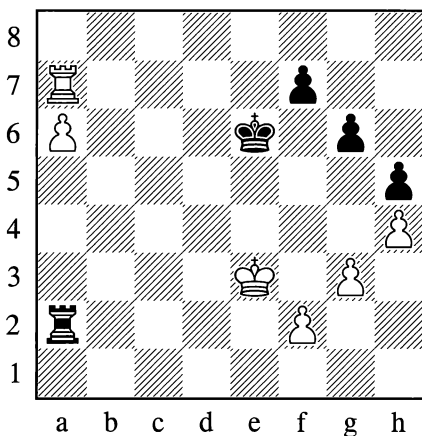
74...♔g4

Black is making a draw now, though he eventually lost in the time scramble. The rest of the game will be covered in Chapter 18.

Ray's misfortunes lead us to some rules on how White should be playing for a win.

The best plan for the attacker is pawn on the sixth rank, rook on the seventh, and king to the center. Even here, the positions are usually drawn, but the defending side might have to find some tough only moves. The next position should be memorized.

Winning Position 1 – King to the Center



1.♔d4!

White wins, as seen on page 278.

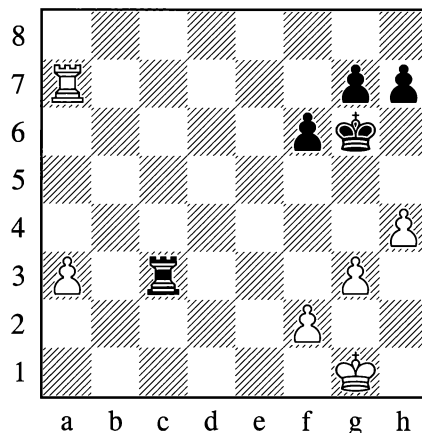
1...♖xf2 2.♖c7!

Of course, bringing our king to the center is not happening if the defending side beats us to the punch. I reiterate: When defending against a rook in front of an extra outside passed pawn, wait with your king in the center!

While this is a common rook endgame, the only time I ever had a pure version of it came early in my career. I had no schooling whatsoever when I was young, and I went down without any kind of a fight.

Alexander Stripunsky – Sam Shankland

Philadelphia 2010



31...h5!

I knew to put my pawn on h5. I will give myself one consolation exclamation mark for making a single strong move! The rest of my moves were terrible.

32.♔f1

Now, as we saw before, Black should wait with his king in the center.

32...♖b3

Of course, 32...♔f5! was the right move. Black should make a draw without much trouble.

It was also possible to try to cut off White's king along the second rank with 32...♖c2, but this would allow him to transfer his rook to e3, leading to positions seen in the next chapter. It is a very good version for Black, and still an easy draw. But I think White generally has better winning chances with his rook placed on the side of the pawn, rather than stuck in front.

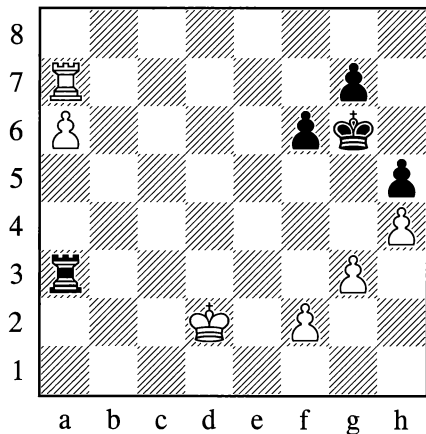
33.♔e2 ♔h6?

I want to smack my younger self for such a move. Put the king in the center!

34.a4 ♖a3 35.a5 ♔h7?

Come on...

36.a6 ♔g6 37.♔d2

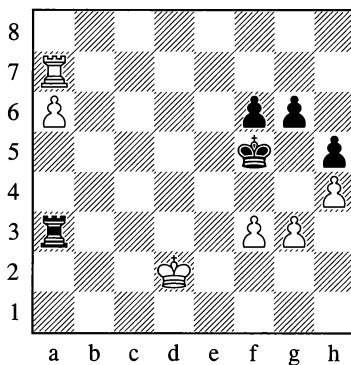


Up to here, Stripunsky has demonstrated an excellent understanding of how to create the most winning chances possible. Although the position is still a technical draw, I suspect he was feeling pretty confident that I would keep making bad moves. It turns out, I only needed to make one more.

37...♖f3?

I played this move very quickly, thinking it made perfect sense. Keep White's king cut off and go harass his kingside pawns. But it allows White's rook to leave a7, and the position is immediately lost.

Correct was 37...♔f5!. Black has other holding moves, but this one feels most natural to me by far. Bring in the king and look for counterplay. 38.f3 This is White's best attempt, but Black can handle it. (After 38.♔c2 g5 39.hxg5 fxg5 Black makes a passed h-pawn, and easily holds. [Even 39...♔xg5!? was fine. The king is coming to f3.]) 38...g6!



I like this move, which shows a good understanding. We have reached the lost pawn structure, but White is too slow to get his rook to a8 and pawn to a7. 39.♖a8 (If 39.♔e2 then 39...♖a2†! White's king has nowhere safe to hide. 40.♔f1 (40.♔d1 ♖a3) 40...♖a3 41.♔g2 ♖a2† 42.♔h3 ♖a3 Black will be able to take on f3 and come back to a3 in time.) 39...♖xf3! 40.a7 ♖a3 Without the f3-pawn, the position is a dead draw. Black's king comes to g4 next.

38.♖c7!

Crisp and professional. Any move along the seventh rank was winning, but Stripunsky's choice of c7 clearly indicates that he was well acquainted with the winning plan seen in Bacrot – Robson. Rather amusingly, the fire alarm went off at this moment, and we all had to leave the hotel and go into the parking lot. It was 30 minutes before we were let back inside, and I had all the time in the world to realize how hopeless my position was. After some time, I found Alex and told him that I resign before we returned to the board. For players of my generation, this is as close to choosing not to continue an adjournment as I can imagine! For unknown reasons, the game continues in Megabase. This is not correct.

Let's see how the game would have concluded if I had extended my suffering.

38...♖xf2†

After 38...♖a3 39.a7 my king on g6 is ridiculous. He cannot go to f5 next without losing the g7-pawn, and White brings his own king straight to b6. This is an extremely simple version of positions we will see in the next chapter.

39.♔c3 ♖a2 40.a7

Black's king is horribly misplaced on g6. Imagine if it were on f5. All of a sudden, moves like ...g7-g5 followed by ...♔g4 would be possible, and I would be making a draw.

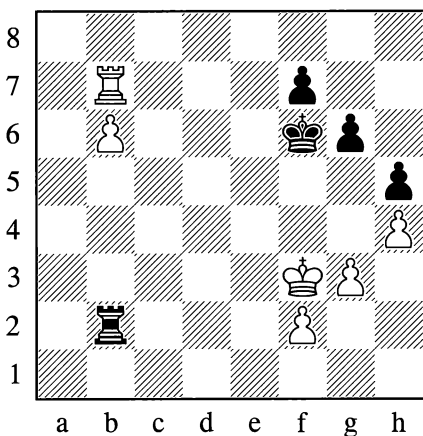
40...♔h6

This sad move is the best I can see. Black wants ...g7-g5 and then ...♔f5, but this is incredibly slow.

41.♔b4 g5 42.♔b5 gxh4 43.gxh4 ♔g6 44.♔b6

White is ready for ♖c5 next and wins easily.

While all the previous games have featured an a-pawn, the situation is similar with a b-pawn. Before writing this book, I was under the impression that a b-pawn should give White more winning chances since his king will not have to run as far to connect with it. In fact, the opposite is true, and Black has a very simple drawing setup.

b-pawn Draw**1...♔e5!**

As always, we wait with the king in the center.

2.♔e3 ♔d5!?

There is nothing wrong with a move like ...♖b3†, with a similar hold to what we saw with the a-pawns. But I quite like this move. Black simply boxes White's king out from ever hoping to connect with the b6-pawn. His king is also close enough to the center that White cannot hope to take on f7 and win the three on two scenario.

3.♖xf7

This seems like it should be White's best try. He transitions into a three against two structure where Black's king will even be cut off as far away as the d-file.

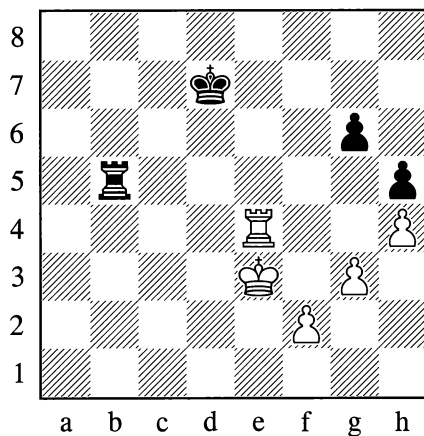
After 3.f3 ♖b4 White can make no further progress.

3...♖xb6 4.♖e7

Now Black needs to remember one important detail.

4...♔d6! 5.♖e8 ♔d7!

White's rook must be kicked off the back rank.

6.♖e4 ♖b5!

White's king can never come to f4 on pain of a check on f5.

7.♔d4

This feels like White's best try, hoping to play ♖e5 next to break the cut along the fifth rank. But it is also insufficient.

7...♚a5 8.♖e5 ♚a4†

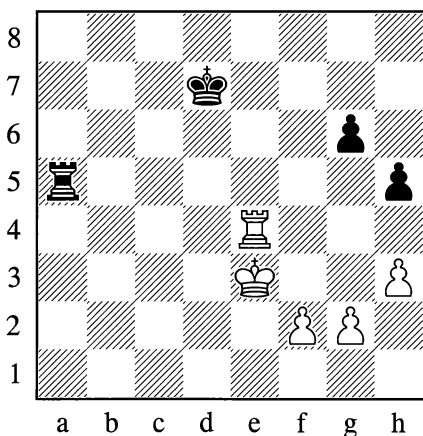
Black holds in the style of lateral checks. White's king will not make it to the kingside.

9.♔e3 ♚b4 10.♖e4 ♚b5!

Always make sure to be able to meet ♔f4 with ...♖f5†.

My first instinct was that the position must only be a draw because White's f2-g3-h4 pawn chain is poorly placed to allow his king access to the kingside. White cannot hope to run up with ♔g2-h3-h4, then play f2-f4, h2-h3, g3-g4, etc. I was surprised to find out that in fact, the position is drawn in every setup where White's pawns are not on and g2 and h2!

Three Against Two – Drawing Setup



Surprisingly, White's pawns being back does not help him.

1.♔f3

After 1.f4 ♚a3† 2.♔f2 h4 White has no plan to ever make progress. 3.♖e3 ♖xe3 draws.

1...♖b5 2.♔g3

White's king cannot be allowed to come to h4.

2...♖g5†!

White is missing h3 for his king.

3.♔h2

Or 3.♔f3 ♚a5 when no progress can be made.

3...♚a5 4.f4

I could at least imagine this being a reasonable idea. White wants to bring his king to g3 and h4 next, which would indeed win.

4...h4!

But he is stopped in his tracks. I cannot think of anything he can even try.

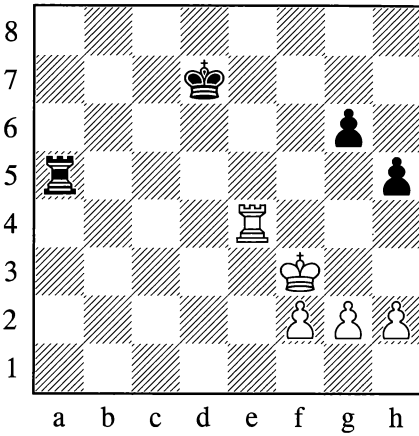
Black is even holding with 4...♖b5?! Of course, Black should have advanced ...h5-h4. 5.♔g3 ♖b2! White's king is kept off of h4, and Black makes a draw.

5.♔g1 ♚a2

Draw.

The only exception I could find was that White wins if he has his pawns on g2 and h2.

Three Against Two – Non-Drawing Setup



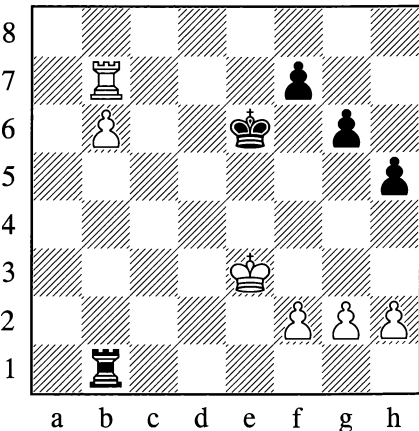
With access to both g3 and h3 for the king, White is finally winning.

1.♔g3 ♖g5† 2.♔h3! ♔d6 3.g3 ♔d7 4.♔h4 ♜a5 5.f4

White is ready for ♜e5 next, and it's all over.

It is true that the possibility of White having pawns on h2 and g2 means that setting up with the king on d5 does not absolutely guarantee a draw in every possible circumstance. But think about what the position would have looked like before in order for Black to lose like this.

Pawns on Second Rank – Draw

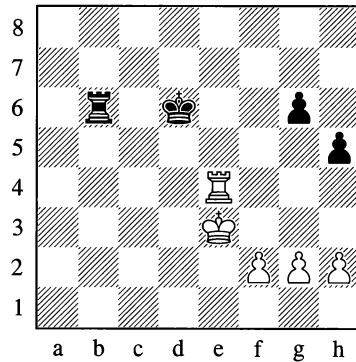


My computer claims that even in this position, ...♔d5 would not lose the game. I think it would be asking for trouble.

1...♜b2

Waiting with the rook on b2 seems quite sufficient to me. White's best plan is, at some moment, to abandon his kingside and connect his king with the b6-pawn, so Black will start looking for counterplay. Since White's pawns are not in a chain, they will simply be rounded up one after another.

Or: 1...♔d5 2.♜xf7 ♜xb6 3.♜e7 ♔d6 4.♜e4



4...g5! Apparently this move is important, and it holds. I guess that makes sense, but I don't like having two weak pawns instead of one, and I prefer holding another way.

2.♔d4

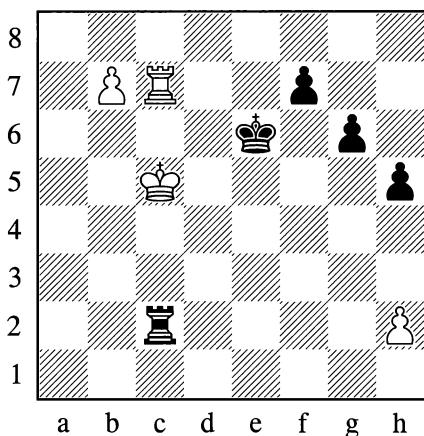
2.h4 would be how White would start building a pawn chain. But as soon as he touches either his h-pawn or his g-pawn, ...♔d5 becomes an easy solution. 2...♔d5 The pawn on h4 means that the three on two structure is an easy draw.

2...♜xf2! 3.♜c7

Since the pawns are not on g3 and h4, Black is able to take a second pawn with his rook.

3...♜xg2! 4.b7 ♜b2 5.♔c5 ♜c2†

This is the easiest.



6.♙b6 ♖b2† 7.♙a7 ♖a2†

I almost dare White to hide on b8 and see what happens.

8.♙b8

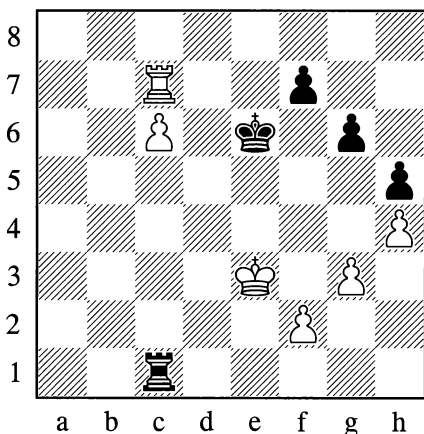
8.♙b6 is time to agree a draw.

8...♖xh2!

Although the machine reads 0.00, I think it is a two-result game, and the two results that White does not want. I could easily imagine Black winning.

A c-pawn is even easier. Waiting with the king on e5 means there is no hope of White ever cutting it off.

c-pawn draw



1...♙e5

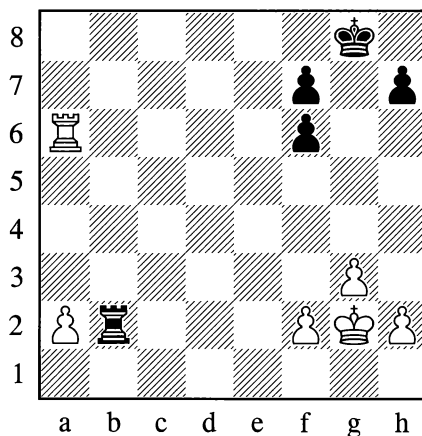
Everything draws, but I like this the best. Black shuffles his rook on the c-file for the rest of the game. White's king does not join his pawns, and he has nothing to ever try. If taking on f7 and cutting Black's king off along the e-file is insufficient to win, cutting it off along the f-file is surely insufficient!

In general, it seems that if Black knows to bring his king to the center and keep his rook behind the pawn, he holds under any circumstance.

The only time that endgames with the rook in front of the pawn can be winning, without some serious help from the defending player, is when the defending side has a compromised pawn structure on the other side of the board.

Jeffery Xiong – Dariusz Swiercz

Saint Louis 2021



37.a4

In what would otherwise look like a normal rook endgame with White having an outside passed pawn, Black's crippled kingside immediately changes the evaluation. The reason is that inevitably there will come a time when White needs to bring his king to the a-pawn, abandoning his kingside pawns.

When this happens, Black will be much slower to make counterplay. Once he takes a pawn and has a kingside pawn majority, it will be a deficient majority unable to make a passer. Still, care must be taken, as the endgame is tense and two very strong players both made their fair share of mistakes.

37...♖a2 38.♔f3?

Surprisingly, after this natural move, Black should be able to save the game.

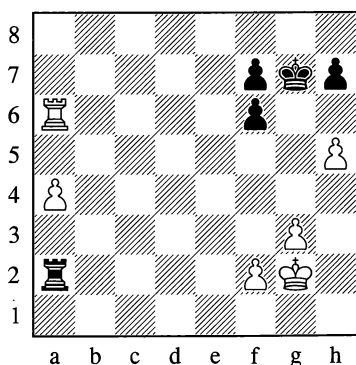
38.h4!

White should have immediately gained space on the kingside. Once he brings his pawn to h5, Black's king will not be able to easily join the action. Black's big problem here is that he cannot respond with ...h7-h5.

38...♗g7

After 38...h5 39.♖xf6! ♖xa4 40.♖f5! White wins a second pawn and should easily convert this three against one endgame.

39.h5!



Black's king is severely restricted, and furthermore, he can never push ...f6-f5 due to h5-h6† ending the game. White's plan is to bring the king to the queenside.

39...♖a3

I can't see anything better for Black than waiting.

39...f5 40.h6†! Before Black can push ...h7-h6. 40...♔f8 41.♔f3 White is ready for ♔e3, f2-f3, and then ♔f4 will come to take the f5-pawn. Black can resign.

40.a5 ♖a2 41.g4 ♖a3

Now anything wins, but I like a simple solution.

42.f3

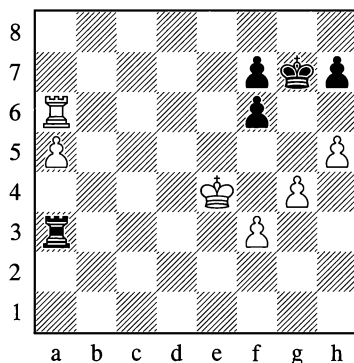
Black's king is paralyzed. It can never move on pain of h5-h6.

42...♖a2†

42...♔g8 43.h6 wins.

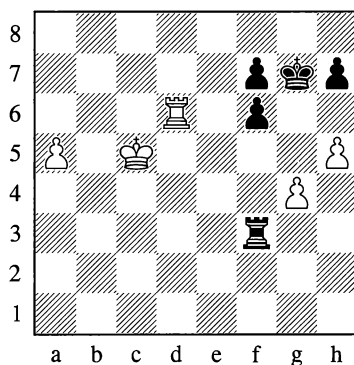
42...h6 does not help. 43.♔f2 Black still cannot move his king, as going to either h7 or g8 would allow ♖xf6, and White would transition into a three-on-one scenario on the kingside.

43.♔g3 ♖a3 44.♔f2 ♖a2† 45.♔e3 ♖a3† 46.♔e4



Black is in zugzwang here, but even with White to move, White would win routinely.

46...♖a4† 47.♔d5 ♖a3 48.♔c5 ♖xf3 49.♖d6



Black's doubled kingside pawns were extremely deficient in this endgame. It meant they could not provide any cover for his king to reach the center, and they were weak and required protection. Now, we see that even though Black has taken a pawn, he is unable to make a passed pawn too easily. White cruises through with the a-pawn.

38...♔g7 39.a5

It is too late for 39.h4. After 39...h5! Black is able to prevent White's pawn from reaching h5, and White cannot take on f6 to transition into a three against one on the kingside.

39...h5! 40.♖a8

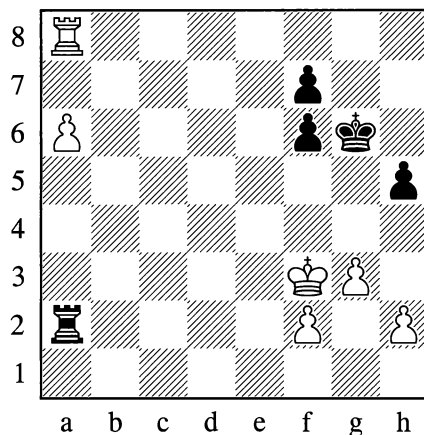
Now, Black should be very careful, and he is certainly not out of danger yet. White has a clear winning plan. He will connect his king with the a-pawn, and hope that Black's deficient kingside structure will mean that he cannot make a passed pawn in time to save the game.

40...♔g6?

This was an understandable mistake to make on move 40. It is hard to imagine a more natural move! But Black loses.

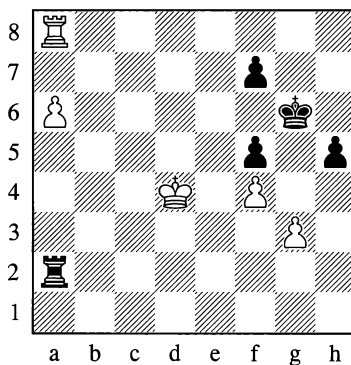
40...f5! was an absolute must. Black gains some room for his king on f6 and is often ready to push ...f5-f4 to trade off his doubled pawn. 41.♔e3 This would have been the winning move after 40...♔g6, as seen in the game. Now we see a key difference. 41...f4†! My computer claims that Black has other drawing moves as well, but this one seems by far the cleanest and most illustrative to me. Black pushes ...f5-f4 before White can put his own pawn there, and is able to trade off his weakness. After 42.gxf4 ♔f6 Black is ready for ...♔f5 next, and he can start taking kingside pawns. He should hold without much trouble.

41.a6?



In turn, White also errs with an extremely natural looking move.

Jeffery could have bagged the full point with the precise move 41.♔e3!. The point is that after 41...f5 White is in time for: 42.f4! Preventing Black from exchanging off his doubled pawn. Black's king is forever stuck, and even once he takes on h2, there is no hope to save the game. 42...♖xh2 43.a6 ♖a2 44.♔d4



Once again, we see that Black's doubled pawns are his undoing. He will not be able to make a passed pawn. Imagine if his f5-pawn were on g4... we would have a very different position! White brings his king to the queenside and wins routinely.

41...f5!

With more time on the clock, Dariusz found his move.

42.♖a7

This strikes me as a little complacent, and White could have posed more problems with ♔e3, but the result would not have changed against good defense.

After 42.♔e3 if White is able to push f2-f4 next to keep Black's king out of play, he will win. But Black beats him to it. 42...♔g4! f2-f4 can be comfortably met with ...♔g4, and otherwise, Black is ready for ...f5-f4† next. (42...f4†? This tempting move was correct in a previous variation seen on page 288, but here it is wrong. After 43.♔xf4 ♖xf2† 44.♔e5! the threat of a6-a7 means Black is not in time to take on h2. Following 44...♖a2 45.h4! Black's king has been successfully shut out, and White will bring his own king to the a-pawn to bring the game to its conclusion.)

42...♖a3† 43.♔e2 f4!

Black trades off his doubled pawn, simplifying down to a two versus two structure on the kingside. He is out of danger.

44.♖a8 fxg3 45.hxg3 ♔g7 46.♔d2 ♖f3 47.♖c8 ♖xf2† 48.♔c3 ♖a2 49.♖c6 f5 50.♔b4 f4 51.gxf4 h4 52.♔b5 h3 53.♖c3 h2

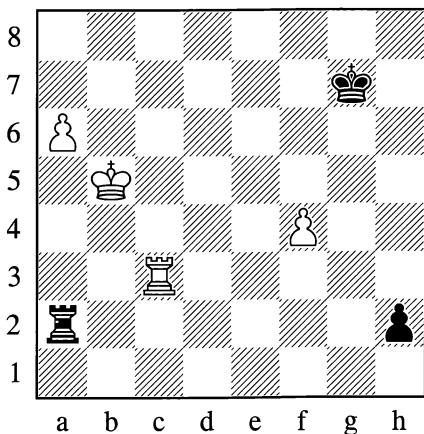
The Lucena position fails to win against a passed pawn defended laterally along the third rank, as White will be unable to build a bridge. Here, the pawn has even reached the second rank. Even if White's king were on a8 and his pawn were on a7 already, there would be nothing left to even try.

54.♖h3 ♖b2† 55.♔c6 ♖a2 56.♖xh2 ♖xh2 57.a7 ♖a2 58.♔b7 ♔f6 59.f5 ♖xa7† 60.♔xa7 ♔xf5 ½-½

Jeffery told me about this game when I mentioned to him that I am writing this book, and I am very grateful he was generous enough to share what must have been a painful memory. Even though I was playing in the same event, I somehow had not noticed that they had such an interesting encounter. It brings us to the next rule:

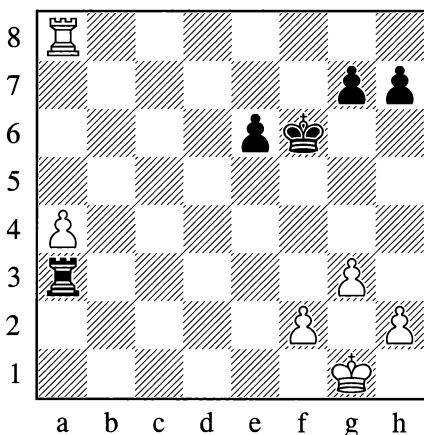
When the defending side's kingside pawn mass is unhealthy in some way, their position becomes very dangerous. If they have fixed doubled pawns that prevent their king from reaching the center, they lose.

Let's see another example of a deficient pawn structure being the defender's undoing.



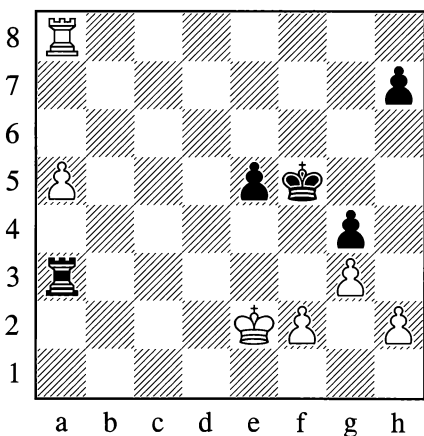
Vladimir Fedoseev – Xiangzhi Bu

Danzhou 2018



Black's kingside pawn structure is somewhat compromised by the isolani on e6. But his king is in a fine position and he can advance his kingside pawns. So it should not be a surprise that the position is defensible. But the split pawns make it much harder. The biggest difference is that if White is ever able to trade his a-pawn for Black's g-pawn, he should reach a winning three against two endgame.

32...g5 33.♔f1 ♖a1† 34.♔e2 ♔f5 35.♔f3 g4† 36.♔e3 e5 37.a5 ♖a3† 38.♔e2



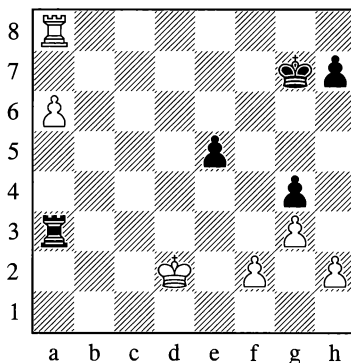
Up to here, Black's play has been fine. But I think this is around the moment that Bu came up with the wrong plan.

38...♔e4?

It seems natural to activate the king. But he should have been wary of White's pawn making it to a7, when thanks to the crippled structure, Black's king cannot come back to g7.

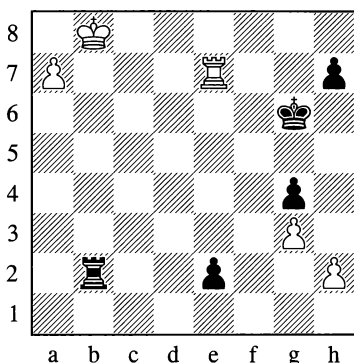
38...♖a2† holds as well, but I don't like letting the king run rampant so soon. The text is the safest and cleanest way to hold, and I like it for illustrative purposes.

38...♔g6 Under the present circumstances, I think Black should have waited with the king on g7 and then been ready to meet ♔d2 with ...♖f3. 39.a6 ♔g7 40.♔d2



40...♖f3! You might ask, "Didn't some total moron once do this exact thing against Stripunsky and immediately pay the price? Black is leaving his king passive and letting White's rook off the a-file!" Fair point, but the difference comes down to the pawn structure. Black is turning his isolani into a strength. 41.♖a7† ♔g6 42.♖c7 This would be consistent with what Stripunsky played against me. 42...♖xf2† 43.♔c3 ♖a2 44.a7 We see that unlike my disaster, thanks to the different pawn structure from the start, Black now has a passed pawn. White is unable to run to b6

with his king, and Black makes an easy draw. 44...e4! 45.♔d4 ♖a4† 46.♙c5 e3 47.♙b6 e2 The e-pawn easily provides enough counterplay to save the game. 48.♞e7 ♞a2 49.♙b7 ♞b2† 50.♙c8 ♞a2 51.♙b8 ♞b2†



The pawn on e2 means that White cannot build a bridge. Draw.

39.a6! ♞a1

My machine claims that 39...♞a2†! just holds. If Bu had seen what was coming, perhaps he could have found it by elimination. 40.♙f1 ♙f3! Black cannot allow a6-a7 to come. 41.♞f8† ♙e4 42.♞f6 White transferred his rook to the side of the pawn, which should increase his winning chances greatly. Black is still holding here with extremely precise play, but it looks very dangerous for a human.

40.a7!

With the king stuck on e4, White is winning. Fedoseev put on a masterclass.

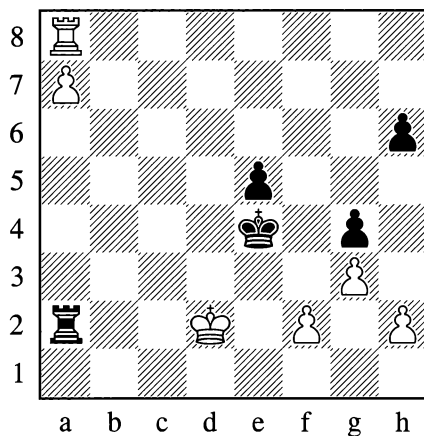
40...h6 41.♙d2!

I was playing in the same event, and when I saw this move, I naturally assumed that Vladimir wanted to advance his king to c3. This is not true. He is aiming to triangulate and put Black in zugzwang, getting his king to g2.

41.♞g8? It might be tempting to trade the

a-pawn for the g-pawn, but g4 cannot be taken! 41...♞a2†! 42.♙f1 ♞xa7 Now ♞xg4† is not to be recommended! White needs to get his king to g2 first.

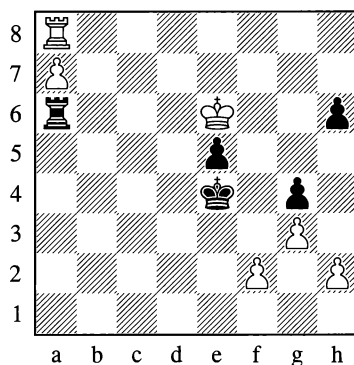
41...♞a2†



42.♙e1!

This is a much better plan than trying to bring the king around to h5.

It does not spoil anything to try to run to the kingside, but White will eventually have to come back: 42.♙c3?! ♞a1 43.♙c4 ♞a2 44.♙c5 ♞a1 45.♙d6 ♞a2 46.♙e6 ♞a6†



White cannot continue along the same path, as then Black will get his king to f3 without fearing a check on f8. White should admit his mistake and come back around to g2.

42...♖a1† 43.♔e2

Zugzwang. White will get his king to g2.

43...♖a2†

43...h5 only delays the inevitable. White triangulates again. 44.♔d2 ♖a2† 45.♔e1 ♖a1† 46.♔e2 The king makes it to g2.

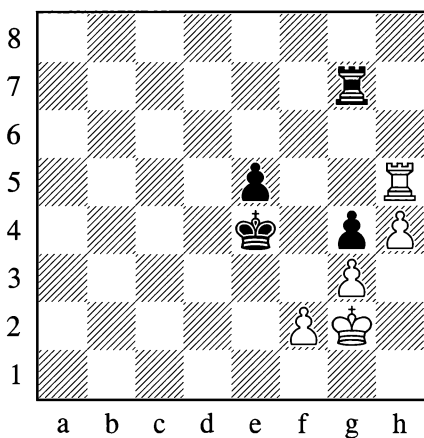
44.♔f1! ♖a1† 45.♔g2 ♖a2 46.h4!?

I would have just taken on g4 with 46.♖g8. As we saw in Chapter 10, this structure wins for White.

46...h5

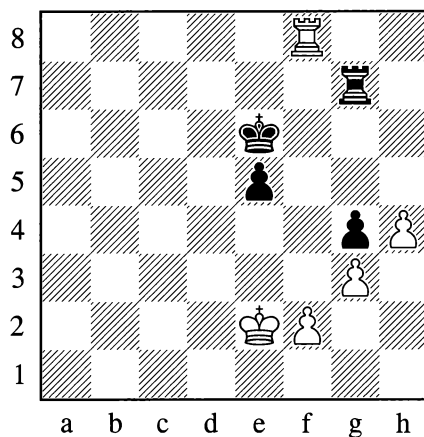
After 46...gxh3† 47.♔xh3 White's king will take the h6-pawn.

47.♖h8 ♖xa7 48.♖xh5 ♖g7



As White I would have preferred to transition into another version of three versus two, but this is fine. Black's rook is forever stuck on the g-file, defending against the threat of ♖g5.

49.♔f1 ♖g8 50.♔e2 ♖g7 51.♖h8 ♔f5 52.♖f8† ♔e6



53.f3!

White will get two connected passers, and that is the end of that.

53...♔e7 54.♖a8 ♔f6 55.♖a4 gxh3† 56.♔xf3 ♖f7 57.♔e4 ♔g6 58.♖a5

Bu had seen enough. I have to give mad props to Fedoseev for a fantastically played rook endgame!

1-0

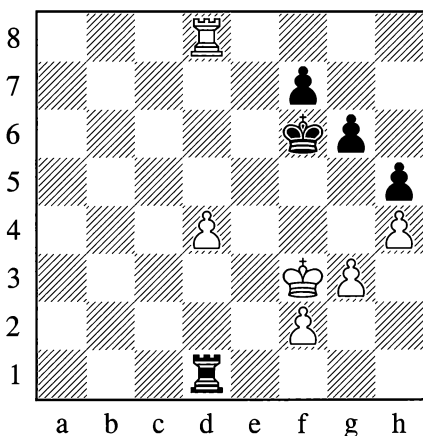
This brings us to our final guideline before we start talking about d-pawns.

When the defending side's pawn structure is compromised, they need to think freshly, and compare how various defensive setups are changed by the deficient structure. It's very possible that the same plans used in a healthy structure will fail.

When we consider the woes of Swiercz and Bu, this point is clearly on display. Both sides needed to defend more passively and not try to centralize the king. Rook endgames are very hard!

The last case comes when the attacking side has a d-pawn. In the next chapter, we will see that a rook to the side of a d-pawn leads to some very interesting positions. A rook in front... not so much.

d-pawn draw



1...♙f5!

Black sticks with the same defensive plan we see in all of the other cases. The d-pawn is the easiest yet, as it cannot advance past the fourth rank without being rounded up and captured. There's not much more to see here. White's only possible plan is to get his rook off d8.

2.♙e2

I guess this should be White's best try. He manages to kick the rook off d1 and hopes to transfer his own rook somewhere more intelligent.

2...♖a1 3.♖e8

This kind of position will be covered in the next chapter.

White has no plan at all with his rook in front of the pawn. The only reason he has any winning chances is that since his d-pawn is close to the rest of his pawn mass, he may be able to defend it with his king or kick away the enemy rook from behind without allowing his kingside to be harassed. Then, he will get his rook off the d-file. That brings us into the territory of the next chapter!

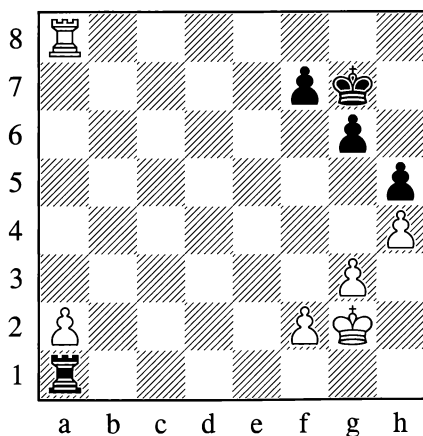
Chapter 15

Rook to the Side of the Passed Pawn

Moving on to Chapter 15, it is now time to cover situations with one extra outside passed pawn for the attacking side, and where they have their rook to the side of the pawn.

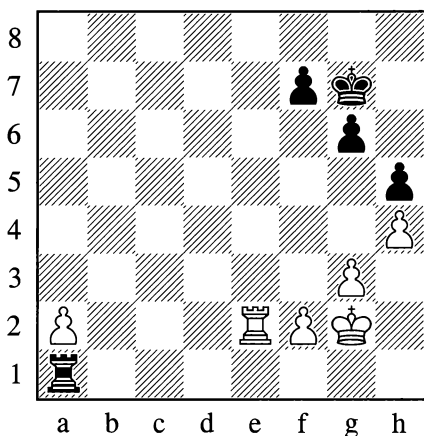
To some degree, I considered omitting this chapter and the following one altogether, as the positions feel more practical in their nature and are completely impossible to exhaust. For instance, take the following position that could easily come from the previous chapter:

Example 1



The pawn being on a2 is of no particular relevance. White will easily advance it to a6, and Black has no hope of stopping it.

The best place for White's pawn is the sixth rank, and he will easily get it there. As such, with the rook in front of the pawn, there are a reasonably finite number of possible situations that you may reach. Let's compare that to what we see in the present chapter:

Example 2

This is a completely different scenario. Because White's rook is to the side of the pawn, the pawn's placement on the a-file is much more permanent. It cannot simply advance up the board.

We note that with the attacking rook on the side of the pawn, the pawn's placement is much more permanent. As such, this endgame can come with the pawn on any of the squares on the a- to c-files and second to seventh ranks. Then, we must consider if Black's rook is in front of the pawn or behind it, doubling the possibilities. Then, there is the king placement, as well as the kingside pawn structure.

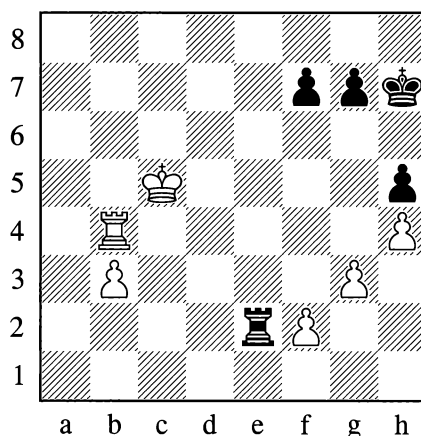
To do a fully exhaustive investigation of all these positions is obviously impossible. A book on those positions alone might reach a million pages. As such, there is a strong argument to say that such positions fall much more into the category of practical rook endgames than theoretical ones. I tried to play around with various positions, placing White's pawn on different squares, trying to find some overarching rule or guideline that I could apply as to when the position is winning and when it isn't. I came up blank. It was obvious enough that the further advanced the pawn is, the better the winning

chances are, but beyond that... I could not manage to come up with any rule as to which rank the pawn must reach for the position to be winning. It all depends too much on where the rooks, kingside pawns and kings are. It felt so much more practical than technical.

Still, I believe this book should offer some coverage of one specific theme and motif that I do consider to be technical. In general, the rook to the side of the pawn tends to offer better winning chances than the rook in front of the pawn. We saw this clearly in the previous chapter, where the most challenging plans for the attacking side involved pushing a pawn to the sixth rank, then sacrificing a kingside pawn to allow a ♖a7-c7 transfer. This is also the case in situations where the pawns are less advanced. The following game is a good example.

Ding Liren – Anish Giri

Danzhou (rapid) 2020



Giri has a tough endgame ahead of him, but it should be holdable with accurate play.

41...♜xf2?

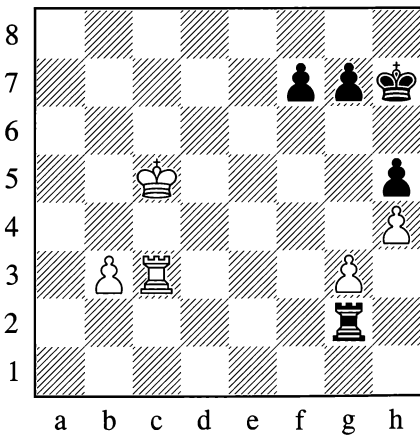
This move underestimates how dangerous it is to allow White's rook to be transferred to the side of his passed pawn.

If Black had tried to keep the game firmly in the previous chapter, he should be able to make a draw: 41...♖b2! 42.♖b7 (Trying to bring the king back to free the rook is not helpful. 42.♔c4 ♖xf2! Black has other drawing moves, but I like this one for its simplicity. White is unable to transfer his rook along the fourth rank like he could in the game.) 42...♔g6 43.b4 ♖c2†! 44.♔b5 ♖xf2! Black continues in the style of the previous chapter, looking for kingside counterplay. He should make a draw.

42.♖f4!

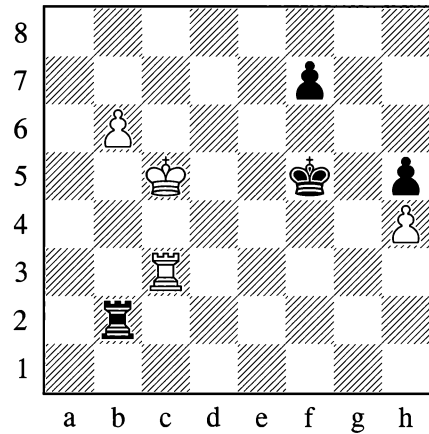
Ding takes the opportunity to get the rook to the side of the pawn.

42...♖c2† 43.♖c4! ♖g2 44.♖c3!



We see a completely different picture from the way the game started. White's rook on c3 is on a perfect square. It defends the base of his kingside pawn chain, provides a safe home for his king on c5, and the b-pawn is ready to roll. Ding won without much further issue.

44...g5 45.b4 ♔g6 46.b5 ♔f5 47.b6 gxh4 48.gxh4 ♖b2



49.♖c4!

A high class move. White cuts off the enemy king and uses his rook to defend the base of his pawn chain. The same principle applies even if the “chain” only has one link!

49...♔e5 50.♔c6 f5 51.b7 ♖xb7 52.♔xb7 f4 53.♖c5† ♔e4 54.♖xh5 1–0

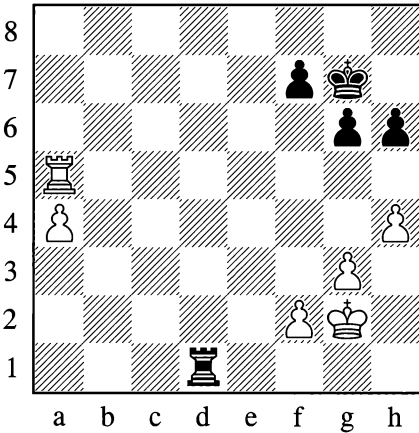
Ding showed fantastic knowledge and understanding to demonstrate the winning plan, which brings us to our first guideline of the chapter.

The best way to win a rook endgame with your rook defending your passed pawn laterally is to have a safe square for the rook that also defends the base of your pawn chain on the other side of the board.

Let's see an example of this principle in action.

Peter Leko – Viswanathan Anand

Linares 2003

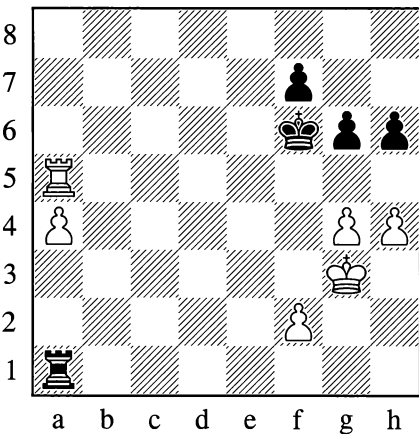


Anand had a somewhat unpleasant position for most of the middlegame but has managed to reach a clearly drawn rook ending, as seen in the previous chapter. But even for World Champions, it is not too hard to misplay them!

39...♖a1

39...h5 was also possible, but I assume that Vishy did not want to let White get his pawn to the fifth rank: 40.♖b5?

40.g4 ♔f6 41.♔g3



Anand now started to falter. White has a better than average version of rook in front of the pawn because he managed to push g3-g4, but Black still can hold.

41...♞c1?

Especially coming on move 41, this is a surprising mistake from a player of Vishy's caliber. White should not be allowed to transfer his rook to the side of the pawn.

More or less any move would hold, but 41...h5 is my instinct. Black hopes to exchange off another pair of kingside pawns and weakens the f5-square. 42.g5† ♔e6 As always, Black waits with his king in the center. White's king will have trouble coming to f4 on pain of ♖h1. 43.♖a7 ♖g1† 44.♔h3 ♖h1† 45.♔g2 ♖a1 46.a5 What else? 46...♖a4 Black is easily fine. White's king will be stuck defending the h4-pawn.

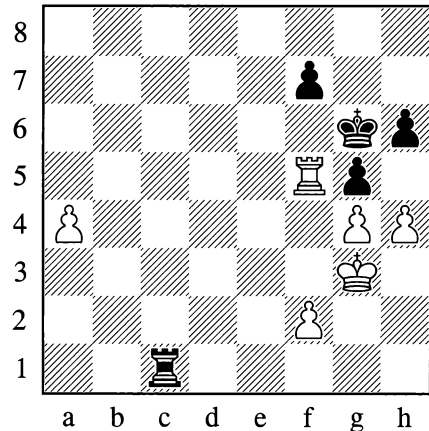
42.♖b5!

Leko does not miss his chance.

42...g5 43.♖f5†!

And now he sets up with his rook on the perfect square.

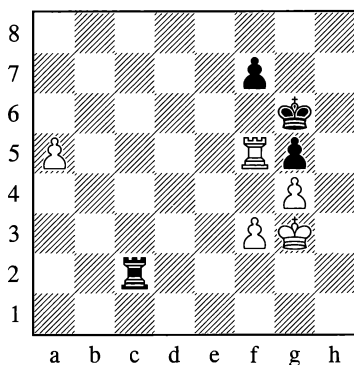
43...♔g6



White's plan is straightforward. He will push a4-a5 and f2-f3. Then, his rook will remain on f5 for the rest of the game, Black's king will be forever stuck defending the kingside pawns, White's own kingside pawns will be safe, and White can bring his king to send the a-pawn home. But we do have a decision to make with respect to the h-pawns. Do we trade them or not?

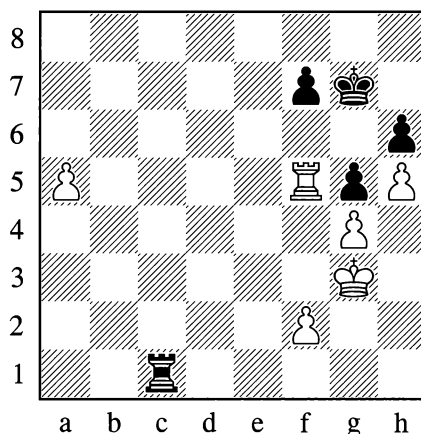
44.h5†!

I was a little surprised that 44.hxg5 does not win the game. Let's see the difference. 44...hxg5 45.a5 All White needs to do to win is push f2-f3 and then connect his king with his a-pawn. 45...♞c4!! An important move. Black makes sure that White's king cannot reach the second rank before pushing f2-f3. (After 45...♞a1? 46.♔g2! White is ready for f2-f3, and then Black will not be able to keep the king from transferring to the queenside.) 46.f3 ♞c2!



White's king cannot escape. White would win immediately if the king could sit on any reasonable square on the board, but he is stuck on g3 and h3. True, I suppose the king would be worse on h8. But I did say reasonable square...

44...♔g7 45.a5



Black is lost no matter how he plays, but he can make White work hard for the full point.

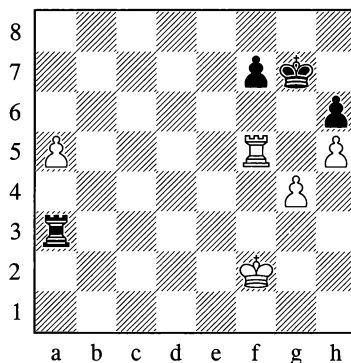
45...♞a1?

More resilient was:

45...♞c4!

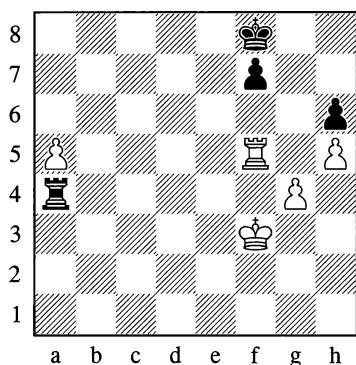
To prevent White's king from reaching the second rank. It would not save the game against perfect play. But against a human, even a fantastic technician like Peter Leko, it would have offered real saving chances.

46.f3 ♞c2 47.f4! ♞c3† 48.♔f2 gxf4 49.♞xf4 ♞a3 50.♞f5



Now we see why it was so important to leave the h-pawns on the board. Black's king is cut off from coming to g6.

50...♞a4 51.♔f3 ♔f8

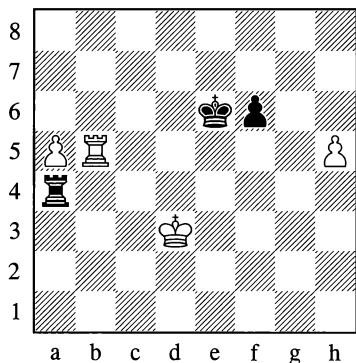


It's not too hard for White to reach this position. But now he needs to be extremely precise to bring the point home, and the moves are not easy!

52. ♖b5!

This is good prophylaxis against Black's king coming to the center. Black is in zugzwang.

52...g5? White should wait on this move until Black's king is on e7. 52...hxg5 53. ♖xg5 f6! 54. ♖b5 ♔f7 55. ♔e3 ♔e6! 56. ♔d3

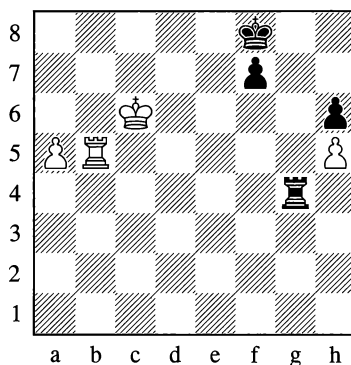


56...f5! Black makes counterplay and will draw by a single tempo. Calculating the line to completion from here is unnecessary. White should instead be aiming to gain as many tempi as he can in advance, regardless of whether one tempo will mean the difference between a win and a draw. In this case, that tempo is the difference.

52... ♔e7

52... ♔g7 Coming back to g7 makes a lot of sense as well. Black wants to centralize

the king next. 53.g5! hxg5 54. ♖xg5 ♔f6 (54... ♔f8 With Black to move in this position, ...f7-f6 saved the game. With White to move, it is a different story. 55.h6! White promotes his pawn directly.) 55. ♖b5 Black's king is awkwardly placed in front of his pawn, and he is far too slow to make counterplay. 55... ♔e6 56.h6 White wins. 52... ♖a3! Letting White's king cross the fourth rank leads to a quick loss. 53. ♔e4 ♖a4! 54. ♔d5 ♖xg4 55. ♔c6

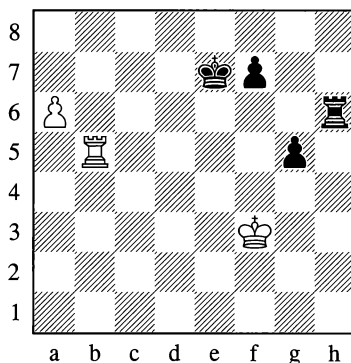


White got what he wanted. His rook defends the pawns on h5 and a5, stops the f7-pawn from making any trouble, and provides his king with a safe home on b7. The position looks a lot like what we saw in the Ding – Giri encounter, and White wins without further discussion.

53.g5!

As Black's king came to e7, White can force the pawns through.

53...hxg5 54.h6! ♖h4 55.a6 ♖xh6



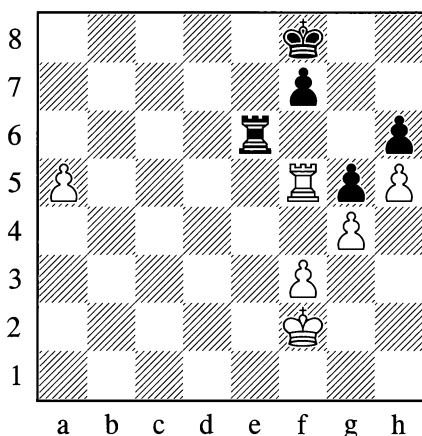
56.♖b7†!

This check proves inconvenient to meet! Black can resign.

46.♔g2! ♖e1

Waiting will not work either. 46...♖a4 47.f3 ♖a2† 48.♔f1 ♔f8 49.♔e1 White's king runs to b1, then up to b7. He wins easily.

47.f3 ♖e6 48.♔f2 ♔f8



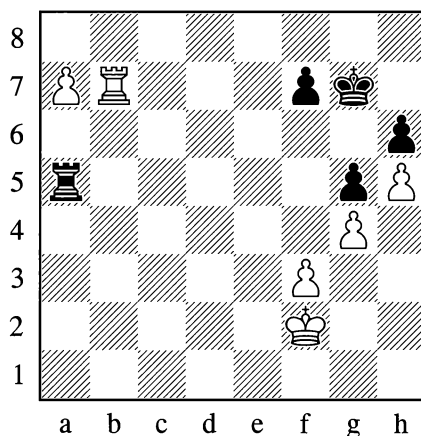
Anand's point is that White's king cannot cross the e-file. But his rook on e6 is on its only feasible square. Leaving the e-file frees White's king, and leaving the sixth rank would allow a5-a6. All White needs to do to push the enemy rook off its perch is place his own rook on b6. Leko took his time, but eventually got there.

49.♖b5 ♔g7 50.♖f5 ♔f8 51.♖c5 ♔g7 52.♖b5 ♔f8 53.♖b6! ♖e5 54.a6

Again, White makes sure to keep his pawn defended laterally.

54...♔g7 55.a7 ♖a5 56.♖b7

Once the pawn is defended laterally along the seventh rank, it is all over. We saw similar positions in the previous section where White had lost a kingside pawn, and still won. With even pawns on the kingside, there is no hope for Black at all.



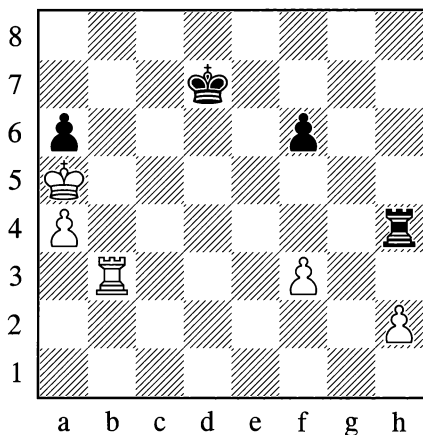
56...♖a3 57.♔e2 ♔f6 58.♔d2 ♔e6 59.♔c2 ♔f6 60.♔b2 ♖a4 61.♔b3 ♖a1 62.♔b4 ♔d6 63.♖h7 ♔e5 64.♔b5 ♖a2 65.♔b6 ♔d5 1-0

Vishy could have saved the game by not letting White transfer his rook along the fifth rank and push a4-a5 next. Once White had the f5-square for his rook, keeping his kingside secure on a permanent basis, Black was immediately lost.

In a strange twist of fate, Leko was again able to demonstrate the power of the rook placed to the side of the outside passed pawn against Anand just a year later!

Peter Leko – Viswanathan Anand

Moscow 2004



White is a pawn up, but the win is not so easy to come by. His coordination leaves a lot to be desired.

54.♖b4!

White makes sure to defend his a-pawn from the side. Next, he will take on a6 and advance f3-f4. Then his remaining kingside pawn will be secure forever, denying Black any hope at counterplay.

