

# Chess Combinations

**A collection of combinations from actual chess games and endgame studies**

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## Preface

This is a collection of chess puzzles (with solutions) published in the slack channel for the Chess club in Workday Inc during 2016–'17.

This book contains a little more than puzzles and answers. Many of them discuss the story behind that position or game. Many have discussion on how one can go wrong in solving it. Many of them give cross-references to other similar problems.

This book can be used in two ways, as a puzzle book for self-improvement, or as book on chess tactics.

All the problems are given at the beginning of the book (Pages 10–36 for Game positions and 37–59 for endgame studies) in the order of solving difficulty. Games and Endgame studies are given separately, because solving methodology will be slightly different for them. Cross-reference to the solution is given with each problem.

Solutions to all the problems are given in pages 60–667, each problem in a separate section. These are arranged in various themes, and problems from games and studies are mixed.

There are a lot of themes possible, and a problem may have multiple themes. Only main themes are listed. However, all themes are mentioned in the index (Starting at page 688. Look under “Themes”.) The index contains all the composers and all the games as well.

The book has two appendices. Page 668 has a short description of many of the famous persons (players and composers) mentioned in the book, also explaining some historical aspects of the game itself. Page 678 has some theoretical notes (Mainly endgame theory) related to the material mentioned in the book.

This book is a work in progress. More puzzles will be added in the future. The up-to-date version can be found at <http://www.usvishakh.net/documents/chess-combinations.pdf>.

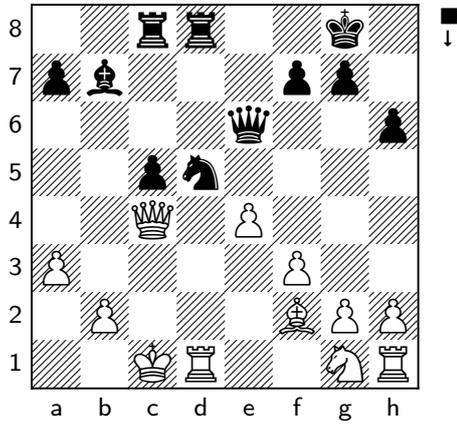
Please let me know ([umesh.p.nair@gmail.com](mailto:umesh.p.nair@gmail.com)) if you come across any errors, whether it is an error in the chess analysis or just a typo.

UMESH P NARENDRAN

# 0. Problems

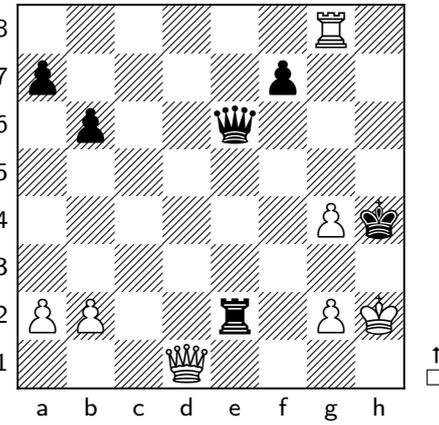
## 0.1. Combinations from actual games

1



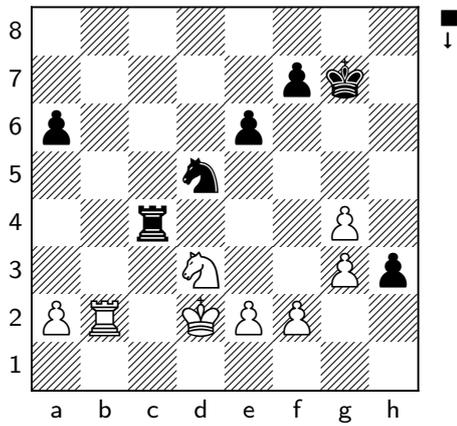
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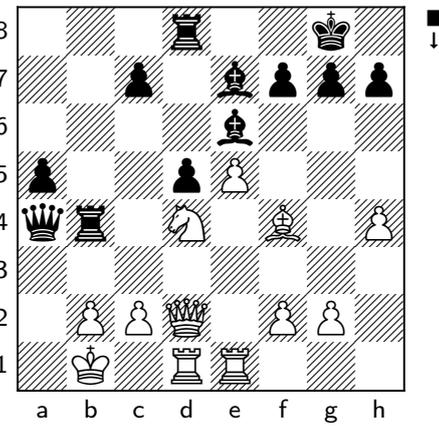
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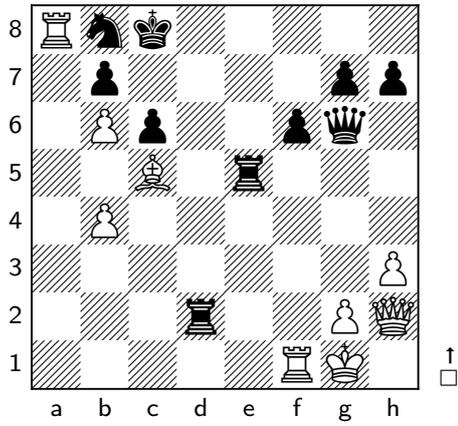
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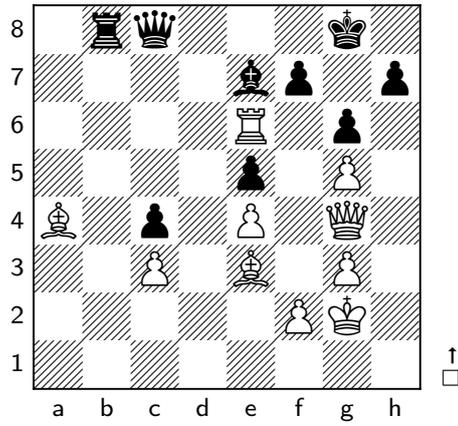
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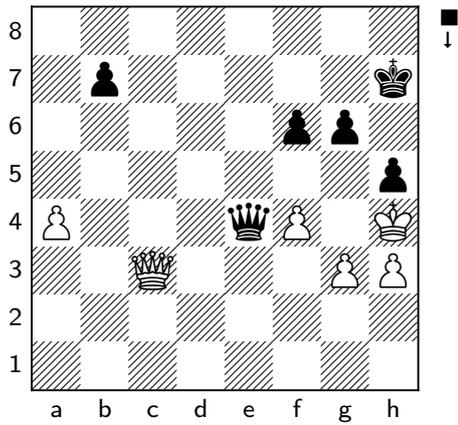
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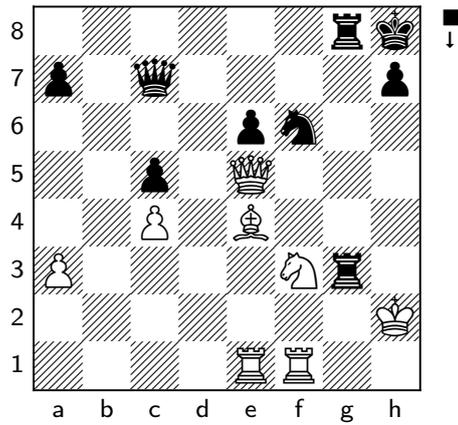
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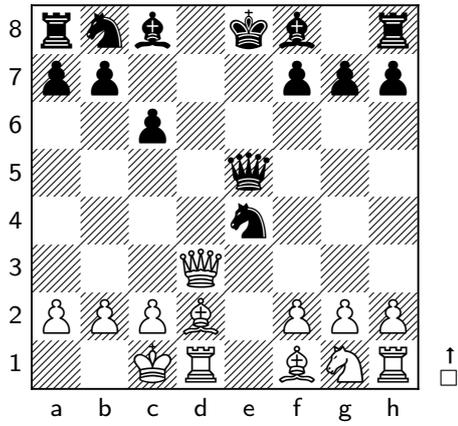
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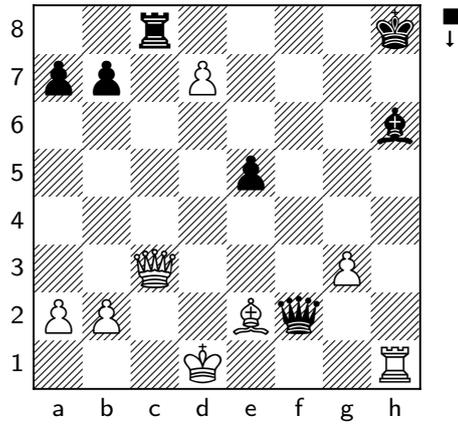
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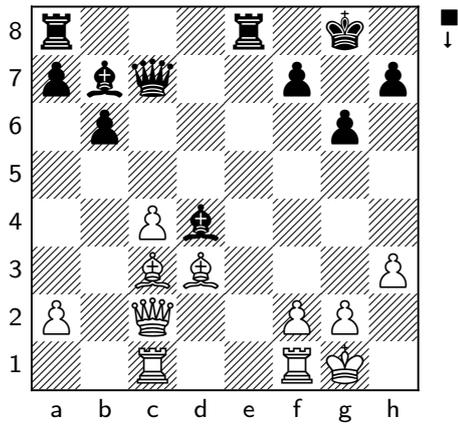
9.? +- (Page 90)

11



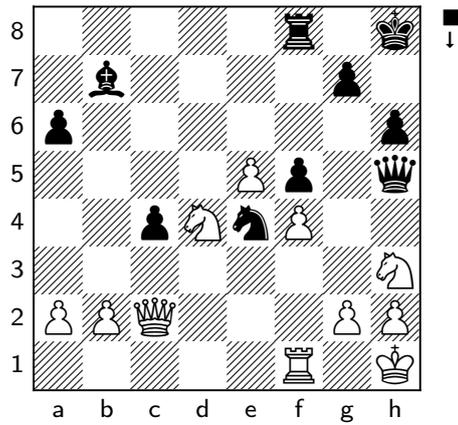
1... ? +- (Page 119)

10



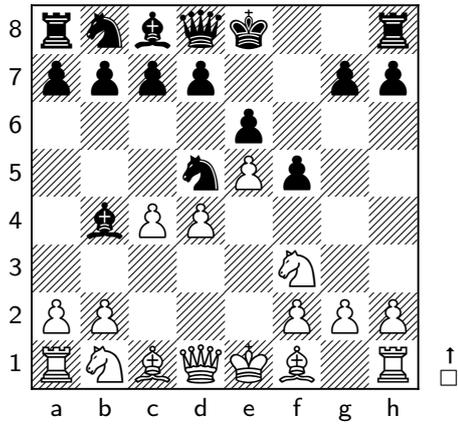
1... ? +- (Page 539)

12



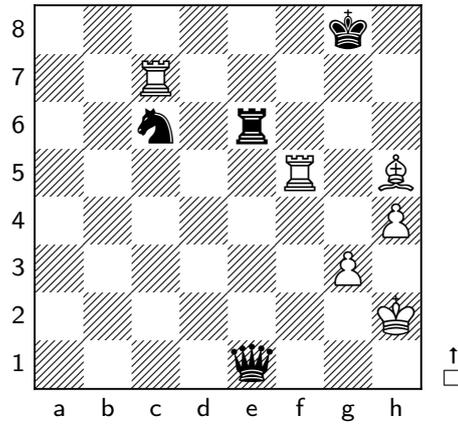
28... ? +- (Page 346)

13



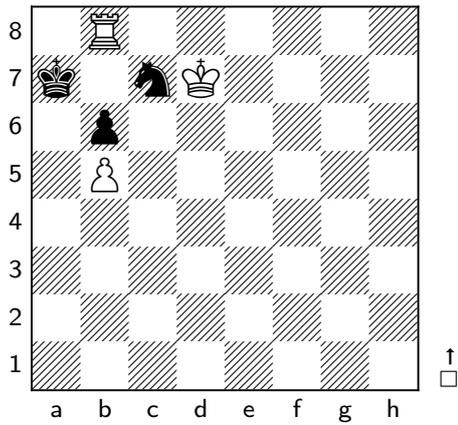
1... ? +- (Page 545)

15



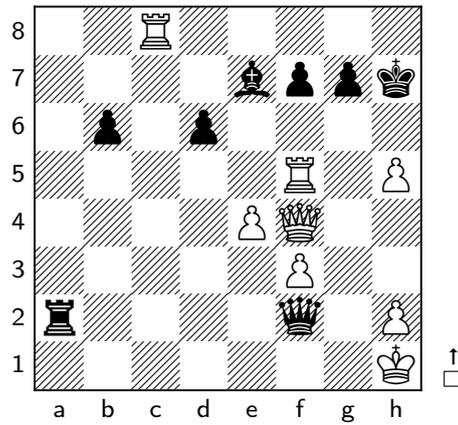
1. ? +- (Page 357)

14



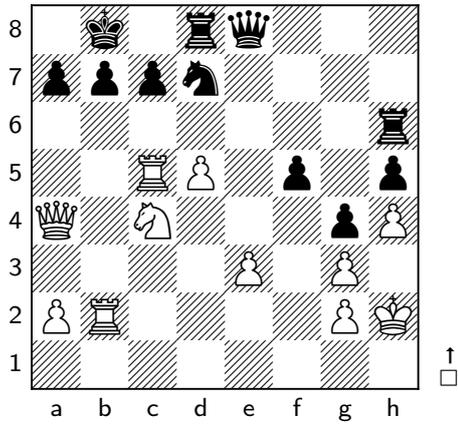
1. ? +- (Page 277)

16



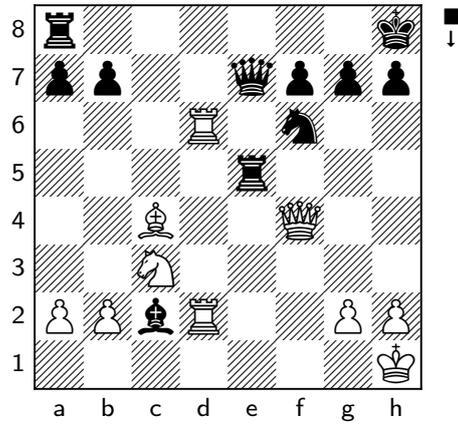
50. ? +- (Page 356)

17



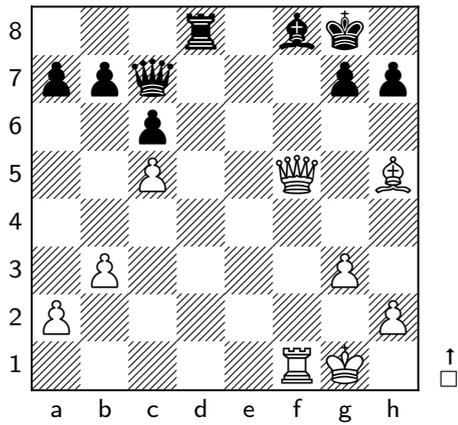
1. ? +- (Page 384)

19



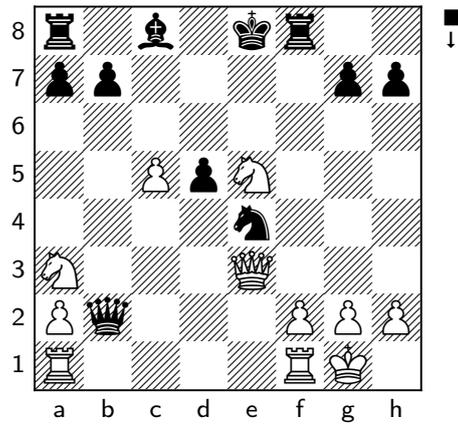
1... ? -- (Page 130)

18



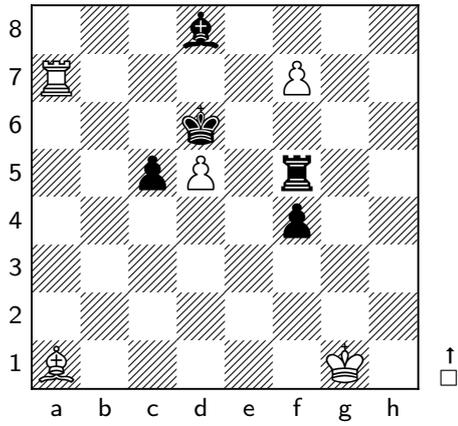
1. ? +- (Page 105)

20



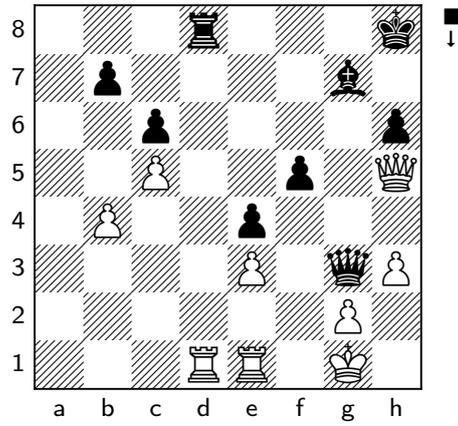
1... ? -- (Page 284)

21



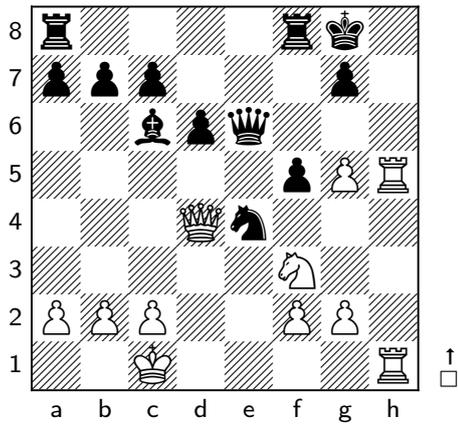
1. ? +- (Page 159)

23



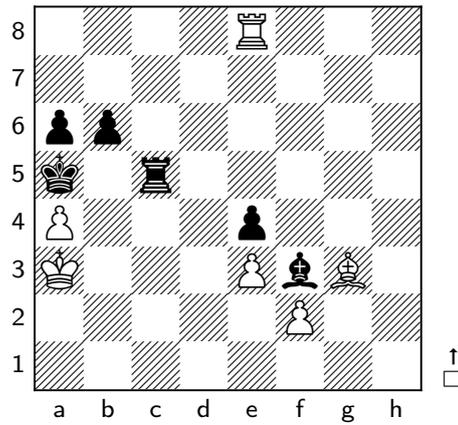
29... ? +- (Page 112)

22



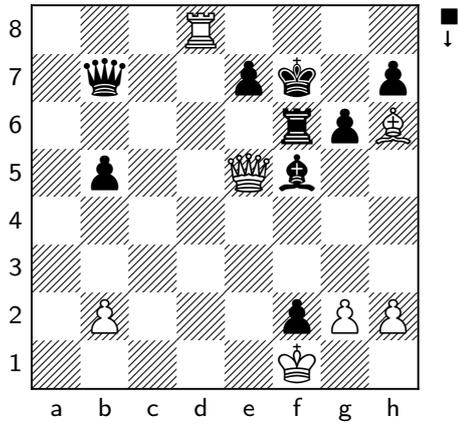
16. ? +- (Page 348)

24



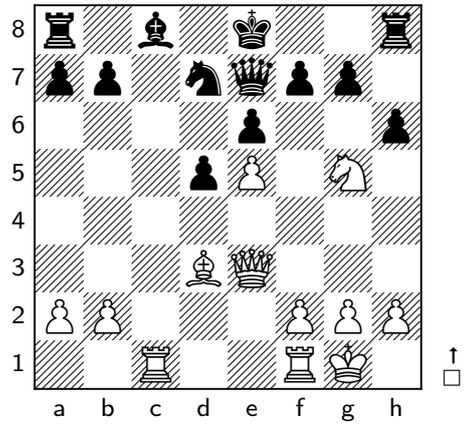
1. ? +- (Page 412)

25



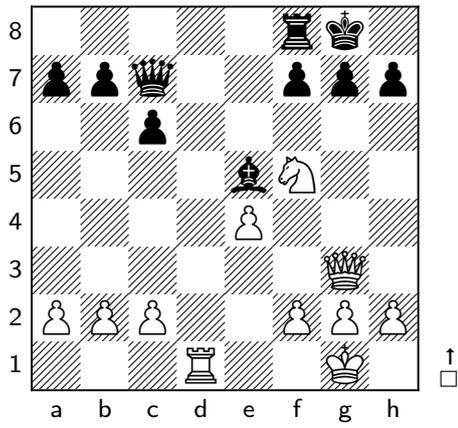
1... ? +- (Page 158)

27



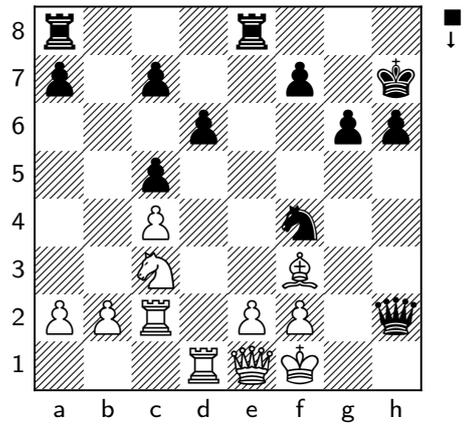
20. ? +- (Page 648)

26



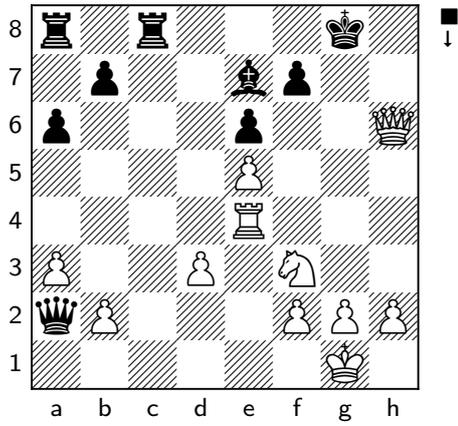
20. ? +- (Page 65)

28



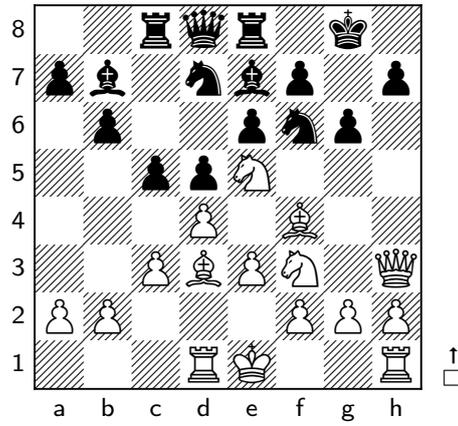
26... ? +- (Page 240)

29



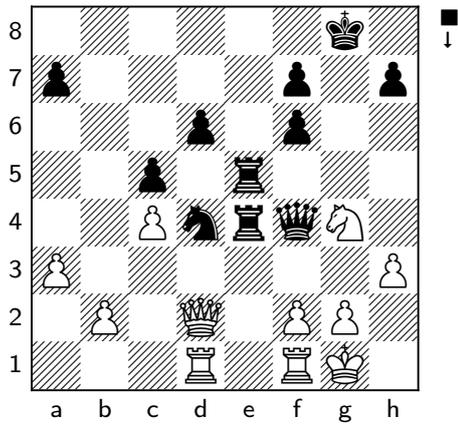
1... ? +- (Page 555)

31



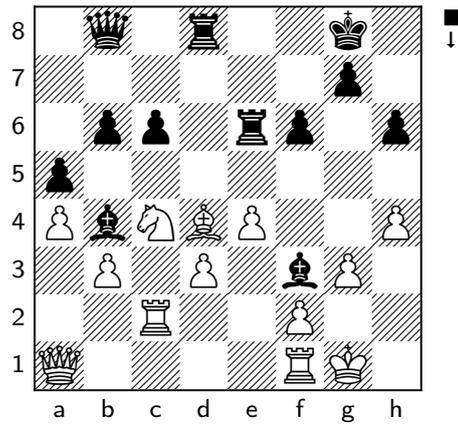
1. ? +- (Page 650)

30



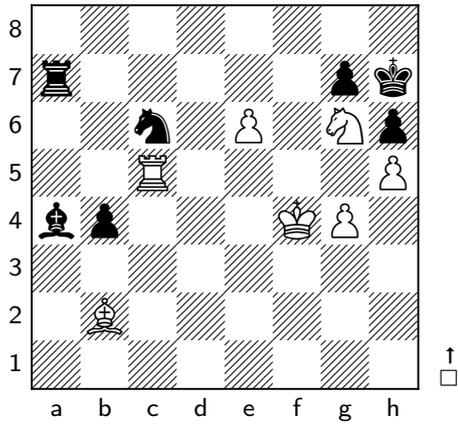
1... ? +- (Page 369)

