

# THE MODERN ENDGAME MANUAL

Csaba Balogh  
Adrian Mikhalchishin

Mastering  
minor piece endgames

2



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**Swipe left for next chapter**

Csaba Balogh  
Adrian Mikhalchishin

## Mastering minor piece endgames

### Part 2



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# KEY TO SYMBOLS

= Equality or equal chances

± White has a slight advantage

∓ Black has a slight advantage

± White is better

∓ Black is better

+ - White has a decisive advantage

- + Black has a decisive advantage

∞ unclear

∞ with compensation

↔ with counterplay

↑ with initiative

→ with an attack

Δ with the idea

□ only move

N novelty

! a good move

!! an excellent move

? a weak move

?? a blunder

! ? an interesting move

? ! a dubious move

+ check

# mate

# INTRODUCTION

The second book of the series “The Modern Endgame Manual” is all about bishop endgames. We decided to share the “Minor pieces” endings between 2 books, “Bishop endgames” and “Bishop vs knight, and knight endgames”.

Bishop endgames can basically be divided into 3 main chapters:

- Bishop vs bishop of the same color
- Bishop vs bishop of opposite colors
- Bishop vs pawns.

Bishop endgames are usually extremely tricky, with perhaps not so many theoretical positions to learn, but a lot of positions where the result is pretty unclear until the very end in a practical game. This is especially true of opposite-colored bishop endgames, where small nuances can decide the outcome of the game.

The bishop is a great fighter when it comes to stopping an opponent’s pawns and is an extremely useful piece at long distance, for example when the pawns are running on both sides. On the other hand, when it comes to a short-range battle, we discover that sometimes a bishop is not much better than a lowly pawn.

Also, the bishop can cover only 32 squares, which makes him a piece that requires good-handling.

A great example of this are the positions where one side has a king+bishop+a- or h- pawn, but with a bishop operating on the opposite color to that of the promotion square, while the other side has just his king in the corner of the promotion square. This position is a theoretical draw, which is actually quite shocking! A full piece and a pawn up and just a draw?! A very special case indeed in the game of chess.

But never fear, the current book will lead you step-by-step - from the very simple to the hugely complex — and you will be introduced to the theoretical knowledge you need, and also how to apply it in bishop endgame praxis.

However, for most of the bishop endgames we should remember only one rule: The bishop is a long range piece and it is great in open positions, especially when the fight comes to a long diagonal, but on the other hand the bishop generally struggles when it finds itself in closed positions.

The material inside this book is very useful for players at every level, from the complete beginner up to GM standard! After a deep study of this book you will be able to call yourself quite an expert, something you will hopefully prove in your future games!

# EDITORIAL PREFACE

In this series of nine endgame books, FIDE Senior Trainer Adrian Mikhalchishin, FIDE Senior Trainer Efstratios Grivas and IGM Csaba Balogh combine their experience as trainers and as practical players to create something very special.

The authors aim for very understandable explanations of every endgame position in each book.

The specification:

- 1st book — Queen and pawn endgames.
- 2–3 — Minor piece endgames (bishop and knight endgames).
- 4–5 — These will feature the fight between different material constellations.
- 6–8 — These books are going to focus on the most common endgames, which are of course rook endings.
- 9th — This book will focus on exchanges and simplifications.

The main concept of each book is to provide theoretical knowledge which can be used in practical games. It means the focus of the books will be on positions which are the most likely to occur - and the practical playing of them.

That's why you will firstly meet the theoretical part, and secondly the practical examples of how games actually continued in a particular endgame.

Yes, you're right, you won't find too many very complicated studies, stunning manoeuvres or rarely-appearing positions — and there is a simple reason why not!

How often do we see positions, for example two knights vs pawn where one knight is blocking the pawn and the other one tries to get the king to the corner before releasing the second knight for the mate? Or constellations with crazy material on the board? This might happen in one game out of 100! You could spend hundreds of hours working on something that might bring you “only” a single point more out of 100 games!

Our approach is quite different: let's make more points in the other 99 games! And who knows, we might also be lucky in the remaining one, but actually, statistically, it would almost not matter.

“The Modern Endgame Manual” will make an expert out of you in most of the endgames which are going to appear in your long career as a chess player!

# CHAPTER 1

## KNIGHT VS PAWN

The knight is a short-ranged piece, but even short distances can take it quite some time. For instance, from e4 to e5, it requires 3 moves, or from e4 to c6, it takes 4 moves to arrive there. On the other hand, sometimes it is able to stop promoting pawns by coming from the most distant part of the board, often winning a tempo with a check along the way.

Knight endgames often have to be evaluated in the same way as pawn endgames, as passed pawns play perhaps the most important role here as well.

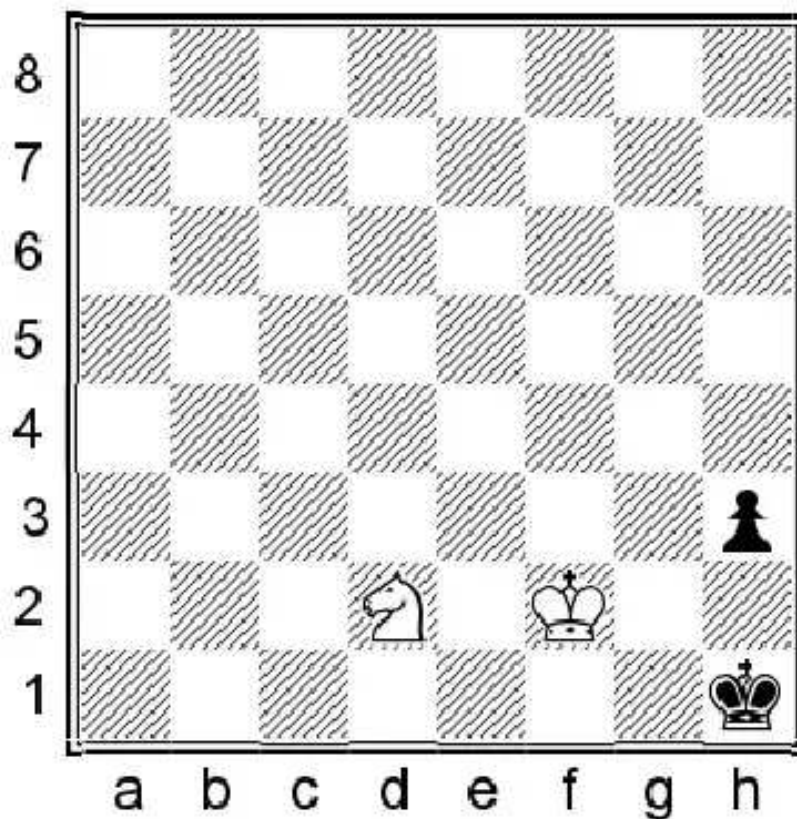
We must always take some time to consider the transpositions into pawn endgames and we should also pay attention to how we spend our tempi with the pawns, because zugzwangs are also common subjects and it is relevant to keep in mind that knights cannot lose a tempo. There is no triangulation with the knight, because the knight can only arrive to the same square in an even number of moves.

### 1.1. KNIGHT VS 1 PAWN

In this chapter we will examine how the knight can fight against a passed pawn. Probably the most frequently seen practical example is when the h-pawn has reached the 6th rank and the knight stands in front of it on h7. In this case the knight holds the pawn even without the help of the king.

1

**Theoretical position**



A single knight cannot create a mate by itself, however if the opponent has an h-pawn and his king is squeezed in front of it to the corner, the side with the knight might win. Here is the classic example.

1. ♖f1!

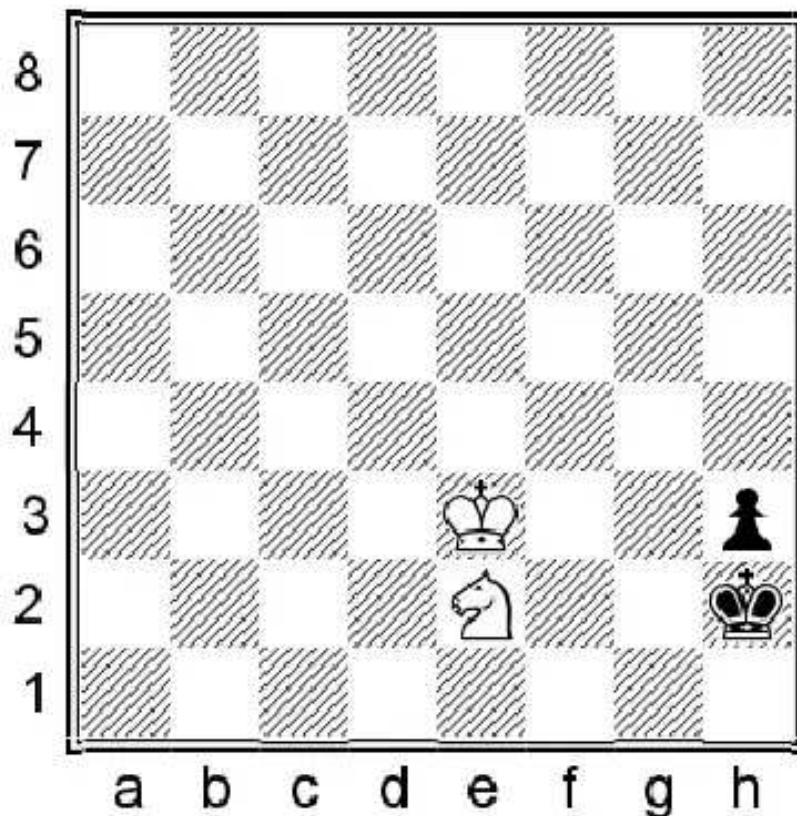
and Black is forced to self-mate himself with

1...h2 2.♘g3#

2

A. Troitzky

1906

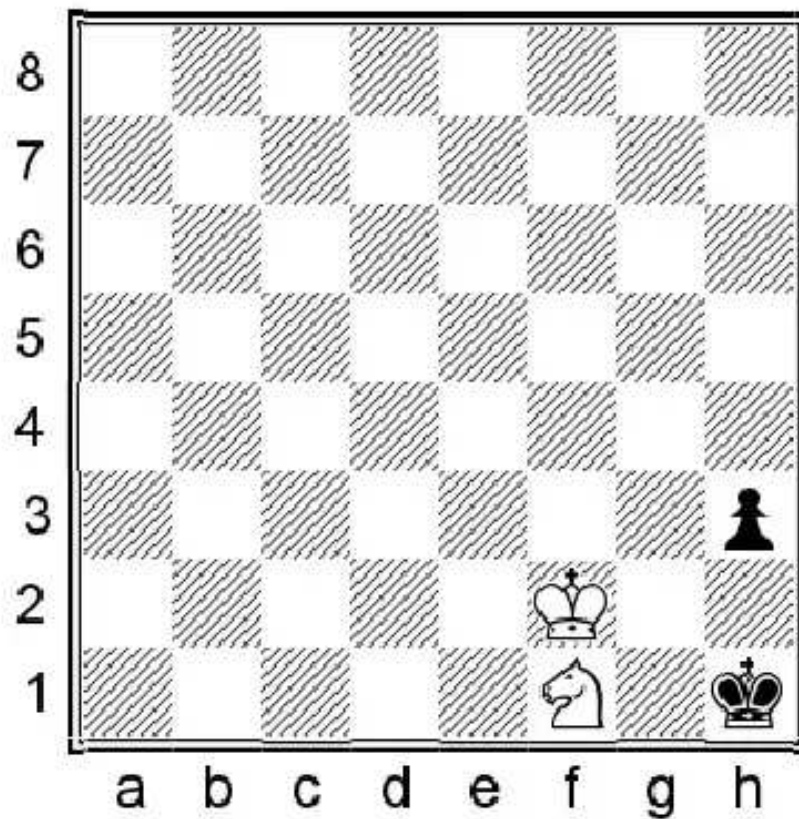


The following study of Troitzky is an excellent demonstration of how the knight cannot lose a tempo!

1.♔f3!

It is very important to move to f2 with the king at the proper moment, because with a knight we cannot later lose a tempo.

1.♔f2? only leads to draw because of 1...♔h1 As we have seen in the previous example, White must play ♘f1 at this point, but he cannot achieve it. 2.♘g3+ ♔h2 3.♘f1+ ♔h1=



White cannot checkmate as he cannot give the right to move to Black — in other words, he cannot lose a tempo.

**1.♔f3! ♕h1 2.♔f2 ♕h2**

The last step is to get the knight to f1! It cannot be reached in the most direct way with ♞g3 because of stalemate.

**3.♞c3**

Another route is 3.♞d4 ♕h1 4.♞f5 ♕h2 5.♞e3 ♕h1 6.♞f1+—

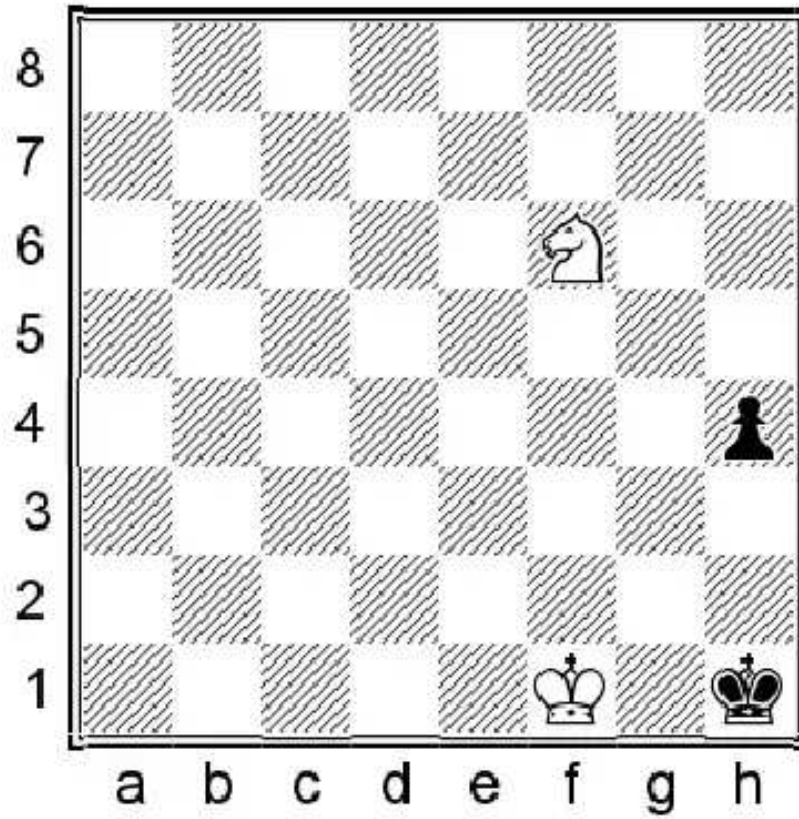
**3...♕h1 4.♞e4**

It is very important, when the king is on h1, that White finds a square for his knight from where it prevents the self-stalemate idea with h2 by threatening ♞g3 mate.

**4...♕h2 5.♞d2 ♕h1 6.♞f1! h2 7.♞g3#**

3

Theoretical position



A slightly more complex, but ultimately achievable, mate:

**1. ♖g4! h3 2. ♖f2+!**

Only by this subtle maneuver can White reach the ideal setup of the pieces.

**2... ♔h2 3. ♖e4 ♔h1 4. ♖f2!**

And the rest we already know.

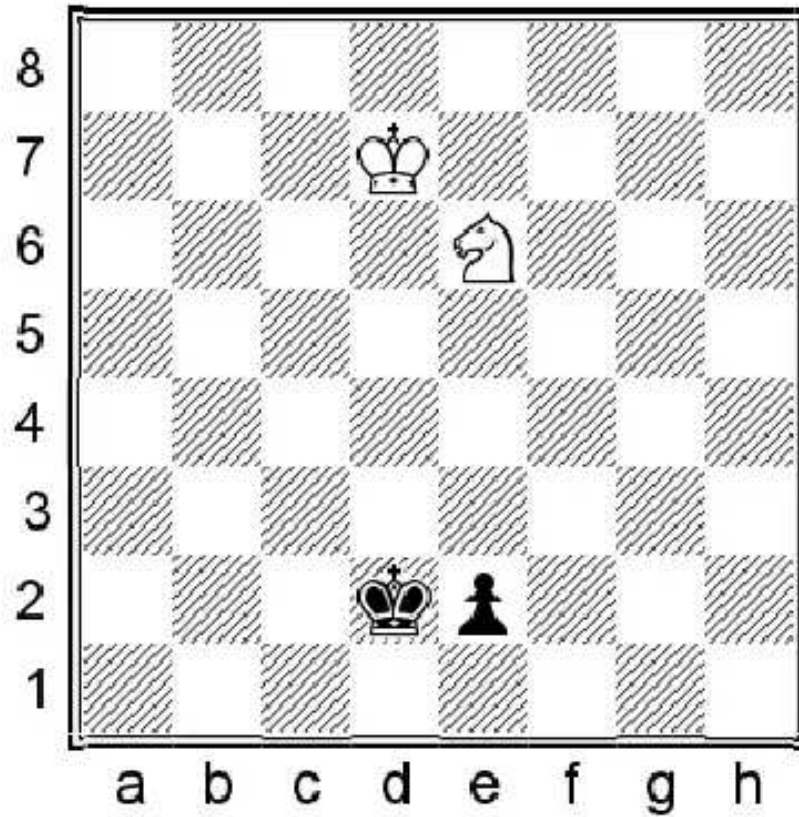
**4... ♔h2**

**4... h2 5. ♖g3#**

**5. ♖d2 ♔h1 6. ♖f1! h2 7. ♖g3#**

4

Theoretical position



In the rest of this chapter we are going to study how the knight can fight against a passed pawn. We should never forget that the knight is a very tricky piece, one which can always give some unexpected checks. The pawn cannot be stopped, but the draw can be held by

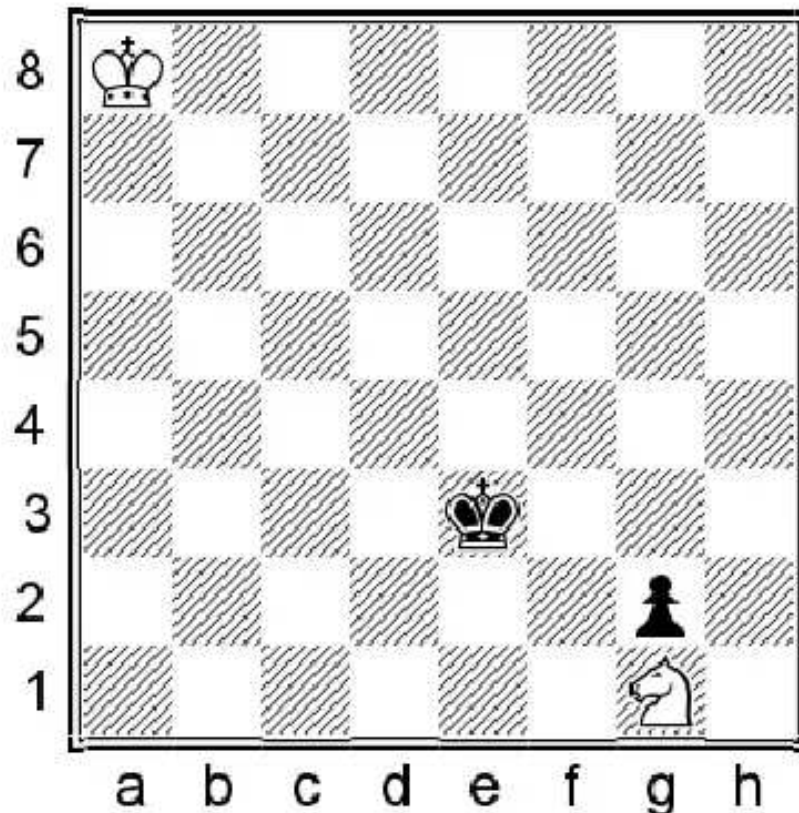
**1. ♖d4!**

But not 1. ♖g5? because of 1... ♔e3! taking control over the f3 square and the pawn promotes.

**1. ♖d4! e1=♚ 2. ♖f3+ ♔e2 3. ♖xe1=**

**5**

**Theoretical position**

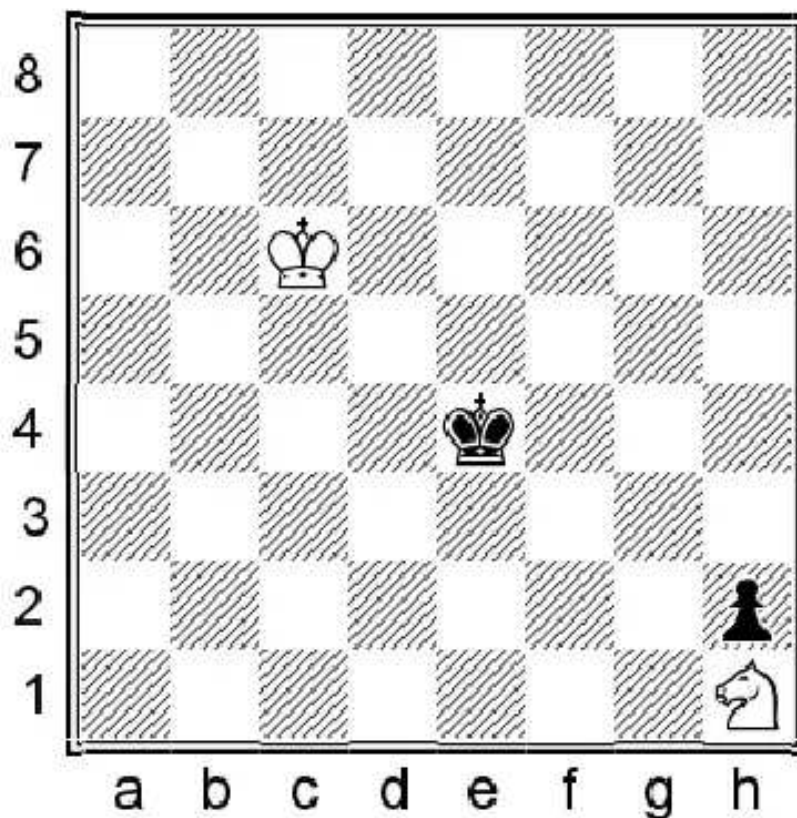


Against the e-f-g-pawns, the knight holds the draw even without the help of the king if it manages to get in front of it.

1...♔f2 2.♘h3+ ♔g3 3.♘g1 ♔h2 4.♘e2=

6

Theoretical position

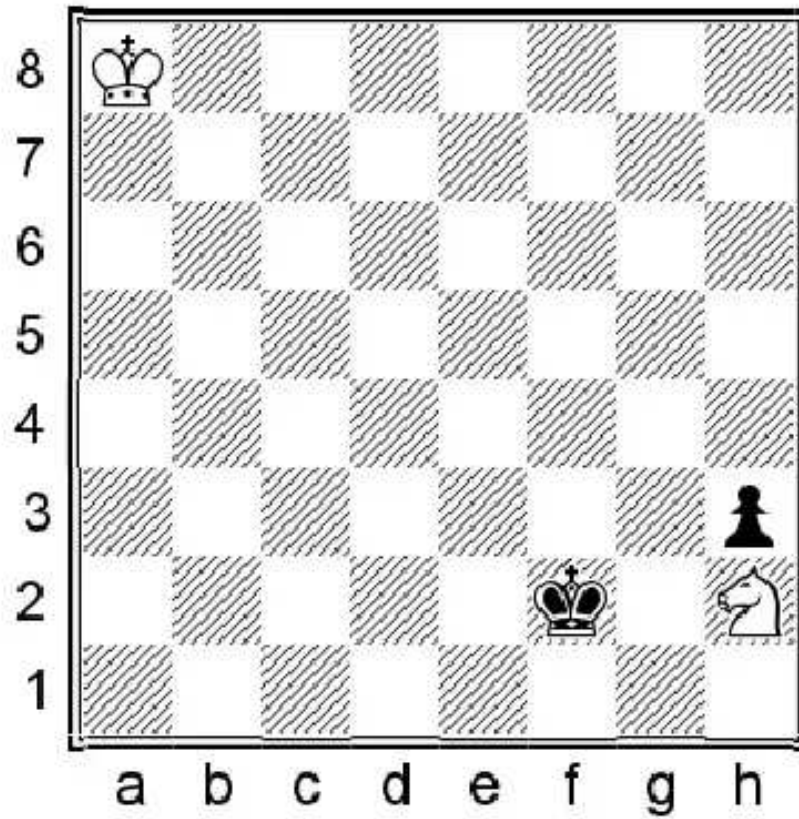


The story with the h-pawn is already different as the knight is trapped in the corner. If the pawn has reached the 2nd rank, the only way to hold the draw is if White can squeeze the king to the corner. In this example, White can achieve this by

1.♔c5! ♔f3 2.♔d4 ♔g2 3.♔e3 ♔xh1 4.♔f2=

7

Theoretical position



Probably the most important position from a practical point of view is the following one. If the pawn does not reach the 2nd rank, the knight holds the draw even without the help of the king.

**1. ♔a7 ♕g2 2. ♖g4 ♔g3 3. ♗e3 ♕f3**

3... ♔f2 4. ♗g4+=; 3...h2 4. ♗f1+=

**4. ♗f1 ♔f2**

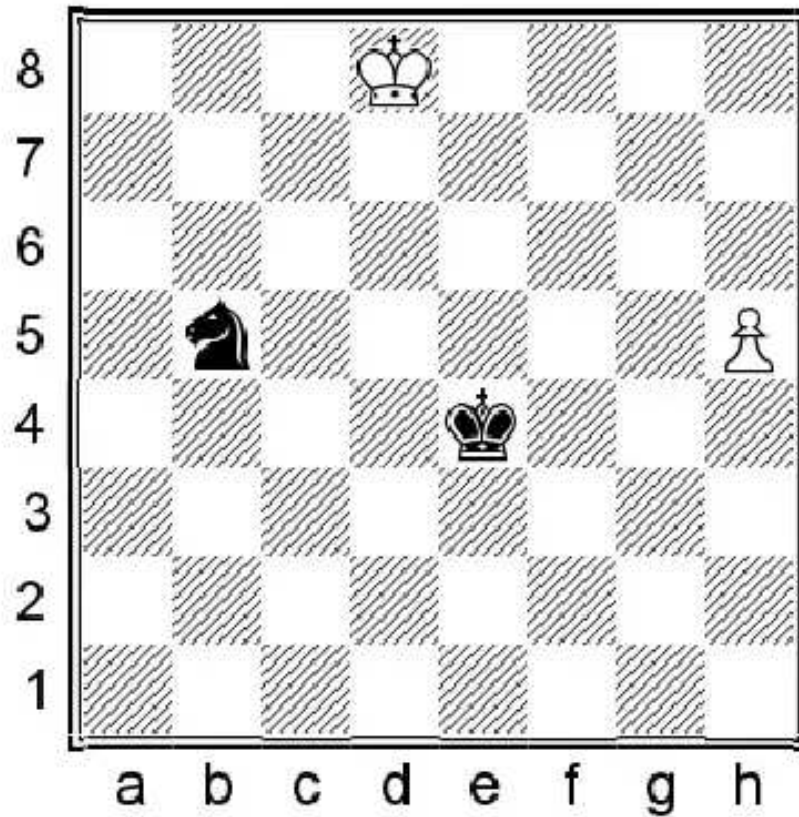
4... ♔g2 5. ♗e3+=

**5. ♗h2=**

The pawn cannot be promoted.

**8**

**Theoretical position**



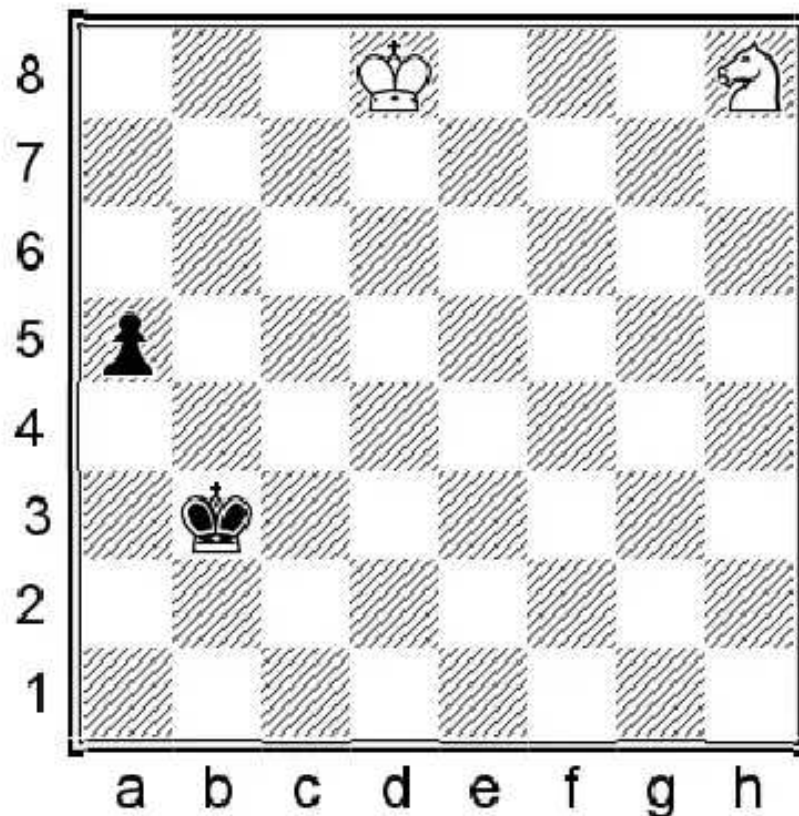
In the next couple of examples, the knight manages to stop a seemingly unstoppable pawn. If the black king were on f4, White would be winning. Let's see why...

**1.h6 ♞d6 2.h7 ♞f7+ 3.♔e7 ♞h8 4.♔f6!**

Thanks to the e4 king, Black is able to squeeze the other king to h8 after

**4...♔d5! 5.♔g7 ♔e6 6.♔xh8 ♔f7=**

**9  
Prokop**



In the following study by Prokop, the knight stands on the most distant part of the board from the pawn — but

surprisingly he still manages to catch it.

1. ♖g6! a4 2. ♗f4 a3

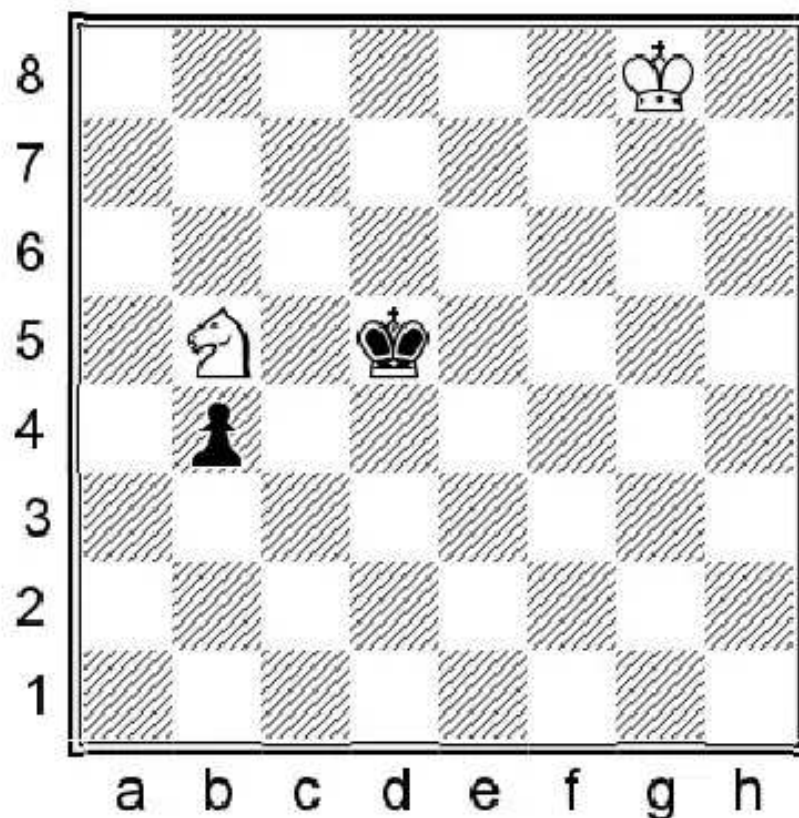
If Black tries 2... ♕c2 with the idea of controlling the d3 square, the knight takes another direction 3. ♘d5 a3 4. ♗b4+ ♕b3 (4... ♕c3 5. ♗a2=) 5. ♘d3=

3. ♘d3!=

The knight has arrived just in time and it holds the a-pawn from the d3-c1-a2-b4 squares.

10

Theoretical position



Black is threatening ♕c5, chasing the knight away from the a3 and c3 squares from where it could stop the pawn — and when it moves to c7, ...b3 is already unstoppable. However White can still hold the draw by a miraculous maneuver.

1. ♘c7+!

Other moves are losing, e.g. 1. ♕f7? ♕c5 2. ♘c7 b3—+

1. ♘c7+! ♕c4

1... ♕d4 makes no sense because Black is not threatening ...b3 because of the knight retreat to b5-a3. 2. ♕f7 b3 3. ♗b5+ =;

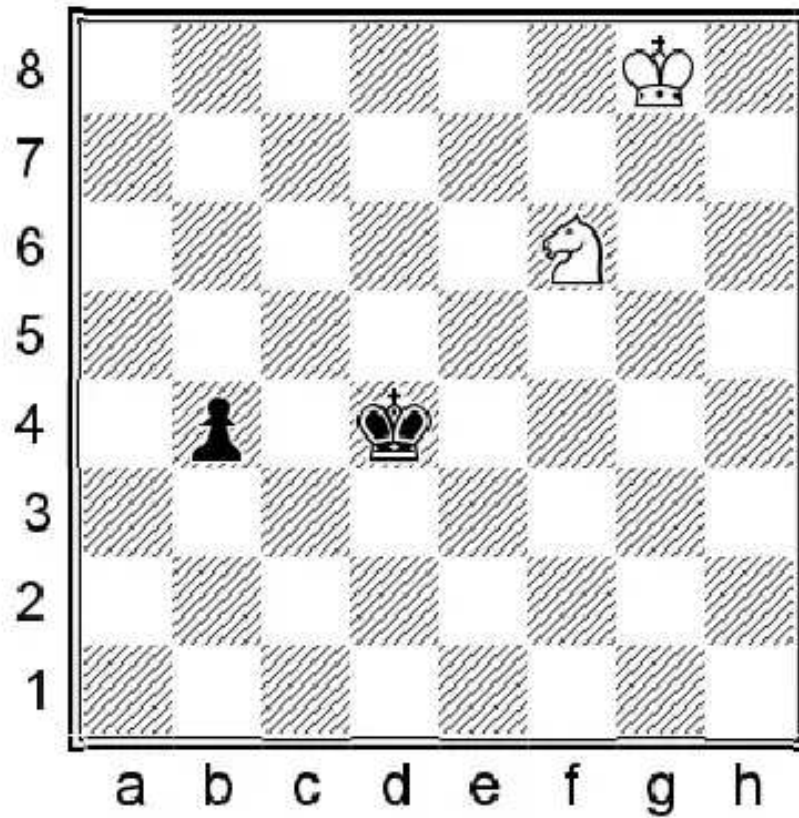
1... ♕d6 2. ♗e8+! ♕e5 (2... ♕e7 3. ♘c7 b3 4. ♘d5+ ♕d6 5. ♘c3 =; 2... ♕c6 3. ♗f6 b3 4. ♗e4 b2 5. ♘d2 = just in time.) 3. ♘c7 b3 4. ♗b5 b2 5. ♘c3 ♕d4 6. ♗b1 =

2. ♗e8!!

Brilliant manoeuvre. Seemingly the completely wrong direction, but this is the only way to stop the b-pawn.

2...b3

The alternative is 2...♔c5 taking the d6 square under control, but now the knight goes 3.♘f6! ♔d4



And now again 4.♘e8!! b3 5.♘d6= and the knight stops the pawn either from b5-a3 or from e4-d2.

**3.♘d6+ ♔b4**

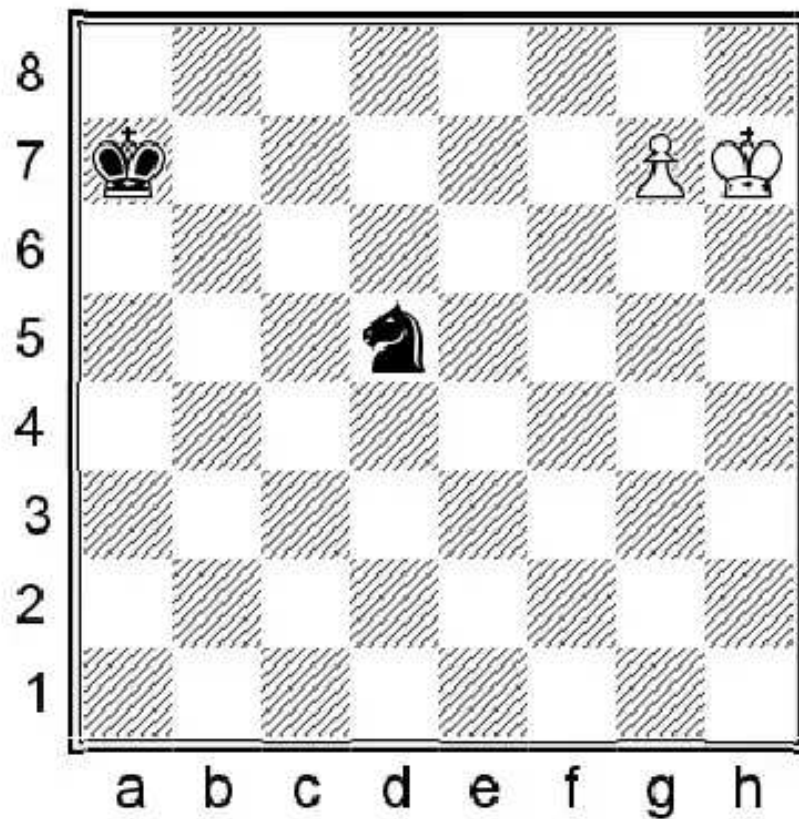
3...♔d3 4.♘b5 b2 5.♘a3=

**4.♘e4 b2 5.♘d2=**

Never underestimate a knight!

**11**

**Theoretical position**



In closing this chapter, here is my favorite motif in this type of position. The knight has just arrived to d5 and it looks like Black holds the draw. However White can promote his pawn by playing the fantastic

**1. ♔g8!!**

The most unnatural move — going in front of the pawn — is the only way to win!

1.g8=♚ ♖f6+=;

1.♔g6 allows 1...♗e7+! 2.♔f7 (2.♔f6 ♗g8+=) 2...♗f5! 3.g8=♚ ♗h6+=

**1. ♔g8!! ♗e7+**

Otherwise ♔f7 and the pawn promotes.

**2. ♔f8!**

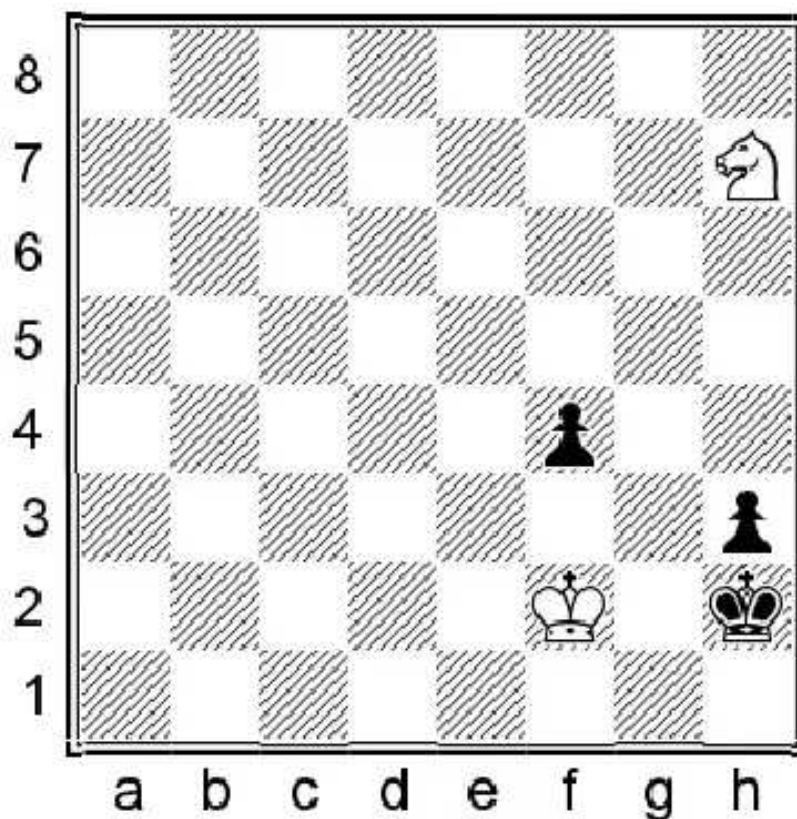
Avoiding the trap of 2.♔f7 ♗f5! 3.g8=♚ ♗h6+=. There are no more tricks left and a new queen will appear.

## 1.2. KNIGHT VS MULTIPLE PAWNS

There are no theoretical positions for this topic, but it is interesting to analyze some positions to become familiar with new ideas. From a practical point of view, the greatest importance attaches to the final two examples, which might easily arise in a game.

1

Practical position



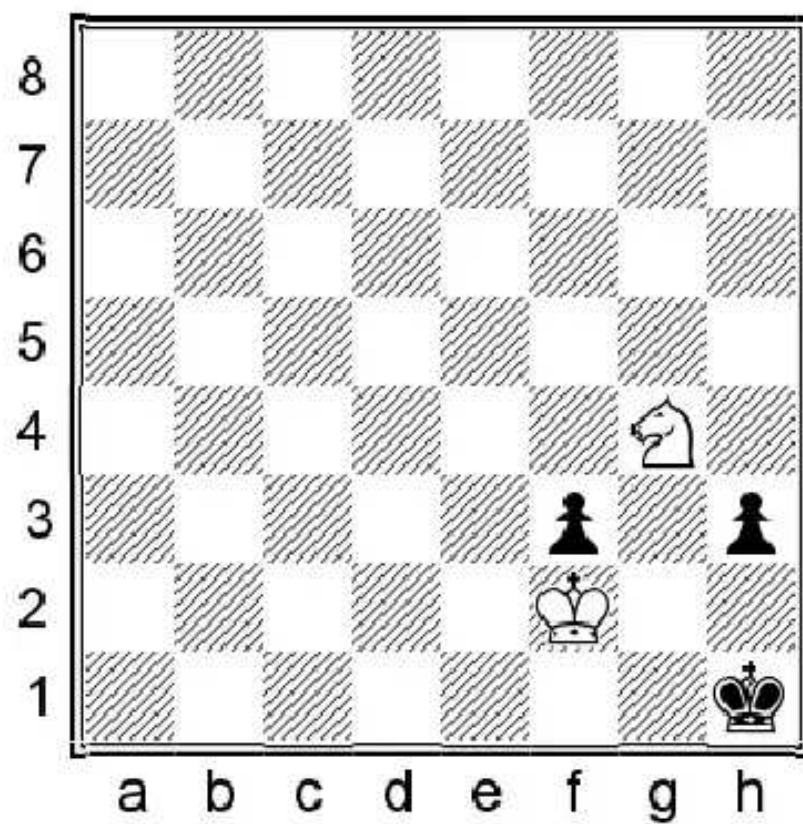
As we have already seen, a single knight can deliver checkmate if the opponent's king is squeezed to the corner in front of an h-pawn. Sometimes the appearance of another pawn on the board does not change matters.

1. ♖f6! ♔h1 2. ♘g4!

Forcing the pawns to move.

2...f3

2...h2 is faster, 3. ♔f1+- and ♘f2 next.



3.♔f1! f2 4.♘xf2+ ♔h2 5.♘e4!

The king must be kept in the cage.

5...♔h1 6.♔f2 ♔h2

6...h2 7.♘g3#

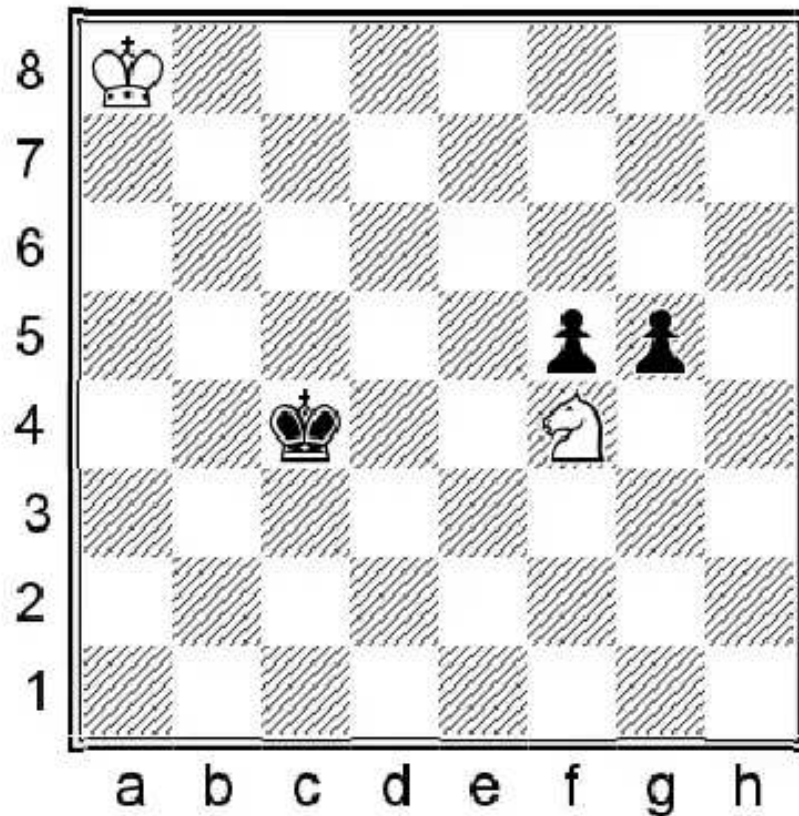
7.♘d2

The knight goes to f1.

7...♔h1 8.♘f1 h2 9.♘g3#

2

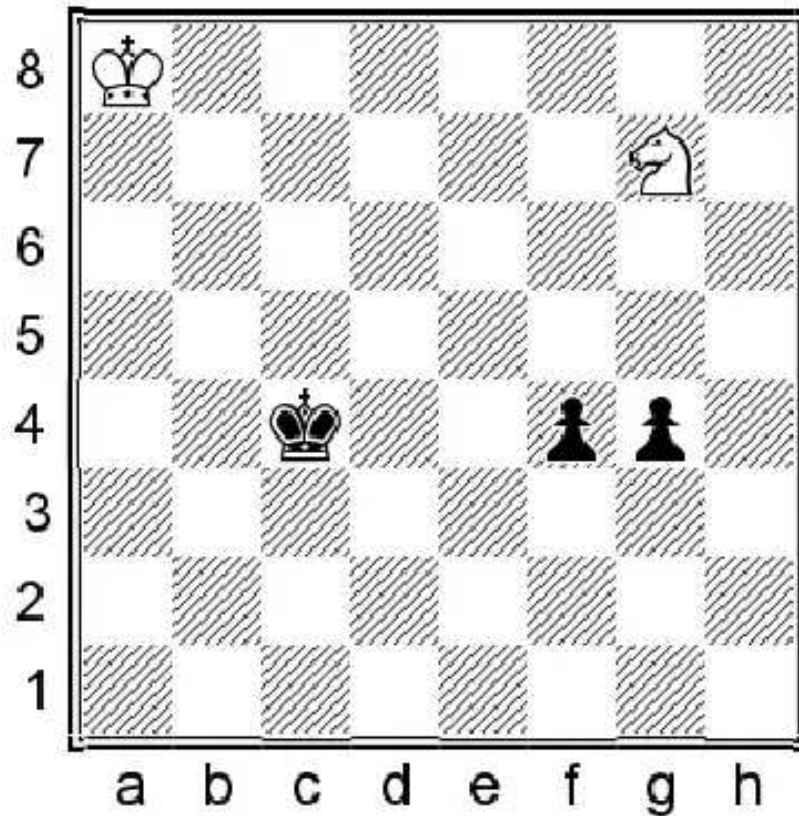
**Chekhover**



Normally such situations are quite hopeless. The knight should not be able to hold two connected pawns which are supported by the king without the help of his own king. However, in this beautiful study by Chekhover, White still manages as if by miracle.

**1. ♖e6! g4 2. ♘g7! f4**

**2...g3 3. ♘xf5 g2 4. ♖e3+=**



**3. ♘h5! f3 4. ♘f6! g3**

**4...f2 5. ♘xg4 f1=♚ 6. ♖e3+=**

5. ♖e4 g2

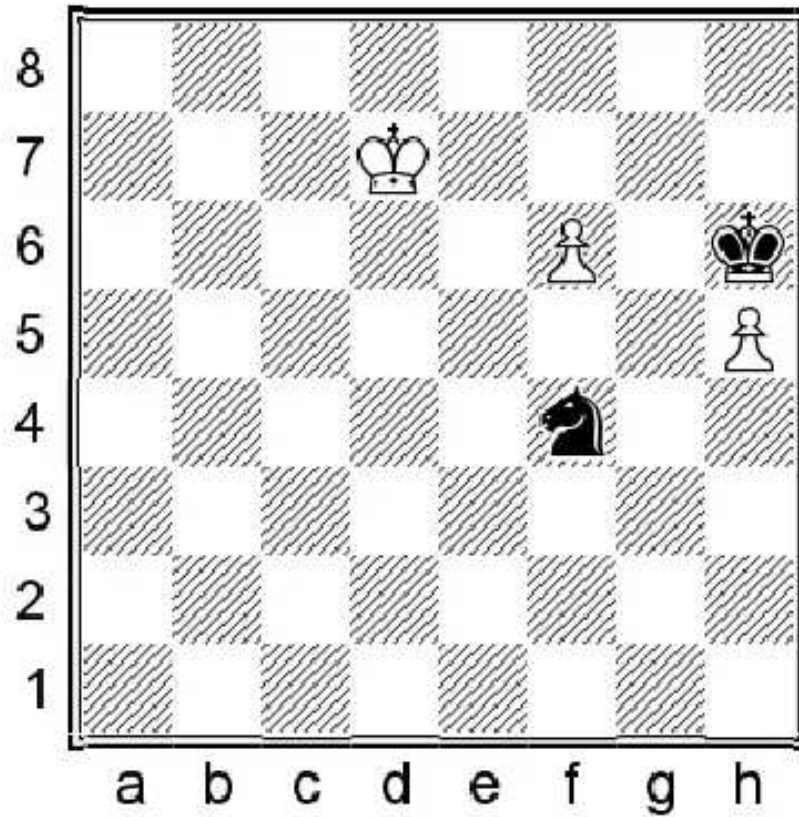
5... f2 6. ♖xg3=

6. ♖d2+ ♔d3 7. ♖xf3 ♕e3 8. ♖g1=

Just amazing! The c4 king was always standing in the 'motif'.

3

Practical position



The knight is a short range piece and therefore sometimes very unskillful. White promotes his pawns now without difficulties.

1. f7 ♕g7 2. ♕e8!

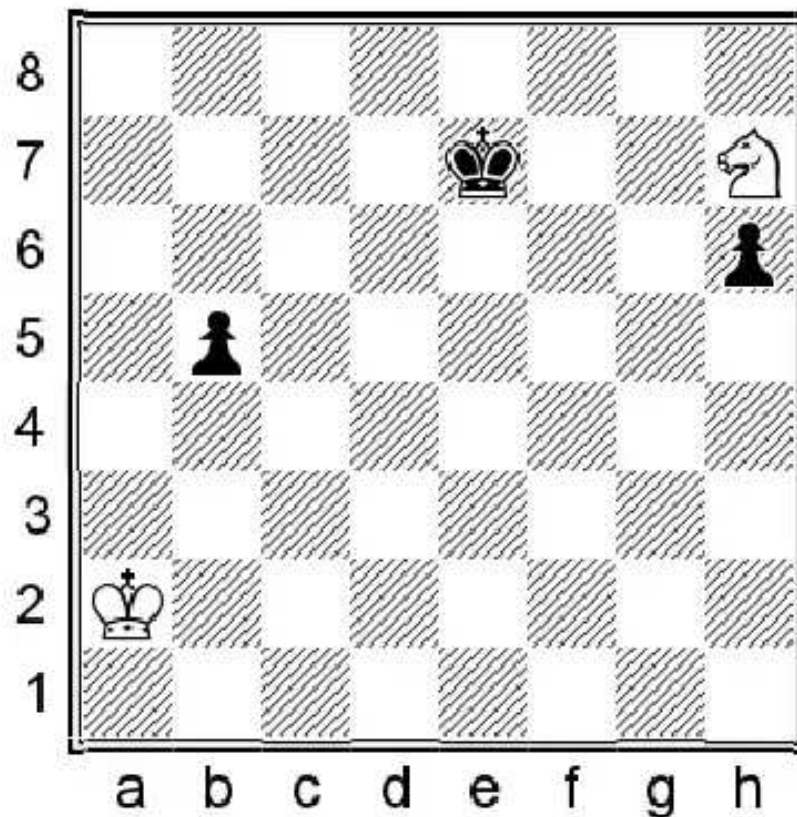
Not 2. ♕e7 because of 2... ♖d5+

2... ♖e6 3. ♕e7! ♖f8 4. h6+ ♕xh6 5. ♕xf8+-

4

Gurgenidze

1970



In this study of Gurgenzidze's, White survives 'miraculously' thanks to an amazing knight maneuver. Actually Black's plan is not to trap the knight with ...♔f7-g7, because then White is in time to eliminate the b5 pawn followed by rushing back to the corner. The main threat to deal with is the plan of ...♔e6-f5 followed by pushing the h-pawn, which can be only stopped by the knight. But how?!

**1.♔a3!!**

The only move. White must keep the b3 square free for the knight. On 1.♔b2? White is not in time to get back to the corner and Black can go for the knight. 1...♔f7! 2.♔c3 ♔g7 3.♔b4 ♔xh7 4.♔xb5 h5-+;

1.♔b3? loses to 1...♔e6! 2.♔f8+ (2.♔b4 ♔f5 3.♔xb5 h5-+) 2...♔f5 3.♔d7 h5 4.♔c5 h4-+

**1.♔a3!! ♔e6!**

The critical test for White. 1...♔f7 2.♔b4 ♔g7 3.♔xb5 ♔xh7 4.♔c4= with an easy draw.

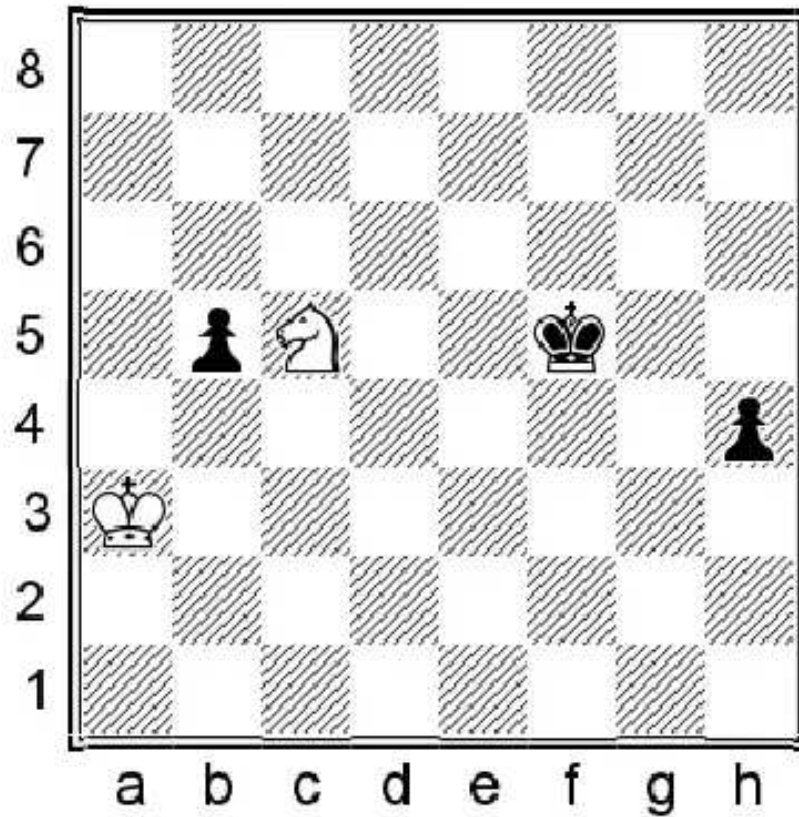
**2.♔f8+!**

2.♔b4? ♔f5 3.♔xb5 h5-+ The knight has no chance of catching the pawn.

**2...♔f5 3.♔d7**

Only this long trip around the board helps.

**3...h5 4.♔c5 h4**



**5.♞b3!!**

This is the point and the reason why the b3 square had to be left free at the very beginning. 5.♞d3? h3 6.♞f2 h2 7.♚b4 ♚f4+

**5...h3 6.♞d2 h2**

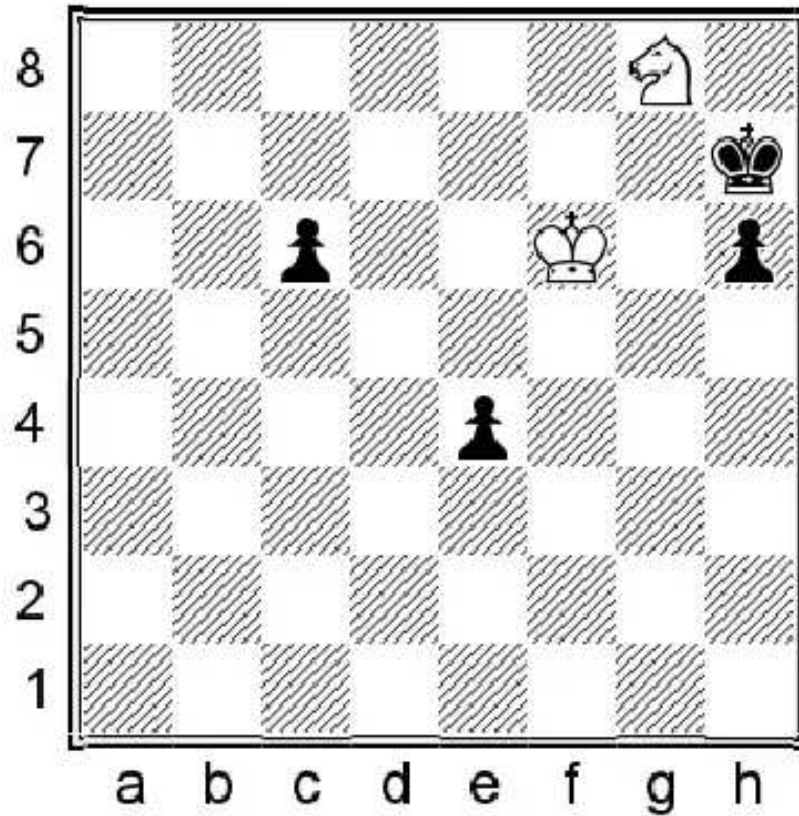
6...♚f4 7.♞f1= As we know, the knight holds the draw without the help of the king if it gets to h2.

**7.♞f1! h1=♚ 8.♞g3+=**

The glorious finish of the big circle!

**5**

**Practical position**



Three pawns are running and White has also problems with saving his knight. However, as we know by now, a knight can cause surprises.

**1. ♔f7! e3 2. ♖f6+ ♔h8 3. ♖h5!!**

3. ♖g4? fails to 3...e2 4. ♖e5 with the idea of giving perpetual check on g6-f8, but Black parries it by playing 4...h5 5. ♖f3 h4+ White cannot stop the running pawns.

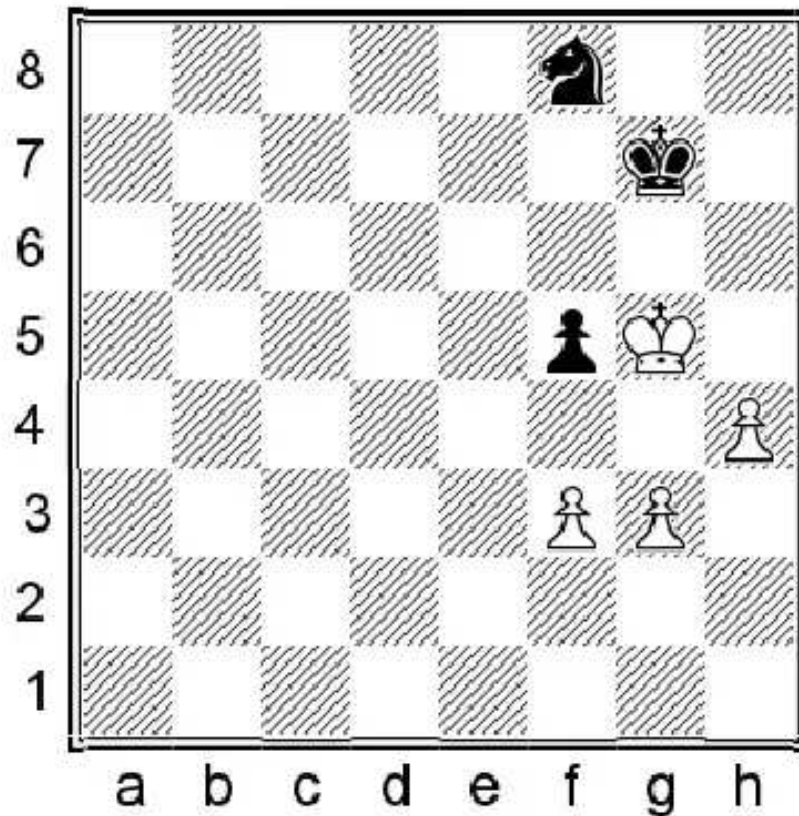
**3...e2**

3...c5 4. ♖f4 ♔h7 5. ♔f6 c4 6. ♔e5 c3 7. ♔e4 c2 8. ♖e2=

**4. ♖f4! e1=♚ 5. ♖g6+ ♔h7 6. ♖f8+=**

6

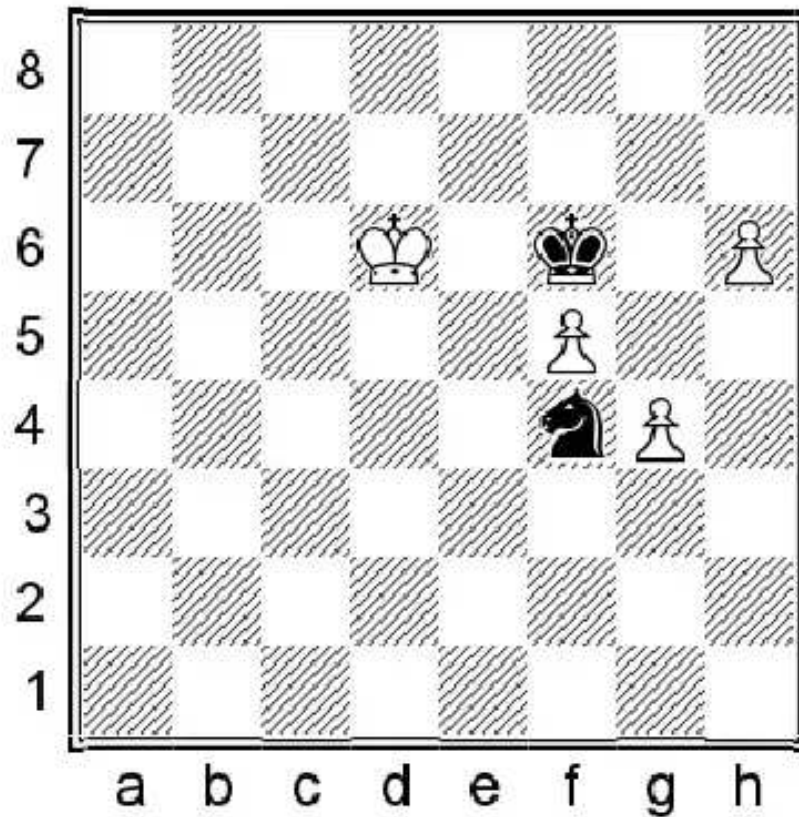
**Practical position**



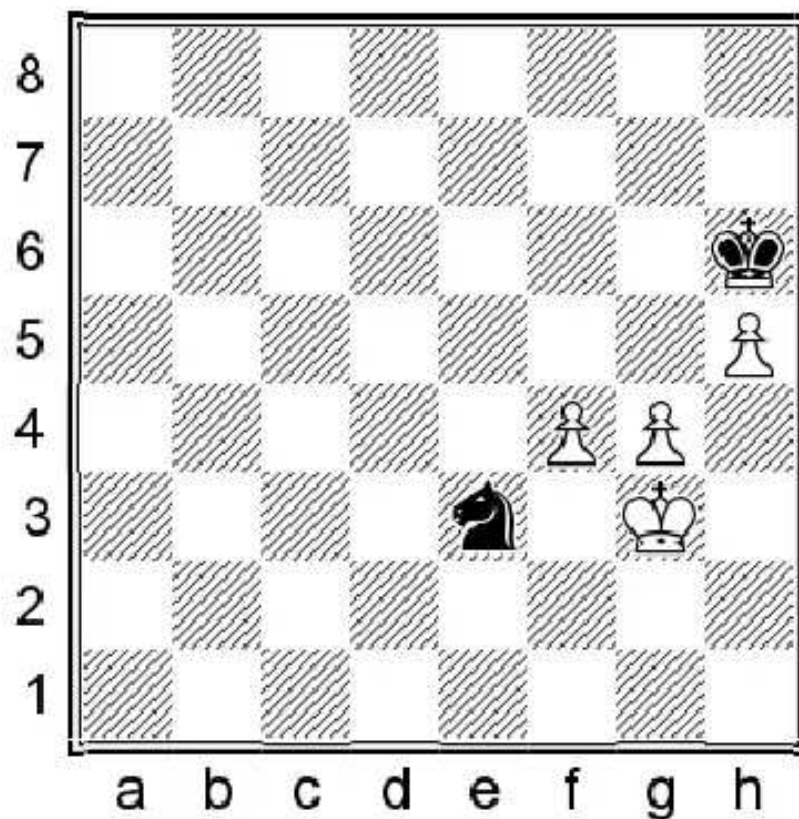
A very interesting practical endgame. After all the analyses, it becomes clear that Black can hold the draw by extremely precise defense. In a practical game, however, White's chances for the win are clearly higher than Black's are to hold. This is simply because it is too easy to go wrong — and one mistake is decisive.

### 1.f4!?

A very tricky attempt, in order to prevent the ...♔h6 move after 1.♕xf5. 1.♕xf5 ♔h6! The only way to draw! The Black king should try to get between the pawns. If it was his move, ...♔h5 would easily secure the half point. (First, let's examine why other moves are losing... 1...♖g6 2.f4 The waiting policy is not a good idea as White slowly advances his pawns. 2...♗f8 (2...♗e7+ 3.♕e6 ♖c6 4.f5 ♗d4+ As we will see, this idea of going around with the knight is correct, but now Black gave up too many tempi for White to advance his pawns... 5.♕e5 ♗f3+ 6.♕f4 ♗d4 7.g4+- followed by g5 and then h5.) 3.g4 ♗g6 4.h5 ♗h4+ (4...♗f8 5.g5 ♗d7 6.h6+ ♔h7 and here the easiest is to transfer the king to h5, and the pawns promote automatically. 7.♕g4+-) 5.♕e6 ♗g2 The right strategy is to create a hole between the pawns and then occupy it with the king. Unfortunately for Black, he is already too late to arrange the correct setup. (5...♔h6 6.f5+- Black cannot stop the f-pawn.) 6.f5 Black should play now ...♕g5, but it is illegal. That is why it is so important to play 2...♔h6! 6...♗f4+ 7.♕d6! ♕f7 has a very nice refutation. (7...♗h3 8.♕e7 ♗g5 9.f6+ ♕g8 10.h6+- and Black is in zugzwang! 7...♕f6 8.h6 ♗h3 is also late by just one tempo. 9.h7 ♕g7 10.f6+ ♕xh7 11.f7 ♕g7 12.♕e7+-) 8.h6 ♕f6



(8...♖h3 9.h7 ♔g7 10.f6+ ♕xh7 11.f7 ♔g7 12.♕e7+-) 9.♕d7! and the king goes around to support the h-pawn. 9...♘d3 (9...♕f7 10.g5+-) 10.♕e8! ♘e5 11.♕f8! The king arrived in time to control the g7 square. 11...♘xg4 12.h7+-) 2.g4 (2.♕f6 ♕h5 White cannot make progress.) 2...♘g6! Another only move! As was mentioned before, Black should try to create holes between the pawns and occupy them with the king! 3.h5 ♘h4+ 4.♕f4 ♘g2+ 5.♕g3 (5.♕e4 ♕g5= Black reaches the ideal blockading position.) 5...♘e3 6.f4



6...♘d5! This is a very important defensive method! Black must prevent the ♕h4, g5 plan... 7.♕f3 ♘f6! and using the fact that the pawn endgame is drawn, Black ties the king to his pawns. This motif also works well if we move all the pieces one rank further up. 8.g5+ ♕xh5 9.gxf6 ♔g6 10.♕e4 ♕xf6=

**1.f4!? ♘e6+!**

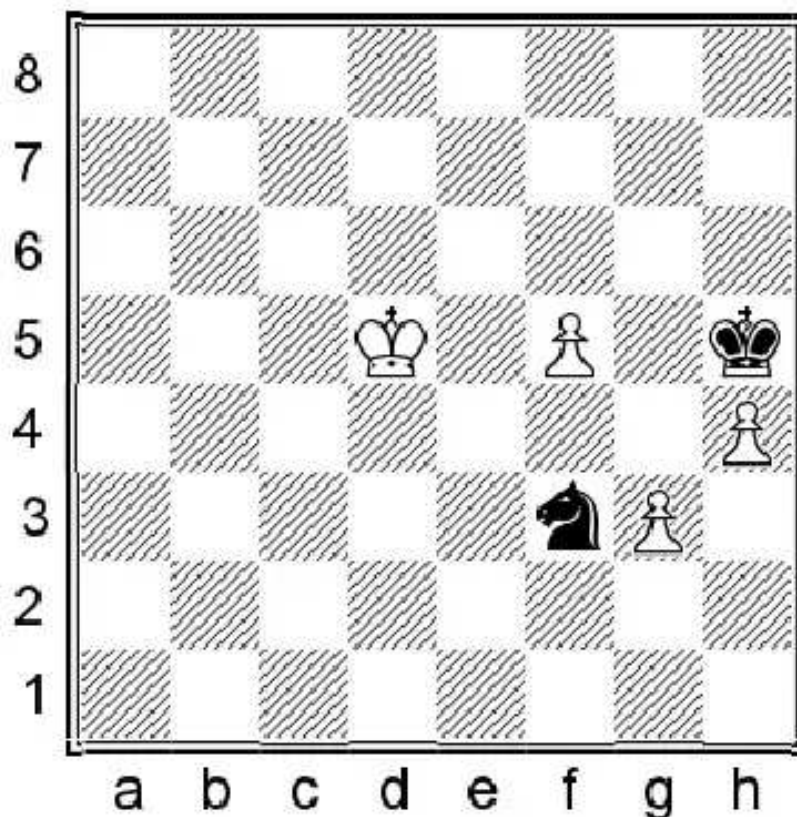
This and the following two moves are the only way to survive!

2. ♖xf5 ♜d4+!

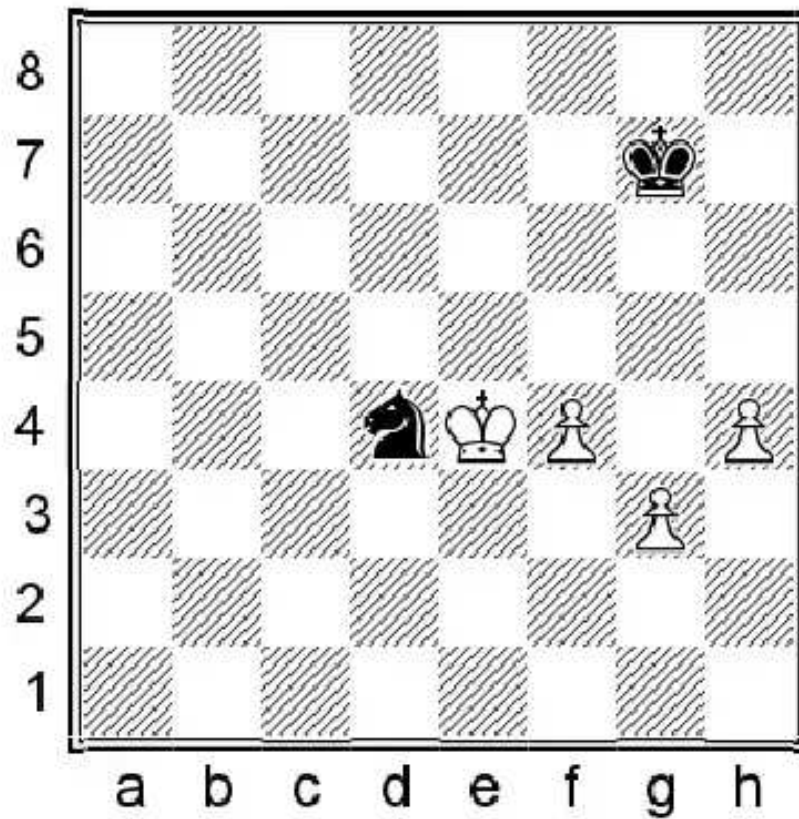
The knight must disturb White's plan of pushing his pawns.

3. ♖e4

3. ♖e5 ♜f3+! 4. ♖e4 ♜h2! This is a nice achievement for Black. This way he gets enough time to rush with the king to h5. 5. f5 ♖h6 (But not 5... ♖f6? because of 6. ♖f4 ♖h5= We already saw this.) 6. ♖f4 ♖h5 The draw seems to be close, but White can still create some problems... 7. ♖e5! ♜f3+ 8. ♖d5 The king must control the d4 square. (8. ♖e6 ♜d4+=)



8... ♖h6! and the White king has strayed too far from the h-pawn, so the Black king must also turn back to stop the f-pawn. I know that this is very difficult! 9. ♖e6 (9. ♖e4 ♜h2 10. ♖f4 ♖h5= We already saw this.) 9... ♖g7! (After the tempting 9... ♜d4+? White gets his winning position again. 10. ♖e5! ♜f3+ 11. ♖f4+- and g4 next.) 10. f6+ ♖f8 and White cannot improve his position. 11. h5 (11. ♖f5 ♖f7=) 11... ♜d4+ 12. ♖e5 ♜c6+ 13. ♖f5 ♖f7 14. g4 ♜d4+ 15. ♖e5 ♜c6+=



**3...♖b3!**

Probably the most difficult 'only' move in this whole endgame. Of course, it would be amazingly hard to play it over the board without computer assistance.

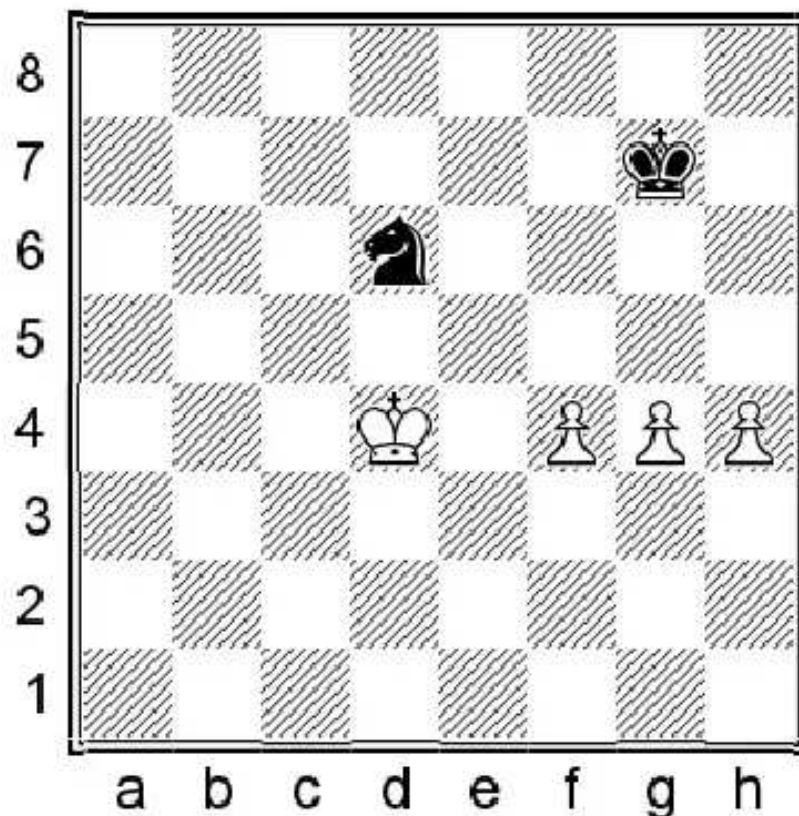
**4.g4 ♖d2+ 5.♔e3**

5.♔f5 would ease Black's defensive task. 5...♖f3 6.h5 ♔h6= with an easy draw. 7.♔f6 ♖h2

**5...♖c4+ 6.♔d3**

White should try to keep the knight away from bothering his h-pawn. 6.♔d4 ♖d2 7.h5 ♔h6= The same as before.

**6...♖d6 7.♔d4**



Everything seems to be going well for White. He is progressing with the pawns step-by-step without creating a hole, but Black has an amazing and difficult only move again... 7.h5 ♔h6=

**7...♔f6! 8.h5**

Trying to make use of the fact that Black has no ...♔h6. 8.♔d5 ♖b5 9.h5 ♖c3+ 10.♔d4 (10.♔d6 White cannot l the pawns alone... 10...♖e2=) 10...♖b5+ transposes to the main line.

**8...♖b5+**

‘transposes to the main line.’

**9.♔e3 ♖d6 10.♔f3 ♖c4**

All the Black moves have a goal. The knight now heads for the e3 square...

**11.h6**

11.♔g3 ♖e3 This is the ideal position for the knight. It attacks one of the pawns and prepares for ♖g2 check after ...♔h4.

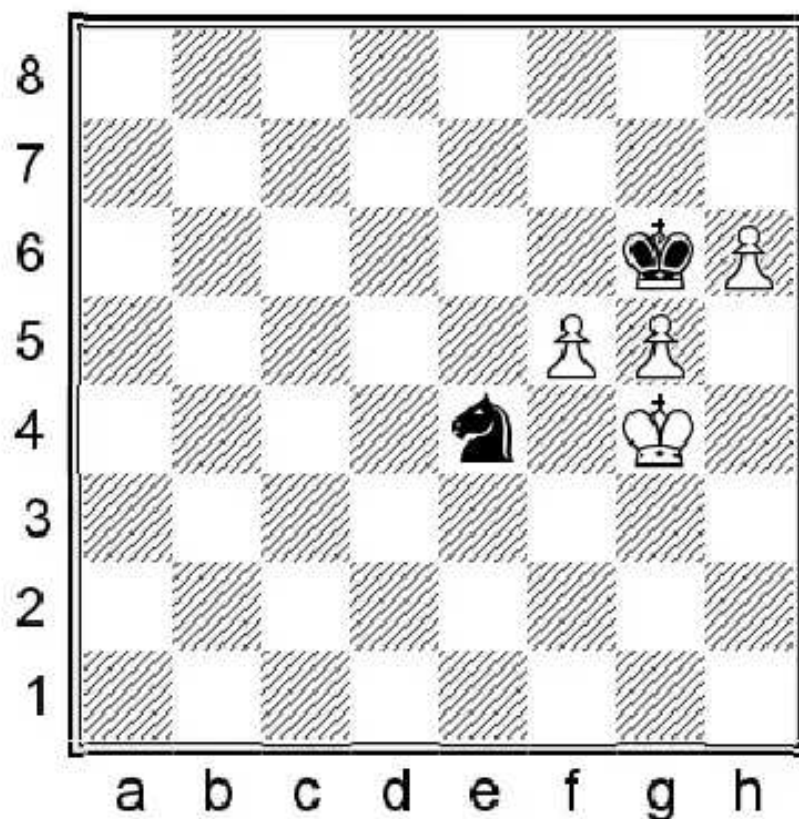
**11...♔g6 12.g5 ♖d6 13.♔g4**

and again, it seems to be over, but...

**13...♖e4!**

Of course not 13...♖f5? 14.h7+–

**14.f5+**



**14...♔h7**

and just like in the 11.♕g3 ♖e3 line, Black has managed to attain his ideal setup. The king is ahead of the h-pawn, while the knight attacks the g-pawn and prevents the ...♔h5 move by ♖g3.

**15.♔f4**

15.♔h5 ♖g3+=

**15...♖d6 16.♔e5**

The last attempt to make progress.

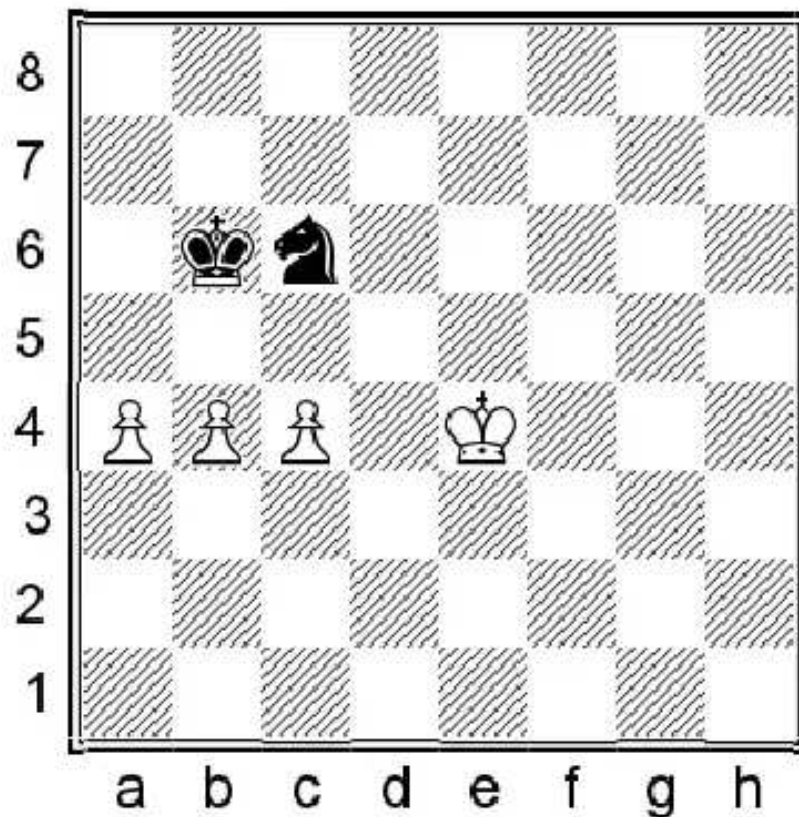
**16...♖f7+ 17.♔f6 ♖d6**

and White must settle for a draw.

**18.♔e6**

18.g6+ ♔xh6 19.g7 ♖e8+=

**18...♖e4 19.g6+ ♔xh6=**

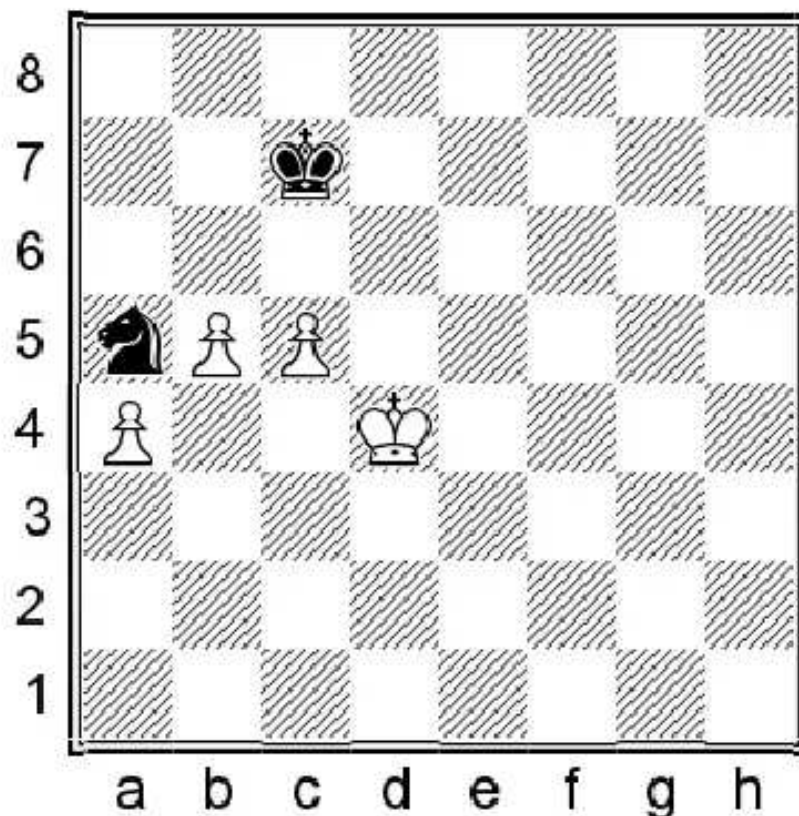


Similar to the previous example, but White achieves his ideal position.

**1.c5+ ♔c7 2.b5 ♘a5**

2...♘b4 3.a5 The pawns are just rolling. 3...♔b7 4.♔d4 ♔c7 5.♔c4 ♘c2 6.a6 ♘a3+ 7.♔b4 ♘c2+ 8.♔c3 ♘a3 9.b6+ ♔c6 10.a7+-

**3.♔d4**



The king walks to b4 to let the a-pawn run as well. Everything is more-or-less automatic from White's point of view.

**3...♔b7 4.♔c3 ♔c7 5.♔b4**

The king arrives to support the pawns. In comparison to the previous example, the knight stands passively at the edge of the board and he is unable to save the game.

**5...♖b7 6.a5 ♖d8 7.a6 ♖e6 8.b6+ ♖c6 9.a7 ♖b7 10.c6+ ♖a8 11.c7+–**

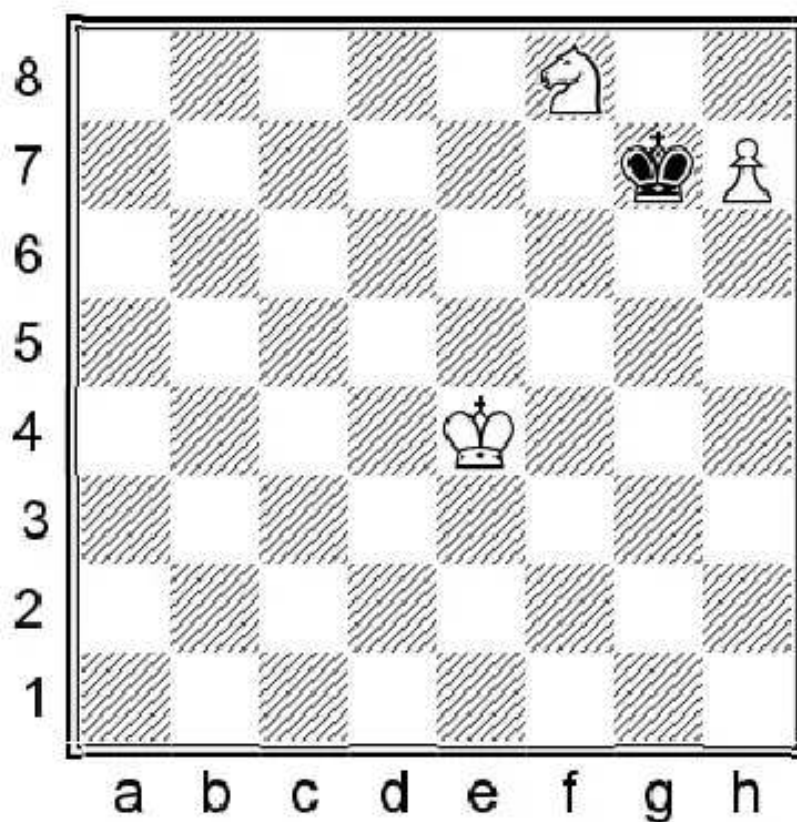
In conclusion: The practical chances to win with three connected pawns against the knight are very high.

### 1.3. KNIGHT + PAWN VS KING

In this chapter we will acquaint ourselves with some extremely important theoretical positions — positions with which everybody should be familiar.

1

Theoretical position

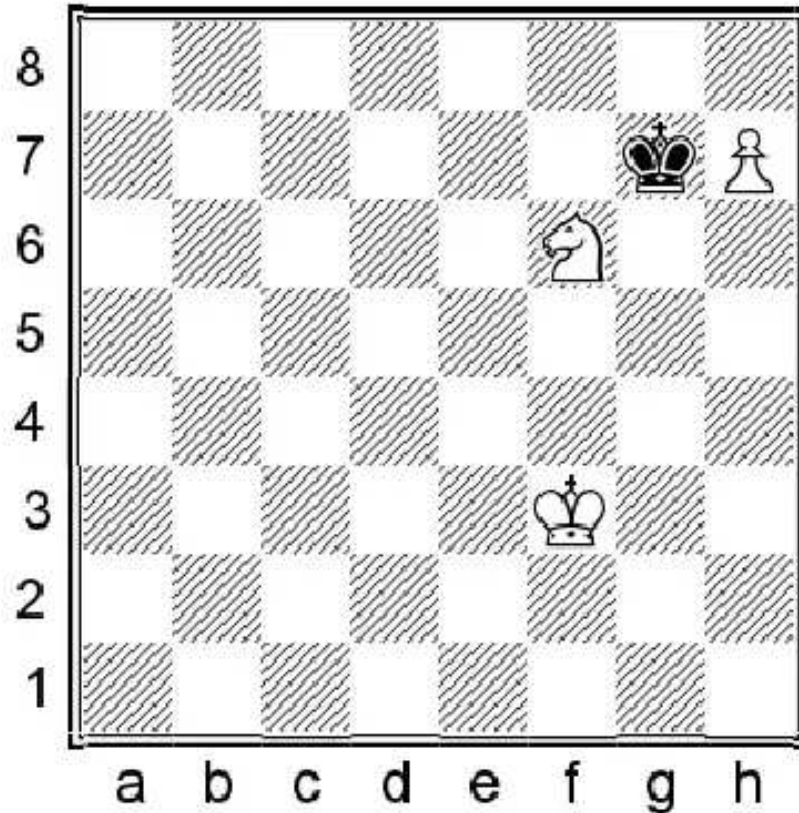


A very important theoretical position! Despite the huge material advantage, White cannot win the game. Black just plays ...♔h8-g7 and for White the only way to make progress would be to free his knight by protecting the h7 pawn, but if he does it by ♔g6 or ♔h6 in either way Black gets stalemated!

1...♔h8 2.♔f5 ♔g7 3.♔g5 ♔h8=

2

Theoretical position

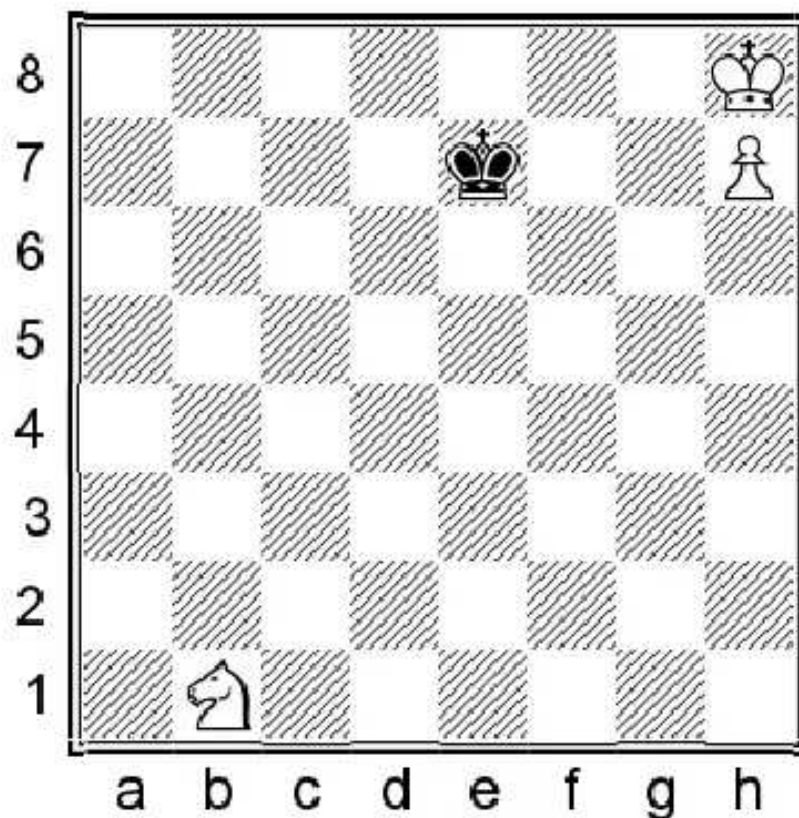


This situation is exactly the same with the f6 or g5 knight. Black again just plays ...♔h8-g7 and White cannot make progress because of the stalemate.

1...♔h8 2.♔g4 ♔g7 3.♔g5 ♔h8=

3

Theoretical position



Another very important theoretical position! Again, despite the big material advantage, White cannot win if his king gets squeezed to the corner. The reason is that the knight cannot lose a tempo! The only important thing from Black's point of view is to play ...♔f7 when the white knight arrives to e6 or ...♔f8 when the knight arrives to e5! Therefore the right move is

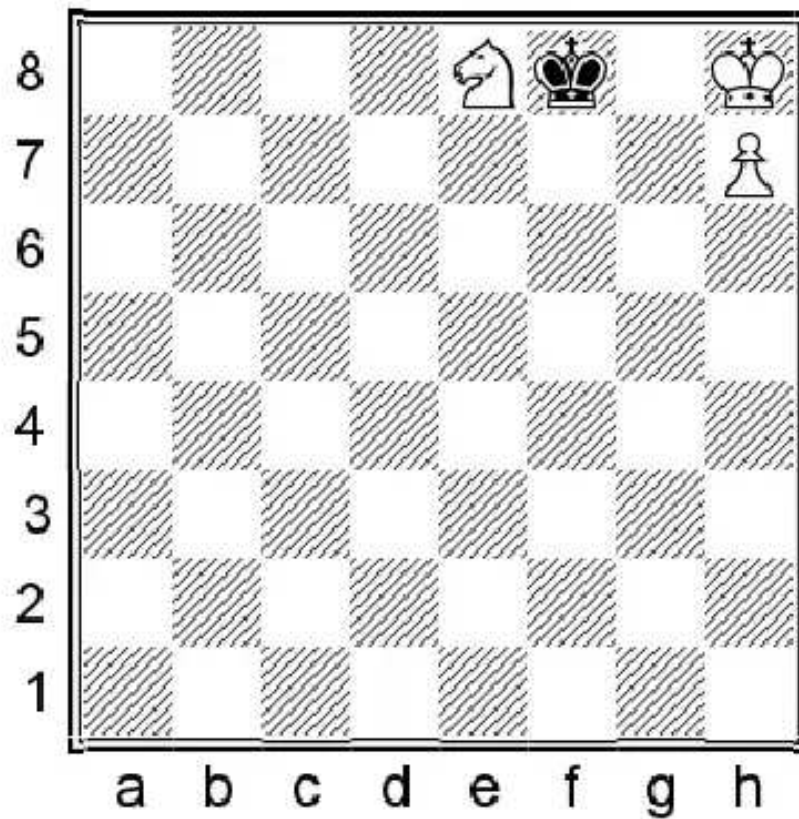
1...♔f7!

1...♔f8? loses because of 2.♖d2 ♔f7 3.♗f3 ♔f8 4.♗e5+– and the white king escapes from the corner.

1...♔f7! 2.♗d2 ♔f8 3.♗f3 ♔f7 4.♗g5+ ♔f8

and White cannot make progress. He cannot pass the move to Black

5.♗e6+ ♔f7 6.♗c7 ♔f8 7.♗e8

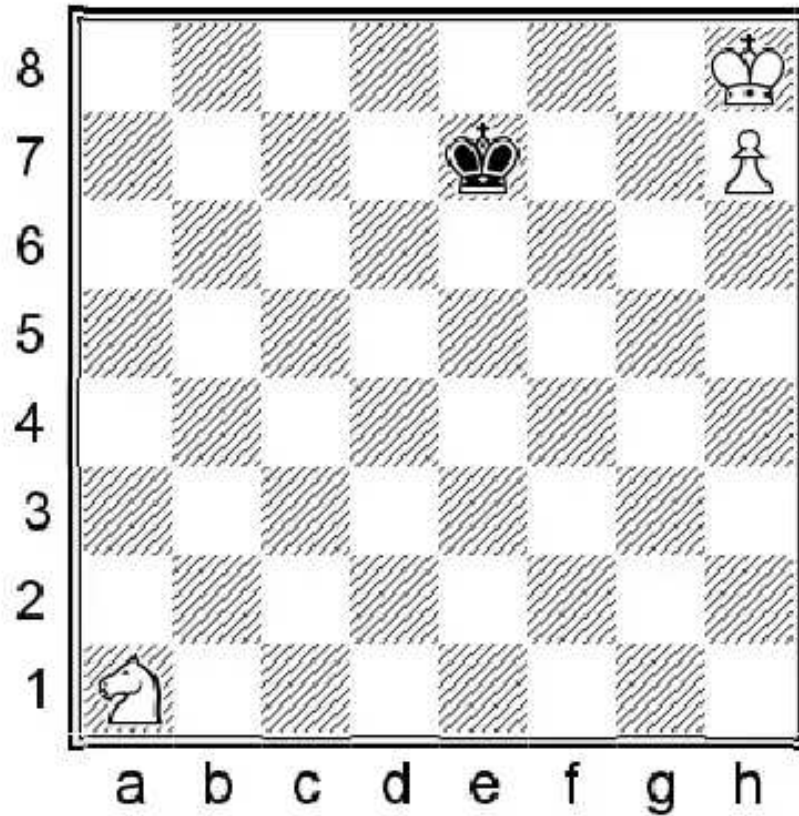


Of course, Black does not get greedy with the kamikaze knight.

7...♔f7!=

4

Theoretical position

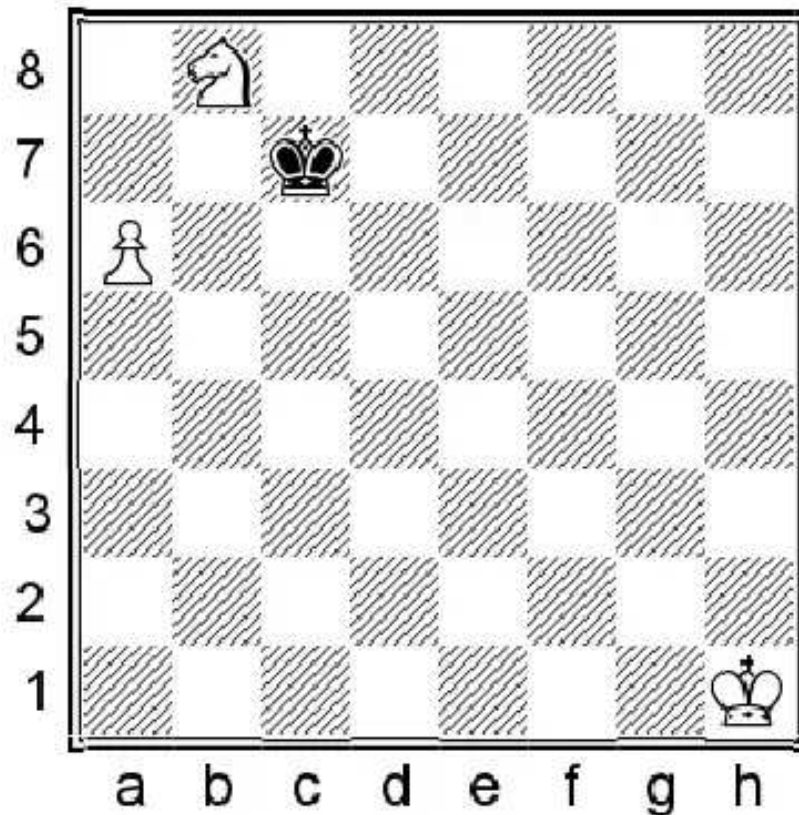


The same position. Black needs some calculation to find the right move! This time it is

1...♔f8! 2.♖b3 ♕f7 3.♗c5 ♔f8 4.♘d7+ ♔f7 5.♗f6 ♔f8=

5

Theoretical position



White must be careful not to fall into the trap of advancing a7. The winning move is

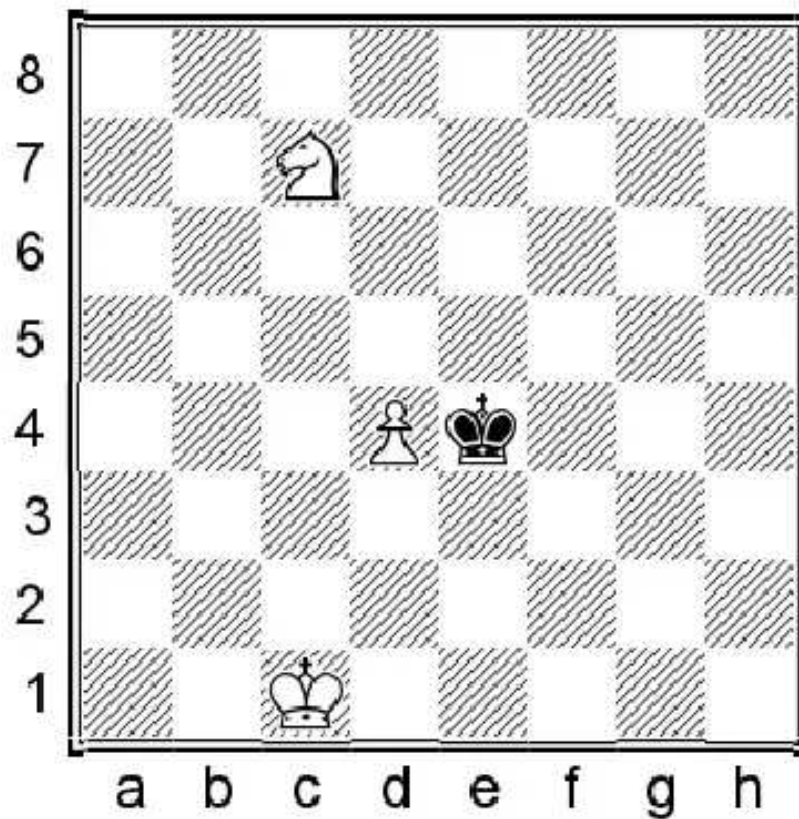
1.♘d7!

followed by bringing in the king. Black has no access to the a6 pawn with which he could provoke the a7 push. But not 1.a7? ♕b7 2.♗c6 ♔a8! as we now know it is drawn.

1.♘d7! ♔c6 2.♕g2+–

6

Practical position



A slightly more complicated example. White has three options to save his d4 pawn, but only one of them is winning.

1.♘b5!

1.♘e6 is a draw after 1...♔d5=

while 1.d5 ♔e5 2.♔d2 ♔d6= Black survives.

1.♘b5! ♔d5 2.♔d2! ♔c4

and White can give up his knight to win the fight for the opposition.

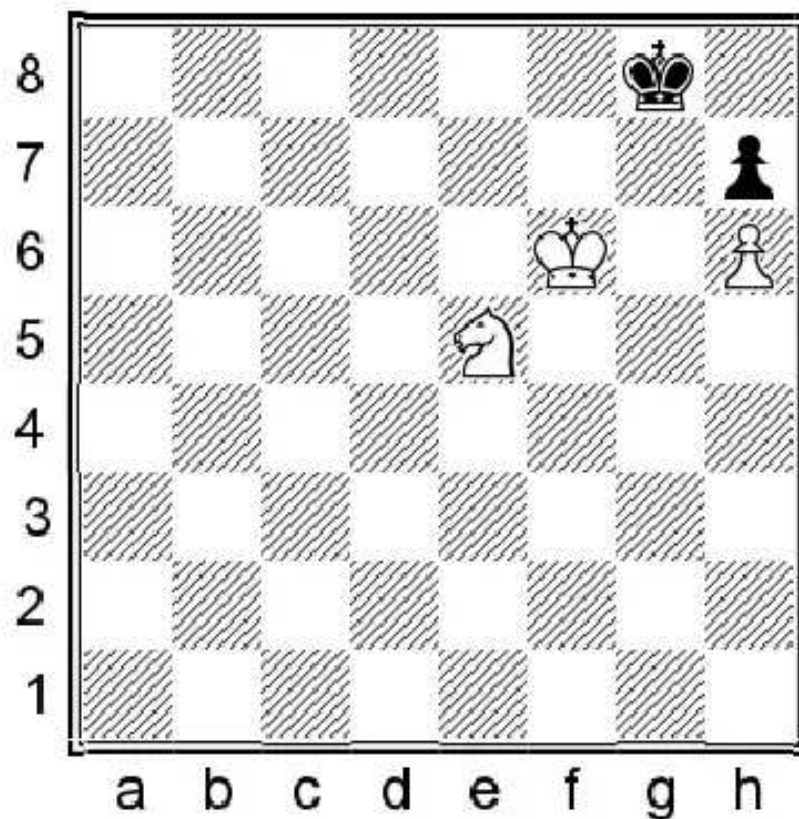
3.♔e3! ♔xb5 4.♔e4 ♔c6 5.♔e5 ♔d7 6.♔d5+–

## 1.4. KNIGHT + PAWN VS KING + PAWN

Again this is a very important chapter with many relevant theoretical positions. We will also learn some unusual resources that might help to save some hopeless-looking positions.

1

Theoretical position



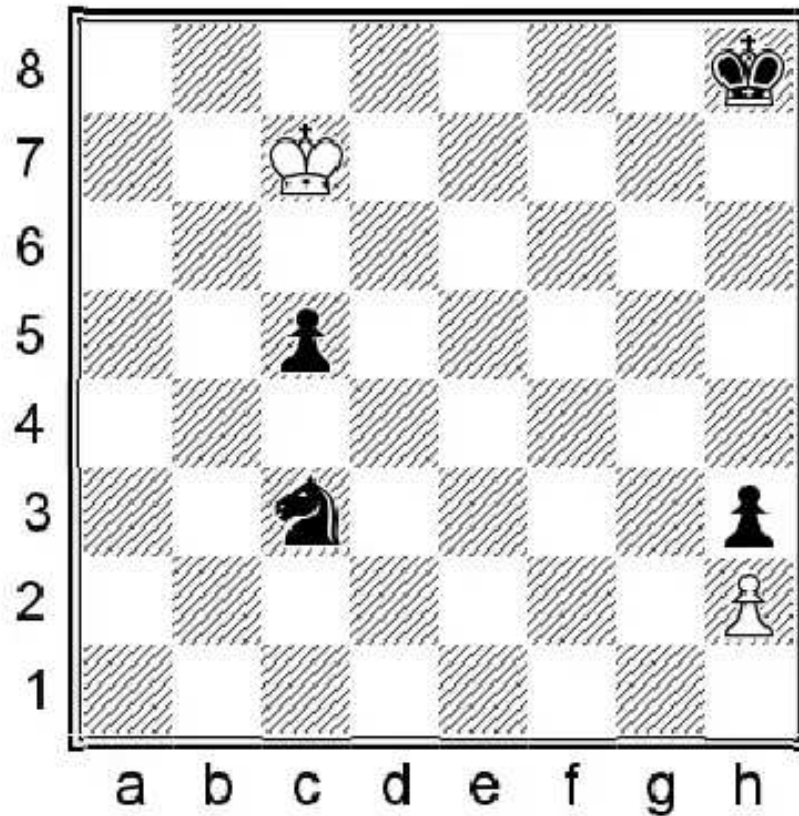
We have already seen in the bishop endgames, that with a white bishop on e5 the game was drawn. Now we learn that the game is drawn also with a knight. Black just waits on the h8-g8 squares with his king and White cannot make progress because of the stalemate, while taking on h7 never wins because of the h-pawn.

1...♔h8=

2

V. Chekhover

1952



In this study by Chekhover, White holds the draw by using motifs that we already know.

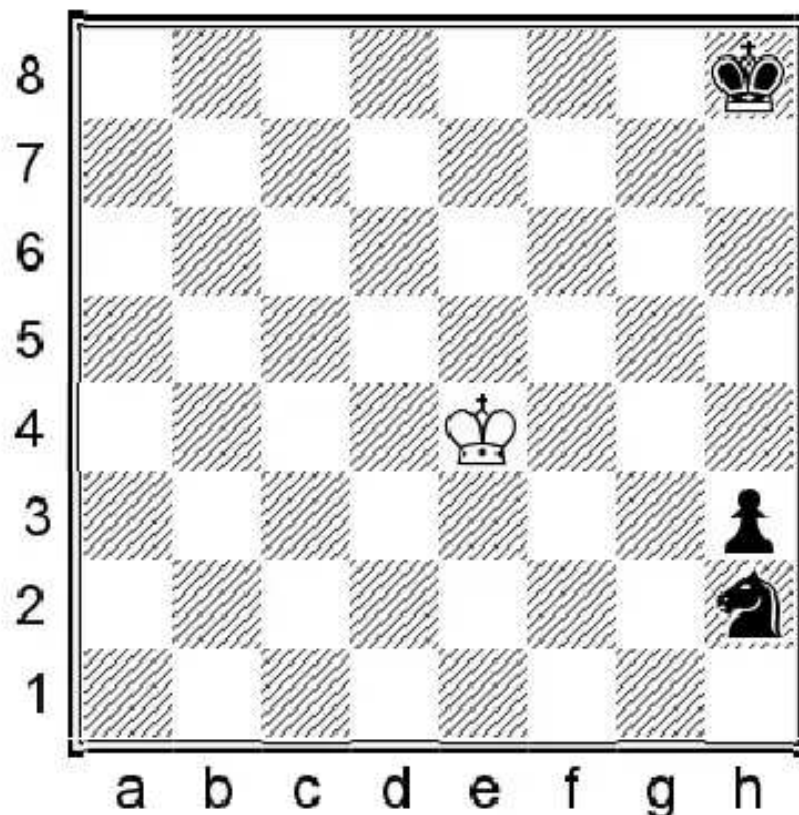
**1.♔c6!**

It is important to attack the pawn from c6, so as to be able to pursue the knight. If ♖a4-♔b5 or ♖e4-♔d5.

**1...♗e4**

Black can save his pawn on h3, but then the h2 pawn remains on board and the king reaches the corner. 1...♔g7 2.♔xc5 ♔f6 3.♔d4 ♗d1 4.♔d3 ♔f5 5.♔e2 ♗c3+ 6.♔f2 ♔f4 7.♔g1= with a theoretical draw.

**2.♔d5 ♗g5 3.♔xc5 ♗f3 4.♔d5! ♗xh2 5.♔e4!**



White manages to attack the h3 pawn in any case, forcing it to advance to h2, which transposes into a theoretically-drawn position.

5...♖g4

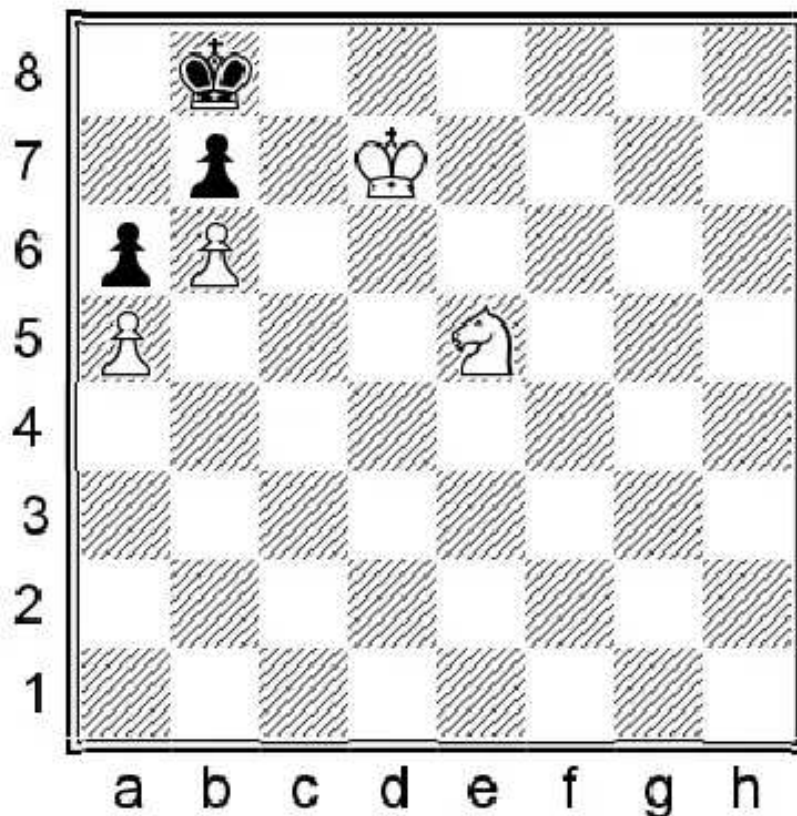
5...♔g7 6.♕f4 ♖f1 does not change anything. White can play 7.♕f3 ♔g6 8.♕f2 h2 Otherwise ♔g3 wins the pawn.  
9.♕g2=

6.♕f3 ♔g7 7.♕g3 h2 8.♕g2=

We have reached the theoretically drawn position.

3

Theoretical position



If it is a bishop on e5, the game is drawn. Can White win with the knight instead? The problem is that taking on b7 or a6 always leads to theoretically-drawn pawn endgames, while approaching with the king is always stalemate. However White has a very nice trick

1.♕d8! ♕a8 2.♖c6!!

Stalemating Black forces him to take on c6.

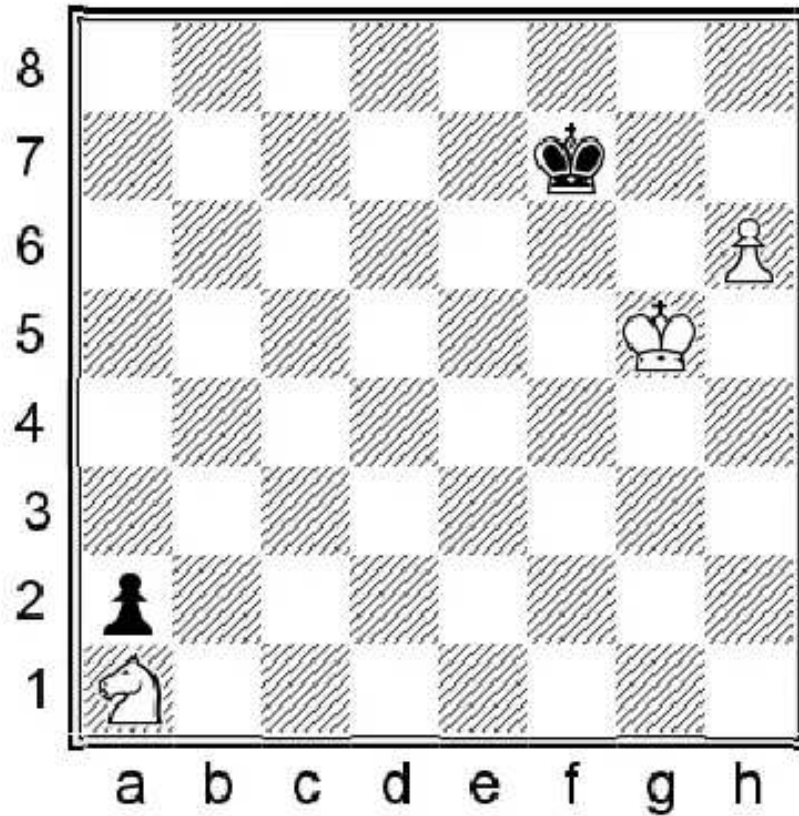
2...bxc6 3.♕c7

The difference between taking on a6 with the knight and sacrificing it on c6 is the existence of the c6 pawn, which prevents the stalemate.

3...c5 4.b7+-

4

Theoretical position

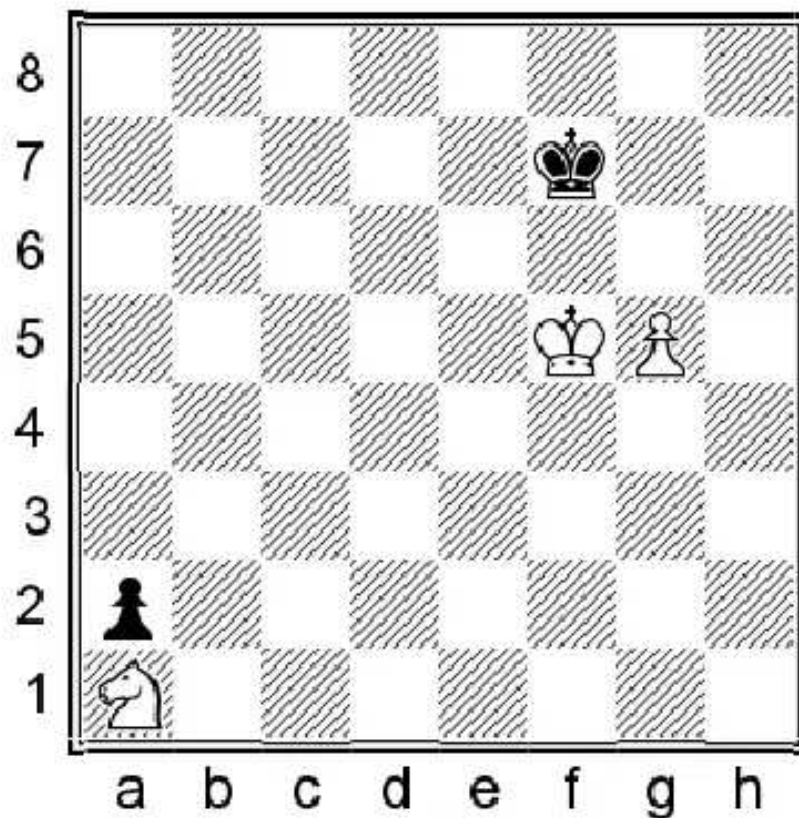


Another important theoretical draw. The knight cannot leave the a-pawn and, without its help, White cannot win with the h-pawn.

1.♔f5 ♖g8 2.♔g6 ♖h8=

5

Theoretical position



The h-pawn always makes for exceptions and such is the case here. With any other pawn White would be winning.

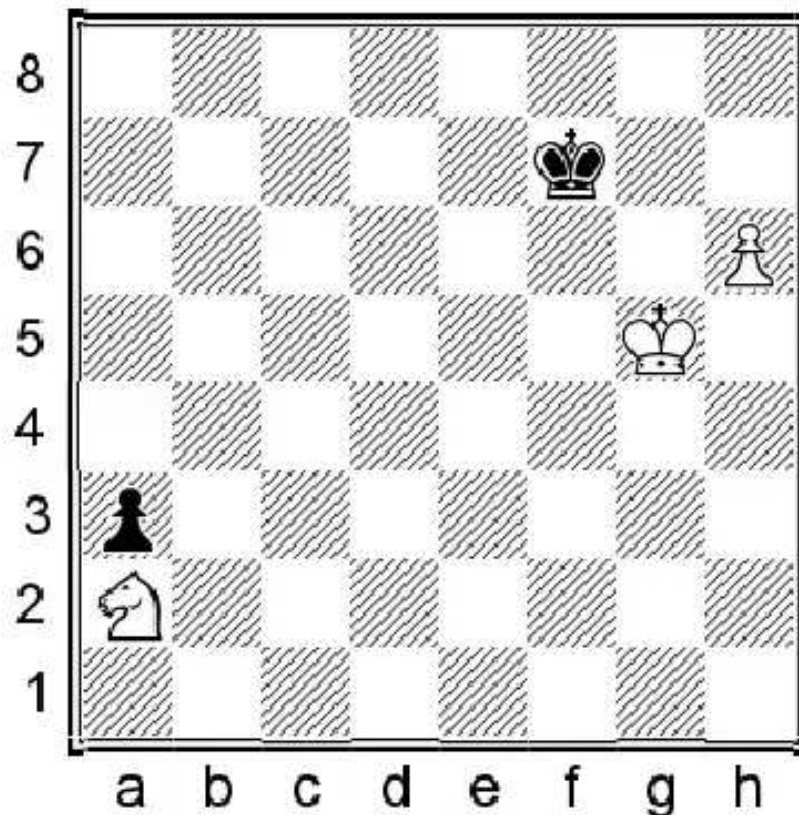
1.g6+ ♖g7 2.♔g5 ♖g8 3.♔f6 ♖f8 4.g7+ ♖g8

White can place Black in zugzwang with a knight move.

5. ♖c2+-

6

Theoretical position



White has an h-pawn, but we moved the a-pawn one rank backward. It makes a huge difference to the outcome. The point is that the knight can allow the a-pawn to promote if he arrives in time to mate the black king in the corner from f7. However the solution requires exact calculation!

1. ♖f5! ♖f8 2. ♖f6!

Each tempo counts! White must calculate where the black king should stand when he starts to switch his knight to the kingside. 2. ♖g6 only leads to a draw after 2... ♖g8 3. ♖c3 ♖h8 and the “winning method” is only enough for a half-point, viz: 4. ♖e4 a2 5. ♖d6 a1=♚ 6. ♖f7+ ♖g8 7. h7+ ♖f8 8. h8=♚+ ♚xh8 9. ♖xh8=

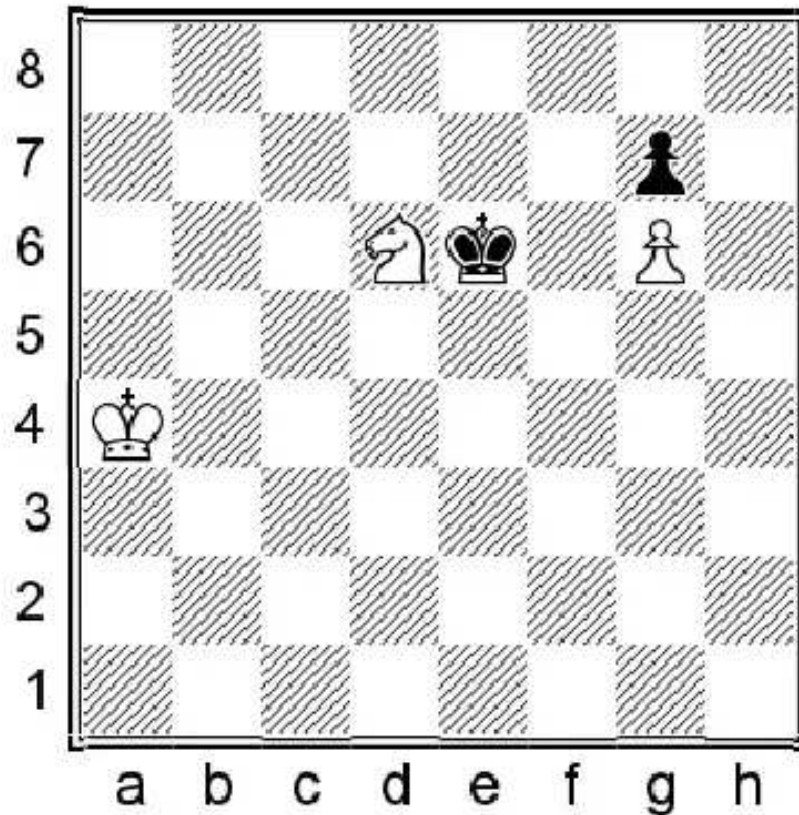
2... ♖g8 3. ♖g6 ♖h8 4. ♖c3 ♖g8 5. h7+! ♖h8 6. ♖e4!

Black queens his pawn... but he gets mated.

6... a2 7. ♖d6 a1=♚ 8. ♖f7#

7

Theoretical position



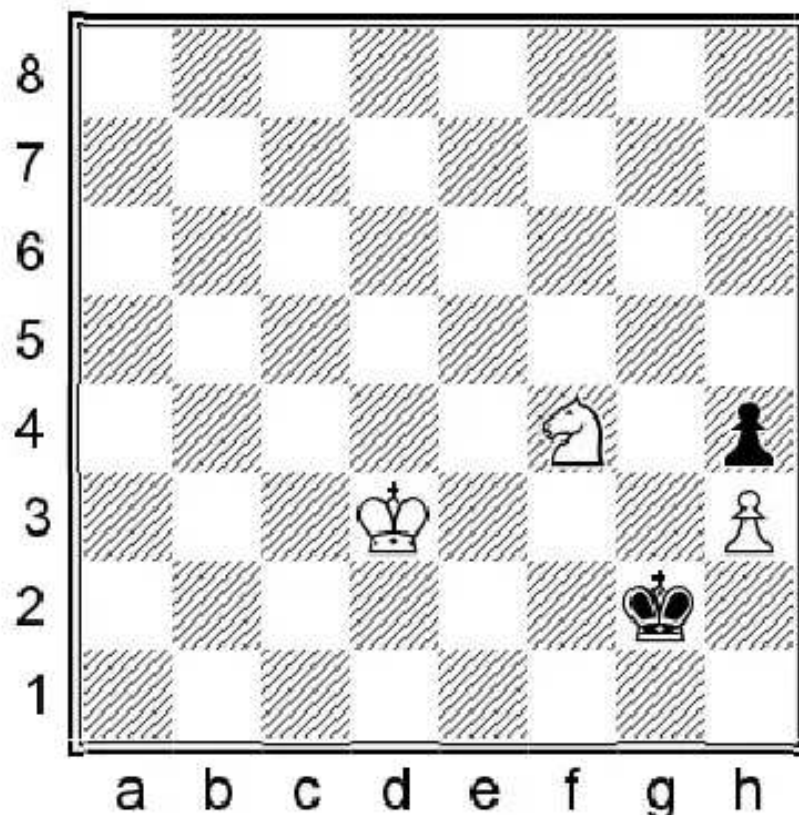
A pretty idea to defend the g6 pawn is to hide our knight behind the opponent's pawn, where the king cannot attack it.

1. ♖f7! ♔f6 2. ♖h8!+-

Black cannot play ...♔g7 and White brings his king to the kingside. This idea can be used with any other pawn as well, the only exception again being the h-pawn. Anywhere else, it is a very important motif to remember. For example, with pawns on e4 and e5, knight stands on d5. If Black plays ...♔d4 then ♖f6 and the king cannot attack the knight with ...♔e5 because of his own pawn, while after ...♔f3, ♖f6 again and Black cannot play ...♔f4-e5.

8

Theoretical position



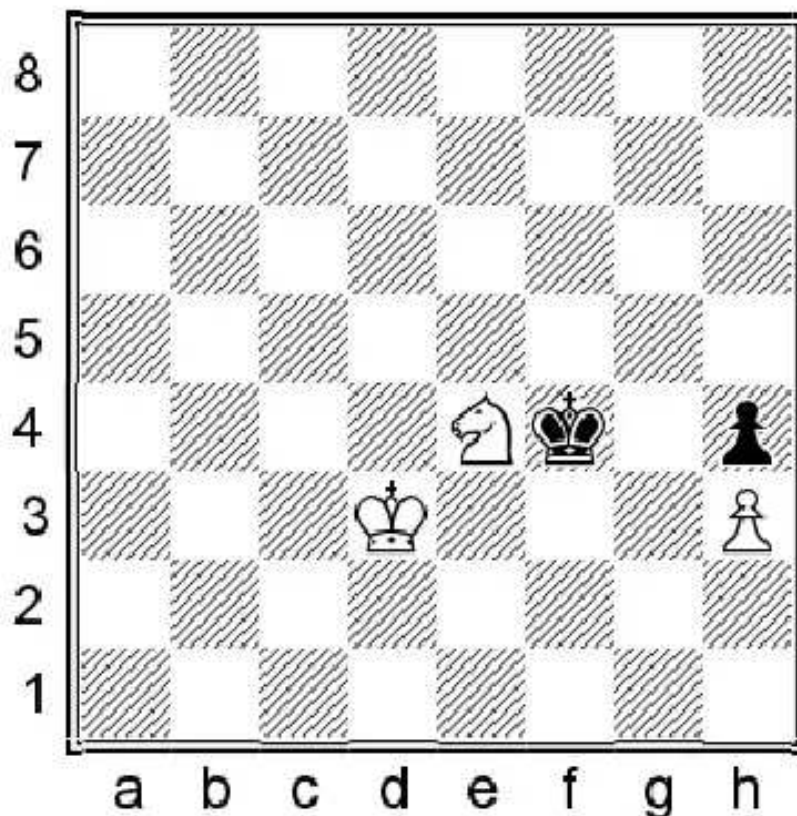
These types of position, when the knight protects the last remaining pawn, are very tricky. The stronger side can only

make progress if he can approach with his king towards the pawns, but sometimes the route can be blocked by the king. Let's examine some typical examples.

1...♔f3

White should replace his knight with the king in the defense of the pawn, but at the moment he must find a place for his knight where it cannot be attacked.

2.♘e6 ♕g3 3.♘g5! ♕f4 4.♘e4!



The knight is protected and Black has no direct access to the h3 pawn. At the same time, if Black plays ...♕g2, ♘g5 goes back. It seems to be over, but actually the most interesting part is just about to start.

4...♕f3 5.♕d4

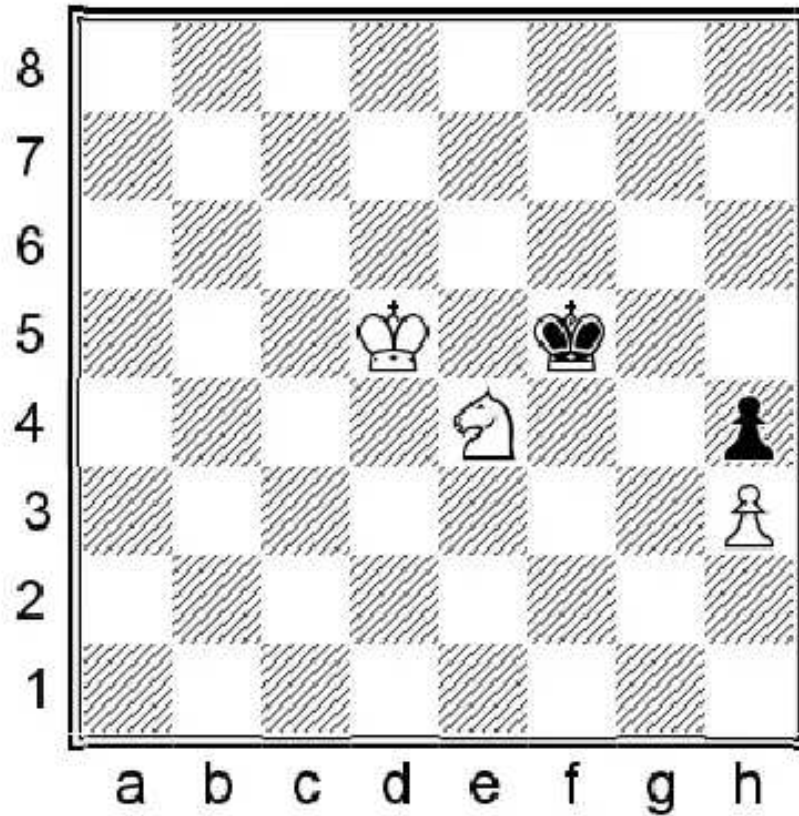
White tries take his king to e5-f5-g5, but

5...♕f4!

Black continues blocking its way. The knight cannot leave from e4 as it allows ...♕g3. This is a very important defensive resource, which is very useful to keep in mind. We will study some examples where it actually works –here, unfortunately for Black, it doesn't!

6.♕d5! ♕f5!

Black continues to resist, blocking the king by keeping the opposition. However it is no longer threatening ...♕g3, therefore White can use his knight. A very nice idea brings home the full point. 6...♕f3 7.♕e5+- is easy.



7. ♖c3! ♜f4 8. ♜e2+ ♜f3 9. ♜g1+! ♜g2 10. ♜e4! ♜xg1 11. ♜f3!

Only this move wins! White keeps the king away using the method of shouldering. Not 11. ♜f4 ♜f2 12. ♜g4 ♜e3 13. ♜xh4 ♜f4=

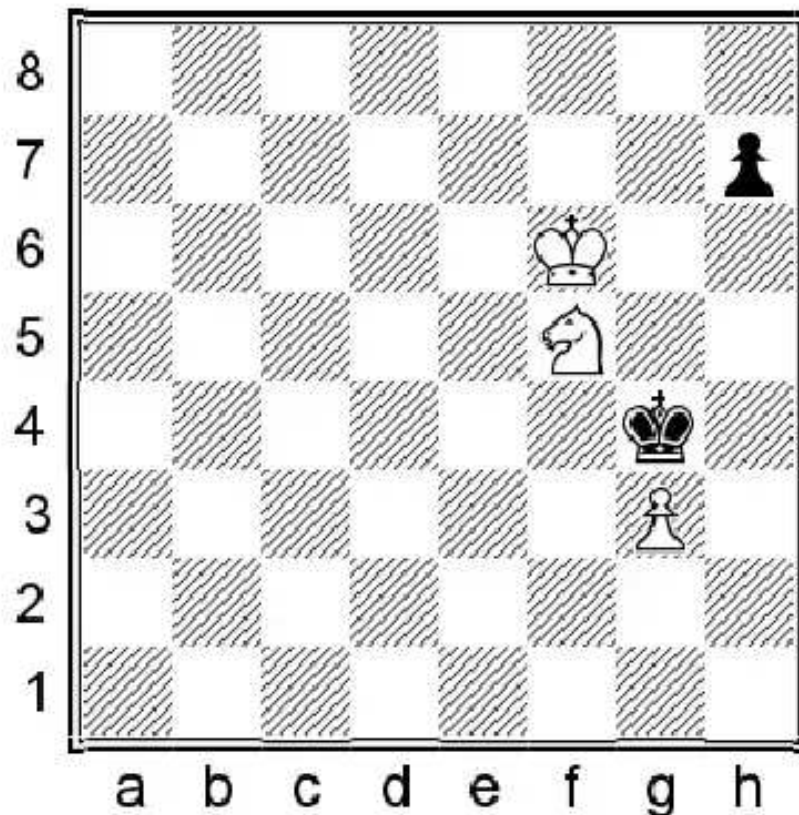
11... ♜f1 12. ♜g4 ♜e2 13. ♜xh4 ♜f3 14. ♜g5+–

9

A. Ebralidze

I. Bondarevsky

Tbilisi, 1937



The knight is tied to defending the pawn. The only way to proceed is to set Black into zugzwang and squeeze the king out from g4-g5 squares. However precise calculation is required, because a mutual zugzwang is ahead of us...

**63.♔e6?**

This miscalculation spoils the win. 63.♔e5! ♔g5 If Black advances his h-pawn prematurely, the king goes back to f6

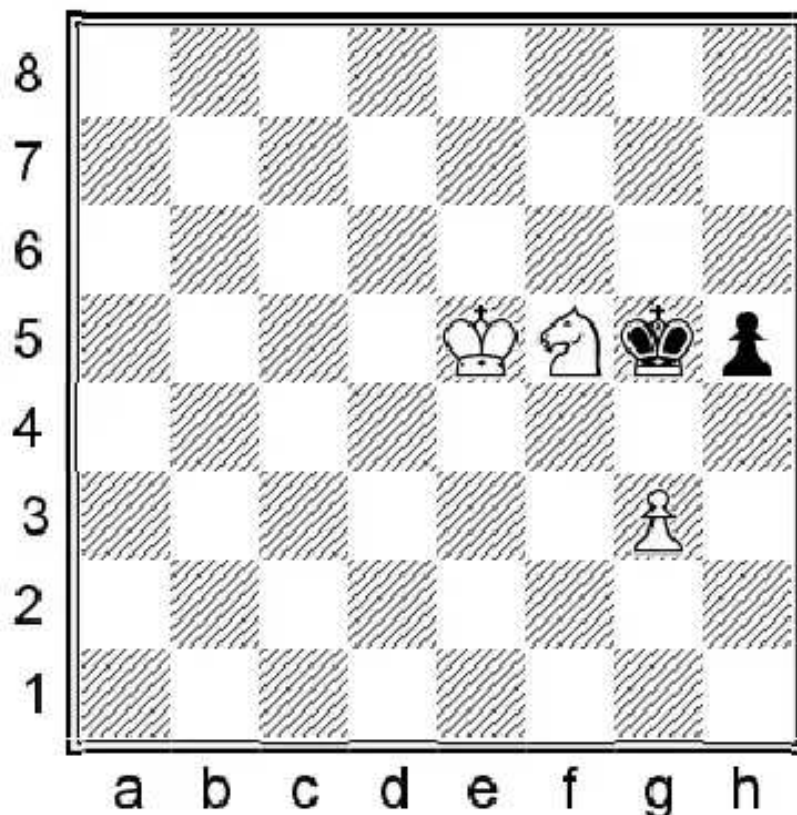
a) 63...h5 always loses to 64.♔f6+- and ♔g5 next.

b) 63...h6 64.♔f6! ♔h5 65.♖xh6! ♔xh6 66.g4+-;

c) 63.♔e6 ♔g5 64.♔e5 ♔h5 65.♖f3 ♔g6 66.♔f3 ♔g5 67.♔e5 ♔h5 68.♔e3 ♔g6 69.♔e5 ♔h5 70.♔e3 ♔g6 71.♔e5 ♔h5 72.♔e3 ♔g6 73.♔e5 ♔h5 74.♔e3 ♔g6 75.♔e5 ♔h5 76.♔e3 ♔g6 77.♔e5 ♔h5 78.♔e3 ♔g6 79.♔e5 ♔h5 80.♔e3 ♔g6 81.♔e5 ♔h5 82.♔e3 ♔g6 83.♔e5 ♔h5 84.♔e3 ♔g6 85.♔e5 ♔h5 86.♔e3 ♔g6 87.♔e5 ♔h5 88.♔e3 ♔g6 89.♔e5 ♔h5 90.♔e3 ♔g6 91.♔e5 ♔h5 92.♔e3 ♔g6 93.♔e5 ♔h5 94.♔e3 ♔g6 95.♔e5 ♔h5 96.♔e3 ♔g6 97.♔e5 ♔h5 98.♔e3 ♔g6 99.♔e5 ♔h5 100.♔e3 ♔g6

64.♖e3! h5 White can choose between two wins: 65.♔e4 (65.♖f5 ♔g4 (65...♔g6 66.♔f4+-) 66.♔f6+-) 65...h4 66.g4 h3 67.♔f3+-

**63.♔e6? ♔g5! 64.♔e5 h5!**



This is the position with a mutual zugzwang. We have already seen how Black loses if it is his move. Now it is White to move. The problem is that Black holds the opposition with his king, therefore White can neither squeeze the king out from behind, nor from the front.

**65.♔e6**

65.♔e4 ♔g4= White cannot make progress and he must retreat to e5.

And the main problem is 65.♖e3 does not work because after 65...h4 66.g4 h3= the white king is not inside the square of the h-pawn.

**65...♔g6!**

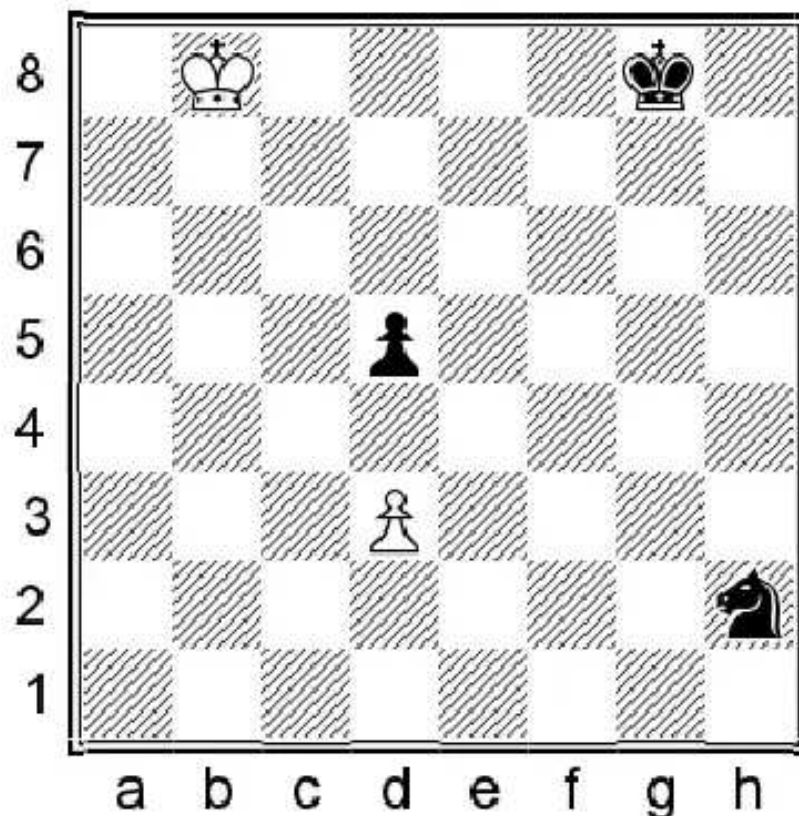
Not 65...♔g4? 66.♔f6!+- and White manages to squeeze out the black king.

**66.♖e3 ♔g5 1/2**

Draw agreed, in view of 66...♔g5 67.♕e5 h4 68.g4 h3=

10

Prokes



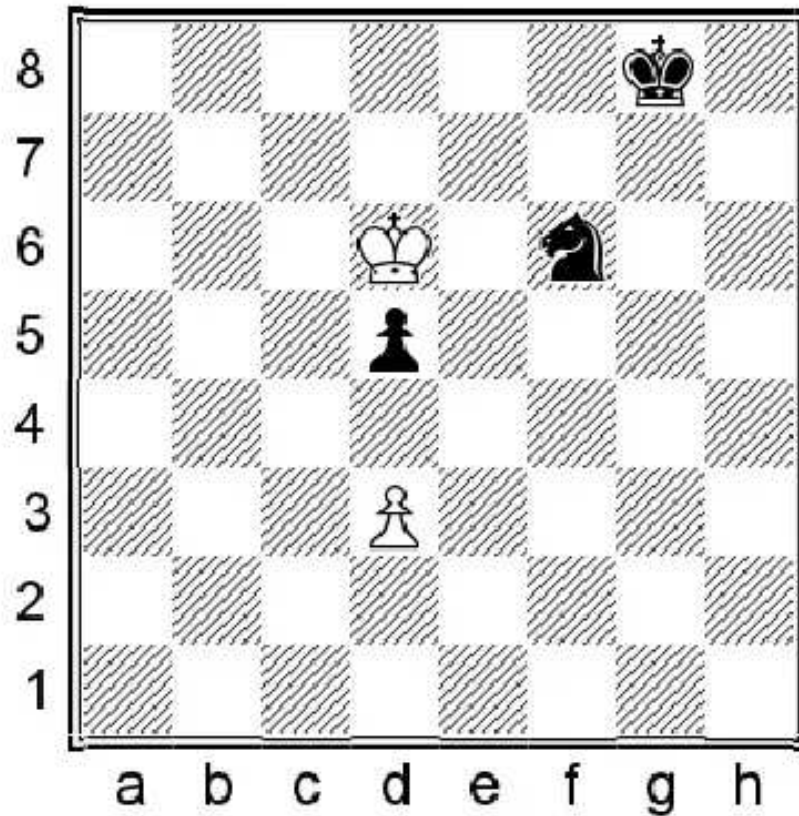
The following study by Prokes is another perfect illustration of just how tricky this kind of position can be. We reach the critical position after Black's second move.

1.♔c7 ♖g4

1...d4 does not work, because the knight is not in time to defend the pawn from c2, where White could not attack it with ♕d3. 2.♔d6 ♕f7 3.♔e5 ♖f3+ 4.♔e4=;

1...♖f1 2.♔d6 ♖e3 3.♔e5= with the white pawn on d4, Black was winning because ♕f4 could be answered by ...♖c4, but now ♔d4 is coming next, winning the d5 pawn.

2.♔d6 ♖f6



Here we are! White must calculate if he should take the diagonal opposition with ♔e6 or anti-opposition with ♔e7. To come to the right conclusion, we must discover Black's winning attempt. We can easily foresee that he is going to play ♔g7-g6-g5 and White will stay on e5 with his king. The question is, in that position, what happens if White is on move, and what if Black? After some calculation we see that with Black to move the position is drawn, therefore the right solution is:

**3. ♔e6!**

3. ♔e7 loses to 3... ♔g7 4. ♔e6 ♔g6 5. ♔e5 ♔g5 White is in zugzwang now. 6. d4 (6. ♔e6 ♔f4! 7. ♔xf6 d4!-+ and ♔e3 next.) 6... ♔g4! 7. ♔xf6 ♔f4-+ and ♔e4 next wins.

**3... ♔g7 4. ♔e5 ♔g6**

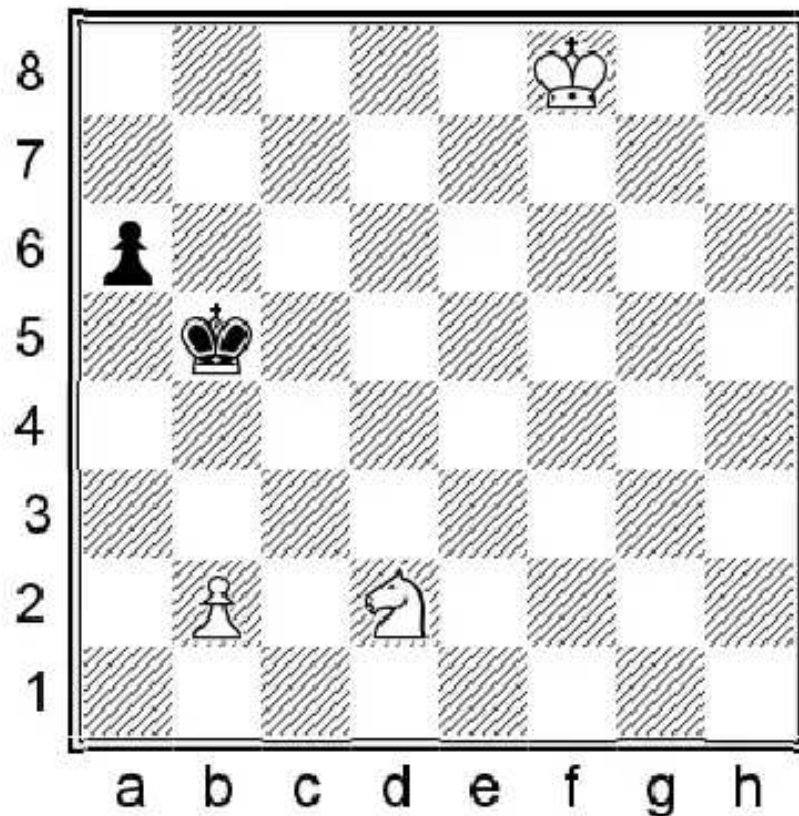
Black cannot make progress with 4... ♔f7 as 5. ♔d6 ♔g6 6. ♔e6 transposes to the main line.

**5. ♔e6 ♔g5 6. ♔e5**

Now it is Black to move and he is in zugzwang. Simplification into a pawn endgame does not bring success.

**6... ♔g4 7. ♔xf6 ♔f4 8. ♔e6 ♔e3=**

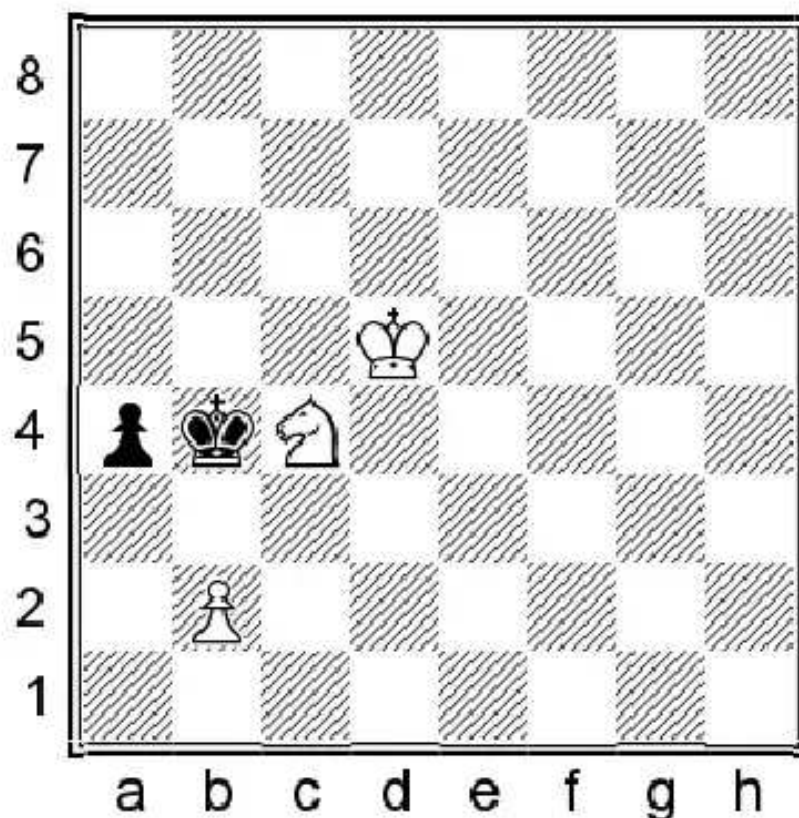
As 8...d4?? even loses after 9. ♔d5 ♔e3 10. ♔c4+-



In this study of Horowitz', Black is planning to play ...♔b4 followed by advancing the a-pawn. White has two options to fight against it: he either brings his king back, when he will be just in time to prevent a3 with ♖c4; or tries to create a barrier with a hidden maneuver.

