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# Introduction

A pawn endgame is generally the very last act of a chess game, often coming after another ending with more pieces on the board, or being present as a possibility that must be examined. In either case, an error in the evaluation of a pawn ending is usually fatal.

The book features practical examples from recent decades, starting from 1981, where high-level players went astray in pawn endings in their games. The reasons for their errors are various: lack of time on the clock, carelessness, or even ignorance of some textbook endgames, but the most common cause is mistakes in calculation.

Most of the games were played at classical time-limits, but there are also some rapidplay games, which in recent years have made up a significant proportion of top-level games. While one might expect the quality of the play in these games to be lower, the endgame play is often comparable to, and sometimes better than, players handling a tricky pawn ending in time-pressure at the end of a long and tiring game.

Most of the examples in this book will be unfamiliar to even diligent students of pawn endgames, but some have of course appeared in other works and periodicals – it is impossible to keep track of everything that has been published. But I hope to have highlighted new instructive points in their analysis, particularly with respect to the reasons for errors and what can be learned from them. There are also some corrections to previously-published analysis.

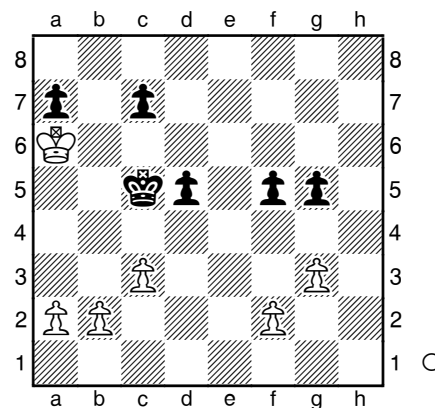
The book is divided into ten chapters, each dealing with a major theme in pawn endings. There is little further subdivision beyond the fact that the later examples in each chapter tend to be more complex than the earlier ones. Besides, a more detailed categorization would run into problems as most of the games, particularly the more intricate ones, feature numerous themes, often from several of the other chapters.

Before moving on to our first chapter, there is one question I wish to address. One sometimes

comes across an opinion that the endgame technique of the modern generation, who work heavily with computer engines and tend to focus their preparation on the opening, is lower than that of the luminaries of the past. Conclusions on this question can be drawn only after a thorough analysis. While the handling of pawn endings is just one aspect of endgame skill, it is a central one, so the author decided to check how many mistakes there were in pawn endings featuring Capablanca, generally regarded as the finest endgame player of the early 20th century. While games played by Capablanca are few by today's standards, and the number of pawn endgames correspondingly small, it was still possible to find two in which the great Cuban made significant errors.

The first is from a simultaneous, which can be roughly equated to today's rapidplay games:

## Capablanca – S. Sharp Philadelphia simul 1915



### 36 ♔xa7??

36 b3! would have won, as it obliges the black king to retreat to a square that will allow a white pawn to promote with check: 36...♔d6 37 ♔xa7 c5 38 b4! cxb4 39 cxb4! d4 40 b5! d3 41 b6! d2 42 b7! d1 ♔ 43 b8 ♔+! with a won queen ending. 36 ♔b7? is insufficient because after 36...♔c4 37 ♔xc7 f4! Black is saved by a counterattack on the f-pawn.

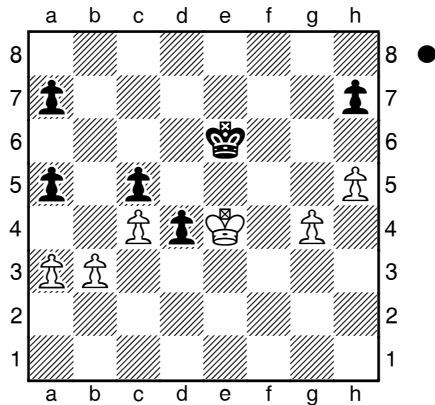
The move chosen in the game even loses:

**36...♔b5! 37 b4 ♕c4! 38 ♕b7 ♕xc3! 39 b5 ♕b4! 0-1**

The second example is from a consultation game:

### Capablanca – ‘Allies’

Santiago de Cuba 1938



White is threatening to create widely-separated passed pawns that the black king will be unable to halt.

The players with Black tried their last throw, which brought them unexpected success:

**38...a4 39 bxa4??**

Unbelievable! After the obvious 39 b4! cxb4 40 ♕xd4! b3 41 ♕c3 White will queen a pawn.