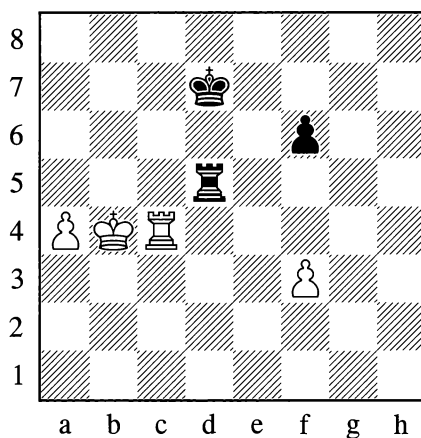
Black makes a draw after 54.♖b2? ♜f4 55.♖b3 ♜c6. White can make no further progress.

54...♜xh2 55.♞xa6 ♜c2 56.♞b6 ♜c6† 57.♞b5 ♜e6 58.♜e4 ♜d6 59.♜c4!

White has other winning moves, but I like this one a lot. Black's king is cut off.

59...♜d5† 60.♞b4!

White is in no rush. He knows that once he gets f3-f4 in next, Black will not be able to stop his a-pawn or make counterplay.



60...♜d3 61.f4 ♜d1 62.a5 ♜b1† 63.♞a4 ♜a1† 64.♞b5 ♜b1† 65.♜b4!

The rook finds its ideal home, much like we saw in the Ding – Giri game. It secures the kingside while also providing a safe passage up the board for his king.

65...♜f1 66.♞b6 ♞c8

Now anything wins. I don't mind Leko's choice to go after the f6 pawn.

67.♞c6 ♜e1 68.♞d6

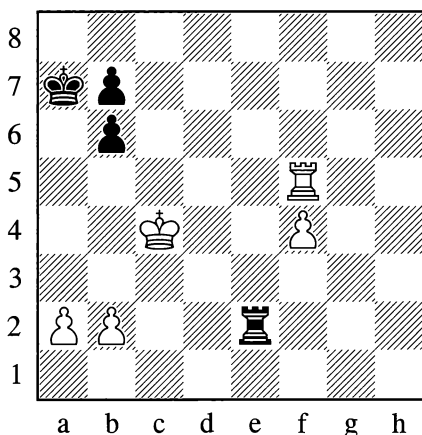
Vishy resigned. a5-a6-a7 is coming, and when it does, his rook will need to go to the a-file. Then, White takes the f6 pawn with his king and easily reaches the Lucena position.

1–0

It is not hard to find countless cases of this theme in practice. The following game from Bu Xiangzhi is an excellent example.

Xiangzhi Bu – Le Quang Liem

Danzhou 2018

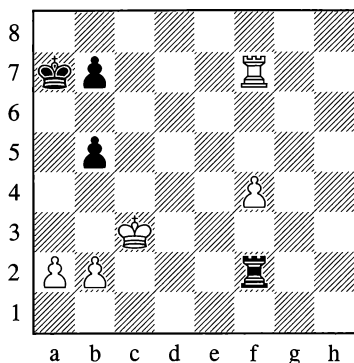


For the moment, White's rook is in front of the pawn. As was briefly mentioned in the previous chapter, when each side only has two pawns each, this is generally not going to win the game.

35.b4!

This is by far the most convincing way to bring home the full point. White will lose a2, but this does not matter. His plan will be to push b4-b5, get his rook off f5, and reach an ideal coordination.

Trying to save the queenside pawns is not the ideal course of action. White is still winning, but only because he will still be able to transfer the rook to the side: 35.♔c3?! ♜f2 36.♜f7 b5

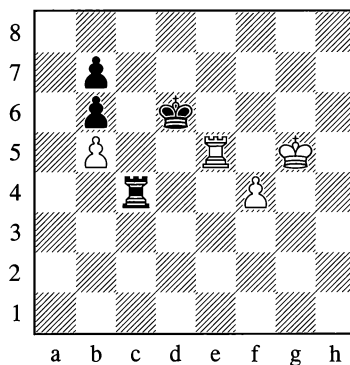


All it takes is one more move for Black to play ...b5-b4, and the position will become drawn. 37.a3 (37.f5? b4† draws.) 37...♔b6 Again, White is in only move territory. 38.b4! (38.f5 ♔c5 is equal.) 38...♜f3† 39.♔d4 ♜xa3 40.♜e7 White wins by transferring the rook to the side.

35...♜xa2 36.b5 ♜a4† 37.♔d3!

The right direction for the king. White needs to defend his f4-pawn to get ready for ♜f5-d5.

It might be tempting to try to promote the f-pawn directly, but this fails: 37.♔d5? ♜b4! 38.♔e6 ♔b8 White's rook is stuck on f5, and it cannot easily get out of the way. His king needs to defend the f4-pawn, but going all the way around to g5 is too slow. 39.♔f6 ♔c7 40.♔g5 ♔d6 41.♜e5 ♜c4



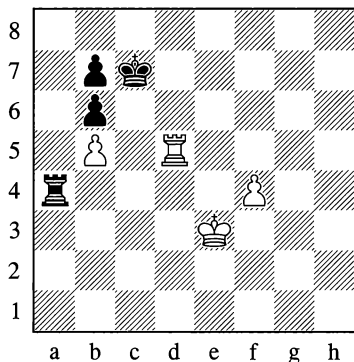
Black's king reached an active square, and White's rook is not secure. As such, White will not be able to push f4-f5. Black makes a draw.

37...♔b8 38.♔e3!

Now White is ready for ♜d5.

38...♜a3†

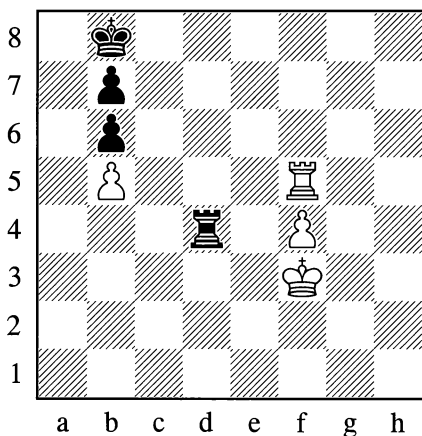
38...♔c7 39.♜d5!



White's rook has reached the perfect square. It cannot be attacked, Black's king is cut off, the b5-pawn is forever safe, and White can walk his king to f3, g4, g5, and push the f-pawn through.

39.♔e4 ♚a4† 40.♔f3 ♚d4

One has to admire Liem's resourcefulness. He is now threatening to bring his king to c7 without allowing ♚d5. White has only one winning move, but Bu found it easily.



41.♔e3! ♚d1 42.♔e4!

White is once again ready for ♚d5. Black is forced to keep checking, which means his king is unable to join the defense.

42...♚e1† 43.♔d4 ♚d1†

Or 43...♔c7 44.♚d5. As always, as soon as White's rook gets to d5, he wins with no further discussion.

44.♔e5 ♔c7

Finally, Black got to move his king without allowing the rook to d5. But it says a lot that he had to spend so much time with his rook while White got centralized! White is still winning without much effort.

45.♚g5 ♚e1† 46.♔d5 ♚f1 47.f5 ♔d7

If 47...♚b1 48.♚g7† ♔d8 49.f6 White crashes through. 49...♔e8 50.♚xb7 Black cannot take on b5 due to ♔e6, and he may as well resign.

48.♚g7† ♔d8 49.♔e6 ♚e1† 50.♔f7 ♔d7 51.f6 ♔d6

Now anything wins, and there is nothing wrong with Bu's chosen move. But I like another one for illustrative purposes.

52.♔f8

With 52.♚g5!? White gets the rook to the ideal square and is ready for ♔g7 next. 52...♚f1 53.♔g7 ♔e6 54.♚g2! wins.

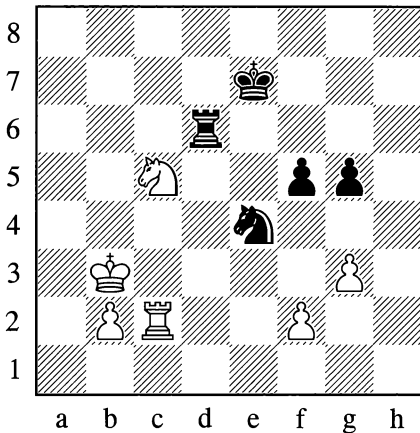
52...♚a1 53.♚g2 ♚b1 54.f7 ♚xb5 55.♚g6† ♔c7 56.♔g7 ♚f5 57.♚f6

1-0

Knowledge of this principle helps a lot when evaluating which endgames to go for, and is difficult to handle correctly, even for extremely strong players. Nepomniachtchi could have saved the position below, but only with extremely precise play demonstrating a deep understanding of how White can try to win with his rook to the side of the pawn.

Alexander Grischuk – Ian Nepomniachtchi

Sochi 2015



Black cannot seriously consider moving his knight off e4, as it is clearly on its best square. If it goes somewhere else, White's knight will be the superior piece. But should he take on c5, or should he leave the knight in place and allow White to take on e4, changing the structure?

58...♖xc5†?

It is understandable to want to preserve Black's kingside structure, but this loses.

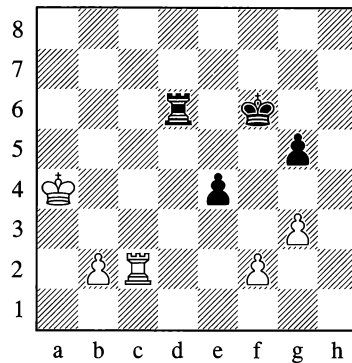
Black should have waited:

58...♖f6! 59.♖xe4†

White does not have another productive move. His king must stay on b3 so that he can meet ...♖d2 with ♖c2.

After 59.♖a4? ♖xc5† 60.♖xc5 ♖d2 Black takes on f2 and makes a draw immediately. 61.f3

59...fxe4 60.♖a4

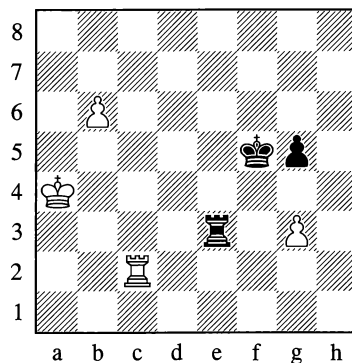


At first glance, the situation looks entirely hopeless for Black. White's rook is defending the base of the kingside pawn chain, it is on a safe square, and his king can shepherd the b-pawn up the board. But a closer examination shows that Black has more drawing chances than might appear, thanks to the change in the pawn structure. Having the potential for ...e4-e3 increases his chances for counterplay on the kingside.

60...♖f5! 61.b4 ♖a6†!

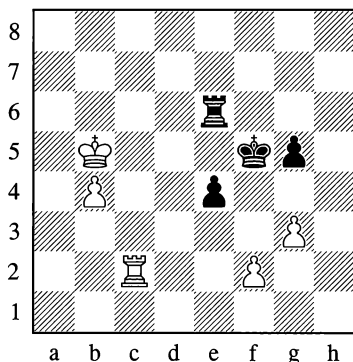
Every tempo matters. This forces White's king in front of his own pawn.

Coming to e6 directly would not do the job: 61...♖e6? 62.b5! e3 63.fxe3 ♖xe3 64.b6



Black is too slow to take on g3. He must bring his rook back to stop the b-pawn. 64...♖xg3 (64...♖e7 65.♖c3 Any move wins, but I like this one the most for its illustrative purposes. White defends the kingside laterally and has a typical winning configuration.) 65.b7 wins.

62.♔b5 ♚e6!



This is the point of Black's play. He is ready for ...e4-e3 next. Then White's rook will be unable to defend his kingside from the side.

63.♚c3

This is White's most challenging try. He prevents ...e4-e3, but now his rook is no longer defending the base of his kingside pawn chain.

After 63.♔a5 e3! 64.fxe3 ♚xe3 White's rook is forced to the sad g2-square, and Black makes an easy draw.

Or 63.♚e2 ♔g4 64.♚e3 transposes to the main line.

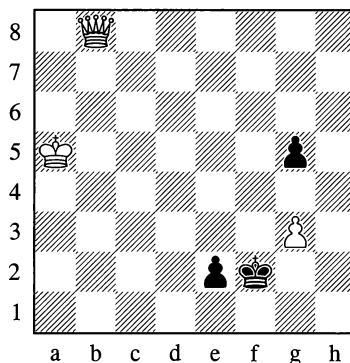
63...♔g4!

Black is ready for ...♚f6 next, and White is not quite able to contain all of the counterplay. White now has two challenging moves for Black to meet.

64.♚e3!

I like this one the best. Moving the king also requires Black to find some only moves, but in that case, once he finds them, he saves the game without further discussion.

64.♔a5!? is also not easy for Black to deal with. 64...♚f6! 65.♚c2 ♔f3! 66.b5 ♔g2! Black will take on f2 next. 67.b6 ♚xf2! 68.♚xf2 ♔xf2 69.b7 e3 70.b8=♚ e2

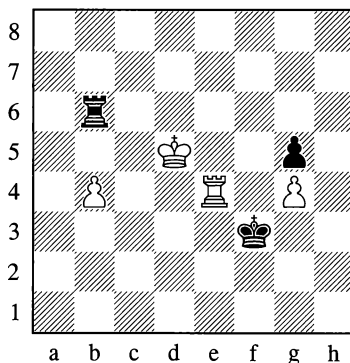


By some miracle, this position is a draw. It is very hard to get here! Even if Ian had realized that it was better to allow White to take on e4 than it was to take on c5 himself, there is no guarantee that he would have held.

64...♔h3!

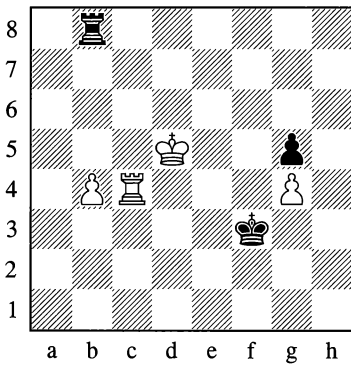
Not 64...♚f6? 65.♚xe4 ♔f3 66.♚e5! g4 67.♚g5!, as Black does not get to take the f-pawn, and White wins.

65.♔c5 ♔g2! 66.♔d5 ♚b6 67.♚xe4 ♔xf2 68.g4 ♔f3



It looks like White should be winning. His rook defends his b4 and g4-pawns laterally. But in fact the position is a draw because it is not secure.

69.♚c4 ♚b8!

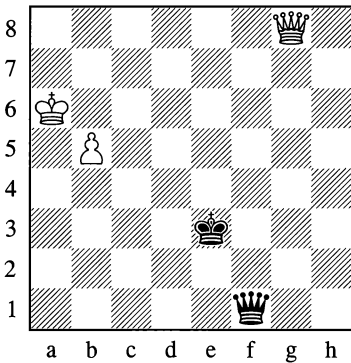


Black reaches a funny version of frontal checks. He is holding because of the instability of White's rook on c4 and the possibility of playing ...♖f4 at some point.

70.♙c6 ♖c8† 71.♙b5 ♖f8!

The rook is coming to f4. Black needed to find only moves all the way to here, and now he will also need to defend a queen endgame.

72.♙a6 ♖f4 73.♖xf4† gxf4 74.g5 ♙e3 75.g6 f3 76.g7 f2 77.g8=♖ f1=♖† 78.b5



Black will have the unfortunate task of defending this extremely unpleasant endgame. It is a technical draw, but an absolute nightmare to hold in practice. I failed to do so the only time it came up in my own play, and I was over 2700 at the time.

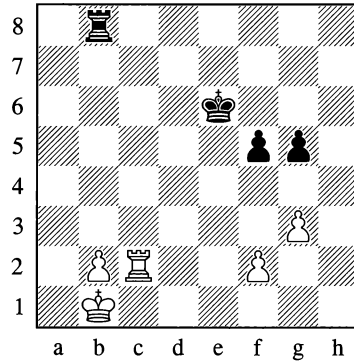
59.♖xc5

White is winning. Black will be unable to make trouble on the kingside with the more standard structure.

59...♙e6 60.♙c2!

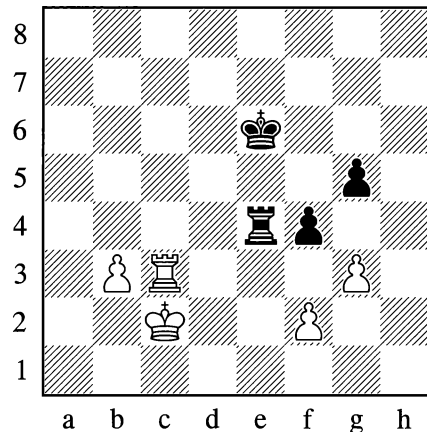
White stops the rook from coming to d2.

Transferring the rook to defend the base of the pawn chain will not win. White's b-pawn is too far back: 60.♖c2? ♖d8! 61.♙a2 ♖a8† 62.♙b1 ♖b8



Black sets up frontal checks and will bring his king to f3. White's rook will not be able to help his king advance, and it should be an easy draw.

60...♖d4 61.♖c3 f4 62.b3 ♖e4



Grischuk's move was good enough to win here, but I thought another one was much cleaner.

63.♞d3

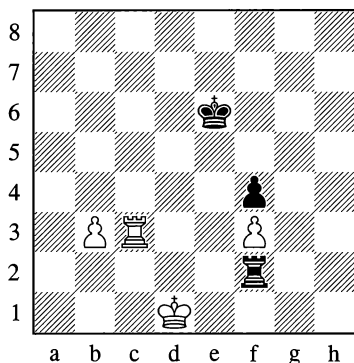
63.f3!

This would be my choice. White takes his chance to set up a situation where his rook defends the base of his pawn chain.

63...♞e5

The alternatives do not save Black:

63...♞c2† 64.♔d1! ♞f2 65.gxf4! gxf4



66.♞d3! White's rook finds its ideal square. It cannot be harassed, f3 is always safe, and ♔d1-c1 comes next to threaten b3-b4. White wins.

63...♞d4 64.g4! This is a somewhat tricky move to find, but the point is that we cannot allow Black to take back on f4 with the rook. In fact, the rook is really poorly placed on d4, and he cannot stop ♞c3-c5 from coming next. White should win easily. (After 64.gxf4? Black would lose if he took back with the pawn. But if he keeps the f4-square open, he will hold. 64...♞xf4! 65.♞d3 Black can force off the last of the kingside pawns. 65...g4! 66.fxg4 ♞xg4 67.♔c3 ♞g8! Black makes a draw with frontal checks.)

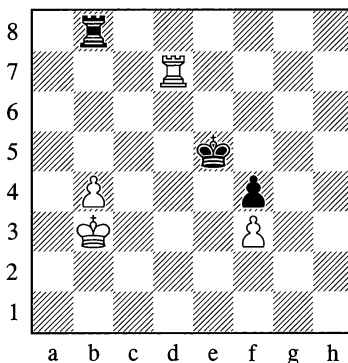
64.gxf4!

64.g4 also works, but I like this move more for its illustrative purposes. Black is lost specifically because he cannot exchange off the final pair of kingside pawns.

64...gxf4 65.♞d3

White's rook is forever secure, and his king will rush up the board to push the b-pawn through.

65...♞b5 66.♔c3 ♞b8 67.b4 ♔e5 68.♔c4 ♞c8† 69.♔b3 ♞b8 70.♞d7



Zugzwang. Black cannot allow b4-b5, and he needs his rook on the back rank. But other moves allow White's rook to transfer to d4.

70...♔e6 71.♞d4 ♔e5 72.♞c4

In a normal version of frontal checks without the f-pawns, Black would need to play ...♔d5 here to destabilize the rook, as seen on page 46. With the pawns on the board, this becomes impossible, and White wins.

72...♔f5

What else? White wins after both 72...♔d5 73.♞xf4 and 72...♞d8 73.b5.

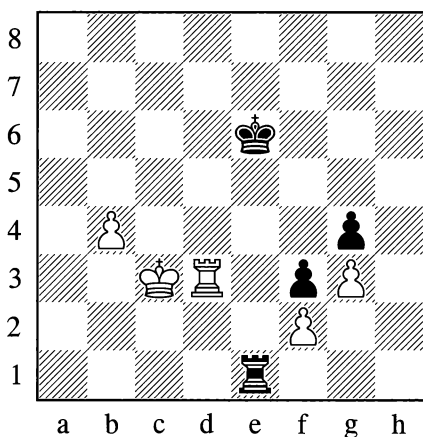
73.♞c5†! ♔e6 74.b5

White got the pawn to b5, and the end is near.

63...g4!

This is Black's most resilient defense, preventing f2-f3, but White still wins.

64.♔c3 f3 65.b4 ♞e1

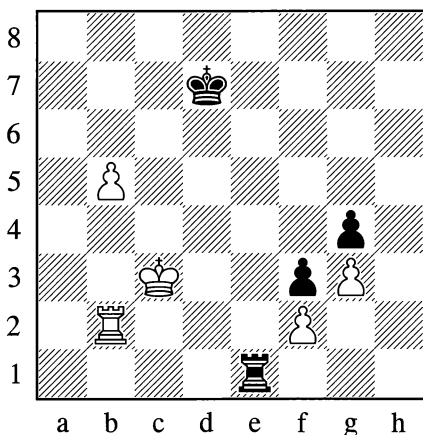


66.♖d2!

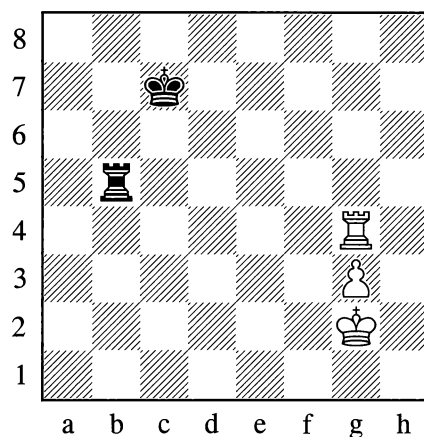
White's rook defends the base of the pawn chain, and the b-pawn is ready to go.

66...♗b1 67.♗b2! ♖e1 68.b5 ♔d7

I quite like the transition Grischuk made. He will not be able to promote the b-pawn without the king's help, but his king cannot stray too far on pain of ♖e1-e2. So, White instead points out that his b-pawn keeps Black's king busy, and wins on the kingside.



69.♔d3! ♔c7 70.♗b4! ♖e2 71.♗xg4 ♗xf2
72.♔e3 ♗b2 73.♔xf3 ♗b3† 74.♔g2 ♗xb5



75.♗d4!

Black's king is way too far away from a sensible square, and frontal checks will not hold.

75...♗b8 76.♔f3!

It was still not too late to blunder with 76.g4? ♗b3! White's king is cut off just as badly as Black's is. 77.g5 ♗b5! And now the rook is forced off d4. 78.♗g4 ♔d6 79.g6 ♗b8 with a draw.

76...♗f8† 77.♔e4 ♗g8 78.♔f4 ♔c6

Continuing to check would not have helped: 78...♗f8† 79.♔e5 ♗g8 80.g4! White wins.

79.g4 ♔c5 80.♗d1 ♗f8†

Black resigned without waiting for a response. We know how this ends.

81.♔e5 ♗g8 82.♔f5 ♗f8† 83.♔e6 ♗g8
84.♗g1!

Black's king is too far away.

There were a lot of interesting moments in this game, and they all saw the main theme of theoretical rook endgames with the rook on the side at play.

One element of the position that I noticed in the Grischuk – Nepomniachtchi encounter was that White was winning even though his

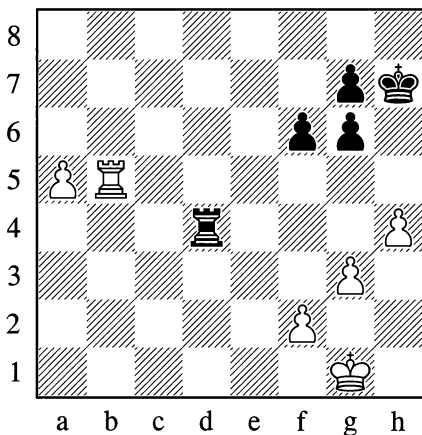
passed pawn was all the way back on b2. It inspired me to dig a little bit, and I came up with an important guideline as a result.

In rook endgames with an extra outside passed pawn defended by a rook, the pawn structure on the other side of the board tends to be much more relevant than how far advanced the passed pawn is.

This principle is especially relevant when the attacking rook cannot reach a perfect square where it defends the base of the pawn chain. Let's see some examples.

Vasyl Ivanchuk – Anish Giri

Internet (rapid) 2020



This game was played under rapid time controls, and Ivanchuk may have found a stronger move than the one played in the game if he had more time to work with.

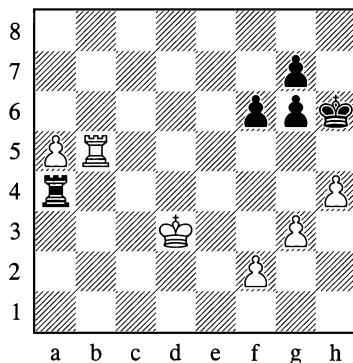
41.a6?

Surprisingly, this move throws the win away. It makes perfect sense to advance the pawn and have it defended laterally along the sixth rank instead of the fifth. But as a result, Black's kingside pawn formation becomes more mobile and his king is free to roam.

41.♖f1!

White would have won by bringing his king into play and leaving his passed pawn on the fifth rank. The point is that the rook on the fifth does a very good job of keeping Black's king out of play.

41...♞a4 42.♙e2! ♙h6 43.♙d3

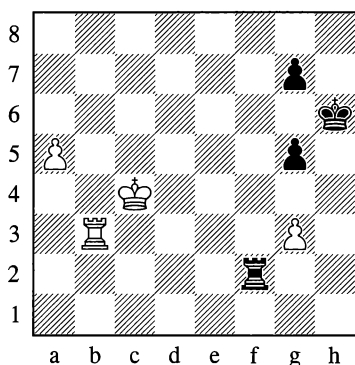


Black's king is still stuck in no man's land, and he is unable to make any kingside counterplay.

43...♞a2

This is Black's best defensive attempt, but it is a bad sign. He would much rather use his king to snack on White's kingside pawns, as the rook will have to spend two tempi to take on f2 and then come back to a2.

43...g5 44.hxg5†! Of course White does not allow Black to take on h4. 44...fxg5 45.♙c3 ♞a2 What else? (45...♙h5 46.f4! White takes on g5 with the rook next, and it's all over.) 46.♙c4 White has other winning moves, but I like this one the most. It stays consistent with the rest of the chapter. 46...♞xf2 47.♞b3!



White's rook reached the perfect square. g3 is forever safe, and White's king has a free route up the b-file to push the a-pawn through. Black's extra pawn on the kingside is doubled and irrelevant.

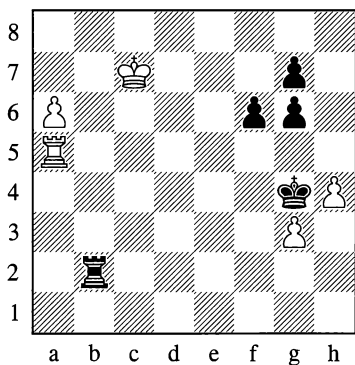
44.♞c4 ♞xf2 45.♞c5!

Black is still unable to cross the fifth rank with his king.

45...♞f3

The alternatives are no better:

45...♞h5 46.♞b6†! This move comes with check, forcing Black's king to g4. 46...♞g4 47.a6 Now the a-pawn queens itself once White's rook gets to a5. 47...♞a2 48.♞a5 ♞b2† 49.♞c7!



Black's rook needs to get to the back rank in order to stop White from making a full extra queen. In order to get there, he has to repeatedly check White's king and force it exactly where it wants to go. 49...♞c2+ 50.♞d7 ♞d2+ 51.♞e7 ♞c2 52.a7 ♞c8 53.a8=♚ ♞xa8 54.♞xa8 ♞xg3 55.♞f7

White's king easily scoops up the remaining black pawns. White wins.

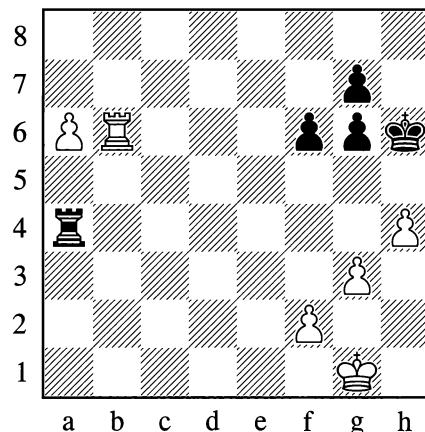
45...♞a2 46.♞b6 wins.

45...g5 46.a6 gxh4 47.gxh4 ♞a2 48.♞b6 Black's king is cut off and White is ready for ♞a5 next.

46.a6 ♞xg3 47.a7 ♞a3 48.♞b6

White wins.

41...♞a4! 42.♞b6 ♞h6!



We see a huge difference between this position and the one with White's rook and pawn back on the fifth rank. Black is free to push ...g6-g5 without letting his pawns get doubled, and his king can come in and make counterplay.

43.♞f1 ♞a2?

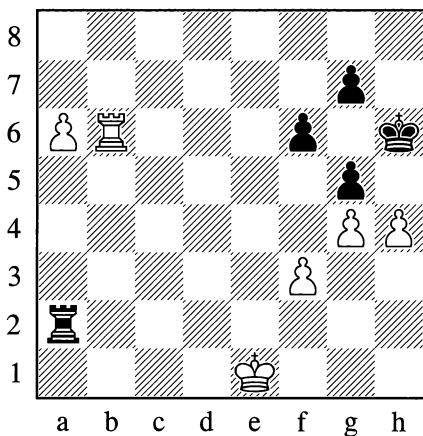
One can understand Giri's desire to cut off White's king, but now his own king gets stuck as well.

Correct was 43...g5! 44.hxg5† ♞xg5 45.♞e2 ♞g4. White's king cannot advance any further without allowing ...♞f3. Black holds easily. He is glad that he is using his king to take White's pawns, and not his rook.

44.g4!

Black's king is shut out, and White is winning again. It all came down to the kingside structure.

44...♖a4 45.♜♖a2 46.♔c1 g5



47.h5!

Of course, Black's king must be kept passive.

47...♔h7 48.♔d1

The king plodding along the first rank to eventually reach b1, and then up the b-file to reach b5, is very slow. But in the absence of counterplay, it is more than enough to win the game.

48...♔h6 49.♔c1 ♔h7 50.♔b1 ♖a3 51.♔b2 ♖a5

White promotes the pawn after 51...♖xf3 52.a7.

52.♔b3 ♖a1 53.♔b4 ♖b1† 54.♔c5 ♖c1† 55.♔b5

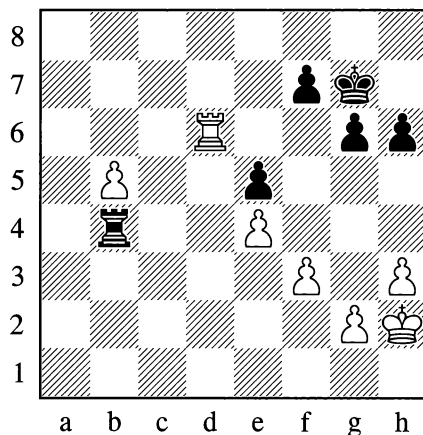
Anish had seen enough.

1–0

I believe this game represents the rule, and not the exception to the rule. I constantly found that the structure on the other side of the board mattered so much more than how far advanced the passed pawn was. The following game is yet another example.

Gata Kamsky – Etienne Bacrot

Sofia 2006

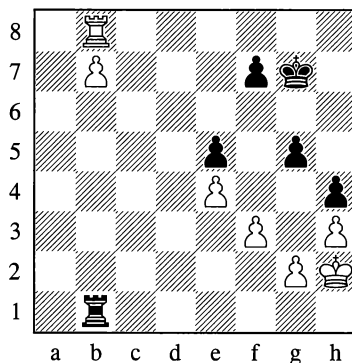


With time control a couple moves away, Kamsky has an important decision to make. Obviously he must save his b-pawn. But does he put the rook in front of the pawn, or defend it laterally from the side?

39.b6!

Kamsky made the right decision to keep the rook to the side of the pawn. But there is a lot of work still to do to win the game.

It might be tempting to try to win with 39.♖b6? in the style of the Spassky – Torre and Gelfand – Lagarde games seen in Chapter 13. But Black can avert disaster. 39...h5! If Black's pawn is allowed to get to h4, the four on three endgame will no longer be winning as White will be unable to push g2-g3. 40.h4 (After 40.♖b8 h4 41.b6 ♖b1 42.b7 g5

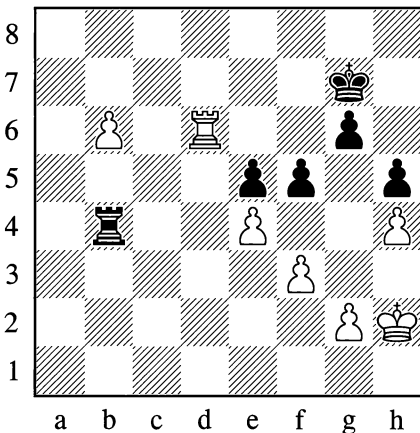


White's king is shut out, and the only way to break him free is to advance g2-g4. 43.g4 f6 The locked pawn structure means White has no hope of making a second weakness.) Now if White could get his rook to b8 and pawn to b7, he would win. But Black is just in time. 40...f5! Black strikes at White's pawns. 41.exf5 (After 41.♖b8 fxe4 Black will be fast enough to take back on e4 with his rook and then return to b4. He will not lose with three on two in the kingside and center.) 41...gxf5 42.♔g3 e4 43.fxe4 ♖xe4 Black brings the rook back to b4 next and makes an easy draw.

39...h5 40.h4!

White does not want to get his king shut out of play with ...h5-h4.

40...f5



The critical moment came here, right after time control. Kamsky made the understandable choice to get his pawn to b7, defended laterally along the seventh rank and one square closer to promotion, but this should have cost him half a point.

41.♖d7+!

41.exf5!

White can only win by taking on f5 and leaving his pawn on b6. When we consider that the structure of the other pawns on the board, and the placement of the kings, is more important than how far advanced our passed pawn is, this makes perfect sense. Black's king will be cut off along the sixth rank, and his pawns on the fifth are weak and vulnerable for the taking.

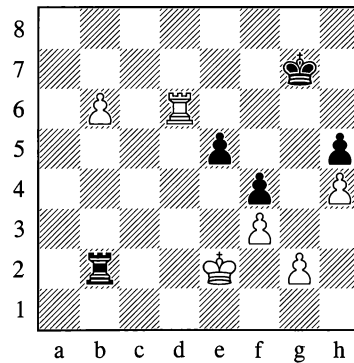
41...gxf5 42.♔g3!

White's king is ready to join the fight, and it cannot be easily cut off.

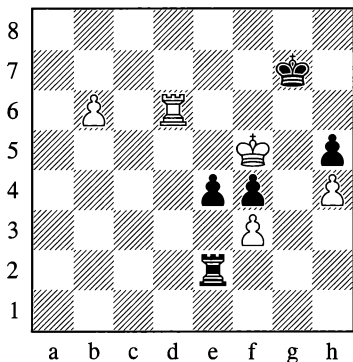
42...♖b2

This would be Black's attempt to keep the king out.

The alternative is: 42...f4+ 43.♔f2 ♖b2+ 44.♔f1! ♖b1+ 45.♔e2 ♖b2+



46.♔d3! It is time. 46...♖xg2 Once again, the position of the kings matters much more than how far advanced the b-pawn is. 47.♔e4! This is not the only winning move, but it is the simplest one. (47.b7? ♖b2! 48.♖d7+ ♔f6 49.♔c4 e4! 50.fxe4 ♔e6 51.♖c7 f3 Black's king is on a more than reasonable square, and his f-pawn easily gives him enough counterplay to make a draw.) 47...♖e2+ 48.♔f5 e4



49.♞d7† Well timed. White gets his pawn to b7 at a moment when Black cannot take advantage of no longer being cut off along the sixth rank. His king cannot make it to the center. 49...♙h6 50.b7 ♞b2 51.♙xe4 Black's king remains passive, and White wins.

42...e4 43.fxe4! ♞xe4 (43...fxe4 44.♙f4! wins. Black can barely move.) 44.b7 ♞b4 45.♞d7† ♙f6 46.♙f3 White's king is heading decisively to the queenside. Black's king has been freed from its prison on the sixth rank, but he has no potential to make a passed pawn or target any weaknesses in White's camp. This contrasts with how the game played out, when he was able to bring his king around to c5 and eyeball the weakened e4-pawn.

Now I like making a transition:

43.♞e6!

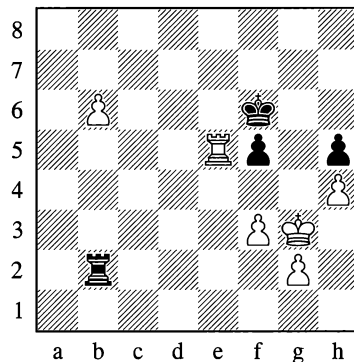
White threatens the e5-pawn and will take it next if allowed.

43...♙f7

43...♞e2 44.b7! Black is forced to give up the e5-pawn anyway. 44...♞b2 45.♞xe5 ♙f6 46.♞e8 ♞xb7 47.♞g8!

43...f4† 44.♙h2 ♞b5 45.♙g1 White's king is coming, and the position will be similar to what is seen in the 42...f4† variation.

44.♞xe5! ♙f6



45.♞e8! ♞xb6 46.♞g8!

White's rook gets to g5 next, and he will win the h5-pawn.

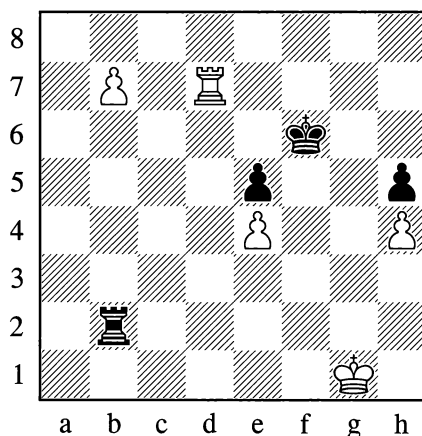
41...♙f6 42.b7?

It was not too late to repeat moves and take on f5 next: 42.♞d6†!

42...fxe4! 43.fxe4 g5!

Full credit to Bacrot for exchanging off another pair of pawns.

44.g3 ♞b2† 45.♙g1 gxh4 46.gxh4



The biggest problem that White is facing is that the structure with the e- and h-pawns allows Black to run his king around to c5 and d4 to make counterplay. Life would be so much better if Black's king were cut off!

46...♙e6 47.♖h7 ♔d6 48.♖xb5

48.♙f1 ♙c5! 49.♖xb5 (49.♙e1 ♙d4 Black takes on e4 next, and he is certainly not worse.) 49...♖xb7! 50.♖xe5† ♙d4 White loses his pawns. 51.♙e6 ♖h7!

48...♖xb7

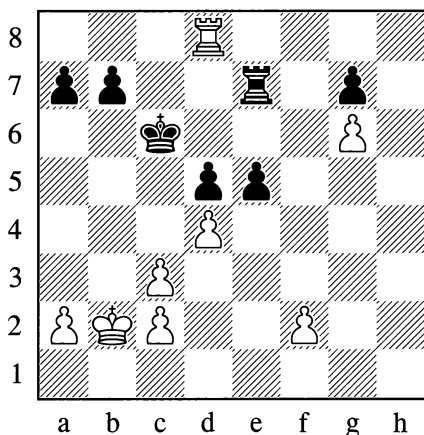
Black reached a drawn two on one structure, but there is still some work to do, and Bacrot eventually lost. We will see the final phase of this game in Chapter 18.

Again, we saw that the temptation to push the pawn one rank further should have led to the loss of half a point. The kingside structure was much more relevant.

Countless strong players have been the victim of this unfortunate misunderstanding. I am one of them. Had I won the following position, the US would probably have won the 2018 Olympiad.

Sam Shankland – Jacek Tomczak

Batumi (ol) 2018

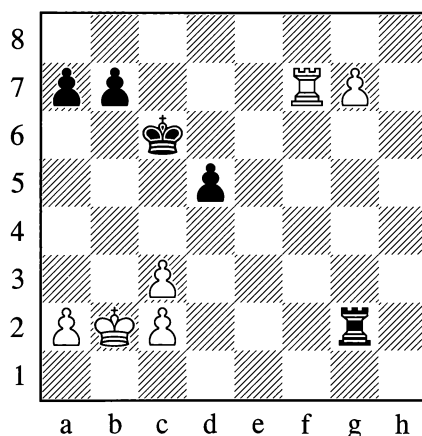


31.dxe5?

When I made this move, I saw that I would get a passed pawn defended laterally on the seventh rank and did not think further than that.

White could have won by freezing Black's rook on e7, defending the g7-pawn. 31.♖g8! ♙d6 32.♙b3 White is getting ready to advance the king up through the queenside. 32...♙e6 Now that Black is no longer able to play ...♙e6, there follows 33.♖f8! when Black's king gets cut off. White should win without much trouble.

31...♖xe5 32.♖g8 ♖f5! 33.♖xg7 ♖xf2 34.♖f7 ♖g2 35.g7



White gets his pawn to the seventh rank, defended laterally by the rook. But as we saw before, the most relevant element of the position is the structure and piece placement on the other side of the board.

35...♖g1!

It transpires that White has no way to bring his king to the queenside.

36.c4 d4!

With some precise calculation and defensive moves, Black could have also drawn by taking on c4. But this is much easier. White's king is kept out.

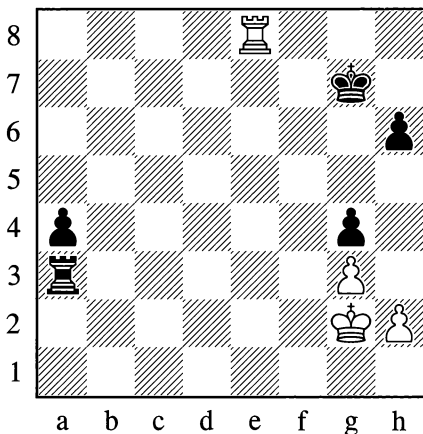
37.c5 b6 38.cxb6 axb6

There is nothing left to try. I could have agreed a draw here but played on for thirteen more useless moves.

Let's look at one final game that brings a lot of themes together at once.

Valeriy Neverov – Konstantin Borsuk

Kremenchuk 2020



White has a tough defense ahead of him. He has a lot of different kinds of rook endgames to consider, but only one makes a draw.

59. ♖f2?

It's understandable to want to avoid the king getting stuck on the back rank, but this misses the only saving continuation.

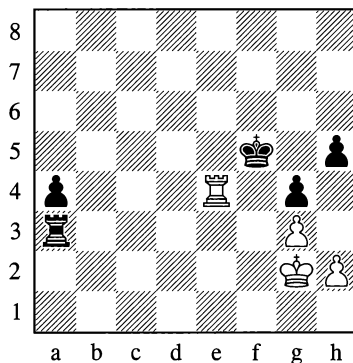
59. ♖e4!

White could have drawn by setting up a Vancura.

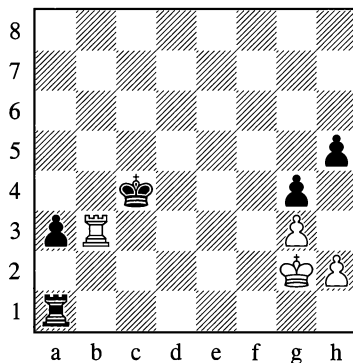
59...h5 60.h3!

This is an important move. If Black wants to avoid losing his g4-pawn, he will need to give a check on a2. This turns out to be his undoing.

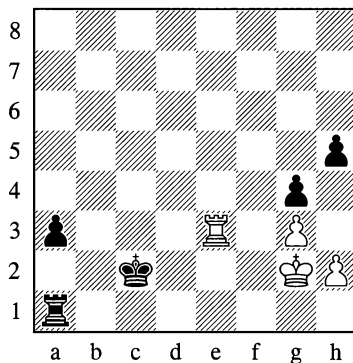
Aiming for a Vancura without forcing Black to give a premature check on the second rank would not save the game: 60. ♖f2? ♜f6! 61. ♖g2 ♜f5!



We see the issue. If White wants to keep defending in the style of the Vancura, he will need to leave his rook on the fourth rank. But that will free Black's king to reach the center. 62. ♖b4 ♜a2† 63. ♖g1 a3 64. ♖b3 ♜e4 65. ♖c3 ♜d4 66. ♖b3 ♜a1† 67. ♖g2 ♜c4



This is the problem. Black's g4-pawn controls the f3-square, and as a result, White's rook can only go to e3. As seen in Chapter 3, this will lead to insufficient checking distance. 68. ♖e3 ♜b4! 69. ♖e4† ♜b3 70. ♖e3† ♜c2!



Black is ready for ...a3-a2 next, and White will not be able to transfer his rook to the a-file. Black wins.

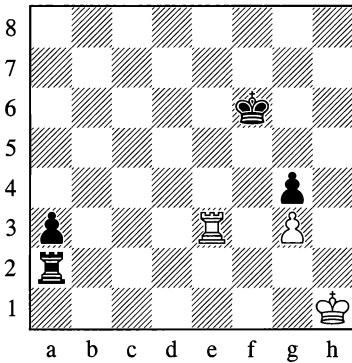
60.♟f4? ♞a2† 61.♞g1 a3 and White cannot place his rook on the third rank, so he is unable to set up a Vancura defense. He may as well resign.

60...♞a2† 61.♞h1 a3

This is the only way to avoid losing the g4-pawn, allowing White to make a draw immediately.

61...gxf3 62.♟f4 All the extra h-pawns in the world will not help Black. Draw.

62.♟e3! ♞f6 63.hxg4 hxg4



Because White was able to force Black to push ...a4-a3 before getting his king to the center, he was able to get his rook to the e3-square. Previously, we saw that when the rook stood on e4, it got kicked away by ...♞f5. It had to remain on the fourth rank to maintain the Vancura, and then Black won by getting his king to the center. Now, White's rook is on a secure square and cannot be approached by the black king. Black cannot get his king to the queenside, and White shuffles ♞g1-h1-g1 for the rest of the game. Draw.

59...♟f3†! 60.♞e2 a3?

It is easy to feel optimistic about this move. Black gets a passed pawn defended laterally

on the sixth rank. If he transfers the rook to b3 next, he will even be able to give a check on b2 and get the pawn to the seventh rank. But as always, in all of the rook endgames with an extra passed pawn defended laterally, the kingside structure and king placement matters so much more than how far advanced the pawn is.

Black would have won by getting his rook behind the pawn: 60...♟f8! We will see how in the next chapter.

61.♞a8 ♟b3

Naturally enough, Black prepares to get his pawn to a2 next. All else being equal, the pawn would be better off further advanced, and Black doesn't gain anything by having the rook on the third rank. White needs to be cognizant of what Black is threatening.

62.♞a6?

Natural as it might seem to cut off the enemy king, this ignores the bigger threat.

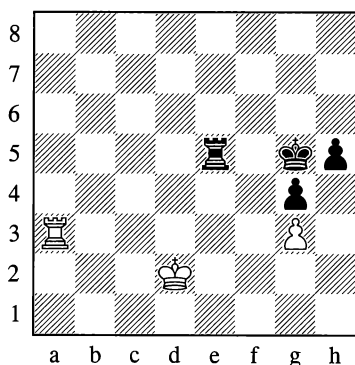
62.♞d2!

White could have saved the game by bringing the king closer to the center. The point is prophylaxis against ...♞b2† followed by ...a3-a2.

62...♞f7

The most testing plan should be to bring the king towards the a-pawn. Alternatively:

62...♞b2† 63.♞c1! Black is not able to play a3-a2. (63.♞c3? ♟f2! Draws. White cannot take on a3 on pain of a lost pawn endgame, and Black is ready for ...a3-a2 next.) 63...♟xh2 64.♞xa3! White's king is ready to run to f1. Black can try to cut him off along the e-file, but he will not win the game. 64...♟e2 65.♞d1! ♟e5 66.♞d2! ♞g6 67.♞a4 ♞g5 68.♞a3 h5



Black is ready for ...h5-h4 next, winning. 69.♖a8! But White is ready for a check from behind. Black has no plan to make any further progress. Draw.

63.♖a6!

Black is unable to secure his kingside. We see once more, the structure on the other side of the board is the most relevant element.

63...h5

White now needs to be careful.

If 63...♙e7 then 64.♖xh6 draws.

64.♙c2!

64.♖a5? is a tempting move, but now Black wins again. 64...♙g6! The h5-pawn is secure, and White cannot give a check and allow the king to come to f5 and then e4. Black is ready to check on b2 next. 65.♙c2 ♖b2† 66.♙c1 ♖xh2 67.♖xa3 Thematically, White would be making a draw here if he could bring his king back, as we saw before. But Black is too fast. 67...h4! 68.gxh4 ♙h5! Black wins.

64...♖f3 65.♙d2 ♙e7

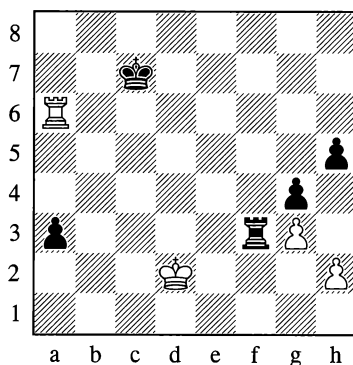
What else?

Not 65...♖f2† 66.♙e3! as Black is unable to get his pawn to a2.

66.♙e2

White keeps waiting.

66...♙d7 67.♙d2 ♙c7



Once Black's king was cut off along the sixth rank, his only hope was to eventually bring him to a7. Now, White switches gears.

68.♙c2!

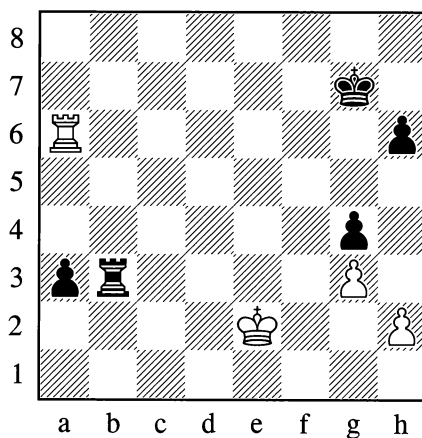
The right moment. Had White brought the king to the queenside when Black's king could still be connected with his kingside pawn mass, Black would have won by taking on h2. Now, he does not.

68...♖f2† 69.♙b1! ♖xh2

69...a2† 70.♙a1 ♖xh2 71.♖c6†! White draws with a suicide rook along the sixth rank. If it is ever taken, it will be stalemate.

70.♖xa3

Black's king is just far enough away that White saves the game.



62...h5?

62...♖b2†! Black would have won by getting his pawn to a2. 63.♙e3 a2 64.♙f4 h5! Black

takes on h2 next, when his kingside pawn mass will be secure. Something like this ended up happening in the game.

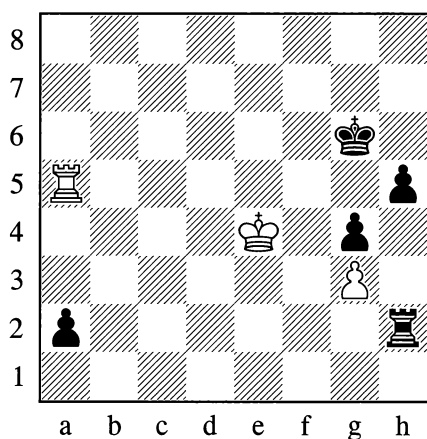
63.♖a5?

63.♔d2! was still good enough to draw.

63...♔g6 64.♔f2 ♖b2†!

Now the check came.

65.♕e3 a2 66.♕f4 ♖f2† 67.♕e4 ♖xh2



The rook's placement on h2 is perfect. It defends the passer and the base of the kingside pawn chain, and White has no counterplay. The king is coming to the queenside.

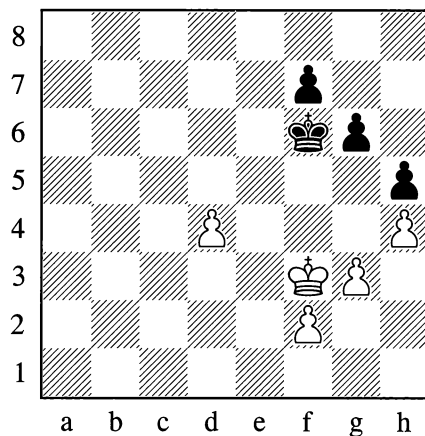
68.♖a6† ♕f7 69.♖a7† ♕e6 70.♖a6† ♕d7

White had seen enough.

0-1

The bulk of this chapter is focused on the two main motifs seen when the rook defends from the side, namely having the attacking rook defend the base of the opposite side pawn chain and that piece placement and pawn structure is much more important than how far advanced the passed pawn is. But there is one specific position that I think should be memorized. We pick up where the last chapter ended, three on three on the kingside with a passed d-pawn.

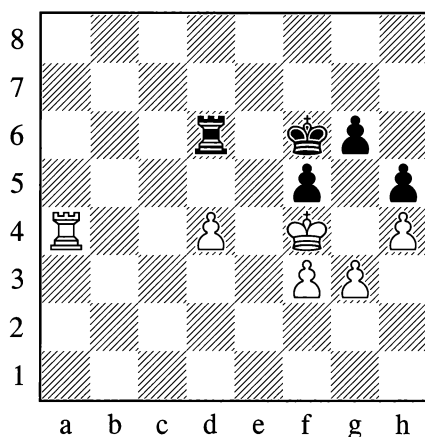
Example 3



In general, this position should be a draw no matter where the rooks are. But it is important to know a couple of key ideas, and one specific pawn structure.

While the default case is a draw, there is one structure that wins for the attacking side.

Example 4



If Black ever ends up with a f5-g6-h5 pawn structure and White's king can safely sit on f4, White will win regardless of where the rooks are placed. Black's kingside will be too weak.

1.♖c4!

Zugzwang.

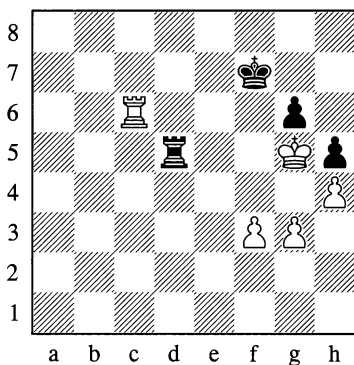
1...♞d5

Or 1...♙e6 2.♙g5!; 1...♞a6 2.d5 The rook gets to c6 next. Winning in both cases.

2.♖c6† ♙g7

This is the only way to avoid losing directly to ♙g5, but the king is so passive now.

2...♙f7 Keeping the king closer to the center in this way allows White to come in and take the entire kingside. 3.♙g5! f4† 4.♙xf4 ♞xd4† 5.♙g5 ♞d5†



We see why Black's king is worse on f7 than g7 6.♙h6! wins.

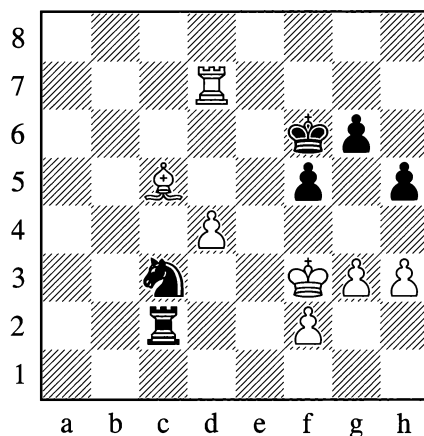
3.♙e3! ♙f7 4.♞c5 ♞d8 5.d5

White's king comes back to f4 next, and he wins routinely.

Knowing that the position is winning if Black's pawns are on f5, g6 and h5 can help a lot with transitions, like we see in the following game. Spoiler alert: I also gave this example in my book *Grandmaster Training Camp 1 – Calculation!*, but it is relevant to our theme and worth repeating here. Move on to the next example if you want to try to solve it from that book, or you could always try to find White's winning move here instead.

Hikaru Nakamura – Alexandr Predke

Warsaw (rapid) 2021

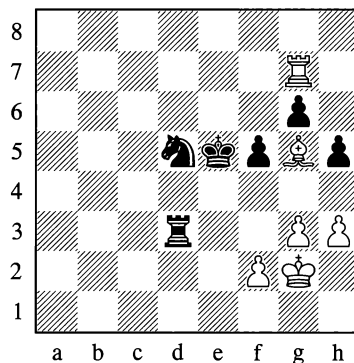


Deep into a rapid game, I assume the clocks were running low at this point.

50.♞c7!

White could have won on the spot with this move. Black cannot move the knight on pain of ♙e7†, and ♙b4 is a colossal threat.

White played 50.d5?!. White keeps his extra pawn and Hikaru did go on to win, but Black could have defended better. 50...♙e5? (50...♞d2! 51.♙e7† [51.d6 ♙e4! Black is holding easily.] 51...♙e5! 52.♙g5 ♞d3†! 53.♙g2 ♙xd5 54.♞g7



This will not be fun for Black, but the computer claims he should hold after 54...f4.) 51.d6! Now White is winning again, and Black never had another chance. 51...♖e4 52.♙e3 ♘e6 53.♙g7 ♘xd6 54.♙xg6† ♘e5 55.♙h6 ♙c3 56.♙xh5 ♖f6 57.♙h8 ♖d5 58.♙d8 ♘e6 59.h4 ♖f6 60.♙a8 ♖h5 61.♙a5 ♙b3 62.♙g2 ♖f6 63.♙d4 ♖e4 64.♙e5† 1–0

50...♙d2

What else? I gave 50...♙a2 as the main line in *Grandmaster Training Camp 1 – Calculation!*, but it does not change the character or evaluation of the position at all.