**1.♘b3!!**

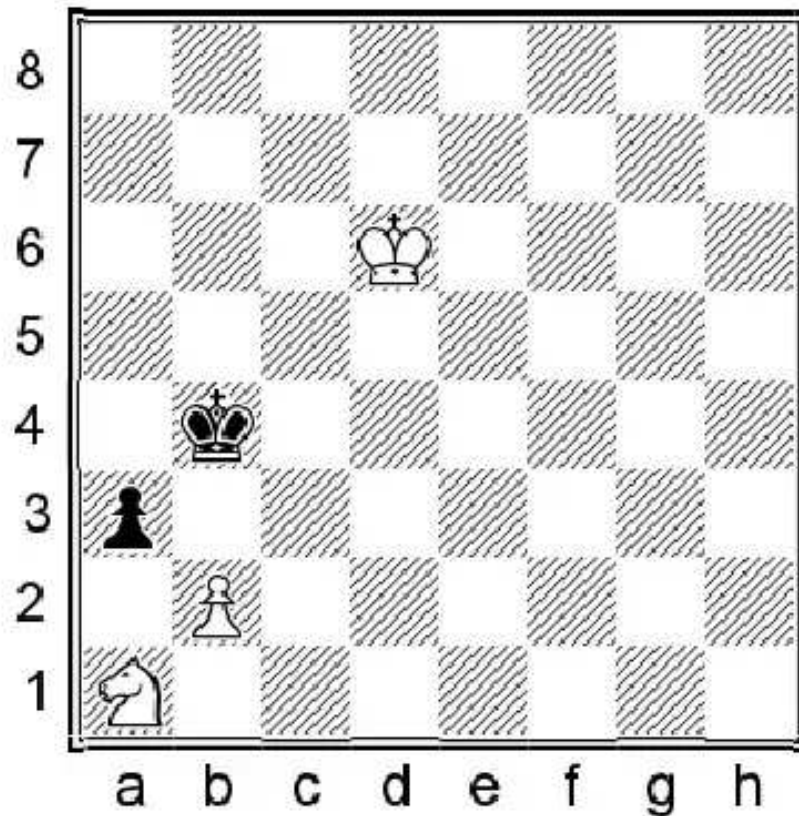
The only winning move. The more natural 1.♔e7? leads only to a draw after 1...♔b4 2.♔d6 a5 3.♔d5 a4 4.♘c4



Despite White having managed to prevent ...a3, he cannot win because of 4...♔b5! taking the opposition and not allowing White to squeeze out the king, neither from behind nor from the front. 5.♔d4 ♔b4 6.♔d3 (6.♘d2 a3=) 6...♔b3=

**1.♘b3!! ♔c4**

1...♔b4 2.♖a1+- White has built up a barrier! 2...a5 3.♔e7 a4 4.♔d6 a3

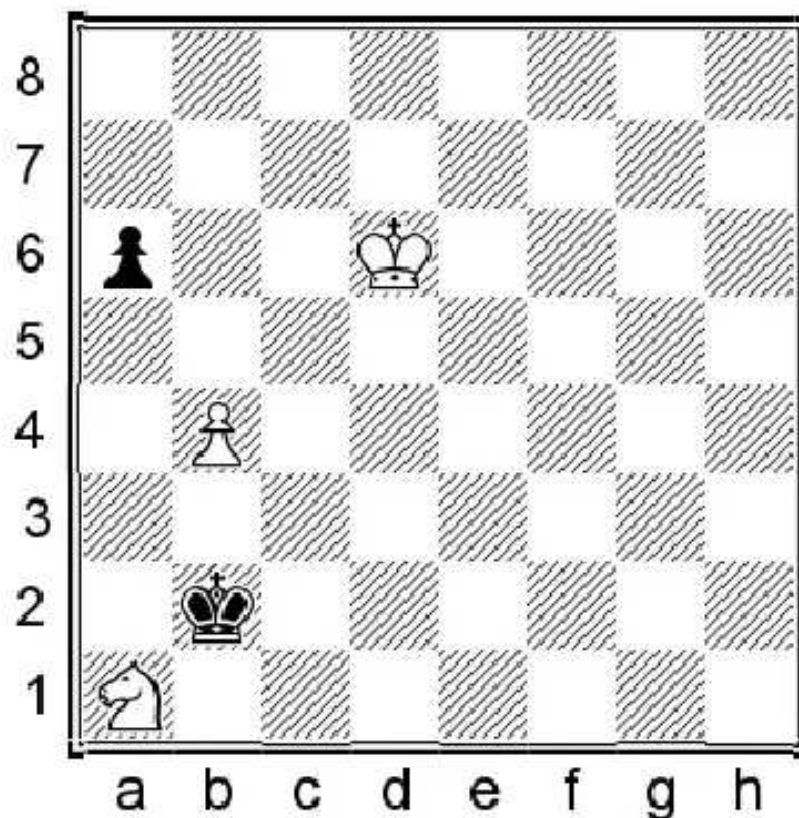


5.♖c2+! (But not 5.b3? which allows 5...♔c3! 6.♔c5 ♔b2 using the fact that the a-pawn is too far advanced. 7.b4 (7.♔b4?? even loses to 7...a2!+-) 7...♔xa1 8.b5 a2 9.b6 ♔b2=) 5...♔b3 6.bxa3+- wins.

2.♖a1! ♔d3 3.♔e7 ♔d2 4.♔d6 ♔c1

4...a5 loses as well 5.♔c5 a4 (5...♔c1 6.b3 ♔b2 7.♔b5+-) 6.♔b4 ♔c1 7.♔c3 (7.♔a3 ♔b1 8.♖b3!+- also wins.) 7...♔b1 8.♖c2+-

5.b4 ♔b2



### 6. ♔c6!

White must play ♔c5 only after ...♔c3, as we discover that this position is a mutual zugzwang. 6. ♔c5? ♔c3!= sets White into zugzwang and the b4 pawn is lost.

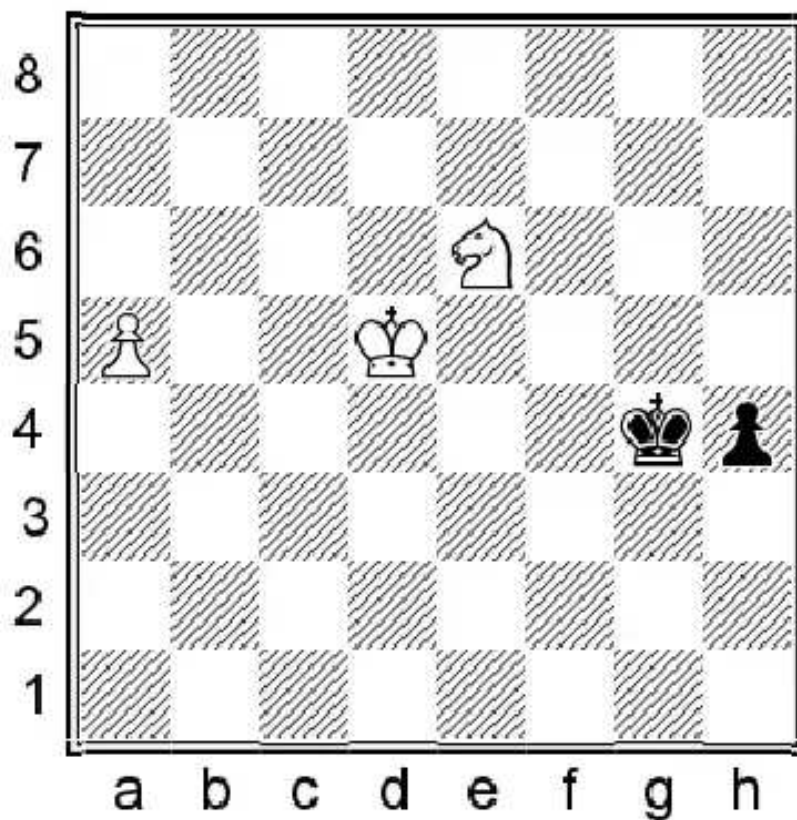
### 6... ♔xa1

6... ♔c3 7. ♔c5+- now Black is in zugzwang.

### 7. ♔b6+-

12

## Practical position



In the next three examples, the stronger side wins with a pretty simplification combination. Both sides have an unstoppable passed pawn, White promotes first, but the black one arrives with check. How can White win a decisive tempo?!

### 1. ♖g5! ♔xg5 2. ♔e4!

Getting inside the square of the pawn.

### 2... ♔g4

Black keeps the king away by shouldering.

### 3. ♔e3!

With the idea of ♔f2, Black has to play

### 3... ♔g3

3... h3 4. ♔f2+-

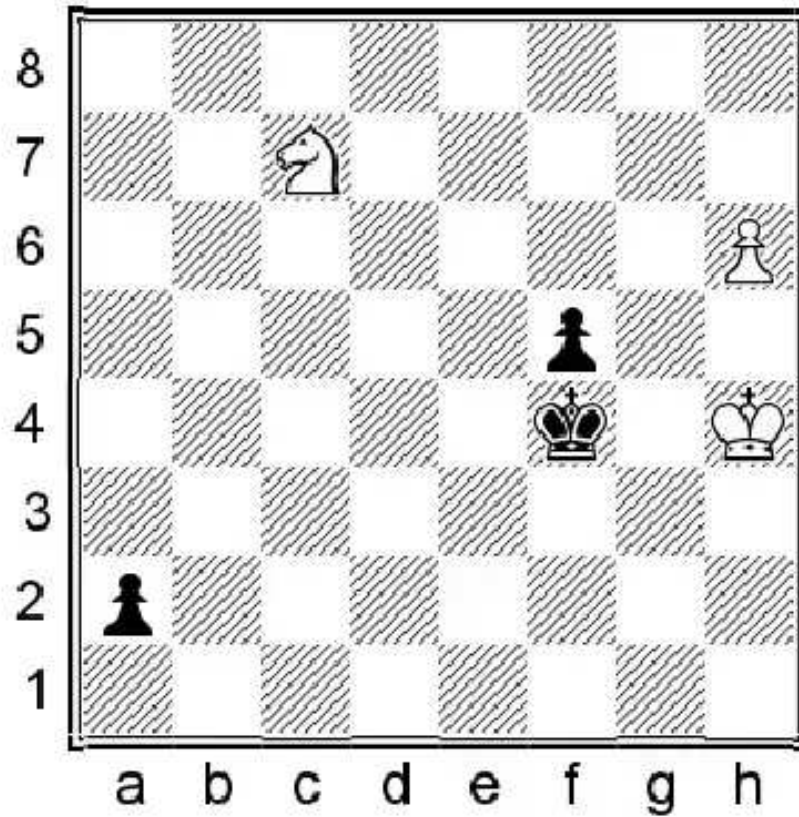
#### 4.a6!

The white king does not stand in the way of a check any longer and promotes his pawn first.

4...h3 5.a7 h2 6.a8=♔+–

13

Practical position



It looks like a hopeless scenario, but the knight performs a miracle!

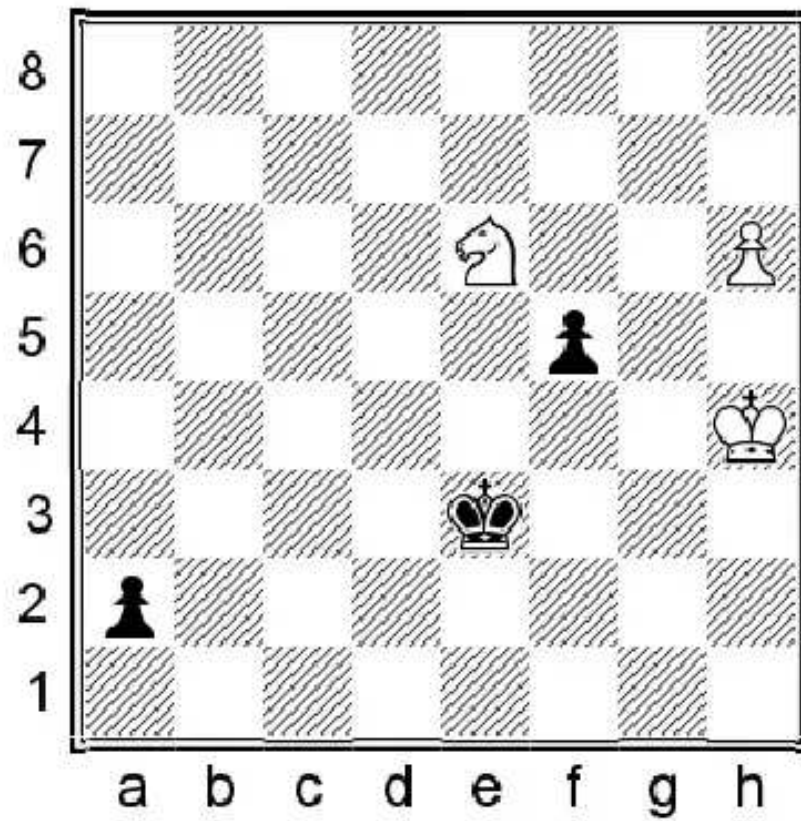
1.♞e6+!

The king has no good square to escape from the check.

1...♔e3

1...♔e5 2.h7+–; 1...♔f3 2.♞d4+– and ♞b3 stops the pawn.

1...♔e4 2.♞c5+– ♞b3 comes again.



**2. ♖d4!**

Luring the king onto the wrong square.

**2... ♔xd4**

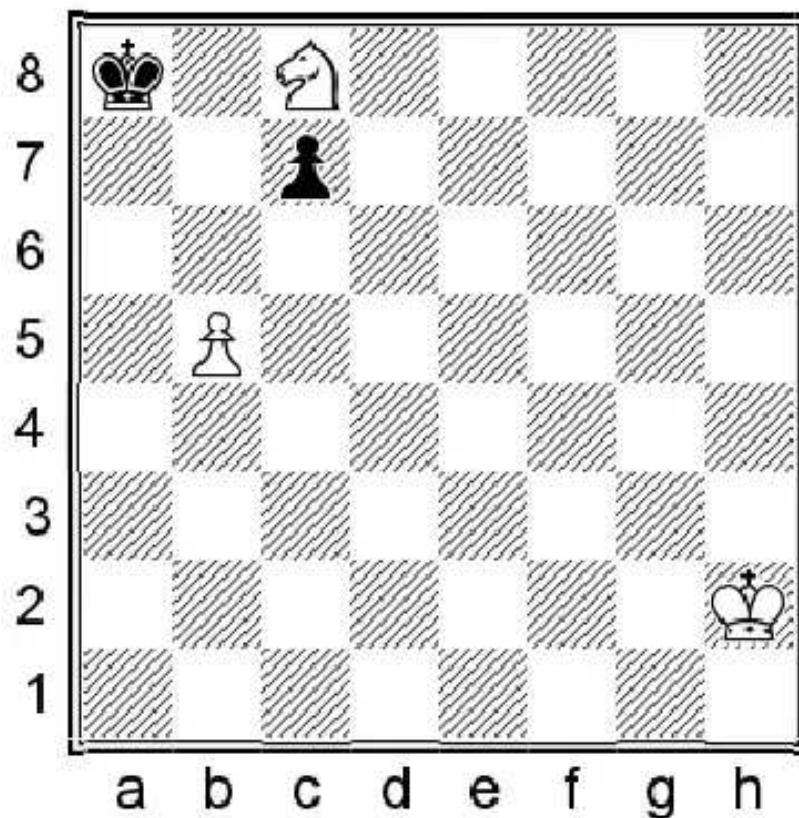
**2... ♔a1=♚ 3. ♘c2++-**

**3. ♖h7 ♔a1=♚ 4. ♖h8=♚++-**

wins the queen.

14

Practical position



Black is threatening ...♔b7 and when the knight leaves, ...♔b6. The draw seems to be secured, but a pretty simplification brings victory for White:

**1. ♖b6+!! cxb6**

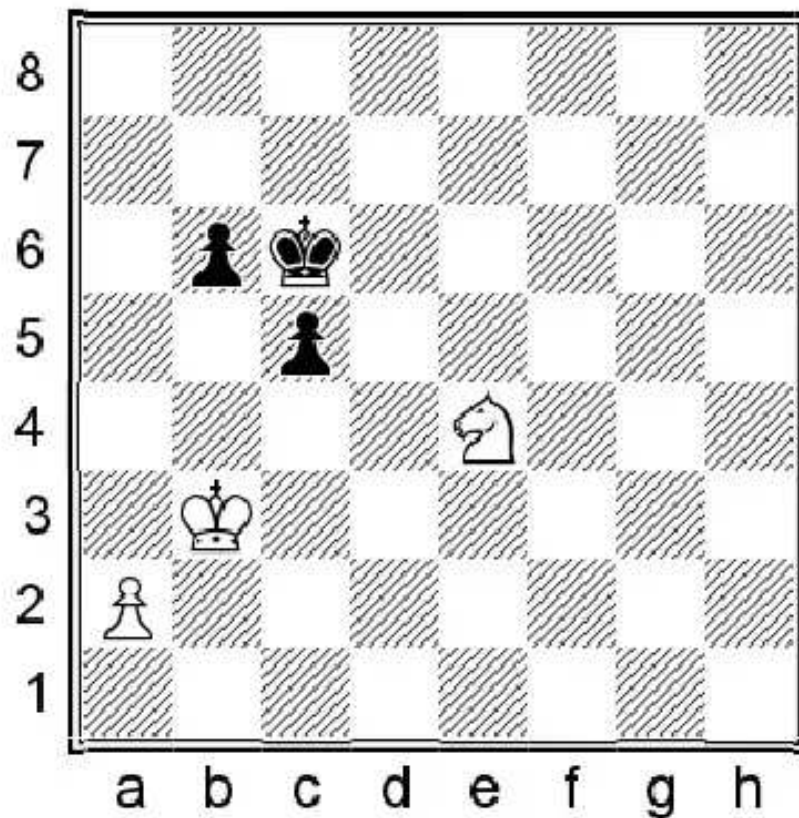
1...♔b7 2. ♗c4+- builds a barrier. The king cannot go to b6 and ...c6 can be answered by b6, like we saw in Horowitz's study a few examples previously.

**2. ♔g3**

As we know, if the pawn is taken on the 6th rank, White is winning regardless of who takes the opposition. White uses the motif of outflanking and he collects the pawn.

**2...♔b7 3. ♔f4 ♔c7 4. ♔e5! ♔d7 5. ♔d5 ♔c7 6. ♔e6+-**

and the rest is clear.



The only winning move is

**1. ♔a4!**

It suggest itself, as White should get his king to b5 when the win is more-or-less automatic. If Black tries ...b5, then ♔a5 and he will soon find himself in zugzwang. However if White allows ...b5, the position suddenly becomes drawn.

1. ♖c3 b5 Black simply intends to wait with ...♔b6-c6. The knight alone cannot make progress and if the king goes around to e5-d5, the pawns starts to roll. 2. ♖e2 (2. ♔c2 b4 3. ♖e2 c4=) 2...♔b6=;

We examine the 1.a4 move in the next game.

**1. ♔a4! ♔d5**

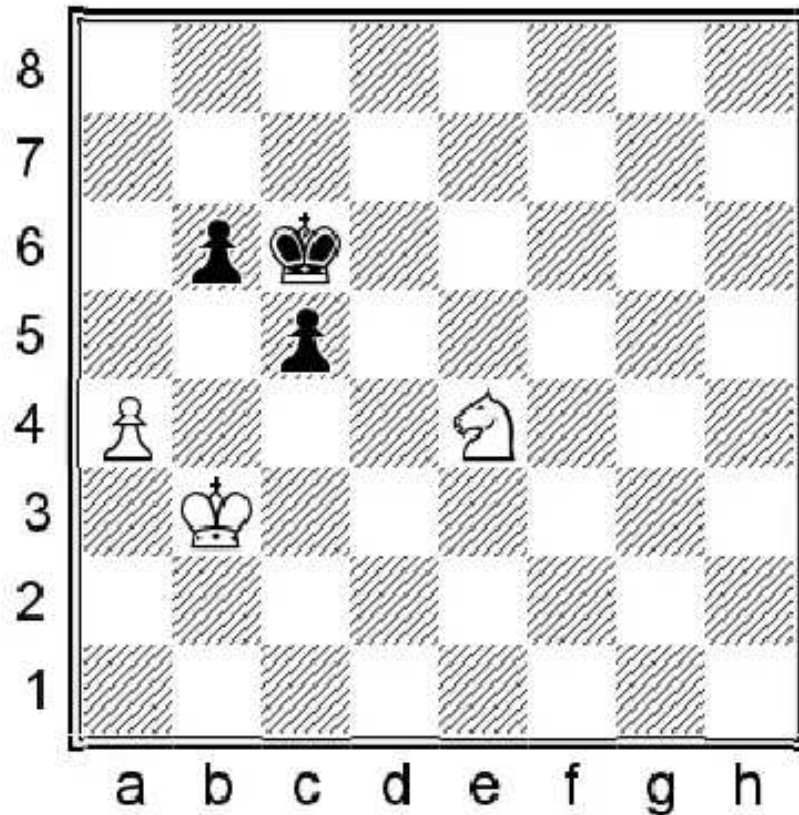
1...b5+ 2. ♔a5! b4 3. ♖d2 The last chance is to run towards the a2 pawn, but the road is too long 3...♔d5 4. ♔b5 ♔d4 A pretty win is 5. ♖b3+ ♔c3 6. ♔xc5! ♔b2 7. ♖c1! ♔xc1 8. ♔xb4+–

**2. ♖d2 ♔c6 3.a3**

Setting Black into a decisive zugzwang. ♔b5 is coming or after

**3...b5+ 4. ♔a5 b4 5.a4+–**

and ♔b5 wins next move.



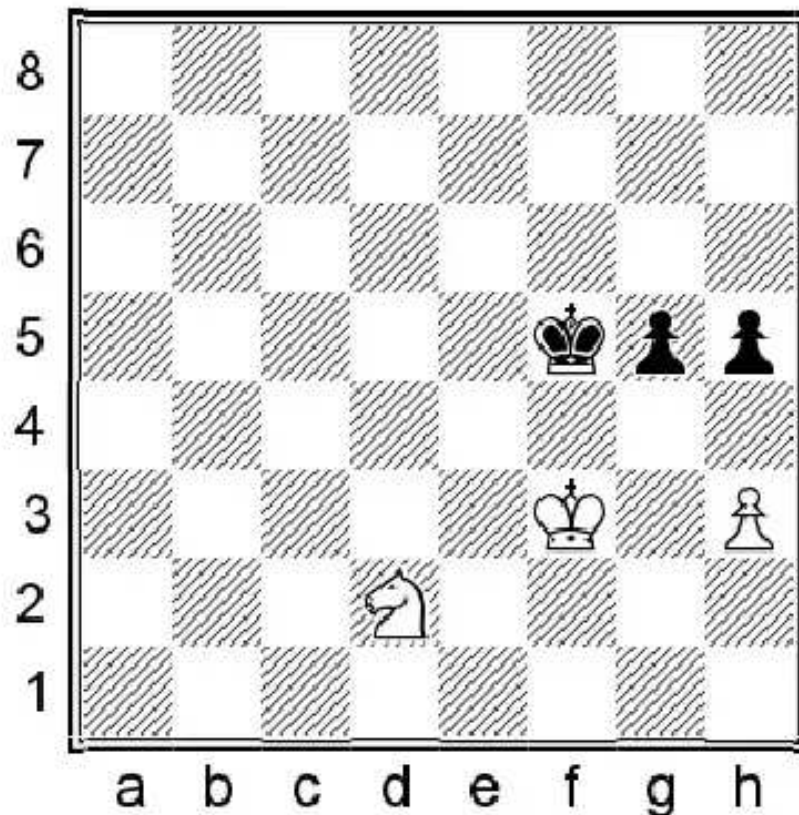
If White had played the logical a4, with the idea of fixing the pawns and as ...b5 loses to a5, surprisingly the position becomes drawn after Black moves his king to a6 then a5.

**1...♔b7!**

White cannot transfer his knight to c4 to prevent ...♔a5, because of the ...b5 simplification. 1...b5? 2.a5 Black is in zugzwang. For example 2...♔d5 3.a6 ♔c6 4.♖xc5!+-

**1...♔b7! 2.♔c4 ♔a6 3.♖d6 ♔a5 4.♔b3 ♔a6=**

Black just waits with ...♔a6-a5 and White cannot improve his position. White should control the b5 break and also keep the a4 pawn safe in case of ...♔a5. Only two things to take care of, but it is simply too much if White wants to make progress at the same time.



Here is another practical position, one which might well occur in a game. White has to avoid the direct threat of exchanging the pawns with ...g4.

**1.♔e3!**

Now ...g4 can be answered by h4. If Black pushes ...h4 or ...g4 without achieving a draw right away, then it just helps White because he can get more easily between the pawns without being afraid of trading the h3 pawn. The winning plan is to bring the knight to g3, trying to provoke h4 or alternatively sending the king back to passivity after which ♔e4-f5 will win easily.

**1...♔e5**

1...g4 2.h4 g3 3.♔f3 g2 4.♔xg2 ♔g4 5.♖f3 ♔f4 6.♖h2!+- Black is forced to retreat which is equal to resignation.

1...h4 2.♔f3+-

**2.♖e4 ♔f5 3.♖g3+ ♔g6 4.♔e4!+-**

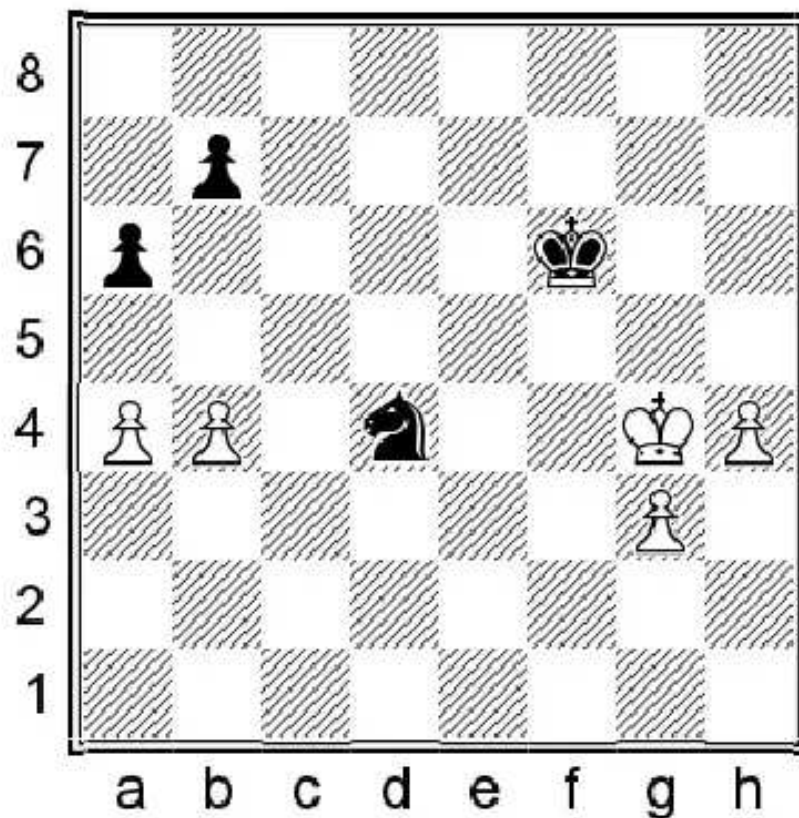
The rest is easy and automatic.

18

D. Debashis

C. Balogh

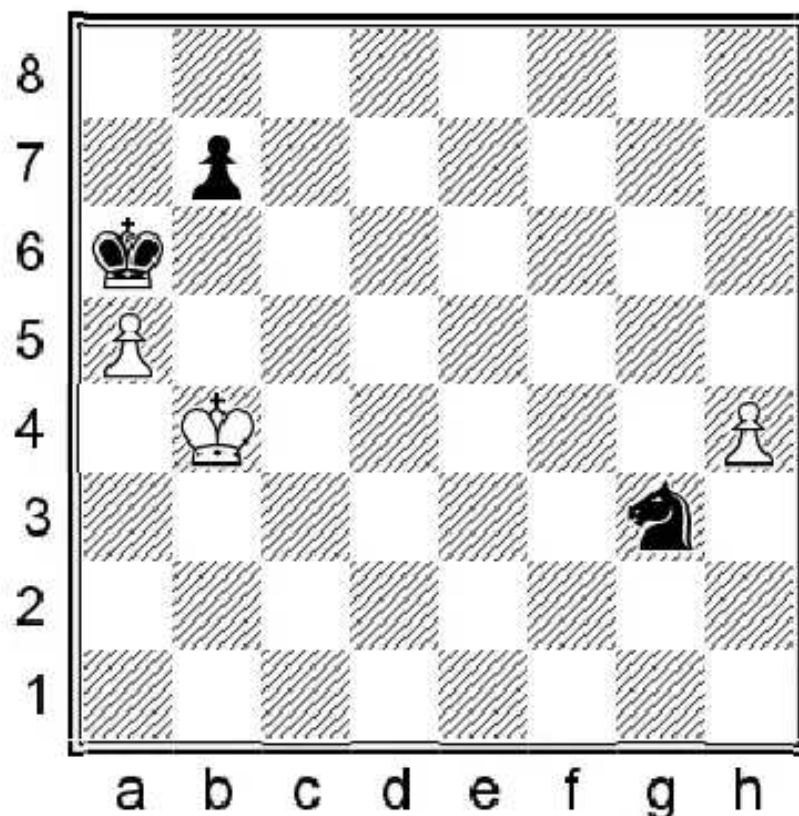
Dubai, 2014



Let's analyze a practical game, one which shows us some new ideas as well as meeting with some that we have already encountered. White can hold the draw here, despite being the knight down. The connected passed pawns will deflect the king to the kingside, meanwhile he can run with his king to the queenside.

**49.♔f4! ♖c6**

49...♖e2+ was not winning either 50.♔e3! ♖c3 (50...♖xg3 51.♔d4 The king breaks in via c5-b6. 51...♔e6 52.♔c5 ♖d7 53.♔b6 ♔c8 saves the pawns, but Black cannot win because his knight is tied to the h-pawn. Meanwhile White can initiate further exchanges with 54.a5 followed by b5 axb5 ♔xb5 and a6. 54...♔b8 55.b5 axb5 56.♔xb5 ♔a7 57.♔c5 ♔a6 58.♔b4=



Black has no chance to win without the knight, which itself has no time to collect the a5 pawn and get back to the h-pawn.) 51.a5 ♔e5 (51...♖d5+ 52.♔d4 ♖xb4 53.♔c5 ♖c6 54.♔b6= The pawns start to fall.) 52.♔d3 and Black can't

win the kingside pawns and save time to avoid the exchange of the queenside pawns, so the position is a draw.

**50.b5**

White should exchange a pair of pawns before pushing the h- and g-pawns. In general, the defensive side should always aim for exchanges to get closer to the draw.

**50...axb5 51.axb5 ♖a7**

White can't protect the b-pawn, but there is no need for that.

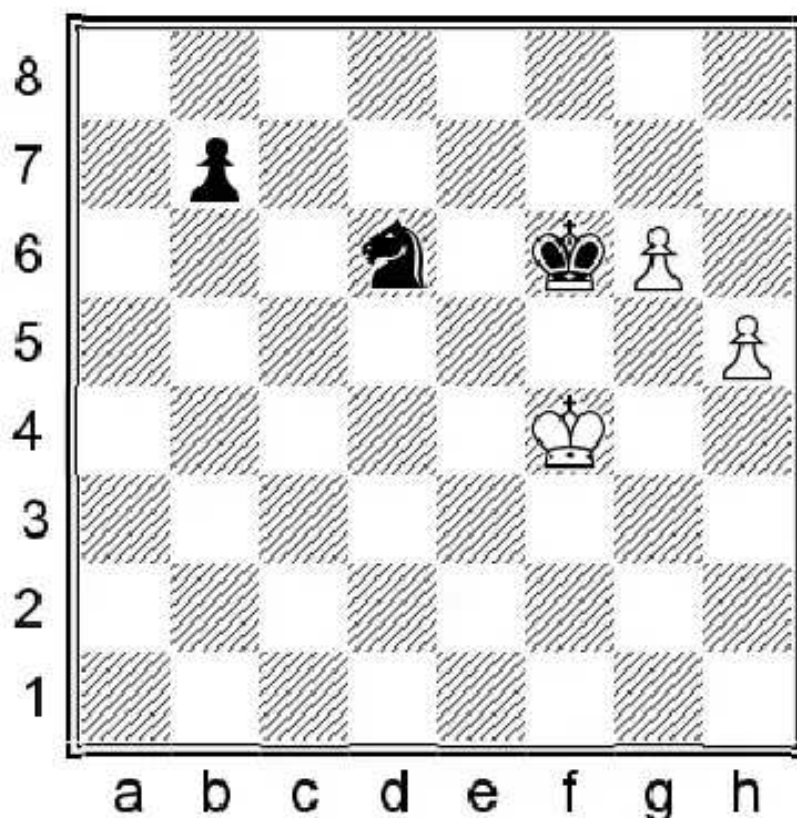
**52.g4!**

It is time to advance the passed pawns.

**52...♗xb5 53.h5**

Before moving to the queenside with his king, White tries to push the pawns as far as possible.

**53...♗d6 54.g5+ ♔e6 55.g6 ♔f6**

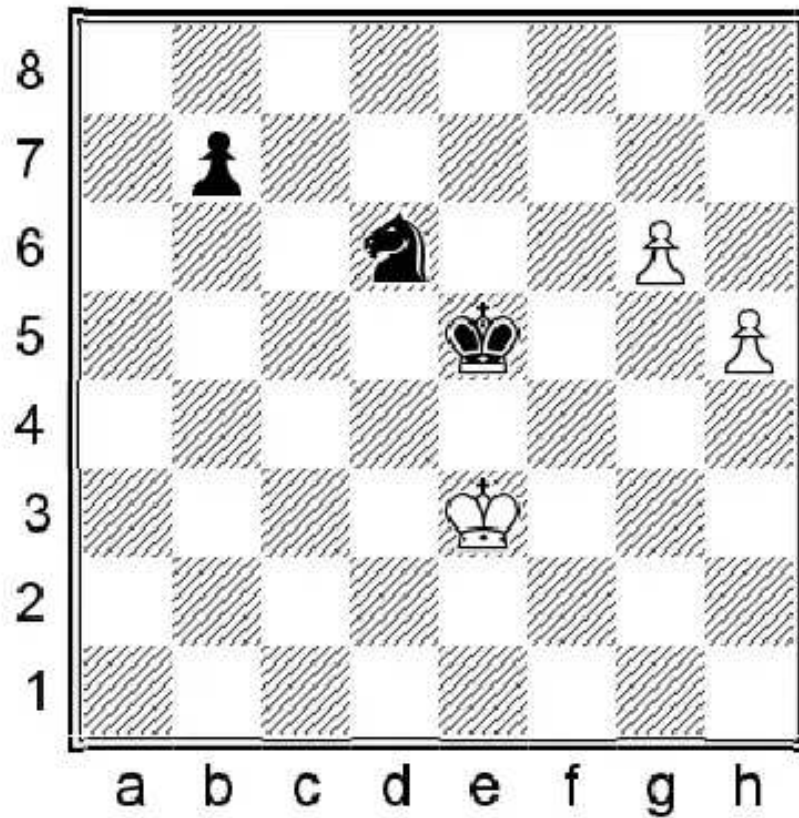


Now the pawn is already on the 6th rank, so White can be quite relaxed and start his journey to the queenside. The black king cannot take part in the action and the knight alone cannot promote the pawn.

**56.♔e3 ♔e5**

Black is never in time to take the h-pawn, so he is trying to stop the white pawns with his knight and play some sort of winning pawn endgame. 56...♗f5+ 57.♔e4 ♗g3+ 58.♔d5 ♗xh5 59.♔c5=;

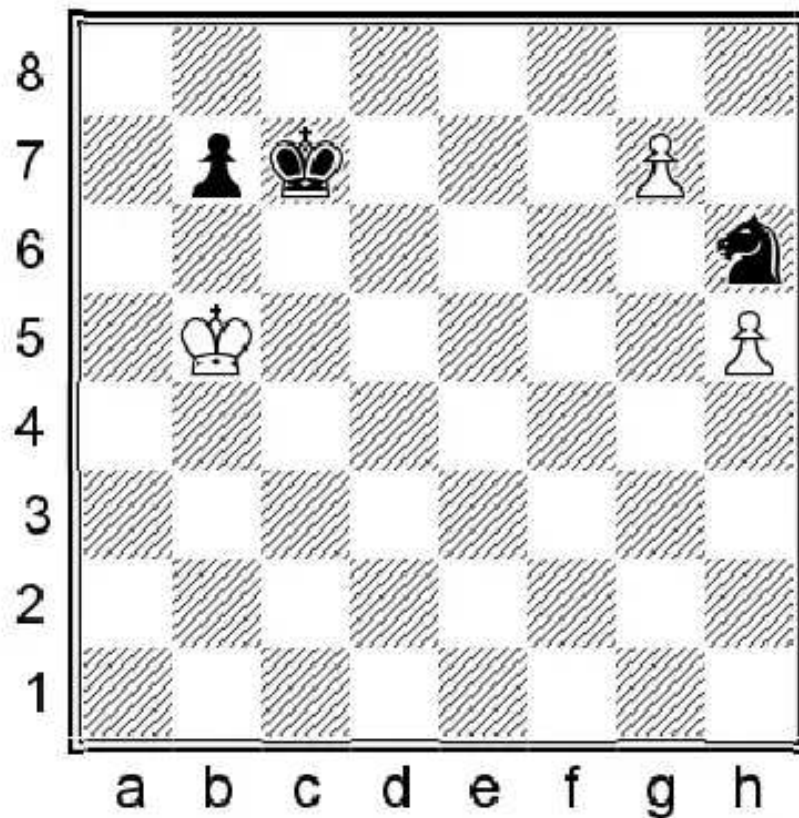
Black fails by one tempo after 56...♔g5 57.♔d4 ♔xh5 58.♔c5= if he could have already taken on g6, then ...♗c8 wins, but the g-pawn must be stopped first.



57.g7 ♖f5+ 58.♔d3 ♖h6

58...♖xg7 also leads to a draw after 59.h6 ♖e6 60.h7 ♖f4+ 61.♔c4 ♖g6 62.♔c5 and ♔b6-♔xb7 cannot be prevented.

59.♔c4 ♔d6 60.♔b5 ♔c7



Black has managed to stop the pawns and at the same time save b7. Black still has hopes to win the game, because he

wants to advance his b-pawn square-by-square supported by the king and, at the very end, he can win the fight for the opposition by passing with the knight on g8 and h6. However, White still holds the draw, because his passed pawns are too-far advanced and he can switch his king to the kingside.

61.♔c5 ♔b6+ 62.♔d5 ♔d7 63.♔e5!

The threat of playing ♔f6 is just too strong and Black has nothing better than repeating moves...

63...♗e7 64.♗d5 ♗d7 65.♗e5 ♗e7 66.♗d5 1/2

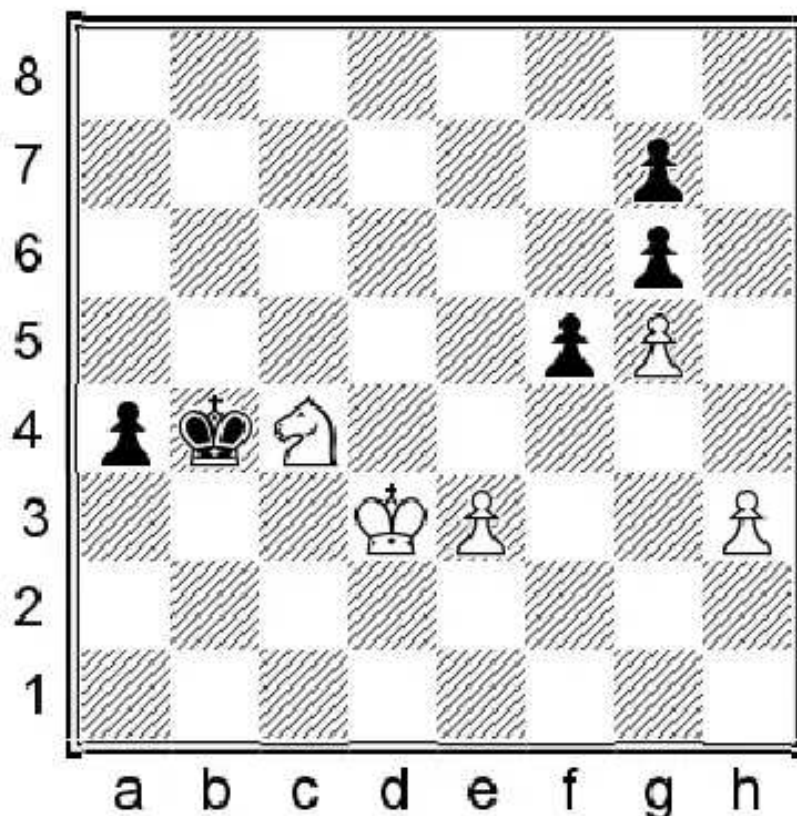
The stubborn defence by White has paid off.

19

R. Robson

A. Lenderman

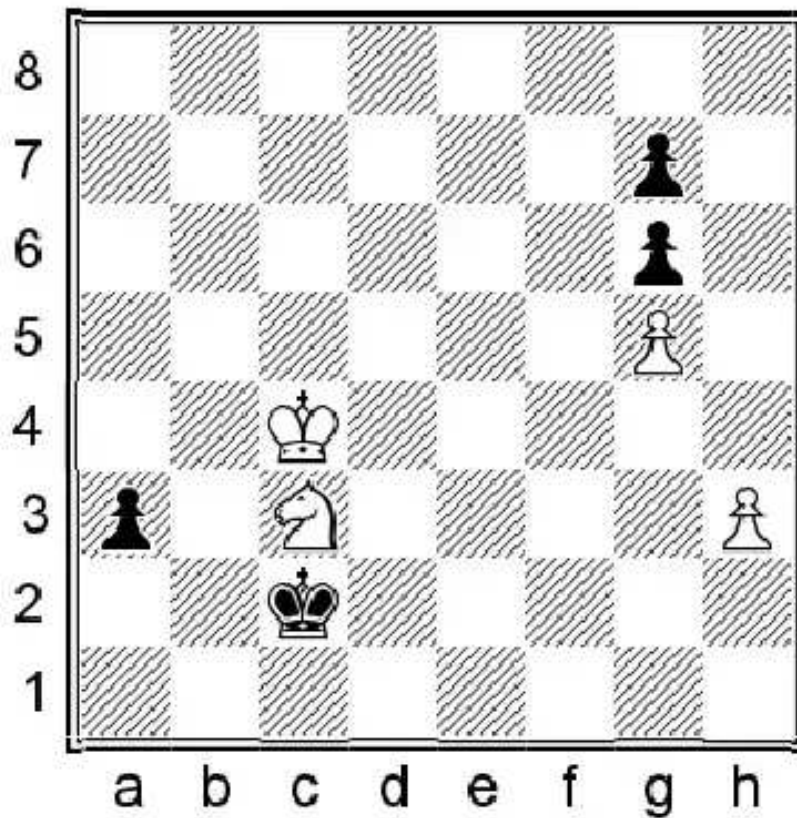
US Championship, 2016



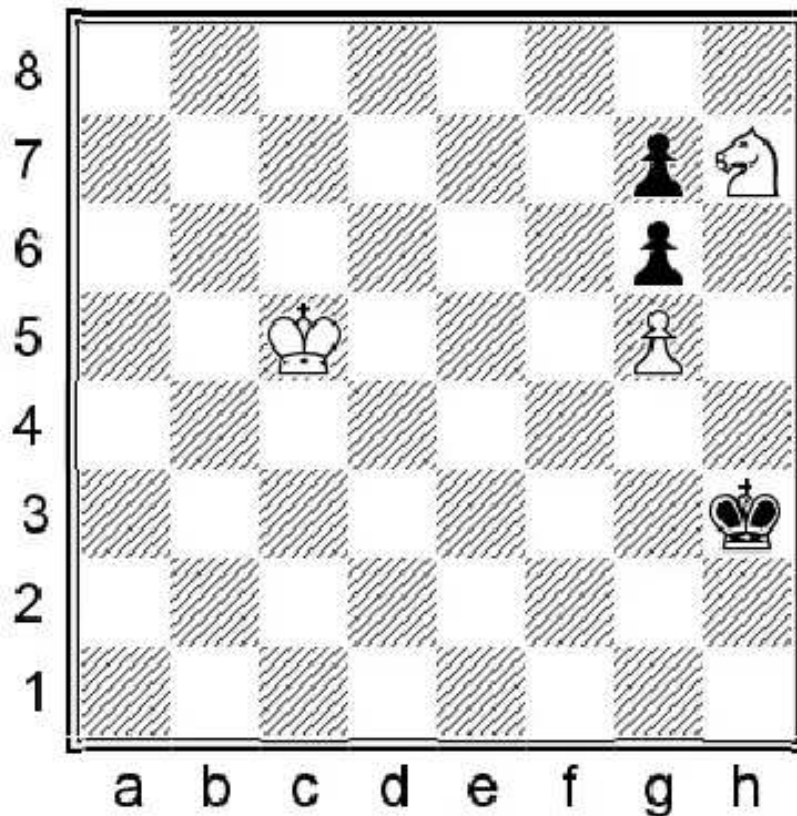
White has reached a technically-winning endgame, but to convert the advantage still requires some technique. Black is actually not even threatening ...a3, because the pawn endgame after ♖xa3 ♗xa3 e4 fxe4 ♗xe4 is easily winning for White, as the black king is too far from the kingside. Instead of advancing the a-pawn, Black wants to shuffle with ♗b4-b3, using the fact that the knight must stay close to the a-pawn, which restricts the movement of the king also, as it must protect the knight. White fails to find one of the winning continuations.

48.♗e5?!

A mistake, though not the decisive one as White can retreat with the knight to c4. Both ways to win required calculations. One of them is 48.♗d4! ♗b3 49.e4! fxe4 50.♗d2+ and wherever the king goes, we reach the same position 50...♗c2 51.♗xe4 a3 52.♗c3 ♗b3 53.♗d3 ♗b2 54.♗c4 ♗c2



55. ♖d5! Only move! Black must decide in which direction he wants to go with his king, but both have a drawback.  
 (After the natural 55. ♖b4 the king strays too far 55... ♔d3=) 55... ♔d2 (55... ♖b2 56. ♖b4 ♔c1 57. ♖b3 ♔d2 transposes to 55... ♔d2 55... a2 56. ♖b4+ ♔d2 57. ♖xa2 ♔e3 58. ♔d5 ♔f4 59. h4 ♔g4 60. ♔e5 ♔xh4 61. ♔f4+-) 56. ♖b3 ♔d3 57. ♖xa3 ♔e4



White has many winning moves, but the next one is very spectacular: 58. ♖f6+!? ♔f4 59. ♖h7! ♔g3 60. ♖b4 ♔xh3 61. ♖c5+- and the knight cannot be attacked while it is in safety on h7.

Perhaps the most natural way to win was 48. ♖d6! a3 (On 48... ♖b3 49. ♖b5 ♖b4 50. ♖c3 a3 51. ♖c2 ♖c4 52. h4+- and Black finds himself in zugzwang, with ♖b3 coming next. The knight does a great job on c3, stopping the a-pawn and controlling the invasion squares of d5 and e4 for Black towards the pawns.) 49. ♖c2 ♖c5 50. ♖xf5! The easiest (Or 50. ♖e8! ) 50... gxf5 51. h4 ♔d5 52. h5 ♔e5 53. ♖b3+- and Black has no access to the pawns. White can use his king to collect all the material.

48. ♖e5?! ♔b3!

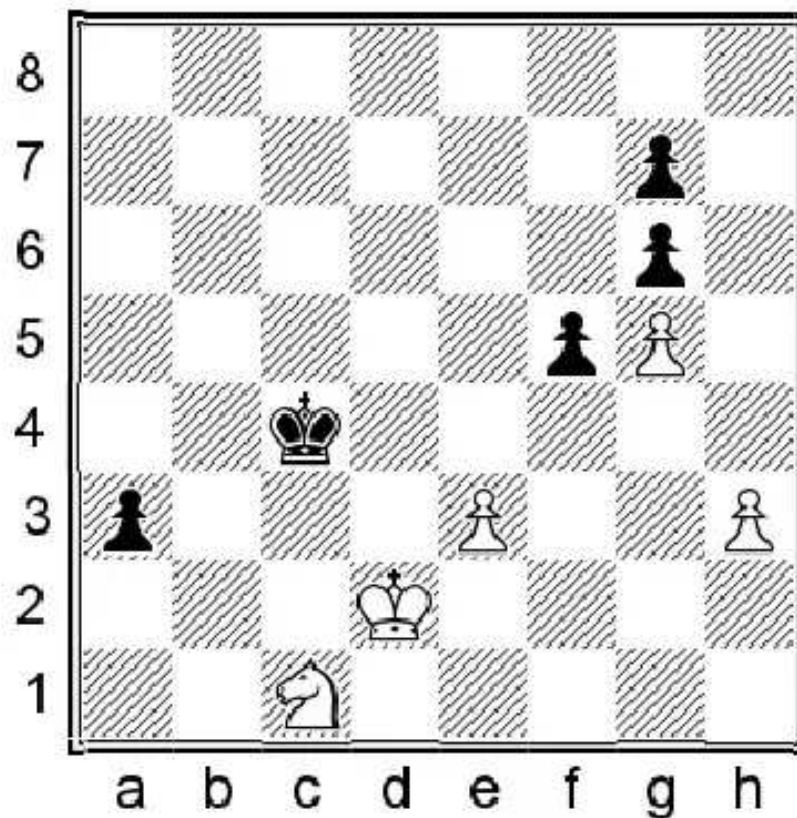
Black must prevent ♔c2 and he is now threatening to promote the pawn. The knight must retreat. 48...a3? 49. ♔c2+–

49. ♔d2?

After this the game is drawn. The a-pawn gets too far advanced, and thus White has even fewer possibilities of doing something. White should have played 49. ♖c4 which is met by 49...♔b4 and now he must find one of the previously-analyzed wins.

49...a3 50. ♖f3

The other way to stop the pawn was 50. ♖d3 but Black holds after 50...♔c4! (50...a2? still loses to 51. ♖c1+! ♔b2 52. ♖xa2 ♔xa2 53. e4! fxe4 54. ♔e3+– and the black king is too far from the action.) 51. ♖c1



51. ♖f4! The knight is busy holding the a-pawn and in the pawn endgame White cannot win with his lone king. 52. exf4 ♖d4 Black's king is more active and he starts to collect the pawns one-by-one. White can only save one of them; but it will not be enough... For instance 53. h4 ♔e4 54. ♔c3 ♔xf4 55. ♔d4 ♔g4 56. ♔e5 ♔xh4 57. ♔f4 ♔h5 and Black just waits with ...♔h4-h5. White cannot improve his position as his pieces are tied down. 58. ♖a2 ♔h4=

50...a2 51. ♖d4+ ♔b2 52. ♖c2 ♔b3

White is unable to realize his material advantage. Black keeps his pawn on a2 and it ties both the knight and the king to the queenside.

53. ♔d3

53. ♔c1 ♔c3=

53...♔b2 54. ♔d2 ♔b3 55. h4 ♔b2 1/2

Draw agreed. An instructive defense, although up until the pawn was on a4 White had some ways to win, but anyway it is useful to remember this idea – it is not the first time that somebody received a difficult endgame

is useful to remember this idea — it is not the first time that somebody rescued a difficult endgame.

## 1.5. MATE WITH TWO KNIGHTS VS PAWN

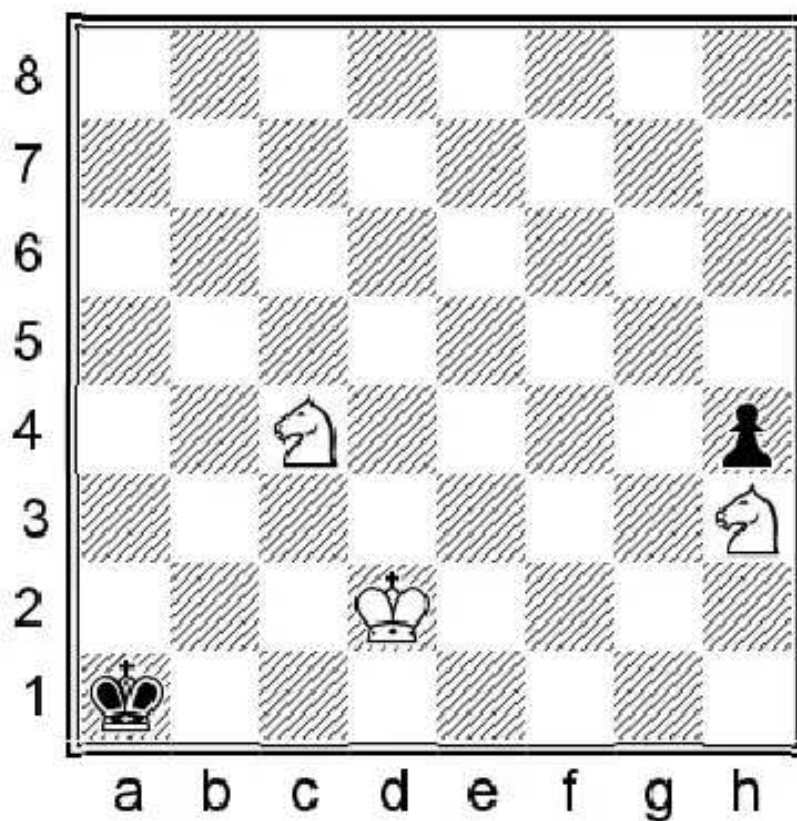
Two knights cannot force mate against the king. However if the king has a pawn as well, then some positions could be winning. This kind of endgame is very rarely seen in practice, but the general rule is the following:

The side with the knights must try to blockade the pawn as far back as possible with one of his knights. Then he should try to squeeze with his king and the other knight the opponent's king to the corner. As a last step, he should switch the blockading knight to deliver mate. If the mate lands at the same time as the promotion of the pawn, then we have done the job!

Let's examine some examples which may occur in a practical game.

1

### Practical position



This is the ideal position. The pawn is blocked by the knight and the king and knight has already squeezed the black king to the corner. White wins after

1. ♔c2! ♕a2

And now it is time to drop the h3 knight to the queenside.

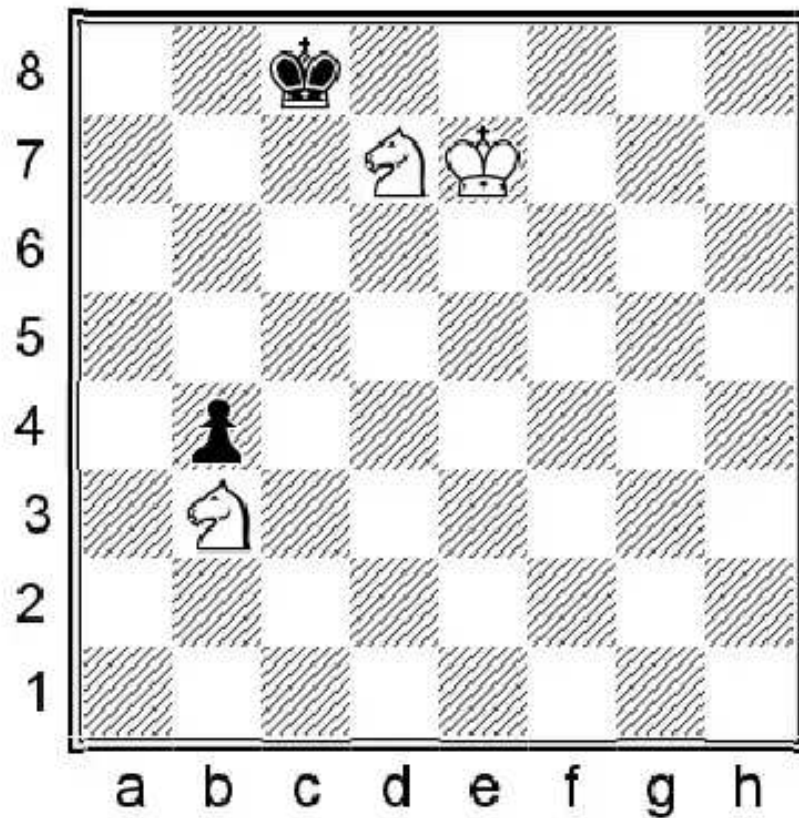
2. ♘f4 h3

We should never be tempted to eliminate the last pawn; there is no mate with two knights, because of stalemate.

3. ♘e2! h2 4. ♘c1+ ♕a1 5. ♘d2 h1=♚ 6. ♘db3#

2

### Practical position



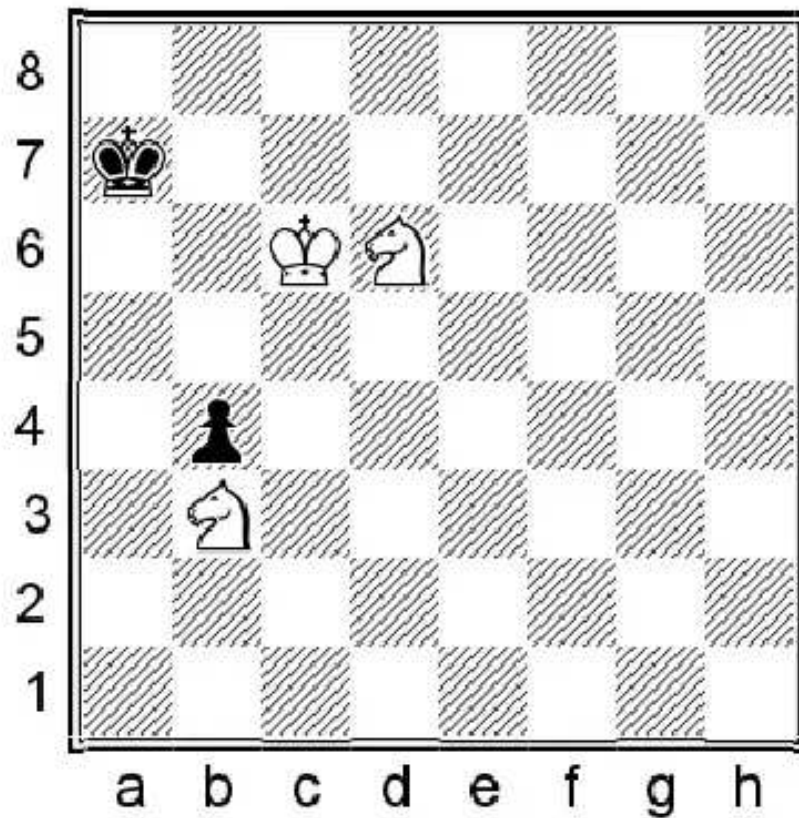
Here is another, slightly more complex position. The pawn is blocked by the knight, but White must still work on squeezing the king to the corner. Let us see how this can be achieved.

**1.♔d6!**

The king is near to the ideal corner on a8. Ideal, because it is the closest for the b3 knight.

**1...♔d8**

1...♔b7 2.♖dc5+ ♔b6 (2...♔c8 3.♖e6! Keeping the king in the cage 3...♔b7 4.♔d7 ♔b6 5.♖ed4 The knights cooperate perfectly together. Controlling all the squares on the 5th rank. 5... ♔b7 6.♖f5! ♔b6 7.♖d6 After this great maneuver, the king is forced to move to the a-file where it becomes ever-more squeezed for space. 7...♔a7 8.♔c7 ♔a6 9.♔c6 ♔a7



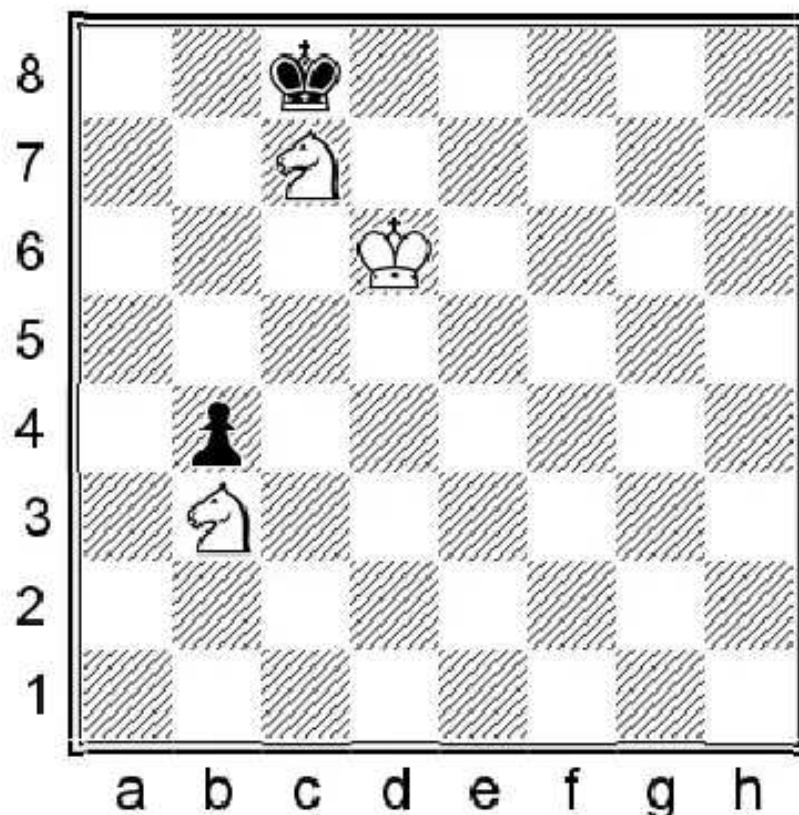
The time has come to deliver the mate. 10. ♖c5! b3 11. ♔c7 b2 12. ♜b5+ ♕a8 13. ♜d7 b1=♚ 14. ♜b6#) 3. ♜a4+ ♔b5 4. ♜b2 ♔b6 5. ♔d7 ♔b5 (5... ♔b7 6. ♜c4+—) 6. ♔c7! And again, the king is forced to move to the a-file. We can see

different ways in how the knights control the escape routes of the king. 6... ♔a6 7. ♔c6 ♔a7 8. ♜c4 ♔a6 This is the moment of truth again, when White can let the b-pawn run, but deliver the mate. 9. ♜c5 ♔a7 10. ♜d6 b3 11. ♔c7! b2 12. ♜b5+ ♕a8 13. ♜d7 b1=♚ 14. ♜b6#

## 2. ♜f6!

Preventing the run of the king to the other corner.

2... ♔c8 3. ♜d5 ♔d8 4. ♜c7 ♔c8



**5. ♖e6!**

The king is squeezed one rank closer to the corner.

**5... ♗b7 6. ♗d7 ♗b6 7. ♘ed4 ♗b7 8. ♘f5!**

We have already seen this technique in a previous line. White goes to d6 with the knight and the king will be forced to move to the a-file.

**8... ♗b6 9. ♘d6 ♗a7 10. ♗c7 ♗a6 11. ♗c6 ♗a7**

And White delivers the usual mate.

**12. ♘c5! ♖b3 13. ♗c7! ♖b2 14. ♘b5+ ♗a8 15. ♘d7 ♖b1=♔ 16. ♘b6#**

# CHAPTER 2

## KNIGHT VS KNIGHT

### 2.1. KNIGHT + PAWN VS KNIGHT

In this chapter we are going to examine some positions where the stronger side has an extra pawn. If it is advanced to the 7th rank (or 2nd as Black) and the knight has to blockade it, most of the positions are winning.

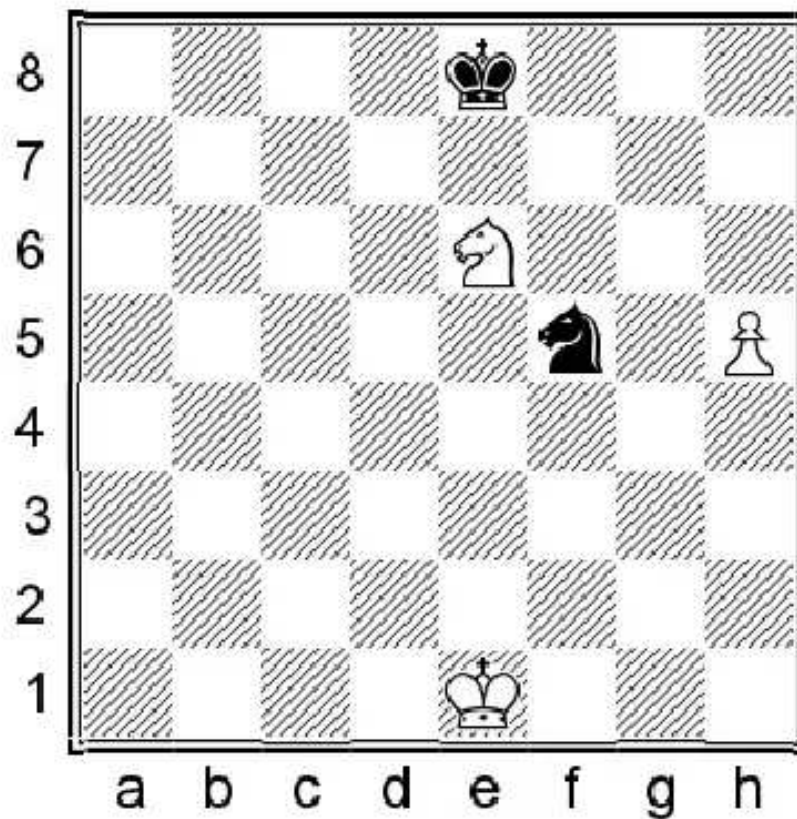
If the pawn can be stopped earlier, the defensive side has better chances, but still in a practical game it is going to be a long torture and many only moves have to be found to succeed.

The attacking side should always keep in mind the ideas of prophylactic thinking and the zugzwang.

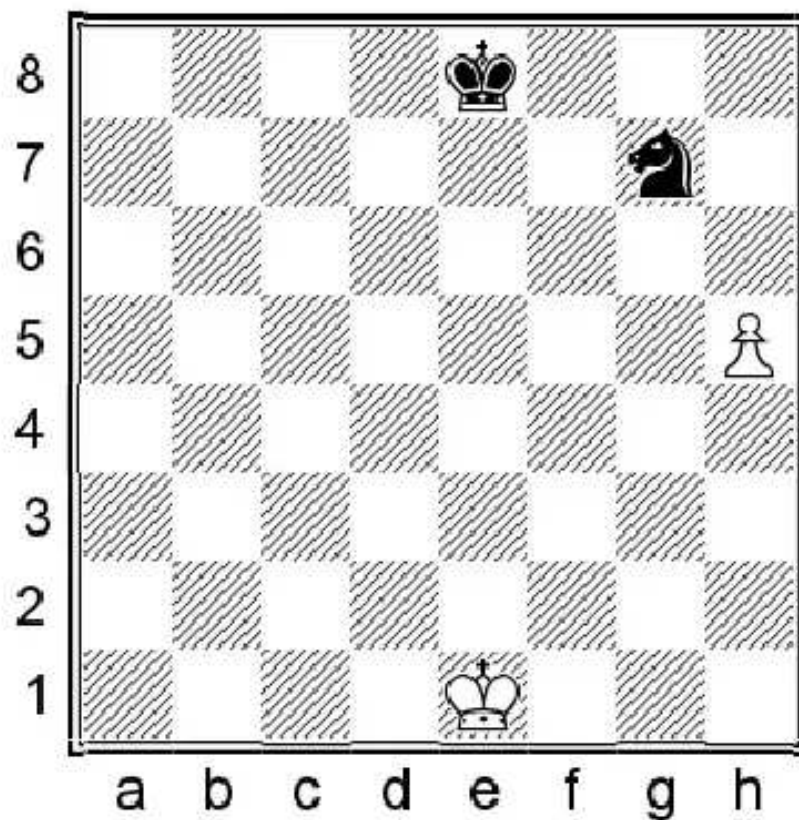
We shouldn't forget that with the knight we cannot pass the move to our opponent by triangulation.

1

Theoretical position



1. ♖g7+! ♜xg7



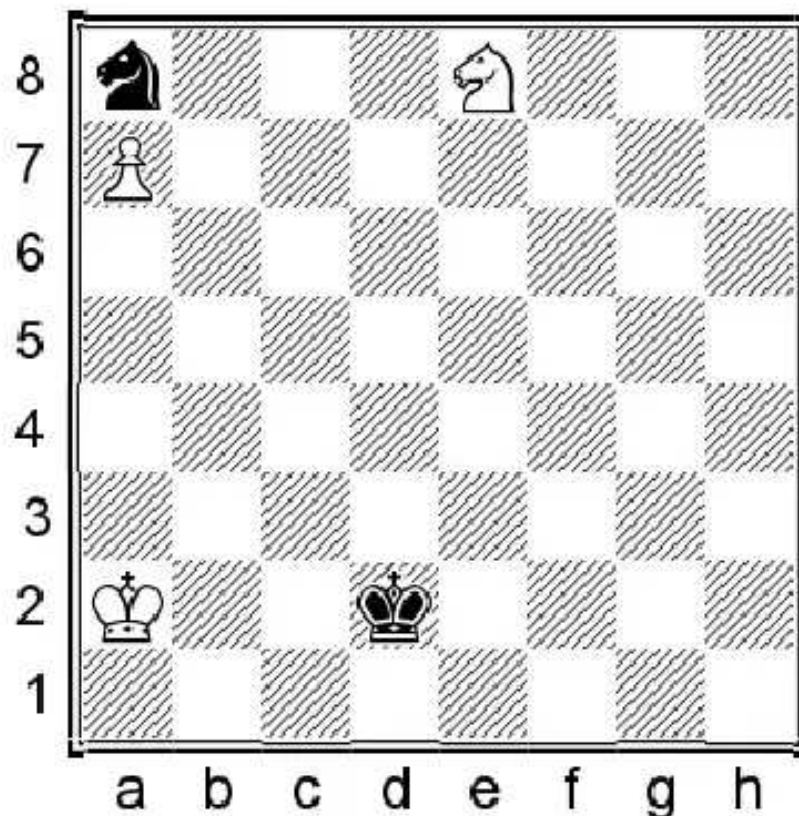
## 2.h6

This is one of the most important motifs in knight endgames! The g7 knight cannot stop the pawn if it goes to h6. This might appear also with other material relationships. Probably the most common is with a black pawn on g7, which can be taken by any piece; bishop, rook or knight and in case of  $\text{N} \times \text{g7}$ , h6 and the pawn is promoting.

2...♔f7 3.h7+–

2

### Practical position



When the knight is blocking the pawn just before the promotion square, we should always pay attention to the different

When the knight is blocking the pawn just before the promotion square, we should always pay attention to the different kinds of optional zugzwangs or even mutual zugzwangs, as in this example. When the kings are on b5 and d5, we reach a mutual zugzwang. Therefore White has to take the opposition with

**1.♔b2!**

1.♔b3 ♔d3 2.♔b4 ♔d4 3.♔b5 ♔d5= and White is forced to move one of his pieces, which allows the black king closer to the pawn. Black holds the draw.

**1.♔b2! ♔d3 2.♔b3 ♔d4 3.♔b4 ♔d5 4.♔b5+-**

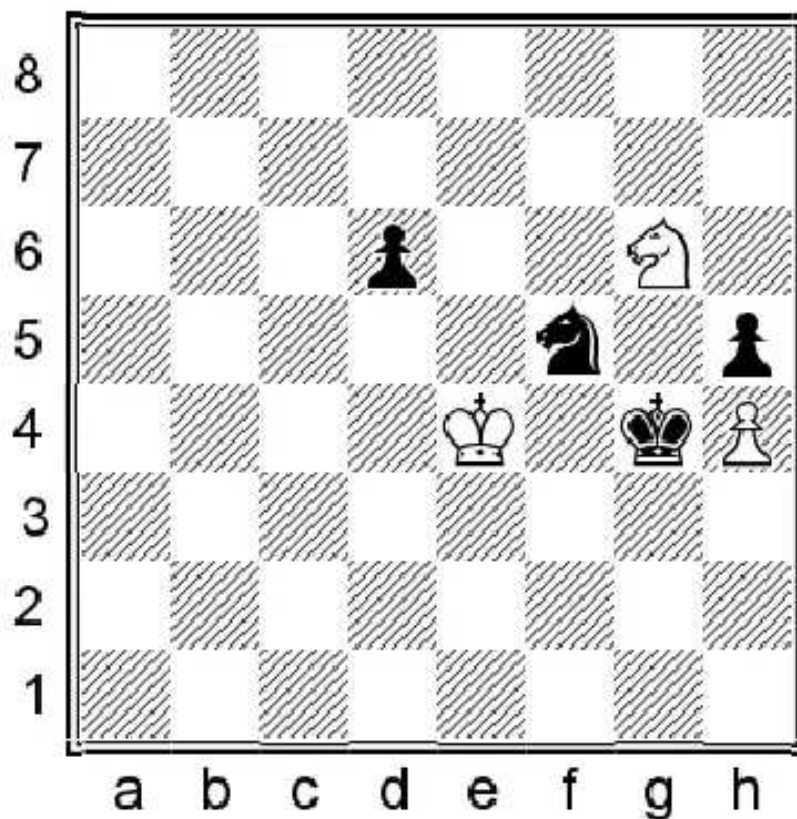
Black must allow ♔c6 after which ♔b7 is coming and the game is over.

3

E. Safarli

P. Eljanov

Shamkir, 2014



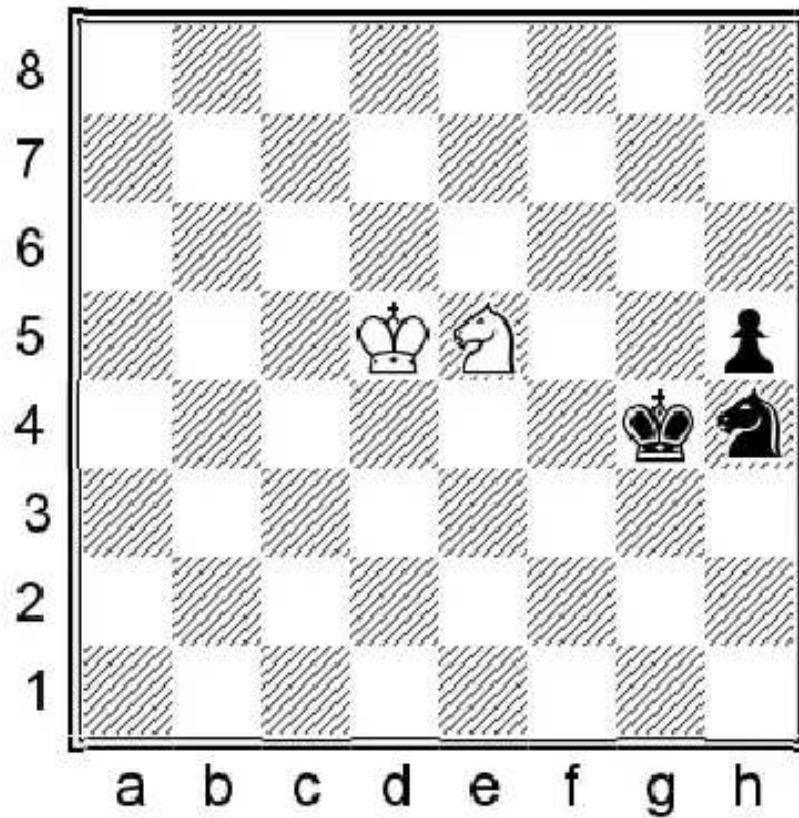
The next example is a perfect illustration for the h-pawn if the king of the defensive side has not had enough time to get in front of the pawn. Black realizes his advantage with perfect technique! We reach the critical position after the 66th move of Black.

**65...d5+!**

This is the only way! We will see that is very important to drive the white king as far away as possible from the h-pawn. 65...♞xh4 leads to a draw after 66.♞f4! ♞f5 (66...d5+ can now be met by 67.♞xd5 and Black cannot avoid losing his h-pawn.) 67.♞xh5 ♔xh5 68.♔xf5 holds.

**65...d5+! 66.♔xd5 ♞xh4 67.♞e5+**

White should sacrifice his knight for the pawn, therefore he must try to work with his pieces in harmony. 67.♞e7 quickly loses to 67...♞g2 and Black inevitably advances his h-pawn, because 68.♞g6 runs into 68...♞f4+ 69.♞xf4 ♔xf4+-

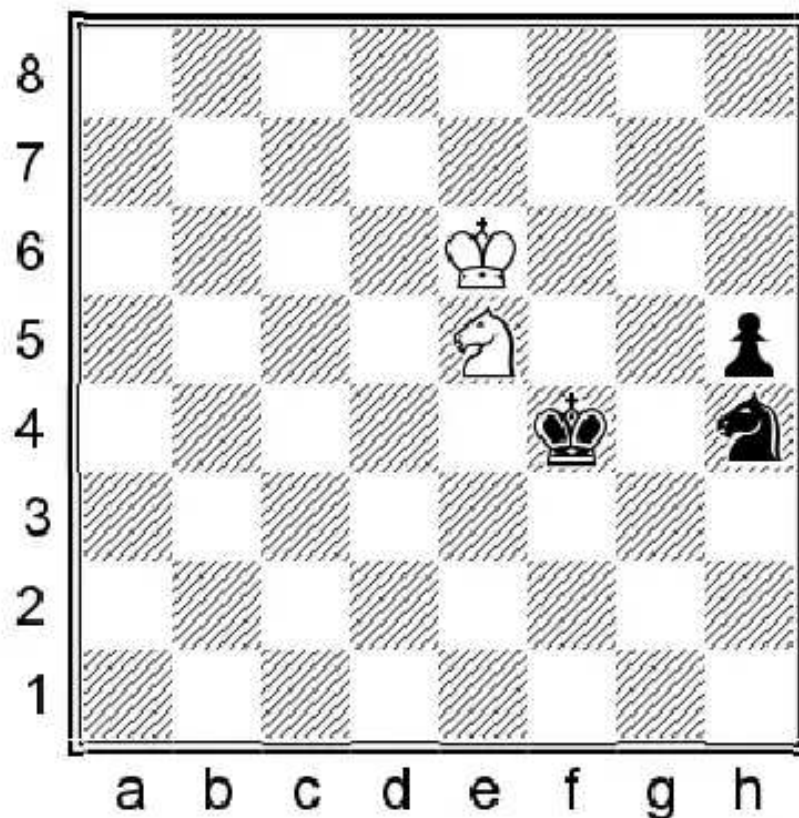


**67...♔f4!**

It is very important to keep the white king away from the pawn. 67...♔g3 would have been a big mistake because of 68.♕e4 ♖g2 69.♗g6 and Black cannot make progress.

**68.♕e6**

Another try is 68.♗d3+ but Black wins after 68...♔g3 69.♕e4 ♖g2! controlling all the important squares and the pawn is ready to advance. 70.♗e5 ♗h4 71.♗f3 ♗h3—+ White finds himself in zugzwang! His king cannot move, while all the knight moves allow ...h2.



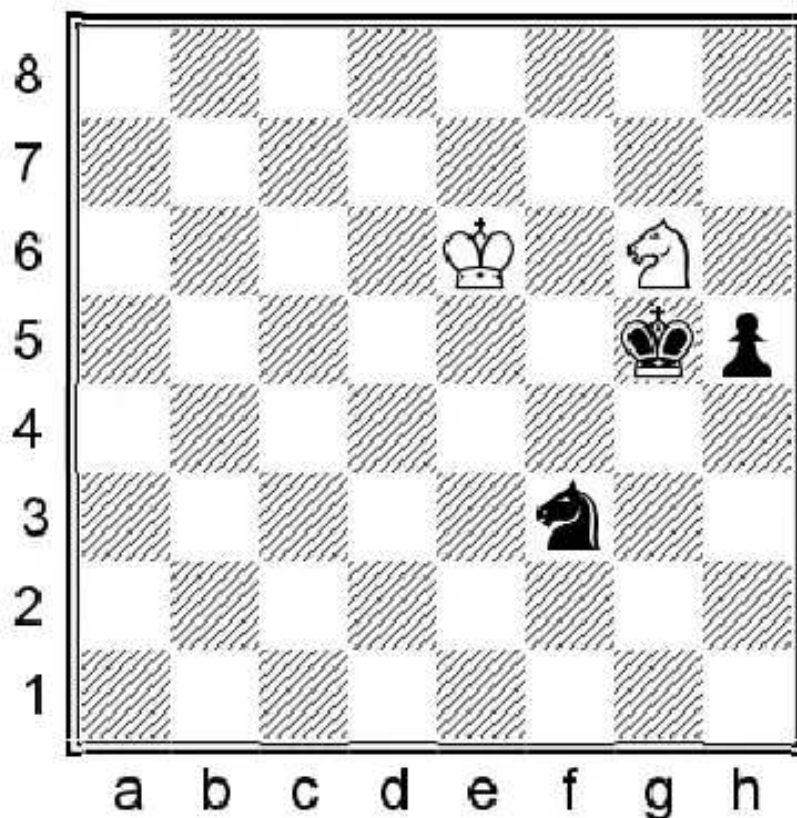
**68...♞f3!**

Again the only way to win! Black chases the centralized knight away from e5. 68...♞g2 makes no sense because after 69.♙f6 the h-pawn cannot be pushed in view of ♞g6.

**69.♞g6+**

69.♞d3+ ♔e3-+ and the knight is too far from the pawn; ...h4 is coming next.

**69...♙g5**



**70.♙f7**

This is the best defensive attempt. When the pawn reaches the 3rd rank, it basically automatically promotes due to different kinds of zugzwang. White must try to keep his knight on g6, but with nice maneuvering Eljanov succeeds in making progress.

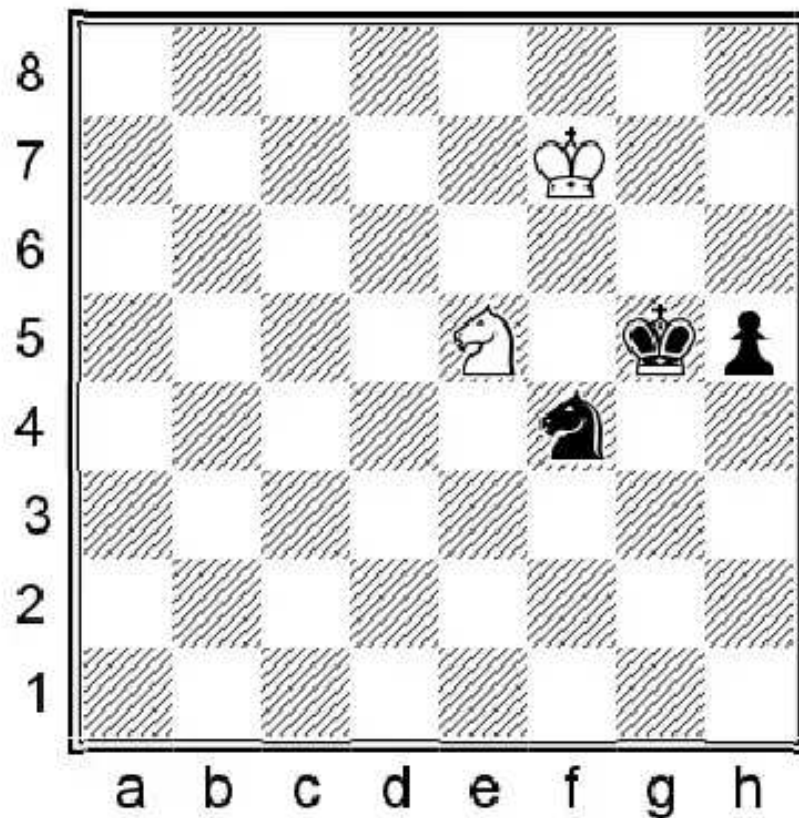
**70...♞d4! 71.♙g7 ♞e6+ 72.♙f7**

The point is that 72.♙h7 is refuted by 72...♞f8+! 73.♞xf8 h4 74.♞e6+ ♙g4-+ and the pawn cannot be stopped.

**72...♞f4**

The human way to deflect the knight from g6. Actually 72...♞f8!? was winning here too. 73.♞e5 (73.♞xf8 h4 74.♞e6+ ♙g4-+ is over again.) 73...♙f4! 74.♞d3+ ♙g3!-+ and again the pawn promotes automatically.

**73.♞e5**



**73...♔f5!**

The pawn could not be pushed at once.

**74.♖f3 ♔g4 75.♗e5+ ♔g3!**

Very well played and Black is now finally ready to push his pawn.

**76.♔f6 h4 77.♔g5 h3 78.♗g4**

The difficult part of the job is already done and the rest is easy. All plans are winning for Black...

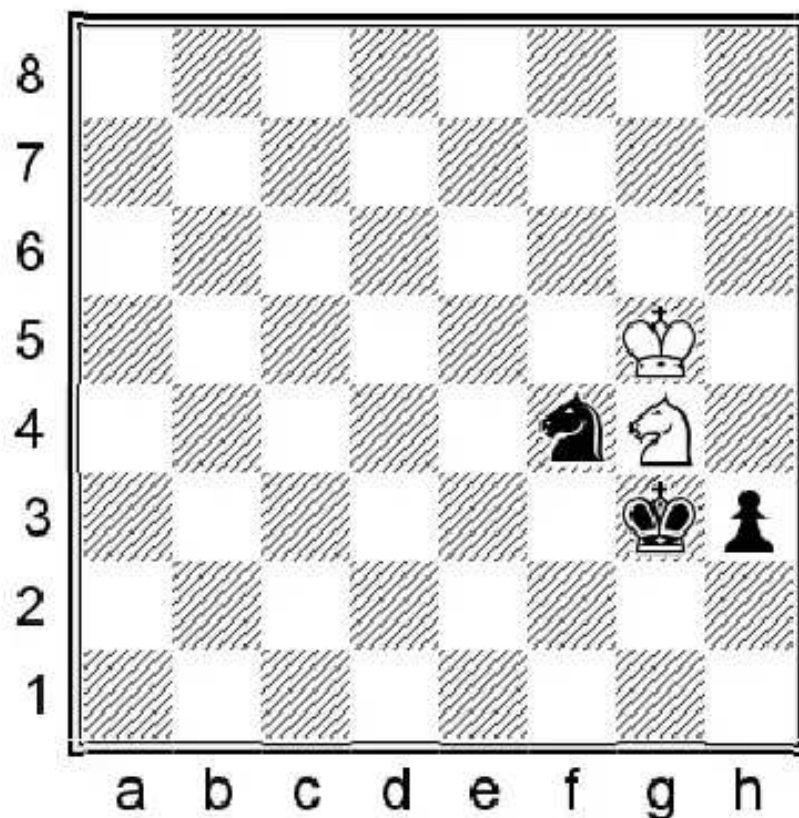
**78...♗e6+**

78...♗d3 79.♔f5 ♗f2 is also good, with the same technique as the pawn has reached the 3rd rank. 80.♗e3 ♔f3 81.♗f1 ♔g2 82.♗e3+ ♔g1-+

**79.♔h5 ♗f4+**

Black was in time-pressure, therefore he banks some extra time with the 30 second increment per move. This is the right technique in general.

**80.♔g5**



**80...♖g6 81.♗e3**

81.♗h5 ♗e5—+;

81.♗f5 ♗e5!—+ is elegant! 82.♗e3 ♗f2 83.♗f4 h2—+

**81...♗f2 82.♗g4+ ♗f3**

Black decides to win by triangulation. Other moves were also good enough. The end is near.

**83.♗h2+**

83.♗h5 ♗g3 84.♗g5 ♗e5 85.♗e3 ♗f2 86.♗h4 h2—+

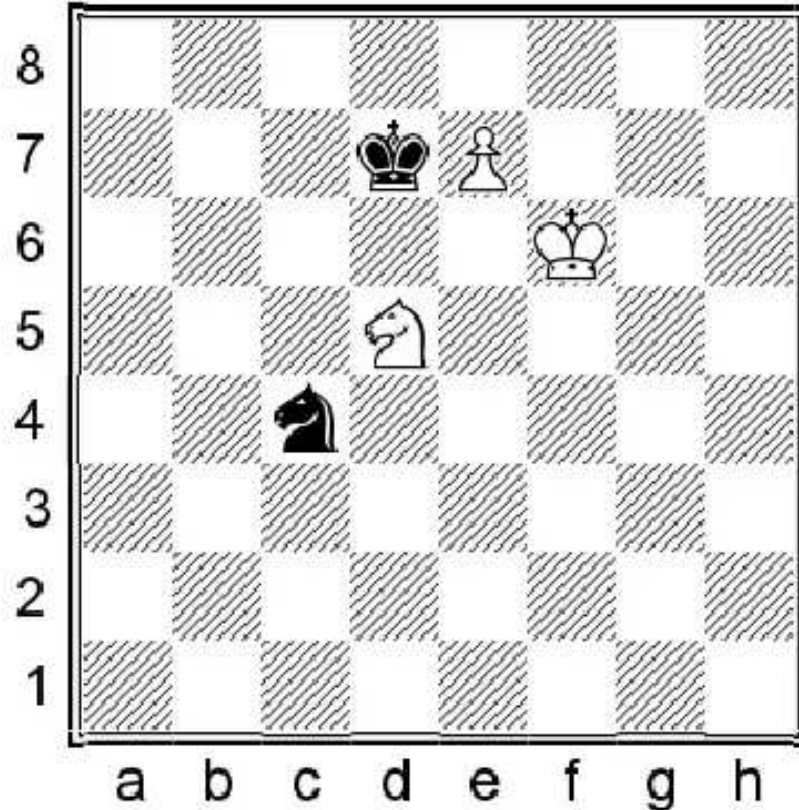
**83...♗g2 84.♗g4 ♗e5 85.♗e3+ ♗f2**

White resigned. It might seem surprising, but White could not improve his defence — he was lost after 65...d5!

**0–1**

4

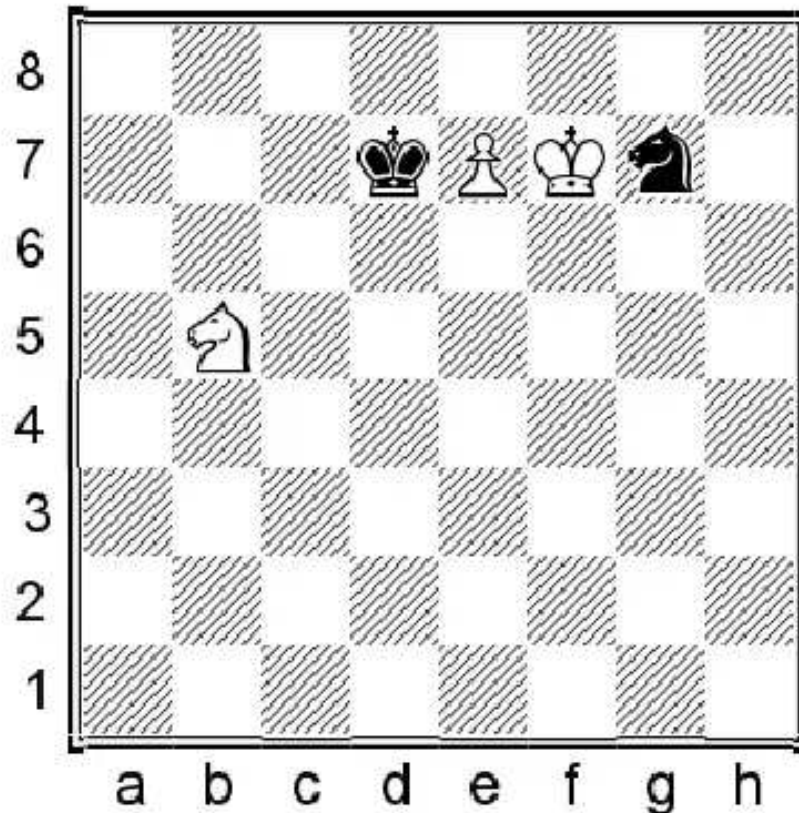
**Practical position**



Let's take a look at some examples where the stronger side has a central pawn. The only winning move is

1.  $\text{N}b6+$ !

If the pawn is advanced far enough, we must always check the potential deflections of the knight. 1.  $\text{K}f7$  immediately leads to a draw after 1...  $\text{N}e5+=$  and either ...  $\text{N}g6$  or ...  $\text{N}c6$ . (However it is instructive to check what happens after 1...  $\text{N}d6+$  2.  $\text{K}f8$  the pawn is ready for the promotion, White only needs to deflect the d6 knight with a knight sacrifice. 2...  $\text{K}e6$  3.  $\text{N}c7+$   $\text{K}d7$  4.  $\text{N}b5!$  Black can still resist for a while with 4...  $\text{N}e8$  5.  $\text{K}f7$  Another zugzwang. Black has only one move left. 5...  $\text{N}g7$



6.  $\text{N}c7!$  The final subtlety! Black's knight cannot go back to e8 and all pawn endgames are losing. 6...  $\text{K}d6$  7.  $\text{N}e8+$ !  $\text{N}xe8$  8.  $\text{K}xe8+-)$

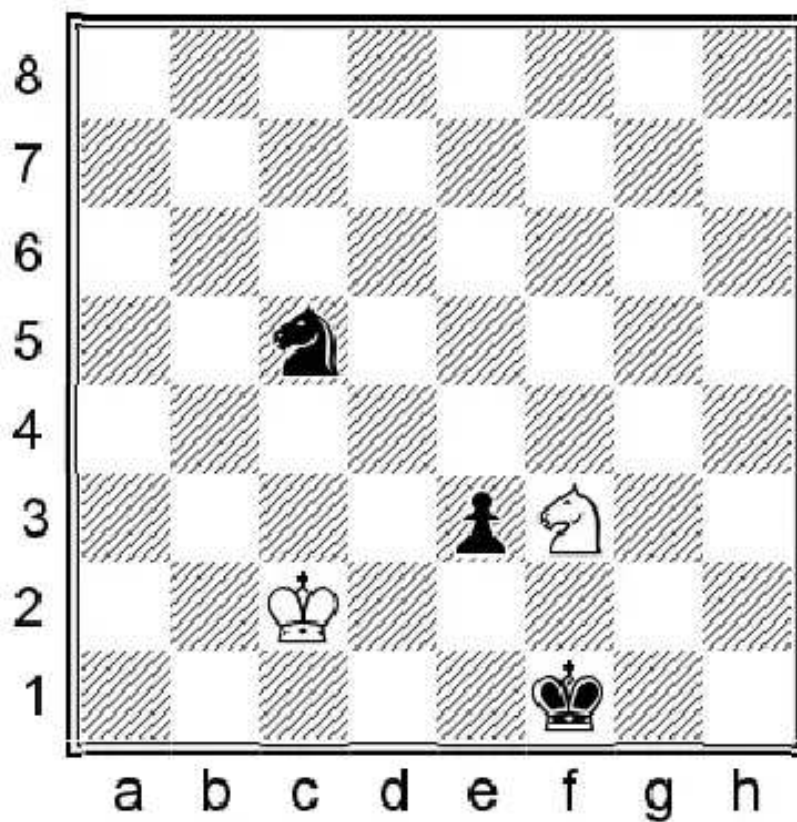
1.♖b6+! ♜xb6 2.♔f7+-

5

V. Fedoseev

R. Wojtaszek

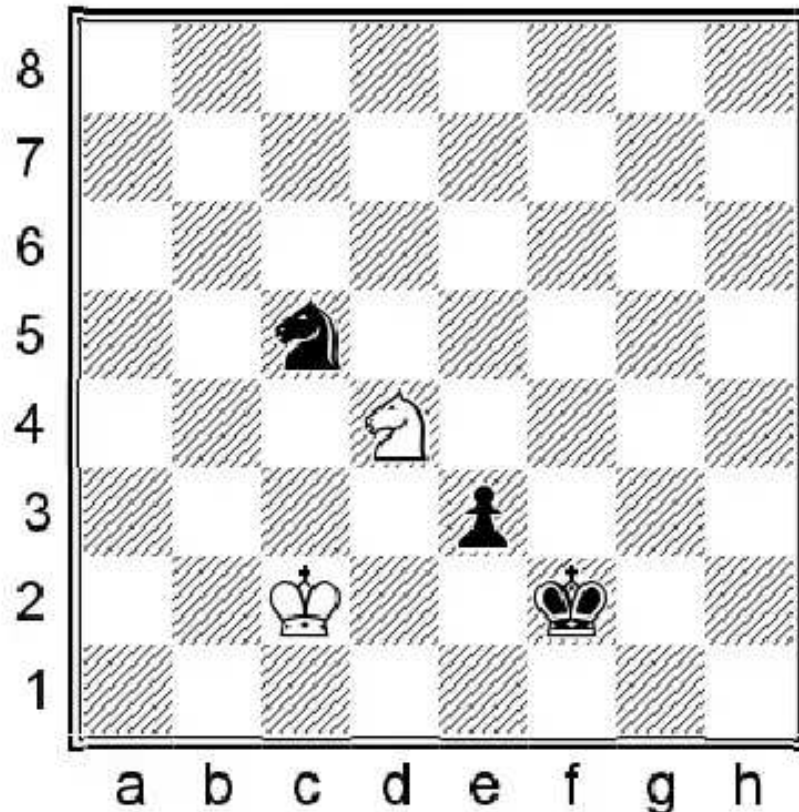
Yerevan, 2014



The passed pawn must be advanced as far as possible.

66...e2

If the pawn can be stopped on the 3rd rank, the game becomes drawn. For example 66...♔f2 67.♞d4 ♞e4 (A very important resource for the defensive side is to pursue the pawn and when it promotes, fork it with the knight. The less-advanced the pawn is, the better the chance of finding such a trick.)



For example 67...♖e6 can be met by 68.♗xe6! e2 69.♗f4! e1=♚ 70.♗d3+=) 68.♔d3 ♗g3 69.♔c2 ♗f5 70.♗e6!= using the same trick that the pawn cannot be pushed because of ♗f4-d3. (The same motif works with 70.♗b3! as well. The point is 70...e2 71.♗c1! Holds the draw. It is funny, that after 71...♗d4+ the king has only one place to avoid e1=♚ and it is 72.♔b2! e1=♚ 73.♗d3+=)

**66...e2 67.♗h2+**

The only move to fight for survival. 67.♔d2 is immediately losing to 67...♔f2 68.♗e1 ♗e4+-+

**67...♔f2**

67...♔e1 would lead to about the same position as in the game, just saving us some moves.

**68.♗g4+ ♔f1 69.♗e3+ ♔f2 70.♗g4+ ♔e1**

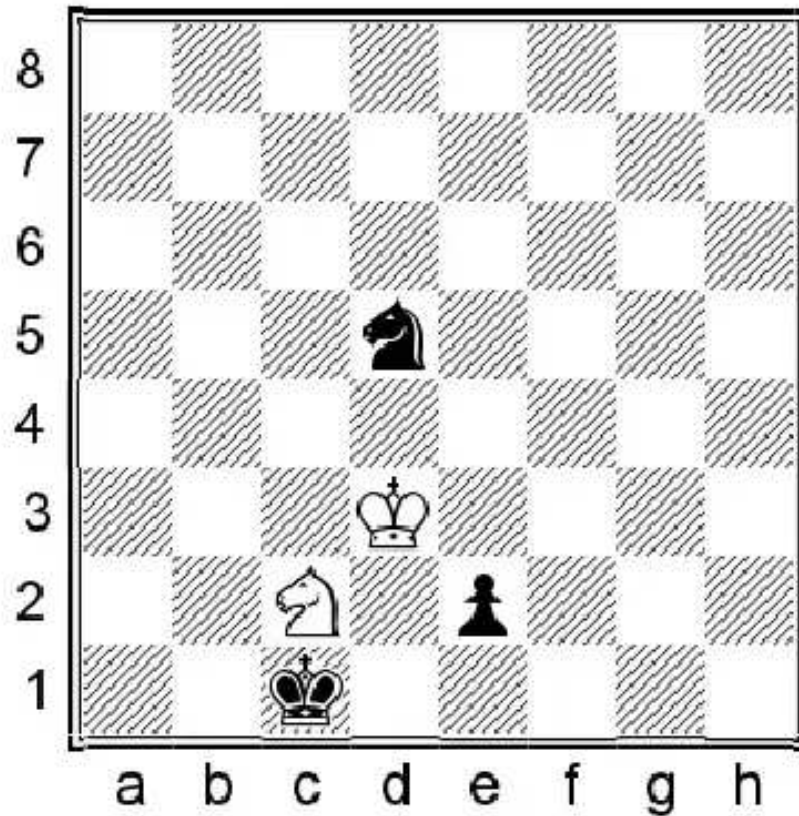
The king is finally on e1 and now it is time for Black to find a better place for the knight. Of course, when a piece stands in front of the passed pawn we must be careful that the knight should not be able to attack it.

**71.♗e3 ♗e6**

Black takes his knight to g2.

**72.♔c3 ♗f4 73.♗c2+ ♔f2**

73...♔d1 was easier as the following lines show: 74.♗e3+ ♔c1 75.♗c2 ♗d5+! 76.♔b3 (76.♔d3

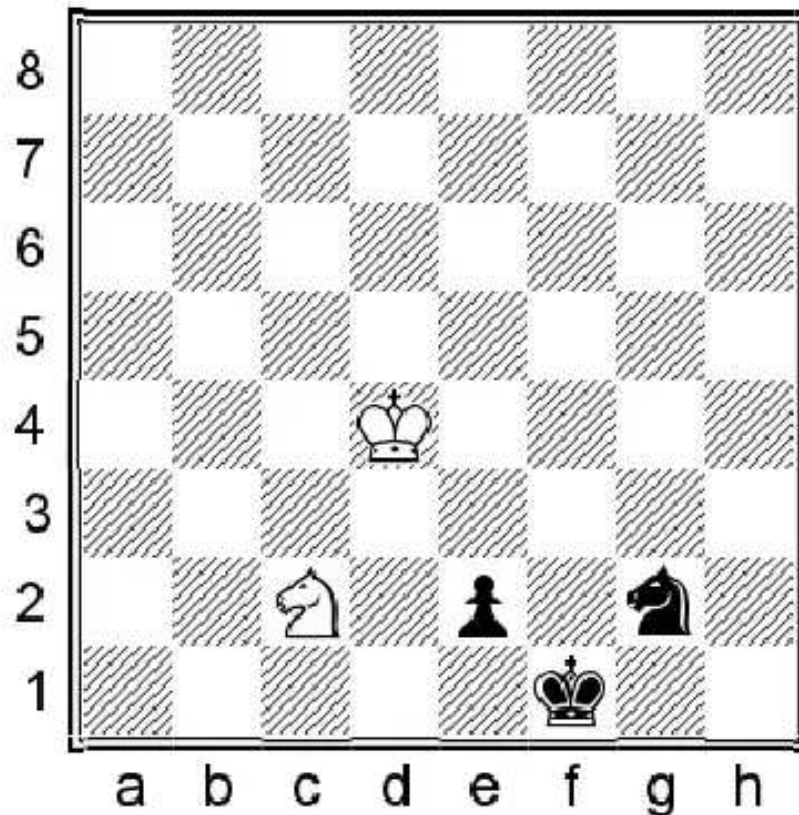


76...♔d1!—+ is zugzwang.) 76...♔d1 77.♔b2 ♖b4 White can still resist a bit with 78.♗e3+ ♔d2 79.♗g2 ♖d3+ 80.♔b3 ♗f4 81.♗h4 Last trick. 81...♔e3—+ Now it is over.

74.♔d4 ♔f1 75.♔e4 ♗g2

Black is not yet threatening ...♗e1 because of ♗d4, but White is in a kind of zugzwang right now. If he moves with his king to the 3rd rank, ...♗e1 wins and of course he does not want to stray farther with his king by going to the 5th rank.

76.♔d4



76...♗e1

This already works, as the king occupies the d4 square.

77. ♖e3+ ♔g1 78. ♕e4 ♘f3

Black has other winning moves as well.

79. ♖c2 ♕f2

The king has a safe (and perfect) position on f2, but he still needs to work for the win.

80. ♕d5

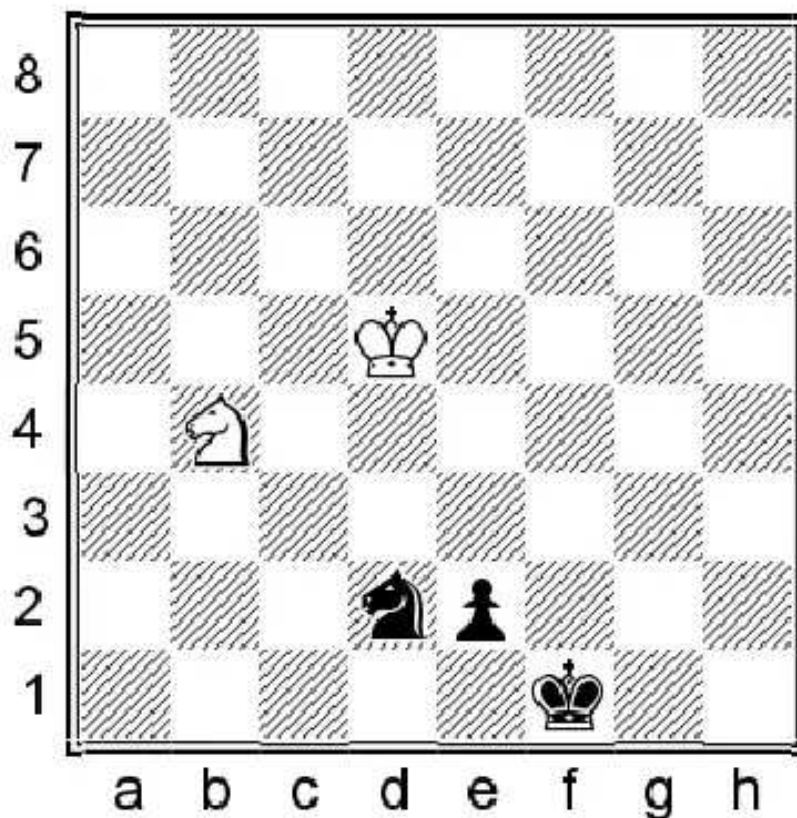
The only move to keep the d4 square free for the knight in case of ... ♖e1. 80. ♕f4 ♘d4+;

80. ♕d3 ♖e1+-+

80... ♘d2!

Black wants to play ... ♖b1-♗a3 or ... ♖b3-♗a1. There is no defence for White.

81. ♖b4 ♕f1



The end is near.

82. ♖c2

82. ♘d3 ♖b3! followed by ... ♖c1 next is winning.

82... ♖b3!

And the game is over. White can do nothing against ... ♗a1 next move.

83. ♖e3+

83. ♖c4 ♗a1 84. ♗e3+ ♕f2–+

**83...♕f2 84.♗c2 ♗a1!**

The final deflection.

**85.♗b4**

The last trap, but of course it does not work.

**85...♕e3 0–1**

Once more, the conclusion: If the pawn reaches the 7th or 2nd rank, most of the positions are winning, although it requires some patience and technique to convert it.

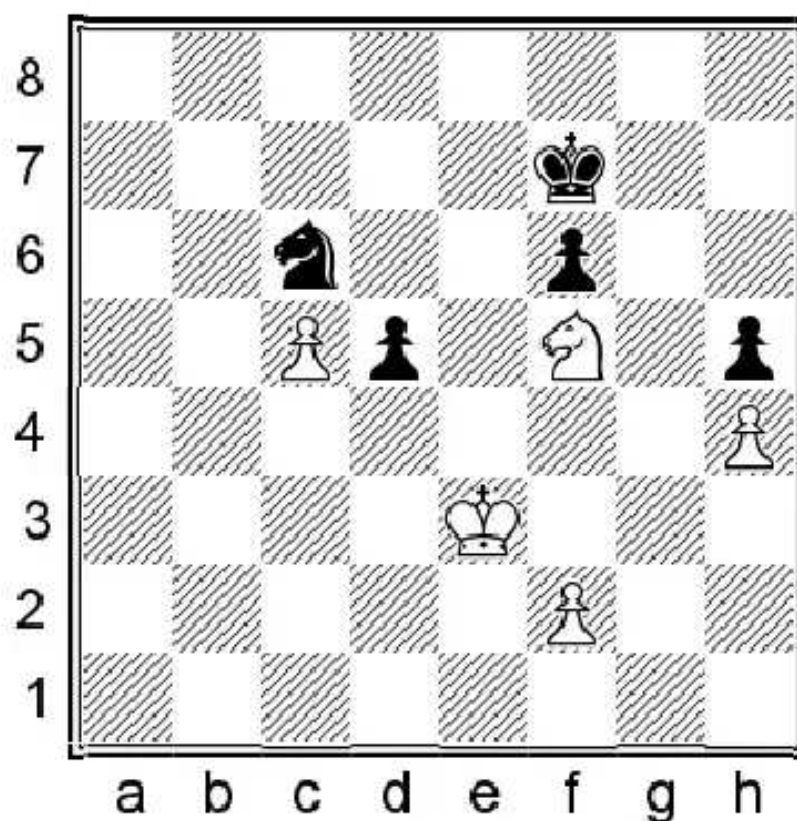
## 2.2. COMPLEX KNIGHT ENDGAMES WITH A PASSED PAWN

Passed pawns play an important role in all endgames, and knight endings are no exception. Usually the one who has the passed pawn can play for the win. We are now going to examine some games and see how things look in practice. This chapter will show us why knight endgames should often be evaluated like pawn endgames.

1

H. Melkumyan

A. Neikšans  
Riga, 2014



White is clearly better because of the distant passed pawn on c5. It currently has a blockader, but he can be chased away because almost all the pawn endgames after trading knights on d4 are winning for White. Now White should improve his position by taking his king to b5 to give the c-pawn the necessary support.

41. ♖d3 ♜g6

It is a shame to take the black king away from the queenside, but there is simply no other move which makes sense. The black knight can't move from c6 because of ♔d4 and in the event Black plays something like 41... ♔e6 than 42. ♘d4 would finish the game on the spot.

42. ♘d4

An excellent outpost for the knight, from where it blocks the opponent's passed pawn and supports his own.

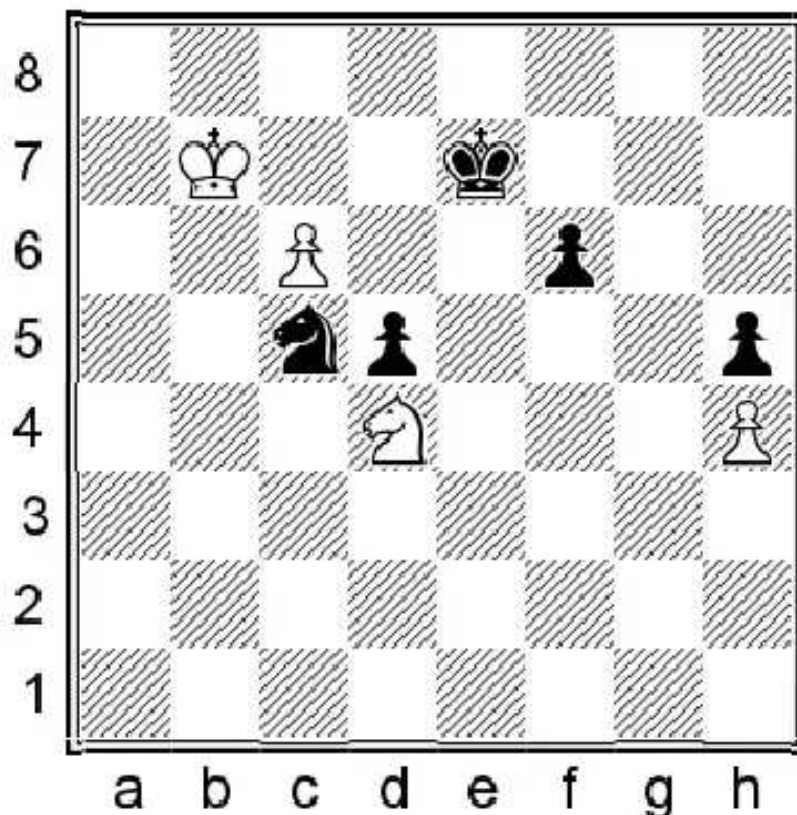
42... ♘e5+ 43. ♖c3 ♜f7

Black must retreat to stop the c-pawn.

44. ♖b4 ♜e7

Black could have gone for the pawn with 44...♖d3+ 45.♗b5 ♖xf2 Of course, it is risky to stray so far from the c-pawn,

but on the other hand ...♗e4 is a quick return. 46.♗b6 ♗e4 47.c6 We are at the beginning of some very spectacular lines: 47...♗e7 (47...♗d6 loses faster, since after 48.c7 either ♗f5 or ♗b5 is coming 48...♗c8+ 49.♗b7 ♗d6+ 50.♗b8+- and ♗b5 next will decide the game.) 48.♗b7! A very strong move with the deep idea of putting Black into zugzwang. (48.c7? leads only to draw after 48...♗d7 49.♗b7 ♗c5+=) 48...♗c5+



49.♗c7!! Black is in zugzwang. If the king moves to e8 then ♗d6 is decisive, while after a knight move ♗b8 finishes the game (which was not good right away because of ♗d6). 49...f5 50.♗xf5+ ♗e6 51.♗d4+ ♗e7 So the f-pawn is gone, but still it is not so simple to win the game- another zugzwang is needed... (51...♗e5 loses to 52.♗b6! ♗xd4 53.c7+-) 52.♗b6 ♗e4 53.♗b7! ♗c5+ 54.♗c7!+- and once again Black finds himself in a zugzwang, but this time there is nothing more to sacrifice.

#### 45.♗b5 ♗d7

The domination by White is now much more obvious.

#### 46.f4!

White not only kicks out the knight from e5, but the position of the white pawn on f5 can also prove useful: it allows ♗e6 in some lines and the pawn is more advanced in case of the fall of the f6 pawn.

#### 46...♗g6 47.c6+ ♗c8

After 47...♗c7 48.♗c5 ♗xf4 Black has won the pawn, but the quality of the c-pawn is more important than the number of pawns. 49.♗b5+ ♗b8 50.♗d6+- followed by c7 and ♗a7, with an easy win.

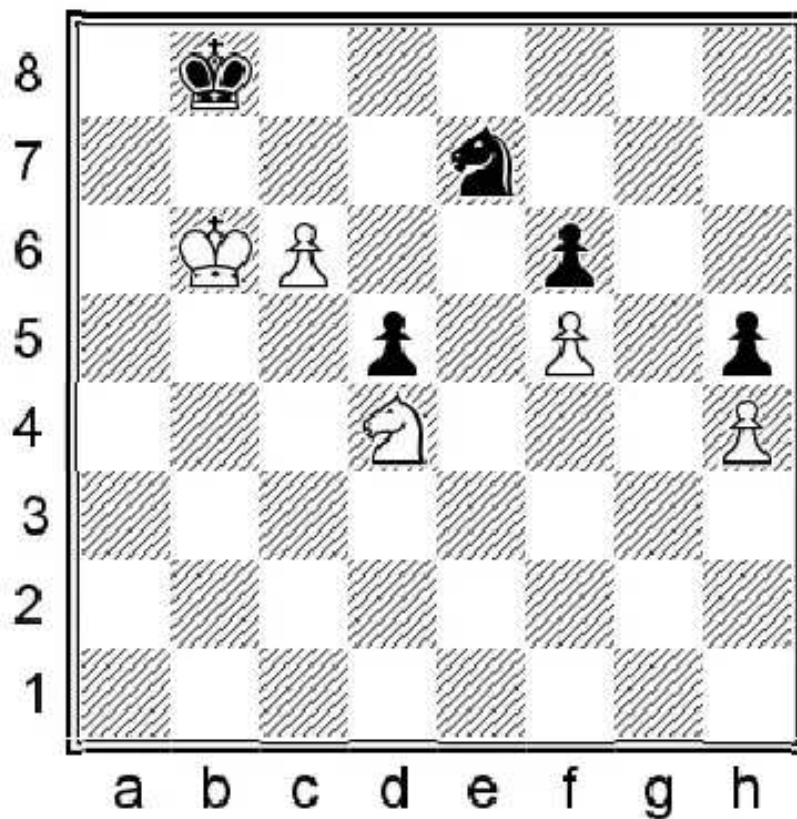
#### 48.f5

48.♗c5 ♗xf4 49.♗d6+- was also winning on the spot.

#### 48...♗e7

48...♗xh4 is refuted by 49.♗b6 ♗g2 50.♗h5+- followed by ♗d6/♗a7 and c7.

49.♔b6 ♕b8



The material is still balanced, but the c6 passed pawn and the huge difference in the activity between the white and black pieces decide the game.

50.♘b5 ♕c8

The black pieces can no longer move, and White finishes the game in a nice manner:

51.♘a7+ ♕d8 52.c7+ ♕d7 53.♔b7

White does not want to give up his c-pawn for the knight, because then Black might hope for salvation with the d-pawn or the quick king walk to d6-e5. Instead, White aims for promoting a queen with ♘c6.

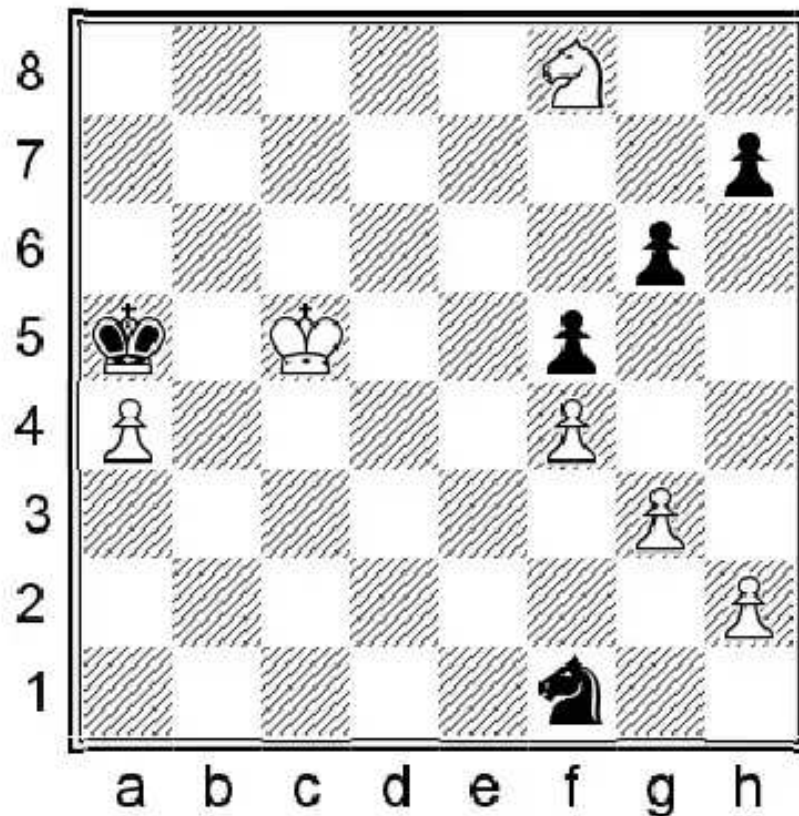
53...d4 54.♘c6 ♘c8

Black had no choice.

55.♘b8+ ♕e7 56.♔xc8 d3 57.♔b7

A nice illustration of why knight endgames should often be evaluated like pawn endgames. A passed pawn and the better king are often more than enough to secure the victory.

1-0



Thanks to the distant passed a-pawn, the white king stands closer to the kingside. But how does he save his pawns from the annihilation by the black knight? This mission is far from being simple.

### 1.h3!

1. ♖xh7 ♜xh2 and ...♞f1 next holds.

1. ♕d4 ♜xh2 2. ♕e3 ♜g4+ 3. ♕f3 ♜f6=;

1.h4 the pawn becomes more vulnerable on h4 and as we will see the h4 square is needed for other purposes. 1...♞xg3 2. ♕d4 ♜e2+ 3. ♕e3 (3. ♕e5 ♜g1= ♜f3 cannot be prevented.) 3...♞c3 4. ♜xh7 ♜d5+ 5. ♕f3 ♕xa4 6. ♜f8 ♜e7 The white king should quickly invade through d4-e5, but he fails because of a concrete reason. 7. ♕e3 (7. ♕e2 going around is too slow 7...♕b4 8. ♕d3 ♕c5=) 7...♞d5+! This is the problem, otherwise ♕d4-e5 wins. 8. ♕e2 ♜xf4+ 9. ♕f3 ♜h5 10. ♞xg6 ♕b5 11. ♜e7 ♕c5 12. ♞xf5 ♕d5 13. ♕g4 ♕e5=

### 1.h3! ♞xg3 2.♕d4!

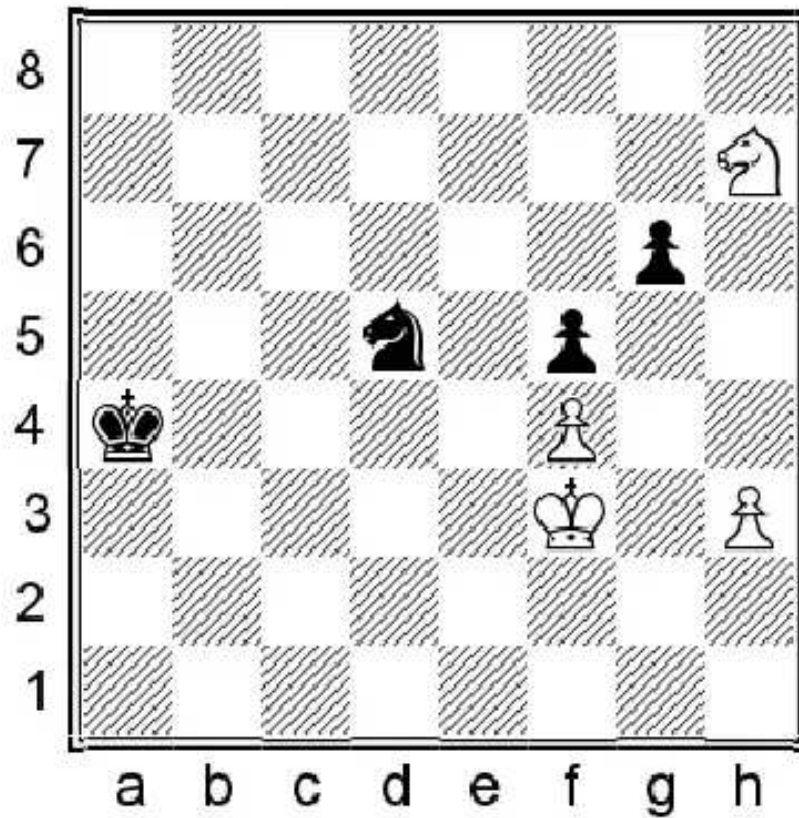
White needs to save his pawns. 2. ♕d5? ♜e2 3. ♕e5 ♜g1=

### 2...♜e2+

If 2...♕xa4 3. ♜xh7+- and back with ♜f8 back collects further pawns.

After 2...♜h5 3. ♕e5+- decides.

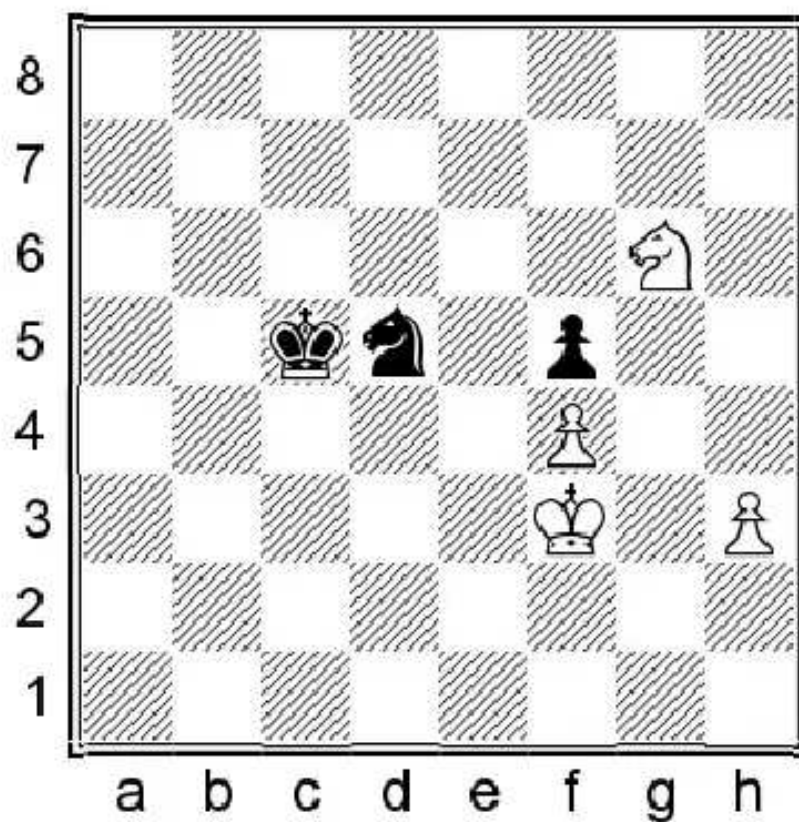
### 3.♕e3 ♞c3 4.♜xh7 ♜d5+ 5.♕f3 ♕xa4



6. ♖f8 ♗b5

And the big difference between h3 and h4 can be seen after 6...♞e7 as now White can play 7.♔g3! and the path towards the g6 pawn is opened through the h4-g5 squares. 7...♗b4 8.♔h4 ♗c4 9.♔g5 ♗d5 10.♞xg6+–

7. ♞xg6 ♗c5



8. ♔g3!

The king must be activated before advancing the extra pawn! 8.h4? ♗d6 9.h5 ♗e6 10.h6 ♞f6= Black's king marches

towards the h-pawn and he holds the draw.

8...♔d6 9.♕h4 ♕e6 10.♕g5 ♖c3 11.♗f8+

11.♗e5+- was also easy followed by ♕g6 and just queening the h-pawn.

11...♕f7 12.♗d7 ♗e4+ 13.♕xf5+- 1-0

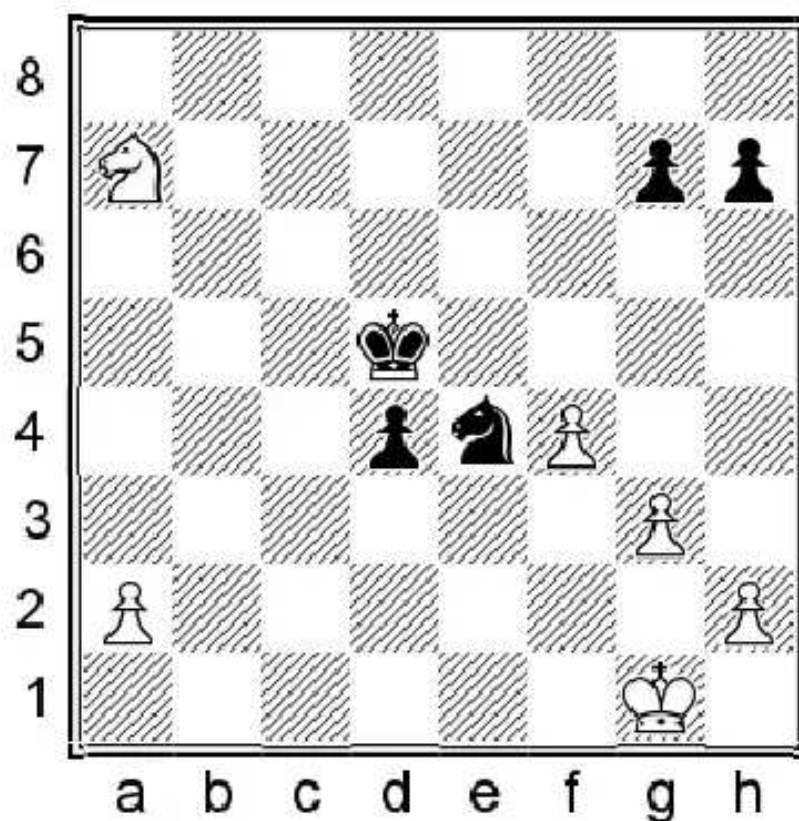
With an easy technical win.

3

G. Barcza

V. Simagin

Moscow-Budapest, 1949

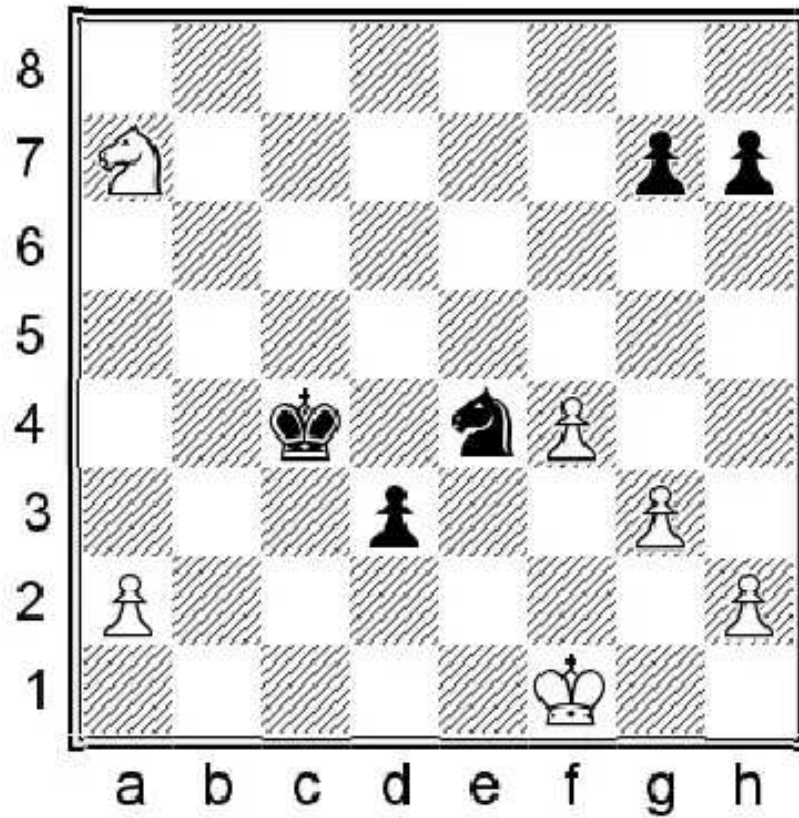


Black is a pawn down, but White's scattered pieces lack co-ordination — and more importantly the dangerous passed d-pawn, supported by the excellently centralized king and knight, assure Black of the advantage.

1...d3 2.♕f1 ♗c3!

Black not only supports his pawn, but also cuts the white knight off from returning via b5. 2...♕d4 allows 3.♗b5+ ♕e3 4.♗a3! d2 5.♗c4+ ♕d3 6.♗xd2 when White has all the chances to hold the draw, since the a-pawn will lure one of Black's pieces to the queenside, meanwhile the extra pawn supported by the king on the kingside should create fast-enough, adequate counterplay.

2...♕c4



3.a4! ♔b3 4.♖b5 d2 5.♔e2 ♔c2 6.♘d4+= White is just in time, but holds the pawn.

**3.♔e1**

Otherwise ...d2 promotes the pawn.

**3...♔d4! 4.♔d2**

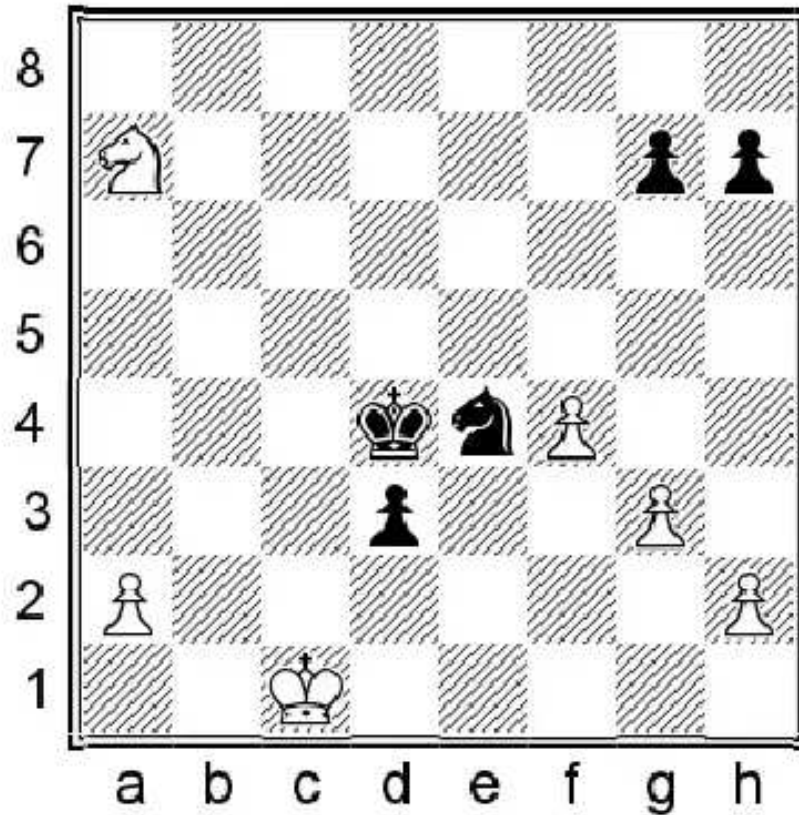
The only move once again, otherwise ...♔e3 and ...d2 queens.

**4...♘e4+!**

Allowing the black king to invade.

**5.♔c1**

The best chance. Other moves losing quickly. 5.♔e1 ♔e3–+ or 5.♔d1 ♔e3–+ and the pawn cannot be stopped.

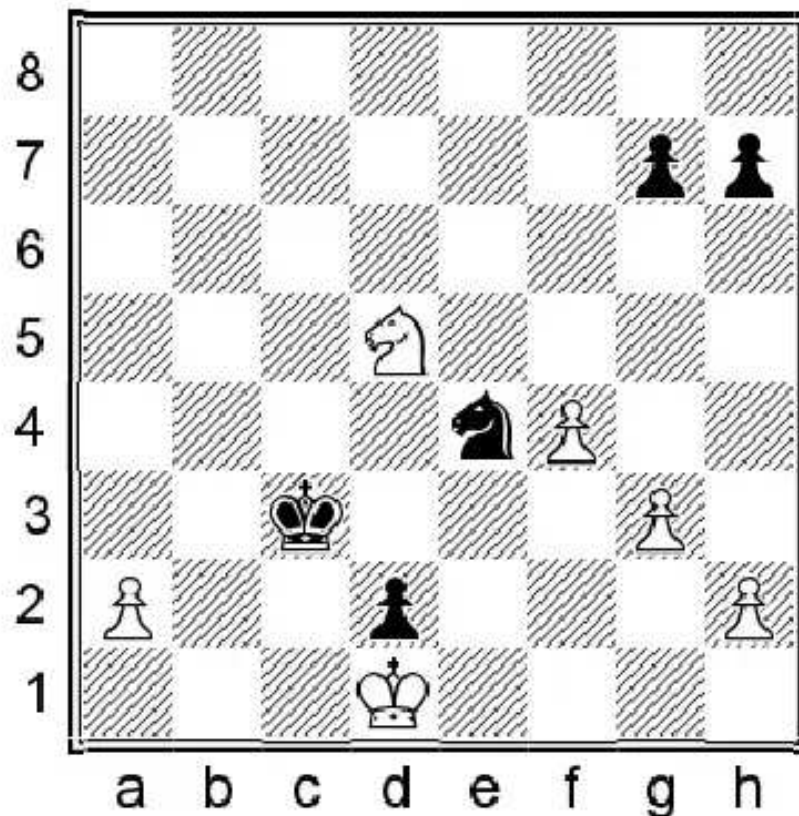


### 5...♞d6!!

Precise calculation helped Black to find this fantastic regrouping of the knight. At the moment he prevents ♞b5 and he is also threatening ...♙e3. 5...♙e3 was tempting, but it spoils the win 6.♞b5! d2+ 7.♙c2 and Black cannot promote his pawn. 7...♙e2 (7...♞f2 8.♞c3) 8.♞d4+!=

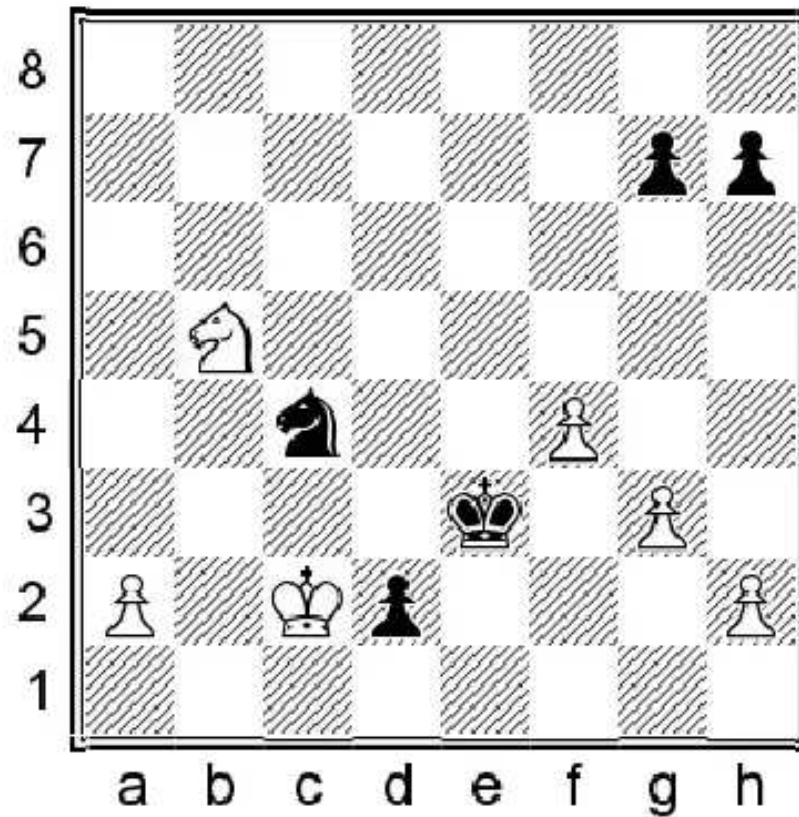
### 6.♙d2

6.♞c6+ loses to 6...♙c3 7.♞e7 (7.♞e5 d2+ 8.♙d1 ♞e4+) 7...d2+ 8.♙d1 ♞e4 9.♞d5+



9...♙c4!-+ Sending the knight to a bad place first, and only then playing ...♙d3 wins the game.

6...♖c4+ 7.♔c1 d2+ 8.♔c2 ♕e3 9.♘b5



9. ♘c6 ♘b2-+

9...♘a3+! 0-1

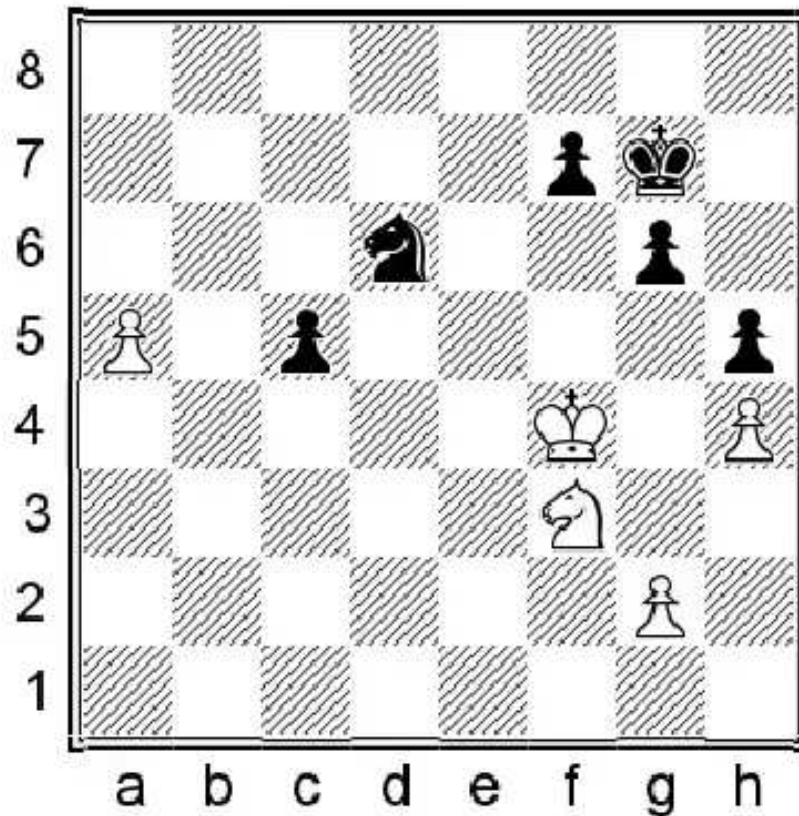
Finally, we can see the point of transferring the knight from e4 to c4. Black deflects the knight and ♕e2 promotes the pawn next. A beautiful endgame by Black and a perfect demonstration of how important it is to support passed pawns with the pieces.

4

**J. Polgar**

**Z. Almasi**

**Budapest, 2003**



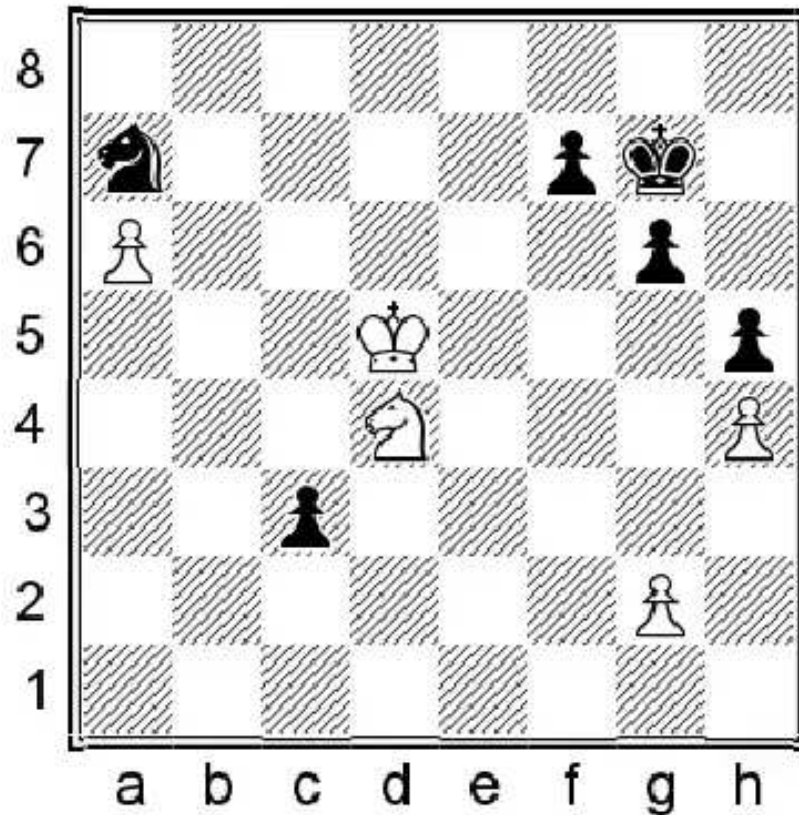
The distant passed pawn gives White realistic winning chances despite the material deficit.

**1.a6 ♖b5**

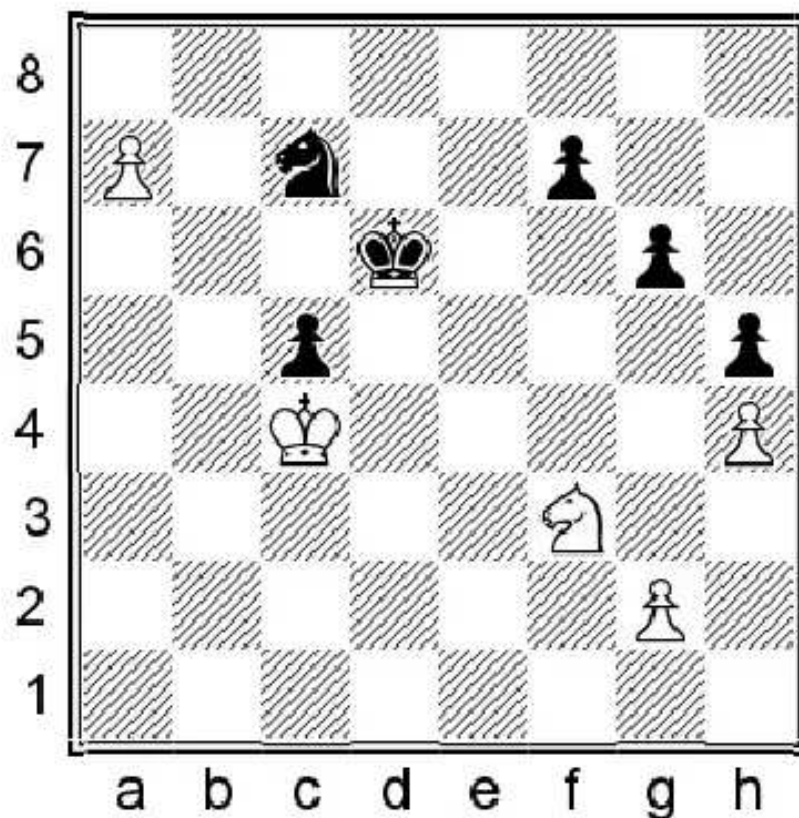
White faces a difficult decision — with which piece should she support the pawn? Both look very tempting and over the board it is impossible to calculate the lines until the end.