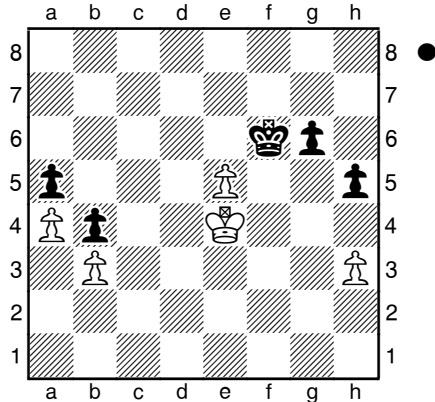
Now Black is able to demonstrate the advantage of a protected passed pawn over an outside passed pawn:

**39...♕f6 40 ♕f4 h6! 41 a5 a6 42 a4 ♕e7 43 ♕f3 ♕f7 44 ♕f4 ♕f6 45 ♕e4 ♕g5 46 ♕f3 d3 47 ♕e3 ♕xg4 48 ♕xd3 ♕xh5 49 ♕e4 ♕g5 50 ♕d5 h5! 51 ♕c6 0-1**

I should stress that the purpose of the book is not to belittle the level of play of the leading chess players. My hope is that acquainting my readers with typical mistakes will help them, even when there is limited time to think, to make the right decisions more often in their own games.

Many of the examples in this book should be useful for training purposes at a wide range of levels, whether working with a coach or on your own.

**82) Harikrishna – Nguyen Ngoc Truong**  
Online Olympiad rapid 2020



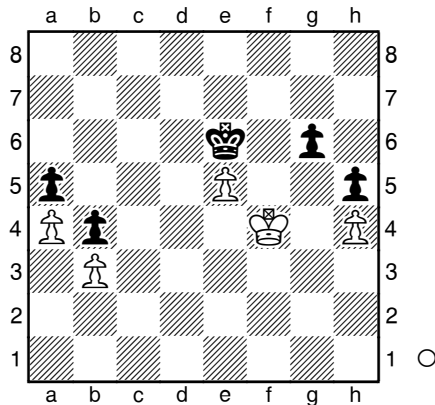
**60...♙e6?**

This error should have cost Black the game. The correct move is 60...♙e7 (or 60...♙f7). White should then prevent the move ...g5 by playing 61 h4, and only then does Black play 61...♙e6! (mutual zugzwang), when both 62 ♙f4 ♙d5! and 62 ♙d4 g5! 63 hxg5! h4! 64 ♙e4! h3! 65 ♙f3! ♙xe5 66 ♙g3! ♙f5 67 ♙xh3! ♙xg5! 68 ♙g3! lead to a draw.

**61 h4! ♙e7 62 ♙f4?!**

This does not yet throw away the win, but White should certainly have pressed ahead with 62 ♙d5 ♙d7 63 e6+ ♙e7 64 ♙e5! g5 65 hxg5! h4 66 g6.

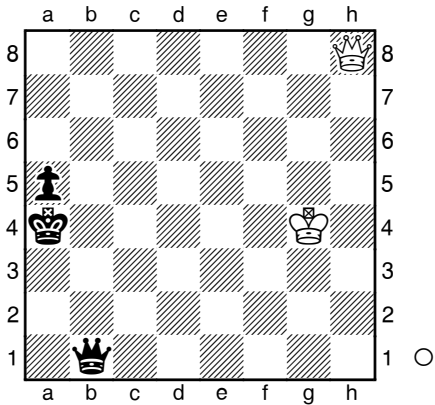
**62...♙e6 (D)**



**63 ♙g5?**

Presumably due to the limited thinking time, White turns a won pawn ending into a bad queen endgame. He could still have won by going into reverse with 63 ♙e4! and using the winning idea from the previous note.

**63...♙xe5! 64 ♙xg6 ♙d4 65 ♙xh5 ♙c3 66 ♙g4 ♙xb3 67 h5 ♙xa4 68 h6 b3! 69 h7 b2! 70 h8♙ b1♙ (D)**

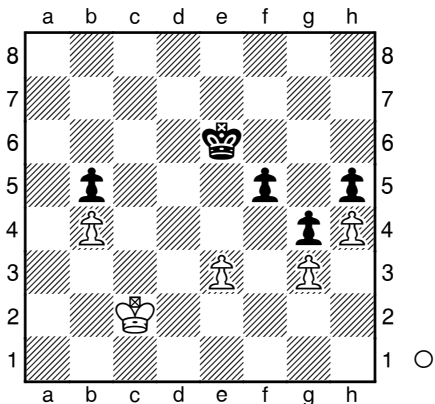


The tablebase tells us this ending is objectively drawn (in general ♙+a♙ vs ♙ is a draw unless the defender's king is particularly badly placed), but such positions are often lost by White in practice.