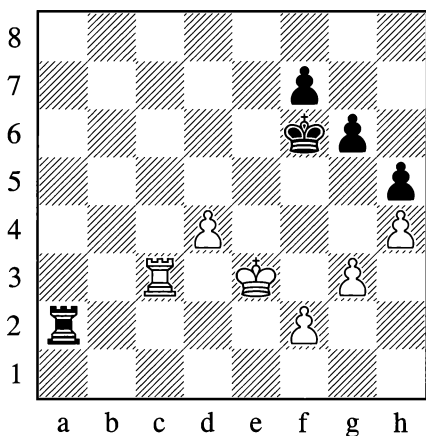
51.♙e7†! ♘e6 52.♙xc3 ♘xe7 53.♘e3 ♙a2 54.h4

White is ready for f2-f3 and ♘e3-f4. Black can't do a thing about it, and White wins.

Fair enough, but most of the time Black's pawn structure will not be deficient. He should make a draw if the pawns are placed intelligently, but the defense is not totally trivial. I was even able to win this endgame myself in 2021.

Sam Shankland – John Burke

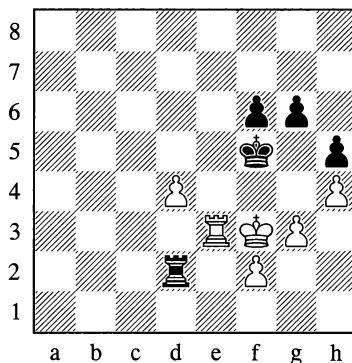
Saint Louis 2021



It looks like Black has a healthy enough defensive setup, and indeed he should make a draw. But there is an important plan that he needs to be careful of.

43.♙d3 ♘e6

Better was 43...♙f5!. In my opinion, Black's best defensive setup is to wait with the king on f5. He never needs to worry about d4-d5, and should be careful not to allow White's king to reach the center. It would have avoided the issue that came in the game. 44.d5 (44.♘f3 ♖f6 45.♙e3 ♙d2 Transferring the rook to e4 is now impossible:

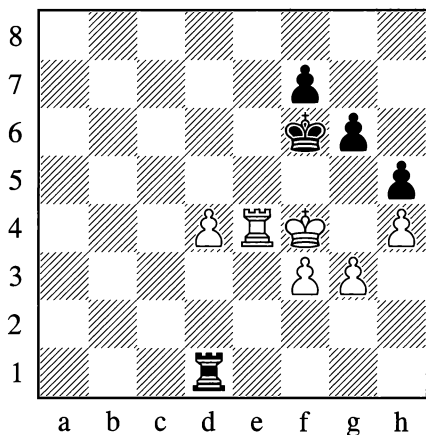


46.♙e4? Of course, Black can take on f2 and win. But even if he does not see it and plays a simple waiting move, following 46...♙d1 it is clear that bringing the rook to e4 did not bring White the same kind of winning chances that he got in the game. He needs to be able to play ♘f4 and f2-f3 to coordinate correctly, and Black's king on f5 does a fantastic job of stopping this plan from happening.) 44...♙e5 45.d6 ♙a8 Black stops the d-pawn, scoops it up, and draws the game.

44.♙d2 ♙a3† 45.♙e4 ♙a1 46.♙f4 ♘f6

I would have preferred to wait with 46...f6, keeping White's king boxed out.

47.f3 ♙b1 48.♙e2! ♙d1 49.♙e4

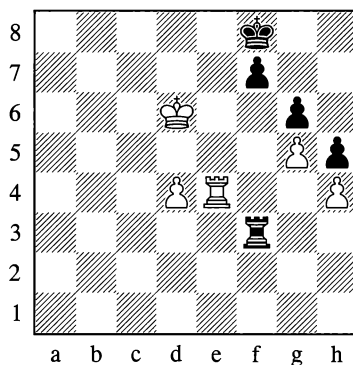


According to the computer, Black has done nothing wrong yet and it still reads 0.00. In human practice, I think his defense is already very difficult. White has managed to get his rook to the side of his d-pawn, and his kingside is secure. There is a primitive plan to push g3-g4 and then g4-g5. Black's king will be forced back to g7, and White will be ready to invade with ♔e5. The rook will be perfect on e4, shielding White's king from checks and defending h4 at the same time.

49...♖a1?

Case in point, 49...♖h1? loses. It might be tempting to try to prevent g3-g4, but now Black will be unable to give lateral checks. 50.♔e3! ♖d1 (After 50...♖g1 51.d5! Black cannot take on g3, so White proceeds along with the pawn. The king is ready to run to d4 and c5 next, and Black does not have enough checking distance to hold with lateral checks from the a-file.) 51.♔e2 ♖a1 52.♔d3! ♖f1 (52...♖a3† 53.♔c4 Again, Black is unable to take on f3. 53...♖xf3 54.♖f4†! White wins the pawn endgame.) 53.♔c4 ♖xf3 54.♖f4† Again, White wins the pawn endgame.

Correct was 49...♖d3!. According to the machine, Black still makes a draw by playing ♖d1-d3 and ♔f6-g7 in his next two moves (either move order is fine). In human practice, this strikes me as very difficult. 50.g4 ♔g7! Avoiding the exchange of pawns. (50...hxg4? 51.fxg4 ♔g7 52.♔e5! ♖xf3! We see why it was important not to allow White to exchange off his f3-pawn.) 51...♔f8! 52.♔e5 ♖xf3 53.♔d6



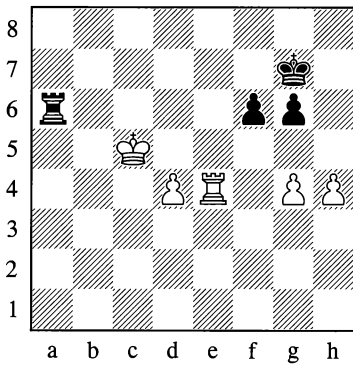
53...♖g3! More difficult only moves. Black is ready to bring the rook to g4 next. 54.d5 ♖g4 55.♖e1 (55.♔e5 ♔e7 is equal) 55...♖xh4 56.♔c5 ♖h2 57.d6 ♖d2 Draw.

50.g4! hxg4 51.fxg4

Even here, Black can still save the game, but with some very difficult only moves. John was not up to the task.

51...♖f1?

51...♔g7! It's very difficult to retreat the king like this and allow White to invade with his own king to e5. But it is the only drawing move! It is not a surprise to me that even a strong young grandmaster failed to find it. 52.♔e5 (52.g5 ♔f8! 53.d5 ♖d1 [53...♖f1† 54.♔e5] 54.♔e5 ♔e7! draws.) 52...f6†! 53.♔d6 ♖a6† 54.♔c5



54...f5! Black has just enough counterplay to save the game.

52.♔e3 ♖e1†

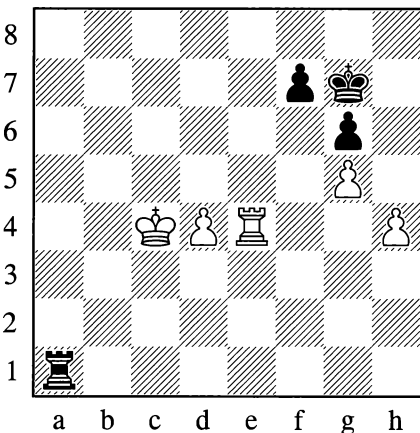
Or: 52...♖h1 53.d5! The pawn on h4 is immune from capture. 53...♖xh4 54.g5†! Black's king is pushed outside the square and White wins the pawn endgame. 54...♔xg5 55.♖xh4 ♔xh4 56.d6 wins.

53.♔d3 ♖a1 54.♔c4 ♔g7

Black comes back with the king, but it is too late.

55.g5!

Black's king is shut out, White's rook defends the base of the kingside pawn chain, and the d-pawn is coming. The rest was routine for me.



55...f5

The best practical try, giving White a final invitation to make a mistake.

56.♖e7†!

56.gxf6†? might look tempting, making sure Black cannot get a passed pawn. But after 56...♔xf6 Black is ready for ...♔f5 next, and White's rook will not be stable on e4. Black will make a draw.

56...♔f8 57.♖e6! ♖a4†

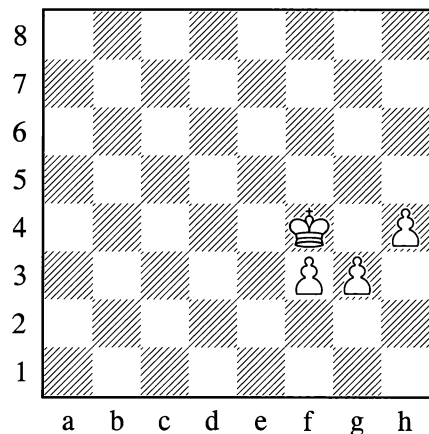
After 57...♔f7 58.♖f6† ♔g7 59.d5 ♖a4† 60.♔c5 ♖xh4 61.d6 White's pawn queens long before anything Black can do will matter. The rook on f6 is perfect. It is secure forever, defends the d-pawn laterally, keeps Black's king passive, stops the f-pawn from moving, and is even ready to block a check on the e-file once White's king reaches e7. Black has nothing left to even try. 61...♖h1 62.d7 ♖d1 63.♔c6 ♖c1† 64.♔d6 ♖d1† 65.♔e7 ♖e1† 66.♖e6 Time to resign.

58.♔c5 ♔g7 59.d5 ♖xh4 60.d6 ♔f7 61.d7 ♖h8 62.♔d6

1–0

My encounter with Burke brings us to the next guideline.

Setup 1



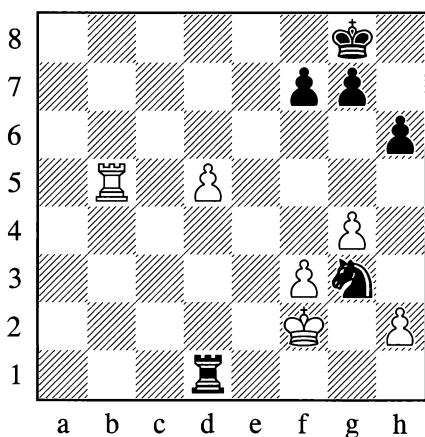
In a three versus three rook endgame where one side has an extra d-pawn, the best setup for either side to reach is ♔f4, f3, g3, and h4. The defending side will hold easily if this is reached, and the attacking side will have good winning chances if he gets there first and can aim to bring his rook to e4 next.

When applying this guideline to the previous game, it makes perfect sense. Black would have made an easy draw by leaving his king on f5. When I got my king to f4 and pawn to f3, it was still a draw in a higher chess sense, but a very difficult one and Black was not able to hold on in a human encounter.

It follows that centralization of the king is extremely important. The final example of this chapter serves as an excellent reminder that no matter how inept you might be in endgames at one point in time, there is no limit to how much your understanding can grow.

Alexander Onischuk – Magnus Carlsen

Mallorca (ol) 2004



Magnus was 13 when this game was played, but he was already a solid grandmaster at 2581 FIDE. The kingside structure is non-standard,

but some of the same principles apply. Whoever gets their king to the center first will achieve their desired half point.

44. ♔xg3?

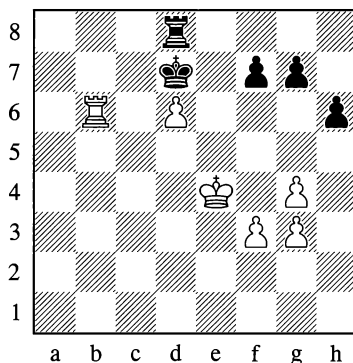
This allows White's king to get cut off.

44. hxc3!

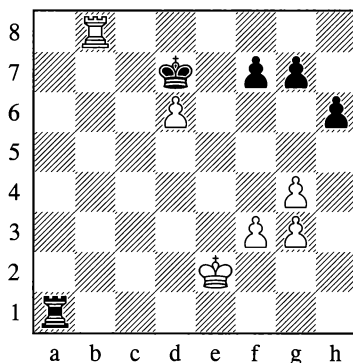
White would have won with this move. It is imperative that his king makes it to the center. It is much better placed on f2 than g3.

44... ♖f8 45. ♔e2! ♖d4

Aiming for lateral checks with 45... ♖a1 fails. White's d-pawn goes. 46. d6! Black's king is not fast enough to get to the center before disaster strikes. 46... ♔e8 (46... ♖a8 47. ♔d3 ♖d8 48. ♖b6! White's king makes it to d5 just in time. 48... ♔e8 49. ♔e4 ♔d7



Black to move would draw by bringing the king to e6. As is, White gets there first. 50. ♔d5! White gives a check on b7 next, and it's all over.) 47. ♖b8†! ♔d7



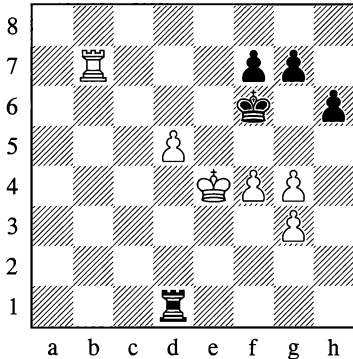
48.♖f8! White will win two kingside pawns for the d-pawn, and he will reach a winning three on one scenario on the kingside.

48...♙e6 49.d7!

46.♙e3! ♖d1 47.♙e4!

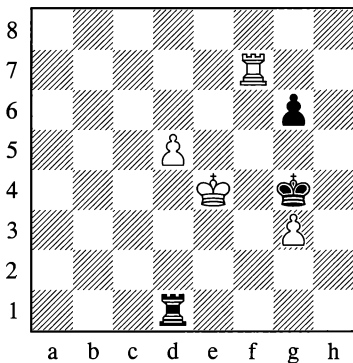
White's king makes it to the center first.

47...♙e7 48.♖b7† ♙f6 49.f4



White is ready for g4-g5† next.

49...g6 50.g5†! hxg5 51.fxg5† ♙xg5 52.♖xf7 ♙g4



53.♖a7!

A high class move. White plans to bring his rook to a3, the perfect square. It will defend his g3-pawn, and then it can safely move to e3 to let his king move up the e-file and the d-pawn be pushed. It looks like Black can take on g3, but that will not save him.

53...♙xg3

If 53...g5 54.♖a3! ♙h3 55.♖e3 g4 56.♙e5 the d-pawn easily wins the game.

54.♖g7!

White takes g6 next, and wins.

44...♙f8?

44...g5! shows that it all comes down to whose king reaches the center first. White has to lose time and come back to f2. 45.♙f2 ♙f8 46.♙e2 ♖h1! Black takes a pawn, and his king gets to e7 in plenty of time. He makes a draw.

45.h4?

45.♙f4! White needed to bring the king to the center right away. 45...♙e7 46.h4! ♖d2 47.♖b7† ♙f6 48.♙e4 With the king in the center, White is ready for g4-g5† next, with similar play to what we saw before.

45...g6?

Again, Black could have saved the game by keeping White's king out of the center: 45...g5! 46.h5 ♖d2! 47.♖b6 ♙g7 48.d6 ♙h7 draws. White's king is cut off, and he has nothing left to even try. f3-f4 is always met with a check on d3.

46.♙f4

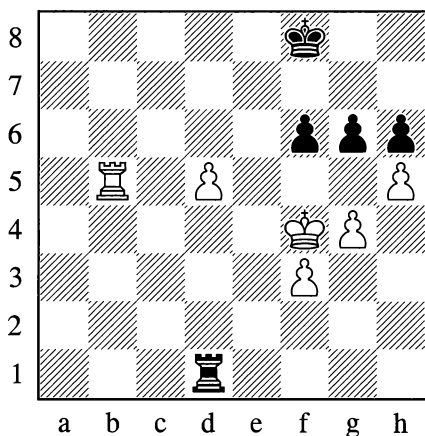
Onischuk did not take his first two chances to activate the king, but when allowed a third, he did not hesitate. White wins easily with his king coming to the center first.

46...f6

Or 46...♙e7 47.♖b7† ♙f6 48.g5† ♙g7 49.♙e5. Black's king is stuck out of play and the d-pawn is coming. White wins.

47.h5

The simplest. White gets the f5-square for his king to advance even further.



47...♔f7 48.♞b7† ♔g8 49.♔e4

There was nothing wrong with: 49.hxg6 ♞xd5 50.♞f7 White wins the f6-pawn, and the game shortly after.

49...gxh5 50.gxh5 ♔f8 51.♞h7 ♞e1†
52.♔f5 ♔g8 53.♞d7 ♞f1 54.f4 ♔f8 55.d6
♔e8 56.♞h7 ♞d1 57.♔e6

Magnus had seen enough.

1-0

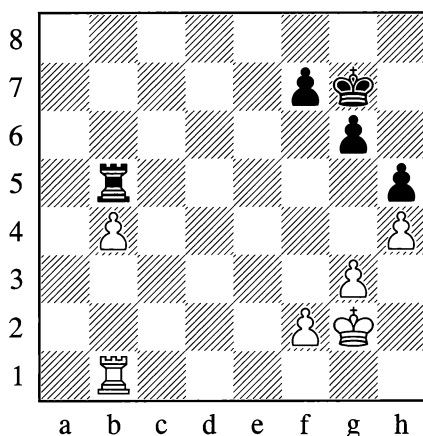
Black's defensive play in this game left a lot to be desired. It might seem simple enough that the best plan is to keep White's king out of play, but even a young Carlsen did not manage to do so with any competence. But I found this game inspiring. The greatest endgame player of all time once came from this level, even when he was already a solid grandmaster. No matter how much a player's endgame level seems to be lacking, if they study the ending well and train effectively, the possibilities for further improvement seem limitless.

Chapter 16

Rook Behind the Passed Pawn

It's now time to look at situations with one outside passed pawn and the attacking rook behind it. In general, this is certainly the best place for the attacking rook to be. The position will nearly always be winning if the attacking side is a pawn up. For example, the following position is straightforward.

Example 1

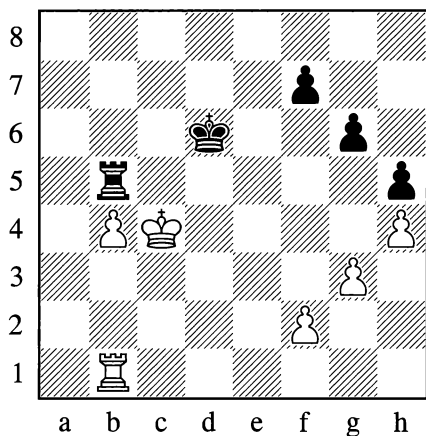


White's rook is behind the passed pawn, and the kingside pawns are equal. He wins easily.

1. ♖f3 ♜f6 2. ♖e2

This is of course a silly move. White should bring his king to e4 instead. Still, it is worth noting that no amount of time lost should change the evaluation.

2... ♜e5 3. ♜d3 ♜d6 4. ♜c4

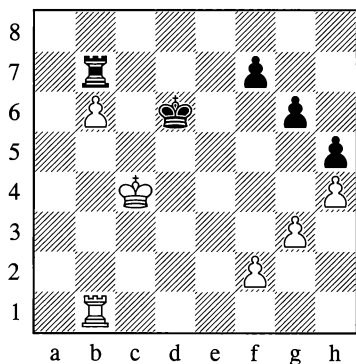


Black's rook is attacked. If it moves away, the b-pawn keeps going, and if Black brings his king to secure the b5-square, he loses his kingside.

4...♞e5

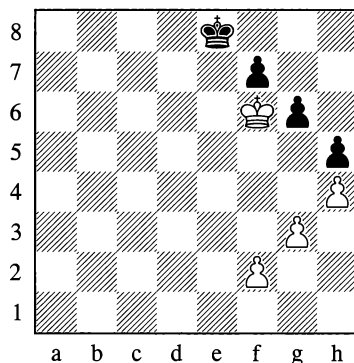
Or 4...♞c6 5.♞a1 when White switches gears and will take aim at the kingside next with ♞a7. The game is effectively over.

Leaving the rook in front of the pawn will not help either: 4...♞b8 5.b5 ♞b7 6.b6!



It might look like Black can scoop up the b-pawn with ...♞c6 next, but this is just an illusion. Taking on b6 will always lead to a lost pawn endgame. 6...♞c6 7.♞b2! Black is in zugzwang, and White has infinite waiting moves with his rook on the b-file. Moving the rook allows b6-b7, moving the king allows ♞b5,

and taking on b6 transitions into a lost pawn endgame. 7...♞xb6 What else? (After 7...f6 Black runs out of pawn moves right away. 8.f4 f5 9.♞b1) 8.♞xb6† ♞xb6 9.♞d5 ♞c7 10.♞e5 ♞d7 11.♞f6 ♞e8



12.f4! ♞f8 13.f5 gxf5 14.♞xf5 White is ready for ♞g5 next, reaching a routinely winning pawn endgame.

5.b5 ♞c7 6.♞a1!

Again, as soon as Black's king moves in front of the b-pawn, White switches his rook's position and attacks the kingside.

6...♞b6 7.♞a6† ♞b7 8.♞f6

White wins.

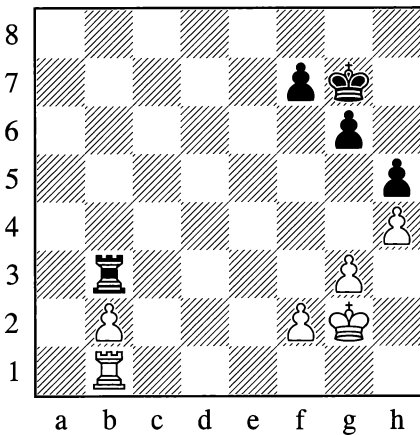
White did not have to work especially hard for his point. But it does allow us to introduce the first two guidelines when dealing with a friendly rook behind an outside passed pawn.

When you have a rook behind the outside passed pawn, if you can ever put the defending player in zugzwang, you always win. You will have infinite waiting moves with your rook and can put him in zugzwang repeatedly.

When you have a rook behind your outside passed pawn, your strategy depends on which piece your opponent is using to block the pawn. If they are blocking it with their king, transfer the rook to attack the pawn mass on the other side of the board. If they are blocking it with their rook, connect your king with your pawn.

This principle held true in the above example, but that was a very easy case. Let's look at an example where the evaluation changes.

Example 2



Here, we have a very different situation. Black's rook blockades the b-pawn on its starting square, and this changes a lot. When the blockade on the b3-square is broken, it will take White more time to push his b-pawn up the board. But more importantly, Black's rook can harass White's kingside pawns laterally while remaining in front of the b2-pawn.

36.♔f1 ♕f6

Black has other good moves, but this one seems easiest to me.

37.♕e2 ♗g5! 38.♕d2 ♖g6 39.♕c2 ♜f3

Black's kingside counterplay is easily enough to make a draw.

It took an extreme case of the pawn being all the way back on its starting square for Black to be making a draw. This leads us to the next guideline, which surely will not be news to anyone familiar with rook endgames.

With the rook behind the passed pawn, the further up the board the pawn is, the more likely it is that the position will be winning.

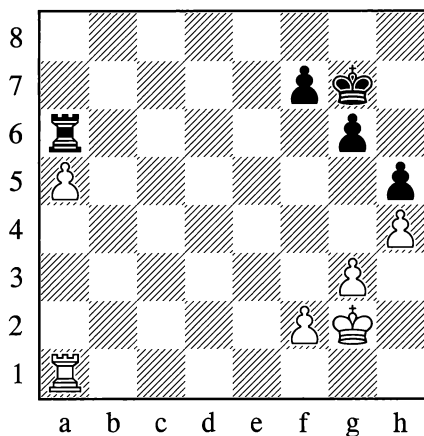
Fair enough, but how far advanced does the pawn need to be before the position is technically winning? Here we saw that with a b-pawn and a normal kingside structure, the position was a dead draw with the pawn on b2, and totally winning with the pawn on b4. But there are so many places the outside pawn can be, so many structures to be seen on the other side of the board. To consider all of those to be technical knowledge and worthy of memorization would be an absurd idea, and this chapter alone might involve cutting down an entire rainforest to print the pages.

Still, I think it is worth memorizing how far an a-b-, or c-pawn needs to be advanced for the position to be winning if the kingside structure is a standard f2/g3/h4 against f7/g6/h5. I came up with the following guideline.

With a friendly rook behind an extra outside passed pawn, an a-pawn must reach the fifth rank to be winning, while b- or c-pawns only need to reach the fourth rank.

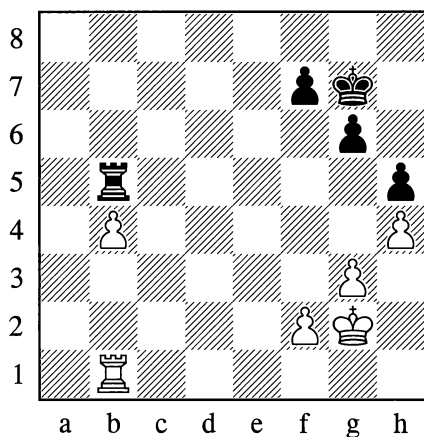
For example, the following positions are winning:

Example 3



1. ♖f3 ♜f6 2. ♖e4 ♜e6 3. ♖d4 ♜d6 4. ♖a2
Black is in zuzgwang and White wins.

Example 4

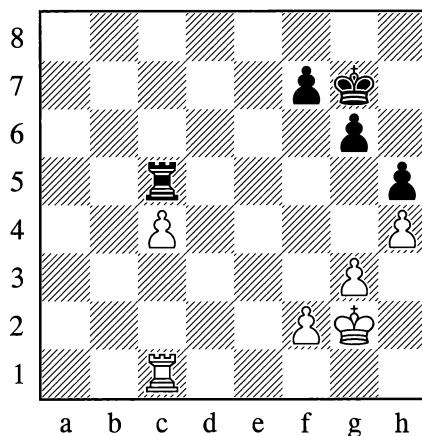


We have seen this before. White brings his king to c4.

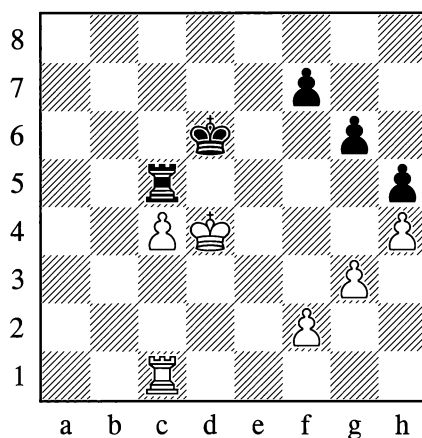
1. ♖f3 ♜f6 2. ♖e4 ♜e6 3. ♖d4

♜c4 comes next, and White wins. (The conversion process should be fairly easy, and I have given a few more sample moves on page 432.)

Example 5



1. ♖f3 ♜f6 2. ♖e4 ♜e6 3. ♖d4 ♜d6



Black's defenses are stretched just far enough that he cannot keep the kingside secure and babysit the c4-pawn at the same time.

4. ♖a1! ♜f5 5. c5† ♜d7

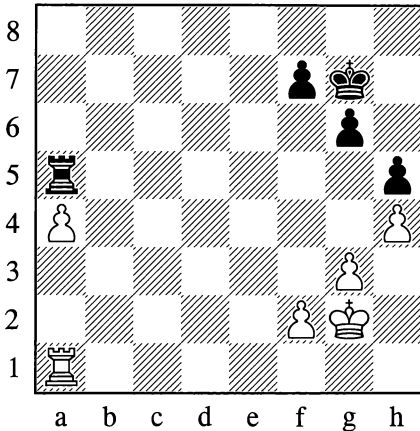
Similar is 5... ♜c6 6. ♖a6† ♜b7 7. ♖b6† ♜c7 8. f4 Black's rook is frozen on f5.

6. f4

Black's rook is again stuck on f5. White can bring his rook to a6 and king to b5, and that is that.

The following positions are drawn.

Example 6

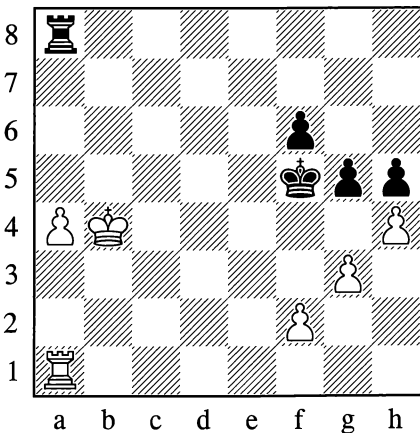


The pawn being back on a4 gives Black just enough time to make kingside counterplay.

1. ♖f3 f6! 2. ♖e4 g5!

Black sets his kingside pawn mass in motion. This is the only saving move.

3. ♖d4 ♖g6! 4. ♖c4 ♖f5! 5. ♖b4 ♖a8



Black is ready for ...g5xh4 and ...♖g4 next. He is just in time to save the game, as White cannot get his rook to the fourth rank quickly enough.

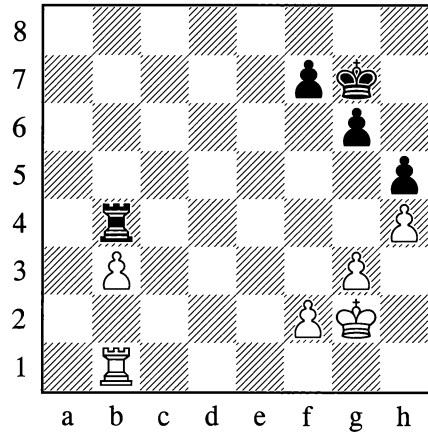
6. a5 gxh4! 7. gxh4 ♖g4 8. ♖b5

If Black were to fall asleep at the wheel here, ♖a4† would win. But he will not fall asleep.

8... ♖xh4

Draw.

Example 7



Just like we saw in the previous case, Black will have enough time to make kingside counterplay here.

1. ♖f3 ♖f6!

1...f5!? also holds, but I find the text more human.

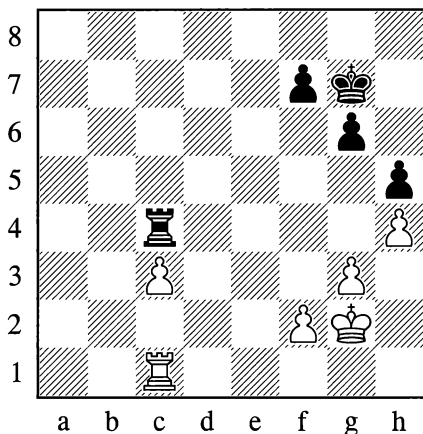
2. ♖e3 g5!

Bringing the king to try to stop the b-pawn will not save the game: 2...♖e5? 3. ♖d3 ♖d5 4. ♖c3 ♖c5 5. ♖a1 White wins. His pawn being on b3 rather than b4 or b5 is of no great significance, as his plan is to use his rook to take Black's kingside.

3. hxc5 ♖xg5 4. ♖d3 f5!

Black is ready for ...f5-f4 next, and he has enough kingside counterplay to hang on.

Example 8



White is winning, but only because he is immediately in time to get his pawn to the c4-square, which we already know is far enough to be winning. If he burns a single tempo, Black holds.

1.♔f3!

A single lost tempo immediately tilts the balance back in Black's favor. 1.♖c2? f6! 2.♔f3 g5! 3.hxg5 fxg5 4.♔e3 h4 Black's h-pawn makes counterplay, and he holds easily.

1...f6 2.♔e3! g5 3.♔d3!

White's pawn gets to c4 before Black can make kingside counterplay, and he wins.

It is important to note how Black was saving the drawn positions, which leads us to the next guideline.

When defending against an extra outside passed pawn with an enemy rook behind it, the only chance is to use your rook to blockade the passer and then use your king to make counterplay on the other side of the board.

Indeed, the only way Black was saving the game in any of these positions was pushing ...g6-g5 at the right moment. Bringing the king to the passed pawn never worked.

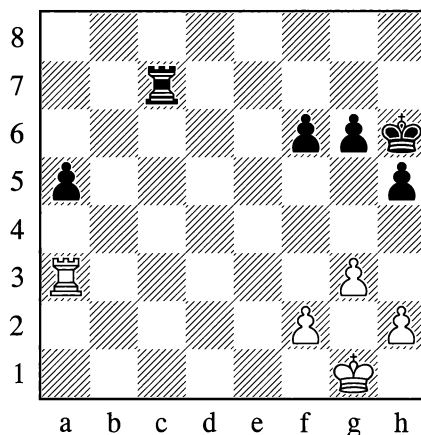
It is also important to note that in the guidelines on page 329, we are only referring to the most common kingside pawn structure. While it is true that this structure is more common than any other, it is certainly not more common than all other kingside pawn structures combined!

Small changes to the pawn structure can change the evaluation completely. It is impossible to exhaust the possibilities of White's pawn being on every square on the a-, b-, and c-files, plus all of the kingside structures. You should instead be ready to consider how a change to the kingside structure will affect the evaluation.

Enough composed positions, let's look at some real games.

Mikhail Botvinnik – Georgy Borisenko

Moscow 1955



Black must obviously save his a5-pawn, but where should his rook go? Normally, one would think that placing the rook behind the pawn is the most natural choice. But when we

consider that generally speaking, the pawn will need to be advanced to the fifth rank (from the attacking side's point of view, so a4 in this specific position), he could have found the best decision by elimination.

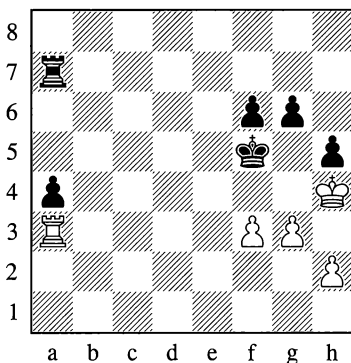
44...♖a7?

Black's best chances lay in defending the pawn from the side: 44...♖c5! He can hope to bring his king to the center with ...♔g5-f5-e5, and it is not hard to imagine him reaching a perfect structure on the kingside with moves like ...g5-g4 coming, when his rook will defend the base of the pawn chain. The machine claims Black is winning here. I would not be so confident at first glance. But once we know that the position is drawn with the rook on a7, we can play ...♖c5 by elimination.

45.♖a4!

White does not allow the pawn to be advanced to a4. Botvinnik showed excellent understanding of how best to defend the position in the coming moves.

If 45.f3? a4! Black gets the pawn one square further advanced, and his rook has access to a5. From a5, it will not only defend the a4-pawn, but also laterally keep the h5-pawn safe. 46.♔g2 ♔g5 Not only will Black's rook have more scope, but White's rook has less scope as well. Sitting on a3, it is not helping White push g3-g4 like it did in the game. White has no hope to create counterplay. 47.♔h3 ♔f5 48.♔h4



According to the machine, anything wins here. I like making use of the extra room behind the a-pawn. 48...♖a5! 49.g4† What else? 49...♔f4 Black's rook proves very useful on a5! White can resign.

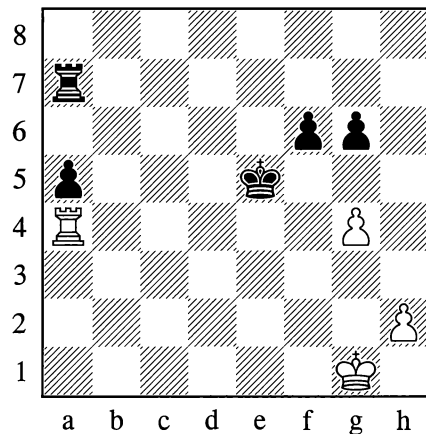
45...♔g5

White needs kingside counterplay, and he needs it now.

46.f3! ♔f5 47.g4† hxg4

Trying to maintain a symmetrical structure would not win the game either: 47...♔e5 48.gxh5! gxh5 49.♔g2! ♔d5 50.♔g3 ♔c5 51.♔h4 White's king is making annoying counterplay, and the game is drawn. For example, after 51...♔b5 52.♖a1 ♖h7 Black saves his pawn, but at a heavy price. White will make a draw with frontal checks, as Black's rook can never help get the a-pawn moving while it is passively stuck on h7. 53.♖b1† ♔c4 54.♖a1

48.fxg4† ♔e5



If Black is allowed to play ...g6-g5 next, he will win easily. He can place his rook on a6 to defend the base of the pawn chain, White can never hope to attack anything or make any counterplay on the kingside, and Black's king will come to b5. Of course, Botvinnik did not allow this to happen.

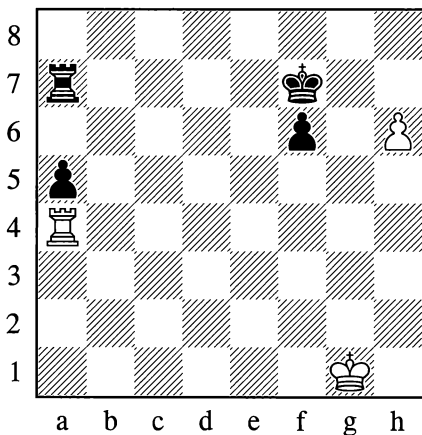
49.h4!

White makes a passed pawn, and he has enough counterplay to save the game.

49...♔d5 50.h5

This strikes me as asking for trouble since now Black's king can come back to try to stop the h-pawn, but it does make a draw with accurate play.

Bringing the king was fine too: 50.♔f2 The h-pawn cannot be ignored forever. 50...♔c5 51.h5 Black's king is outside the square, and he will need to use his rook to keep the h-pawn under control. White will make an easy draw. 51...♔b5 52.♖a1 gxh5 53.gxh5 a4 54.h6

50...gxh5 51.gxh5 ♔e6 52.h6 ♔f7**53.♖g4!**

The only drawing move, but not a difficult one.

53...♔f8 54.♖f4 ♖a6 55.♖g4 ♖a7 56.♖f4 ♔g8 57.♖xf6 a4 58.♖f2 ♔h7 59.♖a2 ♔xh6 60.♔f2 ♔g5 61.♔e3

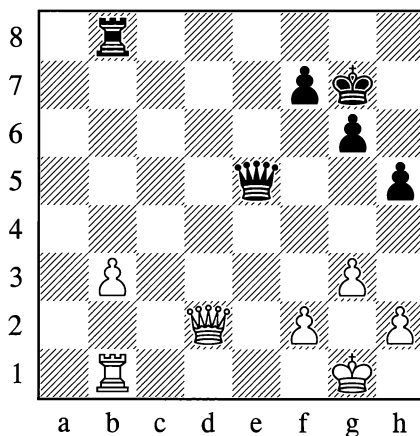
Botvinnik showed very good defense in a difficult position to save the game.

As we can see here, simple knowledge goes a long way. Black could have found the best idea if he had known that the position would only be winning if his pawn could make it to a4.

In this case, the minor change to the kingside pawn structure did not change the result. But that will not always be true, as we see in the following encounter.

Levon Aronian – Sergey Karjakin

Wijk aan Zee 2014



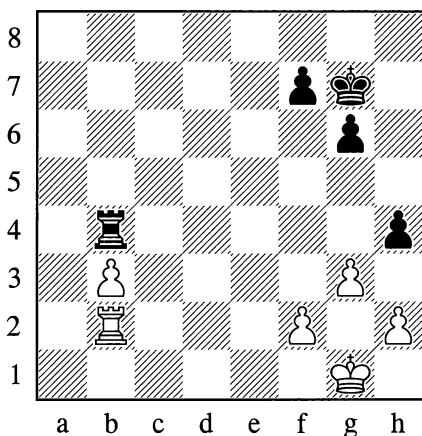
White can potentially play ♖b2 next. Black will be forced into a rook endgame with White's rook behind the passed pawn. Black will be able to get his rook to b4. I doubt Karjakin had any concrete knowledge of how far up the board White's b-pawn has to be in order to win, but according to what we just saw, the pawn on b3 should be a draw. However, the kingside pawn structure is not exactly what we had seen before, and this makes all the difference.

43...h4?

This allows White to transition into a winning rook endgame.

Black has a defensible position after 43...♔h7! or any other move that disallows the queen exchange. My computer claims this is 0.00, which is obviously wrong in human practice. White will push for a win for the next 50 moves, and Black has a long defense ahead. Still, it says a lot that the machine is this confident that the position is drawn.

44.♖b2! ♜xb2 45.♞xb2 ♞b4

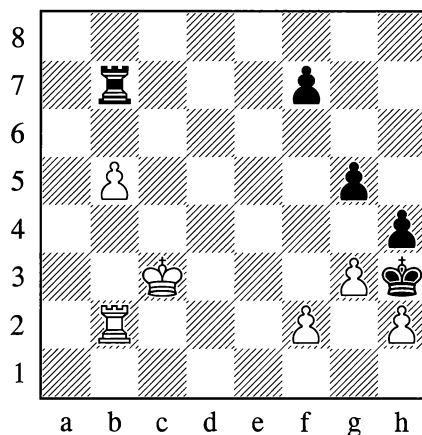


The difference between this structure and what we saw in example 7 is that White's pawn is back on h2. As such, Black does not have the easy plan of pushing ...g6-g5 to attack a weak pawn on h4, and he will struggle to make kingside counterplay. In the meantime, White can bring his king to c3.

46.♔f1! ♔f6 47.♔e2 ♔f5

Karjakin is playing the right strategy, looking for kingside counterplay by bringing his king to h3. But it is too slow. White's pawn on h2 is too far away.

48.♔d3 g5 49.♔c3 ♞b7 50.b4 ♔g4 51.b5 ♔h3



52.gxh4!

The easiest. White makes sure that he can move his f-pawn next to prevent Black from taking on h2.

52...gxh4 53.f4! ♔g4 54.b6 f5 55.♔d4 ♔xf4 56.♞b3

Anything wins, but I like this move. Black's king is cut off from doing anything useful, and White runs his own king to c6.

56...h3 57.♔d5 ♔g4 58.♔c6 ♞b8 59.♞g3† ♔h4 60.b7 f4 61.♞g7 1-0

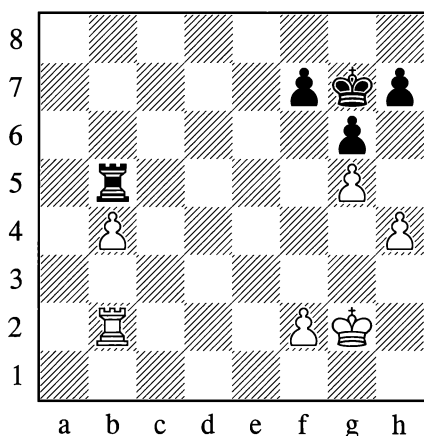
The reason Karjakin was unable to save the position was that it was hard to make counterplay on the kingside. This all came down to the h-pawn being back on h2, denying Black the possibility of playing for the ...g6-g5 break. This brings us to the next guideline.

With a rook behind an extra friendly passed pawn, the attacking side should win if the enemy rook blockading the pawn is not harassing any of the enemy pawns laterally.

As we can see here, this held true. The rook on b4 was blockading the b3-pawn, but it was not attacking any of the kingside pawns from the side. As a result, Black lacked the counterplay he needed to save the game.

Let's see another example of how this could work in practice.

Example 9



Black's rook is on b5, which in theory should be too far back for him to hope to save the game. But we see that White's g-pawn has been pushed to g5. As a result, the rook on b5 performs two functions at once.

1...h6!

The only saving move, but not a hard one. Black looks to make counterplay on the kingside.

2.♖f3

After 2.f4 Black saves the game by liquidating the kingside: 2...hxg5 3.hxg5 f6

2...hxg5 3.hxg5 ♕f8!

A precise move. It might be tempting to take on g5, but this would let the b-pawn through:

3...♙xg5? 4.b5! White's pawn gets to b7 and it's all over. 4...♙e5 5.b6 ♙e8 6.b7 ♙b8 7.♕e4 White's king runs straight to c7.

4.♕e4 ♕e7!

Black's king is now within the square, and he can hope to take on g5 next.

5.f4

White secures his g-pawn and is ready to bring his king next.

After 5.♕d4 ♙xg5! 6.b5 ♕d7 Black gets his king in front of the b-pawn. Normally, White should be trying to shift gears and attack the kingside once this happens, but with a pawn less on the right side of the board and Black's rook soon to sit on f5, this is not a realistic prospect. Draw.

5...f6!

Again, Black makes use of his rook harassing the overextended g-pawn.

6.gxf6† ♕xf6 7.♕d4 ♕f5

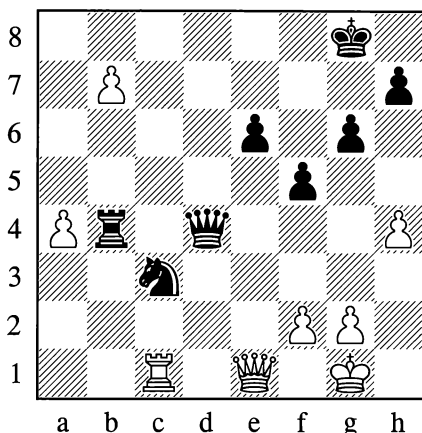
Black should not lose.

I was somewhat surprised at how often the positions were drawn with equal pawns on the kingside, but those are still the exception to the rule. There are important guidelines to understand if the position falls into one of those exceptions, but most of the time, the extra pawn will win.

The situations tend to be much more interesting when the pawn count is equal, and the defender has an extra pawn on the opposite side of the board. All the same principles still apply, but there are some other ones to keep in mind as well.

Sam Shankland – Vladimir Romanenko

Philadelphia 2012



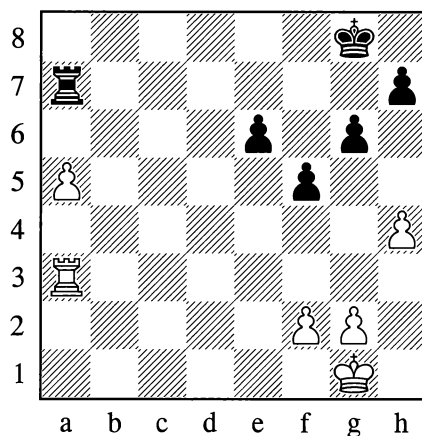
Much like we saw in the Aronian – Karjakin example, I have an important decision to make. Obviously, I will take the knight. But should I transition into the rook endgame, knowing that I will get my rook behind the a-pawn?

36. ♖xc3?

This was the wrong decision, and one I would surely not make after writing this book. White's pawn will reach the a5-square and be blockaded by a rook on a6. We have already seen this is only barely enough to win if the kingside pawns are equal. It's hard to imagine it will still be winning when Black is given another pawn.

I would have been better advised to play a heavy piece endgame: 36. ♖xc3! ♖xb7 37. ♖xe6† ♔g7 38. ♖c4 White should win easily by combining threats to the enemy king with pushing the a-pawn up the board. It's nice to be a full pawn up instead of just having an outside passer against a less effective majority!

36... ♖xc3 37. ♖xc3 ♖xb7 38. ♖a3 ♖a7 39. a5

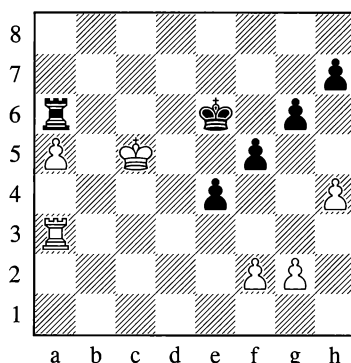


Simple as the preceding guidelines are, even strong players are more than capable of making elementary mistakes.

39... ♔f7?

Black allows me to push a6.

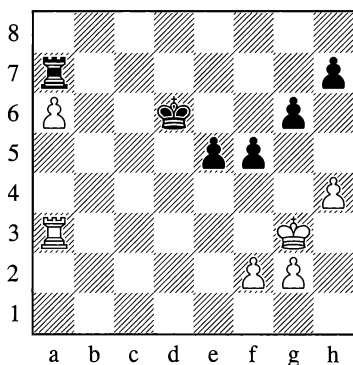
Of course Black should blockade the pawn as far back as he can: 39... ♖a6! 40. ♔f1 e5! 41. ♔e2 e4 Black's pawn mass is solid and secure, he can bring his king to the center next. White is too slow to send the a-pawn through. 42. ♔e3 ♔f7 43. ♔d4 ♔e6 44. ♔c5



44... f4! 45. ♔b5 ♖a8 46. a6 ♔d5! Black's centralized king and menacing center pawns give him enough counterplay to hold on. He is ready for ... ♔d5-d4 and ... e4-e3.

40.f4?

I really don't know how I managed not to play 40.a6!. White wins easily. 40...♔e7 Black's king will reach the a-pawn before White's will, but we know what to do. As soon as the enemy king is the one defending against the passed pawn, we should immediately be looking to attack the pawn mass on the other side. 41.♖h2! ♕d6 42.♖g3 e5



We see why pushing the pawn all the way up to a6 was important. (42...♔c5 43.♖f4 White takes the kingside and wins easily.) 43.♖a5! It's very nice that White's rook has access to this square! Much like we saw in the previous cases where Black was hoping to use his rook to not only blockade the passed pawn but also laterally harass the enemy kingside, the attacking rook wants to do exactly same thing. With e5 hanging, Black's king is unable to make it any closer to the queenside. 43...e4 What else? (After 43...♔c6 44.♖xe5 ♖xa6 45.♖e6† White will win the pawn endgame.) 44.♖f4 ♕c6 45.h5! ♕b6 46.♖a2 Black loses the pawn endgame if he takes on a6, but not taking won't help either once h5xg6 and ♕g5 comes. 46...♖xa6 47.♖xa6† ♕xa6 48.hxg6 hxg6 49.♕g5 ♕b5 50.g3! The final finesse. Black will lose g6 and f5 next, and he can resign. (50.♕xg6?? Don't be that guy. 50...f4 and it is Black who wins.)

40...e5 41.fxex5 ♖a6! 42.♖f2 ♕e6 43.♖e3 ♕xe5

With Black's king well centralized, he saves the game without much trouble. White cannot connect his king with his a-pawn, and he cannot hope to harass Black's kingside either.

44.♕d3 ♕d5 45.♕c3 ♕c5

Black's extra kingside pawn means that White cannot hope to achieve anything by abandoning his a-pawn and hoping to get his rook to the seventh rank.

46.g3 h6

With ...g6-g5 coming next, Black will either liquidate the kingside or make a passed pawn of his own. There was no particular reason to keep playing the game, but I guess I made a few more moves out of frustration.

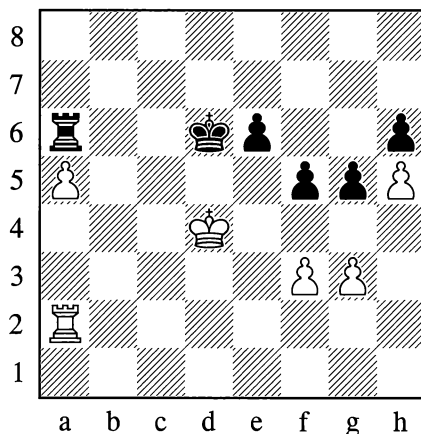
47.h5 gxh5 48.♕d2 ♕b4 49.♖a1 ♖xa5 50.♖xa5 ♕xa5 51.♕e3 ♕b5 52.♕f4 ♕c5 53.♕xf5 ♕d5 54.♕g6 ♕e4 ½-½

As we can see, the half point was passed back and forth when neither of us fully realized how important it was for White to get his pawn to a6, and for Black to stop him from doing so.

Let's see a similar position where a half point was left on the table as well.

David Anton Guijarro – Alexei Shirov

Linares 2020



White has an outside passed pawn. While it is stuck on a5 the same as it was in my game with Romanenko, here we see a key difference in that White's king has made it to the center first. As such, he should be able to win by putting Black in zugzwang.

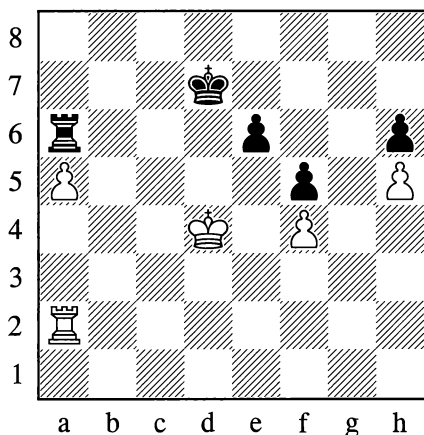
48.f4!

Black's central pawn mass is immobilized, and he is put in zugzwang as neither his king nor his rook has a reasonable move.

48...gxf4 49.gxf4 ♔d7

This is Black's least offensive option. At least White cannot bring his king to e5.

The other tries were: 49...♖a8 50.a6! Of course, White pushes the pawn. And 49...♙c6 50.♙e5! ♔d7 51.♙f6! White's king invades, and he wins easily. Taking the h-pawn should do the job easily enough.



50.♙c5?!

Going in the wrong direction.

50.♙c4!

This was the winning move, as Jacob pointed out after seeing my first draft.

50...♙c7

This is the trickiest try.

50...♙c6 51.♙b4 ♙c7 52.♖c2! ♙b7

53.♖d2 ♙c6 54.♖d8 ♖a7 55.♖b8 ♖d7 loses to: 56.♖b6! ♙d5 57.a6 ♙e4 58.♖b7 ♖d1 59.♖b5! ♖d8 60.♙a5! and White is a necessary tempo up, no more.

51.♖a3!

A prophylactic move, aiming to meet 51...♖d6 with 52.♖d3!.

51...♙c6

51...♙c8 52.♙b5 ♖d6 53.♖g3 would invade via the kingside.

52.♙b4 ♙c7 53.♖c3! ♙b7 54.♖d3 ♙c7 55.♙b5 ♖c6 56.a6 ♖c1 57.♖e3!

A final finesse.

57...♙d7 58.♖a3

White wins.

50...♙c7 51.♙b5?

This natural move ends White's dreams of winning the game.

I believed that White could have won with 51.♖a4?!, but had missed 51...♙c8!, which makes White's task harder.

The right path, was the road back to where we were before. 51.♙d4!

51...♖d6

Just like that, it's immediately drawn. Black's extra kingside pawn and active rook save the day.

52.a6 ♙b8 53.a7! ♙a8 54.♖a4 ♖d1 55.♙c4

White tries to bring the king back to win on the kingside, but it's far too late.

55...♖e1

Taking h5 directly with 55...♖h1 was quite enough as well.

56.♙d3 ♖h1 57.♖a6 ♖e1

There was nothing wrong with 57...♖xh5 either.

58.♖a4 ♖h1 59.♖a6 ♖e1 60.♖a4

½–½

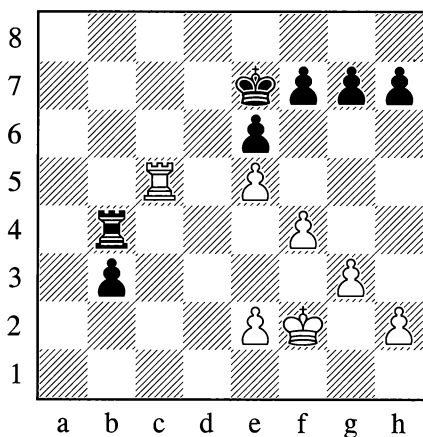
The difference between this game and my encounter with Romanenko introduces the next guideline.

In endgames with a rook behind a friendly outside passed pawn, and the defending side having an extra pawn on the other side of the board connected to the remaining pawn mass, whoever gets their king to the center first will likely earn their half point.

This principle was put clearly on display in a training game I played in 2021.

Christopher Yoo – Sam Shankland

Walnut Creek 2021



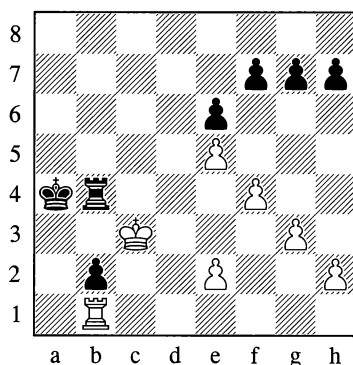
The 2021 Prague Masters was to be my first classical event in sixteen months due to the coronavirus lockdown leading to all events being cancelled, so I invited Christopher Yoo to play a classical training game with me to help shake the rust off. There were a ton of interesting moments in the middlegame that will remain unknown until I have reason to publish the rest of the game. But for now, let's focus on this interesting rook endgame that arose! Black obviously has good winning

chances thanks to his rook being behind his passed pawn, but White has an extra pawn in the kingside/central pawn mass. In general, whoever gets their king to the center first will probably achieve their half point.

32.♖c1?

The rook was clearly going to have to come back to c1, but by failing to give an intermediate check on c7, Black's king gets to the center one tempo faster. That tempo proves to be decisive.

32.♖c7+! would have saved the game. 32...♔d8 33.♖c1! Black's king is one step further from the center, and White holds by a single tempo. 33...b2 (33...f6 34.exf6! Black cannot take back with the king, thanks to White giving a check on c7 before coming back to c1.) 34.♖b1 ♕e7 (Running straight to the a-pawn is not quite fast enough: 34...♔c7 35.♕e3! ♕b6 36.♔d3! ♕a5 37.♕c3! ♕a4

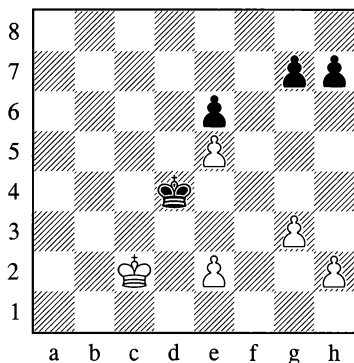


38.♖xb2! Just in time.) 35.♕e3 f6 36.♔d3 White is ready for ♕c3 next, picking up the b-pawn and making a draw. Black's king is one tempo too slow to make it to c5.

32...f6!

I was really happy with myself for finding this one. Black clears a route for his king to reach the center.