**2.♗e5**

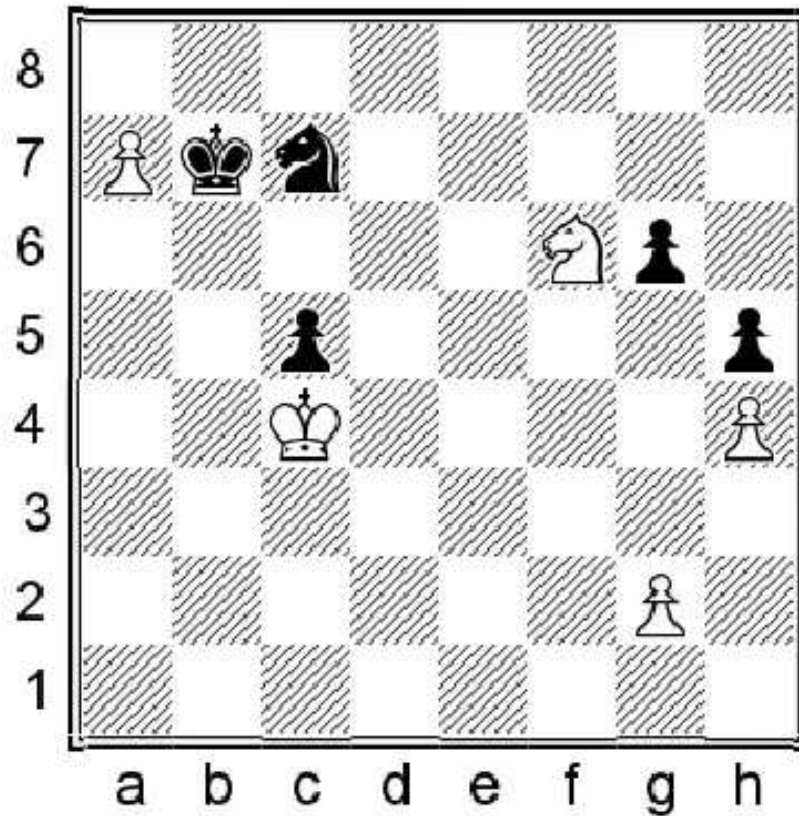
After long analysis, it seems as though 2.♔e4! was stronger. White probably rejected this option because ♔d5 is not a threat yet in view of ...♗c7, and to go around with ♔d3-c4 takes a while. However once the king arrives it might look to promote a full queen, not even allowing Black to sacrifice his knight for the a-pawn. 2...♔f6 (2...c4 prevents ♔d3-c4, but allows 3.♗d4! ♗a7 4.♔d5 c3



5.♔c4! Surprising, but White should go for the c3 pawn first because it limits the movement of the d4 knight. (5.♔c5 ♖c8 6.♔c6 ♜a7+ 7.♔b7 ♜b5 works when the pawn is on c3. As we know, the knight can hold the a6 pawn on the a7-b5-d6-c8 squares.) 5...♔f6 6.♔xc3 ♔e5 7.♔c4!+- and White is much faster with ♔c5. ...♔d6 cannot be played because of ♜b5.) 3.♔d3! ♔e7 4.♔c4 ♜c7 5.a7 ♔d6



6.♜g5! The a7 pawn rules the game: it takes too much time for Black to go for it, meanwhile White gains many benefits. 6...f6 (6...f5 loses to 7.♜f7+ ♔e6 Otherwise ♜e5 collects firstly the g6 pawn and then the others. 8.♔xc5! ♔xf7 9.♔c6 ♜a8 10.♔b7+-) 7.♜e4+ ♔c6 8.♜xf6 ♔b7



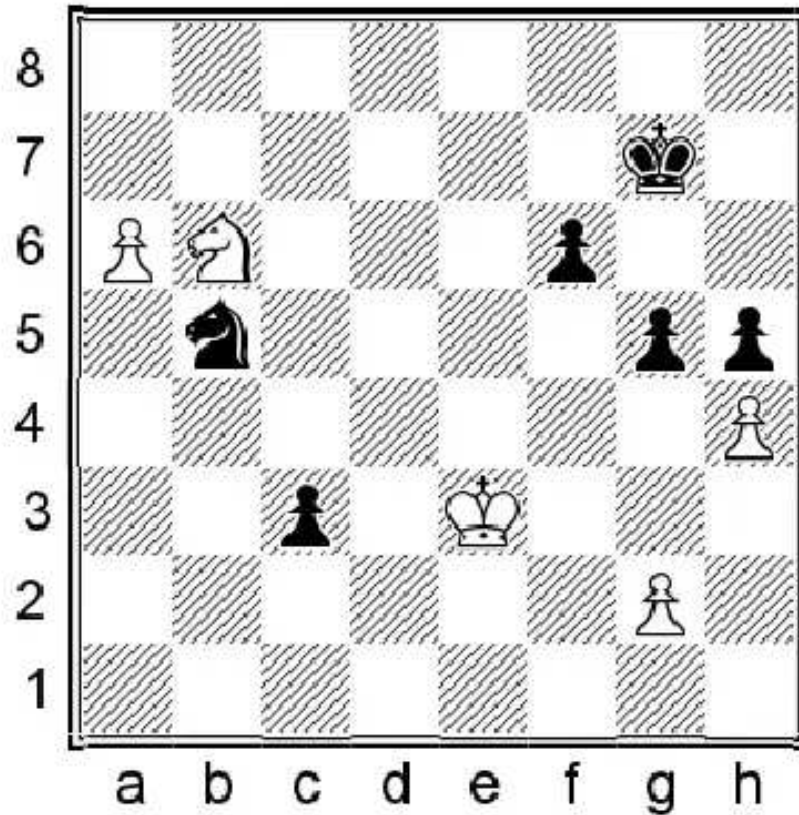
9. ♖e4! An excellent safety move before capturing the c5 pawn. White prevents the g5 move after ♔xc5 and also intends to secure his pawns with g3. 9... ♕xa7 10. ♔xc5+- The more active position of the white king should decide the game. The kingside pawns are going to fall. 10... ♗e6+ 11. ♔d6 ♗f4 12. g3+-

2... ♗f6 3. ♗d7 c4 4. ♗b6 c3 5. ♔e3

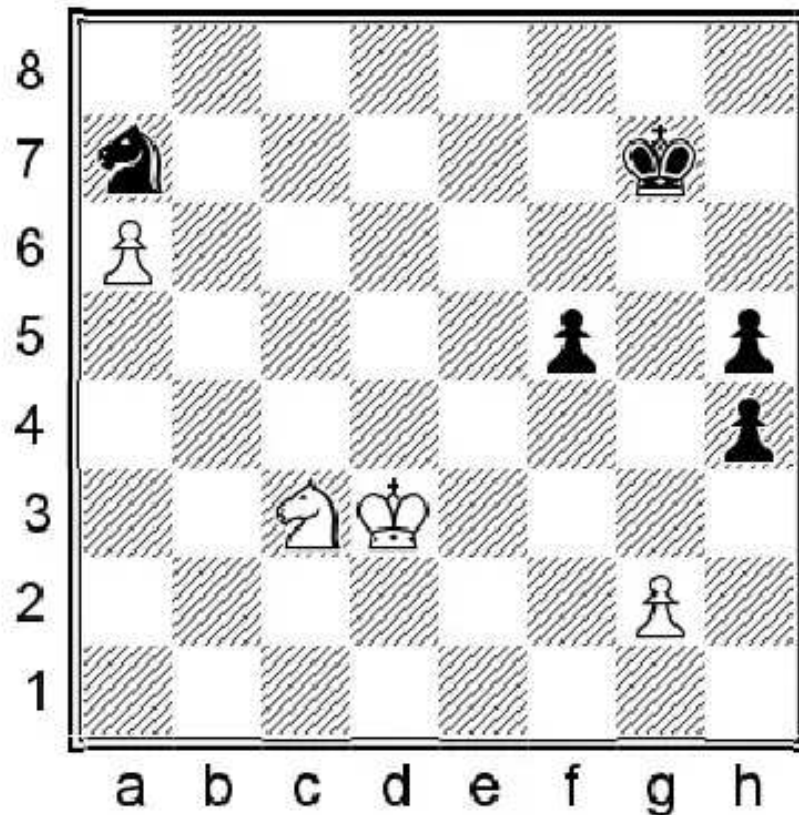
It is quite similar to the 2. ♔e4 line as White wants to play ♔d3 and ♗d5-c3 next. However, Black has a better version compared with this.

5... ♔f7

Another logical attempt is to aim for simplification and create a passed pawn with 5...g5 It is very difficult to analyze all the options for both sides, but it seems like White has winning chances after.

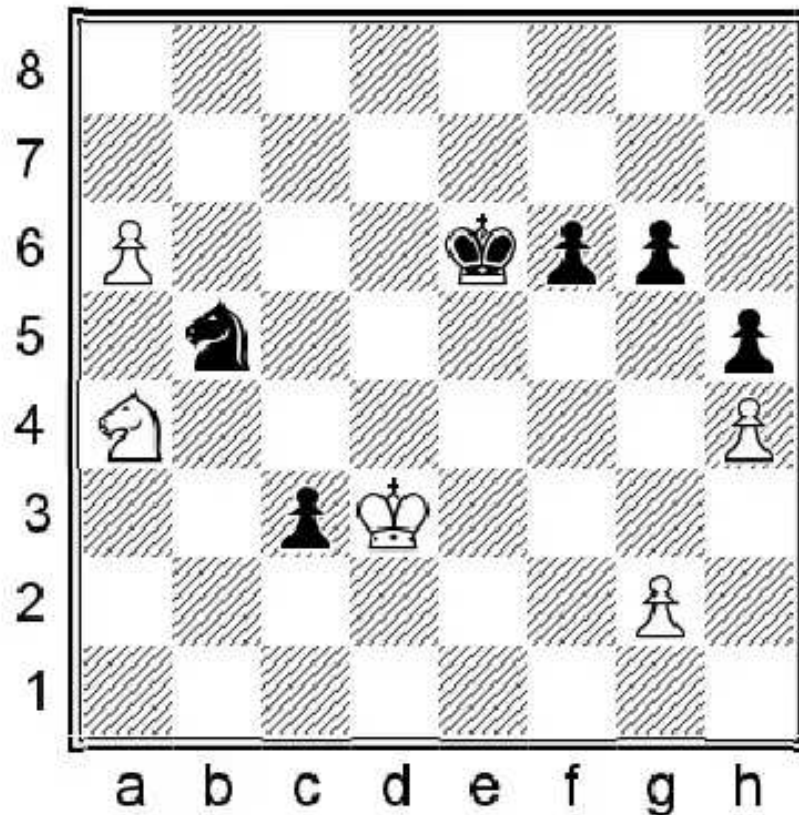


6.♔d3! After this move it takes much longer for Black to create a passed pawn than after exchanging on g5, when ...h4-g4-h3 comes fast. 6...gxh4 7.♞d5 ♟f5 with the idea of ...f4-f3, creating an h-passed pawn, but it seems to be just too slow... 8.♞xc3 ♞a7



9.♞e2! Preventing ♟f4. 9...♔f6 10.♔d4 ♔g5 11.♔c5 ♟f4 12.♞d4 White wants to play ♖b6-♞c8, ♖b7-♞d6, ♔c7 using the fact that the knight cannot go to b5.

6.♔d3 ♔e6 7.♞a4



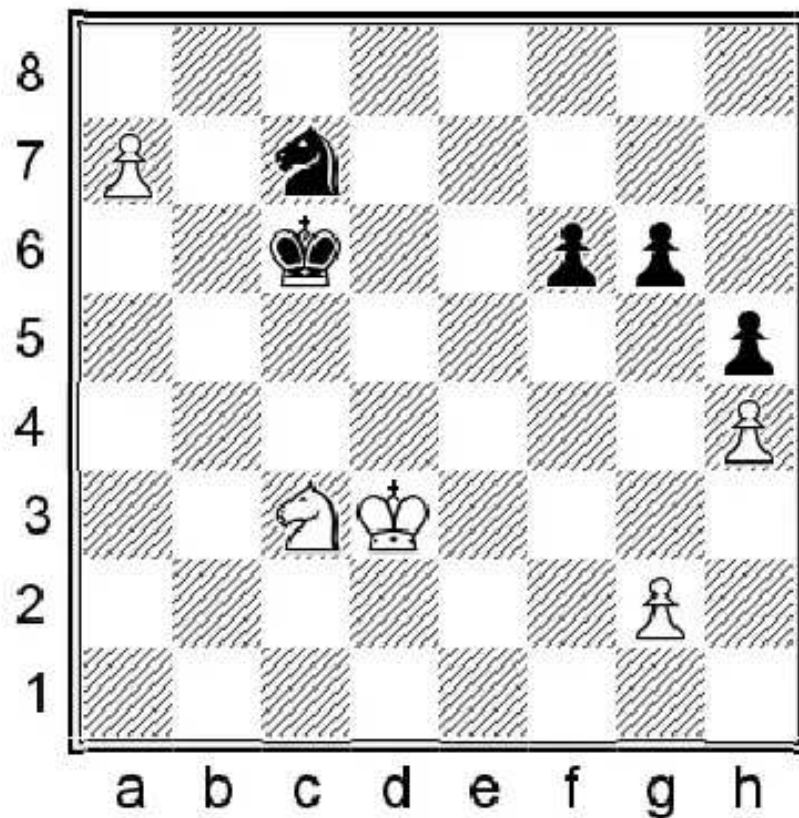
7...♔d7?

Black loses a very important tempo. He could have sent the king one square farther from the actions with 7...c2! because the knight must go to c3 anyway. 8.♔xc2 ♔d6 9.♖c3 ♖c7 10.a7 ♕c6 It looks suspicious, but Black just holds. 11.♗e4 ♘b7 12.♗xf6 ♘xa7 13.♔d3 The black king somehow gets back in time to the kingside. 13...♘b7 14.♔e4 ♘c8 15.♔e5 (15.♔f4 is met by 15...♗e6+ 16.♔e5 ♗g7 because of the ...♗f5 threat, Black wins an important tempo for ♔d8.) 15...♔d8 16.♔d6 ♗b5+! 17.♔e6 ♗d4+ 18.♔f7 ♗f5=

8.♗xc3

We have the same position now, as in the previous 7...c2 line, but with the king on d3 — which is a significant difference.

8...♗c7 9.a7 ♕c6

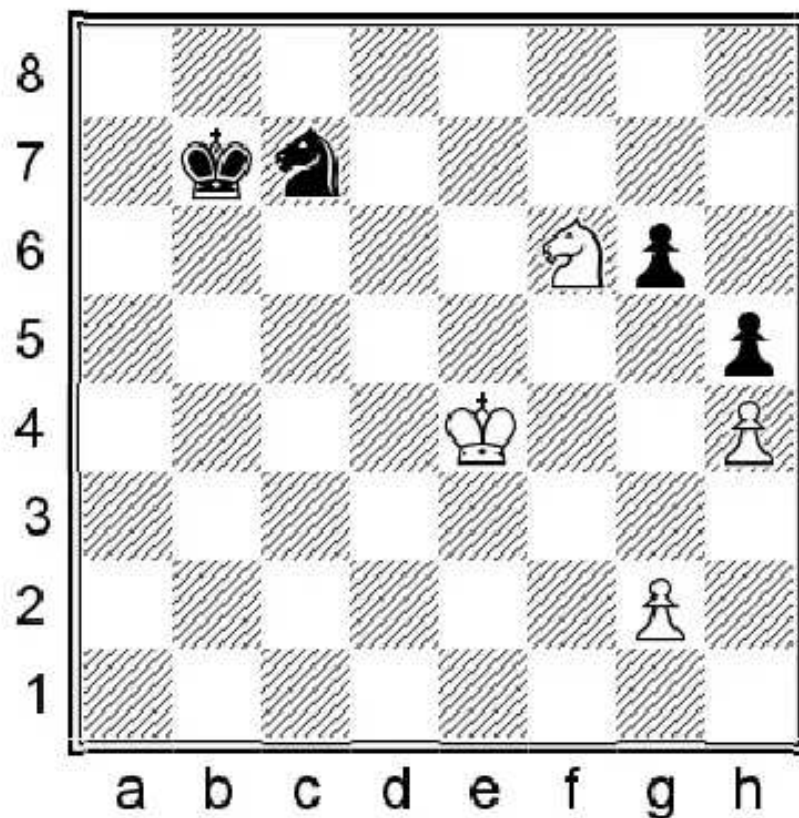


10. ♖e4!

White either takes a pawn or he forces a huge weakening with ...f5 after which the king goes for the g6 pawn.

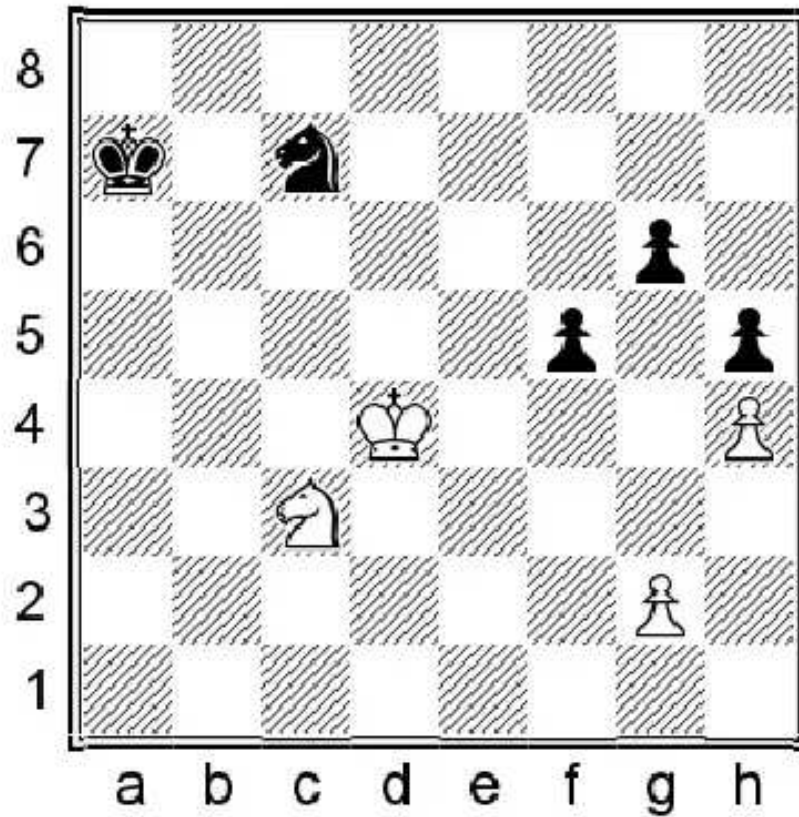
10...g5

Black aims for exchanges. This is a principled plan, but he misses the beautiful breakthrough. 10...♔b7 11. ♖xf6 ♔xa7 12. ♔e4 ♔b7

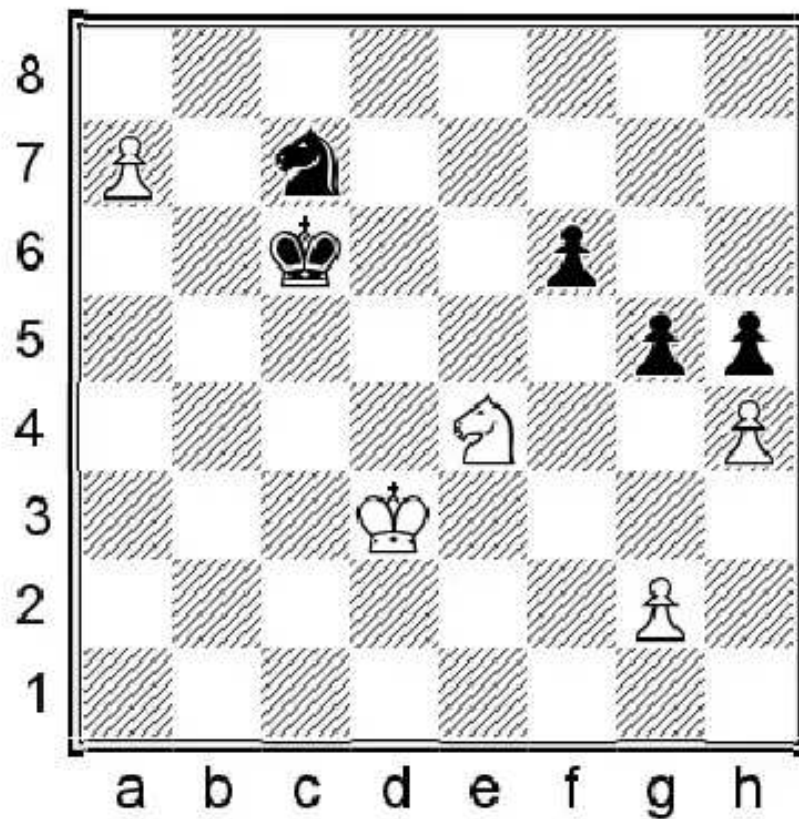


13. ♖d5!+- White easily collects the kingside pawns with ♖f4-♔e5-f6. The pawn endgame is obviously lost.

10...f5 11. ♖c3 ♔17 12. ♔14 ♔7



13.f4-g5 – And Black has no chance to save the game. His pawns starts to fall one by one after f4-g5.

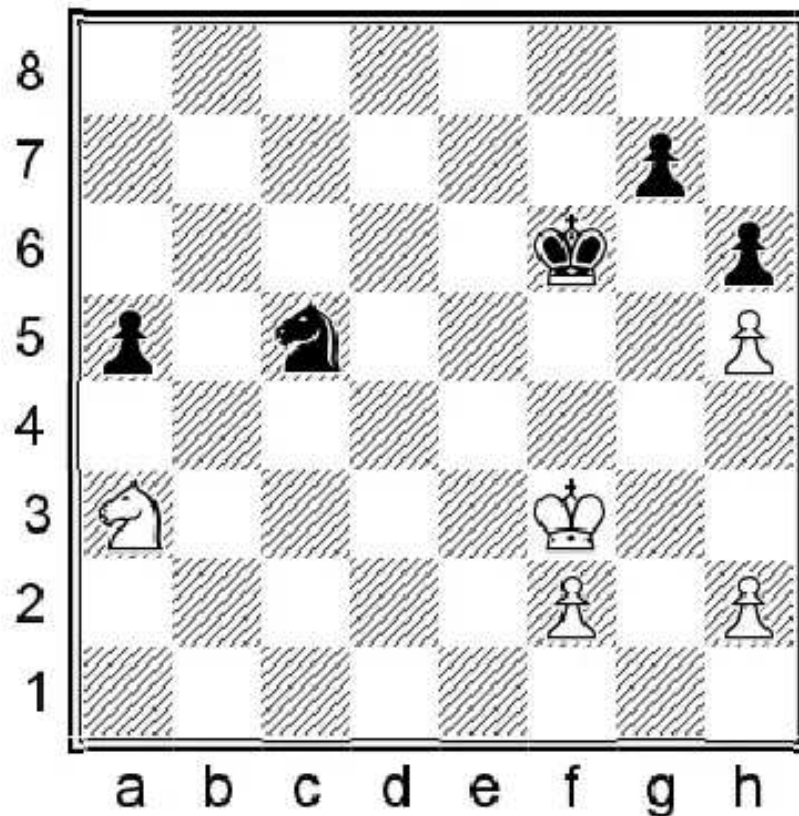


**11.g4!!**

This motif is known from pawn endgames — the breakthrough with the idea of creating an h-pawn wins the game.

**11...gxh4 12.gxh5 f7 13.h6 f4 14.f4-g5 15.f5 16.g6 17.g7 18.g8 1-0**

Black resigned in view of 18.g8 h3 19.f4 h2 20.f2+ and g7 next.



The material is balanced, but the h-pawn is doubled and the main trump is the distant passed pawn on a5.

**51. ♔f4**

White tries to block the black king.

**51... ♖e6+!**

A good move, handing White a difficult choice. He must decide whether to run to the a-pawn or to hold the white king in the hope of getting to the g6 square.

**52. ♔g4**

**52. ♔e4 ♔g5** While the white king will run to the a-pawn, Black will collect all the white pawns and win the game.

**52... a4 53. f3**

White must allow the black king pass to the queenside. **53. ♖c4 ♖d4** with the threat of playing **... ♖b5** next would force White to go back to a3 with the knight.

**53... ♔e5**

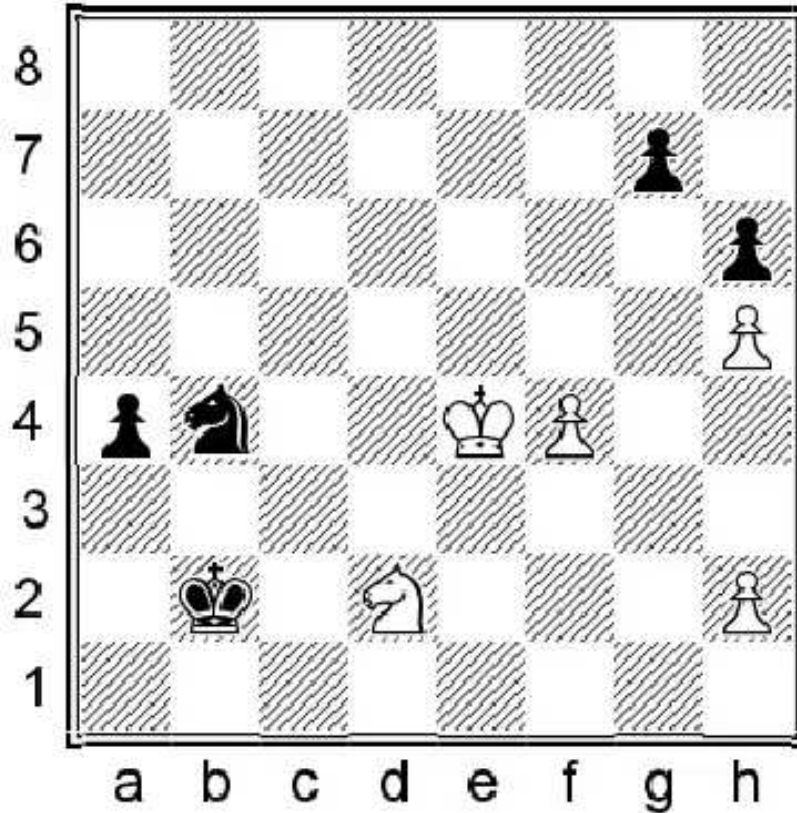
White's position just looks hopeless.

**54. ♖c4+ ♔d4 55. ♖a3 ♔c3**

The black king is in the right place, so all he needs to do now is to bring his knight into the game.

**56. ♔f5 ♖d4+ 57. ♔e4 ♖b3**

This move is still winning, but 57...♗c2 would have led to a faster win: 58.♗b1+ ♔b2 59.♗d2 ♗b4+ Black wins everywhere, for example 60.f4



60...♗c6!+ with the idea of ♗a5! taking the c4 square under control to let the a-pawn run.

**58.f4 ♗d2+ 59.♔d5 ♗f1**

Black is going for the h-pawn, which is again not the fastest way of winning, but it is still good enough. 59...♔b3 60.♗b5 ♗b1 Threatening ...♗c3 and after 61.♔d4 ♔b4!+ and the a-pawn runs.

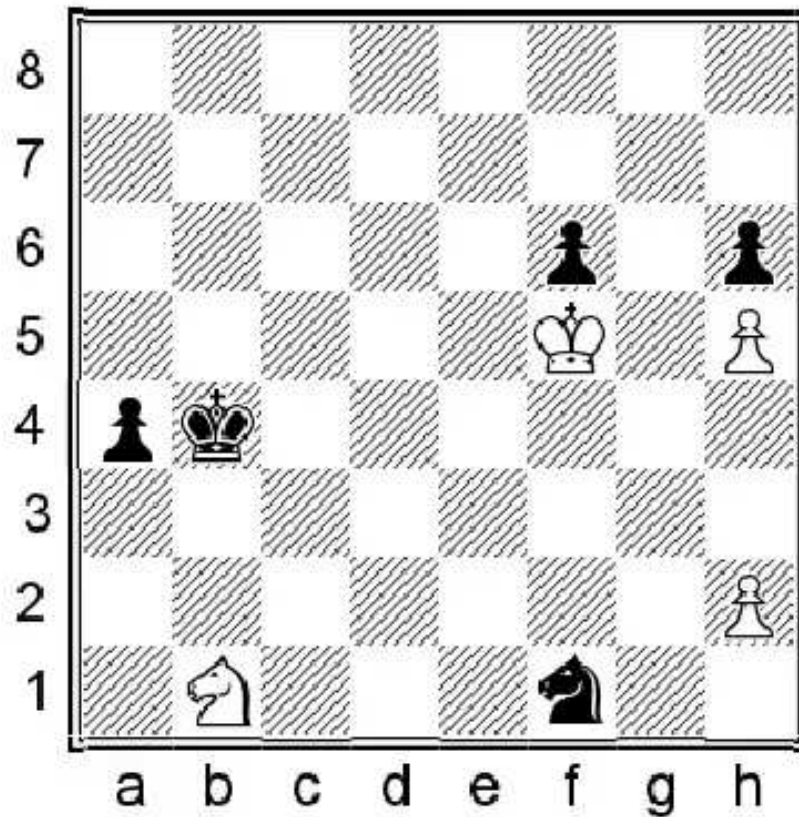
**60.f5 ♗e3+**

Black should have consequently grabbed the pawn 60...♗xh2 61.♔e6 ♔b3 62.♗b5 ♗f3! Taking away the d4 square from the white knight. 63.♔f7 ♔b4+.

**61. ♔e4 ♔b4 62. ♗b1 ♗f1**

White's position doesn't seem to be holdable by normal means, therefore he tries his last chance.

**63.f6! gxf6 64.♔f5**



**64...♔b3?**

White's efforts pay off after this blunder! The simplest win was 64...♖d2! 65.♖xd2 a3 and the pawn cannot be stopped.  
66.♔xf6 a2-+

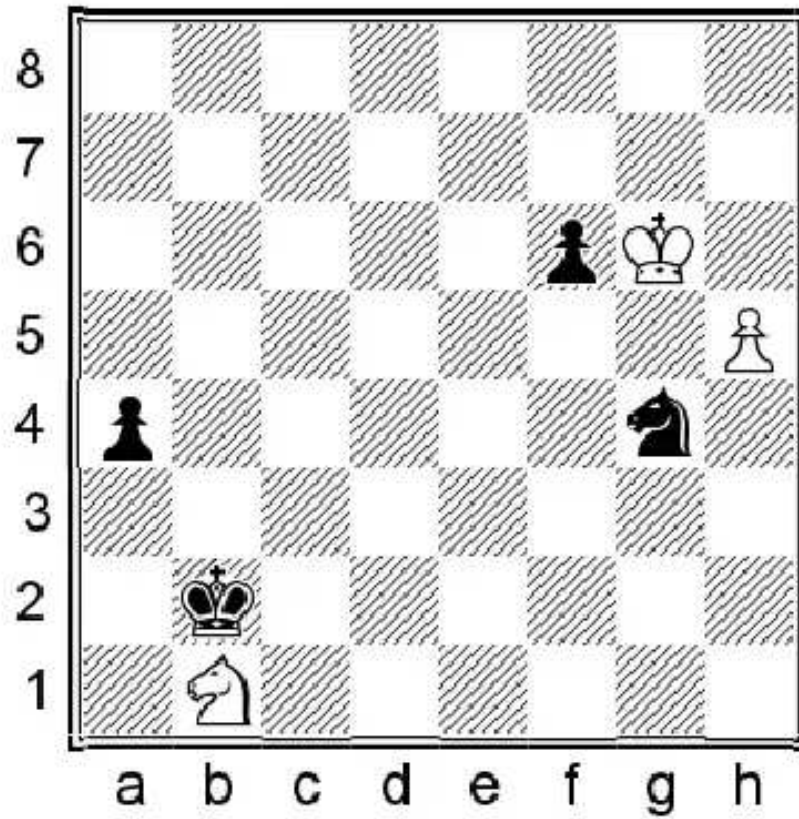
**65.♔g6!**

A great move! White does not waste time on taking the f6 pawn; it is more important to create a passed h-pawn to get counterplay. Suddenly the position is a draw!

**65...♔b2 66.♔xh6 ♖xh2**

66...♔xb1 67.♔g6 a3 68.h6 a2 69.h7 a1=♚ 70.h8=♚=

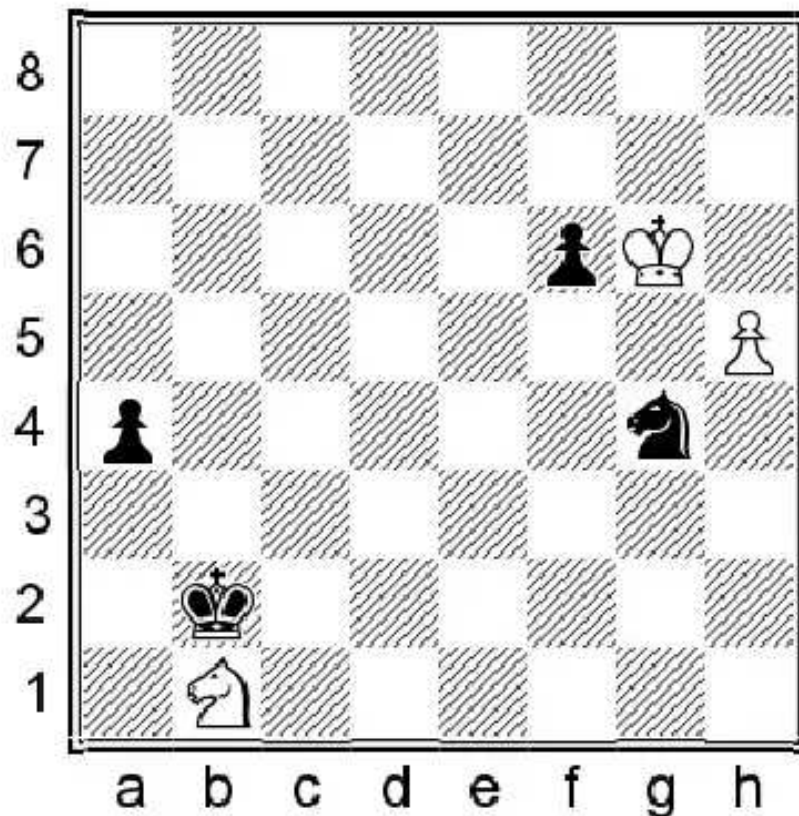
**67.♔g6 ♖g4**



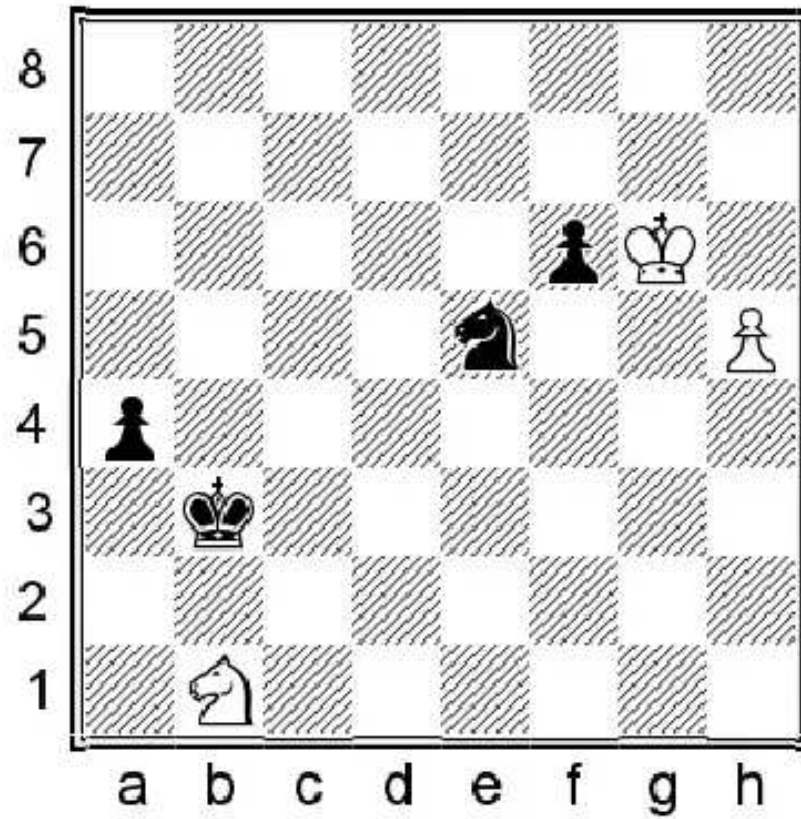
68. ♖d2!

As we know, a knight can hold the a-pawn which means the position is a draw. Black keeps on trying for a while before the inevitable handshake.

68... ♔c3 69. ♖b1+ ♔b2



70. ♖d2 ♔c3 71. ♖b1+ ♔c2 72. ♖a3+ ♔b3 73. ♖b1 ♖e5+



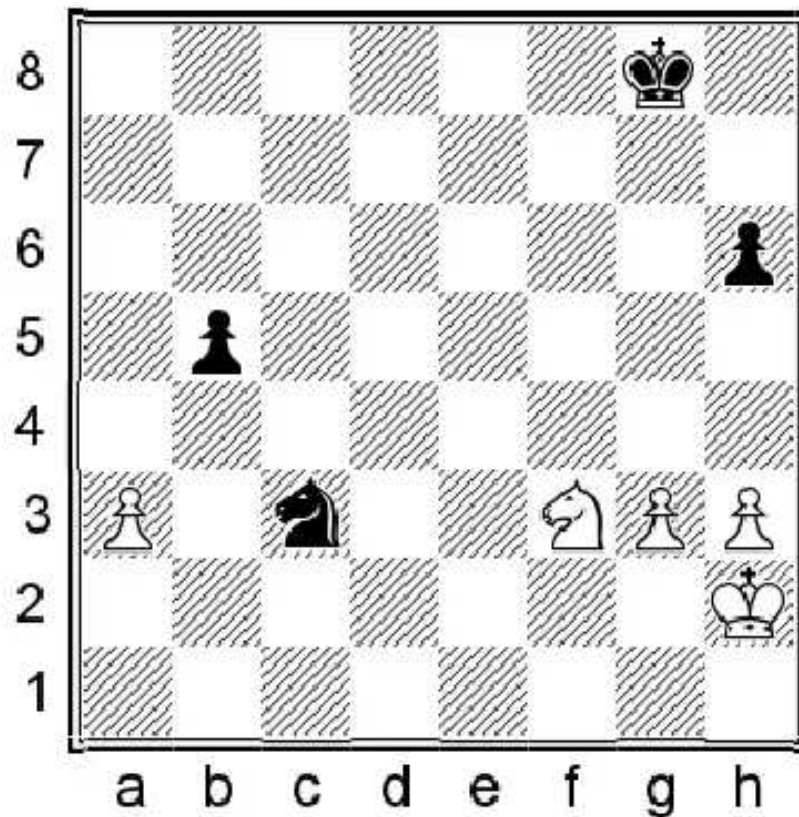
74.♔g7!

The safest move. Now the black knight has to come back.

74...♞g4 75.♔g6 ♔b2 1/2

Well, the game was not without mistakes, but it is still very instructive and full of ideas.

6  
G. Kasparov  
M. Adams  
Linares, 1999



White is a pawn up, but the material is limited. Black is threatening ...♖b1 and also if he could exchange queenside pawns, the arising two pawns against one pawn would be drawn.

**48.♗d4!**

White saves the queenside pawns by tying the knight to protecting b5.

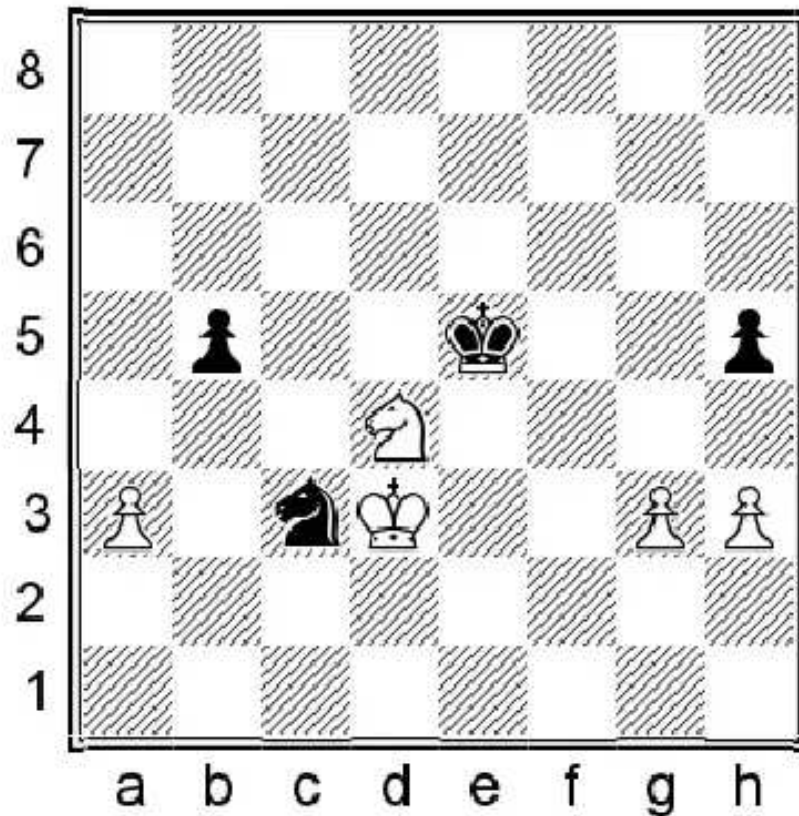
**48...h5?**

From a positional point of view the idea is correct, to prevent plans like g4 — fixing the weakness on h6 after which ♗f5 is always hanging in the air — but Black should have thought more concretely... 48...♔g7 activating the king should have been the priority Now after 49.♔g2 (On 49.g4 ♔f6 50.♔g3 ♔e5 The knight must stay with the queenside pawns. 51.♗c6+ ♔f6 52.♗a7 h5= Black trades pawns on the kingside. His knight is excellently placed on c3 because it is always threatening with ♗b1 if White tries to activate his knight and it can be quickly dropped to the kingside

through e4 if it is needed.) Black arrives first with 49... ♔f6 50. ♔f3 ♔e5 51. ♔e3 ♗d5+ 52. ♔d3 ♗c7 followed by ...h5.

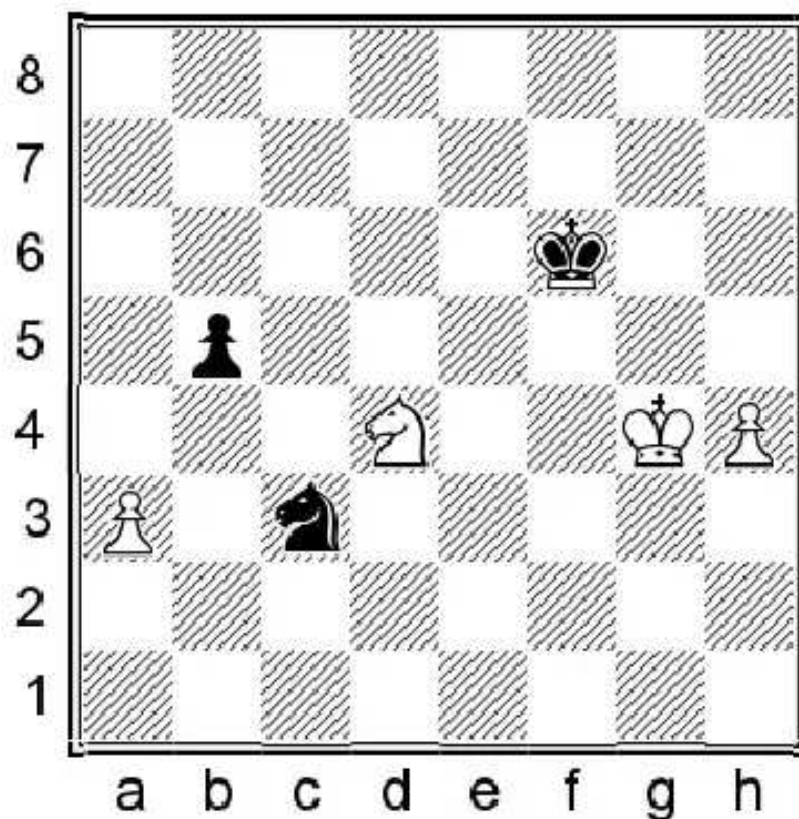
**49.h4**

Missing the chance of playing 49.♔g2! and quickly running with the king to d3, trying to win the b5 pawn 49...♔f7 50.♔f3 ♔f6 51.♔e3 ♔e5 (Black cannot force the trade of the pawns with 51...b4 52.♔d3 and the b4 pawn already hangs next move, while after ...bxa3 the king stands in the square of the a-pawn.) 52.♔d3



52...♞e4 Black tries to avoid losing another pawn, but his knight walks into a common motif 53.♞c6+ ♔d5 54.♞e7+ ♔e5 55.♞g6+ ♔d5 (55...♔f5 56.g4+- forces transposition into a winning pawn endgame.) 56.♞f4+ ♔e5 57.♞xh5  
 Nice jumping with the knight. It took the h5 pawn from d4 in 5 moves by only giving checks. 57...♞f2+ 58.♔c3 ♞xh3 59.♔b4 wins the second pawn.

49...♔f7 50.♔h3 ♔f6 51.g4 hxg4+ 52.♔xg4

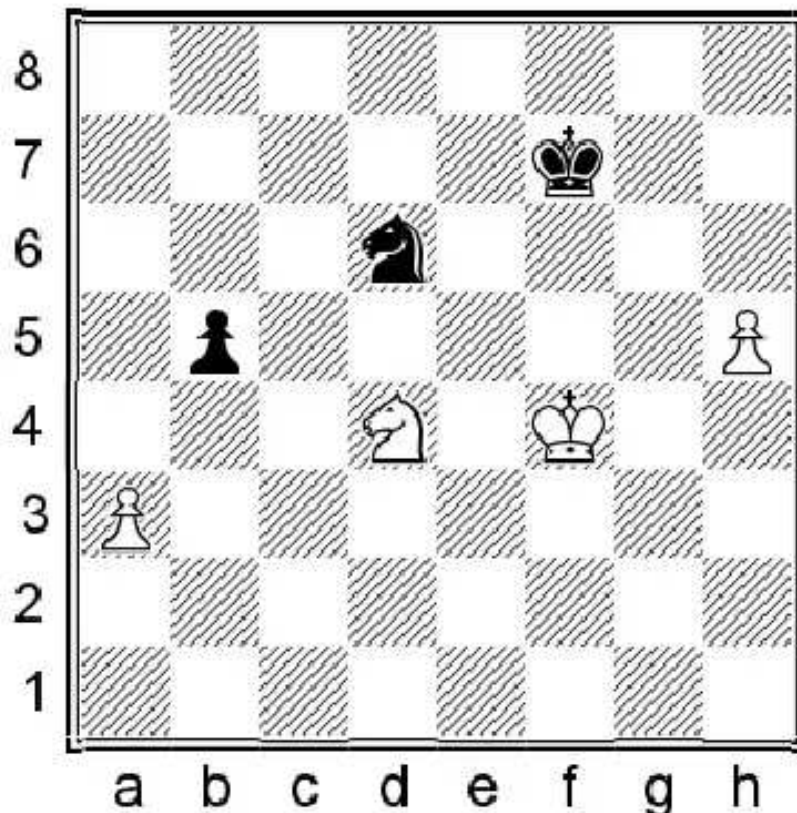


This was White's strategy. He has created a passed pawn, but of course it cost him a pair of pawns, further reducing the material. He wants to advance the h-pawn and hopes to use the fact that the knight is tied to the b5 pawn.

52. ♔g6 53. h5+ ♔h7

It was more precise to play 53...♔f6 54.♔h4 (54.♔f4 If White does not have ♔d3, Black can already play on the tactical

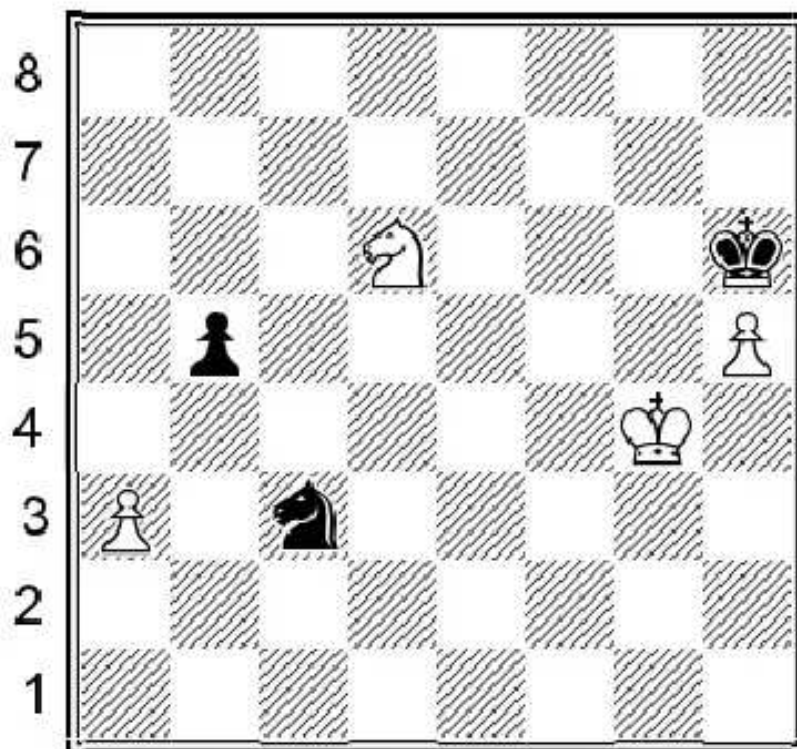
simplification with 54...b4=) 54...♔f7 55.♔g5 ♖e4+ White has different attempts, but none of them leads to success. The black knight is very close to always joining the fight against the h-pawn. 56.♔f5 (56.♔h6 ♖d6 (56...♖c3 57.♖f5 ♖e4 is also possible.) 57.♔h7 ♔f6 58.h6 ♔f7= White cannot make progress.) 56...♖d6+ 57.♔g4 ♔f6 58.♔f4 ♔f7



Black just waits and it is White's turn to show something. The only principled try is 59.♖f5 ♖c4 60.♔g5 giving up the a3 pawn in order to promote the h5, but the knight gets back in time from the other side of the board 60...♖xa3! 61.h6 ♔g8 62.♔g6 ♖c4= 63.h7+ ♔h8= White cannot mate with ♖h6-f7 because ...♖e5 arrives in time.

### 54.♔h4 ♔g8

It was possible to play 54...♔h6 but Black was afraid of the knight's transfer to d6, into a more active position. 55. ♖f5+ ♔h7 56.♖d6 ♔h6 57.♔g4



a b c d e f g h

57...♖d5! It is time to exchange the b5 pawn for the one h5 (Otherwise White proceeds step-by-step. For example

57...♔h7 58.♔g5 ♔g7 59.h6+ ♔h7 60.♔h5 and the knight will stand perfectly on d6 from where it can support the promotion in one move via ♖f7 after ♔g6.) 58.♖xb5 ♖e3+ 59.♔f4 ♖c4 60.a4 ♔xh5 is similar to the game, but here the winning idea from the game does not work. Of course, it is close to impossible for a human to foresee all the details, one can only trust in his intuition in such cases. 61.♔e4 ♔g6 62.♔d4 ♖a5 63.♔c5 ♔f5=

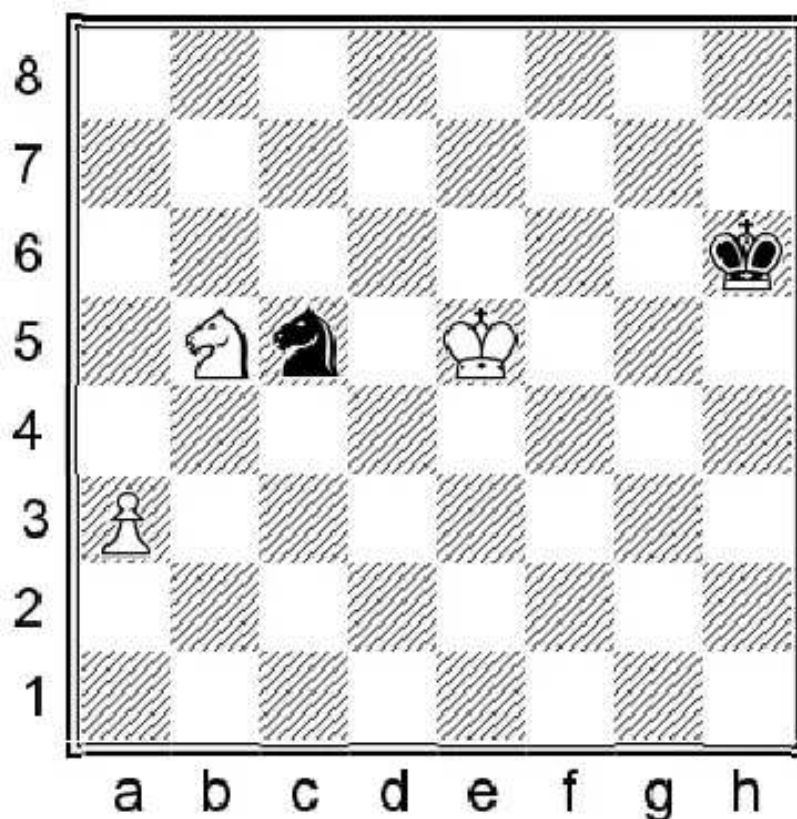
**55.h6 ♔h7 56.♔h5 ♖e4?**

This seems to be the decisive mistake. With the knight on d4, Black could have still played 56...♔h8! 57.♔g6 ♔g8 58.h7+ ♔h8 Of course, it is very suspicious, and the game continuation is much more natural from a human point of view, but chess is also a concrete game. 59.♔h6 (If 59.♖f5 with the idea of ♖h6-f7, Black can play 59...♖e4 60.♖h6 ♖d6= with a mutual zugzwang. If it is Black's move the game is over, but now it is not the case.) 59...♖e4 60.♖xb5 ♖d6! This stalemate trick allows Black to win the h7 pawn 61.♖c3 ♖f7+ 62.♔g6 ♖e5+ 63.♔f6 ♖c4 64.a4 ♔xh7 the knight stands perfectly on c4. It holds the a4 pawn and the king must go in an artificial way to send it away because the direct ♔d5 runs into ...♖b6.

**57.♖xb5 ♖f6+ 58.♔g5 ♖e4+ 59.♔f5 ♖c5**

Black again wins the h-pawn, but the knight does not have an outpost to stop the a-pawn.

**60.♔e5 ♔xh6**

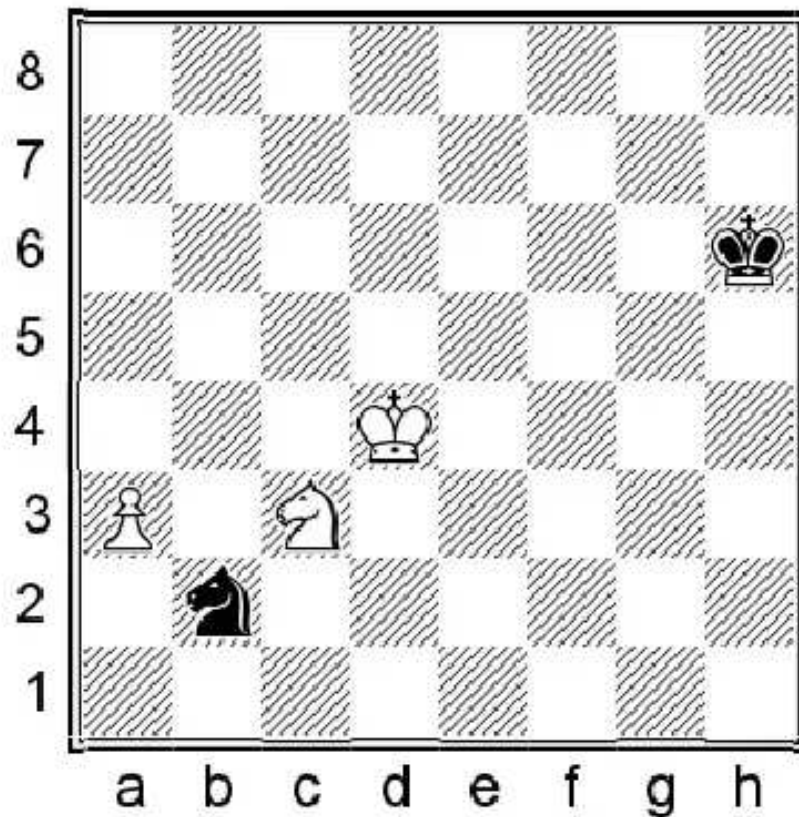


**61.♔d4!**

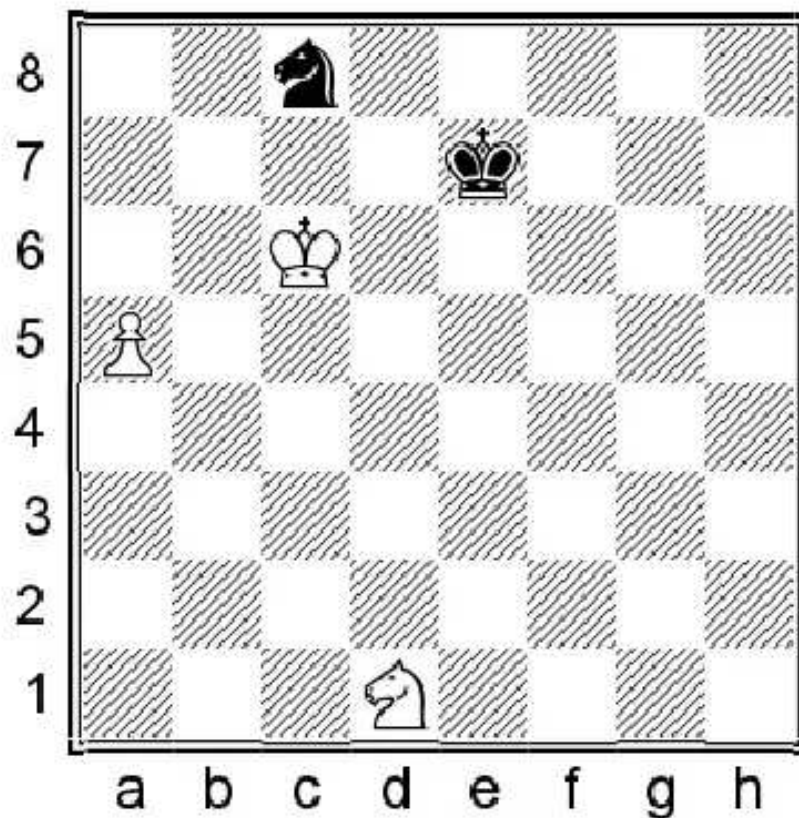
A very important detail to have ♖c3 in case of the direct blockade with ...♖a4.

**61...♖a6**

61...♖a4 62.♖c3 ♖b2

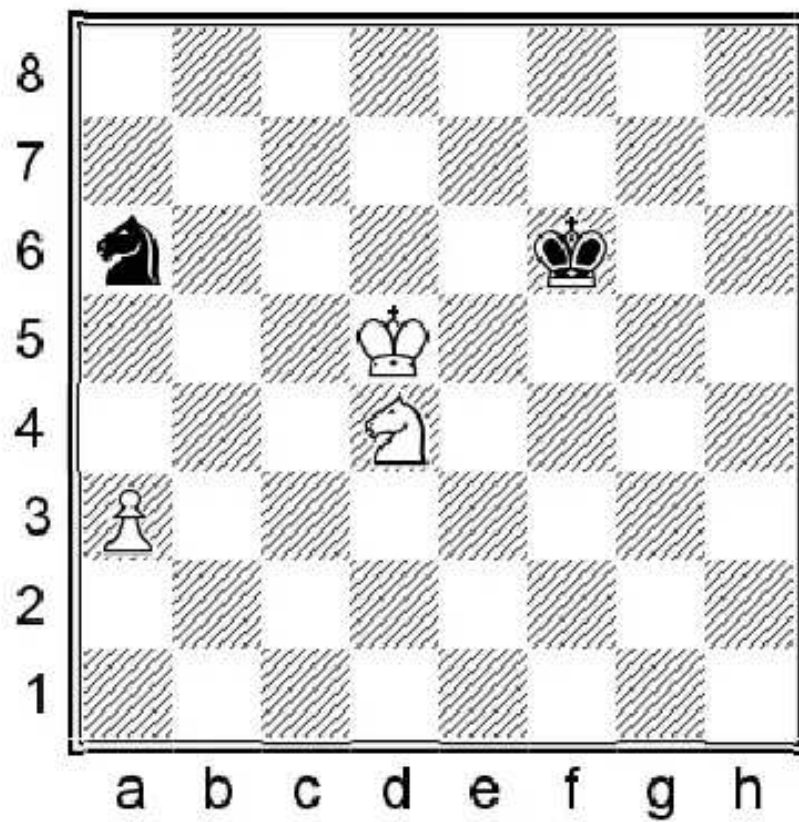


63. ♖d1!! This is the key move which should have been foreseen by Black in order to find the correct simplifications earlier, but of course it is quite impossible over the board with limited time. The pawn cannot be stopped after 63... ♜xd1 (63... ♜a4 64. ♕c4 Threatening to trap the knight with ♕b5, which prevents Black from bringing his king closer... 64... ♜b6+ 65. ♕b5 ♜c8 66. a4 ♕g7 67. a5 ♕f7 68. ♕c6 ♕e7



69. ♕c7! ♜d6 (69... ♜a7 70. ♜c3!+- and ♕b7 next move traps the knight.) 70. ♜c3! Preventing ... ♜b5 and the a-pawn is ready to promote. 70... ♜e8+ 71. ♕c6 ♕d8 72. ♜b5 ♕c8 73. a6 ♕b8 74. a7+ ♕a8 75. ♕b6+- Setting Black into the final zugzwangs and ♜c7 mate is coming next. It is not a mutual zugzwang as with White to move he could play ♕a6.) 64. a4 ♜b2 65. a5 ♕g7 66. a6 ♜a4 67. a7 ♜b6 68. ♕c5 ♜a8 69. ♕c6 ♕f7 70. ♕b7 ♕e7 71. ♕xa8+- The king is not in time to squeeze the black one into the corner.

62.♔d5 ♗g6 63.♘d4 ♗f6



64.♔d6!

Keeping the black king away and trapping the knight. A perfect demonstration of the rule that knights are really poor at the edge of the board!

64...♗f7

64...♘b8 65.♘c6 ♗a6 66.♘b4 ♘b8 67.♔c7+-

65.♘e6 1-0

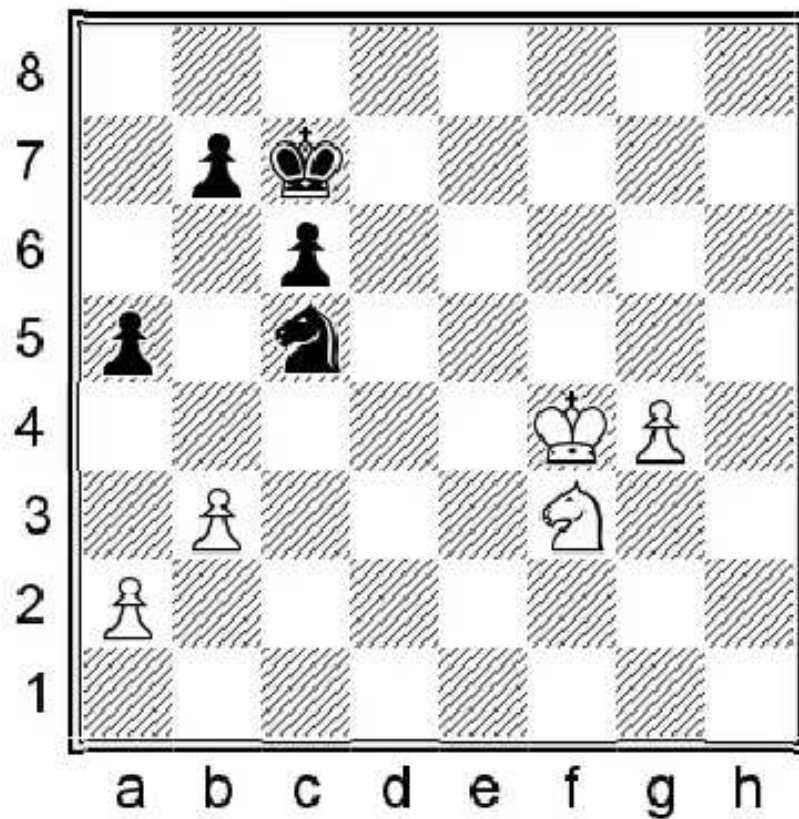
Black resigned in view of 65.♘e6 ♘b8 (On 65...♔e8 66.♘c7+-) 66.♘c5! ♔e8 67.♔c7+-

7

J. Timman

E. Lobron

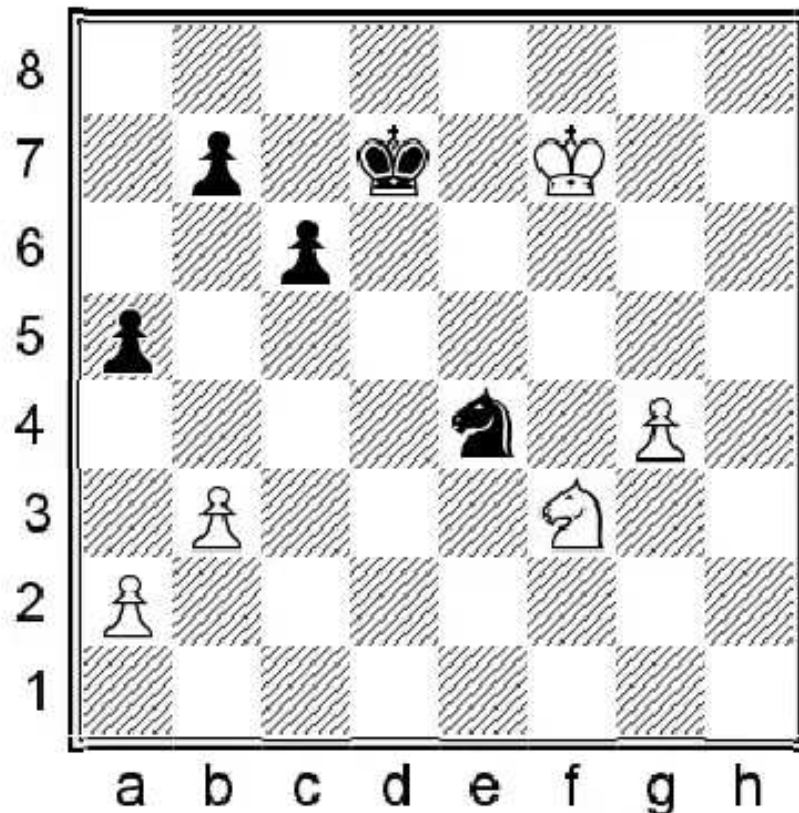
Donner memorial, 1994



White has a distant passed pawn on g4, so let's analyze if it is enough for the win. The black king is relatively close to the pawn and we can also call the structure on the queenside ideal, because Black can create a passed pawn. Also, after sacrificing his knight for the pawn, the king could quickly run to a3.

### 48.g5

48.♔e5 can be answered by 48...♚d7 49.♔f6 (49.g5 ♔e7 50.g6 a4 Black should easily hold after exchanging a couple of pawns. The g6 pawn still needs some time to promote. 51.♞d4 axb3 52.♞f5+ ♔f8 53.axb3 ♞d7+ 54.♔d6 ♞f6 without the support of the white king, the g-pawn cannot promote. But the black knight stays close to prevent the different attempts.) 49...♞e4+ 50.♔f7



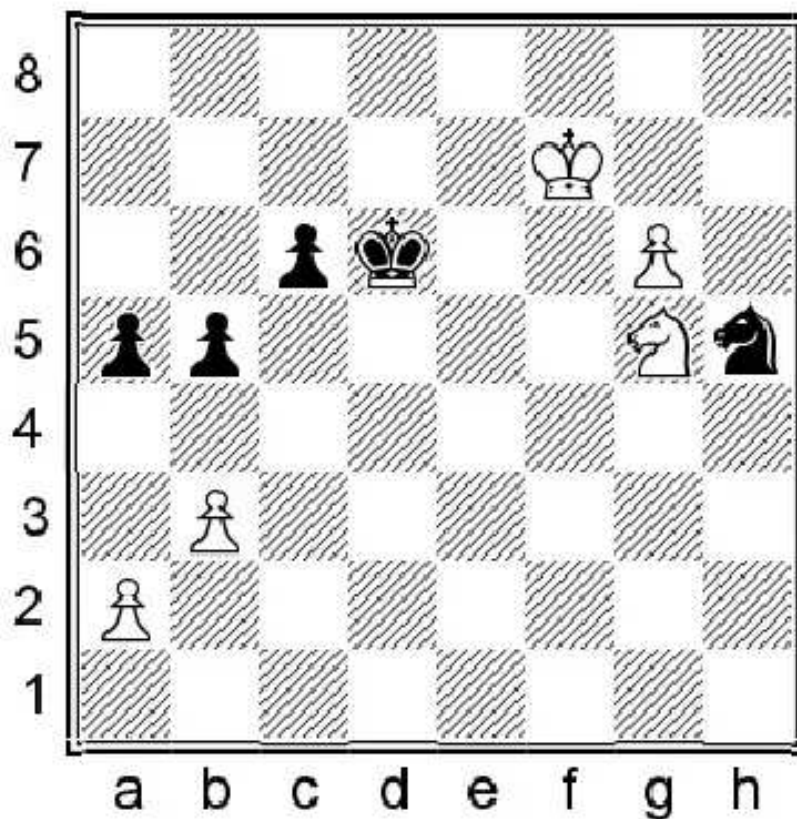
50...♔d6 Black wants to push ...b5-c5 and if White goes 51.g5 the endgame is drawn after 51...♖xg5+! 52.♗xg5 ♔c5= with ...♗b4-♗a3 next.

48.g5 ♔d6 49.♗f5

49.g6 transposes to the game after 49...♗e6+! (49...♗e6 50.♗g5! and ♗h6.) 50.♗f5

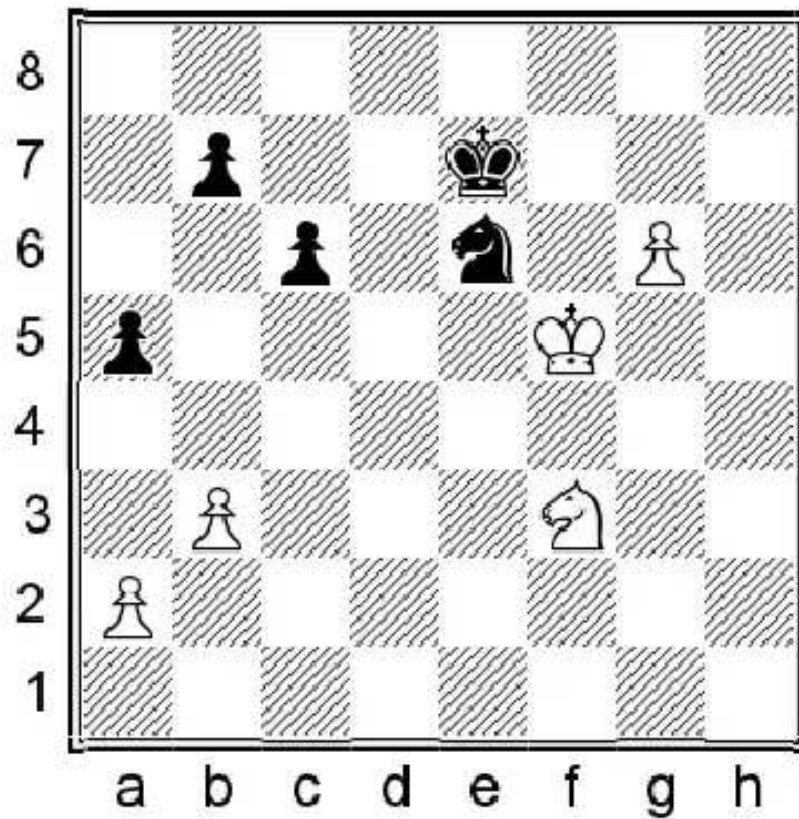
49...♗e6 50.g6 ♗e7?

Black was afraid of ♗f6, which was actually not really a threat. He should have started to create a passed pawn with 50...b5 and c5-c4 if possible. 51.♗g5 (51.♗f6 can be answered by 51...♗f4!= and taking the dangerous pawn either on g6 or on g7 after ♗h5 check.) 51...♗g7+ 52.♗f6 ♗h5+ 53.♗f7 ♗e5! It looks like White cannot win. If it was Black's move he could play c5-c4. (The direct



53...♗g3? is an excellent positional idea, because from the edge of the board the knight can be more easily deflected to allow the g-pawn to promote. In case of g7, ♗f5 would check the pawn from h6, but White has a nice refutation 54.♗e4+! ♗xe4 55.g7+-) 54.♗e6 ♗g3! already works. Black should not lose after transferring the knight to f5. 55.g7 ♗f5=

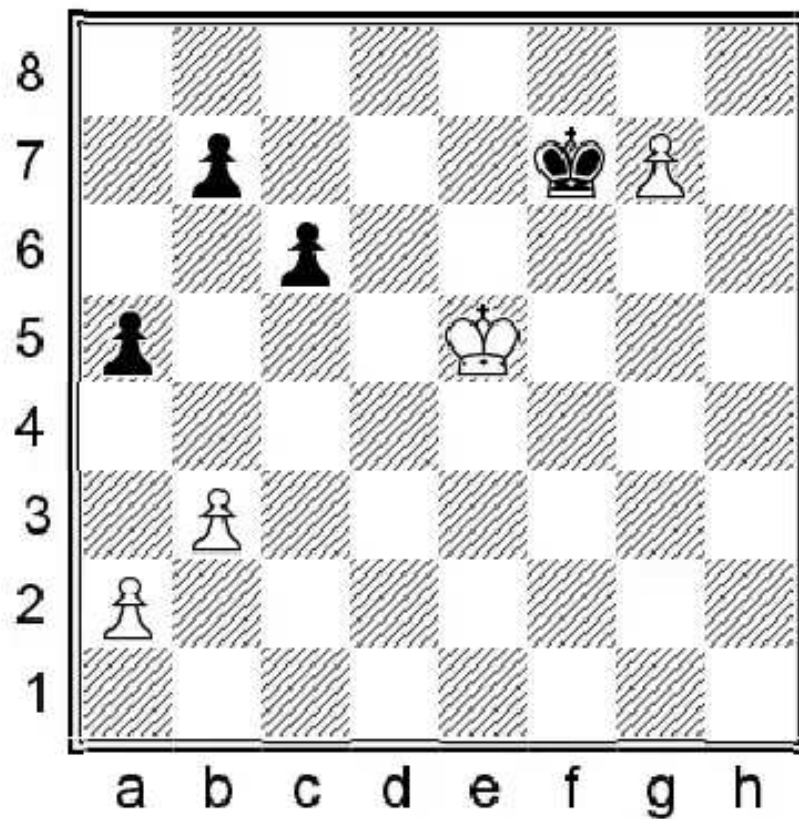
51.♗e5



White should have played 51. ♖g5! ♜g7+ 52. ♔e5 is similar to the game. White goes ♜e4-d6. The pawns are also vulnerable and White is also threatening to simplify into a pawn endgame with ♜f5. 52...b5 53. ♜e4 White should be winning.

### 51...♜c7

Black misses a hidden chance with 51...♜f8! The nicest line goes 52.g7 (White could still retain some winning chances after 52. ♜h4 ♜d7+ 53. ♔f5 with the idea of ♔g5 and ♜f5. Black should play 53...♜c5 54. ♔g5 ♜e6+ 55. ♔h6 ♔f6; 52. ♔f5 ♜xg6! 53. ♔xg6 ♔d6 The white king is too far from the queenside and Black has enough time to trade off the last two pawns.) 52...♜d7+ 53. ♔f5 ♔f7 54. ♜e5+ ♜xe5 55. ♔xe5



It looks like an easy win, but Black has a miraculous escape. 55...♙xg7 56.♙d6 ♙f6 57.♙c7 ♙e5 58.♙xb7 c5 59.♙b6 ♙d4 60.♙b5! and now (60.♙xa5 c4! 61.bxc4 ♙xc4 62.a4 (62.♙b6 ♙b4=) 62...♙c5=) 60...a4! 61.♙xa4 c4=

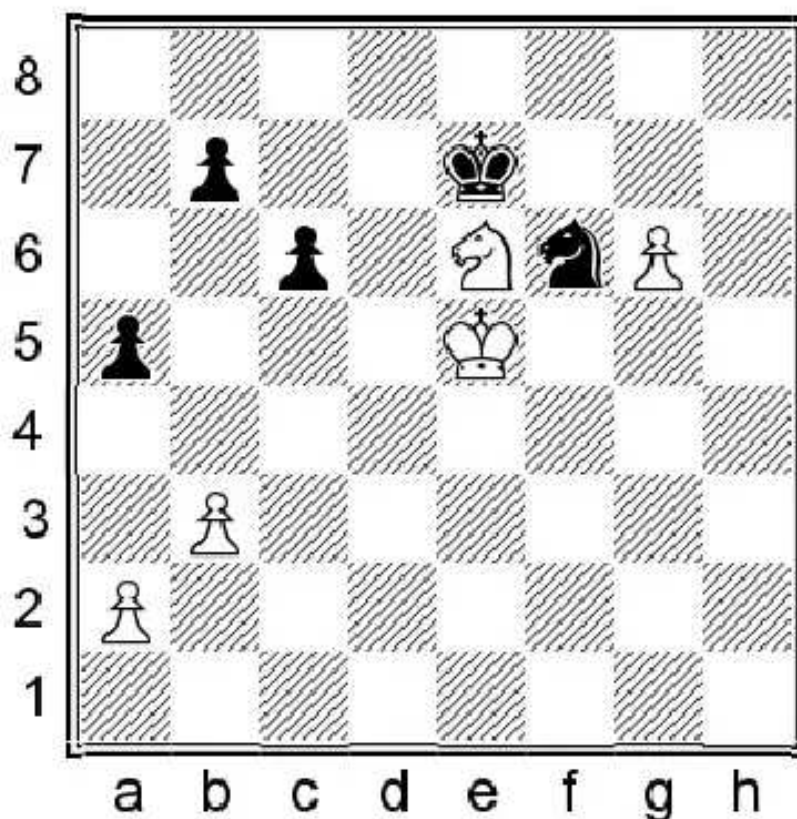
**52.♙g5**

Threatening g7, so Black is forced back into passivity.

**52...♙e8 53.♙e6**

White improves his position with each move. It is possible to feel that the end is getting near.

**53...♙f6**



**54.♙d8!**

This pretty tactic wins material.

**54...a4**

54...♙g4+ 55.♙f4 ♙xd8 56.♙xg4 ♙e7 57.♙f5+-;

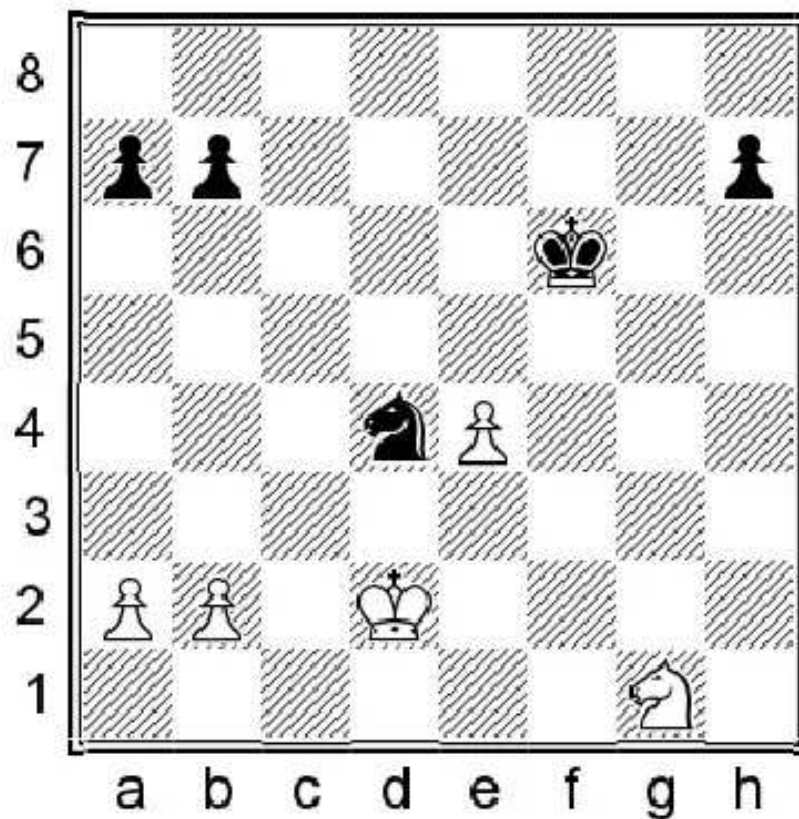
The knight cannot be taken after 54...♙d7+ 55.♙f5+-

**55.♙xb7 axb3 56.axb3 ♙d7+ 57.♙f5 c5**

The game is over, but White finishes in style.

**58.♙d6! ♙b6 1-0**

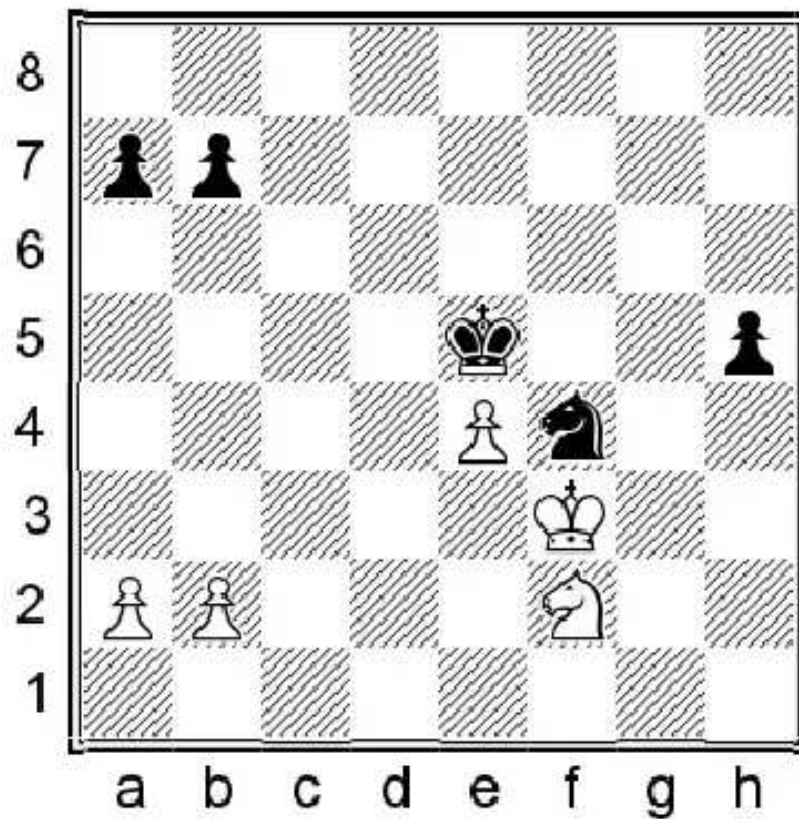
Black resigned at the same time as g7 appeared. 58...♙f8 also loses after 59.♙e6 ♙b6 60.♙f5+-



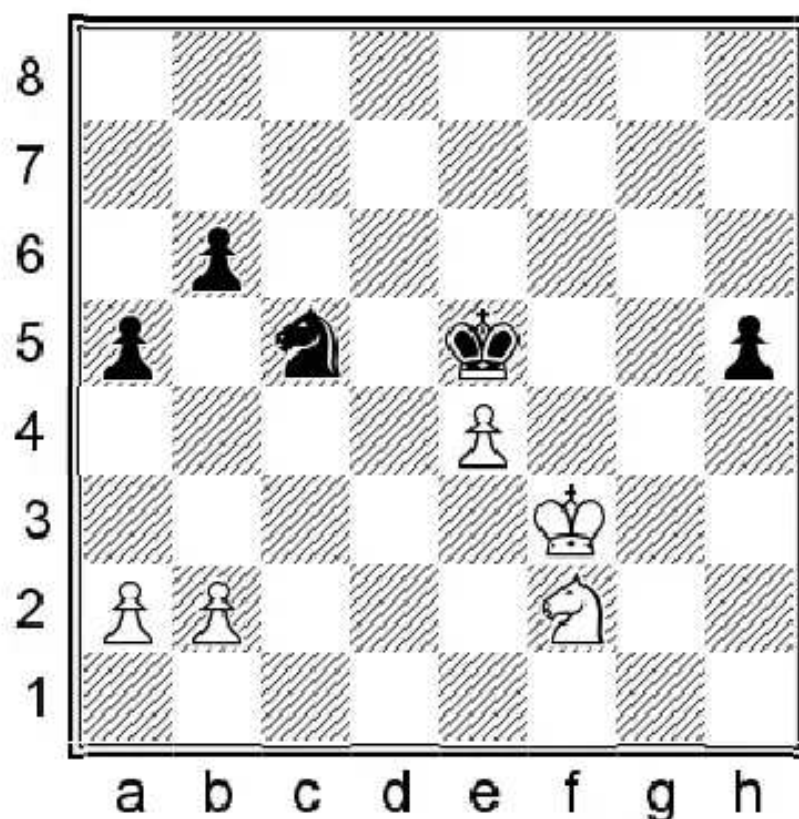
A typical example of the distant passed pawn involving two great players. It is clear that Black is better with his h-pawn, but it is very difficult to say if it is enough for the win. After lots of analysis it seems that White can hold, but in a practical game I would prefer Black's winning chances to White's drawing ones. Throughout the game we will see many interesting ideas, as well as how to handle this type of position, one which might easily arise in our games.

**37...♙e5 38.♙e3 h5 39.a3**

The old principles say that we should always consider twice each pawn move as they cannot move backward. White was probably afraid of ideas like ...♞c2 check followed by ...♞b4. Let us examine some instructive variations and see what might happen if White does not touch his pawn structure. 39.♞h3 ♞e6 Taking the g5 and f4 squares under control. ♞g1 can be answered by ...♞g5 and the e4 pawn falls as every pawn endgame is lost (after ♞f3) because of the distant passed pawn. 40.♞f2 ♞f4 Black dominates the f2 knight, which can only move backward. Let's see how Black can improve his position if White chooses the waiting policy. 41.♙f3



41...a5! Gaining space on the queenside before starting something concrete. 42.♔e3 b6! Protecting the a5 pawn and waiting for the king to move to f3. Black does not advance his pawns too far forward, where they could become vulnerable to the knight at some point. 43.♕f3 ♖e6! Black transfers his knight to c5 and also prepares to invade with ...♔d4. He was waiting for the king to get to f3 to have ...♔d4 in case of ♖d3 check. 44.♔e3 ♖c5 Preventing ♖d3 again! Take note of the placement of the black pieces and how they control all the squares from which White could send the king back with a check. 45.♕f3

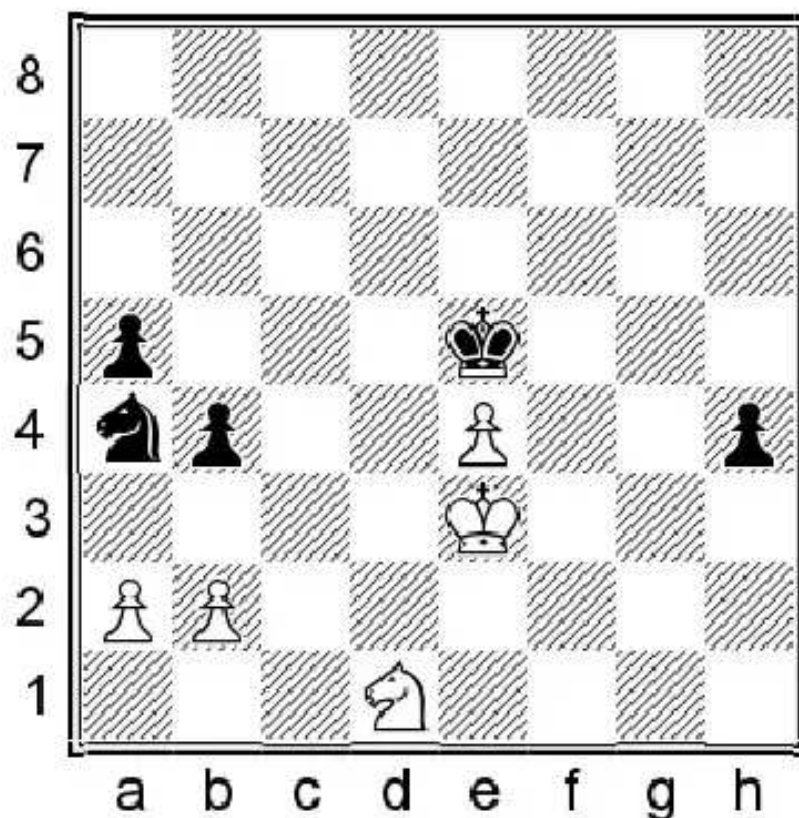


(White quickly runs into zugzwang if he weakens his queenside. 45.b3 b5! 46.♕f3 ♔d4 It is time to break in with the king. Of course, White gets a chance now to use his e-pawn. 47.♕f4 ♖d7 48.♕f5 h4 Advancing the passed pawns. Black intends to play ...b4 and ...♔c3 soon, with the idea of sacrificing his knight for the e-pawn but collecting all the

others. 49.♔g4 b4 50.♕xh4 ♖c5—+ with an easy win because of the misplacement of the h4 king.) 45...♗a4 Black provokes some weakening on the queenside. It is a clever and principled attempt to aim for simplifications. 46.b4!?

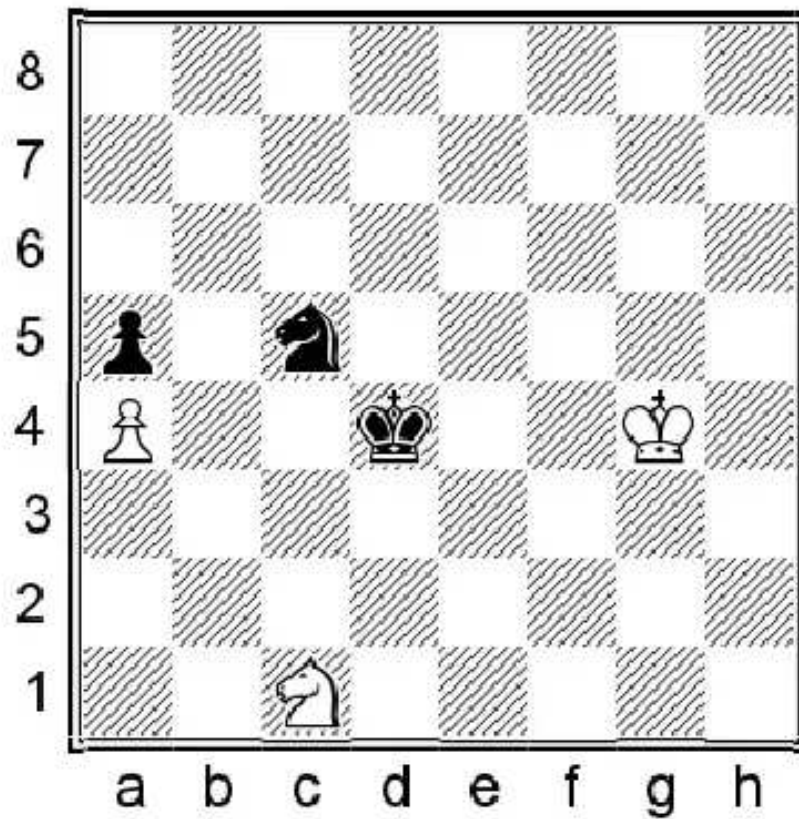
with the idea of taking back the pawn with ♗d3.

a) Avoiding a weakening with 46.♗d1 b5 47.♕e3 b4 Before executing the breakthrough with h4-h3, Black advances his queenside pawns as far as possible. 48.♕f3 h4 49.♕e3



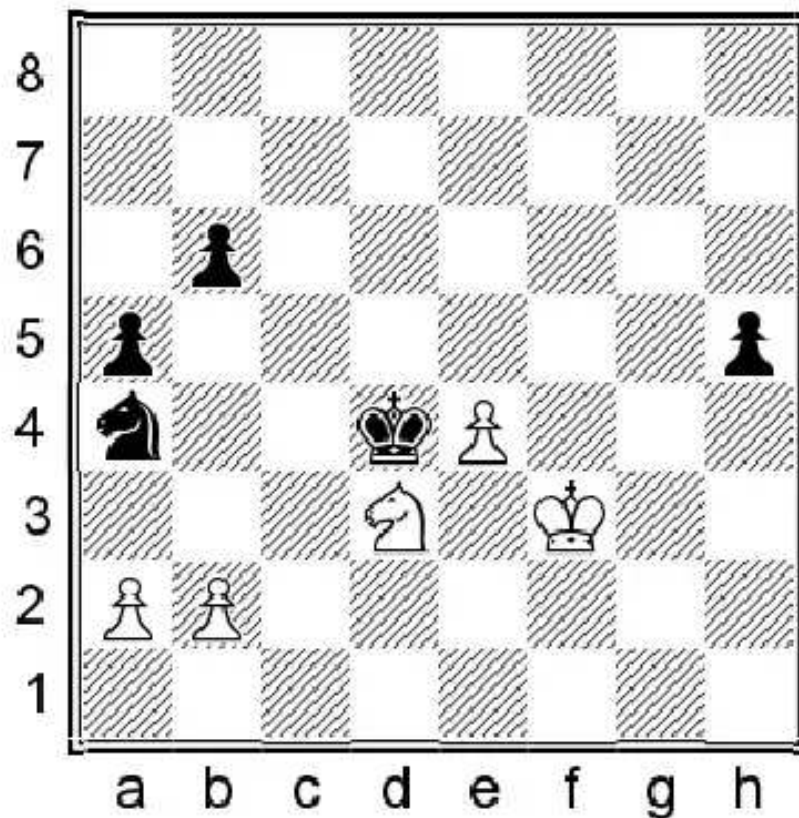
The winning plan is to trade the h4 pawn for the one on e4 and to lure the white king to the queenside — after which Black collects b2-a2. However Black must make some prophylactic measures to execute it properly. 49...♕e6! Black wants to push ...h4-h3, but first he avoids the ♗f2-g4 check (49...h3 right away could be answered by 50.♗f2! ♗xb2 51.♗xh3 a4 52.♗g5 b3 53.axb3 a3 54.♗f3+ ♕d6 55.♗d4 a2 56.♗c2 just in time!) 50.♕f3 h3 51.♕g3 ♕e5 52.♕xh3 ♕xe4 53.♕g2 ♕d3—+ with an easy win!

b) Another defensive attempt is 46.b3 ♗c3 47.a4 ♕d4 48.♕f4 ♗e2+ 49.♕g5 (49.♕f5 ♕e3! followed by winning the pawn with ...♗g3 or in case of 50.♗d1+ ♕f3 51.e5 h4!—+ the h-pawn cannot be stopped, while e6 is going to be checked by ...♗d4.) 49...♕e5 50.b4 The last chance is to aim for the annihilation of the queenside. (50.♕xh5 ♗g3+ 51.♕g4 ♗xe4—+) 50...♗c3 51.bxa5 bxa5 52.♗d3+ ♕d4! Otherwise ♗c5-b7 secures the draw. 53.♗c1 ♗xe4+ 54.♕xh5 ♗c5! 55.♕g4



55...♔e3! and the knight on c1 is trapped! 56.♕f5 ♔d2 57.♖a2 ♖xa4+ ♖c3 next move. The last pawn standing wins the game.

c) White has a tactical defense with 46.♖d3+!? ♔d4



47.e5! ♖c5 48.♖f4! (We can reach a queen endgame by force after 48.♖xc5 ♔xc5 49.♕f4 h4 50.♕g4 ♔d5 51.♕f5 h3 52.e6 h2 53.e7 h1=♚ 54.e8=♚ ♚b1+ 55.♕f4 ♚xb2+ Well, yes, it is going to be a long torture. Objectively the game should finish in a draw, but Black's practical chances to win the game are excellent.) 48...♕xe5 49.b4! (or playing 2 vs 1 after 49. ♖xh5 ♖d3) 49...axb4 50. ♔e3 White wins the h5 pawn because of the check on g6 and he should hold the draw. Black does not have enough material left and his pawns are doubled.

46. ♖c2 47.bxc5 bxc5 Black has a clear advantage, but probably the limited material on board will allow White to hold

40...♖c3 47.bxa5 bxa5 Black has a clear advantage, but probably the limited material on board will allow white to hold the draw with accurate defense.

### 39...a5

Grabbing space on the queenside and fixing the pawns.

### 40.♗h3 ♖c2+

Black should have played as in the 39.♗h3 line: 40...♗e6! 41.♖f2 ♗f4 playing for domination of the f2 knight.

### 41.♔d3 ♖e1+ 42.♔e2 ♗g2 43.♔f3 ♗h4+ 44.♔e3 ♗g6

Black prevents ♗f4 with his long maneuver and he wants to answer ♖f2 with ...♗g4 again, but now the knight can be activated with

### 45.♗g5 ♔f6 46.♗h7+ ♔g7 47.♗g5 ♔f6 48.♗h7+ ♔e7

Black of course plays on. His king is temporarily pushed back, but he still has the advantage of the distant passed pawn.

### 49.♗g5

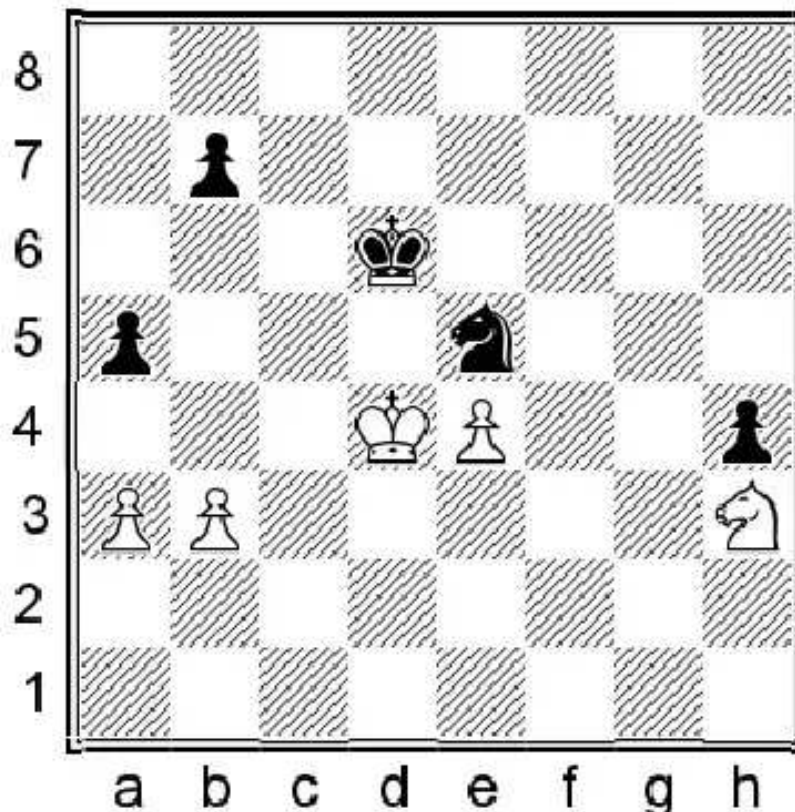
49.♔d4? loses to a very unpleasant reply 49...♗f8!—+ forcing the trade of the knights either on f8, or on e6 after ♗g5-♗e6.

### 49...♗e5 50.♔d4

50.b3 made a lot of sense with the idea of preventing Black from fixing the queenside pawns by a5-a4, and deciding later whether to go to f4 or d4 with the king.

### 50...♔d6 51.♗h3

If White prevents the fixing with a4 now by playing 51.b3 h4 52.♗h3



...it all looks great for Black, but how to improve his position? A nice regrouping of the pieces helps to increase the advantage. 52...♖c6+ 53.♗e3 ♖d8! the final destination is ...♖e6 and ...♗e5, when the h3 knight is dominated and

...♗d4/♗c5 is threatened.

**51...a4**

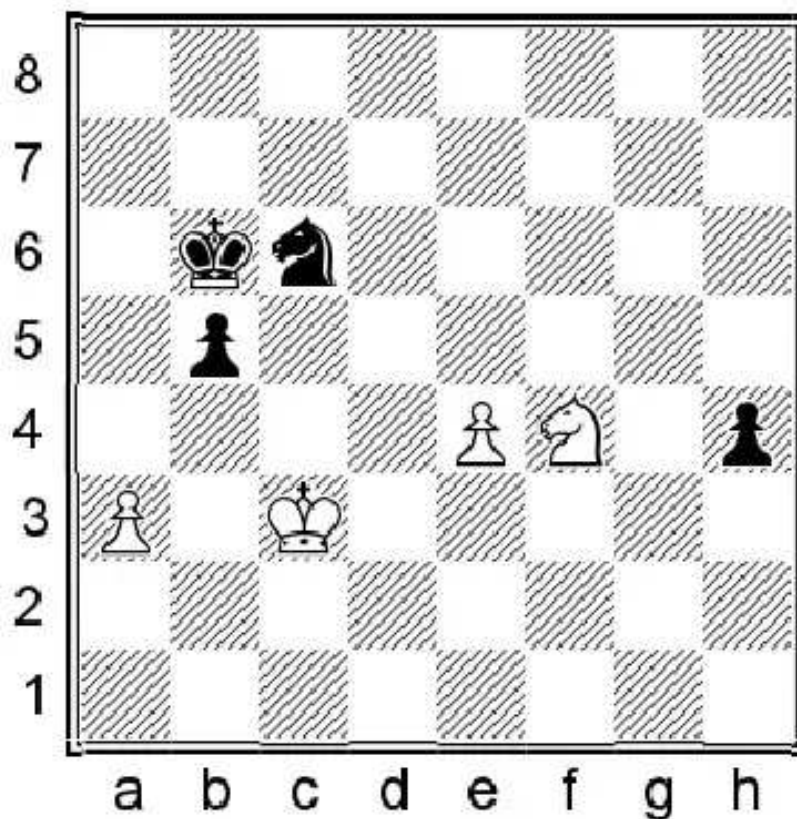
Black has the option now to play ...b5-♗c4 at some point.

**52.♗f2 h4 53.♗h3 b6**

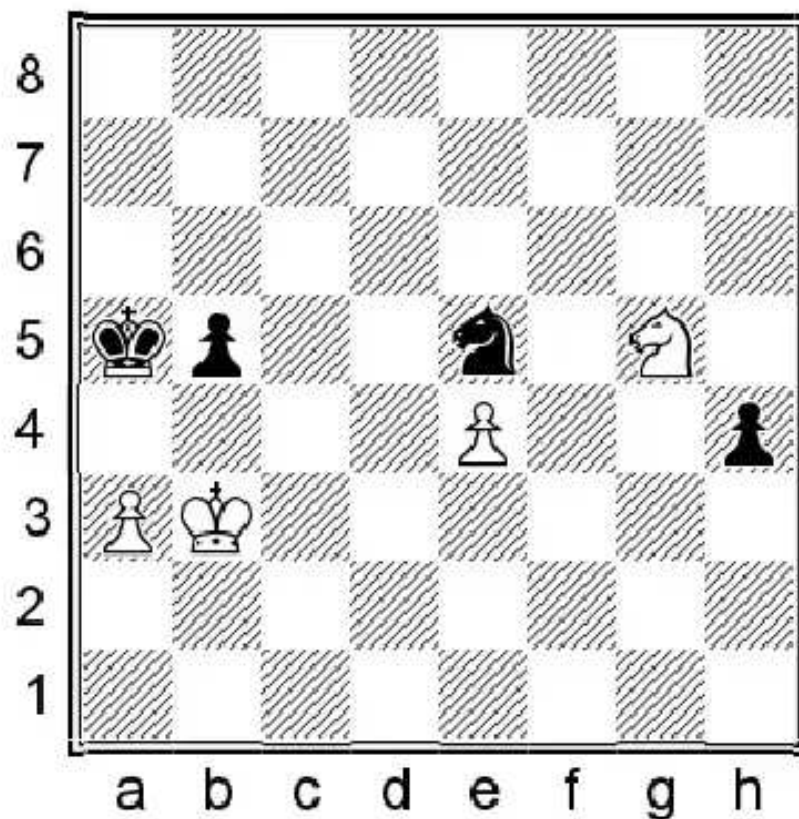
On the direct 53...b5 54.♗f4 ♖c6+ White could play 55.♗c3! using the fact, that ...♗e5 runs into ♗g6. Therefore Nimzowitsch loses a tempo by playing ...b6 first.

**54.♗f4 b5 55.♗h3**

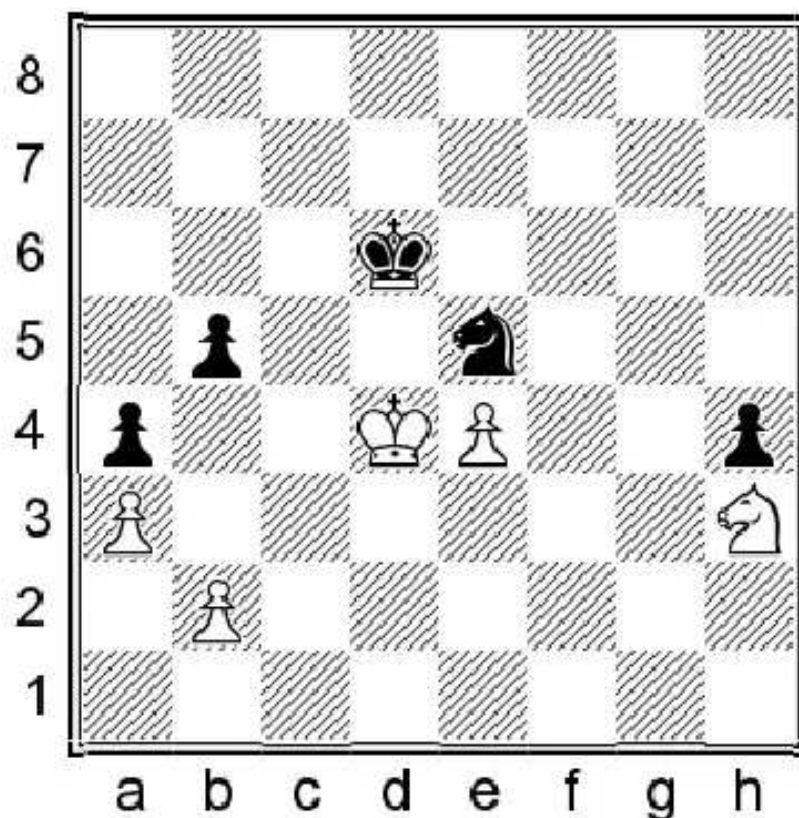
Perhaps a decisive mistake. White's best defense was 55.♗c3! of course, it is a tough decision to retreat the king from an active square, but White would like to trade pawns on the queenside. 55...♗c6 (Black could keep the pressure and the tension with 55...♗c5!? 56.♗e6+ ♗b6 57.♗f4 ♗g6! 58.♗h3 ♗c5 and it is still very unpleasant for White. The deflecting sacrifice does not work right away: 55...♗g6 56.♗xg6 h3 57.♗h4! h2 58.♗f5+ ♗e5 59.♗g3) 56.b3 axb3 (The typical breakthrough with 56...b4+!? is ineffective now because of 57.♗b2! (57.axb4 loses to 57...a3 58.b5 ♗b4! 59.e5+ ♗xe5 60.♗g6+ ♗e4 61.♗xh4 ♗d3!-+ and the pawn cannot be stopped.) 57...bxa3+ (57...axb3 58.axb4 ♗d4 59.♗c3=) 58.♗xa3 axb3 59.♗xb3= and Black cannot play ...♗e5.) 57.♗xb3 ♗c5 58.♗c3 ♗e5 White has made a huge step towards the draw by trading a pair of pawns, but he must still defend with accuracy. 59.♗e6+ ♗b6 60.♗f4 ♗c6!?



61.e5!! With this great sacrifice White actually switches the functions of his pieces. He intends to run with his king to the h-pawn and hold the b-pawn with his knight. (Simple waiting with 61.♗h3 is suspicious, e.g. 61...♗a5 62.♗b3 ♗e5 63.♗g5

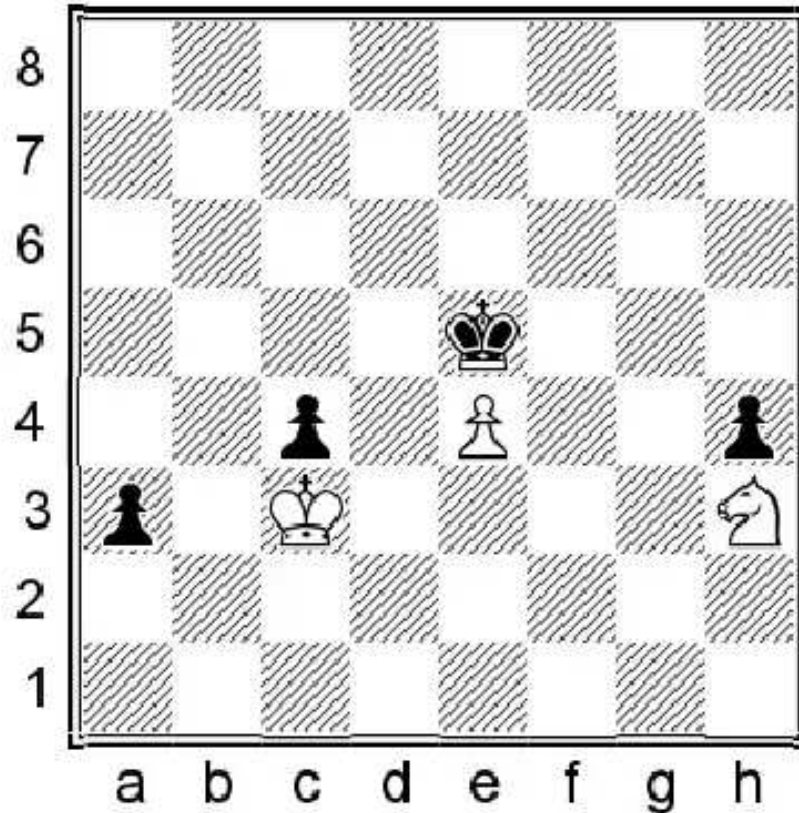


63...♞d7! White is in zugzwang as he cannot move his knight because of ...♞c5, while any king moves allows ...♔a4.  
 64.♕c3 ♔a4 65.♕b2 ♞e5 66.♔a2 ♞c4 wins the pawn, but it is interesting to continue the line because after taking on a3, finally the e-pawn can run. 67.♞h3 ♞xa3 68.e5 ♞c2 69.e6 ♞b4+ 70.♕b2 ♞c6+ and Black goes with his king across the board, firstly collecting the e6 pawn and then continuing the journey to the h-pawn. The c6 knight is perfectly placed because it prevents the access of the white king towards the b5 pawn.) 61...♞xe5 62.♕d4 ♞c6+ 63.♕e4 ♕c5 64.♕f5 ♕c4 65.♕g4 ♞d4 (65...♕b3 66.♞d5 ♕xa3 67.♕xh4= The b-pawn is not advanced far enough. White holds the draw. 67...♕b3 with the idea of ...♕c4, sending the perfectly-placed knight away from the center, but it blocks the route of the b-pawn and allows 68.♞c7 b4 69.♞d5=) 66.♕xh4 ♞c2 67.♕g3 ♞xa3 68.♕f3 b4 69.♕e3= White arrives in time and holds the draw.

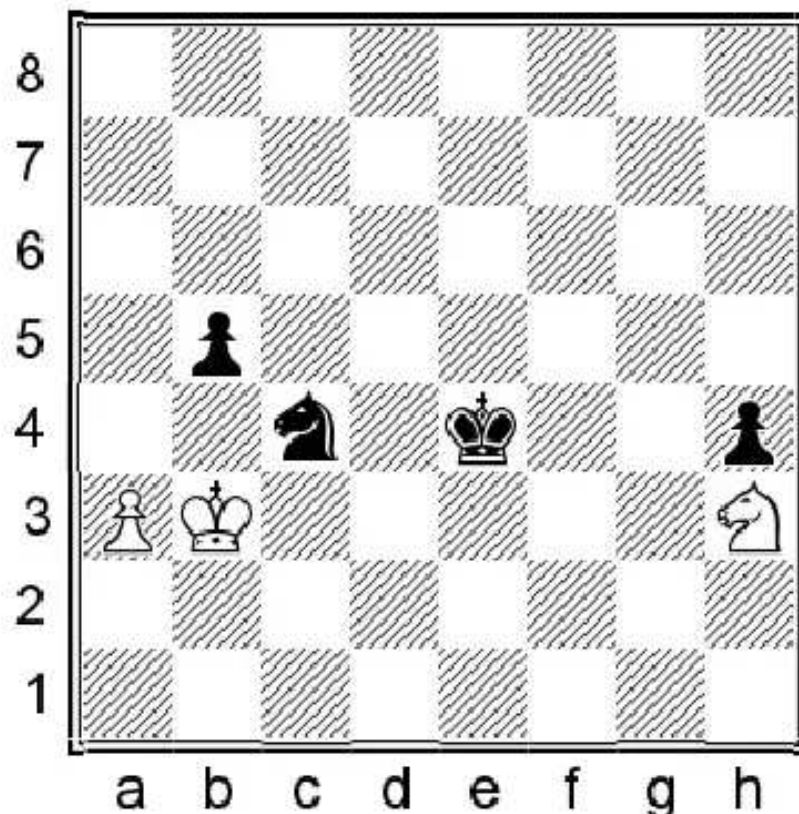


55...♖c6+!

Giving White a difficult decision. He either tries ♔c3 (and trades the queenside pawns, but then he must count on ...♗e5) or he goes ♔e3, which leaves the queenside pawns vulnerable. The alternative was 55...♗c4 56.♔c3 ♗e5 57.b3! axb3 (57...♗xa3 leads to study-like position after 58.♗b2! Only move! 58...♗c4+ 59.bxc4 bxc4 60.♔c3 a3



The a- c-pawns protect each other indirectly and Black simply wants to take on e4 and promote his h-pawn with the help of his king. However White can hold with 61.♗f2! ♔f4 62.♔c2= and just waiting with ♔c3-c2. 62...♔f3 leads to a draw after 63.e5 ♔xf2 64.e6 h3 65.e7 h2 66.e8=♚ h1=♚ 67.♚f7+= and ♚xc4 next.) 58.♔xb3 ♔xe4

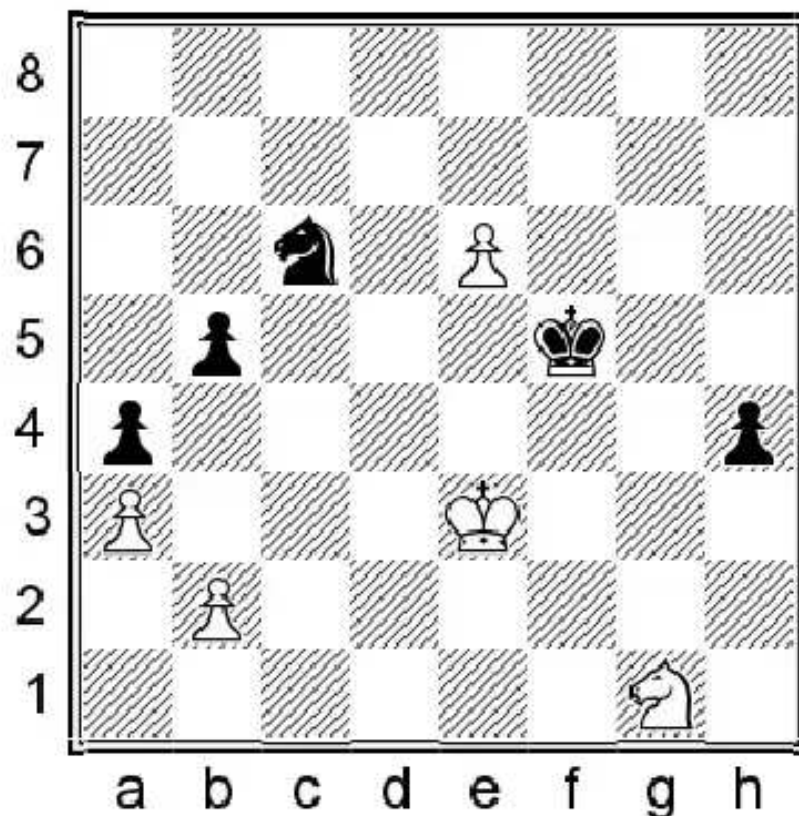


59. ♔b4! = With the idea of playing a4. If Black could trade the a3 pawn for the b5 he is winning, but his knight does not have an outpost and therefore he cannot achieve this as ...♗d6 is met by ♗c5. (59.a4? However, the immediate allows the favorable exchange after 59. ♗a5+! 60. ♔b4 bxa4! -+ and the knight cannot be taken while the knight endgame is

the favorable exchange after 59... ♖a5 60. ♖b4 ♖xa4 ♗ and the knight cannot be taken, while the knight exchange is lost as the king on a4 is too far from the kingside. An illustrative line: 61. ♖xa4 ♗c4 62. ♖b3 ♗e5 63. ♖c3 ♖f3 64. ♖d4 ♖g3–+ and both ♗g5 and ♗g1 loses to ... ♗f3!)

### 56. ♖e3

White rejected 56. ♖c3 probably because of 56... ♖e5 57. ♖d3 ♗a5 ♗c4 next, however the line continues with 58. ♗g1! ♖f4 59. e5! Trying to eliminate the h4 pawn. 59... ♗c6! (59... ♖f5 60. e6! The king still stands in motif after ♖e6–♗f3–h3–♗g5. 60... ♗c6! transposes to 59... ♗c6!) 60. e6 ♖f5 61. ♖e3



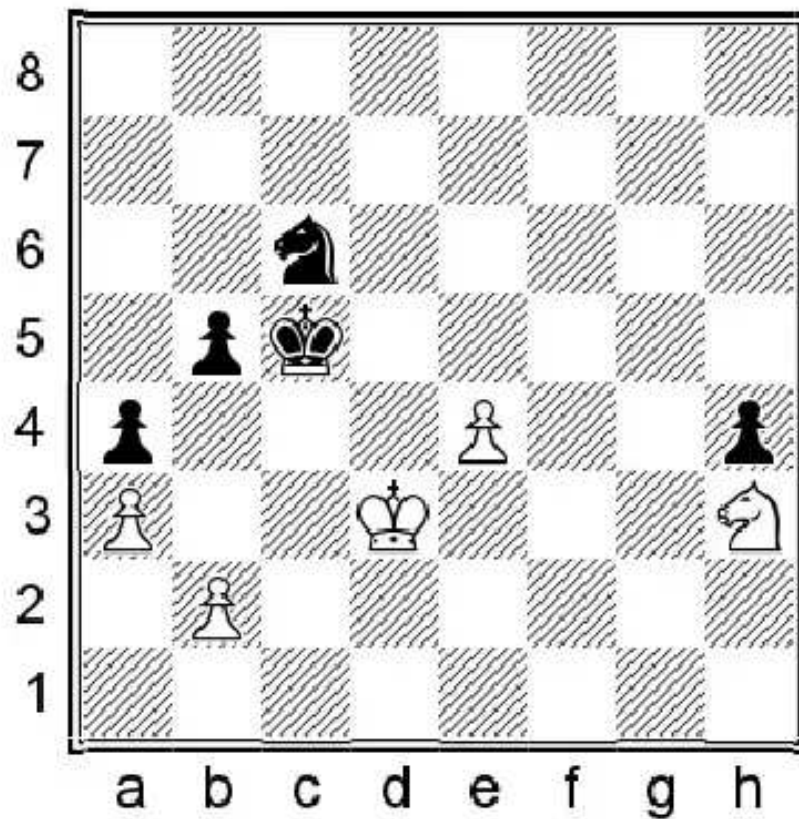
61... ♖f6! with the idea of taking the pawn with the knight after ... ♗d8! (61... ♖xe6? did not work 62. ♗f3 ♖d5 63. ♗xh4 ♖c4 64. ♖d2 ♖b3 65. ♖c1 ♗e5 66. ♖b1 ♗d3 67. ♗f3! ♗xb2 68. ♗d4+ ♖c4 69. ♗xb5= Just in time to secure the draw.) 62. ♖e4 (62. ♗f3 h3 63. ♖f2 ♖xe6 64. ♗g5+ ♖d5 65. ♗xh3 ♖c4–+ is already winning, White failing by one tempo to get to c1 with his king.) 62... ♗d8–+ wins the pawn and the game.

### 56... ♖c5!

Black heads towards the b2 pawn.

### 57. ♖d3

Trying to block the king. On 57. ♖f4 Black can simply go for the pawn with 57... ♖c4 58. e5 ♖b3–+ the knight on c6 holds the pawn.



**57...b4!**

Widening the space to invade with the king.

**58.axb4+**

58.♘f4 also loses after 58...♘e5+! 59.♙e2 (59.♙c2 bxa3 60.bxa3 ♔d4+ (60...♘c4+)) 59...bxa3 60.bxa3 ♙c4+

**58...♙xb4 59.♙c2 ♘d4+ 60.♙b1**

60.♙d3 ♘f3 61.♙c2 (61.♙e3 ♘e5+ Black has successfully lured the king away and he soon takes the b2 pawn.)

61...♙c4+ and ♙d4 next wins.

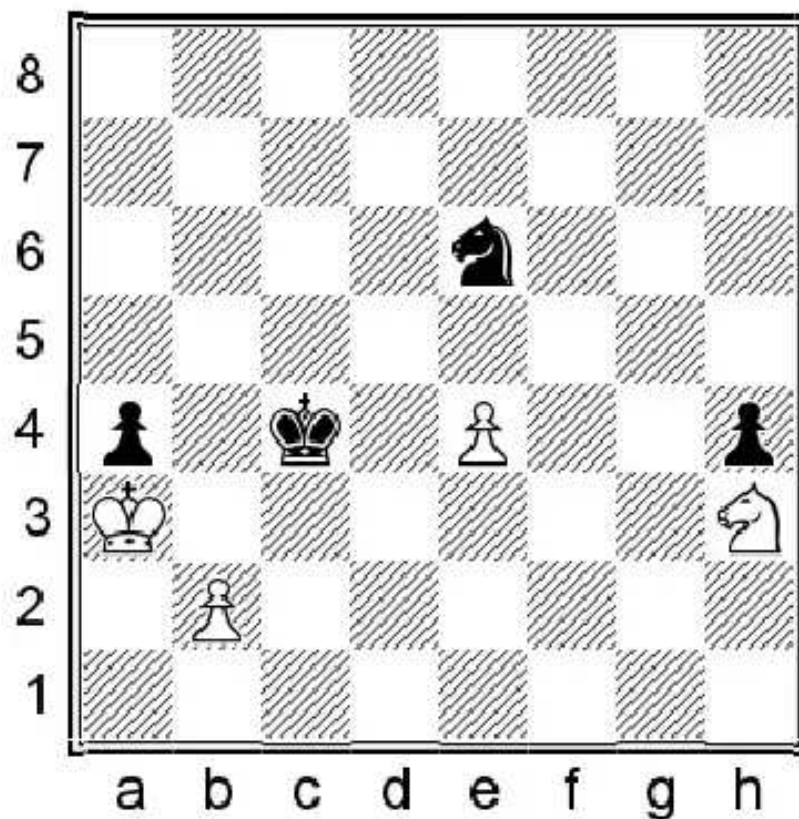
**60...♘e6**

Black had other winning moves as well.

**61.♙a2**

61.♙c2 ♙c4+

**61...♙c4! 62.♙a3**



**62...♔d4!**

Precise calculation by Nimzowitsch, using the fact that the h3 knight is trapped after ...♔f3-g2 thanks to the excellent placement of the e6 knight, from where it controls the f4 and g5 squares. It was not too late to go wrong with 62...♘c5?  
 63.e5 ♔d4 64.♔b4 ♘d3+ 65.♔xa4 ♘xb2+ 66.♔b3=

**63.♔xa4 ♔xe4 64.b4**

Trying to chase the e6 knight with 64.♔b5 is too slow 64...♔f3 65.♔c6 ♔g2 66.♔d6 ♔xh3 67.♔xe6 ♔g4+

**64...♔f3 65.b5 ♔g2 66.b6 ♔xh3!**

A bit of an unlucky finish from White's point of view in that he has taken the pawn on a4 and the king stands in the motif of ♘c5 check. On the other hand, it was all foreseen by Black when he played 61...♔c4.

**67.b7**

67.♔b5 ♘d8

**67...♘c5+ 0-1**

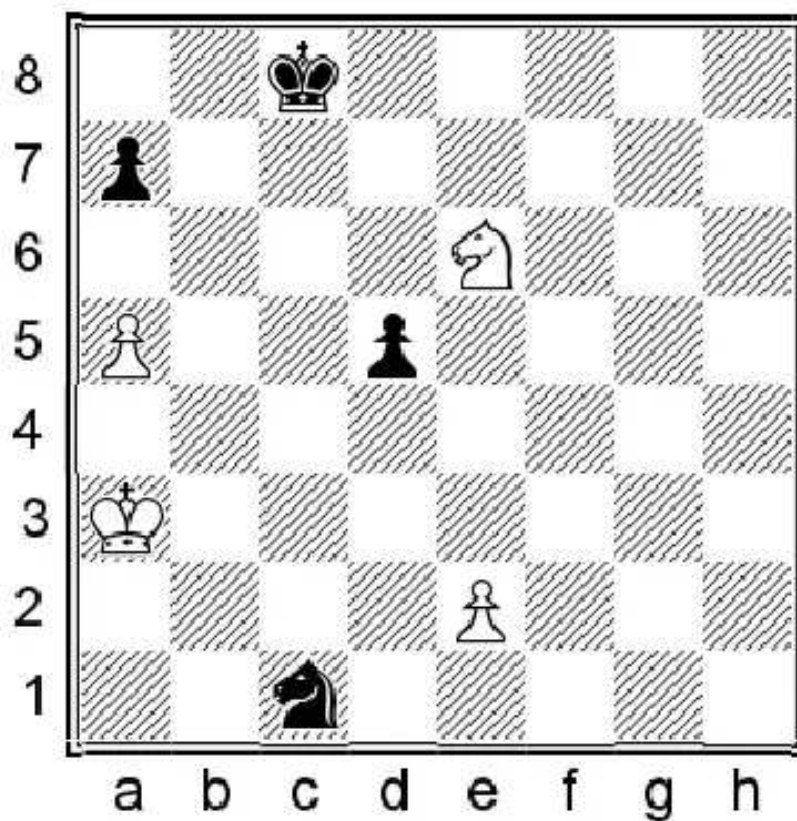
A very instructive endgame from which we can learn a lot.

## 2.3. COMPLEX KNIGHT ENDGAMES ON ONE FLANK

Knight endgames with 2 vs 1 pawn, 3 vs 2 or 4 vs 3 pawns on one flank might easily arise. In this chapter we will study this type of position — as well as equal pawns, but where one side is more active.

1

Godes



We start this chapter with a pretty study by Godes. The c1 knight is trapped, but White must pay attention to its execution, because Black wants to sacrifice his knight for the e2 pawn and then eliminate a5 with his king.

**1. ♖f4!**

White also takes the d3 square under control. 1. ♖d4 leads to a draw after 1... ♔b7! 2. ♔b2 ♖xe2 3. ♖xe2 ♔a6=

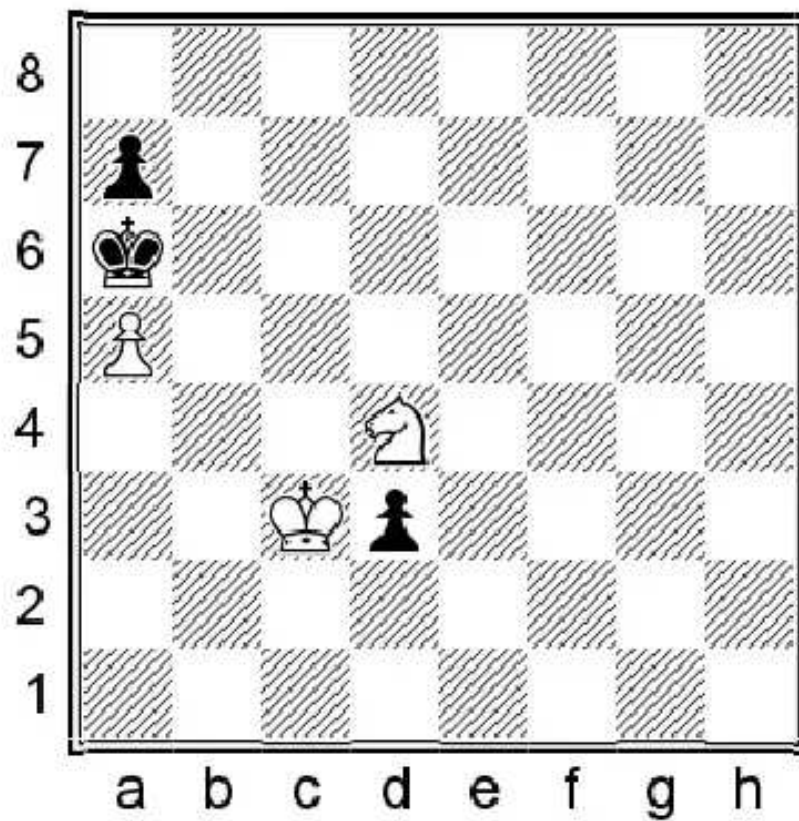
**1. ♖f4! d4**

Now on 1... ♔b7 2. e3!+- and ♔b2 next wins a free knight.

**2. ♔b2 ♖xe2 3. ♖xe2 d3**

**3... ♔b7 4. ♖xd4 ♔a6 5. ♖b3+-**

**4. ♖d4! ♔b7 5. ♔c3 ♔a6**



6.♔b4!!

This is the key idea of the study. The most natural 6. ♖b3 leads to a draw after 6...♔b5 7.♔xd3 ♔b4 8.♔c2 ♔c4 9.♔b2 ♔b4 10.♔a2 ♔a4= holding the opposition and the draw.

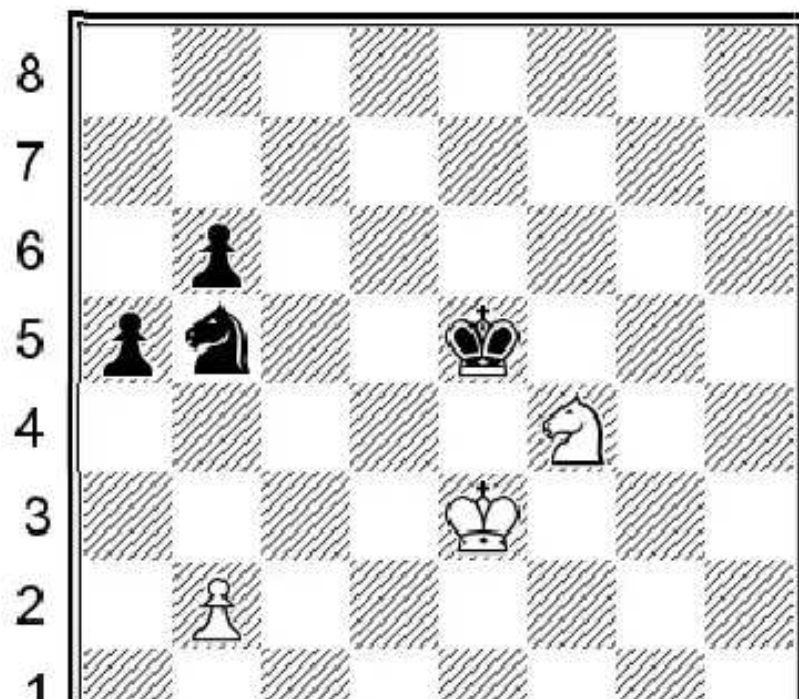
6...d2 7.♖b3! d1=♚ 8.♖c5#

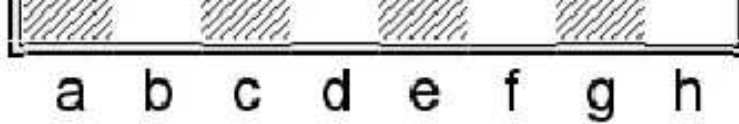
2

M. Brodsky

A. Poluljahov

Koszalin, 1999





Black is a pawn up, but there is not much material left on the board. Another important point is that creating a passed pawn requires the trade of a pair of pawns. Therefore the defensive side should not have big problems in holding the draw, although Black can improve his position for a while.

1. ♖e2 ♜d5 2. ♜d3 ♜c5

Black wants to get his king to b3.

3. ♜f4 a4

3... ♜b4 walks into 4. ♜d5+

4. ♜e2

White just waits and wants to see how Black plans to make progress.

4... ♜b4 5. ♜c1 ♜c7 6. ♜c2 ♜e6

6... b5 7. ♜d3+ ♜c4 8. ♜c1 will be similar to the game.

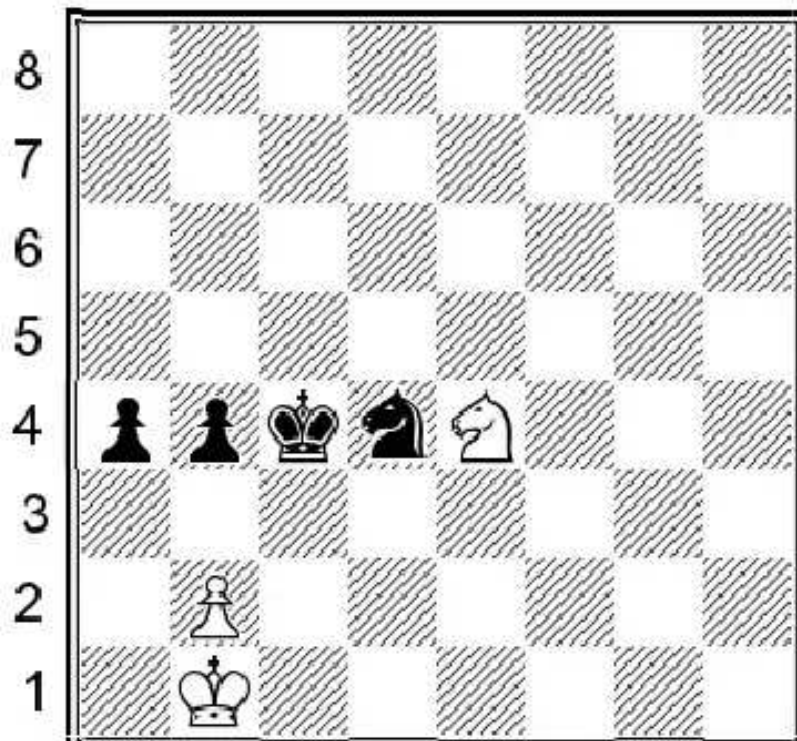
7. ♜d3+ ♜c4 8. ♜e5+ ♜d4 9. ♜f3+ ♜c5

Black was not circumspect enough. However White fails to find the direct draw, which thus allows Black to reach the maximum he could expect from this kind of positions. The position still remains drawn though.

10. ♜d2

White could force a draw with 10. b3! a3 11. ♜c3 and b4 is coming next with ♜b3.

10... b5 11. ♜e4+ ♜b4 12. ♜d2 ♜d4+ 13. ♜b1 ♜c5 14. ♜a2 ♜b4 15. ♜e4+ ♜d5 16. ♜f6+ ♜c4 17. ♜e4 ♜d5 18. ♜f6+ ♜c5 19. ♜e4+ ♜c4 20. ♜b1



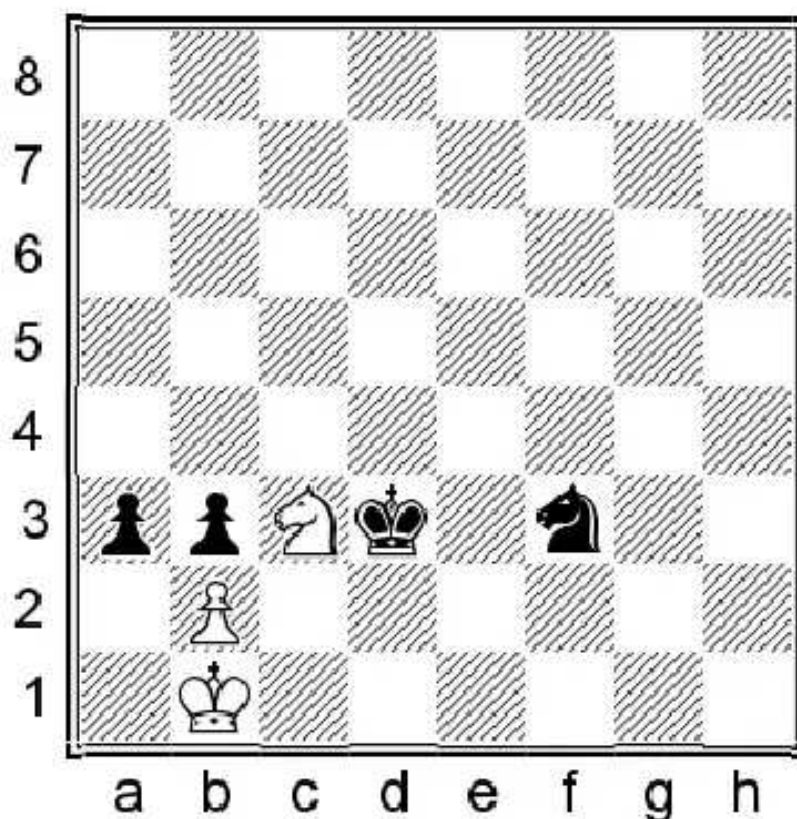
a b c d e f g h

It is hard to get more than this in this type of two vs one pawn knight endgame, but it is still not enough for the win.

Black cannot really make progress and, as we will see, even the trade of the knights does not always guarantee a win...

20...♟f3 21.♞f2 ♔d4

The problem of further squeezing with 21...b3 is that the trade of the knights always leads to a theoretical draw after the white king moves into the corner. 22.♞d1 ♔d3 23.♞c3 a3



Even if everything seems to work well for Black, White holds with the pretty 24. ♞a2!!= and the pawns gets traded.

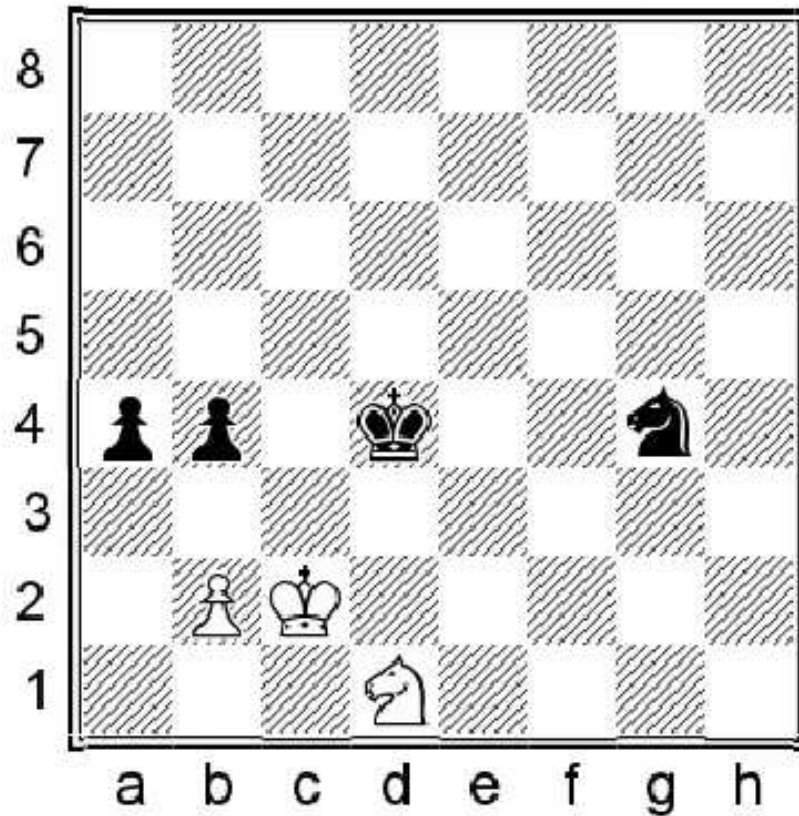
22.♔c2 ♞e5 23.♞d1

White wants to keep his knight close to his king. It is logical, but he almost traps it. 23.♞h3 or 23.♞h1 followed by bringing back the knight would have been less risky.

23...♞d3

The critical move is 23...♞g4 which will transpose to the game few moves later.

24.♔b1 ♞e5 25.♔c2 ♞g4!



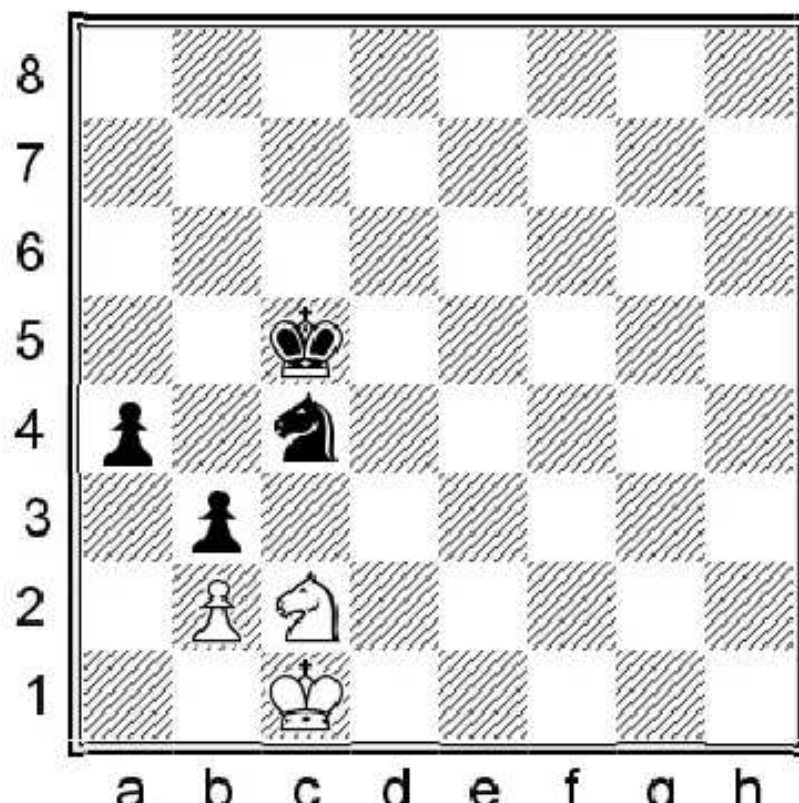
The d1 knight is trapped. b3 can be answered by a3 and, if White allows it, Black goes to pick up the knight with  $\text{♔d3-d2}$ . Therefore the only move is

**26.♔d2! ♔e4?**

A blunder, which allows a nice rescue for White. The critical move was 26...♖f6 which has to be answered by 27.♖f2!

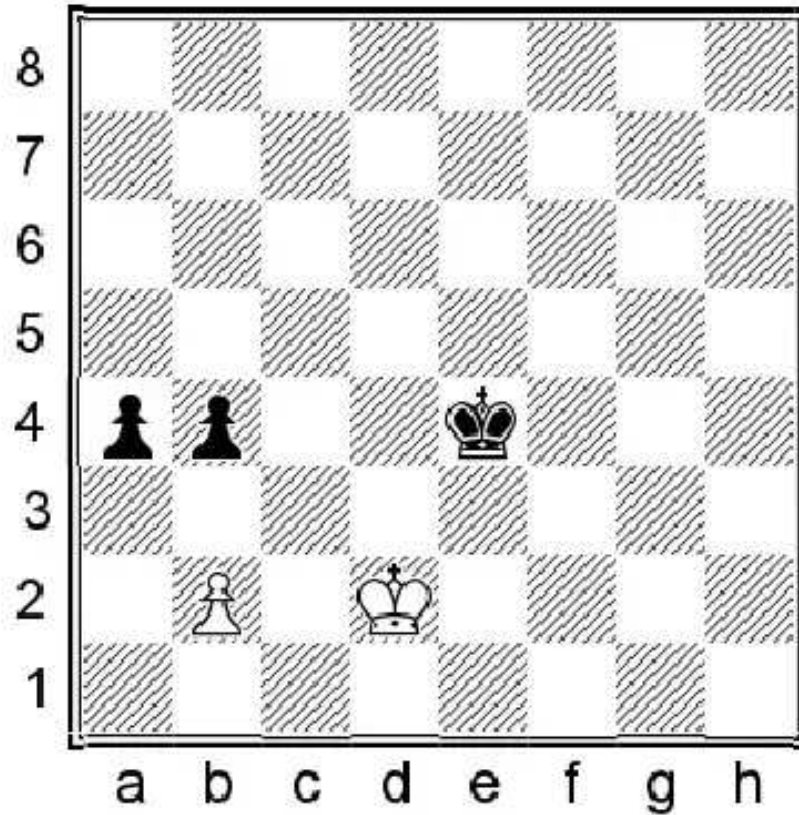
**a) 27.♔c2? ♖e4+**— already loses, because the knight is trapped and  $\text{♔d3}$  is next.

**b) If White is afraid of the pawn endgame he can also defend with 27.♖e3!?** ♖e4+ 28.♔e2 ♖d6 29.♖c2+ ♔c5 30.♔d2 ♖c4+ 31.♔c1 b3

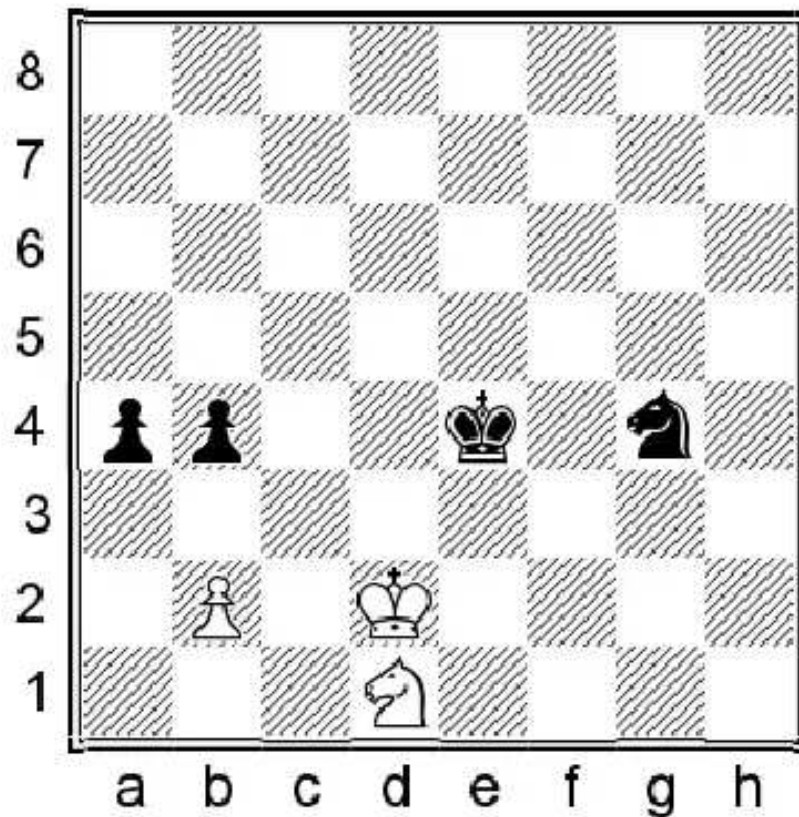


32. ♖a3! The only move, but good enough. (32. ♖e1 loses to 32...a3! 33.bxa3 ♔d4+ and White cannot avoid ...♕c3 followed by queening the pawn.) 32... ♗xa3 33.bxa3= is another theoretical draw.

27... ♗e4+ 28. ♗xe4 ♔xe4



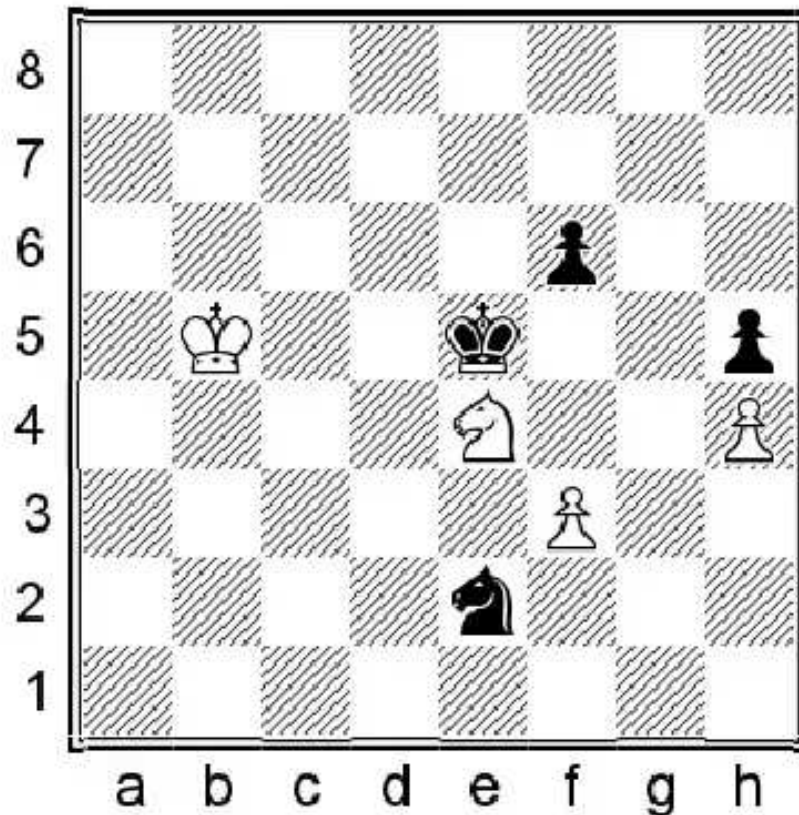
This endgame is drawn. Black cannot invade with his king after holding the diagonal opposition 29. ♔c2 ♔e3 30. ♔c1 ♗d3 (30... ♗e2 31. ♗c2 ♗e1 32. ♗c1= b3 is a theoretical draw as we learned from the pawn endgames. 33. ♗b1 ♗d1 34. ♗a1 a3 35. ♗b1!=) 31. ♗d1= White holds.



27. ♗c3+! bxc3+ 28. ♔xc3= 1/2

♔b4 is coming next and the last black pawn will be eliminated. Draw agreed.

Bolzano, 1995



Even this relatively easy-looking endgame could be very tricky. Black's king is more active, but the material is limited so he must play precisely to win the pawns under good circumstances.