**71 ♙f3 ♙a3 72 ♙c8 a4 73 ♙e3 ♙a2 74 ♙d2 ♙b2+ 75 ♙c2 a3 76 ♙d1 ♙a1 77 ♙c1+ ♙a2 78 ♙c2 ♙xc2+ 79 ♙xc2! ♙a1 80 ♙c1 a2 81 ♙c2! (stalemate) 1/2-1/2**

**83) Radjabov – Nakamura**

Internet rapid 2021



**48 ♙d2?**

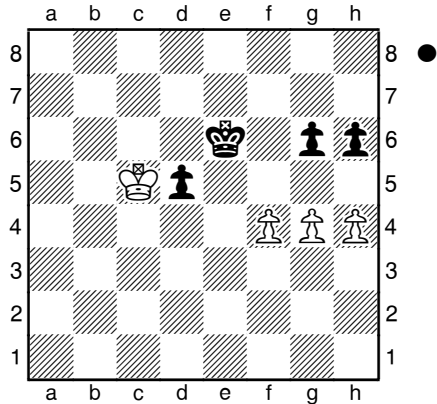
White needs to be able to meet ...♙d5 with ♙d3, and ...♙e4 by ♙e2. Therefore if the black king is on e5 (from where it can move to d5 or e4), the square where the white king needs to be is d2. By moving to this square first, White loses the fight for the corresponding squares. So is there a square for the white king that enables

it to answer each black king move appropriately? It turns out there is: 48 ♔c3! is correct and leads to a draw.

48...♙e5! 49 ♔d3 ♙d5! 0-1

**84) Ricardi – Sorin**

Argentine Team Ch, Buenos Aires 1995



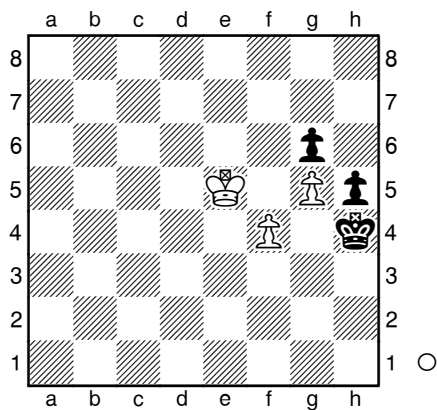
45...h5?

This move appears very natural, but it loses. Black can only draw with the paradoxical idea 45...g5! 46 fxg5 hxg5! 47 h5 ♙e5! 48 ♖b4 ♙e6 (or 48...♙f6, but not 48...d4? 49 ♖b3!). Black can then keep the white king out by always meeting ♙d4 with ...♙e6, and ♙c5 by ...♙e5. It's the same story if White makes a passed pawn on f5 instead of h5.

46 g5! ♙f5 47 ♙xd5! ♙g4

47...♙xf4 48 ♙e6! ♙g4 49 ♙f6 ♙xh4 50 ♙xg6! is a win for White because the black king must walk into a promotion check from the white g-pawn.

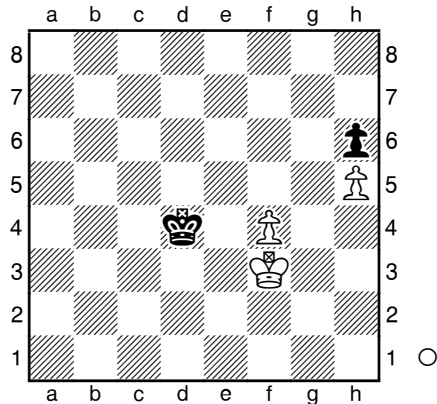
48 ♙e5 ♙xh4 (D)



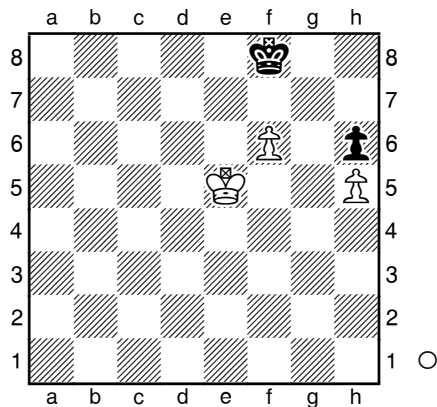
49 f5 ♙xg5 50 f6! ♙g4 51 f7 1-0

**85) Inkiöv – W. Schmidt**

Polanica Zdroj 1981



White must find a way to advance his f-pawn to f6, when he can then win the game with the well-known procedure called 'triangulation'. But how does he get the pawn there? First he must lose a tempo to transfer the move to Black. If the white king is on g4, his black counterpart must be on e4, a square he can reach from either d5 or d4. White has three squares from which he can reach g4. Thus by moving between these three squares ('triangulating') while Black is moving between his two squares, White loses a move and returns to the diagram position but with Black to play: 55 ♙g3 ♙d5 56 ♙h3 ♙d4 57 ♙h4 ♙d5 58 ♙g3 ♙d4 59 ♙f3. Goal achieved! Having made triangle number 1, it is then a simple matter to push his pawn to f6, make triangle number 2 and promote a pawn. For example, 59...♙d5 60 ♙e3 ♙e6 61 ♙e4 ♙f6 62 f5 ♙f7 63 ♙e5 ♙e7 64 f6+ ♙f8 (D).