32...b2?! also wins, but feels a little less accurate. After 33.♖b1 f6 34.♙e3 fxe5 35.fxe5 White's king is coming to c3, and it will be easier for him to take the b-pawn. 35...♙d7! 36.♙d3 ♖c6 37.♙c3 ♖c5! 38.♖xb2 ♖xb2 39.♙xb2 ♙d4 40.♙c2

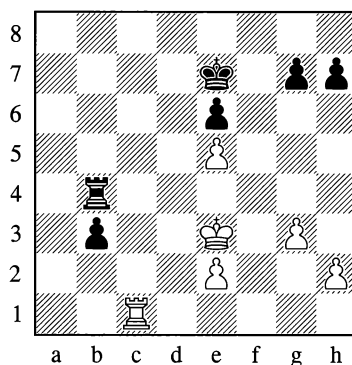


When I chose to play 32...f6, I rejected 32...b2 because I had evaluated this king and pawn endgame to be drawn. I will forgive myself for this misevaluation. Black wins with the only move: 40...g5!! When he will be able to gain space with ...g5-g4 next and have reserve tempos to spare with his h-pawn to put White in zugzwang repeatedly.

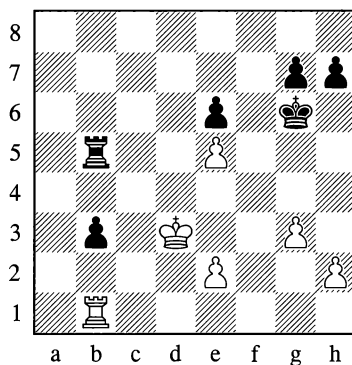
33.exf6†

Christopher's move made my job easier, but Black was surely winning either way.

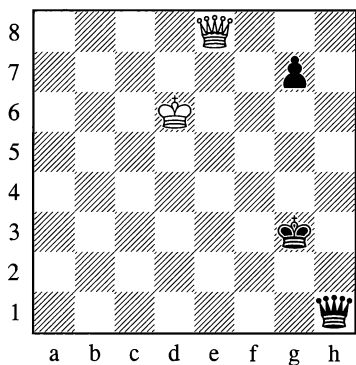
33.♙e3 feels more resilient to me, as Black should easily win as soon as his king reaches the center. White keeps the d6 and f6-squares under control. 33...fxe5 34.fxe5



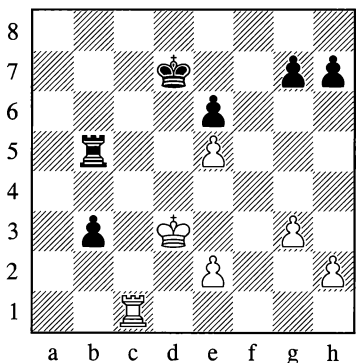
Black has to be careful. Had this position occurred in the game, I hope I would have found the right move once it was on the board in front of me. From afar, I had seen this position and thought I should bring the king to f7. This probably would be enough to win in practice, but it is not the best move. 34...♙d7! (34...♙f7?! 35.♙d3! ♙g6 I thought Black was winning here, but the computer holds on with 36.♖b1! ♖b5



37.♙c3! ♖xe5 38.♙d3! I don't see a human finding this, and even if they do, it is still a lot of work to make a draw. A long forcing line will end up with a technically drawn but totally miserable queen endgame. 38...♖b5 39.♙c4 ♖b8 40.♖xb3! ♖xb3 41.♙xb3 ♙f5 42.♙c4 ♙g4 43.♙d4 ♙h3 44.♙e5 ♙xh2 45.♙xe6 ♙xg3 46.e4 h5 47.e5 h4 48.♙d6 h3 49.e6 h2 50.e7 h1=♔ 51.e8=♔



As mentioned in the previous chapter, technically this is a draw. In practice... good luck. I lost this endgame the only time I ever got it, and I was already over 2700. Abhimanyu Mishra lost it recently as well.) 35.♔d3 ♚b5! Black wins easily. The fact that he has not included the moves ...b3-b2 and ♚b1 means that White cannot easily take the b3-pawn, and his defenses are stretched.

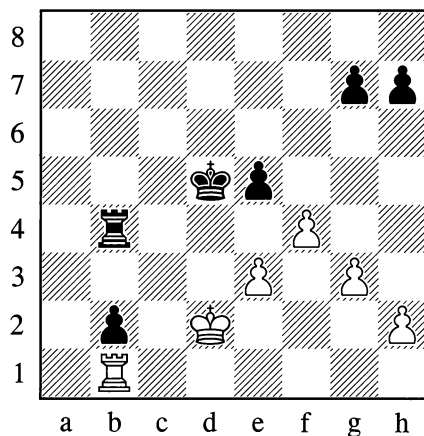


36.♚b1 ♔c6 37.♔c3 (37.♔d4 b2 Black's king is much better placed on c6 than g6. For example, after 38.e4 ♚b4† 39.♔c3 ♔c5 it's all over.) 37...♚xe5! Game over.

33...♔xf6

Now it's easy.

34.♔f3 e5 35.e3 ♔e6 36.♔e2 b2 37.♚b1 ♔d5 38.♔d2



38...♚b3!

This is not the only winning move, but I like it for its thematic nature. Black makes use of having the b3-square available because his pawn is all the way on b2. He can pressure the e3-pawn laterally while still keeping his passer safe. White's king is stuck defending e3, and ♔e4 will come next to finish the game.

38...♔e4 works too. 39.♔c3 ♚b8 40.♚xb2 ♚xb2 41.♔xb2 exf4 42.exf4 ♔f3 43.♔c3 ♔g2 44.g4 ♔f3! I saw it all the way to here but went with the game continuation instead, which is obviously also fine.

39.♔c2

Christopher tried to take b2 at all costs, but now his king will be too far away and I can win the game on the kingside alone.

39...♚xe3 40.♔xb2

Black wins the pawn endgame after 40.♚xb2 ♚e2†! 41.♔c3 ♚xb2 42.♔xb2 exf4 43.gxf4 ♔e4.

40...exf4 41.gxf4 ♔e4

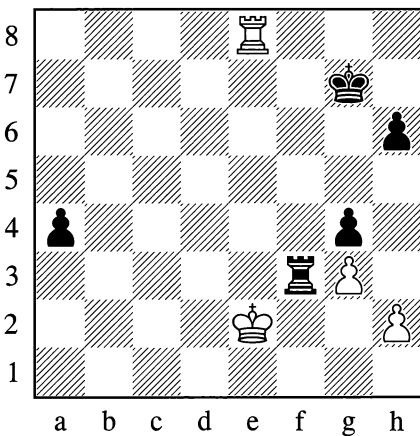
Christopher kept playing for a while, but I think we can safely end our coverage here. The result was no longer in doubt.

The difference of a single tempo was huge, and all it took was one innocent looking move from Christopher for me to get my king to the center in time to win the game. I cannot stress enough how important it is to be the first one to get there!

With this in mind, let's return to a game we saw in the previous chapter.

Valeriy Neverov –Konstantin Borsuk

Kremenchuk 2020



60...♖f8!

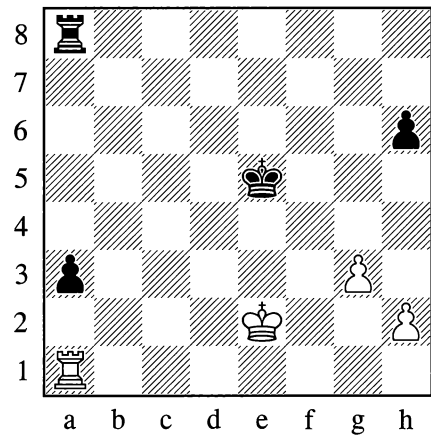
Black transfers his rook behind the a-pawn. I'm sure Borsuk noticed this option, but was worried about losing g4.

60...a3 was played in the game, as we saw in the previous chapter. Black eventually won, but White could have saved the game with better defense.

61.♞e4 ♞a8! 62.♞xg4† ♔f6

Black's pawn will make it all the way to a2, and his king will reach the center first. This is a strong indication that the position should be winning, and indeed, it is.

63.♞f4† ♔e5 64.♞f1 a3 65.♞a1



65...a2!

It is important for Black to get his pawn all the way to a2. This is because he needs the a3-square for his rook to be able to harass White's kingside pawns.

It might be tempting to try to bring the king in directly, but this loses flexibility: 65...♔d4? 66.♔d2! White keeps the enemy king boxed out, and it is too far away from the kingside. 66...a2 (Or 66...♔e4 67.♞a2! ♔f3 68.♔c3 White's rook defends the h2-pawn laterally, making his kingside safe from harassment. Black really needed his pawn to reach a2 to make this defensive scheme a non-starter.) 67.g4! Black's king is one square too far away to stop White from pushing h2-h4 and g4-g5 next. 67...♔e4 68.h4! ♔f4 69.g5! White makes a draw.

White's king will now need to choose a direction.

66.♔e3

After 66.♔d3 ♞a7! White is in zugzwang. Since Black can pass with his rook infinite times, he will be able to put White in zugzwang again and again. 67.h3 (If 67.g4 ♔f4! Black wins the kingside pawns. Or 67.♔c4 ♔e4! Black's king reaches f3, and that is that. 68.♔b3 ♔f3 Since Black's pawn made

it to a2, White cannot keep his rook on the a2-square to secure the h2-pawn. Black takes the kingside, and wins.) 67...♖a3†! 68.♔c4 (68.♔c2 ♜xg3 White cannot take on a2 on pain of a lost pawn endgame, and it is time to stop the clocks.) 68...♔e4! Black is ready for ♔e4-f3 next, and he will win the game on the kingside.

66...♖a3†! 67.♔e2 ♔e4

White is in zugzwang and has to choose a direction with his king. Whichever way he goes, Black's king goes the other way. Even if it were Black to move here, any rook move on the a-file would lose a tempo and force the same zugzwang.

68.♔d2

If 68.♔f2 ♔d3 Black's king will reach b2, and he pushes the a-pawn through.

68...♔f3

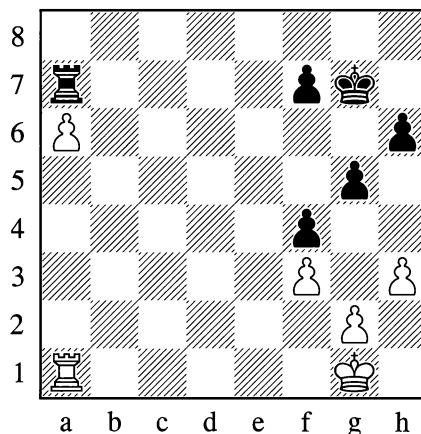
Black's king will ransack the kingside.

0–1

Finally, it is important to note that the defending side's chances will generally shoot to zero the second his outside pawn mass is rendered immobile. We previously saw this on display in the Anton – Shirov encounter, where White's king reached the center first and he had a winning position once the f3-f4 advance left the e6-f5 vs f4 pawn majority ineffective. I'd like to conclude the chapter with an example from my own practice.

Murali Karthikeyan – Sam Shankland

Biel 2017



After a long and tedious defense, I managed to escape a hopelessly lost position and reach this rook endgame, which I evaluated to be drawn. I felt the prospect of bringing my king to g3 should be enough to save the game. This is correct, but I misplayed it a few moves down the road.

61...♔g6!

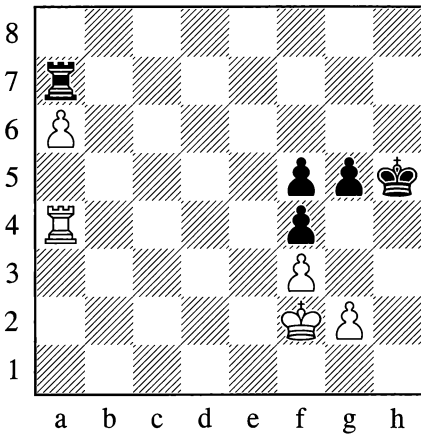
Of course, I did not try to connect my king with the a6-pawn. Instead, I looked for kingside counterplay.

62.♔f2 ♔h5 63.h4!

The best practical try. White makes it hard for me to get my king to his desired home.

Trying to run the king to b6 is way too slow to win the game. 63.♔e2 ♔h4! 64.♔d3 ♔g3 65.♖a2 f5! 66.♔c4 h5 Black is ready for g5-g4 next and should make an easy draw.

63...f5 64.hxg5 hxg5 65.♖a4



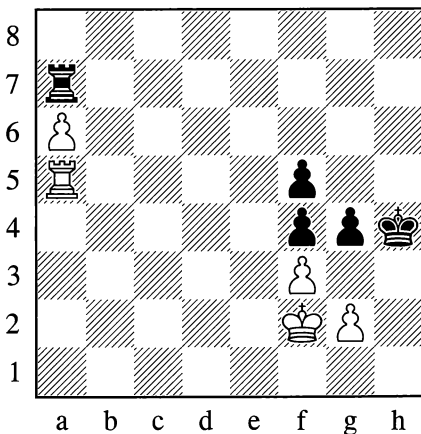
I now made a very poor decision. Black should easily save the game if his king can potentially reach g3. Obviously, he can't get there yet. But leaving the kingside pawn structure unchanged and keeping the ...♔h3 resource in reserve in case White's king leaves f2, would make a draw.

65...g4?

This move seems logical at face value. Black does not need to fear ♖xf4 with a6 hanging, and Black still has the potential for ...♔g3. The problem is, now he can potentially be placed in zugzwang.

Simply waiting was fine: 65...♔g6! 66.♔e2 ♔h5! 67.♔d3 ♔h4 68.♔c4 ♔g3 Black holds easily.

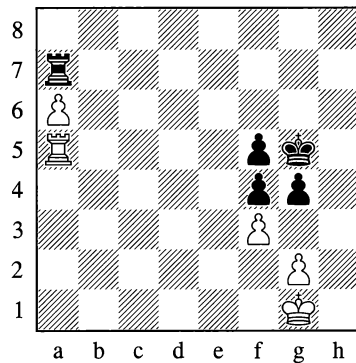
66.♖a5 ♔h4



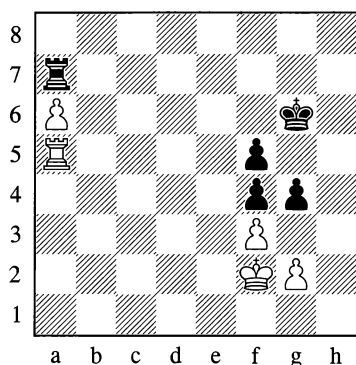
With Black to move in this position, he could resign immediately. Taking on f3 would allow White to take with his king, and then Black will lose his f-pawns to zugzwang. Bringing the king back to the fifth rank would allow f3xg4 when Black would have to take back with the king, and White would win with zugzwang again. And pushing ...g4-g3 would deny the black king access to his only square to make counterplay. For now, it is White to move, but with infinite waiting moves with his rook along the h-file, it is not surprising that he can pass the tempo with accurate play.

67.♖a1

67.♔f1! was the easiest win. Black's king is forced to g3. 67...♔g3 (67...♔g5 68.fxg4! ♔xg4 69.♔f2 ♔g5 70.♔f3 Black is in zugzwang and will lose f4. And we know that once he is in zugzwang once, he will be put in zugzwang again. 70...♔f6 71.♔xf4 ♔g6 72.♖a1! ♔f6 73.♖a2 ♔g6 74.♖a5! Zugzwang again. Black loses f5, and that is that.) 68.♖a3! ♔h4 69.♔g1! ♔g5 70.♖a5!



White threatens to take on g4, changing the structure. He then wins easily with zugzwang and walking his king up to take the f-pawns. Black's king has to choose a direction. 70...♔g6 (After 70...♔h4 71.♔f2! White has successfully passed the move, and Black cannot avoid a disaster. It is time to resign.) 71.♔f2



For the most part, there are no specific positions worth memorizing in this chapter. But the guidelines are very helpful in evaluating whether the position will be holdable or not.

Now we see that because of Black's ill-advised ...g5-g4 advance, his kingside pawn mass has become ineffective. This is all because he will never be able to bring his king to the fifth rank due to f3xg4. As such, his king will not reach g3, he will not make any counterplay, and White wins easily by bringing his king to the center. Had Black's pawn remained on g5, he would still be able to bring his king to h5, h4, and g3, and he would save the game with no further effort.

**67...♔g5 68.♖a4 ♔h5 69.♖a5 ♔h4 70.♖a1
♔g5 71.♖a4**

While playing on the increment, Karthikeyan allowed a threefold repetition, and I was able to luckily escape. I'm sure he would have found the way if he had more time.

1/2-1/2

Chapter 17

Pawns on Both Sides with No Passed Pawns

Moving on to the final chapter featuring pawns on both sides of the board, we will cover situations where the attacking side is a pawn up, there are no passed pawns, and there are pawn masses on both sides of the board.

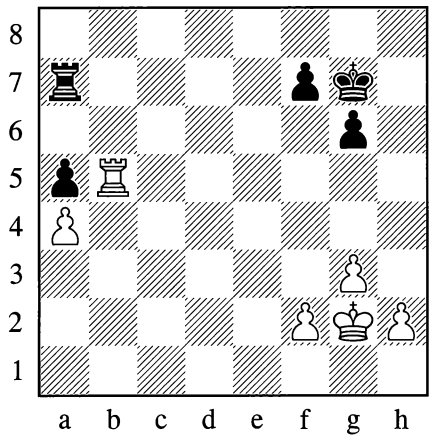
In general, I consider these positions to be non-theoretical, and mostly fall into the territory of practical play. Indeed, there are no positions in this chapter that I believe should be memorized. The entirety of the chapter is dedicated to a thesis that I have, that I believe tends to be true. Behold, the final guideline we will see when dealing with rook against rook endgames!

In rook endgames with no passed pawns, the attacking side a pawn up, and pawns on both sides of the board, there is a thought process that can lead to the right evaluation. You should first forget about the side of the board that has equal pawns and focus solely on the side that has the pawn up.

- 1. If that endgame alone with no other pawns would be winning, it will cease to be winning and become drawn if the attacking rook is stuck in a passive position defending pawns on the other side of the board.**
- 2. If the endgame with only the pawn up side of the board would be drawn, it will cease to be drawn and become lost if the defending rook is stuck passively defending a pawn on the other side of the board.**
- 3. If neither rook is stuck passively defending, the result will probably be the same as what it would be if the secondary pawn mass were not on the board.**

This is a long guideline and I have found some exceptions. But for the most part, it seems to be true. Let's see a couple of examples.

Passive Defending Rook



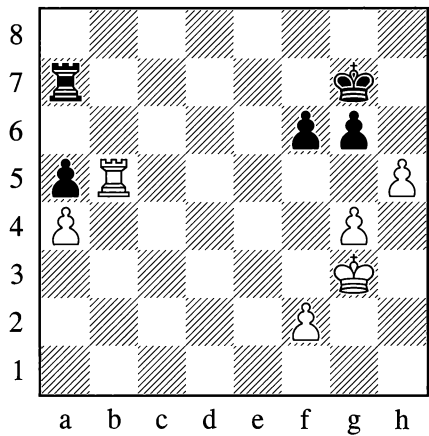
Without the a-pawns, the position would be a routine draw for Black. We have seen some similar positions in Chapter 10. With the a-pawns on the board, and Black's rook stuck passively on a7, the result changes. White wins, and he wins routinely.

1.h4 f6 2.g4 ♔f7 3.♔g3 ♔g7

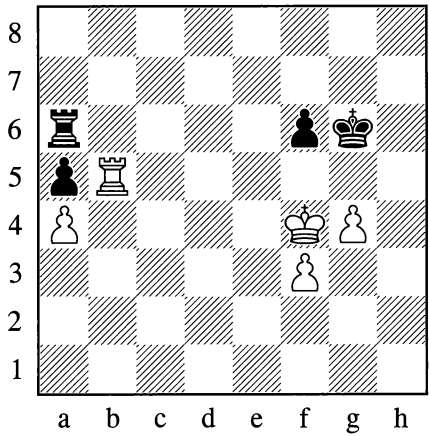
Black has nothing to do other than sit and passively wait. Unsurprisingly, this will not save the game.

4.h5

White has other winning plans, but I like this one the best. He trades off the h5 and g6-pawns, clearing the f5-square for his king.



4...gxh5 5.♟xh5 ♔g6 6.♞b5 ♔g7 7.♔f4 ♔g6 8.f3 ♞a6

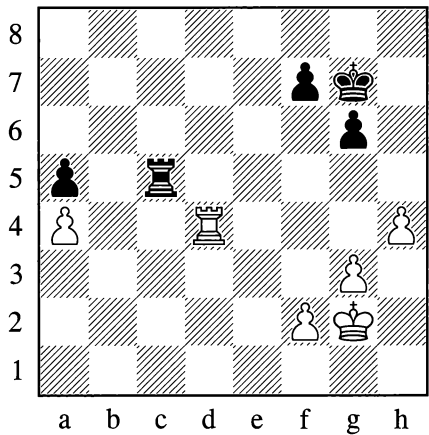


9.♞f5!

White's rook finds a perfect square, defending everything. Black's rook is still stuck on a6, and White is ready for ♔e4-d4-c4-b5 etc.

As we can see, the passively placed rook on the a-file was Black's undoing. Let's see what happens if the rook was on an intelligent square.

Active Defending Rook



We see the same position but with Black's rook not stuck in a passive place. The rooks

seem to be equally active. We would therefore expect the result of the game to be the same as it would be if the a-pawns were off the board. We know that the sole three against two balance on the kingside is a draw, so it is no surprise that this position is drawn as well.

1.♔f3 ♕f6 2.♔f4 ♕g7

Black can just wait. White does not have a plan to make any progress.

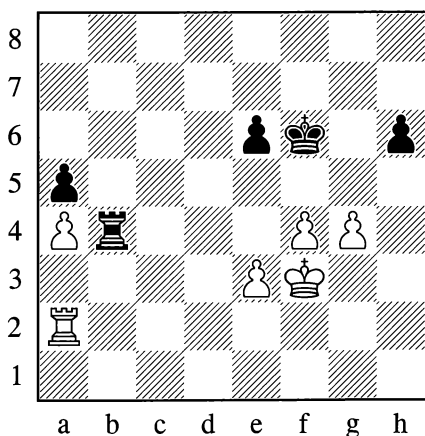
3.g4 f6 4.f3 ♕f7

I can't see anything productive for White to try. The game should be drawn.

5.♕e4 ♕e6

Again, we see that the same guideline holds true. Let's move on and examine a position where the pawn up would normally win.

Passive Attacking Rook

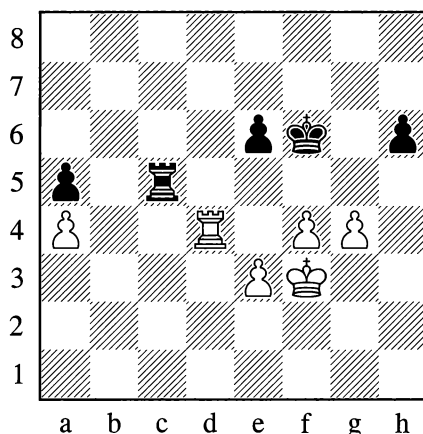


Without the a-pawns, we know from chapter 10 that White's position is winning thanks to Black's two remaining pawns being split more than two files apart. But with a passive rook stuck on a2, the position is drawn. In fact, White has nothing he can even try! My machine offers 0.00.

Once more, the passive rook made all the difference.

As usual, if the rooks are of comparable activity, the result remains consistent with what we would expect if the a-pawns are absent.

Active Attacking Rook



We have the same pawn structure as we saw before, except now White's rook is not stuck on a passive square. His rook is not necessarily any better than Black's, but this leads us to the final part of the guideline. If neither rook is particularly stuck in a passive position, the evaluation of the position without a-pawns should hold true. This remains the case, and White is winning.

1.♞d6

The threat of f4-f5 forces Black's king backwards.

1...♔f7 2.♞a6!

White makes sure that Black cannot play ...♞c4 to take the a-pawn.

2...♔e7

2...♞d5 3.♔e4! ♞c5 4.f5! is similar to the main line.

3.♔e4!

White need not worry about the a-pawn if his king can reach e5.

3...♞c4† 4.♔e5 ♞c5†

After 4...♞xa4 5.♞xe6† White takes h6 next and wins very easily.

5.♔d4! ♞d5†

Otherwise Black loses his a5-pawn directly.

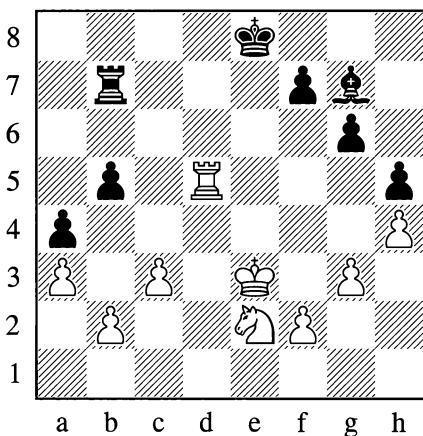
6.♔e4

Black cannot stop f4-f5 from coming next. It's time to stop the clock.

All of this makes sense in theory, but let's look at how some actual games went.

Sam Shankland – Alex Lenderman

Sturbridge 2014



White is winning routinely, and I had no qualms about going into the rook endgame.

47.♔d4! ♞e7†

After 47...♞xd4† 48.♔xd4 White is winning the three on two scenario on the queenside because Black's king is cut off. So, even if Black's rook were more intelligently placed, the position should still be winning. The kingside

pawn mass would not change the evaluation in any way.

48.♔d3 ♞xd4 49.cxd4

Any capture on d4 was fine. After 49.♔xd4 White wins on the queenside.

49...♞b7 50.♔c3 f6 51.♔b4 ♞e7 52.♞xb5 ♞e2 53.♔xa4 ♞xf2 54.b4 ♞f3 55.♞c5 ♞xg3 56.b5

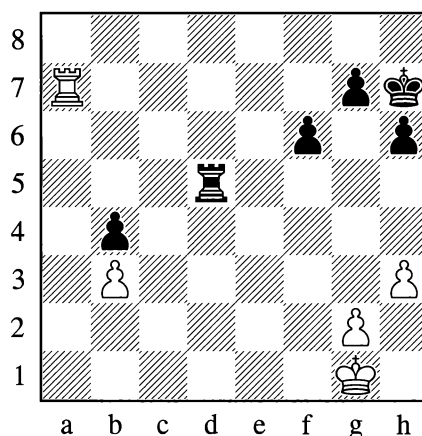
1–0

This was a straightforward example, but it's good to start with an easy one. Since the rook endgame with only the queenside pawn mass was winning, and White's rook was not stuck passively defending, the kingside pawn mass did not change anything, and White was still winning.

Most cases will not be so clean cut, and I have seen these positions misplayed often. Take the following example:

Vincent Keymer – Pavel Eljanov

Wijk aan Zee 2020



Absent the b-pawns, the position would be a routine draw for White. Since his rook is not badly placed, we should expect the result not to change.

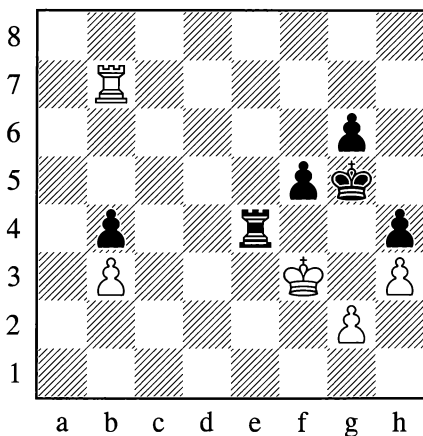
46.♖b7!

Of course, White does not allow Black to play ...♞d3 to harass the b3-pawn.

Not 46.♞a1? ♞d3 47.♖b1 h5 as Black wins easily against the passive rook on b1.

46...♞d4 47.♔f2 f5 48.♔e3 ♞e4† 49.♔f3 h5 50.♞b6

This does not spoil anything just yet, but I would have preferred not allowing Black's pawn to h4: 50.g3! h4 (50...♔h6 51.h4 is also equal.) 51.g4 Black is running out of serious winning attempts.

50...h4 51.♞b7 ♔h6 52.♞b5 ♔g5 53.♞b7 g6**54.♞b8**

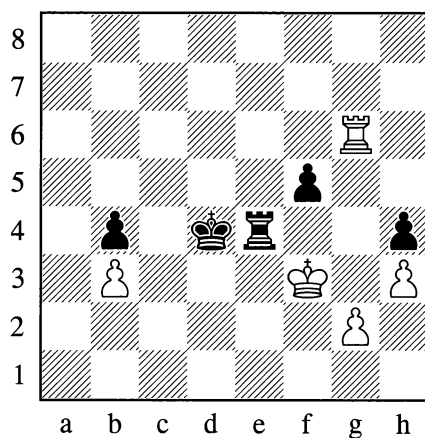
54.♞b6! seems clearly equal to me.

54...♔f6! 55.♞b6† ♔e5!

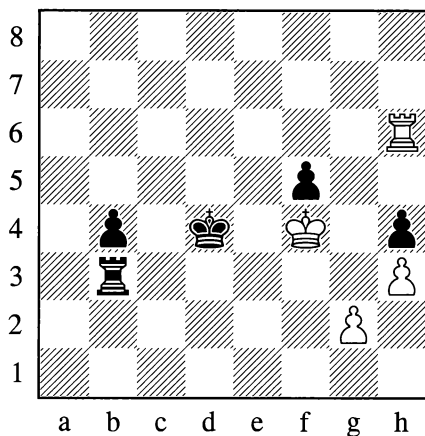
This will not win against good defense, but it can at least make White work for the draw. Black gives up his g-pawn to get his king to c3.

56.♞b5† ♔d6 57.♞b6† ♔c5 58.♞xg6 ♔d4!

Even though White's defense has left a lot to be desired, the position is still drawn. But he has to shift gears. Black will win the b3-pawn and send his own b-pawn through. White cannot stop this, so he needs to make counterplay.

**59.♞c6?**

Immediately prioritizing making a passed pawn would have saved the game: 59.♞f6! ♞e3† 60.♔f4 ♞xb3 61.♔xf5! ♞b2 62.♞h6 ♞xg2 63.♞xh4† ♔c3 64.♞h8 Black is way too slow to promote the b-pawn and get his pieces back in time to stop the h-pawn. It's time to agree a draw.

59...♞e3†! 60.♔f4 ♞xb3 61.♞h6**61...♞e3! 62.♔xf5 ♞e5†!**

Very precise from Eljanov. He makes sure not to lose the h-pawn and allow counterplay.

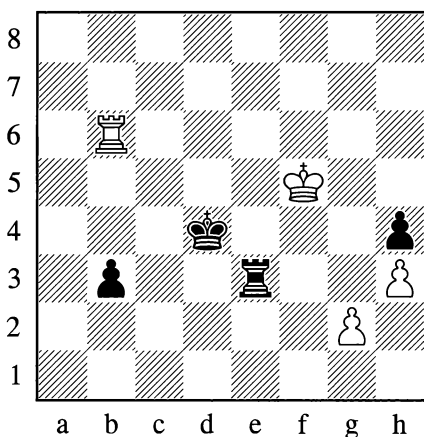
62...b3 63.♞xh4† ♔c3 64.♞h8 is only equal.

63.♔g4 ♖e4†

63...b3!? would have done the job: 64.♖b6 ♔c4! Black is ready to bring the rook to b5 next, and it's all over.

64.♔f5 b3?

64...♔d3! was the cleanest win. Black's rook will go to c4 next, a perfect square as previously seen in Chapter 15. White has no hope to make counterplay on the kingside and Black's king can safely sit on c3 or c2. Game over.

65.♖b6 ♖e3

Deep into the third time control, Keymer missed the last chance.

66.♔g4?

White needed to harass the h4-pawn without allowing a check from the fourth rank: 66.♔g5! ♔c3 67.♔xh4! ♖e4† 68.♔g5 ♖b4 69.♖f6 b2 70.♖f1 b1=♚ 71.♖xb1 ♖xb1 72.h4! White draws the rook against pawn endgame by a single tempo.

66...♔c5! 67.♖f6

67.♖b8 is the most desirable move, but now we see why the king is misplaced on g4. 67...♖e4†! Check! White has no time to take b3. Black gets the rook to b4 and wins.

67...♖e4† 68.♔g5 b2 69.♖f1 ♔b4

Keymer had seen enough.

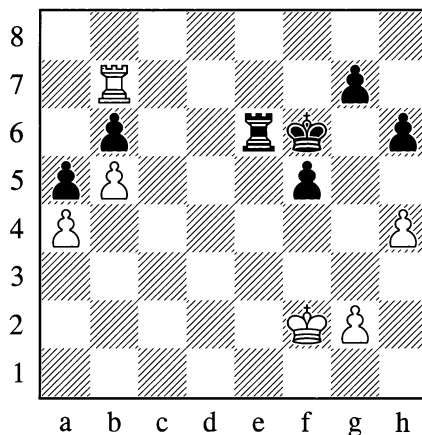
0–1

While White eventually lost the game, the position was surely defensible for a long time, even after he started to drift. The guideline remains true here.

Vincent is far from the only strong player to lose a position like this one.

Vladimir Fedoseev – Vladislav Artemiev

Internet (rapid) 2021

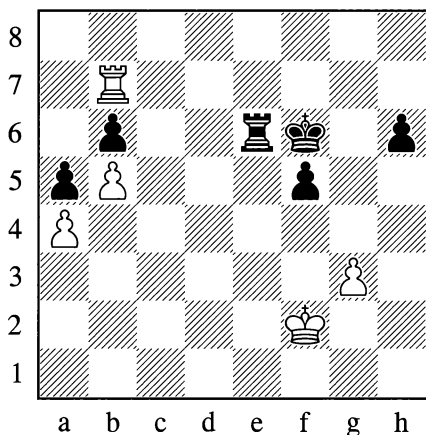


The three on two structure on the kingside would be a draw without queenside pawns. White's rook is on a more than reasonable square, so we should suspect that the additional queenside pawn mass should not change the evaluation.

41.h5!

There was nothing wrong with waiting, but I like this move. Black cannot move his rook off the sixth rank or his king off f6, so he will have to touch his g-pawn sooner or later. When he does, White trades off another pair of pawns and worsens Black's structure.

41...g5 42.hxg6 ♔xg6 43.g3 ♔f6



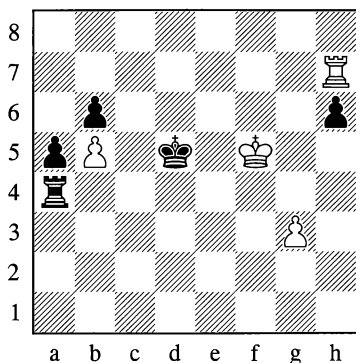
44. Rb7?!

The first step towards losing a drawn position is usually a move that makes the defense harder, not a move that makes the defense impossible. White can still hold this, and my computer insists upon 0.00. But there was no reason to move the rook from b7, and allow Black's rook some freedom.

44. Qf3 Qe5 45. Rb8 is equal, since White can always meet any king move with Qf4 to make counterplay, I don't think Black has anything left to even try. Time to sign the scoresheets.

44... Qe5 45. Qe3 Qd5† 46. Qd3?

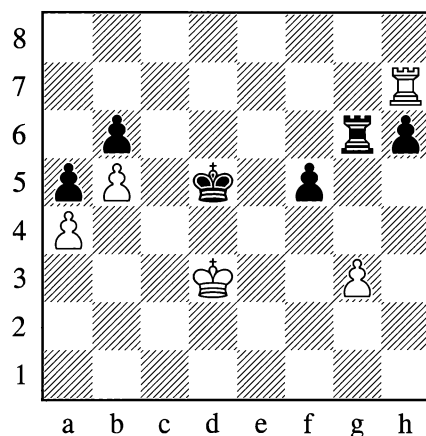
White needed to bring his king to the more active f4-square: 46. Qf4! R4† 47. Qxf5 Rxa4



I can see how Fedoseev may have seen this position and thought it was lost. Tell me again

why the rook left b7? The machine still claims it is a draw following 48. Rxb6! Qc5 49. g4!, when White's g-pawn should give enough counterplay to save the game.

46... Rg6!



47. Rb7?

Capitulation.

47. Qe2 would have offered more resistance, but the machine still thinks Black has excellent winning chances.

47... Qc5 48. R7† Qb4 49. R6 Rxb3† 50. Qd4 Qxa4 51. Rxb6 Qb4 52. Rf6 Qxb5 53. Rxf5† Qb4

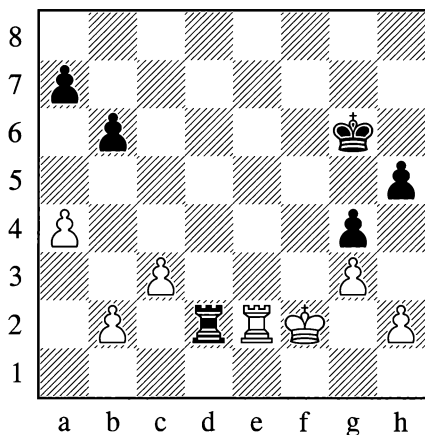
The rest was easy for Artemiev.

54. Rb5 Rg6 55. Qd3 R6 56. Rb4† Qb3 57. Rb5 R6† 58. Qe4 a4 59. Rb5† Qc4 60. Ra5 Qb4 61. Ra8 a3 0-1

I find that the number of pawns on the opposite wing is usually not relevant, though it can sometimes make the evaluations harder. So far, we have mostly seen cases where a lone pawn pair resides on the other side of the board. In the following encounter, a second pawn pair should not have changed the result.

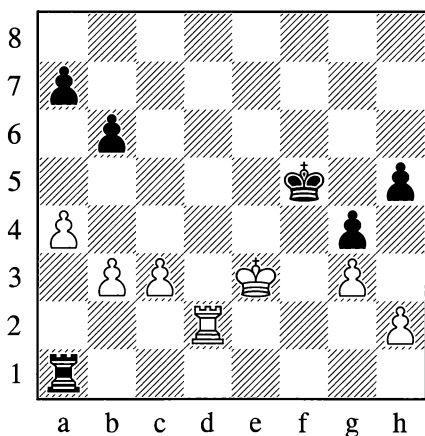
Volodar Murzin – Awonder Liang

Internet (rapid) 2021



Three pawns against two on the queenside is not a winning endgame, and with Black's rook on a reasonable square, the position should be drawn. However, this case is a bit tougher than what we have seen before because Black's king is cut off. A pawn down rook endgame being technically drawn does not guarantee a half point! You still have to show good defense, and at some point, Awonder started to drift.

47...♖d1 48.♙e3 ♙f5 49.♖d2 ♞a1 50.b3

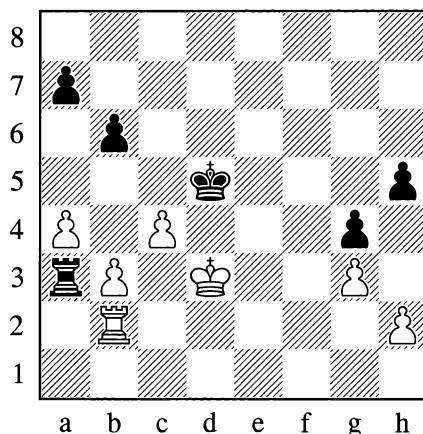


50...♞a3?!

I really dislike this move. The position should still be drawn, but the rook looks so awkward here.

I like harassing the pawns from a more sensible square: 50...♞b1! Following 51.b4 ♙e5! 52.♙d3 ♞a1! Black should make a draw.

51.♞b2 ♙e5 52.♙d3 ♙d5 53.c4†



The position is still drawn, but only with some inhuman moves. Awonder could have done himself a favor by not leaving his rook in such a strange spot.

53...♙c5?

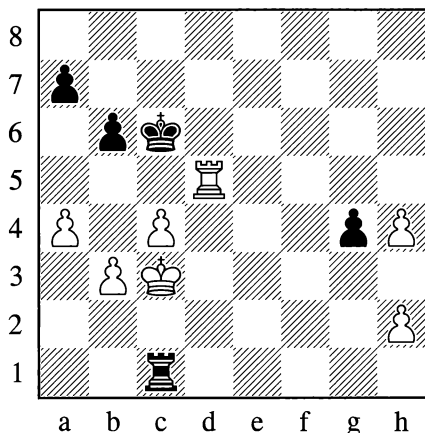
The natural move loses.

Black's only saving grace was to put the king on c6. It makes sense when you notice the reason, but this is very hard to figure out in tournament practice, especially in online rapidplay. 53...♙c6! 54.♙c3 ♞a1 55.♖d2 ♞f1 Black's king being on c6 rather than c5 means that White is missing a decisive check on d5. Black's king is connected with his pawn mass, the three against two scenario is drawn, and his rook is no less active than White's with respect to the kingside pawns. My machine reads 0.00, though in human play I would expect White to keep trying.

54.♔c3 ♖a1 55.♞d2! ♕c6 56.♞d5

White should win routinely.

56...h4 57.gxh4 ♞c1†



58.♕b4?

58.♕b2! looks easy enough to me. Hit Black's rook, get your own rook to g5 next, and it's all over. 58...♞f1 (or 58...♞h1 59.♞d2 wins.) 59.♞g5 White wins.

58...♞c2?!

58...a5†! would have put White's king in a ridiculous spot and saved the game with no further issue. 59.♕a3 ♞c3 60.♞g5 ♞h3 61.♞xg4 ♞xh2 White can make no further progress.

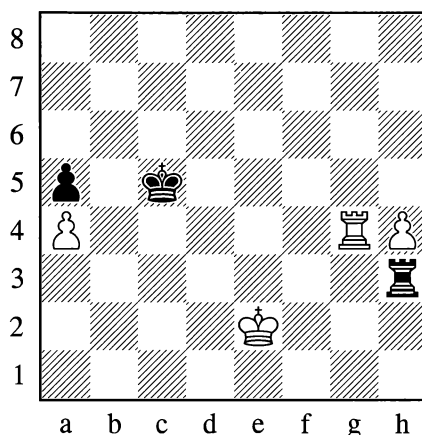
59.♞g5

There was no reason to allow the option of 59.a5!. Black should still hold, but White's practical chances have gone up significantly.

59...a5† 60.♕a3 ♞g2?!

I would rather grab the pawn directly with 60...♞xh2! so that Black is always ready to meet b3-b4 with a check on the third rank.

61.b4! ♞xh2 62.♞g6† ♕c7 63.bxa5 bxa5 64.♞xg4 ♞h3† 65.♕b2 ♕c6 66.♕c2 ♕c5 67.♕d2 ♕b4 68.c5† ♕xc5 69.♕e2



I'm sure the clocks were very low around here. The half point started getting passed back and forth.

69...♞b3? 70.♕f2?

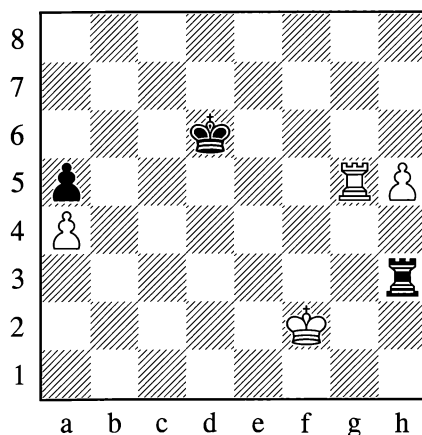
After 70.♞g5†! Black cannot go to the b-file on pain of a lost pawn endgame, he loses the a5-pawn, and that is that.

70...♕d6 71.h5 ♞h3?

Black should still hold after 71...♕e6!.

72.♞g5

White wins the pawn on a5, and the rest was easy. We saw some similar positions in chapter 8.



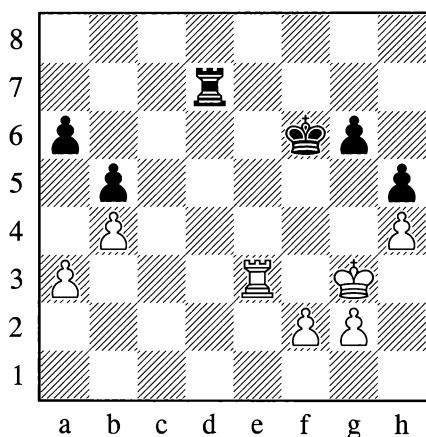
72...♖h4 73.♞xa5 ♔e6 74.♔g3 ♞b4 75.h6
 ♔f7 76.♞h5 ♔g8 77.a5 ♔h7 78.♔f3 ♞a4
 79.♔e3 ♞b4 80.♔d3 ♞a4 81.♔c3 ♞g4
 82.♔b3 ♞g1 83.♔b4 ♞b1† 84.♔c5 ♞c1†
 85.♔b6
 1–0

In all the last three games, a very strong player lost a technically drawn position, usually by making a somewhat impatient or unnatural move at some moment. In general, the best defensive strategy in these situations is to wait with the king and rook on their best possible squares, and not to try to do anything too active.

To conclude the chapter, I'd like to show an interesting game from my own practice.

Sam Shankland – Dennis Wagner

Dresden 2013

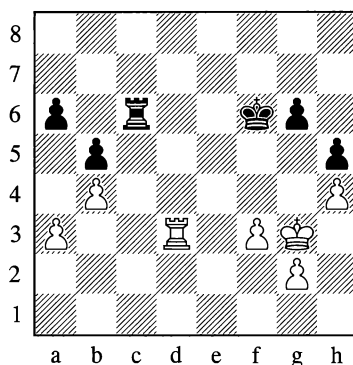


White is a pawn up. But we know that the three against two on the kingside is a draw, and since Black's rook does not look like it is badly placed, we'd expect the additional pawns on the queenside not to matter. This is indeed true. The position is drawn with best play, but Black needs to find a very important idea.

52...♞d6?

This is a big mistake. Once White's rook gets the c-file, Black's rook will be stuck on the sixth rank to make sure he does not lose the a6-pawn.

Black could have saved the game by being the first one to take the c-file and ensure the maximum possible checking distance: 52...♞c7! 53.♞d3 ♞c6 54.f3



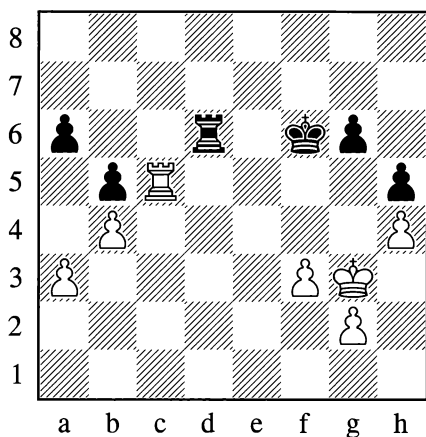
We reached a similar position in the game, but with White's rook on c3 and Black's rook on d6. The difference is huge. 54...♔e5! White is missing a check on the fifth rank, thanks to the lack of checking distance. As such, Black's king can keep White's rook from invading on d6, and Black's rook is free to roam and cannot be considered a passive piece.

The machine claims 52...♞d4 holds too, but after 53.f3 it insists that Black must put the rook on the c-file anyway: 53...♞c4! Black makes an easy draw, with similar play to the 52...♞c7 variation.

53.♞c3! ♔f5 54.f3 ♔f6 55.♞c5

Now we see Black's problem. Since White took the c-file, Black's king is unable to keep the white rook off c6. Black's rook is stuck on d6, defending against a check from c6. It will not be able to make any counterplay, try to cut off White's king, or really do anything else

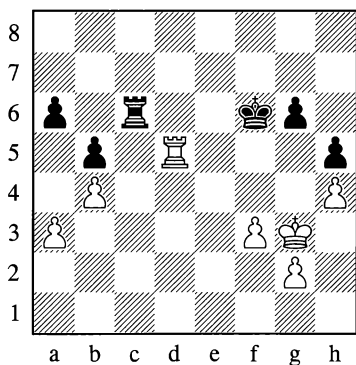
except remain on the sixth rank. Now that his rook is stuck in a passive spot, Black is lost.



55...Rc6

Or 55...Kg7 56.g4 Rd3 57.g5 and White wins.

For a moment, let's forget that 55...Rc6(?) hangs a rook in one move and see what happens if we had a similar situation when Black had the c-file instead. 56.Rd5(?)

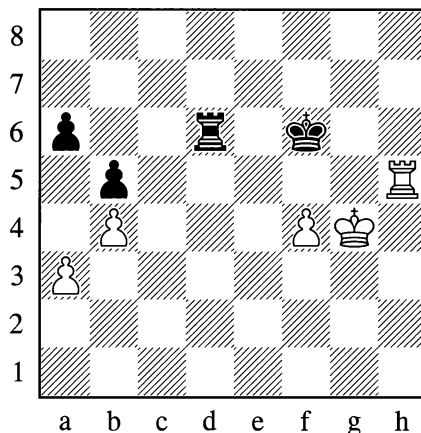


56...Ke6! Since White's rook does not have the c-file, it cannot safely stay on a square far away from Black's king and keep a check on the sixth rank in reserve. Now, the rook is immediately forced back to d3 to avoid losing the a3-pawn. 57.Rd3 Ke5 White can make no further progress.

56.g4 Rd6 57.g4! hxg4

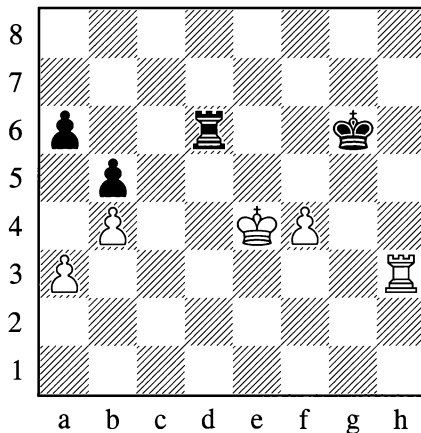
If 57...Rd4† then 58.g3!. Wouldn't it be nice if Black's rook was on c4 instead of d4 and had more checking distance? He would be making a draw immediately.

58.gxg4! Rd4† 59.f4 Rd6 60.h5! gxh5† 61.Rxh5



Even with just one kingside pawn remaining, the fact that Black's rook is stuck on the sixth rank defending the a6-pawn means that White should win routinely.

61...Kg6 62.Rc5 g6 63.Rc3 Kg6 64.gf3 gf5 65.Rc5† Ke6 66.Ke4 gf6 67.Rh5 gf7 68.Rh7† Kg6 69.Rh3



For the first time in the game, Black can move his rook off the sixth rank without losing the a-pawn, but it is far too late. White's king is so much closer to the queenside than Black's is.

69...♖d1 70.♞c3 ♞e1†

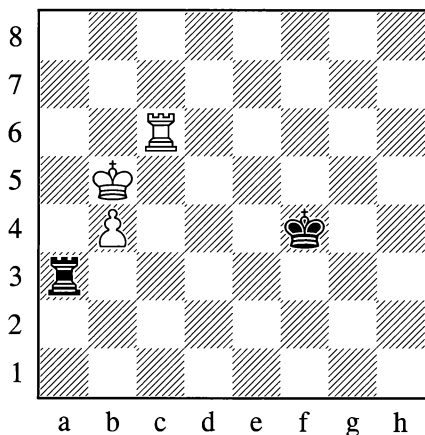
Or 70...♖d6 71.♔e5, winning.

71.♔d5 ♔f5

Now everything wins. I decided to bring my king to his queenside.

**72.♔c6 ♔xf4 73.♔b6 ♞e6† 74.♞c6 ♞e3
75.♔xa6 ♞xa3† 76.♔xb5**

We saw the remainder of this game in Chapter 1.



**76...♞a8 77.♔c5 ♔e5 78.b5 ♞a1 79.♔b6
♔d5 80.♔b7 ♞b1 81.b6 ♞b2 82.♞c1 ♔d6
83.♔a7 ♞a2† 84.♔b8 ♔d7 85.b7 ♞a3
86.♞c4**

1-0

Once again, we saw the same guideline works well, even in this more complex example. Black could make a draw if his rook was not stuck passively defending. It turned out that there was some subtlety to the position and that it needed to be on c6 to avoid being stuck. But if he had placed it there, he would have made a draw. Conversely, the position became winning for White thanks to the extra queenside pawn mass once I took the c-file and confined my opponent's rook to the more passive d6-square.

Chapter 18

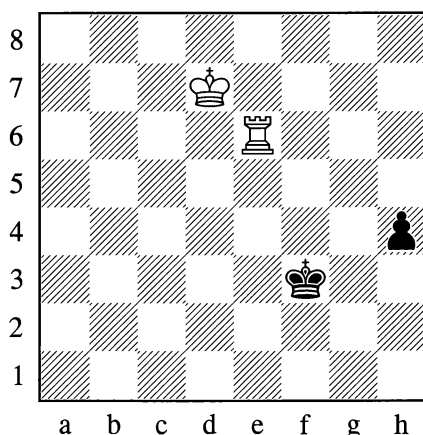
Rook Against Pawn(s)

In our penultimate chapter, we will examine endgames where a rook is playing against a pawn, or pawns, without another rook on the board.

When there is only one pawn left on the board, it is always a game of two results. The rook will always be able to sacrifice itself for the pawn, if need be, and the game will be drawn. For example, there is nothing interesting to see here:

Sam Shankland – Ivan Ivanisevic

Struga 2021



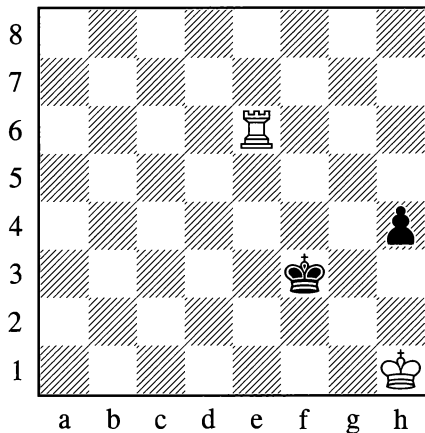
White's king may as well be on a different planet. Despite how far away it is from the black pawn, Black can never hope to win, as White can always sacrifice his rook for the pawn. Still, one does not need to calculate any variations to realize that my king will not make it to h2 in time to stop the pawn, and the position is dead drawn.

83...h3 84.♖h6 ♔g2 85.♖xh3 ♔xh3

1/2–1/2

Conversely, the following position is not interesting either:

Attacking King in Front of Pawn

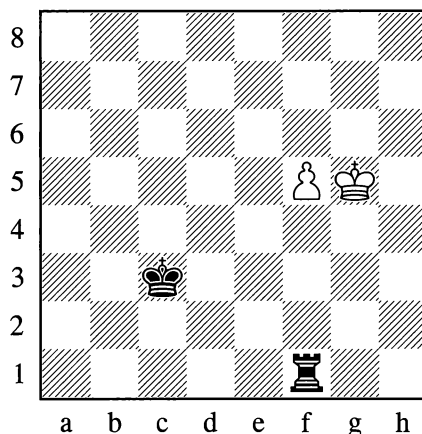


I took the liberty of teleporting my king to h1. Black is obviously lost. White will put his king directly in front of the pawn, scoop it up, and win with king and rook against king.

The positions become interesting when there is a close race to see whether the attacking king is in time to return and catch the enemy pawn.

The pawn can be on any of 48 squares, the kings and rooks can be anywhere, the rooks... it is very clear that it is well beyond human capability to memorize exactly which positions are winning and which ones are drawn. Rather, it is important to memorize a few important ones to calculate towards, and to know all the tricks and ideas that each side has. To begin with, let's discuss the concept of shouldering.

Shouldering



White's hope is that he will be able to push his pawn through to the final rank and force Black to sacrifice his rook. Given infinite time, he will succeed. But the most primitive plan of playing f5-f6, ♔g6, f6-f7, etc would fail. Note that White must make two moves to advance his pawn at any given moment – he must advance his king as well as his pawn. By contrast, Black's king is getting one square closer to the f-pawn on every single move! Clearly, Black will start to pick up ground.

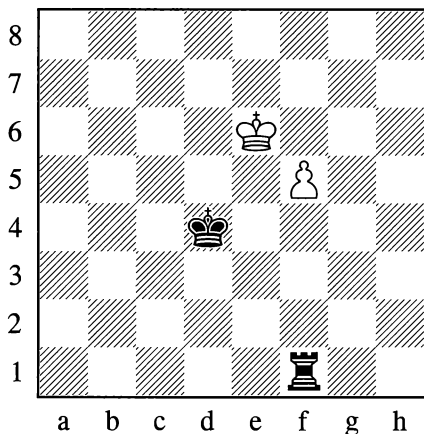
1. ♔f6!

Understanding that simply pushing the pawn directly will not save the game, this move can be found almost by elimination. White makes a beeline for the e6-square, which will shoulder away Black's king.

1. ♔g6? is too slow. White loses by a single tempo. 1... ♔d4 2. f6 ♔e5 3. f7 ♔e6 Black wins.

1... ♔d4 2. ♔e6!

White is ready to push his f-pawn. Black's king is too slow to come around to e4, f4, g5, and g6.



2...♔e4 3.f6 ♔f4

Or 3...♖a1 4.f7 ♖a8 5.♔e7. If Black's king were already on e5 here, it would still be drawn, but White would have to defend a rook against knight endgame. As is, the players can shake hands immediately.

4.f7 ♔g5 5.♔e7

White promotes just in time, with a draw.

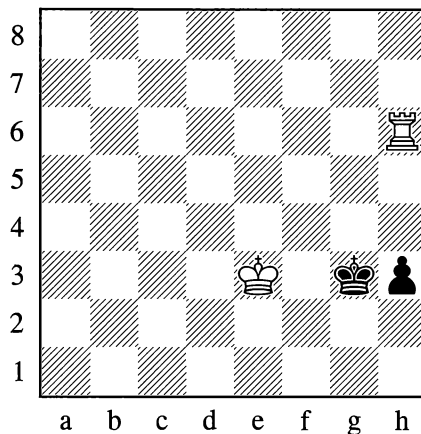
This brings us to the first guideline.

When playing with a lone pawn against a rook, the first thing you should think about is whether you can simply push your pawn straight through with the most direct moves. If this works, great. If it does not work, you should think instead about using your king to shoulder out the enemy king and prevent it from reaching your pawn.