32



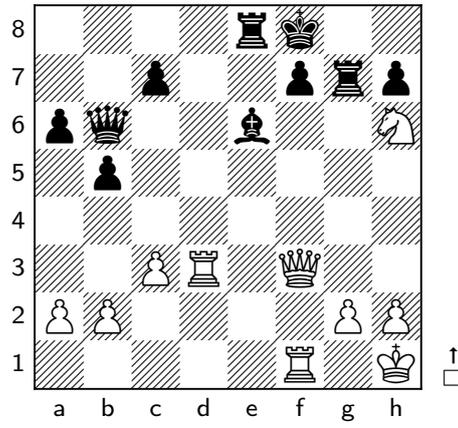
37... ? +- (Page 78)

33



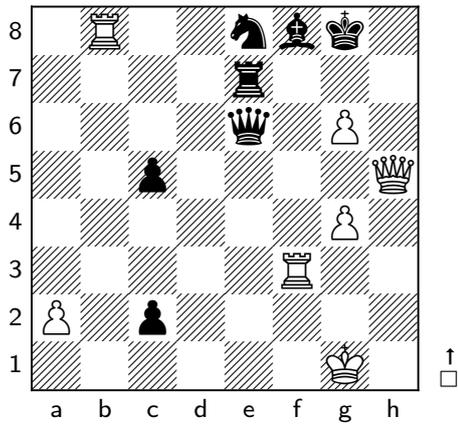
1. ? +- (Page 665)

35



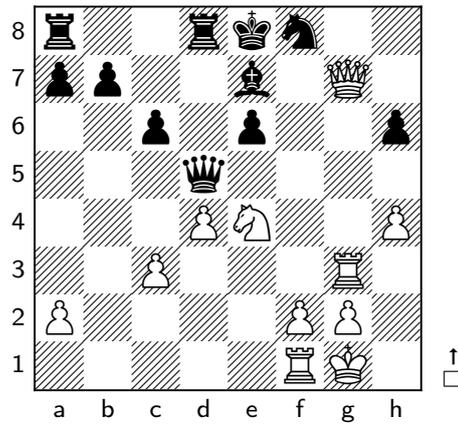
26. ? +- (Page 238)

34



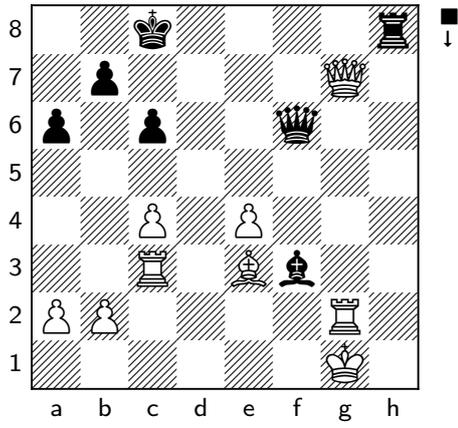
1. ? +- (Page 362)

36



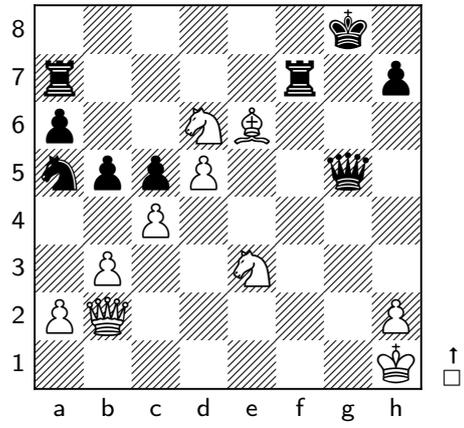
32. ? +- (Page 361)

37



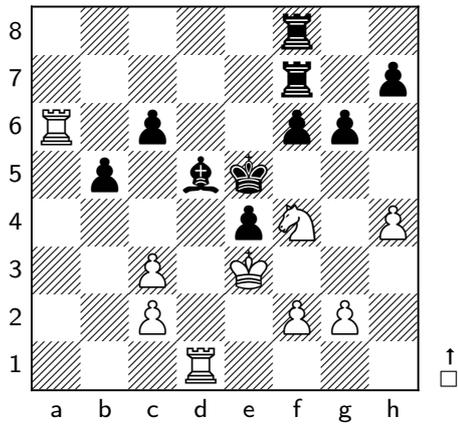
1... ? +- (Page 92)

39



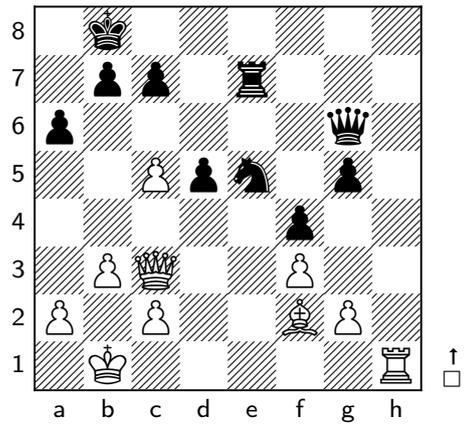
29. ? +- (Page 63)

38



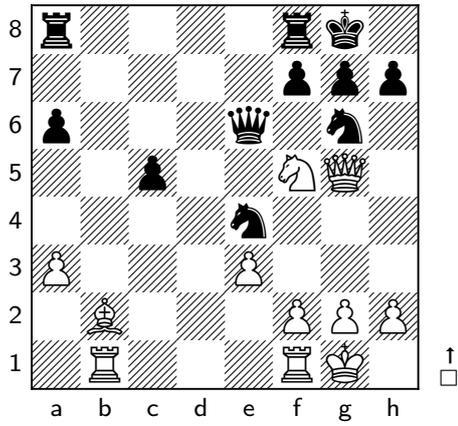
24. ? +- (Page 352)

40



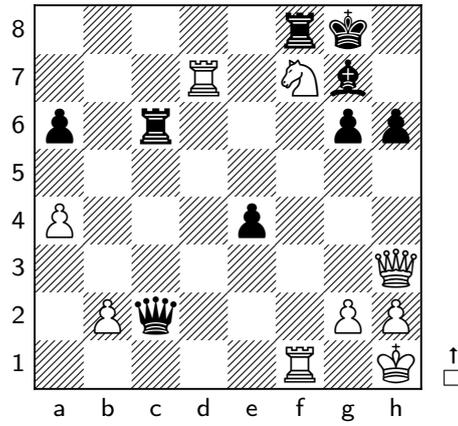
1... ? +- (Page 405)

41



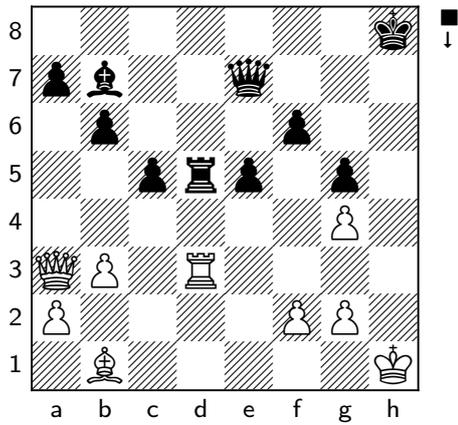
1. ? +- (Page 375)

43



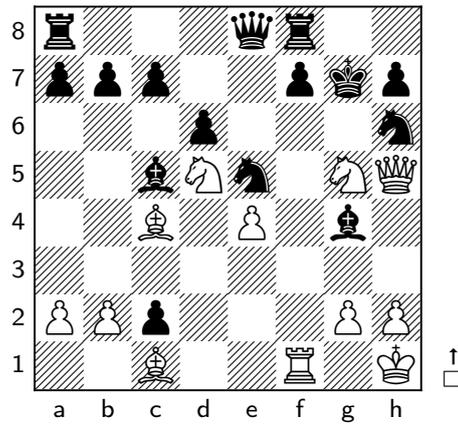
30. ? +- (Page 373)

42



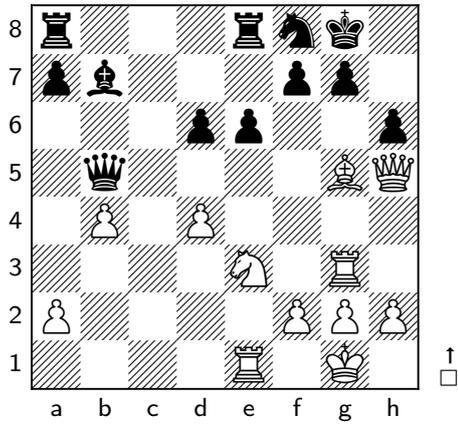
1... ? +- (Page 75)

44



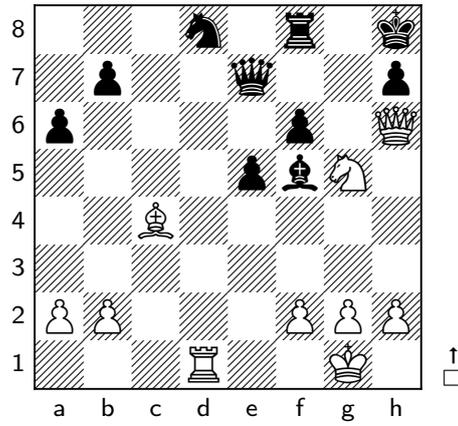
1. ? +- (Page 379)

45



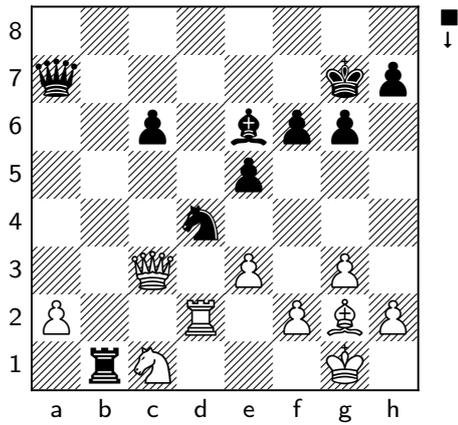
25. ? +- (Page 244)

47



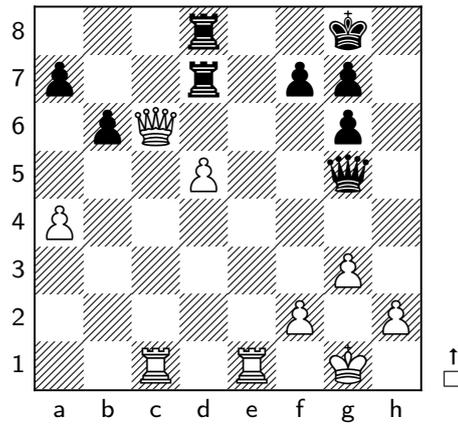
1. ? +- (Page 67)

46



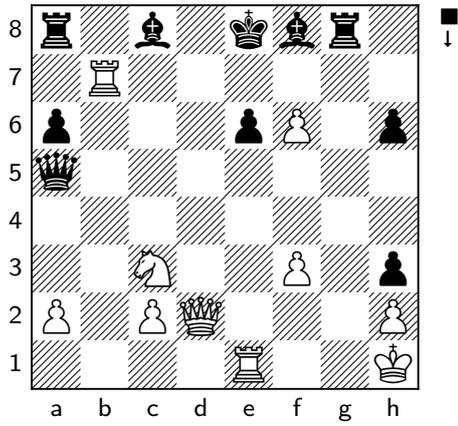
27... ? +- (Page 110)

48



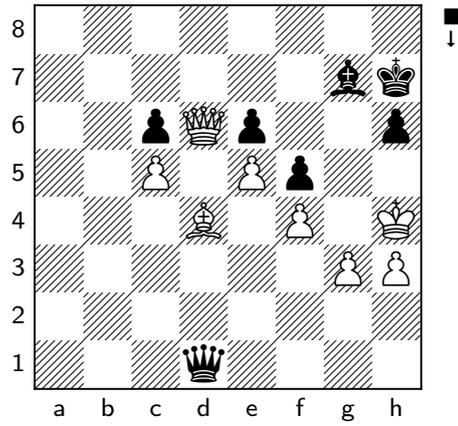
1. ? +- (Page 398)

49



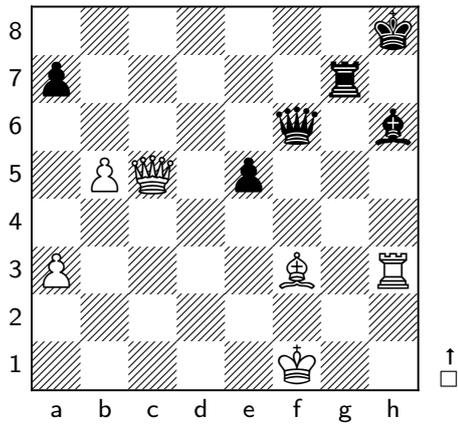
21... ? +- (Page 557)

51



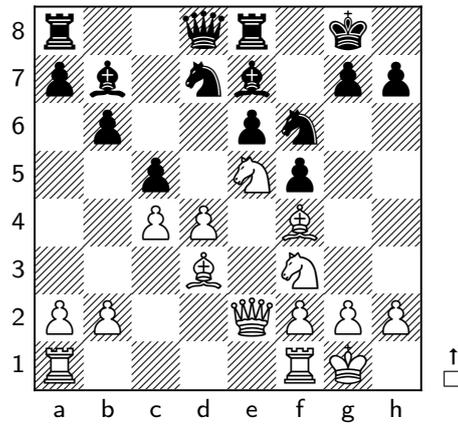
1... ? +- (Page 383)

50



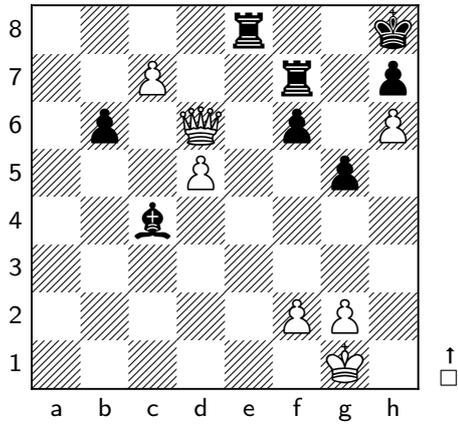
1. ? +- (Page 589)

52



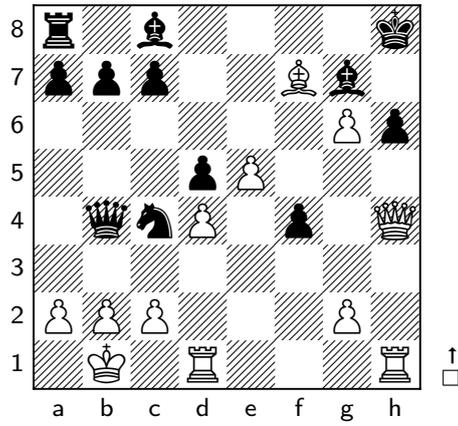
15. ? +- (Page 350)

53



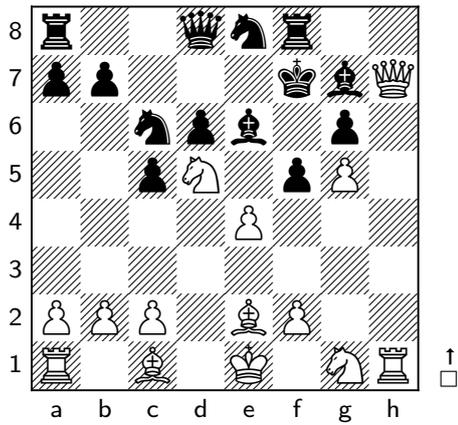
34. ? +- (Page 156)

55



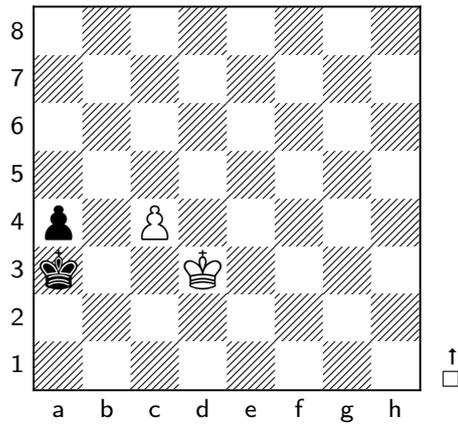
1. ? +- (Page 376)

54



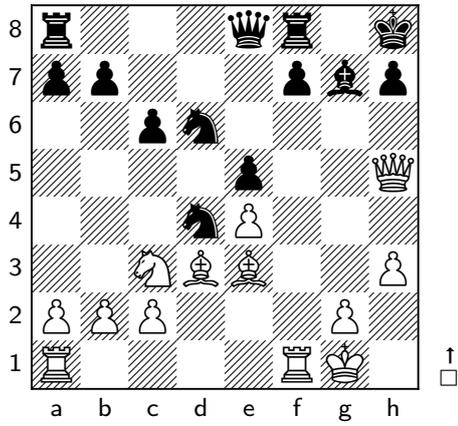
1. ? +- (Page 359)

56



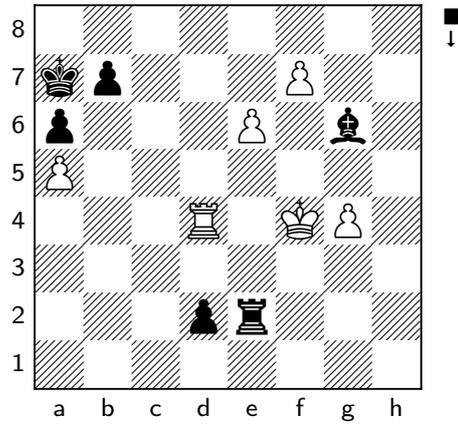
60.? +- (Page 291)

57



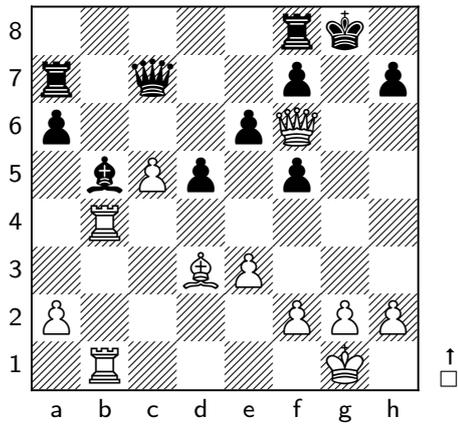
18. ? +- (Page 241)

59



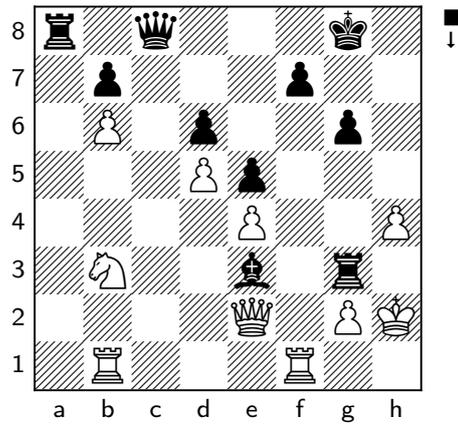
47... ? +- (Page 141)

58



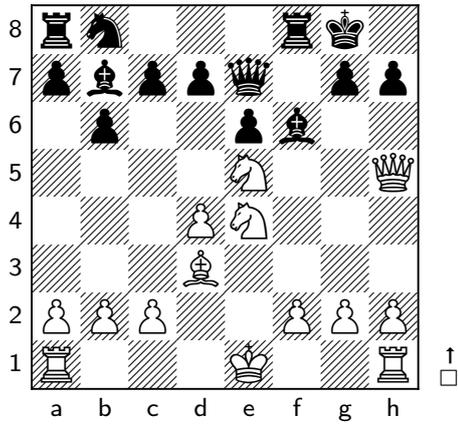
30. ? +- (Page 280)

60



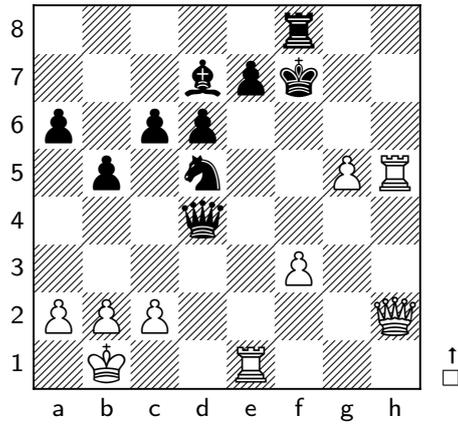
1... ? +- (Page 117)

61



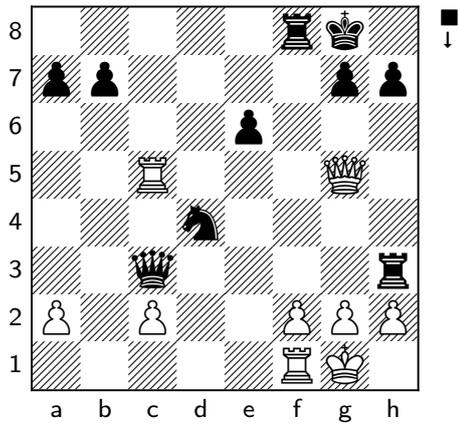
11. ? +- (Page 333)

63



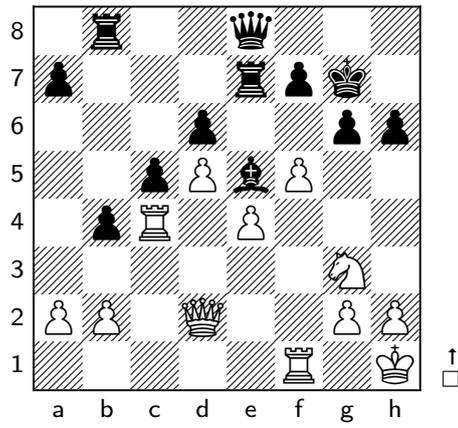
37. ? +- (Page 248)

62



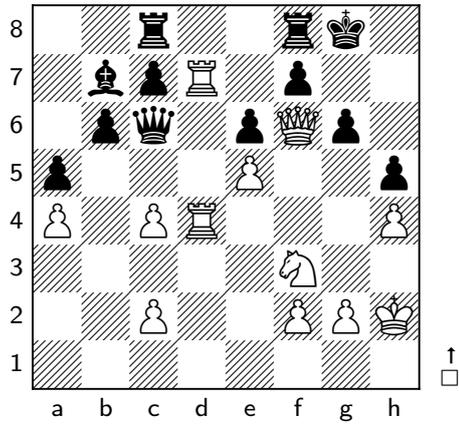
23... ? +- (Page 537)

64



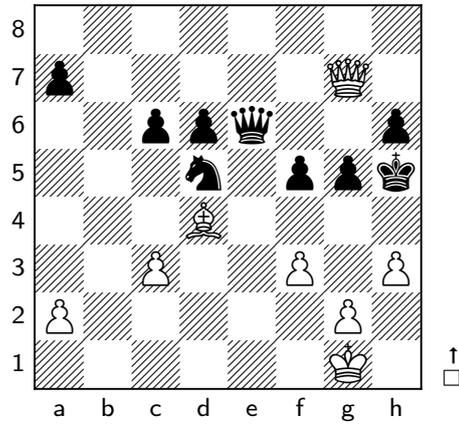
1. ? +- (Page 394)

65



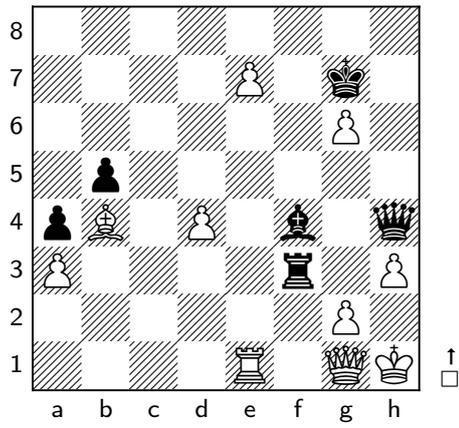
1. ? +- (Page 261)

67



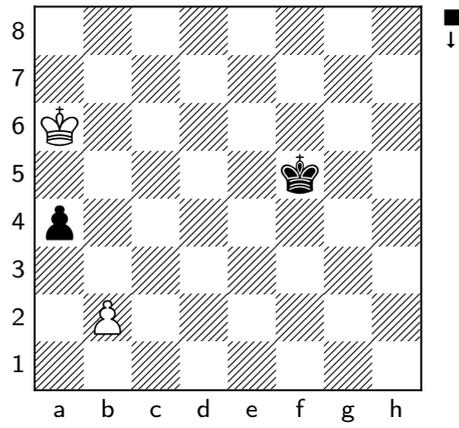
1. ? +- (Page 364)