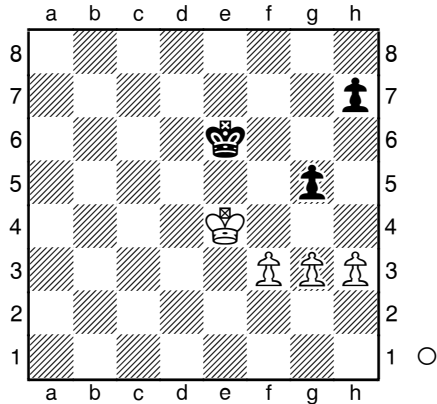


65 ♙e4 ♙e8 66 ♙f4 ♙f8 67 ♙e5 ♙f7 (67...♙e8 68 ♙e6) 68 ♙f5! ♙f8 69 ♙g6.

White's choice in the game failed to solve the problem:

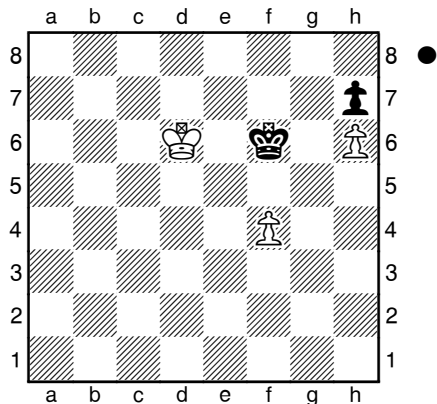
**55 f5? ♖e5! 56 ♔g4 ♔d6! 57 ♖f4 ♔d5!**  
1/2-1/2

**86) Lupulescu – S. Bogdanovich**  
Baku 2016



**74 g4?**

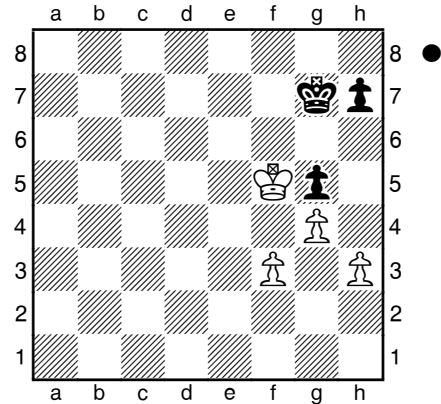
It appears White does not know the theory of this endgame. To win, White must end up with f- and h-pawns against Black's h-pawn. Such an endgame is won in simple fashion if the black pawn is on h6 (this is the well-known 'triangulation' position, which we saw as the final stage of the winning process in the previous example). If the pawn is still on h7, then White's task is more difficult, but it can still be solved: 74 h4! (White advances the h-pawn so that his king can advance in front of the f-pawn) 74...gxh4 75 gxh4! ♔f6 76 ♖f4! ♔e6 77 ♖g5 ♔f7 78 ♖f5 ♔e7 79 ♖e5 ♔f7 80 h5 ♔e7 81 f4 ♔f7 82 ♔d6! ♔f6 83 h6! (D) reaches the critical position of mutual zugzwang.



For example, 83...♔f7 84 ♔d7! ♔f6 85 ♔e8 or 83...♔f5 84 ♔e7! ♔xf4 85 ♔f6!.

Instead in the game White created two linked pawns against one, but this does not offer any winning chances.

**74...♔f6 75 ♔d5 ♖f7 76 ♔e5 ♔g7 77 ♖f5 ♔h6 78 ♔e5 ♔g7 79 ♖f5 (D)**

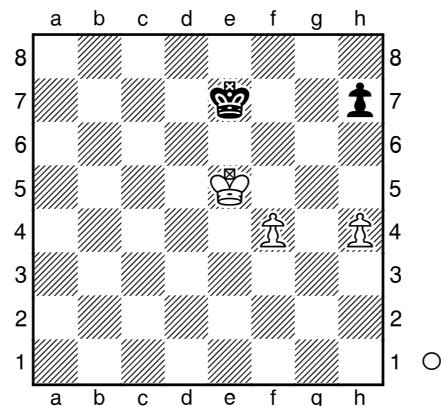


**79...♔h6**

79...h6 is also sufficient, but the move chosen is more convincing.