This is a simple concept, but not necessarily the easiest to execute in practice and even very strong players can go wrong. The following position should be memorized as an important one to know, but it also illustrates the concept of shouldering well.

Etienne Bacrot – Ray Robson

Khanty-Mansiysk 2011



At the end of a long tiebreak game, Ray faltered here. He naturally pushed ...h3-h2, but this does not work. And whenever we realize that the most direct move to push the pawn forward is failing, the first thing we should think of is “Can I shoulder away my opponent's king?”

87...h2?

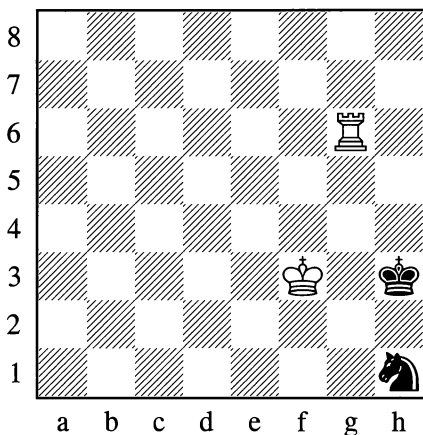
Indeed, Ray could have saved the game by trying to shoulder out White's king with 87...♔g2!. He is still ready for ...h3-h2 next, but now his king has access to the f1-square. 88.♔e2 (Or 88.♖g6† ♔f1!. Continuing to shoulder. The h-pawn is coming.) 88...h2! Now Black correctly advances ...h3-h2. The point is that after a check on the g-file, Black's king now has access to the h1-square. 89.♖g6† ♔h1! White must remove the rook from the g-file to avoid stalemate, and then Black can bring his king back to g2. The game is drawn.

88.♖g6†! ♔h3 89.♔f2! h1=♔†

If you have to promote to a knight with an a- or h-pawn, you will lose.

After 89...h1=♔ 90.♖h6† White wins the queen, and the game.

90.♔f3!



90...♗h2 91.♞g7

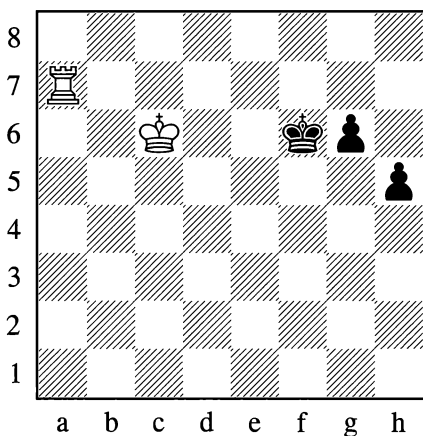
Black is in zugzwang and it is all over. He is missing the move ♖h1-f0.

1-0

Even in situations where the pawns are not as advanced, shouldering can be a very effective means to reach a draw. I was rather annoyed by my opponent's perfect defense in the following encounter.

Sam Shankland – Rui Gao

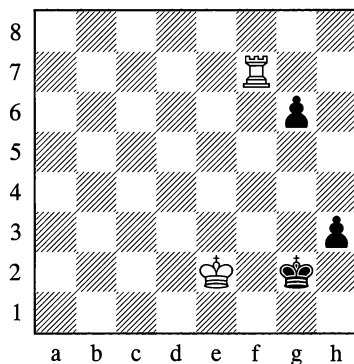
Doha 2014



Black has two pawns in this case, which changes the position in a way. But the concept of shouldering is equally important. It should be clear that White is the one trying to win, as there is no universe where Black can get both his pawns to the back rank before White's king can come back to stop them – he will lose that race by something like ten tempos. Instead, his hope is to get one of the pawns through while losing the other one to make a draw.

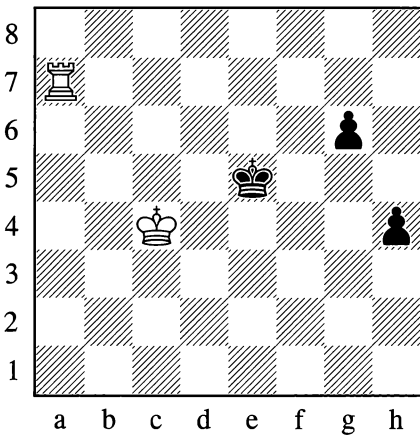
40...♔e5!

Pushing the more advanced pawn right away would lose routinely: 40...h4 41.♔d5! ♔f5 It is too late to try to shoulder. (Going straight for the h-pawn doesn't help either: 41...♔g5 42.♔e4 ♔g4 43.♔e3 ♔g3 44.♞g7! White is a tempo up on the Bacrot – Robson game, and wins.) 42.♔d4! ♔f4 43.♔d3! ♔f3 Black has to keep following White's king to not let it get in front of the pawns. 44.♞f7†! ♔g2 45.♔e2 h3



46.♞f2†! ♔g3 (Or 46...♔g1 47.♞f4! h2 48.♞g4† ♔h1. We saw a similar position at the end of the Bacrot – Robson encounter. Here Black's g-pawn is his undoing, as White is free to make a move without giving stalemate. 49.♔f2! g5 50.♞a4 g4 51.♞a1#) 47.♞f6! White wins.

41.♔c5 h4 42.♔c4



42...♔e4!

Continuing to shoulder. We see why it is so important that Black has two pawns. Normally, what White would want to do is put the rook behind the passed pawn, forcing Black's king towards the kingside to defend it. Then, White's king would be able to come back via d3. But because Black has two pawns, he will just push whichever one White does not get behind.

43.♖h7

I tried putting the rook behind the h-pawn. But now Black can push the g-pawn.

If White puts his rook behind the g-pawn with 43.♖g7, Black pushes the h-pawn. 43...♔f3! 44.♔d3 h3 is equal.

43...g5 44.♖h5 ♔f3

44...g4 was a fine move order too. 45.♖xh4 ♔f3 with a draw.

45.♔d3 g4 46.♖xh4 g3

Sadly, I had to admit that there was nothing left to try.

47.♖h3 ♔f2 48.♖xg3 ♔xg3

½–½

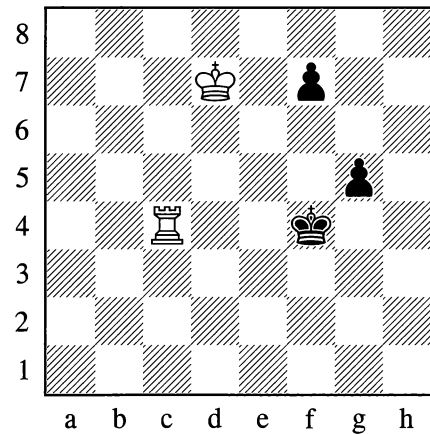
Gao's strong defense brings us to the second guideline.

When playing with two pawns against a rook and trying to draw, do not try to push both pawns. The best plan is to get your king to its best spot, and then choose which pawn to push based on which one your opponent is less equipped to stop.

Let's see an example of this in action.

Tamir Nabaty – Robert Zelcic

Malinska 2014

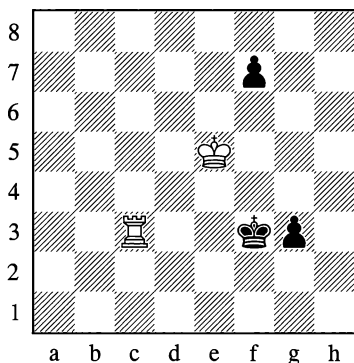


The final phase of one of the wildest games I have ever checked reached this position. Black should make a draw quite easily, but Zelcic faltered here by trying to use both his pawns.

82...♔e5?!

This move does not lose the game just yet, but it is a big step in the wrong direction. Black had two clean ways to a half point:

The first thing you should always consider is if you can simply push your pawn through with the most direct moves. In this case, the answer is yes. White's king does not make it back in time: 82...♔f3 83.♔d6 g4 84.♔e5 g3 85.♖c3†



85...♔g4! I like this this best. Black shoulders out the white king, and is ready for ...g3-g2 next. (85...♔f2 also holds, but after 86.♔f4 g2 87.♞c2† ♔f1 88.♔f3 Black will have to defend rook against knight. But as we will see in the final chapter, this is not so hard.)

I quite like shouldering out White's king directly, which should hold with no calculation necessary: 82...♔f5 83.♔d6 g4 84.♔d5 g3 85.♔d4 ♔f4 We are done here.

83.♔e7!

This is White's most testing try. Black's centralized king means that White cannot hope to bring the king in front of the g-pawn through the center, so he starts his journey to come around the other side on the h-file.

83...f5?

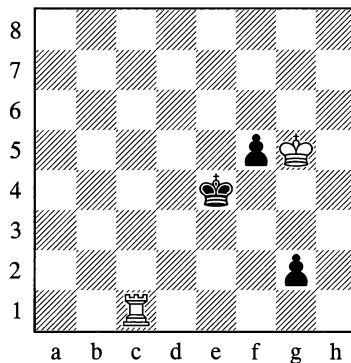
This is wrong. Black should not be trying to promote both pawns, and he is occupying his king's best square.

Black would still have made a draw if he had corrected his earlier mistake with 83...♔f5!

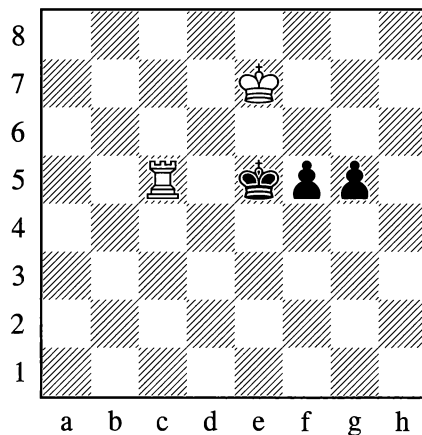
84.♞c5†?

White misses the chance. White would have won by bringing his king around to the kingside: 84.♔f7! Black's pawns are very slow, due mainly to his king lacking a good square to help get them through! Black would love to

play ...♔f5 here, taking his own pawn, though it has to be said that even this position would be lost. 84...g4 (Or 84...f4 85.♔g6 g4 86.♔g5 when White takes the pawns, and that is that.) 85.♔g6 g3 86.♔g5 g2 87.♞c1 ♔e4



88.♔h4! ♔f3 89.♔h3! ♔f2 90.♔h2! Just in time. White wins.



84...♔e4?

Black needed to realize that White's plan was to bring his king back via the g- and h-files. 84...♔f4! would have successfully shouldered out the king. 85.♔f6 g4! It's nice that ♔g5 is not a legal move! Black makes a draw.

85.♔f6! f4

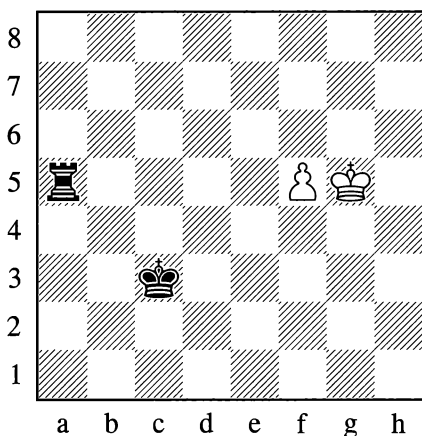
After 85...g4 86.♔g5! Black missed the chance to shoulder out White's king, and now White gets back in time to win the game.

86.♙xg5 f3 87.♖f5
1–0

Black had multiple chances to save the game but did not manage to do so. He did not realize which direction White's king was coming from and so did not place his own king in the right spot to shoulder out its white counterpart.

It is important to note that one of the reasons Black's position was savable was that White's rook was not so well placed on the side of the pawns, and would rather be behind them. For example, if we were to alter the shouldering example on page 360, we would see a very different situation.

Rook to the Side



We had previously seen this position with Black's rook on f1. In that situation, White only saved the game by shouldering out the enemy king. With the rook on a5, the strategy must change completely.

1.♙g6!

The difference is clear. When Black's rook was on f1, White had to constantly take two moves to make each pawn advance. He moves his pawn up, then his king up to control the next square, then his pawn up again. Here, we

see that because Black's rook is not behind the passed pawn, White can simply push it up the board without having to bother moving the king again.

Trying to shoulder out the king here with 1.♙f6? fails, as White's king on e6 is not secure. 1...♙d4 2.♙e6 ♖a6†! Black gets his king to e5 next, and wins.

1...♙d4 2.f6 ♙e5 3.f7

Black's rook being on a5 rather than f1 means that he has to burn a tempo to stop the pawn. That tempo turns out to be a half point.

3...♖a8 4.♙g7

With a draw.

This brings us to our next guideline.

When playing with a lone pawn against a lone rook, shouldering tends to be a much less effective defensive strategy when the rook is to the side of the pawn than it is when the rook is behind the pawn. When the rook is on the side, you usually just want to push your pawn through.

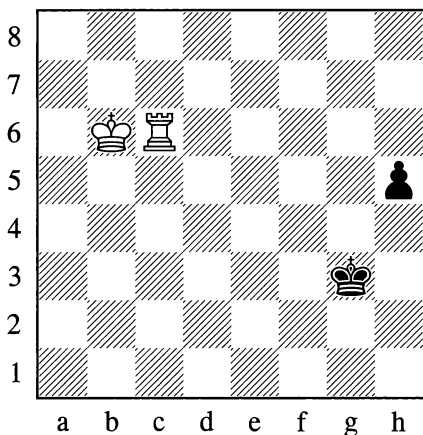
Let's apply this guideline to the Nabaty – Zelic encounter. Had Black realized that shouldering was less relevant with White's rook on the side, it is not a surprising that Black could have saved the game with the simple 82...♙f3, pushing the g-pawn through directly.

The idea that you need to be looking for extra defensive resources when the rook is behind the pawn leads us to the next guideline.

When playing with a lone rook against a lone pawn, the best place for your rook is generally behind the pawn.

Let's see an altered version of the earlier Bacrot – Robson encounter.

Intermediate Check



In the actual game, White's king was on a7 here, which meant Black was just making a draw by a single tempo. Additionally, White's rook was on f6, which made any hope of using the rook on the side of the pawn futile. What we will see here is that bringing White's king one square closer tilts the balance in White's favor, and bringing his rook to a better spot to transfer to the side of the pawn is not helpful. White wins, but only with accurate play.

1. ♖g6†!

A very important check. Black's king is forced to make an unpleasant choice.

Leaving the rook in place and trying to bring the king back as fast as possible might seem to make sense, but it will not win the game. 1. ♖c5? h4! 2. ♖d4 h3 3. ♖e3 ♖g2! We have seen this before. White is able to give a check from the side, but it is not helpful. 4. ♖c2† ♖g3! Black is making a draw.

1. ♖h6? is the right square for the rook, but White will lose half a point for failing to give a check and provoke Black's king to f3 first.

With the king on g3, Black's h-pawn is free to move. 1...h4 2. ♖c5 h3 3. ♖d4 h2 Black makes a draw.

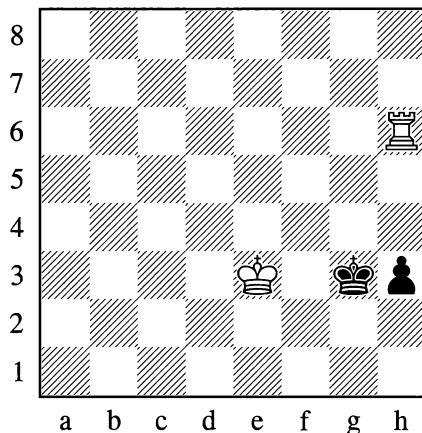
1... ♖f3

Getting the king cut off along the g-file is not a recipe for success either. White wins easily after 1... ♖h3 2. ♖c5 h4 3. ♖d4 ♖h2 4. ♖e3.

2. ♖h6!

Now and only now. Black's king having been forced to the inferior f3-square means that he has to step back to g4 instead of advancing his pawn. This wins White two(!) tempos, as Black not only cannot advance his pawn, but also must move his king backwards and in the opposite direction of where it ultimately needs to be.

2... ♖g4 3. ♖c5 h4 4. ♖d4 ♖g3 5. ♖e3 h3



We saw this position before, with Black to move, in the Bacrot – Robson game. Because in our example, White's king started one square closer to the kingside, now it is White to move, and White wins.

6. ♖g6† ♖h2 7. ♖f2 ♖h1 8. ♖g1† ♖h2 9. ♖g3 ♖h1 10. ♖xh3#

White's winning technique here brings us to an important rule.

When playing with a lone rook against a lone pawn, when considering how to get your rook behind the pawn, always look for an intermediate check to gain two tempos.

Indeed, we see here that White only wins if he gives a check before getting his rook behind the pawn. This is a very common motif.

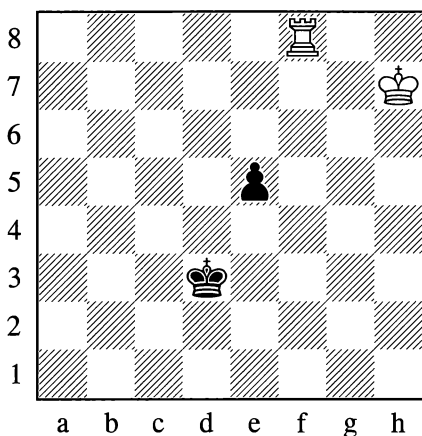
There are times when you will not be able to get the rook behind the pawn, or your king will be shouldered out. We have already seen that shouldering tends to work best when the rook is behind the pawn, which leads us to the next guideline.

When your rook is behind the pawn, but the king is shouldered out, your best chance is to transfer the rook to the side of the pawn.

We have referred to a number of interesting examples arising from the game that Bacrot won. It is only fair to show a game where he lost as well! I really like the following example as it shows all the preceding guidelines at play in a single game.

Gata Kamsky – Etienne Bacrot

Sofia 2006



The position is a technical draw, but Kamsky delivered a masterclass and managed to put Black under the maximum amount of pressure. Eventually, this yielded a full point, even over a very strong opponent.

67. ♖d8†!

When keeping the previous guideline in mind, it makes sense for White to give a check before bringing the rook to e8.

After 67. ♖e8? e4 Black draws easily by simply shoving his pawn up the board: 68. ♗g6 e3 69. ♗f5 ♕d2 70. ♗f4 e2

67... ♗e3!

Good defense from Bacrot. He realizes that pushing his pawn through directly will not be fast enough, so he immediately looks to shouldering. As seen in the guideline on page 365, shouldering makes a lot more sense when the rook is behind the pawn.

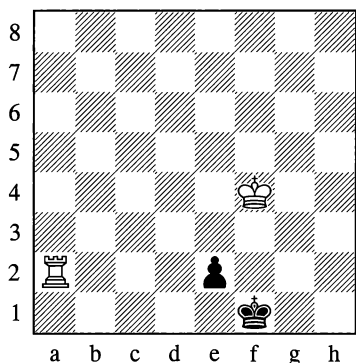
After 67... ♗c3? 68. ♖e8! White wins two tempos, and the game. 68... ♗d4 69. ♗g6 e4 70. ♗f5 e3 71. ♗f4 White wins with a tempo to spare. This is not surprising, as without a check on d8 first, we saw that Black held by one tempo. The check wins two tempos.

68. ♗g6 e4 69. ♗f5 ♗f3!

Black shoulders out White's king. The rook behind the pawn will now be insufficient, so Kamsky brings it to the side, and he chooses the right side at that.

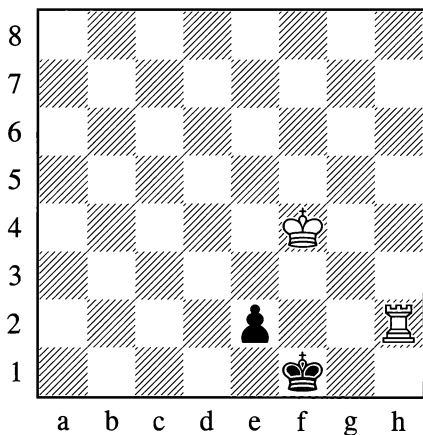
70. ♖h8!

70. ♖a8? is the wrong side, as now Black's pawn can guard his king. 70... e3 71. ♖a3 ♗f2 72. ♗f4 e2 73. ♖a2 ♗f1



With White's rook on h2, like we see in the game, he could play ♖f4-f3 and Black would not be able to make a queen on pawn of checkmate. With the rook misplaced on a2, White needs to give his rook for the pawn directly.

70...e3 71.♖h3† ♔f2 72.♔f4 e2 73.♖h2† ♔f1



74.♔f3!

Black cannot make a queen due to mate, and has to make a knight instead. His knight lands on an unfortunate square, but it should still be a draw with best play. We will see the rest of this game in the final chapter.

Kamsky's good decision to bring the rook to the h-file introduces the next guideline.

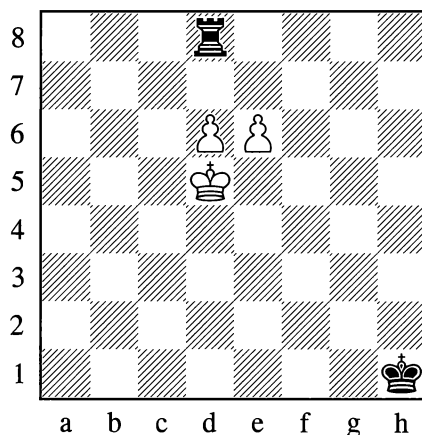
When your rook must go to the side of the pawn, choose the side closer to the king to make sure the pawn cannot shield the king from checks.

With the rook on the side of the pawn, there are no tricks or tempo savers or anything like that. It becomes a direct race, the most forward moves are the best ones for both sides, and you simply count who is ahead.

Most of the time, the race will either end with the pawn being taken or being safely promoted to make an immediate draw. But if the tempo is just right, the pawn will be forced to become a knight. We will cover all these instances in the final chapter, which focuses on pawnless positions.

While situations with one pawn against a rook are never winning for the pawn, two pawns can be a different story. For example, the following position will not be a happy one for the rook.

Two Pawns on Sixth Rank



Black can immediately resign. He will not even be able to take one of the pawns, allow the other to promote, and hope that White cannot win with queen against rook. Both pawns will go through.

Obviously, this is an extreme case. Black's king is in no man's land, and White's king is perfectly positioned to push the pawns through. But it does allow us to introduce Euwe's rule.

If two connected passed pawns have only four total squares between them and promotion, a rook cannot stop them without the king's help.

Fair enough, but most cases will not be so clean-cut. The defending king tends to be a relevant piece most of the time!

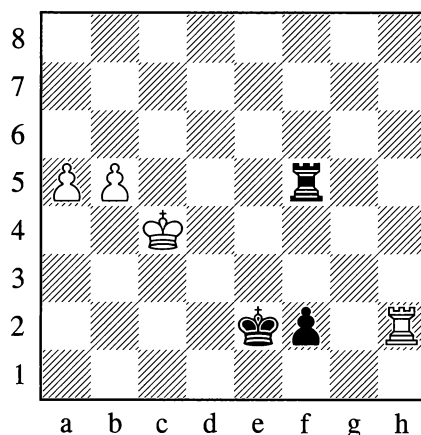
In general, the positions are calculation-heavy and should mostly be solved with brute force, but there are some key tricks and motifs to know. The first is a theme I already wrote about in *Small Steps 2 Success*, and which I will introduce as a guideline here.

When defending with a rook against two connected passed pawns, the best way to slow them down is to force the enemy king to get in front of them. This may buy your own king enough time to come back.

Let's see an example of this principle in action. The following notes are taken from my work in *Small Steps 2 Success*; at the risk of being too repetitive, I think they can be largely copied here.

Alexander Shabalov – Joshua Friedel

Peabody 2007



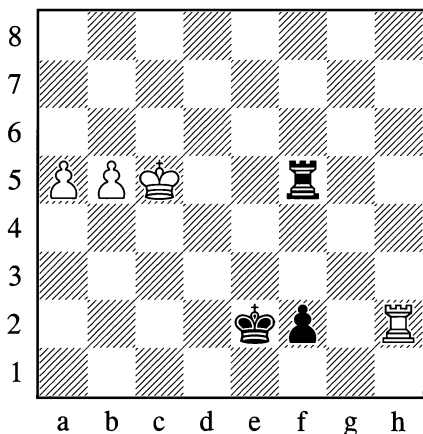
Black's f-pawn will clearly cost White his rook, but it seems like that will not be enough to save Black since the connected passers are so far advanced. However, despite how far advanced they are, they can be slowed down enough that Black can get his king and rook back in time. Black could have miraculously saved the game by forcing the white king in front of his pawns to slow them down.

62...♖f4†!

The game continued with 62...♔e3? when Black's king is shouldered out and White's king is not in the way of his pawns. They will cruise straight through. After 63.♖xf2 ♖xf2 64.b6 ♔e4 65.b7 ♖f1 66.a6 ♖c1† 67.♔b3 Black resigned.

63.♔c5 ♖f5†!

Where can White's king hide? There is nowhere safe to go except in front of the pawns or away from them. He cannot approach the rook as there is enough checking distance, and running to the second rank will allow ...♖f5. Therefore, the only option is to step in front of the pawns.

**64.♔c6**

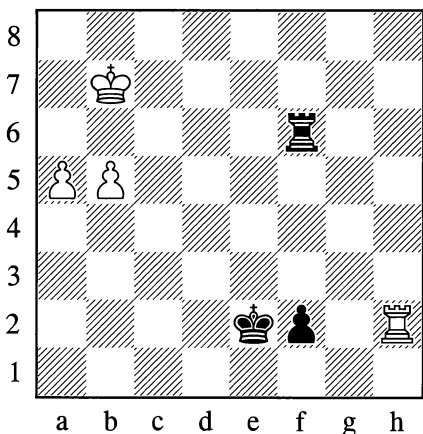
64.♔b6 ♔d3! is similar to the main line. After 65.♞xf2 ♞xf2 66.a6 ♔c4 67.a7 ♞f6† Black draws.

In the event of 64.♔c4 ♞f4† 65.♔c3 ♞f3† 66.♔c2 White has escaped the checks, but his king is too far from the action. After 66...♞f5! White is lucky to still be able to draw with 67.♔b3 ♞xb5† 68.♔a4.

64...♞f6† 65.♔b7

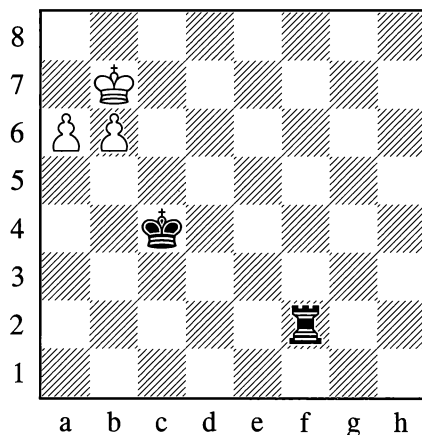
Now that White's king has stepped in front of the pawns, Black has a much better opportunity to run back with his king.

If 65.♔d5 ♞f5† White cannot approach the rook as it is too far away, and the pawns will hang. He even loses after 66.♔e6? ♞xb5.

**65...♔d3! 66.♞xf2 ♞xf2 67.a6 ♔c4 68.b6**

The position after the text move clearly highlights that White's king is on the wrong square. In fact – with the exception of squares like a4, a1 and h6, which suffer from obvious drawbacks – you could place White's king virtually anywhere on the board away from the pawns and he would be winning; even somewhere silly like h1. But being in front of the pawns, he slows them down enough to give Black the time he needs to come back and defend.

68.a7 ♞f7† 69.♔a6 ♞xa7† draws immediately.

**68...♔b5**

In fact, White even has to be careful not to lose! A sensible finish might be:

69.♔a7!

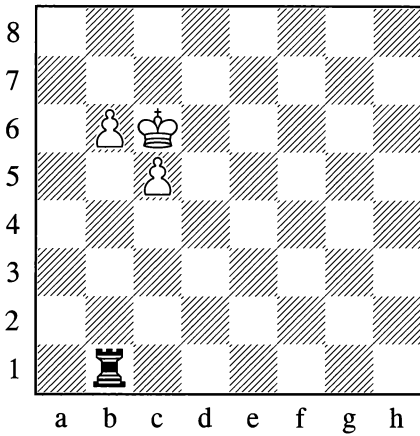
But not 69.a7? ♞f7† 70.♔b8 ♔xb6 and Black wins.

69...♞f6 70.b7 ♞xa6† 71.♔b8

Black is unable to do anything with his extra rook.

The second motif is worth remembering.

Changing the Leader



The fastest way to push this pawn mass through is not to push the most advanced passed pawn. It is to put the king in front of the b-pawn and then push the c-pawn through.

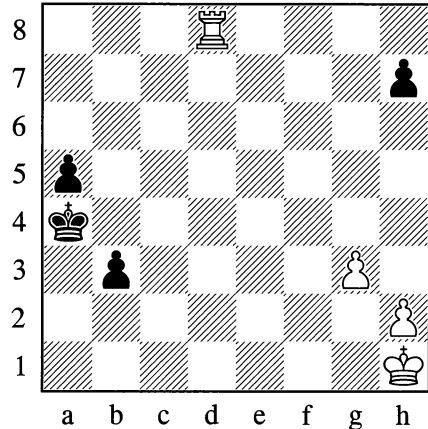
Put in words, we can make the following guideline.

When playing with two connected passed pawns against a lone rook, and the rook is behind one of the pawns, the best way to play for a win is to have the king directly in front of the pawn the enemy rook is behind, and then push the other one.

I was first made aware of this principle when an old mentor of mine faltered at the end of a tough game in a team match. I was playing on board 3 for San Francisco, and Vinay had been our MVP all season. But the following game he played on board 2 would prove to be our last, as Miami sent us home...

Vinay Bhat – Blas Lugo

Internet 2007



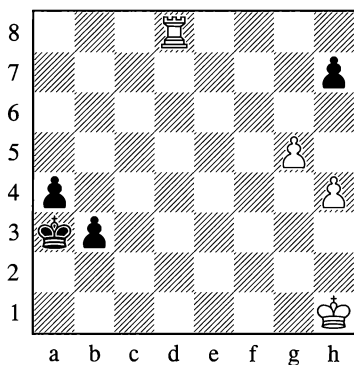
Black's pawn mass will promote. White's king is too far away to stop it. All White can do is to hope to make a queen of his own.

44.♖b8?

This move is inflexible, and costs White the game. We should know that Black's plan should be to put his king in front of the pawn the enemy rook is behind, and then push the other one. Much to my chagrin, Lugo demonstrated this principle very nicely.

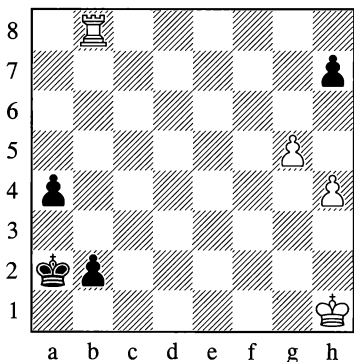
White could have made a draw by pushing his kingside with: 44.g4! His point is that while he will have to bring his rook behind one of the pawns eventually, he can wait to see how Black moves his queenside mass before choosing whether the rook belongs on b8 or a8. 44...♔a3 (This point is well illustrated after 44...b2 45.♖b8!. Now that Black has committed to advancing ...b3-b2, White can bring his rook to b8. Black has deprived his king of the b2-square, and it will be much slower to bring his king in front of the b-pawn and push the a-pawn through. 45...♔a3 46.g5 a4 47.h4 ♔a2 48.h5 a3 49.g6 White is in time to make a draw. 49...hxg6 50.hxg6 b1=♕†

51.♖xb1 ♔xb1 52.g7 a2 53.g8=♖ a1=♖)
45.g5 a4 46.h4



Black has to make a choice. If he pushes ...b3-b2, White can bring his rook to b8, and Black is unable to bring his king forward and push the a-pawn in time. If Black puts his king on b2 instead, White will put his rook behind the a-pawn. 46...♔b2 (White also makes a draw after 46...b2 47.♖b8 ♔a2 48.h5) 47.h5 a3 48.g6 hxg6 49.hxg6 a2 and now 50.♖a8 with a draw.

Bringing the rook behind the other pawn with 44.♖a8? is equally inflexible. Black can stay on point with the same plan – put the king in front of the pawn that the enemy rook is behind, and then push the other pawn. The king is already in the ideal spot, so we know what to do next. 44...b2! 45.♖b8 ♔a3 46.g4 a4 47.h4 ♔a2 48.g5



Once more... Put the king in front of the pawn the enemy rook is behind, and push the other pawn. 48...a3! (But not 48...b1=♖†? 49.♖xb1 ♔xb1 50.h5 as White makes a draw.) 49.h5 ♔a1 Black wins.

44...♔a3! 45.g4 a4! 46.g5 ♔b2!

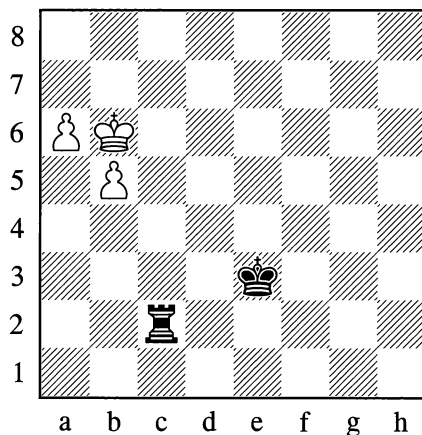
Excellently executed by Lugo. White's rook belongs on a8 in this position, and choosing b8 first before touching the kingside pawns meant that White lost the necessary flexibility to save the game.

**47.h4 a3 48.h5 a2
0–1**

Painful as this game was for me (and surely for Vinay as well!) at the time, I was thankful to have learned this motif. It took fifteen years to become relevant, but I did eventually get a chance to put my knowledge to good use.

Sam Shankland – Parham Maghsoodloo

Prague 2022



White should avoid temptation and not push the a-pawn.

75.♔a7!

White intends to change the leading pawn

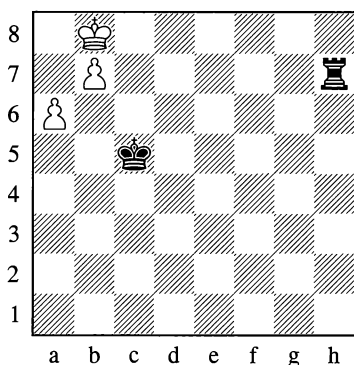
and push the b-pawn through. His a-pawn is further away from Black's king, and his own king is perfectly placed on a7.

75.a7? would allow Black to save the game. After 75...♖a2! 76.♔b7 ♔d4 77.b6 ♕c5! Black hooks onto the tail of the pawn chain and White is unable to keep pushing his king forward.

75...♖c8

Parham was basically flagging when he made this move, but there was no saving resource to be had.

More resilient was 75...♖c7† but it was still not enough to save the game. White wins after 76.♔b8 ♖h7 77.b6! ♔d4 78.b7 ♕c5



79.♕a8!

76.b6

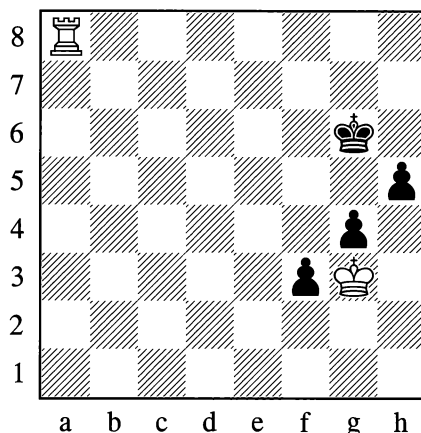
1–0

Three pawns against a rook is a rare endgame, and one that I have never had in my own practice. But there is an important fortress to know, which brings us to the next rule.

A chain of three pawns reaching the sixth rank will draw against a rook if the rook cannot get behind the base of the chain.

Take the following example.

Three Pawns



White clearly has the pawns under control, and the only question is if he can win the game. Black can save it, but he needs to be very careful not to let the rook get behind the h-pawn.

1...♔g5?

Bringing the king forward would lose, as White can get his rook behind the base of the pawn chain. The king should go in the other direction:

1...♔h7 is fine too.

1...♔g7!

This is quite enough to save the game. Black will simply shuffle his king between the g7-and h7-squares indefinitely.

2.♔h4 ♔h7

This is possible because White cannot take on h5 without letting the kingside pawns through.

3.♖a5

White is lucky not to be lost after 3.♔xh5?! f2!.

3...♔g6!

Of course, Black does not let h5 get taken.

4.♖b5 ♔f6!

I don't think this move really needs to be memorized. It would be madness to play anything else.

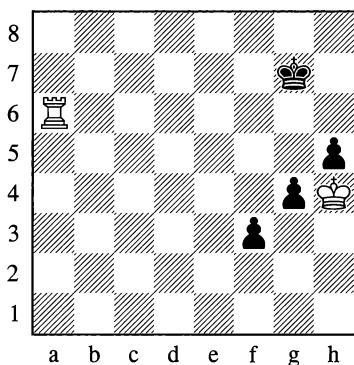
5.♞b6†

White still cannot take the pawn:

5.♞xh5? f2 and Black wins.

5.♔xh5? f2 and Black wins here as well.

5...♔g7! 6.♞a6

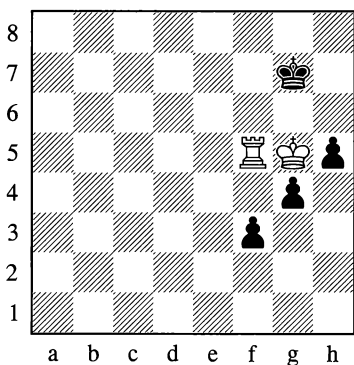


As long as Black knows not to let the rook behind the h-pawn, this is the only specific position he needs to memorize.

6...♔h7!

Black makes sure not to place the king on the f-file, which would allow White's king to reach g5:

6...♔f7? 7.♔g5! White will be able to transfer his rook to f6 next, and Black is not in time to play ...f3-f2 or ...g4-g3 because it will be check. 7...♔g7 8.♞g6† ♔h7 9.♞f6 ♔g7 10.♞f5



White is ready for ♔xh5 next, and he wins.

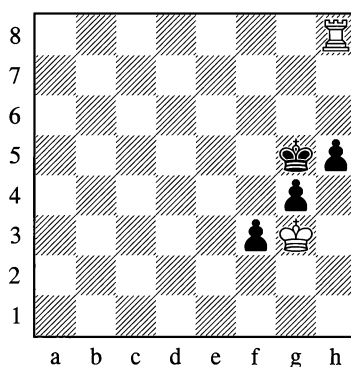
7.♔g5 f2

The pawns are coming and White is lucky not to be lost.

2.♞f8

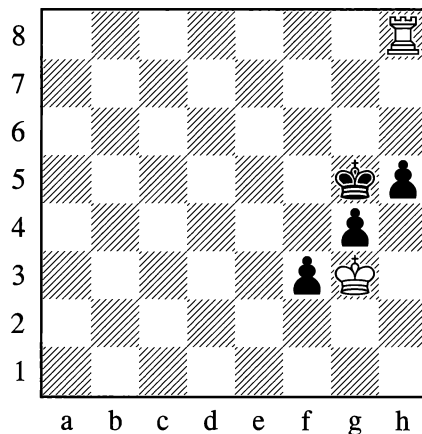
This is not a great move, but it allows us to see how White wins if he is on the wrong side of a reciprocal zugzwang.

2.♞h8!



Black is in zugzwang, and he loses. This position is much harder with White to play, as passing a tempo is not trivial, but he wins there as well. 2...♔g6 3.♔h4 ♔f6 4.♞h6†! White can take on h5 next.

2...♔g6 3.♞h8 ♔g5



With White to play, it takes a lot of effort to win the game. Even for a strong grandmaster, I doubt they would find the following maneuver on their own with the clocks ticking down. This really should be memorized.

4.♖g8†!

This check is a good place to start. Black's king is forced to the f-file.

4...♔f5

After 4...♔h6 5.♔h4 ♔h7 6.♖g5 White is able to take the pawns directly.

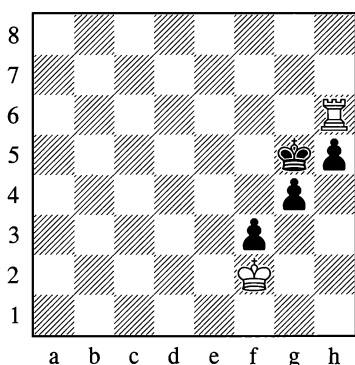
5.♔f2!

The triangulation begins. White will need to play ♔g1-f1-f2 again. Since Black's king must always stay in touch with the g5-square, it is unable to counter-triangulate.

5...♔f6

It is most resilient not to allow the rook to the sixth rank in this way, but Black still loses.

After 5...♔f4 6.♖g6! Black's king will be cut off along the sixth rank. Every move from here is forced. 6...♔f5 7.♖h6 ♔g5



8.♖h7! ♔g6 9.♖h8! ♔g5 10.♔g3 The tempo has been passed. Black is to move, and he can resign.

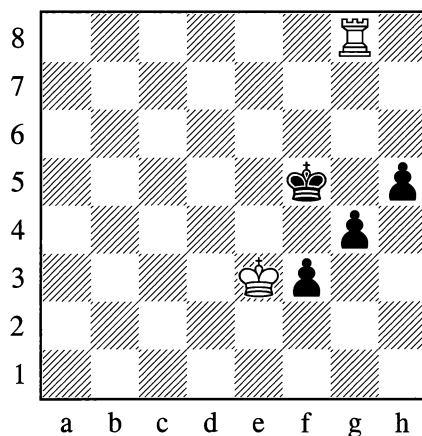
6.♔f1!

6.♔e3?! is too soon. 6...♔f5! White needs this position with Black to move. As is, he cannot play ♔d2 to mark time again: 7.♔d2? ♔f4! White cannot prevent ...g4-g3 or ...♔g3, and the tables are turning. My computer claims this is a draw, but I'd already be worried about losing with White.

6...♔f5 7.♔g1! ♔f6 8.♔f2!

White has successfully triangulated.

8...♔f5 9.♔e3!



This position is an important zugzwang. White needs to be able to burn more tempos with a move like ♔d2 next without allowing Black's king to reach g3.

9...♔f6 10.♔d2!

White starts another triangulation, and it is very important to specifically use the d2-square, and not d3.

10.♔d3 is the right idea, but the wrong square. 10...♔f5! and now White should play ♔e3, repeating the position to find the right way. After 11.♖h8? ♔f4! 12.♖xh5 g3! White is missing the move ♔d2-e1 because he placed his king on the wrong square.

10...♔f5 11.♖h8!

Black has to choose a square for his king – either g5 or g6. Depending on where he goes, we can count the tempos and see what White should do to get his king to g3 at the right moment.

11...♔g5

11...♔g6 12.♔d3! does not help Black. His king is forced to g5 next, and then the white king can go to e3, successfully triangulating and transposing to the main line.

11...♔f4 12.♖xh5 g3 13.♔e1 illustrates why White needed to triangulate with 10.♔d2 and not 10.♔d3.

12.♔e3! ♔g6

No different is 12...♔h4 13.♔f2! ♔g5 14.♔g3. We have again reached the critical position with Black to move. White wins.

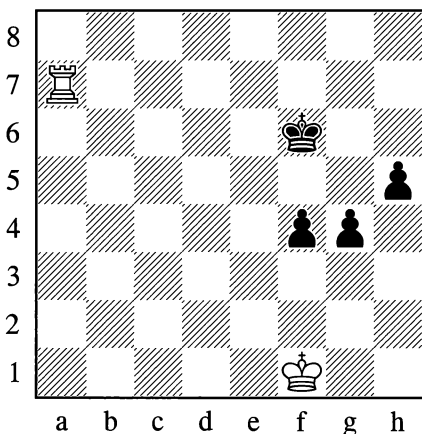
13.♔f2 ♔g5 14.♔g3

It took a great deal of effort, but finally White has passed the tempo and can claim the full point.

Let's see another example of what this looks like in practice.

Kassa Korley – Justus Williams

New York 2022



Black has the potential to get a three-pawn-long chain ending in the sixth rank. This should be enough to draw the game.

59...h4?

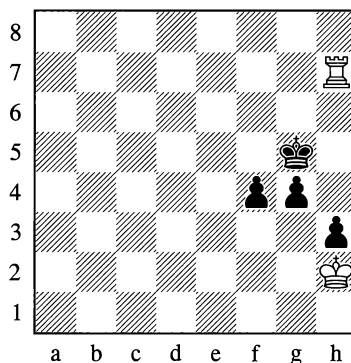
But not like this! Black will now not be able to make a chain, and White should win.

59...♔g6! was Black's only drawing move. He must take control of the h7-square before pushing ...f4-f3:

For example: 59...f3? 60.♖h7! ♔g6 61.♖h8 ♔g5 62.♔f2 ♔g6 We have seen this before. It will take a lot of effort to win the game, but White does win. 63.♔g3 ♔g5 64.♖g8†! ♔f5 65.♔f2 ♔f6 66.♔f1! Please refer to page 375.

60.♖a6†!

This does not spoil anything yet, but White is moving in the wrong direction. The rook should go behind the pawns: 60.♖h7! h3 White needs to be careful. If Black is allowed to push ...g4-g3 and then ...h3-h2, he will have a three-pawn-chain ending on the seventh rank. If ending on the sixth rank is good enough, on the seventh is more than good enough! (60...♔g5 leads to a similar position to the main line: 61.♔g2! h3† [After 61...f3† 62.♔f2 Black is in zugzwang, and it is all over; 61...g3 62.♔f3 is also zugzwang. Time to resign.] 62.♔h2) 61.♔g1! (But not 61.♔f2? g3†! 62.♔f3 h2 which is equal, as White will never take the f4 pawn.) 61...♔g5 62.♔h2



With White's king safely on h2, Black can

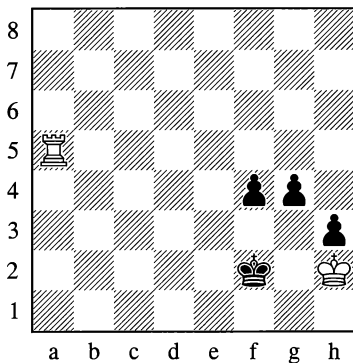
never move any of his pawns. This position would be a draw with Black's pawn on f5, as he could simply wait. Instead, the weakness of the g4-pawn means he will be put in zugzwang. 62...♙g6 63.♖h8 ♙f6 64.♖g8! Black would love to have his pawn back on f5 so that he could simply wait with ...♙f7-e7 forever. He would bring his king to the sixth rank whenever the white rook leaves the back rank, and White would make no further progress. As is, his pawns are harassed and cannot be secured. 64...♙f5 65.♖g7! Zugzwang. It's all over.

60...♙f5 61.♖a5†

Again, the rook should go behind the pawns: 61.♖h6! wins.

61...♙e4 62.♖a4†

Getting the rook behind the h-pawn was still good enough here: 62.♖h5! h3 63.♙g1 ♙f3 64.♙h2 ♙f2 65.♖a5!



Move please! Black's king is on its only good square, and pawn moves are suicidal. 65...♙f3 66.♖g5! White wins.

62...♙e3 63.♖a3† ♙e4 64.♖a4† ♙e3 65.♙g1

65.♙g2! would still have won. White needs to get his king to h2. 65...h3† (Or 65...f3† 66.♙f1! when Black loses a pawn on the fourth rank.) 66.♙h2 ♙f3 67.♖a8 ♙f2 68.♖a7! Zugzwang

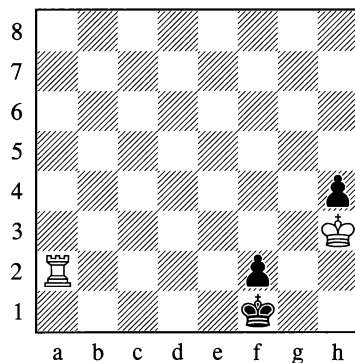
again. ♖g7 comes next.

65...♙f3 66.♙h2

White found the right idea, but a little too late and his rook is a little too awkward.

66...♙e3?

66...g3†! was the way. 67.♙h3 (After 67.♙g1 h3 Black gets the pawn to h2 and has set up a drawing chain.) 67...g2! 68.♖a3† ♙f2 69.♖a2† ♙f1 70.♖xg2 f3! 71.♖a2 f2!



Black's h4-pawn saves the day. Not only does it deny White's king access to the g3-square, it also means it will not be secure on g2 either. 72.♖a1† ♙e2 73.♙g2 h3†! Black draws.

67.♖a3†

Kassa did not see the way here, which had admittedly become very difficult, and agreed a draw to end a long and interesting fight.

67.♙g2! would have won, as seen on move 65.

67...♙f2 68.♖a2† ♙e3 69.♖a3† ♙f2 70.♖a2†

1/2-1/2

Most of the skillset involved in playing positions with rook against pawns is based on calculation. But some knowledge of key motifs, guidelines, and positions makes that calculation a lot easier!

Chapter 19

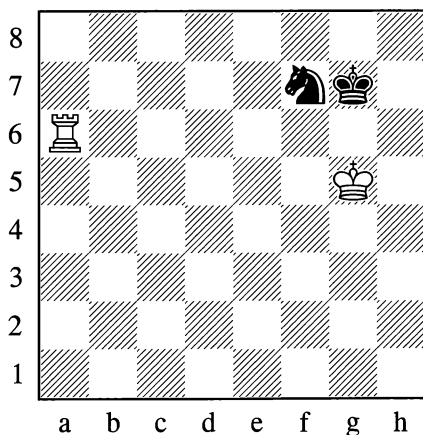
Pawnless Rook Endgames

The final chapter before the ‘Cliff Notes’ summary will focus on rook endgames with no pawns on the board. These are relatively rare, but still important to know. We will cover rook against knight, rook against bishop, queen against rook, rook and knight against rook, and rook and bishop against rook.

Rook against knight is an easy draw if the knight is close to the king. Most of the time, people don’t even bother trying.

Andrey Esipenko – Daniil Dubov

Krasnaya Polyana 2021



Black’s knight is connected to his king, and the game is an easy draw.

89.♠f5

Avoiding a check from the knight does not help: 89.♠h5 ♔h7 Black shuffles with ...♔h7-g7 forever, and no further progress can be made.

89...♖h6†

Esipenko forced a draw directly, fully understanding that he will never have a chance to even put Black under pressure.

90.♞xh6

It is clear there is no way forward:

90.♔e5 ♖f7† 91.♔e6 ♖h6 Here as well, there is no universe where Black will ever lose.

90.♔e6 ♔g6 White will also never make progress here.

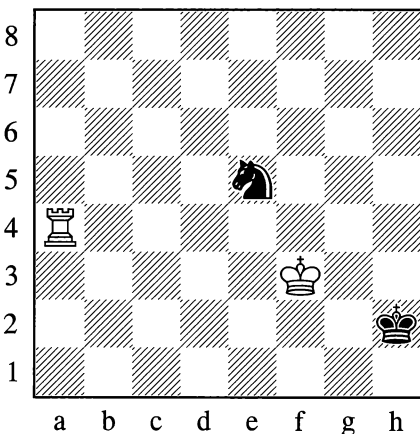
90...♔xh6

½–½

However, things can change, as the following example shows:

R. Praggnanandhaa – Arjun Erigaisi

Kolkata (rapid) 2021

**65.♔f4**

Black's knight is far away from his king and cannot be reunited. It does not take much effort for White to round it up and take it.

65...♖d3† 66.♔e3 ♖e5 67.♞e4!

The knight is forced further away.

67...♖g6 68.♞g4!

And again, it is attacked before Black can play ...♔h3 to secure the h4-square and connect his pieces.

68...♖e7

68...♖e5 loses even faster. 69.♞g5 The knight is pushed even further away. 69...♖f7 70.♞f5! ♖d6 71.♞f6 ♖c4† 72.♔d4 ♖a3 73.♞c6 White is ready for ♞c5 and ♔c3-b2. It's all over.

69.♔e4 ♔h3 70.♞g7! ♖c6 71.♞c7 ♖b4 72.♞c4 ♖a6

Black's knight is pushed all the way to the side of the board, with his king all the way on the other side. White just needs to bring his king to b7.

73.♔d5 ♔g3 74.♔c6 ♖b8†

White also wins immediately after 74...♔f3 75.♔b7.

75.♔c7

1–0

This introduces us to the next guideline.

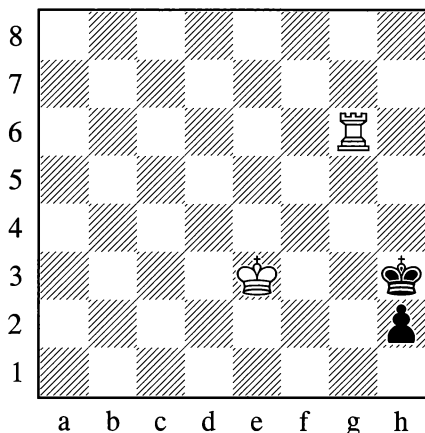
When the knight is permanently separated from the king, the position is usually lost.

There is no technique or position to memorize when working out how to take the knight; you must put your king in the center and use your rook to attack it and push it away. Most of this is done with raw calculation, but the lines tend to be easy.

The most interesting rook against knight cases come from when the knight is born from a pawn. We already saw the following example in the previous chapter:

Etienne Bacrot – Ray Robson

Khanty-Mansiysk 2011



89.♔f2!

Black is forced to make a knight here, and is lost because the knight is misplaced.

89...h1=♘†

89...h1=♘ 90.♖h6† requires no explanation.

90.♔f3 ♔h2 91.♖g7

Black is in zugzwang and loses his knight.

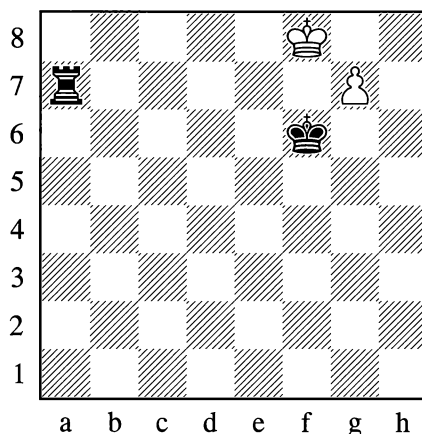
1–0

This brings us to the next rule.

A knight stuck in the corner will lose to a rook. If the defending side is ever forced to promote to knight in the corner to give a check, they will lose.

Any other pawn becoming a knight will make a draw, but some are easier than others. Surprisingly, the trickiest case is with a center pawn. The f- and g-pawns draw easily.

Knight Pawn Promotes



Step one to saving this position is turning off autoqueen, though I don't think a deep study of rook endgames is wildly useful for online rapid play! Still, this did happen once in the PRO Chess League.

1.g8=♘†

1.g8=♘ ♖a8# is what happens to the internet generation!

1...♔e6

White has only one move at each moment in the next sequence of moves, that does not simply lose the knight to a one-mover. The defense is very straightforward.

After 1...♔g6 White also has only one move that does not lose the knight immediately: 2.♘e7† ♔f6 3.♘g8† draws.

2.♘h6 ♖b7

Again White has only one move, but it is not hard.

3.♘g8!

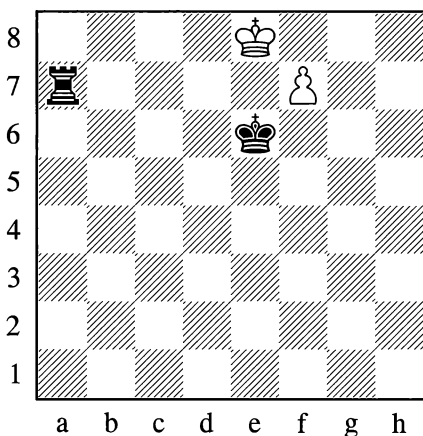
Keep the knight close to the king. It's an easy draw.

As soon as the knight gets separated from the king, it usually ends up getting taken: 3.♔g8? ♕f6! 4.♘g4† (4.♖h8 ♕g6 and the knight is lost, as 5.♘g8 ♖h7# is mate.) 4...♕f5! 5.♘e3† ♕e6 White's king is cut off on the side of the board, and his knight is separated. The knight will be lost. 6.♘g4 ♖b4! The easiest win. 7.♘h6 ♕f6 8.♖h7 ♖h4 Black wins.

I struggle to imagine anyone being dumb enough to play 3.♘g4?. The knight is separated and will be lost. 3...♖f7† 4.♕g8 ♖f4 5.♘h6 ♕f6 6.♖h7 ♖h4 Déjà vu.

Promoting a bishop's pawn also lands the knight on a reasonable square.

Bishop Pawn Promotes



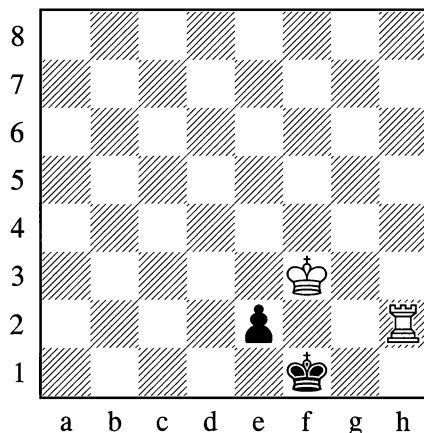
1.f8=♘† ♕d6 2.♘g6

Again, making the only reasonable move makes an easy draw. There is effectively no difference between this position and the previous one. The knight comes back to f8 next.

A center pawn is much trickier, as the knight ends up on a surprisingly bad square. It is still a draw but must be handled carefully. Multiple 2700+ players have managed to lose it!