66



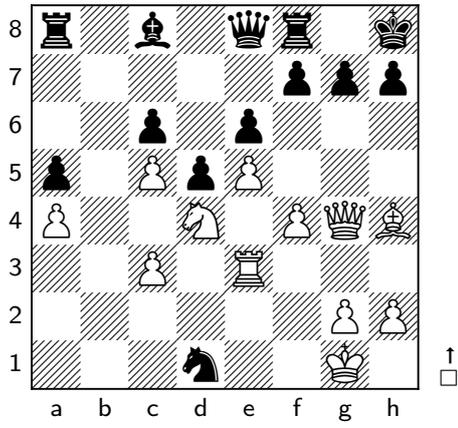
41. ? +- (Page 235)

68



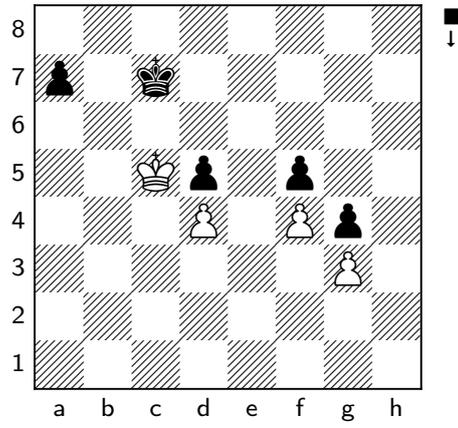
1... ? = (Page 482)

69



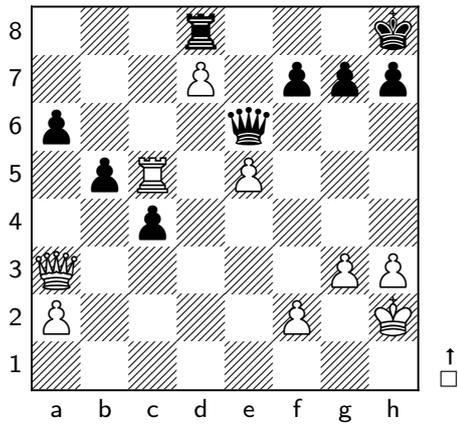
26. ? +- (Page 371)

71



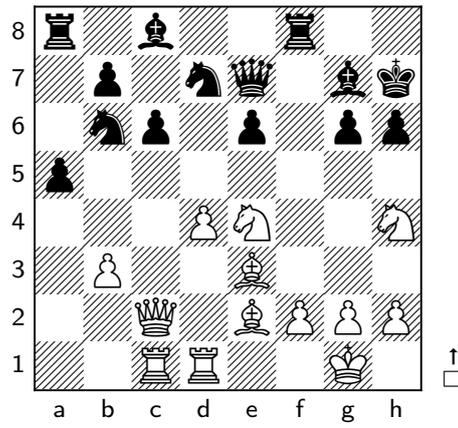
1... ? -- (Page 428)

70



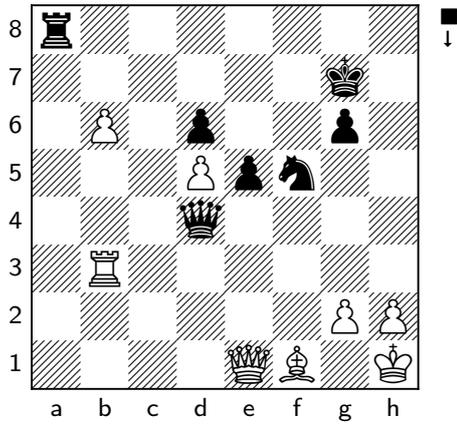
1. ? +- (Page 103)

72



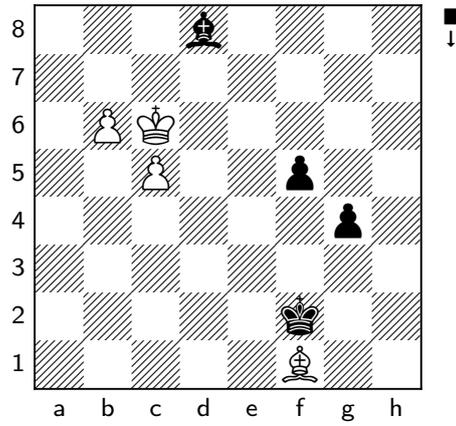
1. ? +- (Page 386)

73



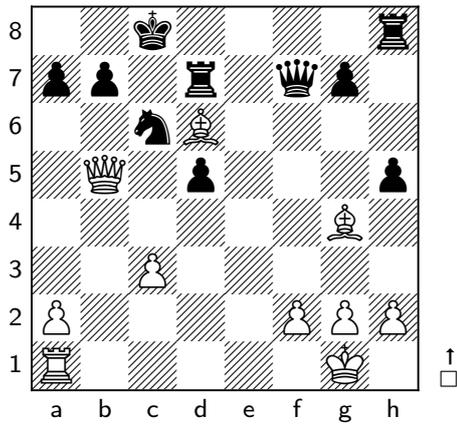
1... ? +- (Page 246)

75



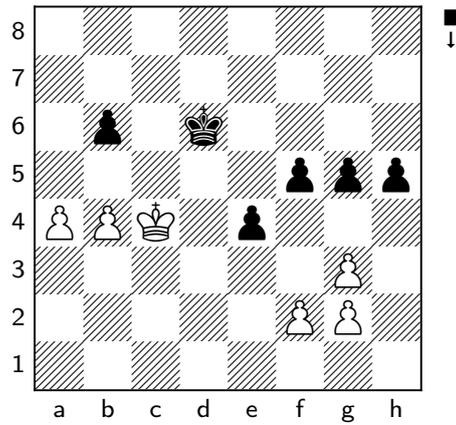
81... ? = (Page 533)

74



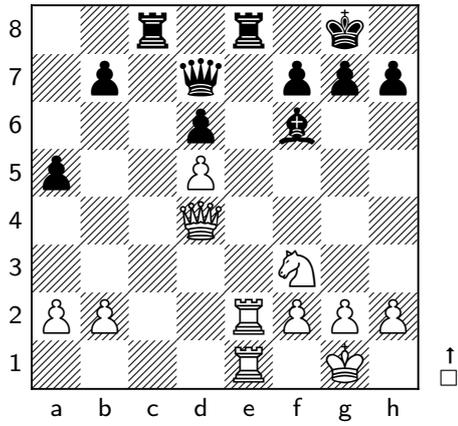
1. ? +- (Page 382)

76



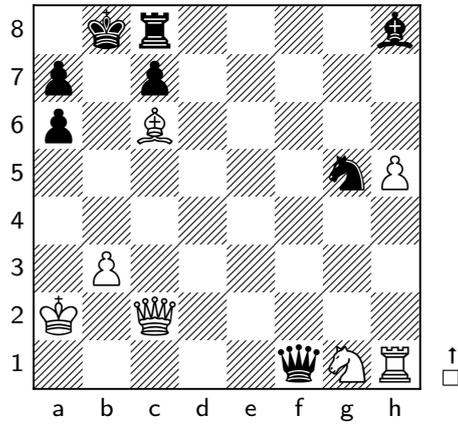
1... ? +- (Page 153)

77



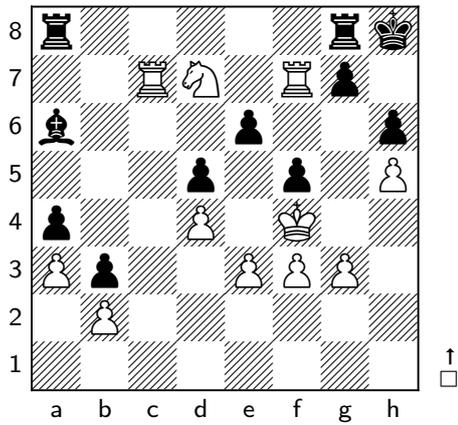
18. ? +- (Page 95)

79



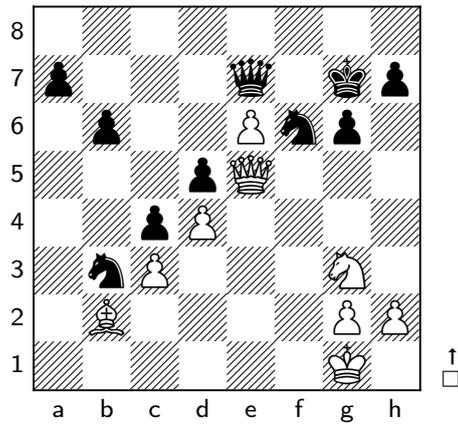
1. ? +- (Page 402)

78



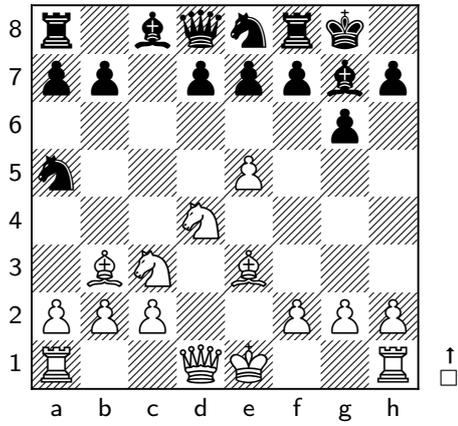
1. ? +- (Page 259)

80



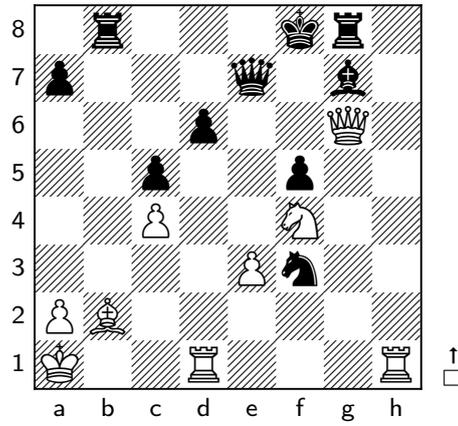
30. ? +- (Page 114)

81



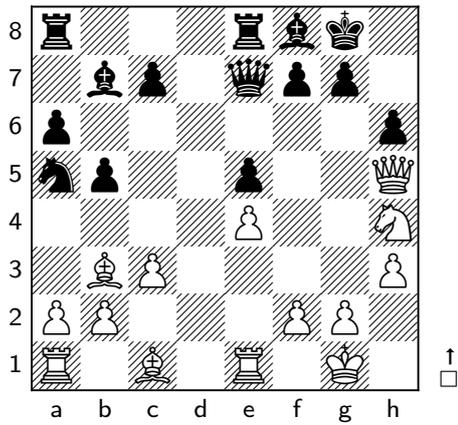
10. ? +- (Page 336)

83



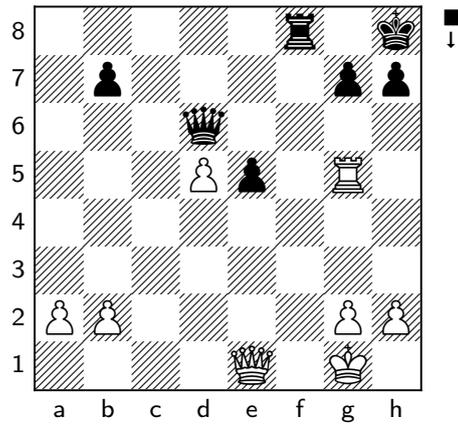
30. ? +- (Page 392)

82



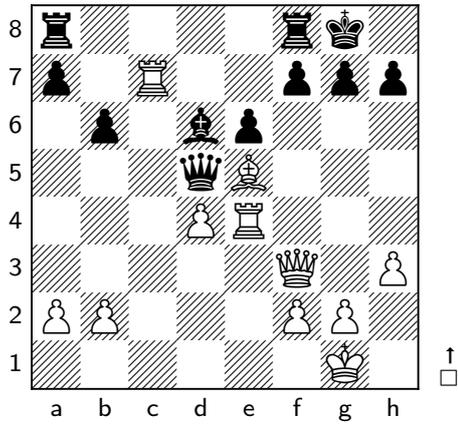
18. ? +- (Page 339)

84



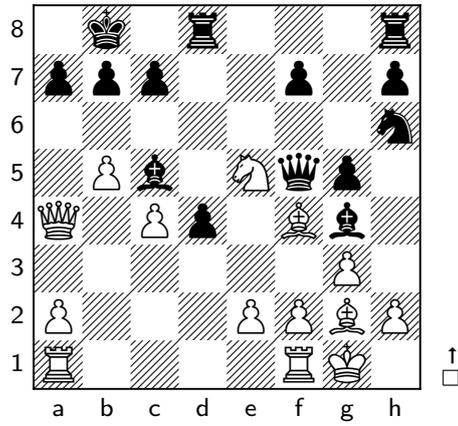
1... ? +- (Page 100)

85



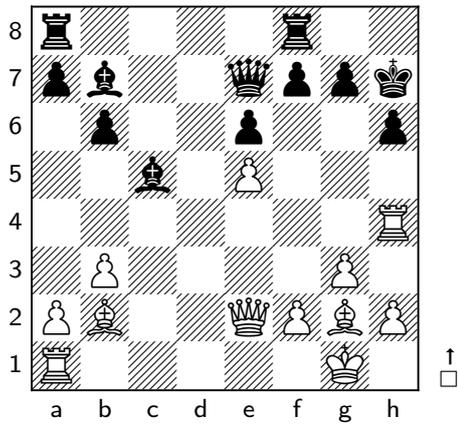
21. ? +- (Page 540)

87



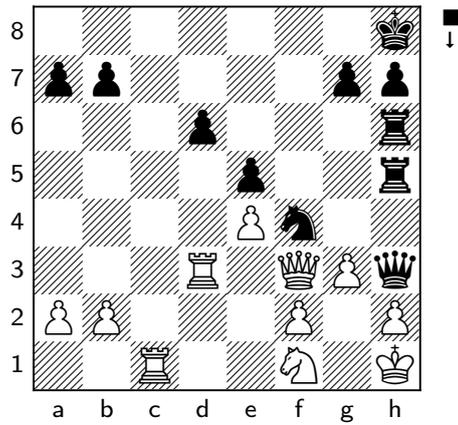
1. ? +- (Page 658)

86



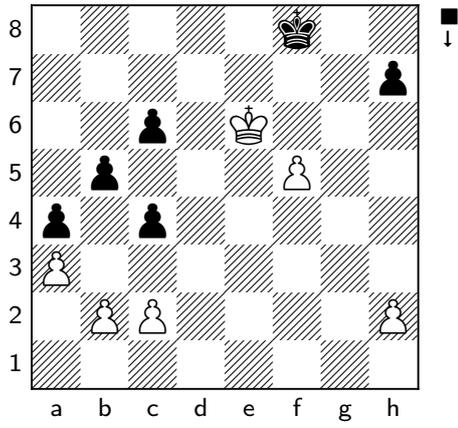
22. ? +- (Page 282)

88



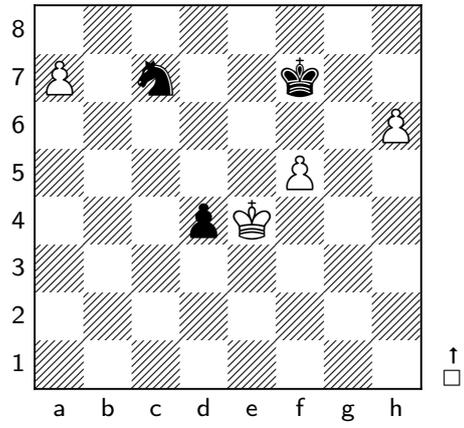
1... ? +- (Page 354)

89



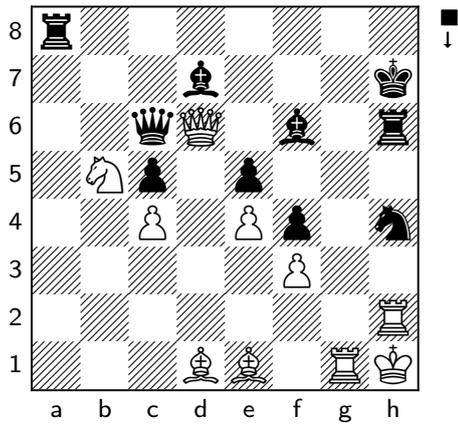
1... ? +- (Page 161)

91



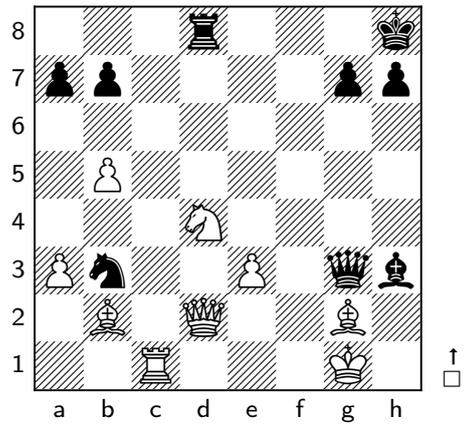
1. ? +- (Page 200)

90



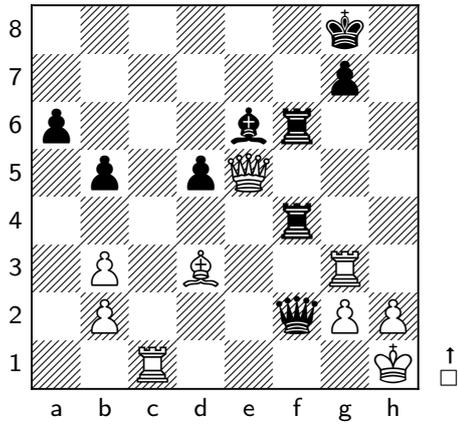
1... ? +- (Page 120)

92



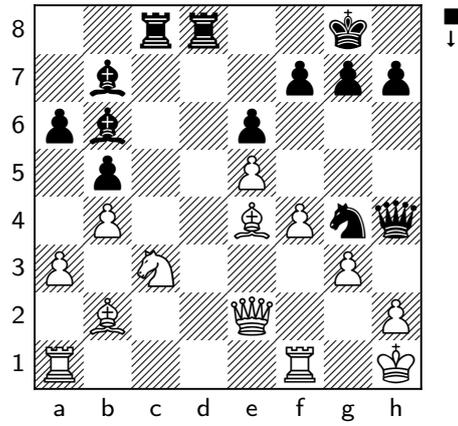
1. ? +- (Page 400)

93



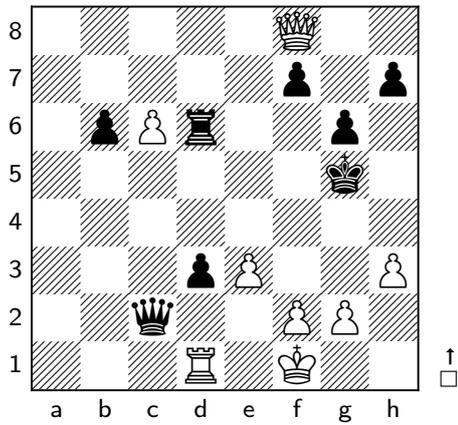
1. ? +- (Page 388)

95



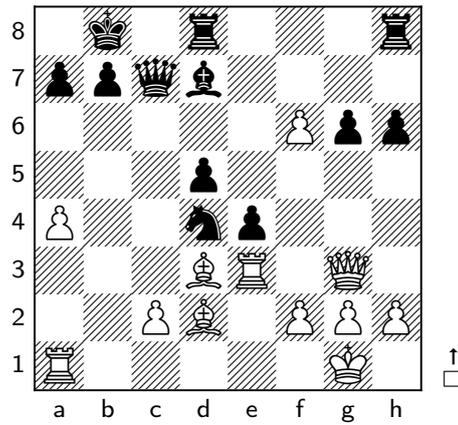
22... ? +- (Page 123)

94



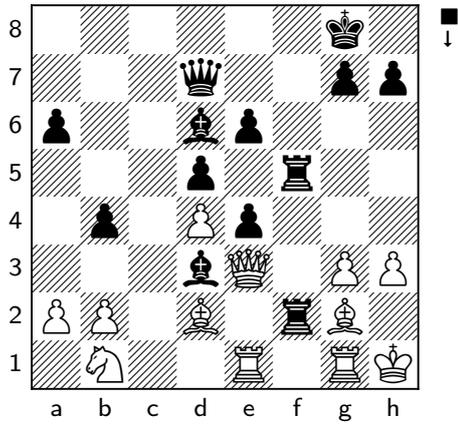
44. ? +- (Page 542)

96



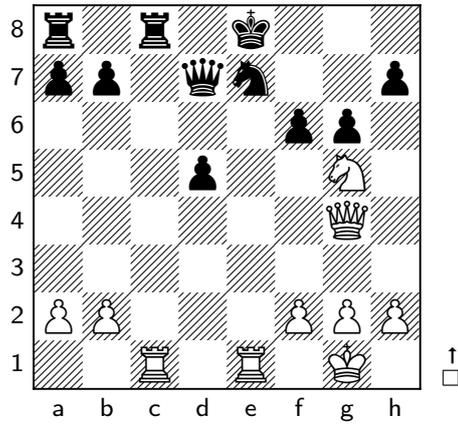
1. ? +- (Page 321)

97



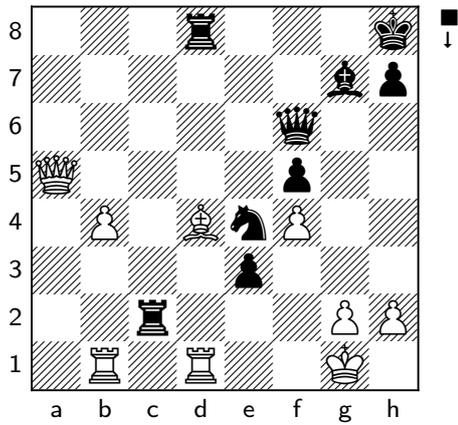
25... ? +- (Page 426)

99



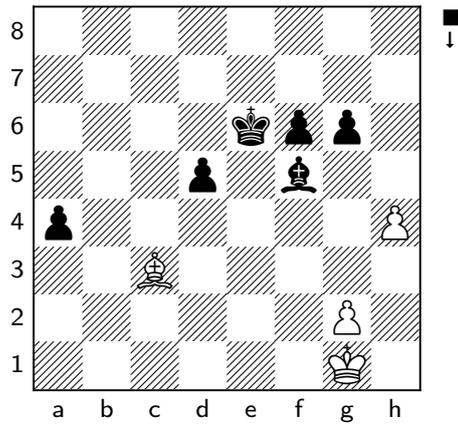
22. ? +- (Page 126)

98



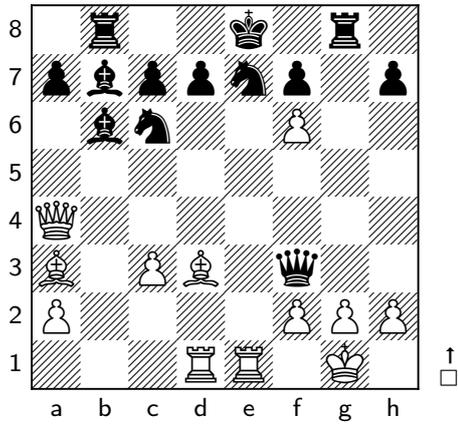
34... ? +- (Page 652)

100



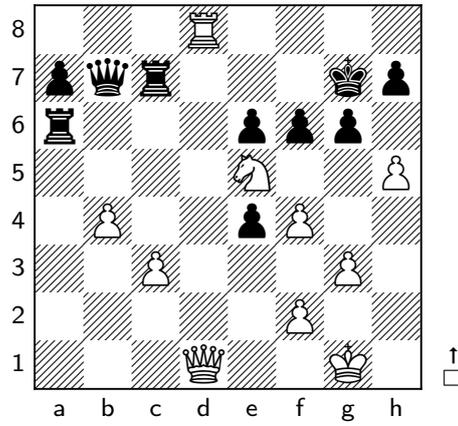
1... ? +- (Page 564)

101



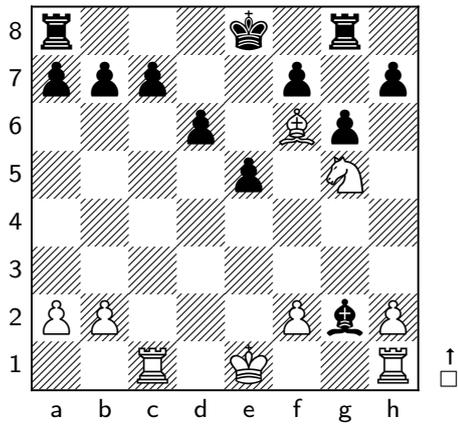
1. ? +- (Page 344)