**1...f5!**

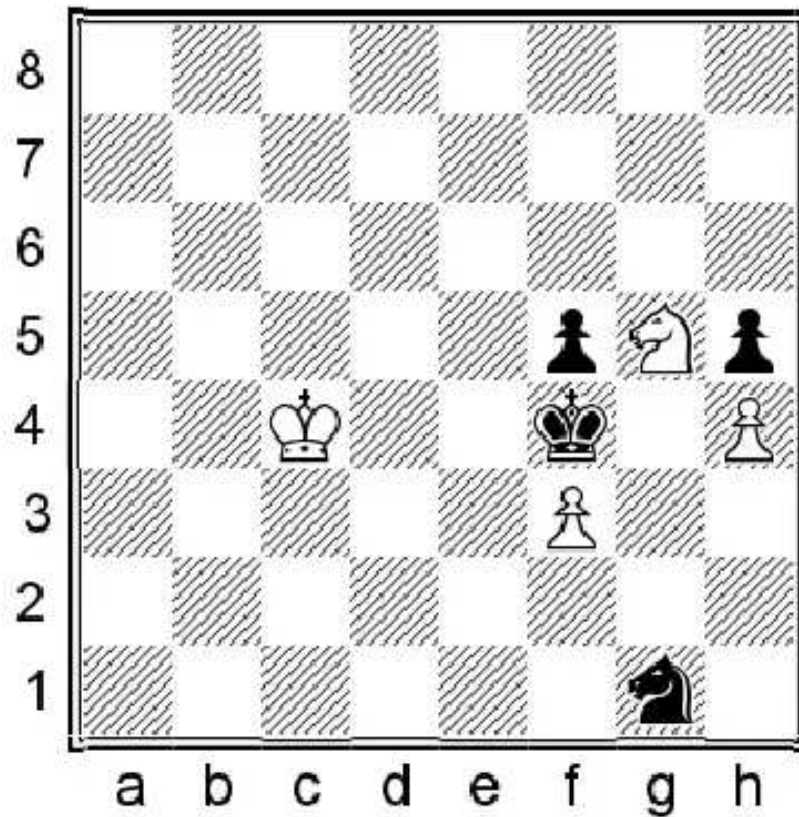
Black cannot go for the material directly with 1...♖d4+ 2.♔c4 ♖xf3 because of 3.♖g3!=

**1...f5! 2.♖g5 ♔f4 3.♔c4 ♖g1?**

This mistake could have spoiled the win. 3...♔g3! 4.♔d3 ♖f4+ 5.♔e3 ♖g2+ 6.♔e2 ♖xh4+ wins the first pawn. White has serious problems with saving the f3 pawn as well and the h-pawn is also going to run soon. 7.♔e3 ♖g2+ 8.♔e2 h4+

**4.♖e6+?**

Missing the chance to play

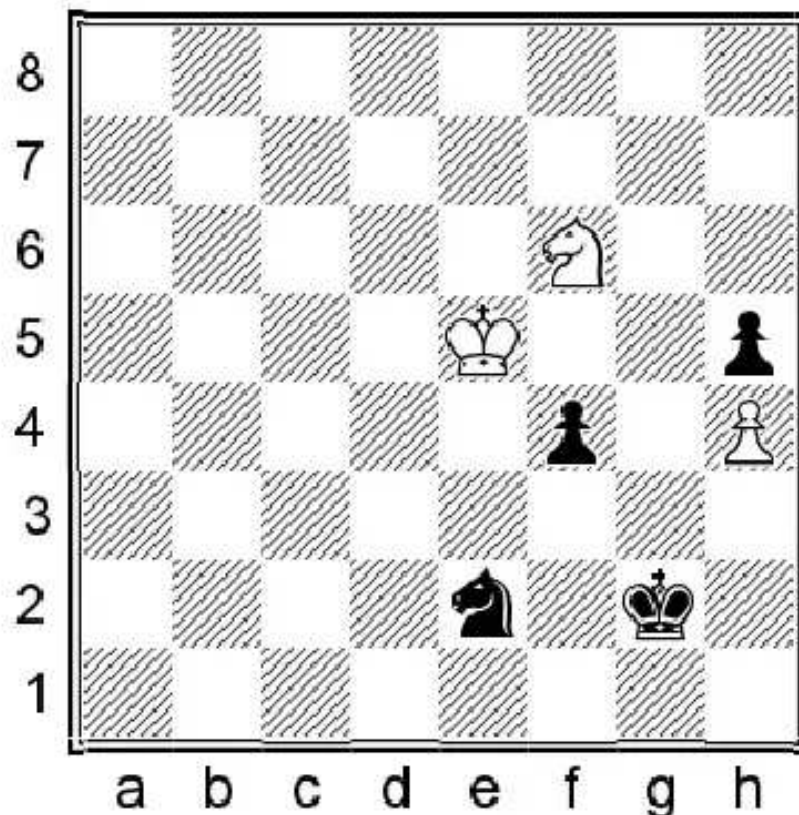


4. ♖h7!! It is not easy to deal with the ♕f6 idea. 4... ♖e2

a) 4... ♖e5 5. f4+= Or ♖g5 holds.

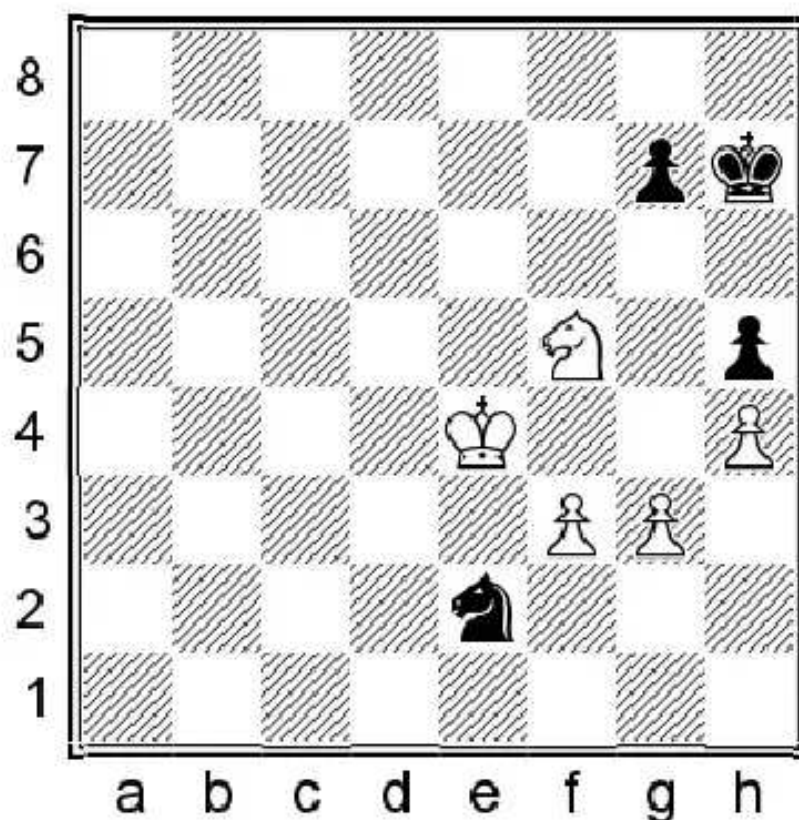
b) 4... ♖g3 5. ♕f6 ♖xh4 6. f4! ties the king to the h5 pawn and the king walks towards the f5 pawn. 6... ♖e2 7. ♖d5 ♕xf4+ 8. ♖e5 ♖g5 9. ♖h7+! ♖g6 (9... ♖g4 10. ♕f6+ ♖f3 11. ♕xh5=) 10. ♖xf4 ♖xh7 11. ♖xf5=;

5. ♕f6 ♖g3 White has different ways to draw, but the most forcing is 6. ♖d5 ♖xf3 7. ♖e5 ♖f4 8. ♕d5 White wins back one of the pawns. 8... ♖e2 9. ♕f6 ♖g2



(9... ♖e3 10. ♕d5+ ♖f3 11. ♕f6=) 10. ♕xh5! works, thanks to the tactical trick of 10... ♖f3 11. ♕f6! ♖f2 12. ♕g4! =

Ivanchuk  
Gelfand  
Lvov, 2000

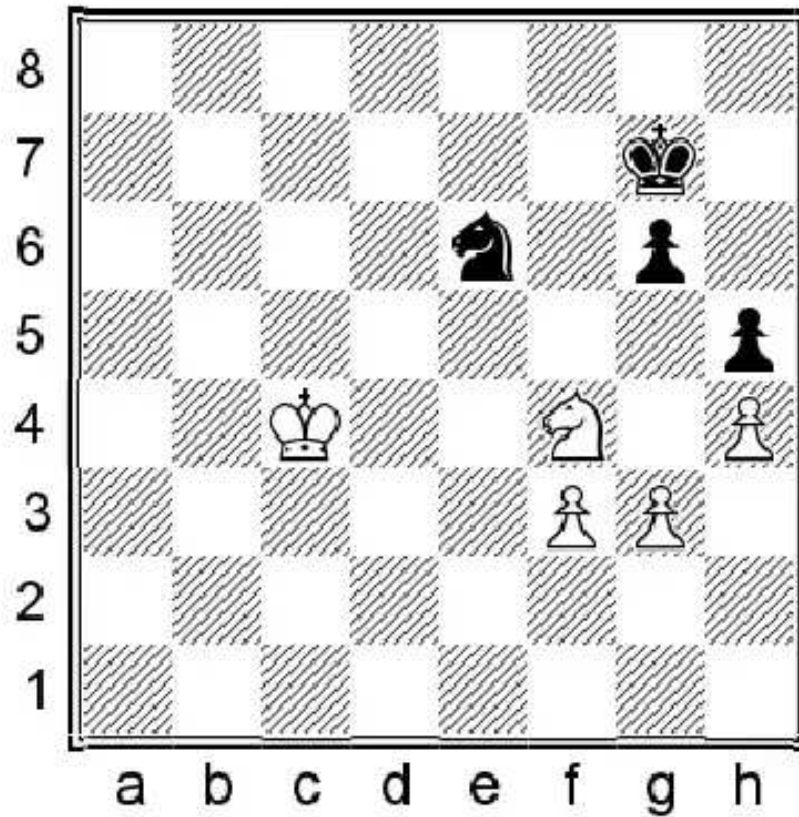


The following practical game from the highest level shows that the defensive side holds this kind of three vs two pawns endgame relatively easily. Probably the most dangerous winning attempt for White is to trade pawns with f4-f5 and get access to the h5 pawn, but Black can deal with this idea. The black knight can annoyingly jump inside the white camp and keep on harassing the pawns.

1...g6 2.♙e3 ♖c3 3.♙d3 ♖b5 4.♖e3 ♗g7 5.♙c4 ♖c7 6.♖d5 ♖e6

Of course, Black must avoid the simplification into a pawn endgame.

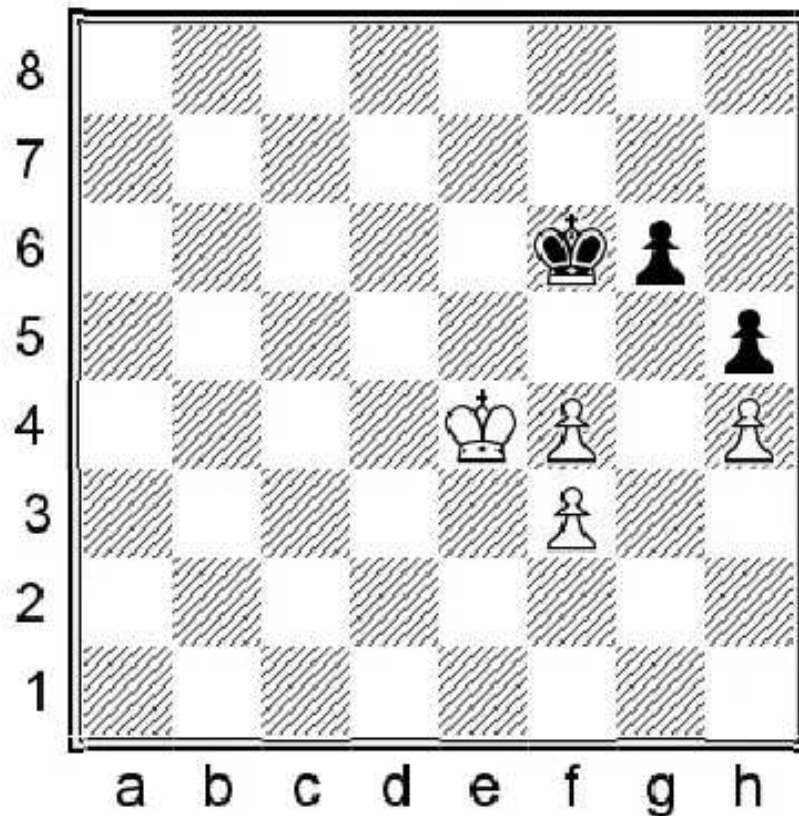
7.♖f4



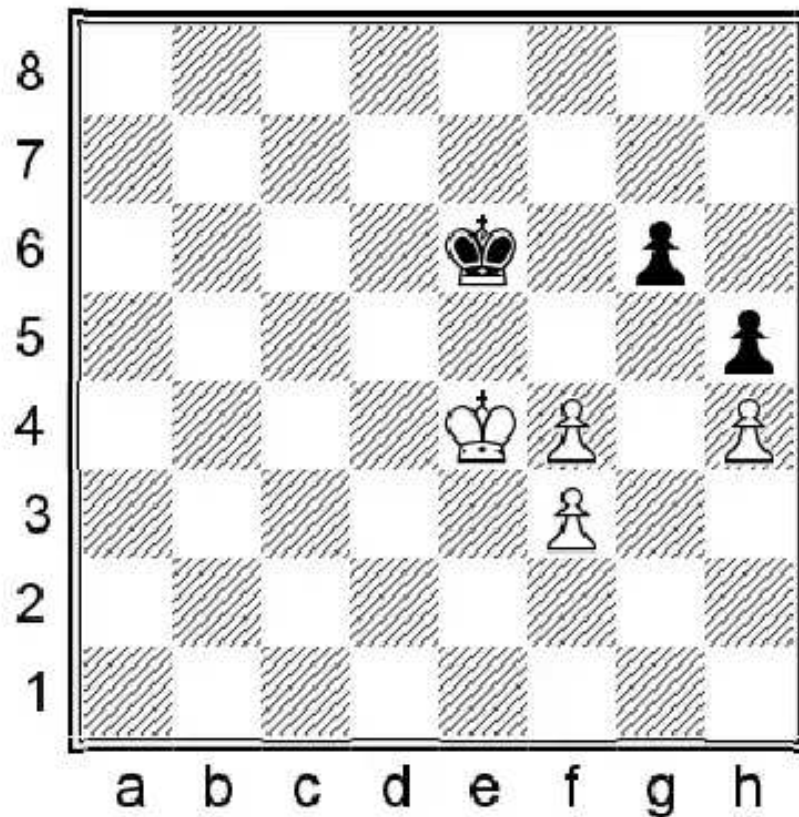
White offers to enter into a pawn endgame even at the cost of damaging his pawn structure, but Black correctly refuses it and keeps the knights on board.

7... Nxd8

7... Nxf4 loses to 8.gxf4 Qf6 9.Qd4 Qf5 10.Qe3 Qf6 (10... Qe6 11.Qe4 Qf6



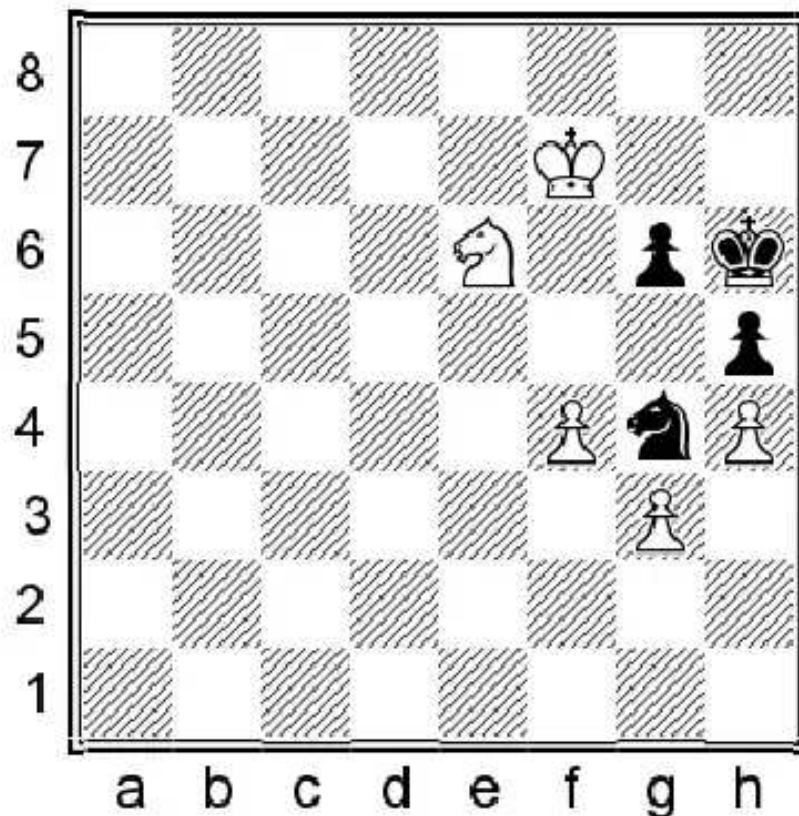
12.f5! g5 (12...gxf5+ 13.Qd5!+-) 13.hxg5+ Qxg5 14.Qe5+- the pawns promote at the same time, but White checks the queen in two moves at the end.) 11.Qe4 Qe6



12.f5+! gxf5+ 13.♔d4 ♔d6 14.f4! Setting Black into zugzwang by spending the last reserve tempo. White wins afterwards by outflanking. 14...♔e6 15.♔c5+–

**8.♔c5 ♖f7 9.♔d5 ♔f6!**

An important move, otherwise the king goes to e6 and Black runs out of moves. For example 9...♖h6 loses to 10.♔e6 ♖f7 (10...♖f5 11.♖xh5+!+–) 11.♔e7 ♖e5 12.♖e6+ ♔h6 (12...♔g8 13.♔f6+–) 13.f4 ♖g4 14.♔f7



Black suddenly finds himself in a mating net. 14...♖e3 15.♖g5! mate in three moves is unavoidable 15...♖f5 16.♔g8 ♖d6 17.♔h8+– and ♖f7 next.

10.♖d3 ♜h6

10...g5!? 11.hxg5+ ♜xg5 12.f4 ♜f3 also secures the draw.

11.♜c5 ♜f5 12.♜e4+ ♔g7 13.♔e5

The white pieces are getting centralized but he cannot make progress. It takes too much time to move with the king to e7 and give ♜e6 check. Meanwhile Black will always keep the g3 pawn under attack.

13...♜e3

The knight was working perfectly on f5, but he was in zugzwang. It was more important to keep the king on g7 so as to not allow ♔f6. The knight is going to jump anyway.

14.♜d6 ♜f1

Keep on disturbing the pawns.

15.♔f4

Black just needs to be careful to avoid getting his knight trapped. For instance a careless move would allow ♜c4 and the knight has no way out from f1.

15...♜d2 16.♔e3 ♜b3= 1/2

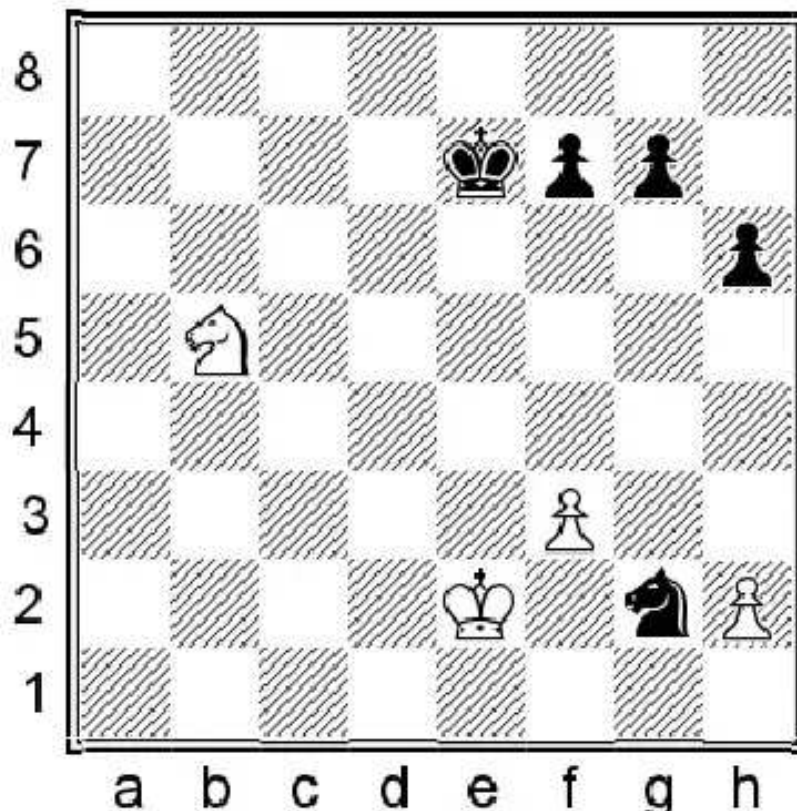
Draw agreed. White admits that he cannot make progress.

5

R. Fine

M. Najdorf

New York, 1949



White should be able to hold this endgame, but it is going to be a quite unpleasant and long struggle as Black can cause many problems.

1...♔f6 2.♖d6 ♕e6 3.♗c4 ♗d5 4.♖b2 ♗d4 5.♗d3

White tries to build up a fortress. He hopes that his weaknesses are defensible and Black can only make progress by exchanging pawns.

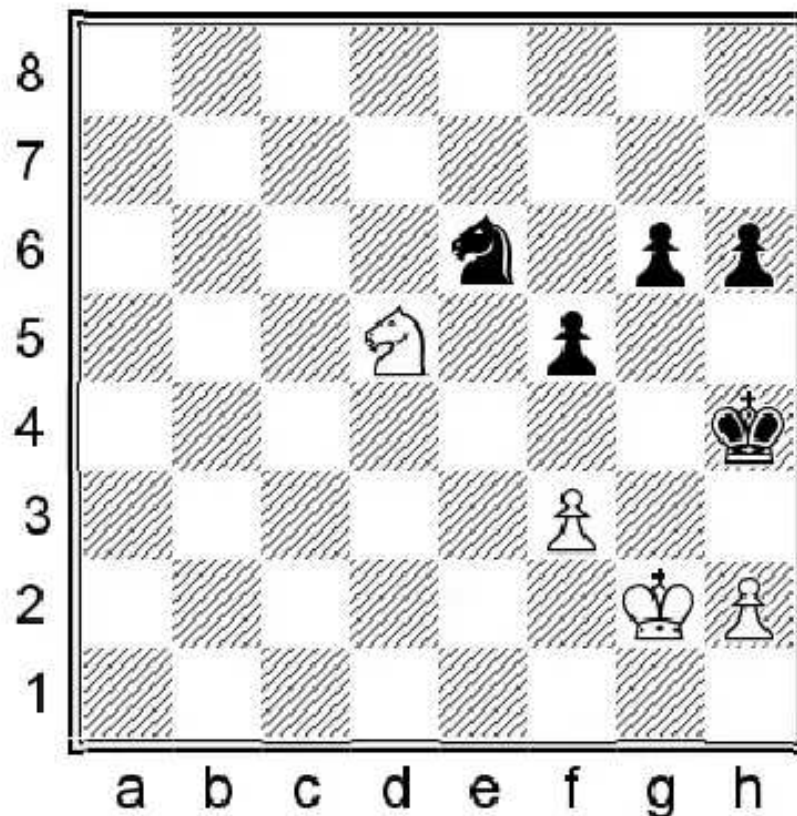
5...f5

Black does not close the route of his king to the kingside with ...g5 as he has in mind to invade through g5-h4-h3 later on.

6.♗b4 ♗f4+ 7.♗d2 ♗e6 8.♗c6+ ♗d5 9.♗e7+ ♗e5 10.♗e3 ♗f6 11.♗d5+ ♗g5

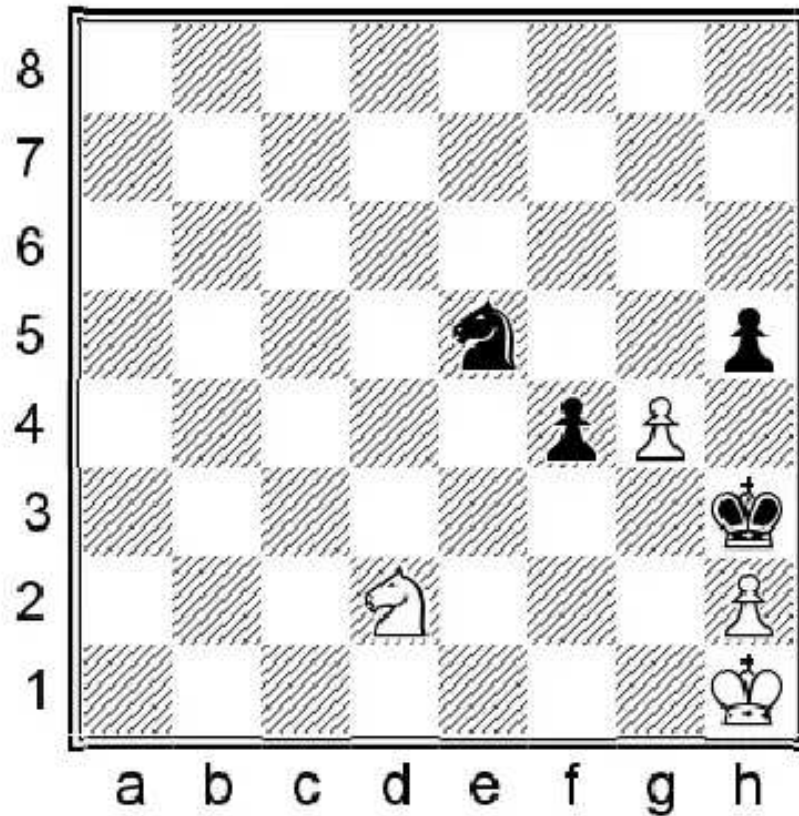
If White had a healthy structure with h- and g-pawns these kinds of plans to enter on h3 would not exist.

12.♗f2 ♗h4 13.♗g2 g6

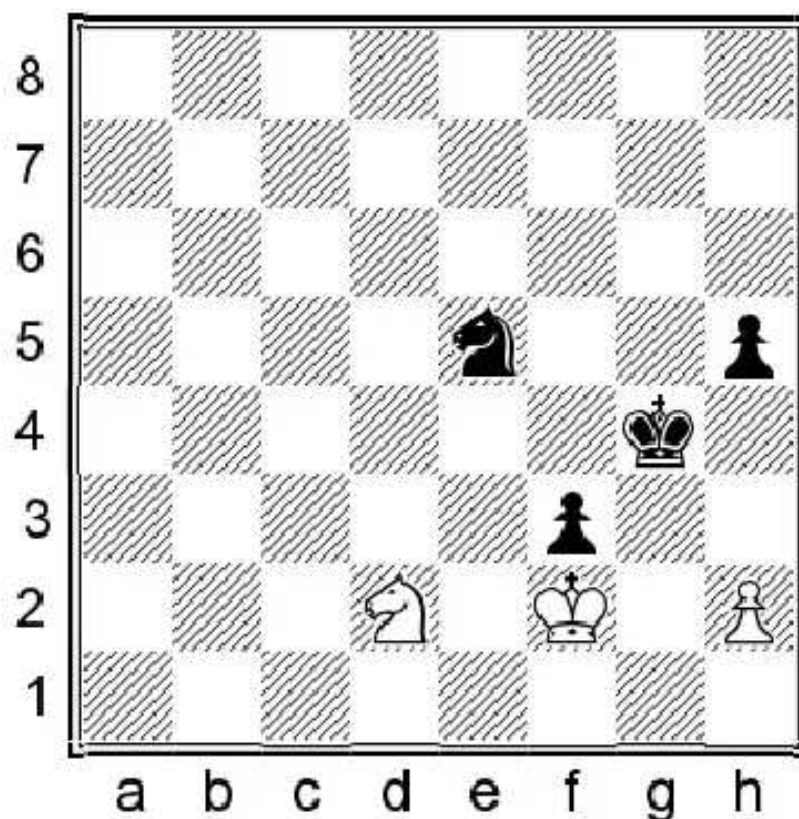


14.♗e7

Interesting to analyze is 14.♗e3 ♗f4+ 15.♗f2 ♗h3 16.♗f1 (16.♗g1 ♗e2+ 17.♗h1 ♗d4 18.f4 (The only move is 18.♗g2 g5 19.♗e1 and waiting with ♗g1-h1, it looks really suspicious though. 19...f4 20.♗g1 h5 21.♗h1 g4 22.fxg4 ♗xg4 23.♗g2) 18...♗e6! wins the pawn. (But not 18...♗e2? which allows 19.♗xf5!! gxf5 stalemate!) 19.♗d5 ♗g4+) 16...♗d3+ 17.♗g1 f4 18.♗d2 ♗e5 19.♗h1 This position seems to be lost. The winning technique is very instructive: 19...g5 20.♗g1 h5 21.♗h1 g4! (21...h4?? is a funny self-mate after 22.♗e4+-) 22.fxg4

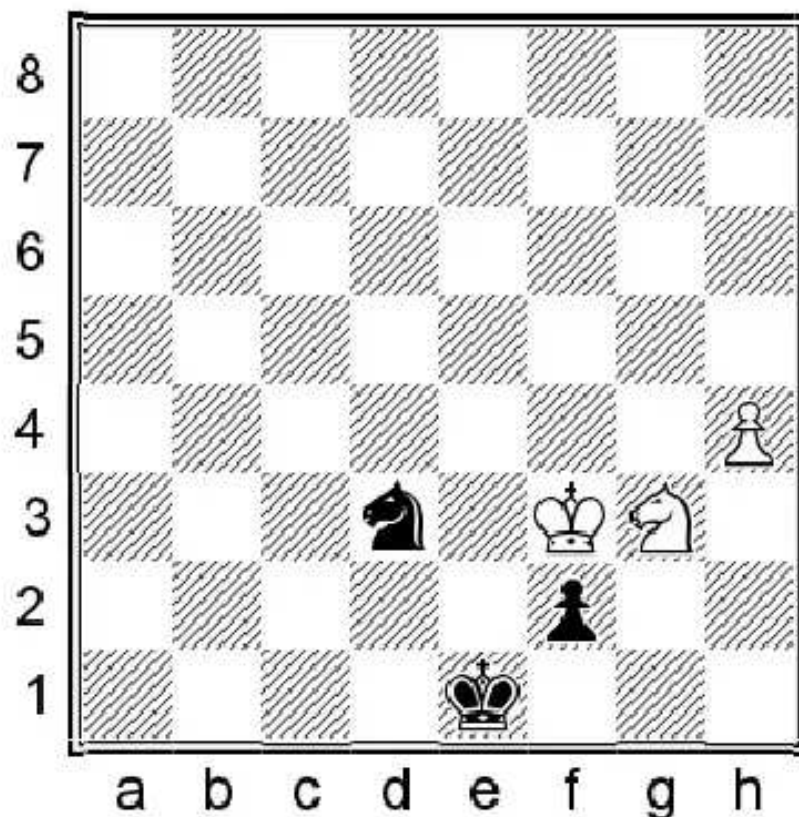


22...♔xg4! Black invades with ...f3, ...♔f4-e3. A bit surprising perhaps, but White cannot build up a fortress against the f-pawn. (Perhaps 22...hxg4 looks more natural at first sight, but the knight could force Black to retreat 23.♖e4 ♘d3 24.♔g1 Black cannot make progress on the kingside. He should go around with his king, but then he must always deal with the idea of h3. White should hold the draw with precise defense. 24...♔h4 25.♔g2 ♔h5? 26.h3!= forces a draw.) 23.♖e4 (In comparison with the 16.♔g1 line with 18.♖g2, Black can play now 23.♔g2 f3+ 24.♔f2



24...♔f4! ♖g4 is the main threat when ♔g1 allow ...♔e3-e2 with full support for the f-pawn. 25.h3 would crucially weaken the g3 square, Black wins after ...♖d3 check and ...♔g3. 25.♖f1 (25.♖b3 ♖g4+ 26.♔g1 ♔e3-+) 25...♖d3+ 26.♔g1 h4! White soon runs out of moves. 27.♖d2 ♔e3-+ ♔e2 next wins.) 23...♔f3 24.♖c3 ♔f2 The white king is

excluded from the battle and the f-pawn can be easily promoted. 25. ♖e4+ ♜e3 26. ♗f6 f3 27. ♗xh5 f2 28. ♜g2 (28. ♗g3 ♜f3 29. ♗f1 ♗c4+ ♗e3 wins next move.) 28... ♜e2 29. ♗g3+ ♜e1 30. h4 ♗d3 31. ♜f3 (31. h5 ♗f4+ 32. ♜f3 ♗xh5+)



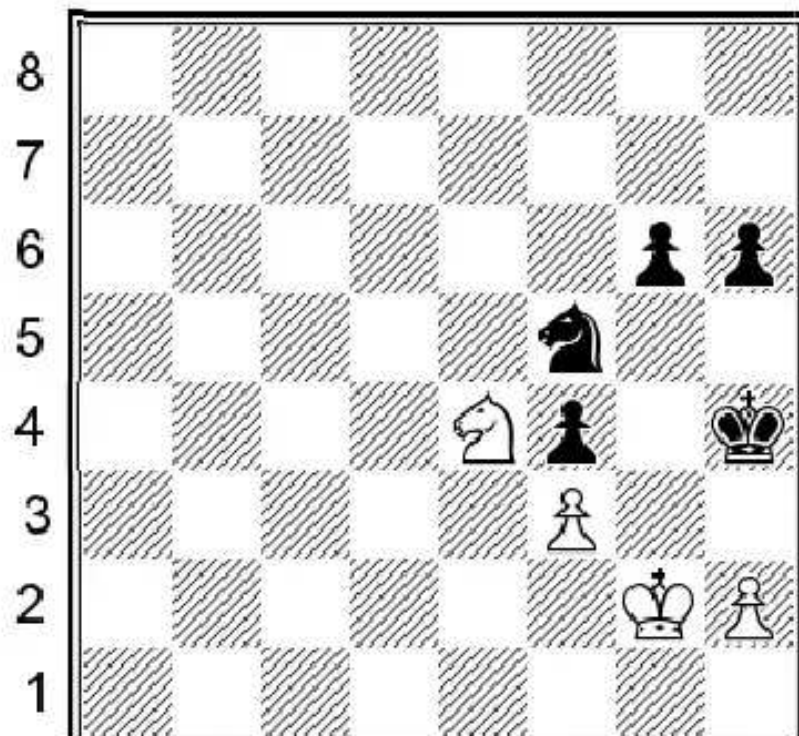
31... ♗c1!-+ and ♗e2 next wins.

In general White should not touch his pawns as he just makes them more vulnerable, but in this particular position he could have tried to push his defensive line one rank forward with f4-h3. The only way for Black to improve will be ...g5 at some point, but it leads to exchanges which of course helps the defensive side. 14.f4!?

14... ♜g5 15. ♜g3

White has managed to solve the concrete problems and now Black must find another way to make progress.

15... f4+ 16. ♜f2 ♗d4 17. ♗d5 ♗c6 18. ♗c3 ♜h4 19. ♜g2 ♗e7 20. ♗e4 ♗f5



a b c d e f g h

### 21.h3?

A big positional mistake after which White is lost. His idea was to free the h2 square for his king to be able to wait with ♔h2-g2, but in reality it just seriously weakens his pawn. White should have continued waiting with 21.♖f2! ♜e3+ 22.♔g1 ♜c2 23.♜d3 g5 24.♔g2 White has consolidated his position and should have no problems holding, although it is still going to be a long ordeal. 24...♜e3+ 25.♔g1 The knight is perfectly placed on d3 because it stands ready to repel the king with ♖f2 in case of ...♔h3 and after 25...h5 26.♜c5! quickly switches to the attack of the g5-f4 pawns with ♜e6. 26...g4 27.♜e6 ♜d5 28.♔g2 g3 29.♔g1= and Black is in zugzwang. ...♔h3 meets with ♜g5 and repetition.

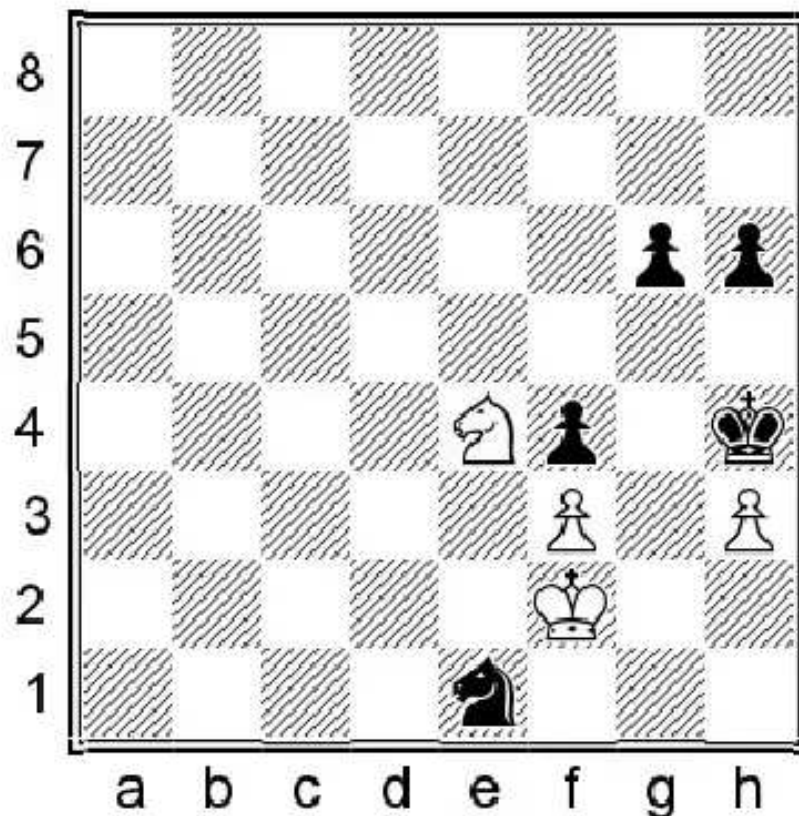
### 21...♜e3+ 22.♔h2 ♜c2!

...♜e1 is threatened after which White finds himself in zugzwangs as he can no longer wait with ♔g2.

### 23.♔g2

23.♜d2 ♜e1-+ Here is the zugzwang.

### 23...♜e1+ 24.♔f2



### 24...♔xh3!

Black could have improved the conditions for this knight sacrifice even further with 24...♜d3+! 25.♔g2 h5-+ and next move ...♜e1. The h-pawn is one square further forward.

### 25.♔xe1 ♔g2!-+

Cutting the king off from the h-pawn. The knight cannot fight against it alone, so the game is over.

26.♗e2

26.♖d6 h5 27.♗f7 h4+–

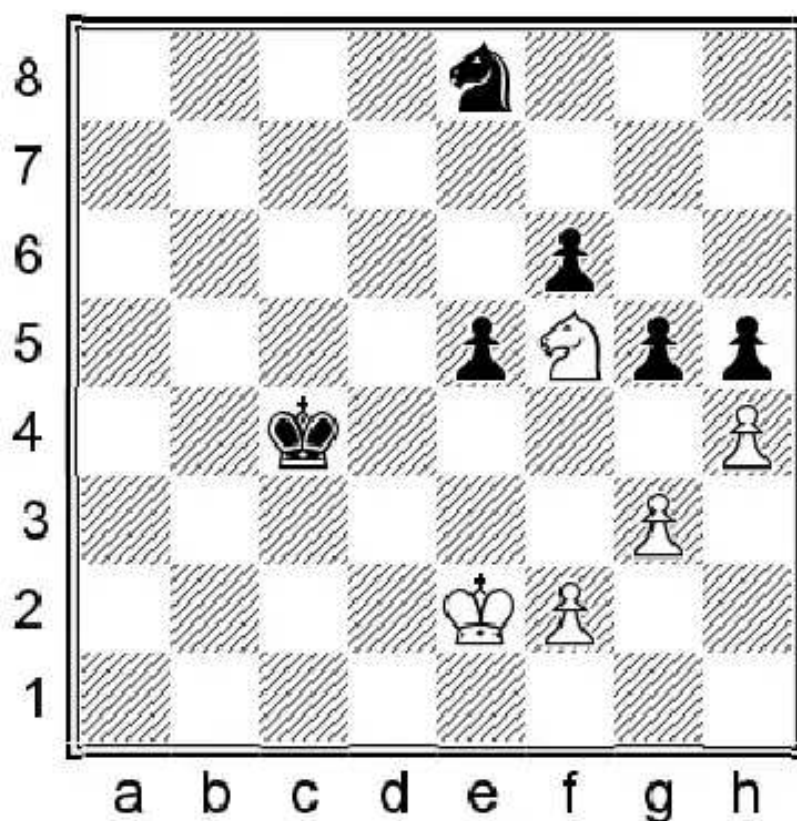
26...h5! 27.♗g5 h4 28.♗e6 g5! 0–1

The final subtlety. White resigned in view of 28...g5! 29.♗xg5 h3 30.♗xh3 ♔xh3 31.♔d3 ♔g2!–+ and ...♔g3 next move wins. In conclusion, we can say that this kind of ‘3 vs 2’ or ‘2 vs 1 pawn knight endgames are holdable for the defensive side, but very accurate defense is required.

6

A. Kosteniuk

J. Polgar  
Moscow, 2009



63.g4!!

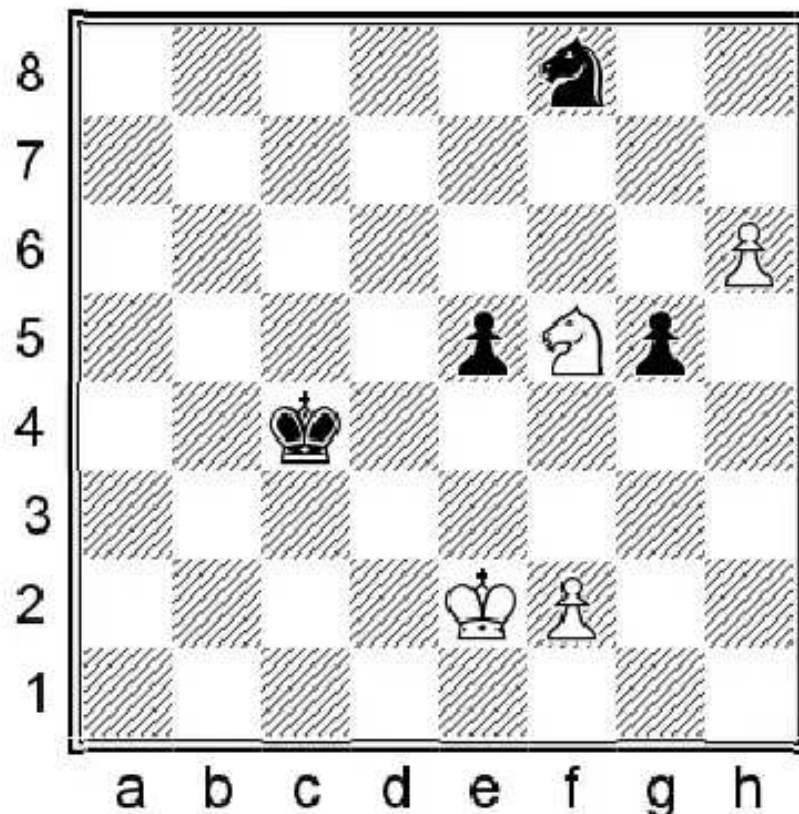
This typical breakthrough seen in pawn endgames works with knights as well.

63...♗c7

The best practical chance. 63...gxh4 64.gxh5 h3 65.♔f1! The white king is in the square of the passed pawn. 65...h2 66.♔g2 ♗c7 67.h6 ♗e6 68.h7 ♗f4+ 69.♔xh2 ♗g6 70.♔g3 ♔g4 is coming next, while after 70...♔d5 71.♗e7+!+– wins.

63...hxg4 64.h5+–

64.gxh5 ♗e6 65.h6 ♗f8 66.hxg5 fxg5



Black has managed to stop the pawn and also hold the material balance, but still her position is lost. The reason is the strong h6 pawn and the difference between the two kings. The white one gets faster to the kingside.

**67.♔f3 ♕d3 68.♔g4 ♕e2 69.♔xg5**

It was easier to play 69.♖g3+ ♕xf2 70.♗e4+ ♕e3 71.♗xg5 and Black cannot advance her e-pawn as she loses it after ♕f5. Otherwise she will be much behind in the race; White is threatening, for instance, ♕f5-♗e6 and ♗h7-♔g6 wins. 71...e4 72.♕f5+-

**69...♕xf2 70.♕f6?**

A mistake which could have meant survival for Black. White should have eliminated the e-pawn first with 70.♗d6 ♕f3 (70...♕g3 71.♗e4+! important to avoid ...♕h4 after ♕f5. 71...♕f3 72.♕f5+-) 71.♕f5 ♕g3 72.♕xe5 ♕g4 73.♕f6 ♕h5 74.♗f7! The threat is ♕g7-♗e6 ♕g8. Black does not have a miraculous knight maneuver. 74...♗g6 (74...♗h7+

75.♕g7+-) 75.h7 ♗h8 A nice trick, but White is not forced to take the knight, and she first prevents ... ♕h6 with 76.♕g7! ♗g6 77.♗e5+-

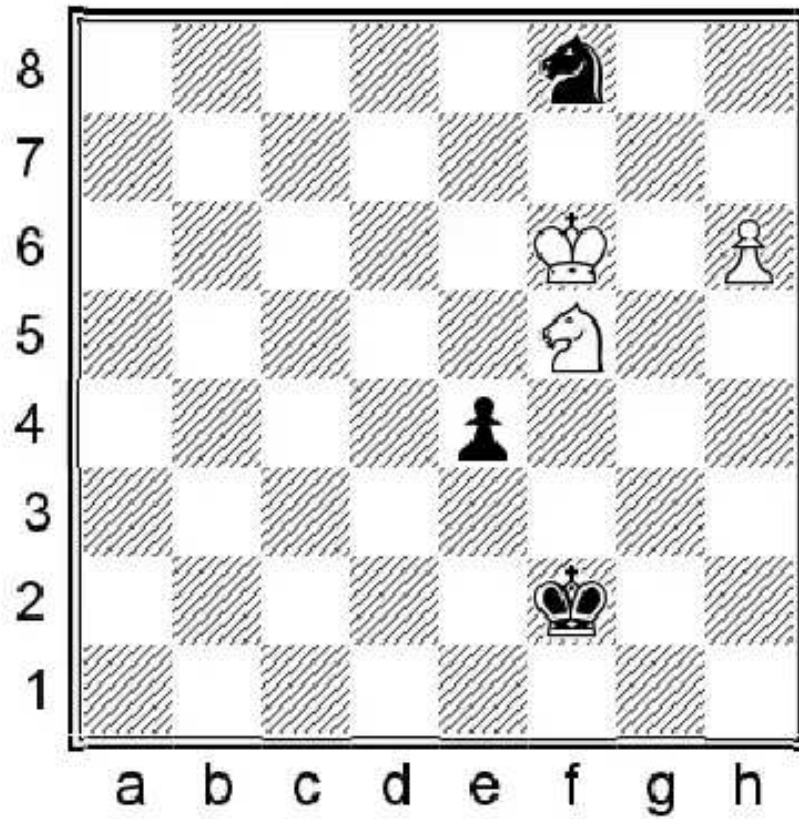
**70...e4?**

The most natural move, but a decisive mistake. Black could have ran back to the h-pawn. 70...♕f3 71.♕xe5 ♗h7! Only move. White must embark on a long journey to get to g7 with the king, and meanwhile the black king arrives to g4. 72.♕e6 ♕g4=

**71.♕f7**

After the 74th move, White finds the winning continuation in the same position.

**71...♗h7 72.♕g6 ♗f8+ 73.♕g7 ♗e6+ 74.♕f6 ♗f8**



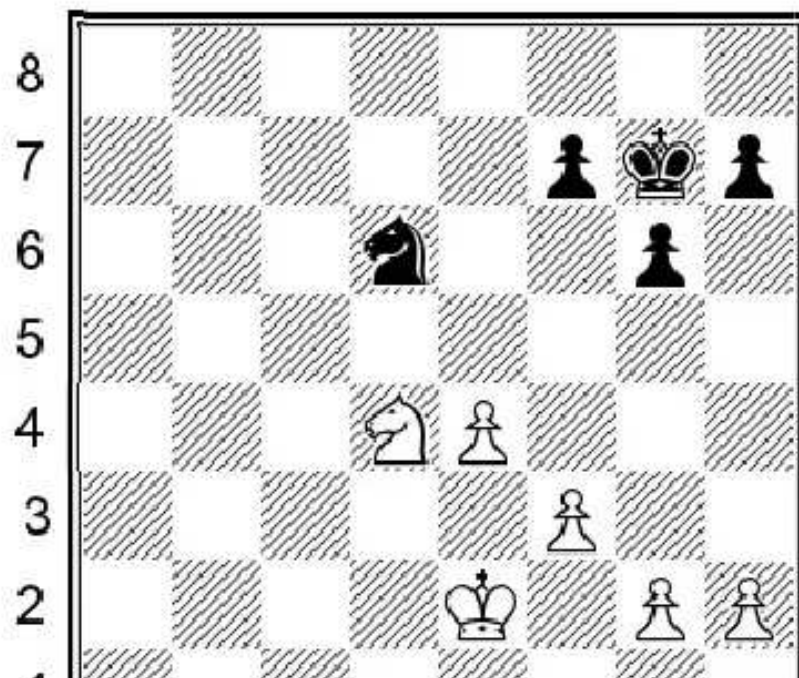
75. ♖d4!

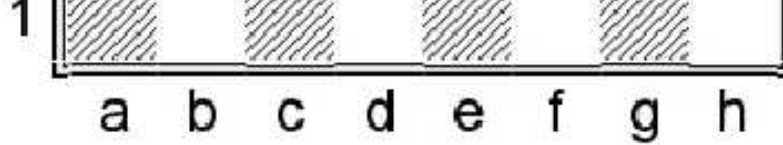
Taking the e6 square under control in order to threaten ♔g7!

75... e3 76. ♔g7 ♖e6+ 77. ♖xe6 e2 78. ♖f4! 1-0

The key idea behind 75. ♖d4!

7  
R. Fine  
1941





Reuben Fine has made a very deep study on the following practical position. There are enough pawns on board for White to make progress without exchanging too many of them. Overall White's winning chances seem to be excellent.

**1...♔f6**

1...f6 Trying to sit tight with ...♔f7-e7 2.♔d3 ♔f7 3.f4 As we will see in the 4...♔d7 line, White can improve his position by advancing his pawns with g4-h4-g5 and after fxg5 hxg5 the e-pawn becomes much stronger. If Black tries to prevent this by 3...h5 4.e5 fxe5 5.fxe5 and ♔e4-d5 could be played with excellent winning chances.

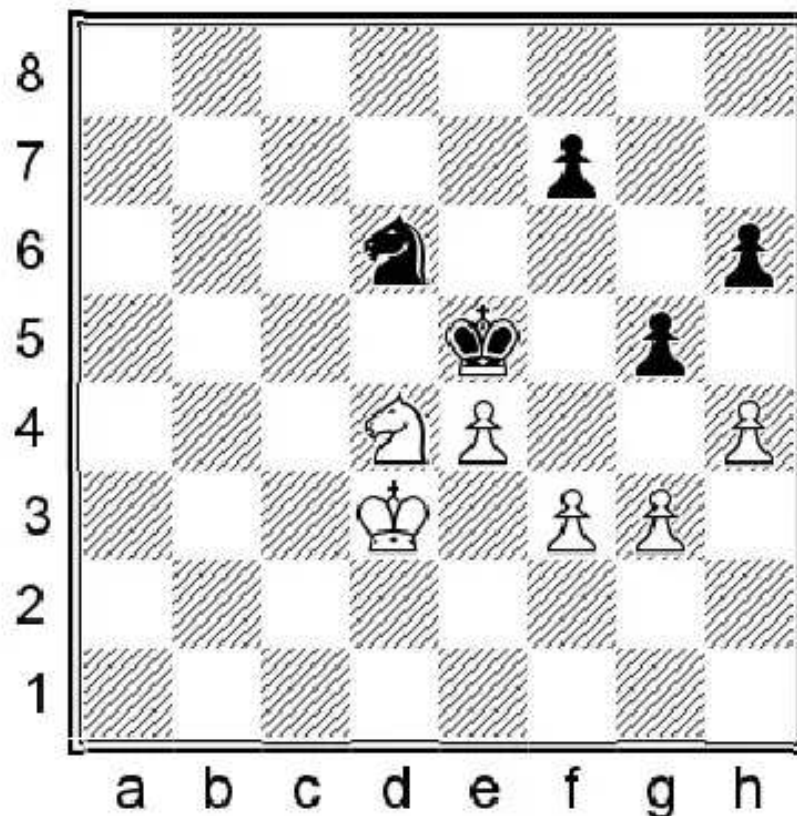
1...f5 aiming for simplifications is a principled idea in general, but not now at the cost of ruining the pawn structure. 2.exf5 gxf5 3.♕e3 ♕g6 4.♕f4 ♕f6 and Black gets into zugzwang after 5.g3 h6 6.h3! h5 7.h4+- and ...♕g6 can be met by ♔e5.

**1...♔f6 2.g3**

The plan is to play ♔d3 and f4.

**2...♔e5**

Preparing for the f4 move with 2...g5 3.♔d3 ♔e5 does not prevent the idea, because after f4 gxf4 ♕f3 the intermediate check works. White might even try to improve the conditions with 4.h4! h6

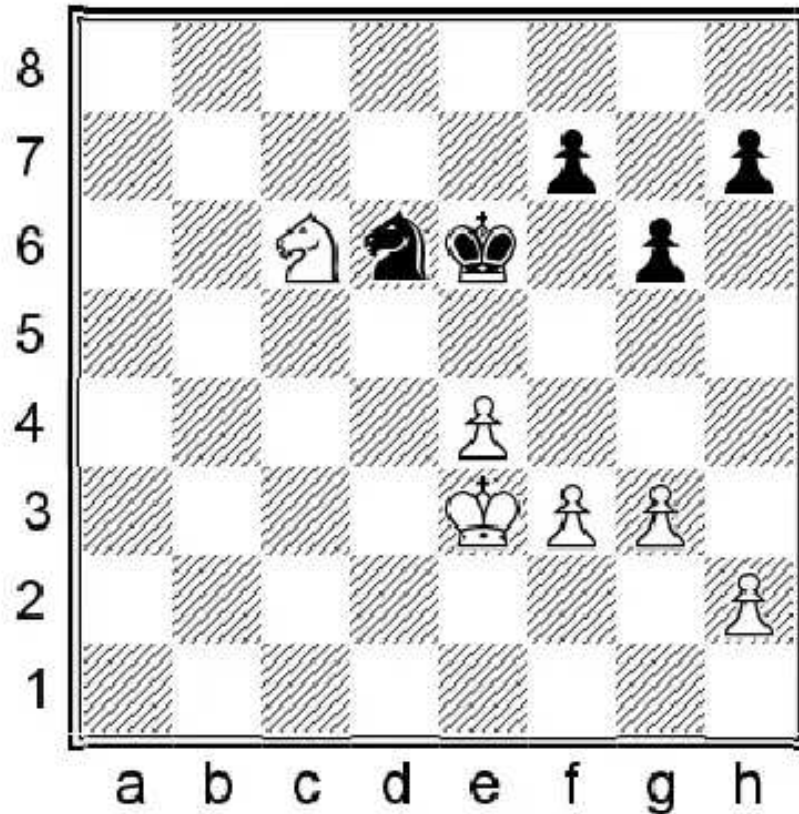


(4...gxh4 5.f4+- wins the knight after e5 next move.) 5.h5! Keeping the pawns on board and fixing a weakness on h6.

**3.♕c6+**

There was nothing wrong with 3.♔d3 either.

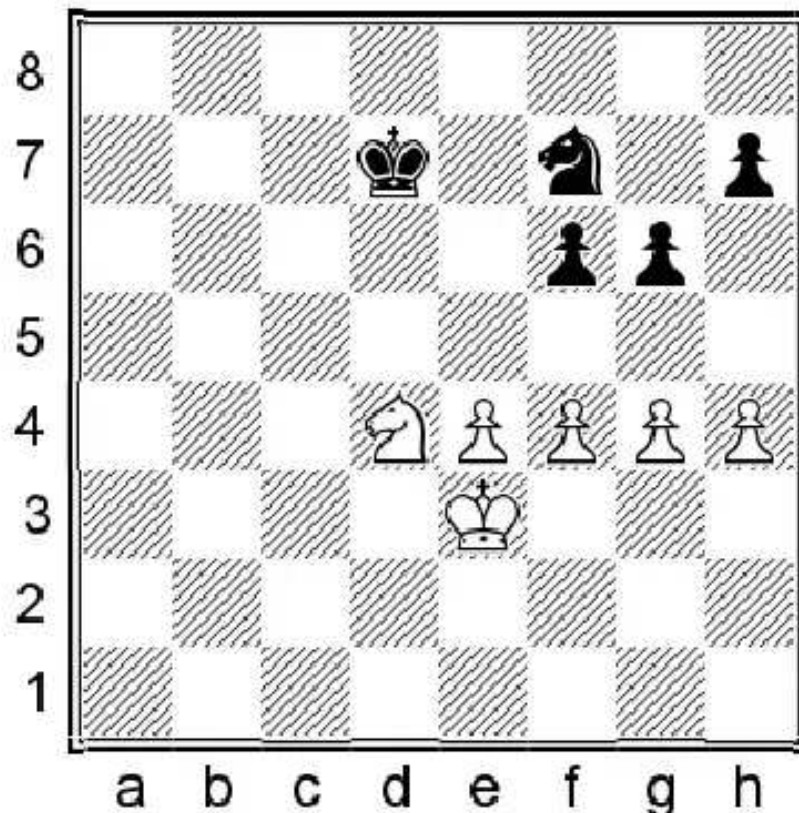
**3...♔e6 4.♔e3**



Fine analyses different kinds of defensive methods, but none of them seems to be successful.

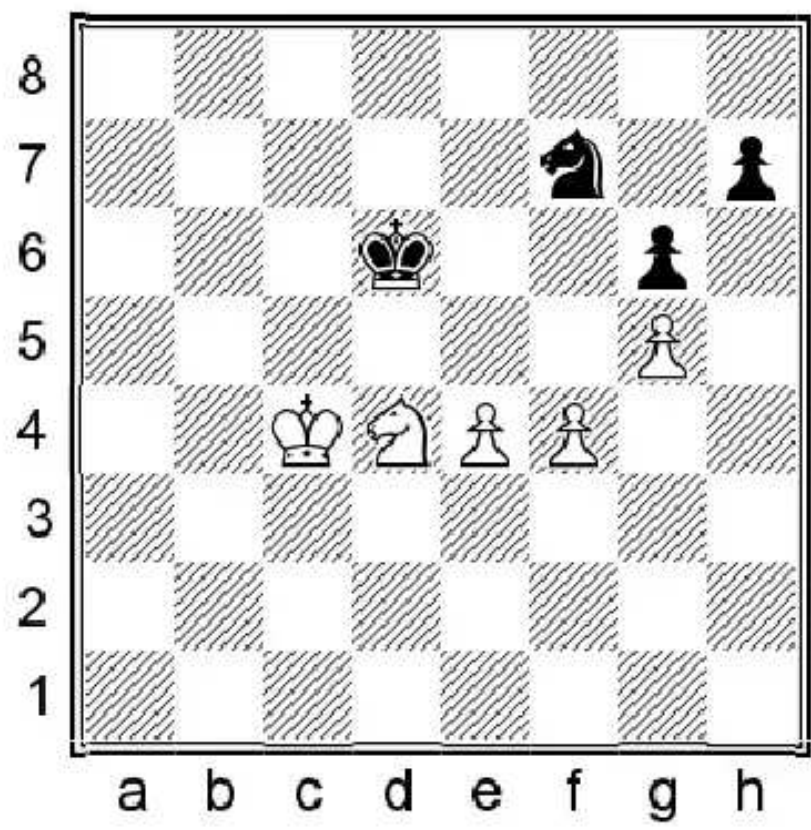
#### 4...f5

Aiming for exchanges encounters concrete problems: 4...♔d7 5.♘d4 f6 6.f4 ♕e7 7.h4 White strengthens his position by advancing his kingside pawns. The plan is to play g4-g5 and if Black prevents it by ...h5, he weakens his pawn structure after which e5 or f5 will be more effective. 7...♘f7 8.g4 ♕d7 9.♔d3 (

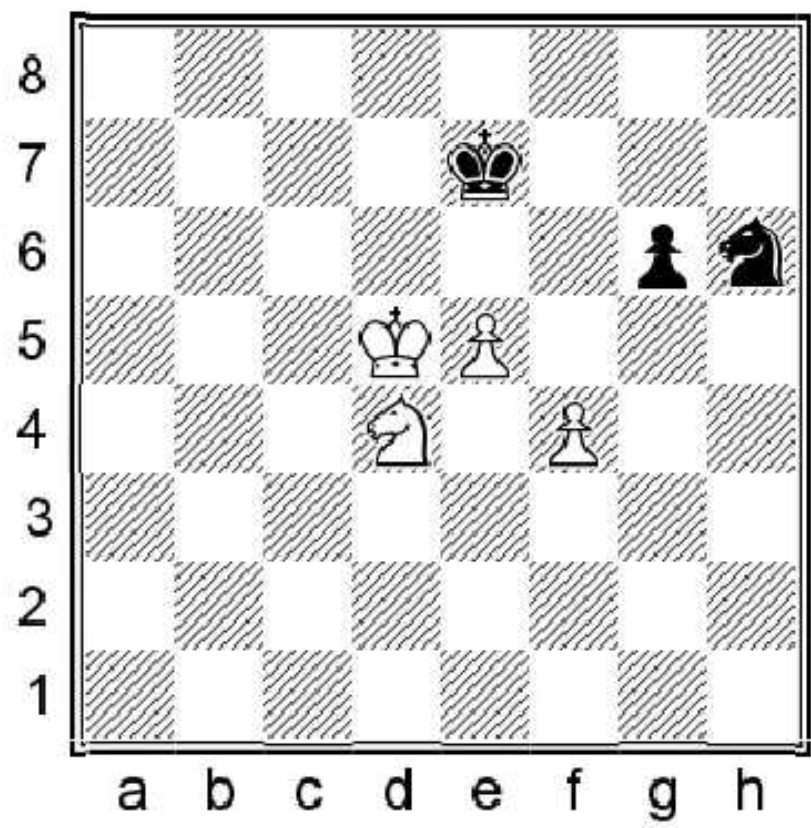


9.g5! works perfectly, because Black cannot trade too many pawns with 9...fxg5 10.hxg5 h6 because of the

breakthrough with 11.f5!+- The passed g-pawn will decide the game.) 9...♖e7 10.♗c4 ♜d6 (In this case Black could try 10...g5! ) 11.g5! fxg5 12.hxg5



12...h6 (Otherwise, Black quickly runs out of moves 12...♗e7 13.♗d5 ♗d7 14.e5 ♗e7 15.♗c6+- and e6.) 13.e5+ ♗e7 14.gxh6 ♗xh6 15.♗d5



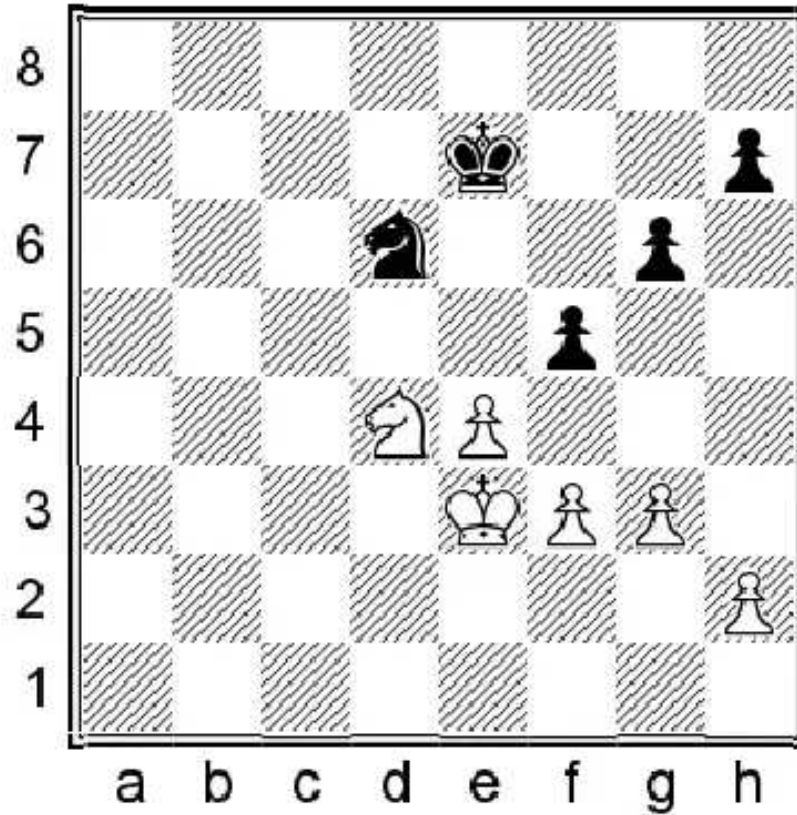
The misplacement of the h6 knight allows White to improve his position with ♗c6-e6 next move. If he could send the centralized king away with ...♗e3 or ...♗c3, we would have a different story. 15...♗g4 16.♗c6+ ♗e8 (16...♗d7 17.e6+ ♗e8 (17...♗c7 18.♗e5+-) 18.♗d6 ♗f6 19.♗b8 ♗e4+ (19...♗d8 20.e7+ ♗e8 21.♗a6 ♗e4+ 22.♗e5+- ♗e6 next and ♗c7 mates.) 20.♗e5+- and ♗f6 next.) 17.♗e6+- and ♗e7 is coming next, winning the g-pawn.

4...g5 5.♗d4+ ♗f6 6.f4! gxf4+ 7.gxf4 ♗c4+ 8.♗d3 ♗b2+ 9.♗c2 ♗c4 10.e5+ ♗e7 11.♗d3+- followed by ♗e4 and f5. White should not have problems winning the game. The presence of the h-pawns on board are clearly a huge trump for

White should not have problems winning the game. The presence of the h-pawns on board are clearly a huge trump for White as Black can never hope for the annihilation of the pawns with a knight sacrifice.

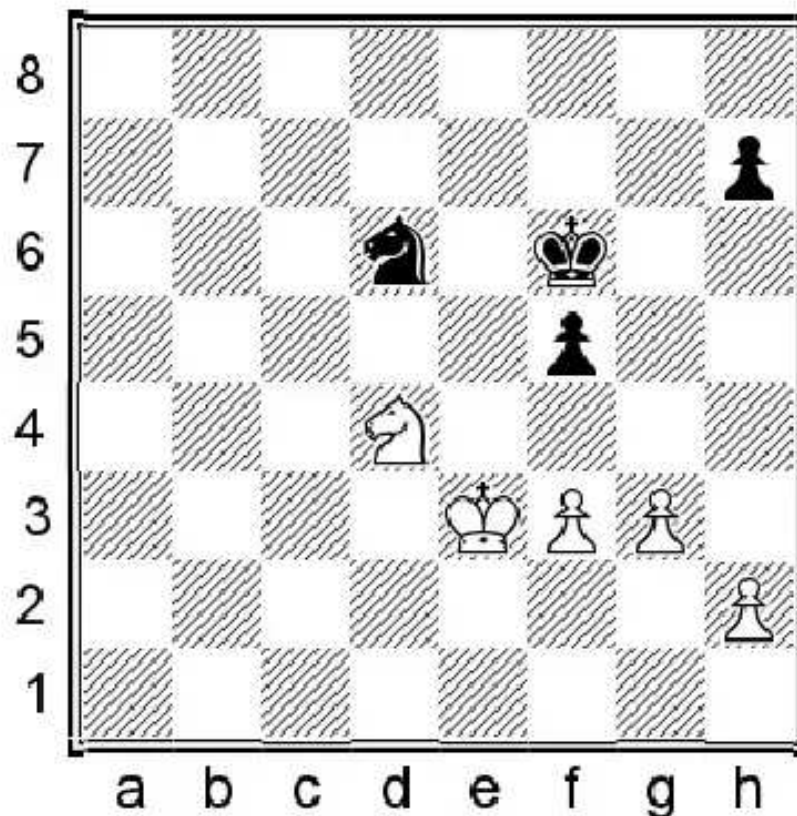
5. ♖d4+ ♔f6

5... ♕e7 looks more critical



6.e5! (Now after 6.exf5 gxf5 7. ♕f4 ♔f6 it is White who runs out of moves first, because his pawn already stands on g3 – which is actually the critical tempo. 8.h3 h6 9.h4 h5= and if White needs to retreat, Black should no longer face any problems.) 6... ♖c4+ 7. ♕f4 h6 8.h4 ♖b2 9. ♖xf5+! gxf5 10. ♕xf5 with a highly unpleasant endgame for Black, although we have studied such an endgame in chapter 5.2 and it was far from being easy.

6.exf5 gxf5



7.♔f4!

Now it is Black to move and he gets into zugzwang. He must allow the king to invade on e5.

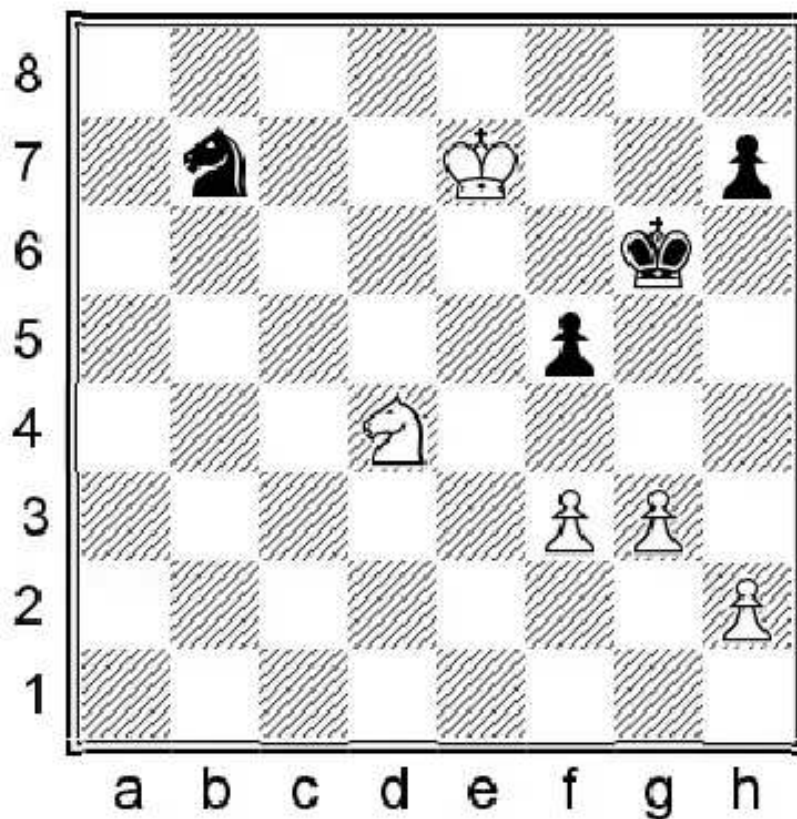
7...♔g6

7...h6 8.h3 h5 9.h4+-

8.♔e5 ♖f7+ 9.♔e6 ♜d8+

9...♞g5+ 10.♔e7 ♞h3 11.f4+- ♔e6 wins the pawn next. Another plan in such positions is ♞f3 and ♞h4 is inevitable.

10.♔e7 ♞b7



11.♞b3!

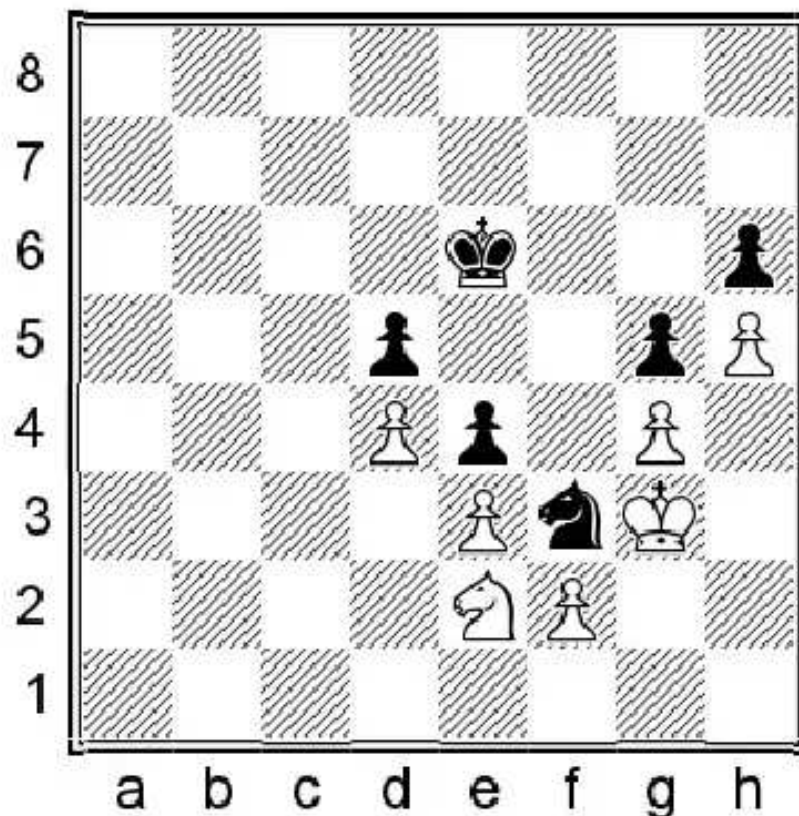
and the knight is trapped on b7 with ♔d7-c7 is coming next. In conclusion, we can say that White's chances to realize the advantage in this four vs three pawns knight endgame are excellent.

8

J. Gustafsson

K. Stupak

Istanbul, 2012



In closing this chapter, let's take a close look at a very interesting game with many study-like resources for both sides. White is a pawn up, but the position is locked which seem to give Black hopes to hold. However, White has a subtle resource available to improve his position.

**52.♔h3!**

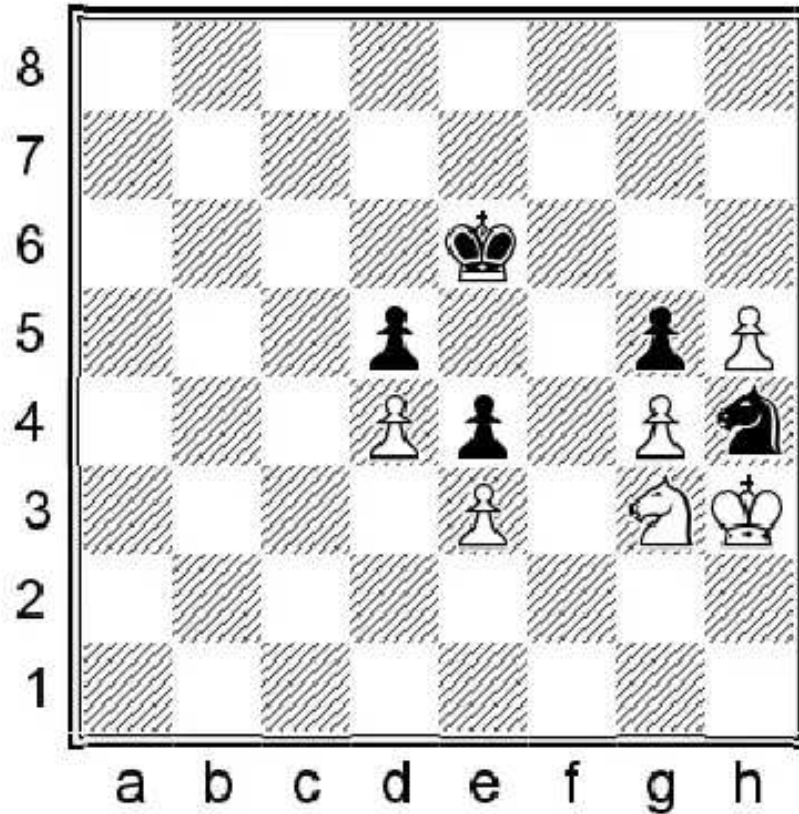
With the idea of transferring the knight to f5! Black must misplace his knight on h4, as there is no other way to avoid this threat.

**52...♕f6 53.♖g3! ♜h4**

**53...♗g7 54.♘f5+ ♕h7 55.♙e7+-**

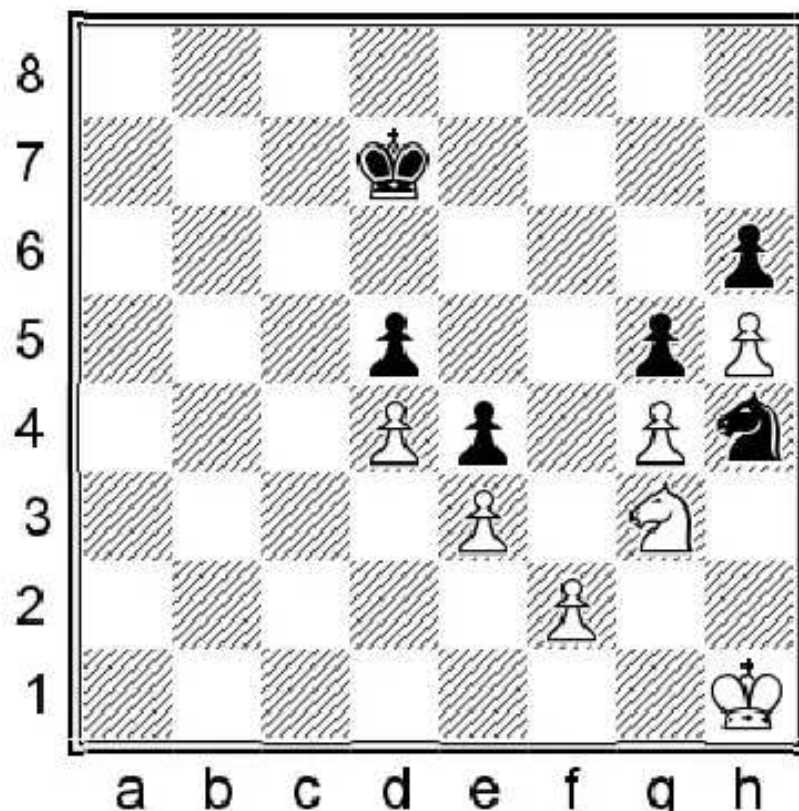
**54.♔h2**

White wants to execute the right plan, but he can do it in a better version. 54.f4!! would have led to a favorable change in the structure. Black has only two moves because the knight must control the f5 square. 54...exf3 (54...♕e6 55.fxg5 hxg5 56.h6! (We should always calculate precisely the simplifications. If we enter into a pawn endgame, it can no longer be 'better' or 'playable', it is either winning or drawn.



56. ♖f5? looks winning on first sight, but... 56... ♜xf5 57. gxf5+ ♔xf5 58. ♕g3 g4 59. h6 (59. ♕h4 g3 leads to the same as 59. h6.) 59... ♖g6 60. ♕xg4 ♕xh6 61. ♖f5 ♕h5! 62. ♕e5 ♖g4 63. ♕xd5 ♖f3= Black takes on e3 and the pawns promote at the same time.) 56... ♕f6 57. ♖f5 ♜g6 58. h7! Black is paralyzed. White simply goes around with his king to pick up the d5 pawn. 58... ♜h8 59. ♕g3+- ♖g6 runs into ♜e7xd5.) 55. ♖f1 ♜g2 Black must rescue his knight. (Otherwise 55... ♕e6 56. ♕g3 ♖f6 57. ♜h2 ♜g2 58. ♖f2!+- and ♜xf3 traps the knight.) 56. ♕g3 ♜e1 57. ♖f2 ♜d3+ 58. ♕xf3+- and Black cannot avoid ♜g3-f5 so the game is over.

54... ♕e6 55. ♕h1 ♕d7



### 56.f3!

White finds a pretty breakthrough to open the position.

### 56...exf3

56... $\text{exf3}$  57. $\text{df5}$  With the extra passed h-pawn, White should have the win within his grasp. He will go around with his king to the d5 pawn and the f5 knight is well placed on f5 because it also protects the e3 pawn.

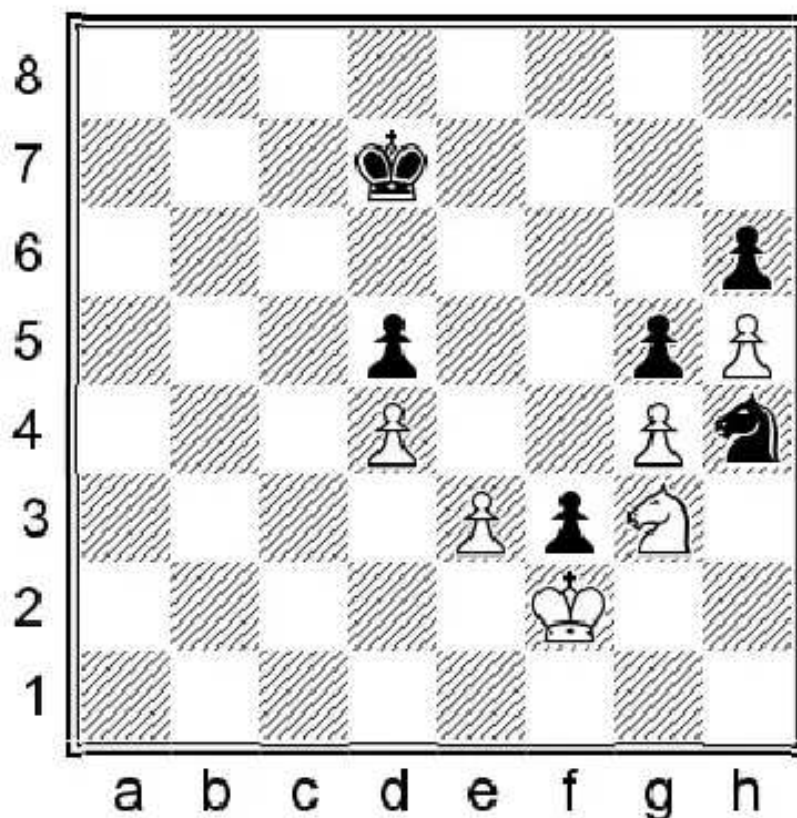
### 57. $\text{g1}$

White is going to collect the f3 pawn now. Black finds an extremely clever idea with which he can continue fighting for the draw. As we will see, the point is to play ... $\text{c6}$  at the moment when White goes  $\text{f2}$ . We will soon understand the reasons for this.

### 57... $\text{c6}$ 58. $\text{f1}$

White hopes for ... $\text{c6}$  after which he could already go  $\text{f2}$ .

### 58... $\text{d7!}$ 59. $\text{f2}$



### 59... $\text{c6!}$

The key is to get the king to b4 when White captures the f3 pawn after  $\text{df1-d2}$ . Until the knight is on g3, he cannot go farther than the c-file, because he must stay within the square of the f-pawn in case of  $\text{df5}$ .

### 60. $\text{df1}$

With the king on c6 60. $\text{df5?}$  can be met by 60... $\text{exf5}$  61. $\text{gxf5}$  g4 and Black catches the f-pawn.

### 60... $\text{c6!}$ 61. $\text{dg3}$

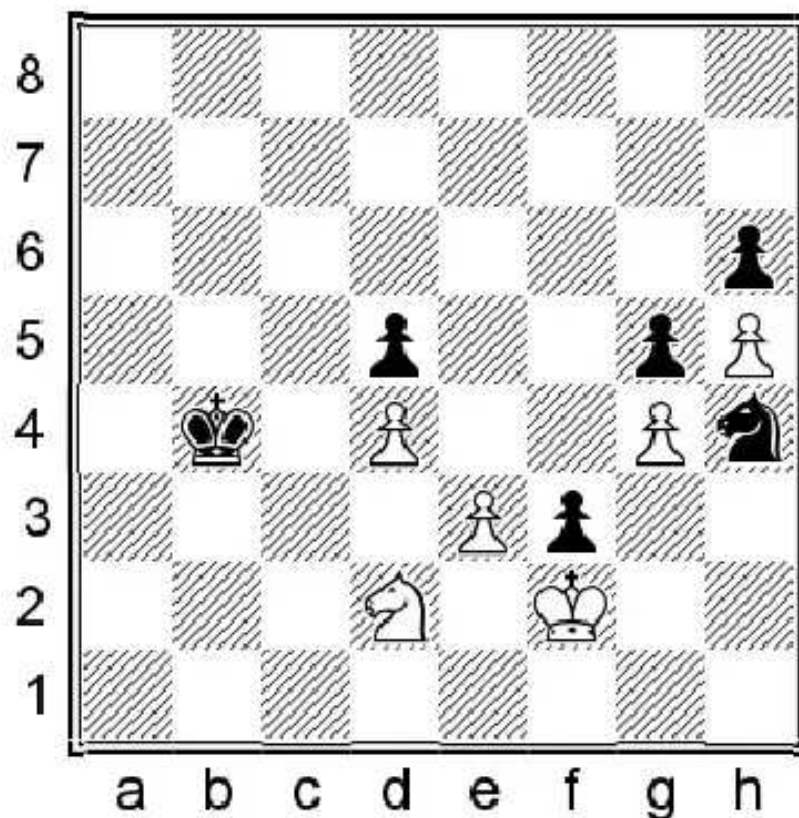
White repeats once to gain some time.

61...♔c6!

Getting back to the square of the f-pawn.

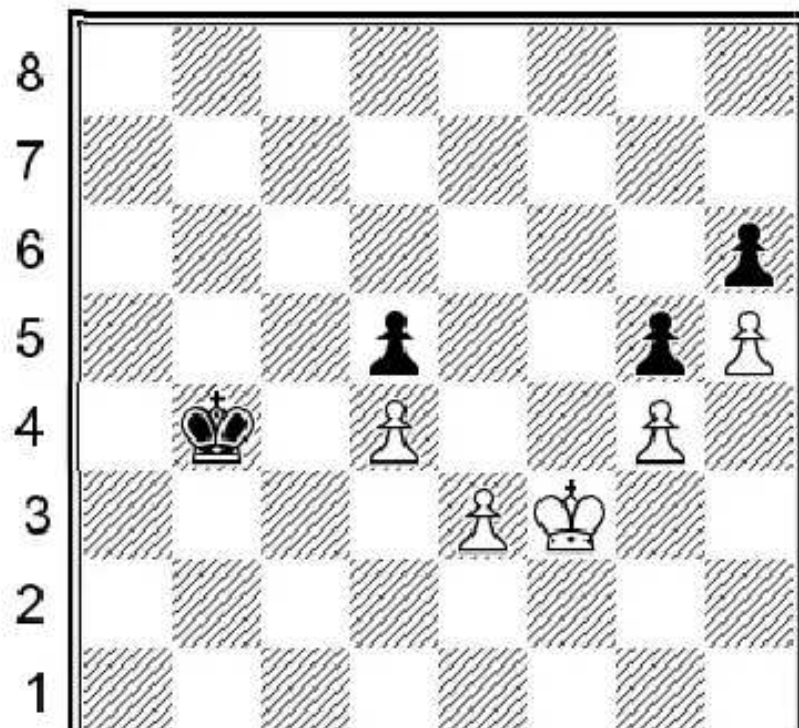
62.♘f1 ♔b5 63.♘d2 ♔b4

Now the main question is: if White plays ♘xf3, will he have a winning or a drawn pawn endgame? Precise calculation helps, otherwise White can maintain the pressure with e4!



64.e4!

The right decision! 64.♘xf3 only leads to a draw after 64...♘xf3 65.♔xf3



a b c d e f g h

65...♔c4! Only this move secures the draw! The white king cannot get to the d2 square. 66.♕e2 ♕c3= and White can do nothing. Against the breakthrough with e4, Black always has ...♕xd4.

### 64...dxe4

64...♕c3? loses to 65.e5+-

### 65.♖xe4?

An automatic recapture, but a mistake because it allows ...♔c4. White could have improved his position first with 65.♕e3! ♖g2+ 66.♕xe4 f2 67.♕f3 ♖f4 68.♕xf2 White is winning because he can save his d-pawn and then he transfers his knight to f5. 68...♕c3 69.♕e3 ♖d5+ 70.♕e4! is the key move! 70...♖f6+ 71.♕f5+-

### 65...♔c4

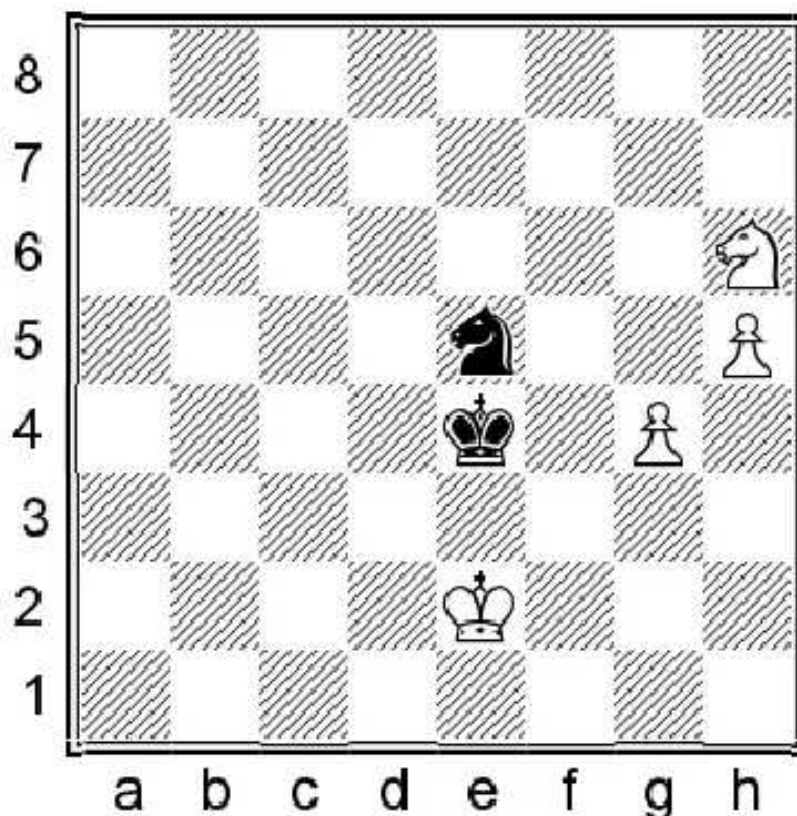
Suddenly Black is back in the game and the draw is close.

### 66.♕e3 ♖g2+?!

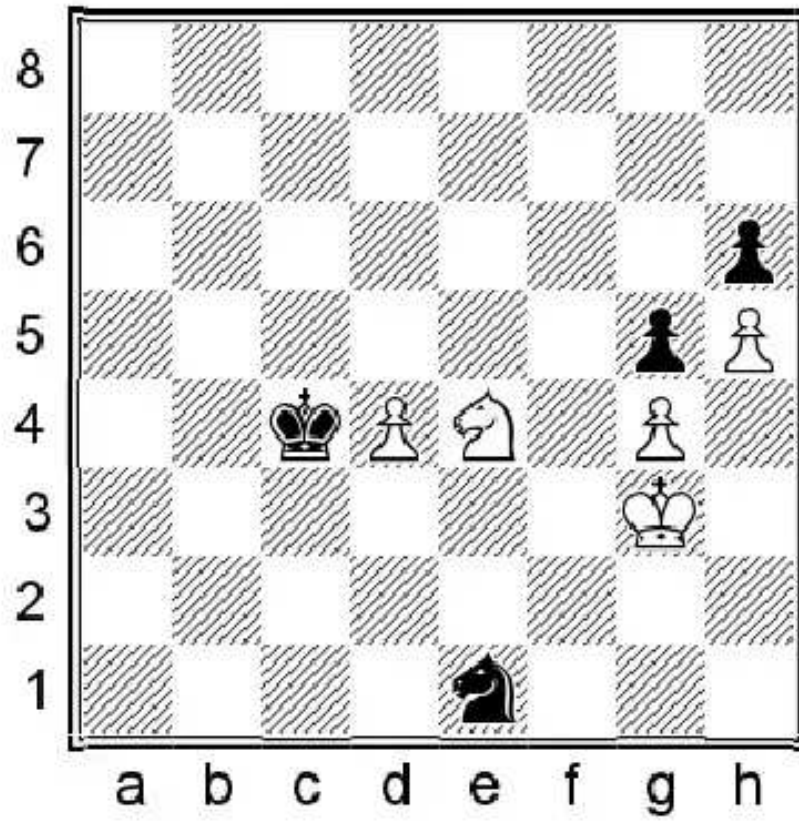
Not the decisive mistake, but Black had an easier draw. 66...f2! 67.♕xf2 (67.♖xf2 ♕d5!= and White has no adequate defense against ...♖g2 if he wants to save his d4 pawn somehow.) 67...♕xd4 68.♖f6 ♕e5 69.♖g8 ♕f4 70.♖xh6 temporarily wins a pawn, but it leads to forced draw after 70...♖f3 71.♖f7 ♖h2!=

### 67.♕xf3 ♖e1+ 68.♕g3!

The best practical chance. On 68.♕e2 ♕xd4! Otherwise the same motif works that occurred in the game. 69.♖xg5 ♖d3 70.♖f7 ♕e4 71.♖xh6 ♖e5!



Black holds the draw thanks to his active pieces and the white king which is excluded from the game. For example 72.g5 ♖d3= and ...♖f4 wins the h-pawn next move.



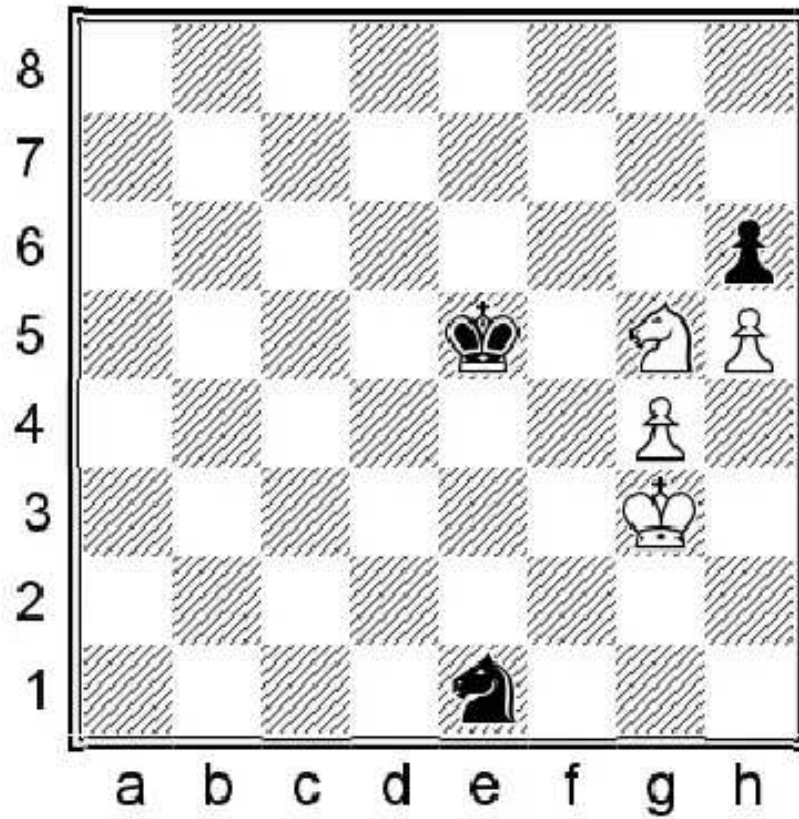
**68...♔xd4?**

After a great and resourceful defense, Black falls into the final trap! 68...♖d3! was necessary to be able to stop the h-pawn with ...♗f4-g6 in case of the sacrifice on g5. White can win a pawn, but the resulting endgame will be drawn: 69.♗d6+ ♔xd4 70.♗f5+ ♔e5 71.♗xh6 ♔f6 followed by ♗e5 and waiting. There are not enough pawns on the board for White to make progress. 72.♔f3 ♗e5+ 73.♔e4 ♔e6=

**69.♗xg5!**

Black has not only lost his g5 pawn, but he has no defense against ♗f7 either.

**69...♔e5**



**70. ♖f7+**

Of course not 70. ♖f3+? ♜xf3 71. ♔xf3 ♕f6 72. ♕f4 ♔e6= with a theoretically-drawn pawn endgame.

**70... ♕f6 71. ♖xh6**

The white king is well placed now and Black has no way to hold.

**71... ♜d3 72. ♕h4!**

Preventing Black from standing between the pawns. The rest requires no comment.

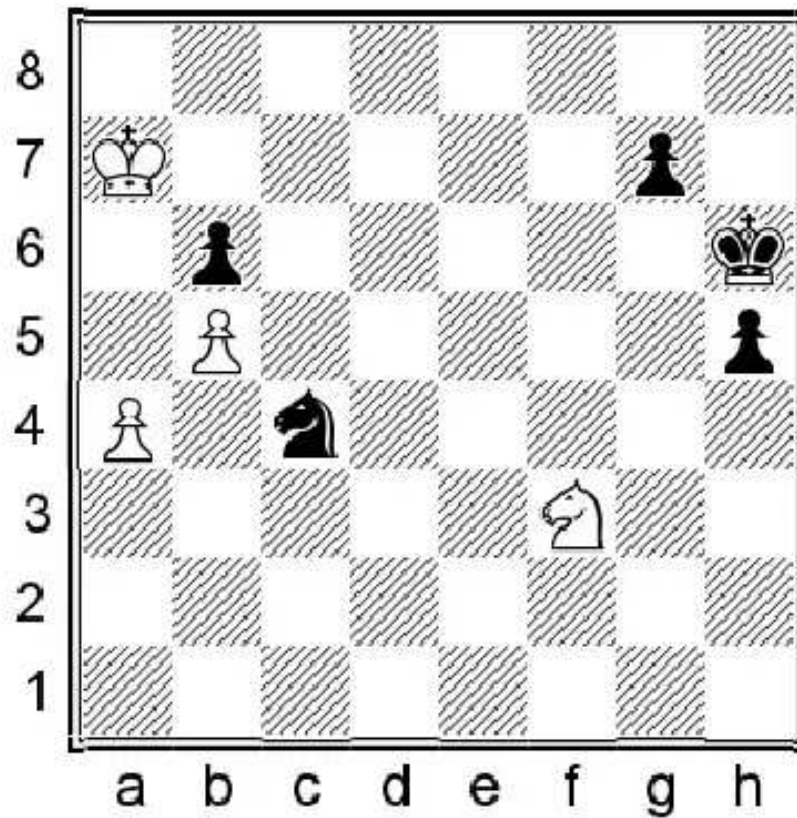
**72... ♜e5 73. g5+ ♔e6 74. ♕g3 ♜d7 75. ♕f4 ♜e5 76. ♖g4 ♜d3+ 77. ♕e3 1-0**

Black resigned.

## 2.4. COMPLEX KNIGHT ENDGAMES

As a closing chapter on knight endgames, we will analyze some more practical games with multiple pawns for both sides.

1  
L. Szabo  
A. Groszpeter  
Kecskemet, 1984

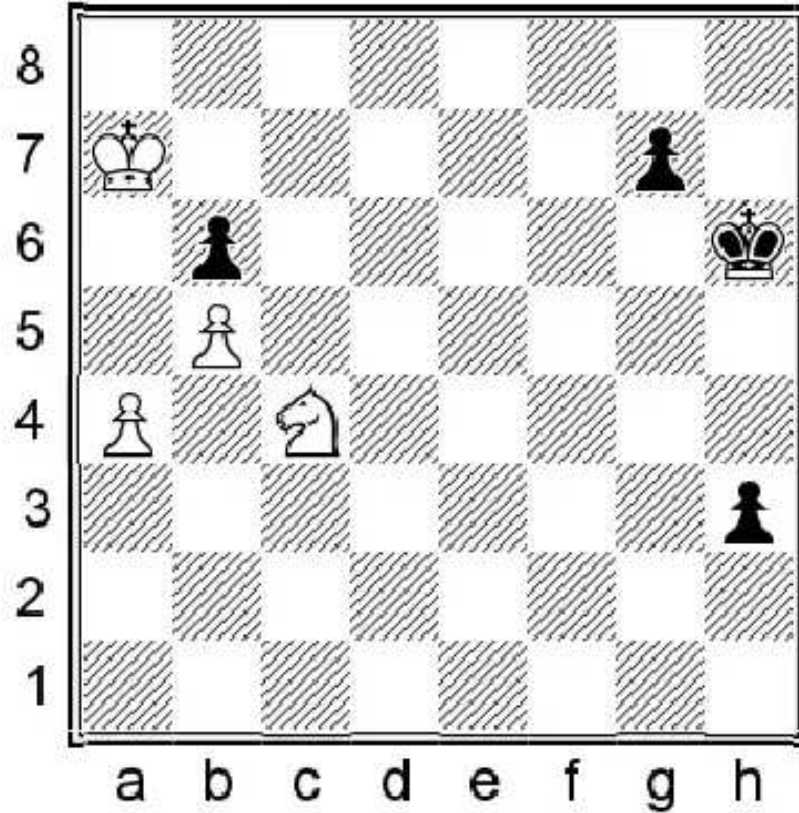


White seems to be completely lost here, because the connected passed pawns on the kingside starts to roll and the knight on c4 with the pawn on b6 perfectly restricts the a4-b5 duo. However a brilliant idea changes the evaluation of the entire endgame.

1.  $\text{♞d2!!}$   $\text{♞xd2}$

1...  $\text{♞e5}$  2.  $\text{♞xb6+}$ — The white pawns are more advanced and they are better supported by the king.

1...h4 loses to 2.  $\text{♞xc4}$  h3



3. ♖e3! and ♖f1 stops the pawn, or after 3...h2 4. ♖g4++- wins.

1... ♖b2 2. a5!+-

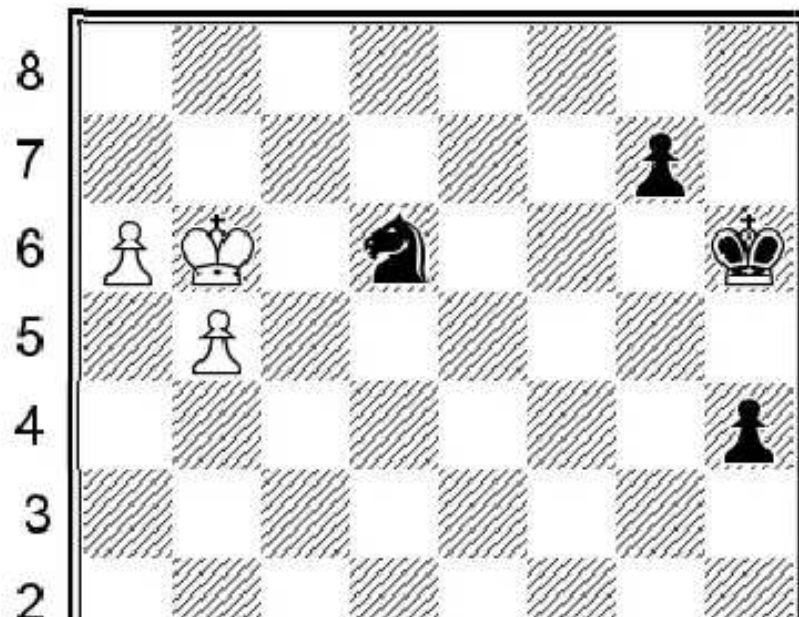
**2.a5!**

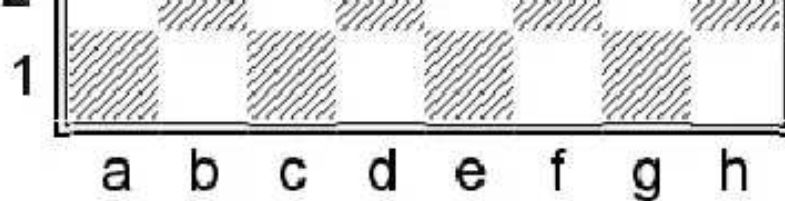
White creates a passed pawn much faster, as he would do by taking on b6.

**2...bxa5**

The situation of the h6 king is really unfortunate. Another line which proves this is 2...h4 3.axb6 h3 4.b7 h2 5.b8=♚ h1=♚ 6. ♚h8++-;

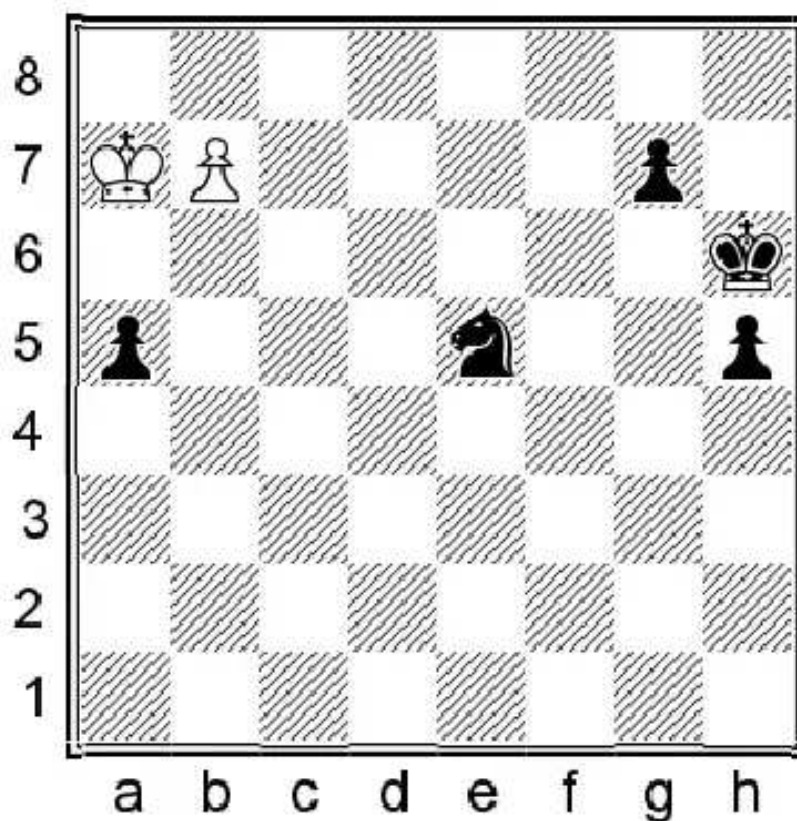
2... ♖c4 3.a6 ♖d6 (3...h4 4. ♖b8+- White promotes first and he controls the h1 square from a8.) 4. ♖xb6 h4





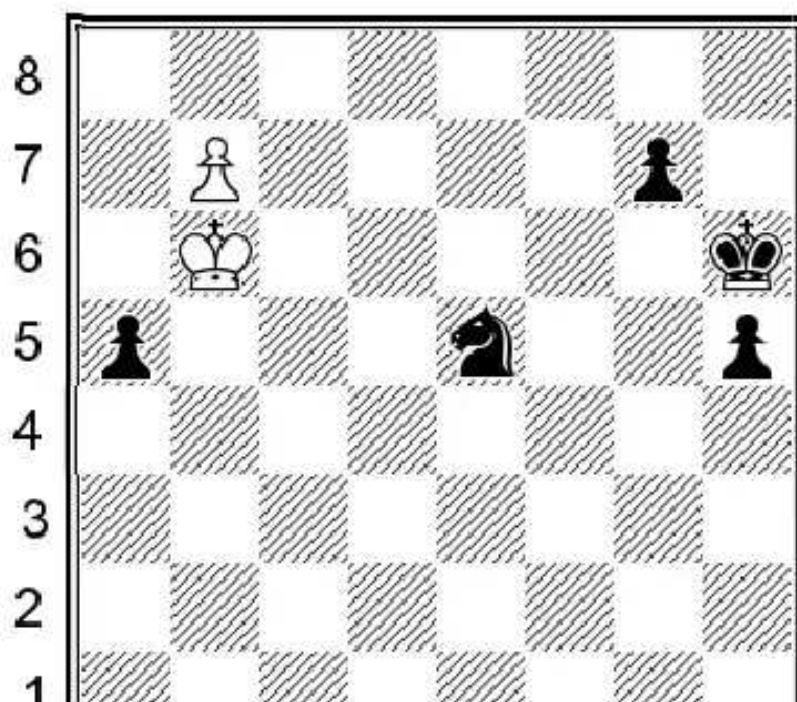
5.♔c5! Only this move wins! White actually does not want to take the knight, he just avoids the a7-♖c8 check. 5...♗c8 (5...h3 6.a7 ♗b7+ 7.♔b6 h2 8.a8=♚ h1=♚ 9.♚h8++-) 6.b6+-

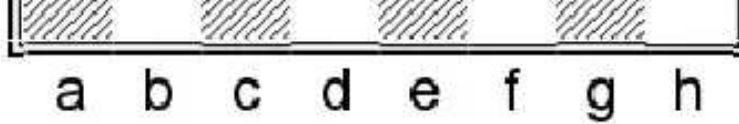
3.b6 ♗c4 4.b7 ♗e5



5.♔b8!!

Quite an unusual move, and one which is useful to remember! White interferes with his own pawn, but he is going to c7 from where he controls all the squares from which the knight could stop the b-pawn. If you remember, we learned this motif in chapter 1.1 (without the black pawns on board). The natural-looking 5.♔b6? is wrong in view of





5...♖d7+! 6.♙c6 (6.♙c7 ♜c5!) 6...♜b8+ 7.♙c7 a4! Black can already play for a win instead of forcing repetition with

...♜a6. 8.♙xb8 a3+ Black ends up with two extra pawns in the queen endgame.

**5...♜c6+**

5...a4 6.♙c7+;

5...♜d7+ 6.♙c8!+-

**6.♙c7 ♜b4**

The last trick, but of course White can easily avoid it by playing

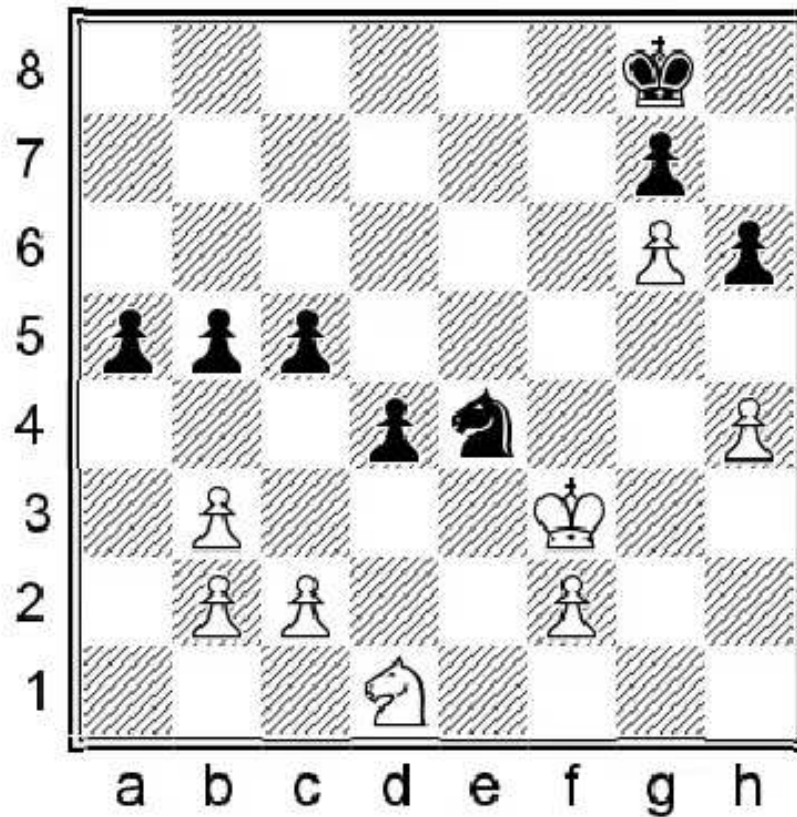
**7.♙b6+- 1-0**

2

**G. Bonner**

**A. Medina**

**Haifa, 1976**



Black finds a beautiful breakthrough to promote his a-pawn.

**1...♜c3!!**

The poor knight is trapped on d1 and after

**2.bxc3**

2.♜xc3 doesn't change anything. 2...dxc3 3.bxc3 a4+-

2...a4 3.cxd4 cxd4

Keeping the c3 square under control. The knight cannot stop the pawn.

4.c3

4.bxa4 bxa4 5.♖b2 a3–+

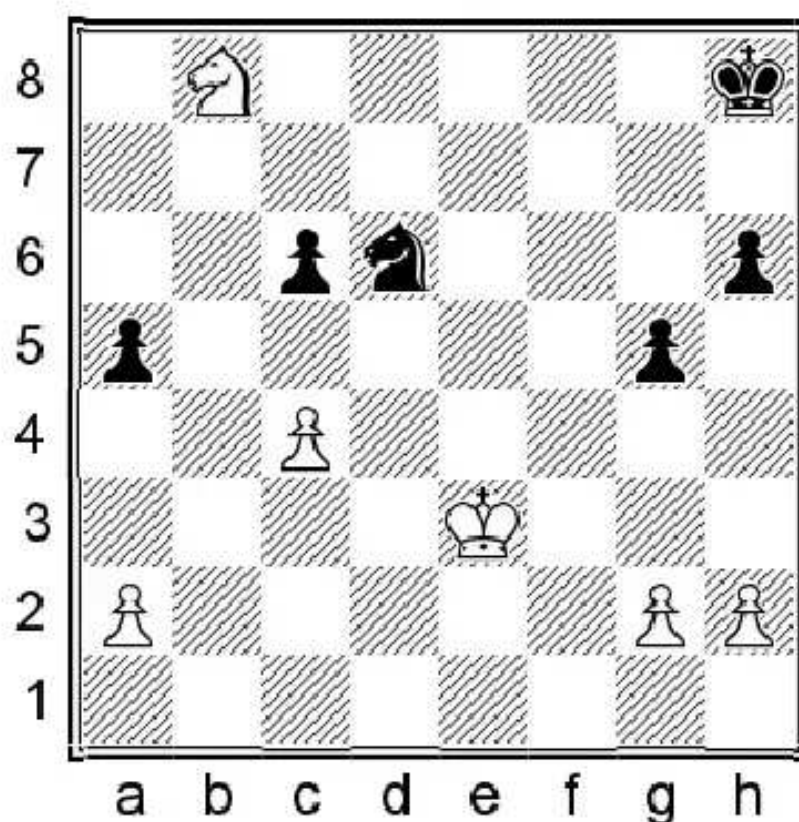
4...a3 0–1

3

A. Giri

M. Vachier-Lagrave

Biel, 2014



38...♖xc4+

Black is temporarily a pawn up, but the huge difference in the activity of the two kings gives White a winning position. Black has no chance to eliminate the a2 pawn, while White will slowly get rid of the c6-a5 pawns.

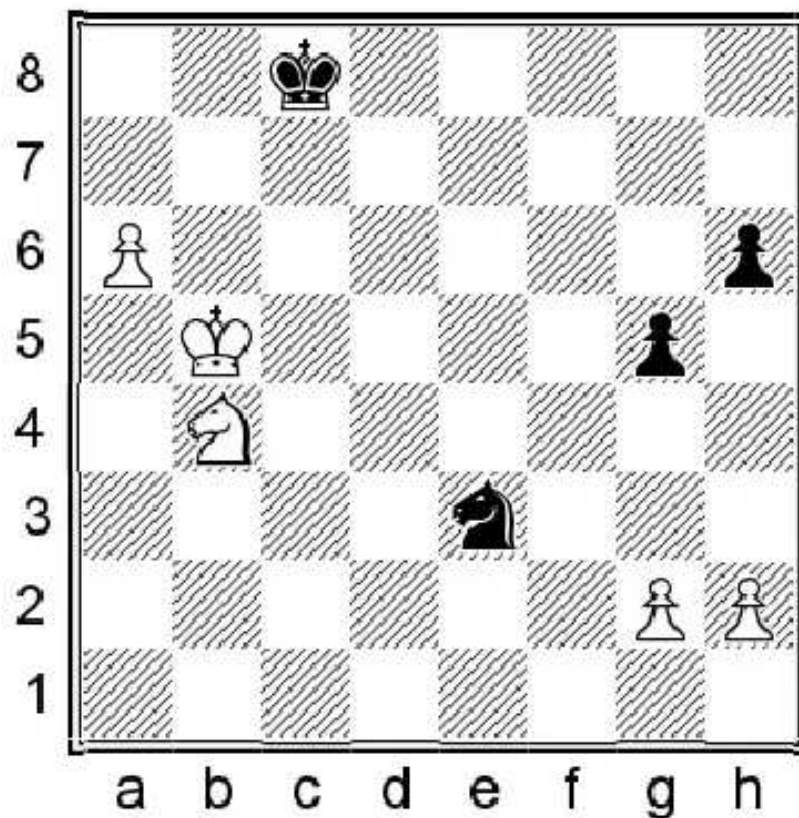
39.♔d4 ♖b6 40.♖xc6 a4 41.♕c5 ♖c8 42.♕b4 ♖b6 43.♕c5

White just repeats once, to gain time on the clock probably, as of course he does not want to make a draw.

43...♖c8 44.♕b4 ♖b6 45.♕b5! ♖d5 46.♕xa4 ♕g7

Black finally has some time to bring his king closer, but it is too late. The a-pawn decides the game. Going for the pawns was also too slow. White wins easily after 46...♖e3 47.♕b5 ♖xg2 48.a4 ♖f4 49.a5 Black cannot sacrifice his knight for the a-pawn. 49...♖d5 (49...♖e6 is met by 50.♕b6!+– and a6 next when the pawn promotes.) 50.♕c5 ♖c7 51.♕b6 ♖d5+ 52.♕b7+– and the pawn is unstoppable.

47.♖b4 ♖e3 48.♕b5 ♕f7 49.a4 ♕e6 50.a5 ♕d7 51.a6 ♕c8



51...♔c7 loses in the same way as the game: 52.♔c5!+- and ♘d5 next.

### 52.♔c5! 1-0

A very nice final move! After other moves Black could have fought on. Black resigned in view of the following lines:  
 52.♔c5! White is threatening ♘d5, chasing away the well-placed knight from e3. 52...♔b8 (On 52...♘xg2 White can already play 53.♔b6 ♔b8 54.a7+ ♔a8 55.♘d5+-) 53.♘d5! ♘xg2 54.♔b6+-;

52.♔c6?! ♔b8 53.♘d5 ♘c4 Black could still have hoped...

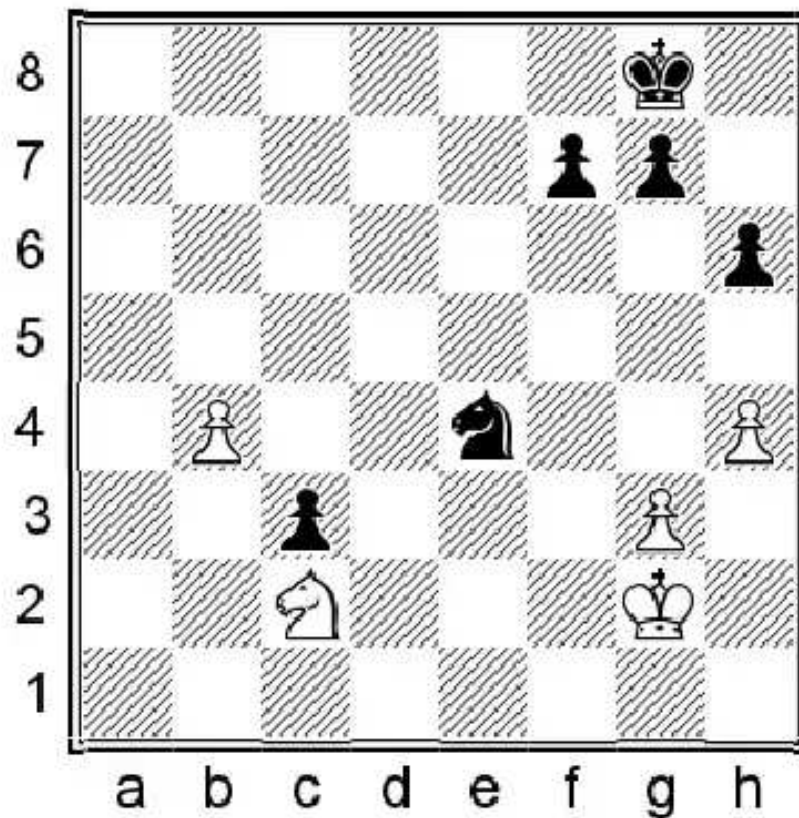
52.♔b6?! ♘c4+ was less clear.

4

Z. Almasi

V. Ivanchuk

Capablanca memorial, 2014



Black has reached an endgame with an extra pawn, but the passed pawn on b4 gives White excellent drawing chances.

**44. ♔f3 f5**

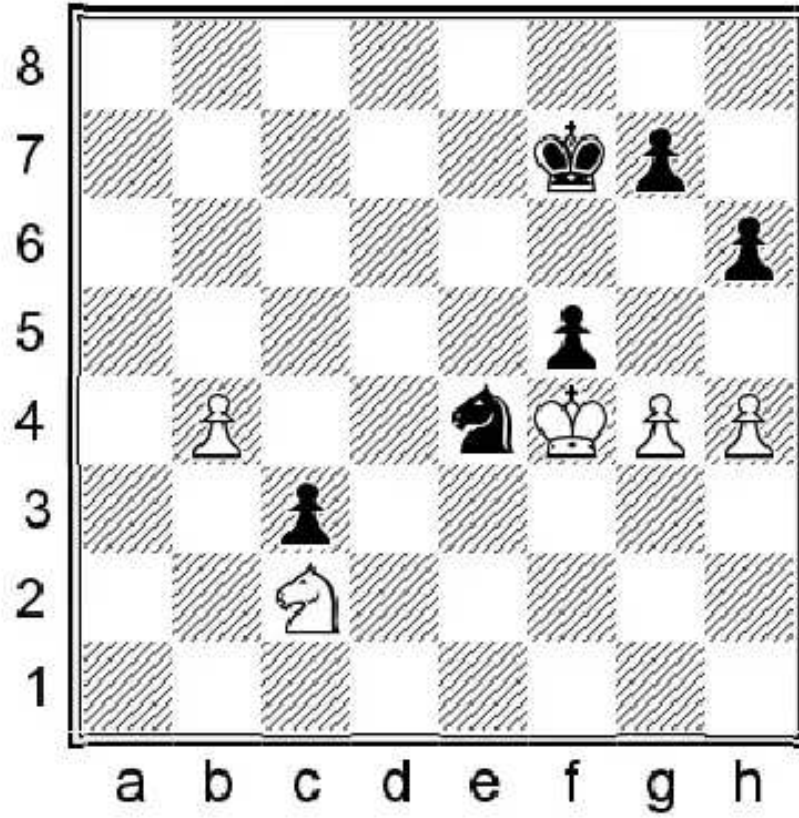
Black tries to fortify his knight on e4 to avoid losing the c3 pawn, but this allows further exchanges of pawns and White gets closer to the draw. 44... ♖d6 could have been met by 45. ♔e3 ♔f8 46. ♖d4 ♔e7 47. ♔d3 and the pawn is lost. Black could only avoid this by keeping his knight on e4.

**45. ♔f4 ♔f7**

The king gets inside the square of the b-pawn. 45... g6 46. g4 is similar to the game.

**46. g4**

White wants to restore the material balance, but this allows Black to maintain some practical chances. 46. ♔xf5 ♖xg3+ 47. ♖f4 ♖h5+ 48. ♖e4 was an even simpler draw. ♔d3 comes next.



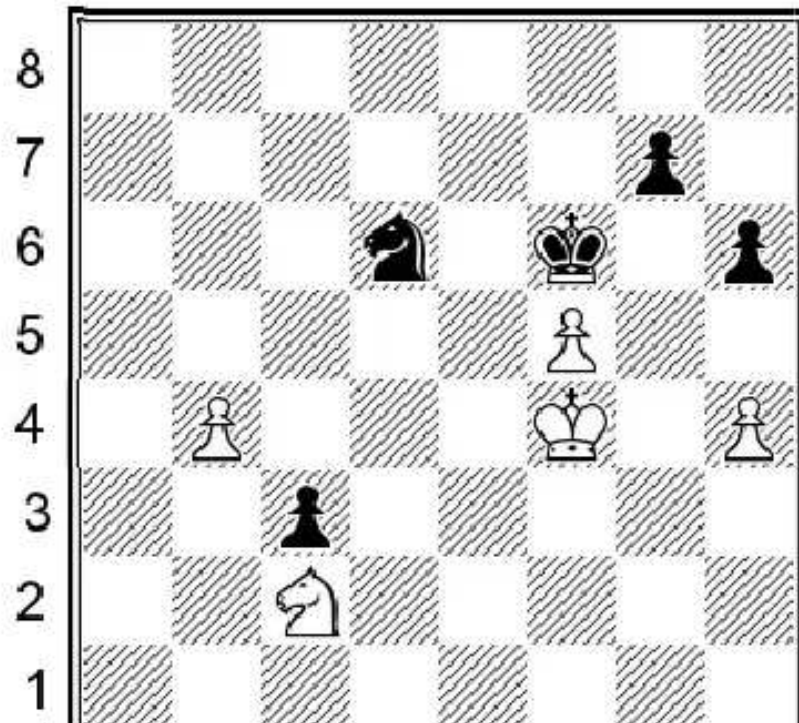
46...♞d6!

Ivanchuk finds his chance. A pair of pawns comes off the board and White ends up with a weak h-pawn.

47.gxf5

47.♙e5? would have been a blunder because of 47...fxg4 48.♙xd6 g3

47...♙f6



a b c d e f g h

White has a wide choice of moves here and it is easy to go wrong. However he finds the most precise way to hold the draw. He trades his kingside pawns for the one on c3...

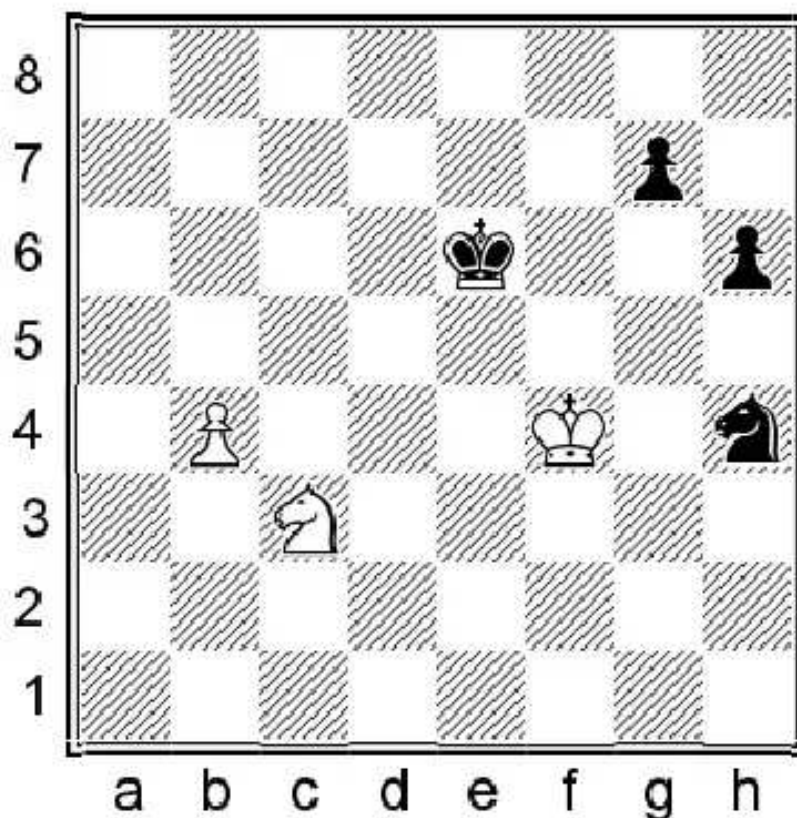
48.♔e3

Other moves, for instance 48.h5 ♟xf5 49.b5, are no longer so clear. 49...♞d6 50.b6 ♚e6 Black quickly runs to catch the b-pawn and the one on h5 is still weak. White already has some problems. 51.♚e3 ♜c4+ 52.♚d3 ♜xb6 and ...♞d5-f6 next.

48...♞xf5!

This small tactical trick allows Black to continue pressing for the win.

49.♞d5+ ♚e6 50.♞xc3 ♜xh4



The idea behind going for this simplification is clear. White wants to lure the black king or the knight with his b-pawn and at the same time get between the black pawns with the king and sacrifice his knight for them.

51.b5 ♞f5

51...♚d6 does not change much, and White accomplishes his plan after 52.♞e4+ ♚d5 53.b6 ♚c6 54.♚g4 ♞g6 (54...♞g2 55.♚f5= and ♚g6 next.) 55.b7 ♚xb7 56.♞c5+ ♚c6 57.♞e6=

52.b6 ♞d6

The final task for White is to attack the pawns with the knight.

53.♞e4 ♚d5

The pawn endgame is winning for Black, but White is not forced to recapture the knight. 53...♞b7 54.♞g3 ♚f7 Black could save his pawns like this, but without his knight he cannot make progress. White simply waits with his pieces on

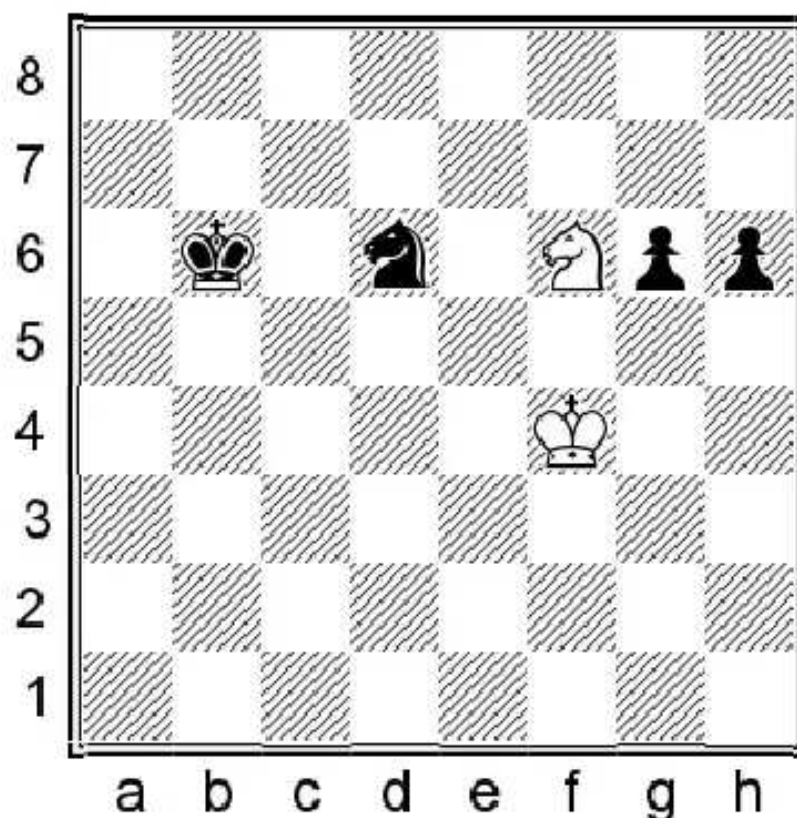
could save his pawns like this, but without his knight he cannot make progress. White simply waits with his pieces on the kingside. 55.♔g4 g6 56.♖e2 ♗f6 57.♖f4= Black has no chance to win, as the knight is always ready to be sacrificed.

Of course not 53...♖xe4?? 54.b7+–

**54.♖g3 g6**

54...♗c6 leads to a draw after 55.♗e5!= when the knight loses its outpost on d6, White will be able to play ♖f5!

**55.♖e4 ♗c6 56.♖f6 ♗xb6**



Black finally wins the pawn, but his king is too far away from the kingside and White is able to catch the pawns...

**57.♖g8 1/2**

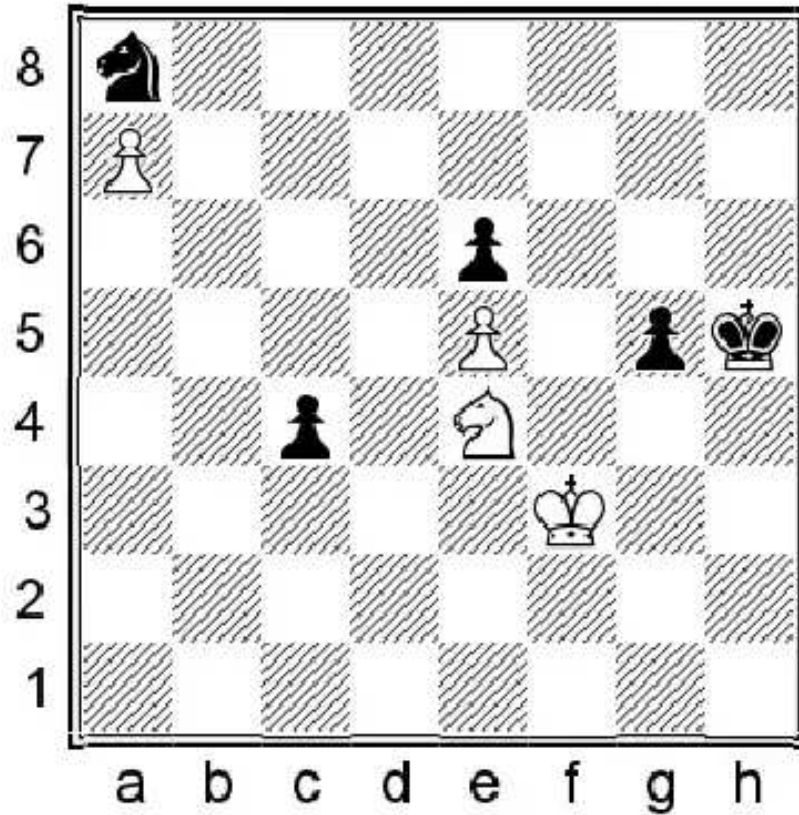
And the draw was agreed in view of 57.♖g8 ♖f7 (57...h5 58.♖e7=) 58.♖xh6! ♖xh6 59.♗g5= We can see that in such endgames there is no real chance to win and White even had several ways to hold. It is very important to study such practical endgames to be able to make the right decisions in our own games. If we are on the stronger side, we should not simplify to such endgames, while if we are defending a difficult position, we might aim for such an endgame a pawn down and hold the game easily.

5

**E. Tomashevsky**

**M. Matlakov**

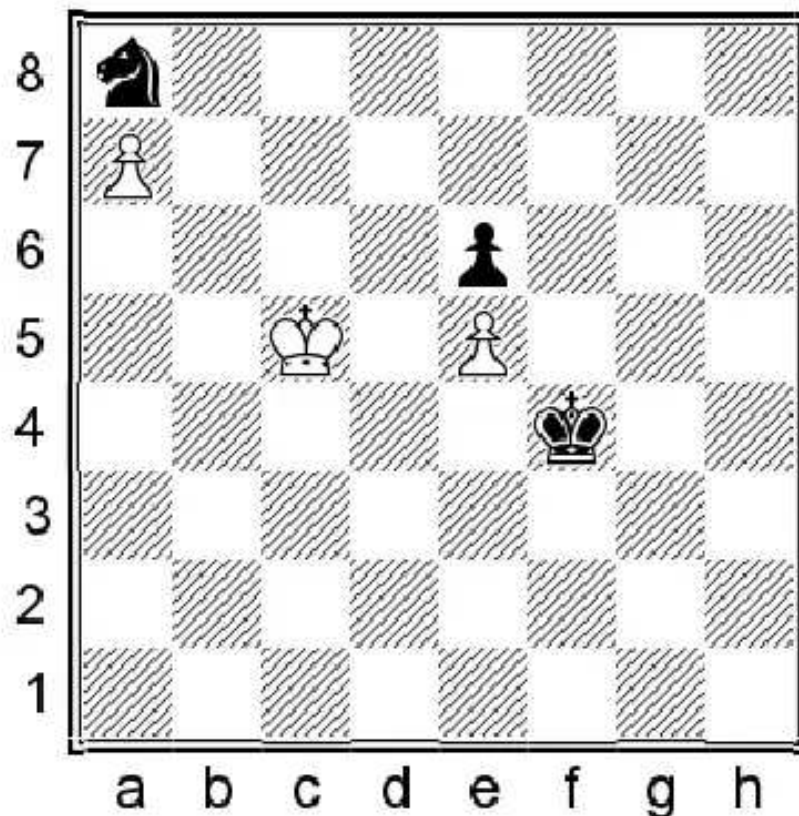
**Russia, 2014**



The following endgame could well be a fantastic study too. White is a pawn down, but if we take a deeper look he is the only one who can play for win — if he goes with his king to the queenside to collect the c-pawn and then to trap the knight on a8. He is going to sacrifice his knight for the passed g-pawn.

57.♔e3! ♚g4!

An amazing position arises from the line 57...g4 58.♔d4 ♚h4 59.♔xc4 g3 60.♘xg3 ♚xg3 61.♔c5 ♚f4



Here we are! The white king should go to b7, but if he does so immediately then the black king squeezes him into the

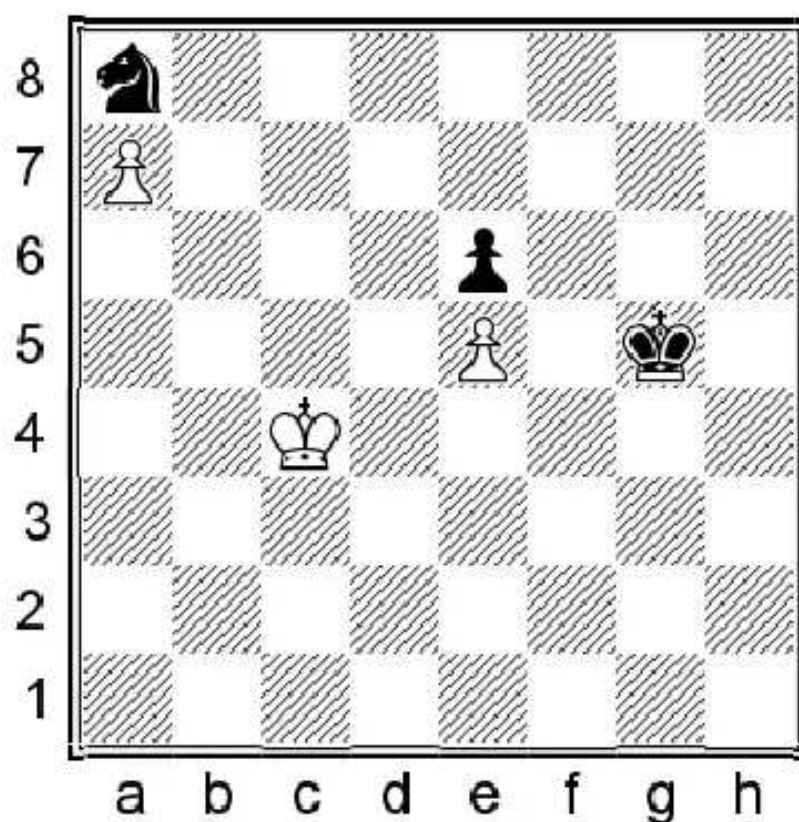
Here we are! The white king should go to b7, but if he does so immediately then the black king squeezes him into the corner with ...♔e5-d6-c7. However we can see that the position when the white king is on c6 and the black one is on e5 is a mutual zugzwang. If it was Black's move, he must move his king, but then after ♔b7 he no longer has ...♔d6-c7. White only needs to work out the execution of the winning plan. 62.♔d6! (62.♔c6? ♔xe5 63.♔b7 ♔d6 64.♔xa8 ♔c7=) 62...♔f5 and here comes the shocking move: 63.♔d7!! ♔xe5 64.♔c6!+- and zugzwang. ♔b7 wins next.

**58.♔d4 ♔f4 59.♔xg5!**

White's strategy is the same as in the 57...g4 line.

**59...c3**

59...♔xg5 is actually the simpler way to draw, but only in a study-like way again. 60.♔xc4



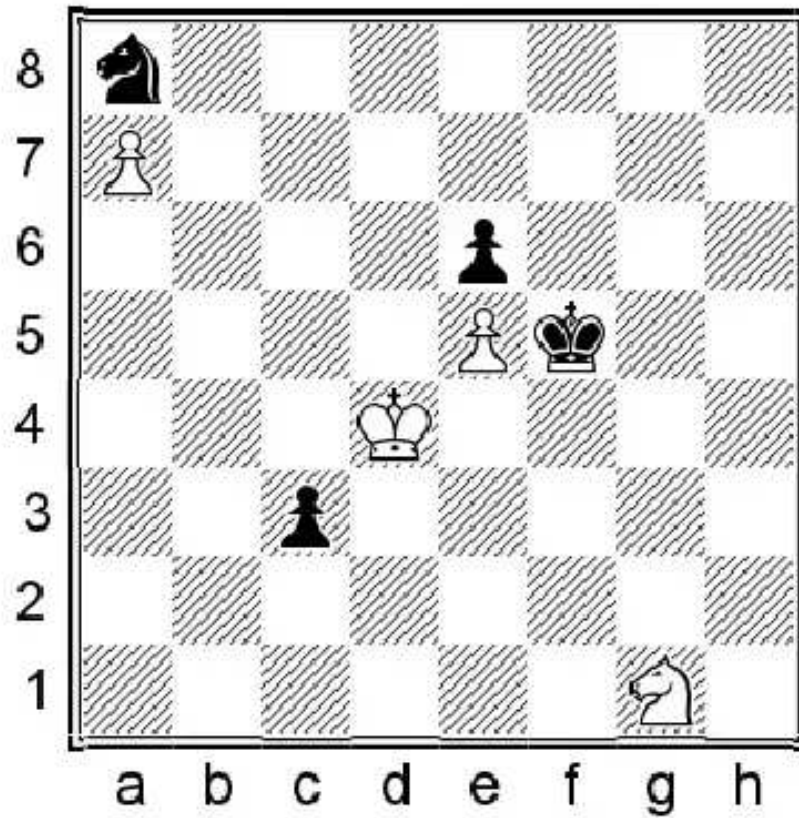
60...♔g6!! Only this move holds. If we already know the motifs, this move is easy to find. Black must drive his king to c7 by the shortest route, without getting into zugzwang with his king on e5... (60...♔f4? 61.♔c5 ♔xe5 62.♔c6+-) 61.♔c5 ♔f7 62.♔d6 (On 62.♔c6 Black is in time to play 62...♔e7 63.♔b7 ♔d7 64.♔xa8 ♔c7=) 62...♔e8 63.♔xe6 ♔c7+ and the game is drawn, because 64.♔d6 is not possible in view of 64...♔b5+=

**60.♔h3+ ♔f5!**

60...♔g3? again loses to the same motif as the black king has strayed too far... 61.♔xc3 ♔xh3 62.♔d4 ♔g4 63.♔c5 ♔f4 64.♔d6!+- and we have reached the same position as in the 57...g4 line. 64...♔f5 65.♔d7!! ♔xe5 66.♔c6+-

**61.♔g1!**

The tasks of the white pieces are the same as before. The knight must stop the passed pawn and the king should go for the knight on a8.

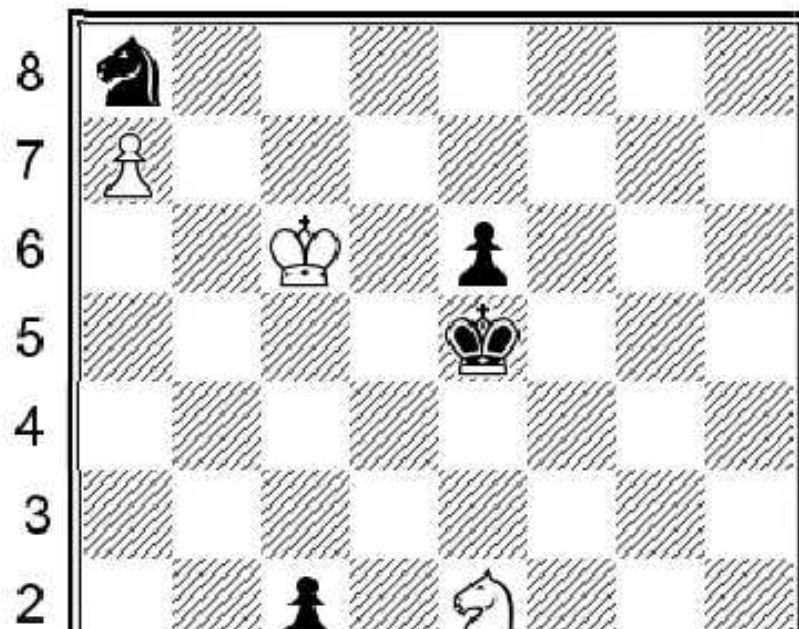


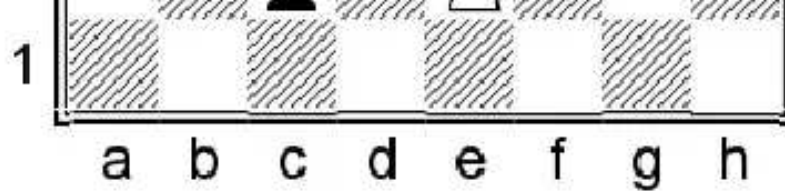
61...♖c7?

The decisive mistake, but it was very difficult to calculate the lines — especially in time-trouble. 61...c2 62.♗e2 ♔g6!! ought to have been played. We actually have the same position like the one without the e2 knight and c2 pawn on board. We will soon understand why... 63.♕c5 (63.♕c3 ♖f5=) 63...♖f7 64.♕c6 ♖e7 65.♕b7 ♖d7 66.♕xa8 ♖c8= and the game is drawn because the knight cannot leave the c1 square and Black only plays ...♖c8-c7.

62.♕c5 ♖xe5 63.♗e2! c2 64.♕c6 ♗a8

We have reached the same position again as without the c2 and e2 pieces on board. We already know that Black is in zugzwang now, therefore the next move is obvious.

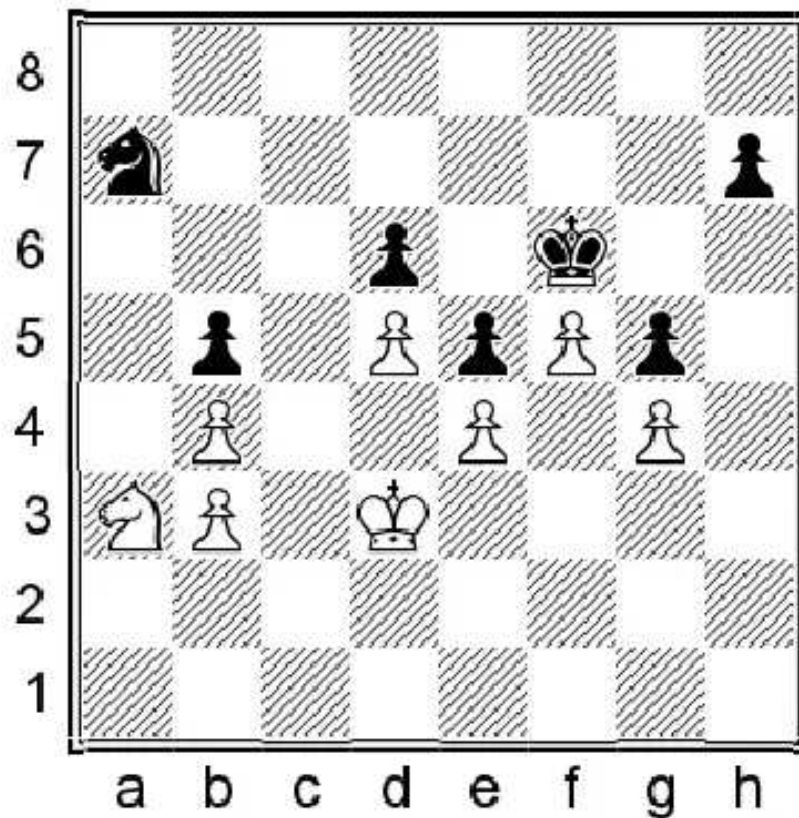




65.♖c1!! 1–0

And Black resigned because of the zugzwang. ♔b7 is coming next. 65.♔b7? would have spoiled the win again in view of 65...♕d6 66.♕xa8 ♔c7=

6  
**P. Eljanov**  
**C. Balogh**  
 Tromso, 2014



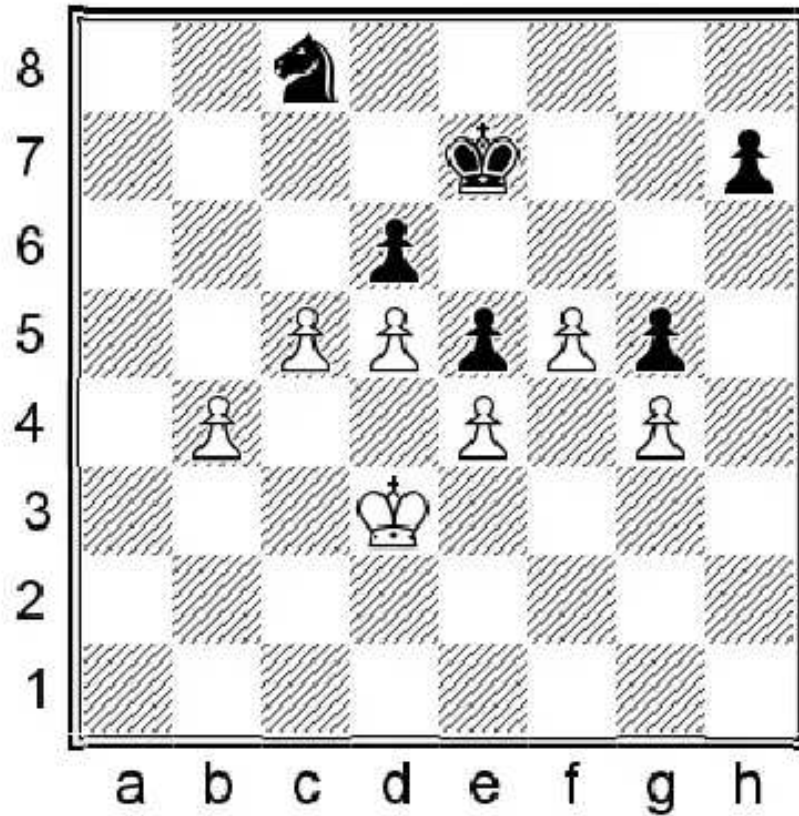
White is a pawn up and has a strong, protected passed-pawn on f5, but it seems as though Black has created an unbreakable fortress. It looks like White cannot make progress because he cannot access the black pawns with his king. However he finds a great practical try...