Gata Kamsky – Etienne Bacrot

Sofia 2006

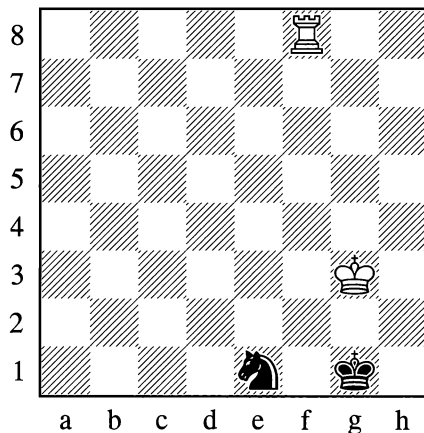


We have seen the earlier phases of this game in other chapters, and now we are ready for the final phase. Black is forced to promote to a knight to avoid mate, and then the resulting endgame is not entirely trivial to defend.

74...e1=♘† 75.♕g3 ♘d3 76.♖d2!

The problem Black is facing is that to keep his knight and king connected, he must allow his king to be pushed to g1. Kamsky showed an excellent understanding of this endgame.

76...♘e1 77.♖f2† ♕g1 78.♖f8



This is a position well worth memorizing. It is the only one I am aware of in any rook against knight endgame where it is best to take the knight away from the king.

78...♖g2?!

This does not lose just yet, but it is an awful square for the knight and leads to a difficult defense.

It is better for the knight to go to c2. Black's default next move is to bring the knight back to e1, when White is not making any progress. The difference between this move and the text is that when White plays ♔f3, Black's king will not be tethered to a hanging knight on g2. 78...♞c2! 79.♔f3 ♔f1! 80.♖f7 ♔e1! It's nice that this move is possible! Black gets the king out and holds easily.

79.♔f3!

Black's defense is suddenly difficult. The knight is badly misplaced on g2, and Bacrot faltered immediately.

79...♔f1?

This seems natural, but Black will be placed in a deadly zugzwang.

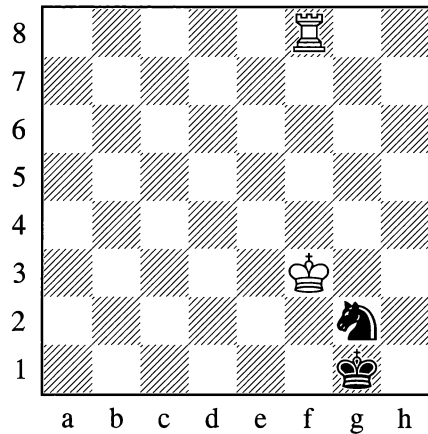
79...♞h4†! was the way. 80.♔g4 (After 80.♔e2 ♔g2! Black survives, and will promptly reach the same position, just with his king on the h-file instead of the back rank. 81.♖g8† ♔h3 82.♔f2 ♞f5 83.♖g5 ♞h4 84.♖g3† ♔h2 85.♖a3 Now, we know the easiest way to a draw: 85...♞g6!) 80...♞g2 Black is just holding on. 81.♔g3 ♞e1! and the game is level.

But not 79...♞e1†? 80.♔e2 ♞g2 81.♖h8!, which leads to the same position reached in the game.

80.♔g3†?

Kamsky repeated once before finding the way. This gave Bacrot a chance to improve his defense.

80...♔g1 81.♔f3



81...♔f1

We know what Black should have played here: 81...♞h4†!

82.♖f7!

Black is in a deadly zugzwang.

82...♞e1†! 83.♔e3† ♔g1 84.♔e2 ♞g2

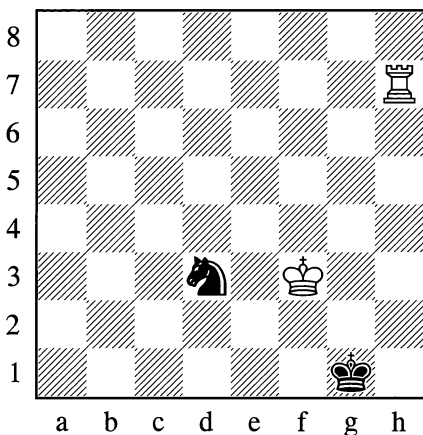
The knight is really lacking moves now.

85.♖h7!

Other moves win, but this one strikes me as the cleanest by far. Black's moves are forced the whole way.

85...♞f4† 86.♔f3! ♞d3

This is the only way to keep the knight close to the king. Kamsky now showed a pleasing final touch, and a move worth memorizing.

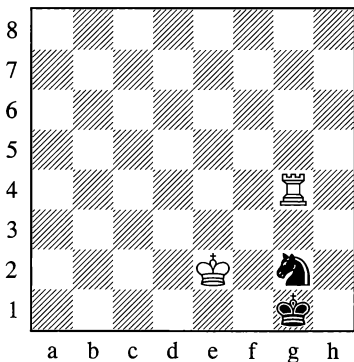
**87.♖h4!**

Prophylaxis against Black's knight coming to g2.

87...♜e5†

The knight is separated from the king, and White should be able to take it. In general, once the knight is separated, there is no more knowledge to be had; you just have to calculate and find the way to round it up. Usually it is not too hard.

After 87...♜e1† 88.♙e2! ♜g2 89.♖g4!



We see why it was important for White to put his rook on the fourth rank. After 89...♙h2 90.♙f2 Black is missing ...♜g2-h4.

88.♙e2?

88.♙e3! was the way. Black's knight will not make it back to the first couple of ranks, and getting the king closer to the center will be helpful. 88...♙g2 89.♖e4! ♜d7 90.♙f4 ♙f2 91.♖c4! White's rook is coming to c6, and the knight will be easily trapped. Note that White's king coming to f4 so quickly denies the knight the e5-square.

88...♙g2 89.♖e4 ♜f7?

By some miracle 89...♜d7 holds. I don't see a human ever finding it, but there was no reason to allow it.

90.♖e7! ♜d6

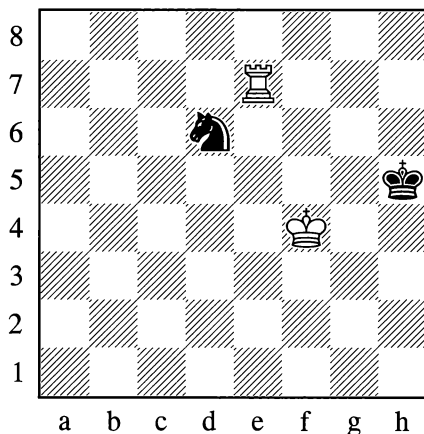
Or 90...♜h6 91.♖g7†! ♙h3 92.♖h7 is curtains.

91.♖g7†!

Black's king is pushed further from the action, and White will be able to use mate threats to gain time and allow his king to approach the knight.

91...♙h3 92.♙f3 ♙h4 93.♙f4 ♙h5 94.♖e7

Black's king is cut off on the edge of the board, his knight cannot be connected, and the knight will be taken.



94...♜c4 95.♖e6! ♜d2 96.♖c6 ♜b3 97.♙e3 ♙g4 98.♖c4† ♙g3 99.♖c3 ♜a5

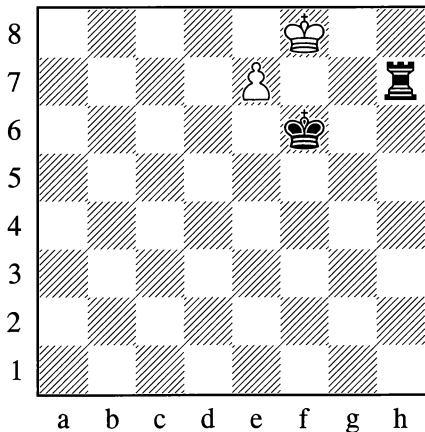
100.♔e4† ♕f2 101.♕d5 ♖b7 102.♖b3
 ♖d8 103.♖b8
 1–0

Kamsky's play was not flawless, but he showed a good understanding of how White can apply the maximum amount of pressure. Once he got his chance, he only allowed Black one inhuman defensive opportunity. Once it was missed, he won routinely.

It did not take much for Black's position to go south. Still, one would expect Super GMs to be more than up to the task of finding one or two accurate moves to save a technically drawn position with only four total pieces on the board. Bacrot's loss must be a total anomaly and an exception to the rule, right?

Veselin Topalov – Ding Liren

Shamkir 2019

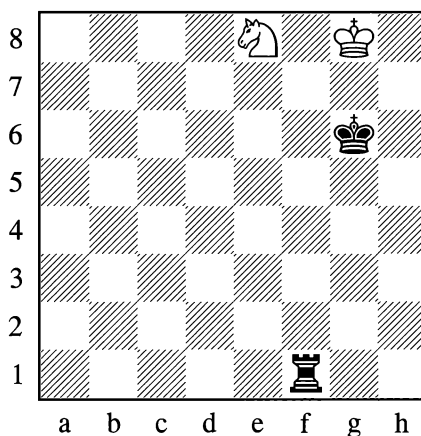


80.e8=♖† ♕g6! 81.♖d6 ♖d7!

The problem White faces is that to keep his knight close to his king, he must allow his king to be chased towards the corner. Ding drifted around for a bit here, probably not aware of the previously played Kamsky – Bacrot encounter, but he ultimately found the right plan.

82.♖e8 ♖f7† 83.♕g8 ♖a7 84.♕f8 ♖d7
 85.♕g8 ♖f7 86.♖d6 ♖d7 87.♖e8 ♕f5
 88.♕f8 ♕g5 89.♕g8 ♕g6 90.♕f8 ♖f7†
 91.♕g8 ♖f1!

Finally, Ding chooses the most challenging option.



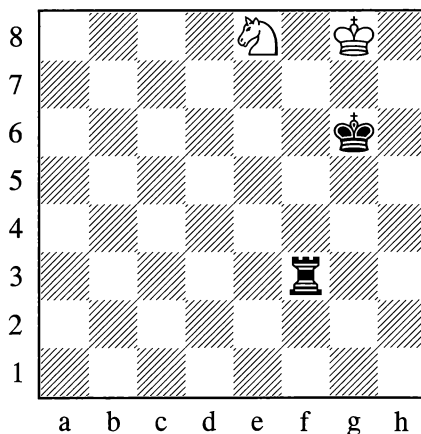
92.♖g7?!

As we saw before, 92.♖c7! was the right move.

92...♕f6 93.♖h5†!

Topalov found the only move, but the position is still not easy.

93...♕g5 94.♖g7 ♕g6 95.♖e8 ♖f3!



The most challenging move. While the knight coming to c7 was the easiest draw with the rook on f1, the knight coming to c7 is the only draw with the rook on f3.

96. ♖g7?

This loses.

96. ♖c7 is equal as before.

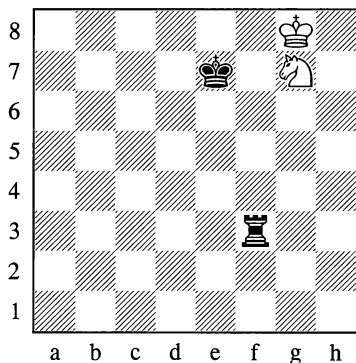
96... ♖f6! 97. ♖h5†

Topalov continues with the same plan he had played against the rook on f1.

97... ♖e6?

This allows White's king to the g7-square. Black needed to put his king on f5 instead:

97... ♖f5! would have won. White is badly missing a check on g3 that he would have with the rook on f1. 98. ♖g7† (98. ♖h7 ♖h3 99. ♖h6 ♖h2 and the knight is lost here as well; 98. ♖g7 ♖g5 Black wins the knight.) 98... ♖e5! 99. ♖e8 ♖e6! 100. ♖g7† ♖e7



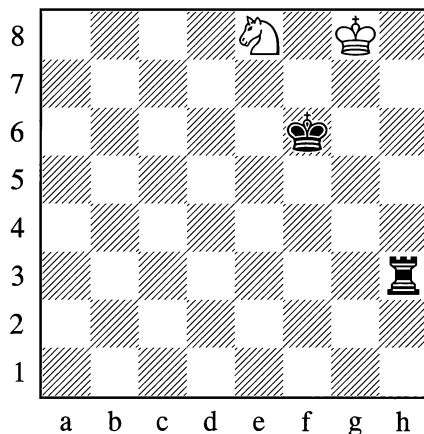
Black gets his king to e7, and wins. White will soon lose his knight.

98. ♖h7

White would hold with: 98. ♖g7! ♖f5 99. ♖f6! The knight is connected with the king, and White has survived the worst of it.

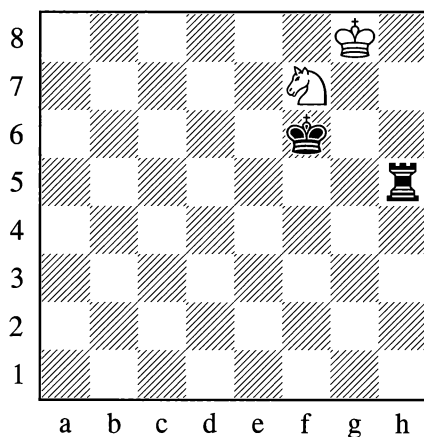
98... ♖f5 99. ♖g7† ♖f6 100. ♖h5† ♖g5 101. ♖g7 ♖h3†! 102. ♖g8 ♖f6 103. ♖e8†

We reach a similar position to the Kamsky – Bacrot game. Ding put it away without much further effort.



103... ♖e6 104. ♖g7† ♖e7 105. ♖f5† ♖f6 106. ♖d6 ♖h5! 107. ♖f7

Topalov tried a last-ditch effort to keep the knight connected with his king, but his coordination is too bad.



107... ♖d5! 108. ♖h6

Or 108. ♖f8 ♖d7 and Black wins.

108... ♖d8† 109. ♖h7 ♖d7†

With ... ♖g6 coming next, White resigned.

0-1

This brings us to the next guideline.

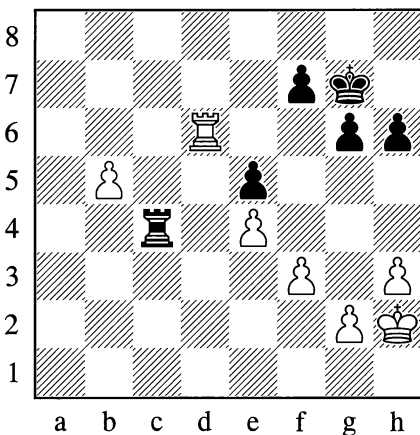
When defending with a knight against a rook, be wary about fianchettoing your knight directly in front of your king. This is asking for trouble.

Minding this guideline would have saved both Bacrot and Topalov half a point. One can understand why they both chose the wrong square for the knight, as they know that the knight should stay close to the king. But it is important to know this one exception.

Rook against bishop is generally a little simpler than rook against knight. To some extent, one could argue that is outside the scope of this book, as rook against knight could be born from a rook endgame. Indeed, the last three examples of rook against knight came from the following positions:

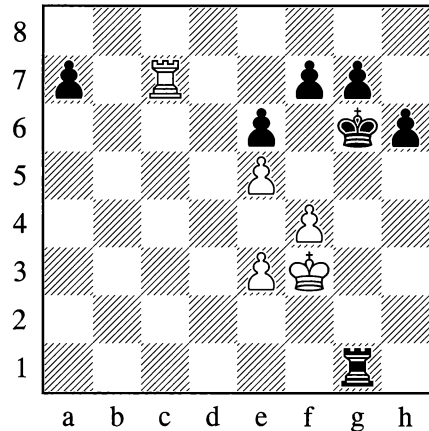
Gata Kamsky – Etienne Bacrot

Sofia 2006



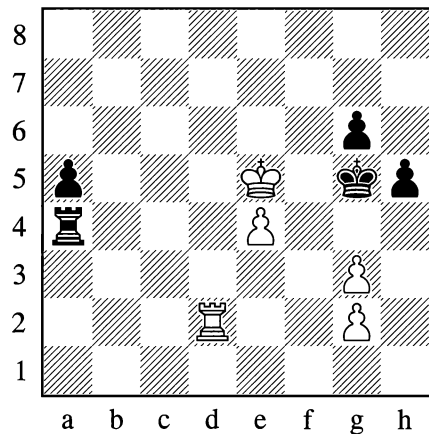
Veselin Topalov – Ding Liren

Shamkir 2019



R. Praggnanandhaa – Arjun Erigaisi

Kolkata (rapid) 2021



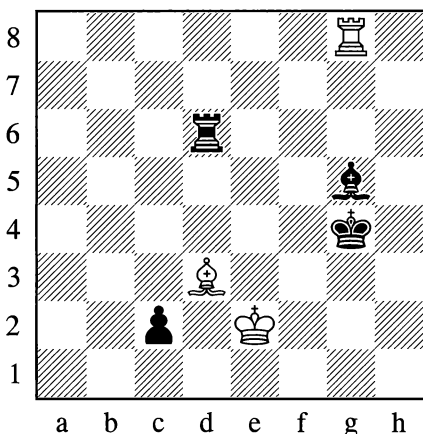
There is no rook endgame that will ever reach rook against bishop. This can only be reached from endgames where the bishop was already on the board and was not born from a pawn. Still, it is simple and easy to know, so I thought I could spend a couple of pages explaining the only three points to know.

It takes an extremely unusual circumstance for a bishop to lose to a rook. It is a long-range

piece, so being separated from the king is not an issue. There are two easy ways to make a draw under normal circumstances. The first is to place the bishop on a reasonably long diagonal, make sure there is a square on that diagonal that the enemy king will need to force your own king back, and wait. The following game is a good example.

Sam Shankland – Gawain Jones

Saint Louis 2019



Taking on c2 directly surely makes a draw, but I would be a little worried about the rook and bishop against rook endgame with my king already on the back rank. We will see some of these positions later in the chapter.

54. Bxc2

After 54. Bxc2 Bxd2+ 55. Ke1 Bxc2 I cannot get my king to g1 to set up a fourth rank defense. The position is definitely drawn, but I could certainly see an accident happening.

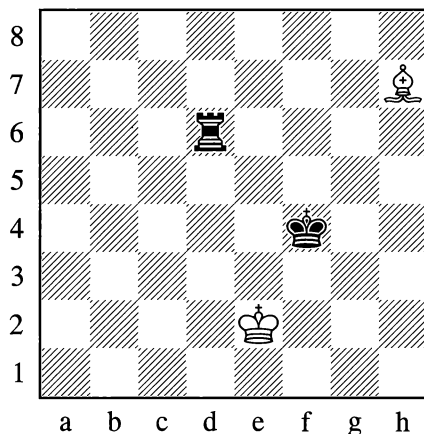
54... Kg5 55. Bh7

I was surprised that Gawain chose to continue the game here. I remember feeling a little annoyed and disrespected at the time, but now that I'm writing the book, I'm actually glad that he did. It allows White to show

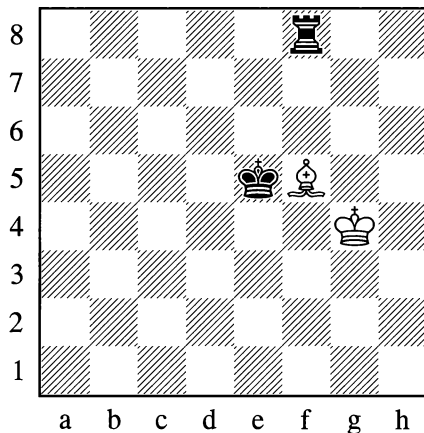
the easiest drawing technique, and one from an actual game instead of just a composed ChessBase file.

55... Kg5 56. Bh7

This is simple enough. White will leave his king on e2. The only way Black can ever hope to push him to the back rank is to get his king to e4 and the rook to the second rank. This will not happen, as my bishop controls the e4-square, and is on a very long diagonal and will not run out of squares.



56... Kg5 57. Bh7 Kg4 58. Kg3 Bf6+ 59. Ke2 Bf8 60. Bh7 Bg8 61. Bg6 Kh3 62. Bf5 Bc3+ 63. Bf2 Bc7 64. Bg3 Bf7 65. Bf4 Bf8 66. Bg4 Bc5



Black managed to get my king to the g-file instead of the second rank, but it's the same story. My bishop is on a long diagonal and it controls the e4-square. As such, Black will never put his king on e4 before giving me a check to force me to the side of the board.

67.♔h7 ♚f2 68.♔d3 ♚d2 69.♔h7 ♚d8 70.♕f3 ♚h8 71.♔g6 ♚h3† 72.♕e2 ♕d4 73.♔f5 ♚e3† 74.♕f2 ♚e5 75.♔c2 ♚c5 76.♔h7 ♚h5 77.♔g6 ♚h6 78.♔b1 ♚h4 79.♕f3 ♚h3† 80.♕e2 ♚e3† 81.♕f2 ♚e7 82.♕f3 ♚b7 83.♔f5 ♚f7 84.♕f4 ♚f8 85.♕g4

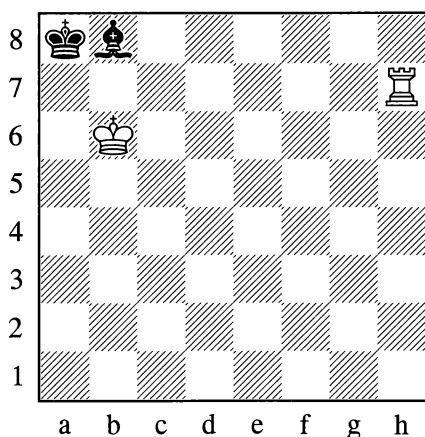
Finally, Gawain had enough.

85...♚xf5 86.♕xf5

½–½

The other common defensive technique is to put your king in a corner the opposite color of your bishop. This is an easy fortress to remember.

Bishop Corner Fortress



The position looks like it should be lost. It certainly would be with a knight on b8 instead of a bishop. But with a bishop, it is an easy draw. There is not much White can even try.

1.♚f7

I guess trying to put Black in zugzwang makes some sense. The only thing to remember is not to put the bishop on d6. Any other safe square is fine.

1...♔g3

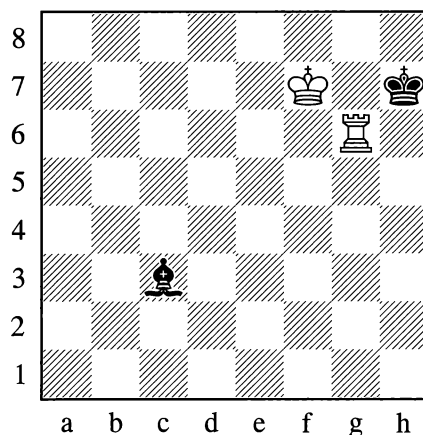
White now has nothing to even try.

1...♔h2 is an easy draw too.

The only trick to know is 1...♔d6? 2.♚a7! ♕b8 3.♚d7! Oops! Black has no safe check with the bishop.

The only time a rook can expect to beat the bishop is if the enemy king is forced to the corner the same color as the bishop.

Wrong Corner



Black is lost here. His problem is that his bishop has nowhere to hide. White will hit it with a gain of tempo and then transfer his rook to the h-file.

1...♔b2 2.♚g2 ♔c1 3.♚h2† ♔h6

Now we see why Black loses, while he would be making a draw if he had a light squared bishop on h7 and his king on h8. He has a legal move!

4.♖h1

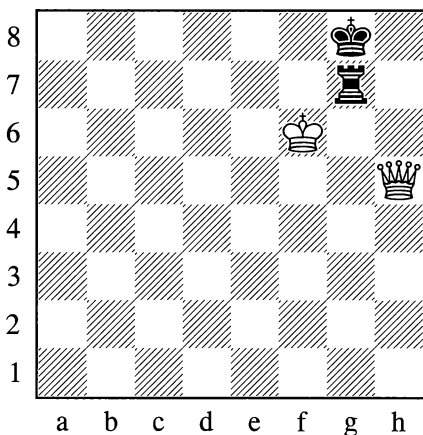
This is not stalemate, due to the h8-square. White wins.

It is extremely rare to ever see the king in the wrong corner like this. I can't name any famous games, games of my own practice, or other games I have seen off the top of my head where this happened.

The next pawnless endgame to consider is queen against rook. This one is a little more complicated, but it's good that the evaluation is always the same. Unless the queen is immediately taken or Black is immediately stalemated, there is not a single position that exists where the queen is not winning. Still, this does not make it easy! Strong players have failed to win it before.

Even with just four pieces on the board, there is an effectively infinite number of possibilities for how they can be sorted. It is pointless to try to memorize all the positions. I believe if you know four key zugzwangs, you will win with no further trouble.

The first one is the most well-known, and the one the queen is ultimately aiming to reach.

Queen against Rook 1

Black to move would be in zugzwang and lose the game. Here, it is White to move, but he can triangulate easily enough.

1.♞d5† ♔h8

1...♔h7 2.♞h1† ♔g8 3.♞h5 transposes. And 1...♔f8 loses immediately: 2.♞d8#

2.♞h1† ♔g8

Not 2...♞h7 3.♞a8#.

3.♞h5!

White has burned a tempo, and it is Black to move. His rook will be separated from the king, and it will be taken. I don't think it is worth memorizing how, simply examining all checks will do the job, no matter where the rook goes.

3...♞g3

White also wins easily against the alternatives: 3...♔f8 4.♞h6; 3...♞g2 4.♞d5†; or 3...♞g1 4.♞e8† White walks the staircase to a7. Black can never go to h6 on pain of mate on the h-file. 4...♔h7 5.♞d7† ♔g8 6.♞c8† ♔h7 7.♞c7† ♔g8 8.♞b8† ♔h7 9.♞a7†

4.♞d5† ♔h8

4...♔h7 5.♞b7† transposes to the main line.

5.♞a8†

Also winning is: 5.♔f7 ♞g7† 6.♔f8 No more checks. Black is mated.

5...♔h7 6.♞b7† ♔g8

6...♔h6 7.♞h1† wins.

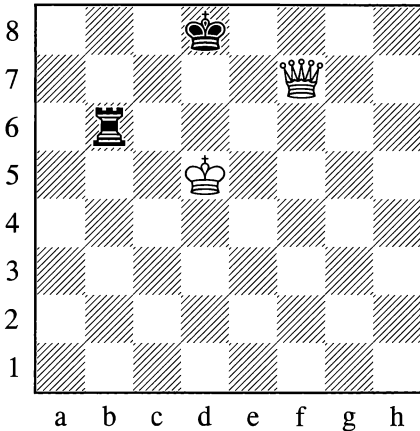
7.♞b8†

White wins the rook.

Once this position is reached, the win is easy. The defending side's best practical chances lie in not letting you get here in the first place, and there are some setups that are annoying

to break down. I believe all the following ones should be memorized.

Queen against Rook 2



The third rank defense (or sixth in this case) represents Black's best attempt to save the game. He will leave his rook on the sixth rank forever. White's centralized king means that Black's rook can hop from side to side, and he can comfortably meet a move like ♖a7 with ...♜h6 without fearing the loss of his rook. White's king will be in the way of the necessary checks. White cannot break this fortress down with brute force, and he must know a critical zugzwang.

1. ♖f4!

This position is worth memorizing, as it is the only way I am aware of to break down the third rank defense. Once you know that this is the position you are aiming for, getting there is extremely easy. But if you don't know this is what you are aiming for, realizing that this is the exact piece constellation you need to kick Black's rook off the sixth rank feels totally inhuman to me. Black is in zugzwang and has no rook moves on the sixth rank.

1... ♔d7

This is Black's most resilient option, but it still fails. Other moves lose the rook in short order: 1... ♜g6 2. ♖f8† ♔d7 3. ♖f7†; 1... ♔e8 2. ♖e3†; or 1... ♜a6 2. ♖b8† ♔d7 3. ♖b7†.

2. ♖a4†! ♔c7 3. ♖a7†! ♜b7

The rook is forced off the sixth rank.

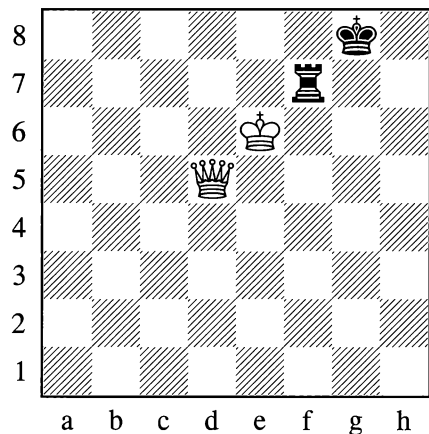
4. ♖c5† ♔b8 5. ♔d6

White wins.

The third rank defense is Black's toughest resource to break down, and the only one I would think a strong grandmaster might fail to find on their own if they did not know it in advance.

There are other annoying setups that one should know how to break down, but they are easier. Still, it is worth remembering them.

Queen against Rook 3



After the third rank defense, this is Black's most annoying defensive setup. He is hoping his rook on f7 will keep out White's king, and it is actually hard to remove the rook. The most natural try would be to bring the queen to g6, but this is wrong as Black will have stalemate tricks. This position is actually mutual zugzwang, and White's only winning

plan is to pass the move to Black. What he is ultimately aiming for is to push Black's king to f8, and then to place his queen on h5.

1. ♖c4!

More or less any move is fine, but I like this one, staying on the long diagonal. Black cannot move his rook without letting White's king come closer.

1. ♖h5?! is too soon. 1... ♜b7! Annoyingly, White does not have a way to win the rook here. This is really fringe stuff that I expect most people will not know, but it would be extremely annoying to face this move over the board if you did not know the winning plan. White needs Black's king to be on f8 here so that he can give mate on h8.

1... ♔f8

After 1... ♔g7 2. ♜g4† ♔f8 3. ♖h5! White got what he wanted.

2. ♜c5†! ♔g8

2... ♔g7 3. ♜g5†! ♔f8 4. ♖h5 is mission accomplished.

3. ♜d5!

Zugzwang. Black loses.

3... ♔g7

3... ♜g7 4. ♔f6† White will reach the Queen against Rook 1 position. 4... ♔h8 5. ♖h1† ♔g8 6. ♖h5 wins.

3... ♔f8 4. ♖h5! wins as before.

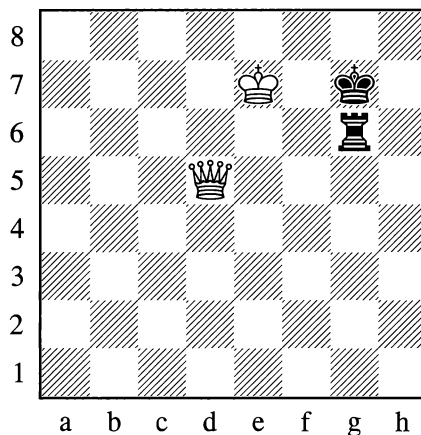
4. ♜g5†! ♔f8 5. ♖h5!

Time to resign.

This one was also not trivial and could be tough to find over the board if you did not know the key motif in advance. But once you do know the basic plan, executing it is not difficult.

The final zugzwang is the easiest of them all.

Queen against Rook 4



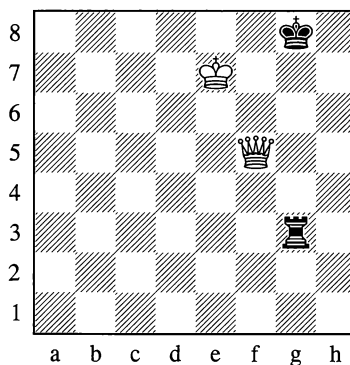
This position is a little annoying too. White has some trouble getting his king to the f-file, but it can be solved with zugzwang.

1. ♜e5† ♔g8 2. ♜d4!

Zugzwang. Black loses directly.

2... ♔h7

After 2... ♜g3 3. ♜d5† ♔h7 (3... ♔g7 4. ♜e5† wins immediately.) 4. ♜f5† ♔g8



5. ♔f6! there are no stalemate tricks. Black's best move is ... ♜g7, allowing ♖h5 to reach the position on page 390.

3. ♔f7

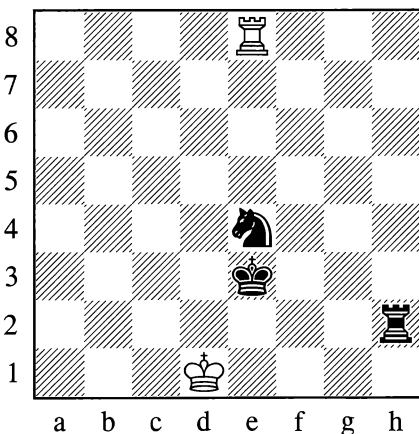
Black is mated.

I believe knowing these four zugzwangs, even just remembering the positions that are zugzwang without knowing how to win once Black makes a move, is easily enough to win queen against rook. I would not recommend burdening your memory beyond this.

Rook and minor piece against rook is also generally a draw, though rook and bishop is known to be trickier than rook and knight. I never understood why some players have trouble with these positions; they seem easy to me. In my own practice, I have had rook against rook and bishop twice, and I drew easily both times. I had rook and knight against rook once, and I never had the slightest chance to win. Still, some knowledge is helpful, especially in rook and bishop against rook. Let's start with the easier one.

There is no special technique to draw with rook against rook and knight. I think the easiest way is to keep your rook far away from your king, harassing the enemy king and/or pinning their knight from behind.

Rook against Knight



I have even taken the liberty of placing White's king all the way on the back rank. This defensive setup works anywhere on the board,

including the center. White's king should not be pushed all the way to the edge and have to live in some minor fear of being mated. But even here, pinning the knight from behind easily saves the game.

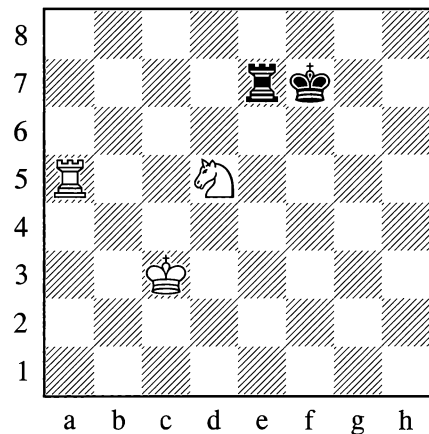
1.♖e7

Just sit and wait with ♖e7-e8 forever. Always meet ...♔d3 with a check on d-file. There is nothing left for Black to even try.

Let's see what this looks like in practice.

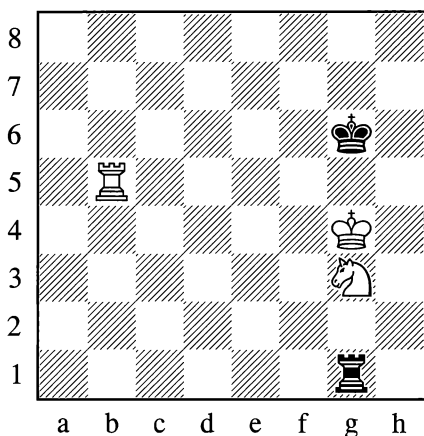
Hikaru Nakamura – Joshua Friedel

Ledyard 2009



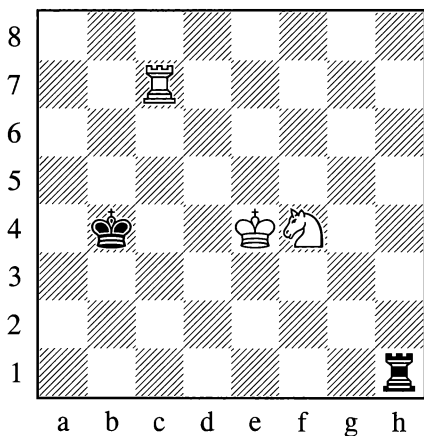
I was sharing a room with Josh this tournament, and I remember already being asleep by the time he stumbled in at the end of this game! It was an evening round, the second of the day, and he was playing against one of the trickiest guys in the world when it comes to such positions. It's a testament to how easy it is to hold with a rook against a rook and knight that Hikaru did not even come close to having a chance at any moment.

69...♖e4 70.♖a6 ♖h4 71.♔d3 ♖g4 72.♖f6†
♔g7 73.♖f5 ♖a4 74.♔f4 ♖b4 75.♔e3 ♖a4
76.♔f3 ♖a1 77.♔h5† ♔g6 78.♖b5 ♖f1†
79.♔g4 ♖g1† 80.♔g3



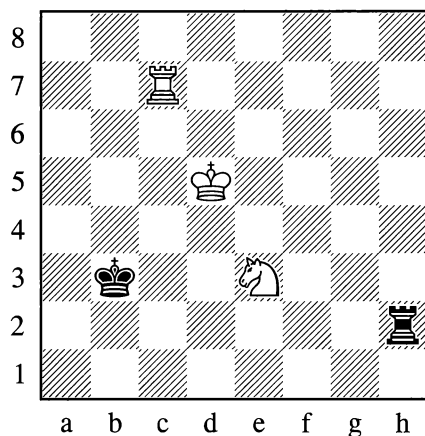
A good place to begin. The knight is pinned.

80...♙f6 81.♙f4 ♙e6 82.♞e5† ♙d7 83.♞e3
 ♙d6 84.♜f5† ♙d5 85.♞d3† ♙c4 86.♞d8
 ♙c5 87.♜g3 ♙c4 88.♜e4 ♞h1 89.♜d2†
 ♙c5 90.♜f3 ♙c4 91.♙e4 ♙c5 92.♞d5†
 ♙b4 93.♞g5 ♞h8 94.♜e5 ♞h4† 95.♙d5
 ♞h8 96.♞g1 ♞d8† 97.♙e4 ♞h8 98.♜d3†
 ♙b5 99.♞c1 ♞e8† 100.♜e5 ♙b4 101.♞c7
 ♞h8 102.♜g6 ♞h1 103.♜f4



The previous moves all feel aimless. But now Josh pinned the knight again.

103...♞h4 104.♙e5 ♙b3 105.♜g2 ♞h8
 106.♜e3 ♞h4 107.♙d5 ♞h2



108.♞b7†!

Finally, Black has blundered into a trick and his king is forced to the edge of the board. Luckily for him, as we saw, this is still not nearly enough for White to win the game.

108...♙a4

The trick is: 108...♙c3? 109.♜d1†! Oops! The rook will be skewered from b2.

109.♜f5 ♞h5!

Pinning the knight. White's king is kept away and Black's king is out of danger.

110.♙e4 ♞h1 111.♜e3 ♞h4† 112.♙d5
 ♞h5† 113.♙c6 ♞h6† 114.♙c5 ♞h5†
 115.♜d5 ♙a3

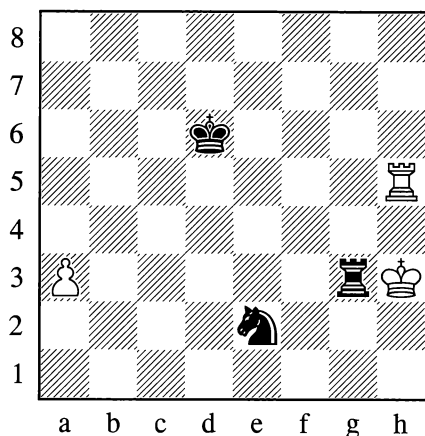
There was nothing wrong with maintaining the pin with 115...♞g5 as we saw above. 46 moves after the endgame began, the maximum White managed to reach was this easily drawn position.

116.♞b8 ♙a4 117.♙c4 ♞h4† 118.♙d3
 ♞h3† 119.♜e3 ♙a5 120.♙d4 ♞h4†
 121.♙c5
 ½-½

The only way rook against knight can really go wrong is if the king somehow ends up in the corner.

Judit Polgar – Garry Kasparov

Dos Hermanas 1996

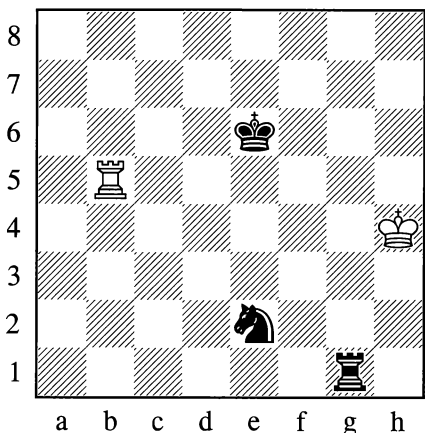


There are very few examples of strong players ever losing rook and knight against rook. Judit was only twenty years old at the time of this game, but already close to 2700.

59.♔h4

I would have preferred coming back with the king: 59.♔h2 ♖xa3 60.♖h8 White is ready for ♔g2-f2 next, and will use the rook to harass the enemy king from behind. The position is equal.

59...♖xa3 60.♔g4 ♔e6 61.♖b5 ♖g3†
62.♔h4 ♖g1

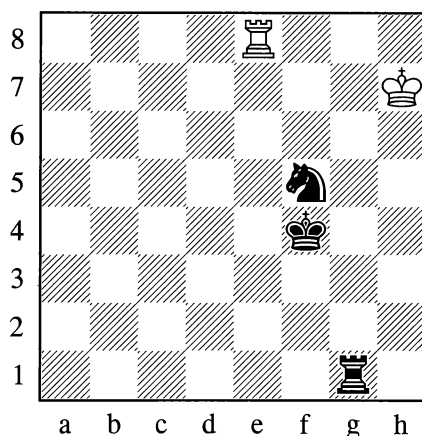


White's king has already been cut off along the edge of the board. She should not be thrilled about this, but there is no need to panic just yet. White can still make an easy draw by leaving the rook far away from the king, ready to give checks and be annoying.

63.♖g5

I take no issue with simply waiting with the rook along the fifth rank forever. What can Black even hope to try after 63.♖a5 is played?

63...♖f1 64.♖a5 ♔f6 65.♖a8 ♖g1 66.♖f8†
♔e5 67.♖e8† ♔f4 68.♖f8† ♔e4 69.♖e8†
♔f3 70.♔h5 ♔g3† 71.♔h6 ♔f5† 72.♔h7
♔f4



The position is definitely still drawn, but it is starting to look a little more dangerous to me. White's king is approaching the corner, which is the only place it can ever be checkmated.

73.♖b8

As a matter of principle. I'd prefer to maximize checking distance with 73.♖a8 but the text is fine.

73...♖g7† 74.♔h8 ♖d7

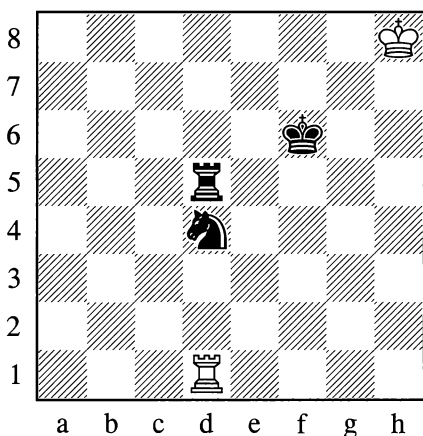
White's king has made it to the most undesirable location on the board. However, the position should still be drawn. There is

more than one way to the half point, but I like remaining consistent with the normal strategy.

75.♖e8

75.♖b1 seems easiest to me. 75...♔g5 76.♖g1+ ♕f6 77.♖f1! Pin the knight! Even here, White survives by shuffling the rook between f2 and f1, and giving a check on g1 whenever Black's king touches the g-file.

75...♔g5 76.♖e6 ♖d4 77.♖e1 ♕f6 78.♖d1 ♖d5



Judit's defense up to here left a lot to be desired, and now only one move draws the game.

79.♖a1?

White should immediately start checking with 79.♖f1+. The only way for Black to escape the checks will be to block with the knight, but then White has what she wants – the knight will be pinned. 79...♖f5 80.♖f2 Equal.

79...♖e6!

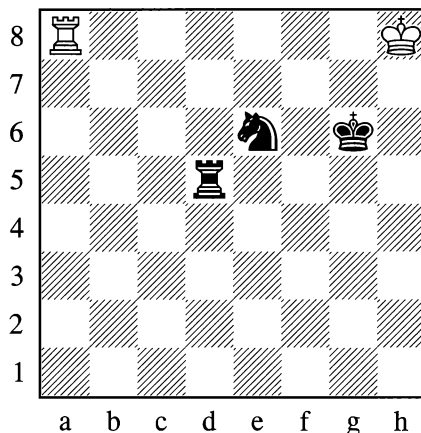
Now it's too late. Black is winning. Kasparov's technique from here was not perfect, but he never let the point out of his reach.

80.♖a6

After 80.♖f1+ ♔g6 81.♖g1+ ♖g5! White is pinning the knight, but in the wrong place.

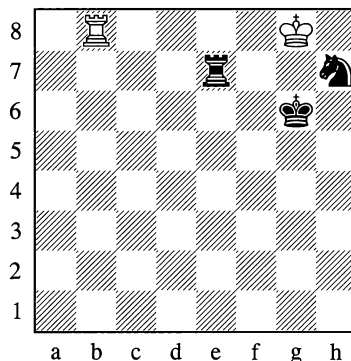
Black's king is safe on g6 and White will be mated on the back rank next move. Note that this position would be a draw if it was moved one file to the left. White's king could then escape via the h-file. You really don't want your king in the corner!

80...♕f7 81.♖a7+ ♔g6 82.♖a8



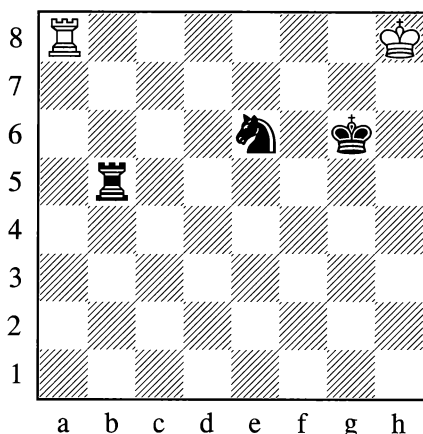
82...♖d7

The following technique is worth memorizing. It represents the only serious winning chance in rook and knight against rook. 82...♖d6! The fastest and easiest win for Black is to secure the sixth rank and then transfer the knight to h7 and f6. 83.♔g8 ♖g5! 84.♕f8 ♖e6! The king is kept in the kill zone. 85.♖b8 ♖h7+! 86.♔g8 ♖e7



...♖f6 is coming next, and mate is unstoppable.

83.♖b8 ♖c7 84.♙g8 ♖c5 85.♖a8 ♖b5 91.♖f8
86.♙h8



86...♖b7

86...♖b6! is the easiest win, as we saw before.

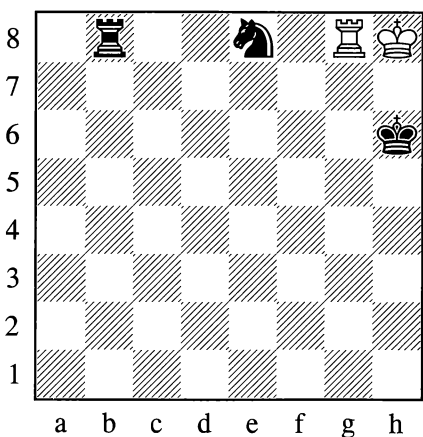
87.♖c8 ♙c7

Black gets ready to regroup his knight to f6.

88.♖g8† ♙h6 89.♖g1?

89.♖d8! would have been more resilient, and Kasparov would have had to find the plan of putting the knight on e6 and the rook on the sixth rank.

89...♖b8†! 90.♖g8 ♙e8!



A picturesque final zugzwang. Polgar resigned here.

91.♖f8

Or 91.♖g1 ♙f6†.

91...♙g6 92.♖g8†

Again 92.♙g8 is met by 92...♙f6†.

92...♙f7

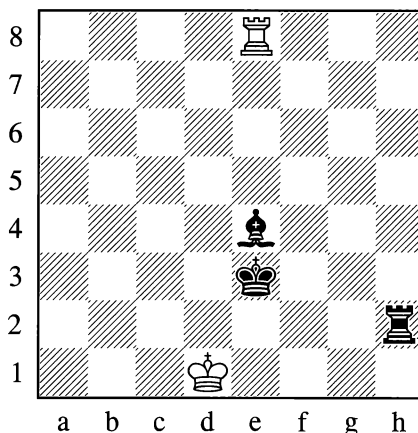
Moving the rook allows ...♙f6 with mate, and moving the king allows ...♙f6 all the same, winning the rook.

0-1

I don't think it is worth memorizing how to win rook and knight against rook if the king is in the corner. In the modern era, I can't imagine anyone allowing their king into the corner like this. I guess just remember that if you can push the enemy king into the corner, your best hope to win is to secure your own king a knight's move away from its counterpart, using the knight to block checks. From there, the position will win.

Much more interesting is rook and bishop against rook. The defense is much tougher, since there are serious mating attempts if the king is ever pushed to the edge of the board, even if it is not in the corner.

Rook and Bishop



We previously saw this exact position on page 393, only with a knight on e4 instead of a bishop. The bishop is a much superior piece, and in fact, White is lost. The bishop is controlling the c2- and b1-squares. As such, mate is threatened right now, and White's king cannot escape to b1 either.

1.♔c1

Otherwise White is mated on the spot.

1...♞c2†!

White's king is kept in the kill zone.

2.♔d1

Not 2.♔b1 ♞c8† as the rook is lost.

2...♞c7!

White is in zugzwang. He cannot move his king on pain of mate, and his rook must stay on the e-file to avoid ...♔f3†. As such, his rook must move to a bad square. The position would be drawn if White could pass here, but he cannot.

3.♞e5

Also losing are:

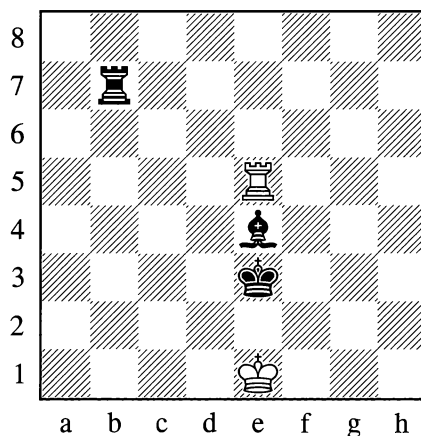
3.♞e6 ♞b7! Because White's rook was provoked to e6 from e8, he is unable to transfer the rook to the c-file, and he loses.

3.♞f8 ♔f3† Mate comes on c1 next.

3...♞d7†! 4.♔e1

Or 4.♔c1 ♞b7 and White is mated on b1.

4...♞b7!



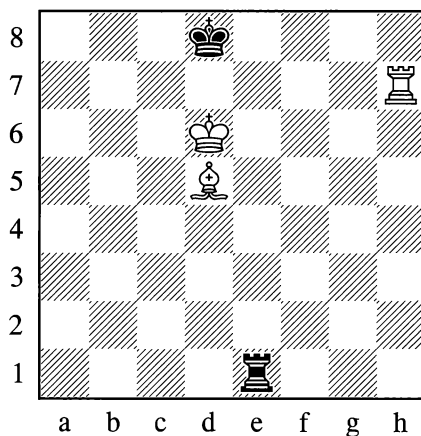
White is unable to bring his rook to the d-file, due to bringing his rook off the d8-square.

This brings us to our next guideline.

Rook and bishop against rook will generally become winning if you can cut the enemy king off along the edge of the board, get your king in an oppositional location on the sixth rank, and your bishop directly behind your king to stop any checks.

Once you are here, the wins are not so hard to find. There is only one technique you should know.

Philidor position



Black's rook is better placed on the e1-square than it would be on d1, and it takes some precision for White to win the game. The proper technique to remember is that you need to bring your bishop backwards, preventing a check, while also placing it on a defended square. If you know only that, you can figure out the rest over the board.

90. ♖b7!

When we realize that we want to bring the bishop to a defended square that controls d1, this move becomes natural. White threatens mate, and controls the b3-square.

90. ♗b3?! is too soon. The bishop is not on a defended square. 90... ♕c8! White's fastest win is to repeat the position with ♗d5 and find an improvement after ... ♕d8.

90... ♖c1

Black loses easily as soon as the king moves to the side. His best hope is to keep his king facing off with White's king, and use his rook to block the mates: 90... ♕c8 91. ♖b3 The threat of ♗e6 compels Black to bring his rook to d1. 91... ♖d1 92. ♖b2! We have seen this before. Black is in zugzwang. 92... ♖d4 (92... ♖d3 93. ♖a2 wins. Black does not have the b3-square.) 93. ♖c2† ♕d8 (or 93... ♕b8 94. ♖a2 and mate on a8 comes next.) 94. ♖a2 Black is missing the c4-square for his rook.

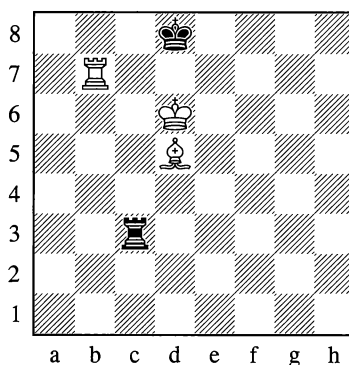
91. ♗b3!

Now and only now, White brings his bishop back. Knowing that you need the bishop to be defended has nothing to do with the bishop being hanging, it just means your rook will be on the right square to keep the king cut off!

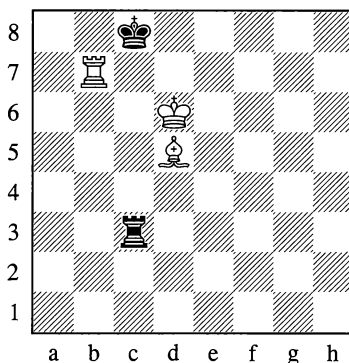
91... ♕c8!?

This strikes me as Black's most challenging defense to meet, even if it loses faster than if he moves his rook. It is well worth remembering the following maneuver.

The machine claims 91... ♖c3 is Black's best bet, leading to mate in 16 rather than mate in 8. I think it is practically a much easier move for a human to play well against, which is a much more important factor when both moves are losing. 92. ♗e6! ♖d3† 93. ♗d5 ♖c3



Black's rook is now on c3 rather than c1. As usual, this will deny him access to some important squares. 94. ♖d7†! ♕c8 (After 94... ♕e8 95. ♖g7! Black's rook being on c3 rather than c1 means he cannot transfer to the f-file, and he is mated.) 95. ♖h7 ♕b8 96. ♖b7†! ♕c8

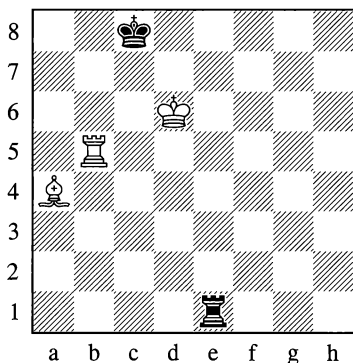


97. ♖b4! Again, White makes use of the fourth rank for his rook. 97... ♕d8 (After 97... ♖d3 98. ♖a4 White mates on a8. Again, Black's rook being misplaced on the third rank means it cannot make it to the b-file.) 98. ♗c4! The final move. White wins.

92.♖b4!

The right square for the rook. White threatens ♕e6 with mate next.

92.♖b5?! does not spoil anything, but it makes the win harder. White will have to find ♖b4 eventually. 92...♙d8 93.♗h5 ♖e1 94.♕a4 ♙c8 95.♖b5



95...♖c1! White is missing ♕d7† here. His only win is to repeat the position and find the right way the second time around. 96.♕b3! ♙d8 97.♖b7 ♙c8 98.♖b4! Transposing to the main line.

92...♙d8 93.♗h4! ♖e1

After 93...♙c8 94.♕d5 Black is mated directly.

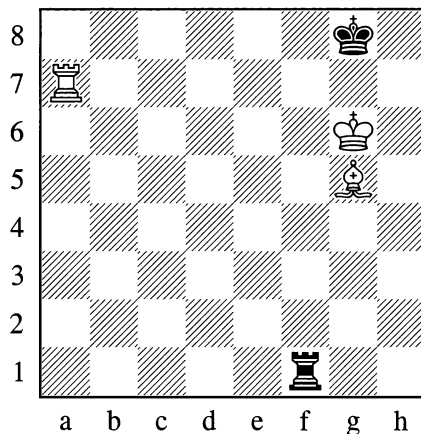
94.♕a4!

White threatens mate. Black does not have a check on d1.

94...♙c8 95.♖b4!

The final move, and the reason why it was important to place the rook on b4 rather than b5 before. If White's rook stood on b5 here, he would not be threatening mate with ♕d7†. As is, Black can stop the clocks.

The only exception to be aware of is that the Philidor position does not win with the king on the b- or g-file.

Philidor exception

When we realize that White's bishop must come back to a protected square on the third rank, it becomes clear that the position has been moved too far to the side of the board. Executing the technique seen in the previous example would require the continuation ♖i7 and meeting ...♖h1 with ♕i3. Since the i-file does not exist, White is out of luck.

1.♖e7

This is White's trickiest try, hoping for ♕e3 next. But it can be prevented.

1...♙f8!

The easiest. There is nothing left for White to try. His best hope would be to somehow get his king to e6 and his bishop to e5 without letting Black's king out, but this cannot be accomplished.

2.♖a7 ♙g8

2...♖e1 holds as well.

3.♕f6

This is White's best attempt. After:

3...♖g1† 4.♙f5

White is almost able to set up with his king on e6 and bishop on e5, which would win. But Black can stop him.

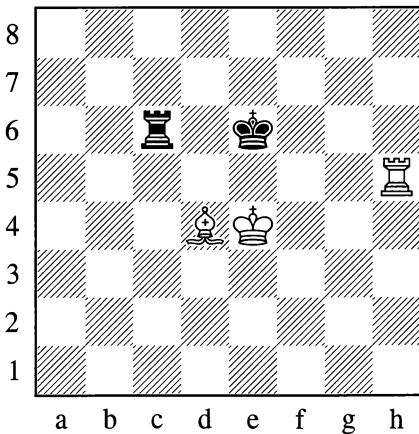
4...♖b1!

The easiest. Black makes sure he is ready to meet ♔e6 with a check from the side when White is ill-prepared to deal with it.

5.♙e5 ♜b6

Black is holding.