103



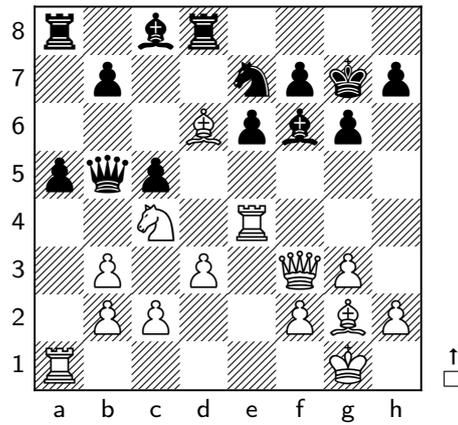
1. ? +- (Page 251)

102

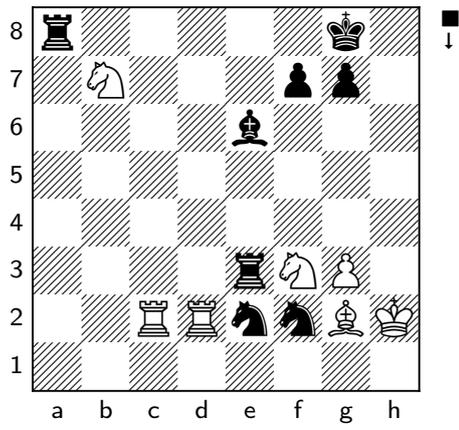


1. ? +- (Page 264)

104



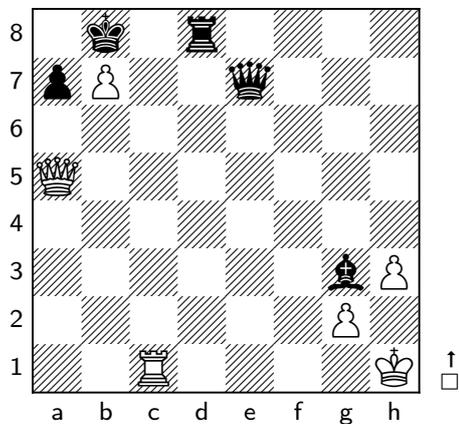
19. ? +- (Page 342)



1... ? +- (Page 660)

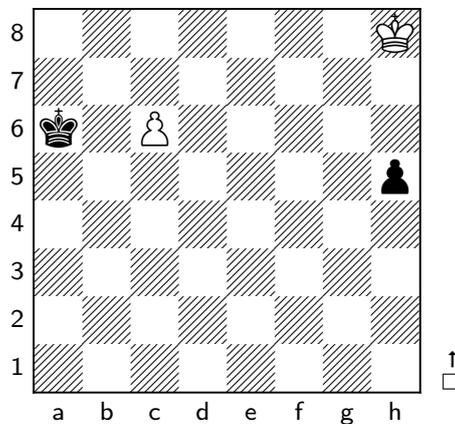
## 0.2. Endgame studies

106



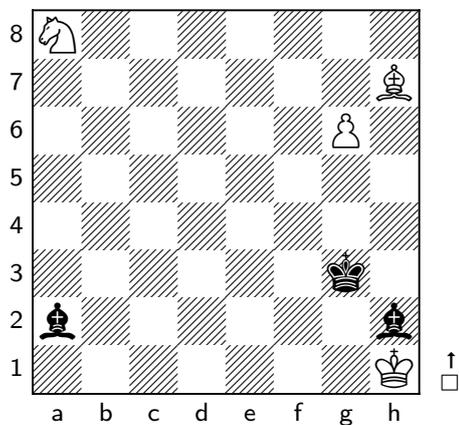
1. ? +- (Page 70)

108



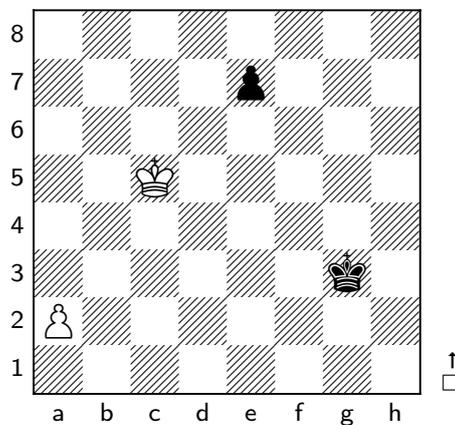
1. ? = (Page 134)

107



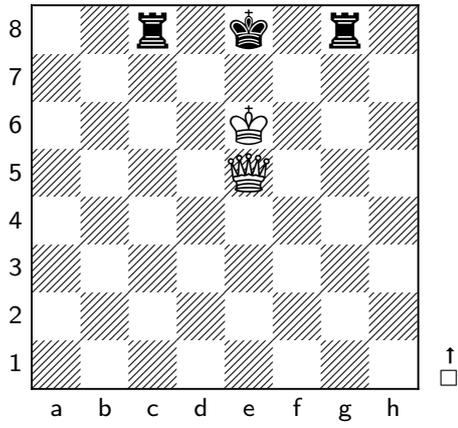
1. ? = (Page 529)

109



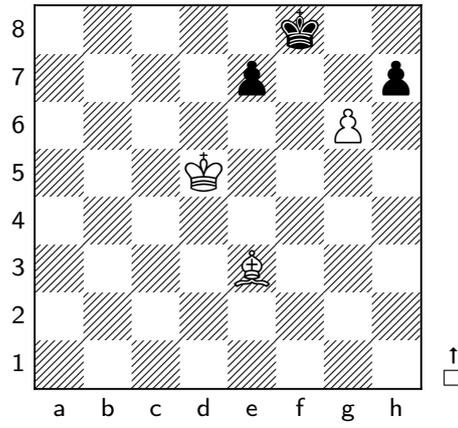
1. ? +- (Page 484)

110



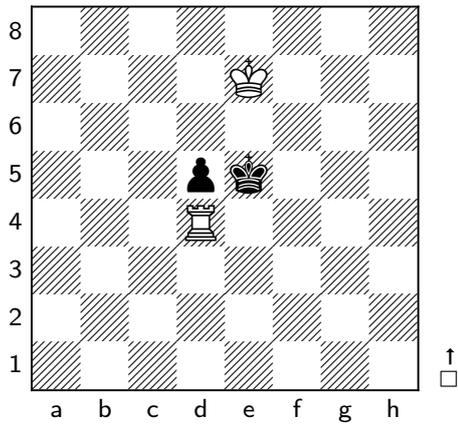
1. ? +- (Page 476)

112



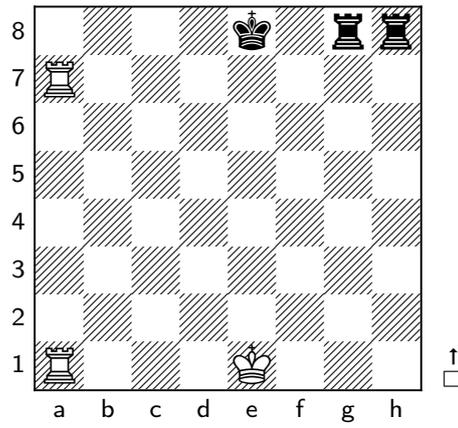
1. ? +- (Page 271)

111



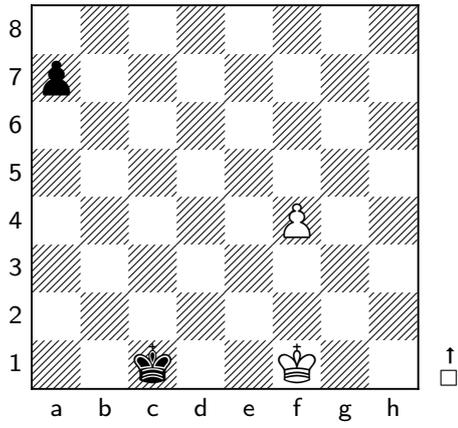
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113



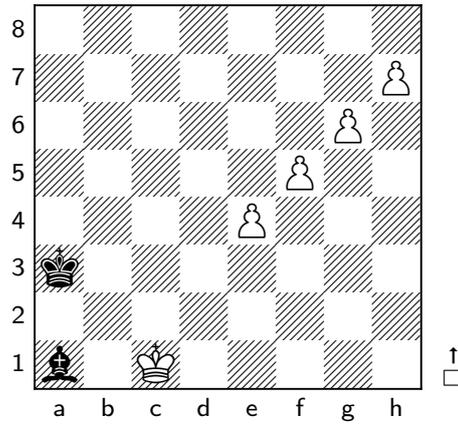
1. ? +- (Page 319)

114



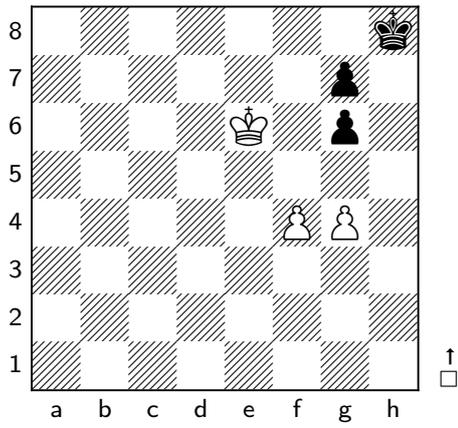
1. ? +- (Page 498)

116



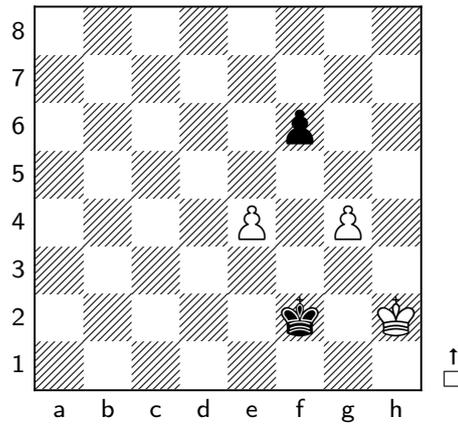
1. ? +- (Page 447)

115



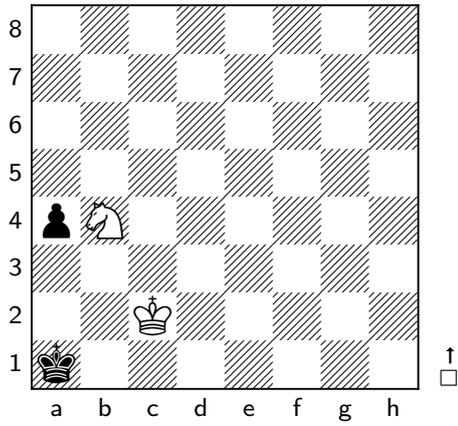
1. ? +- (Page 496)

117



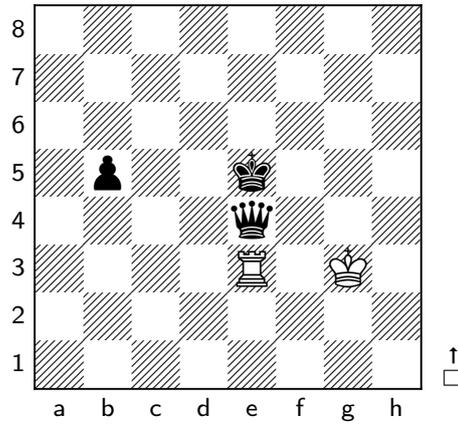
1. ? +- (Page 194)

118



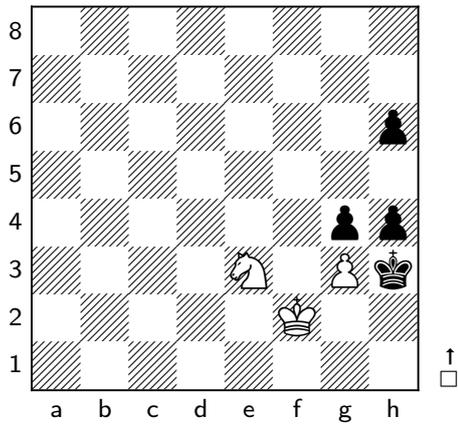
1. ? +- (Page 561)

120



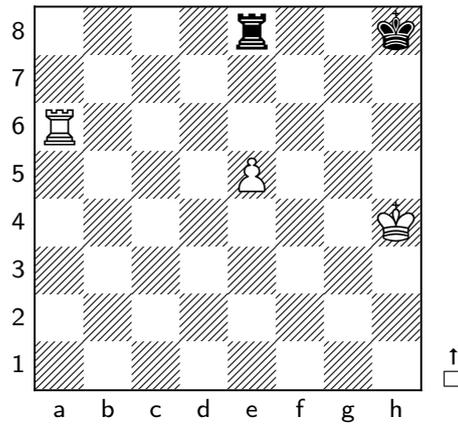
1. ? +- (Page 518)

119



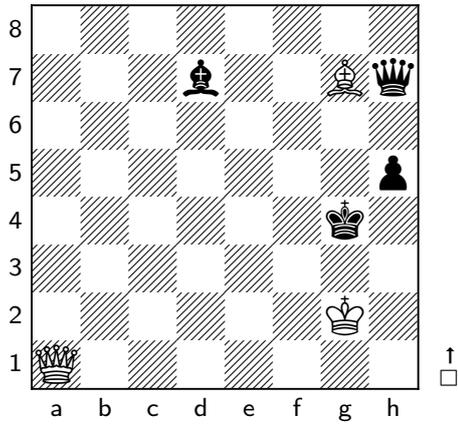
1. ? +- (Page 445)

121



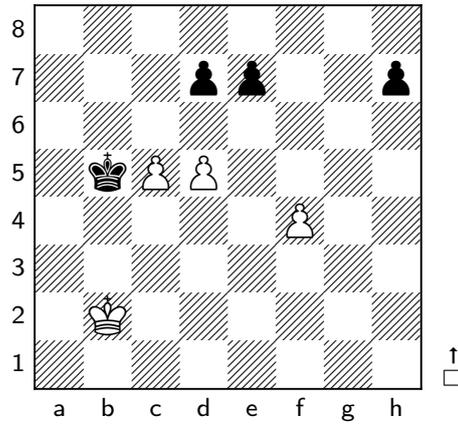
1. ? +- (Page 226)

122



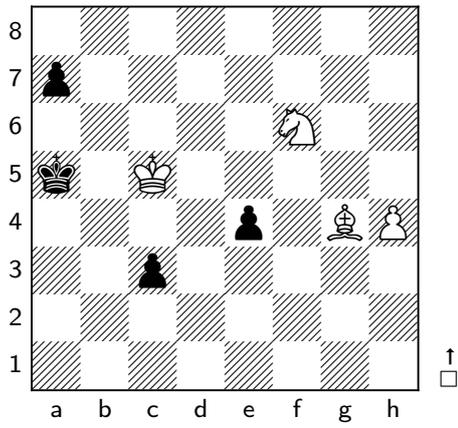
1. ? +- (Page 414)

124



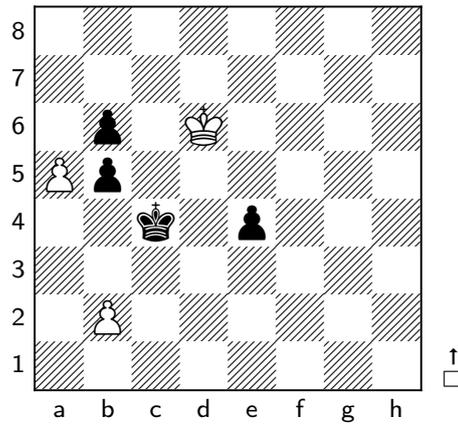
1. ? +- (Page 143)

123



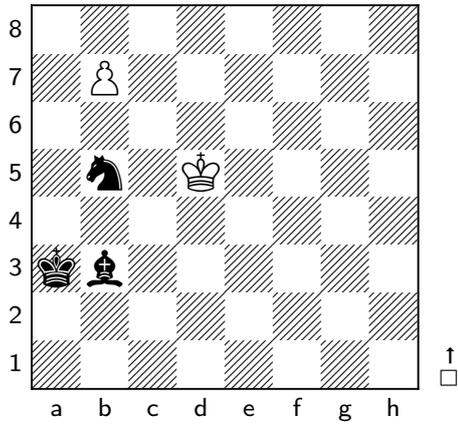
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125



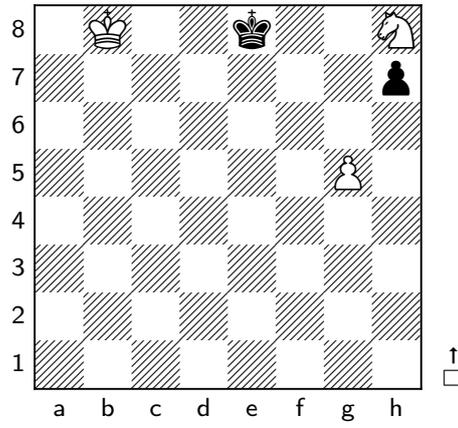
1. ? +- (Page 316)

126



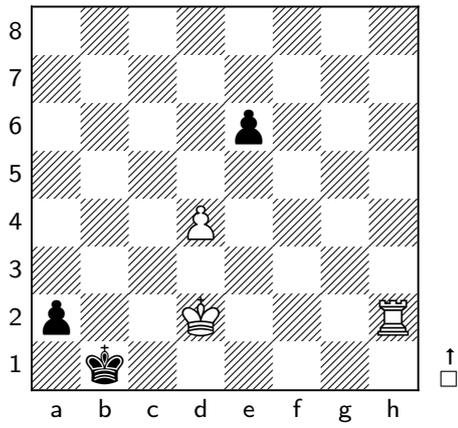
1. ? +- (Page 148)

128



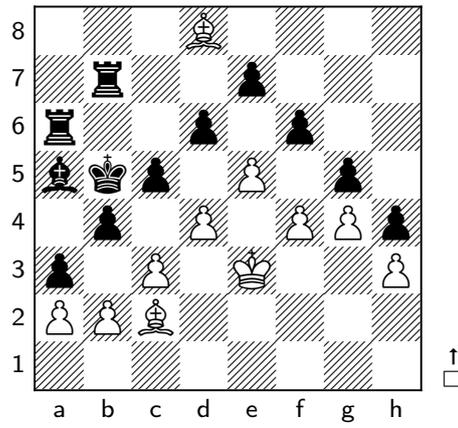
1. ? +- (Page 491)

127



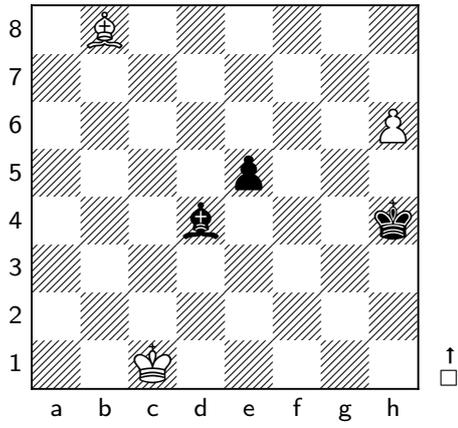
1. ? +- (Page 268)

129



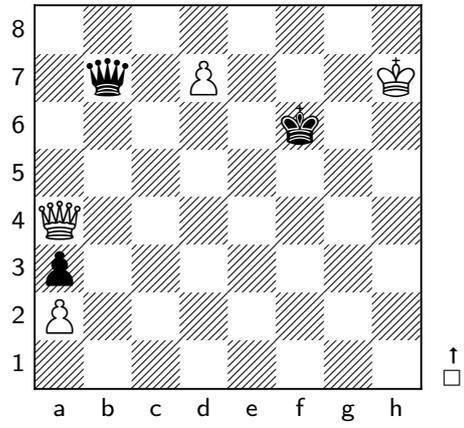
1. ? = (Page 617)

130



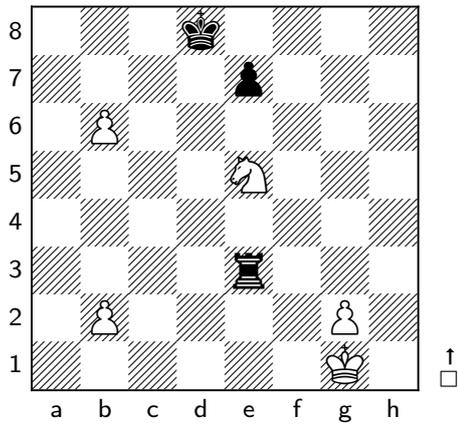
1. ? +- (Page 185)

132



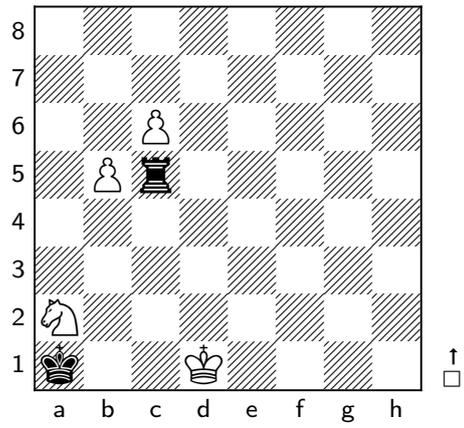
1. ? +- (Page 181)

131



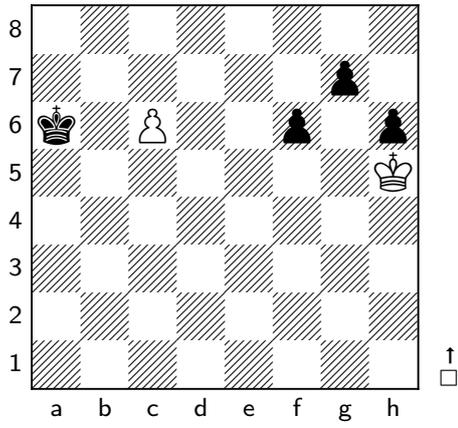
1. ? +- (Page 308)

133



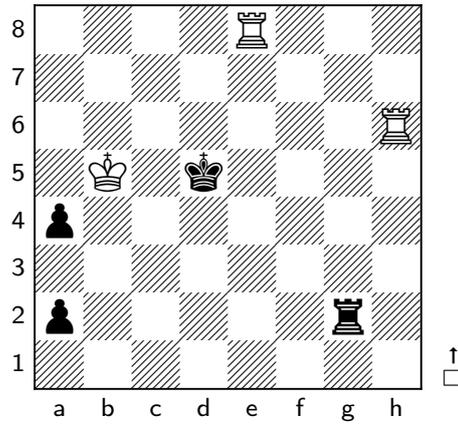
1. ? +- (Page 223)

134



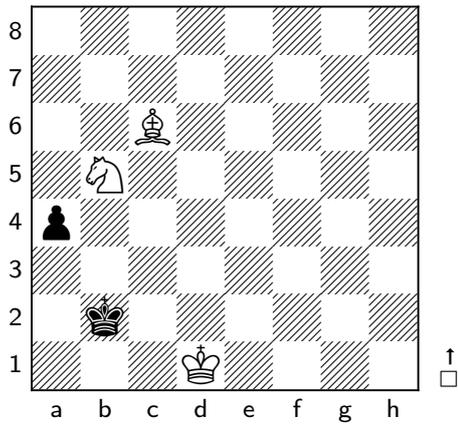
1. ? = (Page 138)

136



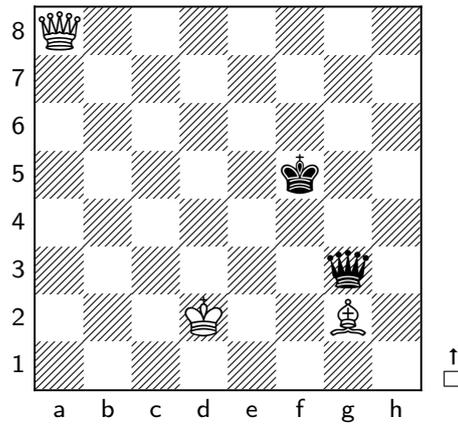
1. ? +- (Page 420)