**80 f4 gxf4! 81 ♖xf4 ♔g6 82 h4 ♔f6 83 ♔e4 ♔e6 84 g5 h6 85 ♖f4 hxg5+ 86 hxg5 ♖f7 87 ♖f5 ♔g7! 88 g6 ♔g8! 89 ♖f6 ♔h8 90 g7+ ♔g8! 91 ♖g6 (stalemate) 1/2-1/2**

**87) Indjić – Kamsky**  
Moscow 2017



Another example of lack of theoretical endgame knowledge at grandmaster level. White is just three moves away from the textbook win: 59 h5 ♔f7 60 ♔d6! ♔f6 61 h6!.

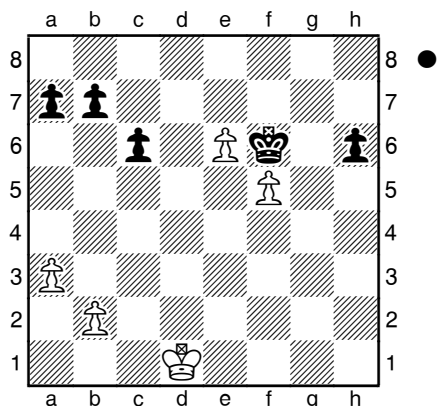
**59 f5? ♔f7! 60 f6 ♔f8! 61 ♔e6 ♔e8! 62 f7+ ♔f8! 63 ♔f6 h6! 64 ♔g6 h5! 1/2-1/2**

## 6: The Fight to Promote

The struggle to queen pawns lies at the heart of all endgames, but a variety of specific methods are our focus in this chapter. These include the various ‘square’ rules, the ability of groups of passed pawns (in some configurations but not others) to defend one another even in the absence of their king, and the king’s ability to support his own pawns while blocking the enemy. In amongst the geometry we shall even see some perfectly timed mating attacks!

### 120) Quinteros – Andersson

Mar del Plata tt 1981



This position arose after White’s 48th move and requires precise calculation. Black can create a second passed pawn on the queenside, which is clearly more than the white king can handle. However, White can support his own passed-pawn duo, which is dangerously close to promotion.

So how should Black start advancing his pawns? 48...b5? is obviously bad because of 49 b4, while moving the c-pawn giftwraps the d5-square for the white king, which leaves...

**48...a5 49 ♖e2**

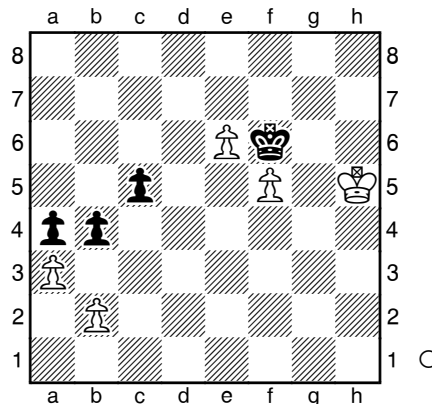
Would 49 a4? make sense instead? As a general chess principle, pawn advances on our weaker flank only help the enemy, so we should at least be suspicious of this move. In this case, it seeks to set a trap, as 49...b5? runs into the breakthrough 50 b4 (though even then Black can hang on to draw after 50...h5!). But instead

Black should reply 49...h5!, which diverts the white king from the square of the a-pawn, making the move ...b5 possible (e.g., 50 ♖e2 b5 51 b4 bxa4!).

**49...a4 50 ♖f3 h5**

This move lengthens the white king’s path to the h6-square, but at the cost of a tempo, so the overall impact is neutral. It was probably motivated by a fear that after 50...b5 51 ♖g4 c5! (when 52 ♖h5 b4 53 ♖xh6! transposes to the next note) White would return to make use of the d5-square. Either way, the game should objectively end in a draw, but the move chosen may be considered good technique as it limits White’s options.

**51 ♖g3! b5 52 ♖h4! c5! 53 ♖xh5! b4 (D)**



**54 axb4?**

This gift of a decisive tempo is inexplicable unless it was due to time-pressure (in those years, the second time-control was after the 56th move). After the immediate 54 ♖h6! White will queen first, and secure a draw.

**54...cxb4! 55 ♖h6 a3! 56 e7**

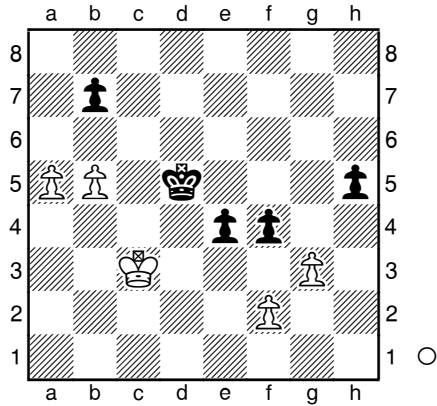
Exchanging on a3 is even worse as Black would queen on a1 with check.

**56...♖xe7 57 ♖g7 axb2 58 f6+ ♖d7! 59 f7 b1♚! 60 f8♚♚g1+ 0-1**

After a few more checks, Black will force the exchange of queens.