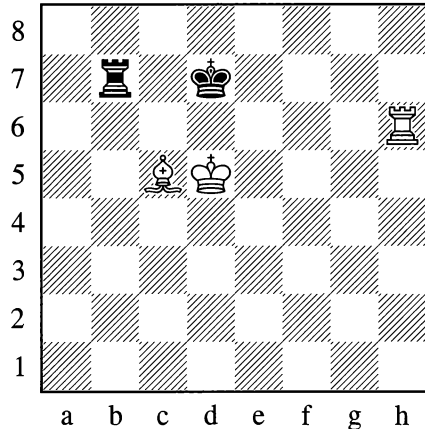
All of this seems bleak for the defending player. But luckily, if your king does not start cut off on the back rank, it is easy to avoid getting into this kind of trouble in the first place. You only need to know two defensive techniques to survive. The first one is known as the second rank defense.

Second Rank Defense

This is a key defensive setup for Black to know. He leaves his rook on the same rank as his king. Now, whenever White gives a check, Black can respond with ...♔d7, threatening the exchange of rooks. As a result, White will not be able to leave his rook on the sixth rank, and Black's king will make it back to e6 before White's king gets to d5.

1.♙c5!

But unfortunately, Black is in zugzwang here. His king is forced back, as he cannot maintain his rook on the sixth rank. There is a reason it is called the second rank defense, not the third rank defense!

1...♔d7 2.♔d5 ♜c7 3.♜h6 ♜b7

Again, Black has the same construction. He will shuffle ...♜c7-b7, and White cannot give a check on the seventh rank as well as getting his king to c6. And since Black is on the second rank, the previous zugzwang will not work.

4.♙b6

Indeed, Black is forced backwards now.

A familiar pattern arises after 4.♜h7+ ♔c8. The threat of the rook exchange forces White to move his rook again, and Black's king will make it back to d7 before White's king can get the sixth rank.

4...♔c8!

This is important to remember.

5.♔c6 ♜c7+!

White's king is checked, and he cannot take the rook on pain of stalemate. That is why this defensive setup only works on the second rank.

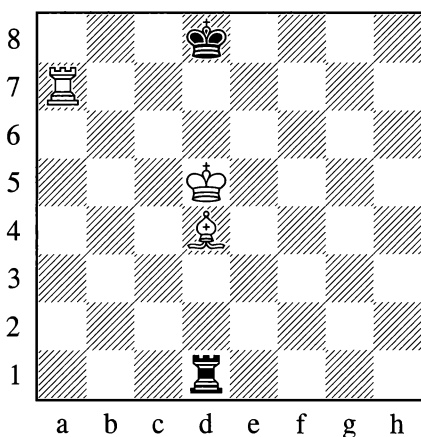
Luckily, that is easily enough to save the game.

6. ♖b5 ♜f7

Black is equal as he is ready for ...♔d7 next, and his king will once more be on the same rank as his rook, setting up the second rank defense. There's not much White can try here.

This is one easy way to make sure your king cannot be pushed to the back rank. The other defense is also straightforward.

Pin Defense



Black's king has been pushed to the back rank, and White would be winning if he could advance his king to c6 or e6 and then get his bishop behind it. This would reach a healthy Philidor position. The problem White is facing is that his bishop is in the fourth rank, not the fifth, and getting it to the fifth rank proves impossible. Black should wait with his rook on d2 and d1. If White ever moves his king to the side, Black should immediately move his own king to the other side.

1. ♔c5

White is hoping for ♕e5, and then ♔c6 would win with ♕d6-c5 to follow. This is natural enough, but easy to avoid.

Black needs to be careful after 1. ♜h7 ♜d2!. As long as White keeps his king on d5, Black keeps his king on d8. (1...♔e8? would fall for White's only trick. 2. ♔e6! Tell me again why we don't have our king on d8? The bishop cannot be captured on pain of mate, White reaches the Philidor position, and Black loses.) 2. ♔e5 ♔c8! Always move the king in the opposite direction from the opponent's. 3. ♕c5 ♜d7 with equality.

1. ♜a4 is also a little tricky, as now ♔d6 is a huge threat. But as long as Black is paying attention, he should realize that his king is free from being cut off on the edge of the board. 1...♔d7! is equal. (After 1...♜d2? 2. ♔d6! White will reach the Philidor position and wins.)

1... ♔e8!

Waiting with 1...♜d2 is fine, but don't wait too long. I like remembering to always move your king in the opposite direction from White's as soon as the pin is broken. 2. ♕e5 ♜d7! Black's king escapes all the same.

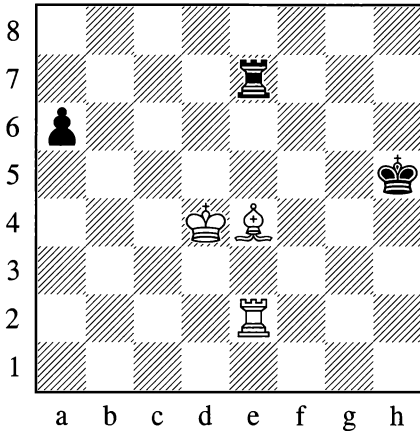
2. ♕e5 ♜d7!

Black gets his king to f7 and will set up a second rank defense.

Knowing these two defenses should easily be enough to save the game in tournament practice. It was all I knew about how to defend this endgame in the following game, and I had no issues whatsoever.

Deep Sengupta – Sam Shankland

Dresden 2013



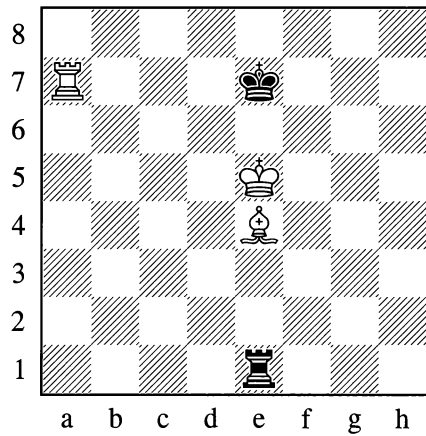
74...♔g5

It took a lot of effort for me to reach this position, as I had been wavering between much worse and totally lost for the last sixty moves. Once I was here, armed with the knowledge of the second rank defense and the pin defense, I was confident I would save the game. It was not particularly difficult.

75.♞g2† ♕f6 76.♞g6† ♕f7 77.♞h6 a5

This move was not made with the intention of saving the a-pawn. Rather the contrary, my plan was to immediately shove it straight to a1, forcing White to capture it as soon as possible, and force the fifty-move counter to start. In general, when you get to rook against rook and bishop, if you have pawns, just ditch them immediately. They will not help you defend, and starting the move counter as soon as possible is in your best interest.

78.♙d5† ♕g7 79.♞a6 ♞e1 80.♙e4 a4
81.♕e5 a3 82.♞a7† ♕f8 83.♞xa3 ♕e7
84.♞a7†



84...♕e8!

Black has set up the pin defense. The king belongs on the e-file for as long as White's king remains on e5.

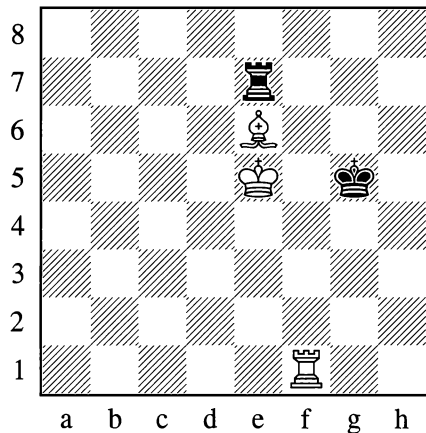
85.♞b7 ♞e2 86.♕d5

White's king moved. So...

86...♕f8! 87.♙f5 ♞e7 88.♞b1 88...♕g7

Black has set up a second rank defense.

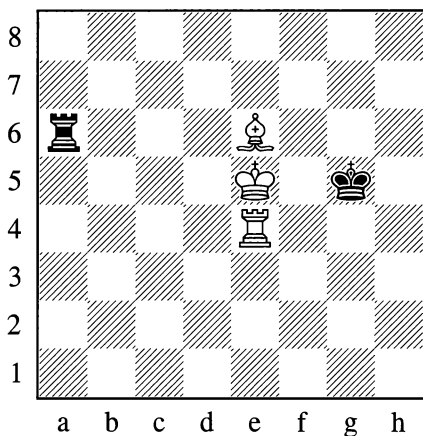
89.♙e6 ♕f6 90.♞f1† ♕g5 91.♕e5



91...♞g7!

And another second rank defense!

92.♙f7 ♖h6 93.♙e6 ♜g3 94.♜f5 ♖g7
 95.♙e7 ♜g1 96.♙e6 ♜g6 97.♙f7 ♜g3
 98.♜a5 ♜e3† 99.♙e6 ♖g6 100.♜b5 ♜e1
 101.♜b4 ♜e5 102.♜a4 ♜b5 103.♜e4 ♜a5
 104.♙d7 ♜c5 105.♙e6 ♖g5 106.♙d6 ♜a5
 107.♙e6 ♜a6† 108.♙e5



White has made no progress, but now I should be careful not to allow ♜g4†, pushing my king to the h-file. Then, White could put his rook on a square like g2, his king would go to f6, and he would reach the Philidor position.

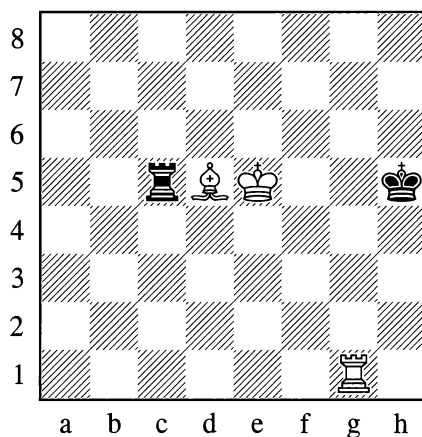
108...♜a5†!

Black has other moves that hold, but this is the only way that is totally idiot-proof.

109.♙d5

The pin defense is back.

**109...♜b5 110.♜a4 ♜c5 111.♜a2 ♜b5
 112.♜a1 ♜c5 113.♜g1† ♖h5**



114.♙e4 ♖h6!

Go the opposite direction from the king.

115.♙e6 ♜g5! 116.♜h1† ♖g7

The second rank defense is set up. I was playing quickly and confidently here and I was a little surprised that Deep pressed on. Unsurprisingly, I did save the game. I ended up winning the tournament, and while I had two swashbuckling attacking victories, I was actually most proud of successfully defending two tough rook endgames. This one against Deep, and another one against Oleksiyenko.

**117.♙f4 ♖f6 118.♙g4 ♜c5 119.♜h6† ♖e7
 120.♙f3 ♜a5 121.♜b6 ♜c5 122.♜a6 ♜b5
 123.♙e2 ♜c5 124.♙d3 ♜d5 125.♙e4 ♜h5
 126.♙d4 ♜g5 127.♙e4 ♜h5 128.♙d5 ♜g5
 129.♜e6† ♖d7 130.♙c5 ♜g7 131.♜e4 ♜e7
 132.♙c6† ♖d8 133.♜a4**

½–½

At long last, we have completed our coverage of theoretical rook endgames. You should definitely be looking at the positions in detail throughout the preceding chapters. Once you have, I think it will be equally worthwhile to use the final chapter as a reference and review it every once or twice a year, making sure that you have all the important positions, rules, and guidelines memorized.

Chapter 20

The Bare Bones

I firmly believe that it is impossible to do a proper study of theoretical rook endgames without looking at the practical elements of how they play out. Part of being practical is knowing which positions need to be memorized, and which ones need to be understood with rules and guidelines. As you have undoubtedly seen in the previous 19 chapters, there are some positions that I believe should be memorized. There are some where I believe an understanding of a key rule or guideline is enough. Being able to clearly draw this distinction in a way that leaves the practical tournament player with the right amount of knowledge without overloading their memory is extremely important, and something that I have not seen done in any other endgame books to date.

This chapter represents an index of positions, rules, and guidelines that I believe should be memorized. There are plenty of positions and games seen earlier in the book that I think are very important to study, and that will help build the reader's understanding of how to properly evaluate and play theoretical rook endgames, but that are not necessary to commit to memory.

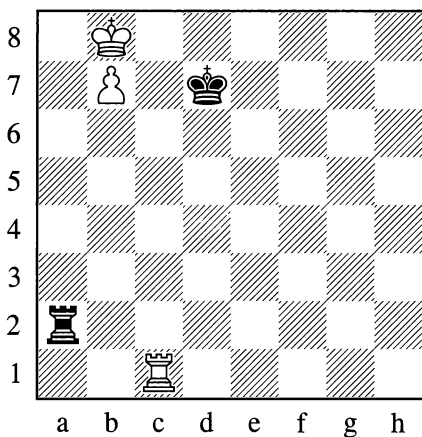
Deciding which positions, structures, rules, and guidelines the reader should memorize is subjective. Some may believe that this list is insufficient, and that other positions should be included as well. Some may consider this list to be overkill, and that some positions could be omitted. Ultimately, we must use our human judgment. This is where I believe my experience of being an active top player gives me some authority to claim which positions and rules should be memorized, and which can simply be studied and understood.

If you have not already gone through the previous 19 chapters, simply looking down this list and expecting to be able to play these positions properly without studying them first is a ridiculous thought. I have barely dedicated a couple of sentences to each one here, summarizing some basic points. They are all covered in proper detail earlier in the book. The best way to study this book is to go through those 19 chapters first, and then use this one as a reference point to jog your memory now and then.

Without further ado, these are the positions, structures, rules, and guidelines from theoretical rook endgames that I believe all aspiring chess players should have in their long-term memory.

1. Lucena Position

Lucena Position – Win

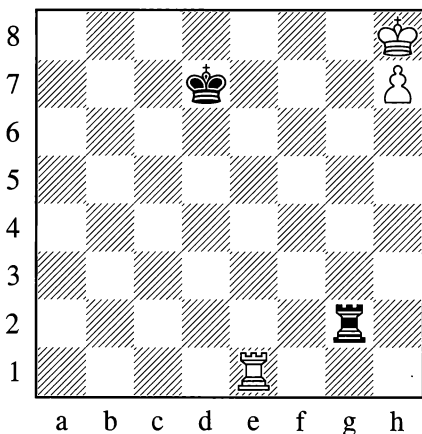


The Lucena position, White wins.

Pages 13-17.

1. ♖c4! ♜a1 2. ♜d4† ♔e6 3. ♔c7 ♜c1† 4. ♔b6
♜b1† 5. ♔c6 ♜c1† 6. ♔b5 ♜b1† 7. ♜b4

Rook Pawn – King Four Files Away

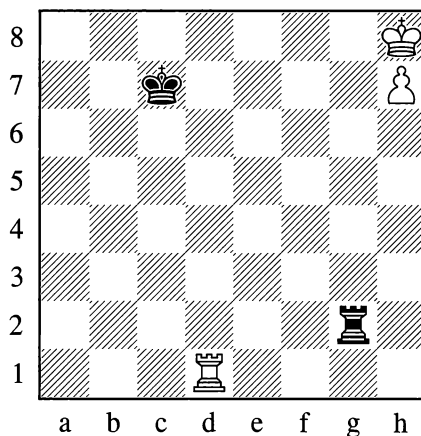


The Lucena position with a rook pawn is a draw if Black's king is cut off four files away from the pawn.

Pages 18-19.

1. ♜a1 ♔e7 2. ♜a8 ♔f7 3. ♜g8 ♜a2

Rook Pawn – King Five Files Away



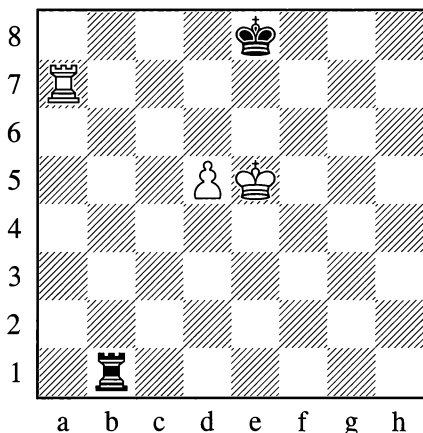
White wins the Lucena position with a rook pawn if Black's king is cut off five files or more away from the pawn.

Pages 19-21.

1. ♜f1! ♔d7 2. ♜f8! ♔e6 3. ♜g8 ♜a2 4. ♔g7
♜g2† 5. ♔f8 ♜f2† 6. ♔e8 ♜a2 7. ♜g6†! ♔f5
8. ♜f6†!

2. One Pawn, Basic Knowledge

Philidor Position

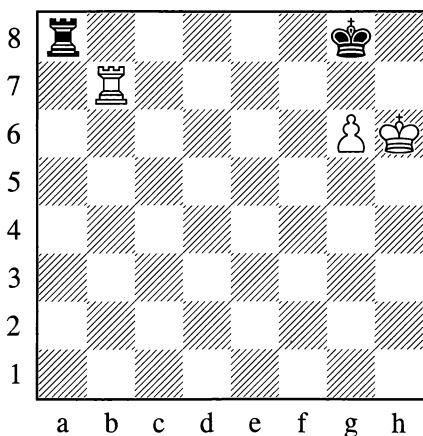


Black makes an easy draw in the Philidor position by forcing White's pawn to the sixth rank.

Pages 23-25.

1...♖b6 2.d6 ♖b1

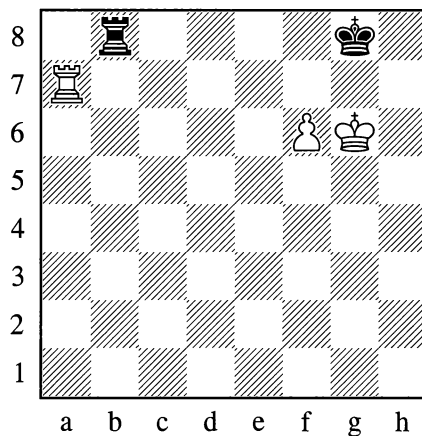
Passive Defense – Knight Pawn and Rook Pawn



Black makes a draw with passive defense with a knight pawn or rook pawn.

Page 26.

Passive Defense – Pawn on Central Four Files

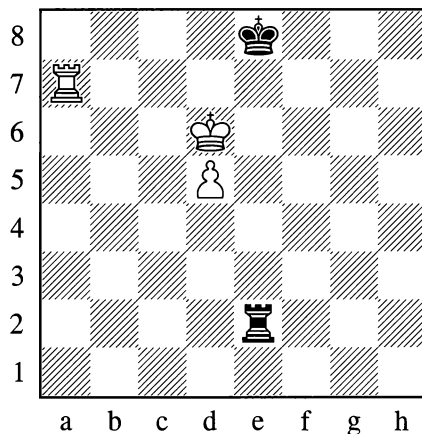


White wins against a passive defense with a bishop pawn, queen pawn, or king pawn.

Page 26.

1.♞g7†! ♔f8 2.♞h7 ♔g8 3.f7†! ♔f8 4.♞h8†

Long and Short Side Defense 1



Black makes a draw with the long and short side defense by placing his rook behind the pawn.

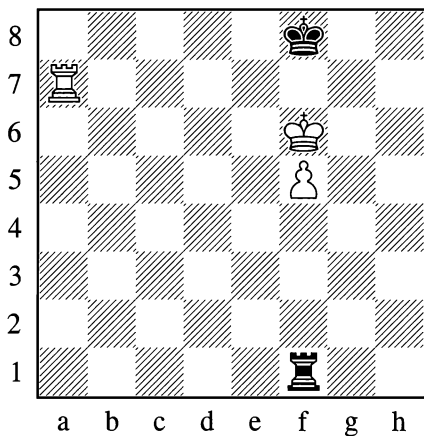
Pages 27-29.

1...♞d2! 2.♞a8† ♔f7 3.♞d8

3.♔c6 ♔e7 also draws.

3...♞a2

Long and Short Side Defense 2



Black only makes a draw by going with his king to the short side, maximizing the checking distance for his rook.

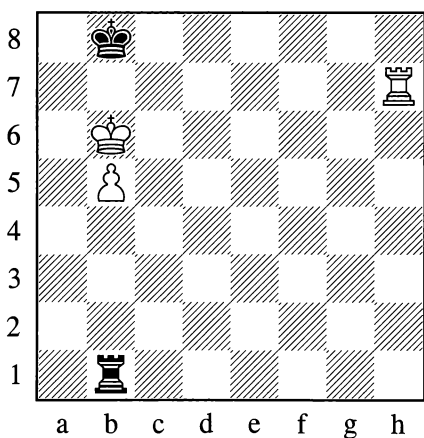
Pages 29-30.

1...♔g8!

1...♔e8? 2.♞a8† ♔d7 3.♞f8 wins, as ♔g7 comes next.

2.♞a8† ♔h7 3.♞f8 ♞a1

Long and Short Side Defense – Knight Pawn

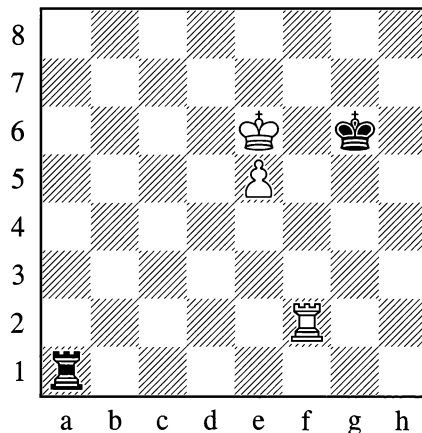


With a knight pawn, the long and short side defense fails and Black loses. He cannot go to the short side.

Page 31.

1...♔c8 2.♞h8† ♔d7 3.♞b8 ♞b2 4.♔a7

Lateral Checks 1 – Three Empty Files



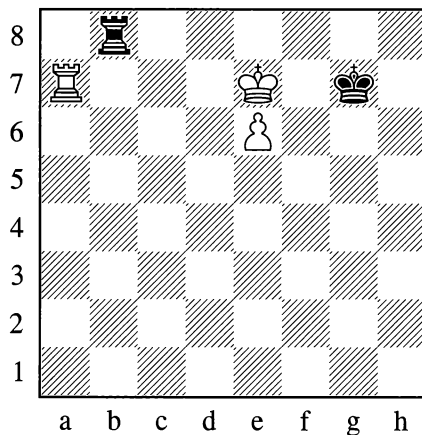
Black makes a draw by checking from the side if there are three empty files between the rook and the pawn, and the white king cannot hide on the other side of the pawn.

Page 35.

1...♞a6†!

White wins after: 1...♞a3? 2.♞g2†

Lateral Checks – Insufficient Check Distance 1



White is winning here. There are in theory three empty files between the e-pawn and the leftmost a-file. But Black's rook is unable to use the a-file since White got there first and got his pawn all the way to e6. Black is in a deadly zugzwang, because his rook must stay as far away from the pawn as possible while remaining on the back rank.

Page 37.

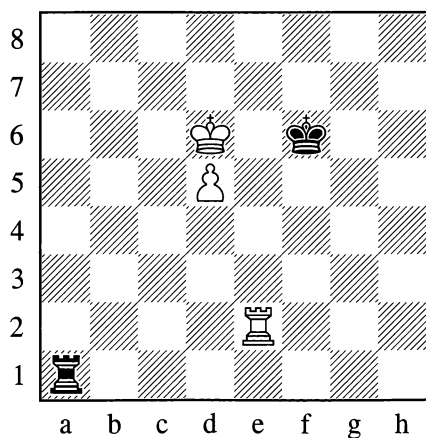
1...♖b1

1...♔g6 2.♖a1 ♖b7† 3.♕d6 ♖b6† 4.♕d7 ♖b7† 5.♕c6 ♖b2 6.♖e1 and the pawn promotes.

2.♖a8 ♖b7† 3.♕d6 ♖b6† 4.♕d7 ♖b7† 5.♕c6

White wins.

Lateral Checks – Insufficient Checking Distance 2

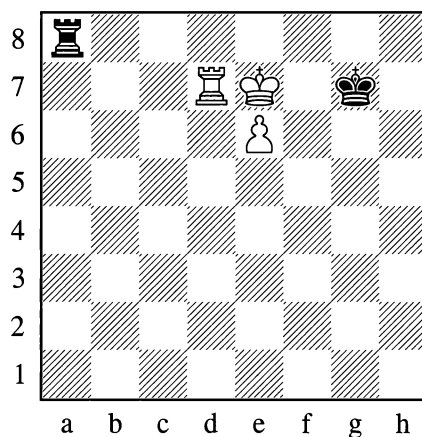


Black does not have enough checking distance to save the game with lateral checks, and White wins.

Page 36.

1...♖a6† 2.♕c7 ♖a7† 3.♕b6 ♖d7 4.♕c6

Lateral Checks – Maintaining Checking Distance



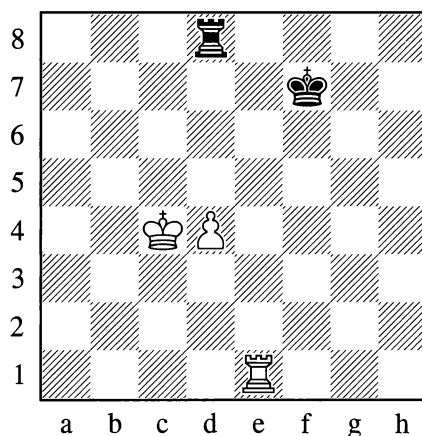
Black needs to maintain the maximum checking distance for his rook to draw.

Pages 36-37.

1...♕g6!

White wins after: 1...♖b8? 2.♖a7

Frontal Defense 1

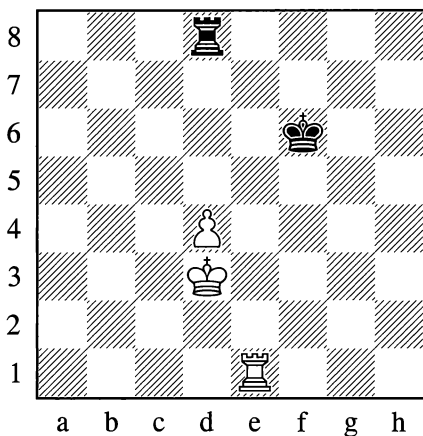


Frontal checks do not save the game if the pawn reaches the fifth rank.

Page 44.

1.d5! ♖c8† 2.♕b5 ♖b8† 3.♕c6 ♖c8† 4.♕d7

Frontal Defense 2

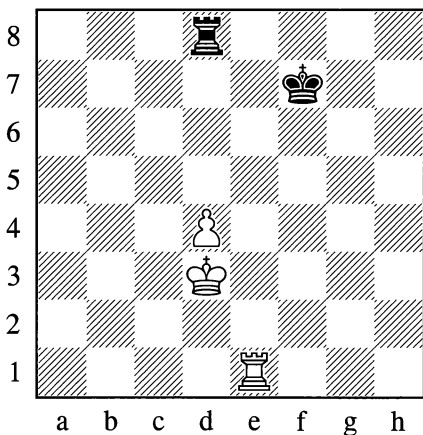


The defending side draws with frontal checks if the pawn is stopped on the fourth rank and the defending king is only cut off by one file.

Pages 45-46.

1. ♖c4! ♜c8† 2. ♜b5 ♜d8! 3. ♖c5 ♜c8† 4. ♜b6 ♜d8 5. ♜e4 ♖f5

Frontal Defense 3



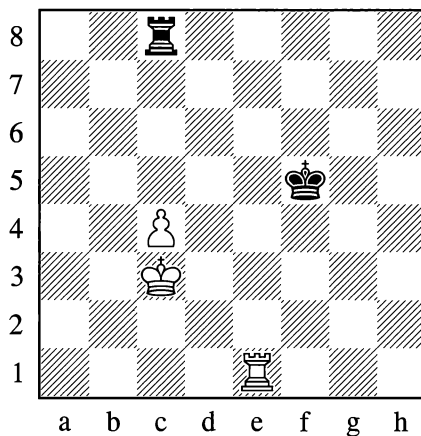
Black loses with frontal checks if his king cannot challenge the rook in the center.

Pages 48-49.

1. ♖c4! ♜c8† 2. ♜b5 ♜d8 3. ♖c5 ♜c8† 4. ♜b6 ♜d8 5. ♜e4!

Black's king does not make it to f5. ♖c7 comes next and White wins.

Frontal Defense 5



White wins against frontal checks if his pawn is on the fourth rank and Black's king is cut off by two files.

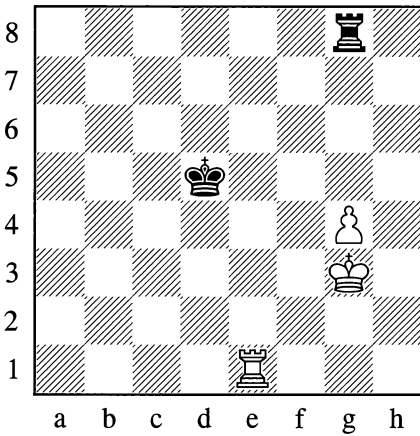
Pages 50-51.

1. ♜b4! ♜b8† 2. ♜a5 ♜c8 3. ♜b5 ♜b8† 4. ♜a6 ♜c8 5. ♜c1!

Black's king is too far away. He would be making a draw if his king was already on the e-file and could move to d7 here.

5... ♜e6 6. ♜b7 ♜c5 7. ♜b6

Frontal Defense 6



Frontal checks draw, with the king cut off along two files and the pawn on the fourth rank, if the pawn is on the knight's file.

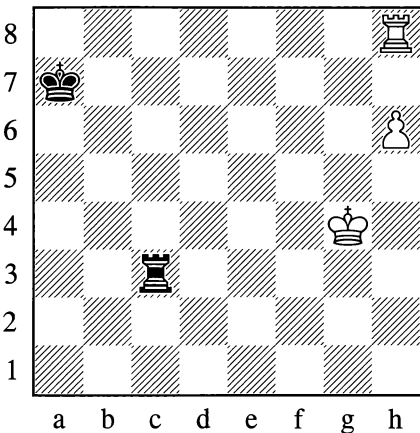
Page 52.

1. ♖f4 ♜f8† 2. ♖g5 ♜g8† 3. ♖h5 ♜h8†
White is missing ♖h5-i6.

4. ♖g6 ♜g8†

3. Vancura Defense

Draw



Black draws with the Vancura defense by harassing the h-pawn from the side. White's king cannot find a safe home, and his rook cannot get out of the way.

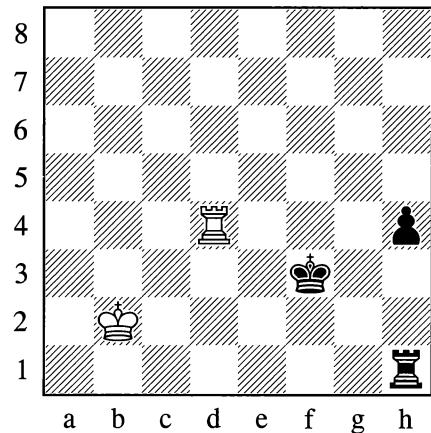
Pages 63-65.

1... ♜c6! 2. ♖g5

2.h7 ♜h6! is also a draw.

2... ♜c5† 3. ♖g6 ♜c6† 4. ♖g7 ♜c7†

Insufficient Checking Distance



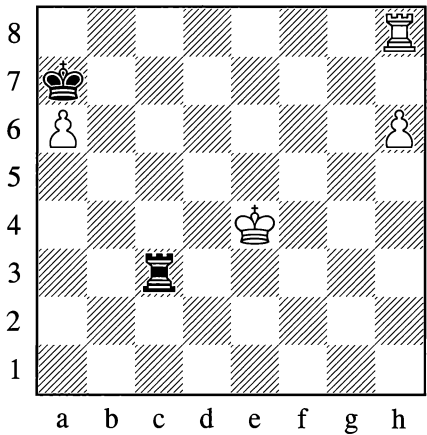
The Vancura defense does not work if the defending side's rook is in the center. It must be on the far bishop's file, with four files between the rook and pawn, to have enough checking distance.

Pages 67-69.

1... ♖g3! 2. ♜d3† ♖f2 3. ♜d4 h3! 4. ♜d3 h2!
5. ♜d2† ♖e3

Black wins. White needed the rook to have one more file of checking distance.

Outside Second Pawn



An extra rook pawn does not change the evaluation of the Vancura defense.

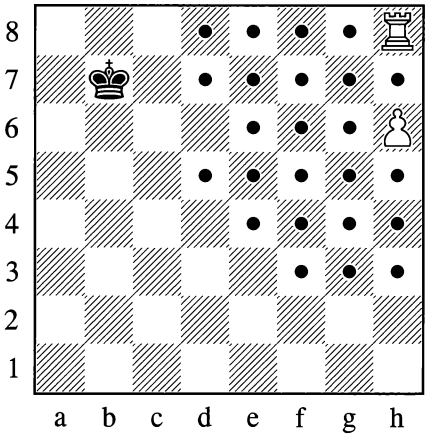
Pages 71-72.

1...♖c6!

A white pawn on any other file would lead to victory.

4. Vancura Transitions

Transition Line

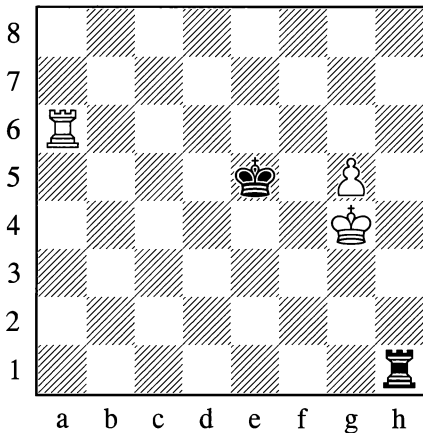


White wins if his king can reach any of the highlighted squares before Black can threaten to transition into a Vancura defense. Whenever White's king is on the border, either just within the winning zone or just outside it, it is important to be precise to secure the desired half point. It is often important for both sides to consider transferring their rook to the a-file, and both sides should be aware of the ♖h8-h7-a7 resource.

Page 81.

5. Side Cut

Side Cut – Win



White wins if he can cut off the enemy king on the same rank as his pawn, and his own king is directly behind the pawn.

Page 97.

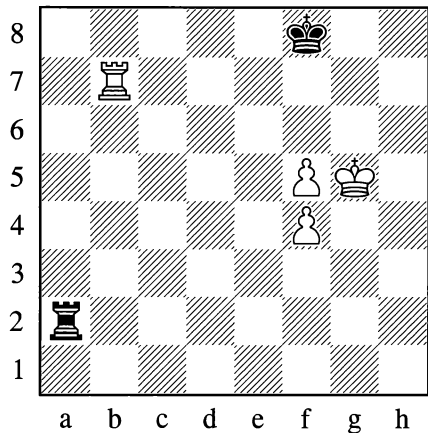
1.g6

After 1.♖a7? ♔e6 Black makes a draw, as his king is now no longer cut off on the same rank as the enemy pawn.

1...♞g1† 2.♕h5 ♞h1† 3.♕g5

6. Lone Doubled Pawns

Philidor Guideline



The only reliable defense against doubled pawns is the Philidor defense. All other defenses fail when a doubled pawn is added to the board.

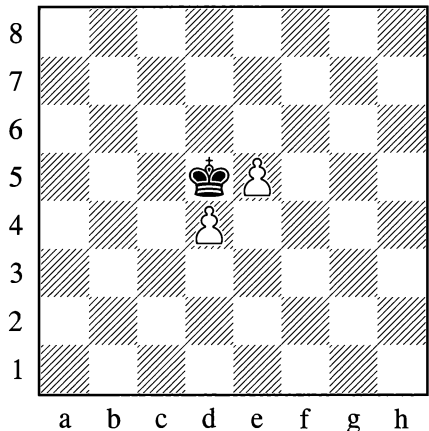
Pages 104-105.

1...♞a6

Draw.

7. Lone Connected Pawns

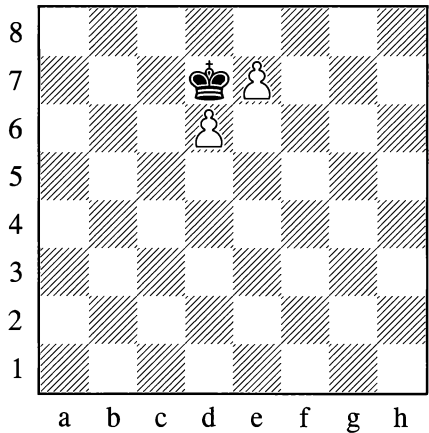
Winning Rook Placement



White wins with connected passed pawns if his rook can get in front of the pawns, or he can place his rook on the fourth rank and his king directly in front of his rook.

Pages 116-117.

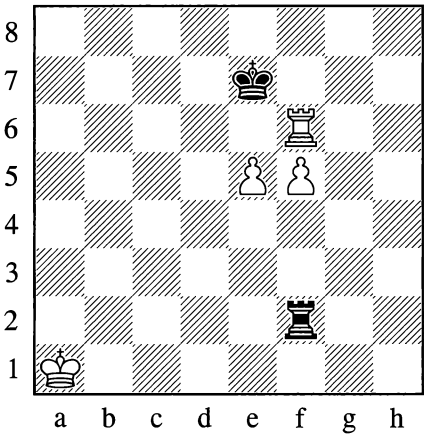
Pawn Placement



Connected passed pawns win if the pawns reach the sixth and seventh ranks.

Pages 125-126.

Awkward Rook in Front 1



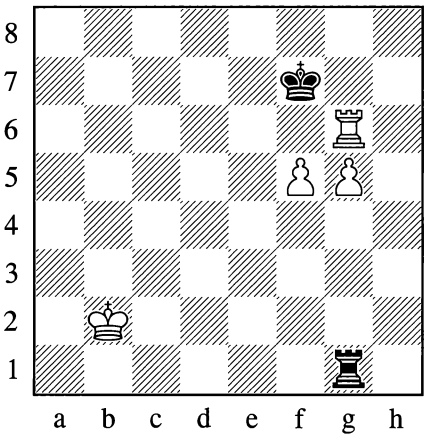
White wins by bringing his king to g7.
Pages 116-118.

1.♔b1 ♚f1† 2.♔c2 ♚f2† 3.♔d3 ♚f1 4.♔e4 ♚e1† 5.♔f4 ♚f1† 6.♔g5 ♚g1† 7.♔h6 ♚f1 8.♔g7!

White is ready for ♚f6-e6† next without allowing the king to f7.

8...♚g1† 9.♚g6

Awkward Rook in Front 2



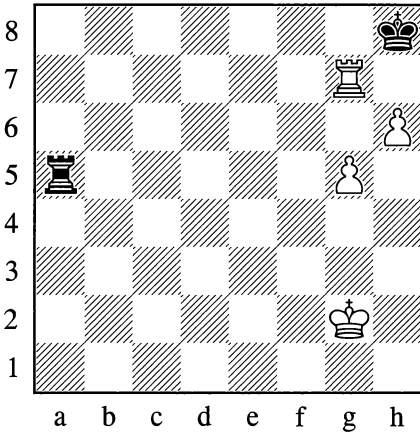
Black makes a draw because White's king cannot reach the h7-square.

Page 118.

1.♔c2 ♖g2† 2.♔d3 ♖g1 3.♔e4 ♖e1† 4.♔f4
 ♖f1† 5.♔g4 ♖g1† 6.♔h5 ♖h1†

White needs access to the i-file.

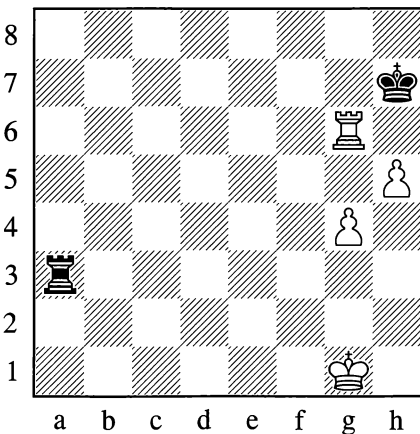
g5 and h6 – Draw



White's rook cannot remain on g7 as Black is threatening to stalemate himself with a suicide rook. The position is a draw.

Page 120.

g4 and h5 – Win

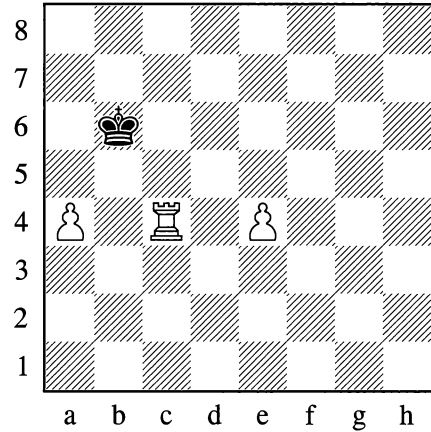


White's rook is secure on g6, and he wins easily by bringing his king to his pawns.

Pages 120-121.

8. Lone Split Passed Pawns

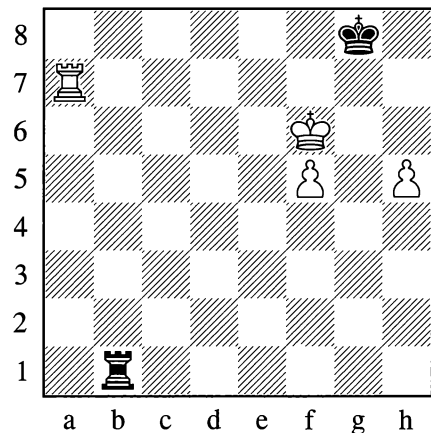
Split Passed Pawns – Win



White wins if his rook can be placed in between the split passed pawns and the enemy king is unable to attack the rook.

Pages 137-138.

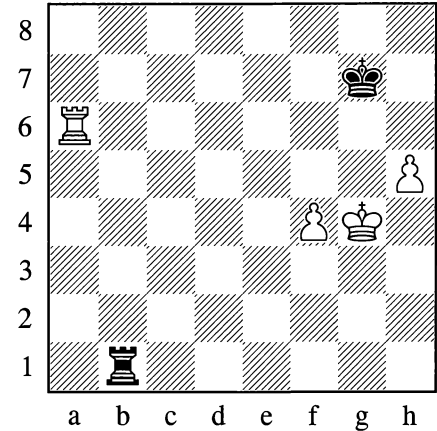
Rook Pawn and Bishop Pawn



The attacking side will win with a rook pawn and bishop pawn if the defending king is cut off on the back rank. The winning plan is to advance both pawns to the fifth rank, and then place the king in front of the bishop's pawn. Once there, the presence of the rook pawn means that the defending side will not be able to hold with the long and short side defense. It becomes a draw if the attacking king gets stuck in front of the rook pawn.

Pages 145-146.

Rook Pawn and Bishop Pawn 2

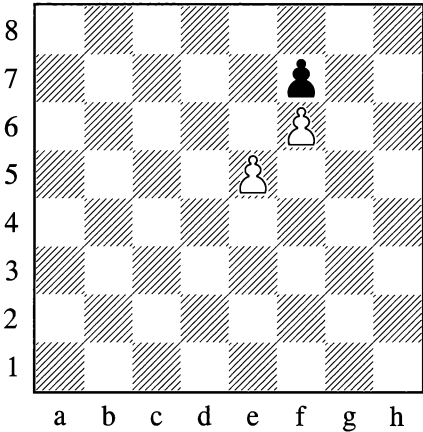


As defender, leave your rook in the opposite corner behind the enemy pawns and leave your king on the knight's file in front of them. If the enemy king ever touches the knight's file in between his pawns, give him a check from behind, and then immediately return to the opposite corner. If your king is ever checked by the enemy rook, bring him to the edge of the board, and forward if possible. If your king is ever checked by a pawn, place him directly in front of the pawn. Never put the king on the back rank, this supersedes all other rules about your king's placement.

Page 150.

9. Two Pawns Against One on the Same Side

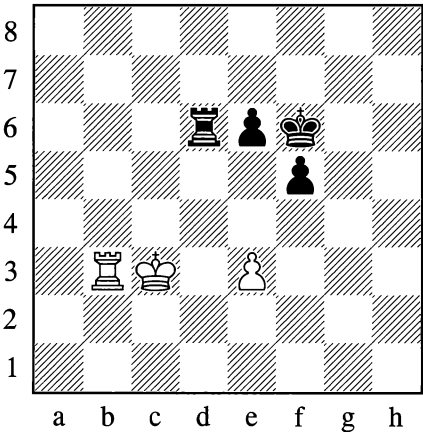
Fixing Pawn Weakness



With two pawns against one on the same side, if the attacking side can fix a pawn weakness on the seventh rank, they will have good winning chances. If not, the position is almost certainly a draw.

Page 166.

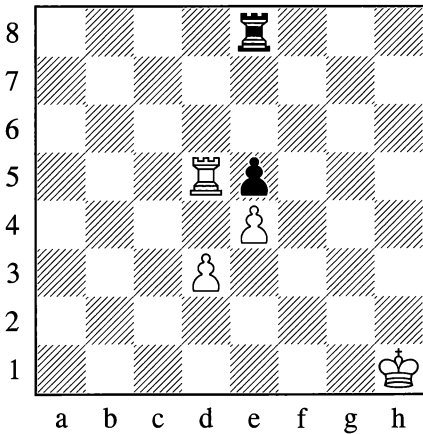
Cut Rule



If the enemy king is cut off in a situation where one pawn against zero is winning, two against one is always winning as well. If the enemy king is cut off in a situation where one pawn against zero would be a draw, two against one is usually a draw as well. Here, White loses as his king is cut off along the d-file.

Page 172.

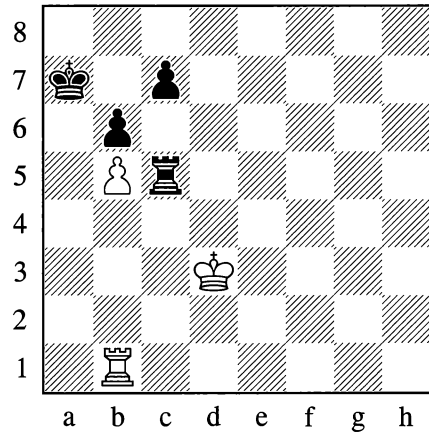
Triangle Constellation



Black loses if his king is on the left side of the board. It will be cut off from his pawn and White's king will reach f5.

Pages 172-173.

Triangle Constellation – Draw Against Side Pawn

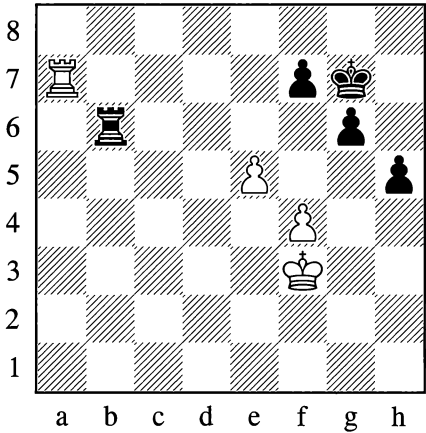


White makes a draw because Black's king cannot come around the edge of the board to reach a5. The triangle constellation only works if the defender's remaining pawn is on one of the central four files.

Page 175.

10. Three Pawns
Against Two on the Same Side

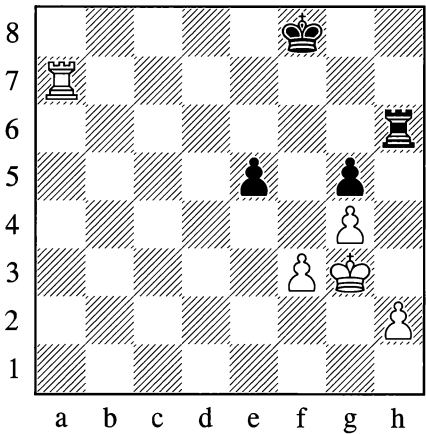
General Rule



By default, any three against two rook and pawn ending with pawns on the same side, where the defending king is in a reasonable place and the two pawns are connected, is highly likely to be a draw.

Page 178.

Weak Pawns Guideline



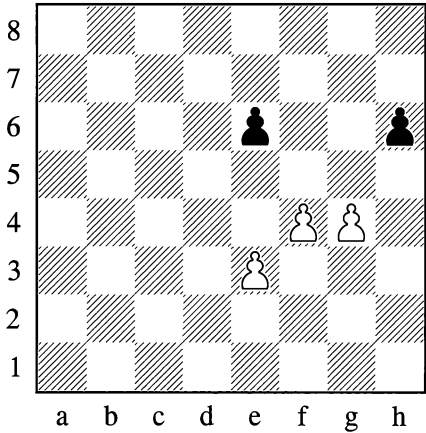
The easiest way for a three against two rook endgame with pawns on the same side to become decisive is if the pawns are isolated and the king can be pushed three ranks away from their defense.

Page 181.

1...♖b6 2.♜h7! ♜f6 3.♜h5 ♜g6 4.♞f2
Black cannot protect his pawns.

4...♞g7 5.♞e3 ♞f6 6.♞e4
White wins.

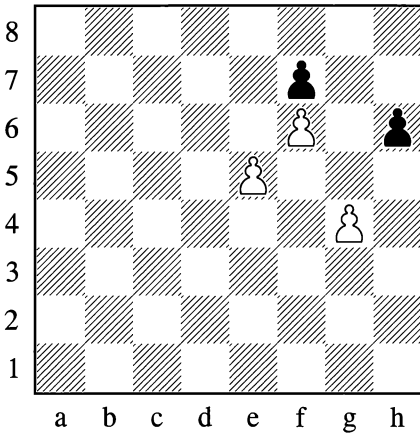
Split Pawns Guideline



Three pawns against two tends to be winning if the three pawns are all connected and the two pawns are three or more files apart.

Page 182.

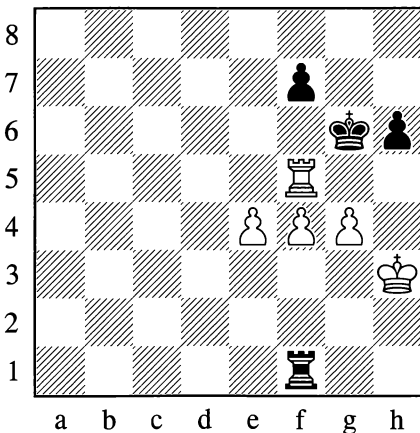
Capablanca's Winning Structure



White wins in this structure. His plan is to bring the rook to f8. Black's king will need to remain on h7 to avoid allowing xf8-g8-g7 , so Black's rook will end up stuck on the seventh rank. When this happens, White brings the king to f5 and then sacrifices on f7.

Page 185.

Drawn Structure f- and h-pawn

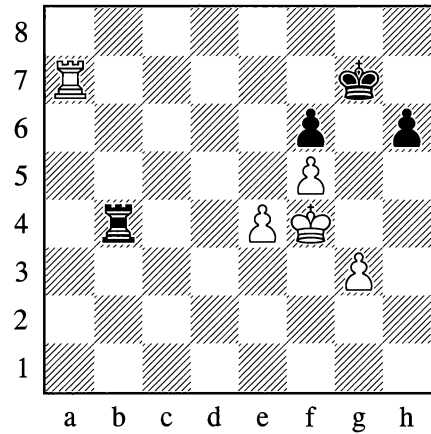


Black reaches a drawing structure if he pushes ...f7-f6.

Page 184.

1...f6!

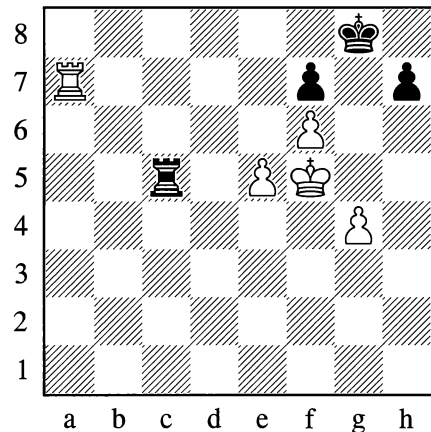
Pawns on f6 and h6



This is a draw as Black has access to the back rank, and White has no meaningful way to attack either of Black's pawns.

Page 186.

Pawns on f7 and h7

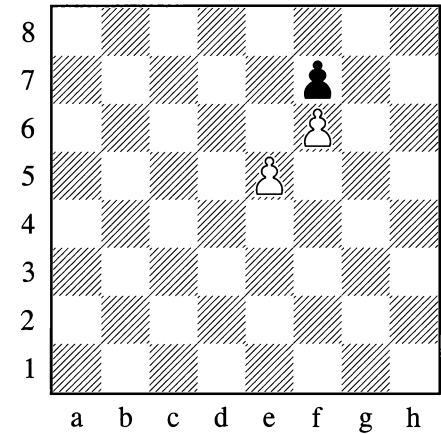


Black loses as he does not have access to a ninth rank. In order to avoid mate, he needs to play ...h7-h6 and ...h7. But this allows White to come after the f7-pawn.

Page 186.

1...h6 2.♖a8† ♔h7 3.♖f8 ♖c7 4.♖xf7†!

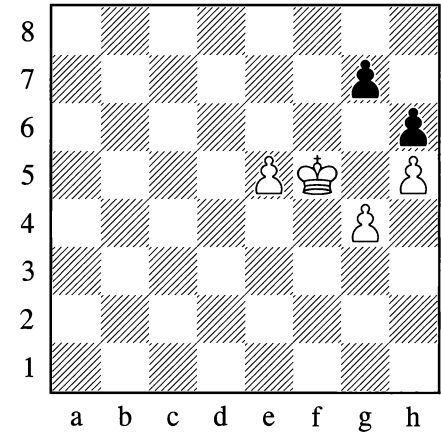
Fixed Pawn Weakness



If White can get his pawns to e5 and f6, three pawns against two on the same side is very likely to win regardless of where the two remaining pawns are.

Page 187.

Winning Structure 5

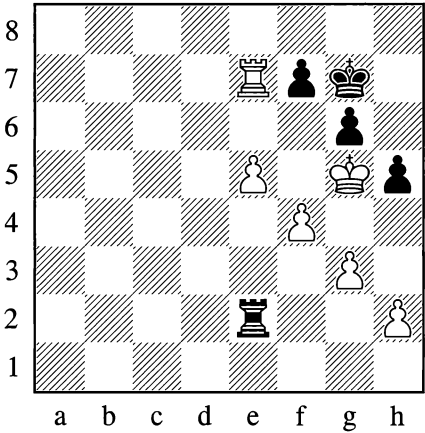


White is winning if the king can stand safely on f5. This structure is likely to arise from a four against three on the same side endgame.

Page 193.

11. Four Pawns
Against Three on the Same Side

Jeroen Piket – Garry Kasparov

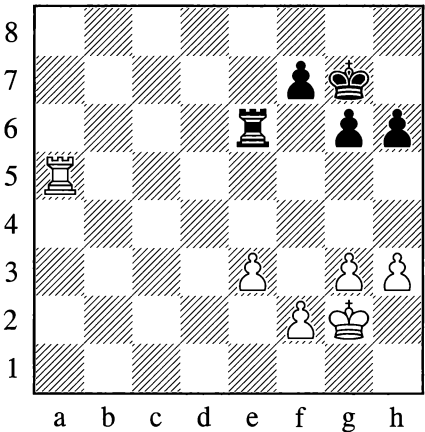


White should aim for this position to try to win a healthy pawn structure in a four versus three endgame.

Page 199.

1...♖a2
1...♖e1 2.e6 ♖xe6 3.♖xe6 fxe6 4.h3
2.f5 gxf5 3.e6 h4 4.♖xf7† ♔g8 5.♔f6

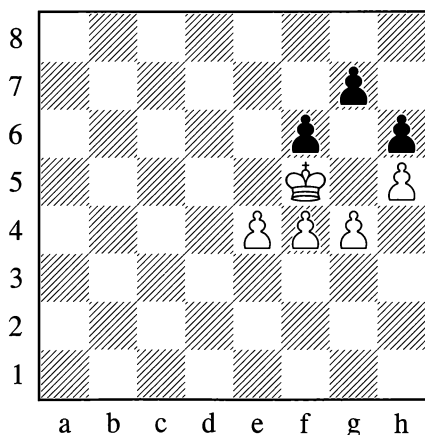
General Defensive Strategy



When defending a healthy four against three pawns on the same side rook endgame, do not try to use your rook to restrict the enemy king. Instead, that should be done by your own king and by your pawns. Your first priority should be to get your king and pawns to their best squares. The rook's placement is your last priority. You should leave your rook passively placed until your opponent has made enough pawn moves that their king has no natural hiding square. Only then should you transfer your rook to give checks from behind. Accept any pawn exchange that does not split your remaining pawns.

Page 199.

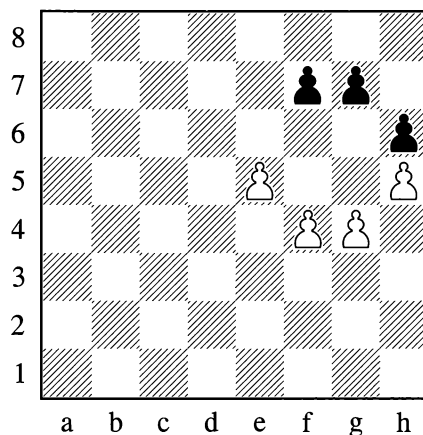
Structure 1 – White Wins



White wins with the king on f5, unless Black's king can reach h7 and his rook can reach the f-file.

Page 202.

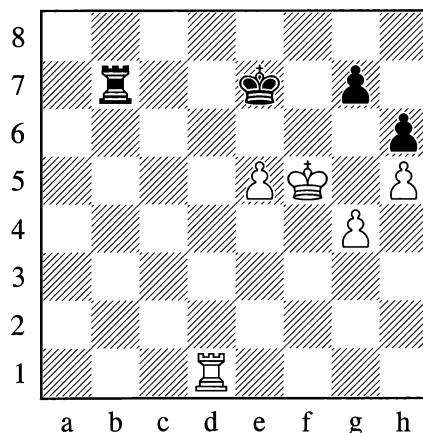
Structure 2 – White Wins



White wins if he can prevent Black from playing ...f7-f6.