135



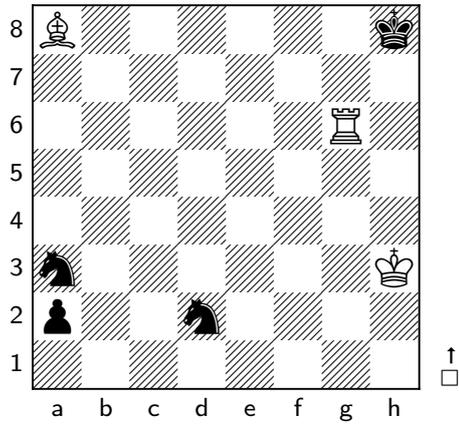
1. ? +- (Page 573)

137



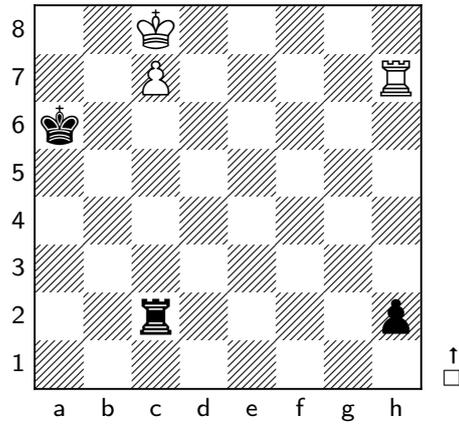
1. ? +- (Page 310)

138



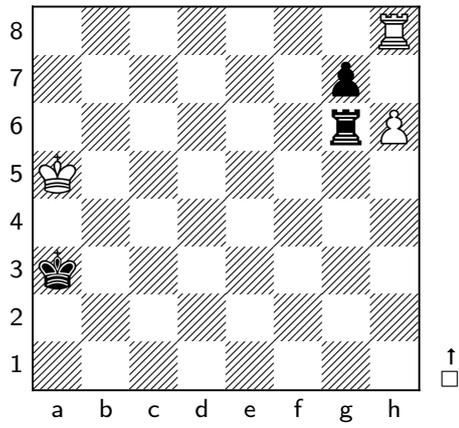
1. ? = (Page 208)

140



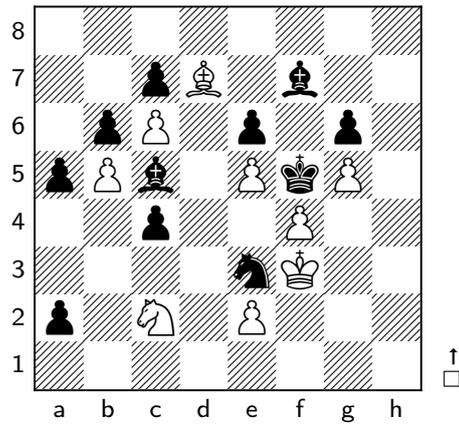
1. ? +- (Page 287)

139



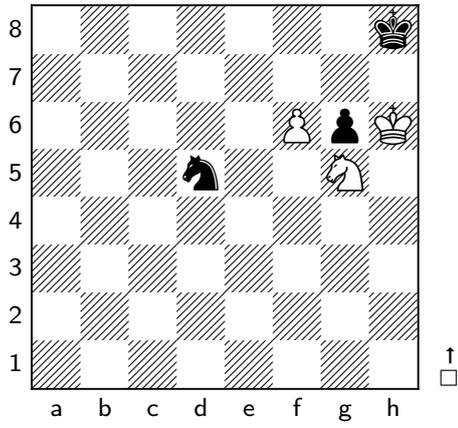
1. ? +- (Page 175)

141



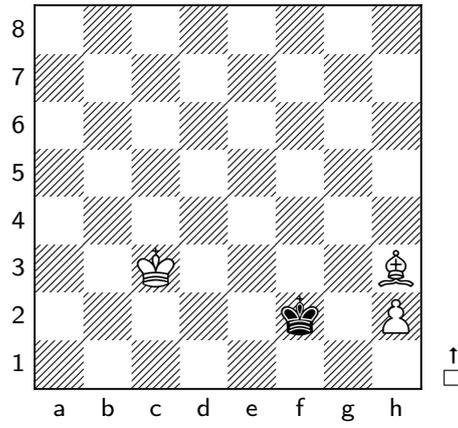
1. ? +- (Page 639)

142



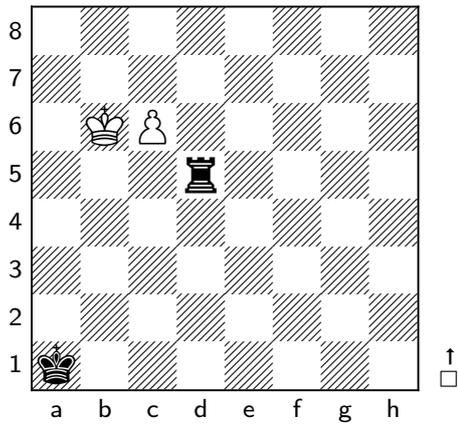
1. ? +- (Page 469)

144



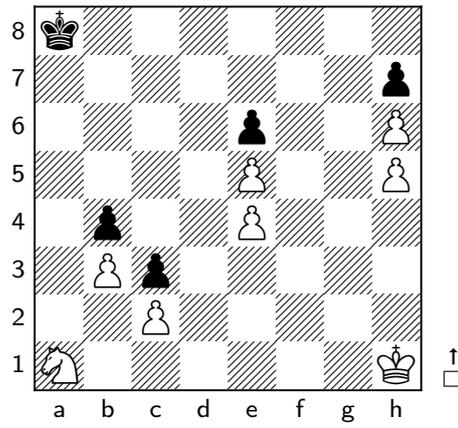
1. ? +- (Page 192)

143



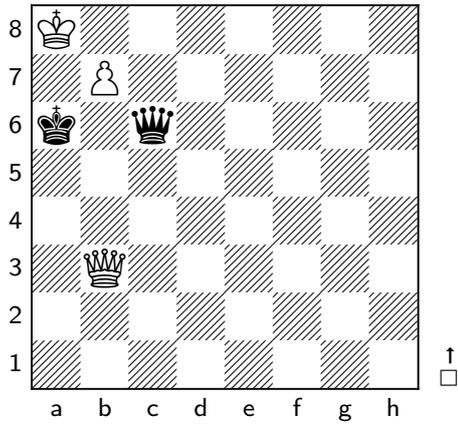
1. ? +- (Page 220)

145



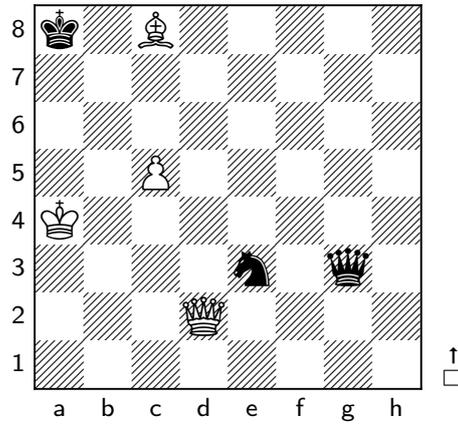
1. ? +- (Page 462)

146



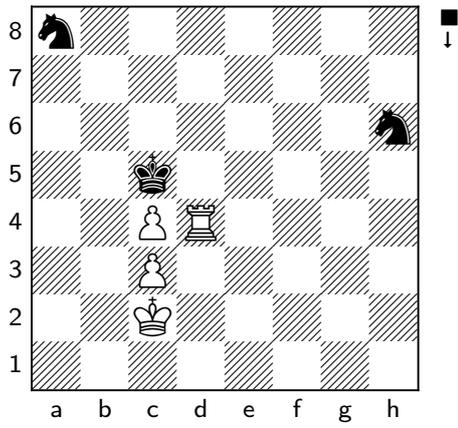
1. ? +- (Page 300)

148



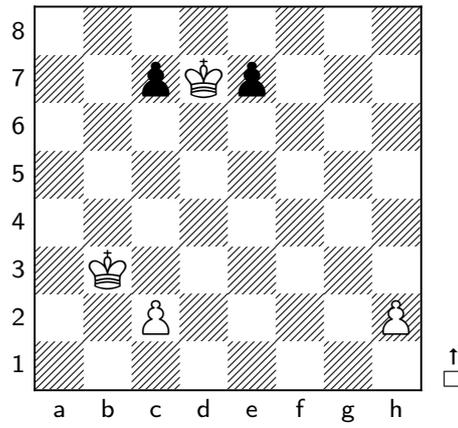
1. ? +- (Page 416)

147



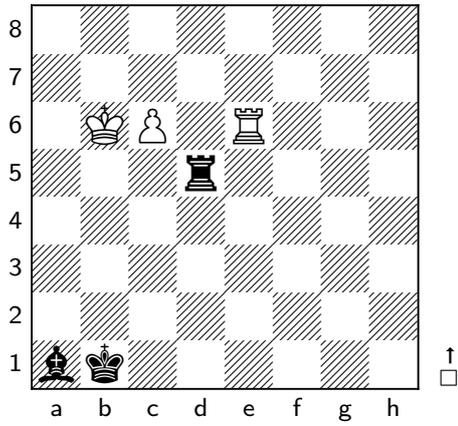
1. ? +- (Page 314)

149



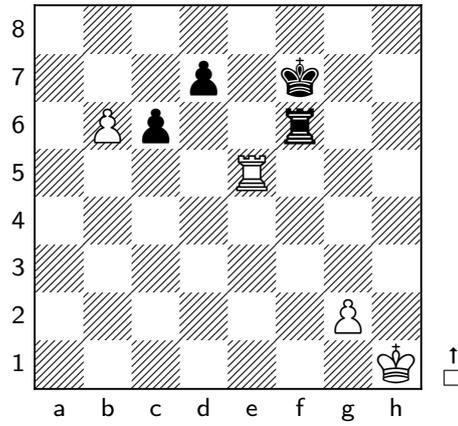
1. ? +- (Page 504)

150



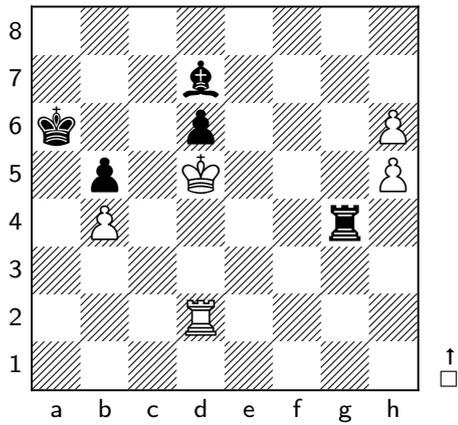
1. ? +- (Page 228)

152



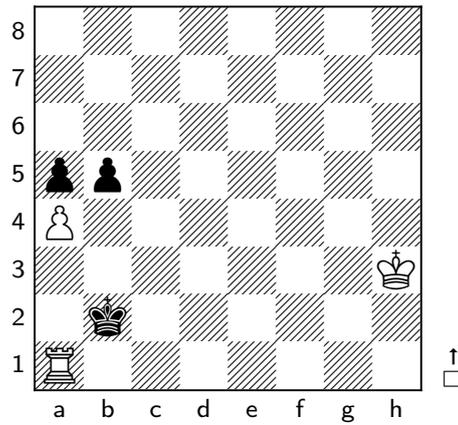
1. ? +- (Page 197)

151



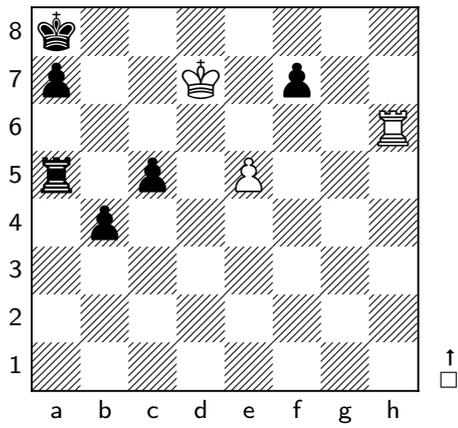
1. ? +- (Page 230)

153



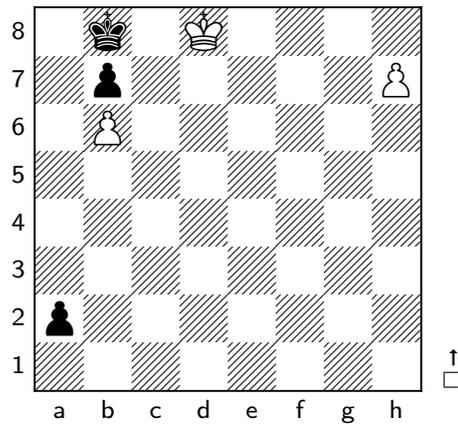
1. ? +- (Page 546)

154



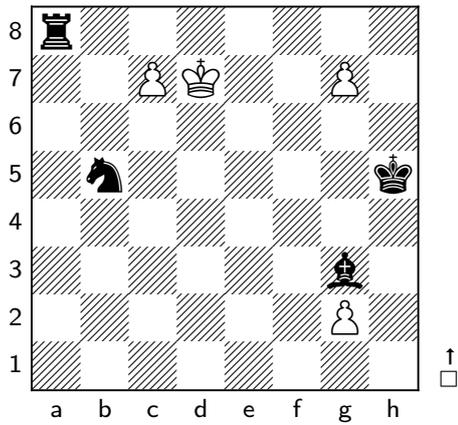
1. ? +- (Page 275)

156



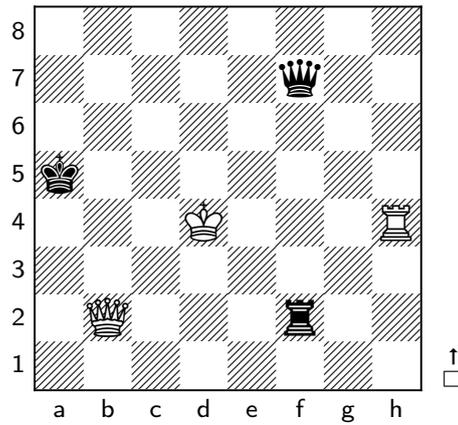
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155



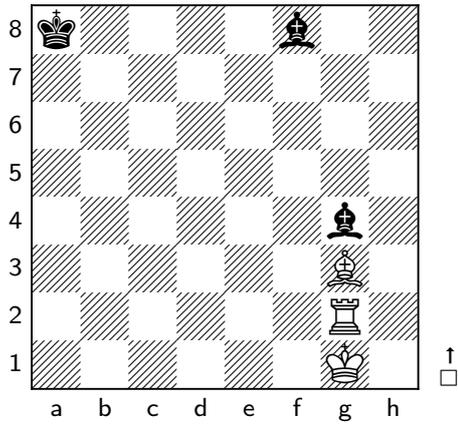
1. ? +- (Page 188)

157



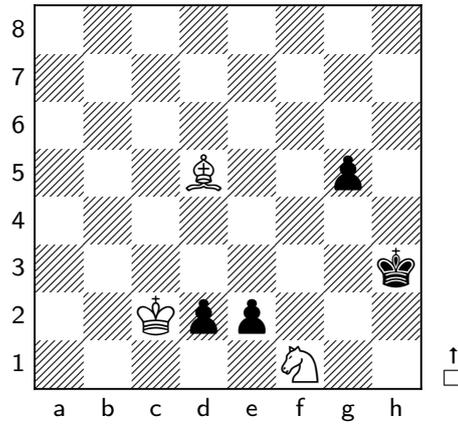
1. ? +- (Page 295)

158



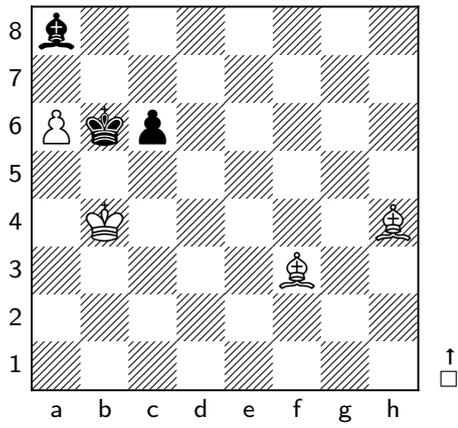
1. ? +- (Page 302)

160



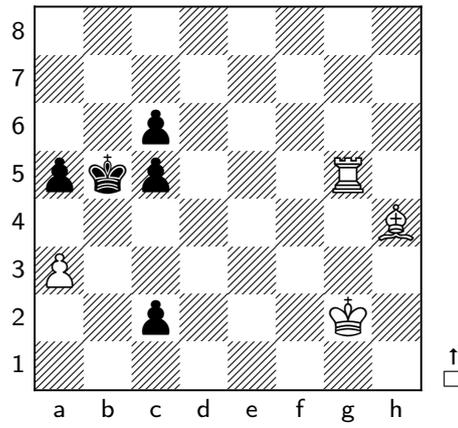
1. ? +- (Page 216)

159



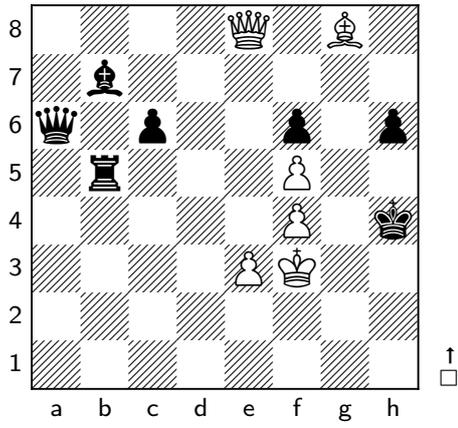
1. ? +- (Page 325)

161



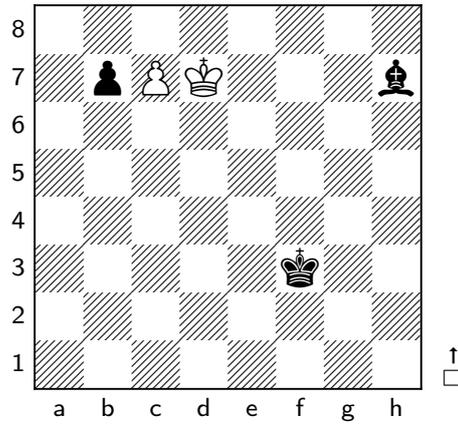
1. ? +- (Page 508)

162



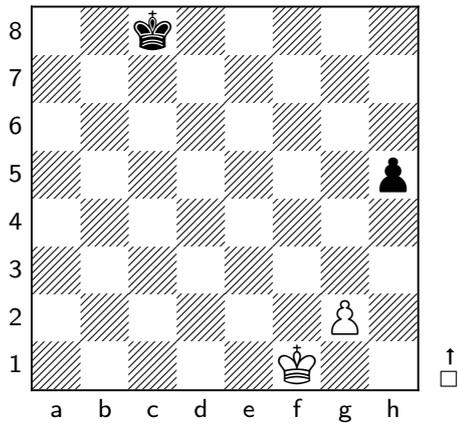
1. ? +- (Page 395)

164



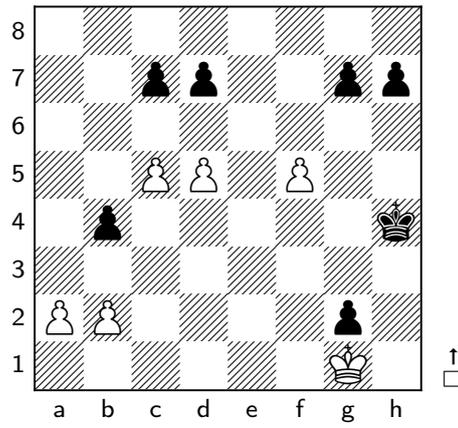
1. ? = (Page 163)

163



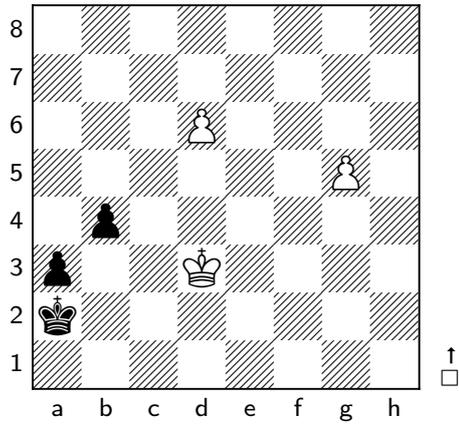
1. ? +- (Page 486)

165



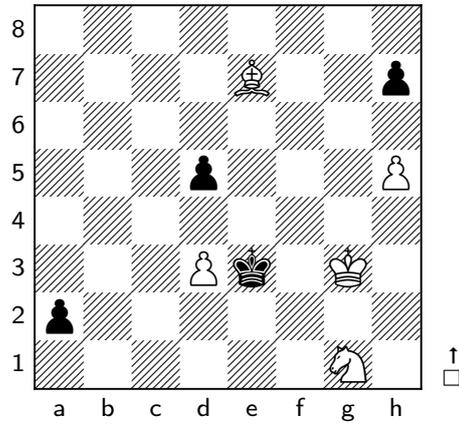
1. ? +- (Page 145)

166



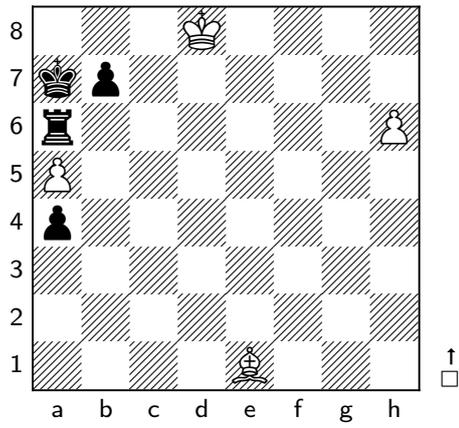
1. ? +- (Page 211)

168



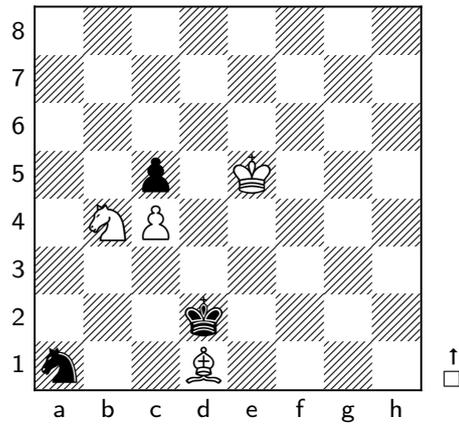
1. ? +- (Page 61)

167



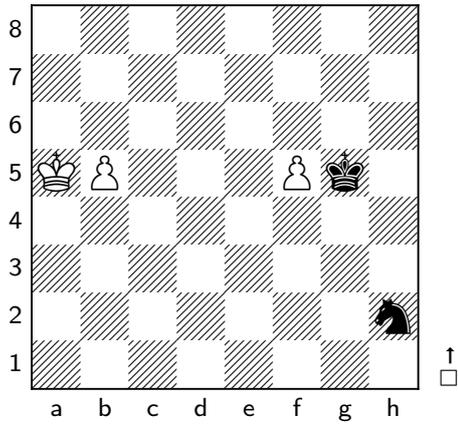
1. ? +- (Page 513)

169



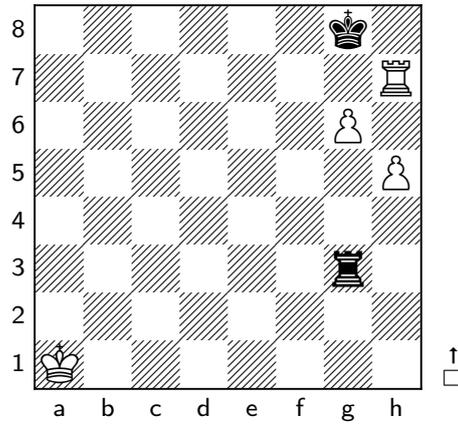
1. ? +- (Page 329)

170



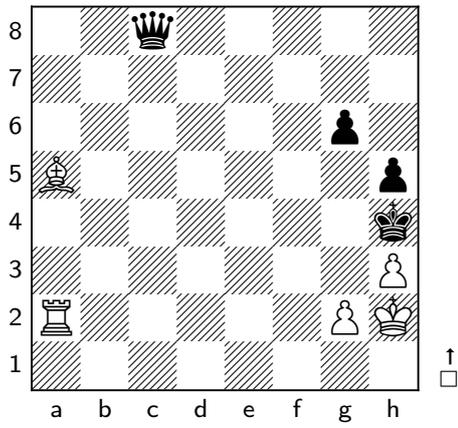
1. ? +- (Page 177)