48.♖c4!

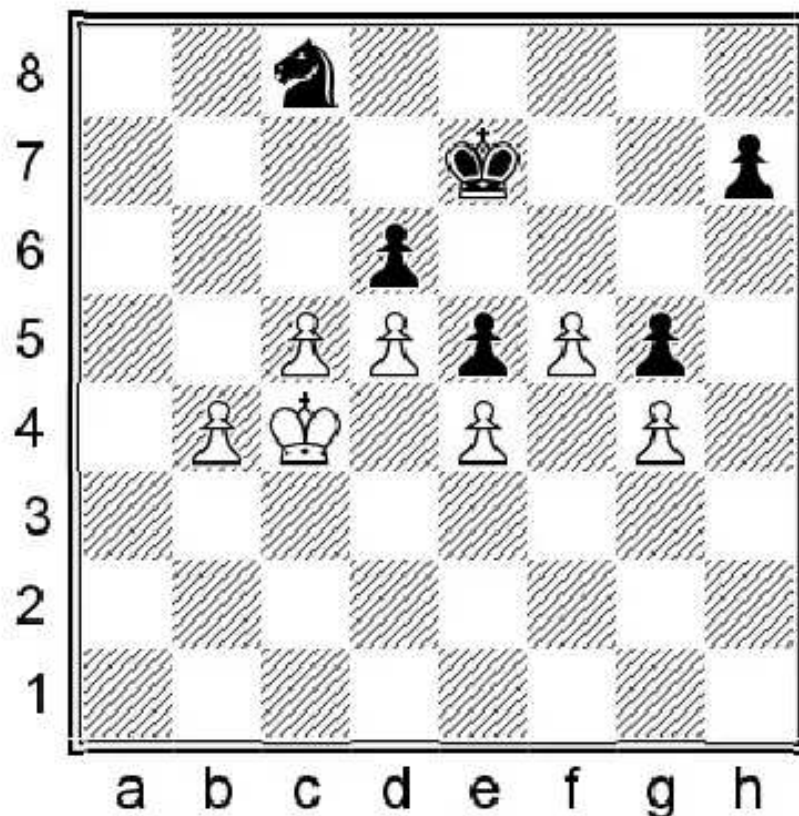
White would like to enter the black camp with his knight. Black faces a very difficult decision: he should either defend passively with ...♖c8, allowing the knight to enter but keeping the king outside; or accept the sacrifice and create two more passed pawns for White. But which?

48...♖c8!

This is the clean way to hold. Black is able to defend both of his weaknesses with his knight from c8 and a7 and the white knight cannot win the game alone. However it is very interesting to analyze what happens after 48...bxc4+ 49.bxc4 ♖c8 50.c5 ♔e7



51. ♔c4 (51.c6 is wrong as the knight is able to stand between the two passed pawns. 51... ♖b6 52.b5 ♔f6 Whenever the white king goes to a5 53. ♔c3 Black makes use of his h-pawn and creates a passed pawn with 53... h5! 54.gxh5 g4 55. ♖d3 ♖g5 56. ♖e2 ♖xh5 57. ♖f2 ♖g5 58. ♖g3 ♖c8 59. ♖g2 ♖b6= and the draw is inevitable. Both sides are forced to block the opponent's passed pawns.)



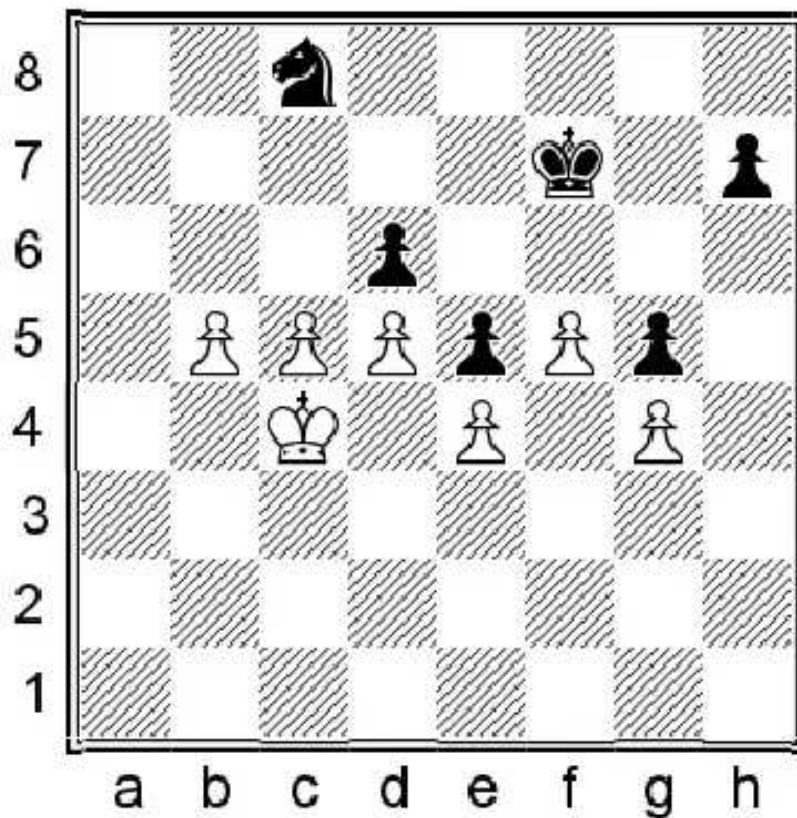
51... ♔f7!! This is the only move to make a draw! As we will see, in comparison to the 51... ♔f6 line, it is very important to avoid the promotion of the d-pawn with check.

a) The most natural move 51. ♔f6? loses after 52. h5! dxc5 (52. h5 53. h6 dxc5 54. ♔xc5 transposes to 52. hxc5.)

a) The most natural move 51...♖f6! loses after 52.b5! dxc5 (52...h5 53.b6 dxc5 54.♖xc5 transposes to 52...bxc5.)

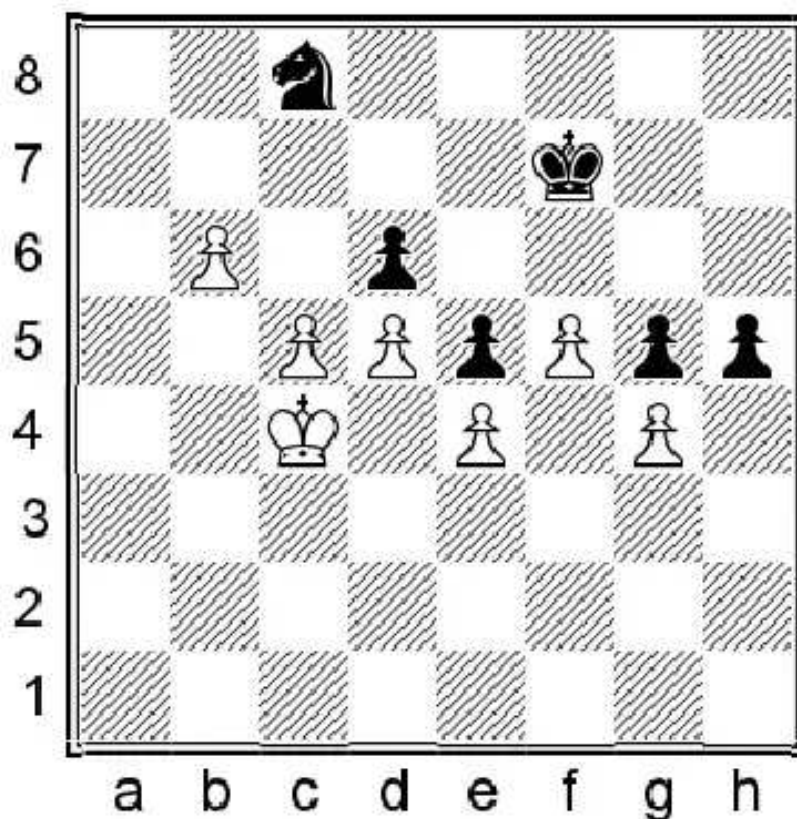
b) 51...h5 loses to 52.gxh5 ♖f6 53.♖d3 g4 54.h6+- the white king catches the g-pawn and Black is lost.

52.b5



52...h5!! The only move again. (52...dxc5? is a wrong move order as White wins after 53.♖xc5 h5 54.d6! ♖xd6

55.♖xd6 hxg4 56.b6 g3 57.b7 g2 58.b8=♖ g1=♖ 59. c7+ ♖g8 60.f6+-) 53.b6 Compared to the 52...dxc5 start, White cannot advance his d-pawn.



53...dxc5! with the idea of ...♖d6 check after b7! 54.♖xc5 ♖xb6! 55.♖xb6 hxg4 56.d6 g3 57.d7 g2 58.d8=♖ g1=♖+ and this time Black promotes with check and gives perpetual check! So the objective evaluation is draw after 48...bxc4, but it was much easier to avoid the capture of the knight.

49.♖a5 ♘f7

Black only waits with the king and if White attacks the d6 pawn he goes ...♗c8, while after ♗c7, he goes ...♗a7. The defence is pretty easy from now on.

50.♗c6 ♘f6 51.♗d8 h6

Unnecessary, but I decided to protect the g5 pawn. Keeping it on h7 does not change the outcome.

52.♗e6 ♘f7 53.♗c7 ♗a7 54.♘d2

54.♗xb5? makes no sense, because after 54...♗xb5 55.♘c4 ♗a3+ the king must retreat and he cannot advance the b-pawn.

54...♘e7 55.♘c2

We were both down to 2 minutes. My opponent decided to gain some extra time with the 30 seconds increment per move before trying the last attempt to make progress. In general, this technique is advisable, and if the position was winning, some extra time would definitely help to convert the advantage.

55...♘f7 56.♘c1 ♘e7 57.♘d1 ♘f7

Black obviously should not go for 57...♘d7?? because of 58.f6! and the black king is unable to block the f-pawn.

58.♘e1 ♘e7 59.♘f2 ♘f7 60.♘f3 ♘e7 61.♘e3 ♘f7 62.♘d2 ♘e7 63.♘d3 ♘f7 64.f6!?

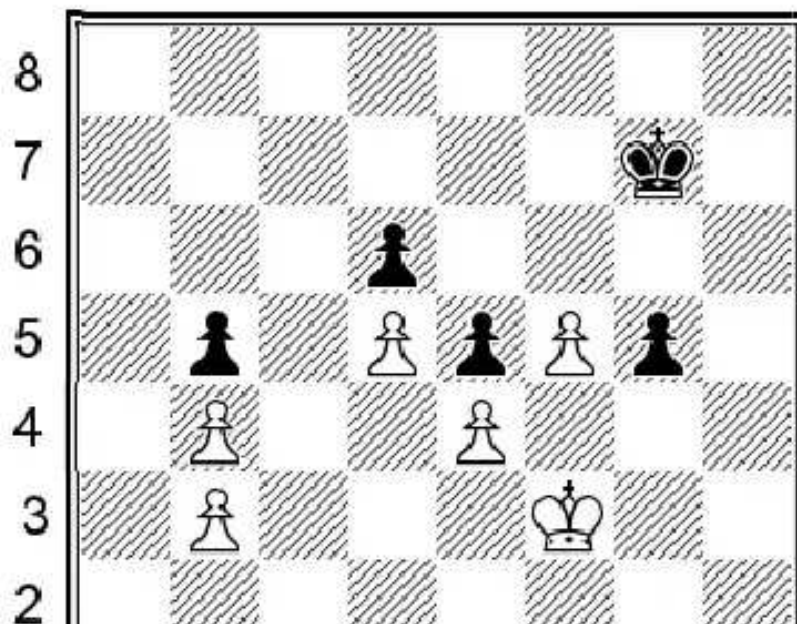
Here comes the final attempt, but it does not change the logical result. White gains back the h-pawn later.

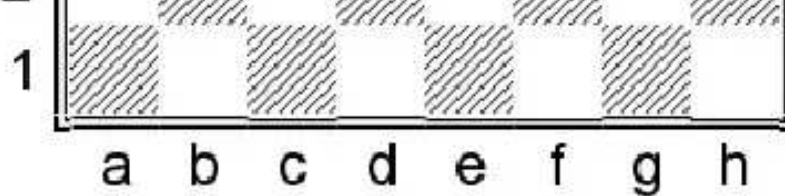
64...♘xf6 65.♗e8+ ♘e7 66.♗g7 ♗c8 67.♗f5+ ♘f6 68.♗xh6

Of course, the trade of the passed f-pawn for the useless h-pawn helps Black in the successful defense, but White had no way to progress anyway.

68...♗e7 69.♘e3 ♗c8

There was no point in going for the pawn endgame, but it is interesting to take a look at it in the analysis 69... ♘g6 70.♗f5 ♗xf5+ 71.gxf5+ ♘g7 72.♘f3



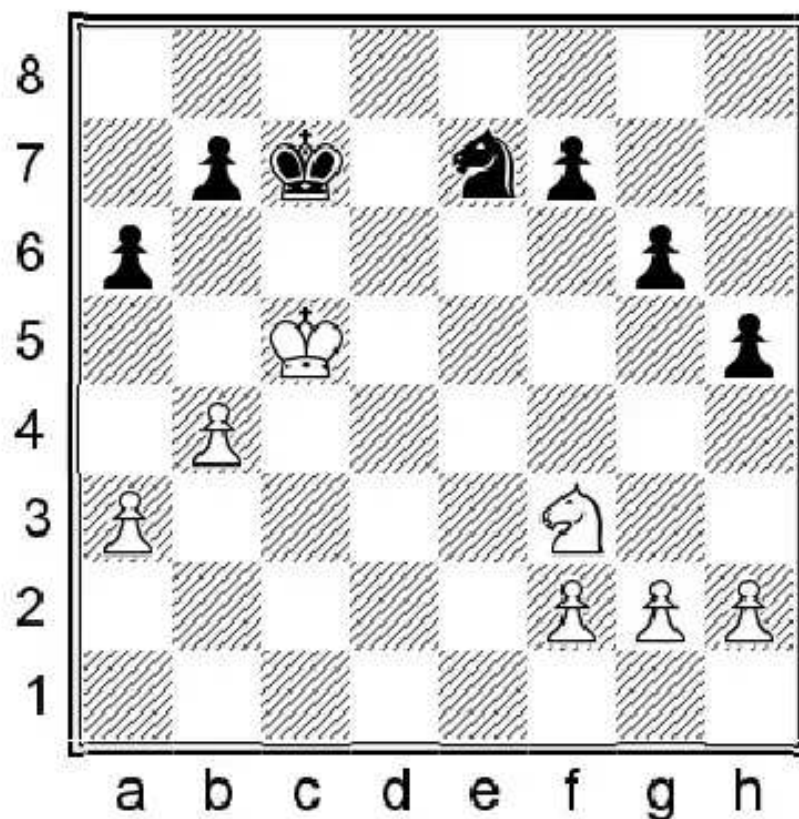


White has a protected passed pawn on f5, but the position is closed and the king cannot invade. 72...♔h7! Black waits on g7-h7 and when the king goes to g4, ...♔h6 blocks the way to h5. 73.♔g4 ♔h6 74.f6 ♔g6 75.f7 ♔xf7 76.♔xg5 ♔g7! holding the opposition and the draw.

70.♟f5 ♔f7 71.♔d3 ♔f6 72.♟e3 ♔f7 73.♟d1 ♔e7 74.♟c3 ♟a7 1/2

Draw agreed.

**7**  
**M. Botvinnik**  
**R. Kholmov**  
**Moscow, 1969**



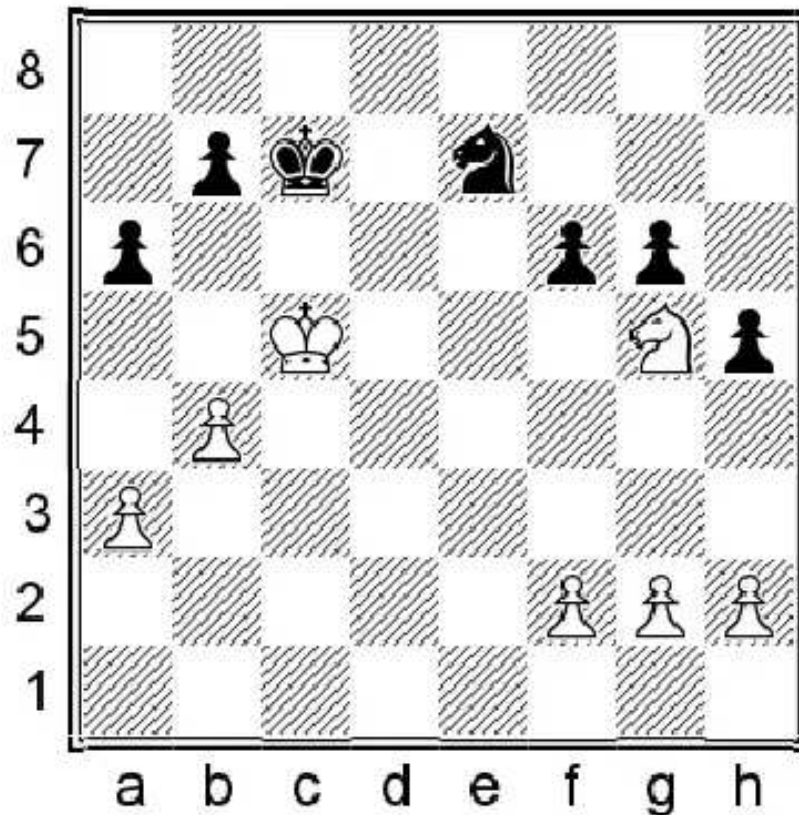
The material is balanced, but the much more active situation of the white pieces give him all the chances to play for the win.

**36.♟g5!**

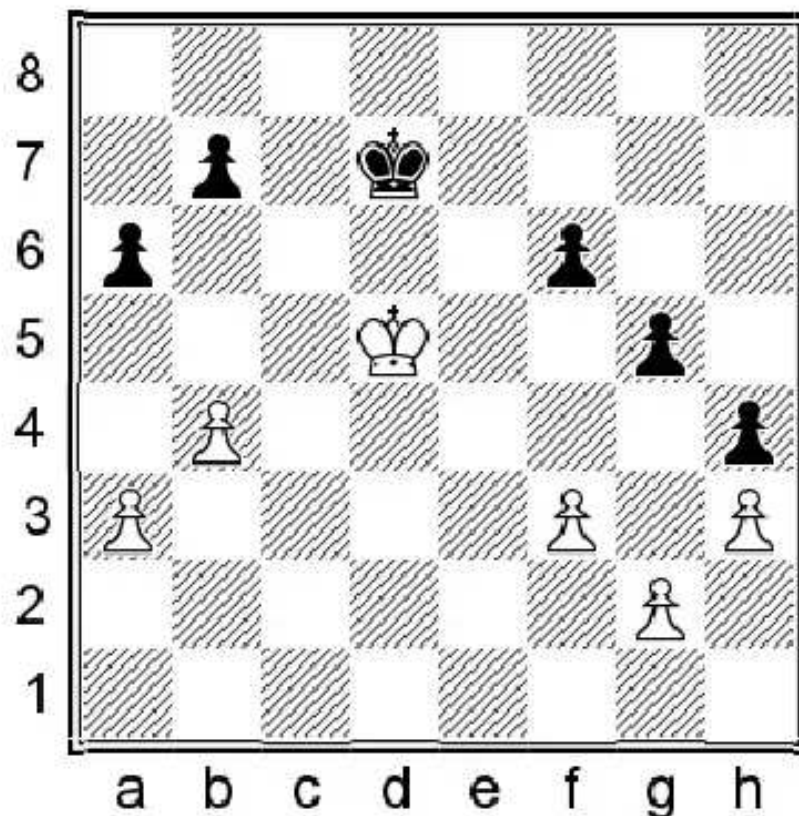
It is important to create some weaknesses by attacking the pawns. The farther advanced they are, the more vulnerable they might become to the white pieces.

**36...f6 37.♟h7**

A principled move to provoke a further advance of the pawn, but it looks like a mistake.



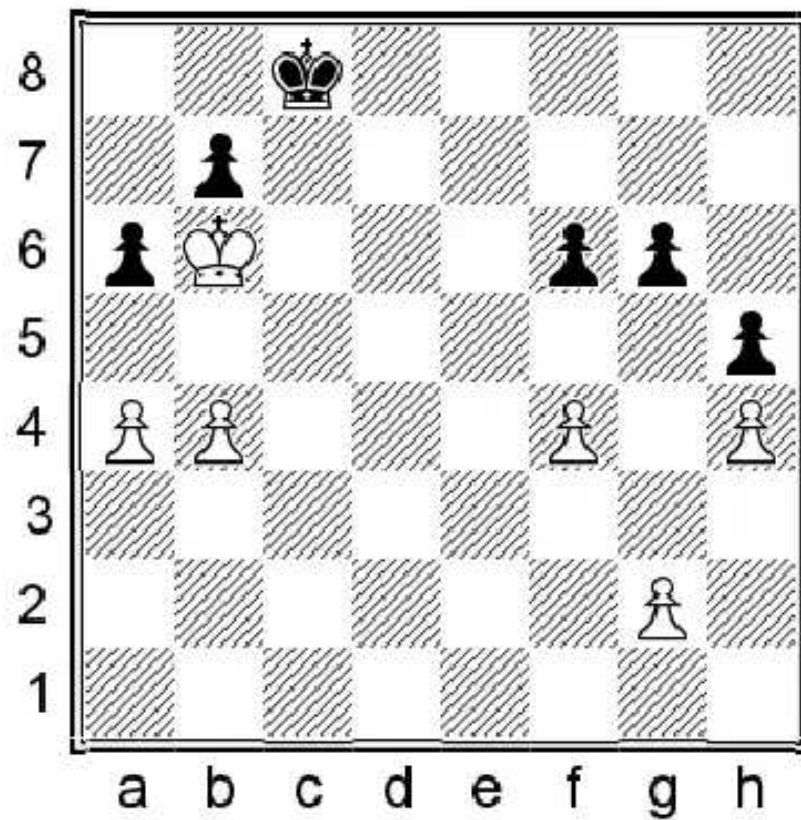
White should have played 37. ♖e6+! ♔d7 38. ♖f4 Black does not have an adequate defense against ♖d5, after which the pawn endgame is lost and otherwise Black collapses. 38... ♗c7 Fighting against ♗b6. (38... h4 also runs into 39. ♖d5! ♖xd5 (Keeping the knights on board is also hopeless 39... ♗g8 40. ♖b6 ♖e8 41. g3 hxg3 42. fxg3 Black soon gets into zugzwang and whenever he plays 42... ♖b8 White turns back with 43. ♖c5+- and ♖d6 is decisive.) 40. ♖xd5 The activity of the white king decides the game. 40... g5 41. h3 ♔e7 42. f3 ♔d7



The winning technique is 43. f4! with the idea being to take on g5 after which ♖e5-f5 collects the pawns, while in the

f42... f4 44. ♖4+ ♔d7 45. ♖4+ ♔d7 46. ♖4+ ♔d7 47. ♖4+ ♔d7 48. ♖4+ ♔d7 49. ♖4+ ♔d7 50. ♖4+ ♔d7 51. ♖4+ ♔d7 52. ♖4+ ♔d7 53. ♖4+ ♔d7 54. ♖4+ ♔d7 55. ♖4+ ♔d7 56. ♖4+ ♔d7 57. ♖4+ ♔d7 58. ♖4+ ♔d7 59. ♖4+ ♔d7 60. ♖4+ ♔d7 61. ♖4+ ♔d7 62. ♖4+ ♔d7 63. ♖4+ ♔d7 64. ♖4+ ♔d7 65. ♖4+ ♔d7 66. ♖4+ ♔d7 67. ♖4+ ♔d7 68. ♖4+ ♔d7 69. ♖4+ ♔d7 70. ♖4+ ♔d7 71. ♖4+ ♔d7 72. ♖4+ ♔d7 73. ♖4+ ♔d7 74. ♖4+ ♔d7 75. ♖4+ ♔d7 76. ♖4+ ♔d7 77. ♖4+ ♔d7 78. ♖4+ ♔d7 79. ♖4+ ♔d7 80. ♖4+ ♔d7 81. ♖4+ ♔d7 82. ♖4+ ♔d7 83. ♖4+ ♔d7 84. ♖4+ ♔d7 85. ♖4+ ♔d7 86. ♖4+ ♔d7 87. ♖4+ ♔d7 88. ♖4+ ♔d7 89. ♖4+ ♔d7 90. ♖4+ ♔d7 91. ♖4+ ♔d7 92. ♖4+ ♔d7 93. ♖4+ ♔d7 94. ♖4+ ♔d7 95. ♖4+ ♔d7 96. ♖4+ ♔d7 97. ♖4+ ♔d7 98. ♖4+ ♔d7 99. ♖4+ ♔d7 100. ♖4+ ♔d7

case of 43...gx14 44.♙e4+- and White takes first on f4 and then on h4.) 39.♗d5+! ♘xd5 40.♙xd5 ♗d7 41.h4! Taking away some reserved tempi from Black. He cannot push g5, because after taking twice, ♙e5-f5 walks towards it. 41...♙e7 (Black soon runs out of moves with his b-pawn. 41...b6 42.f3 and White either invades through e6 or c6. 42...b5 43.f4 f5 44.g3+- Zugzwang. Black loses.) 42.♙c5 ♙d7 43.♙b6 ♙c8 44.f4 ♙b8 45.a4 ♙c8

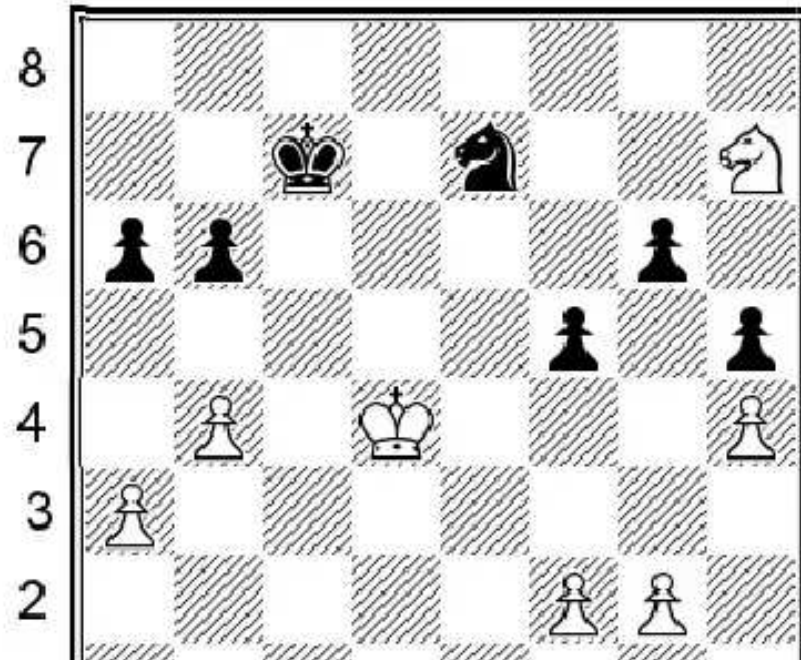


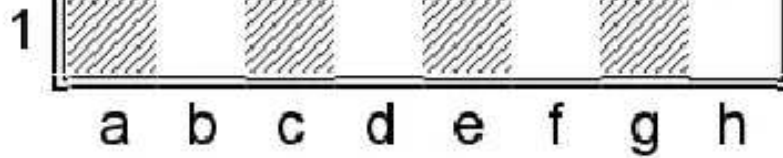
White wins with the “going behind the pawn” technique. 46.♙a7! ♙c7 47.b5! axb5 48.axb5 f5 49.g3! Spending the last reserve tempo before setting Black into the decisive zugzwang. 49...♙c8 (49...b6 50.♙a6+-) 50.b6+- 37...f5 38.h4!

The logical follow-up, fixing the weakness on g6.

38...f4?

Black wants to create counterplay by means of ...♗f5, but he just weakens his own pawn. Black should have played 38...b6+! 39.♙d4 and now:





39...♔c6! Surprising, because White seems to be faster on the kingside after ♕e5, but the truth is quite different.

(39...♔d6 looks more natural to prevent ♕e5, but then after 40.♖f8! Black soon find himself in zugzwangs, viz: 40...♗c6+ 41.♕e3 ♗e7 42.♕f4+- ♕g5 next.) 40.♕e5 (40.a4 can be answered by 40...b5 41.a5 ♔d6 and the fixed weakness on b4 gives Black enough counterplay.; On 40.♕c4 Black can already play 40...f4 with the idea of 41.♖f8 b5+! and Black either goes ...♔d5 which solves his problems or after ...♔d4-♗f5 wins the h4 pawn.) 40...♕b5! 41.♕f6 ♕a4!! Shocking indeed. 42.♕xe7 ♕xa3+- and Black is simply faster with ...♕xb4 followed by promoting his a-pawn. The knight is too far from the action as well as grabbing all the pawns taking too much time. Black seems to win. This line also proves the rule, that the farther the pawns are advanced, the more vulnerable they become. If the b4 pawn was on b2, White would be ahead by two tempi.

**39.♖f8 b6+ 40.♔d4 ♗f5+ 41.♕e4 ♗xh4**

41...f3 wouldn't have helped, because of 42.g3 ♗xg3+!? nice but ineffective 43.♕xf3 ♗f5 44.♗xg6+-

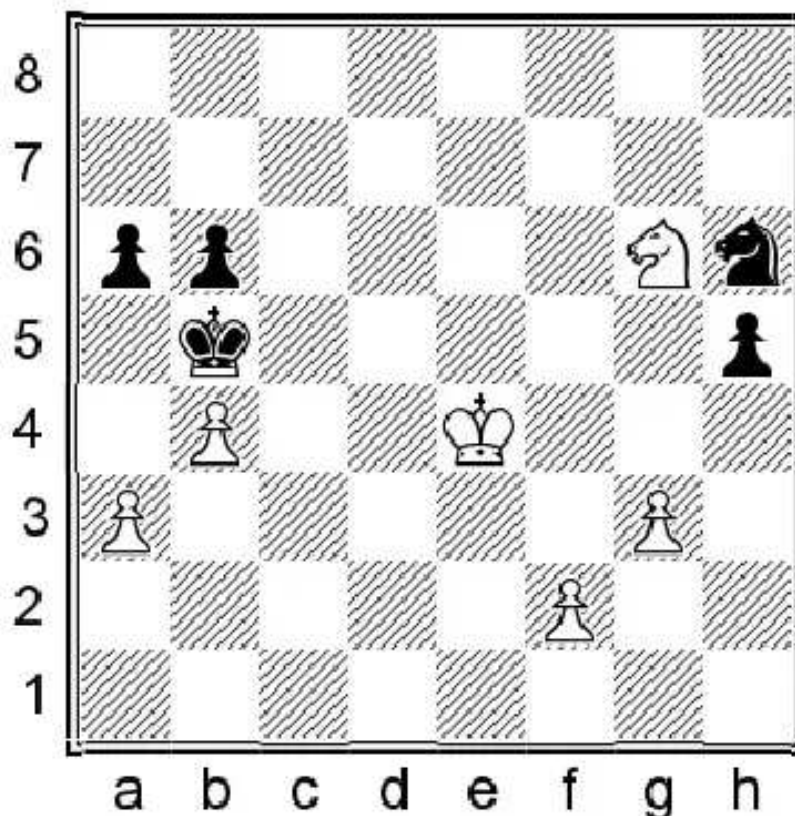
**42.♗e6+!**

White captures the f4 pawn with the knight and he saves his g2.

**42...♕c6 43.♗xf4 ♕b5**

43...g5 is refuted by 44.g3! trapping the knight and the pawn endgame is lost 44...gxf4 45.gxh4+- the f-pawn will be faster.

**44.g3 ♗f5 45.♗xg6 ♗h6**



White has won a pawn, but the win still requires technique because Black is threatening ...♕a4 and he is ready to give up his knight for the f-pawn. Therefore the right plan is to bring back the knight to the queenside.

**46. ♖e5! ♜a4 47. ♖c4 ♜b3**

If 47...b5 48. ♖e5 ♜xa3 49. ♖c6!+- the knight defends the pawn and prevents a6-a5. White can finally promote his f-pawn.

On 47...♜b5 48. ♖b2+- White builds a barrier against the invasion of the king and he pushes his f-pawn.

**48. ♖xb6 ♜xa3 49. ♖d5**

The problem is solved. Black can no longer create a passed pawn and the rest is easy with the f-pawn.

**49...♜b3 50. f4 ♜c4 51. ♖c7 ♜xb4 52. ♖xa6+ 1-0**

Black resigned in view of 52. ♖xa6+ ♜b5 53. ♖c7+ ♜c6 54. ♖e8+- winning h5 soon as well.

## CHAPTER 3

### KNIGHT VS BISHOP

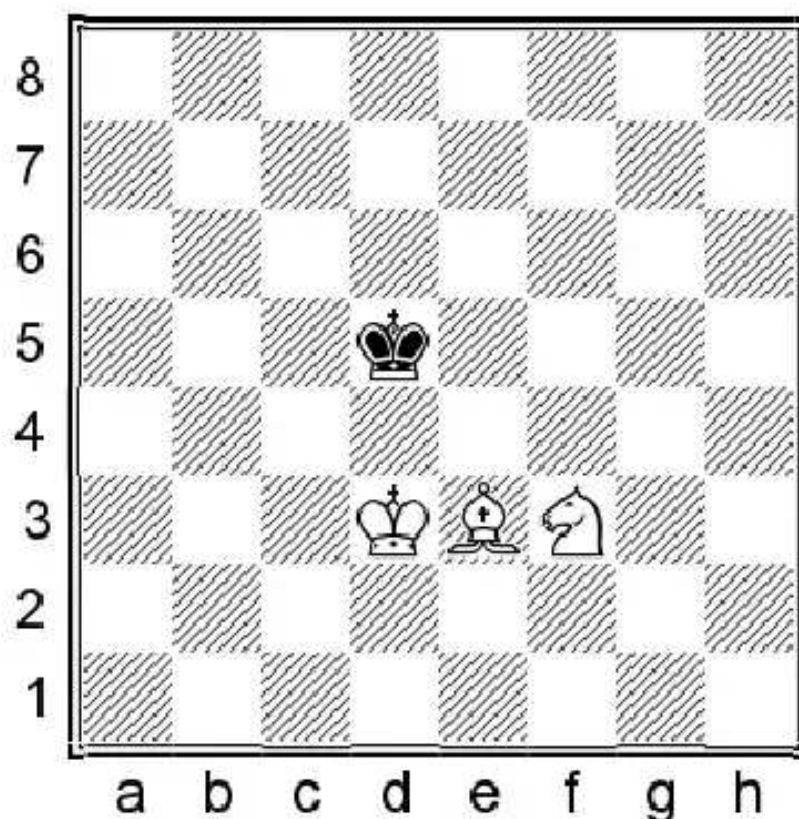
The general principle says that the bishop is stronger than the knight if the position is open and there are pawns on both sides of the board. The reason is that the bishop is a long-range piece, therefore from the center it can control two long diagonals. As it was explained to me, it looks like a pair of opened scissors. The bishop also moves faster than the knight and when there are pawns on both sides it can be transferred from one side to the other much more easily.

#### 3.0. MATE WITH BISHOP AND KNIGHT

Before we begin to study the endgames with bishop vs knight, we should learn a very important topic. How to mate with bishop and knight?

In the history of chess, surprisingly many good players have failed to deliver mate with a bishop and knight. The right strategy is to squeeze the opponent's king to the corner which matches the color of square our bishop controls. We must be familiar with some methods, however, otherwise it is not easy to find them over the board.

#### Theoretical position



White should squeeze the king to the h8 or a1 corner as his bishop plays on the dark squares only.

1. ♖d4 ♘c6

Black consequently goes towards the opposite-coloured corner.

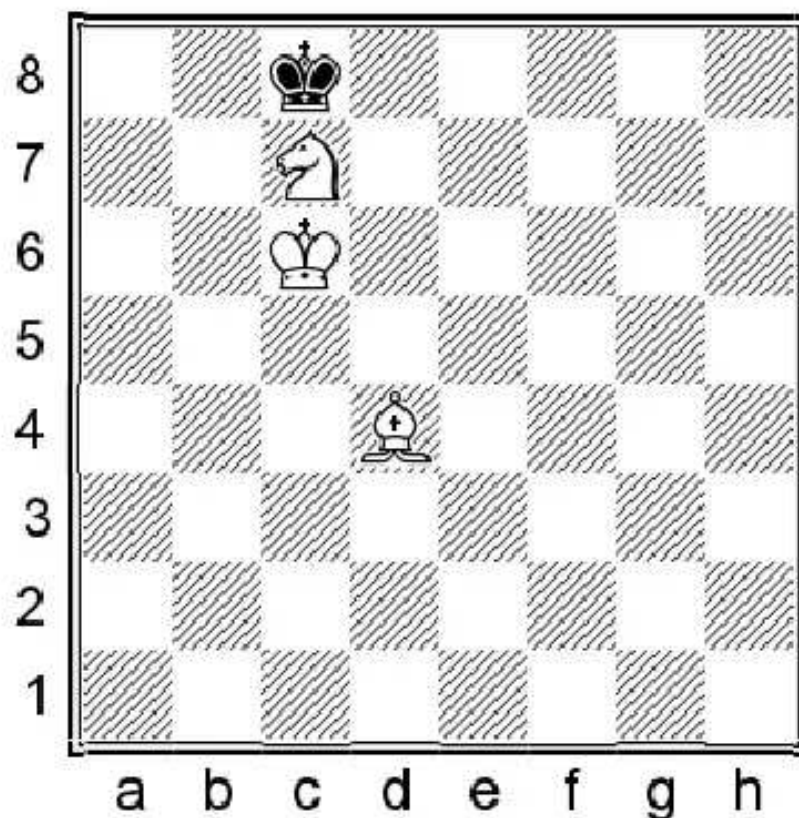
2.♔c4 ♕d6 3.♙e5+

The squeezing to the back rank is more-or-less automatic. The critical moment arises when the black king gets to a8.

3...♔c6 4.♘d4+ ♕b6 5.♔b4 ♕a6 6.♔c5

The a1 corner is equally as good for White as the h8, so he can allow the black king to move to a5.

6...♔b7 7.♘e6 ♕a7 8.♔c6 ♕a8 9.♙d4 ♕b8 10.♘c7 ♕c8



This is the basic position that we should keep in mind! It is very easy to reach this point, but here White must know the winning technique!

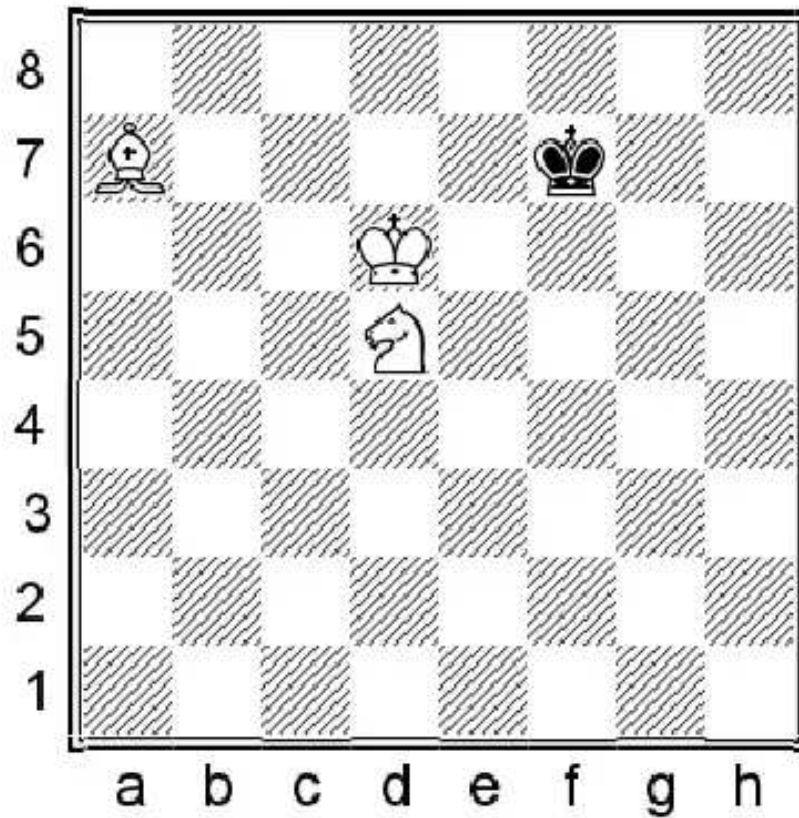
11.♙a7!

Preventing the king from moving back to the wrong corner, instead pushing it towards h8.

11...♔d8 12.♘d5! ♕e8

As Black, I would definitely recommend to try this defensive attempt as it is much easier to err if our opponent is not familiar with the winning method. If 12...♔c8 White can continue the squeezing like he did before: 13.♘e7+ ♕d8 14.♔d6 ♕e8 15.♔e6 ♕d8 16.♙b6+ ♕e8 17.♙c7 Always preventing the escape to the a8 corner and pushing square-by-square towards h8. 17...♔f8 18.♘f5+-

13.♔d6 ♕f7



This is the second key position! Black gives up any hope of getting back to a8, but he tries to run to the h1 corner. White must know the next two moves to keep the king in the cage.

**14. ♖e7! ♜f6 15. ♘e3!**

All the routes are blocked and Black cannot escape in any direction.

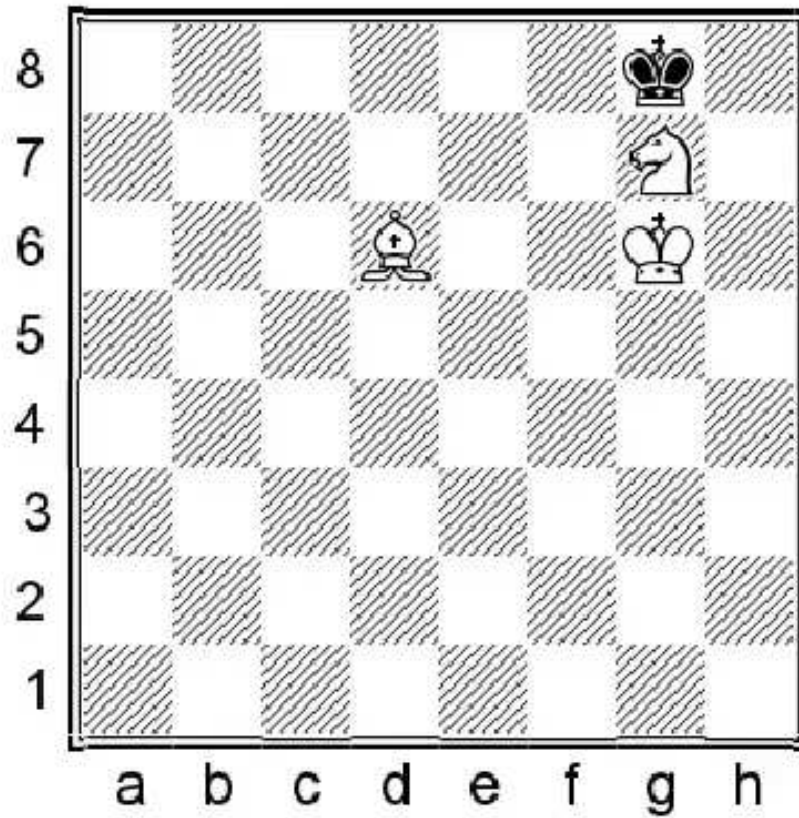
**15... ♜f7 16. ♘d4**

Black is forced to retreat to the back rank.

**16... ♜e8 17. ♜e6 ♜d8 18. ♘b6+ ♜e8 19. ♘c7**

The rest is already easy.

**19... ♜f8 20. ♖f5 ♜e8 21. ♖g7+ ♜f8 22. ♜f6 ♜g8 23. ♜g6 ♜f8 24. ♘d6+ ♜g8**



The closing part is to bring the knight to h6 landing a check and when ...♔h8, the bishop mates on the long diagonal.

**25.♖f5 ♔h8 26.♗e7**

White must waste a tempo to play ♖h6 with check.

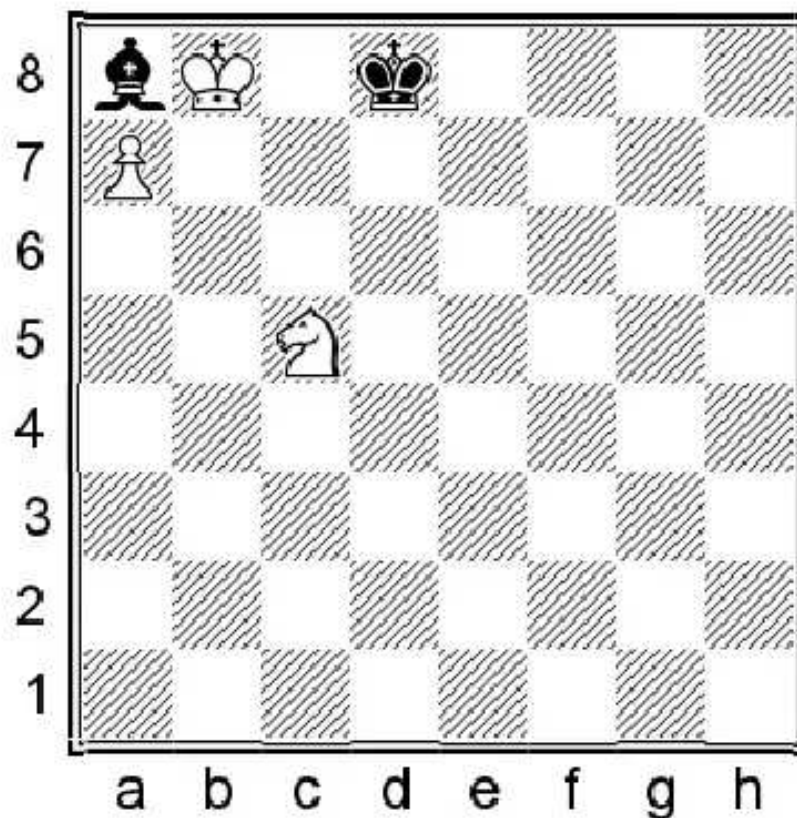
**26...♔g8 27.♖h6+ ♔h8 28.♗f6#**

### 3.1. KNIGHT + PAWN VS BISHOP

The bishop is a long-range piece and it can control the advance of a pawn. However the co-operation of the king and knight is able to close off the diagonal and allow the pawn to advance. We are going to study the rules for this type of endgame. This is a very difficult topic with several theoretical positions that might arise in practical games.

1

Horwitz



As we know, the a-pawn is always a tricky one in all the endgames. I would say that with this type of material relationship (knight vs bishop), that this is the most common case — and therefore we will pay more attention to it than to the other pawns. The bishop can control the pawn from only one diagonal, but it can be closed if White drives his knight to b7.

If the pawn was on a6, White would easily win in all lines as the bishop is hanging — and wherever it goes White could play  $\text{♞b7}$  followed by promoting the a-pawn. The huge difference with the pawn on a7 is, if White takes the bishop on a8, Black goes  $\dots\text{♝c7}$  and we reach the theoretically-drawn position that we already discussed in chapter 5.3.

The current position is a mutual zugzwang as was pointed out by Horwitz in the 19th (!!) century! If it is Black to move he is losing because each bishop move can be answered by  $\text{♞b7}$ , and if the king moves instead then the bishop is already hanging. However, with White to move the game is drawn! The reason is that the knight cannot lose a tempo and the king is squeezed to b8, therefore it also cannot lose the required tempo.

1.  $\text{♞b3}$

1.  $\text{♝xa8 ♞c7=}$

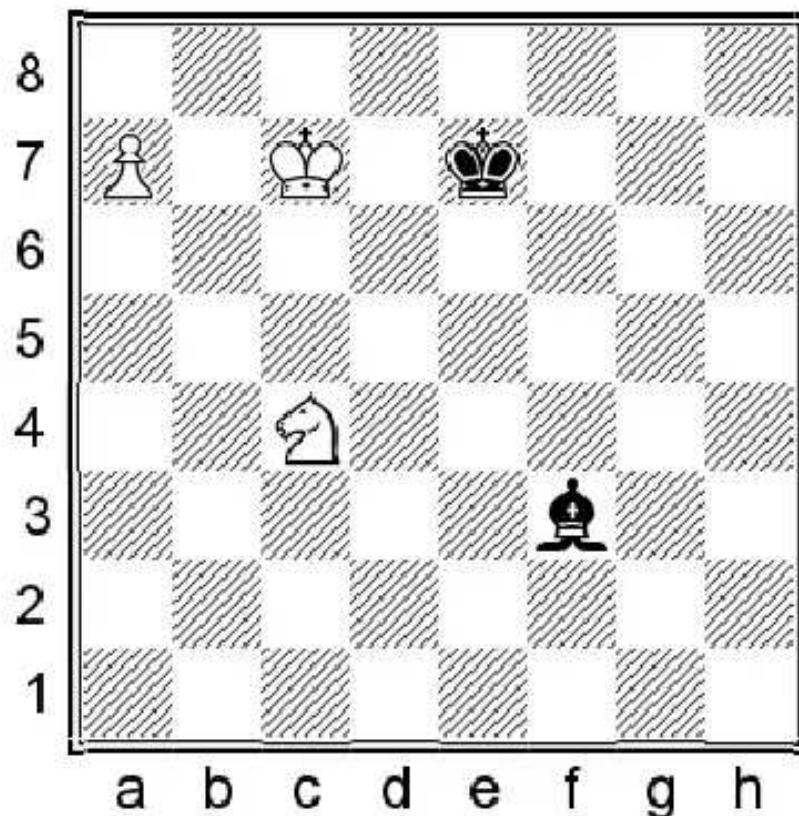
1. ♖b3 ♕d7

Or a bishop move, e.g. 1... ♗g2 but after 2. ♘a5 (when White is threatening ♘b7) Black has to retreat with 2... ♗a8!=

2. ♘a5 ♕d8 3. ♘b7+ ♕d7 4. ♗xa8 ♕c8! 5. ♘d6+ ♕c7=

2

Horwitz



Horwitz has pointed out the very important difference when the white king is not squeezed to b8 — he can lose the tempo and win the game!

1. ♘a5

Threatening ♘b7, therefore the next move is forced.

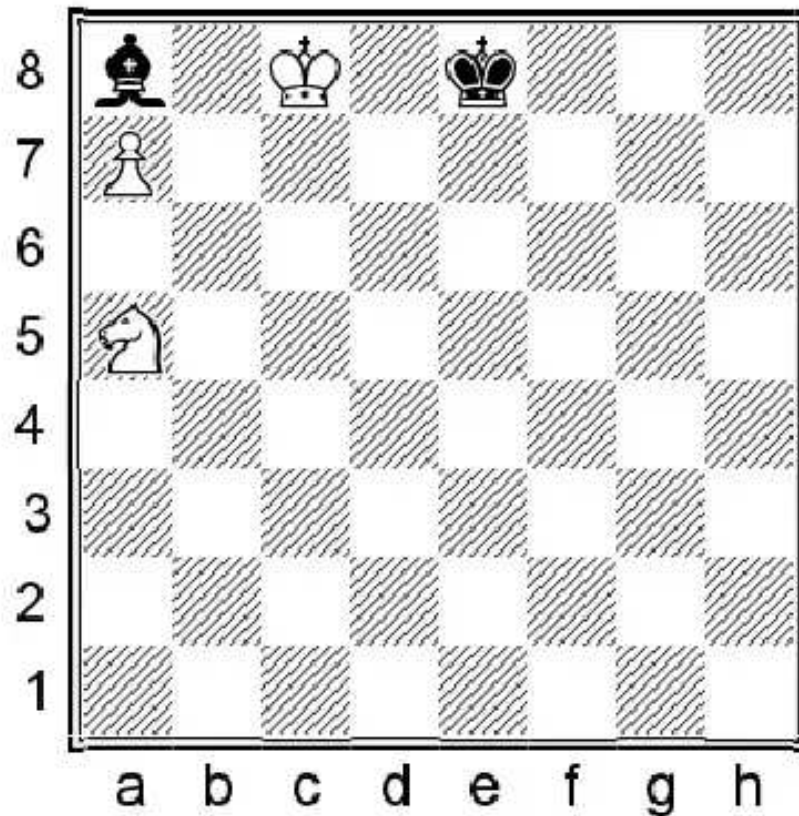
1... ♗a8

And now:

2. ♗c8!!

Not 2. ♗b8 as we know the position is drawn after 2... ♕d8!= (But not 2... ♕d7? which is met by 3. ♘b7! trapping the bishop and the king cannot move to d8, while after 3... ♕c6 4. ♗xa8 ♕c7 5. ♘d6+- wins.)

2... ♕e8



On 2...♔d6 White can already play 3.♕b8!+- Black should play ...♔d8 now to hold, but his king is misplaced. 3...♔d7  
4.♗b7! ♕c6 5.♕xa8 ♕c7 6.♗d6+-

**3.♗c4!**

Making use of the temporarily misplaced king on e8. Black cannot move with his bishop because of ♗d6 check followed by ♗b7.

**3...♔e7**

3...♔g2 4.♗d6+ ♔e7 5.♗b7+-

**4.♕b8! ♔d8**

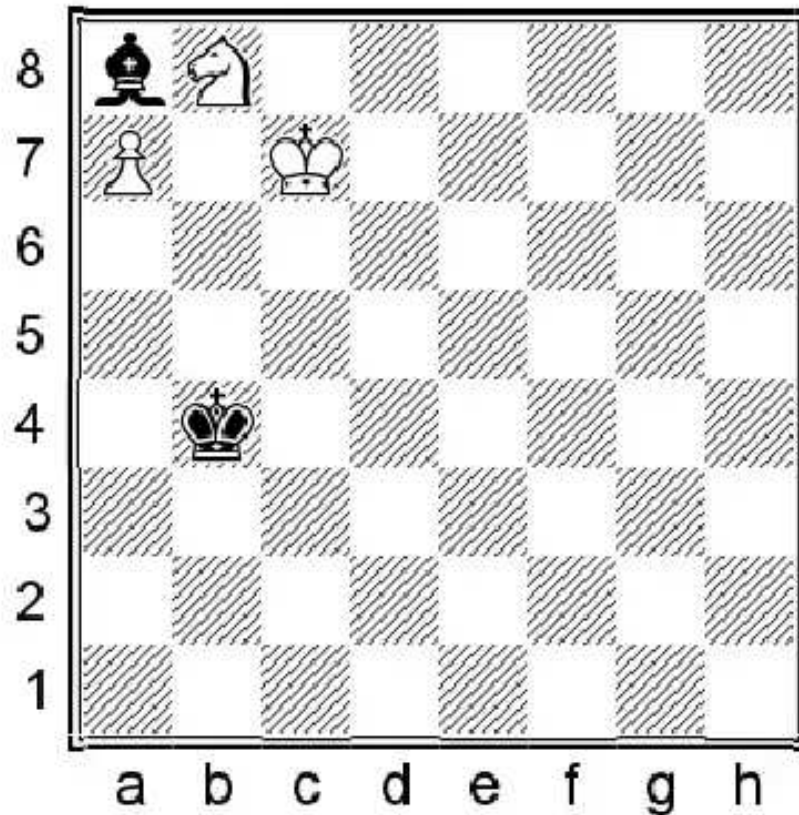
On 4...♔g2 5.♗a5+- White retreats and Black cannot play ...♔d8 and ...♔a8 in one move. ♗b7 is decisive next move.

**5.♗a5!**

And White has successfully given the right to move to Black, who thus finds himself in zugzwang.

**5...♔d7 6.♗b7 ♕c6 7.♕xa8 ♕c7 8.♗d6+-**

The king escapes from a8.



This next study of Horwitz' is a slightly more complex version of the previous ones. The black king is approaching from behind.

**1. ♖b6!**

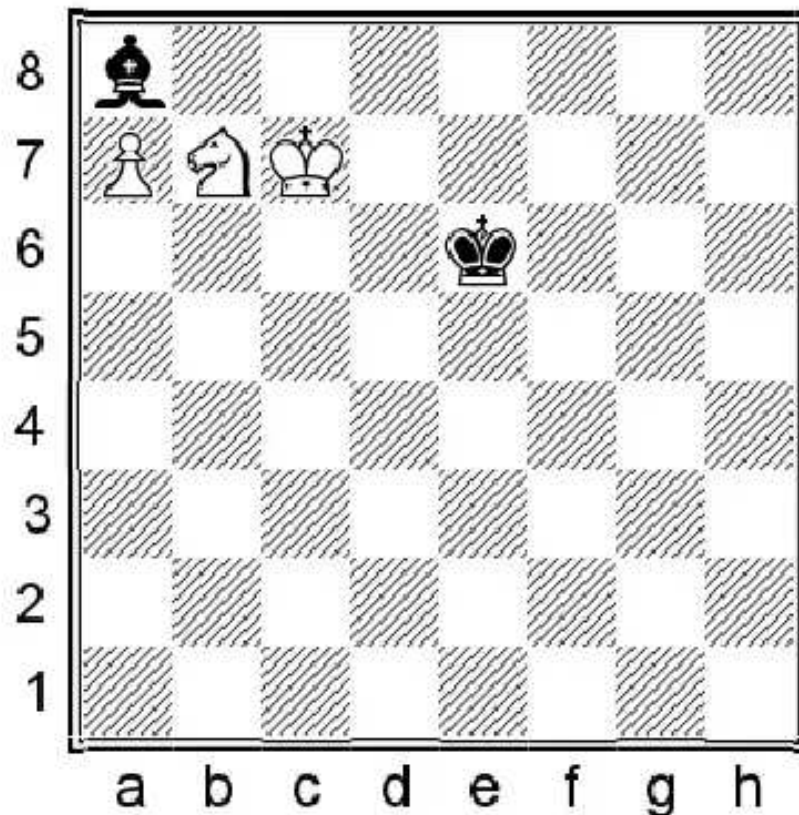
White must keep it away by the method of 'shouldering'.

**1... ♔c4**

If 1... ♔a4 the winning technique is to drive the knight to b7 followed by ♔c7-b8, which cannot be prevented 2. ♖c6 ♔b3 3. ♗a5+ ♔b4 4. ♗b7 ♔c4 5. ♔c7 ♔d5 6. ♔b8 Black should play ... ♔d7 to hold, but he fails by one tempo 6... ♔c6 7. ♔xa8 ♔c7 8. ♗d6+–

**2. ♗a6 ♔d4**

2... ♔f3 3. ♗c5 ♔a8 4. ♗b7 ♔d5 5. ♔c7 ♔e6



Now not ♖b8, which is met by ...♗d7, but rather 6.♗a5! ♖e7 and we have transposed into the previous example, so we know the correct move is 7.♗c8!!+-

3.♗c7

3.♗c5 is actually the same as the 2...♗f3 line. 3...♗d5 4.♗b7 ♖e6 5.♗c7

3...♗g2 4.♗e6+ ♖e5 5.♗d8 ♗a8 6.♗c7 ♗d5 7.♗b7!

It is easy to go wrong again with 7.♗b8? ♗d6! the game is drawn 8.♗xa8 ♗c7=

7...♗e6 8.♗a5 ♖e7

And we have again transposed to the previous example. White is winning after

9.♗c8!! ♖e8 10.♗c4! ♖e7 11.♗b8 ♗d8 12.♗a5! ♗d7 13.♗b7! ♗c6 14.♗xa8 ♗c7 15.♗d6+-

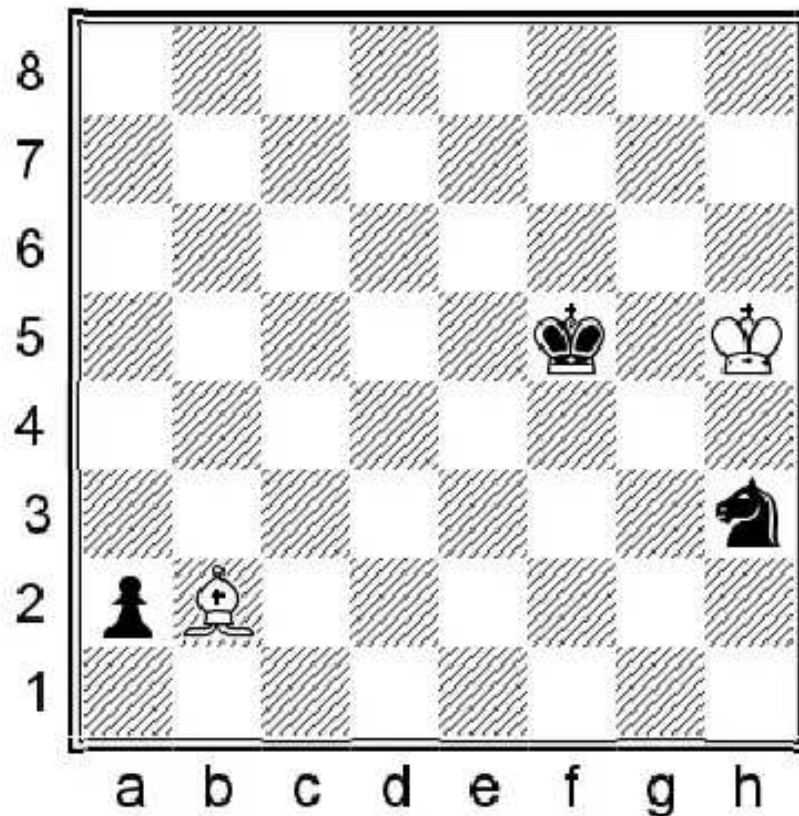
Yeah, not easy, but very instructive!

4

V. Gashimov

R. Ponomariov

World Cup, 2011



Let's see now why it is so very useful to know theoretical positions. Here Ruslan Ponomariov realizes his advantage with the known technique and thereby scored a very important point in the World Cup.

**82.♔h4 ♖f4 83.♔g3 ♕e4 84.♙a1**

84.♔f2 ♖d3+-+;

84.♙h8 ♖e2+ 85.♔f2 ♖d4-+

**84...♖d3**

Cutting the king off from the pawn to save enough time to drive the king to c2.

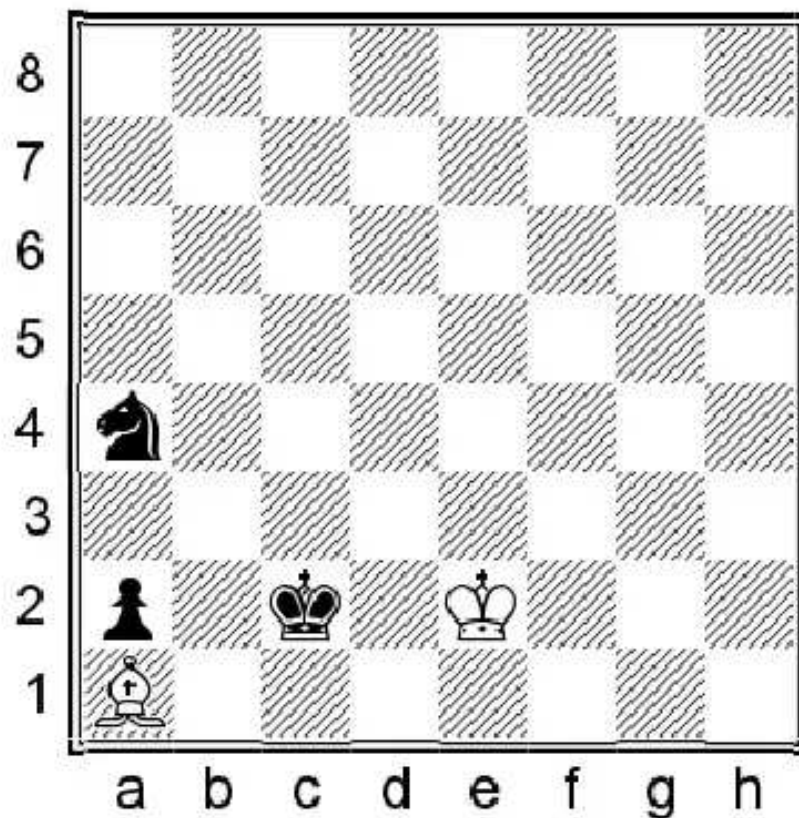
**85.♔g2 ♕e3 86.♔g3 ♖c5 87.♔g2 ♕e2 88.♔g3 ♖a4!**

Black has built the perfect Horwitz position and he can proceed with the king to c1.

**89.♔g2 ♖b6**

Well, the following knight maneuver is just to gain some extra time on the clock. We will reach the critical position after the 98th move.

**90.♔g3 ♖c4 91.♔g2 ♖e3+ 92.♔g3 ♖d1 93.♔g2 ♕e3 94.♔g3 ♕d2 95.♔f3 ♕d3 96.♔f4 ♕c2 97.♔e4 ♖b2 98.♔e3 ♖a4! 99.♔e2**



Here we are! Ponomariov is familiar with the winning idea and finds:

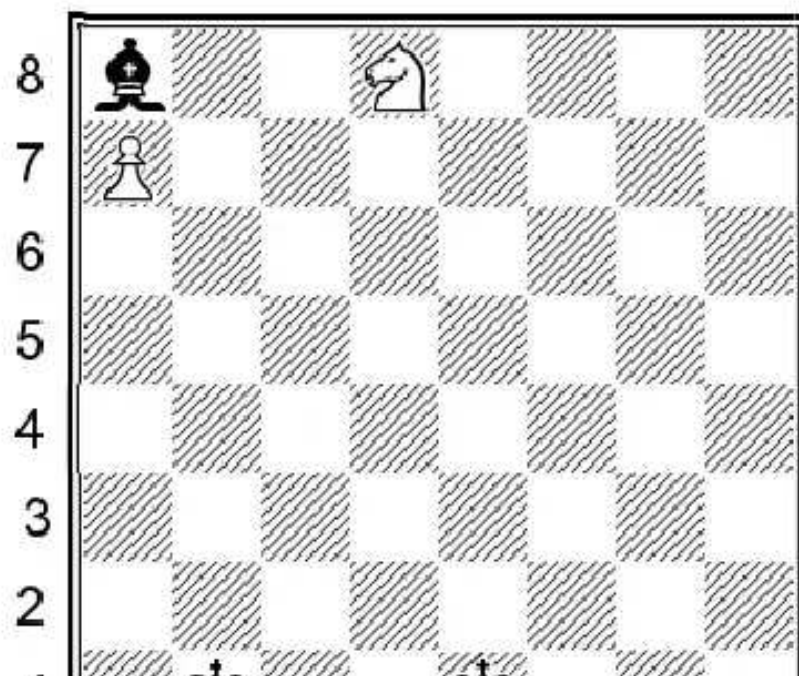
**99...♔c1!!**

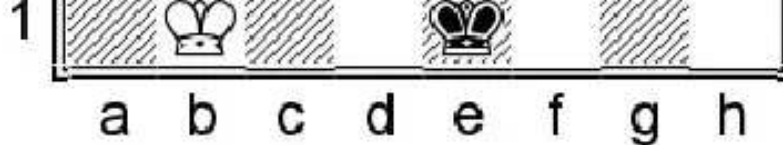
If somebody knows this move, the rest is already easy.

**100.♔d3 ♕b1 101.♔d2 ♖b2! 102.♔c3 ♕xa1 103.♔c2 ♖d3 0-1**

5

Nunn





Nunn produced some beautiful studies on this topic as well. The current one shows that the opposition motif can play the key role in this type of endgame as well.

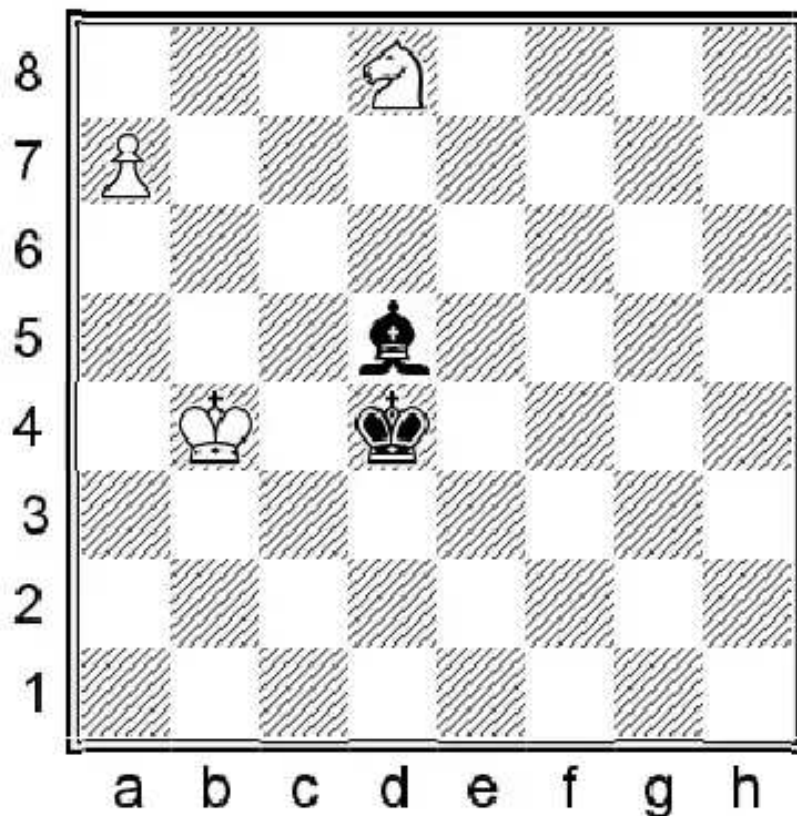
### 1.♔c1!

White should get his king to c7 as we have learned from the Horwitz studies. However the way to get there is not so easy, because after deep thought we can see that the position with the kings on c5 and e5 is one of mutual zugzwang.

1.♔c2? leads to a draw after 1...♔e2! 2.♔c3 ♔e3! 3.♔c4 ♔e4! 4.♔c5 ♔e5! and the problem is after any White move, Black can either play ...♔e6 or ...♔d6, getting close enough to the pawn to hold. 5.♔b6 (5.♔c6+ ♔e6!) 5...♔d6!=

### 1.♔c1! ♔f2

1...♔e2 2.♔c2! holds the opposition. If the bishop moves, White can already run with his king, because he reaches the c7 square: 1...♔d5 2.♔c2 ♔e2 3.♔c3 ♔e3 4.♔b4 ♔d4



5.♔b5! Threatening ♔c6, therefore Black must waste the crucial tempo 5...♔a8 6.♔b6!+- and the rest we already know.

### 2.♔b2!

Only the distant opposition wins! 2.♔d2? ♔f3! 3.♔d3 ♔f4! 4.♔d4 ♔f5! and White cannot play ♔d5 5.♔c5 ♔e5! =

### 2...♔e2 3.♔c2!

Opposition again! The target is still the same; White should only play ♔c5 when Black goes ...♔e5.

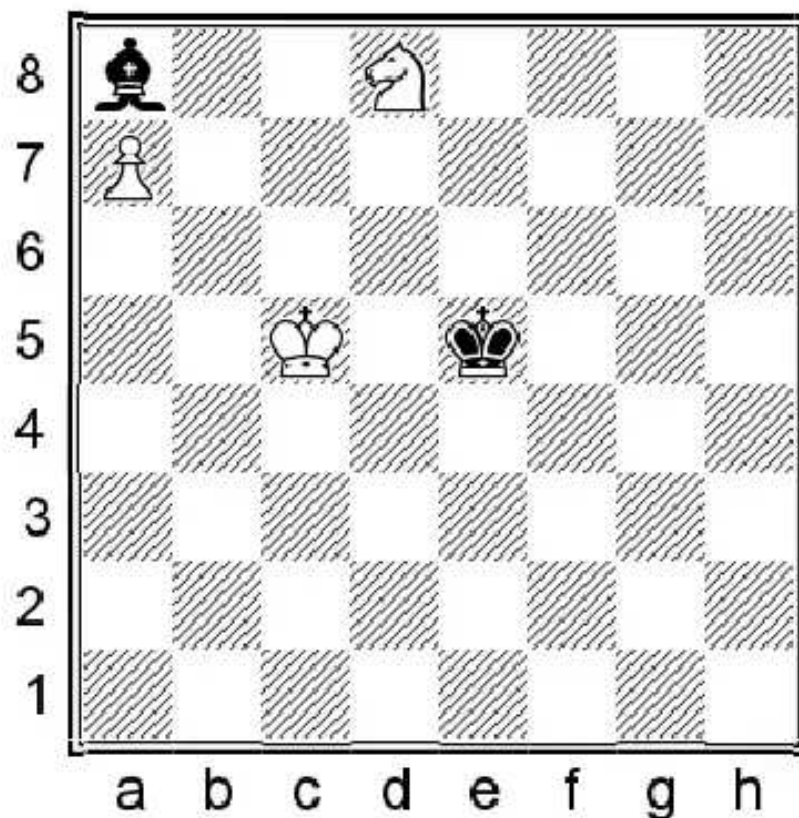
### 3...♔f3

The same technique with the distant opposition does not work for Black as his king strays too far, e.g. 3...♔f2 4.♔b3 ♔f3 5.♔b4 ♔f4 6.♔b5 ♔f5 7.♔b6+- and Black should play ...♔d6 to hold, but now ♔c7 is coming.

4.♔b3! ♕e3 5.♕c3!

We already know the technique. Getting closer square-by-square.

5...♕f4 6.♕b4! ♕e4 7.♕c4! ♕f5 8.♕b5! ♕e5 9.♕c5!

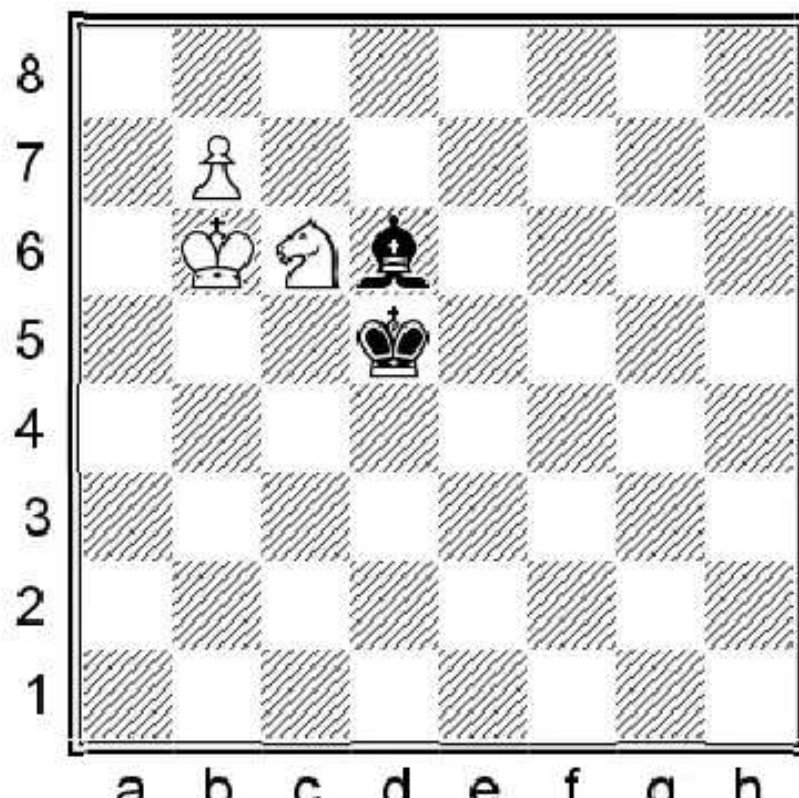


Here we are! The mutual zugzwang position, but now with Black to move. If the bishop moves ♖c6 wins, otherwise Black must allow ♕d6-c7.

9...♕f6 10.♕d6+–

6

Theoretical position



The bishop has two diagonals now to control the b8 square, although b8-a7 is too short and White can easily chase it away from there. So, White must focus on closing the h2-b8 diagonal, which can be done by transferring the knight to c7! He must be careful to prevent the black king's retreat to d7 from where it could establish control over the c7 square after which White could no longer win.

**1. ♖b4+!**

Heading towards c7 via a6.

**1... ♔e6**

1... ♖c4 2. ♗a6+- and ♗c7 wins next move.

**2. ♗c6!**

White must delay his plan for a move to prevent ... ♔d7! Black cannot hold the diagonal so he must switch to a7.

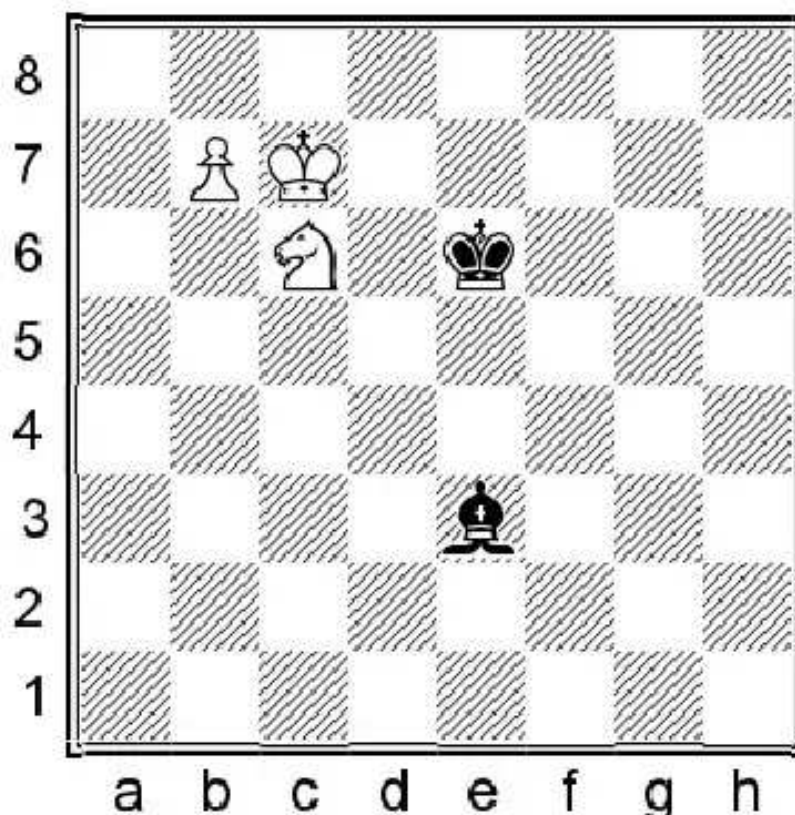
**2... ♗b8 3. ♗a6 ♗a7 4. ♗c7**

The king controls the b8 square after which White needs to attack the bishop on a7.

**4... ♔e7**

4... ♗e3 loses to 5. ♗c8 ♗a7 (5... ♗f4 6. ♗c7+-) 6. ♗c7+ ♔e7 7. ♗b5+-

**5. ♗b8 ♔e6 6. ♗c6 ♗e3**



Black still resists, but White again closes the diagonal with a knight on c7 and this time it is decisive

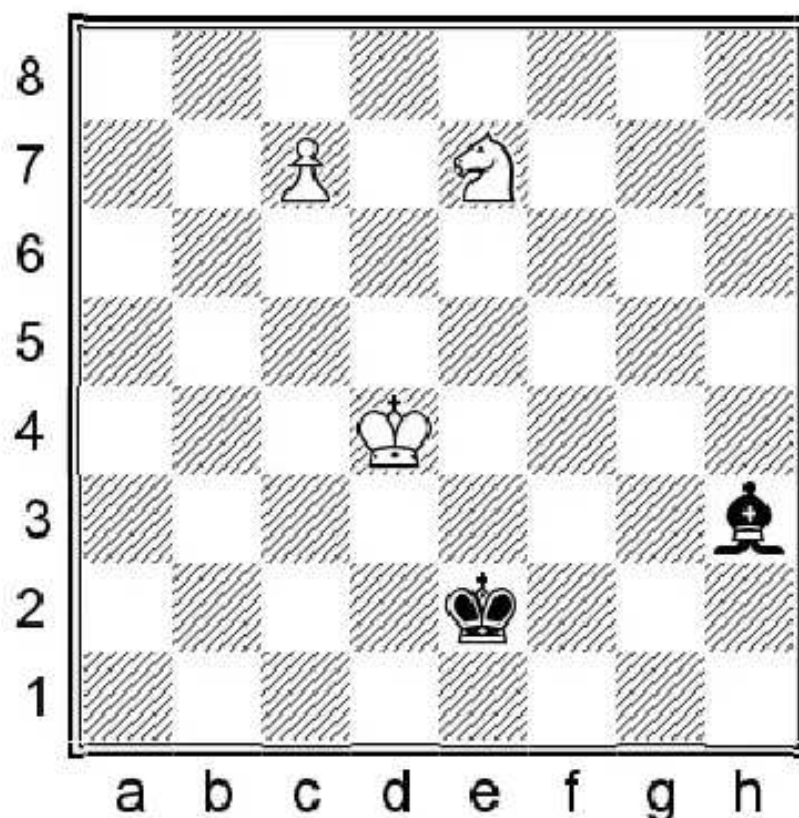
**7. ♗c8 ♗f4 8. ♗b4!+-**

Black has no defense against ♗a6-c7, thanks to the ideal placement of the knight which at the same time prevents

...♔d5-c6.

7

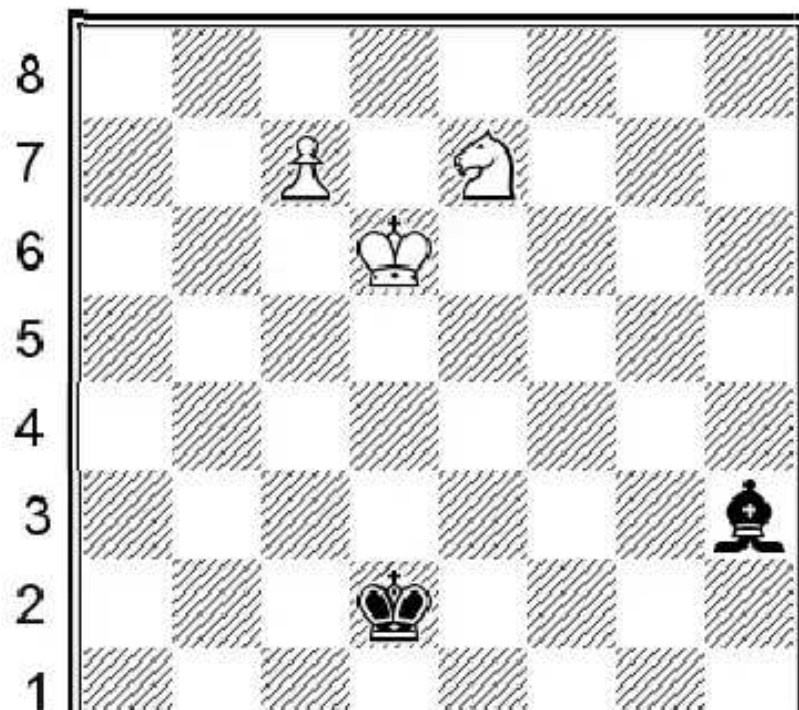
## Theoretical position

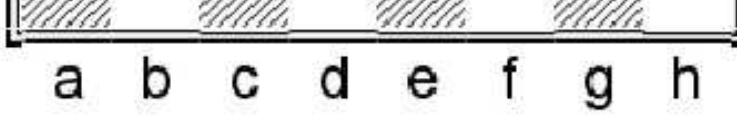


We have a c-pawn now, which means that the second diagonal c8-a6 is already three squares long. Black can hold the draw with perfect defense. The key to success is to bring the king behind the white king. We will soon understand the reasons for this... White wants to play ♕e5 with the threat of ♖f5, which can be prevented only by ...♔d7!

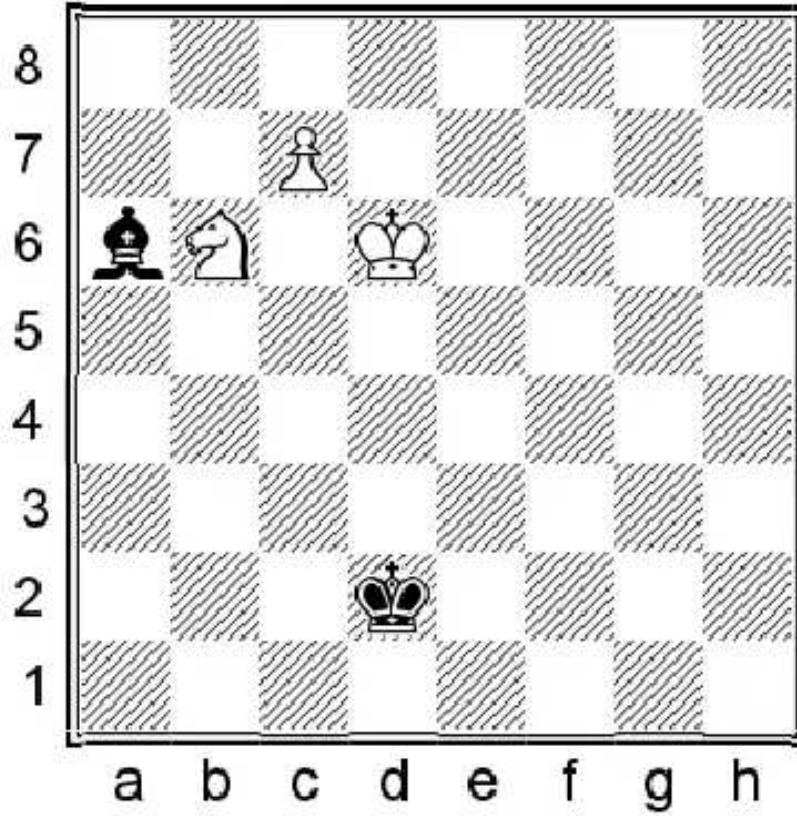
**1...♔d7!**

Black wins a crucial tempo, by playing ...♔d7 immediately. After any other move, for instance 1...♔d2 2.♕e5! Black must play ...♔d7 now to parry the ♖f5 threat, but then Black is just a tempo behind compared to starting with 1...♔d7. This tempo becomes decisive at the end. 2...♔d7 3.♕d6 ♔h3





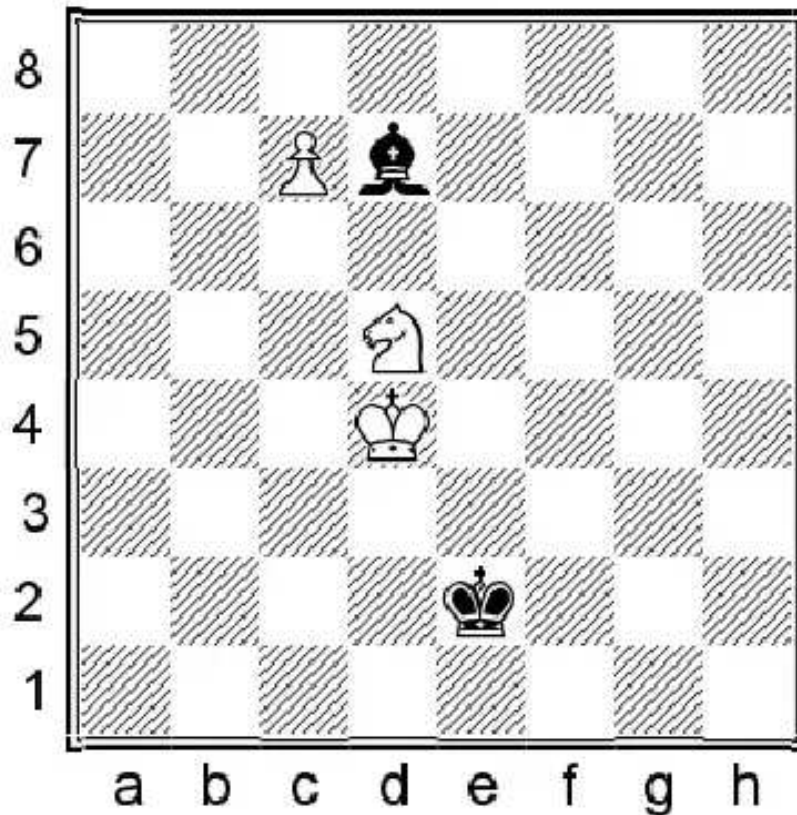
4. ♖d5! With the threat of ♜b6 after which ♜d7 cannot be prevented. Therefore the only move is to change diagonal with 4... ♙c8! 5. ♜b6 ♙a6 and now:



6. ♖a4! ♙e3 7. ♜c5 ♙c8 White is in time to play 8. ♙e7! ♙d4 9. ♙d8! Tempo. 9... ♙h3 10. ♜d7+-

**1... ♙d7! 2. ♙e5**

2. ♜d5 With the threat of ♜b6 followed by ♙c5-d6 and ♜d7 closing the diagonal. Black has no choice, he must change the diagonal with



2... ♖c8! 3. ♗b6 ♗b7 4. ♗a4 ♖c8 5. ♗c5 ♗d2! will be the same as the main line.

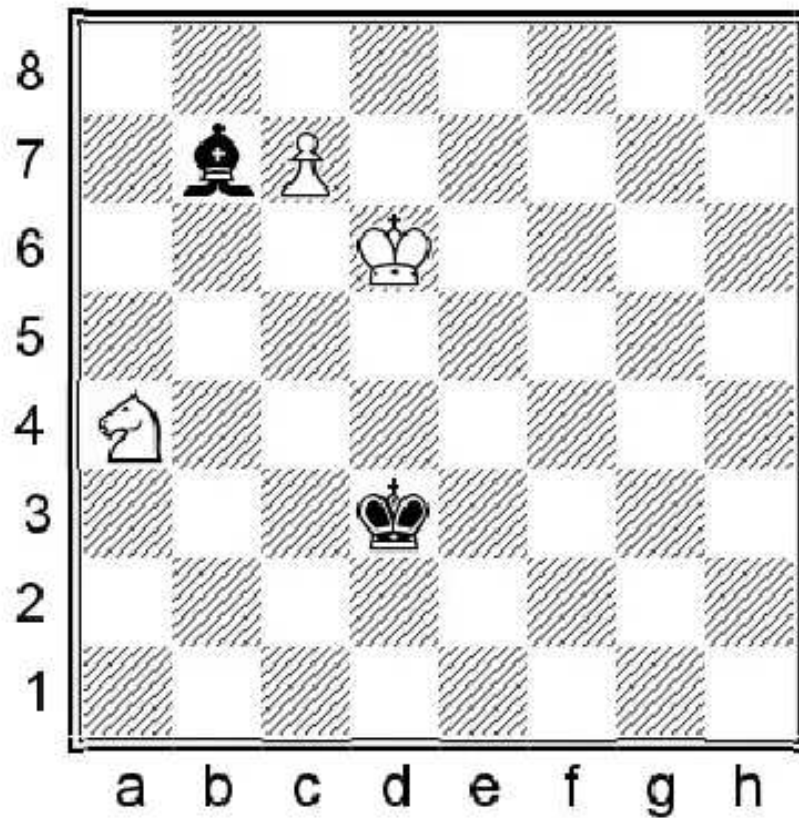
2... ♖d3! 3. ♖d6 ♗h3 4. ♗d5

4. ♗c6 does not change anything. 4... ♖e4 but not 4... ♖c4, which allows ♗e5 check and ♗d7. 5. ♗d8 (5. ♗b8 ♗c8=) 5... ♗c8=

4... ♗c8!

The only move to avoid ♗b6-d7.

5. ♗b6 ♗b7 6. ♗a4

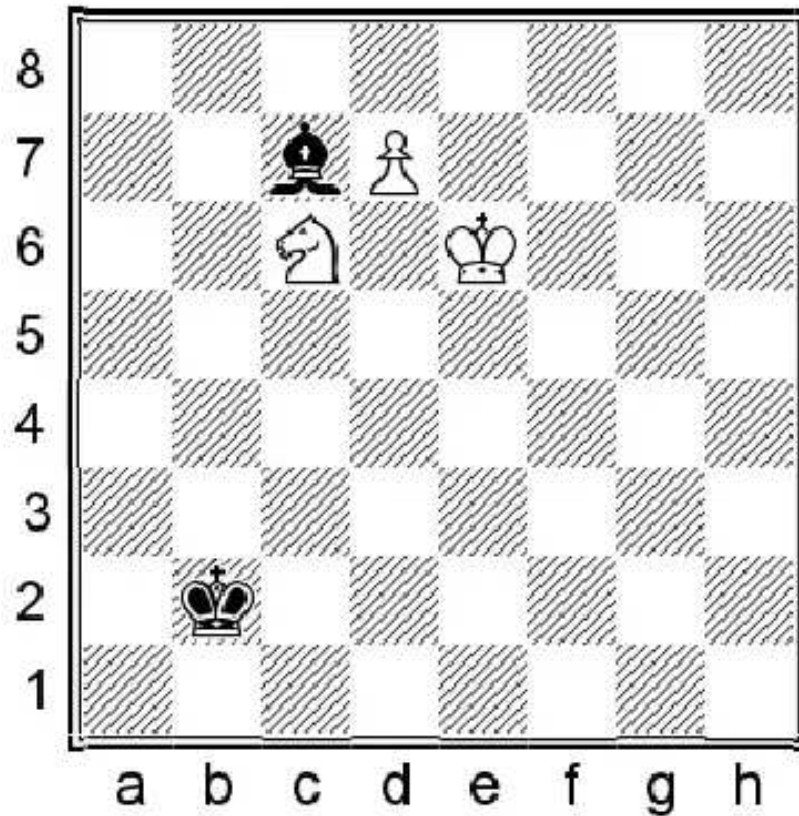


6... ♖d4! 7. ♗c5 ♗c8=

and Black holds because White cannot play ♖e7-d8. We should keep in mind this defensive method

8

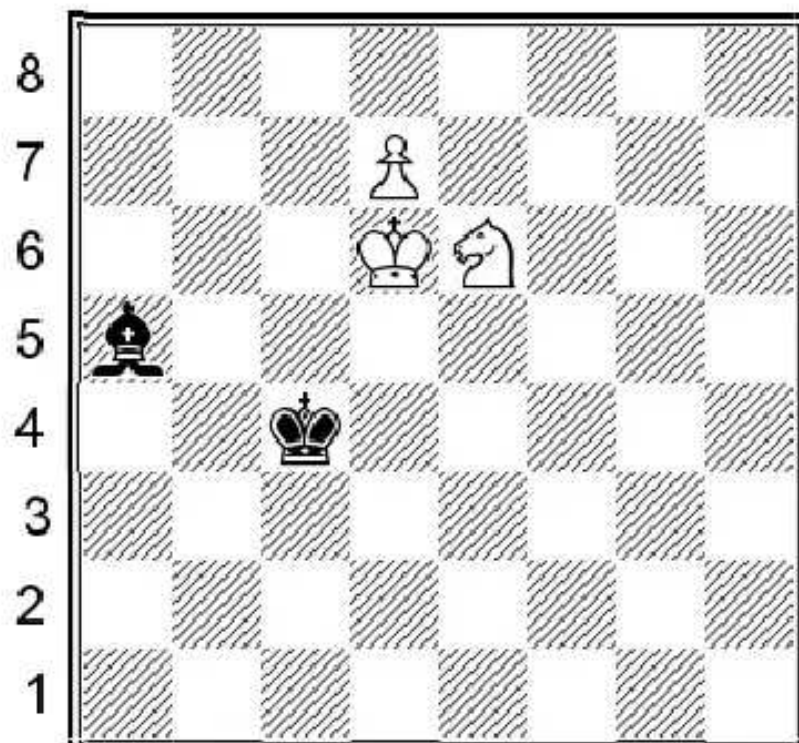
Averbakh



We have a central pawn now, which is the ideal pawn for the defensive side to deal with. Both diagonals are long enough for the bishop and the same defensive method as in the previous example was pointed out by Averbakh. White has two winning attempts, but in both cases Black holds.

**1.♔d5**

White wants to go around to b7. The other plan is 1.♔e7 ♕c3 2.♖d8 ♔c4 3.♖e6 ♙a5 4.♔d6 and the only defense against ♖c7 is

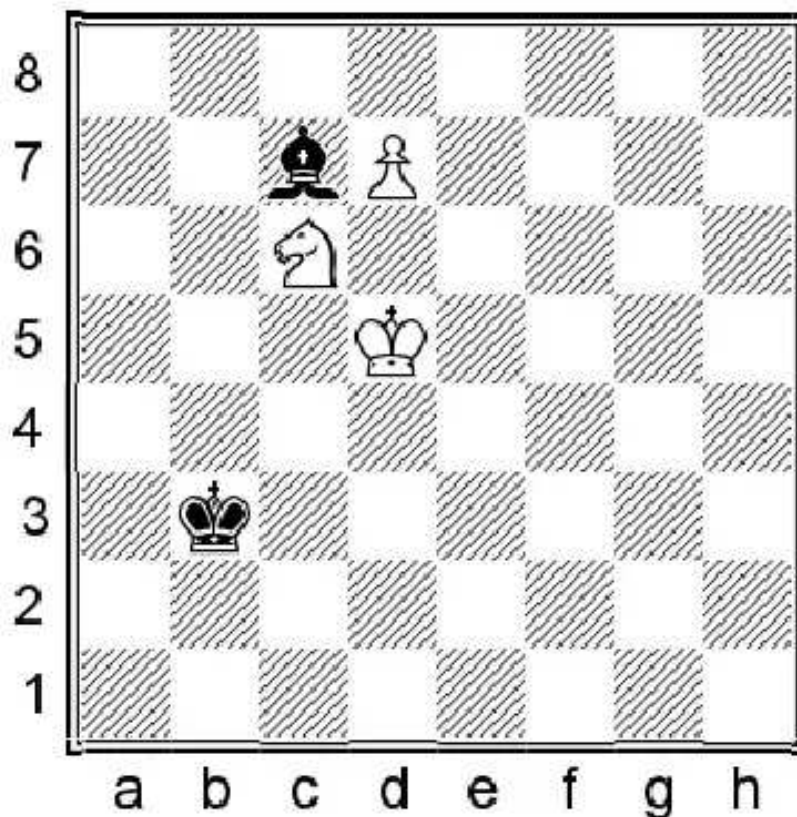


a b c d e f g h

4...♔b4+!= It is important to note that the black king has just arrived in time. It is standing ideally behind the white king, which prevents White from interposing with ♖c5. Black goes ...♕e7 next and holds the draw.

1.♔d5 ♕c3!

Not 1...♕b3? with the idea of blocking the king's route with ...♕a4, because it allows



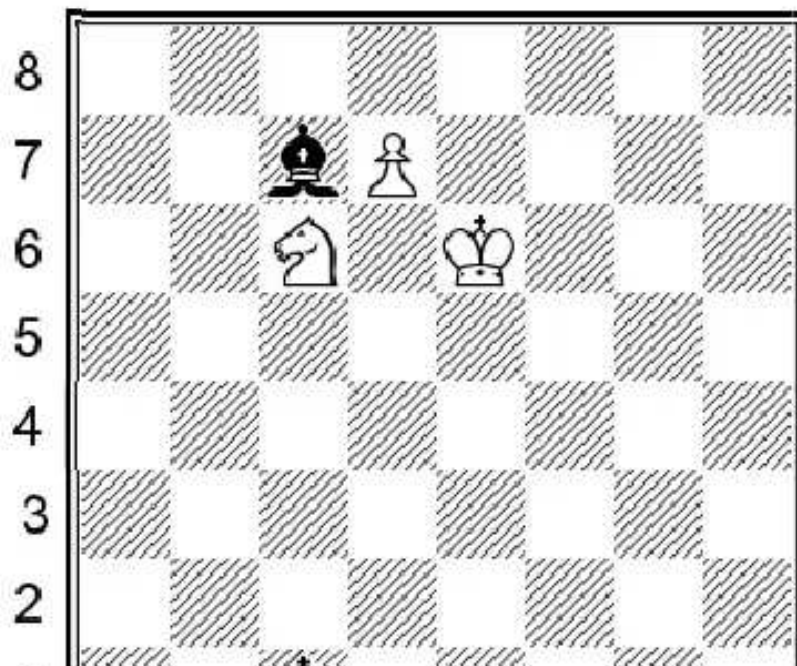
2.♖d4+ ♕b4 3.♖e6 ♕a5 4.♕c6+- when there is no way to parry the ♖c7 threat.

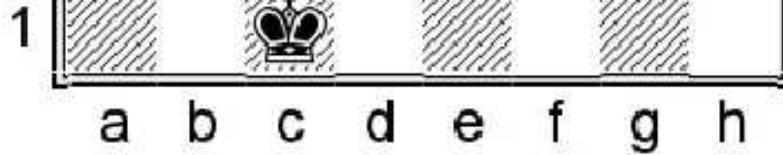
2.♕c5 ♕d3! 3.♕b5 ♕e4 4.♕a6 ♕d5 5.♕b7 ♕d6=

Just in time. A great demonstration of how the defensive side should hold such endgames.

9

Averbakh





Averbakh pointed out that if the black king is one square more remote, he can no longer hold the draw. He actually fails by one tempo in all lines. The winning method is instructive...

### 1. ♖e7! ♗d2

The other defensive attempt is 1... ♗b2 2. ♘d4! ♙a5 3. ♘e6 White wants to interfere with ♗d6-♘c7. 3... ♙b4+ (3... ♗c3 4. ♗d6 ♙b4+ 5. ♘c5! Not allowing the bishop to e7. 5... ♙a5 6. ♘b7 ♙b6 7. ♗c6+–) 4. ♗f6! ♙c3+ (4... ♙a5 5. ♗e5 ♗c3 6. ♗d6 ♙b4+ (6... ♗c4 7. ♘c7 ♙b4+ 8. ♗e6+–) 7. ♘c5+–) 5. ♗f5 ♙a5 6. ♗e4 ♗b3 7. ♗d5+– and there is no way to prevent ♗c6-♘c7.

### 2. ♘d4! ♗e3 3. ♘e6 ♙a5

3... ♙g3 also loses to 4. ♗e8 ♙h4 5. ♘f8 Black should play ... ♗f5 now to hold, but he fails by one tempo 5... ♗e4 6. ♘g6+– and ♘e7 next.

### 4. ♗d6

♘c7 is threatened.

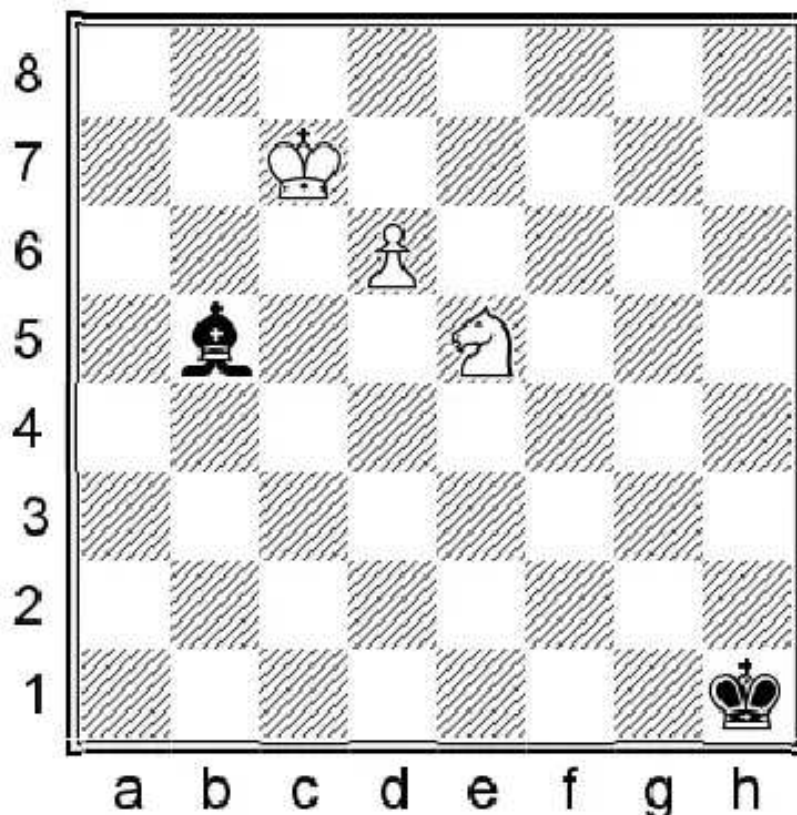
### 4... ♙b4+

As we have seen in the previous example, Black should have his king on c4. Now, White wins after

### 5. ♘c5! ♙a5 6. ♘b7 ♙b6 7. ♗c6+–

10

Theoretical position



The pawn has not reached the 7th rank yet. In the case of a central pawn, which to re-iterate is the ideal pawn for the

defensive side to face, both diagonals (a4-e8 and h3-c8) are long enough and the bishop cannot be excluded. It is very interesting to mention that Black holds the draw even without the help of his king.

**1...♙e8!**

The only move to avoid ♖c6!

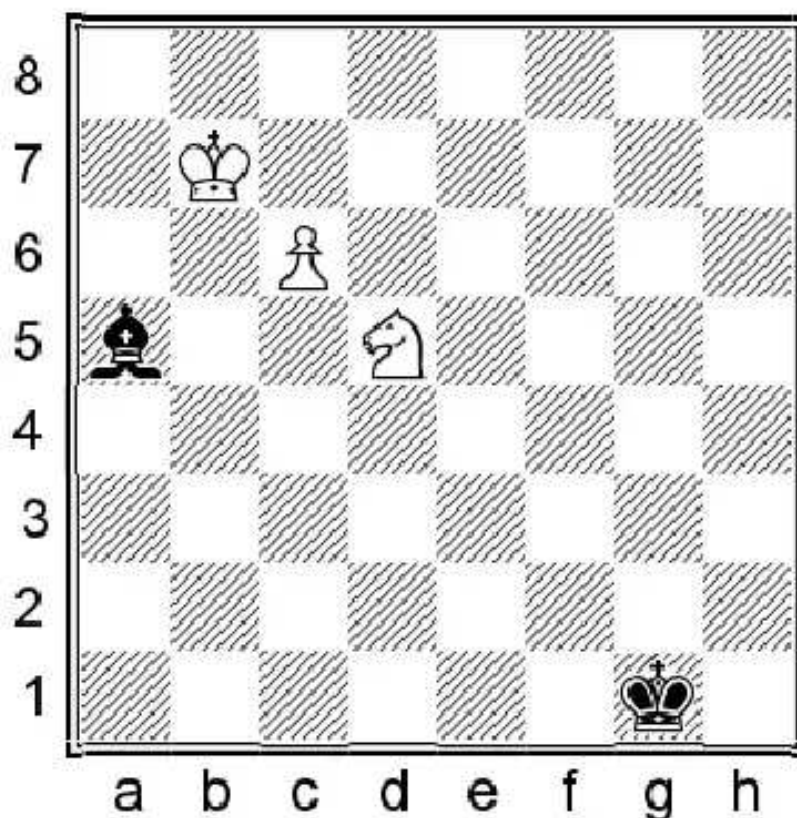
**2.♜d7 ♔g2 3.♜d8 ♙g6 4.♜e7**

The threat is ♜c5 and after ...♙f5, ♜e6 wins. Therefore Black has to play

**4...♙f5 5.♜c5 ♙c8! =**

The king and the knight are simple unable to exclude the bishop from both diagonals.

## 11 Theoretical position



The pawn is on the 6th rank, but this time it is on the c-file. The big difference is that the second diagonal, the one on a5-d8, is simply not long enough for the bishop. Black cannot hold the draw without the help of the king and White can exclude the bishop from the diagonal with the following maneuver:

**1...♙d8**

Otherwise ♜b6 wins.

**2.♜f4 ♔f2 3.♜e6 ♙a5 4.♔a6+-**

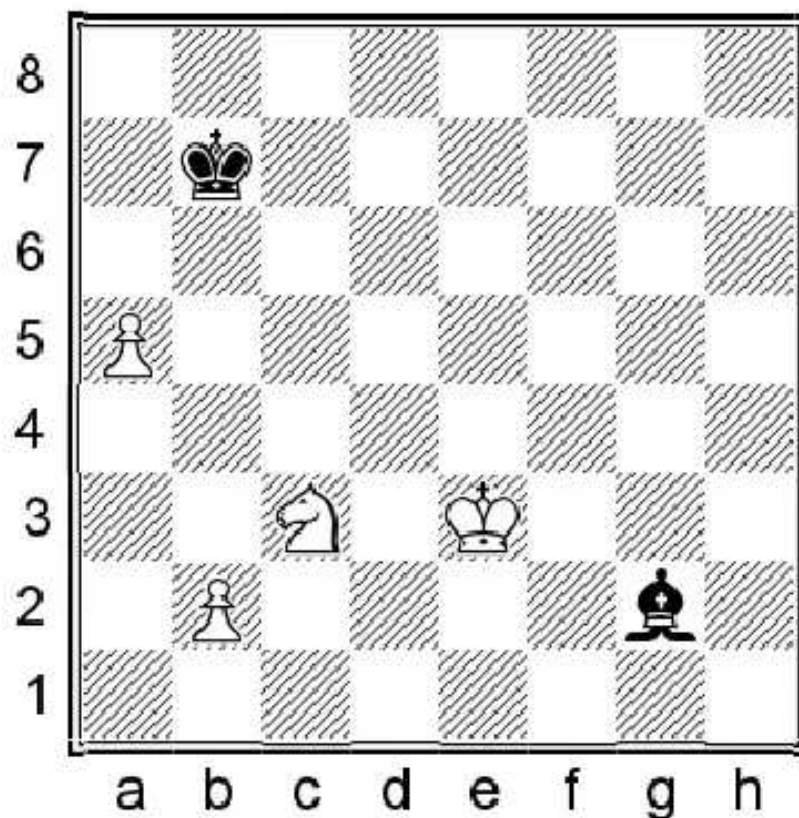
And the bishop has to leave the diagonal and the pawn promotes.

12

D. Alsina Leal

S. Sulskis

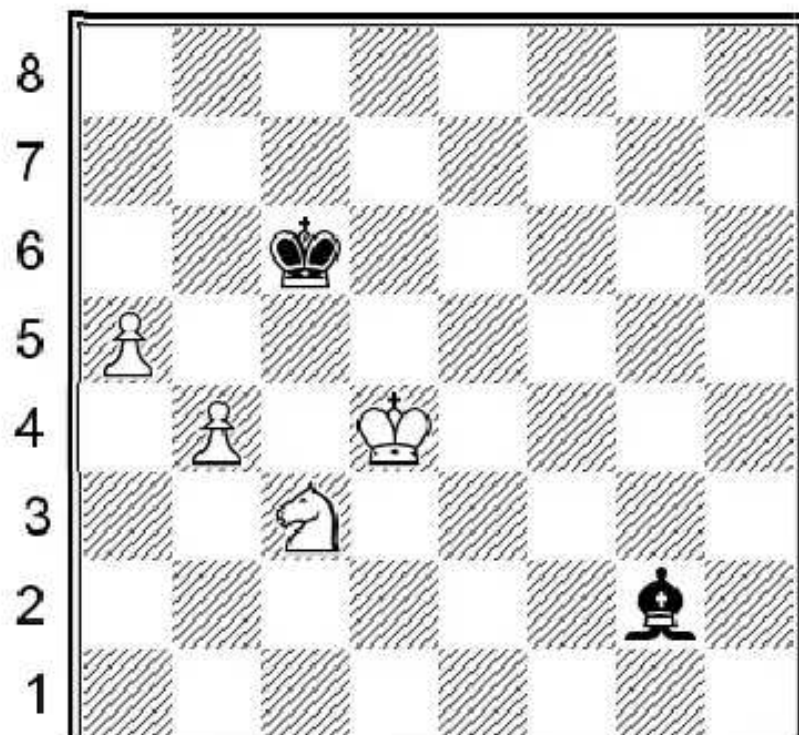
Heating 2013



We close the chapter with another important theoretical position. The black king is ideally placed in front of the pawn, but White is two pawns up. It might sound a bit surprising, but Black can hold the draw — although as we will see in the critical 82.b4 line, it is practically impossible to play it perfectly. Still, it is very useful to study and to be familiar with the plans as this is a position that we could easily face in a practical game.

**81.♔d4 ♖c6 82.♔c4**

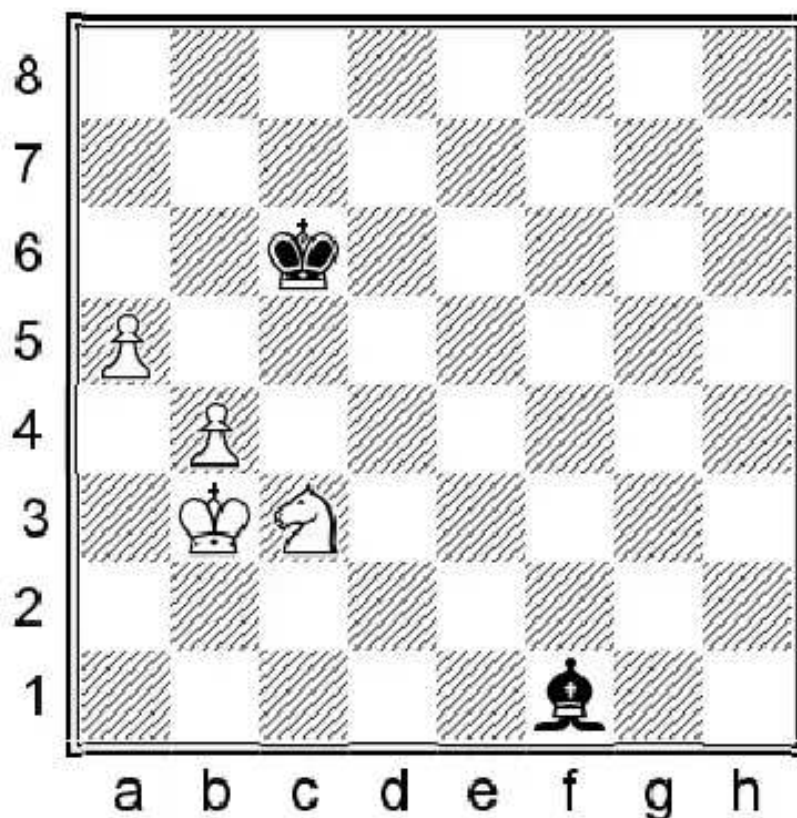
White drives his king to the queenside first before advancing b4 to support the b5 move. 82.b4 has to be answered by



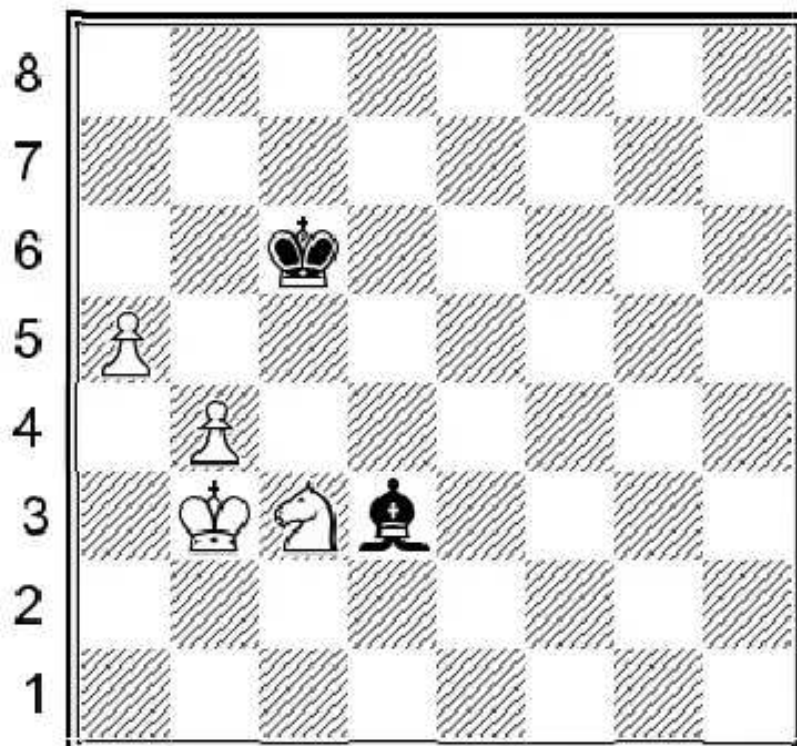
a b c d e f g h

82...♙f1! Black must prevent b5 at any cost, but if he succeeds, then without the b5 move White cannot make progress. Whenever he moves his knight, he must deal with ...♙b5. It looks like the most dangerous winning attempt is to drive the king to a4, trying to execute the b5 break. 83.♙e3 (83.♙e5 White might try to move around with his king to a7 83...♙d3 84.♙e6 ♙f1 85.♙e7 ♙d3 86.♙d8 ♙a6! Saying stop to the king. White must search for another plan because he

cannot make progress this way. 87.♘e4 ♙b5 88.♙c7 (88.♘c5 ♙xb4=) 88...♙xb4 89.♙b6 ♙d3= Thanks to the ideal placement of the black king White cannot advance his a-pawn, because he cannot interject his knight on b5.) 83...♙c4 84.♙d2 ♙f1 85.♙c2 ♙c4 86.♙b2 ♙f1 87.♙b3



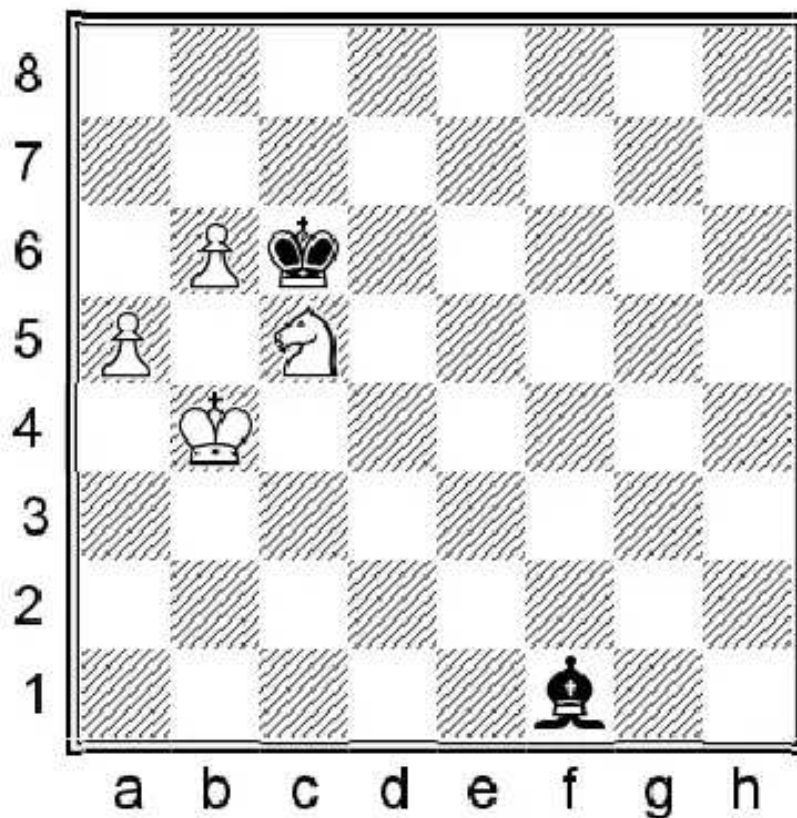
Black has only one plan which holds the draw and it is extremely hard to find over the board! We should also take a look at how 87...♙d3 is losing, and we are going to face some amazing plans in this seemingly easy position. 87...♙h3!! Black must regroup the bishop to d7. (The most natural move 87...♙d3 with the idea to meet ♙a4 with ...♙c2 check loses to



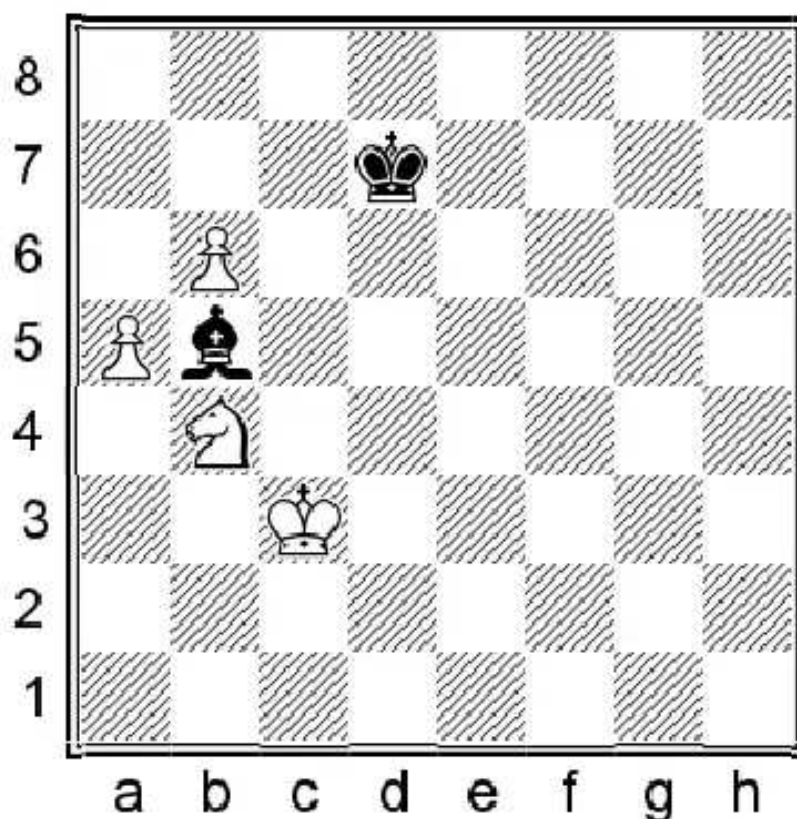
a b c d e f g h

88. ♔a3! and Black is in zugzwang. He must allow b5 or ♔a4. With the bishop on the f1–a6 diagonal he is losing.

88... ♙f1 89. ♔a4 ♙d3 90. b5+ ♔c5 91. b6! White gets his king to b4 in any case. 91... ♙c2+ (91... ♙a6 92. ♖e4+ ♔d5 93. ♔b4!+- and the knight cannot be taken because of ♔c5.) 92. ♔a3 ♔c6 93. ♔b4 ♙d3 94. ♖a4 ♙e2 95. ♖c5 ♙f1

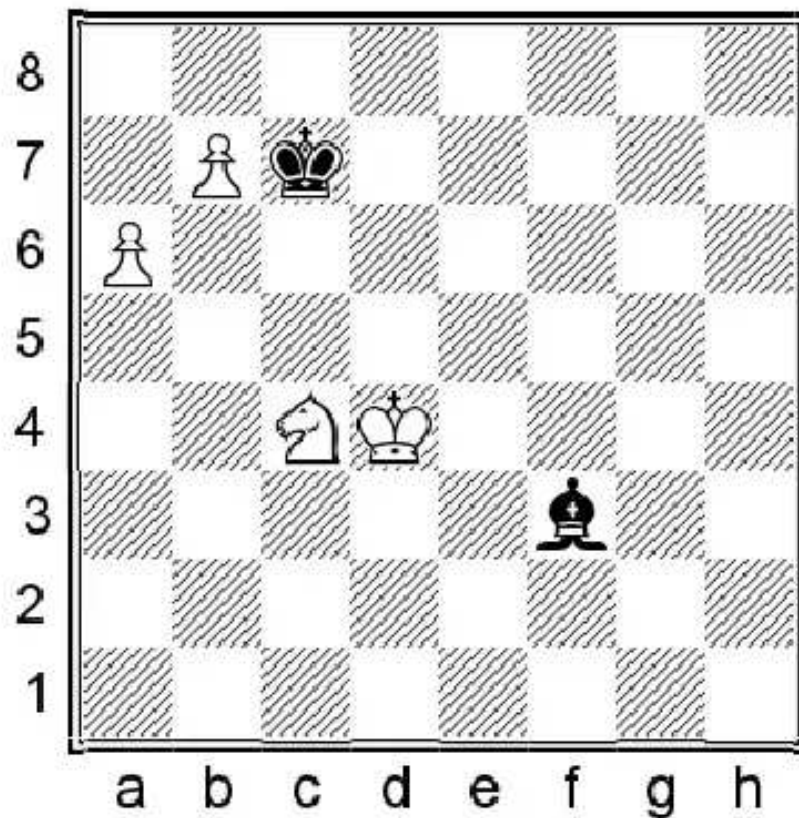


White has made significant progress since the initial position and the win seems to be really close. However he still needs to work very hard for it. 96. ♔c3! ♙b5 97. ♖d3! regrouping the knight to b4. 97... ♔d6 98. ♖b4 ♔d7

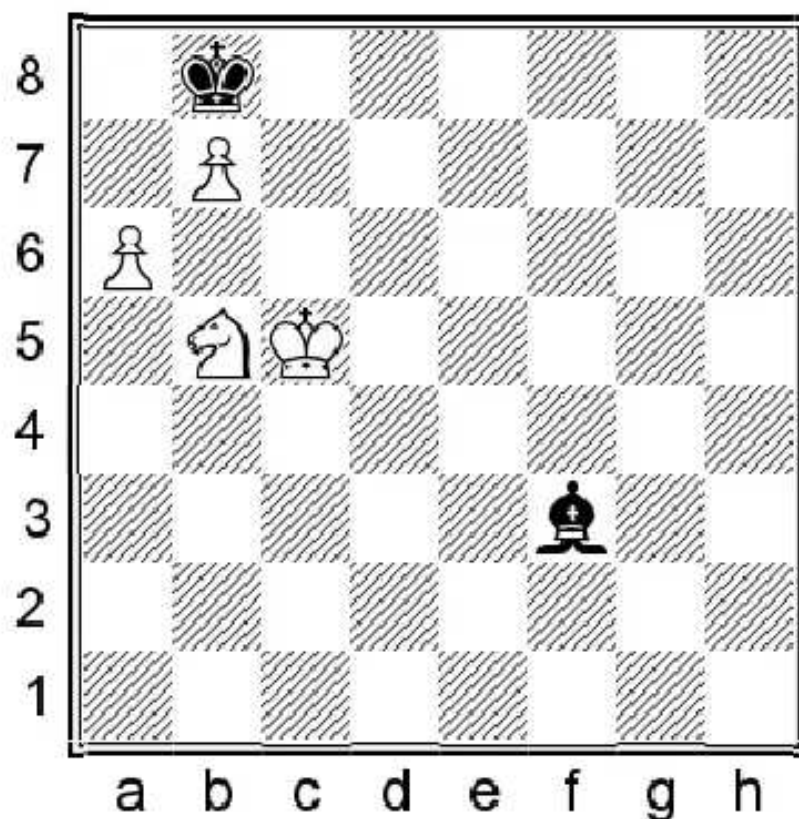


Black still just waits. a6 is premature because of ... ♙xa6 and ... ♔c6, while ♔d4 is met by ... ♔d6. The win can be achieved by a triangulation! Completely unexpected indeed. 99. ♔c2! ♔d6 100. ♔d2 ♔d7 101. ♔c3 ♔d6 102. ♔d4 Black is forced to move with his bishop, otherwise the king goes to c5. 102... ♙e2 103. ♖d3 Finally the bishop is cut from the a5 pawn. 103... ♔c6 104. ♖e5+ ♔d6 (104... ♔b7 105. ♔c5+-) 105. ♖c4+ ♔c6 106. a6! After long maneuvering. White

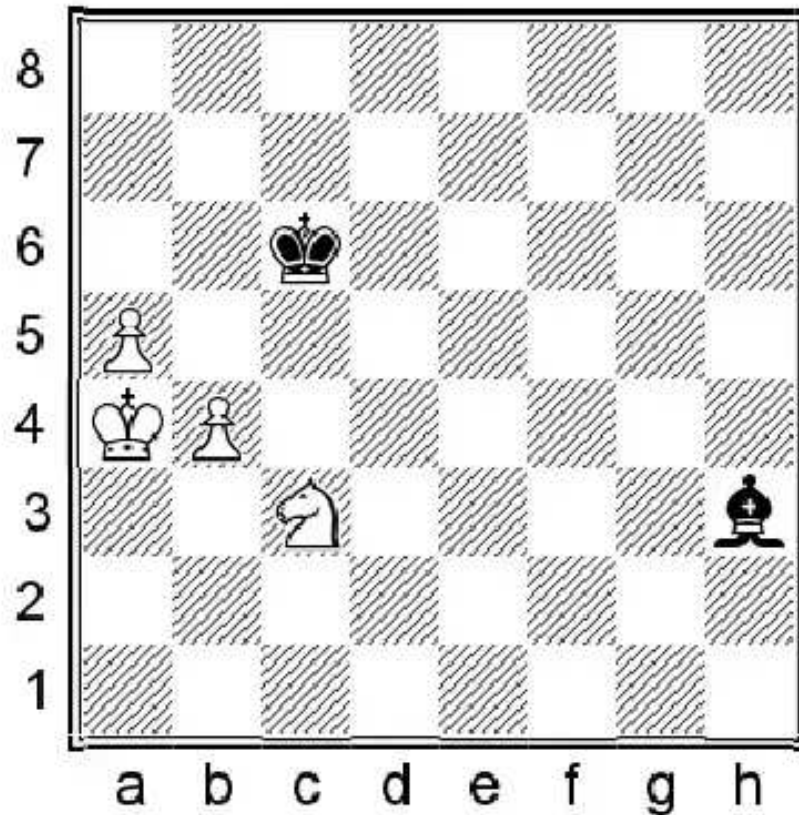
as pawn. 105...♔c7 106...♔c8 (106...♔c7 107...♔c8) 107...♔c7 108...♔c8. After long maneuvering, White can finally advance his pawn. 106...♔f3 (106...♔xc4 107.a7+–) 107.b7 ♔c7



108.♔d6! Another only move! (108.♔a5 only leads to a draw, because White cannot improve his position. Black just passes with his bishop and, if the knight moves, he takes on b7. 108...♔g2=) 108...♔g2 109.♔c5 ♔f3 110.♔b5+ ♔b8



The final blow is 111.♔b6! At first sight a blunder, but... 111...♔xb7 112.a7+!+– We have to admit, this entire endgame is very difficult.) 88.b5+ (88.♔a4



88...♔d7! Another only move. 89.b5+ ♖c5 90.♗e4+ (On 90.a6 Black can force a drawing simplification with 90...♗xb5+ 91.♗xb5 ♖b6 92.a7 ♖b7=) 90...♖c4 White cannot hold his pawns.) 88...♖c5 89.b6 ♗g2! 90.♖c2 ♗b7 and ♖b4 is the threat. White cannot make progress.

**82...♗f1+ 83.♖b4 ♗d3**

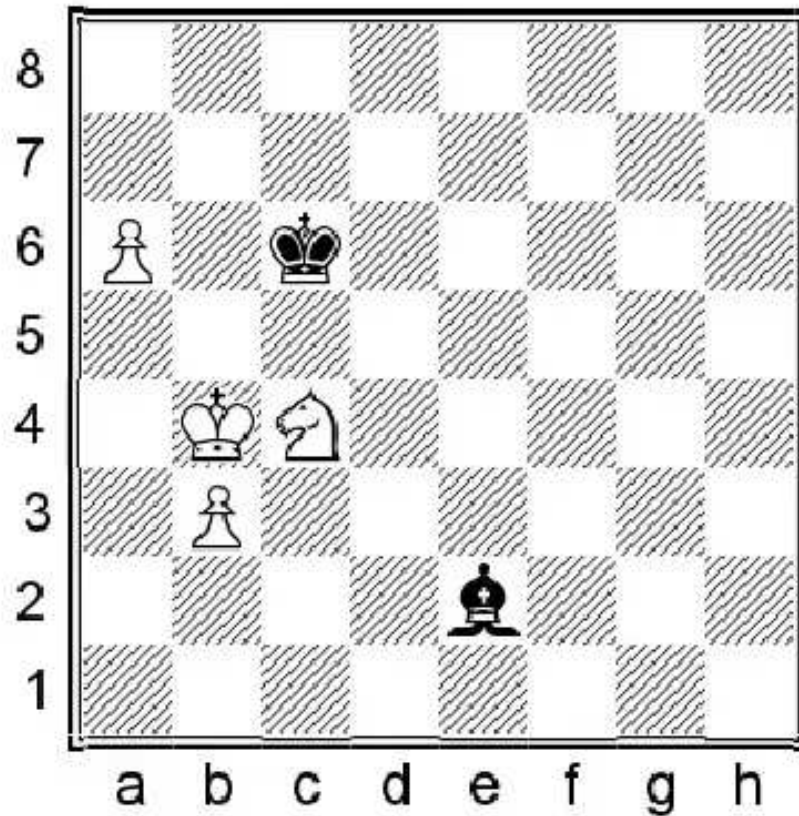
Black keeps on waiting. White tries for a while to proceed without the b4 move, but he cannot do anything.

**84.♗a4 ♗b5 85.♗b6**

85.♗c5 ♗f1 86.a6 ♖b6= Of course, Black does not want to take on a6 so he just waits with his bishop and White is tied. The passed pawns should be advanced together.

**85...♗e2 86.♗c4 ♗f1 87.b3 ♗e2 88.♗d2 ♖d5 89.♗b1 ♖c6 90.♗a3 ♗a6**

Black does not want his bishop to be excluded from the game with ♗c4. However it was possible to play 90...♗f1, just note that precise defend is needed after 91.♗c4 ♗e2! 92.a6



92...♔d1! Only move! Black had to prevent ♔a5! The knight cannot move because of ...♔b6. 93.♔a4 ♕c2 Black just waits 94.♔a3 ♕d1 95.b4 ♔b5 96.a7 ♕f3= and the pawns are not well-enough supported.

**91.♖c4 ♗d5 92.♖e3+ ♗c6 93.♖f5 ♕d3 94.♖d4+ ♗d5 95.♔c3 ♕f1 96.b4**

White has finally put the pawn on b4, but what to do next? Black keeps on waiting.

**96...♕c4 97.b5**

97.♖c2 ♕a6 98.♖e3+ (98.♖a3 ♗c6= Black holds.) 98...♗c6 99.♖f5 ♗d5=

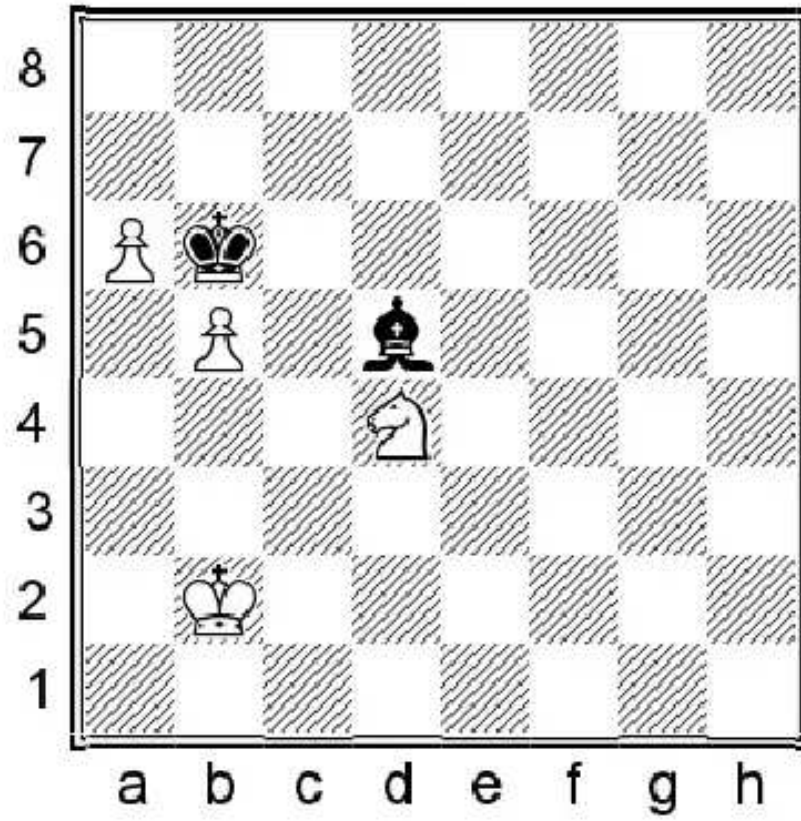
**97...♔c5! 98.a6**

98.b6 ♕a6= White is in zugzwang, he must allow ♔b5.

**98...♕d5 99.♔b2**

99.♔d3 ♕c4+ 100.♔e4 ♔b6=

**99...♔b6**



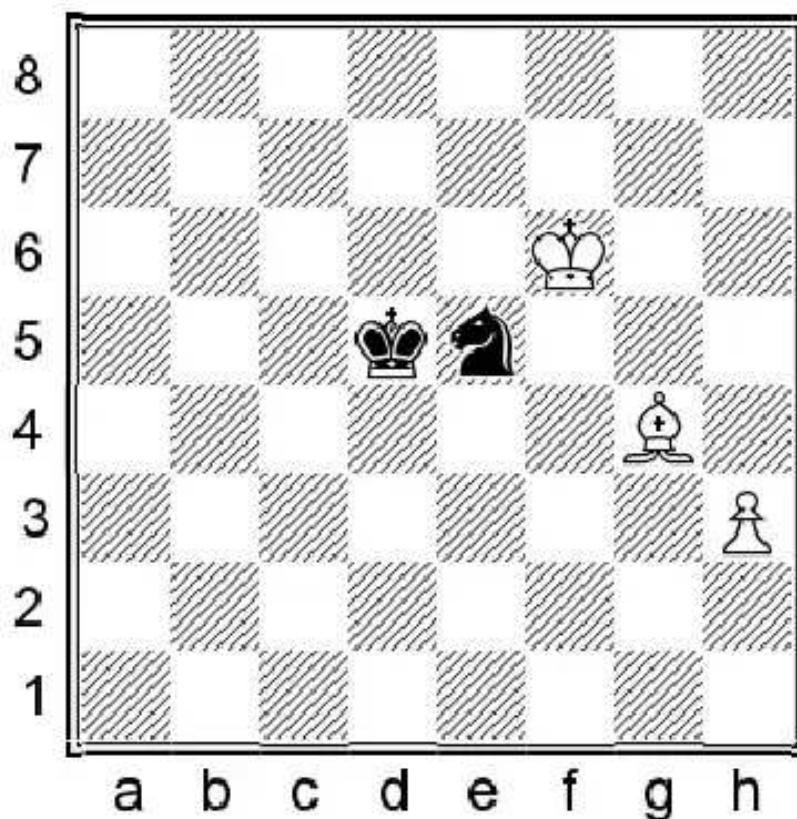
Black has blocked the pawns and he is ready to sacrifice his bishop.

**100.** ♔a3 ♚c4 1/2

### 3.2. BISHOP + PAWN VS KNIGHT

On this topic, the key words are clearly zugzwang and mutual zugzwang. If the knight is able to catch the running pawn, the question is whether it can be placed in zugzwang or whether it can hold its position. There are hundreds of beautiful studies where the bishop is going three times around the board before we finally reach a decisive zugzwang, but we are again trying to focus on the more practical-looking examples.

**1**  
**R. Fischer**  
**M. Taimanov**  
**Vancouver, 1971**



We start our studies with the h-pawns. In this case, the knight can stop the pawn from only one side — which clearly reduces his chances for a successful defense. However an important detail is whether the corner matches the bishop's color-control or not? In this famous endgame Black failed to hold the draw, despite the pawn not yet being far-advanced and the h8 corner not fitting the bishop's color.

**81...♔e4?**

A blunder and also an illogical move. The black king should head towards the corner. In which case Black can also sacrifice his knight sometimes just to let the king occupy the h8 square and save the game. The most accurate way to draw was 81...♘d3! 82.h4 ♘f4 White must attack the knight in order to let the pawn advance, but 83.♕f5 allows 83...♔d6! 84.♕xf4 ♔e7=

**81...♔e4? 82.♙c8!!**

The only winning move. The point is to have ♖b7 if Black tries to stop the h-pawn with ...♗f3.

**82...♗f4**

82...♗f3 83.♕b7+ ♗f4 84.♕xf3 ♗xf3 85.♗g5+-;

82...♗d3 83.♕f5+-

**83.h4 ♗f3**

83...♗g4+ does not change anything, because after 84.♗g7+- the h-pawn is unstoppable.

**84.h5 ♗g5 85.♕f5!**

The bishop dominates the knight by taking all his squares under control.

**85...♗f3 86.h6 ♗g5**

If it was Black's move he could not hold his knight on g5 which means the promotion of the h-pawn. Therefore the last task is to set Black into zugzwang.

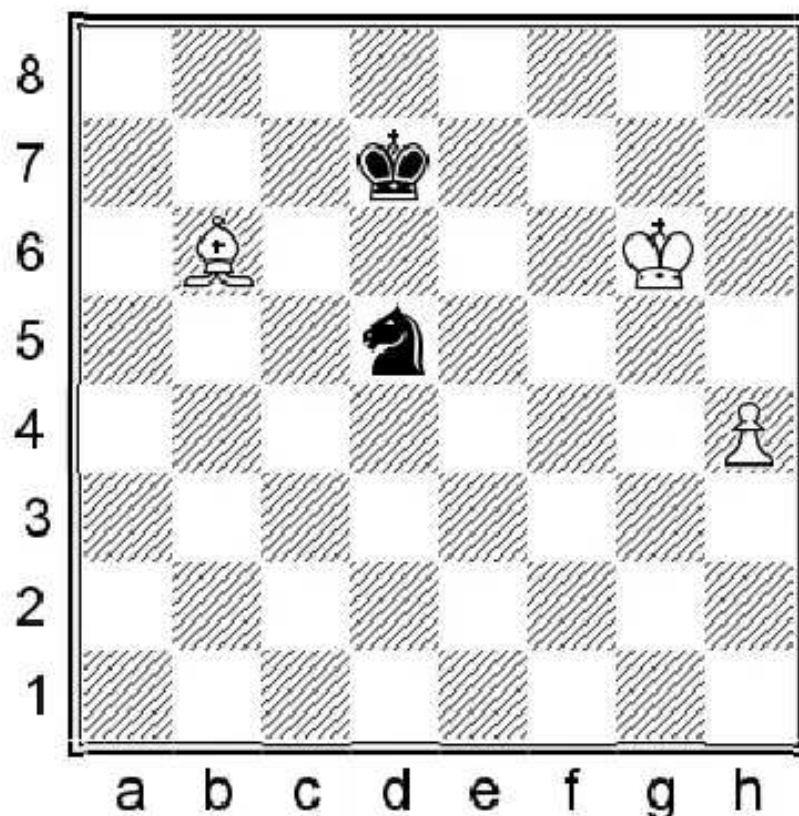
**87.♗g6 ♗f3 88.h7 ♗h4+ 89.♗f6 1-0**

2

Z. Efimenko

D. Solak

Baku, 2013



This time the corner is good from the bishop's point of view, but with perfect defense Black can still hold the draw. The pawn has not passed the middle of the board yet and White must lose another tempo to escape from the ...♗f4 check, which allows the black king to come to e6 — close enough to the pawn.

**72.♔g7!**

A very tricky move! The white king evades the f4 check in order to advance the h-pawn, and the bishop cannot be taken because the knight is not in time to catch the pawn. 72.♔f7 was the principled move to keep the black king one extra file distant from the h-pawn, but it had a concrete problem, viz: 72...♖xb6! actually the only move. 73.h5 ♖c4 74.h6 ♖e5+ 75.♔g7 ♖e7 76.h7 ♖f7=

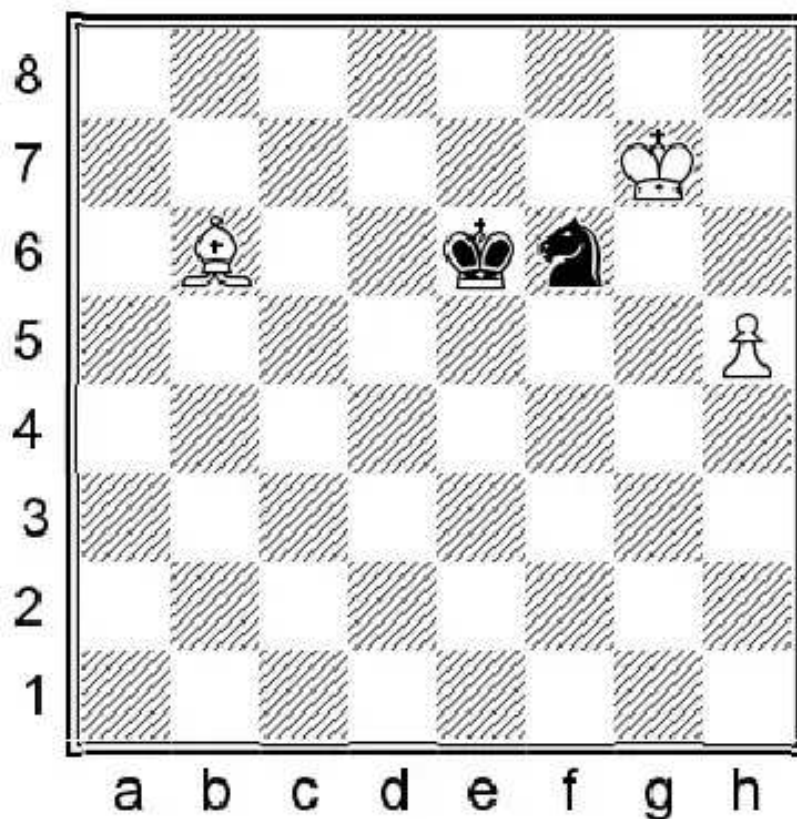
**72.♔g7! ♖e6!**

The only move! 72...♖f4? was also tempting to stop the pawn right away, but it loses to 73.♔f7! Preventing the black king from approaching the pawn. 73...♔d6 74.♕e3 ♖h5 (74...♖g2 75.h5 ♖xe3 76.h6+- The pawn promotes. 74...♔e5 75.♕xf4+ ♔xf4 76.♔g6!+- The only move, but it is enough!) 75.♔g6+- and the knight is trapped.

After 72...♖xb6? Black cannot stop the h-pawn. 73.h5 ♖e7 74.h6+- The knight cannot reach the f7 square in two moves.

**73.h5 ♖e7!**

Another only move! It is better to stop the pawn as far back as possible. 73...♖f6

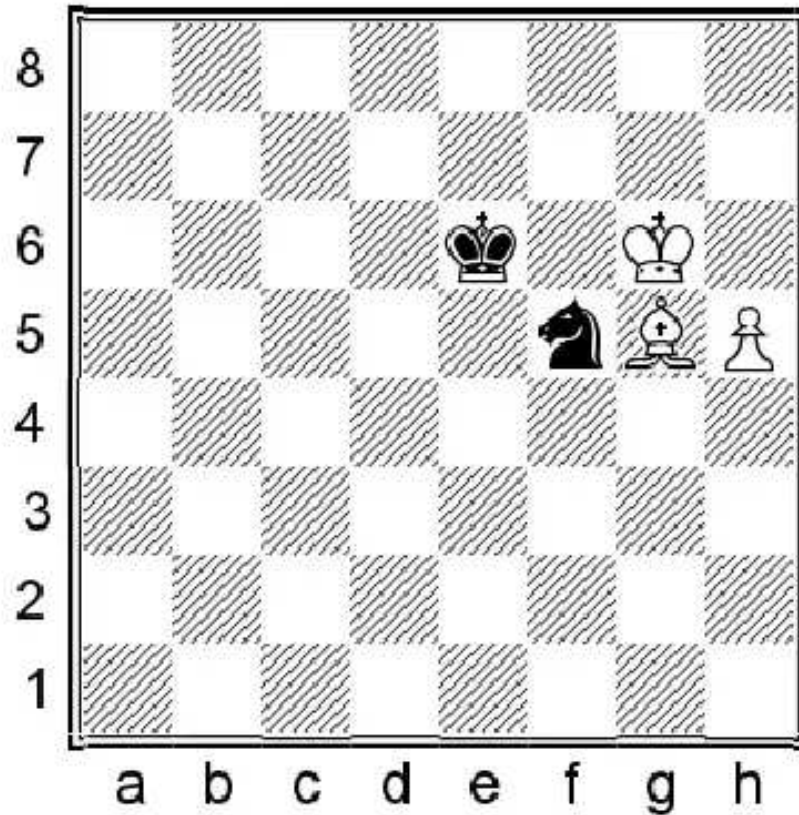


74.h6 This is a theoretically-winning position and the technique is easy: 74... ♖h5+ 75.♔f8 ♖f6 76.♕d8!+- Taking the f6 square under control, so that Black can no longer stop the pawn!