### 121) Arkhipov – Casper

Moscow 1987



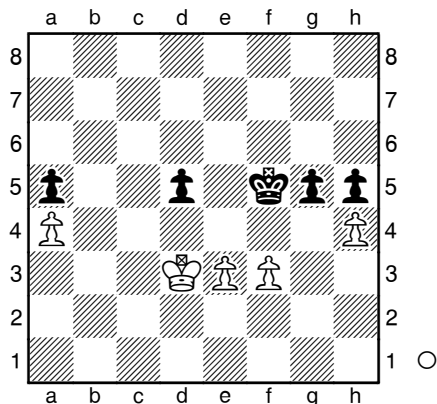
To win, White needs to enter the square of the h-pawn. This can be achieved by either 39 a6 e3 40 ♖d3! exf2 41 ♖e2! bxa6 42 bxa6! ♖c6 43 gxf4, or the immediate 39 ♖d2 with analogous play, as the black king can't stop both the passed a- and f-pawns. The move chosen by White instead leads to a drawn queen ending.

**39 gxf4? h4! 40 a6 bxa6! 41 bxa6! ♖c6! 42 f5 h3 43 f6 h2 44 a7 ♖b7! 45 f7! h1 ♖ 46 f8 ♖ ♖xa7 47 ♖c5+ ♖b8 48 ♖c4 ♖f3 49 ♖e3 ♖xe3 50 fxe3! ♖c7 51 ♖c5 ♖d7 52 ♖d5**

No doubt disappointed with the course of the game, White decides to test Black's knowledge of basic ♖+♜ vs ♖ theory.

**52...♖e7! 53 ♖e5 ♖d7 54 ♖xe4 ♖e6! 55 ♖d4 ♖d6! 56 e4 ♖e6! 57 e5 ♖e7 58 ♖d5 ♖d7! 59 e6+ ♖e7 60 ♖e5 ♖e8! 1/2-1/2**

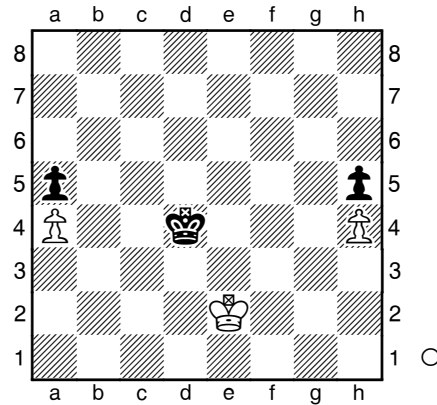
**122) Moskalenko – Borges Mateos**  
Holguin 1989



**46 hxg5?**

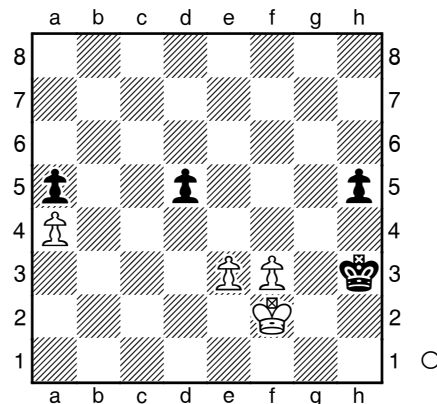
Where exactly White miscalculated, I do not presume to judge, but this is a losing move. He

should play 46 ♖e2 g4 (after 46...gxh4 47 ♖f2 ♖e5 48 ♖g2 d4 49 exd4+! ♖xd4 50 ♖h3 ♖e3 51 ♖xh4 ♖xf3 52 ♖xh5 the king makes it back to c1 in plenty of time) 47 ♖f2! gxf3 48 ♖xf3! ♖e5 49 ♖f2 ♖e4 50 ♖e2! d4 51 exd4! ♖xd4! (D), leading to a classic endgame situation.



The main thing for White is not to run after either enemy pawn, since in a race to promote with all rook's pawns, the queen that appears first will always control the enemy's promotion square. A draw is instead achieved by waiting for the enemy king to make its move and then bricking it in ahead of its own pawn: 52 ♖f3 (any other legal king move is also sufficient to hold the draw!) 52...♖c4 53 ♖e4 ♖b4 54 ♖d4 ♖xa4 55 ♖c4 ♖a3 56 ♖c3! a4 57 ♖c2! ♖b4 (or 57...♖a2 58 ♖c3!) 58 ♖b2! ♖c4 59 ♖a3! ♖d4 60 ♖xa4!, and here the white king will get to f1 in the nick of time.