172



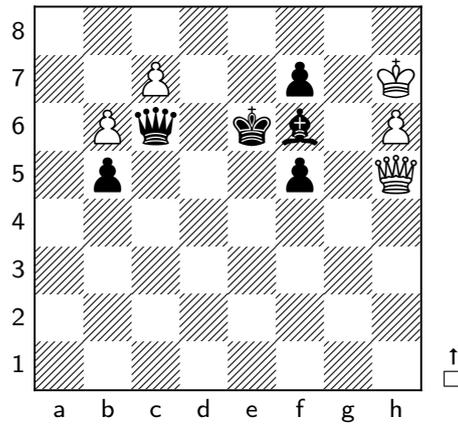
1. ? +- (Page 434)

171



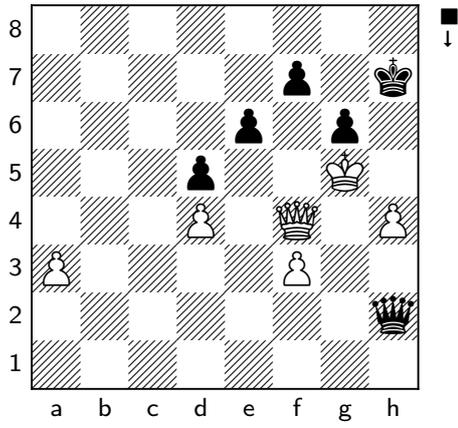
1. ? +- (Page 451)

173



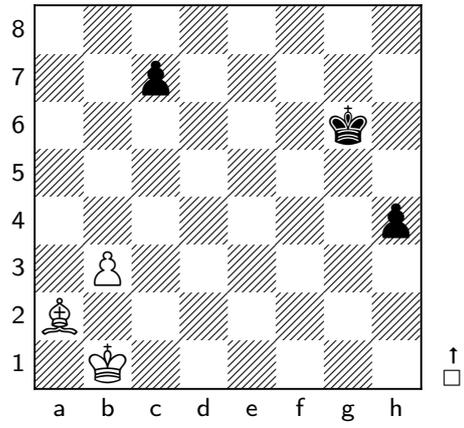
1. ? +- (Page 166)

174



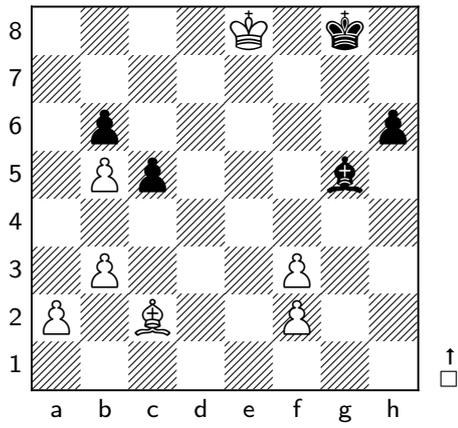
1... ? +- (Page 410)

176



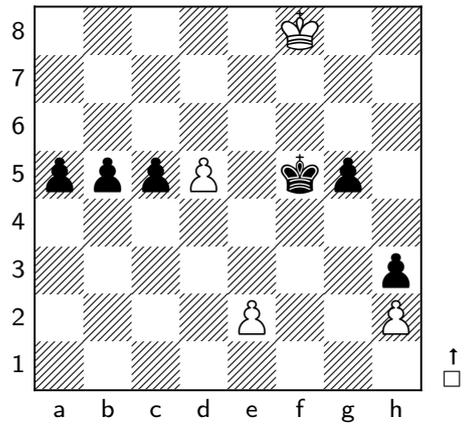
1. ? +- (Page 203)

175



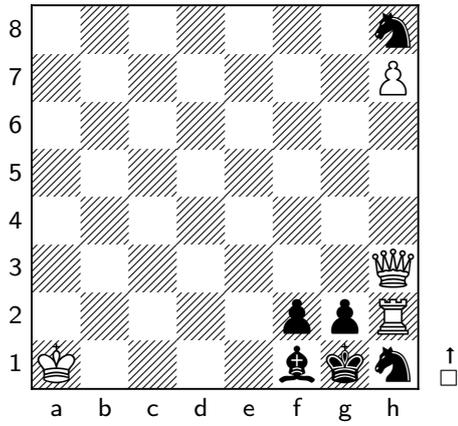
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177



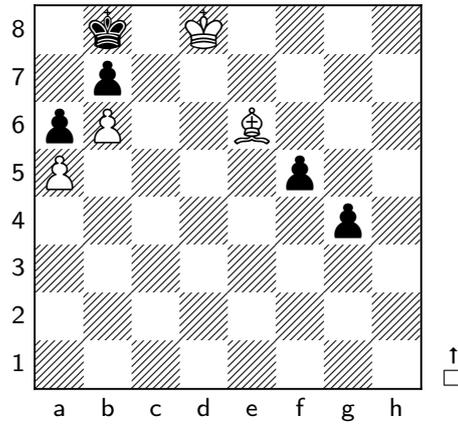
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178



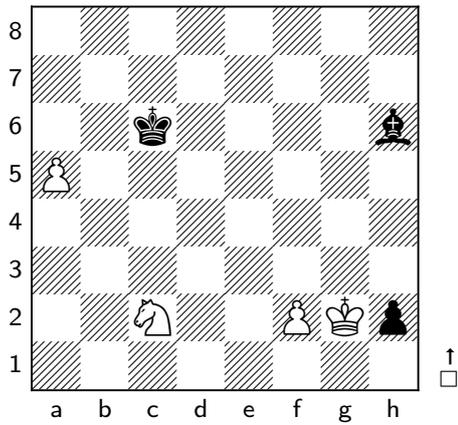
1. ? +- (Page 456)

180



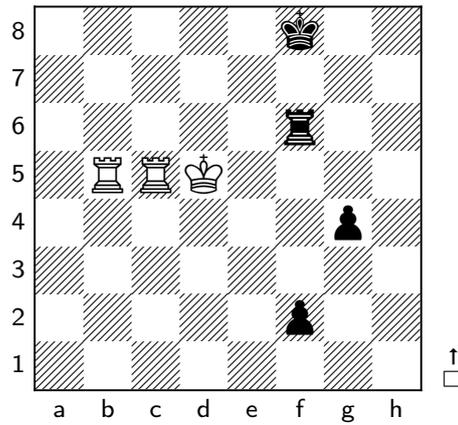
1. ? +- (Page 577)

179



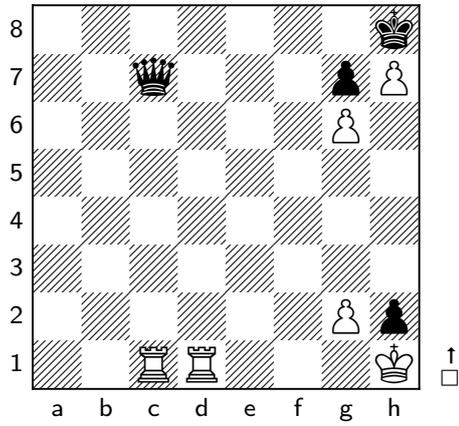
1. ? +- (Page 454)

181



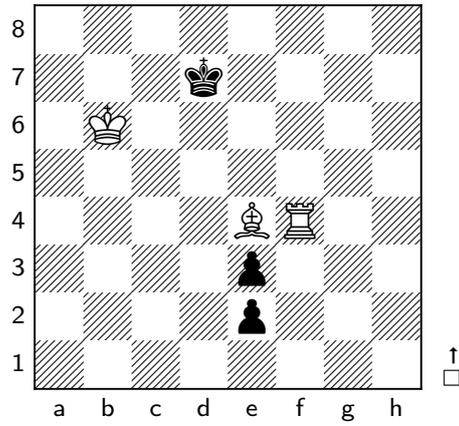
1. ? = (Page 603)

182



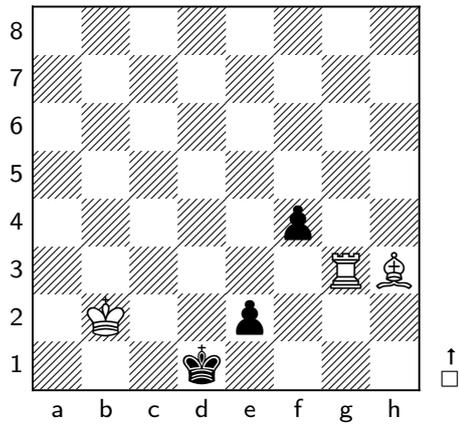
1. ? +- (Page 520)

184



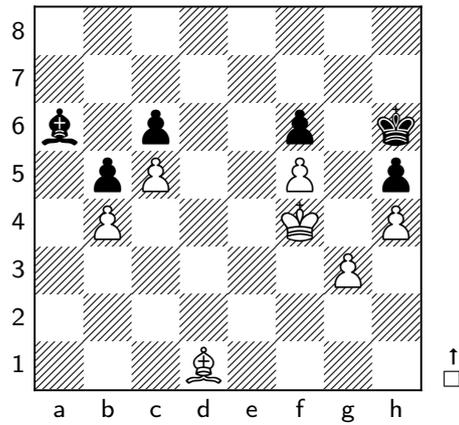
1. ? +- (Page 515)

183



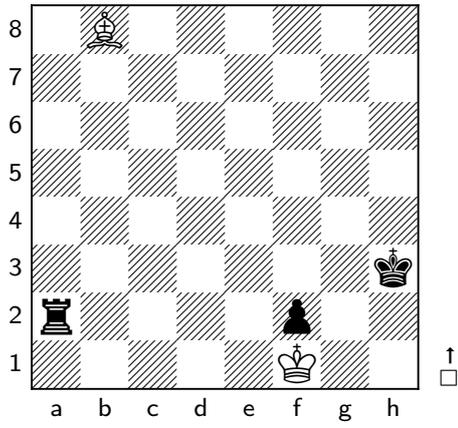
1. ? +- (Page 567)

185



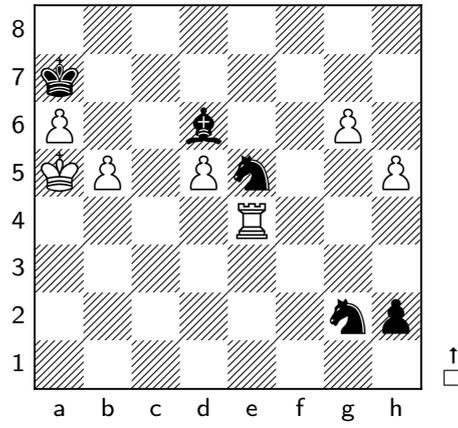
1. ? +- (Page 597)

186



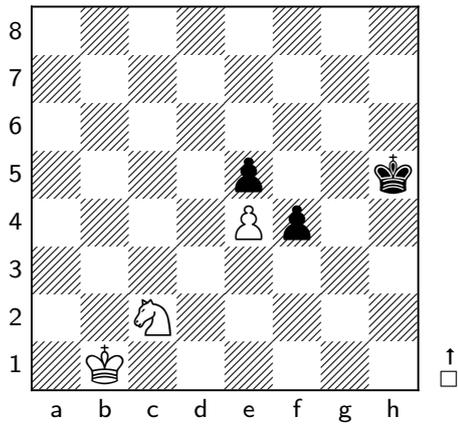
1. ? = (Page 431)

188



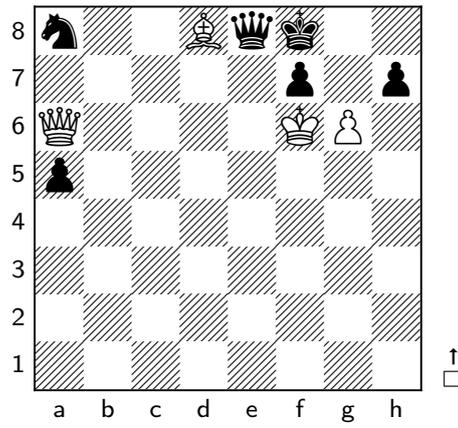
1. ? +- (Page 592)

187



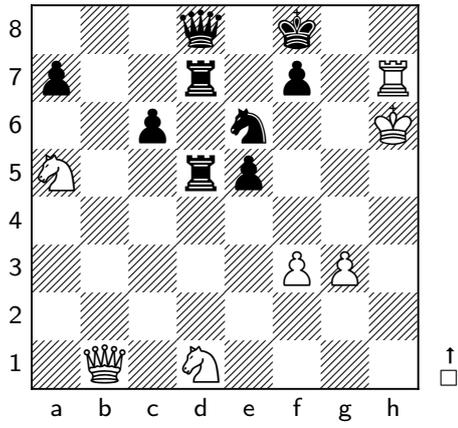
1. ? +- (Page 437)

189



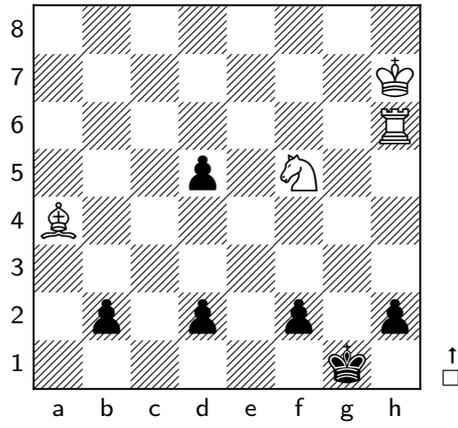
1. ? +- (Page 619)

190



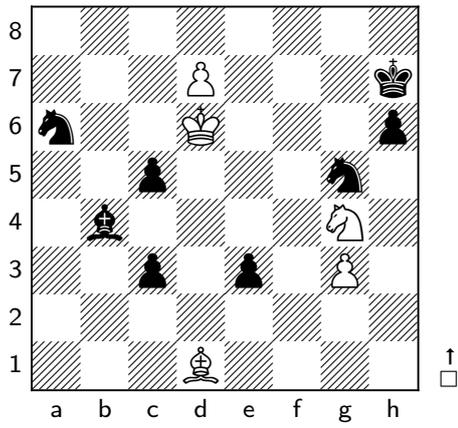
1. ? +- (Page 253)

192



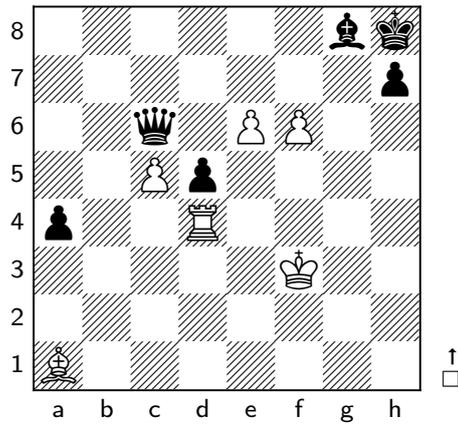
1. ? +- (Page 631)

191

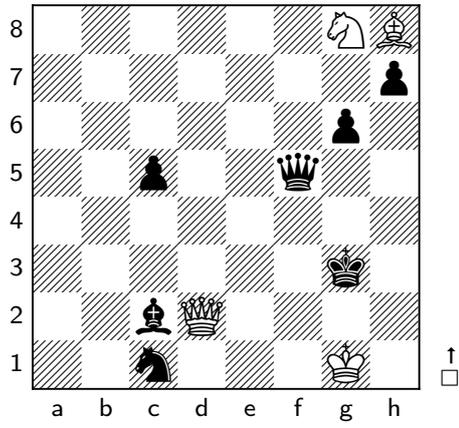


1. ? +- (Page 624)

193



1. ? +- (Page 550)



1. ? +- (Page 609)

## 1. The Knight fork

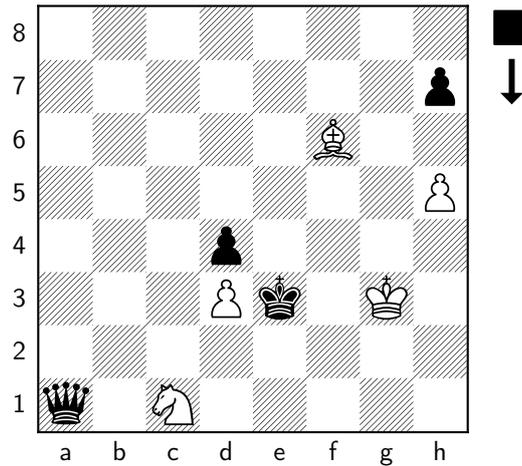
Forks are possible with any chess unit, but that with Knights are the deadliest, because they can attack other pieces without giving them a chance to attack back. In this chapter, we have some cases where a Knight fork ultimately settles the issue.



2.  $\text{Qf3?}$  will only draw after 2... $\text{a1}\text{♚}$  3.  $\text{♙}\times\text{d4+}$   $\text{♜}\times\text{d4}$  4.  $\text{♞}\times\text{d4}$   $\text{♚}\times\text{d4}$  5.  $\text{♔f4}$   $\text{♜}\times\text{d3}$  6.  $\text{♚g5}$   $\text{♚e4}$  7.  $\text{♜h6}$   $\text{♚f5}$  8.  $\text{♜}\times\text{h7}$   $\text{♚f6}$  9.  $\text{h6}$  (9.  $\text{♚g8}$   $\text{♚g5} =$ ) 9... $\text{♚f7}$ .

2  
3. ...  $\text{a1}\text{♚}$   
 $\text{♞c1!!}$

3.  $\text{♙}\times\text{d4+?}$  only draws. See the notes to the last move.



With the threat of checkmate in one with 4.  $\text{♙g5}\#$ . 3... $\text{♜}\times\text{c1}$  4.  $\text{♙g5+}$  wins the Queen and the game.

3 ...  $\text{♜a5}$

3... $\text{♚d2}$  4.  $\text{♞b3+}$  wins the Queen. After 3... $\text{h6}$ , White wins with 4.  $\text{♙e5!}$  (4.  $\text{♙g7??}$   $\text{♜a6!-+}$ .) threatening 5.  $\text{♙f4+}$ .

4.  $\text{♙}\times\text{d4+!}$   $\text{♚}\times\text{d4}$

4... $\text{♚d2}$  5.  $\text{♞b3+}$  also loses the Queen.

5.  $\text{♞b3+}$

wins the Queen and the game.

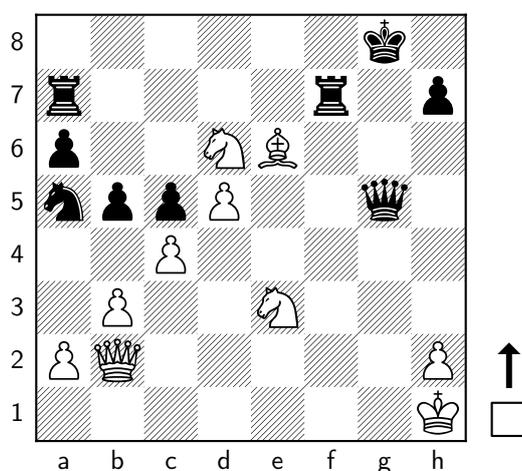
## 1.2. The ultimate deflection: Petrosian – Spassky, 1966

### Puzzle 39

TIGRAN PETROSIAN – BORIS SPASSKY

World Chess Championship: 1966

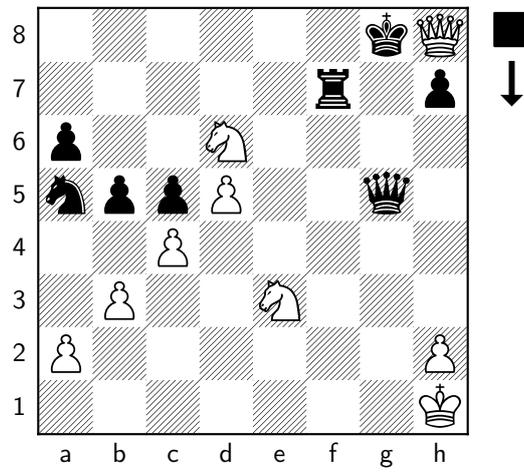
6k1/r4r1p/p2NB3/nppP2q1/2P5/1P2N3/PQ5P/7K w - - 3 29



*Black is two exchanges down, but he would get it on f7. For example, 29. ♘xf7 ♙xf7 30. ♙xf7+ ♚xf7, White has an extra pawn in the end game. But there is a better path to victory. What?*

This is from a World Championship game between the reigning champion TIGRAN PETROSIAN (See §32 on Page 674) and the challenger BORIS SPASSKY (See §40 on Page 675). Petrosian narrowly won the match  $12\frac{1}{2} - 11\frac{1}{2}$  with +4-3=17. Three years later, Spassky beat Petrosian  $12\frac{1}{2} - 10\frac{1}{2}$  with +6-4=13.

29.                    ♙xf7+!                    ♚xf7  
30.                    ♙h8!!



Black resigns. After 30... ♔×h8 31. ♘×f7+ ♕g7 32. ♘×g5, White is up a piece and a pawn.

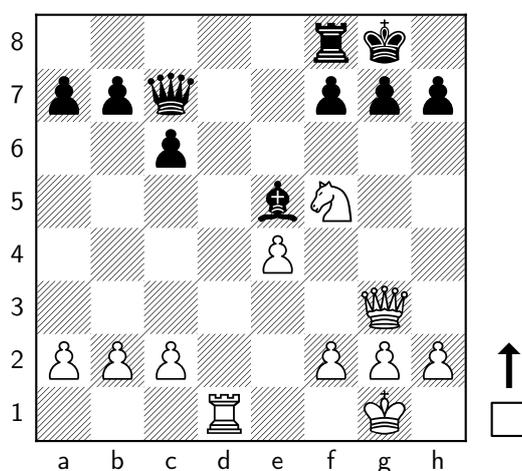
### 1.3. Several ideas: Capablanca – Fonaroff, 1918

#### Puzzle 26

JOSE RAUL CAPABLANCA – MARC FONAROFF

New York: 1918

5rk1/ppq2ppp/2p5/4bN2/4P3/6Q1/PPP2PPP/3R2K1 w - - 0 20



*White is a pawn up but Black has a strong position and may win back the pawn. But White has a forcing combination to win. What?*

In this game, the future World champion JOSÉ RAÚL CAPABLANCA (See §9 on Page 669) wins by a famous combination that combines multiple themes.

20. ♖h6+

Attempts to divert the Bishop and attack g7 won't work. For example, 20. f4 ♗xb2  
21. e5 g6 and Black is fine.

Theme 1: Pin. The Knight cannot be taken because the g-pawn is pinned.

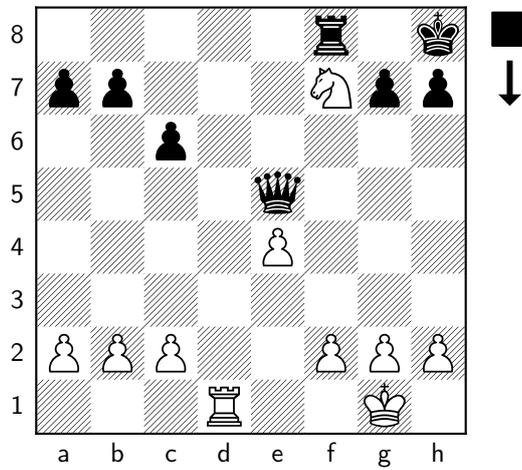
20 ... ♔h8  
 21. ♚xe5!

Theme 2: Deflection. The Queen is deflected from supporting f7.

Theme 3: Queen sacrifice!

21 ... ♚xe5  
 22. ♘xf7+

Theme 3: Fork.

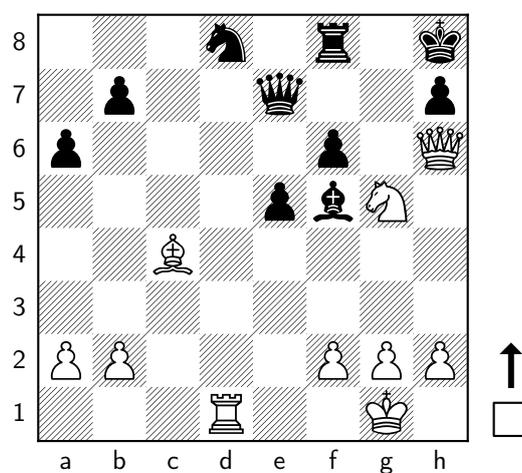


Black resigns. After 22... ♚xf7, 23. ♚d8+ mates (Theme 4: Exploiting back rank weakness), while 22... ♔g8 23. ♘xe5 ends up with a piece and a pawn up.