**74.♕d8 ♖f5+ 75.♔g6 ♖e5!**

Yet again the only move! Black must keep his knight on f5. White should try to create a zugzwang position in order to kick the f5 knight from its outpost.

**76.♕g5 ♖e6**



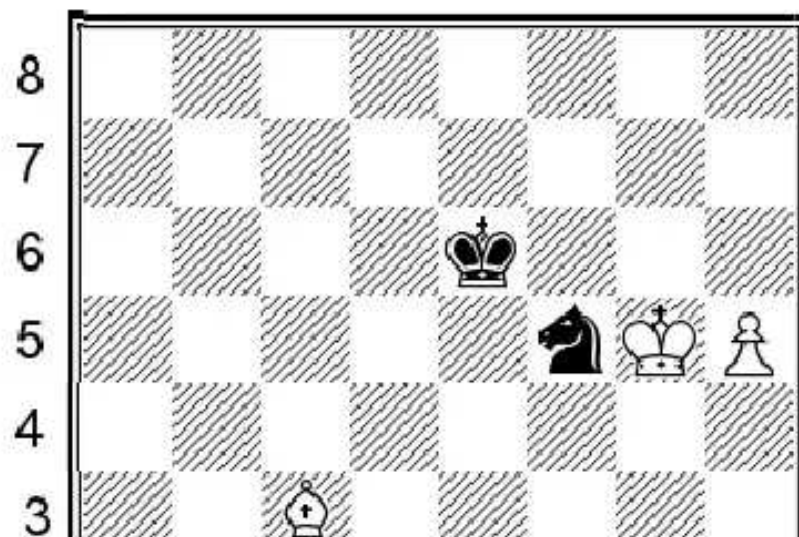
77. ♔f6!

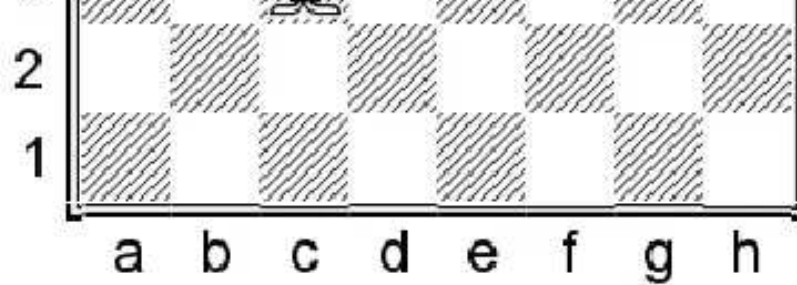
Good technique! White finds the only possible zugzwang. The king cannot move and the knight has no checks on h4 or on e7, which could be followed by returning to f5 next move. What to do as Black?

77... ♘h6!

Great defence and of course another only move! That was basically all that Black had to know and from now on the defensive task is easy. White obviously keeps on trying.

78. ♔c3 ♘f5 79. ♔g5





**79...♞d6!**

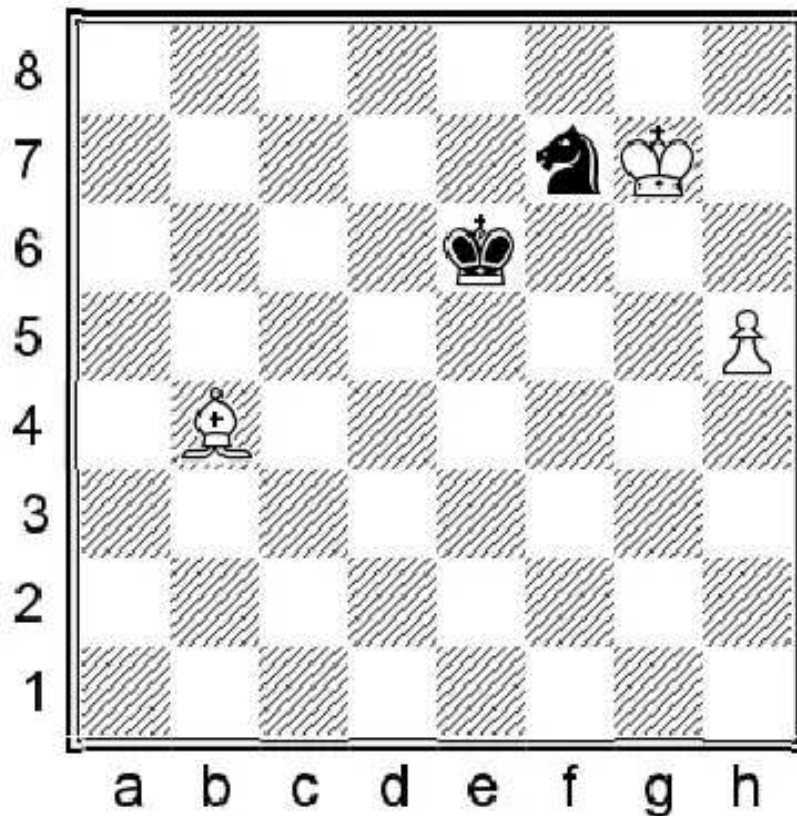
The only move again, but this is quite an easy one! White cannot advance the pawn because of ...♞f7.

**80.♙b4 ♞f7+**

Black decides to change the defensive method. 80...♞f5 was also good enough.

**81.♚g6 ♞e5+ 82.♚g7 ♞g4!**

Logical defence. White needs to retreat his king in order to disturb the knight. 82...♞f7



**83.♙f8!!** White needs to control the h6 square! Black is in zugzwang. (83.♙a3 would allow Black to survive after 83...♞f5!! 84.♞xf7 ♞g5) 83...♞g5 (83...♞f5 84.♞xf7 ♞g5 85.h6+-) 84.h6+-

**83.♙c5 ♞f5 84.♙e7 ♞e6 85.♙g5 ♞f5 86.♙h4 ♞e6 87.♙e1 ♞f5 88.♙d2 ♞e6 89.♙g5 ♞f5 90.♙c1 ♞e6 91.♞g6**

After several waiting moves, White comes back with the king, but now Black is also able to change the defensive method.

**91...♞e5+! 92.♞g5**

Now all moves are drawn, the easiest being

**92...♞f7!**

Heading to the corner!

93.♔f5 ♖d7 94.♙e3

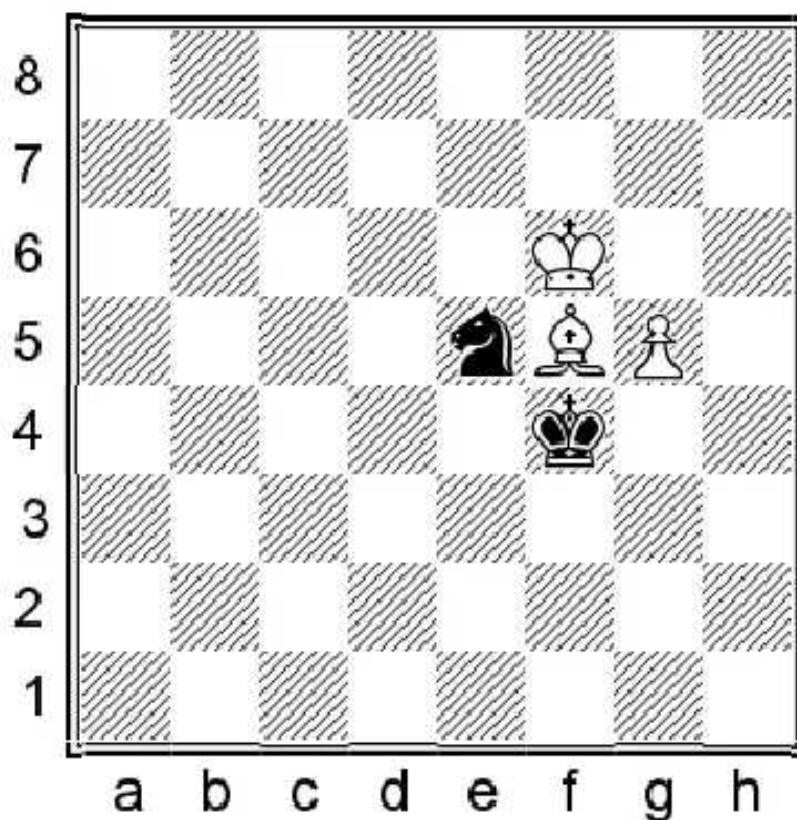
Black finds a direct way to eliminate the h-pawn.

94...♖f6 95.h6 ♖g8 96.h7 ♖e7+ 97.♔g5 ♖g7 98.♙d4+ 1/2

Draw agreed!

3

### Practical position



We will now study some examples with the g-pawn to see what kind of zugzwang motifs might exist. The current position is actually a mutual zugzwang. If it is Black's turn, he has to allow the g-pawn to run and then it is just unstoppable. However, with White to move, he cannot pass the right to move back to Black.

1.♙h3

1.♙c2 is clearly a less dangerous try because Black can send the king to the h-file from where it no longer attacks the knight. 1...♖g4+ 2.♔g6 ♖e5+ 3.♔h5 ♖g3=

1.♙h3 ♖e4 2.♙e6 ♖d4!

the only move! Black now holds his king on the e4-d5 squares. Not 2...♔f4? 3.♙f5+- and Black is in zugzwang.

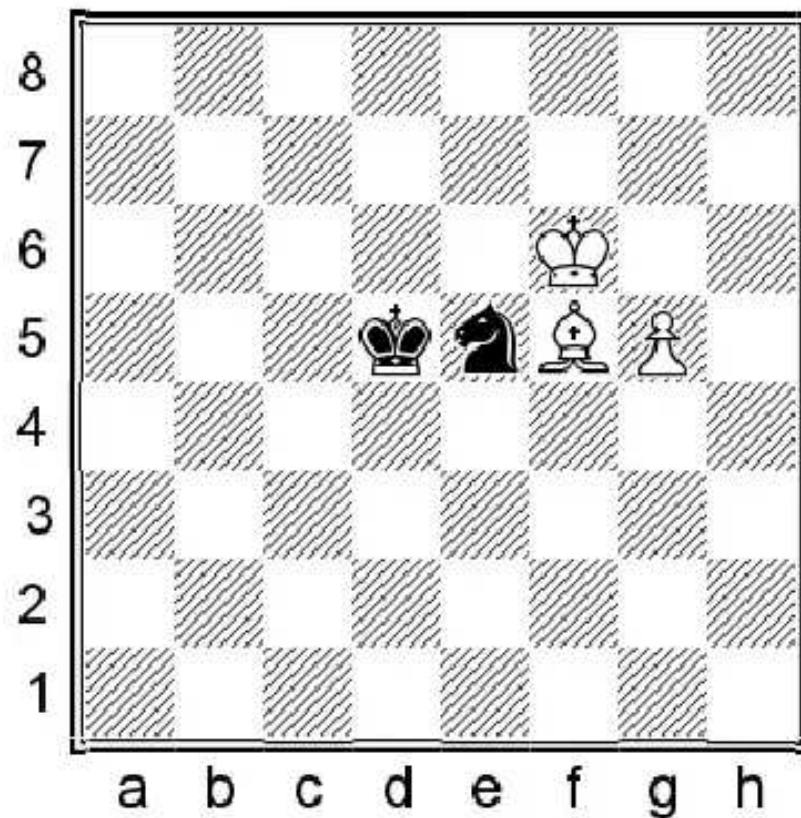
3.♙f5

3.♔f5 runs into 3...♖f3 4.g6 ♖h4+=

3...♔d5 4.♔e7

With the idea of ♔d4 ♖e6, but Black has

4...♖c6+! 5.♔f7 ♜e5+ 6.♔f6



White successfully passes the move to Black. It seems to be over, because ...♔d4 is met by ♔e6, while ...♔d6, ♙e6 is another decisive zugzwang. However Black holds with

**6...♔d6!**

6...♔d4 7.♔e6+-

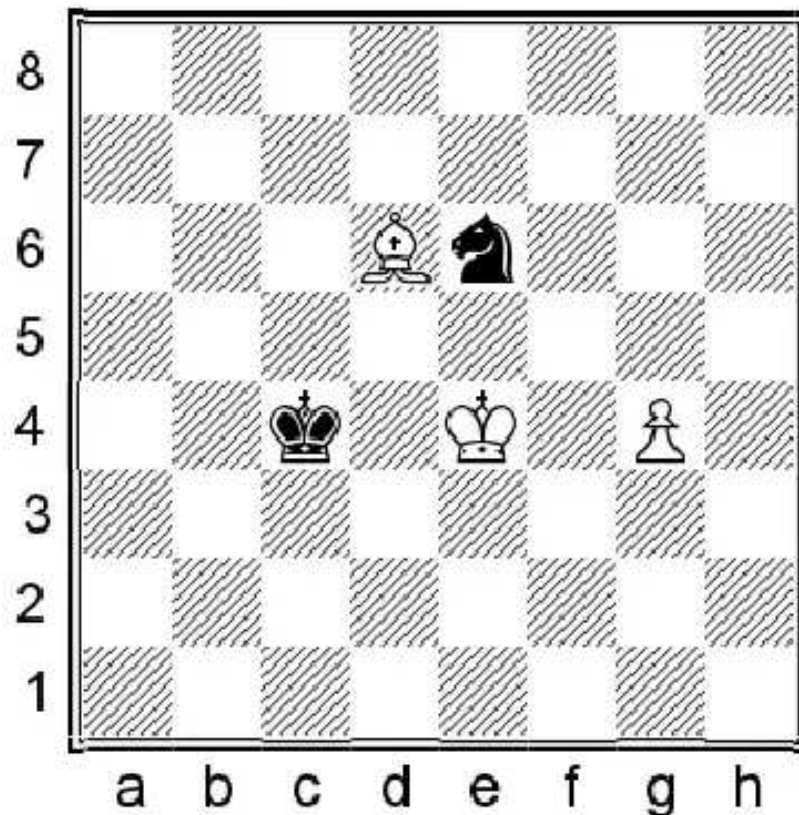
**7.♙e6**

And now:

**7...♜d3! 8.g6 ♜f4 9.g7 ♜h5+=**

4

Practical position



The black king cannot protect the knight now, which means that it is going to be chased away soon and the pawn will advance. However the win requires precise technique.

**1. ♖e7!**

Controlling the g5 square and planning to play ♔e5 next. 1. ♔e5 allows 1... ♟g5 2. ♖e7 ♟h3= and Black holds.

**1. ♖e7! ♔c3 2. ♔e5 ♟d4**

The best chance. Trying to hold the pawn as far back as possible. 2... ♟g7 loses quickly to 3. ♔f6 ♟e8+ 4. ♔f7 ♟c7 5. g5+-

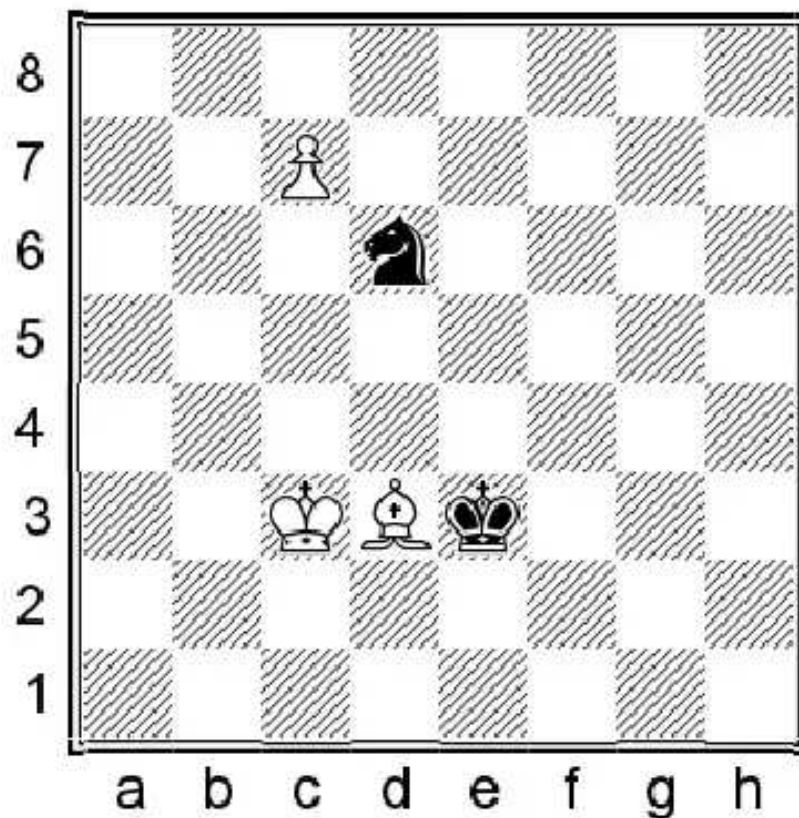
**3. ♖c5! ♟f3+ 4. ♔f4 ♟h4**

White can already decide between different wins. One of them is to hunt down the knight with

**5. ♖f2 ♟g6+ 6. ♔f5 ♟e7+ 7. ♔e6 ♟g6**

Otherwise the pawn promotes, but now the knight gets trapped.

**8. ♖g3 ♔d4 9. ♔f7+-**



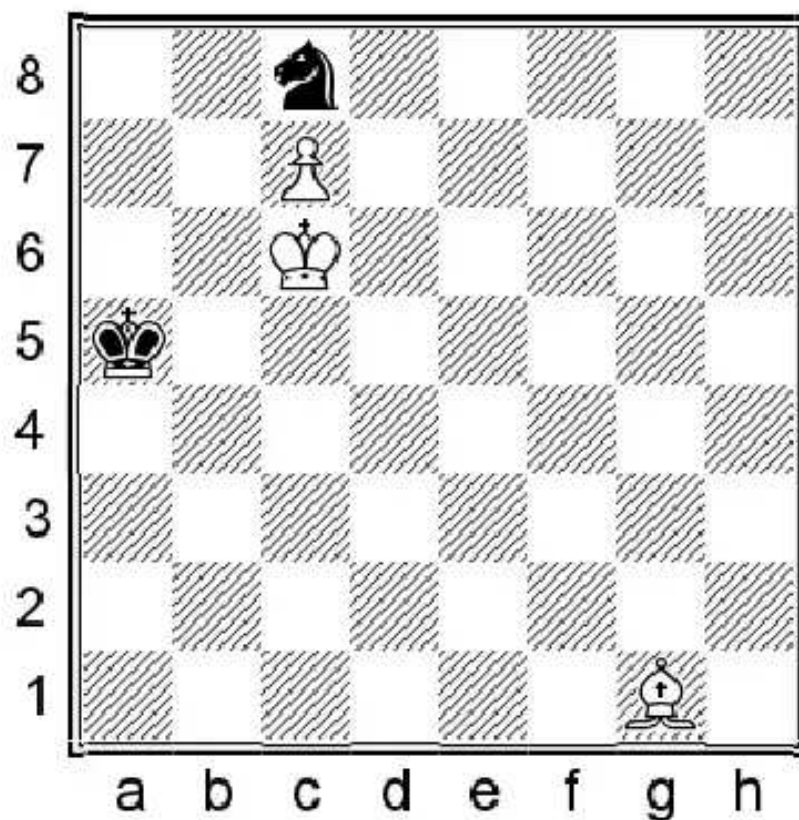
We will now check two examples with the c-pawn. There are no specific rules: it is all about zugzwangs. The current position is another mutual zugzwang. If it was Black's move he would have to allow the king to move forward either with ...♔f4-♔d4 or with ...♘c8-♔c4. Both are decisive because the knight would soon lose its squares to control against promotion. However with White to move, he must control the b5 square with the bishop and if he moves onto the f1-a6 diagonal, Black can play ...♕e4!

1. ♖a6 ♕e4 2. ♔b4 ♔d5 3. ♖b7+ ♕e6 4. ♖c6 ♘c8 5. ♔c5

White has managed to save his pawn by taking the d6 and d7 squares under control, but he cannot make progress as his pieces are tied-up.

5... ♕e7 6. ♖a4 ♕e6 7. ♔c6 ♘e7+ 8. ♔b7 ♔d6=

and the knight on e7 is safe. White should attack it with his king, but it is too far away. Black just plays ... ♔c5-d6 and holds the draw.



A trickier version of the previous example, which introduces us to a new motif that only exists with the c-pawn.

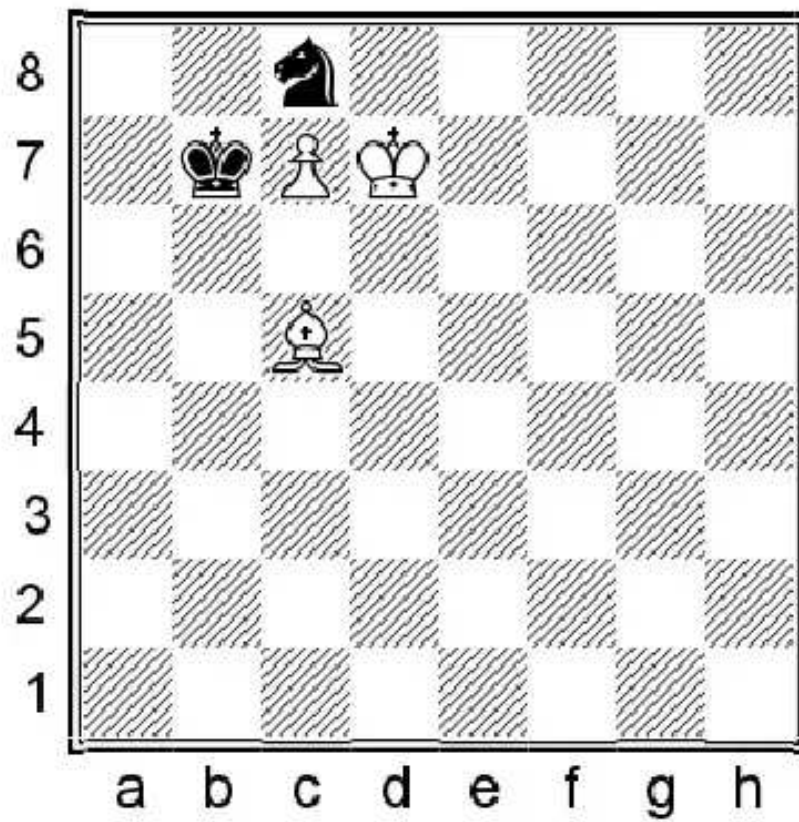
**1...♔a6!**

Otherwise ♔d7 traps the knight.

**2.♔d7**

Trying to place Black in zugzwang with a bishop move, for example 2.♘c5, does not bring success because of 2...♘b6!  
 A stalemate motif! Black goes back to c8 next move, so it is not really a zugzwang. This means, however, that if we move all the pieces one square to the right the position would be won for White!

**2...♔b7 3.♘c5**



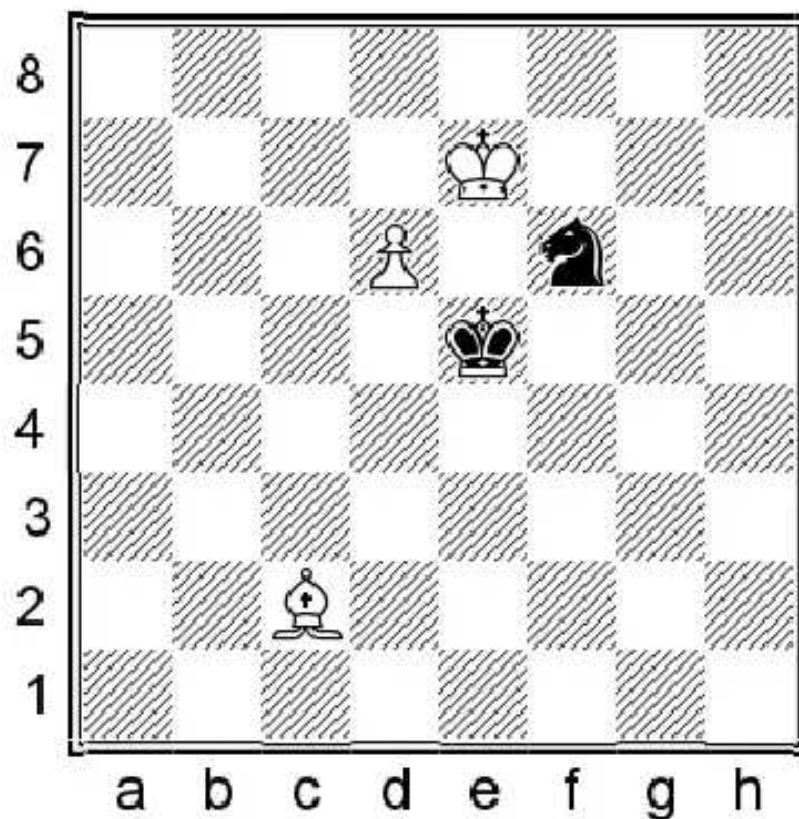
It seems to be over again as Black is in zugzwang. However another stalemate motif saves him — again one which is only possible with the c-pawn.

**3...♔a8! 4.♔c6**

It looks like another decisive zugzwang, but here comes a third stalemate idea! **4.♔xc8=**

**4...♘b6!**

and the knight goes back to c8 next. Black holds!



Finally, to close this chapter we will take a look at two examples with a central pawn. The question is the same again: can White set Black into zugzwang or not?!

**1. ♖b3!**

Controlling the knight checks on d5 and g8.

**1... ♔f5 2. ♗f7 ♖g5**

Black defends in the same way as in the 3rd example of this chapter. Keeping the options of playing ... ♔f5 or ... ♖g6 next move. 2... ♔e5 3. ♗e6+- is already a decisive zugzwang.

**3. ♗e6**

3. ♔e6? moves into 3... ♗e4=

**3... ♔g6 4. ♖f8!**

Preventing ♖g7.

**4... ♗h7+**

4... ♔h6 5. ♖f7 ♔g5 6. ♗h3+- Zugzwang again. The knight must move, but then d7 is decisive.

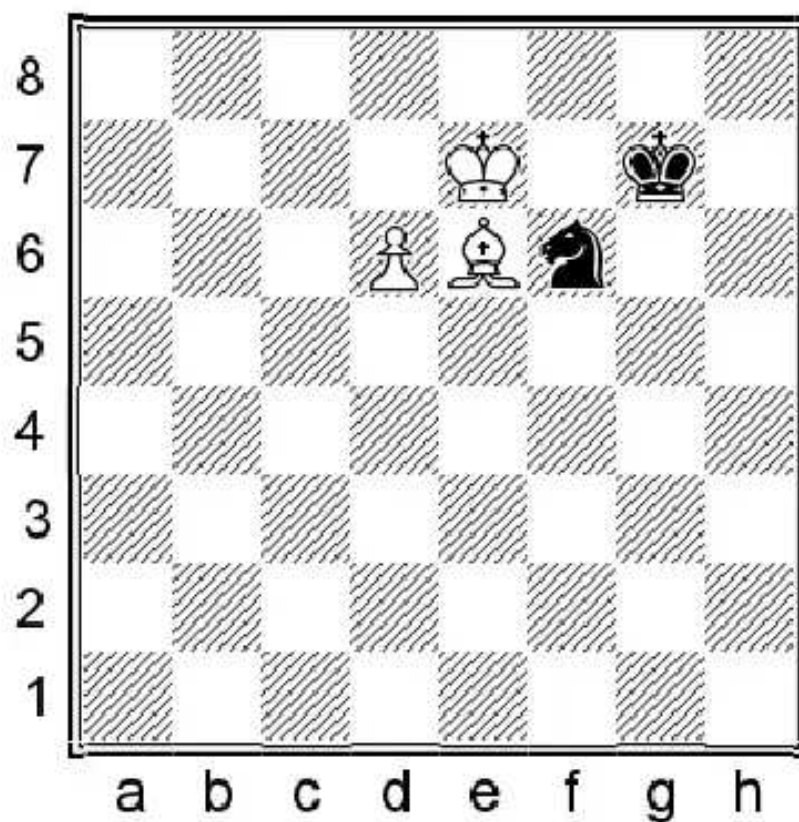
4... ♔g5 5. ♖f7+- is the final goal for White.

**5. ♖e8!**

5...♖e8!

Triangulation!

5...♖f6+ 6.♔e7 ♕g7



6...♕g5 7.♔f7+-

7.♕f7!

The goal is achieved. The knight has to move again, but it is not the end of the game yet. Black can continue resisting with

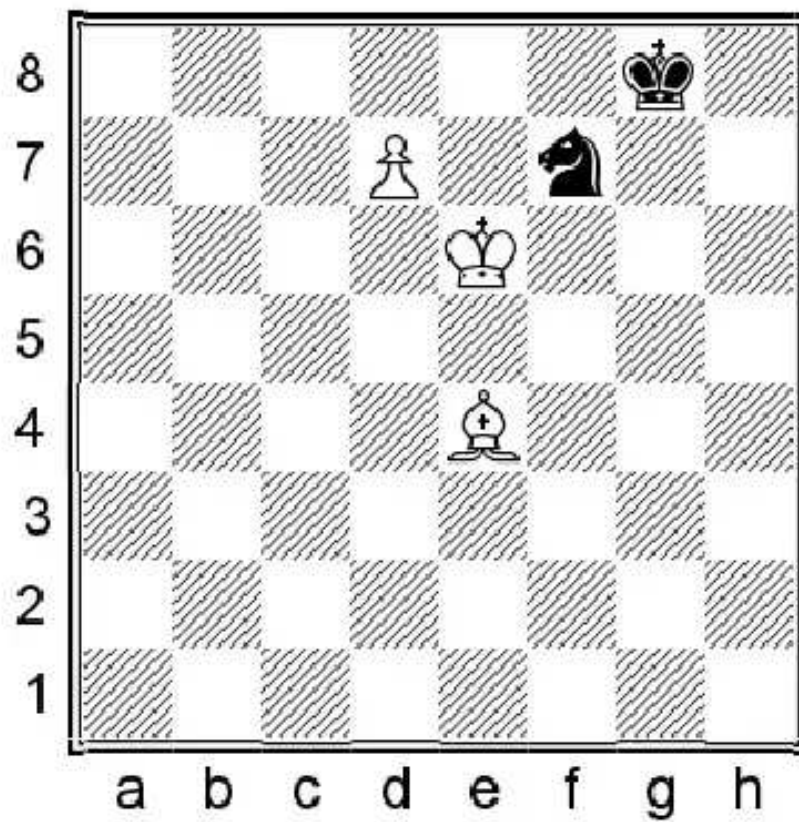
7...♖g4! 8.♕d5

d7 becomes a threat after taking the c6 square under control. Of course not 8.d7? ♖e5! 9.d8=♚ ♖c6+=

8...♖e5

8...♖f6 9.♕e4! is a pretty deflection! The knight must move again 9...♖g8+ (9...♖xe4 10.d7+-) 10.♔e6 ♖f6 11.♕f5+-  
This zugzwang is already decisive. The pawn promotes.

9.♕e4 ♕g8 10.♔e6 ♖f7 11.d7



One square closer to promotion, but White must still work a bit. The bishop is going to stand perfectly on d5 from where it controls the f7 and b7 squares of the knight. White will only need to attack the knight on d8.

**11...♙f8 12.♙d5 ♘d8+**

12...♙g7 13.♙e7+- The bishop also controls the c6 square in case of ...♘e5.

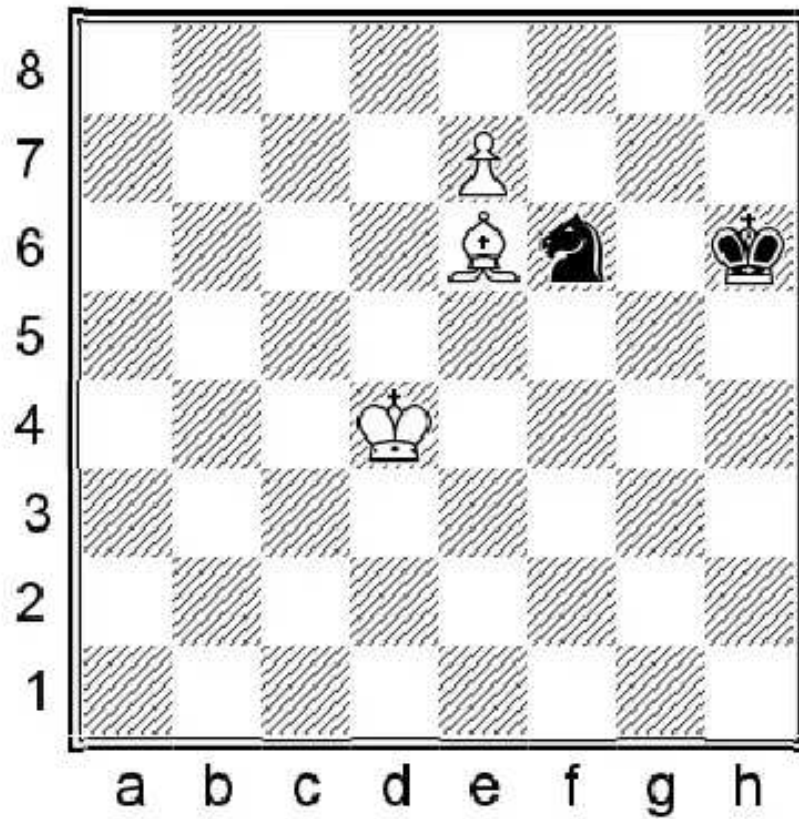
**13.♙d6!**

On 13.♙f6 ♘f7 continues resisting.

**13...♙g7 14.♙e7+-**

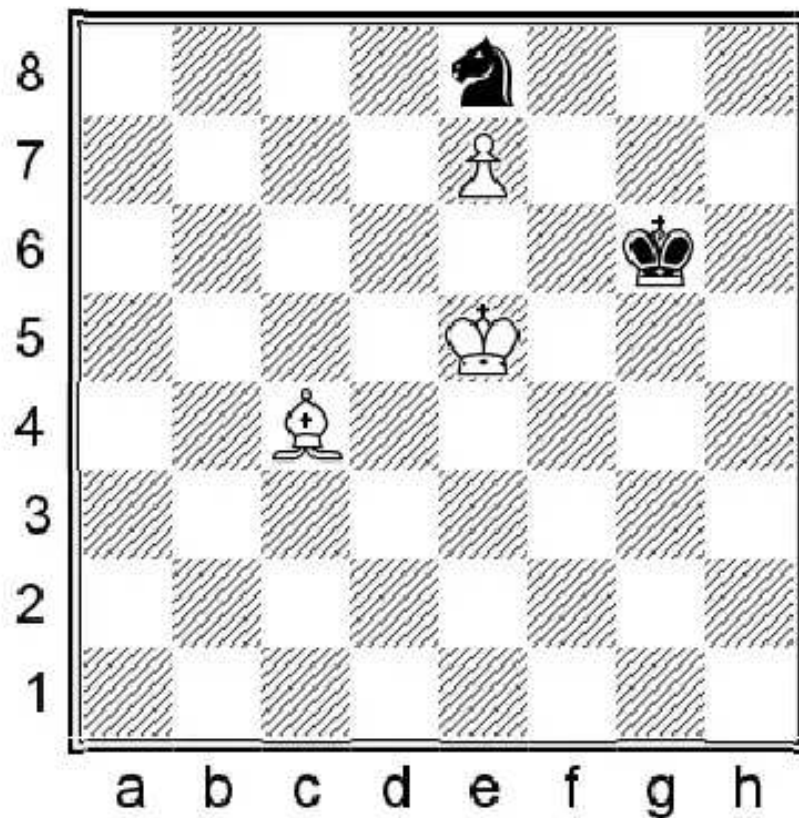
8

Practical position



1. ♖f7!

Only this great plan prevents Black from holding on. Any other moves, for example the most natural 1. ♖e5, allow Black to set up a successful defensive position with 1... ♖g6! 2. ♖c4 ♜e8! =



followed by waiting with ... ♖g7-e8 and, if White allows,

**1. ♖f7! ♗g7**

1... ♗g5 loses faster 2. ♗e5! ♜d7+ 3. ♗d6 ♜f6 4. ♗e6+- Zugzwang.

**2. ♗h5!**

White must control the g6-e8 squares to prevent ... ♜e8-g7.

**2... ♗h6 3. ♗e5!**

This intermediate move allows White to keep his bishop on the h5-e8 diagonal!

**3... ♗g5**

3... ♗g7 4. ♗e6+- Zugzwang.

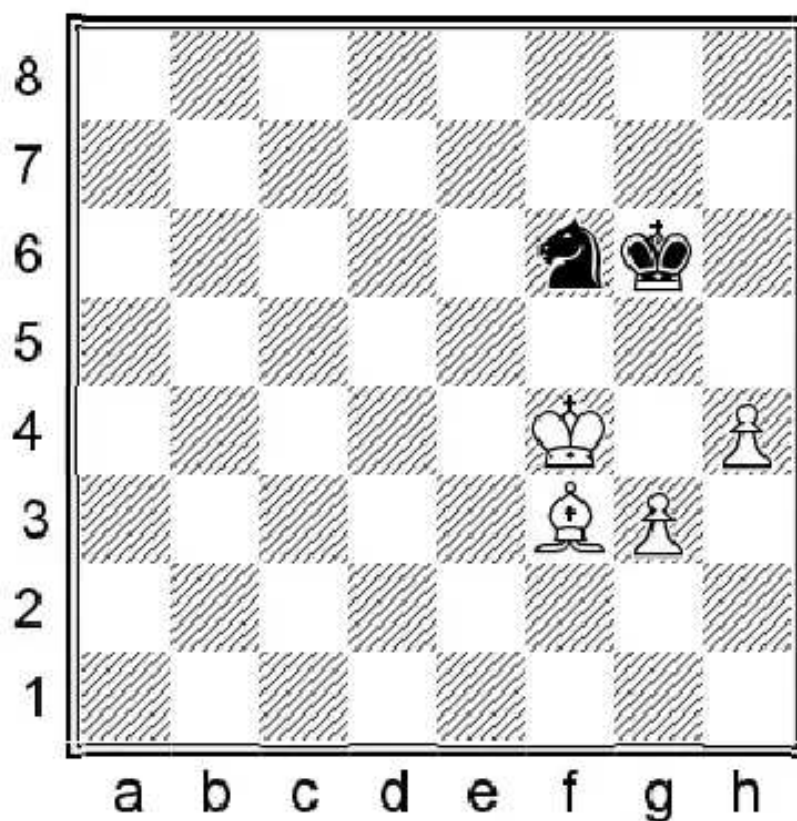
**4. ♖f7 ♜d7+ 5. ♗d6 ♜f6 6. ♗e6+-**

### 3.3. BISHOP + H, G PAWNS VS KNIGHT

In this material relationship, the only question is the situation when the corner does not fit to the bishop's color and thus the defensive side can save the game by sacrificing his knight for the g-pawn. Firstly, we will learn the precise technique with which the stronger side wins, then we will check some practical examples showing how the weaker side can hold the draw in the event of a mistake. In this chapter we will study examples where the knight is dominating the bishop.

1

#### Theoretical position



White must place Black in zugzwang to get the f6 knight out from his blocking position. He must be careful to not lose his g-pawn, because then the h8 corner does not fit to the light squared bishop.

1. ♖e4+

Obviously not some move like 1. g4? ♜xg4=

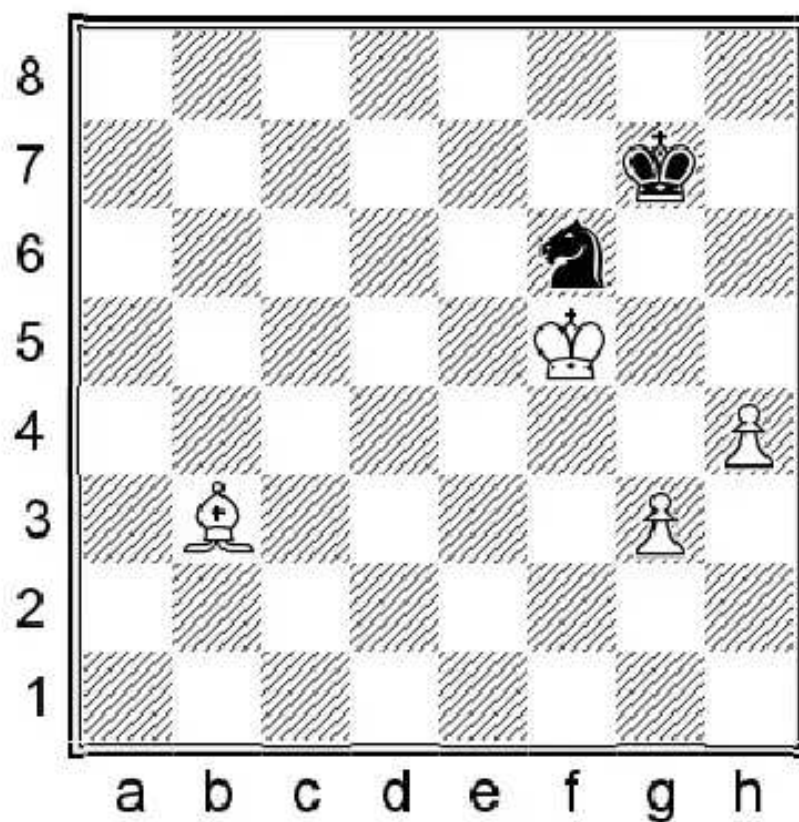
Or 1. ♖c6? ♜h5+ 2. ♔g4 ♜xg3=

1. ♖e4+ ♜h6 2. ♔f5 ♜g7

Black tries to hold his knight on f6 for as long as possible.

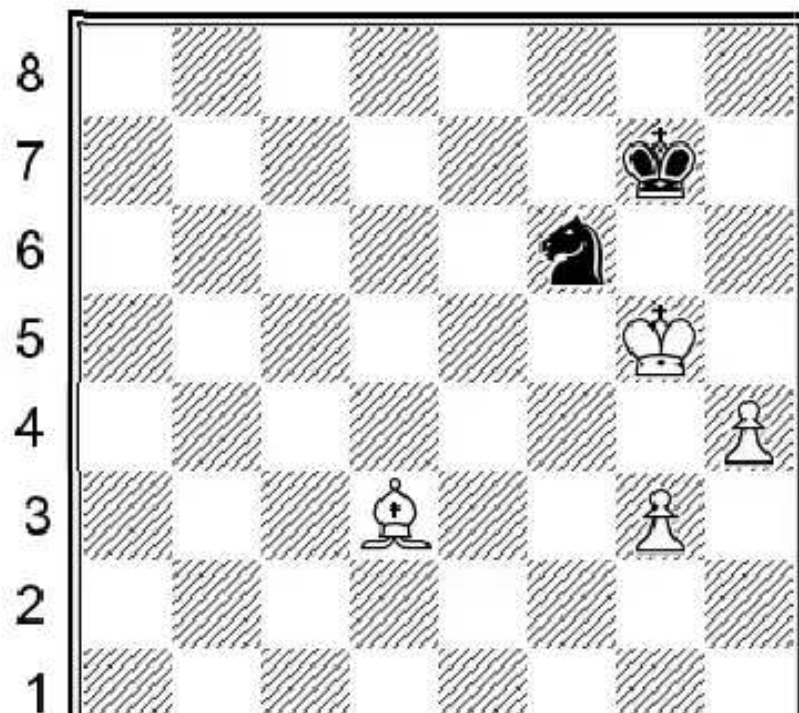
3. ♖d3 ♜d5

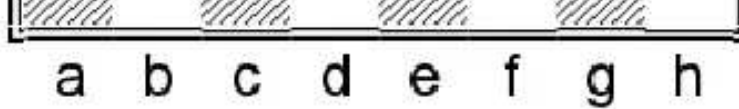
Using the fact that the g-pawn cannot currently be advanced and the knight returns to f6 next move. Another defensive attempt is 3... ♖f7 4. ♙c4+ ♜g7 5. ♙b3



Here is a zugzwang: Black can no longer hold his f6 knight and the g-pawn can be pushed next move. 5... ♖e8 6.g4 ♖f6 7.g5 ♖h7 With the pawn on h4, Black is not threatening to take on g5, therefore White can slowly strengthen his position. 8. ♙c2 ♜f7 9. ♙e4 ♜g7 10. ♜e6! ♖f8+ 11. ♜e7 The knight is trapped. The end is near. 11... ♜g8 12.h5 ♜g7 13.h6+ ♜h8 Trying a last stalemate trick, but of course White can delay the capture of the knight. 14. ♙f5 ♜g8 15. ♙e6++-

4. ♜g5 ♖f6





### 5.h5!

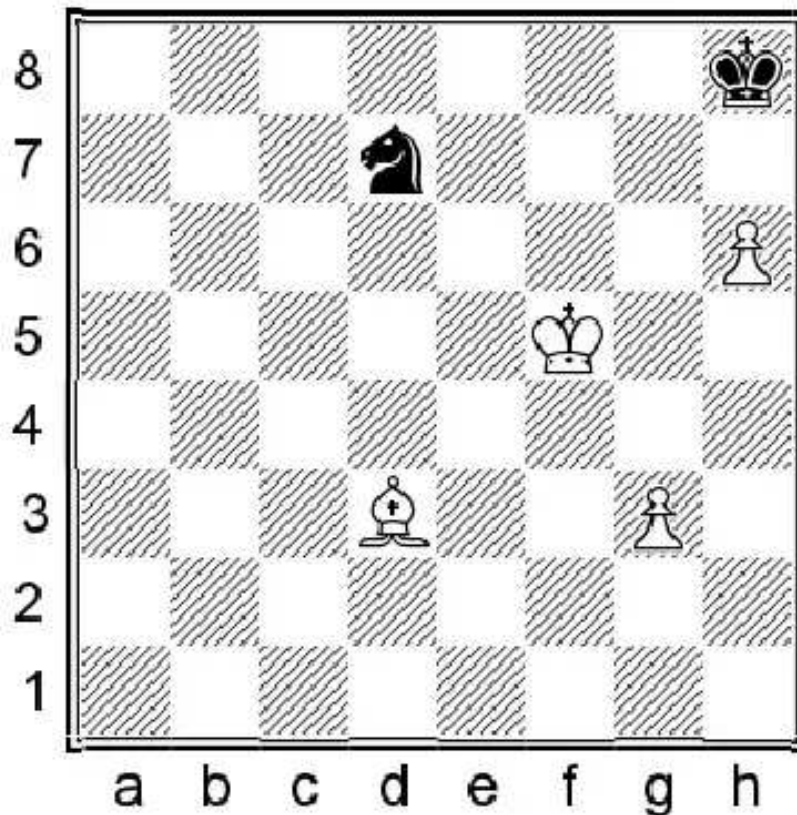
The fastest way to win. It is very important to mention that the bishop controls the h7 square, which prevents Black from constructing an unbreakable fortress with ...♖h7-♔h6 and ...♗g5, staying between the pawns. We will examine

this motif in the next example.

### 5...♗d7

If Black tries 5...♗g8 6.♙c4 ♗h6 his knight quickly gets trapped after 7.♙e6 ♔h7 8.♔f6 ♔h8 9.♔g6+- There is no stalemate trick for Black and therefore the knight is lost.

### 6.h6+ ♔h8 7.♔f5



Normally it is not advisable to separate the passed pawns from each other, but now the black pieces are uncoordinated and White can quickly advance his g-pawn to get connected again.

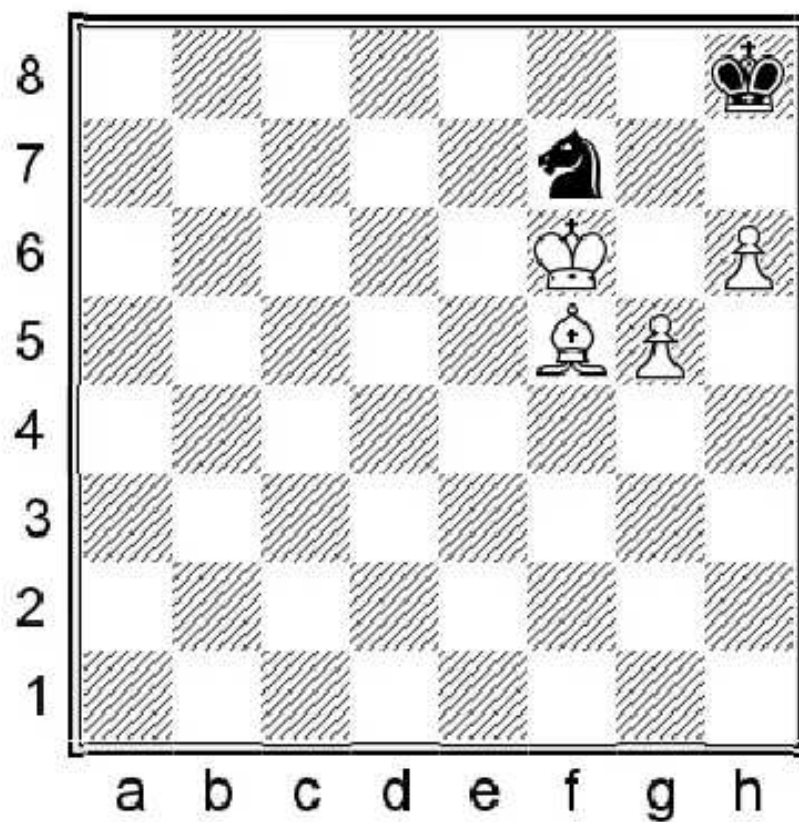
### 7...♗c5 8.♙c2 ♔h7 9.♔g5+ ♔h8 10.g4

Black has no way to sacrifice his knight for the g-pawn.

### 10...♗d7 11.♔f5 ♗f8 12.g5 ♔g8

Black is already squeezed; the movement of his knight is limited which means the end is very close. White still needs some technique to get Black into the decisive zugzwang to advance the g-pawn.

### 13.♔f6 ♗d7+ 14.♔e7 ♗e5 15.♙f5 ♔h8 16.♔f6 ♗f7



The last trick, but it does not help.

**17.g6! ♖xh6 18.♗e6**

And the knight is trapped.

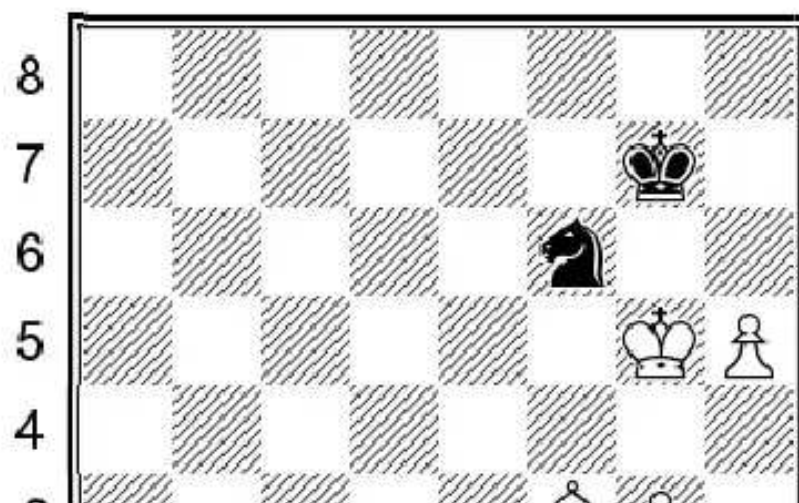
**18...♖g8+ 19.♗xg8 ♔xg8 20.g7+-**

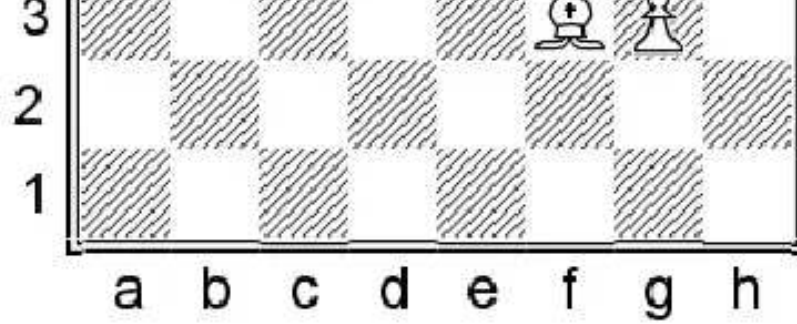
2

**M. Bartel**

**R. Kempinski**

**Warsaw, 2011**





In the previous example the bishop stood on d3. The huge difference is that after the previous move 96.h5? Black could establish a fortress by standing between the pawns.

96...♖h7+! 97.♔f5 ♕h6 98.g4 ♘g5

The game is drawn. White should set Black into zugzwang, but he cannot control 6 squares with two pieces. The knight can jump to h7-f7-e6-e4-f3-h3 and then back to g5.

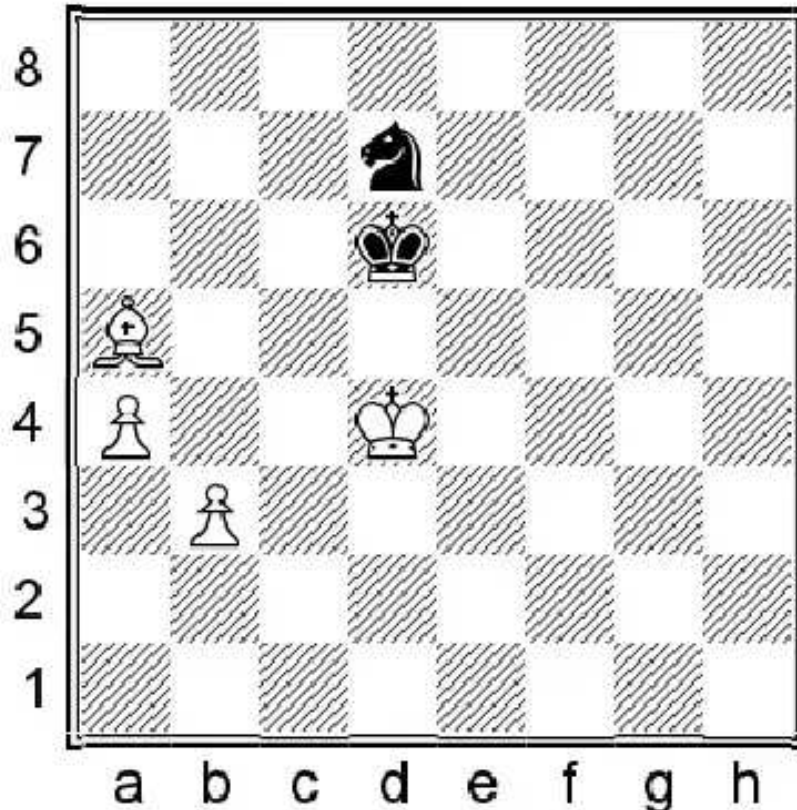
99.♗e2 ♘h3 100.♗f1 ♘g5 101.♗g2 ♘h7 102.♔e6 ♘g5+ 103.♔f6 ♘h7+ 104.♔f7 ♘g5+ 105.♔g8 ♘e6 1/2

3

L. Portisch

L. Kavalek

Montreal, 1978



1.b4?

Too hasty a decision, allowing a brilliant rescue. White should have proceeded slowly with 1.♗b4+ ♕c6 2.♗e7 The game might continue with 2...♕b6 3.b4 ♘b8 4.♗c5+ ♕b7 5.♕d5 ♘c6 6.b5 ♘a5 7.♗b4 ♘b3 8.♕c4 ♘c1 9.a5+-

1.b4? ♘b8!!

Due to the very unfortunate placement of the a5 bishop, White cannot avoid ...♘c6 check next move and the b-pawn is gone.

2.b5 ♘c6+!

Still works.

3.bxc6 ♔xc6 1/2

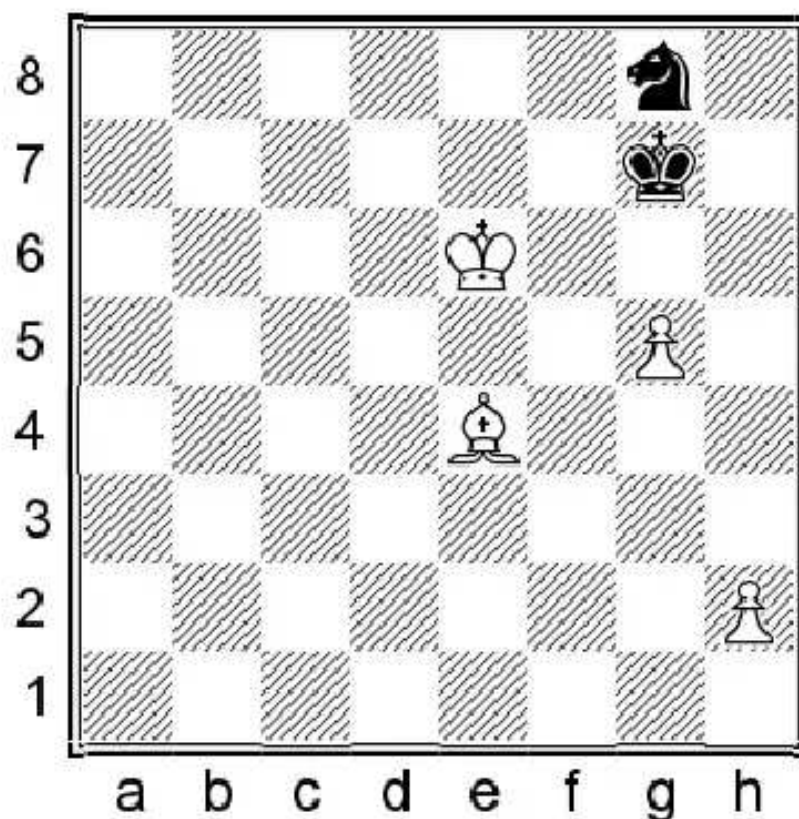
And the king goes to the corner.

4

M. Chandler

Z. Polgar

Biel, 1987



The end is near, but Black tries a last trick.

1...♘h6 2.gxh6+?

A terrible oversight. White expected an automatic recapture, but Black is not forced to take the pawn. 2.h4 ♘g4 3.♔f5 ♘h6+ 4.♔f4+-

2...♔h8!= 1/2

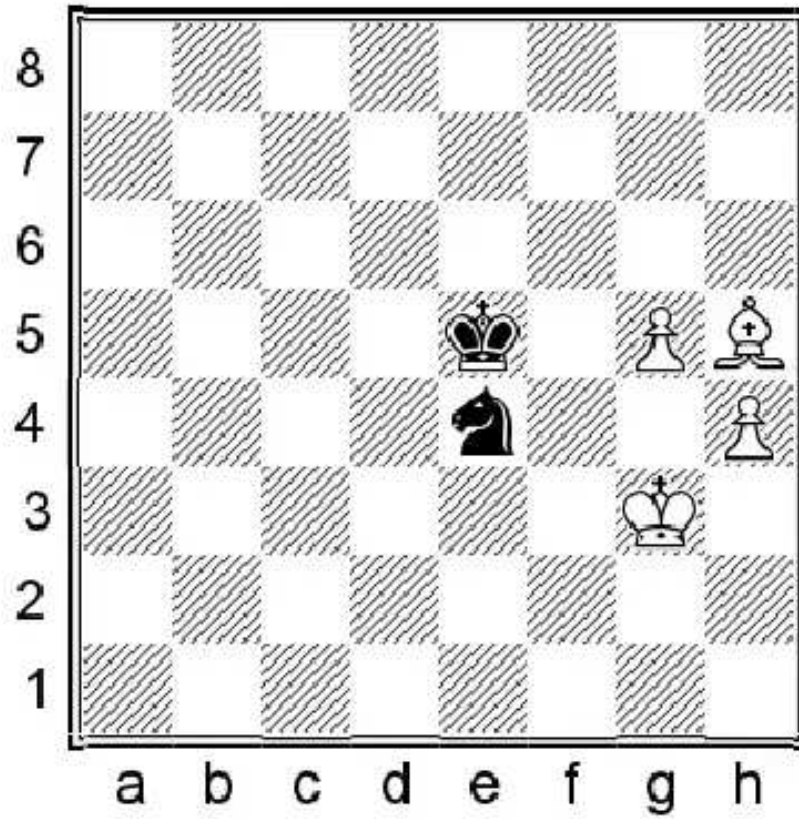
Draw agreed. White can have as many h-pawns as he wants, but if the corner is bad the game is drawn. White was only expecting 2...♔xh6 after which he can squeeze out the king from the h-file 3.♔f6 ♔h5 4.♙f5 ♔h6 5.h3 ♔h5 6.♔g7! ♔g5 7.♙g4 ♔h4 8.♔g6 ♔g3 9.♔g5+-

5

A. Altuneger

S. Vombek

Maribor, 2007



1.♔g4?

Falling into the trap... The right move was 1.♔f3 ♖f6 2.♙g6+-

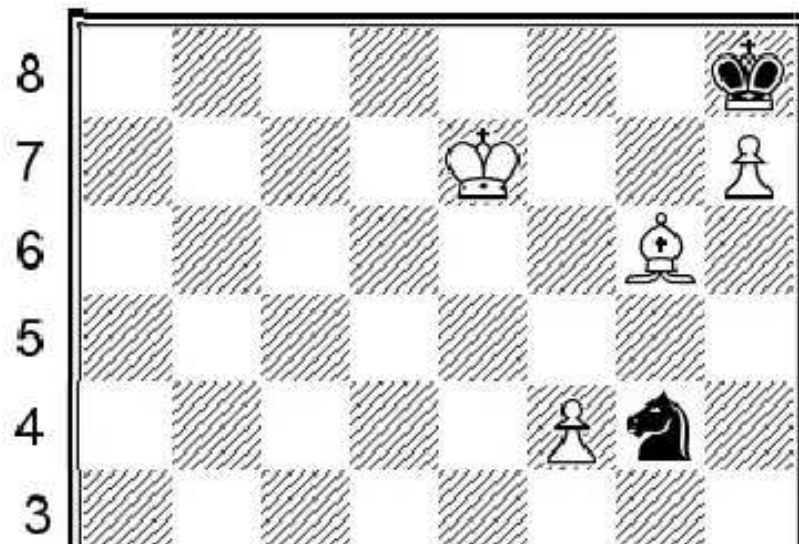
1.♔g4? ♖f6+! 2.gxf6 ♗xf6= 1/2

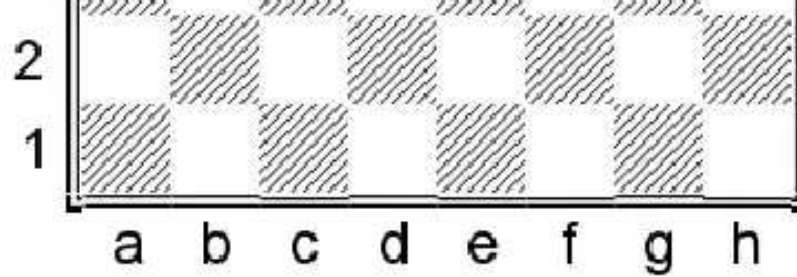
6

S. Marangunic

A. Matanovic

Yugoslavia , 1971





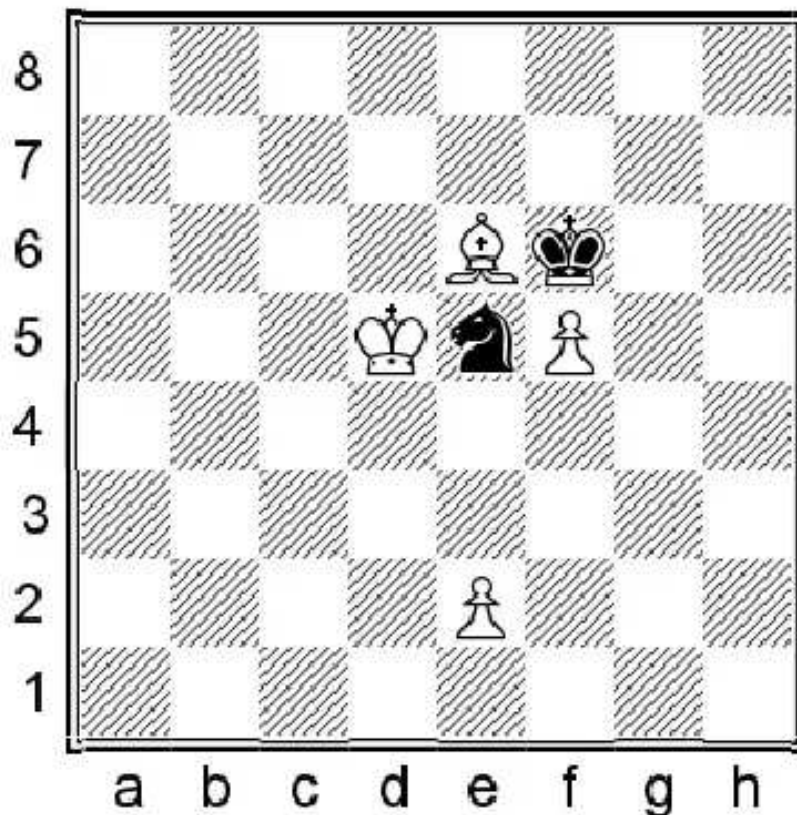
If the corner is bad, other kind of fortresses might exist as well.

1...♞f6!= 1/2

White can never capture the knight and otherwise he cannot take away all his possible moves from f6 (h5-g4-e4-d5-d7-e8) after which the knight returns to f6 next move.

7

**Theoretical position**

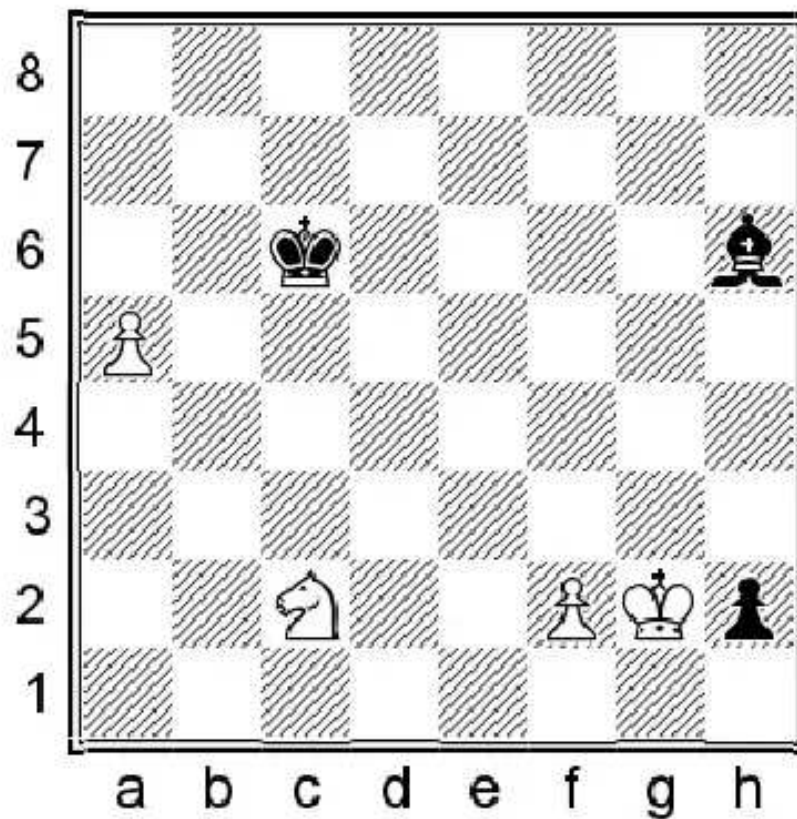


This type of fortress works with other pawns as well. Black holds the draw by moving the knight from e5 and then back on the next move. In general, we should advance the pawns together or, if we can't manage that, then we must be very careful to avoid the king and the knight standing between the pawns.

### 3.4. SUPERIOR KNIGHT

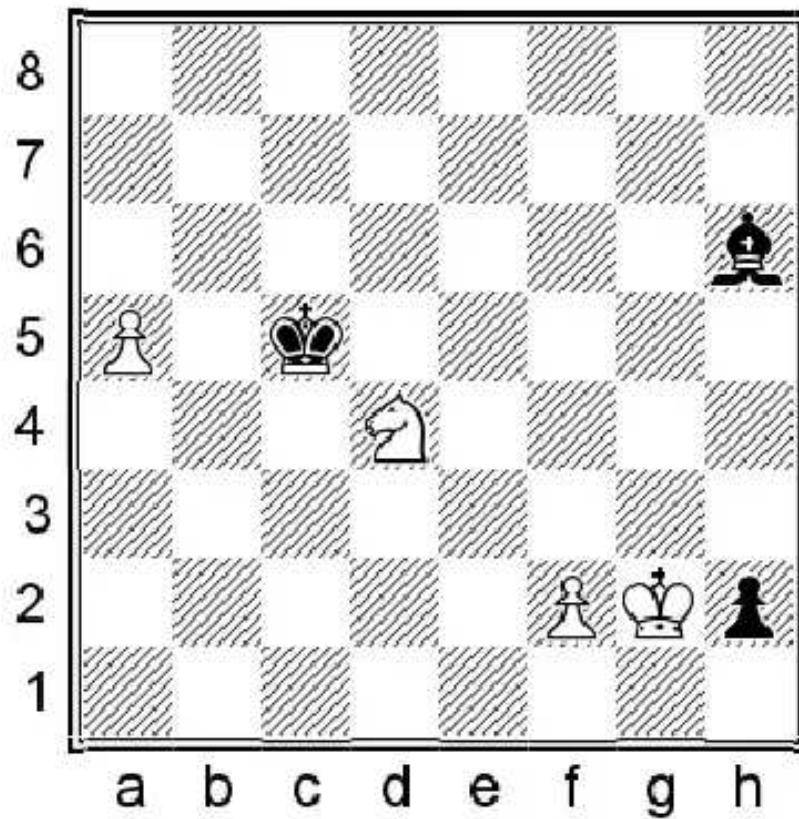
In general, in closed positions or if the pawns are on one flank, the knight is supposed to be superior to the bishop. Another reason could be if the movement of the bishop is restricted either by his own pawn(s) or by the other side's pawn(s). It is very instructive to study deeply the following practical games, from which we can learn many useful ideas.

1  
Reti



We will start with a brilliant study by Reti, where despite the open position the knight dominates the bishop.

1. ♖d4+! ♔c5



On 1...♙b7 2.♙xh2 ♔a6 3.♘b3 White simply wants to promote the f-pawn with the help of the king. Black must try to attack the knight from b4, but then the a-pawn is no longer going to be blockaded. 3...♗f4+ 4.♙h3 ♙b5 5.♙g4 ♗b8 6.f4 ♙b4 7.f5 ♙xb3 8.f6 ♙b4 9.f7 ♗d6 10.a6+- and the bishop can stop only one of the pawns.

**2.♙h1!!+-**

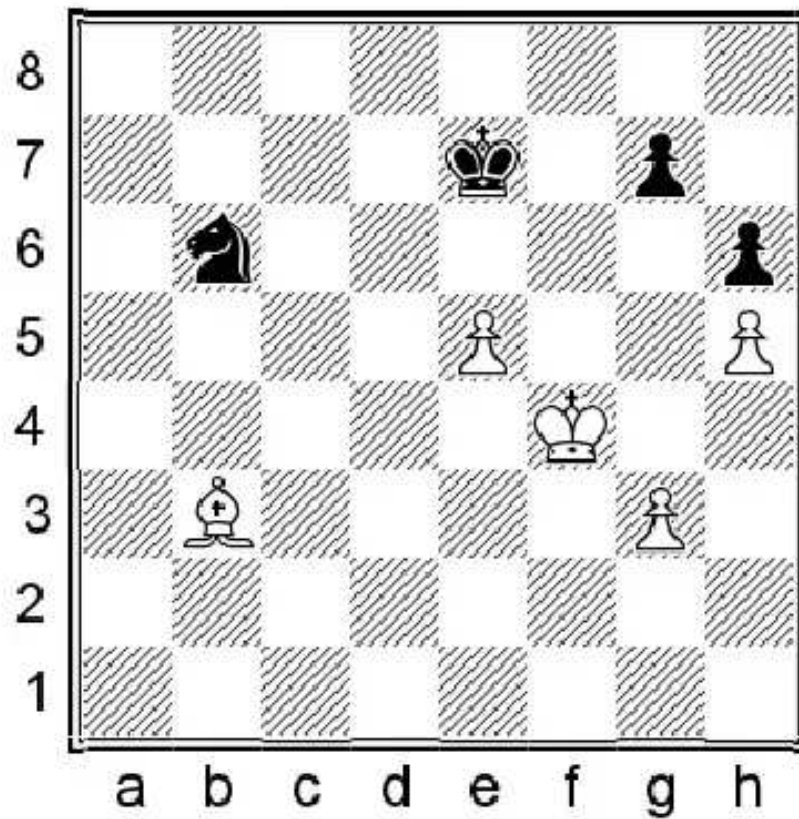
An incredible zugzwang! The bishop has six seemingly safe places to move, but it will be forked by the knight wherever it goes.

2

**Z. Ribli**

**A. Beliavsky**

**Candidates tournament, 1985**



White has an extra pawn, but one should never forget about fortresses — especially when the pawns are on one side and the short-ranged knight does not need to cover too many squares. Black holds the draw here without any difficulties.

**58...♖d7 59.♗d5 ♜f8 60.♔f5**

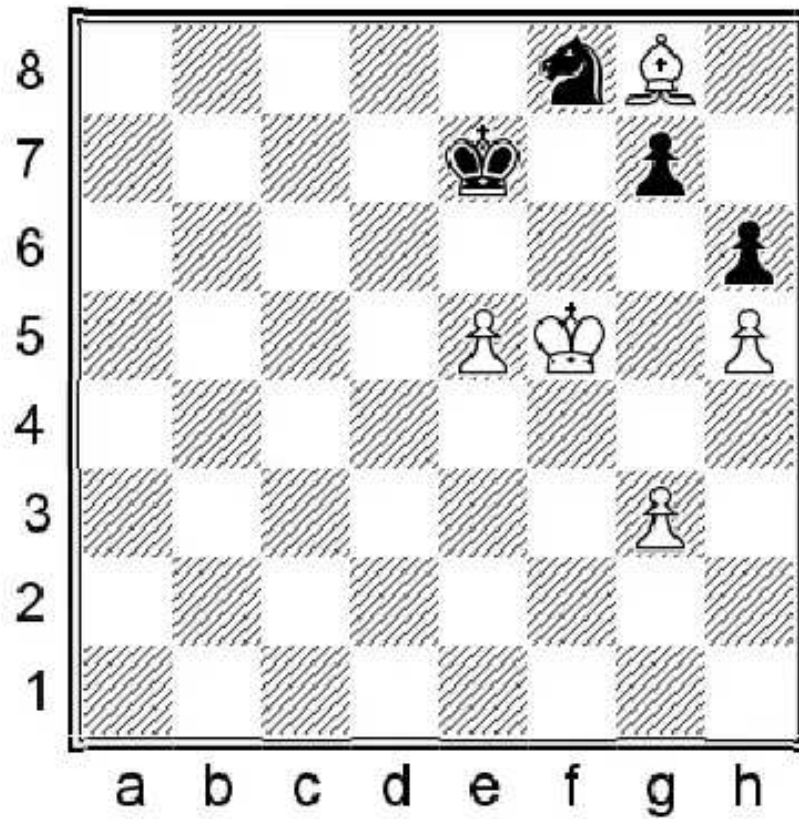
Black only needs to be careful about getting into zugzwang.

**60...♖d7 61.♗g8**

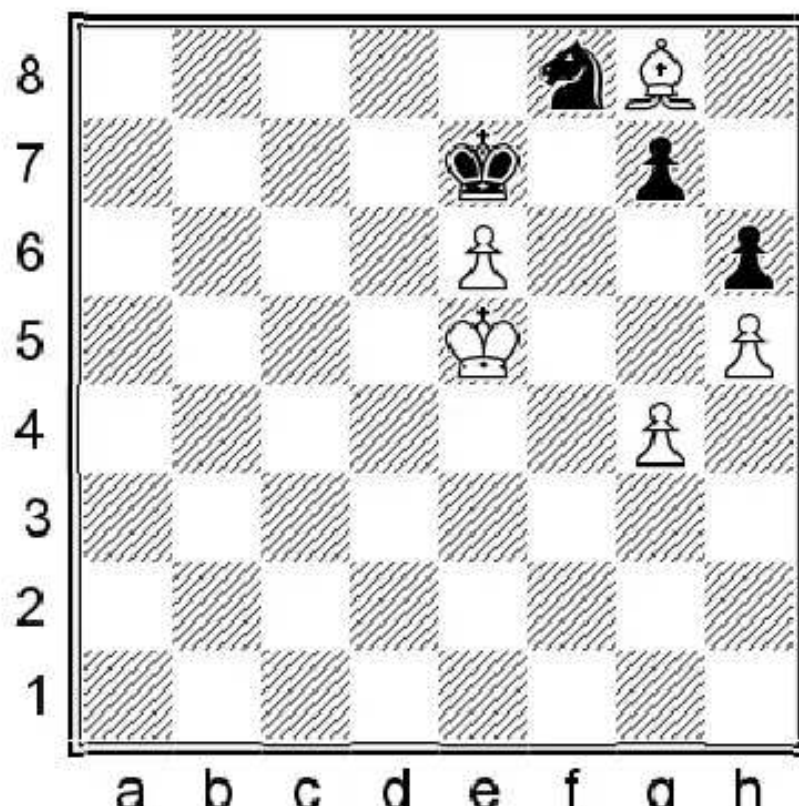
If 61.♔g6 ♔f8 62.e6 ♜f6 63.♗f3 ♜g8! Black establishes a blockade on the e7 square from where it never needs to worry about getting into zugzwang because he can jump in many directions and then back to e7. 64.g4 ♜e7+ 65.♔h7 ♜g8=

**61... ♜c5**

An instructive way to go wrong is 61...♜f8



Although even this holds the draw, it demonstrates the dangers that Black should be careful about. 62.e6 Suddenly the knight has run out of moves. 62...♔d6! Only move! Strangely White is in zugzwang. If it was Black's move, then after ...♔e7-♔e5 the game was over, but now... (If 62...♔e8 White wins by triangulation. He wants to move ♔e5 when the king is on e7. 63.♔e4 ♔e7 64.♔e5 Either ♔d6 wins or after 64...g6 65.g4! keeps Black in zugzwang. 65...gxh5 66.gxh5+-) 63.g4 (63.♕f7 gives up the control over the h7 square after 63...♔e7 64.♔e5 ♖h7=) 63...♔e7 64.♔e5



64...g6! We have seen that with Black to move here White is winning, but now he must make a move which will help Black to breathe... 65.♔f7 (65.♔d5 gxh5 66.gxh5 ♕f6 67.♔d6 ♖xe6 68.♔xe6 ♕g7= Thanks to the wrong corner.)  
65...gxh5 66.gxh5 ♖h7=

62.♕g6 ♕f8 63.♔d5 ♖d7 64.♕f5 ♕e7

Black is already familiar with the defenses and it is easy to hold. White tries for a little while longer and then he admits

the success of the blockade.

65.♔b7 ♖f8 66.♔g2 ♖d7 67.♔h3 ♖f8 68.♕f4 ♖h7 69.♔c8 ♕f7 70.♕f5 ♖f8 71.♔d7!?

A last trap, but of course Black is not forced to take the bishop.

71...♕e7

71...♖xd7?? 72.e6+ ♕e7 73.exd7 ♕xd7 74.♕g6+–

72.♔b5 ♕d8 73.♔c4 ♕e7 74.♔d5 1/2

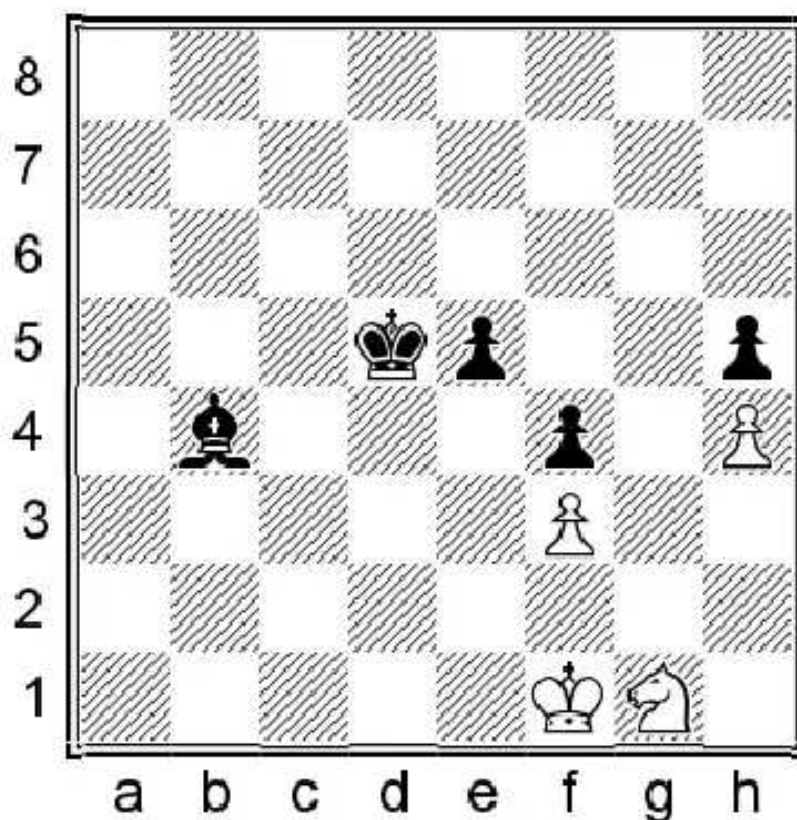
Draw agreed.

3

A. Beliavsky

K. Georgiev

Bled, 2002



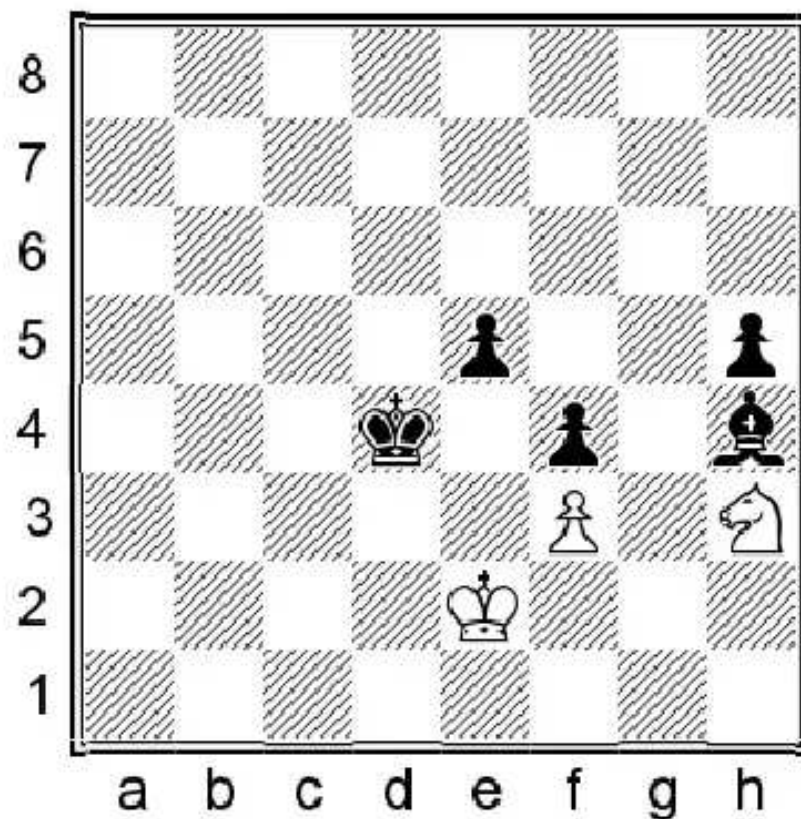
Black is a pawn up and he intends to collect a second one with ...♔e7. How do we deal with this?

80.♕e2!

White correctly realizes that he can give up the h4 pawn because he establishes an unbreakable barrier with his remaining pieces. Let's examine first what happens in case of passive defense with 80.♕g2 ♔e7 81.♕h3 This saves the

pawn, but allows the invasion of the black king, which is going to be decisive. 81...♖d4 82.♗e2+ ♜e3 83.♗g1 ♜f2+

80.♗e2! ♜d4 81.♗h3 ♜e7 82.♗g1 ♜xh4 83.♗h3

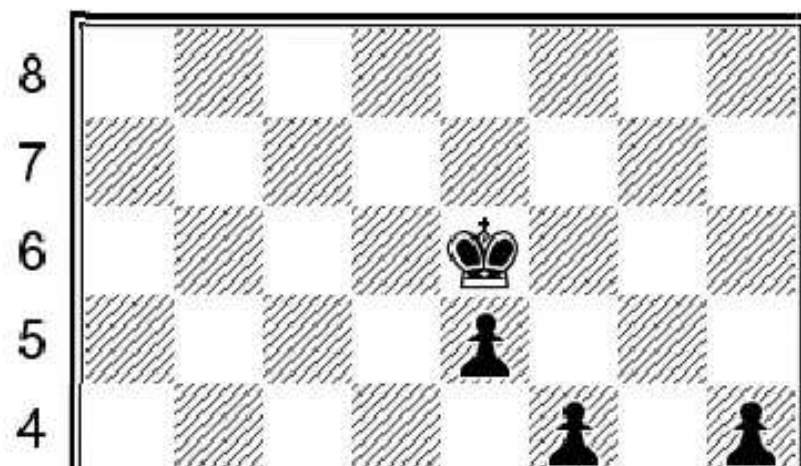


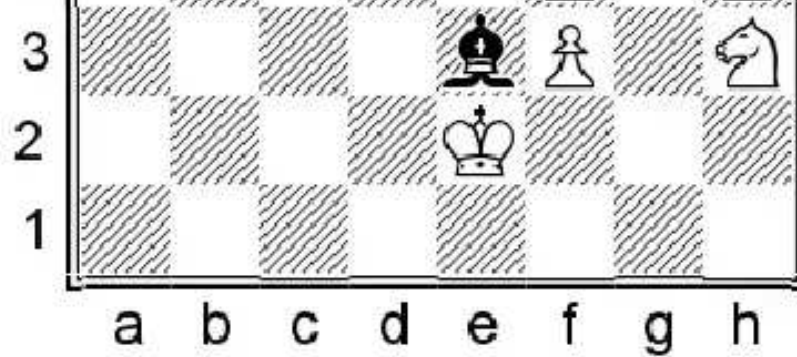
How can such blockades two pawns down be successful? Black can neither win more pawns, nor gain any other benefits with the bishop. The h-pawn cannot be promoted as it faces a perfect blockader on h3. The black king cannot help because when it arrives at f5 to invade with ...♜g5-h4 in case of knight moves, White has many waiting moves with his king. Neither can the black king squeeze out the king from e2, because the knight has enough squares on g1-f2-g5 to avoid getting into zugzwang. The only attempt remaining is e4, but then White can always count on the saving idea of taking on e4, then on f4, followed by moving the king to the corner.

83...♗c4

For instance after 83...♜d8 84.♗f2 ♜c7 85.♗h3 e4 86.fxe4 ♜xe4 87.♗xf4 ♜xf4 88.♗f2=

84.♗g1 ♜d8 85.♗h3 ♜d4 86.♗f2 ♜b6 87.♗h3 ♜c4 88.♗g5 ♜h4 89.♗h3 ♜e3 90.♗g5 ♜d5 91.♗h3 ♜e6!





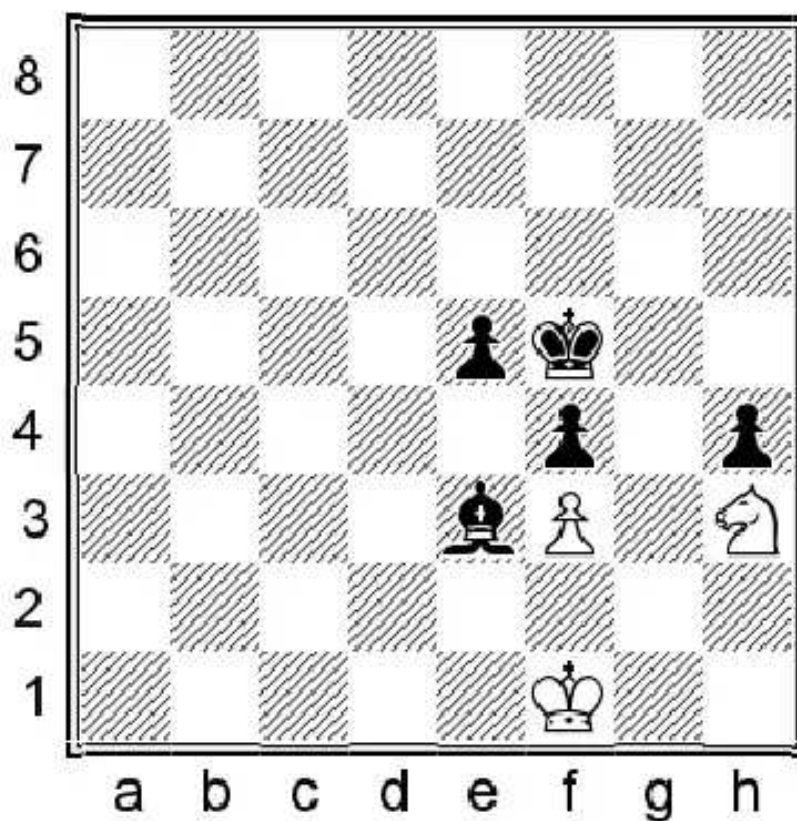
Black improves his position. The bishop is actively placed on e3 and the king decides which direction to go according to White's next moves.

**92.♔f1!**

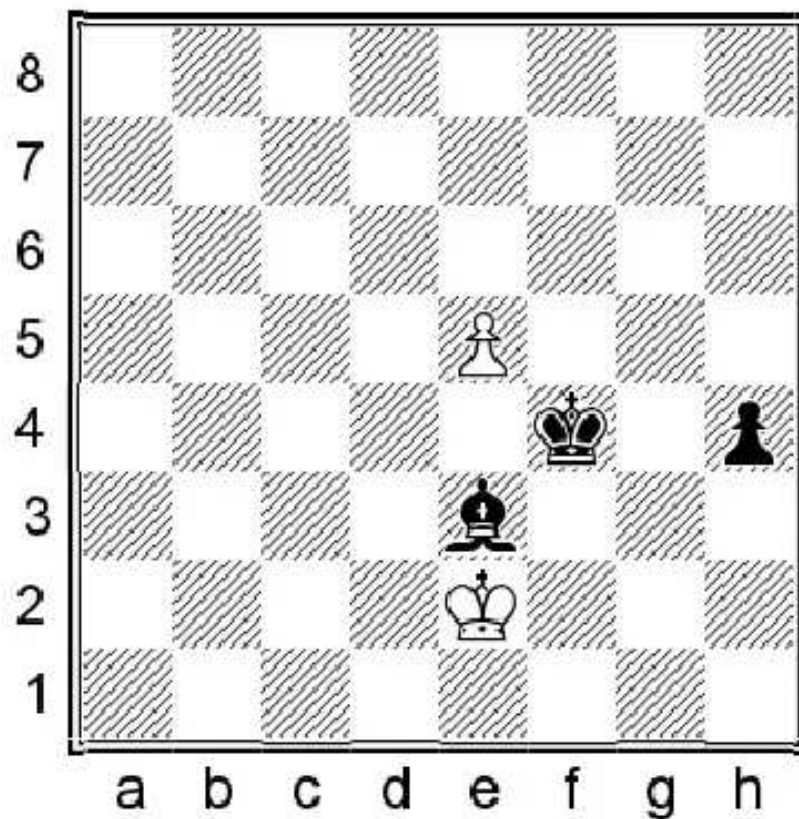
White also waits and wants to see how Black intends to make progress. If the king goes to d5-d4 he switches back to e2 while after ...♔f5 he goes ♔g2!

**92...♘b6**

The last critical position arises after 92...♔f5



93.♔g2! (93.♔e2? loses to 93...e4! 94.fxe4+ ♔g4! and White cannot get back to the corner with his king because of the well placed bishop on the g1–a7 diagonal. 95.♘xf4 ♔xf4 96.e5



96...h3 97.e6 ♖c5 98.e7 (98.♔f1 ♔f3 99.e7 h2–+) 98...♙xe7 99.♔f1 ♖c5–+) and now the e4 break is simply answered by 93...e4 94.fxe4+ ♗xe4 95.♗xf4=

**93.♗g2 ♗d5**

Now the retreat:

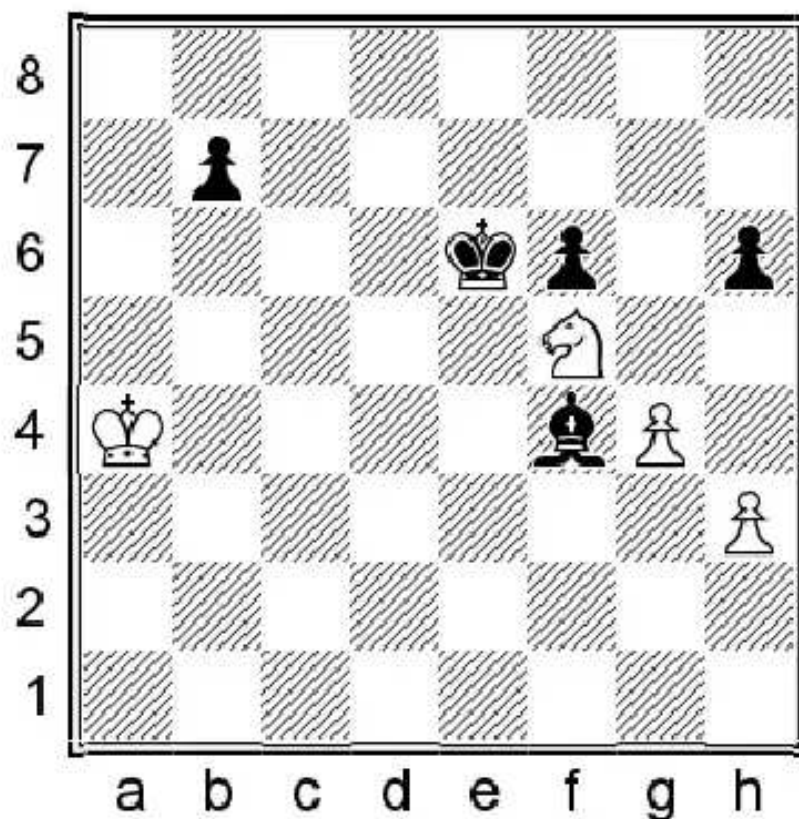
**94.♔f1! ♔d4 95.♔e2 ♖c7 96.♗g5 ♖a5 97.♗h3 1/2**

After almost 40 more moves without any progress a draw was agreed.

4

**M. Adams**

**V. Kramnik,  
Dortmund, 2014**



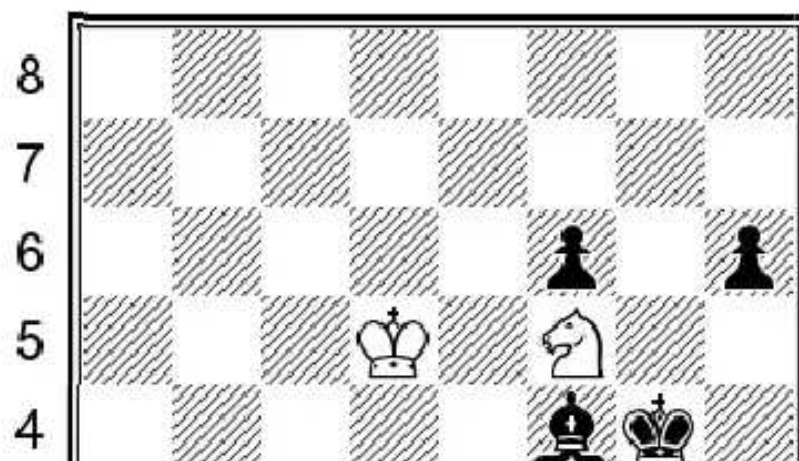
Black uses his b-pawn to deflect the white king, meanwhile he goes to collect the kingside pawns. However, thanks to the excellent placement of the knight, White is able to hold the draw.

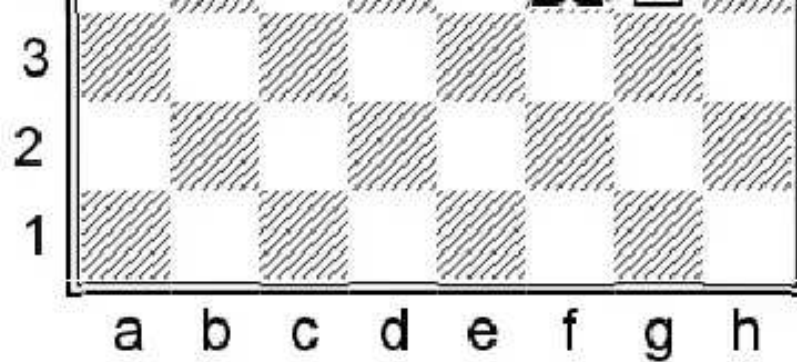
**51...♔d5**

The path to the h3 pawn is not shorter if Black plays ...♔e5 as he must go via the e4 square anyway. Another winning attempt was 51...♔e5 52.♔b5 ♔g5 53.♔b6 h5 54.♔xb7 h4 Advancing the h-pawn is a big achievement for Black and he only now heads towards the h3 pawn, but this takes too much time and White is in time to bring his king back...

55.♔c6 ♔f4 56.♔d5 ♔f3 57.♔d6 ♔g2 58.♔e4 ♔xh3 59.♔f3 ♔h2 60.♔f2!= Squeezing the black king to the h-file. White plays ♔e4 next and Black cannot make progress.

**51...♔d5 52.♔b5 ♔e4 53.♔b6 ♔f3 54.♔xb7 ♔g2 55.♔c6 ♔xh3 56.♔d5 ♔xg4**





**57.♔e6!**

White wins back one of the pawns, but the position still remains tricky...

**57...h5**

Both 57...♙g5 and 57...♙g5 run into 58.♖xh6+!=

**58.♖xf6 ♘c1**

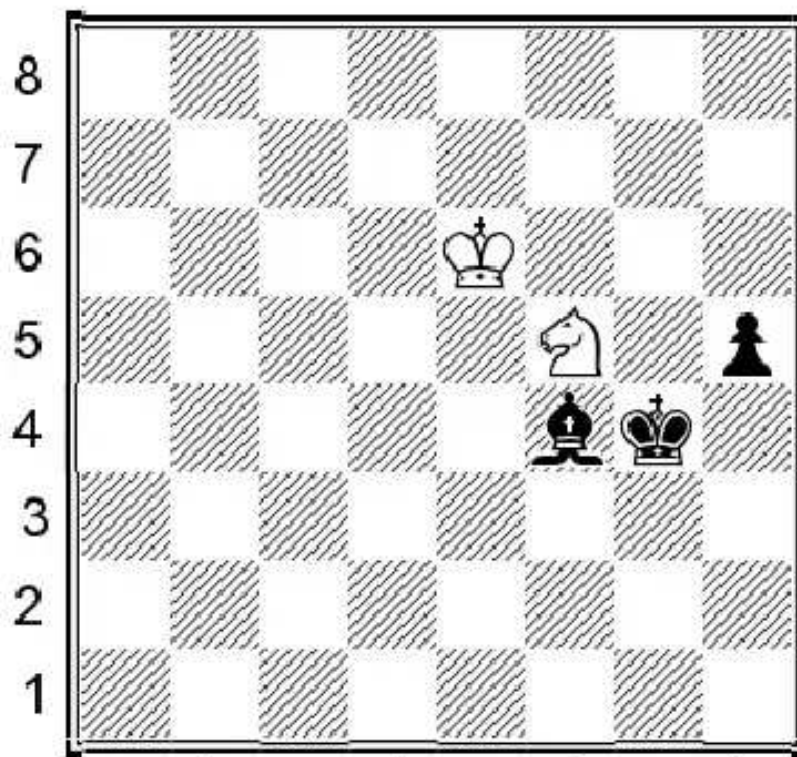
We have already studied this type of position in chapter 3.2. As we know, the last hope for Black is to somehow set White into zugzwang and force him to move with his knight, when the pawn could be then advanced.

**59.♔e5!**

The most natural and also the best move. White approaches the corner with the idea of sacrificing the knight sometimes as the h1 square does not fit to the bishop's color. The same idea that should have been used in the Fischer-Taimanov game. 59.♔g6? to protect the knight and keep the h5 pawn under attack is a mistake because after 59...♙g5! White gets into zugzwang. 60.♖d6 h4 61.♖e4 ♘e3 The bishop dominates the knight now. 62.♖f6+ ♔f3—+ and the pawn promotes automatically.

**59...♙d2 60.♔e4!**

Another moment to go wrong was 60.♔f6? but here the win is much more complex than in the 59.♔g6 line: 60...♙f4 61.♔e6



a b c d e f g h

61...♔g5! White is in zugzwang again. Only the knight can move. 62.♞d4 White temporarily prevents the advance of the pawn, but he soon finds himself in zugzwang again... 62...♙b8! 63.♞f5 (63.♞f3+ is met by 63...♔g4 and Black advances his pawn next.) 63...♙c7! 64.♞d4 ♔f4! 65.♞f5 ♙d8!—+ Here we are! The next zugzwang. Only the knight can move again, but this time it does not have any good squares. Black pushes ...h4 next.

60...♙g5

Before playing the thematic 60...♙f4, Kramnik tries some other ideas to set Black into zugzwang.

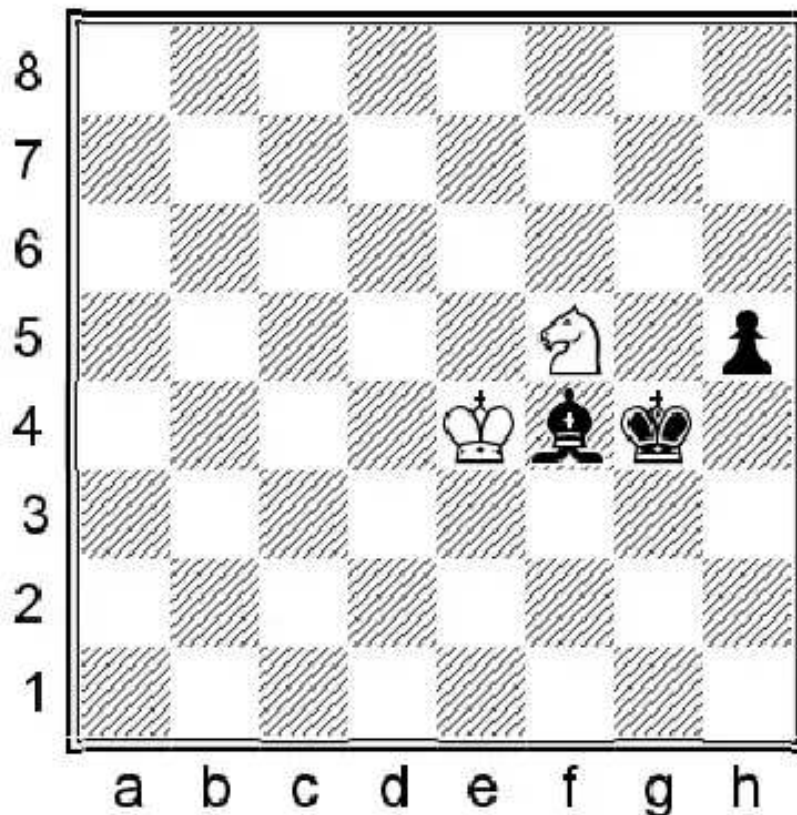
61.♔e5 ♔f3 62.♞d4+!

White does not have ♔e4 now, but this time he can give a check and then go back to f5.

62...♔g2 63.♞f5

White is ready to wait with ♔e4 and there is no chance for a zugzwang here.

63...♔f3 64.♞d4+ ♔g4 65.♞f5 ♙d2 66.♔e4 ♙f4

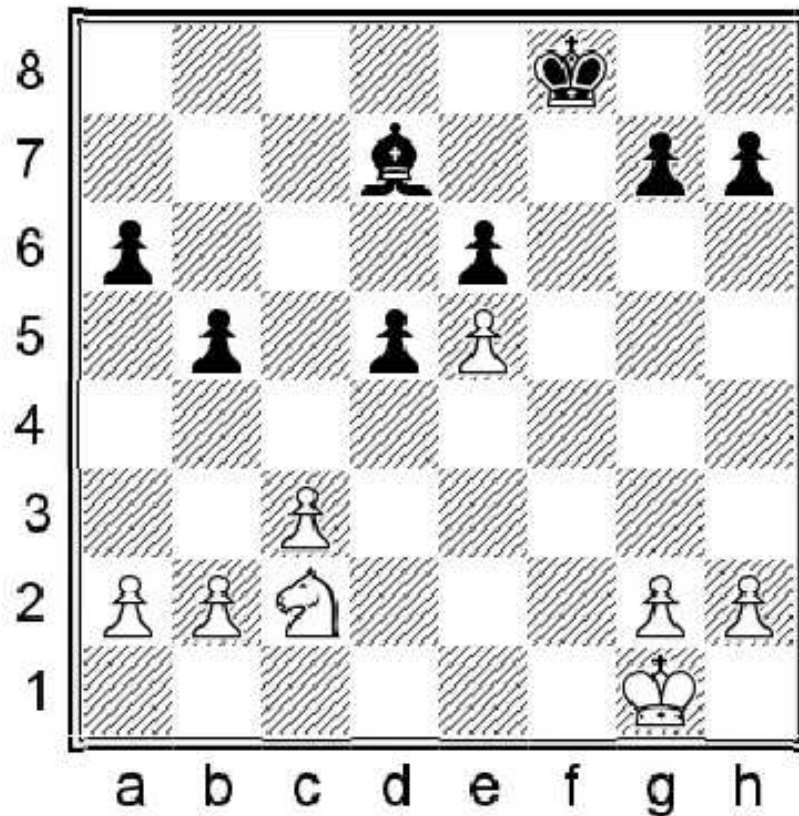


It seems as though Black has achieved his goal, but Adams has a nice resource to save the game.

67.♞h4!

We have seen this motif in the Efimenko-Solak game. Actually 67.♔d3! was also drawn followed by quickly going to h1!

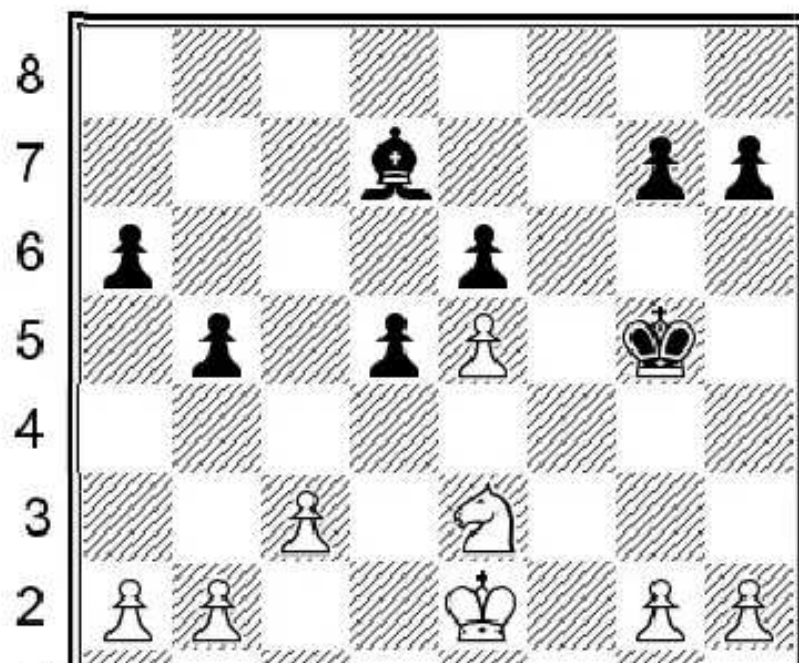
67...♔xh4 68.♔xf4 ♔h3 69.♔f3 1/2

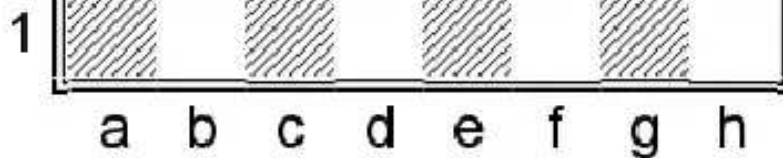


Now we will discuss a classic example on the topic of the good knight against the bad bishop. The position is closed and the bishop is locked behind his pawns, which are placed on the same color. Realizing the advantage is simple, but still quite instructive. First of all, White has to activate his king to the maximum. It has an open path straight to c5.

1. ♔f2 ♖e7

If 1... ♖f7 with the idea to gain counterplay with ... ♖g6-f5, White can neutralize it by building a barrier with 2. ♖e2 ♖g6 3. ♘e3! ♖g5





4.g3!+- The king cannot break through the barrier, while the white one continues his journey via d3-d4-c5.

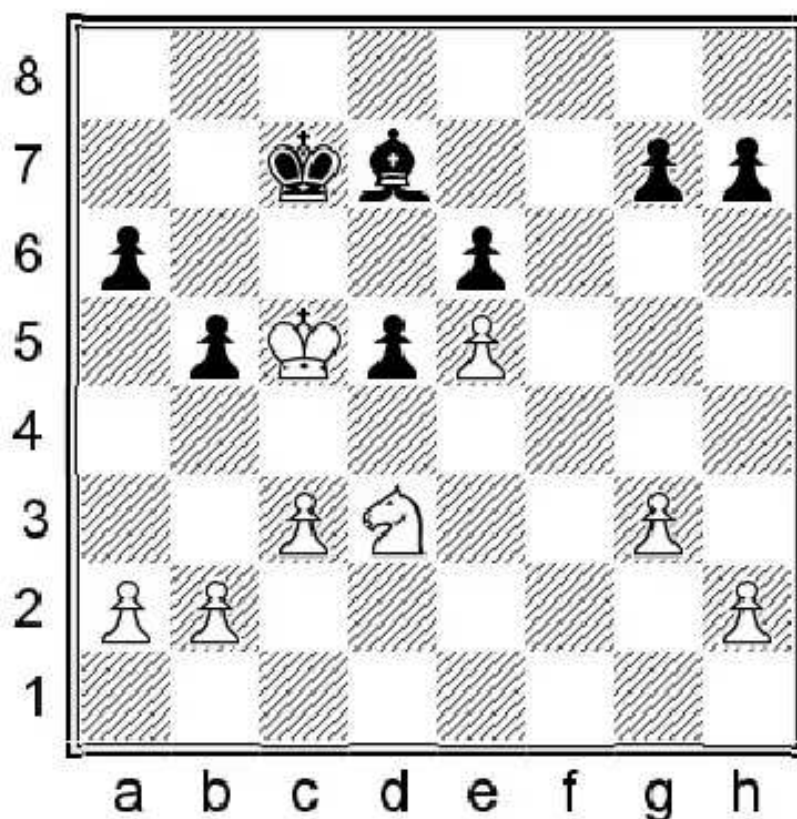
2.♔e3 ♕d8 3.♔d4 ♕c7 4.♔c5 ♖c8

The next step towards the victory follows the 'two-weaknesses' principle. White cannot win yet on the queenside, therefore he provokes a weakening on the kingside to create new targets.

5.♘b4 ♗b7 6.g3

Allowing no chance for the opponent to gain some counterplay with a ...d4 break. White has time to do anything he likes while Black is obliged to wait.

6...♖c8 7.♘d3 ♗d7



8.♘f4!

With the idea of playing ♘h5 and, when the g-pawn moves, ♘f6.

8...g6 9.♘h3!

Black prevented ♘h5, but now the knight is coming from g5.

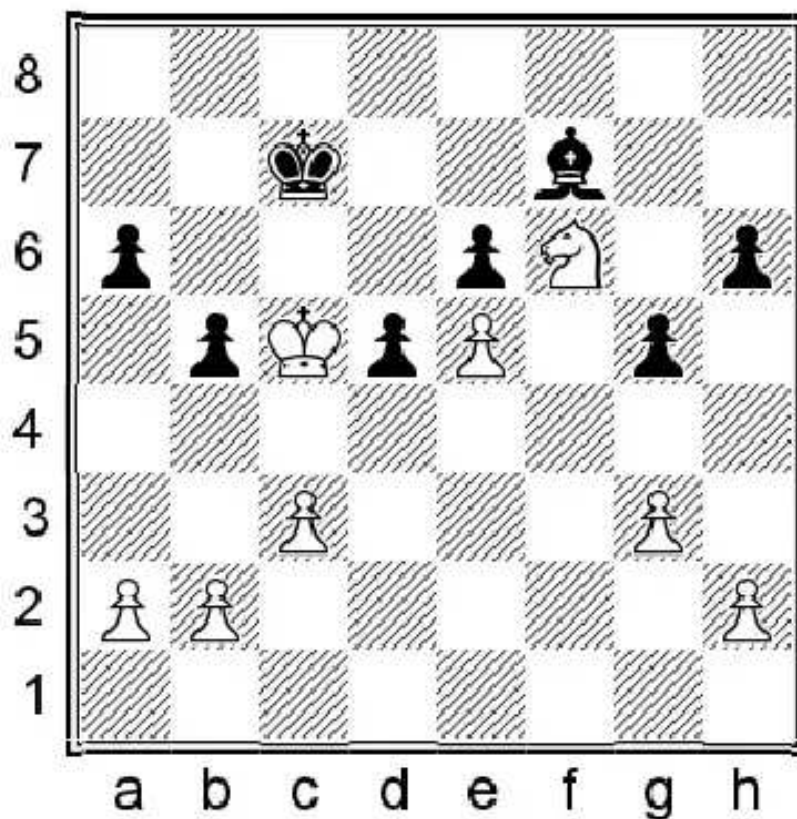
9...h6 10.♘f4!

Now back to f4, provoking even more weaknesses. The more advanced the pawns are, the more vulnerable they become.

10...g5 11.♘h5 ♖e8

Black can finally transfer his bishop to the kingside to keep his pawns together.

12. ♖f6 ♗f7



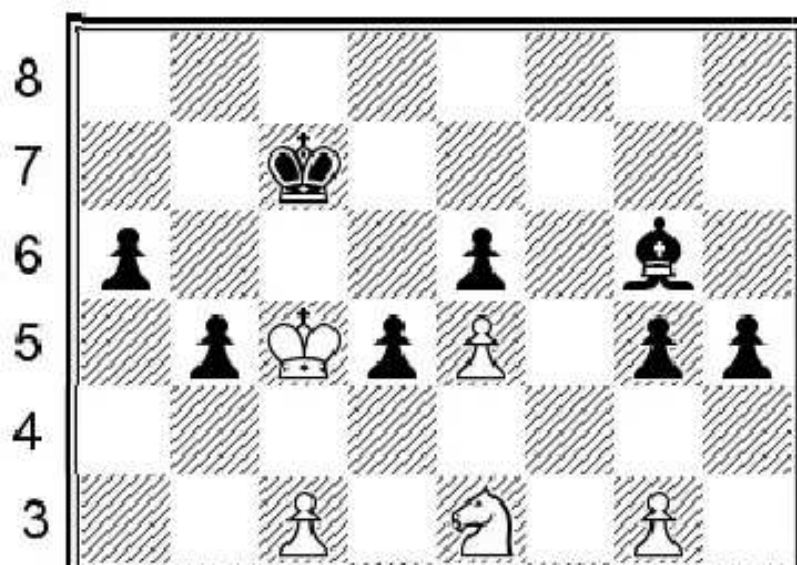
13. ♗g4!

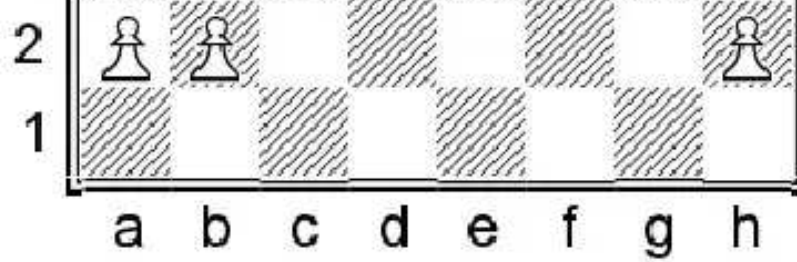
Another weakening and one more black pawn must now move to the same color square as the bishop.

13...h5 14. ♗e3 ♗g6

14...h4 15. gxf4 gxf4 16. ♗g2 h3 17. ♗f4+- wins the pawn.

14...g4 15. ♗g2 ♗g6 16. ♗f4 ♗f7 17. b4!+- A very nice position. Unfortunately it is very hard to stay like this in a game — Black has run out of moves.





**15.h4!**

Fixing the weakness on h5!

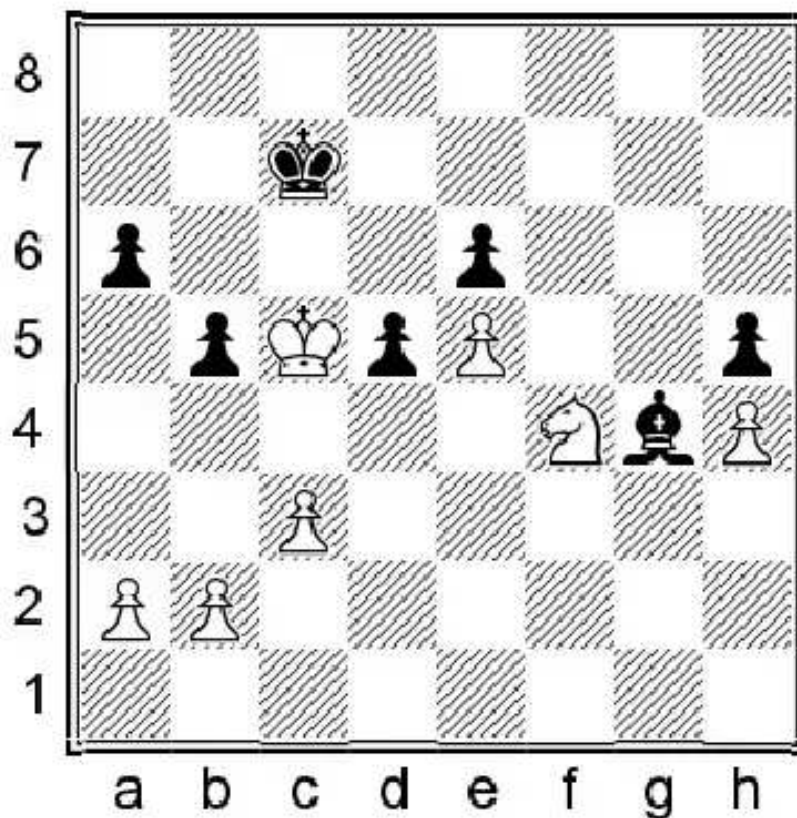
**15...gxh4 16.gxh4**

White intends to get his knight to f4 which would result in the same zugzwang position as the 14...g4 line. Black tries to fight against it with

**16...♙e4 17.♘f1 ♕f3 18.♘d2 ♕e2 19.♘b3 ♕g4 20.♘d4**

Here is another zugzwang. The bishop must protect the e6 pawn, but then he must allow the knight transfer ♘e2-f4.

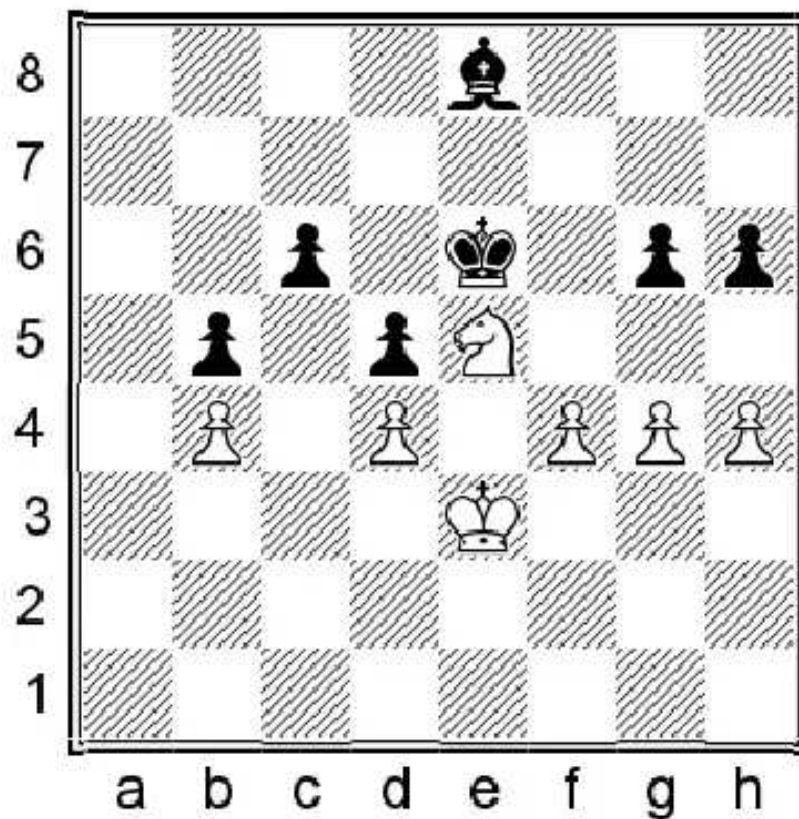
**20...♕h3 21.♘e2! ♕f5 22.♘f4 ♕g4**



**23.b4**

The final zugzwang! Black is forced to make a decisive weakening.

**23...♔d7 24.♔b6 ♕f3 25.♔xa6 ♔c6 26.♘xe6 1-0**



The knight is clearly dominating the bishop, the only question is... how should White break through? The king is locked behind the pawns, the knight cannot be improved, so White must open the game on the kingside.

**39.f5+! gxf5 40.g5**

White obtains a dangerous passed pawn and a nice outpost on f4.

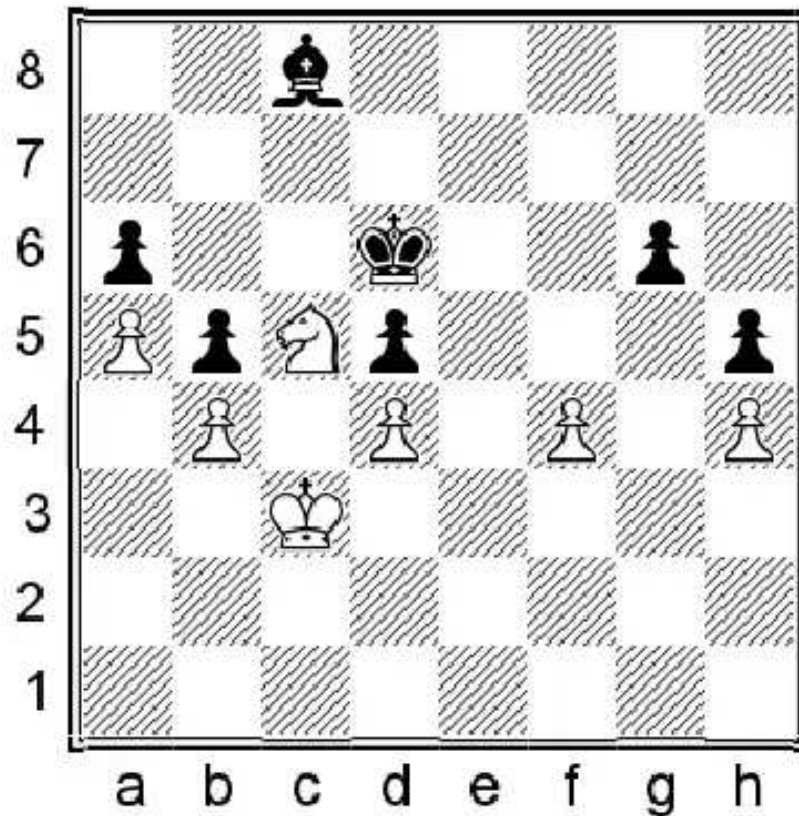
**40...hxc5 41.hxc5 c5**

A desperate attempt to create a passed pawn. 41...♔d6 42.♕f4 ♕e6 43.g6 ♖f6 44.g7 ♕xg7 45.♕xf5 At the moment Black is a pawn up, but he soon loses all his pawns. 45...♕h6 46.♕f6 ♕e6 is also winning, but this is the most subtle because it prevents ...♕g5 and ...♕h5 is met now by ♕e7 trapping the bishop. 46...♕h7 47.♕e7 ♘h5 48.♕d6+—

**42.bxc5 b4 43. ♘d3 b3 44. ♘f4+ ♔d7 45. ♔d2 1-0**

7

**A. Khalifman**  
**D. Barua**  
**Las Vegas, 1999**



The knight is stronger than the bishop, but by itself this is not enough for the win. The two weaknesses are on a6 and g6, but they are too far from each other and Black can easily hold both at the moment. White cannot make progress without his king, but it is locked behind the pawns. The only possible winning attempt could be a break with f5 at some point and to invade with the king via f4. For the moment, Black is actually the one who has a clear path into the opponent's camp through f5-g4. White must parry this threat as the first step.

1.♔d3 ♕e7 2.♕e3 ♖f6 3.♕f3 ♗g4+ 4.♕f2 ♘c8 5.♕e3 ♖f5 6.♕f3 ♖f6 7.♘d3 ♗g4+ 8.♕g3 ♗f5 9.♘c5 ♗c8

White finds a clever plan to drive the knight to e3, from where it attacks the d5 pawn and supports the f5 break.

10.♘b3 ♗g4 11.♕f2 ♗f5 12.♘d2 ♗c8 13.♘f1 ♗e6 14.♘e3 ♕f7?!

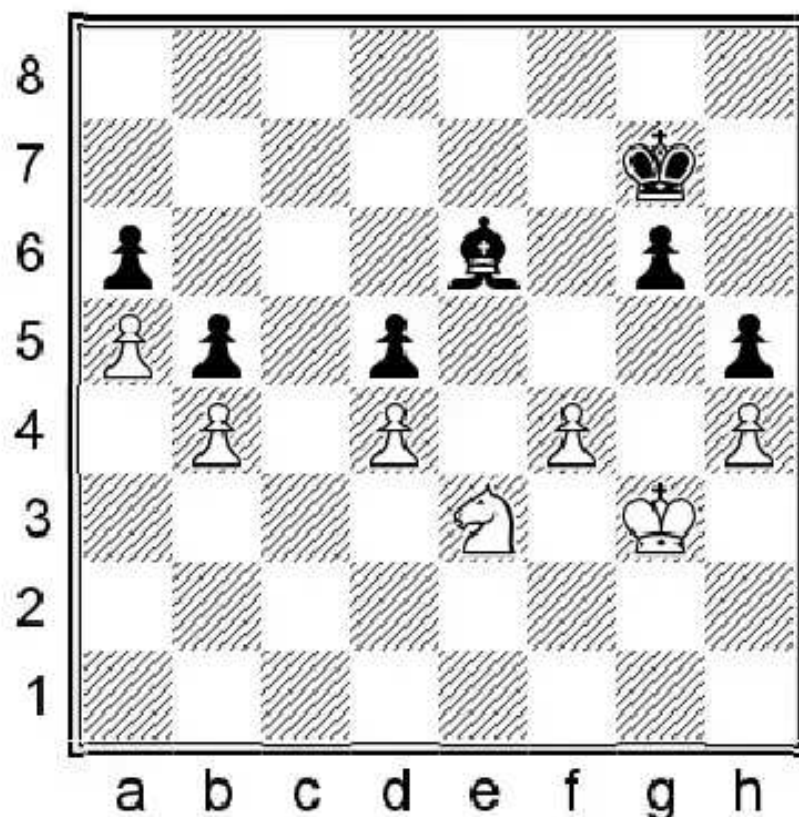
Black would have been more circumspect keeping the king on f6. The knight is a short range piece: it takes 4 tempi until he gets back to c5, meanwhile for Black it is only two tempi to get the bishop to c8, therefore he could have simply changed the diagonal. 14...♗f7 The point is that after 15.♕g3 ♗g8 16.f5? g5! and it is only Black who could have the advantage thanks to his distant passed pawn.

15.♕g3

15.f5 is still a bit premature, because Black could play 15...♗xf5 16.♘xd5 g5! Getting rid of the kingside pawns and obtaining a passed pawn. Black holds easily after 17.hxg5 ♕g6 18.♘c7 ♗c8 19.d5 ♕xg5 20.d6 ♕f6 21.♕g3 ♕e5 22.♘xa6 ♕xd6 23.♘c5 ♕c6 24.♕h4 ♗g4=

15...♕g7?

Black does not sense the danger and makes a decisive mistake, underestimating White's entire idea that he has been building for 15 moves.



It was important to move towards the center 15...♔e7 the reason is after 16.f5 ♕xf5 17.♖xd5+ ♔d6! and ♖c7 does not work. 18.♗e3 ♕e4 19.♔f4 ♕d3= and Black just waits with bishop moves. White can enter with his king to g5, but later he cannot make progress. He should use his knight as well, but it is obliged to control the d5 square to avoid Black's quick counterplay with the king.

### 16.f5!

The time has come for the breakthrough.

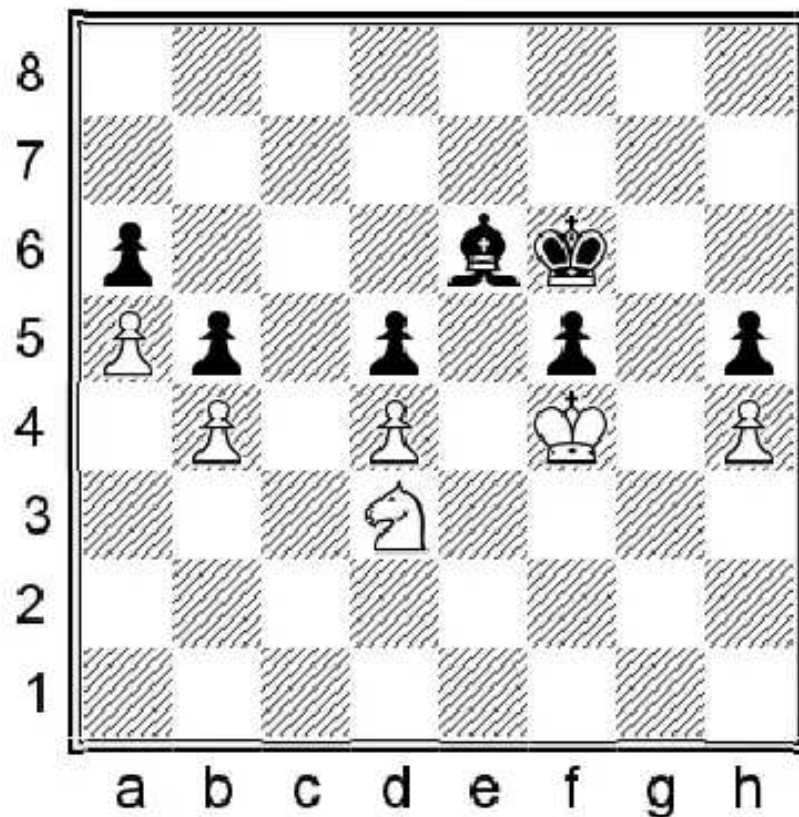
### 16...gxf5

16...♕xf5 17.♖xd5 ♔f7 18.♔f4 ♕c8 19.♗c7 A typical situation, when the h4 pawn holds the h5-g6 and White basically has an extra d4 pawn. 19...♔f6 (19...♔e7 20.♔e5+-) 20.d5 ♕b7 21.d6 ♕c8 The easiest win is 22.d7 ♕xd7 23.♗xa6+- followed by ♗c5 and a6-a7. If Black allows ♗a6-c7 promotes the pawn, or if he goes there with his king, ♔g5 is going to be decisive.

### 17.♔f4 ♔f6

Actually if it was Black's move, he would be in zugzwang. He would either lose his d5 or f5 pawn or allow ♔e5, but as we know, the knight cannot lose a tempo. He must find another plan to make progress.

### 18.♗c2 ♕d7 19.♗e1 ♕c8 20.♗d3 ♕e6



If Black tries to hold with 20...♙b7 21.♔f3! is the key move, vacating the f4 square for the knight! If h5 falls, the position is winning automatically with the distant passed pawn, while after 21...♔g6 22.♖f4+ ♔h6 23.♕e3! Zugzwang! Black either loses one of his pawns (h5, d5, a6) or the king invades through e5. For example 23...♙c6 24.♖e6! ♙b7 (24...♔g6 25.♖c5+-) 25.♔f4 ♔g6 26.♕e5+-

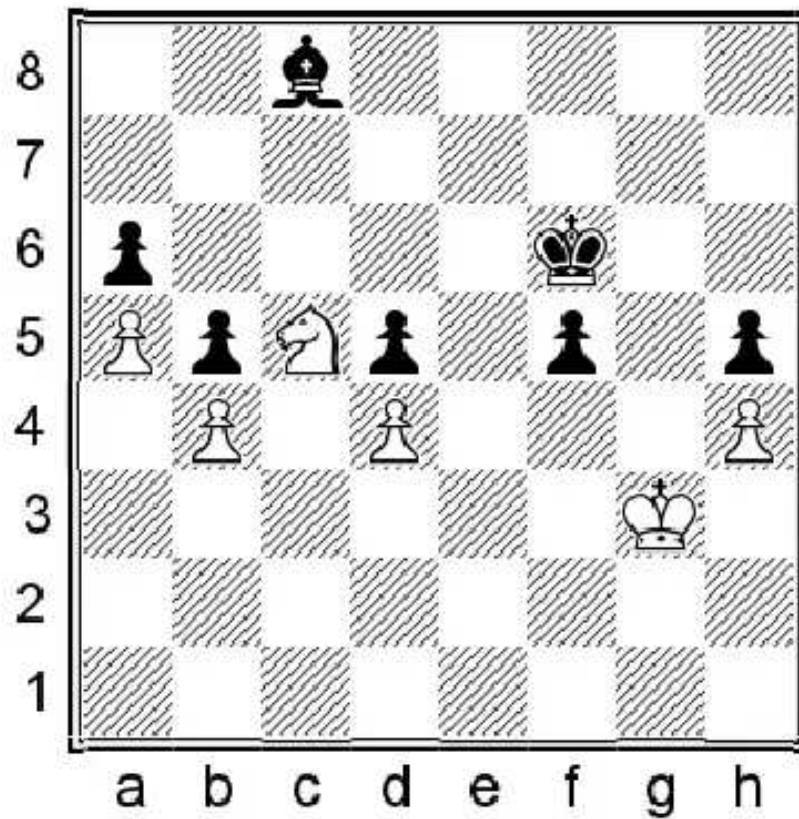
### 21.♔f3!

White finds a subtle plan. For the moment, Black must take care of the ♖c5 and ♖f4 ideas to avoid losing one of his key pawns. He can only move with his king, because ♖f4-♙f7 or ♖c5-♙c8 holds the pawn.

### 21...♔e7 22.♔g3!

Setting Black into zugzwang. If the bishop moves, ♖c5 or ♖f4 wins a pawn. ...♔f7 drops the h5 pawn after ♖f4, so the only move is

### 22...♔f6 23.♖c5 ♙c8



**24.♔f4!**

After the successful triangulation, Black finds himself in zugzwang. He must allow the king to invade through e5.

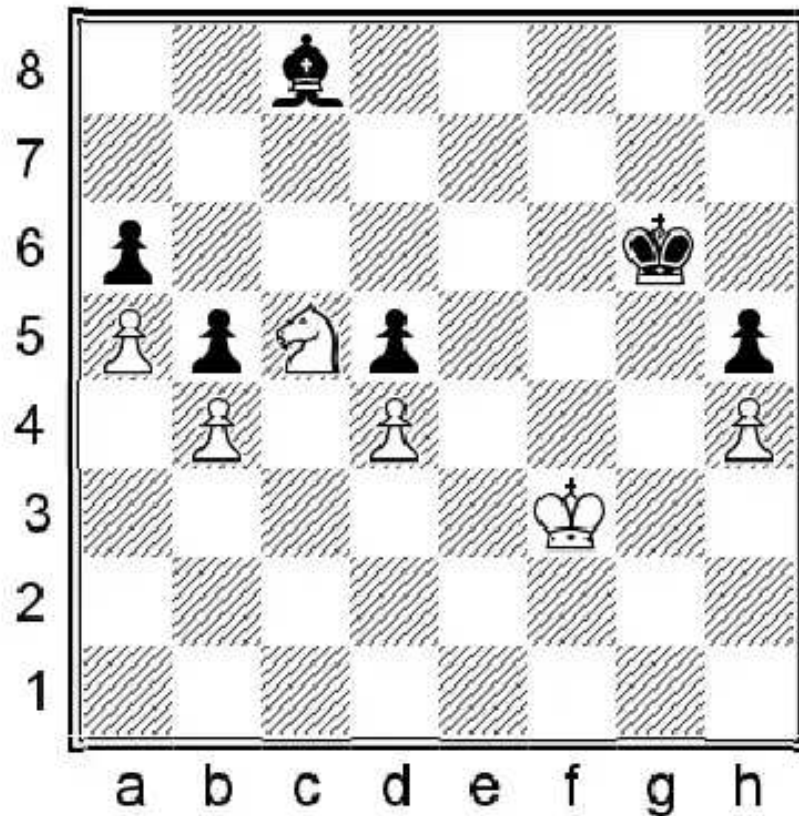
**24...♔g6 25.♔e5 f4!**

The only move, otherwise White comes back with ♞d3-f4 after which his king has a free hand inside Black's camp to collect all the pawns.

**26.♔xf4 ♔f6 27.♔g3!**

Another triangulation and White also frees the f4 square for the knight.

**27...♔g7 28.♔f3 ♔g6**



28...♔f6 29.♔f4+- is always a decisive zugzwang. Black can only go to f6 if White plays ♔f4.

**29.♘d3!**

Black loses one of his pawns after the knight arrives to f4.

**29...♙g4+ 30.♔e3 ♙e6 31.♘f4+ ♔f5 32.♘xh5 ♔g4 33.♘f4 ♙f7 34.♘d3 ♙e6 35.♘c5 ♙c8 36.h5! 1-0**

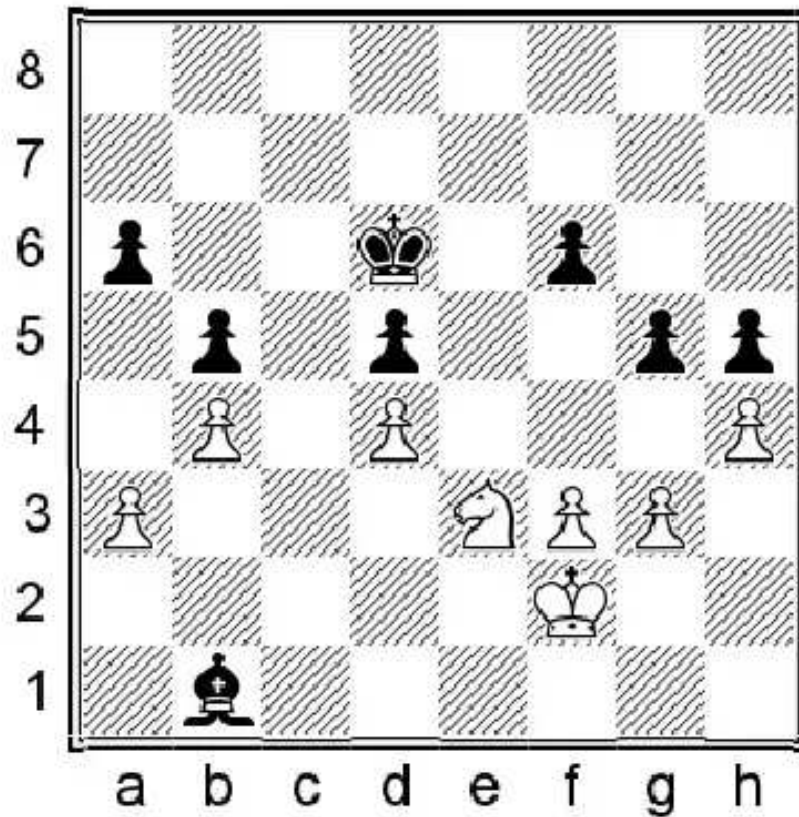
Black resigned as, after the deflecting sacrifice, White invades with ♔f4-e5 and collects all the material.

8

**A. Karpov**

**G. Kasparov**

**Moscow, 1984**

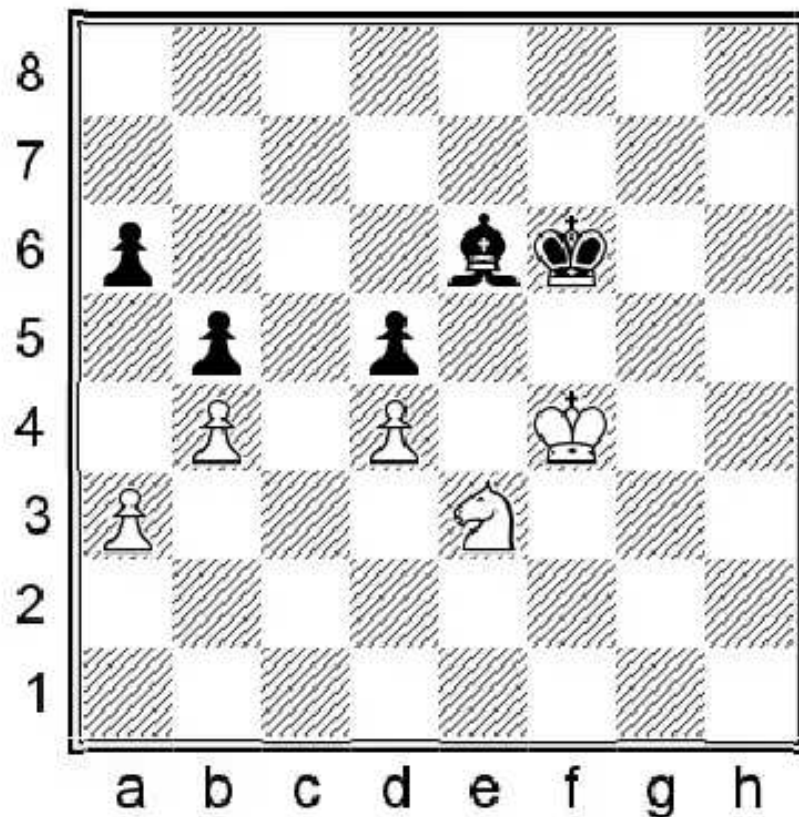


One of the most famous example on this topic is the following World Championship game. White has a superior knight, but he must work to open the kingside to be able to invade with the king. This can either be done by hxg5 fxg5 f4 or by the g4 break.

#### 46...gxh4?!

The game was adjourned and during his home analysis Kasparov decided to fix the pawn structure with 46...gxh4 47.gxh4 and ...♙g6 with the idea that White could no longer invade with his king. However both he and his seconds failed to foresee the brilliant idea that Karpov had in his mind...

As was figured out by many analysts, the right way to draw was 46...♙e6! 47.g4!? The most dangerous attempt to open the kingside. (47.hxg5 fxg5 48.f4 is harmless because of 48...g4!= and Black builds a fortress.) 47...hxg4 48.hxg5 The easiest is 48...gxf3 (48...fxg5 49.♘xg4 ♙f5 50.♙g3 And here, Black should just play 50...♙e7 (It is important to not allow 50...♙d6 51.f4! gxf4+ 52.♙xf4 we will analyze this kind of position in the future course of the game.) 51.♙e3 (51.f4 is met by 51...♙xg4 52.♙xg4 gxf4 53.♙xf4 ♙f6= This is the point of 50...♙e7.) 51...♙e6 52.f4 gxf4+ 53.♙xf4 ♙f6=



Black holds. This position is actually a mutual zugzwang. If it was Black's move now, he would face a very unpleasant moment as all his moves make a huge weakening in his position. If he wants to save his d5 pawn and plays ...♔f7, then ♖g4 ♗e6, ♔g5 leads again to those types of positions that we are going to discuss later. Now it is White to move and the problem is he cannot lose a tempo with the knight and is unable to pass to move to Black.) 49.♔xf3 (49.gxf6 ♔e4) 49...fxg5 50.♔g4 ♔f6! 51.♖xd5+ ♔g6= and Black saves his a6 pawn by ...♔f5-c8 in case of ♖c7. He holds the draw without any difficulties.

**46...gxf4?! 47.♖g2!!**

A brilliant reply. White temporarily sacrifices a pawn, but this allows him to invade with his king. Black was expecting the automatic recapture after which the draw is safe 47.gxf4 ♔g6 48.♔g3 ♗e6 49.♖g2 ♔d6 50.♖f4 ♔f7 51.♖d3 ♔e6 52.♖c5 ♔c8 53.♔f4 ♗e7= It looks very nice, the knight is dominating the bishop, but Black holds all the entrances and without his king White cannot make progress.

**47...hxf3+ 48.♔xg3**

White wants to play ♖f4 and ♔h4. He soon restores the material balance and then he manages to invade with his king along the h-file.

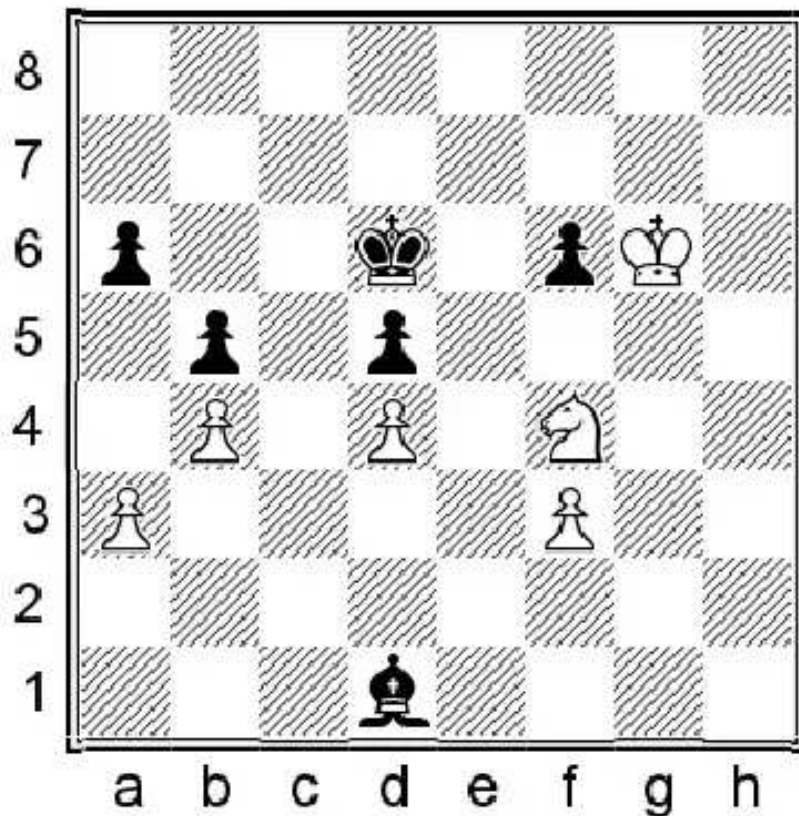
**48...♔e6 49.♖f4+ ♔f5**

49...♔d6 transposes to the game.

**50.♖xh5**

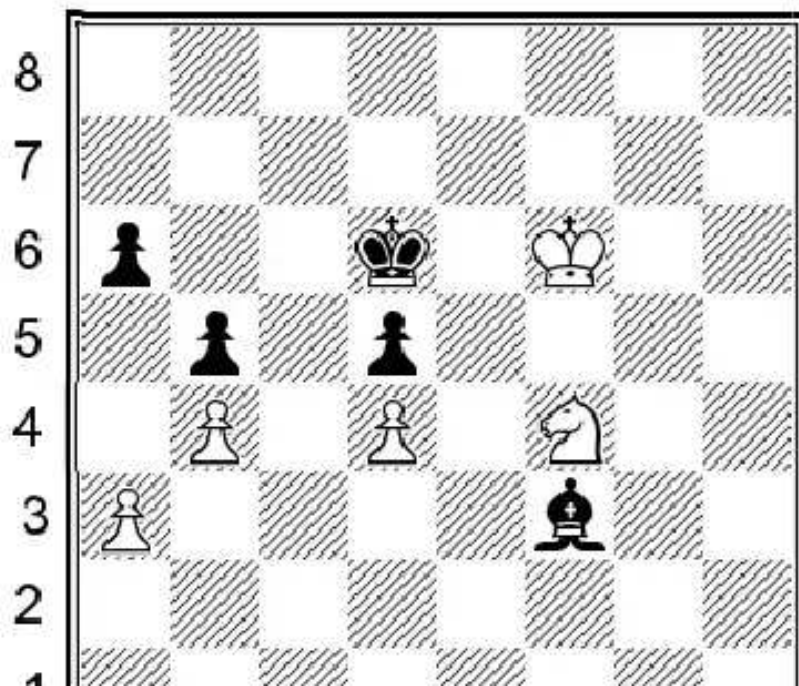
White needs to eliminate the passed pawn and he creates the threat of ♖g7 and then ♖e6-c7 wins a pawn. This forces Black to retreat.