Page 202.

Pawel Blehm – Igor Foygel



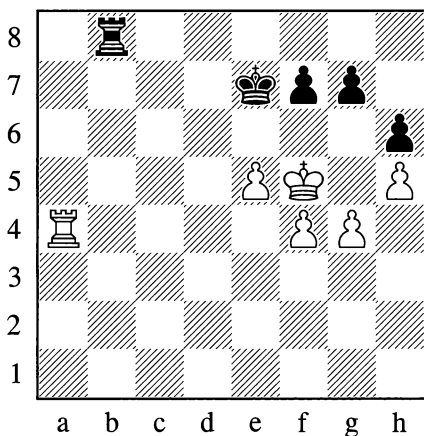
1.♖d4

The rook maneuver to e4, supporting the advance of the e-pawn and enabling a king invasion to g6, is worth memorizing.

Page 204.

1...♞a7 2.♞e4 ♞b7 3.e6 ♞b5† 4.♔g6 ♞g5†
5.♔h7 ♔f8 6.♞a4 ♔e7 7.♞a7† ♔xe6 8.♞xg7
White wins.

Winning Pawn Phalanx



White wins by transferring his rook to the first rank before pushing g4-g5.

Page 206.

1.♖a1!

Too soon is: 1.g5? hxg5 2.fxg5 ♖b1 3.♖a7† ♔f8 4.g6 ♖f1† 5.♔e4 ♖e1† 6.♔f4 ♖f1† 7.♔e3 Black has enough checking distance to make a draw. 7...fxg6! 8.hxg6 ♖g1! White's king is too far away to connect with his g-pawn.

1...♖c8

1...♖b2 2.♖a7† ♔f8 3.♖a8† ♔e7 4.♖g8 is an easy win.

2.g5! hxg5 3.fxg5 ♖c2 4.♖a7† ♔f8 5.g6! ♖f2† 6.♔e4

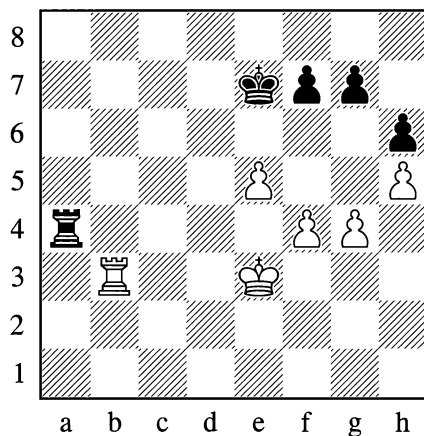
Black runs out of checking distance too soon.

6...♖e2†

After 6...fxg6 7.hxg6 ♖g2 8.♔f5! White's king is close enough to connect with his g6-pawn.

7.♔f3 ♖xe5 8.♖a8† ♔e7 9.h6

Winning Phalanx Transition



White wins by bringing his king to f5.

Page 208.

1.♔f3!

Protecting g4 so as to give a check on b7 next.

Premature is: 1.♖b7†?! ♔e6! 2.f5† ♔xe5 3.♖xf7 ♖xg4! with a draw.

Not: 1.♖d3? ♔f6! Black trades off a pawn, and draws.

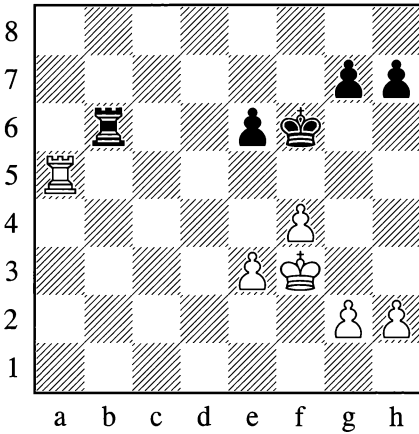
1...♖c4 2.♖b7†! ♔f8

2...♔e8 3.e6 wins; or 2...♔e6 3.f5† ♔xe5 4.♖xf7 now wins.

3.♖d7! ♖a4 4.♔e3

Coming next is ♖d4 and the king reaches f5. If Black tries 4...f6 then 5.e6 wins.

Isolated e-pawn 1



White wins if he can get his pawns to g4 and h4.

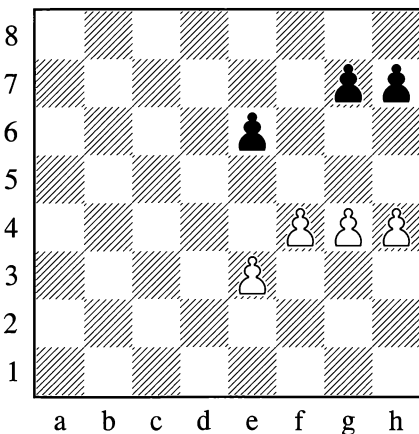
Pages 213-214.

1.g4 ♖c6 2.h4 ♜b6 3.h5 ♝c6

Or: 3...h6 4.g5† hxg5 5.fxg5† ♜f7 6.♜f4 ♜b7 7.e4 ♝c7 8.g6† ♜f6 9.e5† ♜e7 10.♞a8
The rook comes to g8.

4.g5† ♜f7 5.♞a7† ♜f8 6.♞a8† ♜f7 7.♞h8

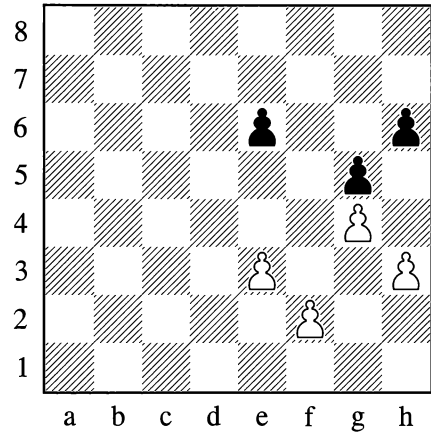
Memory Structure 1



This structure wins for White regardless of where Black's g and h-pawns are.

Page 218.

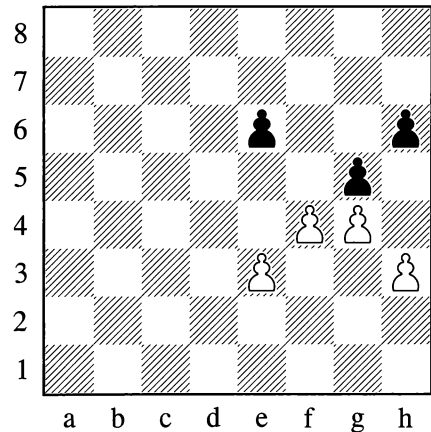
Memory Structure 2



White wins if he can manage to play h3-h4. Then either h4-h5 will fix a weakness on h6, or if Black takes on h4, this results in a winning three against two structure. Black draws if he can prevent h3-h4.

Page 218.

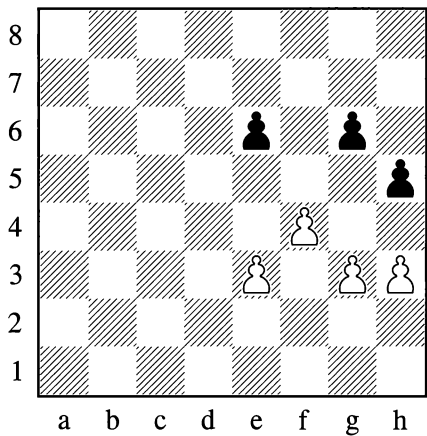
Memory Structure 3



This structure is generally a draw, because White will struggle to get h3-h4 in without allowing ...g5xf4 and immediate checks to follow. Black should wait on ...g5xf4 until White pushes h3-h4, to deny White's king a place to hide on the h4-square.

Page 218.

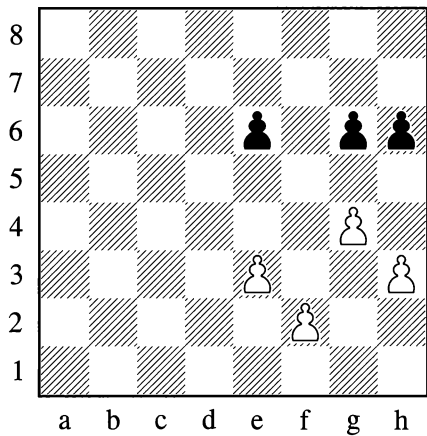
Memory Structure 4



This structure is a routine draw, and is Black's best and most stress-free defensive setup.

Page 219.

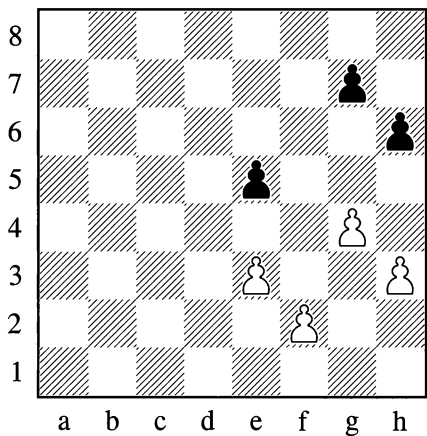
Memory Structure 6



This structure is always lost, as the h6-pawn is weak. White will push h3-h4 and then f2-f4. The only way Black can prevent this is to push ...e6-e5, but then he will not be able to guard both the sixth and seventh ranks.

Page 219.

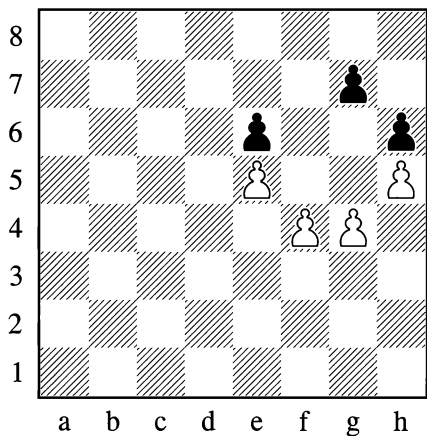
Memory Structure 5



This structure is a draw as well, but not as easy as the g6/h5 one.

Page 219.

Isolated e-pawn 2

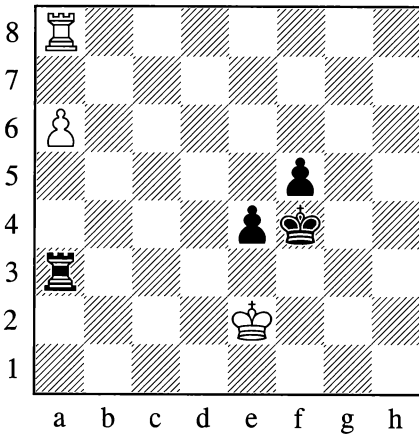


In a standard four against three against an isolated center pawn, the attacking side should keep their own center pawn as far back as possible. This structure is a draw if Black's rook can reach the first rank. White would win if his pawn was back on e4, leaving the e5-square available to his king.

Pages 226-228.

12. Two Connected Passed Pawns Against One Outside Passed Pawn

Basic Rule

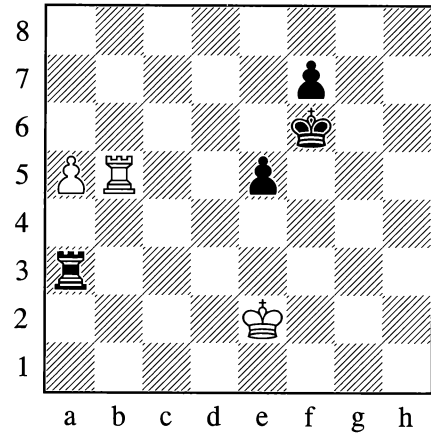


If the connected passed pawns are side by side, connected with their friendly king, and their friendly rook is safely placed behind the enemy pawn, the connected passers almost always win. Indeed, here White is dead lost.

Page 236.

1.a7 ♖a2†

Rook Behind the Pawn Rule



Unless you have the extremely rare scenario where a pawn on the seventh and a rook on the eighth rank holds a draw, your only chance to fight against two connected pawns is to make sure the enemy rook cannot get behind your own pawn.

Page 239.

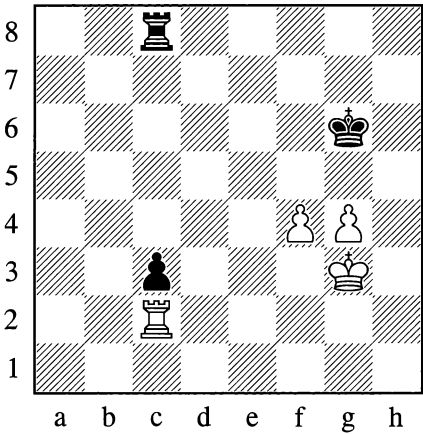
58.♔d2!

White brings his king to b2 and bullies Black's rook off the a-file.

58...♙f5 59.♙c2 ♙e4 60.♙b2

With a draw.

Defending Rook Behind Passer

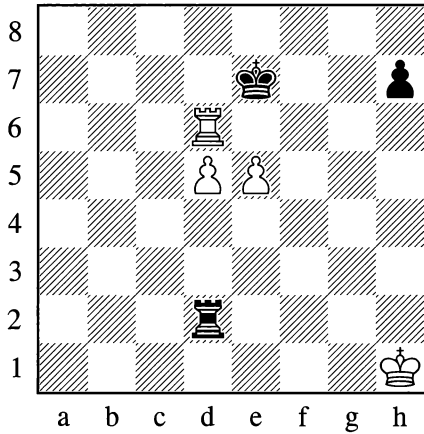


When playing with a lone outside pawn against two healthy connected pawns defended by their king, you will make a draw if you can get your rook behind your pawn, advance your pawn to the sixth rank, and your pawn is at least three files away from the enemy pawn mass.

Pages 244-245.

1...♖c4
Draw.

Awkward Rook Draw



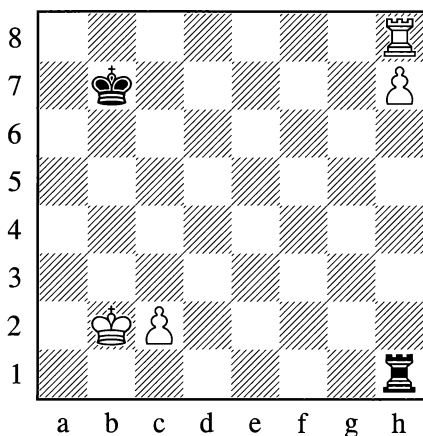
While a friendly rook in front of two connected passed pawns will guarantee their eventual promotion, it is a very slow process. Often, one outside pawn for the opponent will be enough to draw the game. When you have that pawn, push it at any reasonable moment you can!

Pages 246-247.

1.♔g1 h5 2.♔f1 h4
Draw.

13. Pawn on the Seventh Rank with Rook on the Eighth

Rook Pawn and Bishop Pawn – Win



White's c-pawn guarantees victory. Either Black's king or his rook will be distracted.

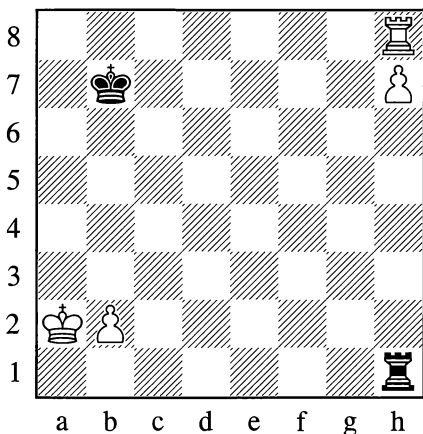
Pages 252-253.

1.c4 ♖h5 2.c5! ♖h6 3.c6† ♔xc6

Also losing are 3...♔c7 4.♖a8; or 3...♖xc6 4.♖g8.

4.♖c8†

Rook Pawn and Knight Pawn – Draw



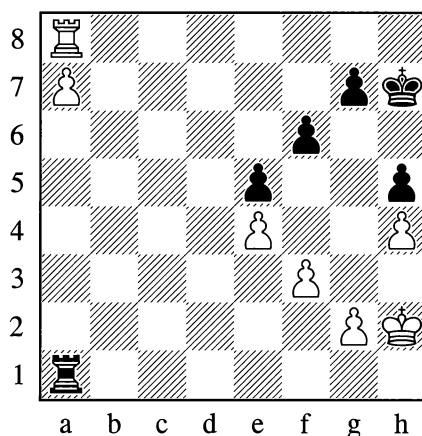
An extra rook pawn or knight pawn will not change the evaluation.

Pages 253-254.

1.b4 ♖h3 2.b5 ♖h1 3.b6 ♖h3

Black's king can remain on b7 forever, stopping the b-pawn and avoiding all checks and rook transfers. Draw.

Four Against Four – Win



Pushing the pawn to the seventh rank with the rook on the eighth usually wins if there are four pawns each on the other side of the board and the structure is fluid.

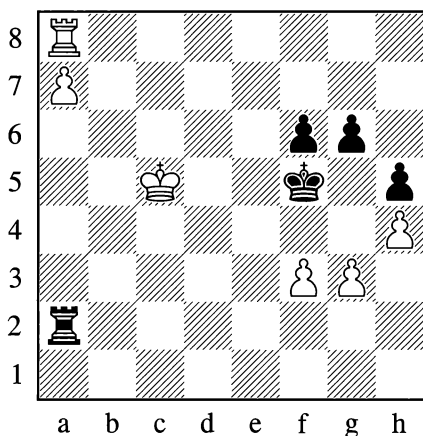
Pages 254-255.

1.g3 ♖a2† 2.♔g1 g6 3.♔f1 ♔g7 4.f4 ♔h7 4...exf4 5.gxf4 wins. The e-pawn is coming.

5.fxe5 fxe5 6.♔e1

White brings his king to d5, and wins.

Three on Three – Losing Constellation



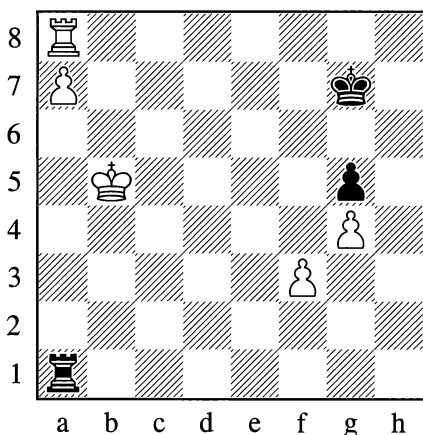
White wins with three against three on the kingside if Black has the f6-g6-h5-♔f5 constellation. Black's king is stuck, he can never advance ...g6-g5, and cannot stop the king march to h6.

Pages 257-258.

1...♞a1 2.♔d6 ♞a2 3.♔e7 ♞a1 4.♔f7 ♞a2
5.♔g7 ♞a1 6.♔h6 ♞a2 7.♞b8 ♞xa7 8.♞b5†
♔e6 9.♔xg6

White wins.

King and Pawn Transition



When evaluating any rook endgame with a pawn on the seventh rank and the rook stuck in front of it, always be mindful of transitions to a pawn endgame when the rook leaves and then gives a check along the seventh rank. It is critical to evaluate in advance the result of these pawn endgames in order to evaluate the preceding rook endgame.

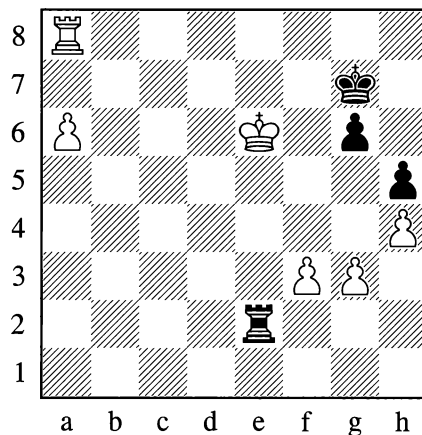
Page 267.

1.♔b6 ♞b1† 2.♔c6 ♞c1† 3.♔d6 ♞d1†
4.♔e6 ♞a1
4...♞e1† 5.♔f5 ♞a1 6.♔xg5 also wins.

5.♞d8

White wins.

Drawing Structure

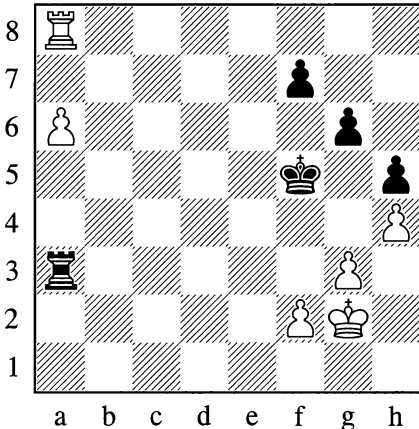


Pawns on g6 and h5 make a draw against f-, g- and h-pawns if the g- and h-pawns are on g3 and h4. Black's kingside pawns are safe, and White is only to make a passed pawn on the g- or h-file, which draws.

Page 263.

14. Rook in Front of the Passed Pawn

Standard Defensive Technique



In a normal and symmetrical structure where one side has an extra passed pawn on the outside, the defending side's best strategy is to bring the king to the center.

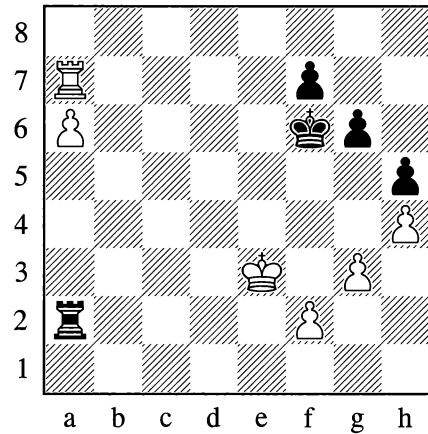
Pages 273-274

1...♔e5

Black draws. Any waiting move works. Just keep the king in the center!

It is important to know that the specific structure after 1...f6? is lost. 2.a7! Black's king cannot come back to g7, it is stuck on f5 forever, and White will bring his own king to h6.

Best Winning Attempt



This is the position White is aiming for, and the reason Black is best advised to put his king in the center.

Pages 277-279.

1.♔d4!

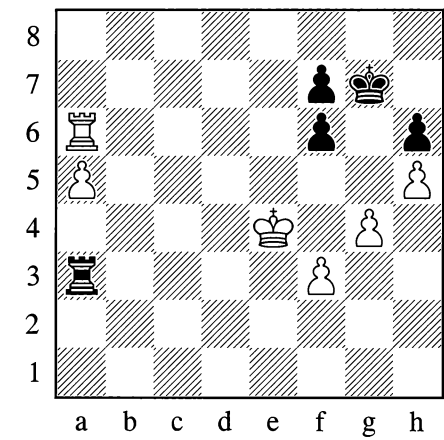
Now ...g6-g5 still draws, but humans will probably take on f2.

1...♞xf2 2.♞c7! ♞a2 3.a7 ♔f5 4.♔c4!

Aiming for this position, and hoping your opponent does not know to avoid it, is the best chance at winning with an outside passed pawn and the rook in front. White wins after:

4...♔g4 5.♔b3! ♞a6 6.♞c4† ♔xg3 7.♞a4

Fixed Doubled Pawns Rule



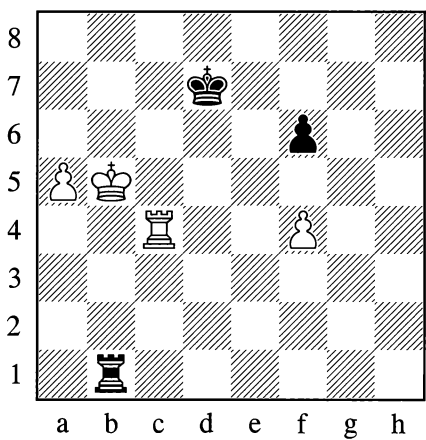
When the defending side's kingside pawn mass is unhealthy in some way, their position becomes very dangerous. If they have fixed doubled pawns that prevent their king from reaching the center, they lose.

Pages 287-289.

1...♞a1 2.♔d5
White wins.

15. Rook to the Side of the Passed Pawn

Perfect Rook Placement

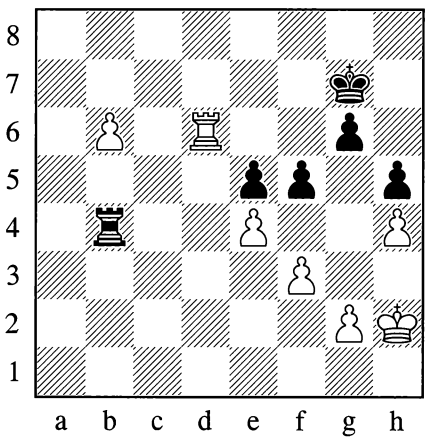


The best way to win a rook endgame with your rook defending your passed pawn laterally is to have a safe square for the rook that also defends the base of your pawn chain on the other side of the board.

Pages 297, 302.

1.♞b4! ♞f1 2.♔b6
White wins.

Activity Trumps Pawn Advance



In rook endgames with an extra outside passed pawn defended laterally by a rook, the pawn structure on the other side of the board tends to be much more relevant than how far advanced the passed pawn is.

Pages 313-314.

1.exf5!

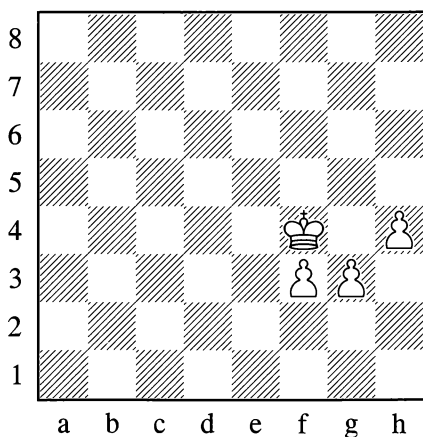
After 1.♞d7†? ♔f6 2.b7 fxe4 3.fxe4 g5!
Black is active enough to save the game.

1...gxf5 2.♔g3

Black's king is cut off, his pawns are weak,
♞e6 comes and White wins.

4 Against 3

Outside Passed d-pawn – Best Setup

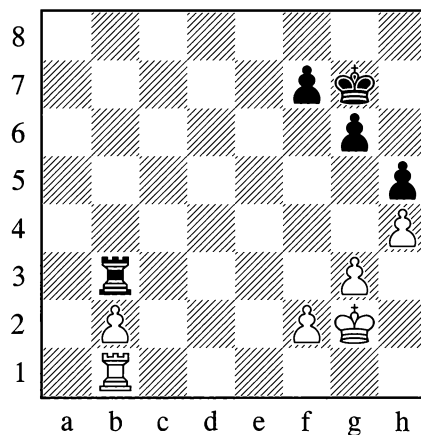


In a four versus three rook endgame where one side has an extra d-pawn, the best setup for either side to reach is ♔f4 and pawns on f3, g3, and h4. The defending side will hold easily if this is reached, and the attacking side will have good winning chances if he gets there first and can aim to bring his rook to e4 next.

Page 319.

16. Rook Behind the Passed Pawn

Pawn Placement Rule



With the rook behind the passed pawn, the further up the board the pawn is, the more likely it is that the position will be winning.

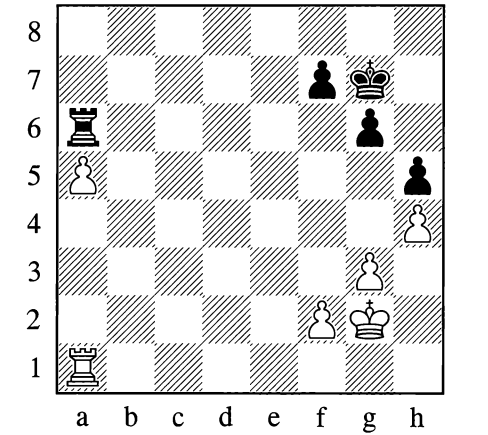
Page 329.

This position is a dead draw:

1.♔f1 ♔f6

But not 1...♞b5? 2.b4 and now White wins, as his pawn is further advanced.

Guideline – a-pawn 5th Rank

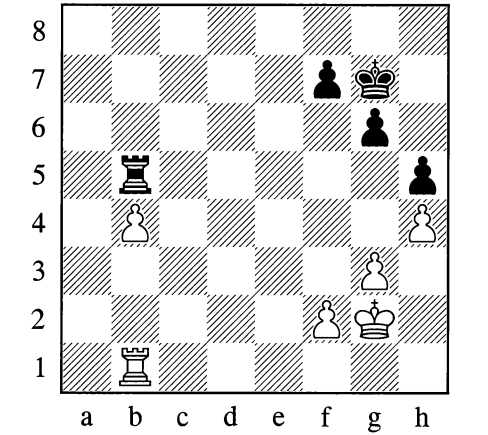


With a friendly rook behind an extra outside passed pawn, an a-pawn must reach the fifth rank to be winning.

Pages 329-330.

1.♔f3 ♕f6 2.♕e4 ♕e6 3.♕d4 ♕d6 4.♞a2
Zugzwang. White wins.

Guideline – b- and c-pawn 4th Rank



But b- or c-pawns only need to reach the fourth rank for a friendly rook behind an extra outside passed pawn position to be winning.

Pages 329-330.

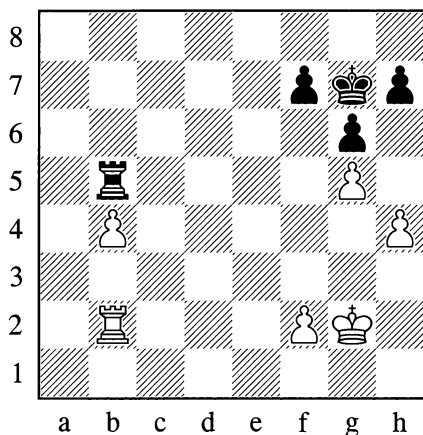
1.♔f3 ♕f6 2.♕e4 ♕e6 3.♕d4 ♕d6 4.♕c4
♞e5

4...♕c6 5.♞a1 and attacking the kingside pawns will win.

4...♞b8 5.b5 ♞b7 6.b6! ♕c6 7.♞b2 is zugzwang. White wins the pawn ending.

5.b5 ♕c7 6.♞a1! ♕b6 7.♞a6† ♕b7 8.♞f6
White wins.

Defensive Counterplay Rule



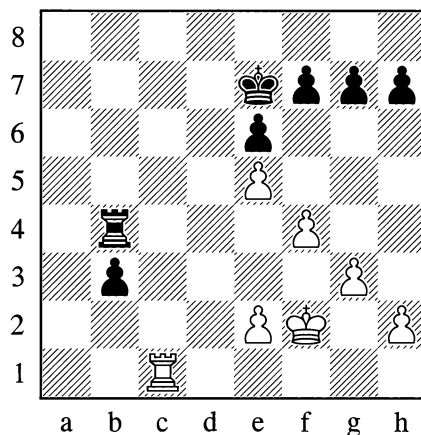
When defending against an extra outside passed pawn with an enemy rook behind it, the only chance is to use your rook to blockade the passer and then use your king to make counterplay on the other side of the board. The position is likely to be a draw if the defending rook also harasses an enemy pawn laterally.

Pages 331-332.

1...h6! 2.f4 hxg5 3.hxg5 f6!

Black makes a draw.

King to the Center Guideline



In endgames with a rook behind a friendly outside passed pawn, and the defending side having an extra pawn on the other side of the board connected to the remaining pawn mass, whoever gets their king to the center first will likely earn their half point.

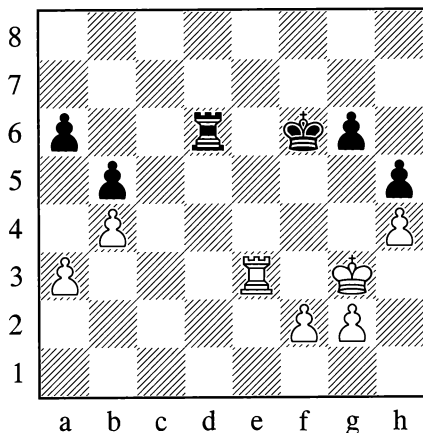
Pages 340-342.

1...f6! 2.exf6† ♔xf6

Black wins.

17. Pawns on Both Sides with No Passed Pawns

Focus on Pawn Up Side of the Board



In rook endgames with no passed pawns, the attacking side a pawn up, and pawns on both sides of the board, there is a thought process that can lead to the right evaluation. You should first forget about the side of the board that has equal pawns and focus solely on the side that has the pawn up.

1. If that endgame alone with no other pawns would be winning, it will cease to be winning and become drawn if the attacking rook is stuck in a passive position defending pawns on the other side of the board.

2. If the endgame with only the pawn up side of the board would be drawn, it will cease to be drawn and become lost if the defending rook is stuck passively defending a pawn on the other side of the board.

3. If neither rook is stuck passively defending, the result will probably be the same as what it would be if the secondary pawn mass were not on the board.

Pages 347, 356-358.

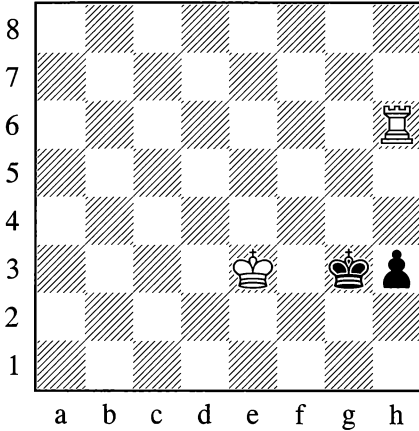
52.♖c3!

Black's rook is now stuck on the sixth rank to stop a check on c6, and White wins.

52.f3? allows 52...♖c6! when Black's rook takes the best file and cannot be rendered passive. Draw.

18. Rook Against Pawn(s)

Rook Against Pawn – Shouldering



When playing with a lone pawn against a rook, the first thing you should think about is whether you can simply push your pawn straight through with the most direct moves. If this works, great. If it does not work, you should think instead about using your king to shoulder out the enemy king and prevent it from reaching your pawn.

Pages 361-362.

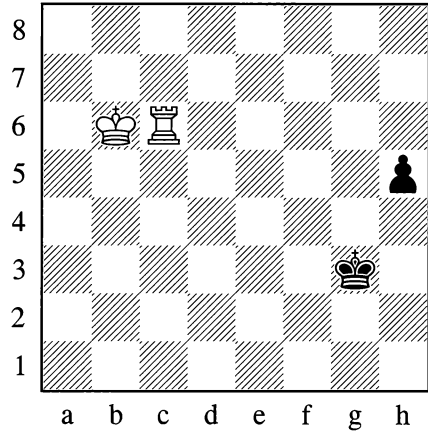
1...♔g2!

1...h2? 2.♖g6† ♔h3 3.♔f2 wins.

2.♔e2 h2 3.♖g6† ♔h1!

Draw.

Rook Against Pawn – Intermediate Check



1.♖g6†

When playing with a lone rook against a lone pawn, when considering how to get your rook behind the pawn, always look for an intermediate check to gain two tempos.

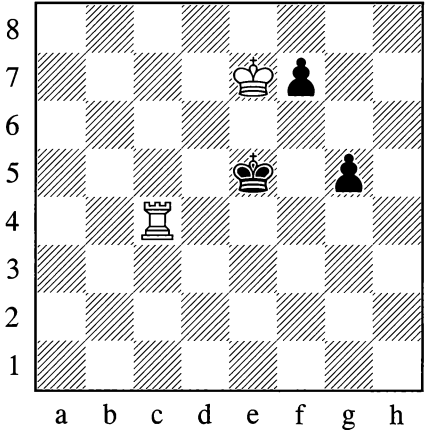
Pages 366-367.

1...♔f3

1...♔h3 2.♔c5 h4 3.♔d4 ♔h2 4.♔e3 also wins.

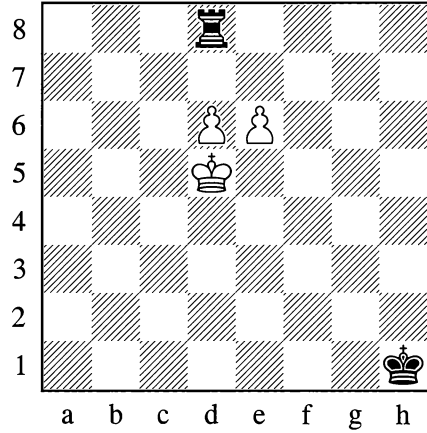
2.♖h6 ♔g4 3.♔c5 h4 4.♔d4 ♔g3 5.♔e3 h3 6.♖g6† ♔h2 7.♔f2 ♔h1 8.♖g1† ♔h2 9.♖g3 ♔h1 10.♖xh3#

**Rook Against Two Pawns –
Don't Push Both Pawns!**



When playing with two pawns against a rook and trying to draw, do not try to push both pawns. The best plan is to get your king to its best spot, and then choose which pawn to push based on which one your opponent is less equipped to stop.

**Rook Against Two Pawns –
Euwe's Rule**



If two connected passed pawns have only four total squares between them and promotion, a rook cannot stop them without the king's help.

Pages 368-369.

Pages 363-365.

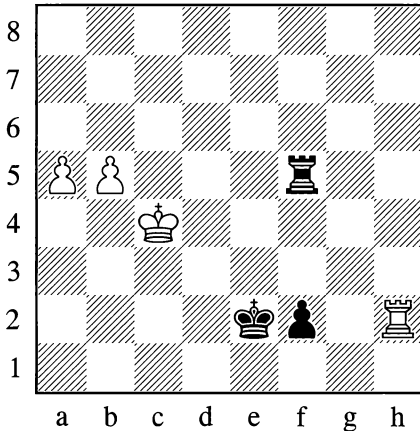
1...♔f5!

Pushing both pawns is too slow: 1...f5?
2.♔f7! wins.

2.♔xf7 g4

Black makes a draw.

Rook Against Two Pawns – King in Front of Passed Pawns



When defending with a rook against two connected passed pawns, the best way to slow them down is to force the enemy king to get in front of them. This may buy your own king enough time to come back.

Pages 369-370.

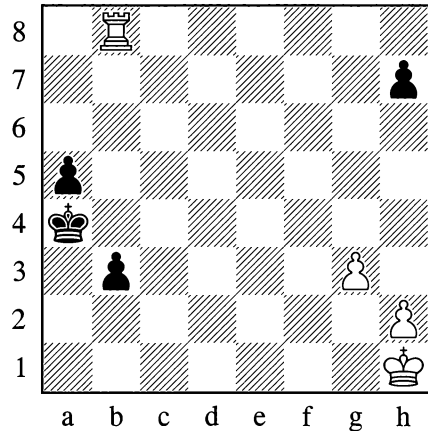
62...♖f4†!

62...♙e3? 63.♖xf2 ♖xf2 64.b6 and White wins.

63.♙c5 ♖f5† 64.♙b6 ♙d3

Black draws as White's king will slow down his pawns.

Rook Against Two Pawns – King to Same File as Rook

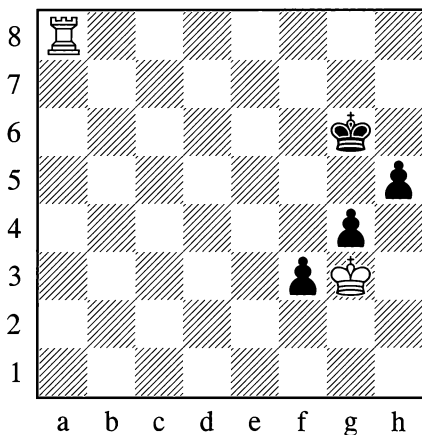


When playing with two connected passed pawns against a lone rook, and the rook is behind one of the pawns, the best way to play for a win is to have the king directly in front of the pawn the enemy rook is behind, and then push the other one.

Pages 371-372.

44...♙a3 45.g4 a4 46.g5 ♙b2! 47.h4 a3
Black wins.

Rook Against Three Pawns – Chain to the Sixth



A chain of three pawns reaching the sixth rank will draw against a rook if the rook cannot get behind the base of the chain.

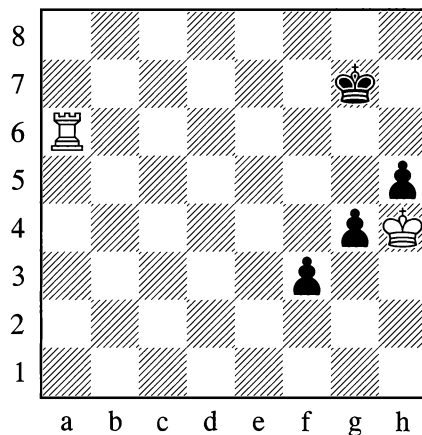
Pages 373-376.

1...♔g7!

Black draws.

After 1...♔g5? 2.♖h8 White's rook gets behind the pawn chain and he wins. It is worth memorizing the double triangulation if you get this position with White to move.

Rook Against Three Pawns – Drawing King Placement



Page 374.

1...♔h7!

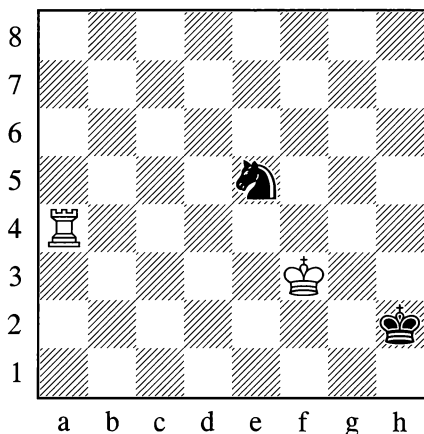
1...♔f7 2.♔g5 and now ...f3-f2 is not possible due to ♖f6†. White wins.

2.♔g5 f2

Draw.

19. Pawnless Rook Endgames

Rook Against Knight 1



When the knight is permanently separated from the king, the position is usually lost.

Page 380.

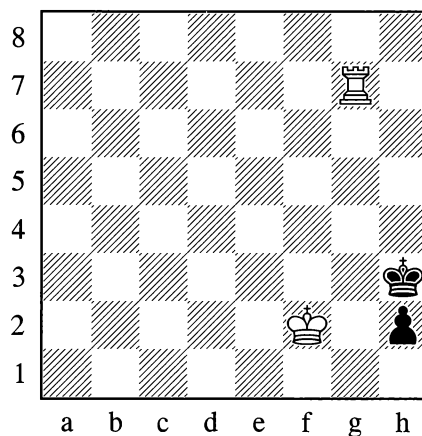
1. ♖f4 ♜d3† 2. ♖e3!

But not 2. ♖g4? ♜g2 as Black's knight comes to f2 and connects with his king. Black achieves a draw.

2... ♜e5 3. ♜e4 ♜g6 4. ♜g4 ♜e5 5. ♜g5

White wins.

Rook Against Knight 2



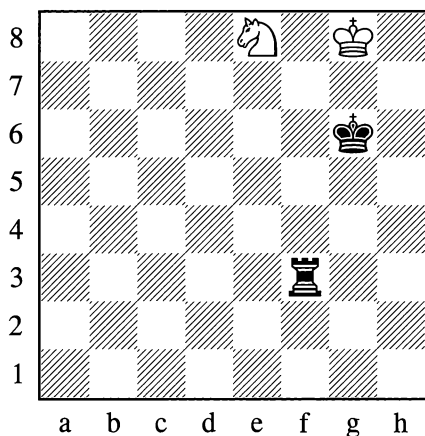
A knight stuck in the corner will lose to a rook. If the defending side is ever forced to promote to knight in the corner to give a check, they will lose.

Page 381.

1... h1=♜† 2. ♖f3 ♜h2 3. ♜g8

The knight is lost.

Rook Against Knight 3



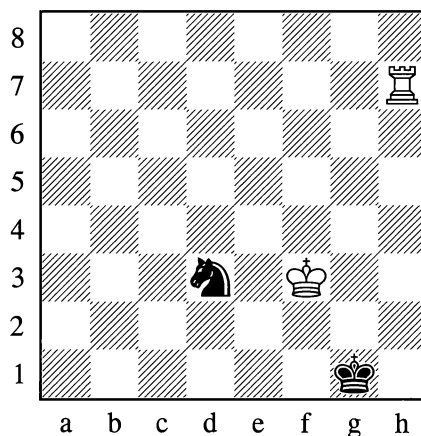
When defending with a knight against a rook, be wary about fianchettoing your knight directly in front of your king. This is asking for trouble.

Pages 385-386.

1.♖c7!

But 1.♖g7? ♔f6! loses.

Rook Against Knight – Restricting the Knight



1.♜h4!

Prophylaxis against Black's knight coming to g2.

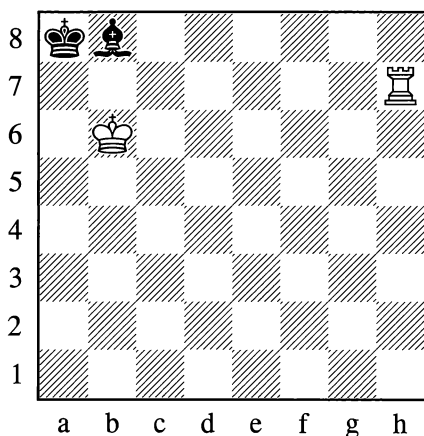
Page 384.

1...♞e5†

The knight is separated from the king and will be lost.

1...♞e1† 2.♜e2 ♞g2 3.♜g4 ♜h2 4.♜f2 wins. Black does not have ...♞g2-h4.

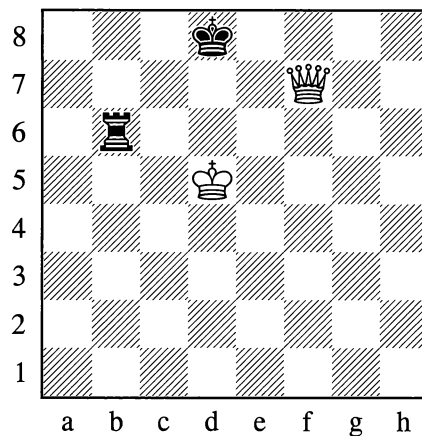
Rook Against Bishop – Corner Defense



This is an easy draw for Black. He leaves his king on a8 forever. White can never put the rook on the back rank due to stalemate.

Page 389.

Queen Against Rook – Zugzwang 2

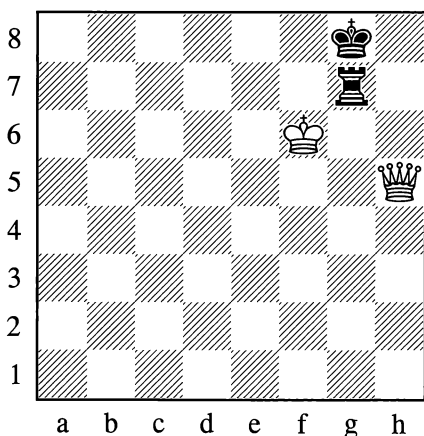


1. ♖f4!

This breaks the third rank defense. Black is in zugzwang.

Page 391.

Queen Against Rook – Zugzwang 1



Black is in zugzwang, and will lose his rook no matter where it goes.

Page 390.

1... ♖g1 2. ♖e8† ♔h7 3. ♖e4† ♔g8 4. ♖c4† ♔h7 5. ♖c7† ♔g8 6. ♖b8† ♔h7 7. ♖h2†

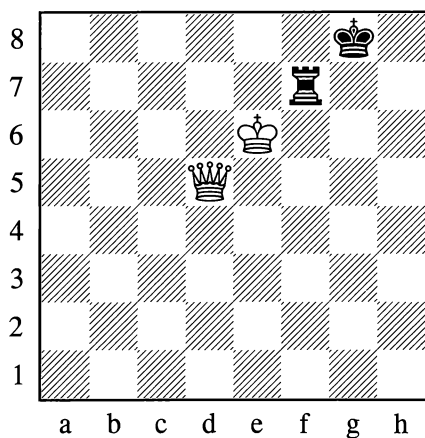
1... ♔d7

Black quickly loses the rook after 1... ♖g6 2. ♖f8† ♔d7 3. ♖f7†; or 1... ♖a6 2. ♖b8† ♔d7 3. ♖b7†.

2. ♖a4†! ♔c7 3. ♖a7† ♖b7 4. ♖c5†

The rook has been kicked off the third rank. White wins.

Queen Against Rook – Zugzwang 3



Black is in zugzwang here, and White wins by passing the move.

Pages 391-392.

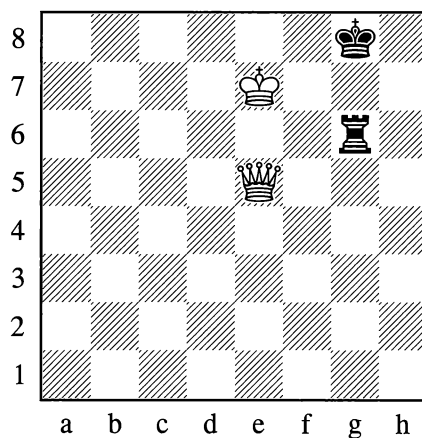
1. ♕c4! ♖f8 2. ♖c5†! ♔g8

Also losing is: 2... ♔g7 3. ♖g5† ♖f8 4. ♕h5! Black is missing ...♖b7 because ♕h8 is a mate threat.

3. ♖d5!

White has passed the move and Black loses.

Queen Against Rook – Zugzwang 4



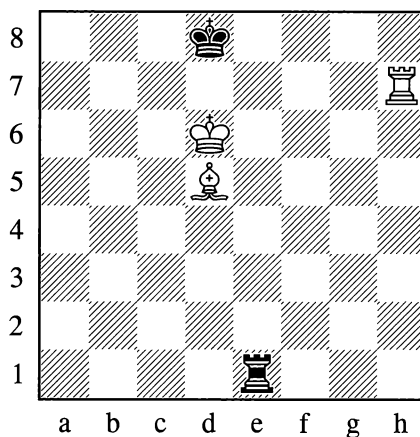
Black is in zugzwang here, and even with White to move, it is easy to make a non-move that keeps the queen on the long diagonal.

Page 392.

1. ♖d4!

Zugzwang. White wins.

Rook and Bishop – Philidor's Mate



Pages 398-400.

1. ♖b7! ♖c1 2. ♖b3! ♔c8

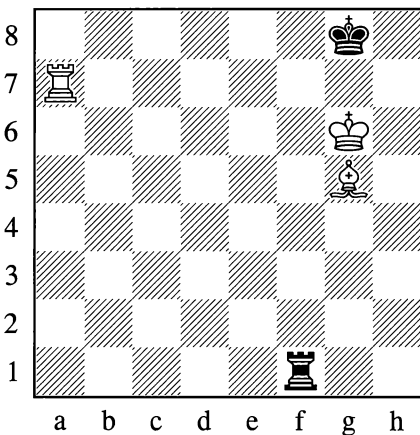
Or 2... ♖c3 3. ♖e6! ♖d3† 4. ♖d5 ♖c3 and

Black's rook is missing access to the b- and f-files. 5.♖d7† ♕c8 6.♜h7 ♕b8 7.♜b7†! ♕c8 8.♜b4! White is threatening ♜e6 with mate. 8...♜d3 9.♜a4! Since Black's rook was dragged to the third rank, it cannot reach the b-file. White wins.

3.♜b4! ♕d8 4.♜h4 ♜e1 5.♜a4 ♕c8 6.♜b4!

White is ready for ♜a4-d7† next, winning.

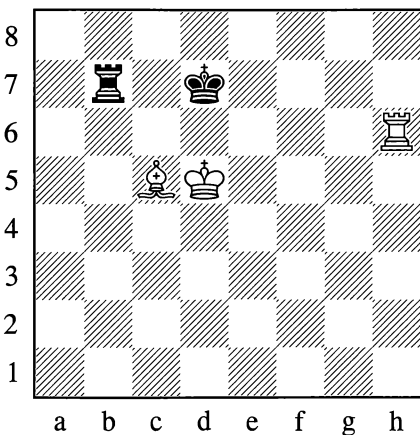
Rook and Bishop – Philidor g-file Exception



This is a draw because White is missing ♜a7-i7 followed by ♜g5-i3.

Pages 400-401.

Rook and Bishop – Second Rank Defense



This is an easy draw. White will not be able to push the king to the back rank because whenever he checks, Black moves the king, and he will be threatening a rook exchange.

Page 401.

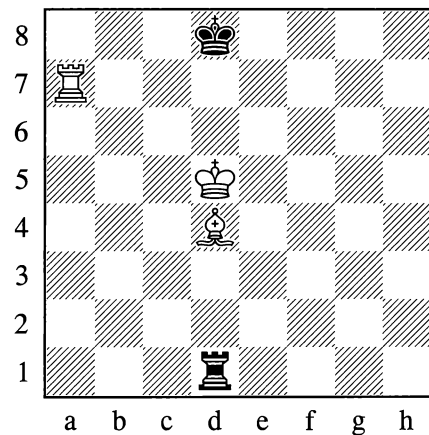
1...♜c7 2.♜d4 ♜b7 3.♜b6

This would be zugzwang, but Black saves himself with a stalemate trick.

3...♕c8! 4.♕c6 ♜c7†!

Draw.

Rook and Bishop – Pin Defense



White can make no further progress. The king cannot advance without losing the bishop. Black should know that whenever White brings his king to the side of his bishop, he should respond by bringing his own king in the opposite direction.

Page 402.

1. ♖h7 ♜d2!

Waiting.

White wins after: 1... ♕e8? 2. ♕e6!

2. ♕c5 ♕e8!

Now and only now.

3. ♗e5 ♜d7!

Black has set up a second rank defense.

Conclusion

This concludes my coverage of theoretical rook endgames. It was a tremendous and long journey for me. It was frustrating, tedious, and daunting, but also rewarding and eye-opening, all at the same time. I know that I feel much more comfortable in rook endgames now than I did before taking on this project, and it's amazing how easily I can look back at my pre-2020 self and see just how many mistakes I was making, even as a 2700+ player. Only time will tell if the work I did on this book will help push me to the next level of 2750 and beyond, but I am optimistic that it will. While the depth of analysis and work I did was surely aimed at a Super GM level audience, and I am sure that it will have taken a long time to reach this final sentence, it is my sincere hope that I was able to break down the positions in ways that all aspiring chess players can understand, and that it will help a dedicated reader considerably improve their ability to play the most common endgames in all of chess.

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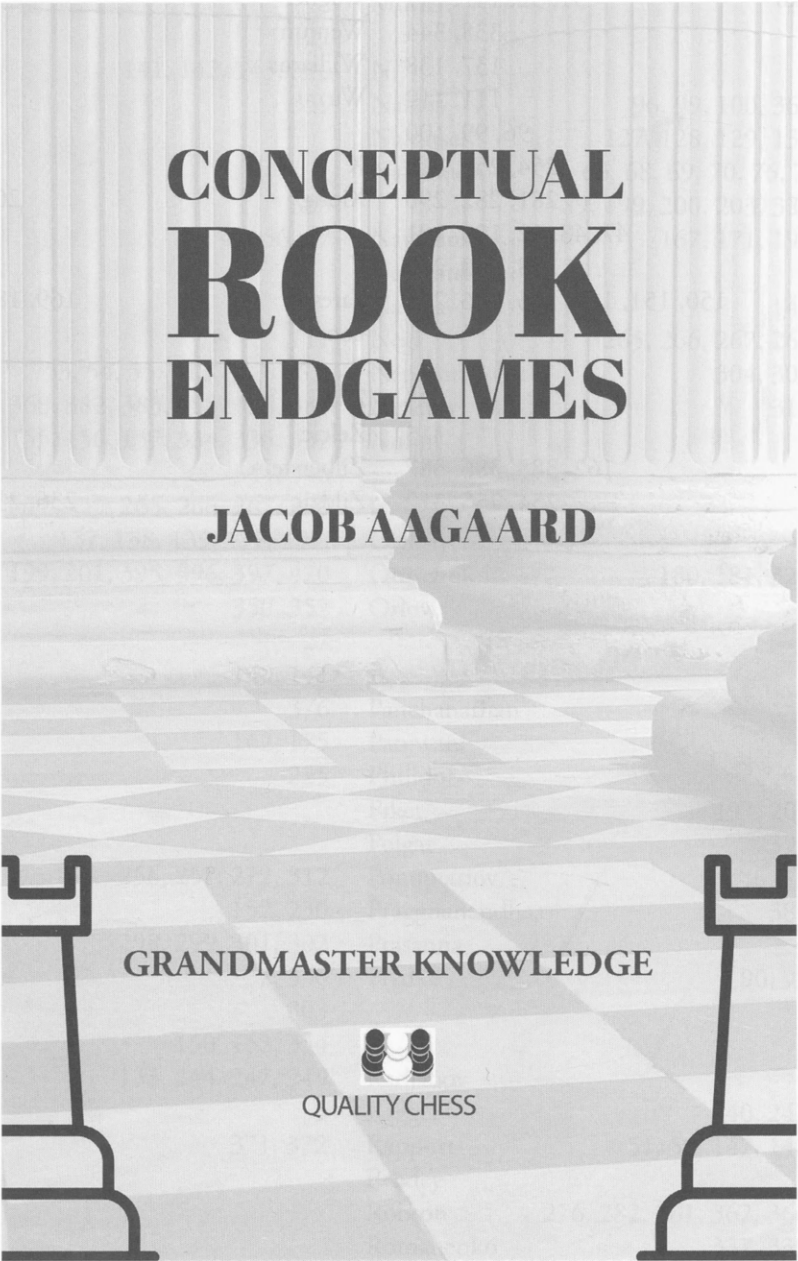
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Having reached the end of this book, I can wholeheartedly recommend the companion volume *Conceptual Rook Endgames*, by Jacob Aagaard. The two books were designed to complement one another. Having covered the theoretical groundwork in this volume, Jacob's book is your ideal next step towards rook endgame mastery.



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