## 1.4. Squeeze a piece: Urban – Lason, 1989

Puzzle 47  
 URBAN – LASON  
 Poland: 1989

3n1r1k/1p2q2p/p4p1Q/4pbN1/2B5/8/PP3PPP/3R2K1 w KQkq - 0 1



*The material is level, but White has two winning combinations. What are they?*

### Solution 1

This is how the game continued:

- |    |        |      |
|----|--------|------|
| 1. | ♙×f8+! | ♙×f8 |
| 2. | ♖×d8!  | ♙×d8 |
| 3. | ♘f7+   |      |

ends up a piece up and wins.

## Solution 2

There is another way to win from this position.

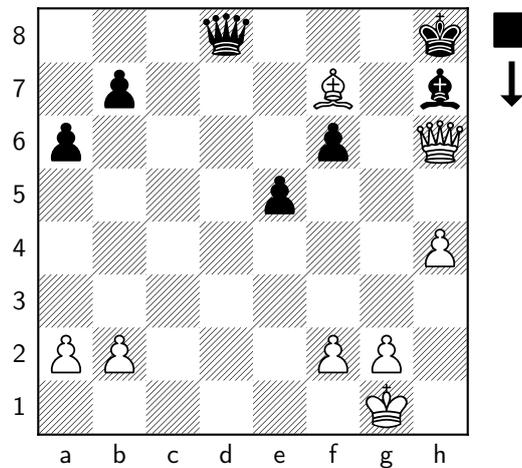
1.                    ♖xh7!                    ♜xh7

Other moves are worse: 1... ♔g7 2. ♚xg7 ♜xg7 3. ♖xf8 ♜xf8 4. ♜xd8+- 1... ♖f7  
2. ♚xf8+ ♚xf8 3. ♖xf8+- 1... ♜f7 2. ♖g5+ ♜h7 3. ♜xd8+ ♚xd8 4. ♖f7+-.

2.                    ♜d7!  
3.                    ♜xf7                    ♖f7  
                         ♜d8

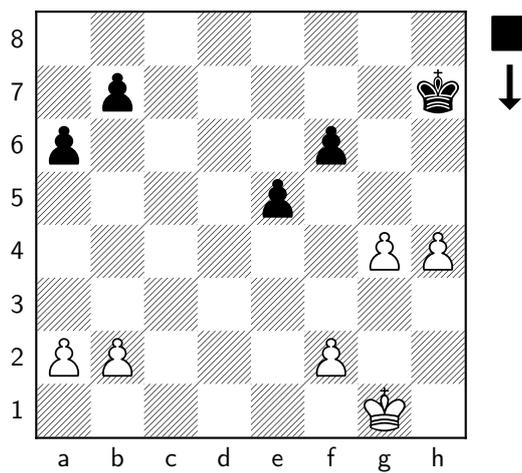
The best defense possible.

4.                    ♜xd8                    ♚xd8  
5.                    h4



Looks like Black survived the attack and may be able to draw, but the threat of 6. ♜g6 forces the trade of the remaining pieces and the resulting King and pawn ending with a passed extra pawn is winning for White.

- |    |       |      |
|----|-------|------|
| 5  | ...   | ♔e7  |
| 6. | ♙g6   | ♚g8  |
| 7. | ♙xh7+ | ♔xh7 |
| 8. | ♚xh7+ | ♚xh7 |
| 9. | g4    |      |



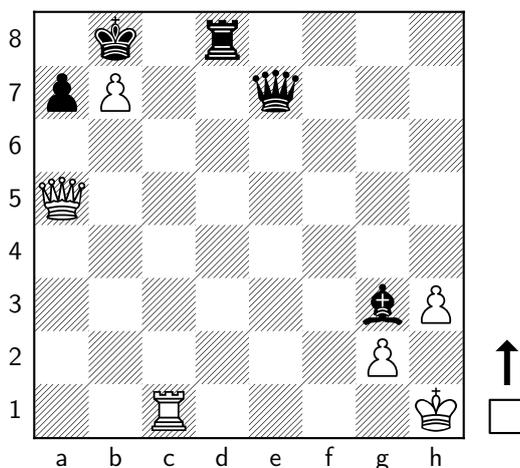
and White wins the King and pawn ending. However, Solution 1 is much better.

## 1.5. Sacrifices and strange promotion: Lasker, Em. (Study), -

Puzzle 106  
LASKER, EM. (Study)

-

1k1r4/pP2q3/8/Q7/8/6bP/6P1/2R4K w - - 0 1

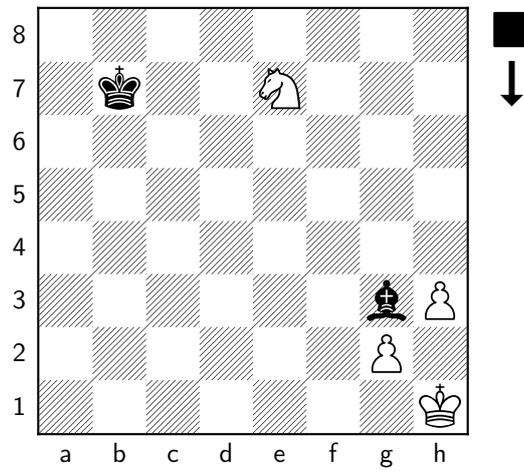


*White has only two pawns for a piece, and looks like his powerful pawn on b7 also will fall soon. How can White win this game?*

The world Champion EMMANUEL LASKER (See §25 on Page 673) was a problem composer also. This is one of his compositions, even though inspired by one of the problems by HUNT.

White wins by a spectacular checker combination.

- |    |                 |               |
|----|-----------------|---------------|
| 1. | $\text{♖c8+}$   | $\text{♜xc8}$ |
| 2. | $\text{♚xa7+}$  | $\text{♞xa7}$ |
| 3. | $\text{bxc8♝+}$ | $\text{♞b7}$  |
| 4. | $\text{♝xe7}$   |               |

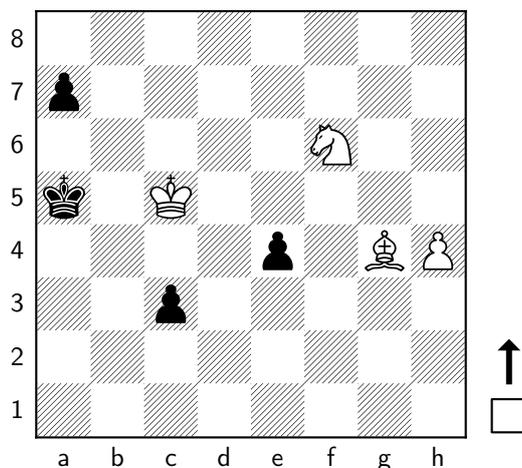


White will win this endgame easily.

## 1.6. Mate or fork: H. Rinck (Study),

### Puzzle 123 H RINCK (Study)

8/p7/5N2/k1K5/4p1BP/2p5/8/8 w - - 0 1



*White to play and win.*

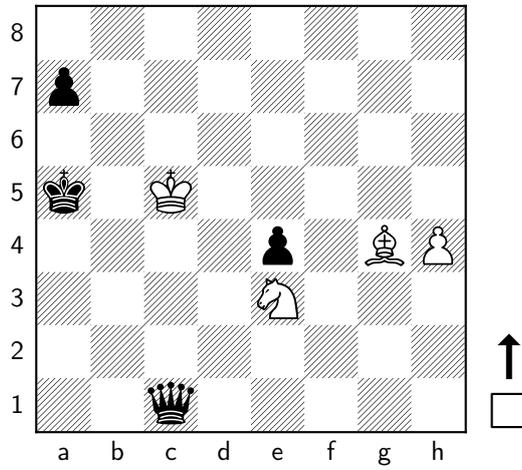
White's only threat is Black's c-pawn, which cannot be prevented from queening. If White wins it, he can win the game easily by queening the h-pawn, as the Bishop can stop the other Black pawn.

A try is 1. ♖×e4 c2 2. ♖d2, intending to reply 2...c1♚+ with 3. ♖c4+, winning. (See the main line below.) But this plan is defeated by 2...♙a4! and White cannot win.

So the winning line chases the c-pawn, forcing it to move without giving Black enough time to play ...♙a4.

1.	♞d5!	c2
2.	♞e3!	c1♚+

Black's moves were forced, to prevent the loss of the c-pawn.



3.                    ♘c4+!                    ♔a4

3... ♔a6 4. ♙c8# is checkmate.

4.                    ♙d1+

Suddenly the Black King finds himself checkmated, so Black's move is forced.

4                    ...                    ♙xd1  
5.                    ♘b2+

Wins the Queen and the game.

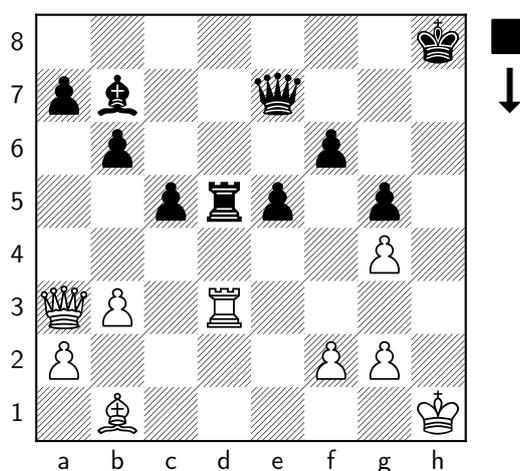
## 2. The pin

Fred Reinfeld once said, “The pin is mightier than the sword!” The examples in this chapter illustrate it is correct.

## 2.1. A pin is mightier than. . . : Schatz – Giegold, 1928

Puzzle 42  
 SCHATZ – GIEGOLD  
 Hof : 1928

7k/pb2q3/1p3p2/2prp1p1/6P1/QP1R4/P4PP1/1B5K b - - 0 1



*Black is a pawn up, but there is a neat combination that leads to checkmate. Watch out for pins!*

These players are unknown, but this position appears in many books that talk about tactics, because it is hard to find a better position for different aspects of a pin.

1 . . . ♚h7+!

Allowing the Queen to be trapped in a deadly pin. If White plays 2. ♔g1, Black will win a piece with 2. . . ♖x d3 3. ♗x d3 ♕x d3.

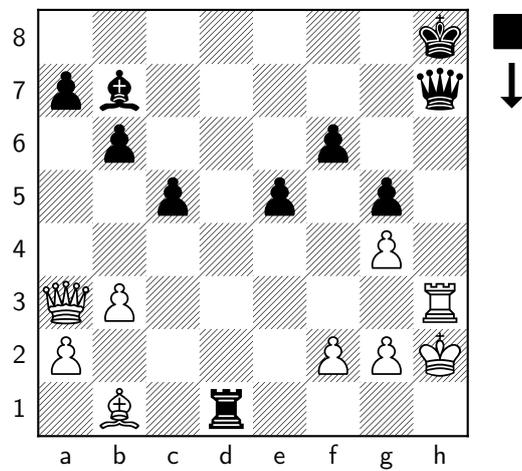
2. ♖h3

The Queen is pinned, but she is not immobile. However, she can move, capture, check and checkmate. This game shows all of that.

2 ... ♖d1+

Reversing the moves won't work: 2... ♙xh3+? 3. g×h3 ♖d1+ 4. ♔h2 ♖h1+ 5. ♔g3+-.

3. ♔h2



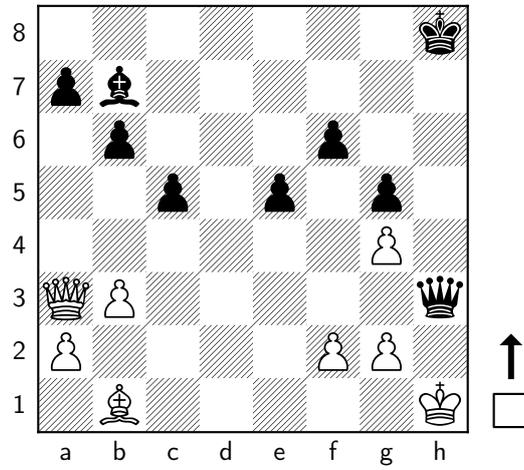
3 ... ♖h1+!

4. ♔xh1

After 4. ♔g3, the Queen demonstrates that she can check leading to checkmate while being in pin: 4... ♙h4+ 5. ♖xh4 g×h4#.

4... ♖xh3+ 5. g×h3 ♙h4# also will work.

4 ... ♙xh3+



The pinner got pinned! The g2 pawn is pinned by the Bishop.

5.                    ♖g1                    ♚xg2#

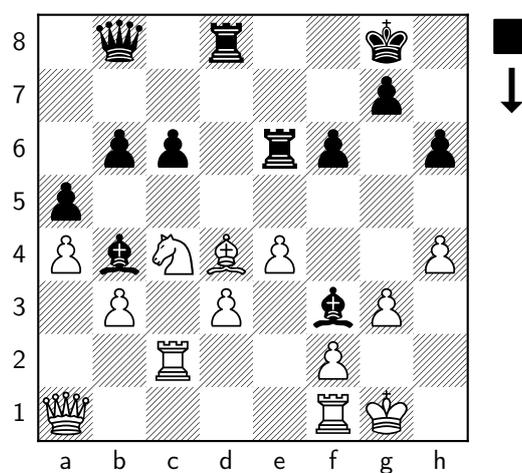
## 2.2. Exchange sac, pin and mate: Hickl – Pelletier, 2010

### Puzzle 32

JOERG HICKL – YANNICK PELLETIER

Switzerland: 2010

1q1r2k1/6p1/1pp1rp1p/p7/PbNBP2P/1P1P1bP1/2R2P2/Q4RK1 b - - 0 37

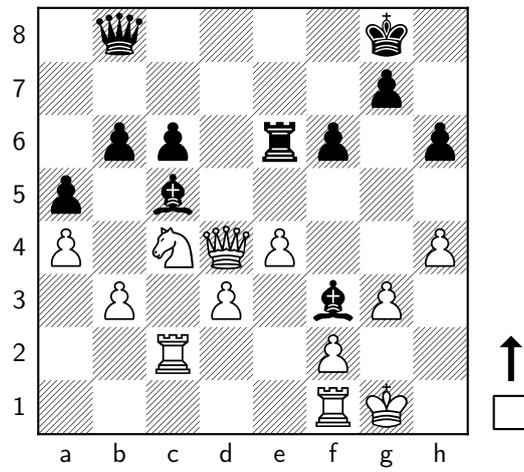


*White has just won a pawn on d4. How does Black punish White for his reckless play?*

37                    ...                    ♖xd4!

Black resigns, because after

38.                    ♔xd4                    ♘c5



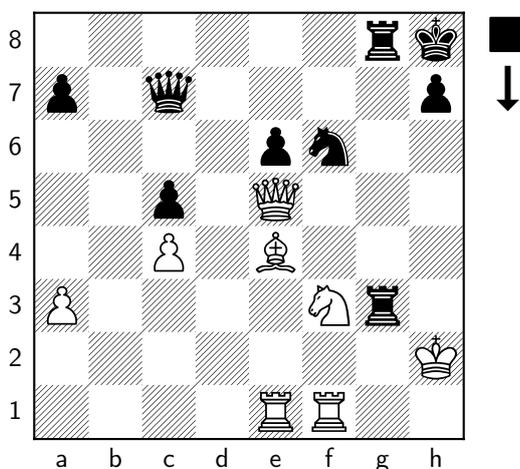
White will have to give up the Queen, as 39. ♔a1 ♚xg3# is mate.

### 2.3. The pinner gets pinned: Morozov – Minasian, 2018

#### Puzzle 8

MOROZOV, NICHITA – MINASIAN, ARTASHES  
*Andranik Margaryan Memorial, Yerevan ARM: 2018*

6rk/p1q4p/4pn2/2p1Q3/2P1B3/P4Nr1/7K/4RR2 b - - 0 31



White has a piece for Black's two pawns, and he threatens 32. ♖×c7 and 32. ♖×f6+. How can Black win?

31... ♖g7? will lose to 32. ♔h1! and the Knight can cover h2. 31... ♖×e5 32. ♗×e5 ♜3g5? will lose to 33. ♗f7+. 31... ♜×f3? 32. ♖×c7 (32. ♗×f3 also wins.) 32... ♗g4+ 33. ♔h1 ♜h3+ 34. ♔g2 wins for White.

31

...

♜3g5!

This move pins the White Queen, and threatens 31... ♜×e5 and 31... ♜h5+, leading to checkmate. There is no satisfactory defense. 32. ♗×g5 ♖×e5+ loses the Queen. The White Queen has no squares on the diagonal.

### 3. The skewer

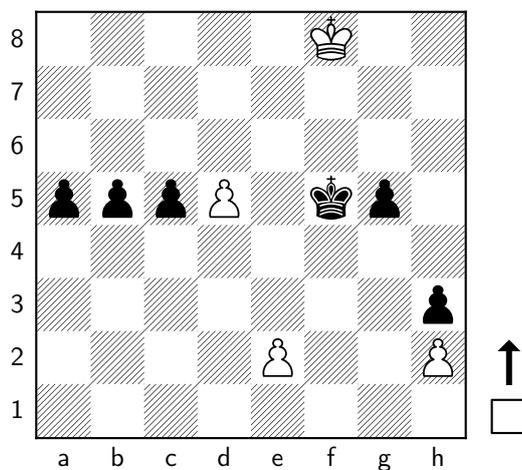
A skewer happens when a unit that was attacked moves another unit behind it on the same line gets attacked. This can occur with a Queen or Rook along a rank or a file, or by a Queen or Bishop along a diagonal.

This chapter gives some puzzles where a skewer plays a major role.

### 3.1. Skewering queen: Benko (Study), 1998

Puzzle 177  
PAL BENKO (Study)  
Chess Life, 1998

5K2/8/8/pppP1kp1/8/7p/4P2P/8 w - - 0 1



*White to play and win.*

A beautiful study by PAL BENKO (See §6 on Page 669).

White's d-pawn will queen in 3 moves, but a straight 1. d6? will lose to 1...♔e6!. So, the White King should help the pawn, in which case White needs at least four moves to queen. These four moves are enough for Black to queen one of the three (a, b or c) pawns.

This beautiful problem has four equally important variations, and a beautiful sequence of winning moves.

1. e4+!

The key move. It controls d5 and f5 to prevent the Black King from moving there and to allow the White Queen to check from there.

1 ... ♔f6

1... ♔e5 2. ♔e7 comes back to the main line, while for all other moves, 2. d6 will help White to queen faster than Black.

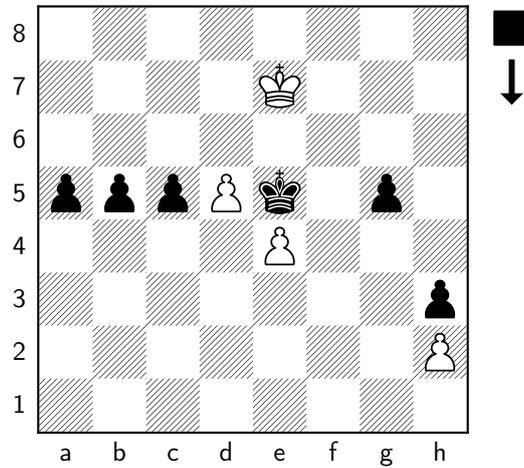
2. ♔e8

An interesting variation is 2. d6? ♔e6 3. e5. It wins against 3... ♔f7, 3... a4, 3... b4 and 3... c4, but only draws against 3... g4!: 4. ♔e8 g3 5. d7 g×h2! (5... g2? 6. d8 ♖g1 ♗ 7. ♗d6+ ♔f5 8. e6+-) 6. d8 ♗ h1 ♗=, because of the h-pawn.

2 ... ♔e5

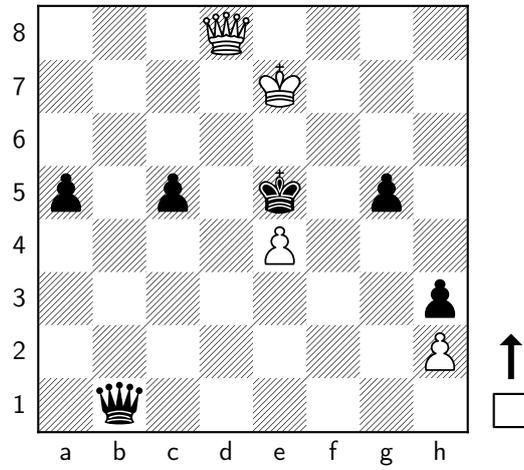
After 2... a4 (or any other pawn), 3. d6 a3 4. d7 a2 5. d8Q+ queens with check and wins.

3. ♔e7



Now, there are five variations, with Black trying to queen four different pawns in five different squares.



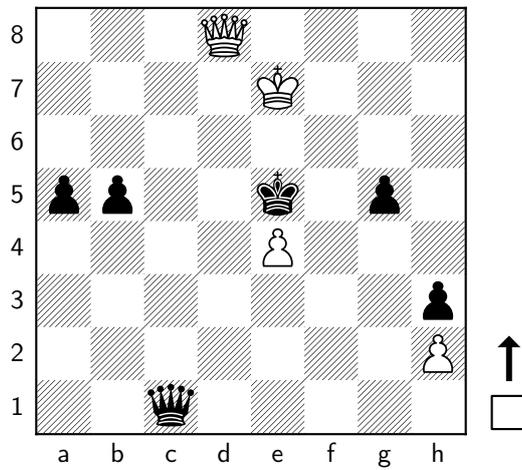


7. ♔d6+ ♕xe4  
 8. ♔g6+

wins the Queen, and the game.

### The c-pawn

3. ... c4  
 4. d6 c3  
 5. d7 c2  
 6. d8♔ c1♔



- 7. ♚d5+ ♔f4
- 8. ♚f5+ ♔e3
- 9. ♚xg5+

wins the Queen, and the game.

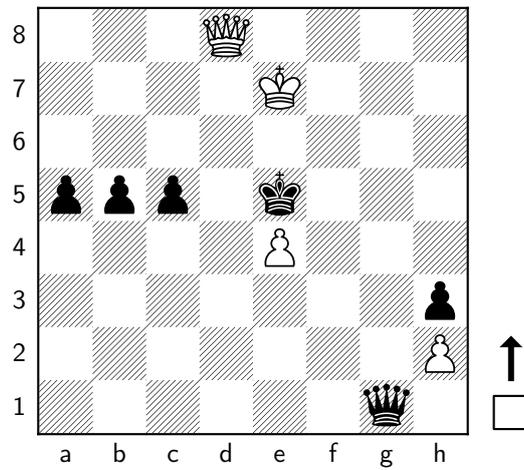
### The g-pawn

- 3. ... g4
- 4. d6 g3
- 5. d7 g2

See the next case for 5...g×h2.

- 6. d8♚ g1♚

After 6...♔×e4, there are many ways to win, the fastest being 7. ♔e6! g1♚ 8. ♚d5+ ♔f4 9. ♚f5+ ♔e3 10. ♚xc5+.



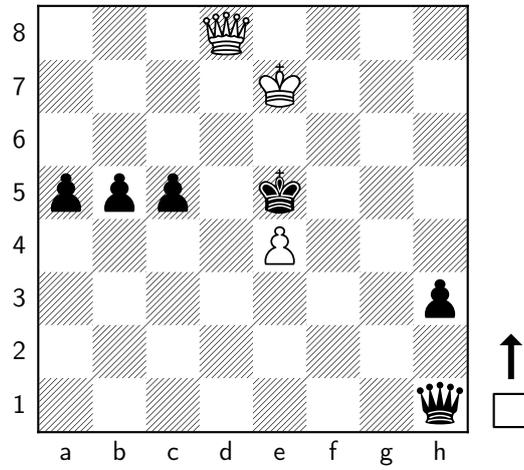
- |    |       |     |
|----|-------|-----|
| 7. | ♙d5+  | ♚f4 |
| 8. | ♙f5+  | ♚e3 |
| 9. | ♙xc5+ |     |

wins the Queen, and the game.

### The g-pawn on the h file

This follows the last case till the 5<sup>th</sup> move, and the Black pawn captures the h-pawn instead of moving forward.

- |    |     |      |
|----|-----|------|
| 3. | ... | g4   |
| 4. | d6  | g3   |
| 5. | d7  | g×h2 |
| 6. | d8♙ | h1♙  |



- 7. ♔d6+ ♕xe4
- 8. ♔c6+

wins the Queen, and the game.

A fantastic problem with an incredible key, where White allows Black to queen five different ways and wins every one of them via a skewer on some diagonal.

## 4. Double check

A *double check*, in which a piece helping to deliver a *discovered check* itself is giving check, can be deadly, because the only the defense is to move the King. It can lead to some neat combinations.