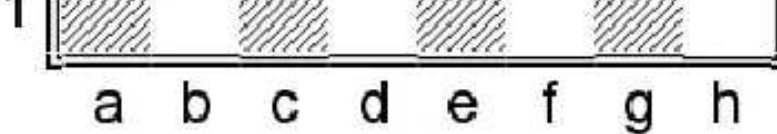
50...♗e6 51.♘f4+ ♗d6 52.♗g4 ♙c2 53.♗h5 ♙d1 54.♗g6



54...♗e7!

Kasparov finds the right defense. He gives up his d5 pawn in order to be able to generate counterplay. After taking on d5, the knight must always control the d5 square to avoid ...♗d5. As we will see, this is much better than keeping the material balance, because then White is going to win the d5 pawn under much better circumstances. 54...♗xf3 55.♗xf6+-

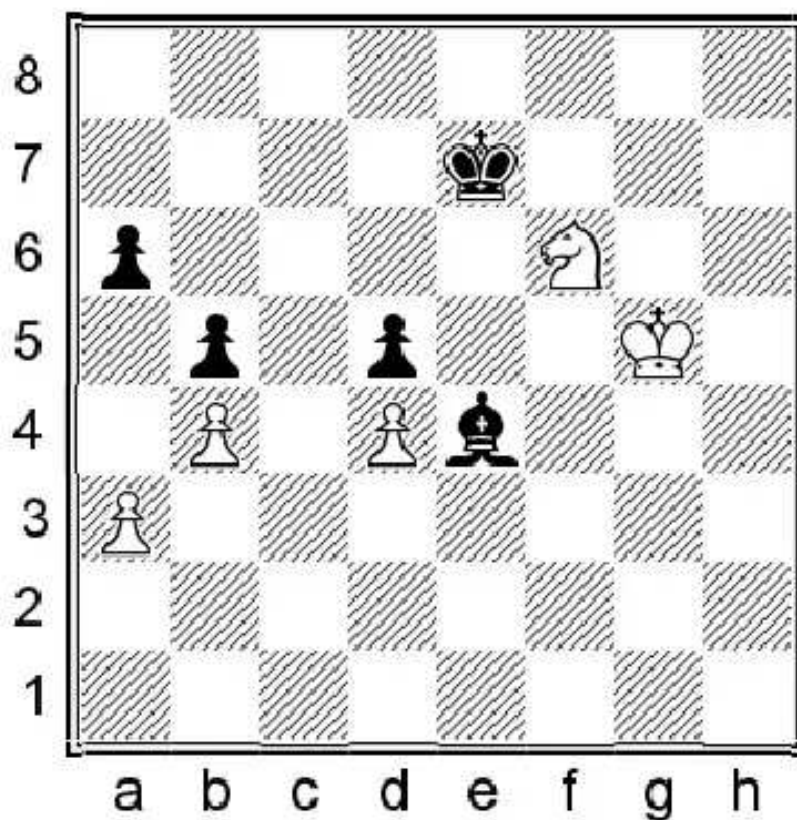




It is very important to understand this kind of position as they often occur in practice. The point is that White will give a check on f5, forcing Black to leave the d6 square as the pawn endgame is lost (due to the outflanking technique) and then the king goes to the e-file followed by another check with the knight. Squeezing the king move-by-move always using the fact that all pawn endgames are lost. Let's see how it looks in action: 55...♙e4 56.♖h5 ♘d3 57.♗g7 ♙e4 58.♗f5+ ♜d7 59.♙e5 ♙f3 60.♗e3 ♜c6 61.♙e6 ♙e4 62.♗f5+- and ♗e7 next wins the d5 pawn.

### 55.♗xd5+

A very interesting alternative was 55.♗h5!? aiming for the same position as in the 54...♙xf3 line. 55...♙xf3 56.♗xf6 The big difference is that the king is not yet squeezed to d6. This allows Black to hold with subtle defense, viz: 56...♙e4+! Only this plan! (Other moves are losing, for example 56...♙e6? 57.♗e8! Threatening ♗c7. 57...♜d7 (57...♙e4+ 58.♙g5 ♜d7 59.♗f6+ ♙e6 60.♗xe4 dxe4 61.♙f4 ♜d5 62.♙e3+- Zugzwang. Actually a mutual one, but Black is on move.) 58.♗g7 ♙e7 Otherwise ♙f6, but now 59.♙f5+- ♙e5 and ♗e6 wins.) 57.♙g5



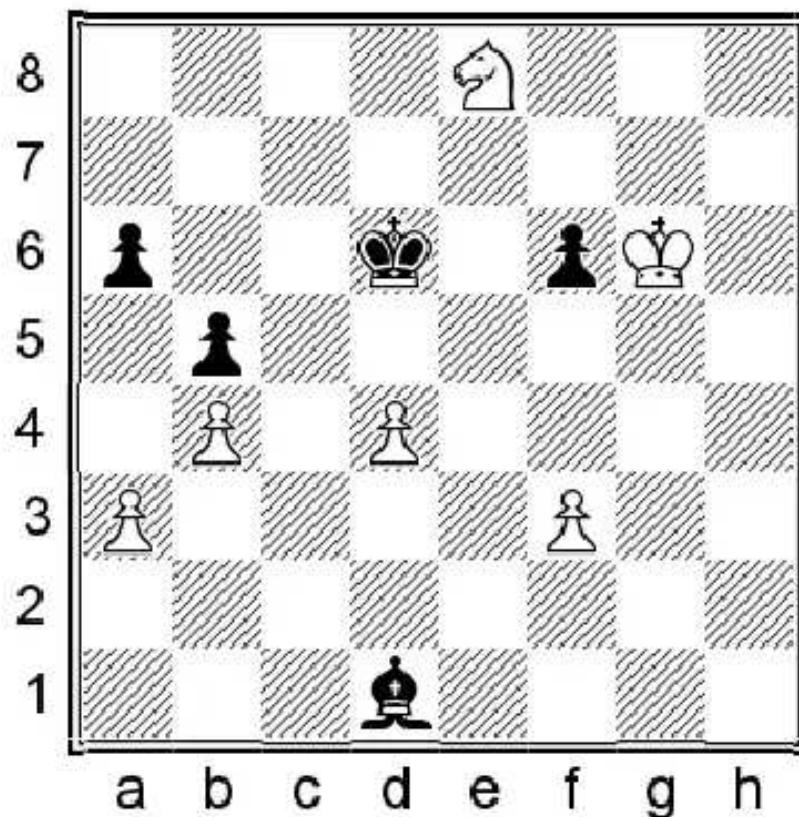
57...♙d3! Black cannot allow the king to get to e5. He sacrifices his d5 pawn in order to pin the knight to the d5 square, which always has to prevent ...♜d5 once the d5 pawn is gone. (57...♙g2? loses in the same way that we discovered earlier: 58.♙f5 ♜d6 59.♗e8+ ♜d7 60.♗g7 ♜d6 61.♙f6+- ♗f5 and ♙e5 next.) 58.♗xd5+ (White cannot make progress with 58.♗h5 ♙f7 59.♗f4 ♙e4= Black is able to keep the king away from the e5 square.) 58...♜d6 59.♗c3 ♙c2 60.♙f4 ♙d3 61.♙e3 And now it is important to parry the threat of ♗e4-c5. The a6 pawn can be saved by 61...♙f5! 62.♗e4+ ♜d5 63.♗c5 ♙c8 and White is in zugzwang. He cannot leave the d4 pawn, otherwise the knight has to retreat from its active position. 64.♜d3 ♙f5+ 65.♜c3 ♙c8=

### 55...♙e6

55...♜d6 gives White fewer options 56.♗c3 (Or 56.♗xf6 ♙xf3) 56...♙xf3 57.♙xf6 leads to the same position that we analyzed before in the 55.♗h5 ... 56...♙e4 line!

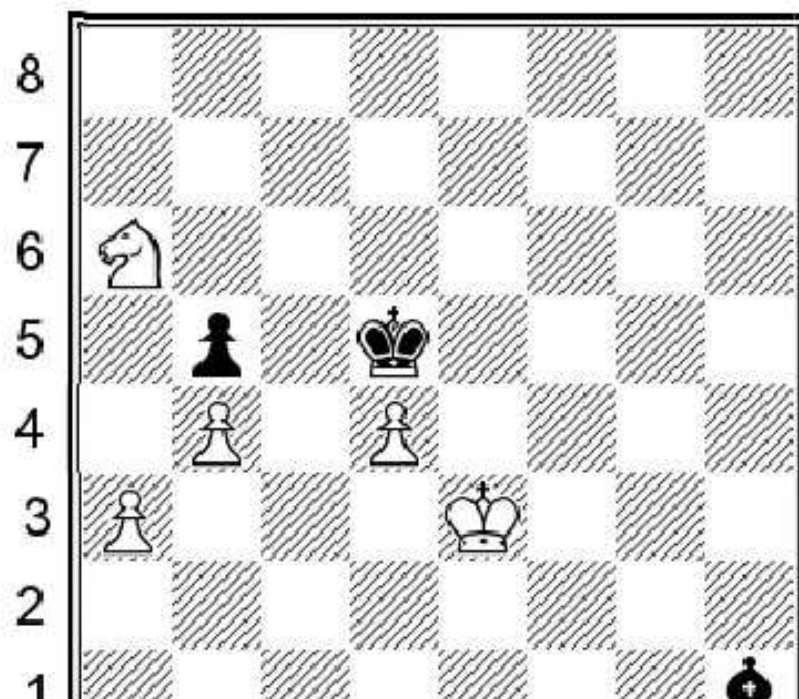
### 56.♗c7+ ♜d7?!

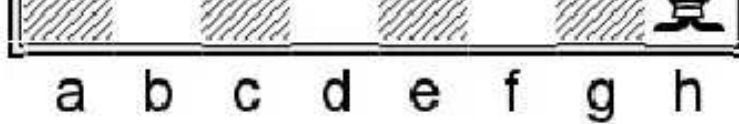
Black now ends up two pawns down. 56...♔d6 should have been played 57.♘e8+ (If 57.♘xa6 ♕xf3 58.♗xf6 ♔d5 (58...♕c6= and ♔d5 next is also fine.) 59.♘c7+ ♔xd4 60.♘b5+ ♔c4= ♔b3 next wins the a3 pawn after which the draw is secured.)



57...♔e7! (The natural 57...♔d5 loses to 58.f4! ♔xd4 59.♔xf6+- and the f-pawn decides the game. The problem is that if Black sacrifices his bishop and takes on a3, White will always be in time to take on a6 from where the knight guarantees the safety of b4 pawn.) 58.♘xf6 ♕xf3 59.♔f5 ♔d6= The white king does not reach the e5 square and we reach the same endgame that we discussed previously.

**57.♘xa6 ♕xf3 58.♔xf6 ♔d6 59.♔f5 ♔d5 60.♔f4 ♕h1 61.♔e3**





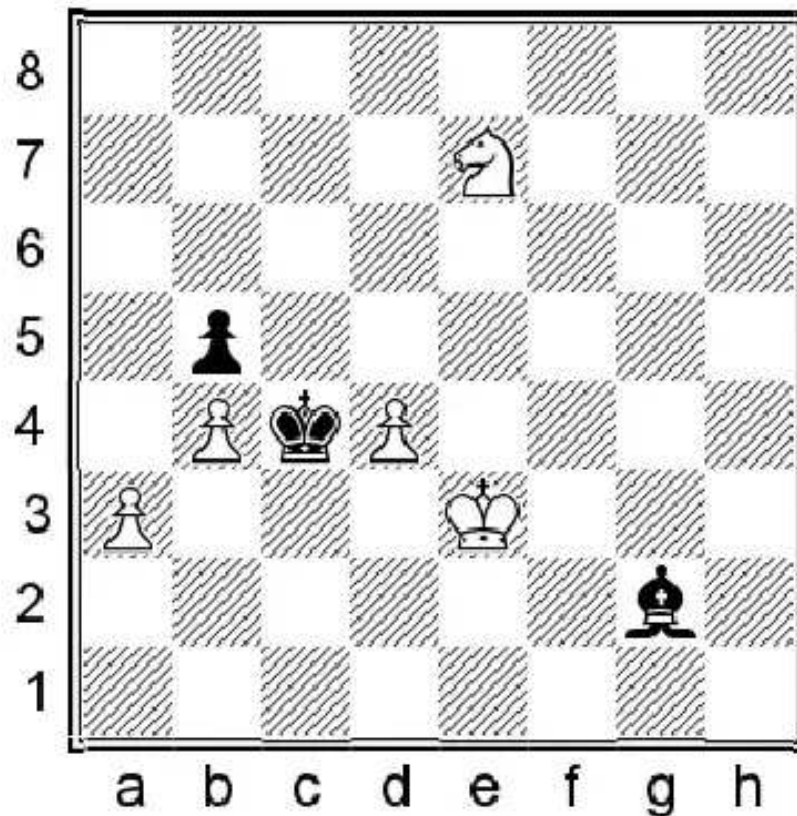
Despite the two extra pawns, the outcome is still very far from clear because of the excellent blockading position and the active black pieces.

61...♔c4 62.♖c5 ♕c6 63.♗d3 ♕g2 64.♗e5+ ♔c3

64...♔d5!? was also possible.

Black should actually just restrain himself from going towards the a3 pawn, because then his king gets excluded from c3 by the other king. 64...♔b3? 65.♔d3 ♔xa3 66.♔c3+- and the knight goes to f6 and promotes the pawn.

65.♗g6 ♔c4 66.♗e7



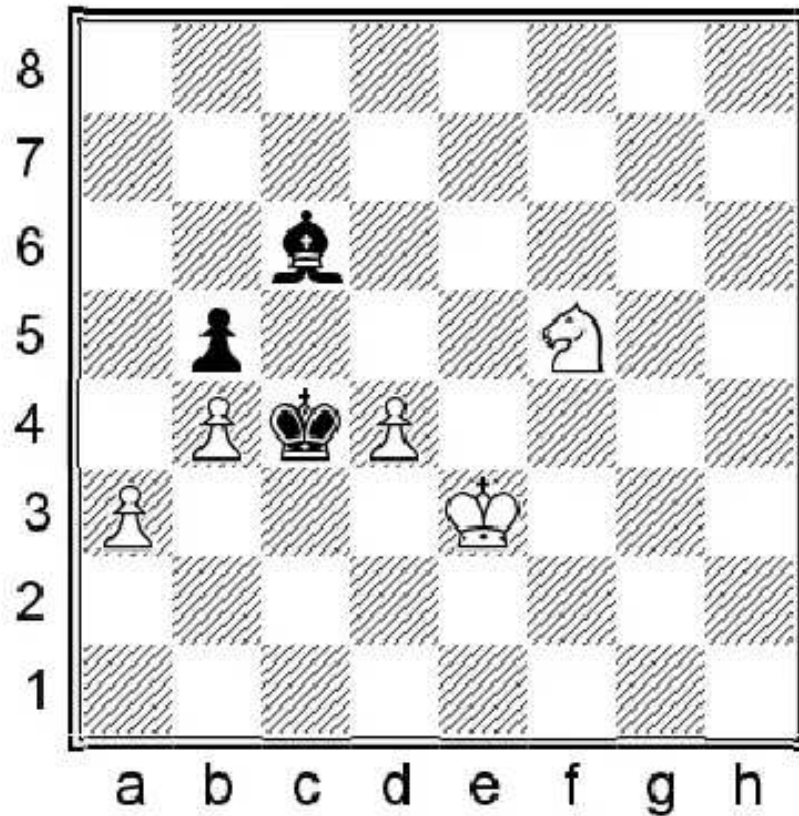
66...♕b7?!

Still not the decisive mistake, but Black must be very precise after this. The correct waiting move was 66...♕h1! 67.♗c8 (The pawn endgame is drawn after 67.d5 ♕xd5 68.♗xd5 ♔xd5 69.♔d3 ♔e5 70.♔c3 ♔d5 71.♔b3 White intends to break through with a4, but Black can play 71...♔c6!= with a theoretical draw.) 67...♔d5! Preventing ♗d6. Black still seems to hold.

66... ♕a8? 67. ♗c8+-

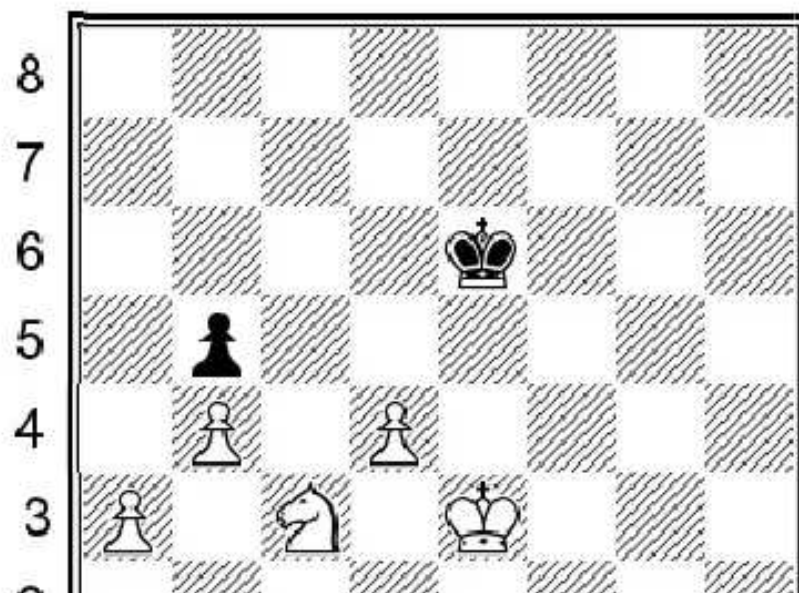
67.♗f5 ♕g2?

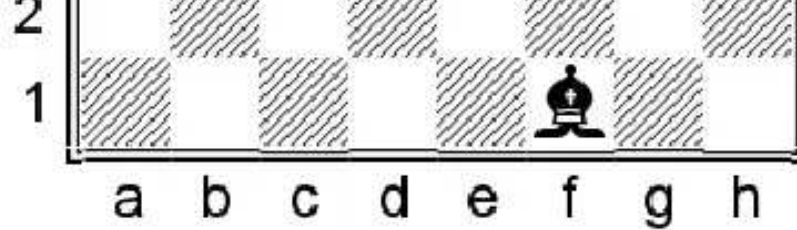
67...♕c6? is natural, but it loses to



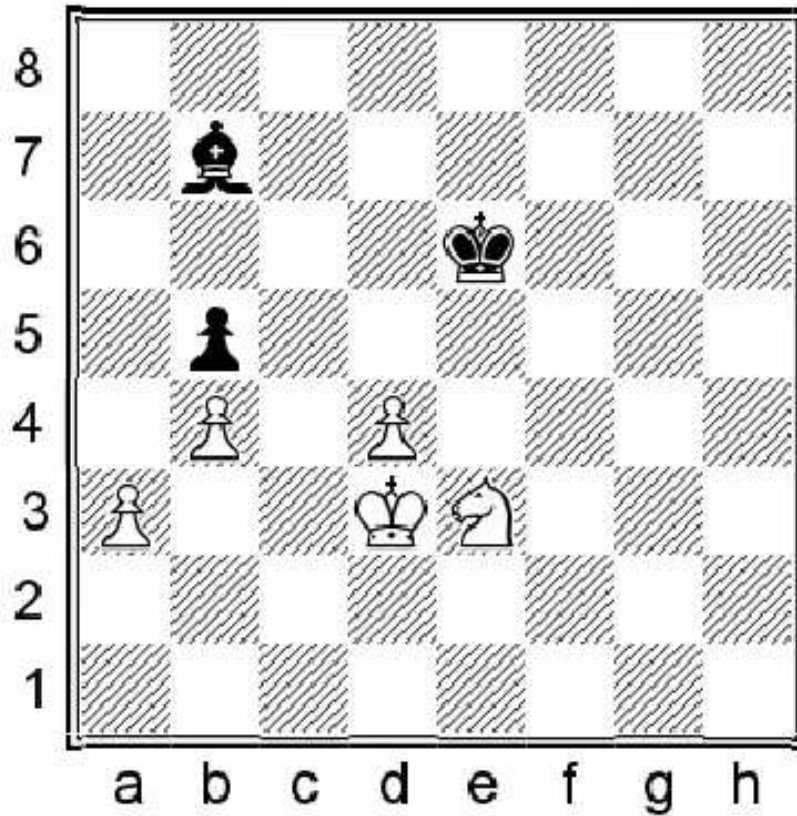
68. ♔f4! ♕b3 (68... ♔d5 moves into 69. ♖e7+- Otherwise the white king gets to e5.) 69. ♕e5 ♕xa3 70. ♔d6! Tempo and the king arrives just in time to c5. 70... ♗e4 71. ♖g3+- ♔c5 really comes next.

Black could have defended himself with 67... ♔d5! 68. ♔d3 (68. ♔f4 makes no sense now as White cannot get to e5 anyway. Black just waits for example with 68... ♗a8) 68... ♔e6! Only move! (68... ♗a8 loses to 69. ♖e3+ ♔d6 70. ♖d1 ♗g2 (70... ♗c6 71. ♖c3 ♗e8 Black wants to prevent a4 and d5 will be always answered by ... ♔e5, not allowing ♔d4. However White wins after 72. ♔e4 intending to push d5 and ♔d4. Black must play 72... ♗g6+ 73. ♔f4 ♗e8 but not 74. ♖e4+! ♔e6 Otherwise ♔e5 wins. 75. d5+! ♔xd5 76. ♖f6+ ♔c4 77. ♖xe8 ♔b3 78. ♖c7 ♔xa3 79. ♖a6+-) 71. ♖c3 ♗f1+ 72. ♔e3 ♔e6





73.a4! creates a second passed pawn 73...bxa4 74.♖xa4 ♔d5 75.b5!+- is actually the only winning move, but it is enough.) 69.♗e3 (69.♗g3 ♕g2! 70.♗e4 ♕f1+ 71.♔e3 ♔d5 72.♗c3+ ♔c4 we have already seen this position.)



69...♕f3! Black intends to wait with ♔d6 and if 70.d5+ ♔e5! taking next move on d5. (But not 70...♕xd5? 71.♔d4!+- ♔c5 and ♗d1-c3 wins the pawn.)

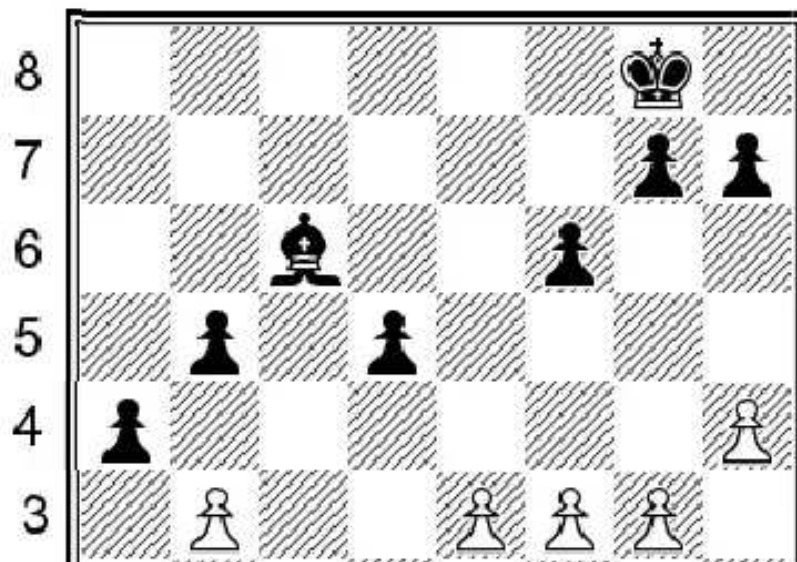
68.♗d6+ ♔b3 69.♗xb5 ♔a4 70.♗d6 1-0

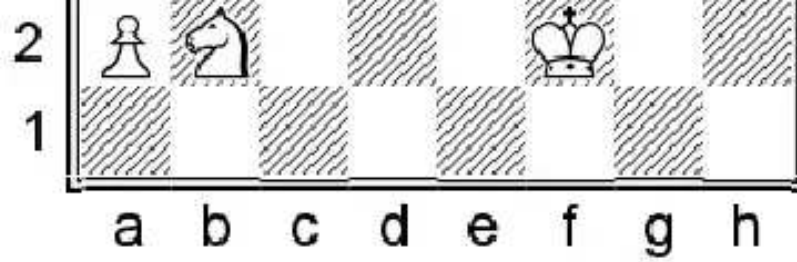
9

J. Capablanca

S. Reshevsky

Nottingham, 1936

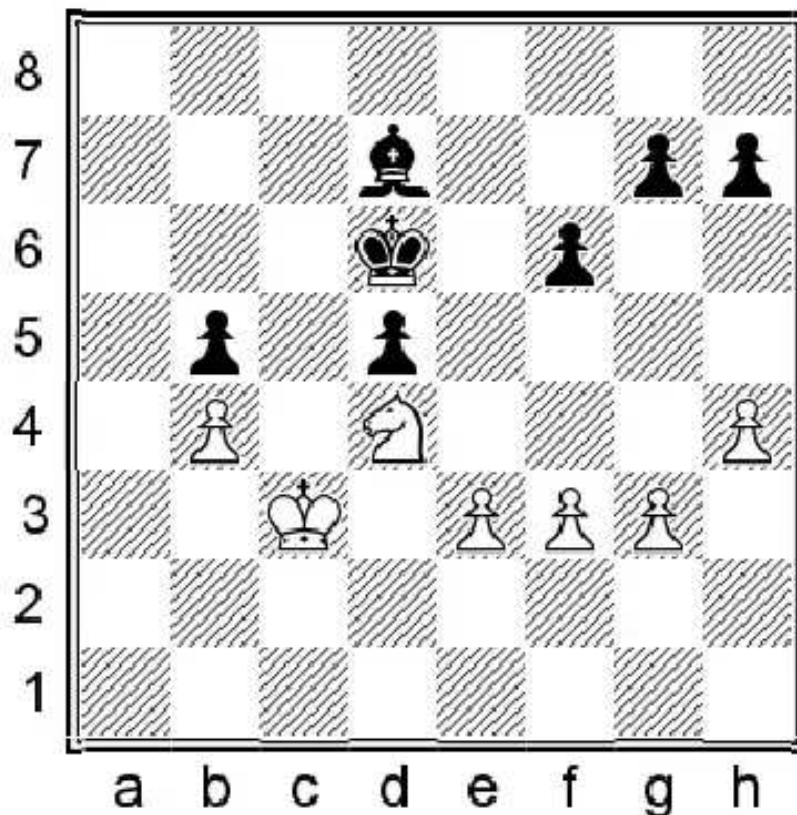




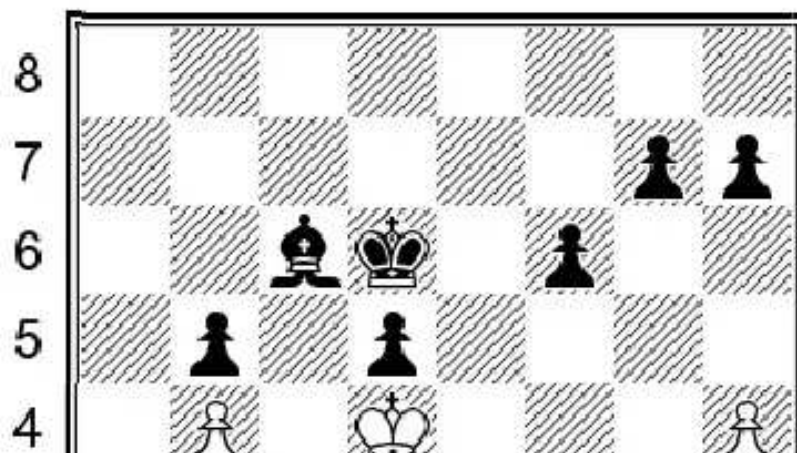
The bishop plays a defensive role behind his pawns, while the knight has some nice outposts on b4-c5-d4. The only question is whether the weaknesses on d5 and b5 are enough for the win or whether Black can handle this?

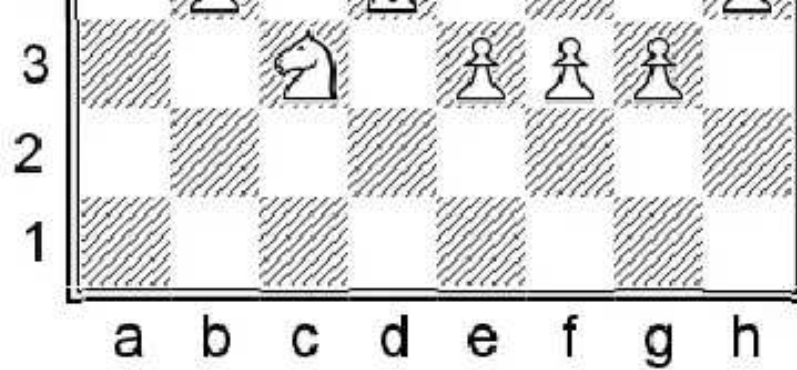
1. ♖d3 g5

Black searches for active counterplay and at the same time initiates exchanges. Let's examine how White realizes his advantage if Black just activates his king and then waits with his bishop. 1... ♔f7 2. ♖b4 ♙b7 3. ♗c2 ♙c6 4. ♖d4 ♙d7 The bishop tries to follow the movement of the knight to keep all the pawns protected. 5. ♙e2 ♙e7 6. ♙d2 axb3 7. axb3 ♙d6 8. ♙c3 ♙c5 Black provokes the b4 move, otherwise White could have placed his king there. 9. b4+ ♙d6

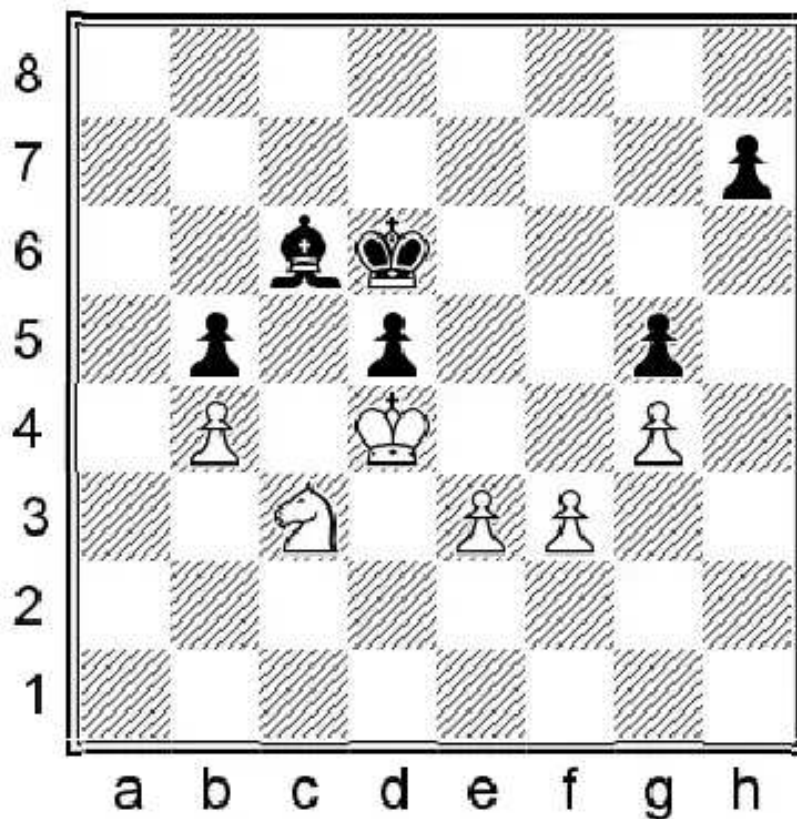


10. ♖e2! The knight was doing well on d4, but it can perform well on other squares as well, while the king clearly stands most actively on d4. 10... ♙e5 11. ♗c1 Trying to send the king away with ♖d3. Black should clearly defend with 11... ♙f5! If White wants to get his king to d4, he must weaken his own pawn structure, but this allows Black to gain counterplay. (If Black defends passively with 11... ♙c6 12. ♖d3+ ♙d6 13. ♙d4 ♙e8 14. ♖f4 ♙f7 15. ♖e2 ♙e8 16. ♗c3 ♙c6

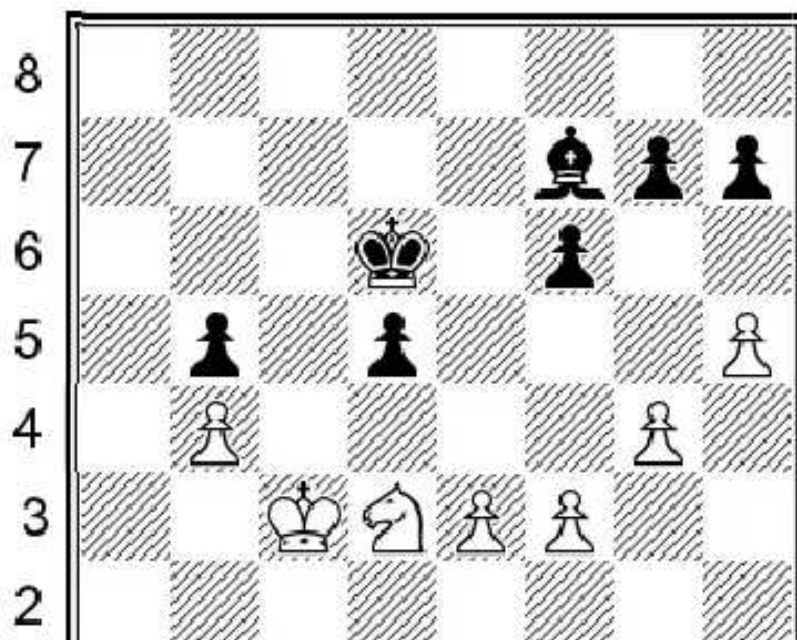


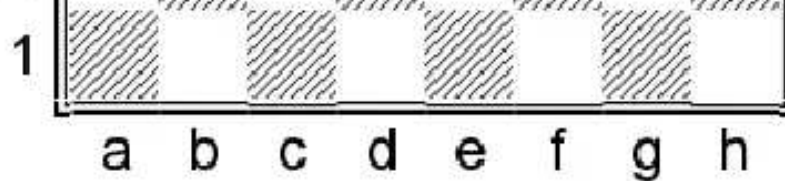


Both white pieces find their ideal places, keeping maximum pressure on the two weaknesses. Now it is time to fight for the tempi on the kingside. If Black runs out of pawn moves he gets into zugzwang. 17.g4! g5 (17...♔e6 A tricky move 18.f4! (After the careless 18.♔c5? Black gets counterplay with 18...d4!) 18...♔d6 19.f5+- Black gets into zugzwang.) 18.hxg5 fxg5



The easiest win is the simplification into a pawn endgame with 19.e4! dxe4 20.♖xe4+ ♗xe4 21.fxe4 ♔e6 22.e5+- with an automatic win. White just advances his e-pawn with the help of his king.) 12.g4 ♗b1 13.♔b2 ♗g6 14.h5 ♗f7 15.♗d3+ ♔d6 16.♔c3





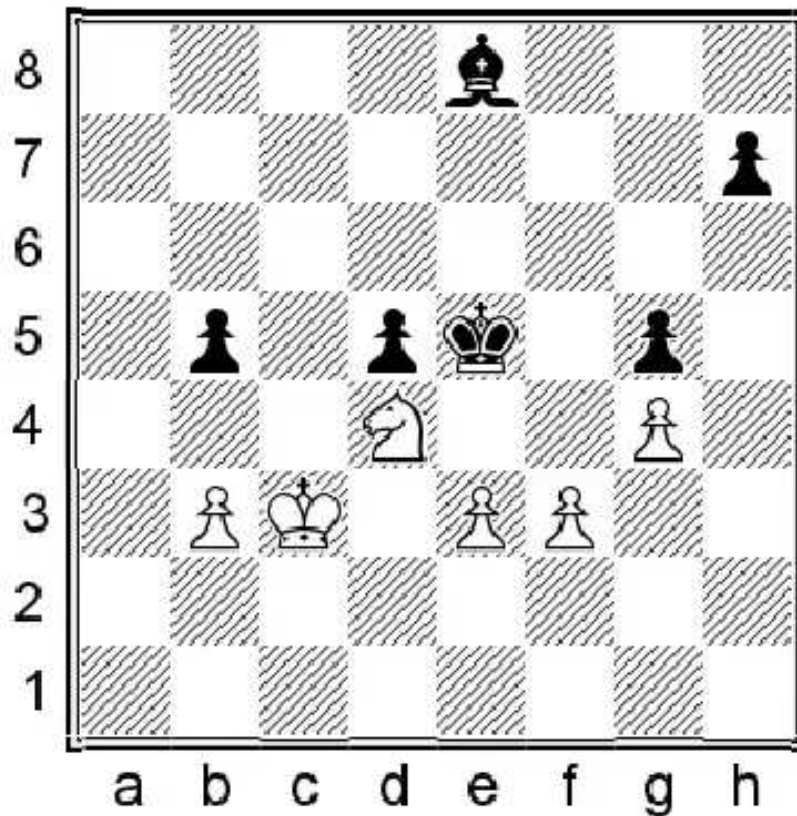
The task is done and the king arrives at d4, but thanks to the provocation with the bishop Black can play 16...f5! 17.♔d4 fxg4 18.fxg4 h6= fixing the pawn on g4 to have counterplay with the bishop. White cannot really make progress because he must always take care of his own pawns as well.

**2.hxg5 fxg5 3.♖b4 axb3 4.axb3 ♗b7 5.g4**

Preventing the creation of a passed pawn with h5.

**5...♔g7 6.♔e2 ♔g6?**

Black again decides to defend actively with ...h5, searching for counterplay after exchanges. He could have held his position by not allowing the king to d4 6...♔f6 7.♔d3 ♔e5 8.♖c2 (8.♔c3 would be principled, to play ♖d3 and ♔d4 next, but it allows counterplay with 8...d4+! 9.exd4+ ♔f4) 8...♗c6 The knight switches to the b5 pawn, therefore the bishop also changes his diagonal. 9.♔c3 ♗e8 10.♖d4

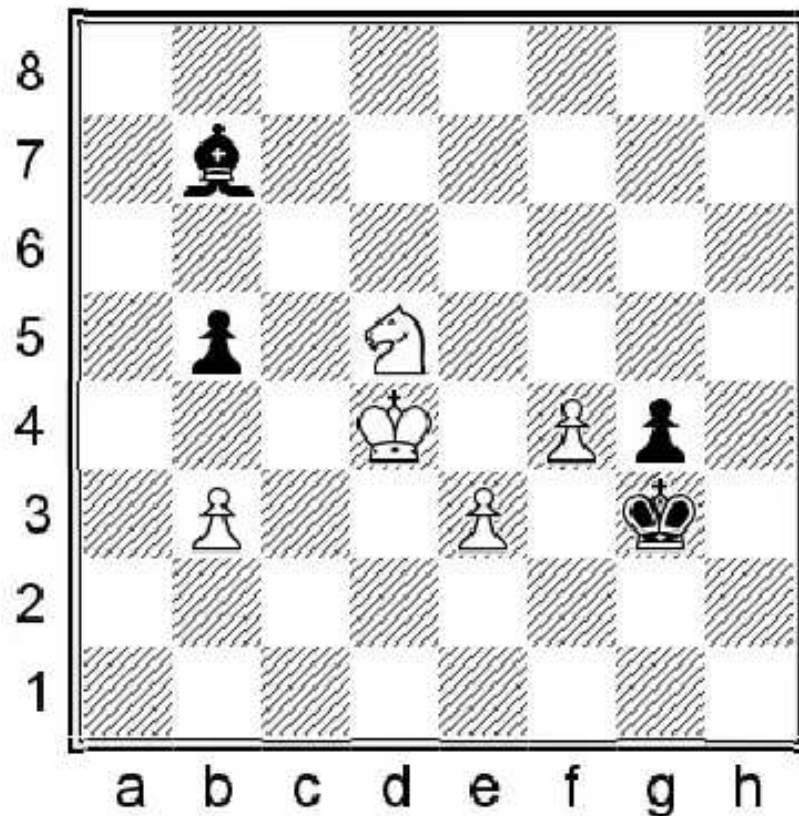


Black has no more time to wait; ♔b4 is coming so he must start his counterplay with 10...h5! 11.gxh5 ♗xh5 12.♔b4 g4! 13.fxg4 ♗xg4 14.♔xb5 ♔e4!= Black's defense was very instructive. He centralized his king and he aimed for simplifications after which he could finally invade with his king.

**7.♔d3 h5 8.gxh5+ ♔xh5 9.♔d4 ♔h4**

Black has pinned his hopes on this king walk, but the centralized white pieces easily neutralize his counterplay.

**10.♖xd5 ♔g3 11.f4! g4**



Black had to trust in his passed pawn, but the f-pawn is at least as dangerous as that on g4 and the centralized d5 knight can easily stop the pawn from f4.

**12.f5! ♖c8 13.♔e5!**

It is important to support the pawn and at the same time White prevents ...♖e6 after f6.

**13...♖d7 14.e4**

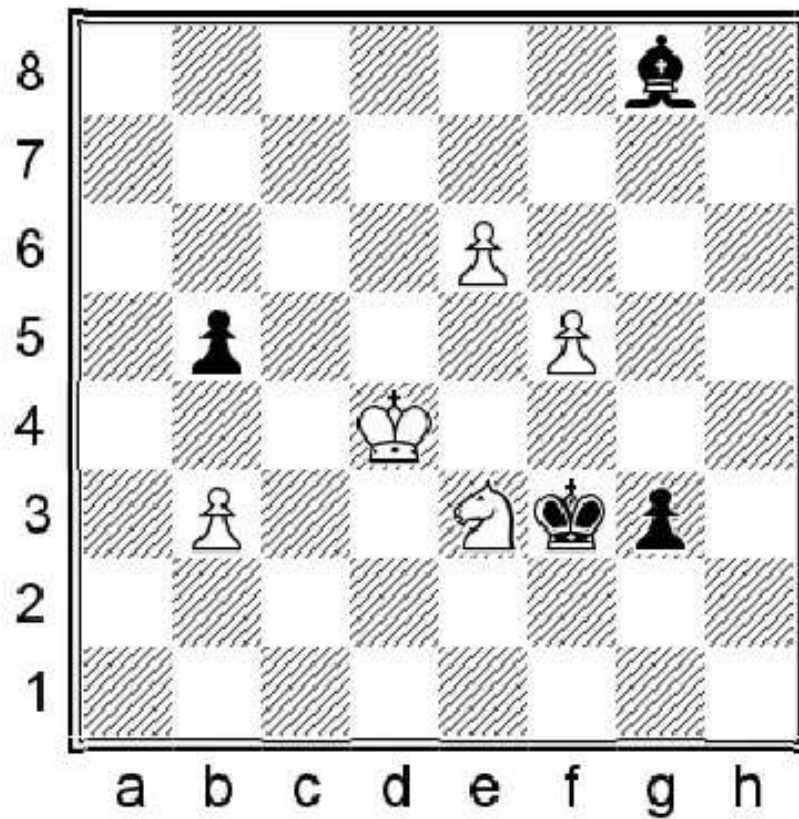
The most straightforward way to win was 14.f6 ♖e8 15.♔e6 ♔f3 16.♔e7 ♖h5 17.♘f4 g3 18.♘xh5 g2 19.f7+–

**14...♖e8 15.♔d4?**

Too careful. Sometimes we do not want to give any chance to our opponents, but this is exactly how we give him his chance... The winning line was 15.f6 ♔f3 16.♘f4 g3 17.♔f5! White wants to sacrifice his knight and promote his connected passers with the aid of the king. 17...♖d7+ 18.♔g5 ♖e6 The only chance, but White can play 19.♘xe6! g2 20.f7 g1=♚+ 21.♔f6+– The pawn promotes and White wins with his extra piece.

**15...♔f3 16.e5 g3 17.♘e3 ♔f4?**

Handing back the favor. Black could have held the draw with 17...♖f7 18.e6 ♖g8=



We should remember this idea: this is how the bishop can hold such passed pawns. The f-pawn cannot be pushed and in case of e7 the bishop stands between the pawns. Black intends to wait with ...♔f4-f3 and both the king and the knight are pinned to their squares to hold the g3 passer.

18.e6 g2 19.♘xg2+ ♕xf5 20.♔d5 ♕g4 21.♘e3+ ♕f4 22.♔d4 1-0

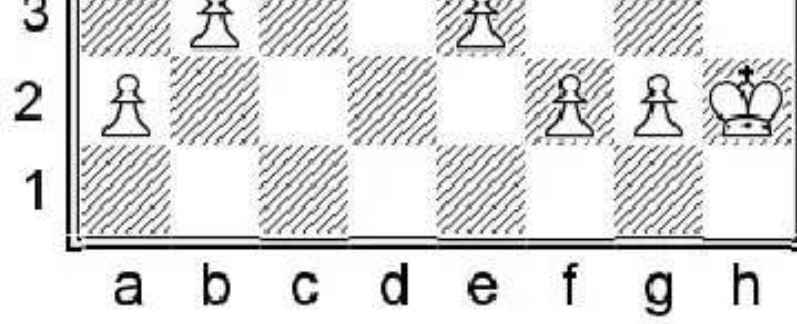
10

V. Korchnoi

L. Bruzon

Hoogeveen, 2001



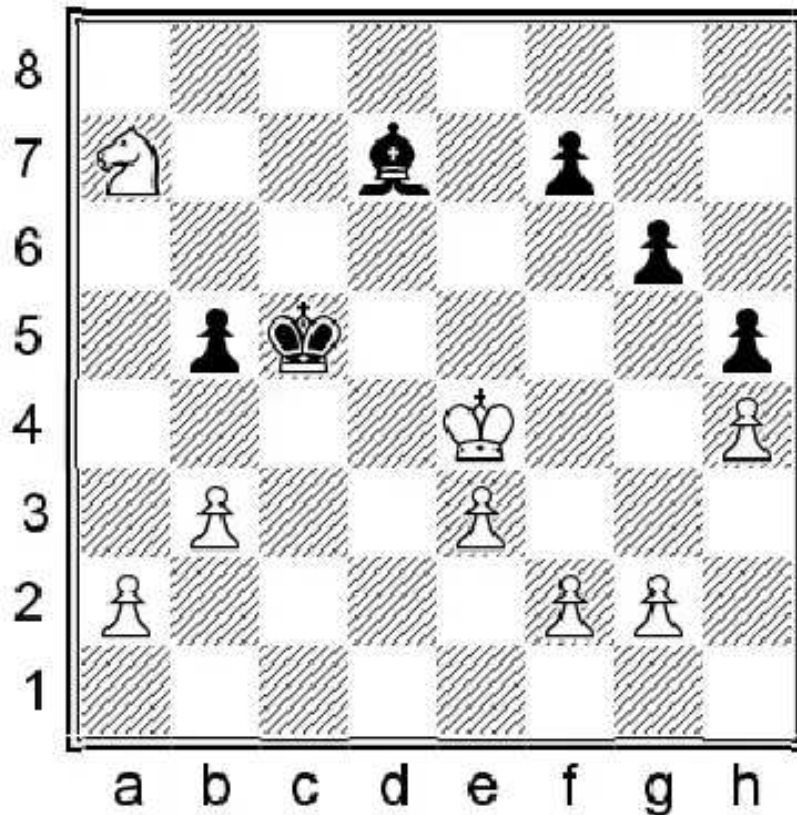


A very tricky position, because Black has some space advantage and there are pawns on both sides on the board, which should favor the bishop. However the fact that the knight on d4 is controlling the most important parts of the board, and

the king will soon arrive to f4, give the advantage to White.

### 1. ♔g3! a5

If Black prevents ♔f4 with 1... ♖e5 2. ♖c6+ ♔d6 3. ♖xa7 ♖d7 this is Black's idea to trap the knight. But it still takes a while until the king goes there and the knight can be saved with a4. 4. ♔f4 b5 keeping the knight in the cage by not allowing a4, but it costs another pawn. 5. ♔xe4 ♖c5



6.a4! bxa4 7.bxa4 ♖xa4 8. ♔e5 Removing itself from the ♖c6 check. White wants to bring back his knight with ♖c8. Black has to play 8... ♖d7 but meanwhile he loses all his pawns — which turns out to be the more important factor 9. ♔f6 ♖b6 10. ♔xf7+-

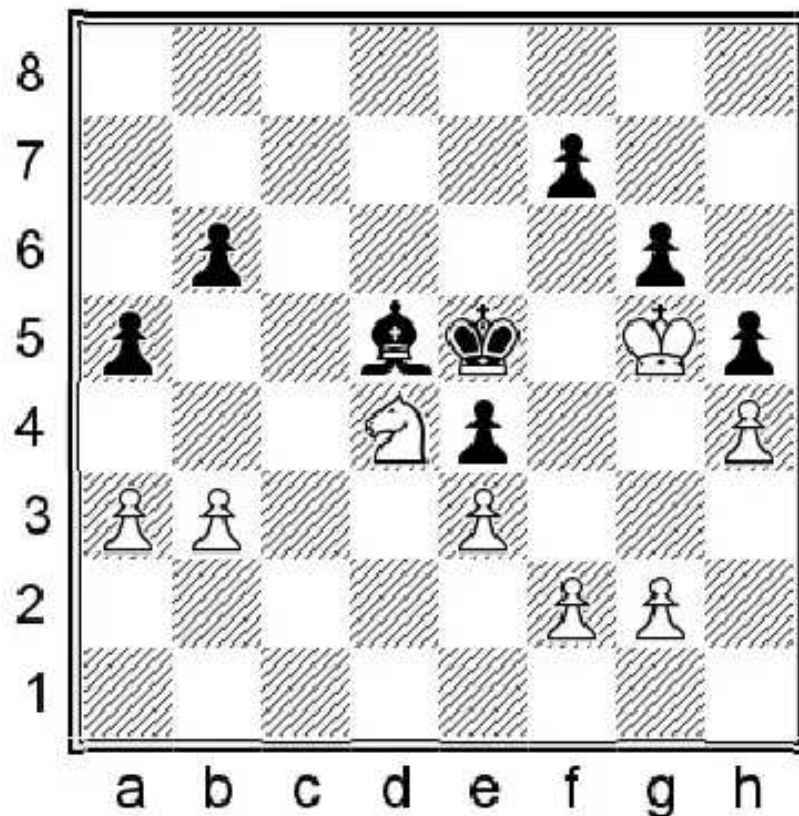
### 2. ♔f4 ♖b7

2...f6 temporarily prevents White from invading through g5, but he can then provoke ...f5 with 3. ♖b5+ ♖e6 4. ♖c3 f5 5. ♔g5+-

### 3.a3

White prevents ...♖c5-b4 just in case.

### 3... ♖d5 4. ♔g5 ♖e5



**5.♔h6!**

The knight on d4 holds the entire position together perfectly, therefore the white king is free to reap some rewards inside the black camp.

**5...♔f6**

Prevents ♔g7.

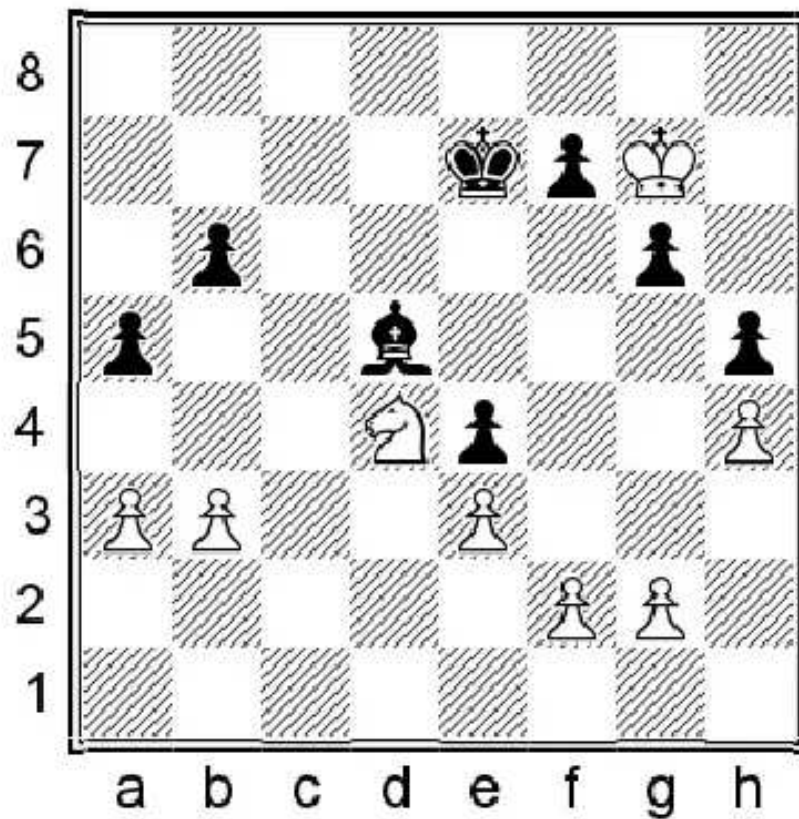
**6.♔h7!**

White intends to go around with his king; if it is possible he will go to pick up the b6 pawn.

**6...♚b7 7.♔g8 ♔e7**

Black had to prevent ♔f8. Who could believe in our initial position that White is actually heading toward c7?

**8.♔g7 ♚d5**



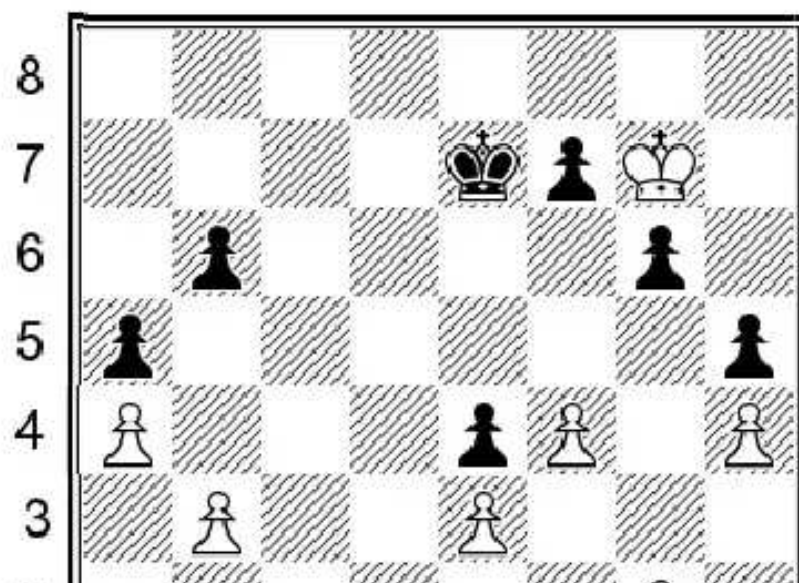
At first sight Black has things under control, but...

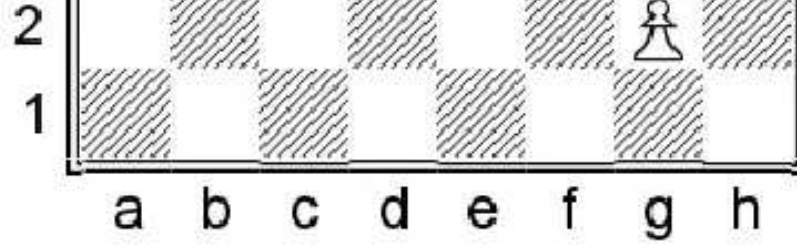
**9.f4!**

Excellent timing to change the pawn structure: White intends to destroy the pawn chain with f5.

**9...exf3**

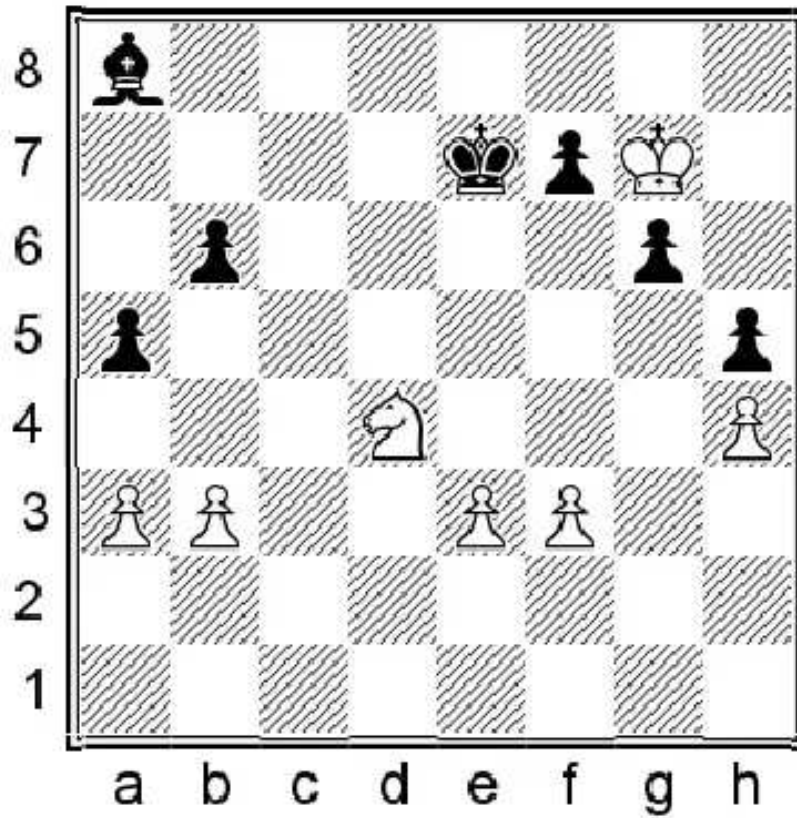
The pawn endgame loses after 9...♙e6 10.♘xe6! ♚xe6 11.a4 ♜e7





12.f5! gxf5 13.g3 preventing the breakthrough with f4 and the h5 pawn falls. 13...♙e6 14.♙h6 ♙f6 15.♙xh5+- Black cannot squeeze the king to the h-file, otherwise the h-pawn decides the game.

10.gxf3 ♙a8



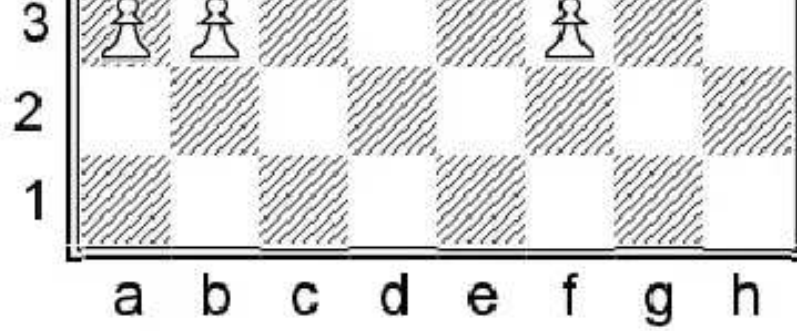
11.e4!

Black is obliged to wait, White has a free hand to improve his position.

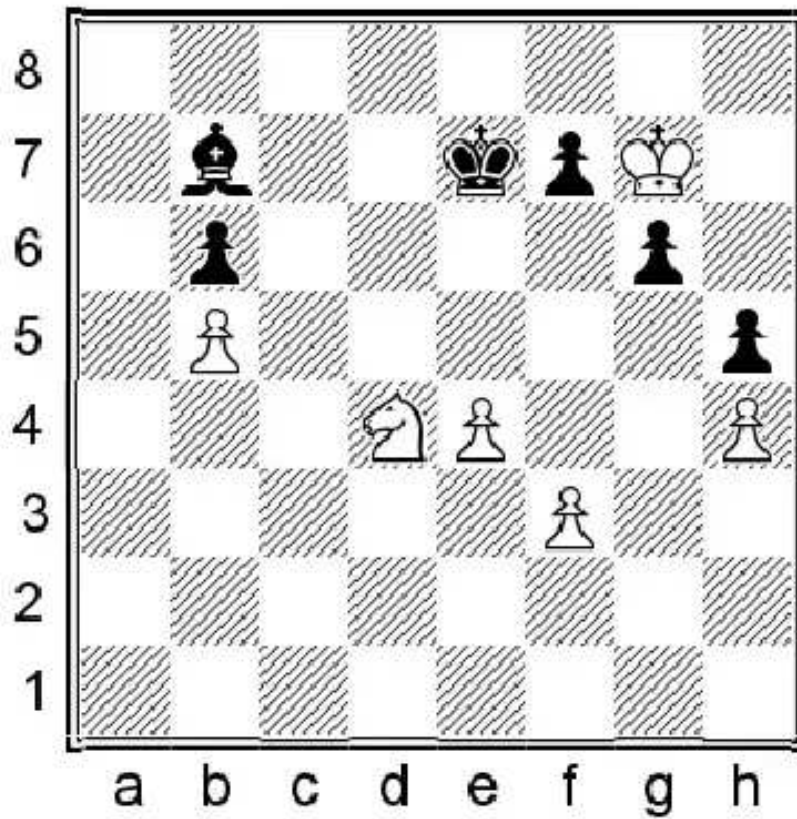
11...♙b7 12.e5

A mistake which gives space to the bishop which was perfectly restricted by the f3-e4 pawns. The winning plan was to squeeze Black even further with





12.b4! axb4 13.axb4 ♖a8 14.b5! ♜b7



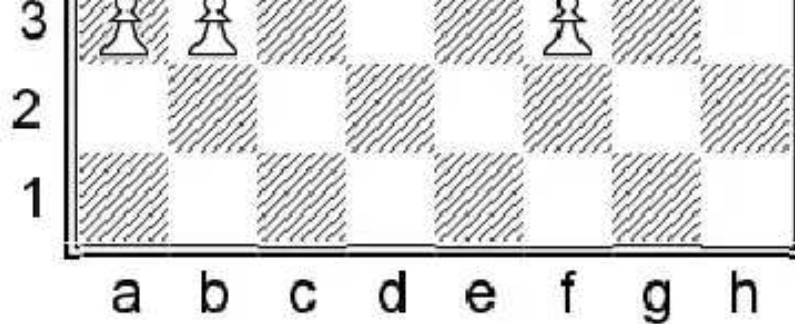
15. ♖c6! Transposition into a pawn endgame. Black has no choice, otherwise ♖e5 or ♖d8 is winning. 15. ♜xc6 16. bxc6 b5 17. ♗d7 ♜d7 18. ♜xf7 b4 19. e3 b3 20. e6+ ♜xc7 21. e7 b2 22. e8 ♜b1=♜ 23. ♜c4! ♖- and White will collect the pawns thanks to the centralized queen and the more active king.

12... ♜d5 13. ♖h6

White's idea was to play ♖g5 and f4-f5 as he manages to execute in the game, but Black could have found his counterplay here...

13... ♜b7





It was necessary to break out from the 'squeezing' with 13...f6! On 14.e6 (14.♙xg6 fxe5 15.♘f5+ ♔d7 16.♙xh5 ♕xb3= Black also gets a passed pawn on the queenside.) 14...g5! the only move 15.hxg5 h4 16.g6 h3 17.g7 ♕xe6 (17...h2?

18.♘f5+- and the pawn promotes with check.) 18.♘xe6 h2 19.g8=♚ h1=♚+ 20.♙g7 ♚g2+ 21.♙h8 ♚xg8+ 22.♙xg8 ♙xe6 23.♙g7 ♙e5=

**14.♙g5!**

White destroys the healthy pawn chain with f4-f5 after which the h5 pawn becomes the target.

**14...♕d5 15.f4 ♕e4 16.f5! gxf5**

The pawn endgame is lost because of the more active king: 16...♕xf5 17.♘xf5+ gxf5 18.♙xf5 b5 19.b4 a4 20.♙g5 ♙e6 21.♙xh5 ♙xe5 22.♙g5+- White promotes with check.

**17.♙f4!**

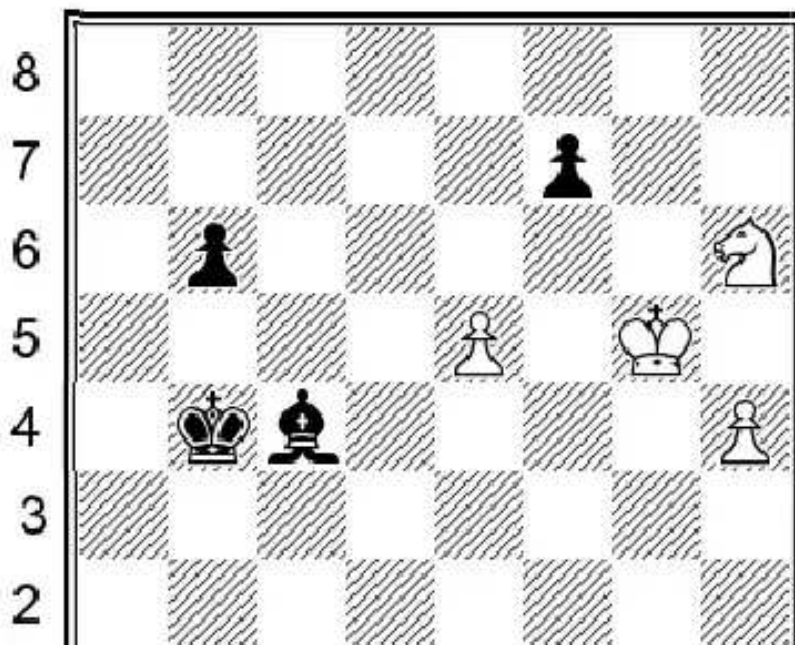
The knight is just doing an excellent job on d4. White defends his e5 pawn first to prepare for ♘xf5. 17.♘xf5+ ♙e6 drops the e-pawn.

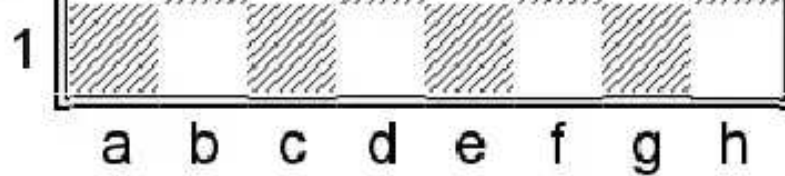
**17...♙d7 18.b4**

White puts his pawn on a dark square to avoid it being attacked by the bishop. 18.♘xf5 ♕c2 19.♘d4 ♕d1 20.♙g5 ♙e7 and it is not obvious how White can make progress. The king alone cannot win and when the knight moves ...♙e6 appears.

**18...axb4 19.axb4 ♕d3 20.♘xf5 ♙e6?**

Black loses by one tempo. Despite the ingenious play by White, Black could have saved the game in a study-like fashion, viz: 20...♙c6! 21.♘h6 ♕c4 22.♙g5 ♙b5 23.♙xh5 ♙xb4 24.♙g5





24...♔c5! Only this move. We will see that the king has its duty in the center. 25.h5 (25.♖f5 is also met by 25...♗e2!)  
 25...♗e2 26.♖xf7 ♗xh5! 27.♔xh5 ♔d5 28.♔g5 ♔e6!= and if White wants to save his e-pawn with ♔g6, he cannot deal with the b-pawn.

21.♖g7+ ♔d5 22.♖xh5 ♔c4 23.♔g5 ♔xb4 24.♖f4!

The race of the passed pawns begin, but White is ahead by a tempo.

24...♗e4 25.h5 b5 26.e6!

White had other wins as well, but he deflects the f-pawn to close the b1–h7 diagonal with his king and knight.

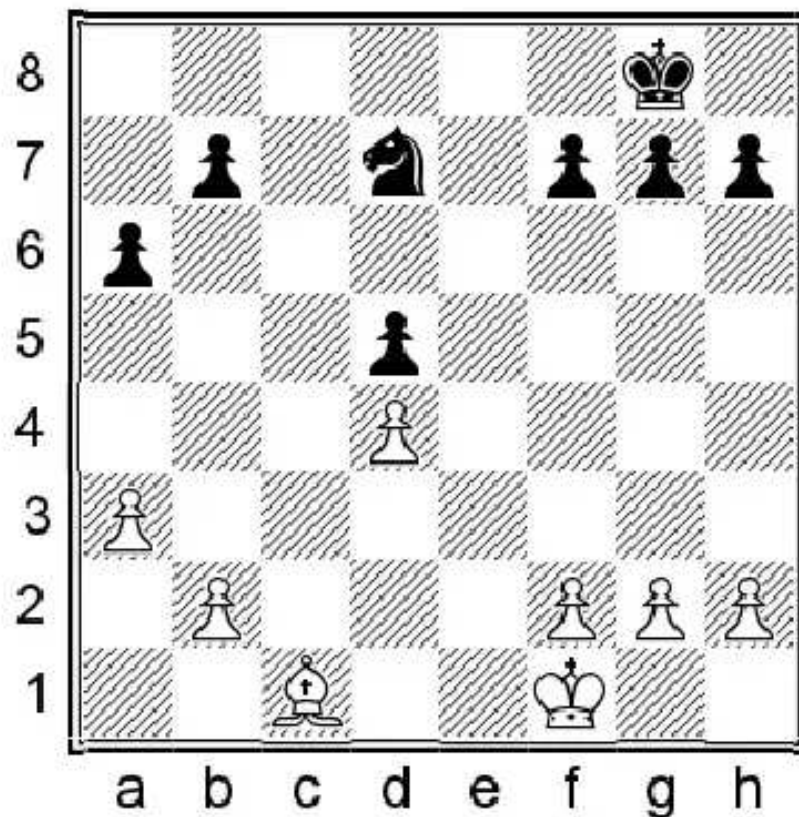
26...fxe6 27.♖g6 ♔a3 28.h6 b4 29.h7 b3 30.h8=♚ b2 31.♚c3+ ♔a2 32.♚c4+ 1–0

11

A. Saily

R. Fischer

New York, 1964



We have a symmetrical position in front of us and of course it looks like a dead draw — but actually this is wrong. We don't say it is winning, just that Black has practical chances. The knight is stronger than the bishop because of the d5-d4 pair of pawns, which makes the position closed and locks the bishop behind the pawns. Fischer demonstrates how to make progress in such positions.

24...♖f8!

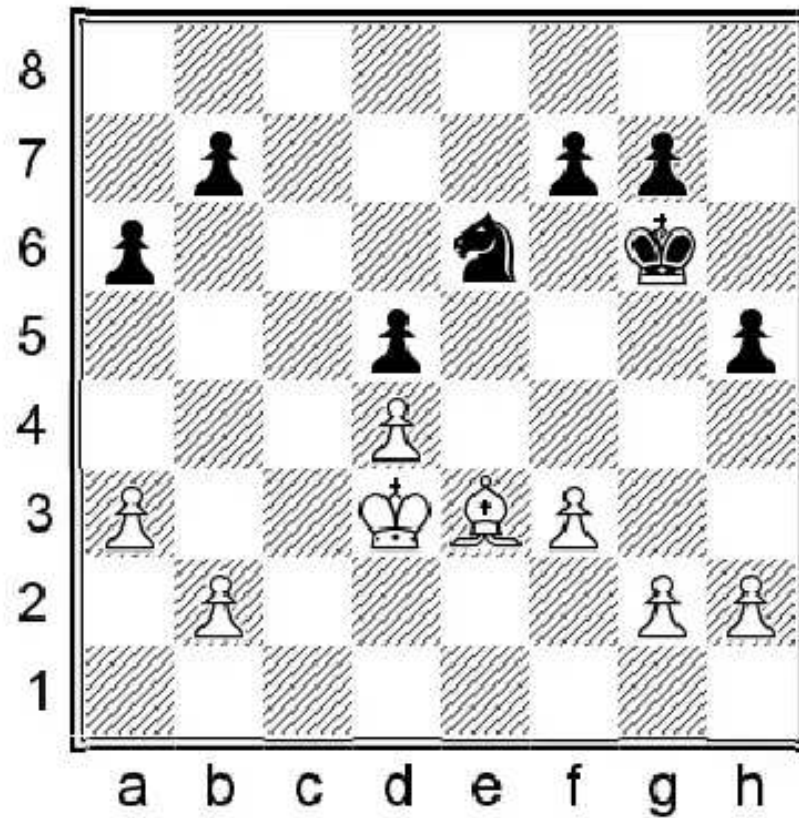
Black drives his knight to its ideal place. It attacks the d4 pawn and supports the pawn advances on the kingside. This is where Black must focus his play in the future course of the game.

25.♔e2 ♚e6 26.♔d3 h5!

Taking ground on the kingside and preparing to activate the king.

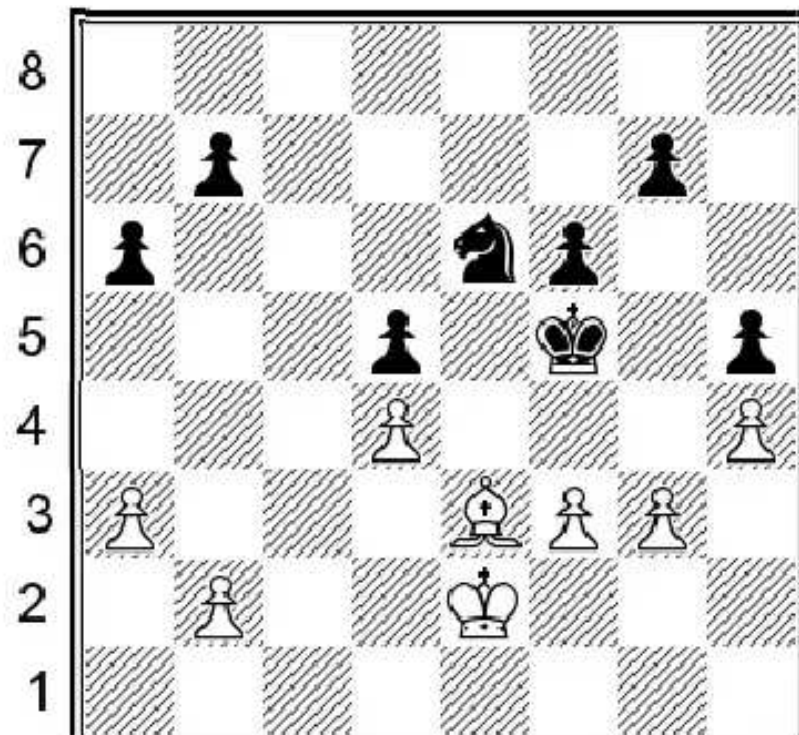
27.♙e3 ♔h7 28.f3 ♘g6

Black wants to go ...♔f5 and push g5.



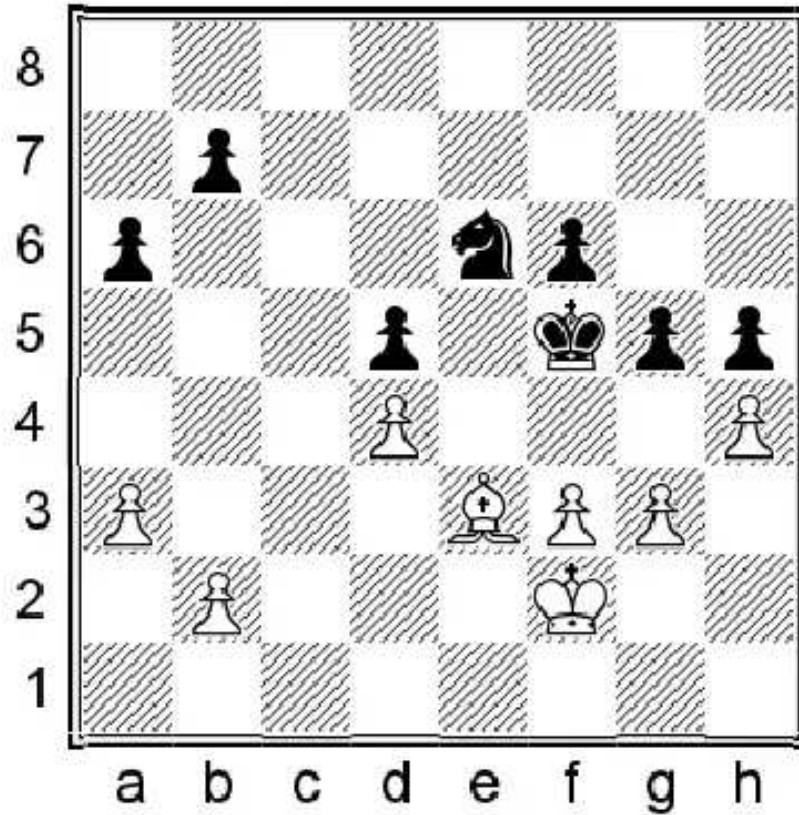
29.a4

White decides to keep his pawn structure as it is on the kingside. In general this is a good idea. Let's check two other possible pawn formations. 29.h4 ♘f5 30.g3 In this case Black can play 30...f6! 31.♔e2

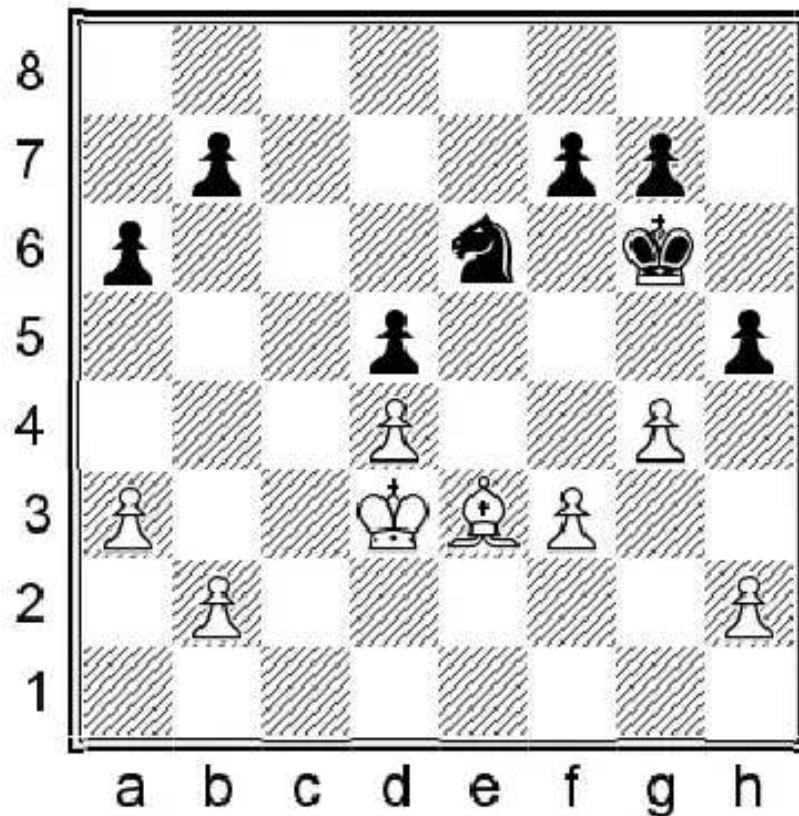


a b c d e f g h

31...g5 with the idea of creating a distant passed pawn on the h-file if White takes on g5. 32.♔f2 (32.♔d3? already loses to 32...gxh4 33.gxh4 ♖f4+! the pawn endgame is clearly lost because of the more active king and after 34.♔d2 ♖g2! 35.♙f2 ♔f4 36.♔e2 and White is in zugzwang. He can only move with his pawns, but Black has an extra tempo with his f-pawn. 36...b5 37.b4 f5--)



32... ♖f8! followed by ... ♗g6, provoking White to take on g5 to be able to create an h- passed pawn. 29.g4 trying to keep the king away, but Black plays



30. ♙f5! Black keeps the tension by not taking on e4! Whenever White takes he obtains a positional weakness as he

29...f5! Black keeps the tension by not taking on g4! Whenever white takes he obtains a positional weakness as he creates two pawn islands for himself, whereas Black's pawns will be connected (h2-f3 and g7-f5 or g7-h5), 30.h3 f4! another reason why Black should hold the tension. ...g5 is coming next with a double attack on f3 and h3, which would not happen if he had taken on g4 once.

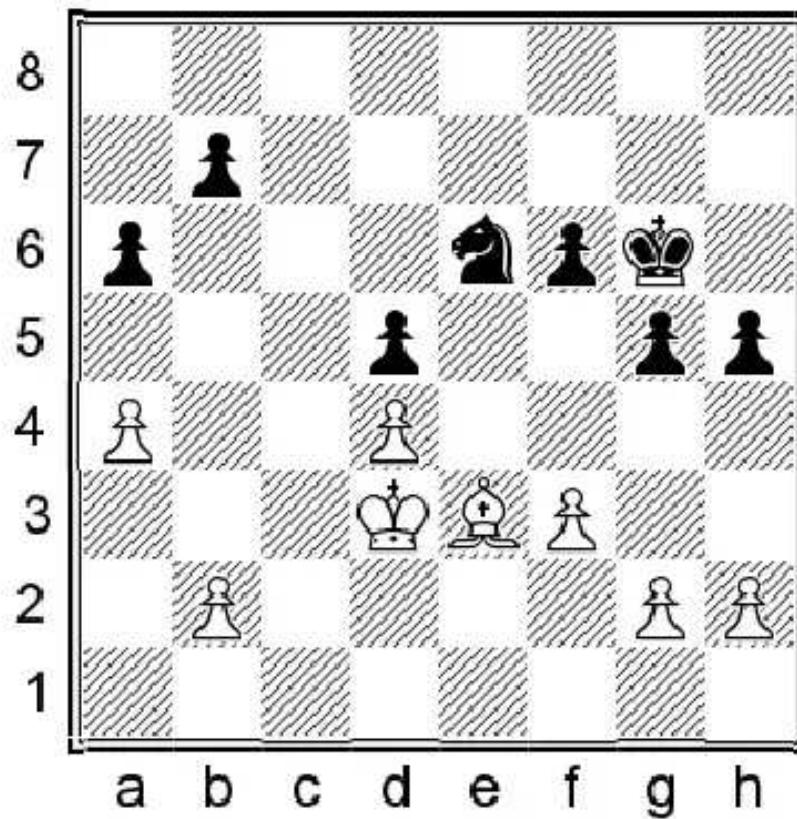
**29...♖f5 30.♗e2 g5 31.♖f2**

In the next couple of moves Black just searches for the correct plan, but we soon come back to the same position.

**31...♘d8 32.♙d2 ♗g6 33.♗e3 ♘e6 34.♖d3 ♖f5 35.♙e3 f6 36.♗e2 ♗g6**

36...g4 does not bring anything. White just waits with 37.♖f2

**37.♖d3**



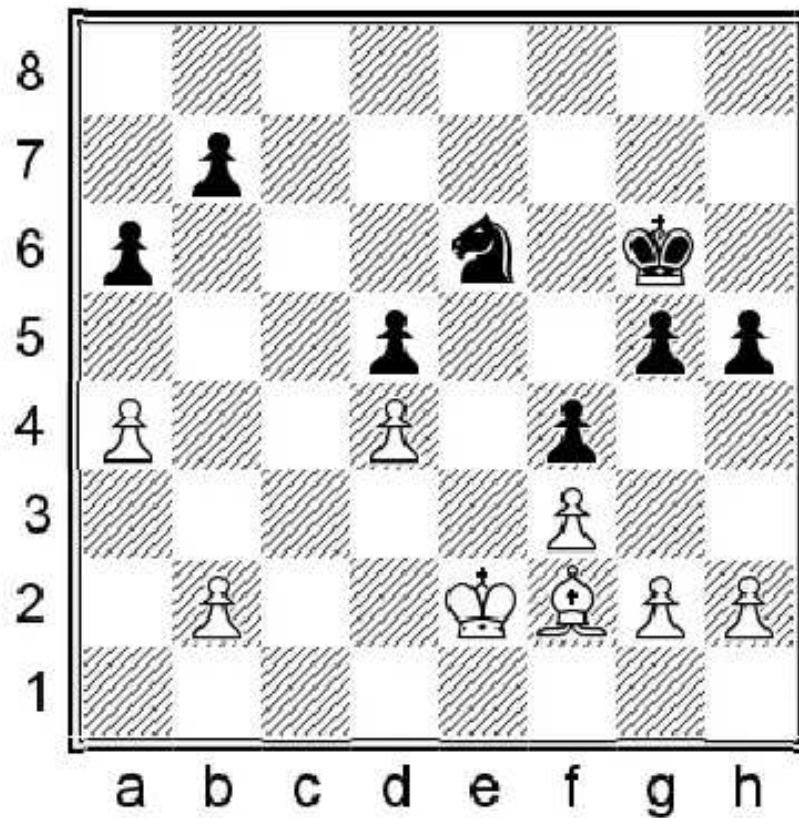
**37...f5**

It was difficult to make progress because White has not touched his pawns yet — which could have create some weakening or a target. Now Black must try to create one by himself. The plan is ...f4 and then ...g4 at some point.

**38.♗e2**

White should have played 38.g3! f4 39.gxf4 g4!? A very interesting idea to obtain a better pawn structure. Black temporarily sacrifices a pawn, but he soon wins it back after ...♖f5. (39...gxf4 40.♙f2 ♘g5 41.♗e2= White is stable now. Black cannot improve his position.) 40.fxg4 hxg4 41.♙d2 ♖f5 42.♗e3 ♘xf4 43.♙b4 White should hold the draw.

**38...f4 39.♙f2**



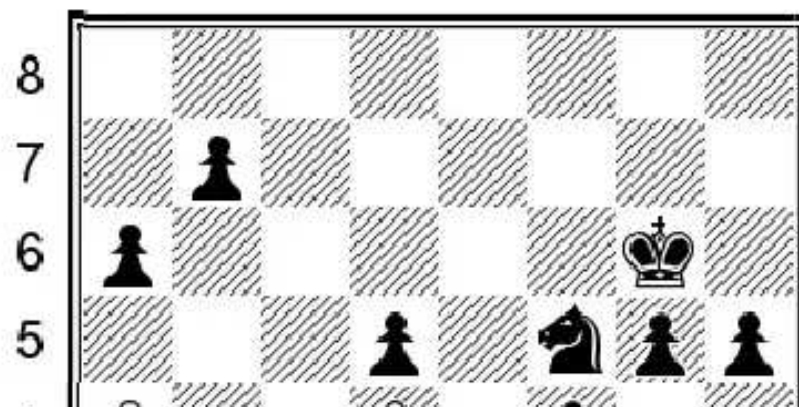
39...♞g7

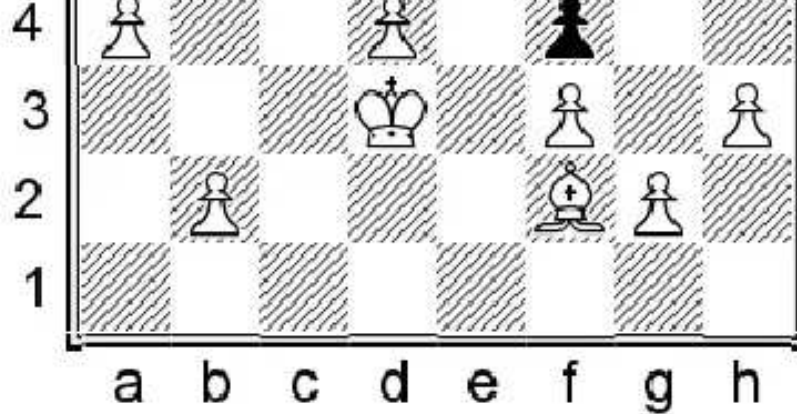
Black transfers his knight to f5 before pushing ...g4, with the idea to threaten ...g3-hxg3-fxg3 changing the structure in his favor. After that he could consider the options of ...♞h4 or ...h4-h3 gxh3 ...♙h4. In both cases the idea is to create a passed pawn. We can see how the bishop is struggling while the knight causes many different problems.

40.h3

White tries to make the ...g4 break harder, but this brings its own problems as well.

40...♞f5 41.♙d3





**41...g4!**

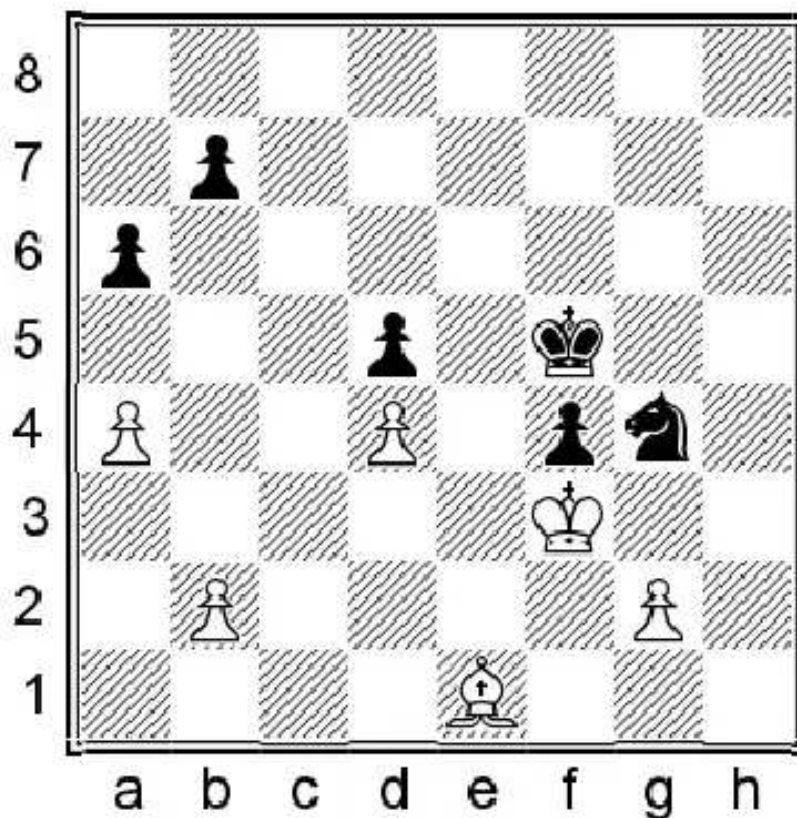
Black chooses the right moment to open the position and invade with his king. The threat is ...g3 and ...♖h4, winning the g2 pawn.

**42.hxg4**

42.♔e2? allows 42...g3 43.♙g1 ♜h4 44.♔f1 a5—+ sets Black into zugzwang. The pawn on g2 soon falls.

**42...hxg4 43.fxg4 ♜h6 44.♙e1 ♜xg4 45.♙d2**

If White tries to control the kingside with 45.♔e2 ♔f5 46.♔f3



46... ♞h2+!—+ followed by ... ♔e4 wins.

**45...♔f5**

Black has to activate his king through e4 or g4.

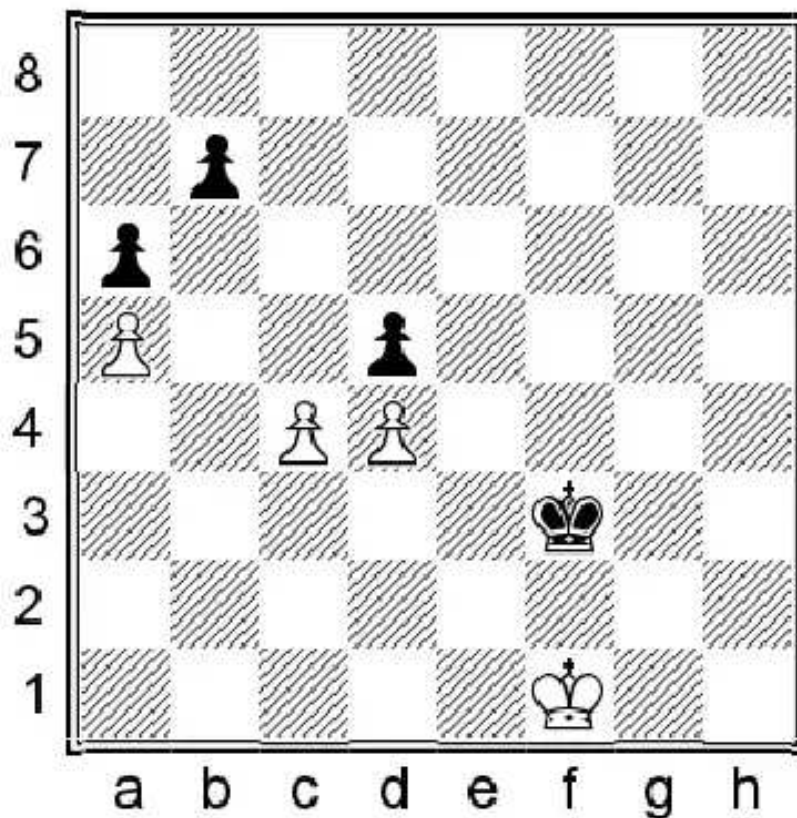
**46.♙e1 ♜f6 47.♙h4 ♜e4 48.♙e1 ♔g4**

Black improves his position with each move. The next step to conclude the game is to transfer the knight to f5 from where it attacks the d4 pawn, and from where it is also threatening ...♜e3 and ...♜h4. It is slowly becoming too much

for White.

49.♔e2 ♖g3+! 50.♔d3

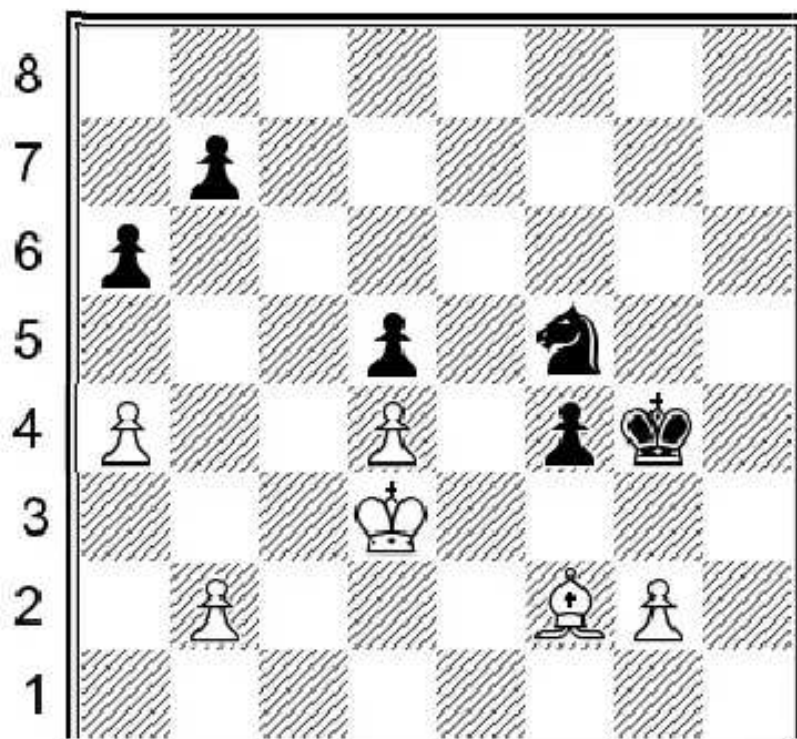
The pawn endgame loses after 50.♙xg3 ♜xg3 51.♔f1 f3! opening the third rank towards the pawns. 52.gxf3 ♜xf3—+;  
50.♔f2 ♖f5 51.♙c3 ♜e3 ♖d1 wins material next move or after 52.a5 ♖d1+ 53.♔e2 ♖xc3+ 54.bxc3 ♜g3 55.♔f1 f3  
56.gxf3 ♜xf3 57.c4



57... ♔e4!—+ wins. (Just not 57...dxc4?? which would lead to an undeserved finish after 58.d5 c3 59. ♔e1!+—)

50...♖f5 51.♙f2

The bishop seems to control the e3 and h4 squares, but...



a b c d e f g h

51...♖h4!

The final blow. Black either wins material or simplifies into a winning pawn endgame.

52.a5

52.♙xh4 ♔xh4 53.♕e2 ♖g3 54.♕f1 f3–+

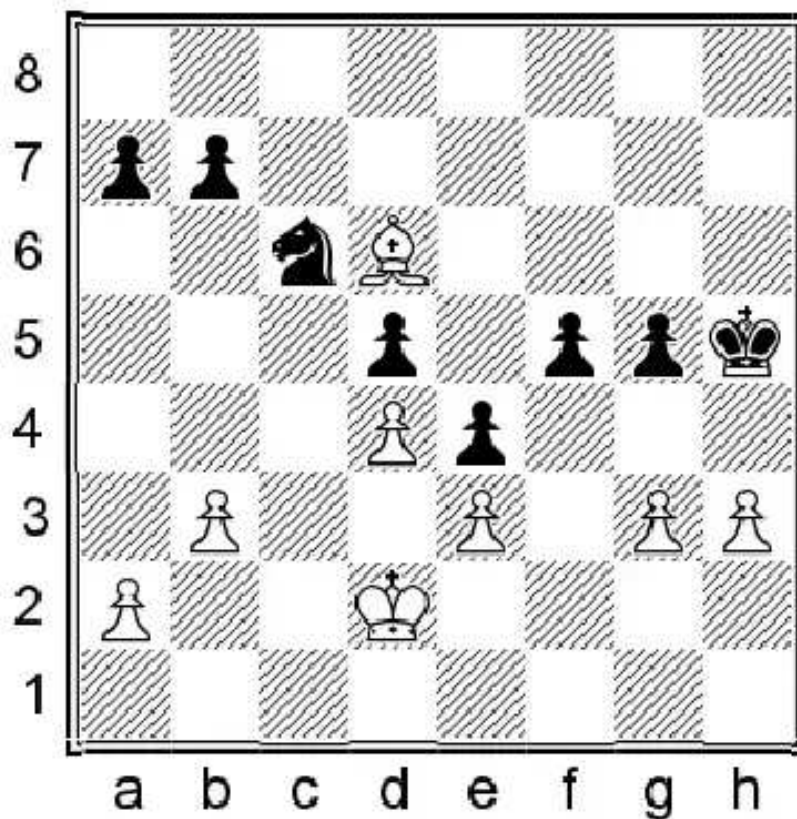
52...♗xg2–+ 53.♕c3 ♕f3 54.♙g1 ♕e2 55.♙h2 f3 56.♙g3 ♗e3 0–1

12

J. Gustafsson

R. Ponomarev

Dortmund, 2012



Black stands clearly better thanks to his space advantage and more active pieces, but the question is whether he can break through or not?! White seems to have built a safe fortress.

38...f4!

This is the only way to open a path for the king to invade.

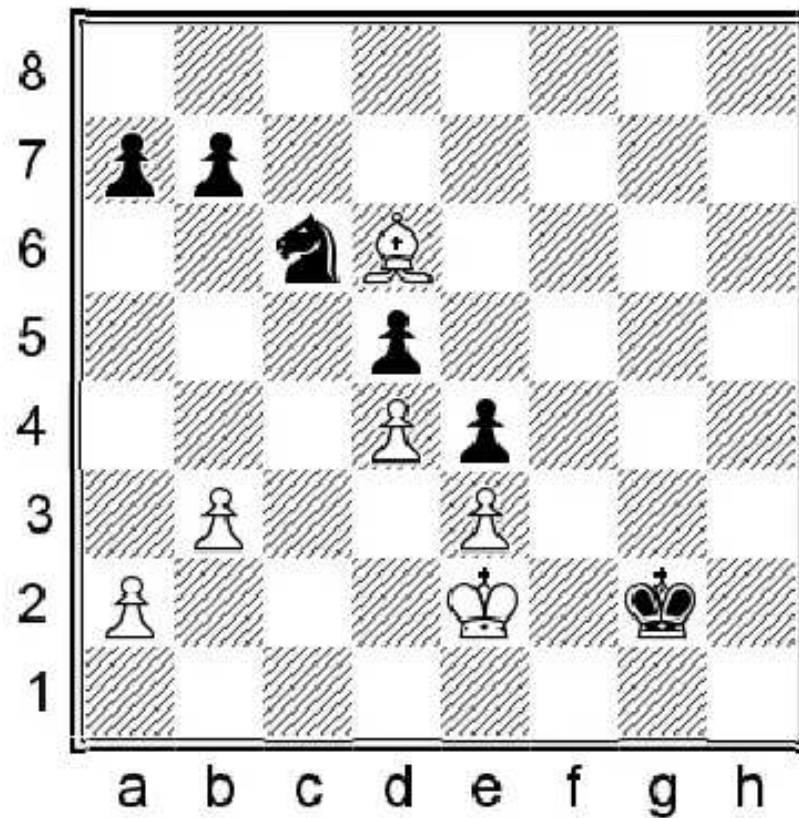
39.gxf4

39.exf4 g4! A very strong reaction using the fact that White must waste a tempo on protecting the d4 pawn. 40.hxg4+ ♕xg4 41.♕e3 ♕xg3 42.f5+ ♕g4 43.f6 ♗d8–+ Black stops the f-pawn and he surrounds the advanced pawn with his king and the knight.

39...gxf4 40.♙xf4 ♕h4 41.♙d6

Preventing ...♖b4. 41.♗e2 allows 41...♖b4! and Black immediately gets what he is fighting for later in the game. 42.a4 ♘d3

41...♗xh3 42.♗e2 ♗g2!



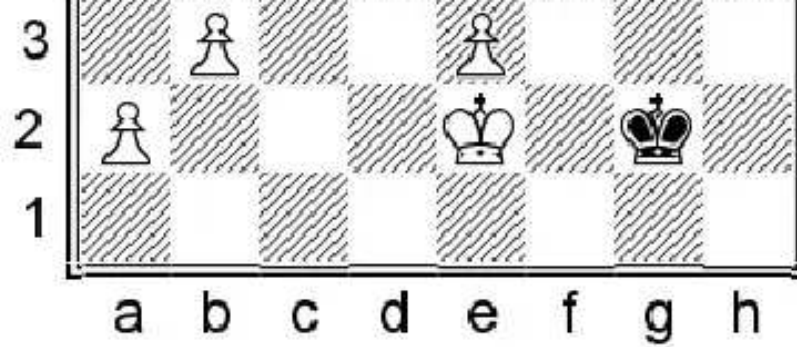
We already know from the Karpov-Kasparov game that these types of positions are very dangerous. If Black manages to transfer his knight to the kingside and could give a check on g3 or g1, then after ♖f3 the days of the e3 pawn would have been numbered. White must prevent this plan at any cost. For the moment, he must control the b4 square, otherwise ...♖b4-d3-f2-h3-g1 ends up in the right place.

43.♗c5 a6 44.♗d6

White cannot create counterplay so he is forced to defend against the knight maneuvers.

44...♘d8





**45. ♖e5!**

The only move to block the knight's route.

**45... ♜f7**

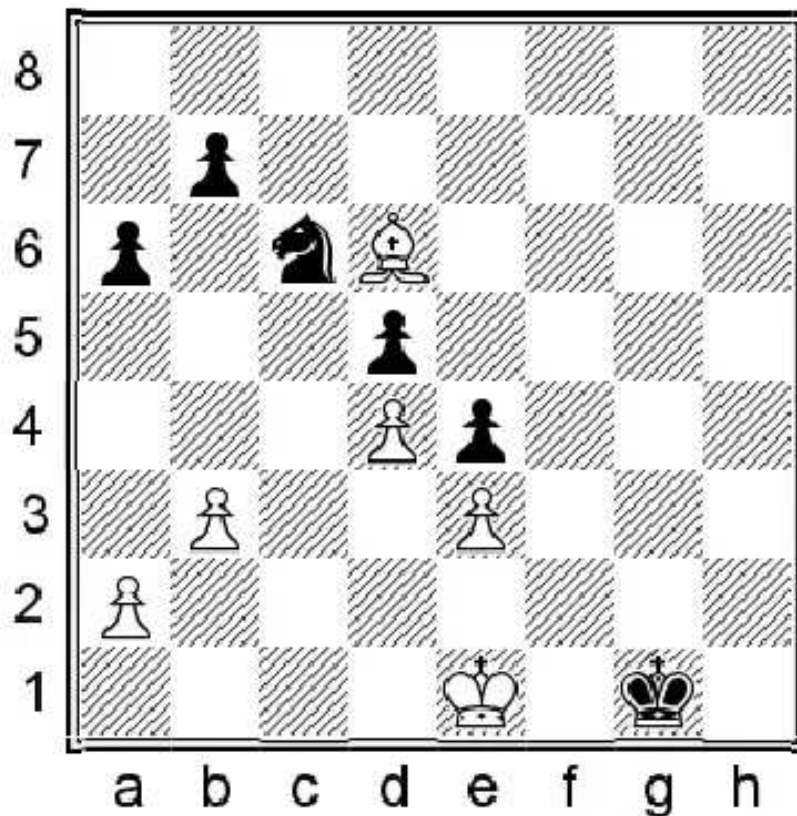
45... ♜e6 would not bring anything for Black after 46. ♖f6! ♜g1 47. ♜e1 ♜g2 48. ♜e2 ♜g3 49. ♖e5+ ♜g2 50. ♖f6 and White holds the invasion squares.

**46. ♖f4!**

The h6-g5 squares are under control so Black must try to find another way.

**46... ♜d8 47. ♖e5 ♜g1 48. ♜e1 ♜c6 49. ♖d6**

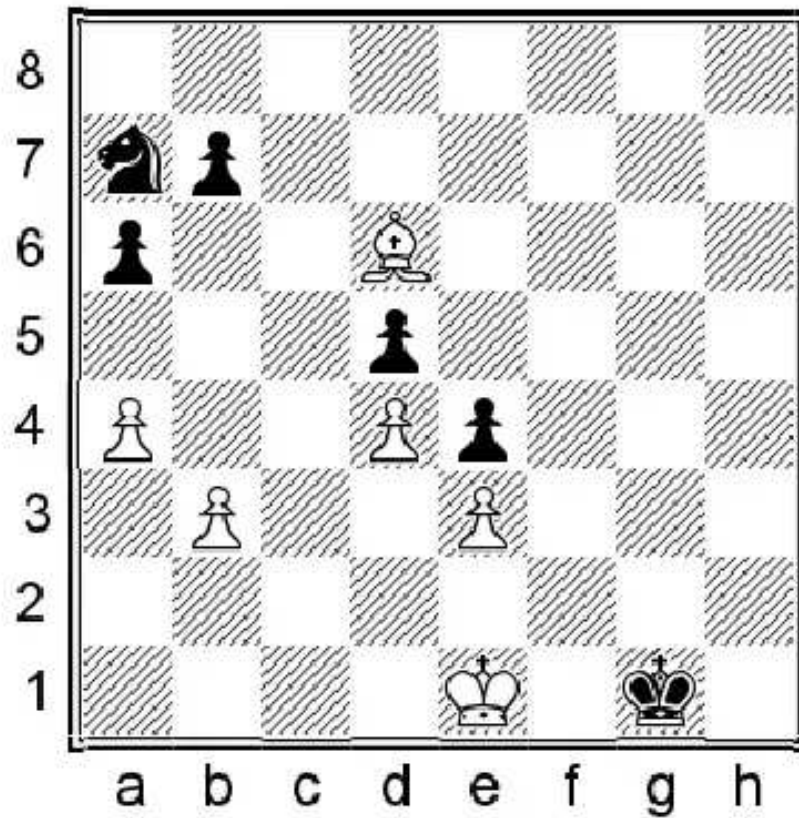
White has survived the first attempt, but Ponomariov finds a subtle maneuver.



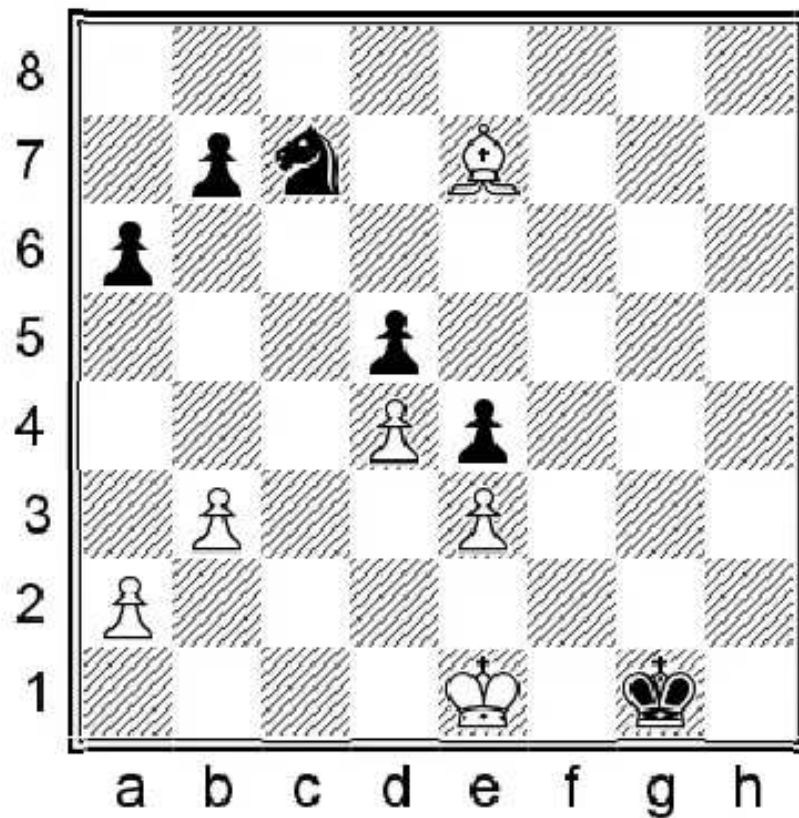
**49... ♜a7!**

Heading in two directions, b5 and c8.

**50. a4**



Otherwise the knight goes to b5, for example 50. ♖c5 ♜b5 51. ♖b4 ♜c7! The knight manages to get to the kingside 52. ♗e7 (52. ♗d6 ♜e6 53. ♗e7 ♜g7 → ♜f5 next and the knight arrived.)



52. ♜c8! ♖ White should play ♖e5 now to control the knight, but it does not work: ♜c7 f5 is coming next or after

52... ♖e8! → White should play ♗e5 how to control the knight, but it does not work. ... ♖g7-15 is coming next or after ♗f8 then ... ♗f6 wins.

50... ♗c6!

Black provoked the a4 move and now by threatening ... ♗a5 he provokes another weakening.

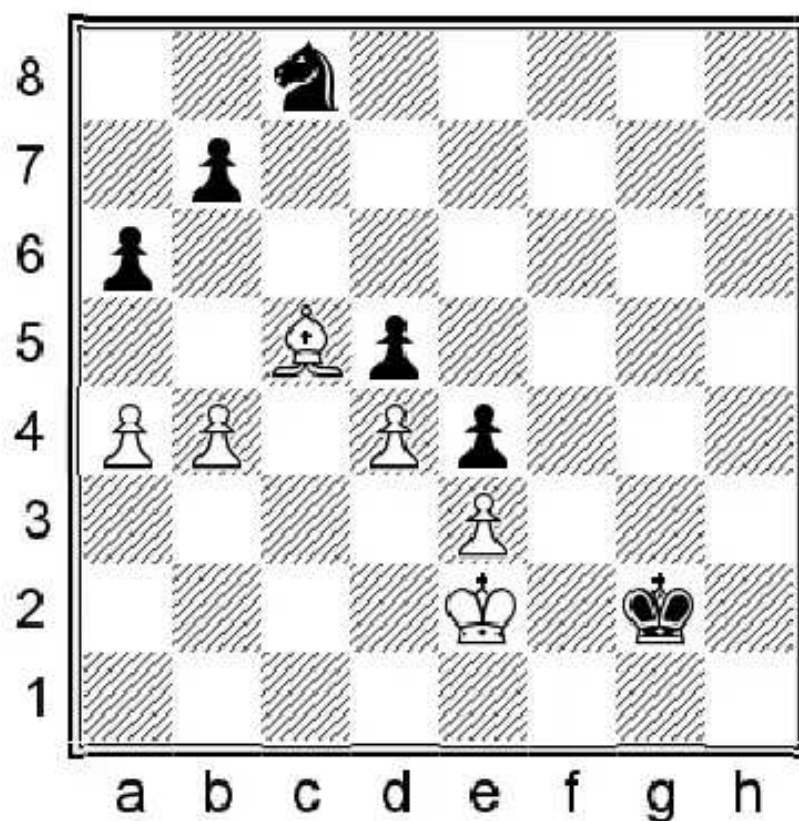
51.b4

There was nothing else. Black wanted to play ... ♗a5 and against ♗c7 then ... ♗b4 would finish the game.

51... ♖g2 52. ♖e2 ♗a7!

What a great move again! Black wants to play ... ♗c8 with two ideas in mind, ... ♗b6 and ... ♗e7-♗f5-♗g3. The only way to avoid it is to keep the bishop on c5.

53. ♗c5 ♗c8!



White is in zugzwang! The bishop cannot move as ... ♗b6 or ... ♗e7 is decisive. Any king move allows ... ♖f3.

54.a5

On 54.b5 a5 55.b6 ♖g3 → and White is in zugzwang again.

54... ♖g3!

Yet another zugzwang and this time it is the decisive one. White can wait no longer, he must let the knight pass to the kingside.

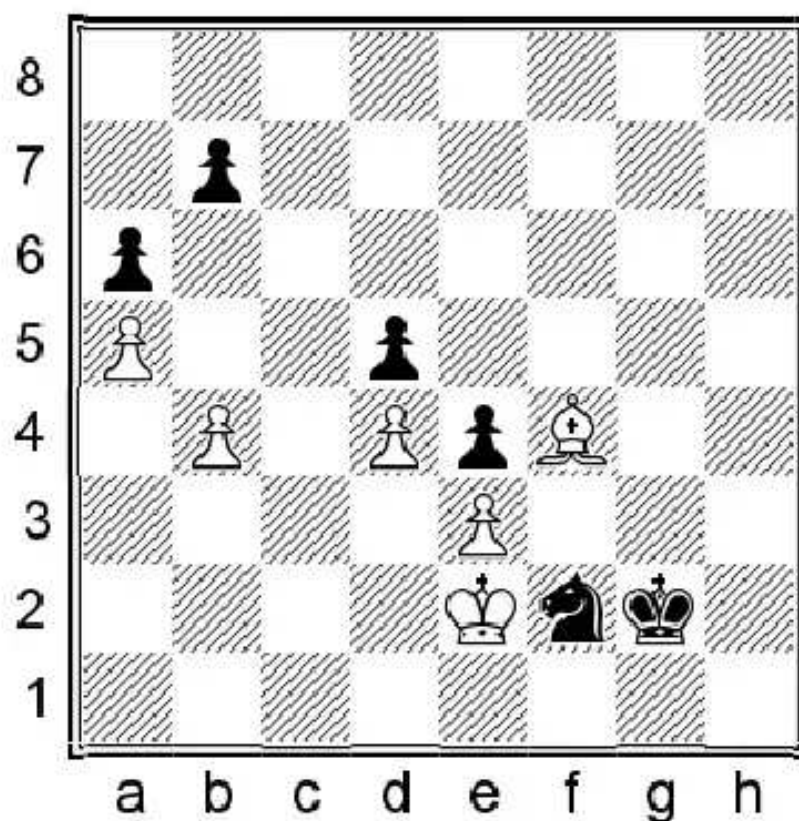
55. ♗f8 ♗a7!

Thanks to the provocation of the pawn moves on the queenside, Black has an entrance towards the opponent's camp.

56. ♗d6+ ♖g2 57. ♗c5 ♗b5 58. ♗f8 ♗a3 59. ♗e7 ♗c4 60. ♗c5 ♗b2!

A fantastic journey! The knight is unstoppable.

61. ♖e7 ♜d3 62. ♖d6 ♜f2 63. ♖f4



63... ♜h1

What an achievement for the knight and it finally arrives to g3.

64. ♖d2 ♖f3 65. b5

Desperation. Other moves lose as well. For example 65. ♖g5 ♜g3 threatening ... ♜f1, the only move is 66. ♖e1 ♜f5 67. ♖d2 ♖f2! and White is in zugzwang. 68. ♖f4 ♜g3+ and ... ♜f1 wins next.

65... axb5 66. ♖c3 ♜f2 67. ♖g5

White had to lose an important tempo as ♖b4 walks into ... ♜d3.

67... ♜d1+ 68. ♖b4

68. ♖d2 ♜b2+ ♜c4 wins.

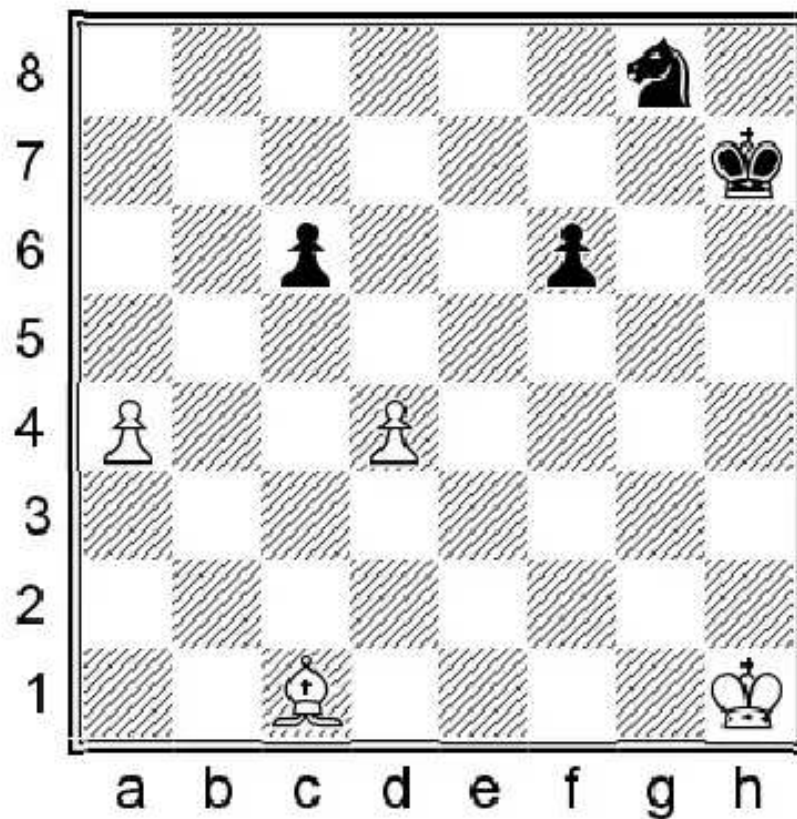
68... ♜xe3 69. ♖xb5 ♜c4 70. ♖c5 e3 0-1

This brilliant performance of the knight is a perfect finish to this chapter.

### 3.5. SUPERIOR BISHOP

The bishop is considered to be slightly more valuable than the knight, because it is a long-range piece and in open positions it can exert much more pressure on both sides of the board. In this chapter we will study examples where the bishop dominates the knight. We will meet with many interesting plans and ideas throughout the chapter.

#### 1 Troicky

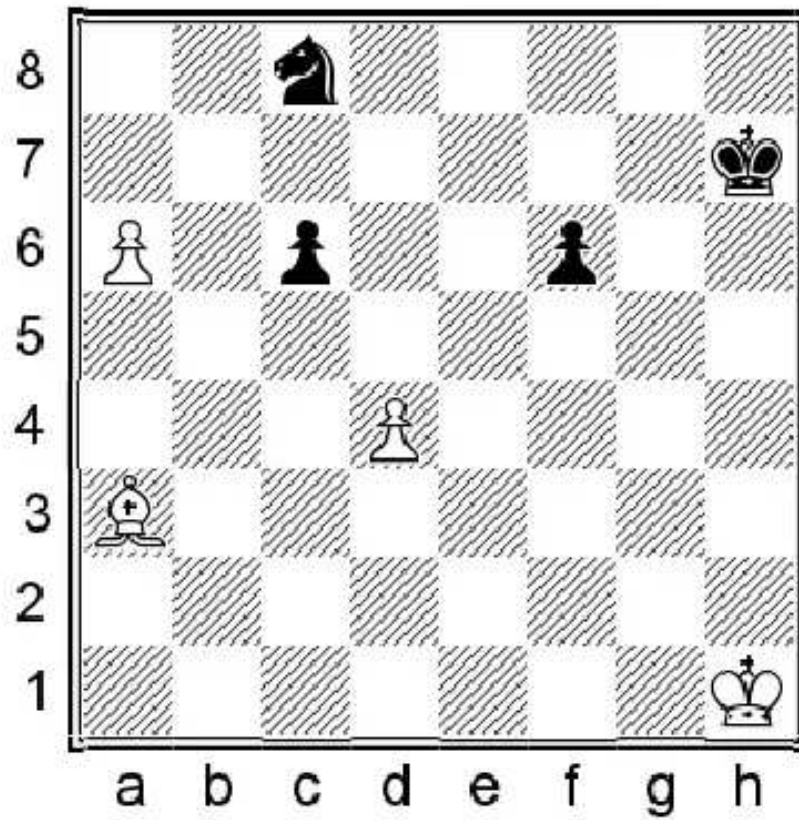


We start with a very nice study by Troicky, where the knight gets dominated by the bishop and is therefore unable to stop the running a-pawn.

1. ♖a3!

Preventing ...♘e7 which could stop the a-pawn. If White mixes up the move order and starts with 1.d5 cxd5 2.♕a3 d4! 3.♗g2 (3.a5 d3 4.♕b4 ♘e7=) 3...f5! 4.a5 ♘f6 5.a6 ♘d5=;

1.a5 ♘e7 2.a6 ♘c8 3.♕a3

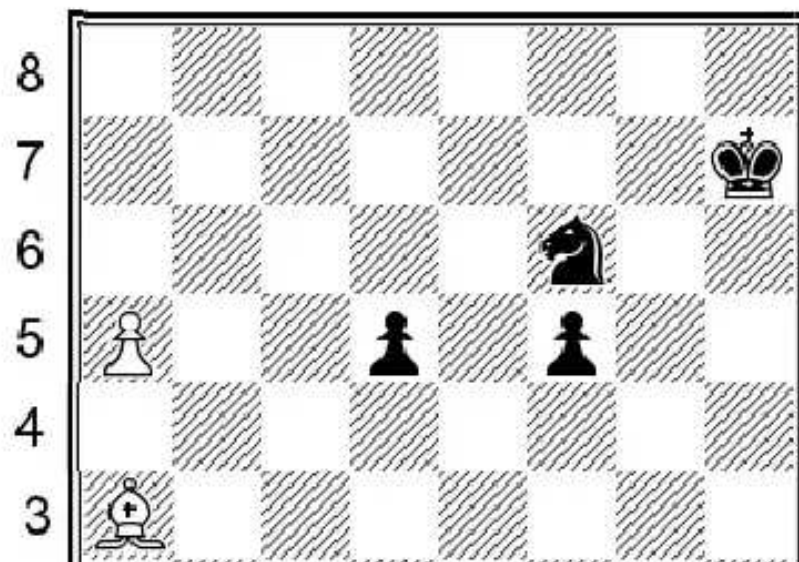


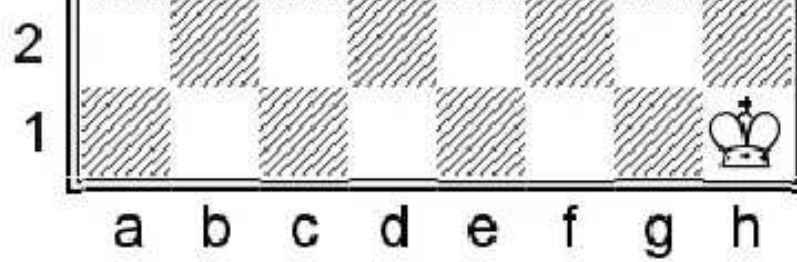
with the idea of  $\text{♙c5}$  and  $\text{a7}$ , but Black can get his knight to a light square where the bishop cannot attack it,  $3... \text{♞b6!}$

**1.  $\text{♙a3!}$   $\text{f5}$  2.  $\text{d5!}$**

Taking away the important d5 square from the knight. The direct  $2. \text{a5?}$  could met by  $2... \text{♞f6}$   $3. \text{a6}$   $\text{♞d5=}$  leads to draw.

**2...  $\text{cxd5}$  3.  $\text{a5}$   $\text{♞f6}$**





#### 4.a6

Black might try to stop the pawn from b6 or c7, but both can be prevented by the superior bishop.

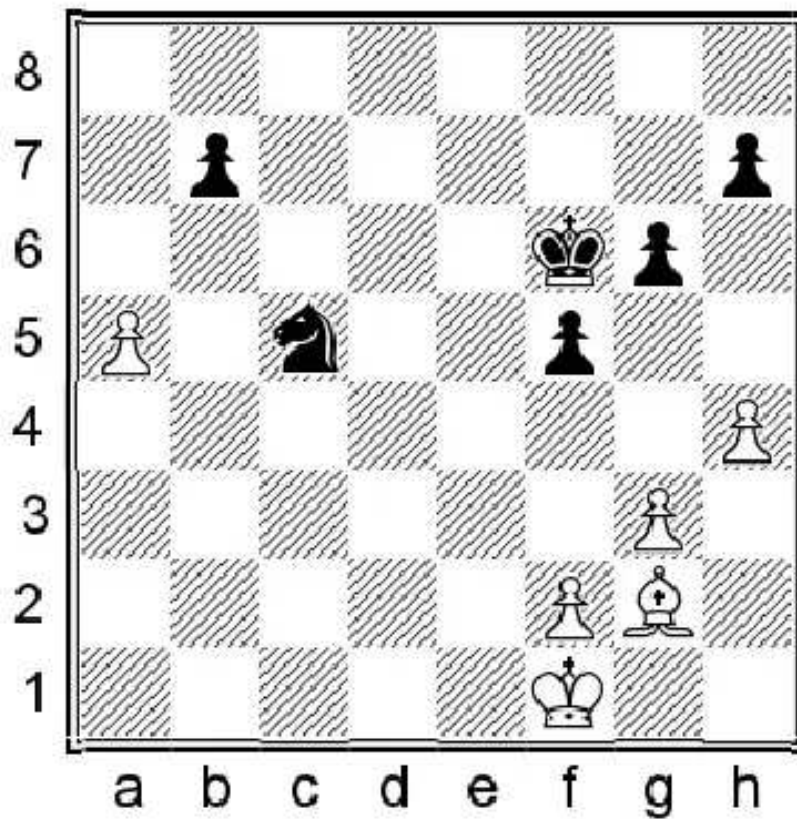
#### 4...♖e8

4...♗d7 5.♕c5! ♗xc5 6.a7+–

5.♕d6! ♗xd6 6.a7+–

2

#### Practical position



A common motif that we should never forget about is

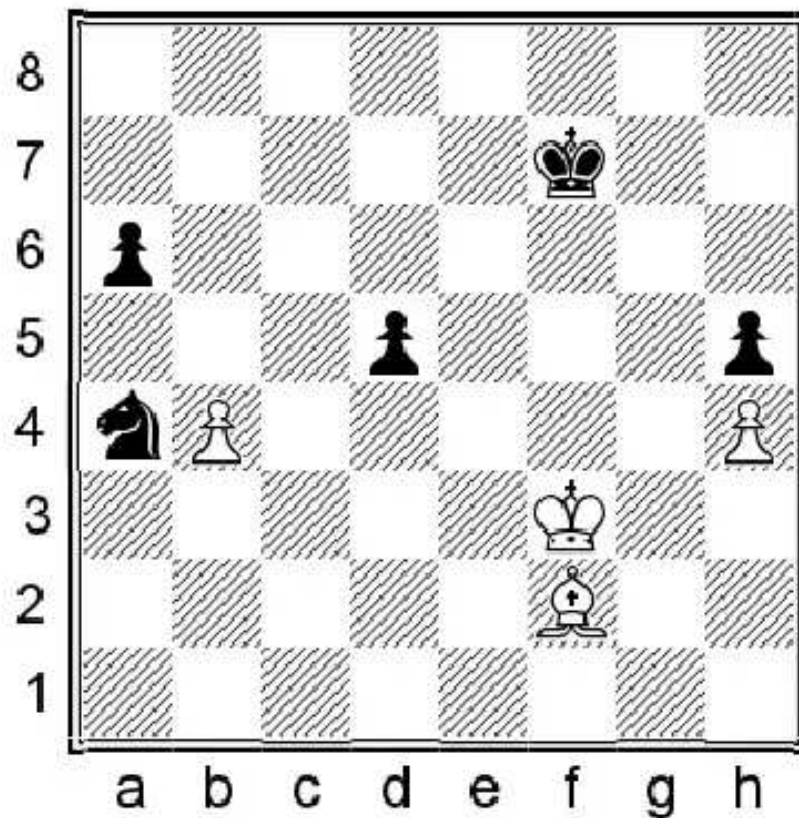
#### 1.♕xb7!

as we have already learned, the knight cannot stop the a-pawn if it is on a6 and the knight is on b7...providing there is no intermediate check available!

1...♗xb7 2.a6+–

3

#### Practical position



Here is the most typical example on the theme of domination. The principle also says that the knight does not belong at the edge of the board. A bishop might easily trap it from a central square, in the current example from d4!

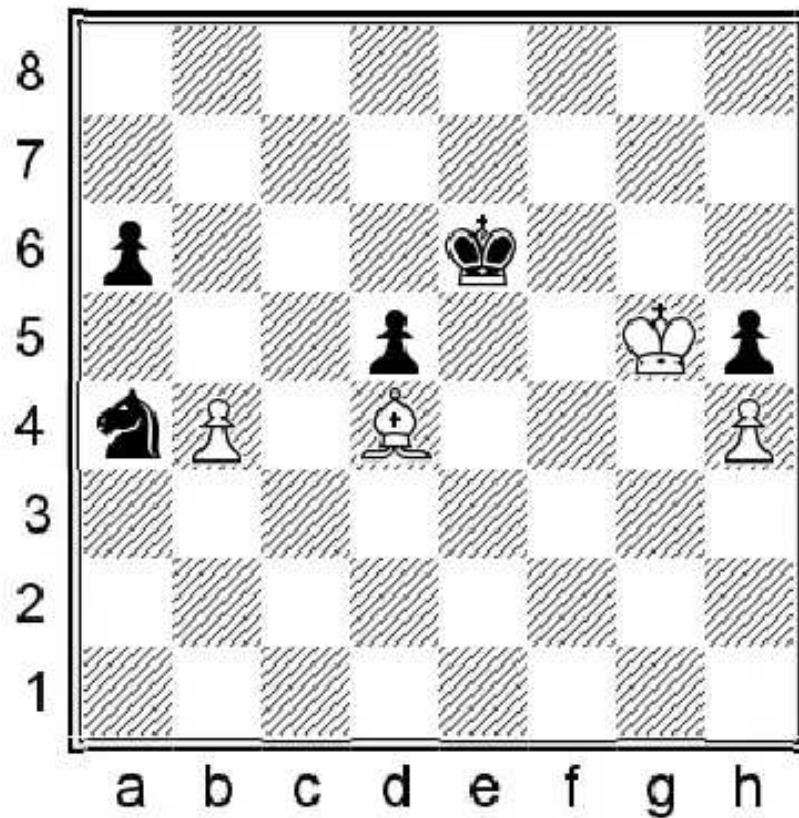
**1. ♖d4!**

Despite the extra pawn, Black is helpless. The knight has no chance of getting back into the game. White continues the game as though it was a standard pawn endgame and collects the h5 pawn by using the opposition. It is important that the bishop also controls the f6 square, therefore Black cannot fight against the invasion of the white king. In other cases the knight can be taken by the king or some other piece, but now White should not walk to b3 as it allows Black to get active with ...♔g6-f5-e4.

**1... ♔e6**

1... ♔g6 2. ♖f4 ♔h6 3. ♖f5 and ♖g5 next wins. The h-pawn easily promotes thanks to the strong bishop, which also matches the corner.

**2. ♖f4 ♔e7 3. ♖g5 ♔e6**



4.♔g6!+-

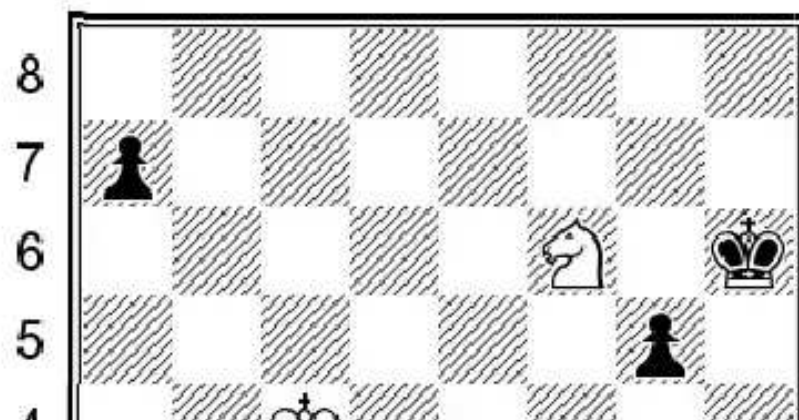
Another important idea to deprive Black of his counterplay. He is in zugzwang now and the h5 pawn can be taken next move. White basically delays the capture for a better moment. White is winning after 4.♔xh5 as well, but it requires calculation, because Black gets counterplay with 4...♔f5 and ...♔e4 next.

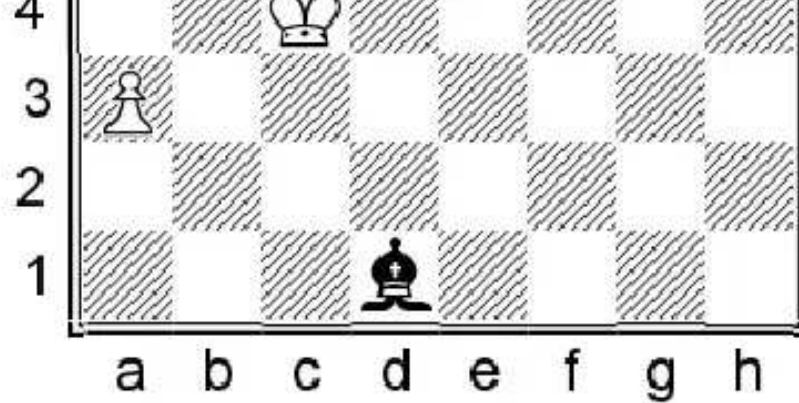
4

A. Shabalov

G. Sargissian

Chicago, 2012





**63...♔g6!**

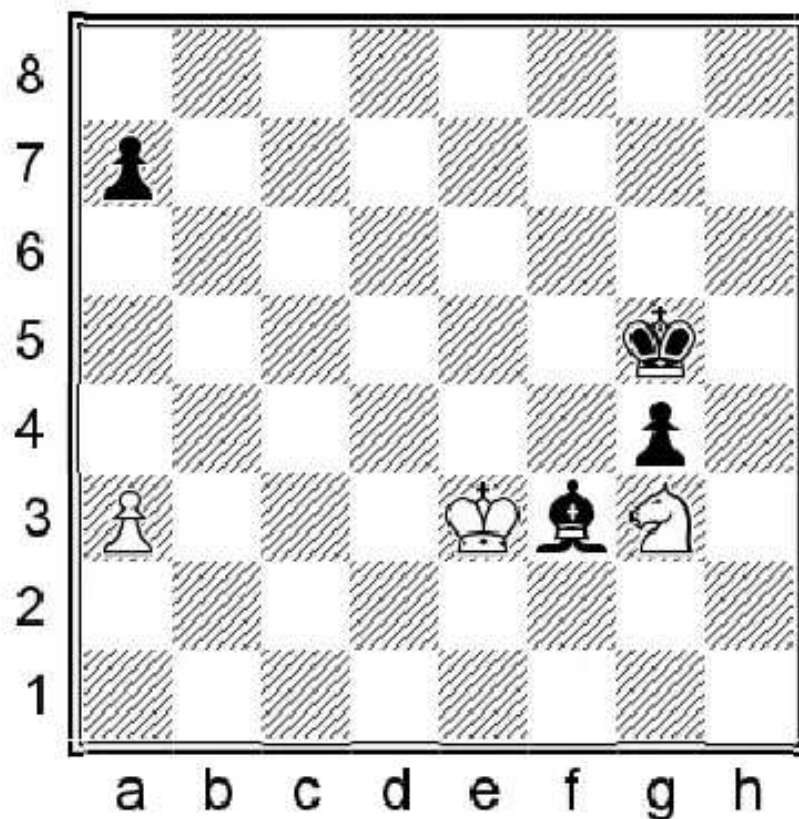
Black must preserve his g-pawn otherwise — if White can sacrifice his knight — the a1 corner would be the wrong colour for the bishop.

**64.♘e4 g4 65.♔d4 ♙f3!**

Forcing White to choose a direction for his knight. He must leave the excellent central square, which is definitely an achievement for Black. 65...♙f3! would run into 66.♘f2! when White could finally sacrifice his knight for the pawn, since 66...g3? does not work because of 67.♘xd1! g2 68.♘e3+

**66.♘g3 ♔g5 67.♔e3**

Seems like everything is under control, but with the help of zugzwang Black can improve his position.



**67...♙b7!**

White finds himself in zugzwang! He must allow Black to transfer his king to the ideal e5 square. We'll understand soon why this is so important.

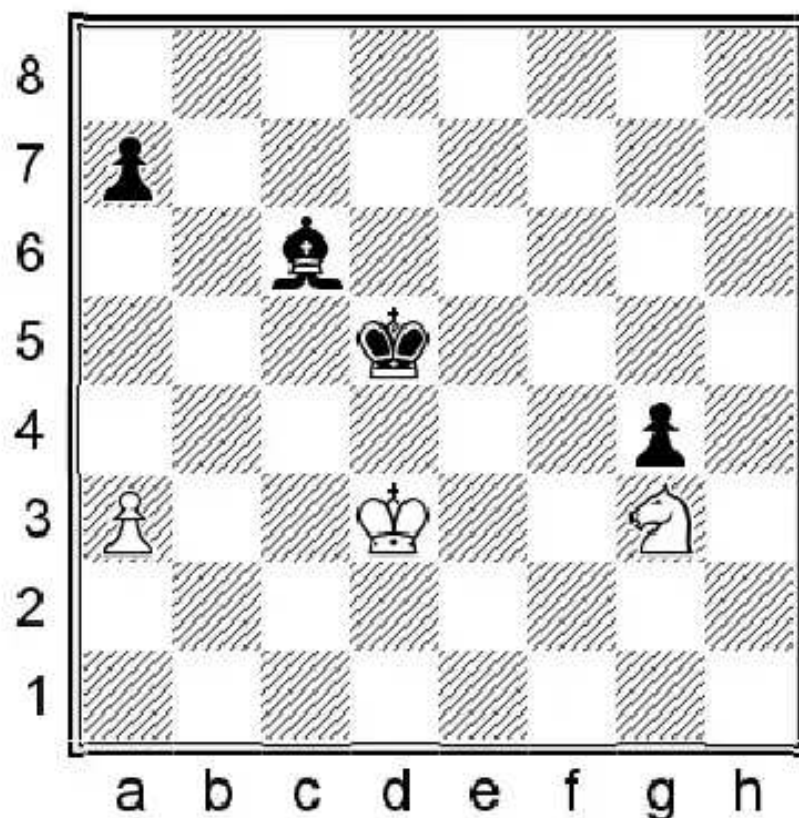
**68.♘e2 ♔f5 69.♘g3+ ♔e5 70.♘h5 ♙c6!**

Before starting the action Black slightly improves his bishop.

**71. ♖g3 ♗d5!**

Black actually wants to go for the a-pawn. He uses the g-pawn to lure the white pieces to the other side of the board. The previous bishop move also had a waiting purpose behind it, since the direct ... ♗d5 would have run into ♘f6.

**72. ♗d3**

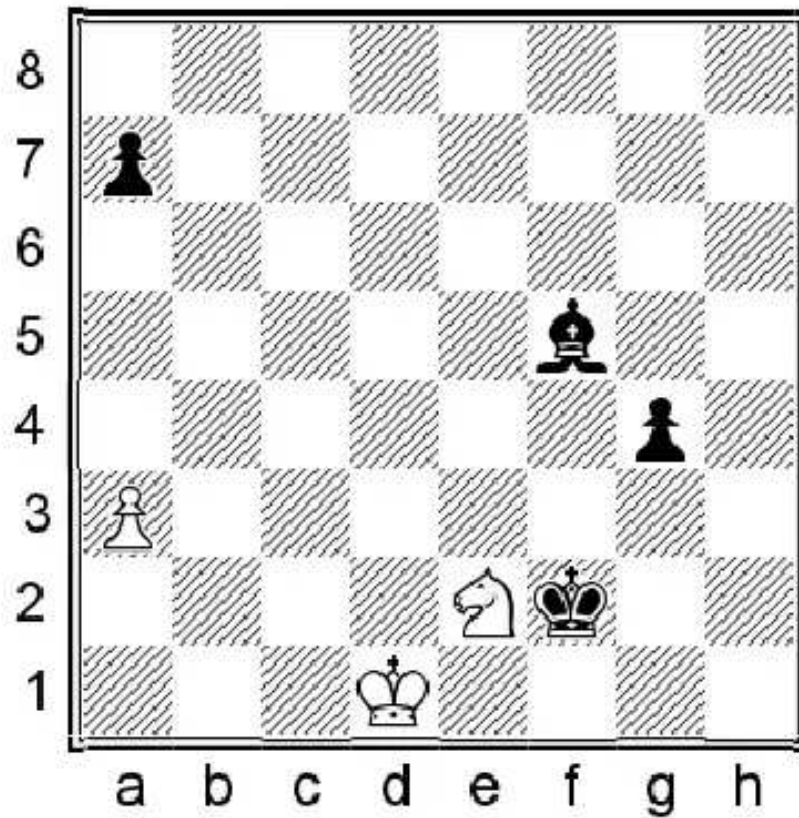


**72... ♔b5+!**

This is the point! White is facing a really unpleasant decision and must give free way to his opponent's king in one direction or another! This could be a very important moment because many times in similar situations, one move draws, while the other one loses. In this particular case, I came to the conclusion that Black is winning in both cases.

**73. ♗e3**

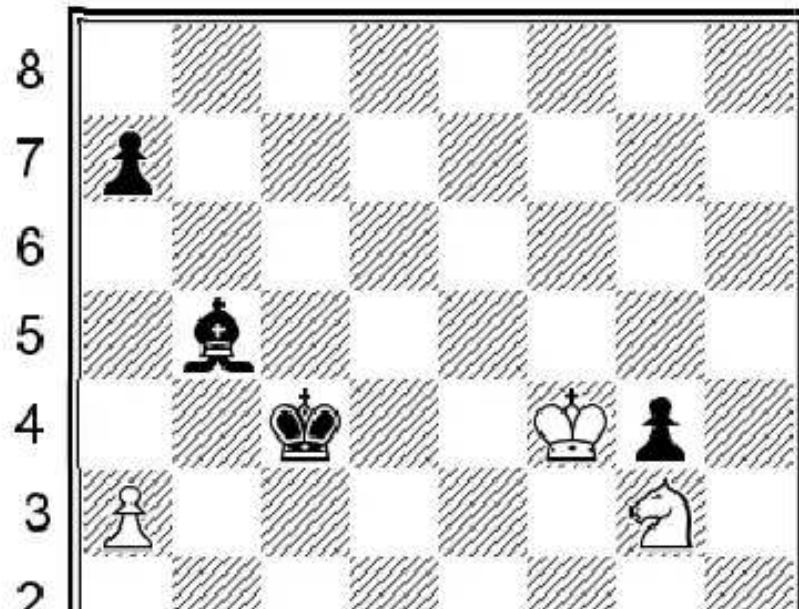
If 73. ♗c3 then Black switches to the kingside with 73... ♗e5! 74. ♗d2 ♗f4 75. ♘h5+ ♗f3 76. ♘g7 Black must play accurately to convert the advantage. As we know, the knight is very tricky... The positive thing from Black's point of view is that he can try for as long as he wants. White can only pass with the knight anyway 76... ♗c6 (76... g3? is of course premature 77. ♘f5 g2 78. ♘h4+=) 77. ♘f5 (77. ♘h5 loses faster after 77... ♗e4 taking the f5 square under control. The knight can no longer move because of ...g3. 78. ♗e1 ♗d3 79. ♗d2 ♗g6+ and g3 next.) 77... ♗e4 78. ♘d4+ ♗f2 79. ♘e2 ♗f5 The knight again cannot move because of ...g3. 80. ♗d1

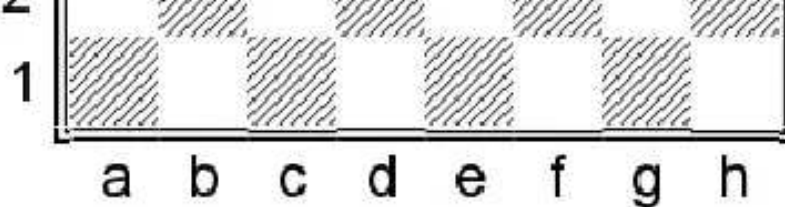


80...♔e3 81.♔e1 ♕d3 82.♖g3 ♔f3 83.♗h1 (On 83...♗h5 a6-+ and only when the king moves ♕g6 and the g-pawn promotes.) 83...a6 The final zugzwang. 84.♖f2 (84.♕d2 ♔g2-+) 84...g3-+

73...♕c4 74.♕f4

Black solved the hardest part of the game with perfect play and now, when the win is easy and so close, he makes a very strange decision.

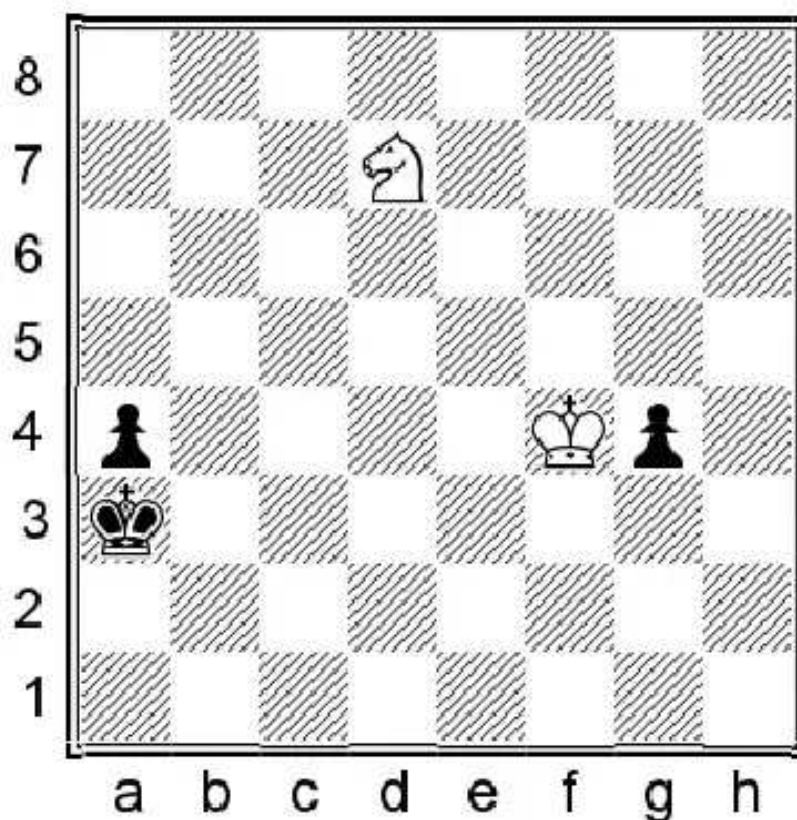




**74...♔b3?**

Why give up the g4 pawn? 74...♔d7 Black could have postponed going for the a3 pawn, first improving the position to the maximum 75.♖e4 a5! 76.♔g3 a4 and after pushing the pawn to a4, Black collects the pawn 77.♔f4 ♔b3 is the

elegant win (77...♔c6 is also winning easily.) 78.♖c5+ ♔xa3 79.♖xd7



79...♔b4! controlling the c5 square first and after 80.♖e5 ♔c3!—+ taking the d3 square under control and the next three Black moves will be made by the a-pawn.

**75.♔xg4 ♔xa3**

Suddenly we have reached a theoretically-drawn position, but White must defend precisely. This could have been discussed in chapter 3.2 as well, but the process by which we reached this position was instructive.