**46...♖xg5! 47 ♖e2 ♖h4! 48 ♖f2 ♖h3! (D)**



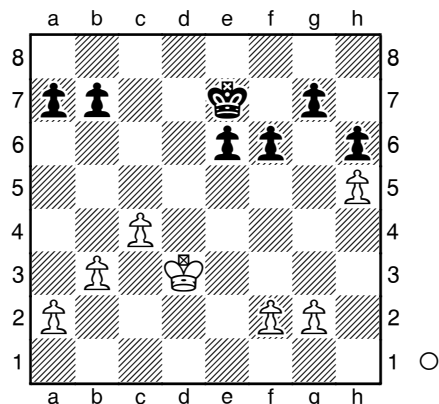
This is mutual zugzwang. If Black's h-pawn were a square further forward, the white king would have less ground to cover.



The king is just in time: 59...♔c6 60 ♖xg4! ♕d5 61 ♖f5 or 59...g3 60 hxg3! hxg3 61 ♖xg3 ♕c6 62 ♖f4.

### 214) Kholmov – P.H. Nielsen

Azov 1993



#### 31 f4?

A bad move. 31 c5 is correct.

Let's try to work out a possible winning plan for White:

1) First, advance the pawns to b5 and c5, limiting Black's counterplay and the field of activity of the black king.

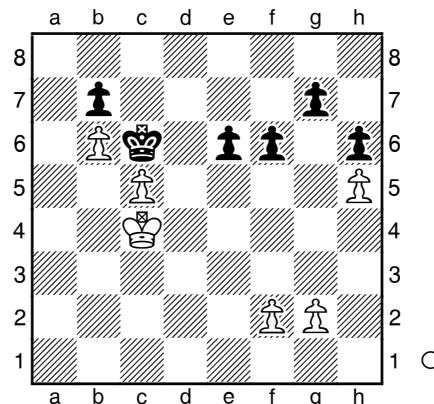
2) Put pawns on f4 and g4, the king on f3 and play g5. Black cannot take twice on g5, so after ♖g4 the e- and g-pawns just have to stay where they are.

3) Play g6.

4) Play f5, forcing ...e5.

5) The white king enters the black position via d5, if necessary sacrificing the passed c-pawn, and continues on to the g7-pawn. Black will be the first to queen, but cannot prevent the promotion of the white g-pawn, and the queen endgame will then be won for White, as his king and queen will capture more black pawns and support the other far-advanced white pawns.

Convinced? In fact, this plan doesn't win, as we shall see below, but it is an interesting 'thought experiment', and the reasons it fails are instructive (the still-too-early f4 advance being a major culprit). However, the position after 31 c5 is winning, as long as White plays a little differently; e.g., 31...♕d7 32 b4 ♖c7 33 ♖c4 ♕d7 34 a4 ♖c7 35 b5 ♕d7 36 a5 ♖c7 37 b6+ axb6 38 axb6+ ♖c6 (D).



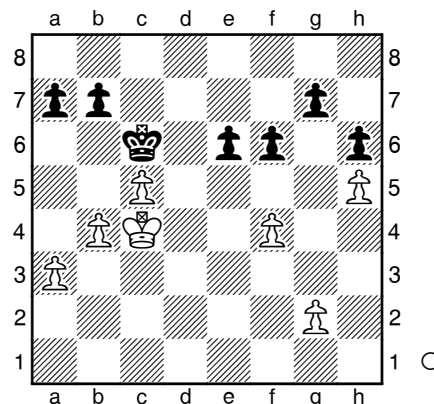
Now White wins with 39 g4 (39 f4? is still bad due to 39...e5!) 39...♕d7 (39...f5 40 gxf5! exf5 41 f4) 40 ♖b5 e5 41 c6+, etc.

After the move chosen in the game, Black can defend successfully. The clearest way is by placing his pawn on b6 and exploiting the exposed pawn on f4, which allows Black to create a passed pawn by ...e5 in many variations.

31...♕d6 32 ♖d4 ♖c6?!

This would have been a good moment to play 32...b6!?

33 c5 ♖b5 34 a3 ♖c6 35 ♖c4 ♖c7 36 b4 ♖c6 (D)



#### 37 b5+

37 a4!? is perhaps a better try, but the move f4 still ruins White's chances here: 37...♖c7 38 ♖b5 ♖b8! 39 c6 b6! 40 ♖a6 e5!.

37...♖c7 38 a4 ♕d7 39 g4 ♖c7 1/2-1/2

It seems White has carried out the first parts of the plan outlined above and nothing will prevent him from proceeding with the rest of it. It is not clear why White agreed a draw at this point: did he realize it wouldn't succeed, or had

this not been his plan? In any case, this position is objectively drawn, but the play is far from simple. One basic problem is that by playing 31 f4? White has allowed counterplay with ...e5 at many critical moments in the ensuing endgames.