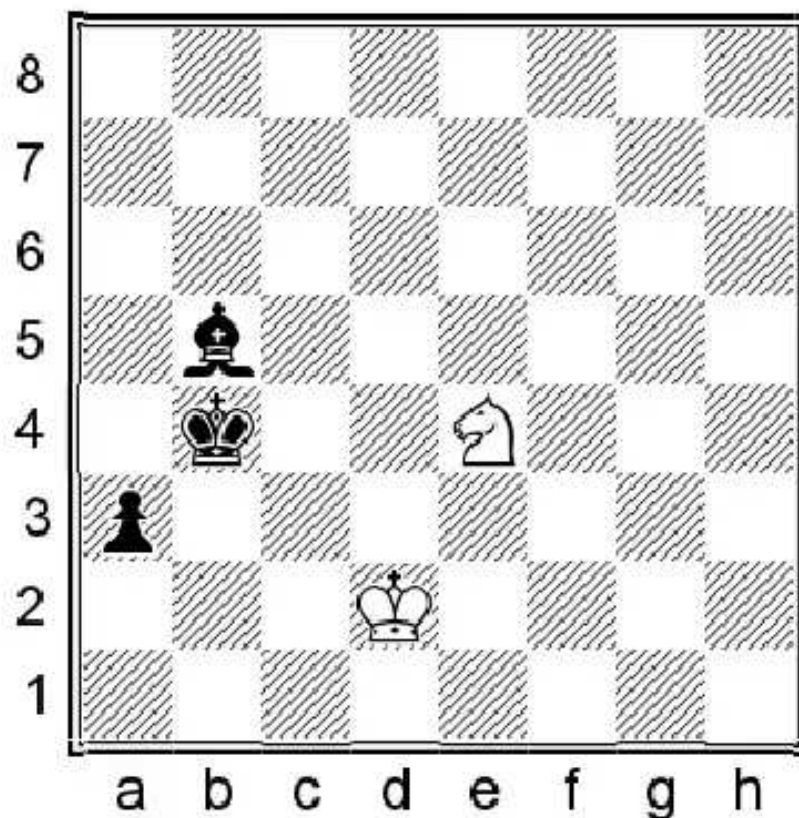
**76.♔f4**

White must bring his pieces to the queenside as quickly as possible.

**76...a5 77.♖e4 ♔b4 78.♔e3 a4 79.♔d2!**

The king should try to reach the corner. As we know, he can even sacrifice his knight just to get there.

**79...a3**



**80. ♖c3!**

Only move. White must be precise as one mistake is decisive. 80. ♖c2? walks into 80... ♗d3+!-+;

80. ♖c1 ♗d3 81. ♗d2 ♗h7 White is in zugzwang. ... ♖c3 is coming next and the a-pawn promotes because the bishop does a great job on the long diagonal because White has no way to get his king into the corner. 82. ♗f3 ♖c3-+

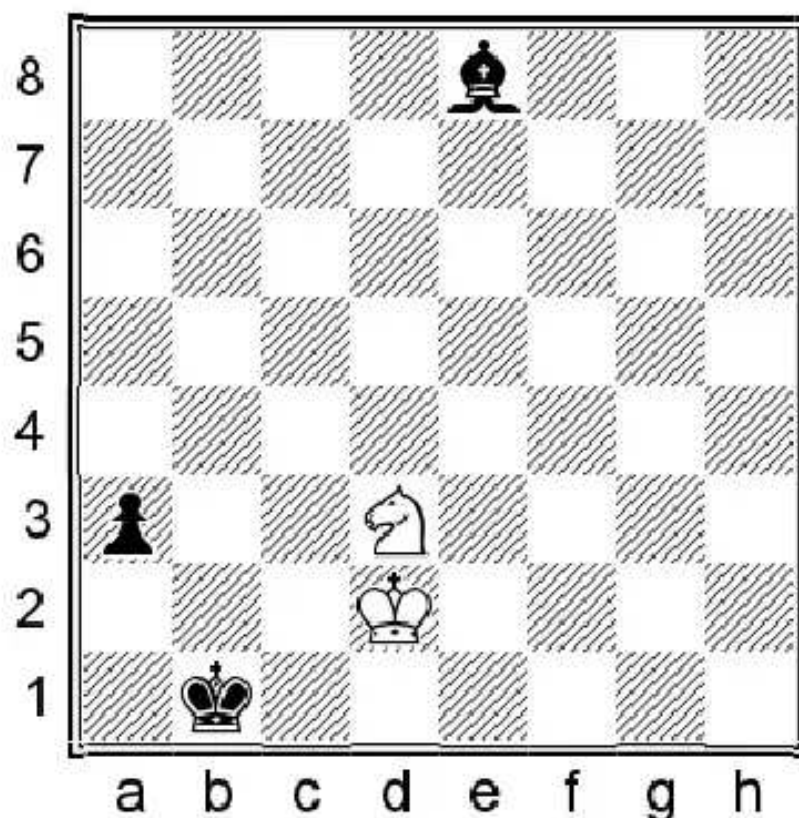
**80... ♗e8!**

Black needs to cut the king off along the b1-h7 diagonal.

**81. ♗a2+**

81. ♖c1 ♗g6 82. ♖d2 is the same.

**81... ♖b3 82. ♗c1+ ♖b2 83. ♗d3+ ♖b1**



**84. ♖b4**

The knight stands perfectly on b4, where the king cannot disturb him in one move. White is going to play ♗c3-d2. Black tries for a while, then he changes to a trickier plan.

**84... ♗f7 85. ♗c3!**

This is important. White must only use the c3 and d2 squares for passing. 85. ♗d1? loses to 85... ♗g6 86. ♗d2 ♗b2 This is the winning position and ... ♗b3 is coming next. That is why the king must stay on c3, to have the ♗b3 option if the bishop stops controlling that square. 87. ♗d1 ♗b3-+

**85... ♗e6 86. ♗d2 ♗g4 87. ♗c3 ♗d1 88. ♗d2 ♗b3 89. ♗c3 ♗a4 90. ♗d2 ♗d7 91. ♗c3 ♗e6 92. ♗d2 ♗g8 93. ♗c3 ♗f7 94. ♗d2**

Black realizes that there is no breakthrough, so he tries another idea.

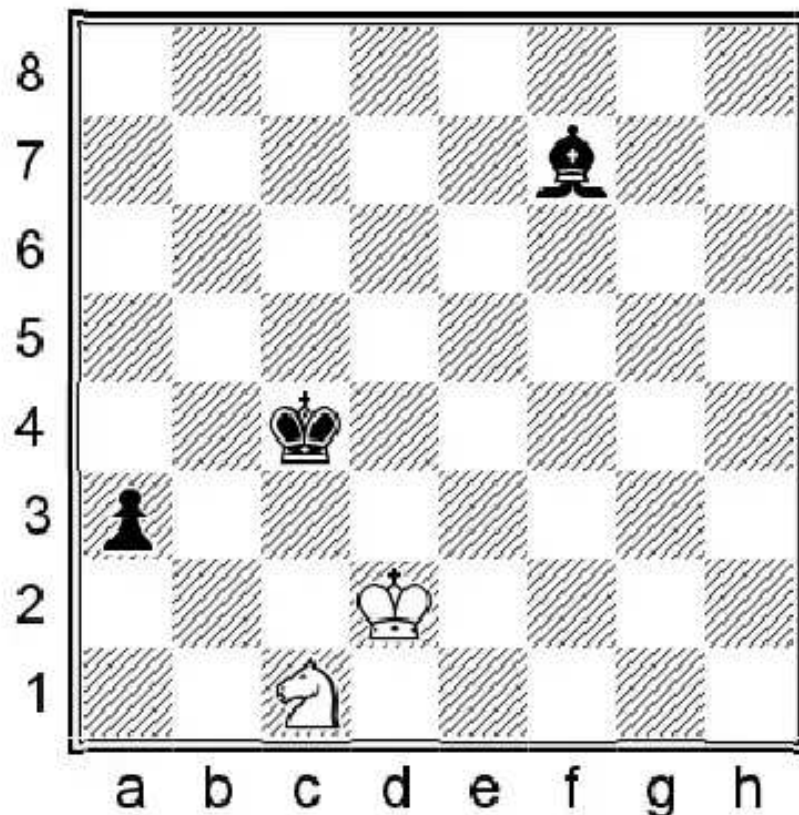
**94... ♗b2**

This move must always be met with...

**95. ♗d3+!**

Otherwise ...♔g6 and ...♖b3 wins.

**95...♖b3 96.♗c1+ ♖c4!**



We come to another very tricky position, where only one move saves White.

**97.♗a2!**

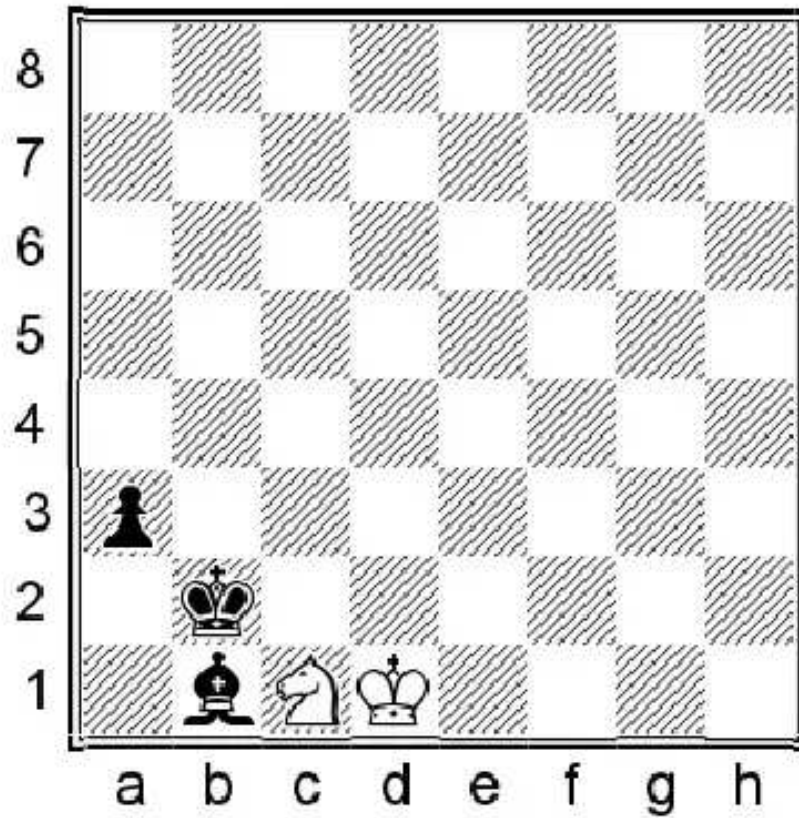
The knight must go to c3, otherwise White gets into zugzwang and loses. 97.♖c2? ♔g6+ 98.♗d2 ♔b1! This is the winning position. White must allow ...♖c3, slowly squeezing out the c1 knight. You can see the win in the game's 98...♔b1 line.

**97...♔g6 98.♗c1?**

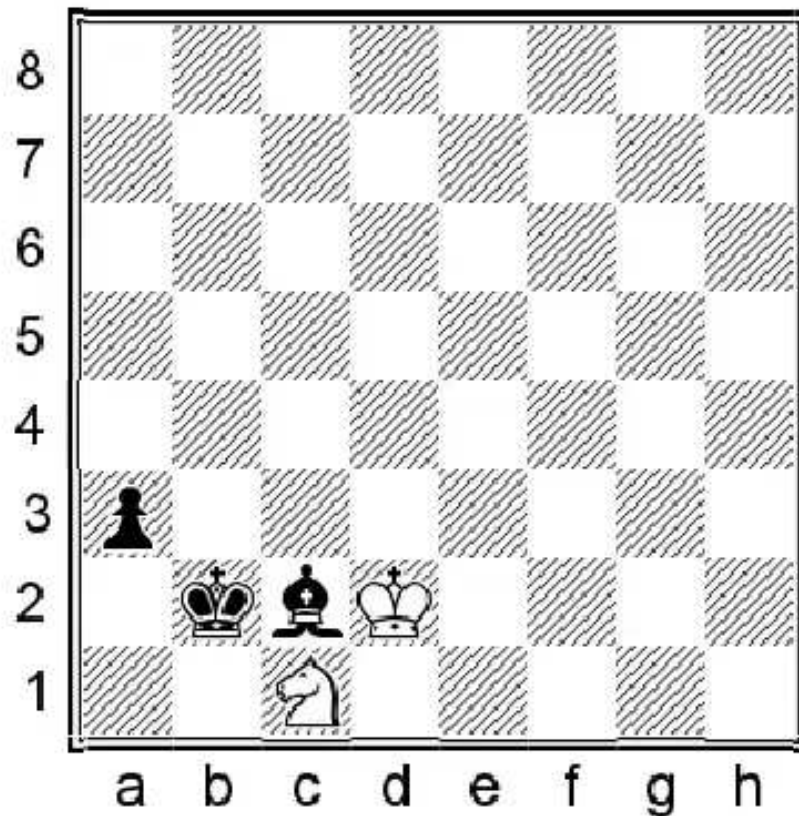
After finding dozens of only moves, White runs out of energy and makes a losing move. 98.♗c3 was the way to draw, but White had to see that after 98...♖b3 he has 99.♗e2! Only move! 99...♖b2 100.♗c3 and the position is drawn.

**98...♔f5?**

Black spoils the win! He could have taken control over the a2 square with 98...♔b1 99.♗d1 ♖c3 100.♗e2+ ♖b2 101.♗c1



Black wins by transferring the bishop to c4. White gets into zugzwang again! 101...♖e4 102.♔d2 ♖g6! Losing a tempo to force the king to d1. (102...♖c2? seems to win on the spot, but White has



103. ♖a2! and the knight gets to c3, which is a draw as we already know.) 103. ♖d1 and now the bishop goes to c4  
 103... ♗f7! 104. ♖d2 (104. ♖d3+ ♖c3 105. ♖c1 ♗c4—+) 104... ♗c4 105. ♖d1 ♖c3!—+ This is the winning position. White is in zugzwangs and he must allow ... ♖c2 next move.

99. ♖a2 ♖b3 100. ♖c1+?

White fails to play ♖c3 again, but this time he gets punished for the mistake. 100. ♖c3=

100... ♖b2 101. ♖d1

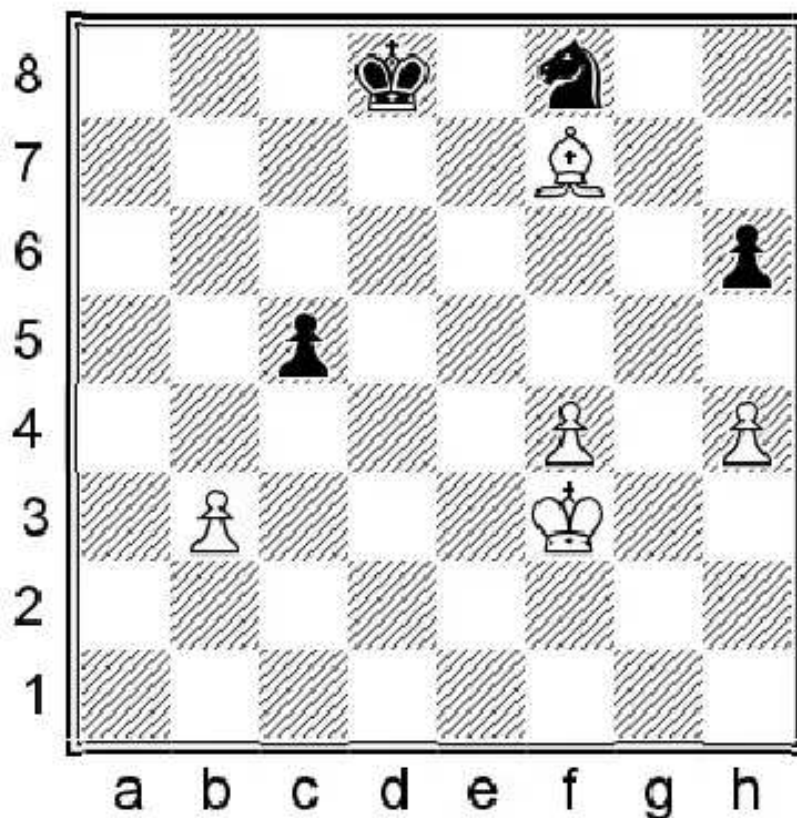
As we know, the bishop must go to c4.

101... ♗e6! 102. ♖d2 ♗c4 0–1

and White resigned. 102... ♗c4 103. ♖d1 ♖c3! 104. ♖e1 ♖c2—+

5

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 A. Moiseenko  
 Kiev, 2012



After trading a pair of rooks on f7, the following endgame arose. It is very interesting to analyze and to learn new ideas.

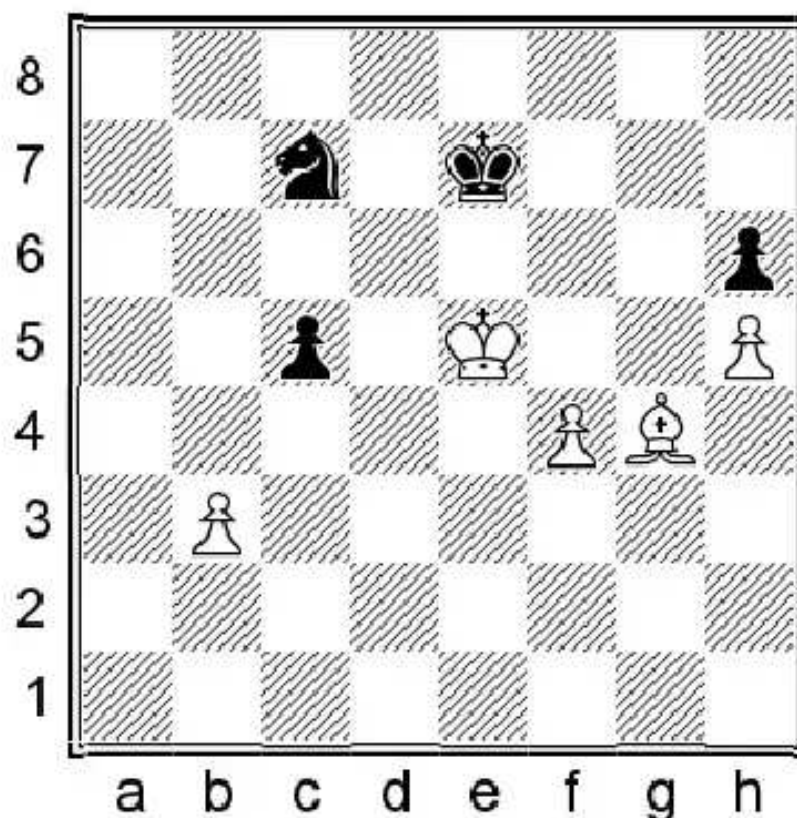
66... ♖e7 67. ♗c4 ♖f6

Suddenly, things are not easy at all. The two main problems are to deal with the concrete threats of the knight and the wrong color of the promotion square on h8. If Black takes the f-pawn, he only needs to sacrifice his knight for the b-pawn and run with the king to the h8 corner to secure the draw.

68. ♖e4

White is probably still winning after this move, but there was a better solution... 68.h5! in order to prevent the

counterplay with ...♗g6. 68...♗f5 (68...♗d7 69.♗e4 ♗b6 Black controls the squares of the breakthrough right now, but White can always try to make progress using zugzwang. 70.♗b5 ♖e6 71.♗e2 ♗f6 72.♗g4+- and the White king will advance to e5 or d5. It is important that 72...c4 can be answered by 73.b4! keeping the pawns on board.) 69.♗a6 ♗f6 70.♗e4 ♗e6 71.♗c8 ♗c7 White can break the fortress with the help of zugzwang, once again. 72.♗g4 ♗f7 73.♗e5 ♗e7



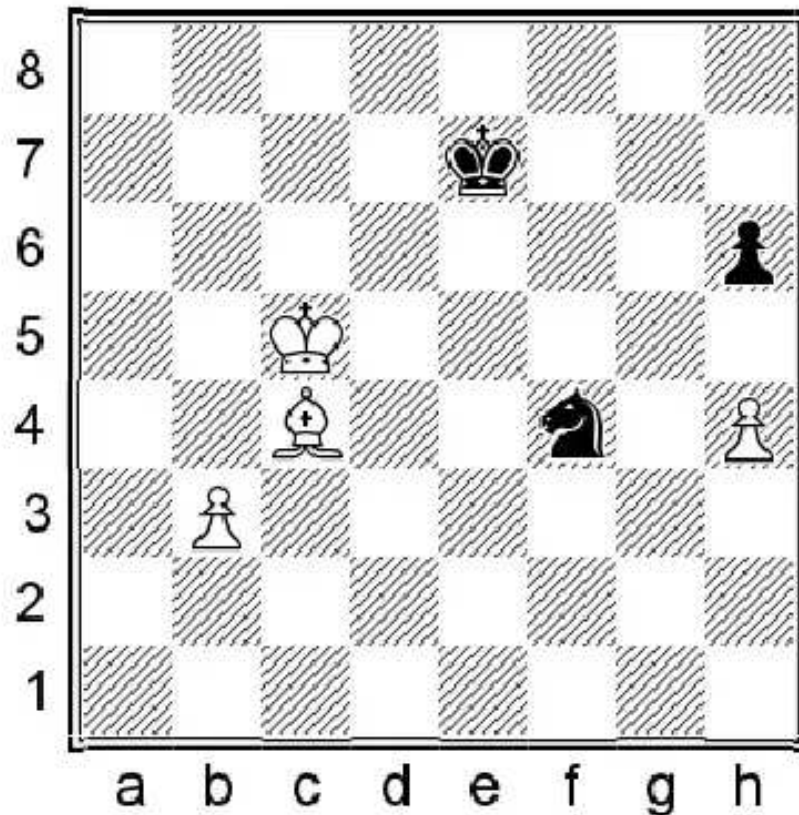
The win is still not obvious, but after some maneuvering, Black cannot prevent the invasion of the king on d6 or on g6. 74.♗f3 ♗e8 (74...♗e6 75.f5 ♗d4 76.♗d5+- f6 is next.) 75.♗f5 ♗f7 76.♗d5+ ♗g7 77.♗e6 ♗f6 78.♗f3+- White soon collects the c5 pawn.

### 68...♗g6

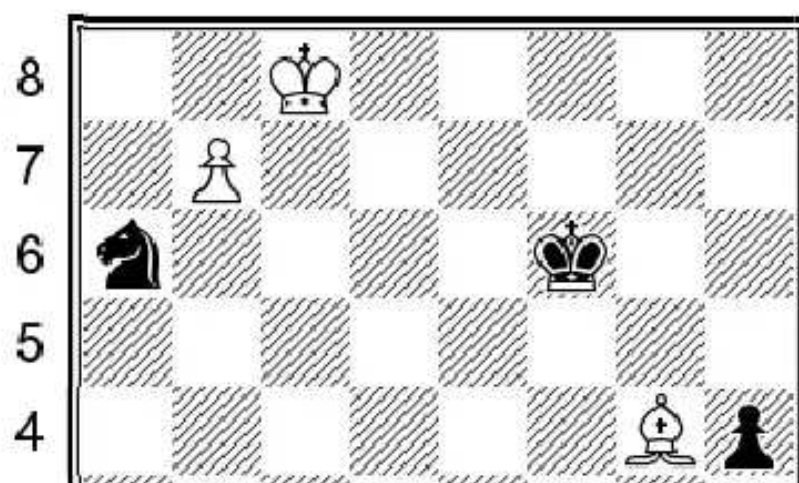
We reach another critical moment, where the most obvious move could have cost White the full point.

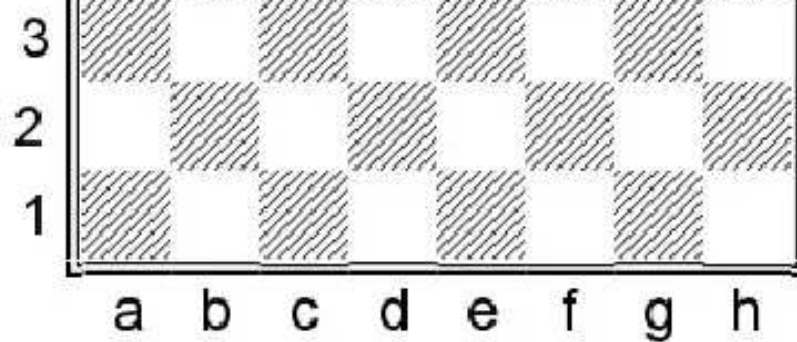
### 69.h5?

I think White is no longer winning in the case of perfect defense. The problem with this move is that Black is always in time to attack the f4 pawn, and after taking it, h5 is hanging. Of course, only deep and detailed analysis can show us the correct evaluation of the position. Over the board we can only trust in our intuition, which unfortunately sometimes leads us in a false direction. 69.♗d5! ♗xf4+! This is more tenacious. (69...♗xh4 70.♗xc5+- In this case, sacrificing the knight for the b-pawn is not enough for Black to save the game.) 70.♗xc5 ♗e7

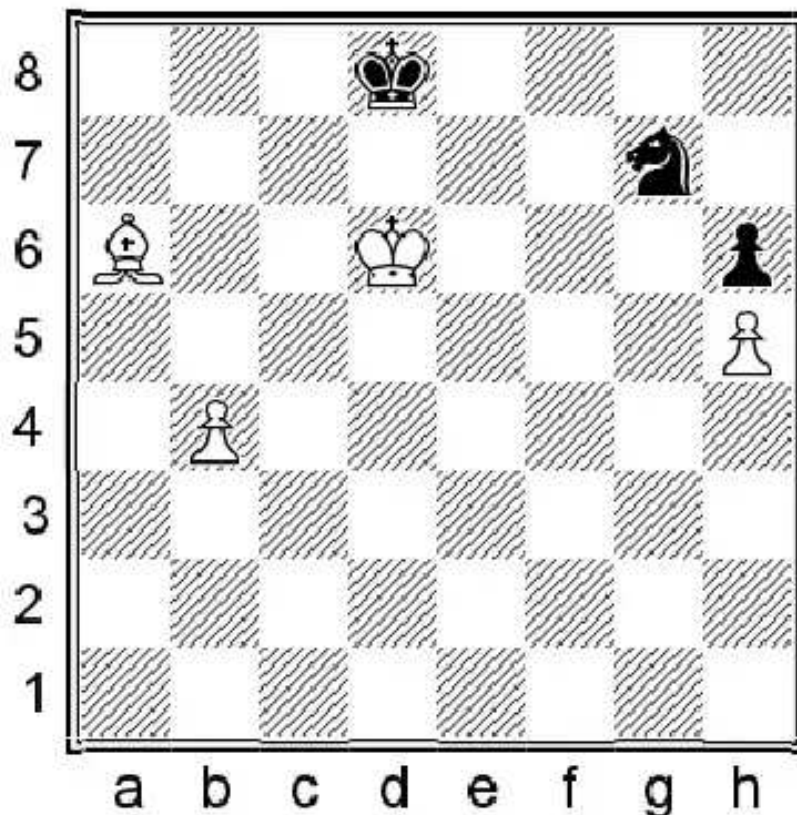


(70...♞g2 is too slow. 71.b4 ♞xh4 72.b5 Black can't stop the pawn... 72...♞e7 73.b6 ♞d7 74.♙e6+! ♞xe6 (74...♞d8 75.♞d6+-) 75.b7+-) 71.♞c6! Trying to keep the king away from the pawn... (71.b4 ♞d7) 71...♞g6 It's a nice moment to improve our calculation. The question is: which one is better, to give up the pawn on h4 or on h5? 72.h5! (72.b4 would spoil the win 72...♞xh4 73.b5 ♞f5 74.b6 ♞d6= d6 is the best square for the knight. Black only wants to push his pawn and if the bishop leaves the f1-a6 diagonal, ♞c4 b7 ♞a5 draws the game.) 72...♞f4 73.b4 ♞d8 (73...♞xh5 Black is in time to catch the pawn, but it reaches the 7th rank which is enough for the win. 74.b5 ♞f6 75.b6 ♞d7 76.b7 The black pawn is not far-advanced. 76...h5 77.♞c7 h4 78.♙b5+- Just in time.) 74.♙a6! Another very precise move! 74...♞e6 (74...♞xh5 loses again after 75.b5 ♞f6 76.b6 ♞d7 77.b7 h5 78.♙e2 h4 79.♙g4 ♞b8+ 80.♞b6 and Black is in zugzwang. 80...♞e7 81.♞c7 ♞a6+ 82.♞c8 ♞f6





83. ♖h3!+- White keeps control of the h3 square and his next move will be ♕f1!(83. ♕e2? h3) ) 75. ♔d6! ♜g7 (75... ♜f4 76.b5+-; 75... ♜c7 76. ♕e2)



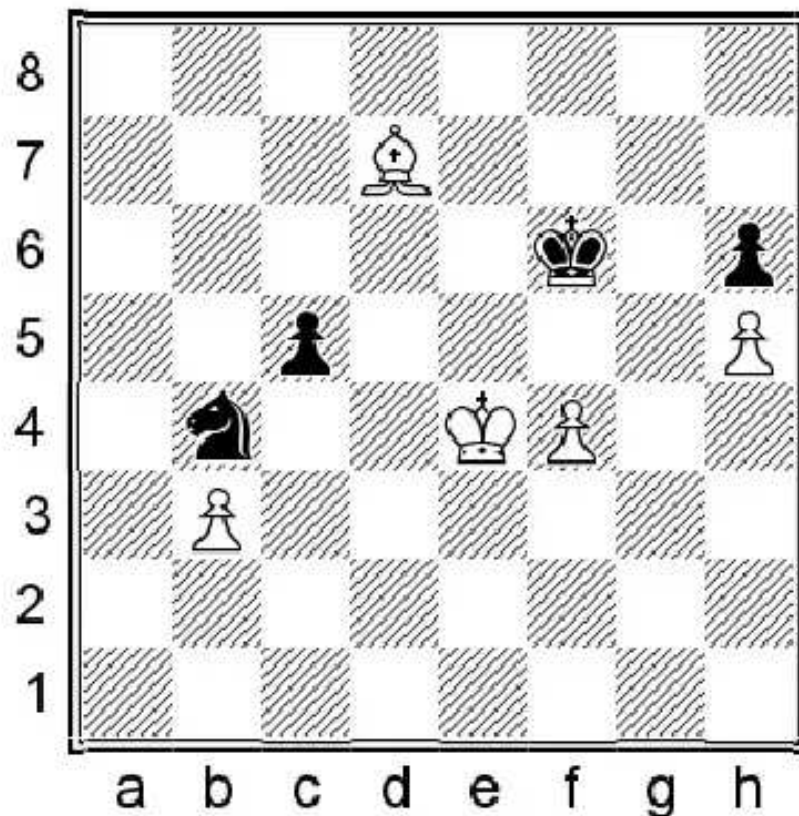
76. ♕e2! The final accurate move! White now simply wants to collect the h6 pawn. (76.b5? was the last moment to make a mistake. The game is drawn after 76... ♜e8+! 77. ♛c6 ♜c7= with the threat of ♜xb5 and ♛e7.) 76... ♜f5+ (76... ♛c8 77. ♛e5+-) 77. ♛e5+-

69... ♜e7

I think the position is objectively drawn now. White should try to create zugzwang, but each bishop move allows Black to activate his knight.

70. ♕d5

70. ♕a6 is probably the most critical. 70... ♜c6! (70... ♜f5 is a mistake now, because of 71. ♛d5 ♜d4 72.b4!+- In comparison to the 70. ♕b5 line, the bishop is not hanging here.) 71. ♕b5 (71. ♛d5 ♜a5= 72. ♕c4 transposes to 70. ♕b5.) 71... ♜b4! 72. ♕d7

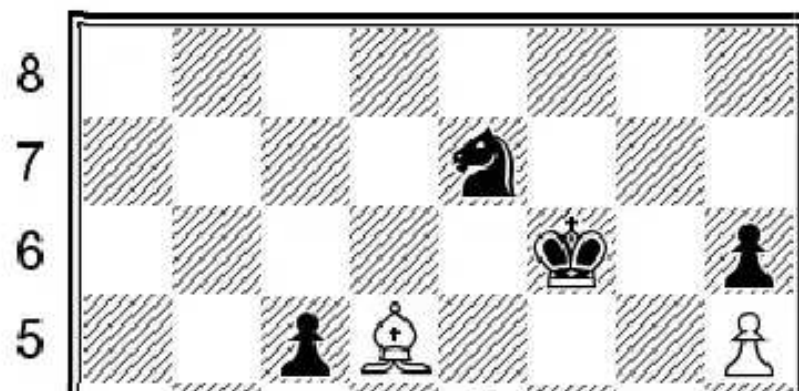


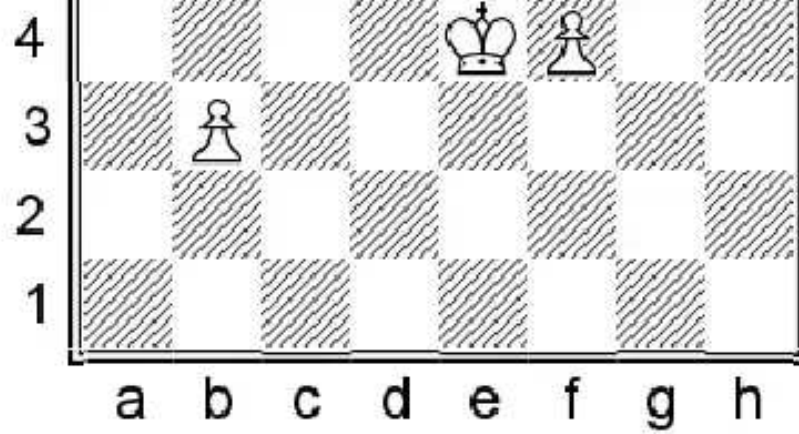
72... ♖a2! A very important resource! White can hardly disturb the knight on this square, which either wants to pass on b4 (where it controls the d5 square), or after ♖d5, is ready to play ... ♗c1. 73. ♖d3 (73. ♖d5 ♗c1 74. ♖c4 is the same.) 73... ♗c1+ 74. ♖c4 ♗e2 and here the problem of the 69.h5 move becomes clear. Black wins a very important tempo by taking the f4 pawn, which allows him to make a draw... 75. ♖xc5 ♗xf4 76. ♖d6 (76. ♖g4 ♖e5!= is a draw, since b4 is met by ... ♗d3, followed by ... ♗xb4 and ... ♖f6.) 76... ♗xh5 77. b4 ♗g3! 78. b5 (78. ♖c6 ♗f5+ 79. ♖c5 ♖e7 80. b5 ♖d8=) 78... ♗e4+ 79. ♖c6 ♖e7 80. b6 ♗d6= and the knight has reached the ideal d6 square. We have already encountered this in the 69. ♖d5 line.

70. ♖b5 ♗f5! 71. ♖d5 ♗d4 72. ♖c4 ♖f5 73. ♖xc5 ♗xb3+! 74. ♖xb3 ♖xf4 Black is in time to get back to the corner.

75. ♖d4 ♖g5! An important tempo. 76. ♖d1 ♖f6=;

70. ♖e2 ♗c6 71. ♖d5 ♗a5 with the same draw as in the 70. ♖b5 line.



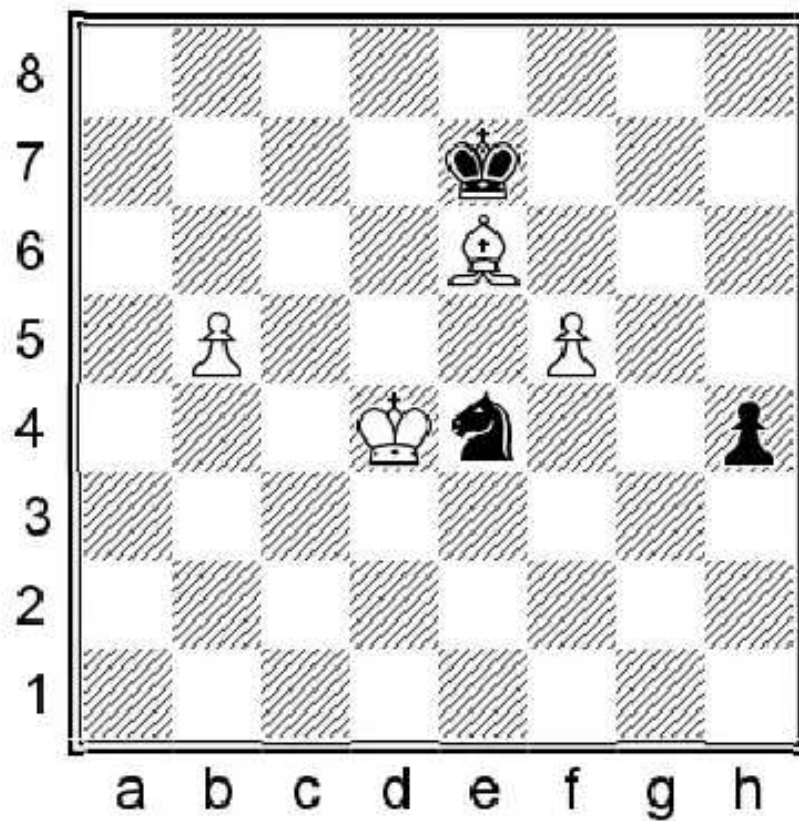


70...♟f5! 71.♞c4 ♟g3+

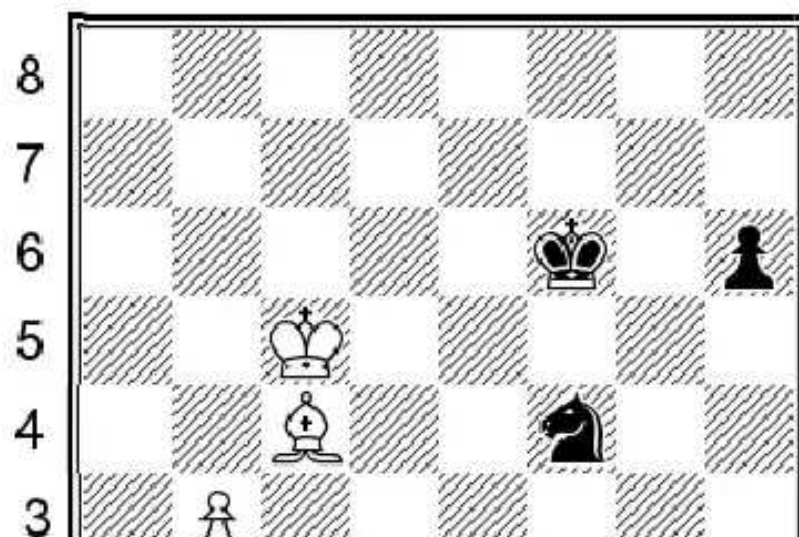
71...♟e7 was also possible. White wanted to improve on his play, but of course taking the pawn should be easier.

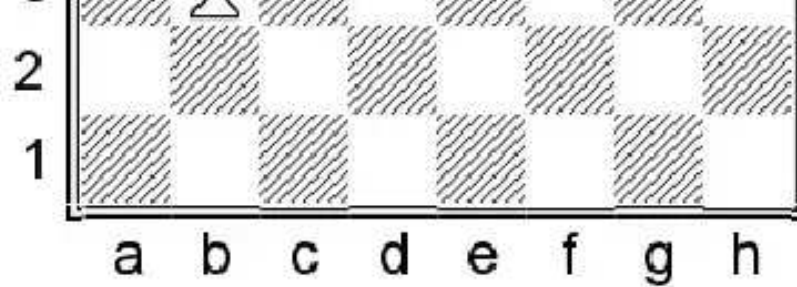
72.♞d5 ♟xh5 73.♞xc5 ♟xf4

73...♞e7 was also possible. 74.f5 ♟g3 75.♞e6 h5 76.b4 h4 77.b5 ♟e4+ 78.♞d4



78...h3! 79.b6 ♟d6= everything is under control.

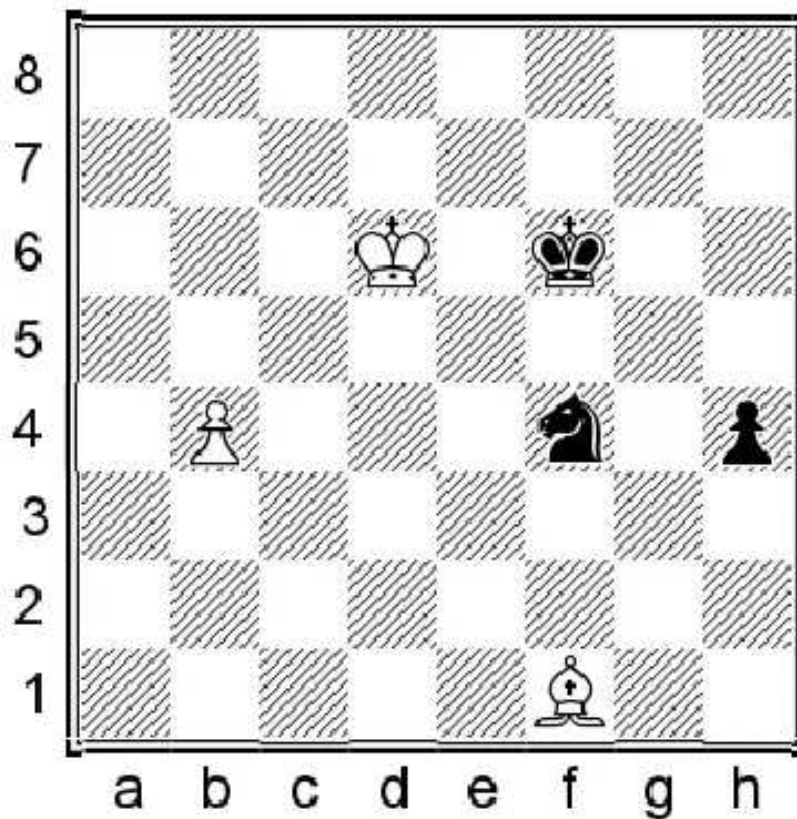




**74.♔d6!**

The bishop and the king provide perfect support to the b-pawn, but here comes the role of the h-pawn.

**74...h5! 75.b4 h4 76.♕f1!**



**76...h3?**

76...♖e6! was the only move. 77.b5 ♖d8! is the only move, again. White cannot win... 78.♕g2 A last attempt to prevent the ...♖b7-a5 ideas, but...

**a) 78.b6 ♖b7+ 79.♔c7 (79.♔c6 ♖a5+ 80.♔b5 ♖b7=) 79...♖a5=** A good place for the knight, where the bishop can't disturb it. The king is also far away.

**b) 78.♔d7 ♖b7 79.b6 ♔e5 80.♔c7 ♖a5=;**

78...♖f7+! 79.♔c7 ♔e7 80.b6 ♖d6= and we have reached the drawn position with the knight on d6.

**77.♕xh3!**

White is winning now!

**77...♖d3**

77...♖xh3 78.b5 ♖g5 79.b6 ♖e4+ 80.♔c6!+-

**78.b5**

The knight cannot be sacrificed for the pawn.

**78...♖b2**

78...♗e5 79.♙e6+- Controlling all the squares!

**79.♙e6! ♖a4 80.♙b3 ♗c3**

80...♗b6 81.♙c7 ♖a8+ 82.♙b7+-

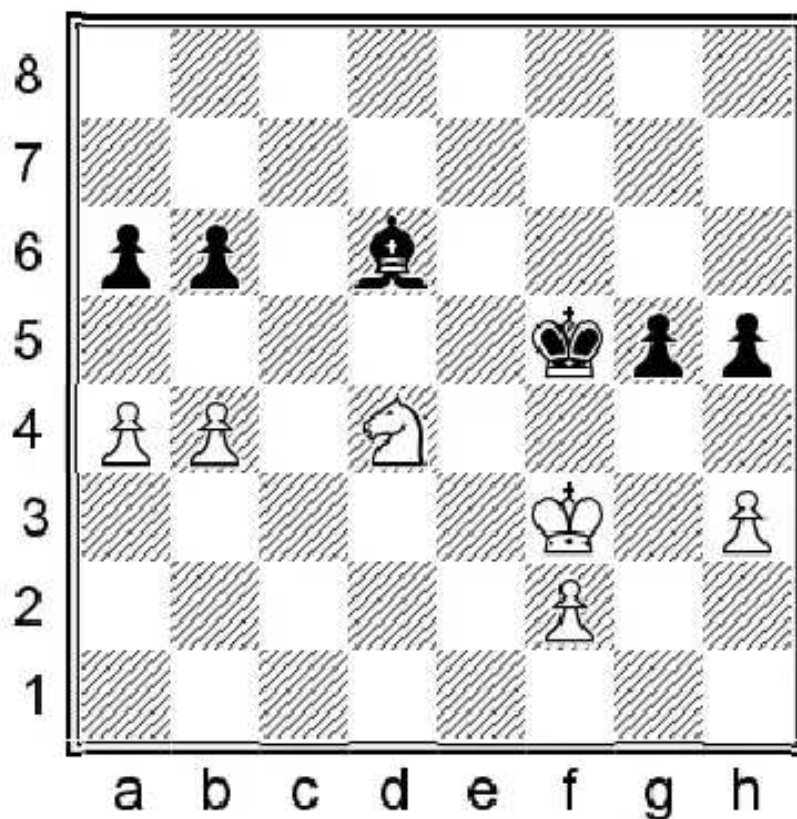
**81.b6 ♗e4+ 82.♙c6 1-0**

6

E. Bacrot

P. Eljanov

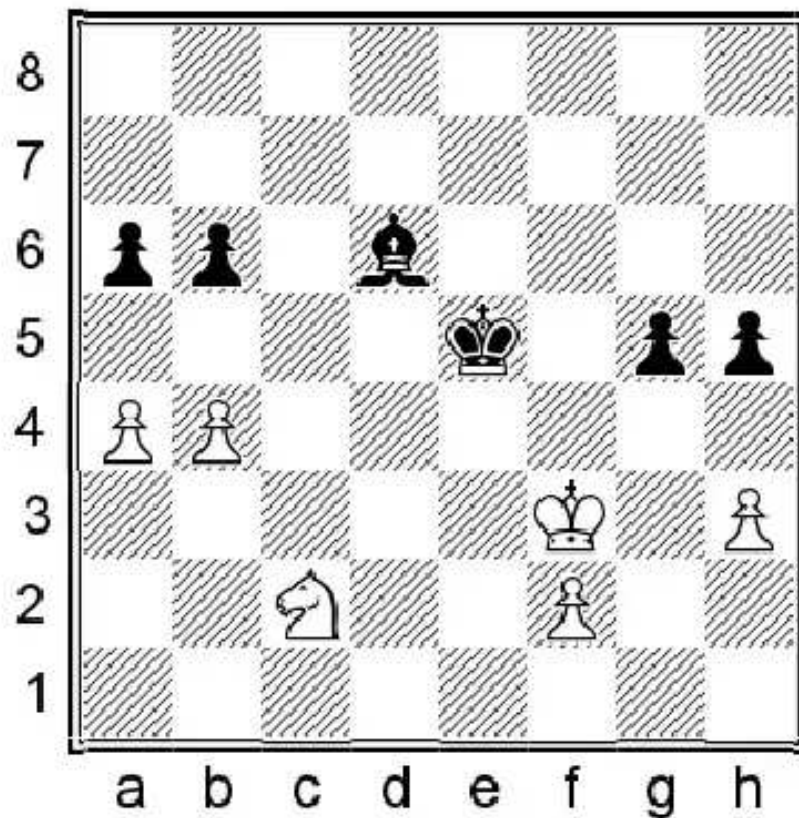
Shamkir, 2014



At first sight White's position looks pretty "holdable", but in actual fact he faces huge problems. As we know, the bishop is much stronger than the knight in fights on both sides of the board. The black king is also well placed in the center and it can quickly get to both the queenside and the kingside pawns. Another idea for Black could be to exchange his g-pawn against White's h-pawn to get a passed pawn on the h-file.

**41...♙e5 42.♗c2**

White tries to control the squares in the middle of the board so as not to allow the king to pass the 4th rank.



42...♔c7

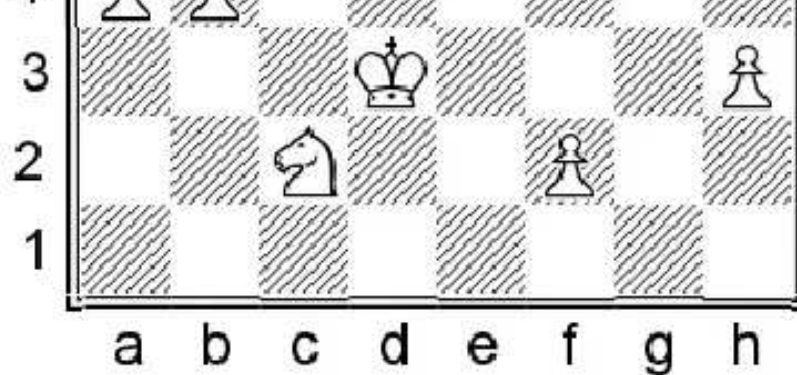
It was too early to play 42...♕d5 43.♖e3+! as after 43...♔d4 White has 44.♗f5+!

43.♕e3

White needs to keep the opposition. He tries to follow with his own king the movement of the black king.

43...♔d5 44.♕d3





44...♔d8!

Another very unpleasant waiting move; checking what White will do next. The bishop is away from any kind of motifs connected to ♖e3-c4 and protects the b6 pawn as well. White also needs to be very careful about a possible breakthrough with ...g4 hxg4 h4.

45.f3

A very human move, but soon Black's idea of playing ...♔e5-♔f4 becomes real. 45.♗e3+ didn't help much. 45...♔e5 and Black's next move could be ...♔f4.

And after 45.♗d4 ♕f6 46.♗c2 ♔e5 47.♔e3 ♕e7 White is in zugzwang. The knight is pinned to the b4 pawn and depending on which direction the white king goes, the black one heads the opposite way.

45...♕e7!

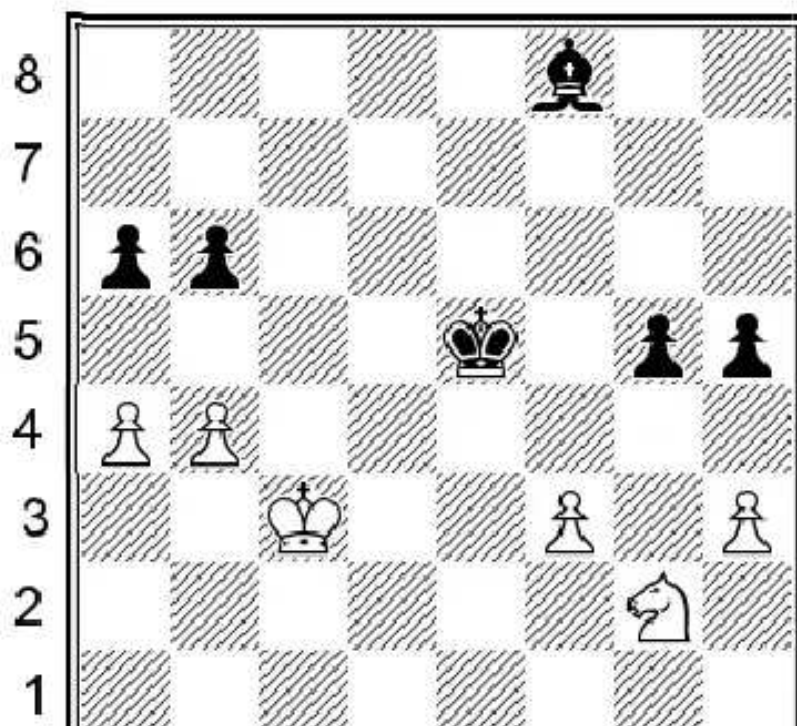
45...♔e5 is premature now since after 46.♗d4 Black can't play ...♔f4.

46.♗e3+

White needs to do something as no more waiting moves are possible in this position.

46...♔e5 47.♗c4+

White tries to save the game with some forcing play. 47.♔c4 ♕d6 leaving from the ♗d5 check to invade with ...♔f4. White has to play 48.♗g2 ♕f8 49.♔c3



a b c d e f g h

49...b5!—+ Fixing the weakness on b4 and setting White into another zugzwang. The knight must control the f4 square and the king must protect the b4 pawn, but ♔b3 is met by ...♔d4.

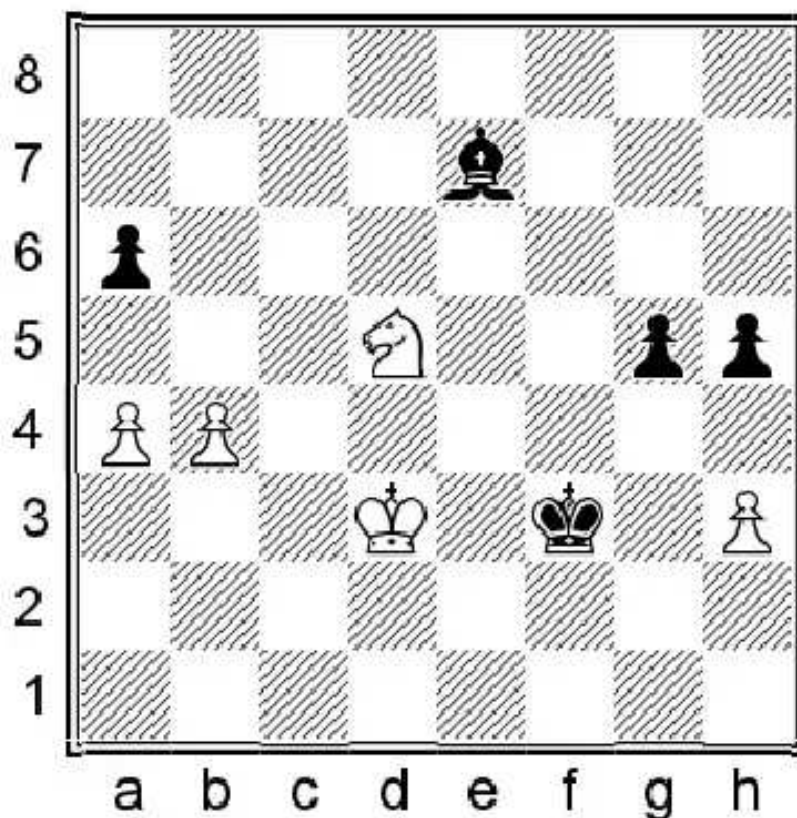
47...♔f4

Now things are fairly forced.

48.♖xb6

48.♔e2 also loses after 48...♗xb4 49.♖xb6 ♔g3—+

48...♔xf3 49.♖d5



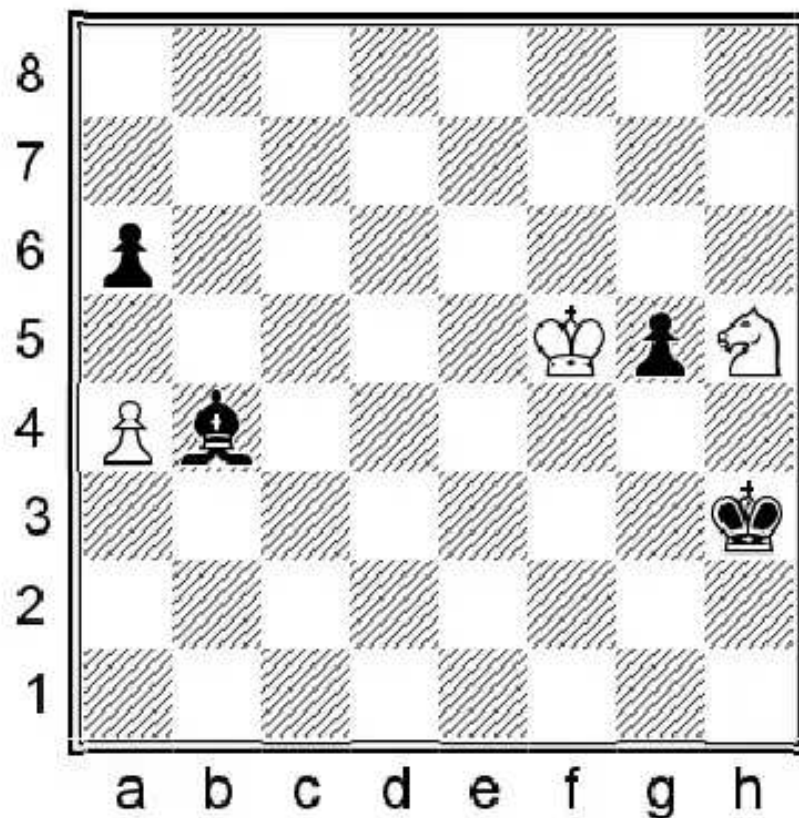
49...♗d6

Pawns are equal, but we can see how much stronger the bishop is than the knight. Black either wants to break through with ...g4 hxg4-h4 or just simply pick up the h3 pawn with the king. 49...g4! was easier 50.hxg4 h4! 51.♖xe7 h3—+ White can't stop the h-pawn. Players often see these kind of lines during the game, but they decide to win the game without any sacrifice to avoid the chance of miscalculating something.

50.♖f6 ♗xb4 51.♖xh5 ♔g2

Things are still pretty forced. It is bad luck for White that the a1 square is black, otherwise he could give up the knight for the g5 pawn...

52.♔e4 ♔xh3 53.♔f5



White is only missing one tempo to play ♖f6 next and create a fortress on the g4 square.

**53...♔e7!**

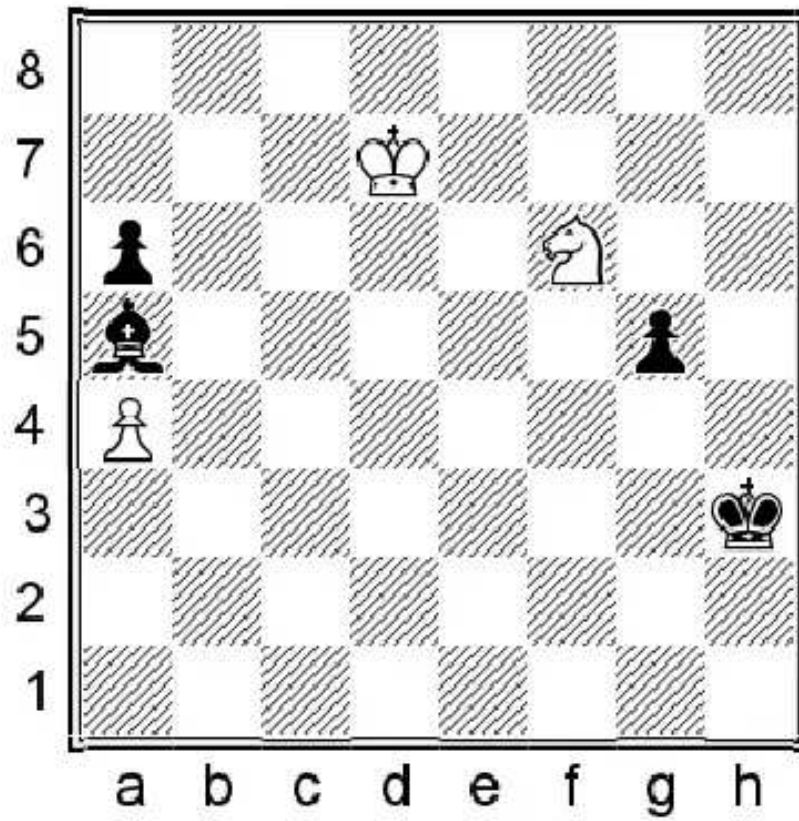
The only winning move in the position! After 53...g4?? 54.♗f4+ ♔g3 55.♗d5, ♗f6, ♗e3 and ♗xb4 are all threatened at the same time, and if Black goes 55...♔f3 56.♗xb4 g3 57.♗d3! g2 58.♗e1+

**54.♔e6**

White's position is lost as Black is simply threatening to play ...g4-g3-g2.

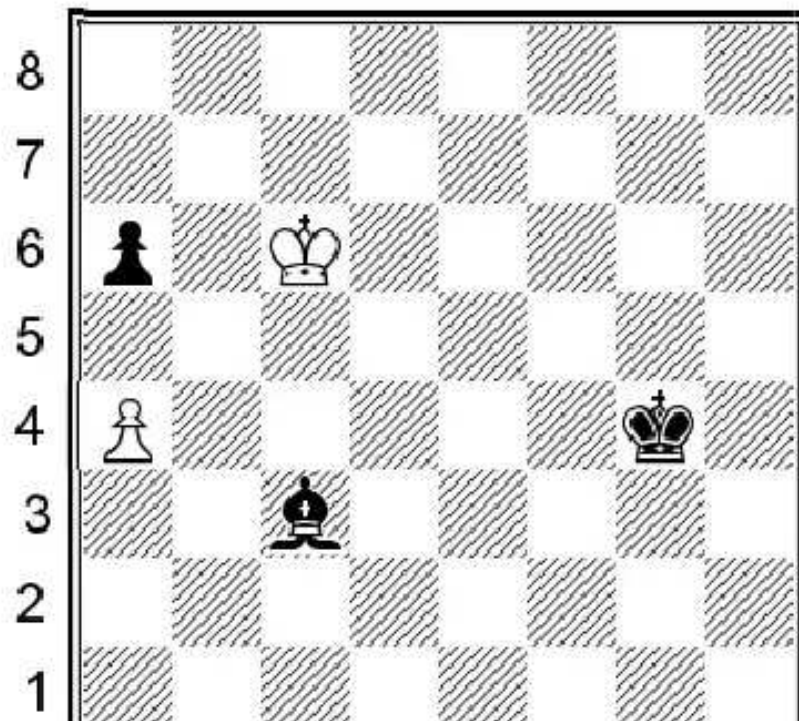
**54...♔d8 55.♔d7 ♔a5 56.♗f6**

White is hoping for a trick...



**56...♔e1!**

The last trap was 56...g4? 57.♘xg4! ♕xg4 58.♖c6 ♗c3 and now



a b c d e f g h

59.a5!= and a6 falls. It is very annoying to spoil a good game with something like this.

57.♔c8

The last chance. White wants to play a5 next.

57...a5!-+ 0-1

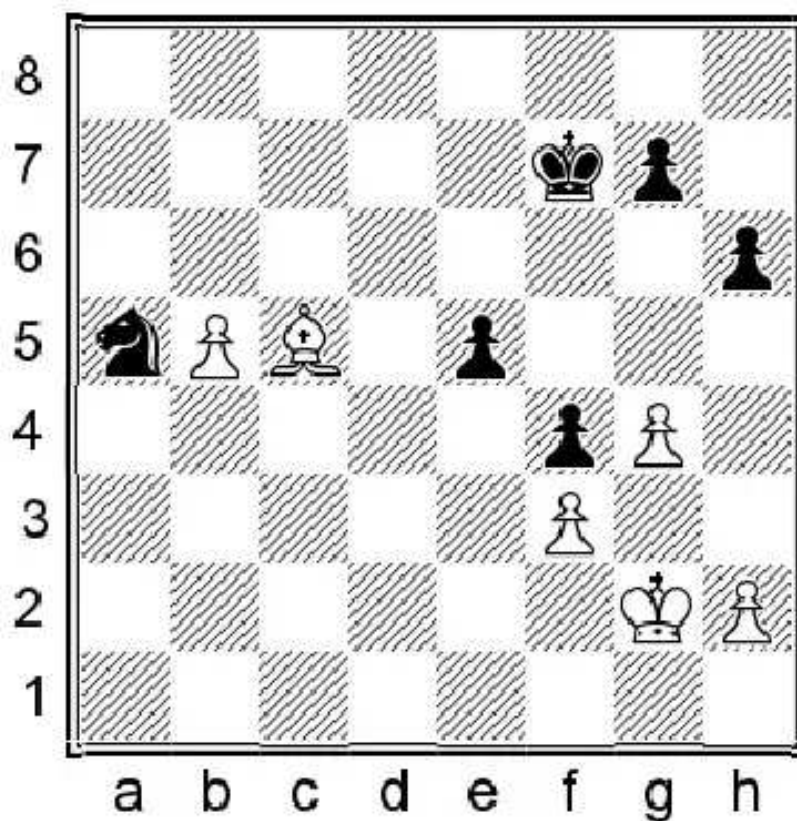
No more tricks and the g-pawn promotes.

7

M. Chiburdanidze

M. Muresan

Luzern, 1982



The material situation is balanced, but White has a passed pawn and a superior bishop as there are pawns on both sides of the board. The b-pawn itself is not enough for the win as it can be blocked by one of black pieces. White finds a very strong and principled positional idea...

45.h4!

White advances his pawn to h5 to fix the pawns on dark squares where they can be attacked by the bishop! This will pin the black king to the kingside, and meanwhile White can drive his own king to the queenside to support the passer. If White goes immediately to the queenside with his king with 45.♔f2 then 45...g6! is very strong. The pawns can no longer be fixed on the dark squares and Black can also take his king to d5. 46.♔e2 ♔e6 47.♔d3 ♔d5 48.♔f8 h5=

45.h4! g6 46.h5!

Only one pawn is fixed now, but h6 is still enough to pin the black king to the kingside.

46. ♔xb5 47. ♔xb5

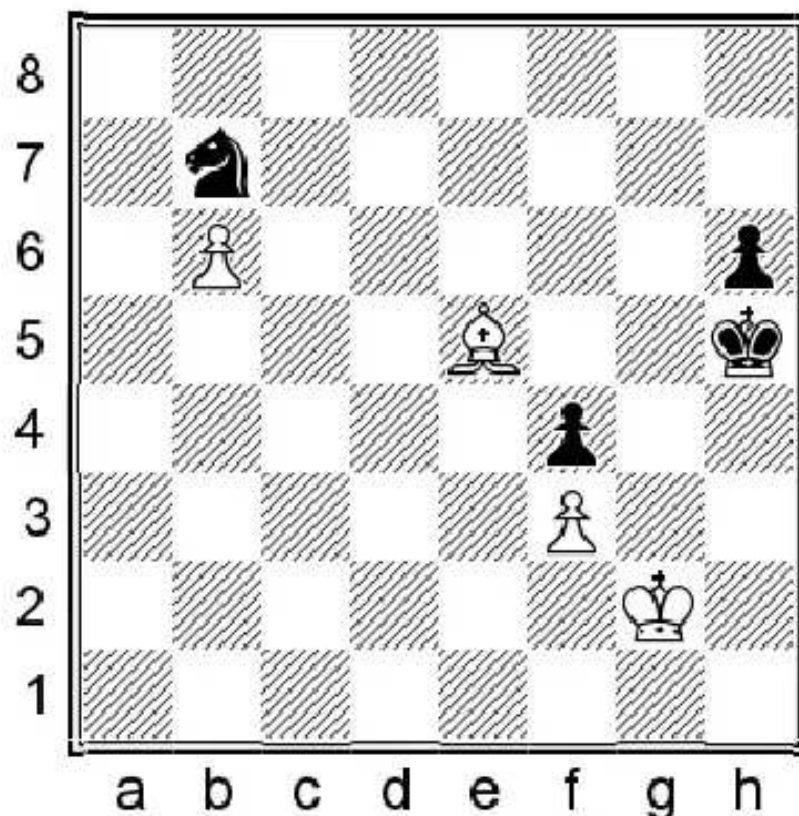
40...g4 47.g4

White's position is now winning.

47...f6 48.b6 b7

48...g5 49.d6 xh5 50.xe5 is similar to the game.

49.f8 g5 50.g7 xh5 51.xe5

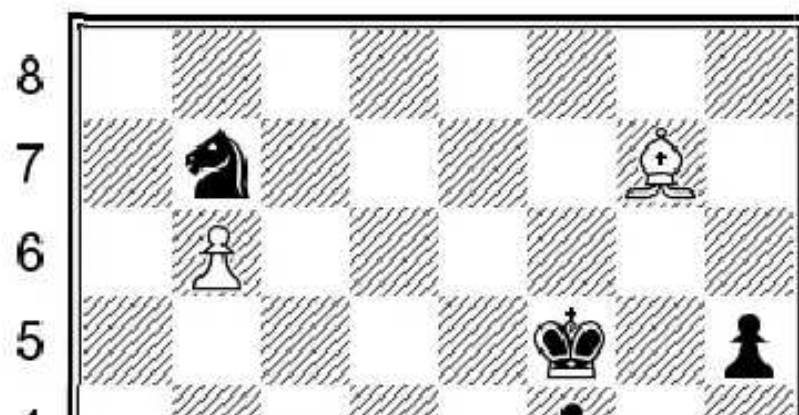


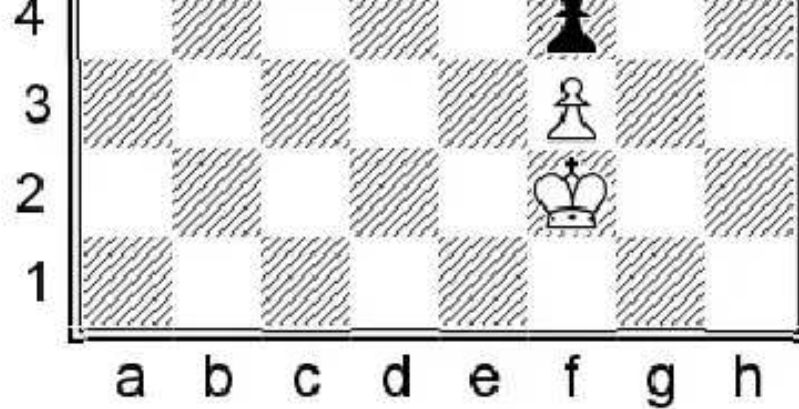
Black no longer needs to worry about his h6 pawn, but there is another fixed weakness on a dark square, namely the pawn on f4.

51...g5 52.f2

Heading to support the b-pawn so Black must create counterplay with his h-pawn. White cannot make progress with the direct 52.h3 as Black has the h5 square for his king later when he gets a check from the bishop. We will soon understand the details...

52...f5 53.g7 h5





53...♔g5 is met by 54.♔e2 when the h-pawn must be advanced anyway and we transpose to the game.

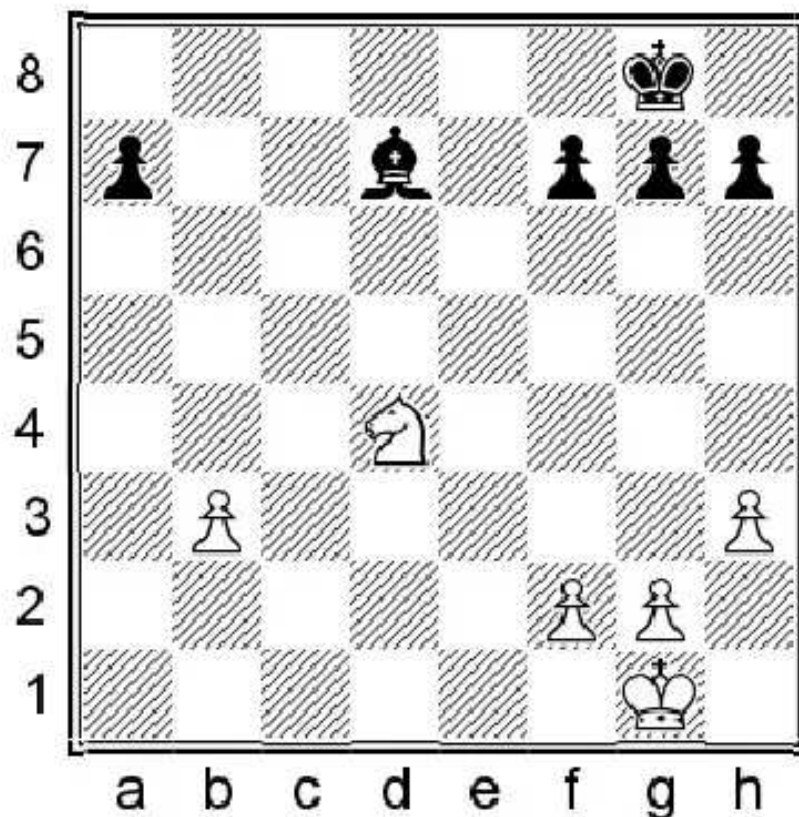
**54.♔g2!**

Switching direction: White goes back to the kingside. The king alone cannot save one of the pawns and the knight is obliged to stay close to the b-pawn.

**54...♖c5 55.♗f8 ♜b7 56.♔h3 ♔g5 57.♗e7+ ♔f5 58.♔h4 1-0**

Black resigned in view of 58.♔h4 ♔g6 59.♗g5+— and the first pawn is lost, then the next one soon follows.

**8**  
**G. Stoltz**  
**I. Kashdan**  
**Haag, 1928**



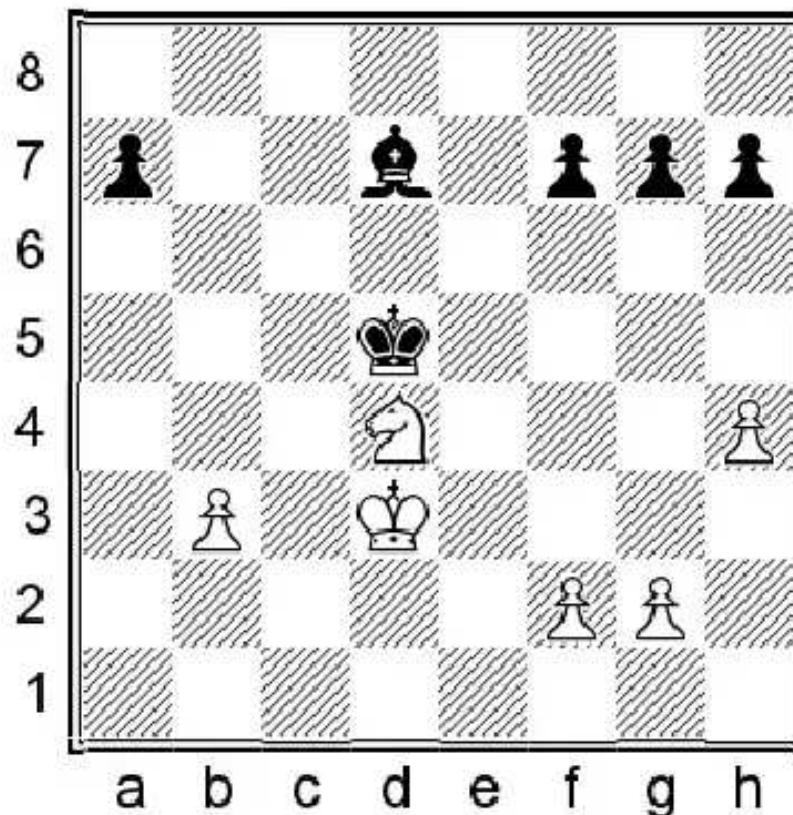
It might sound a bit surprising, but Black has an advantage here; the only question is if it is enough for the win or not? We justify it with two reasons: The black king arrives first to the center and will occupy a more active position; and we have an open position where in the case of pawns on both sides the bishop is stronger than the knight. Let's see how it looks in practice.

**1...♔f8 2.♔f1 ♔e7 3.♔e2 ♔d6 4.♔d3 ♔d5**

The first task is complete. Black has activated his king and occupies a more active position in the center.

The first task is complete. Black has activated his king and occupies a very nice position in the center.

## 5.h4



## 5...♙c8!

We have already seen the following motif in the Shabalov-Sargissian endgame. Black intends to give a check on a6, asking the king to choose a direction. Depending on the decision, Black is going to choose the other direction.

## 6.♘f3

In the game White decides to keep his king with the queenside pawn. Let's see what happens in the other case.

Advancing the pawn just to neutralize the check on a6 just makes it more vulnerable 6.b4 ♙a6+ 7.b5 ♙b7 preventing ♘c6 and ...♗c5-♙c8-♙d7 is the plan.

6.g3 or 6.f3 looks like the best defense, and then 6...♙a6+ 7.♗e3 ♗c5 8.♘c2 keeping the king away from both

directions. Black should focus on the b3 pawn now, when the king is on e3, but White can quickly reorganize his defense: 8...♙c8 9.♗d2 ♙e6 10.♗c3 ♗d5 Switching the direction again, using the fact that the white king cannot oppose because the pawn endgame is lost after ...♙f5. White has to play 11.f3 Black is pressing, but it is not obvious whether it will be enough for the win.

## 6...♙a6+ 7.♗c3

On 7.♗e3 ♗c5 8.♘g5 (8.♗d2 ♙b7 9.♘e1 ♗d4 10.♘c2+ ♗e4 with the idea of provoking g3 and then invading on f3.)

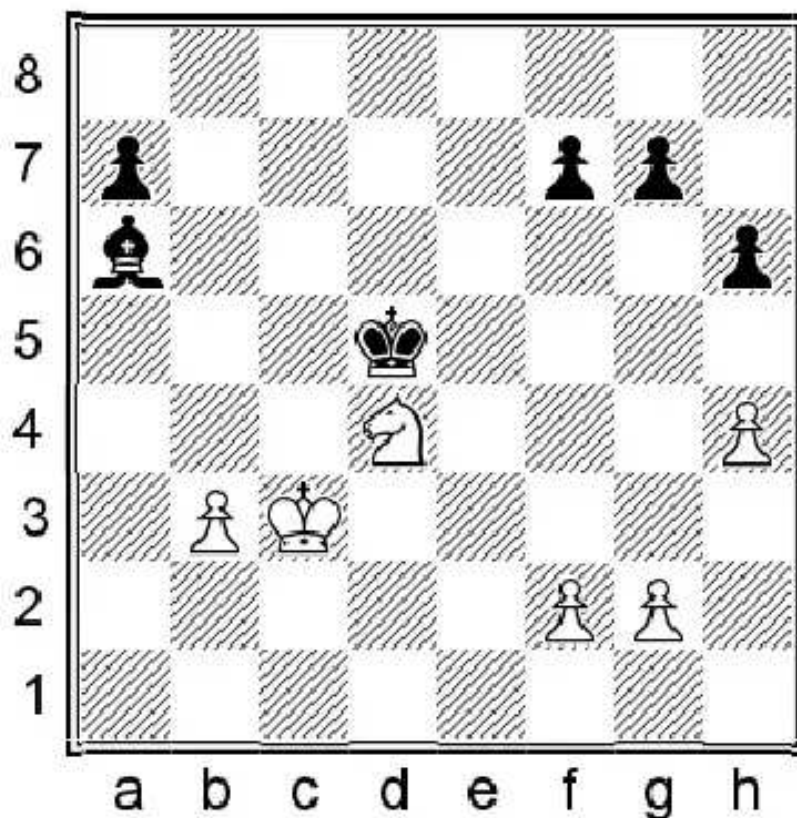
8. ♗b4 9. ♘xf7 ♗xb3+ the a-pawn should decide the outcome

8...♖b4 9.♗x17 ♖x65= the a-pawn should decide the outcome.

7...h6

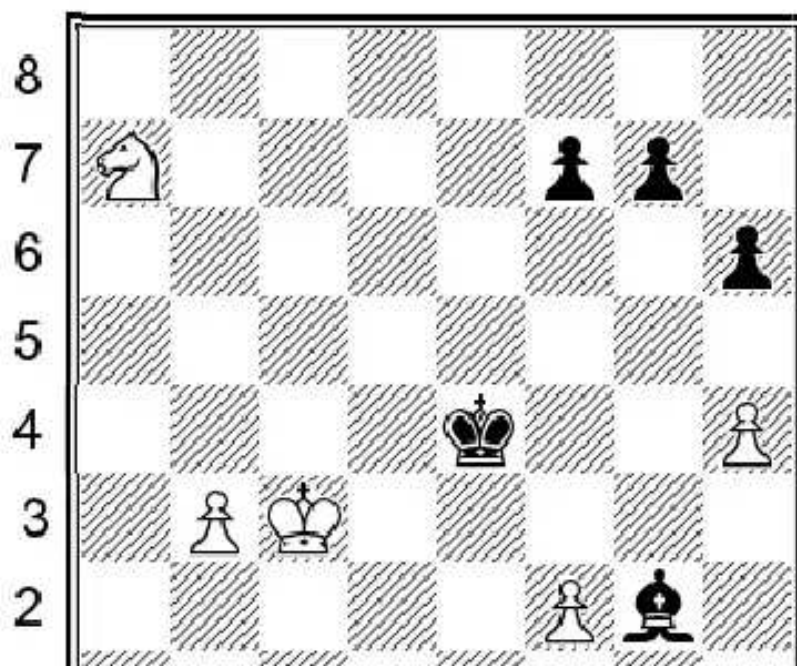
Preventing the potential counterplay with ♘g5. Black has all the time in the world to make progress.

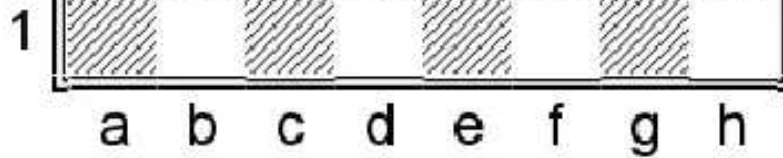
8.♘d4



8...g6

Another prophylactic move. 8...♔e4!? also came into consideration. In general Black should aim for maximum activity with his pieces and the point is that after 9.♘c6 ♕f1 10.♘xa7 ♕xg2





Black will collect more pawns on the kingside with his king and his passed pawns will be more dangerous than the one on b3, which is controlled by the bishop on the long diagonal, while the knight cannot fight against the kingside pawns. This is another demonstration of why the bishop is superior in this type of position.

**9.♖c2**

White should have tried to build up a barrier with 9.f3! and g3 to prevent the invasion of the black king.

**9...♗e4 10.♘e3**

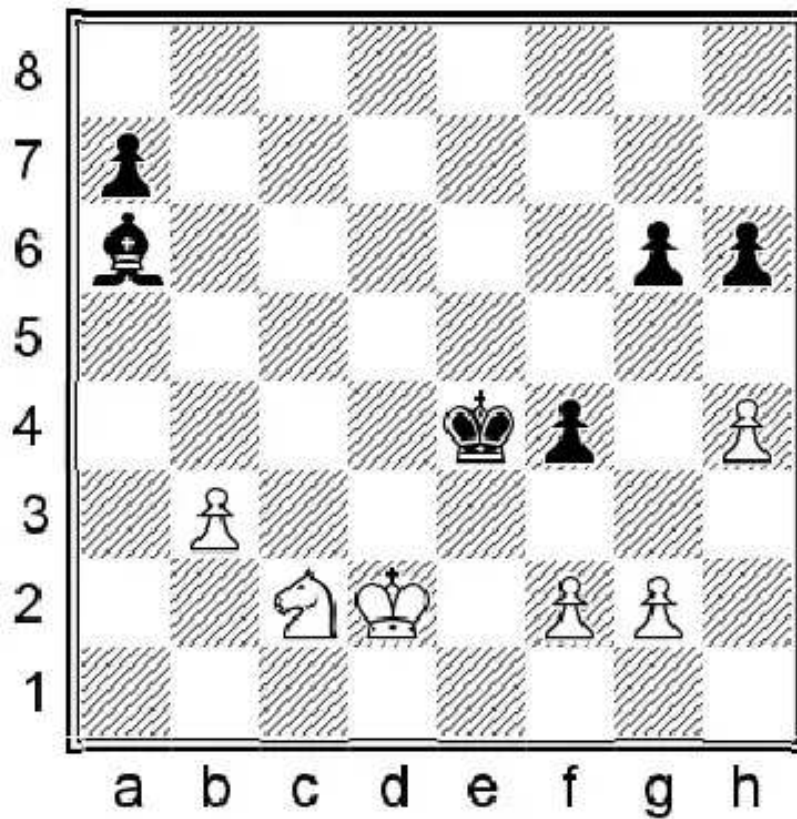
10.♘d4 ♕f1! forces g3, after which Black will soon find himself in zugzwang and then the king enters to f3.

**10...f5**

The knight stands well on e3, holding the pawns together, therefore Black wants to kick it out with ...f4, followed by ...♕f1 forcing a huge weakening.

**11.♗d2 f4 12.♘g4**

12.♘c2



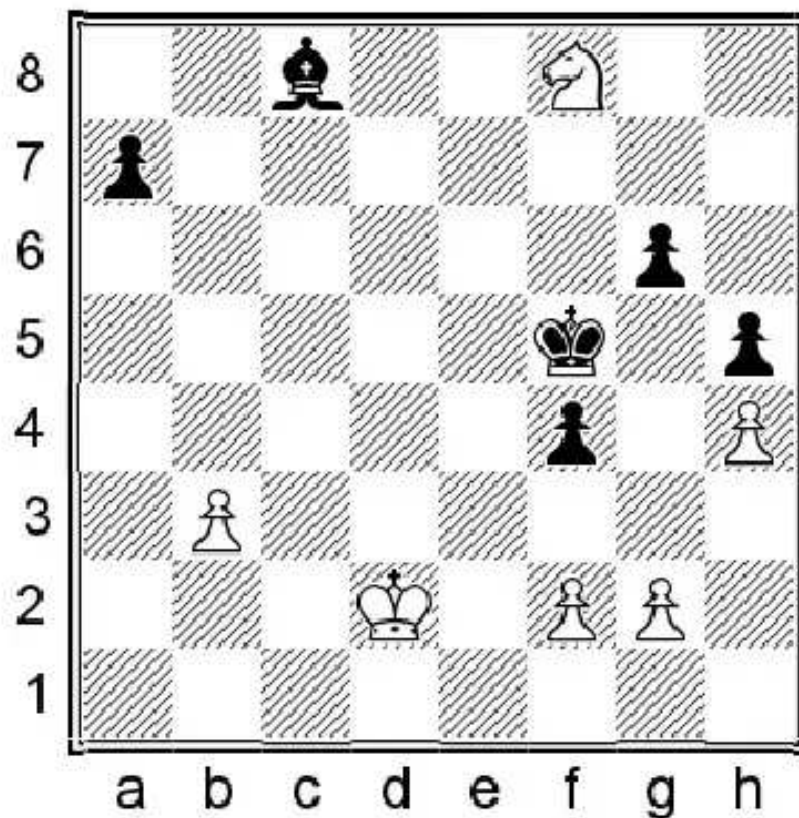
12... ♕f1! Trying to provoke g3 to penetrate with ...♗f3. 13.♘e1 ♗f5! with the idea of ...♗g4 14.f3 g5! 15.hxg5 ♗xg5!+ and White has no defense against ...♗h4-g3.

12.f3+ ♗d4 13.♘c2+ ♗e5 14.♘b4 ♕b5 Black first prevents ♘c6 and it will be similar to the 12.♘c2 line.

**12...h5 13.♘f6+ ♗f5 14.♘d7 ♕c8**

14... ♕f1 was also winning 15.g3 fxg3 16.fxg3 ♕b5! on the direct ...♗g4, White could play ♘e5 17.♘f8 ♕e8! threatening again with ♗g4 18.♗e3 a5!+ fixing the weakness on b3 and ...♕f7 is coming next.

15.♘f8



On 15.♘c5 ♔g4+ wins the first pawn.

**15...g5!**

The most concrete win. The knight was almost trapped on f8, but it had an escape route via h7-g5. Black undermines its outpost on g5 and the knight will be caught.

**16.g3**

Trying to secure an exit on g5 for the knight. The knight is lost after 16.hxg5 ♔xg5+ ♔f6-g7 next.

**16...gxh4 17.gxh4 ♔g4 18.♘g6 ♕f5 19.♘e7 ♕e6**

The first pawn is lost and Black keeps all the advantages he had before.

**20.b4 ♔xh4 21.♔d3**

Of little help. 21.♔e2 was the only move, but after 21...♕c4+ 22.♔f3 ♔g5 also looks pretty hopeless.

**21...♔g4**

The h-pawn cannot be stopped now

The h-pawn cannot be stopped now.

22.♔e4 h4 23.♖c6 ♕f5+ 24.♔d5 f3!

Precise until the end! The pawn promotes. 24...h3? allows more resistance with 25.♖e5+ and ♖f3.

25.b5

25.♖e5+ ♔f4-+

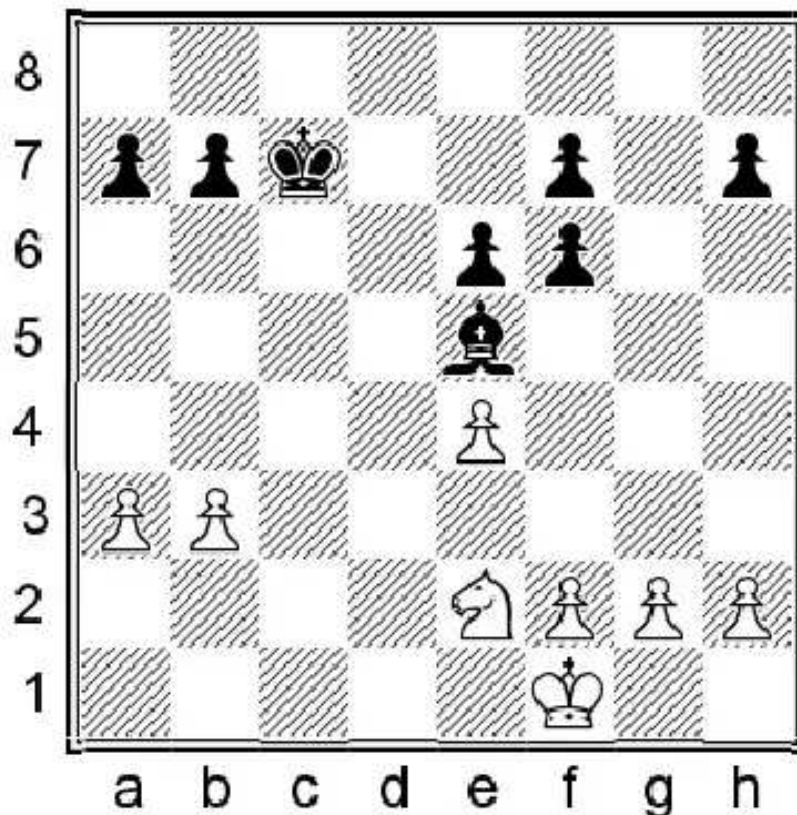
25...h3 26.♖xa7 h2 27.b6 h1=♚ 28.♖c6 ♚b1 29.♔c5 ♕e4 0-1

9

V. Chekhover

E. Lasker

Moscow, 1935



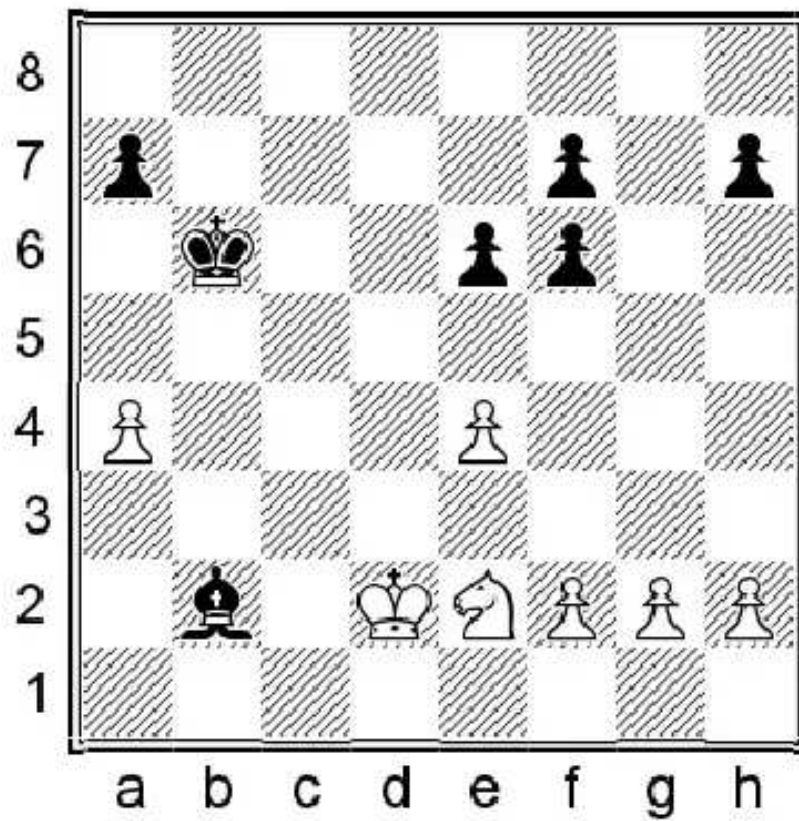
Another famous classic on the topic of the superior bishop. It is clear that Black must gain some benefits on the queenside. The question is how to do that?! There are two tempting options, but only one of them is good.

21...b5!

An excellent positional move, using the fact that White cannot prevent ...♕b2, which forces the a4 move. But after having played ...b5, Black can take and the weakness on a4 soon becomes a victim of the black king. The other plan is 21...♕b2 to provoke a4 with the idea being to enter with the king to b4, but it just fails by one tempo. 22.a4 ♔b6 23.♔e1 ♔a5 24.♔d2 ♔b4 25.♔c2= White manages to defend his queenside.

21...b5! 22.♔e1 ♕b2! 23.a4 bxa4 24.bxa4 ♔c6

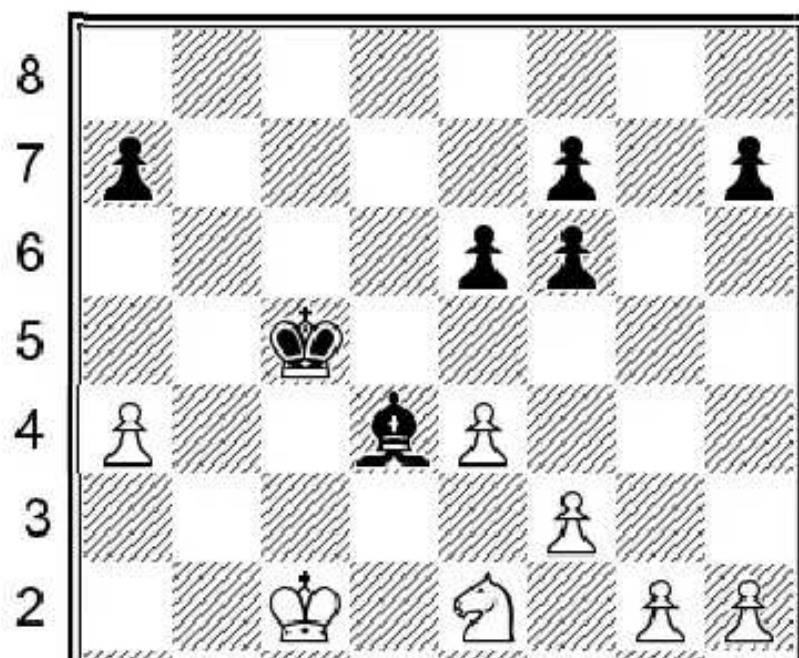
Black cannot eliminate the a4-pawn with 24...♔b6 25.♔d2

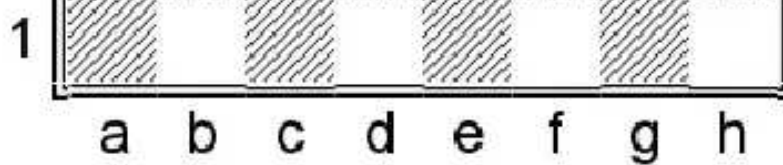


25...♔a5 (25...♔c5! transposes to the game.) 26.♔c2! wins an important tempo 26...♙e5 27.f4 ♕d6 28.♔b3=

**25.♔d2 ♔c5 26.♖c3**

The difference is now after 26.♔c2 ♙d4! winning a big tempo for the king to go to c4. 27.f3





27...♔c4! Actually, the kingside pawns may be damaged, but the white knight has no access to them. The only pawn he can attack is the one on f6, but that is perfectly guarded by the bishop. Black will soon win the a-pawn. 28.♖xd4 ♗xd4 29.♕b3 a5!—+ Preventing ♗b4 and Black wins the a4 pawn by outflanking after White runs out of tempi on the kingside.

26...♕b4 27.♗b5 a5

It looks like an inaccuracy. Black should have forced the matters with 27...a6 28.♗d6 ♕xa4 29.♕c2 (29.♗xf7 ♕b3—+) 29...♗e5 30.♗xf7 ♗xh2 31.♗d8 e5 is the same as the game just that the pawn is on a6, but it should not make such a big difference and Black is a healthy pawn up in any case.

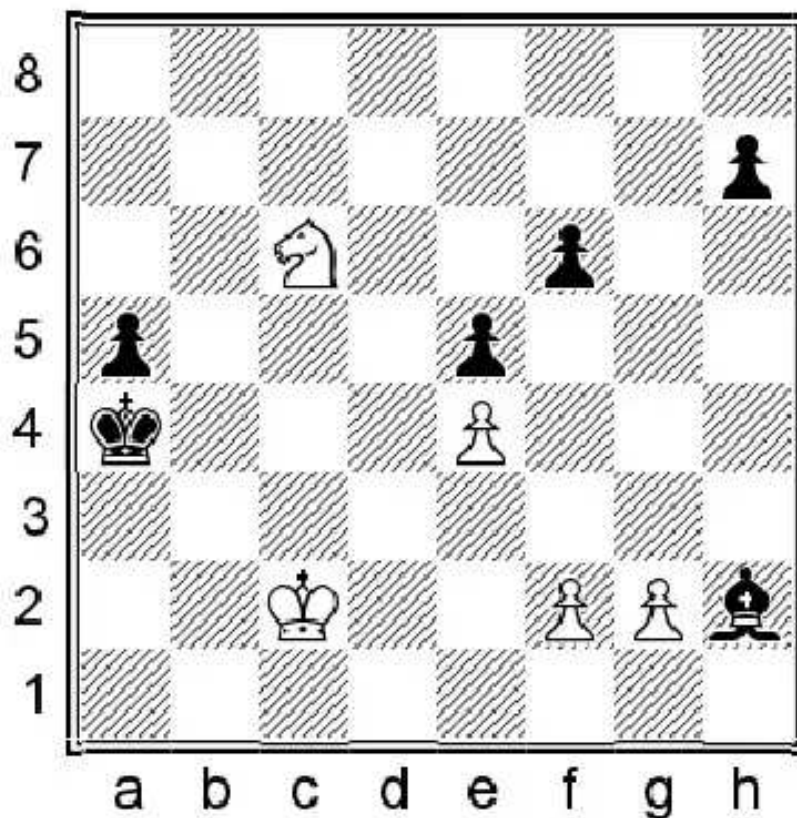
28.♗d6

The only chance was to play 28.♕d3! with the idea to squeeze the king to the a-file. Black is better, but it is not so easy technically to realize the advantage. 28...♕xa4 29.♕c4

28...♕xa4 29.♕c2

Only move. 29.♗xf7 ♕b3! and the a-pawn has a free route to promotion.

29...♗e5 30.♗xf7 ♗xh2 31.♗d8 e5 32.♗c6



32...♗g1 33.f3 ♗c5

Black has won a pawn and he managed to consolidate. The win is just the matter of time.

34.♗b8 ♕b5 35.g4 ♗e7 36.g5 fxg5 37.♗d7 ♗d6 38.♗f6 ♕c4! 0-1

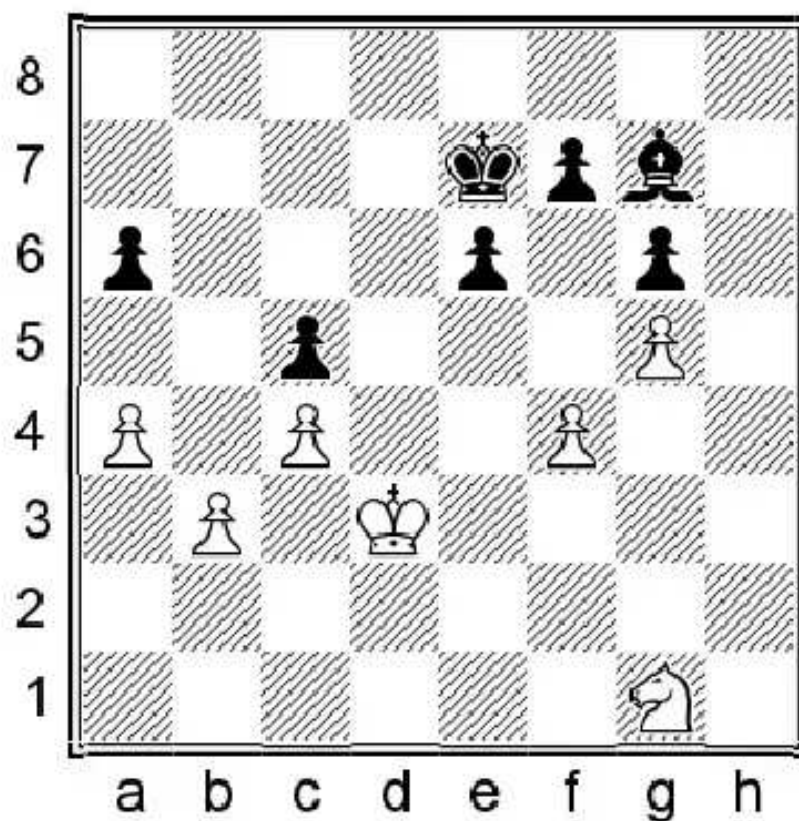
White resigned in view of 38...♔c4 39.♖xh7 ♕e7–+ trapping the knight. The typical story when the knight gets stuck at the edge of the board.

10

L. Galego

N. Vitiugov

Gibraltar, 2014



On first sight the position looks drawish, although the advantage is clearly on Black's side. White has a worse pawn structure, but there are not that many pawns left and the white knight could also become quite unpleasant if he manages to attack the c5 pawn.

**44...e5!**

A very strong move to break the pawn chain and make the g5 pawn more vulnerable. The main idea is to win space for the black king to enter the game through e6-f5. If White was in time to play ♔e4-♖f3 and just ♖e5 next, the game would quickly end in a draw.

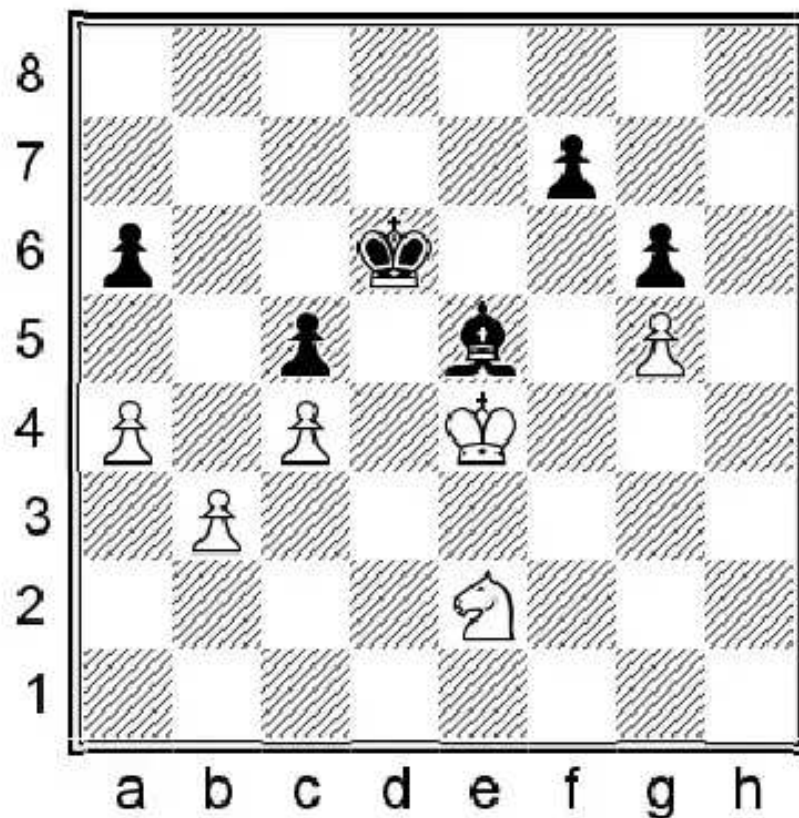
**45.fxe5**

45.♔e4 would lead to a similar position as in the game: 45...exf4 46.♖e2 f3 47.♔xf3 ♔d6 48.♔e4 ♕b2 Black brings his bishop to a3-b4 and then to d2.

**45...♕xe5 46.♔e4 ♔d6**

Accurately played. 46...♔e6 would make it easier for White to defend as after 47.♖e2 Black cannot move the bishop away from e5 because of ♖f4+.

**47.♖e2**



**47...♙b2!**

Black tries all his chances! The bishop is going to d2 via a3-b4, putting pressure on the g5 pawn. If he finally gets there, White will have an unpleasant decision to make on how to defend the weakness. If he does it with the king from g4, he allows ...♚e5, while with the knight on f3, he gets into zugzwang after ...♚e6, as the knight cannot move and king moves allow ...♚f5.

**48.♚f4**

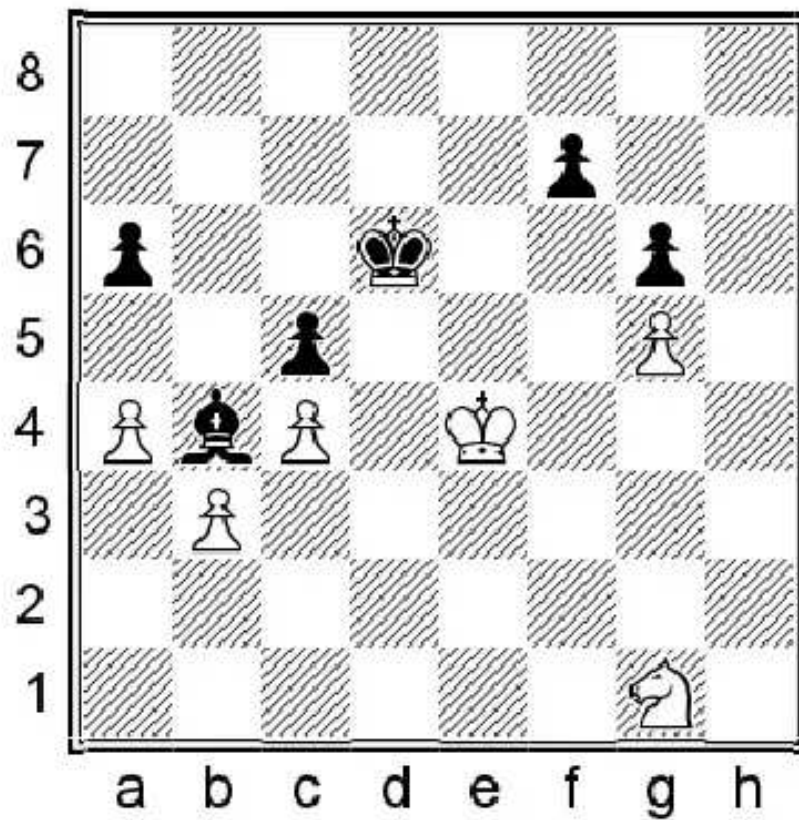
White doesn't have anything better than to continue the waiting game.

**48...♙a3! 49.♚e4 ♜b4**

Black already wants to play ...♙d2 so White needs to do something urgently. The knight on e2 is useless now.

**50.♞g1!**

A good move. White needs to protect the g5 pawn with the knight and keep his king on e4 to prevent the black king from crossing the 6th rank.



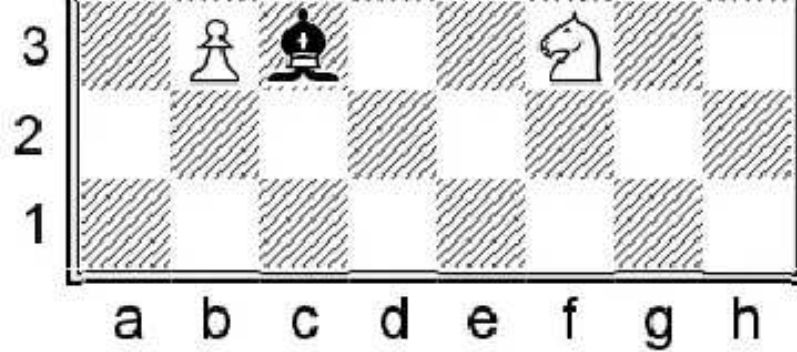
50...♔c3!

Another very tricky move by Black. The direct 50...♔d2 51.♘f3 ♔c1 would lead nowhere because of 52.♘e5! White is using the tempo in attacking the f7 pawn to get his knight to d3. 52...♕e6 53.♘d3 with a very unclear position.

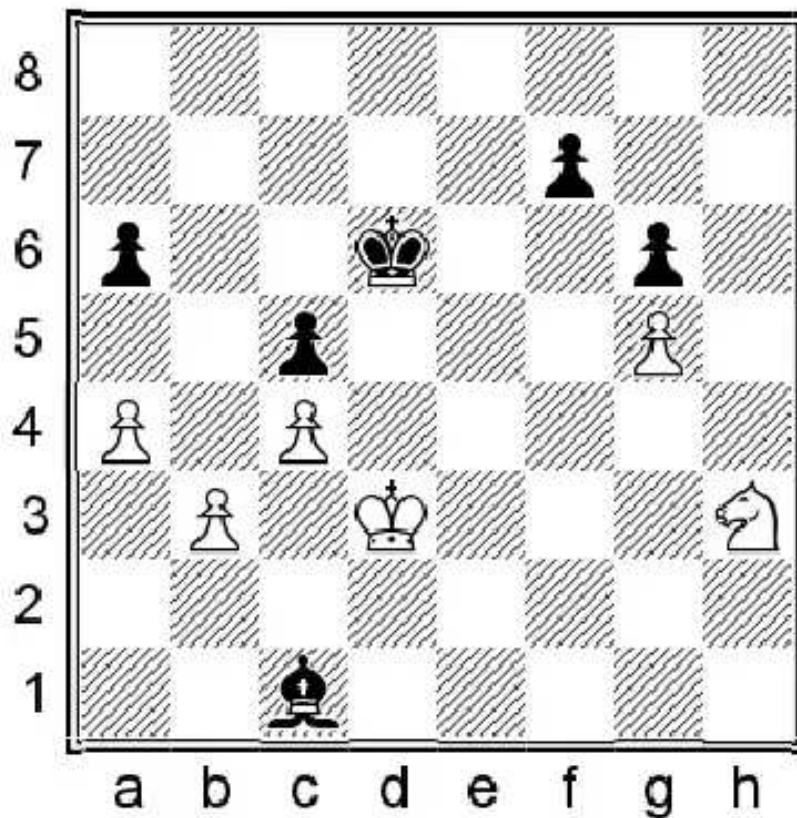
51.♘f3?

And this natural move might already be the decisive mistake.





The best way to fight on was 51. ♖h3! ♜d2 52. ♕d3 ♜c1 and from a human point of view the position looks really bad, but by tactical motifs maybe White can survive.



53. ♖f2! is White's only hope. (53. ♕e4 ♕e6 Zugzwang. The king goes to f5 or after 54. ♖f4+ ♜xf4 55. ♕xf4 ♖6—+ with a classical win thanks to the distant passed pawn.) 53... ♕e5 54. ♖e4 ♜a3 55. ♕e3 White is still in the game, but of course his position is very suspicious.

**51... ♜b2!**

White is in zugzwang and can't keep the king on e4 anymore.

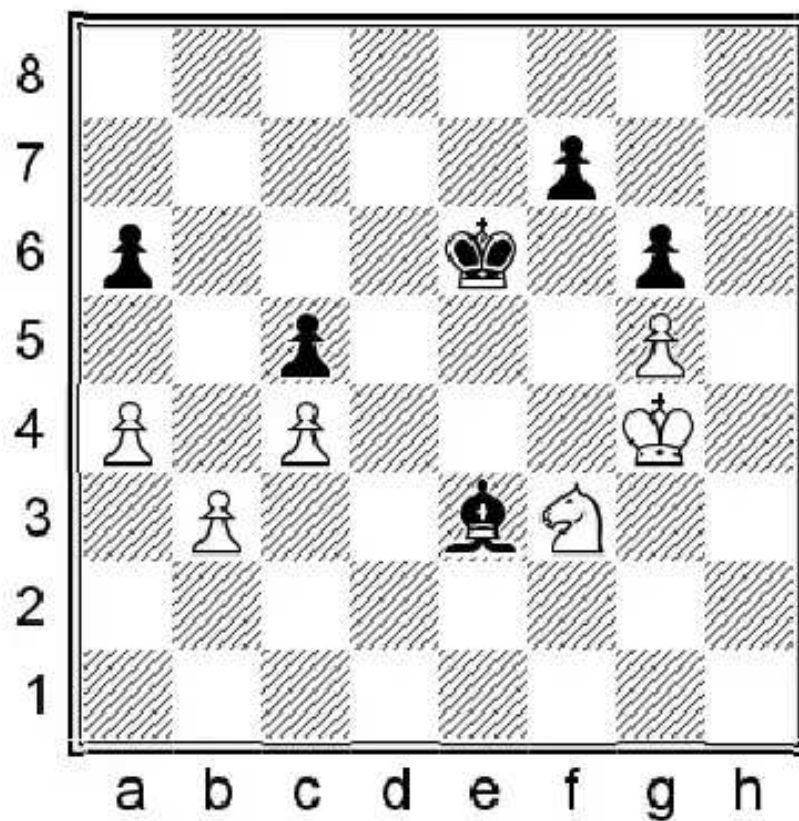
**52. ♕f4**

52. ♖e1 ♜c1 53. ♖f3 ♕e6 The white king needs to move away from e4 which gives Black an easy win by playing ... ♕f5 and ... ♜xg5.

**52... ♜c1+ 53. ♕g4 ♜e3!**

Very precise again! 53... ♕e6 allows 54. ♖e1! and the knight goes to d3. Black has just left the ♖d3 motif to be able to play ... ♕e5!

**54. ♕h4 ♕e6 55. ♕g4**



**55...a5!**

Spending the final reserve tempo to place White in the decisive zugzwang. He must allow the king past the 5th rank.

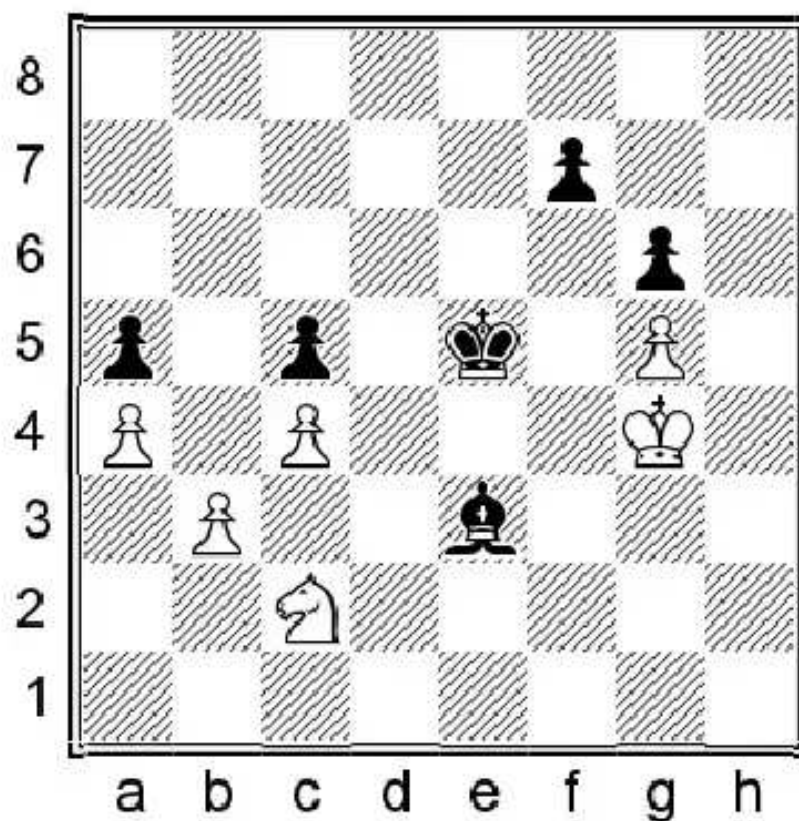
**56.♔e1**

56.♔h4 ♔f5--+

**56...♔e5**

After subtle maneuvering the black king finally enters the game and it is already over. White cannot save his queenside.

**57.♔c2**



**57...♔c1!**

Black shows great technique until the end, not even allowing the white knight to move to a3.

**58.♘e1 ♕e4 59.♘f3 ♔e3**

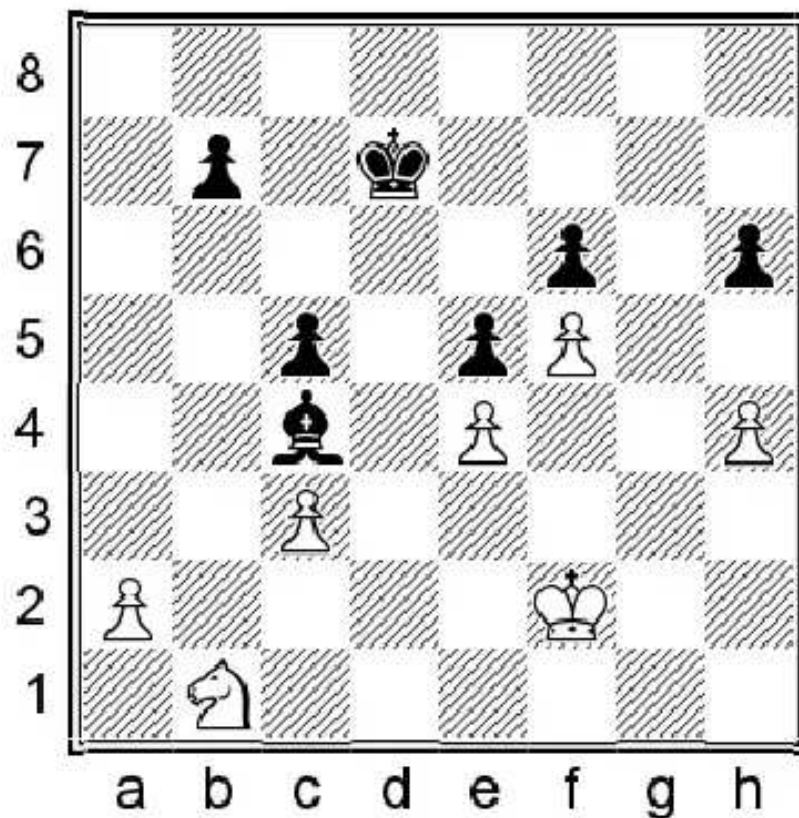
There is no hurry...

**60.♘e1 ♔d2 61.♘f3 ♔c3**

All the black pieces are perfectly placed.

**62.♘g1 ♕d3 0-1**

And the black king collects all the pawns on the queenside. Black showed great technique. White did not defend perfectly, but in such unpleasant positions, when the opponent puts pressure on us with each move, it is very easy to go wrong.

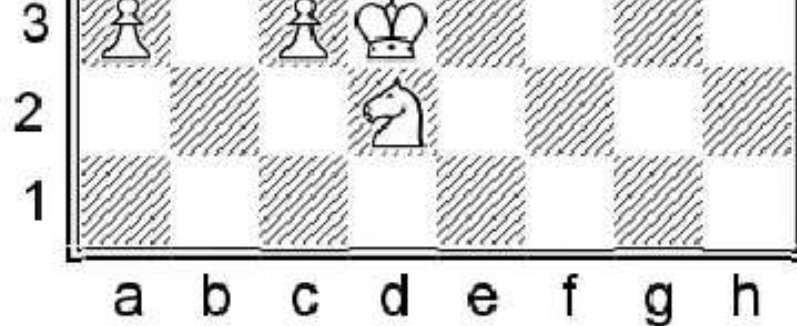


Black is clearly better because the bishop dominates the knight and the king is ready to go for the queenside pawns. The e4 and f5 pawns are on light squares, therefore they might become potential targets of the bishop. The question is whether White will be able to build a fortress or not...

42.a3 ♖c6 43.♘d2 ♜f7 44.c4

The most logical move to cut the king's route to a4, but this gives Black additional options. The concrete 44.♔e3 was probably an easier way to hold the draw. 44...♔b5 45.♔d3





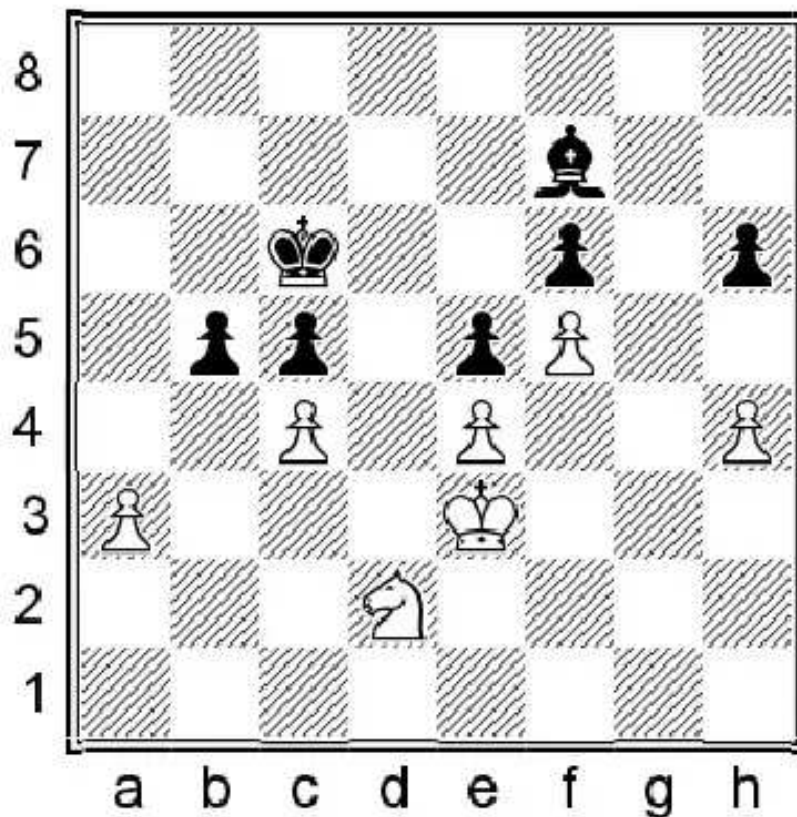
45...♔a4 and now the point is that White has 46.♘c4! The knight is ready to counterattack the Black pawns, while the pawn endgame leads to White's advantage as we will see... 46...b5 (46...♙xc4+? 47.♔xc4 White quickly collects the f6 pawn and then his f-pawn is really fast. 47...b6 (47...♔xa3 48.♔xc5 ♔b3 49.♔d6 ♔xc3 50.♔e7 b5 51.♔xf6 b4 52.♔xe5 b3 53.f6 b2 54.f7 b1=♚ 55.f8=♚ with good chances for White.) 48.♔d5 ♔b3 49.♔e6 ♔xc3 50.♔xf6 ♔d4

51.♔e6 c4 52.f6 c3 53.f7 c2 54.f8=♚ c1=♚ 55.♚b4+± After the e5 pawn falls, only White can win this game.) 47.♘d6 The knight is extremely well-placed on d6, where it always attacks b5, and Black has no chance to take on a3. White comfortably holds the draw.

**44...b5!**

Black opens the path for his king again. He could not break through with 44...♔b6 45.♔e3 ♔a5 because of 46.♘b3+ and the king must retreat.

**45.♔e3**



**45...b4!**

An excellent practical decision, creating a passed pawn instead of being materialistic. White has to find many only moves to save this difficult endgame. 45...bxc4 46.♘b1!= was the idea, and after settling the knight on c3, the Black king has no invasion square.

**46.♔d3!**

After the most tempting 46.axb4? White is probably lost. 46...cxb4 47.♔d3 ♔c5 White is in zugzwangs as he has only

one move to avoid losing the c4 pawn. 48. ♖b3+ ♔b6 and this is another zugzwang. The pawns have no moves, the king can't leave because of the c4 pawn and any of the knight moves give a free run to the black king to invade through a5-a4... 49. ♘d2 ♔a5 Black retains excellent winning chances.

#### 46... ♔b6

46... bxa3 is not dangerous. 47. ♔c3 White wins back the pawn and has an unbreakable fortress.

#### 47. ♔c2 ♔a5

Black threatens ... ♔a4, forcing White to take on the b4, when ... ♔xb4 will lead to the inevitable loss of the c4 pawn.

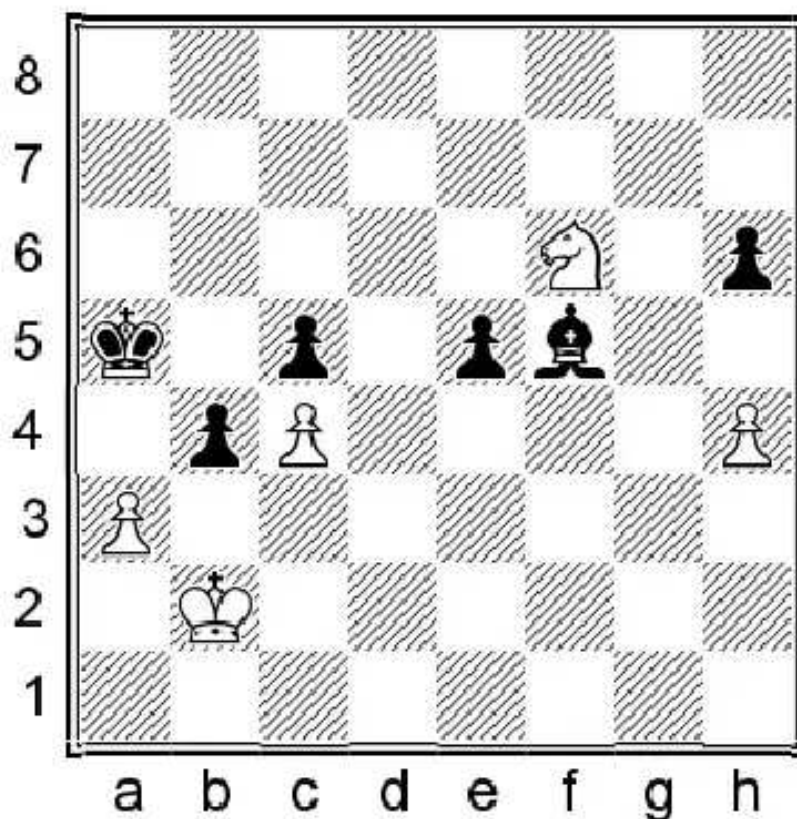
#### 48. ♔b3!

Another only move! 48. ♖b3+? would have lost again. 48... ♔a4 49. ♘xc5+ (49. axb4 ♔xb4—+) 49... ♔xa3—+

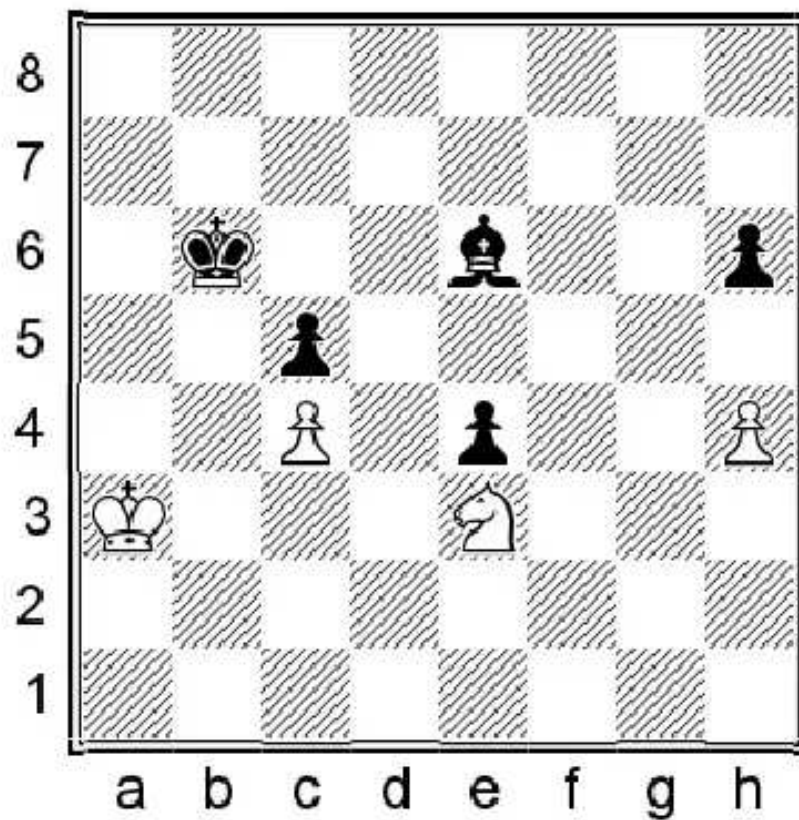
#### 48... ♔h5

48... ♔e8 would have been a better try, although it seems to lead to a draw as well after accurate defense by White.

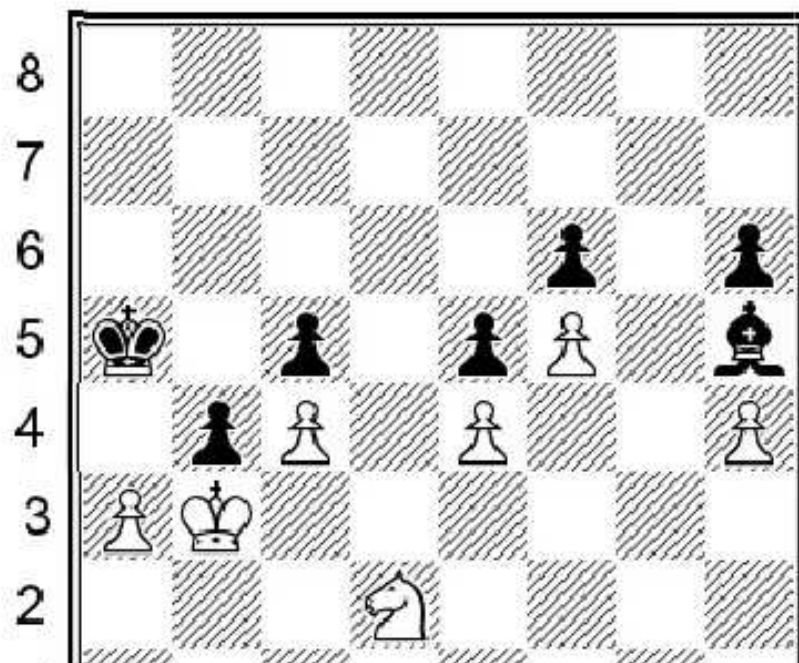
49. ♖f1! Only this move seems to hold. (49. ♔b2 ♔a4 50. axb4 ♔xb4 is hopeless.; Now on 49. ♔a2 ♔a4 50. ♖b3 bxa3 51. ♘xc5+ ♔b4—+ Black is winning. The huge difference in comparison to the game is that White can't play ♖d7 now.; 49. axb4+ cxb4 will lead to a similar scenario to the one after 48... ♔h5 49. axb4.) 49... ♔a4+ 50. ♔b2 ♔d1 This is the standard winning technique, with the idea of invading with the king, but now White can launch his counterplay with the knight. 51. ♖e3 ♔f3 52. ♖d5 ♔xe4 53. ♖xf6 ♔xf5

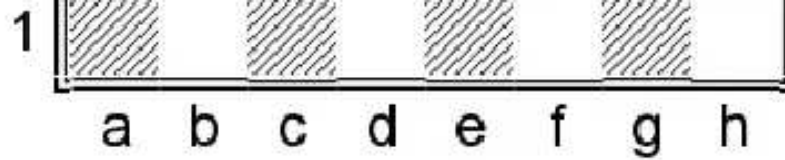


Black is a pawn up, but the position seems to be a draw as White can create a barrier. 54. ♔b3 bxa3 55. ♔xa3 e4 56. ♖d5 ♔e6 57. ♖e3 Black can only try to break through with the king on the kingside, but this allows access to the c5 pawn. 57... ♔b6



58. ♖b3! A necessary waiting move! (On the direct 58. ♖a4 ♕d7+! 59. ♖b3 ♖c7! and Black is in time to get his king to f4 or d4.) 58... ♗c6 (58... ♕d7 White has an extra tempo now, in comparison to 58. ♖a4 ♕d7 line. This allows him to get his king to e3... 59. ♘d5+ ♗c6 60. ♗c3 ♗d6 61. ♗d2 ♗e5 62. ♗e3 ♕e6 63. ♘c3 ♕xc4 64. ♘xe4=) 59. ♖a4! ♗d6 60. ♖b5! Black can't make progress.





**49.♔a2!!**

Only move! 49.♔b2 ♔a4 and a3 is hanging with check!

49.axb4+ cxb4 50.♖f1 seems to hold as well, but Black has a subtle winning plan. With the disappearance of the c5 pawn, the black king has access to the d4 square. He can achieve this with some nice maneuvering. (50.c5 ♔b5 51.c6 ♕f7+ 52.♔c2 ♔xc6+) 50...♕d1+ 51.♔b2 ♕f3! Forcing the knight to d2, to prevent the ♖e3-d5 counterplay. 52.♖d2 ♕e2 53.♔b3 ♕d1+ 54.♔b2 ♔b6! and ♔c5 next.

**49...♔a4**

49...♕e2 50.♖b3+ ♔b6 51.♖d2 Black can't make progress.

49...♕d1 50.♖b3+ ♕xb3+ 51.♔xb3 bxa3 52.♔xa3 The pawn endgame is dead drawn.

**50.♖b3 bxa3 51.♖xc5+ ♔b4 52.♖d7!**

And again the knight is just in time to get counterplay.

**52...♕f7 53.♖xf6 ♕xc4+ 54.♔a1 ♔c3 55.♖g4 ♔d4 56.♖xh6 ♔xe4 57.♖g4 ♔f4 58.♖xe5 1/2**

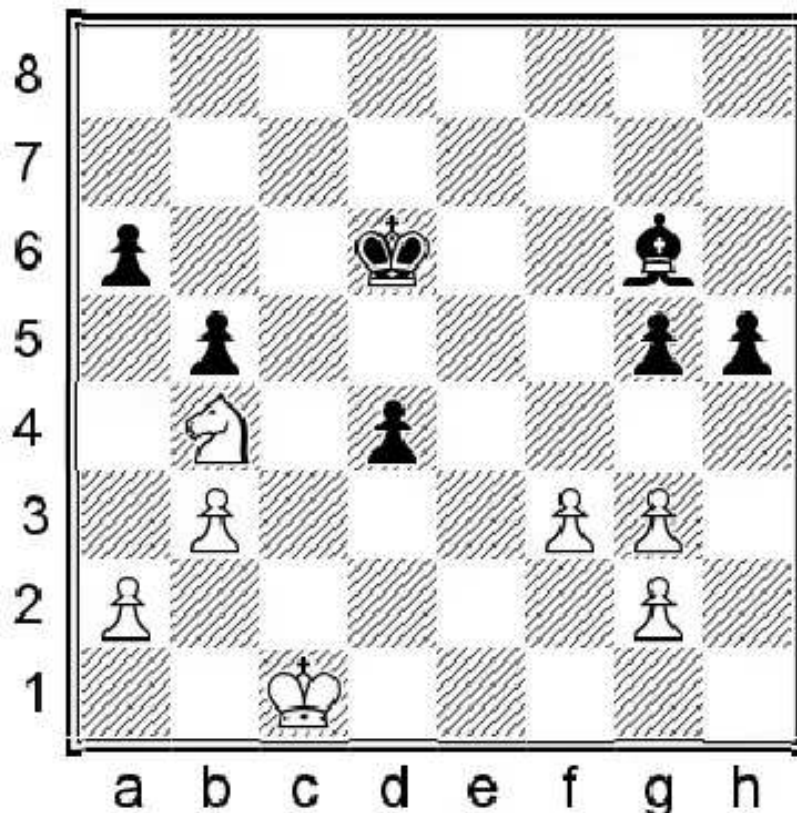
Draw agreed, since the a1 promotion square doesn't match the bishop. Black tried his best, but tenacious and fantastic defense by his opponent allowed him to save his difficult position.

12

F. Vallejo-Pons

M. Carlsen

Sao Paulo, 2012



There are pawns on both sides which favors the bishop, and Black also has a passed pawn. However the position is

There are pawns on both sides with a passed pawn. However the position is closed and the material is balanced so he must be careful not to allow some kind of fortress.

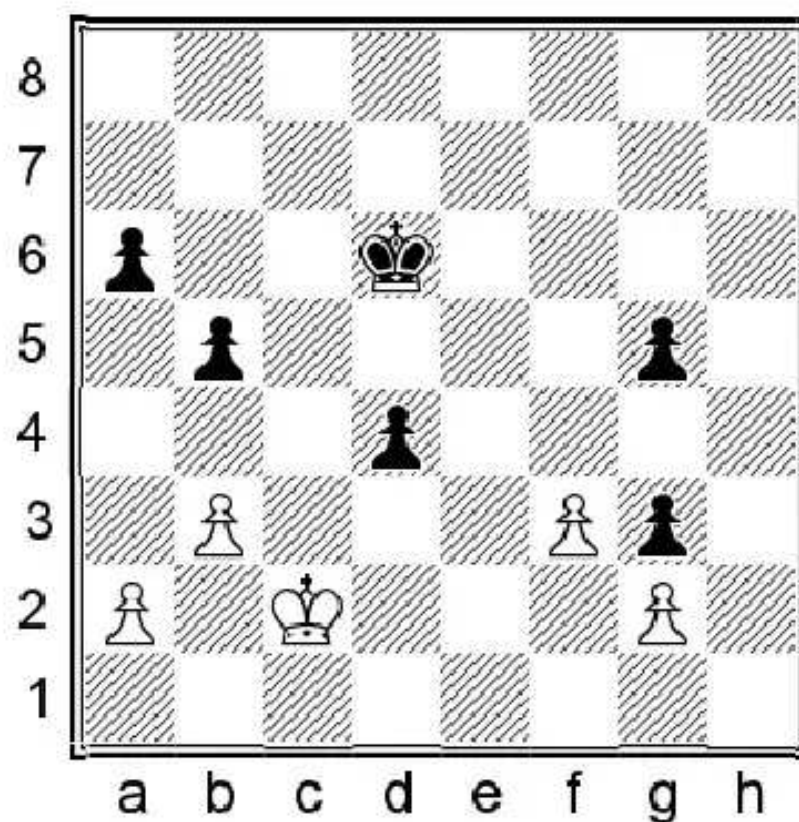
### 32...h4!

An excellent decision! The move is positionally justified as Black fixes the g2 pawn on light color, where it can be attacked by the bishop. However it required long and precise calculation, because the a6 pawn is hanging. Carlsen had to foresee his 37th move.

### 33.gxh4

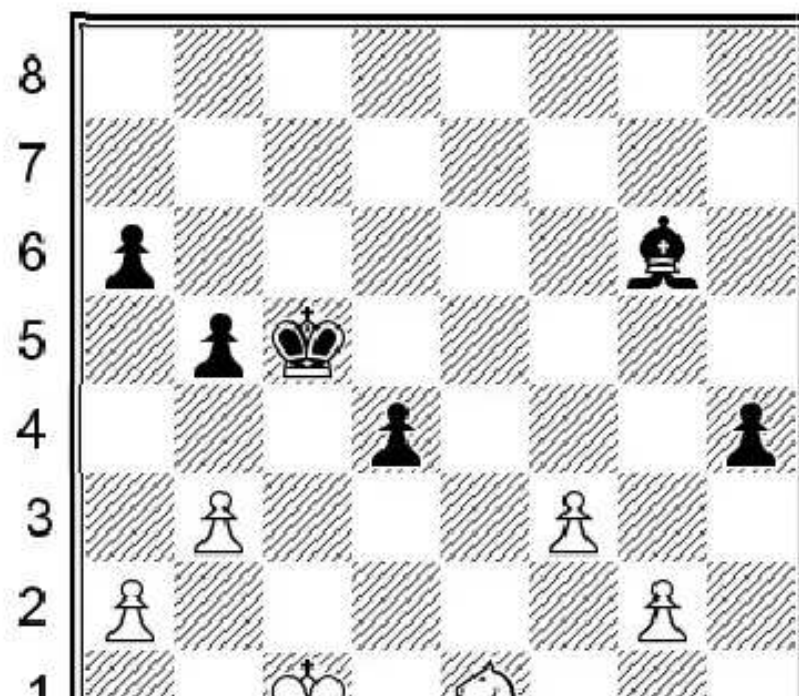
33.♖c2!? could have been the last chance. 33...♔c5! keeping the minor pieces on the board. (Black should not be

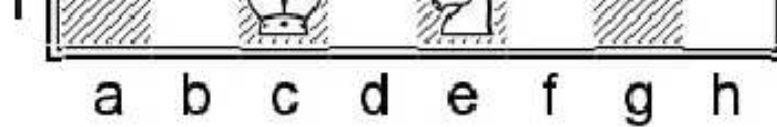
greedy and go for the pawn endgame with an extra pawn. 33...♙xc2 34.♔xc2 hxg3



35.b4! White blocks all the invasion squares. All he needs to do is to meet ... ♔d5 with ♔d3, and hold the draw.

35...♔d5 36.♔d3 ♔e5 37.♔d2=) 34.gxh4 gxh4 ♙d3-f1 is threatened. 35.♖e1





35...b4!—+ fixing more weaknesses on the queenside. The king must cover the b1 square and the knight must cover d3, while Black simply wants to march with his king to g3.

**33...gxh4**

Black threatens to play ...a5 and the arising pawn endgame is winning for him, since in comparison with the 33.♖c2 line, he has a square for invading on g3 with the king.

**34.♗xa6**

34.♗c2 ♕xc2 35.♖xc2 ♖e5 wins as in the 34.♖d2 line.

34.♖d2 a5! 35.♗c2 ♕xc2 36.♖xc2 ♖e5 37.♖d3 ♖f4 Black wins the pawn race. 38.♖xd4 ♖g3 39.♖e5 ♖xg2 40.f4 h3—+

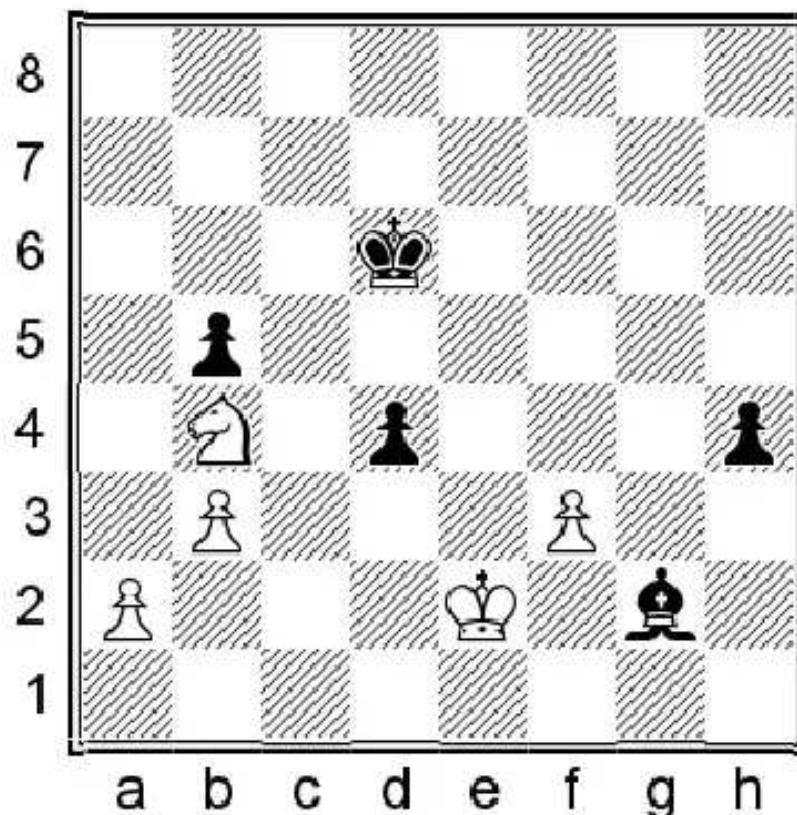
**34...♕d3**

The bishop collects the g2 pawn and obtains a second passed pawn.

**35.♗b4 ♕f1 36.♖d2**

After 36.♗c2 White can't stop the h-pawn. 36...♕xg2 37.♗xd4 h3—+

**36...♕xg2 37.♖e2**



We have reached the critical position, where Black has to find the only winning move.

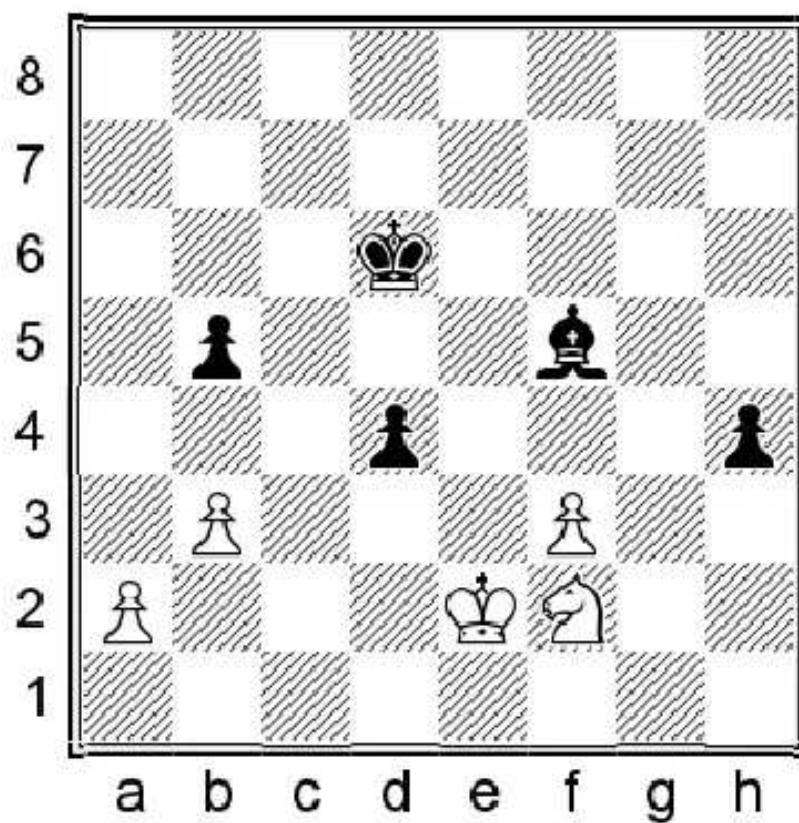
**37...♕h3!**

Before making use of the two passed pawns, Black transfers his bishop to f5, from where it excellently supports both pawns. 37. h3 38. ♖f2 The bishop is stuck so White holds

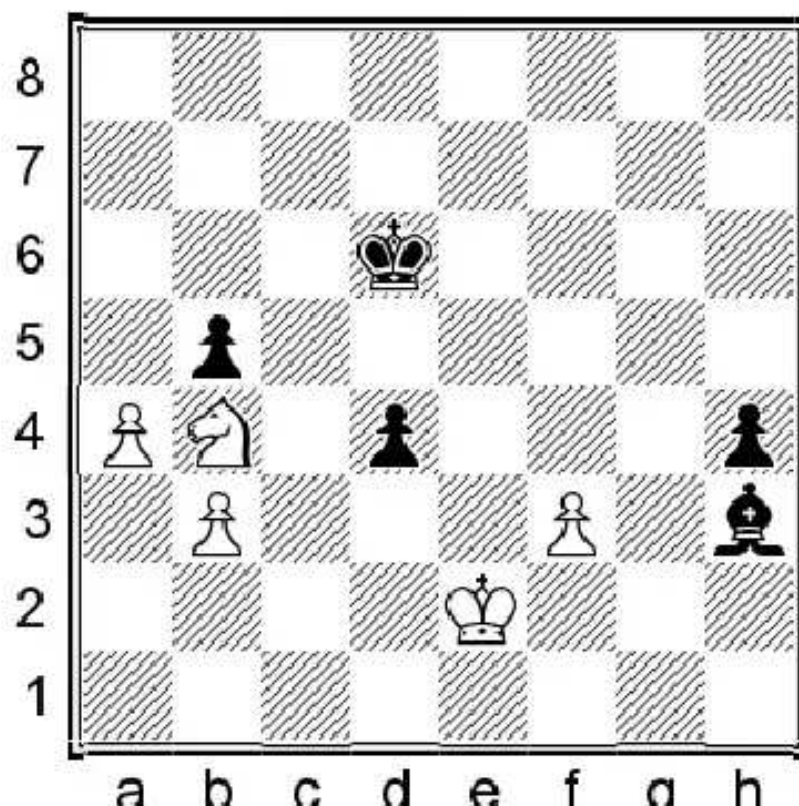
pawns. 37...h5 38. g12 The bishop is stuck so white holds.

### 38.a4

38. ♖d3 doesn't change anything. 38... ♗f5 39. ♖f2



39...b4!—+ This is the most accurate, fixing the a2 weakness, followed by ...♗e5-f4.



38...♙f5 39.♙xb5 d3+

One of the pawns will promote.

40.♙e3 h3

40...d2 was also possible. 41.♙xd2 h3 and a new queen is coming.

41.♗xd3 ♕xd3

White resigned in view of 41...♕xd3 42.♙f2 ♕xb5 43.♙g3 ♕d7 The black king collects both pawns and the h1

promotion square matches the bishop's color. An important detail is that the f-pawn must cross the bishop's diagonal, therefore it cannot deflect the bishop to win the h3 pawn. Let's say it was an h4 pawn, and then White could hold the draw because with his b-pawn he lures the king to the queenside, meanwhile he advances his h-pawn to deflect the bishop and capture the h3 pawn.

0-1