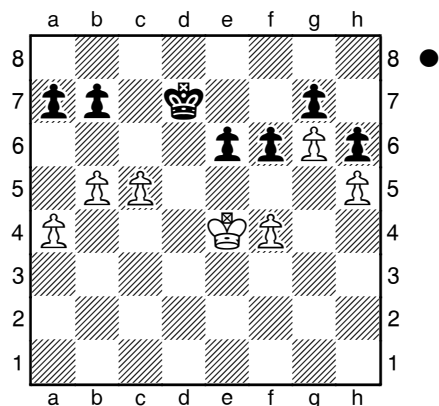
**40 ♖d4**

Or 40 a5 a6 41 b6+ ♖c6 42 ♖d4! ♖d7!.

**40...♖d7 41 ♖e3 ♖c7 42 ♖f3 ♖d7 43 g5**

This is the plan as described.

**43...♖c7 44 g6 ♖d7 45 ♖e4 (D)**



**45...a6! 46 f5 axb5!?**

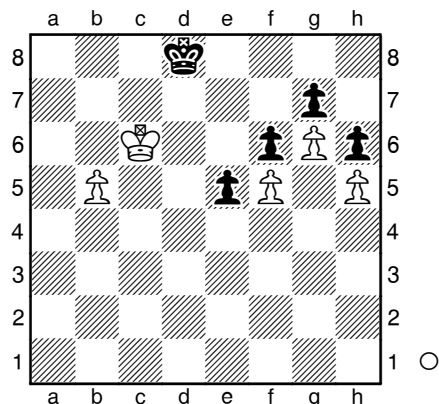
Making it hard for White to implement the rest of the plan; after 46...exf5+ 47 ♖xf5 axb5! 48 axb5! ♖e7! 49 c6 bxc6 50 bxc6 ♖d6! 51 c7! ♖xc7 52 ♖e6! White breaks through to g7, but after 52...f5 53 ♖f7 f4 54 ♖xg7 f3 55 ♖xh6 f2 56 g7 f1♖ it is still a tablebase draw in a queen ending.

**47 axb5 e5!? 48 ♖d5 ♖e7! 49 c6 bxc6+!**

**50 ♖xc6**

50 bxc6 e4!.

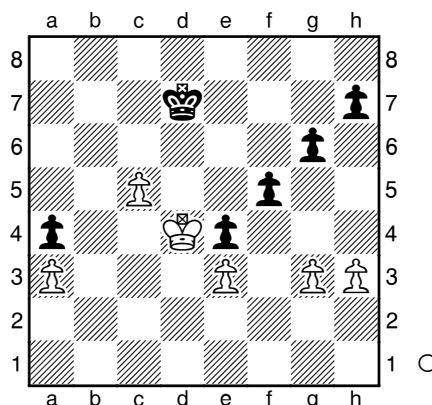
**50...♖d8! (D)**



All lines end in tablebase draws; e.g., 51 ♖b7 e4 52 b6 e3 53 ♖a8 e2 54 b7! e1♖ 55 b8♖+! ♖d7 56 ♖b7+ ♖d8 57 ♖xg7 ♖a5+ or 51 b6 ♖c8! 52 b7+ ♖b8! 53 ♖d5 ♖xb7! 54 ♖e6 e4! 55 ♖f7 e3! 56 ♖xg7 e2! 57 ♖xh6 e1♖!.

## 215) Tomashevsky – Mamedyarov

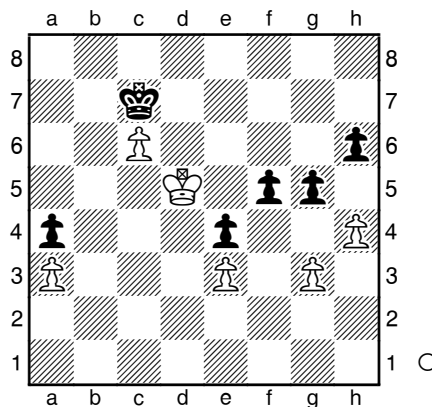
European Team Ch, Novi Sad 2009



Let's first make an observation. Assuming only the a- and h-pawns remain on the board, and White is able to take on a4, then if the pawns are on h4 and h5, it is a draw, while White wins if they are on h5 and h6. You can work this out laboriously by analysing move-by-move, or by using Bähr's Rule, which we referred to in Example 146.

**34 ♖c4?**

Both this move and 34 h4? fail to win. The path to victory is 34 ♖d5! ♖c7 (34...g5 35 g4) 35 h4 ♖d7 36 c6+ ♖c7 37 ♖c5! h6 38 ♖d5! g5 (D).



39 h5! f4 40 gxf4! gxf4 41 ♖xe4! fxe3 42 ♖xe3! ♖xc6 43 ♖d4! and White wins.