#### 4.1. The power of double check: Réti – Tartakower, 1910

Puzzle 9  
 RICHARD RÉTI – SAVIELLY TARTAKOWER  
 Vienna: 1910

rnb1kb1r/pp3ppp/2p5/4q3/4n3/3Q4/PPPB1PPP/2KR1BNR w kq - 0 9

*White is a piece down but has a winning move. What?*

This very short game was played between RICHARD RÉTI (See §35 on Page 675) and SAVIELLY TARTAKOWER (See §45 on Page 676), two of the leading players in the beginning of the twentieth century.

9. ♔d8+!! ♖x d8  
 10. ♘g5+!

Sacrifices a queen for a double check!

- 10 ... ♕c7

10...  $\mathbb{Q}e_8$  11.  $\mathbb{Z}d_8\#$  also is equally beautiful.

11.  $\mathbb{Q}d_8\#$

## 4.2. Double check by undefended pieces: Olei – Grigorov, 1968

Puzzle 37  
OLEI – GRIGOROV  
Correspondence: 1968

2k4r/1p4Q1/p1p2q2/8/2P1P3/2R1Bb2/PP4R1/6K1 b - - 0 1

*Black is an exchange down, and getting it back looks difficult, as his Queen is undefended. How can Black escape from this position to gain the upper hand?*

1. ... ♖h1+!  
2. ♔f2

2. ♔xh1 would leave the Rook pinned and Black will win the Queen by 2... ♕xg7.

2. ... ♖f1+!  
3. ♔xf1

3. ♔g3 also will lose the Queen by 3... ♕xg7+.



## 5. Weak back rank

Castling behind three unmoved pawns poses the back rank mate threat where a check by a Rook or Queen on the back rank leads to mate. Often this is used to *deflect* (See Section 6 (Page 107)) a piece that protects the back rank so that when it moves, a back rank mate is threatened. This chapter illustrates some positions of this theme.

## 5.1. You don't want my Queen?: Adams – Torre, 1920

Puzzle 77  
EDWIN ADAMS – CARLOS TORRE  
New Orleans: 1920

2r1r1k1/1p1q1ppp/3p1b2/p2P4/3Q4/5N2/PP2RPPP/4R1K1 w - - 0 18

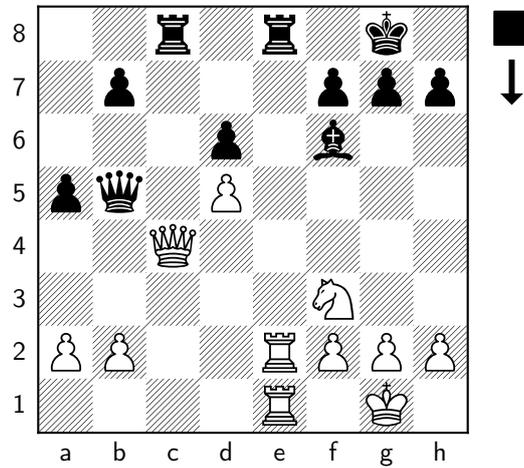
*Both sides have weak back ranks. How can White take advantage of Black's weak back rank without allowing him to exploit his own back rank weakness?*

This is one of the most well known games in chess history, but many people believe that this game was fabricated by CARLOS TORRE (See §46 on Page 676) in honor of his teacher EDWIN ADAMS. In any case, it illustrates an enjoyable combination based on the theme of exploiting weak back rank for both sides.

18. ♔g4!

Trying to deflect the Black Queen from defending e8. 18... ♕xg4 will be followed by 19. ♖xe8+ ♗xe8 20. ♖xe8#.

18 ... ♔b5!  
 19. ♔c4!



The queen moved to a square that is attacked by both the Black Queen and Rook, but capturing with either piece will drop one support of e8 and will allow 20. ♖xe8+ followed by 21. ♗xe8#.

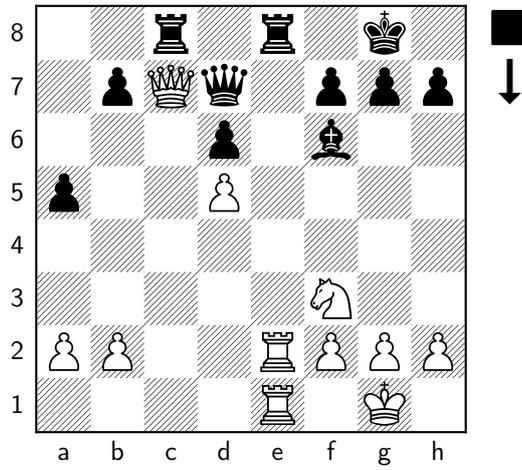
White also has a back rank problem, so 19. a4?? allows 19... ♗xe2!, and now:

A) 20. ♖xe2 ♖c1+ 21. ♗e1 ♖xe1+ 22. ♘xe1 ♖xe1#.

B) 20. ♔xc8 ♔xe1+ 21. ♘xe1 ♖xc8 and Black wins.

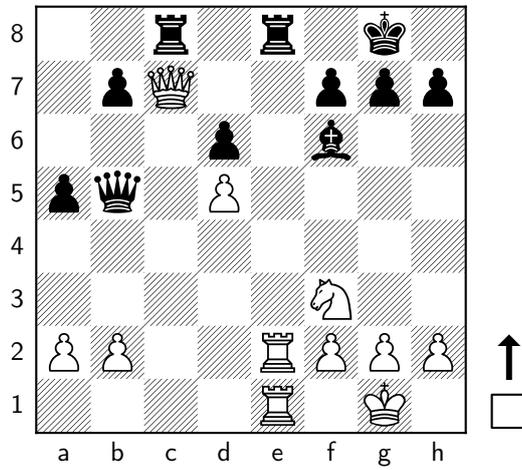
19. ♔c4! not only attacks the Black Queen, but prevents 19... ♗xe2 as well.

19 ... ♔d7  
 20. ♔c7!



Again, Black cannot take the Queen with Queen or Rook, as 21. ♖×e8+ mates.

20                    ...                    ♙b5

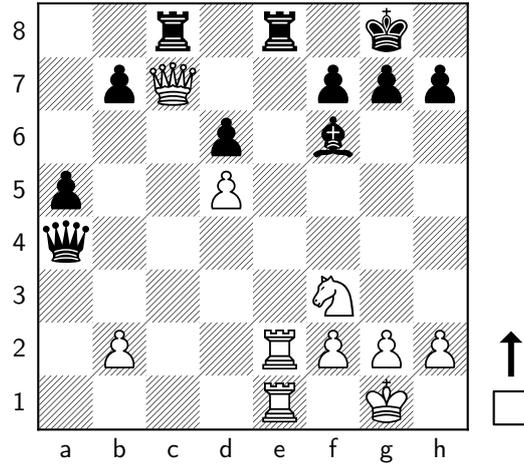


Here, 21. ♙×b7?? is tempting, but fails to 21... ♙×e2! as explained above.

21.                    a4!

This works, because 21... ♖xe2 doesn't win here, because after 22. ♕xe2, the White Queen is blocking the Black Rook's path on the c-file. Both 22... ♖xe2 23. ♖xc8+ and 22... ♖xc7 23. ♖xe8# lead to checkmate.

21 ... ♖xa4

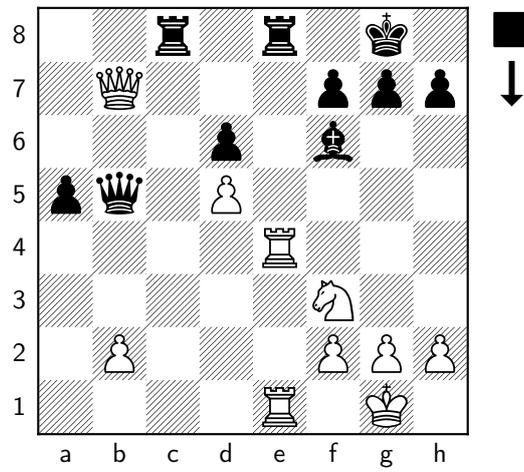


Now what? 22. b3 ♖b5 and now White has nothing better than 23. ♖c4 ♖d7 24. ♖c7, repeating moves.

22. ♖e4!

The crucial move! White avoids any future threats of ... ♖xe2 and controls a4. Here, 22... ♖xe4 23. ♖xe4 and 22... ♖xc7 23. ♖xe8+ wins for White. White also threatens 23. ♖xa4.

22 ... ♖b5  
23. ♖xb7!



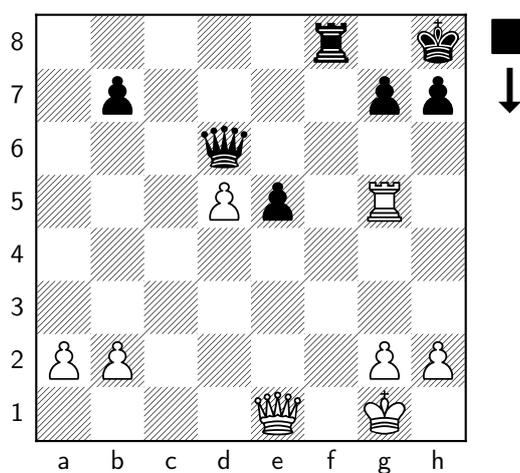
Now there is no escape. Black resigns.

## 5.2. Climbing the staircase: Lowcki – Tartakower, 1937

### Puzzle 84

MOISHE LEOPOLDOWICZ LOWCKI – SAVIELLY TARTAKOWER  
POL-ch, Jurata: 1937

5r1k/1p4pp/3q4/3Pp1R1/8/8/PP4PP/4Q1K1 b - - 0 31



*Black is a pawn down, but has a neat combination to win. Which one?*

**31** ... ♖c5+

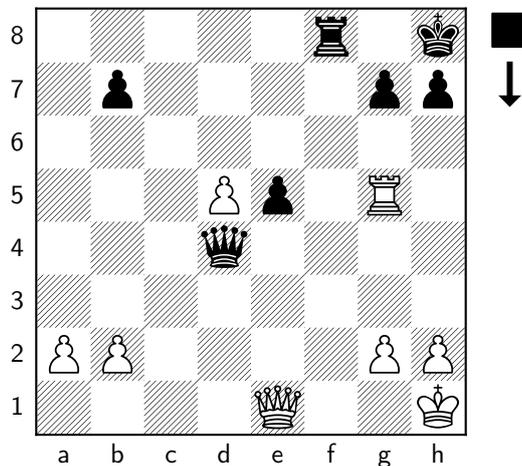
Tartakower took two more moves by 31... ♖b6+ 32. ♔h1 ♖b5 33. ♔g1 ♖c5+.

**32.** ♔h1 ♖c4

32... ♖e3?? is a blunder losing to 33. ♖xe3 ♖f1+ 34. ♖g1.

32... ♖b4? would lose one more pawn by 33. ♖xe5.

33. ♔g1 ♚d4+  
 34. ♔h1



34 ... ♚e4

34... ♚d2? will fail to 35. ♖xe5.

Also, 34... ♚f4? will fail to 35. h4.

35. ♚c1

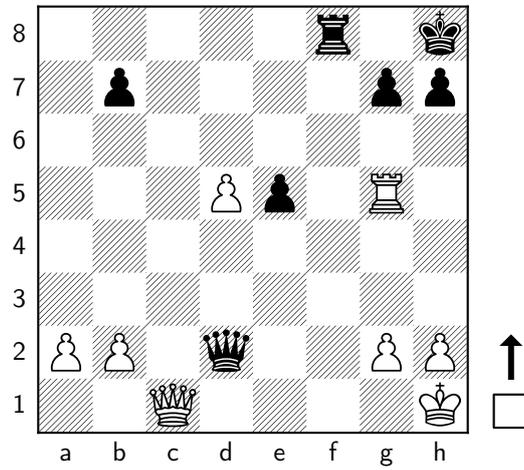
35. ♚g1 will be beaten by 35... ♚e2! (But not 35... ♚d3? 36. ♖xe5!±), with the threat 36... ♖f1. For any other move by the Queen on the first rank, 35... ♚f4 wins due to the threat of 35... ♚f1+, checkmating, and 35... ♚xg5.

35 ... ♚d3

35... ♚e2? will be met by 36. ♖f5! making use of Black's back rank weakness!

35...h6 36. ♖g3 ♚e2 is a possibility but White avoids immediate disaster by 37. ♖f3±.

36.                    ♔g1                    ♚d4+
37.                    ♕h1                    ♚d2



Black wins, because threats of 38... ♚xc1 and 38... ♚xg5 can be parried only 39. ♚xd2, after which 39... ♖f1# is checkmate!

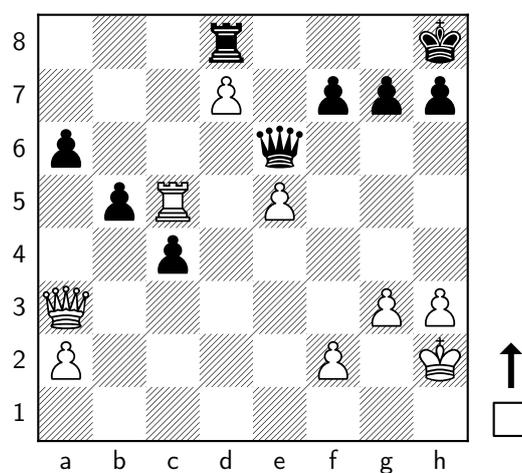
### 5.3. Deflections!: Alekhine – Amateur, 1939

Puzzle 70

ALEXANDER ALEKHINE – AMATEUR

Trinidad (Simul): 1939

3r3k/3P1ppp/p3q3/1pR1P3/2p5/Q5PP/P4P1K/8 w - - 0 1



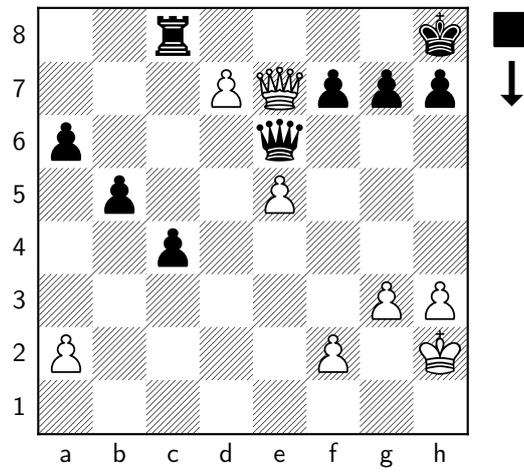
*White is a pawn down but his d-pawn is very powerful. Can White materialize that and win this game?*

A nice finish by World Champion ALEXANDER ALEKHINE (See §1 on Page 668) in a simultaneous exhibition.

1. ♖c8! ♜xc8

1... ♙xd7 2. ♙f8+ mates.

2. ♙e7!!



Black resigns. 2... ♔×e7 3. dxc8 ♖+ mates. 1... ♔c6 2. d8 ♖+ mates. 2... h6 3. ♔×e6 f×e6 4. dxc8 ♖+ wins. 2... ♖g8 3. d8 ♖ wins.

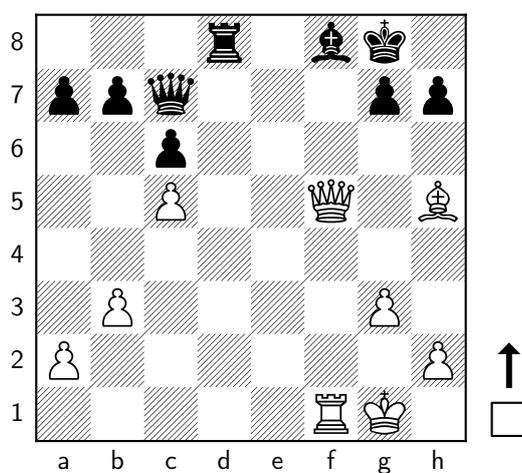
## 5.4. Clearing and Blocking: Réti – Bogoljubov, 1924

### Puzzle 18

RICHARD RÉTI – EFIM BOGOLJUBOV

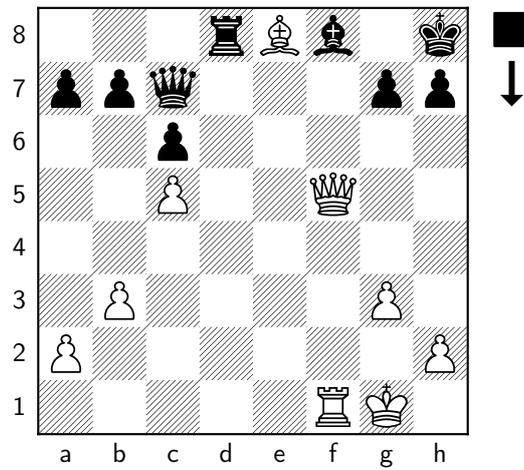
New York: 1924

3r1bk1/ppq3pp/2p5/2P2Q1B/8/1P4P1/P6P/5RK1 w - - 2 24



*White to play and win.*

24.                    ♘f7+                    ♔h8  
 25.                    ♘e8!!



Threatens mate on f8. 25... ♖xe8 26. ♗xf8+ ♖xf8 27. ♗xf8# and 25... ♕e7 26. ♗f8+ ♕xf8 27. ♗xf8# are mates, while 25... ♕c5+ 26. ♗xc5 and 25... h6 26. ♗xf8+ will cost a piece. White wins.

Note that only 25. ♕e8, clearing the f-file and blocking the 8<sup>th</sup> rank, will win. For example, 25. ♕c4? will be met with 25... h6.

## 6. Deflection

This theme forces a unit to abandon the control of one or more squares that can be crucial. It is often combined with a *back rank mate threat* (Section 5 (Page 94)) or *overload* (Section 7 (Page 122)). This chapter gives some examples.

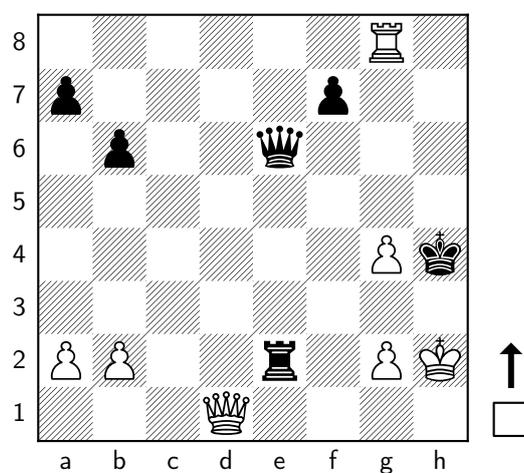
### 6.1. Queen dies and pawn mates: Stahlberg – Becker, 1944

#### Puzzle 3

STAHLBERG, GIDEON – BECKER, ALBERT

Buenos Aires: 1944

6R1/p4p2/1p2q3/8/6Pk/8/PP2r1PK/3Q4 w - - 0 1



*White to play and win.*

1. ♔e1+!

Black resigns, as 1... ♖×e1 2. g3♯ is checkmate.

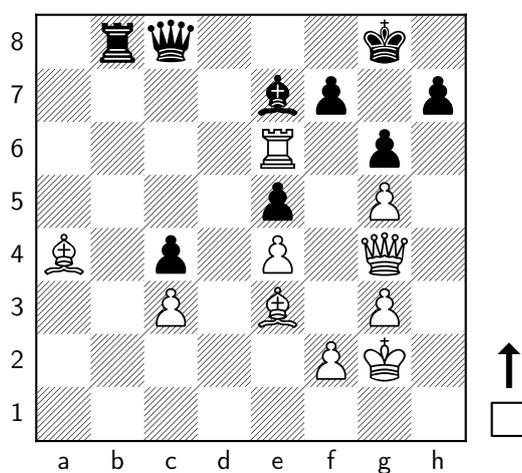
## 6.2. Lure and save: Fischer – Shocron, 1959

### Puzzle 7

BOBBY FISCHER – RUBEN SHOCRON

Mar del Plata ARG: 1959

1rq3k1/4bp1p/4R1p1/4p1P1/B1p1P1Q1/2P1B1P1/5PK1/8 w - - 1 40



*White has won a piece, but Black pinned the White Rook against the Queen, and looks like he will win the Rook, ending up an exchange up. How can White make sure that he will end up with a winning material advantage?*

16-year old future World Champion BOBBY FISCHER (See §11 on Page 670) found a hard-to-find move over the board, and he included this game in his famous book *My memorable 60 games*.

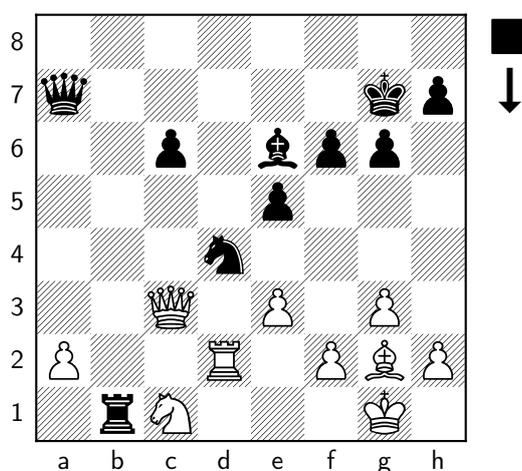
40. ♖d7!

Saves the extra piece. 40... ♙×d7 41. ♖×g6+ win the Queen, while 40... ♙d8 41. ♖×e5 ends up a piece up.

### 6.3. Queen diversion: Trauth – Buglisi, 2010

Puzzle 46  
 MICHAEL TRAUTH – MASSIMO BUGLISI  
 Arco: 2010

8/q5kp/2p1bpp1/4p3/3n4/2Q1P1P1/P2R1PBP/1rN3K1 b - - 0 27



*The material is level, but Black has a winning combination. What?*

27. ... ♔a5!!

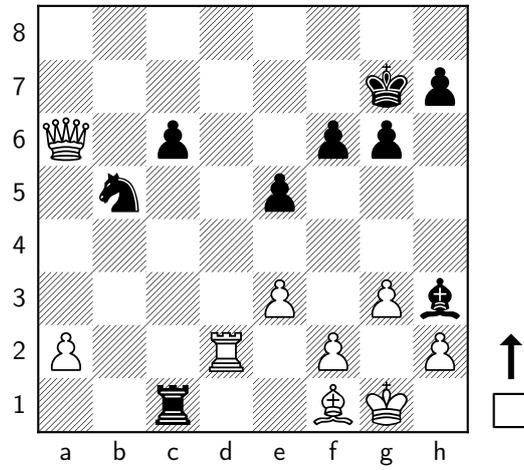
28. ♔xa5

White cannot avoid mate by giving up a piece by 28. ♔d3 ♖xc1+ 29. ♖d1, because of 29... ♗c4!. For example, 30. ♔e4 ♖xd1+ 31. ♗f1 ♖xf1+ 32. ♘g2 ♖xf2+! 33. ♘h3 (33. ♘xf2 ♔d2+ 34. ♘g1 ♔e1+ 35. ♘g2 ♔f1#) 33... ♗f1+ 34. ♘g4 h5+ 35. ♘h4 ♖xh2#.

28. ... ♖xc1+

29. ♗f1 ♗h3

30. ♔a6 ♘b5!



White cannot avoid the threatened checkmate by ...♙xf1#. He can give a few more checks, but there is no perpetual check.

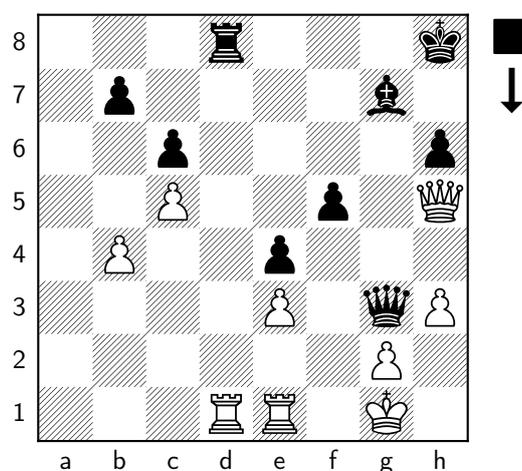
#### 6.4. The brave rook: Andersson, U. – Mestel, J., 1982

##### Puzzle 23

ULF ANDERSSON – JONATHAN MESTEL

London: 1982

3r3k/1p4b1/2p4p/2P2p1Q/1P2p3/4P1qP/6P1/3RR1K1 b - - 1 29



*Black played 29...♖d5? and lost the game after 26 more moves. Instead, he could have won with a killing move. Which one?*

The Swedish grandmaster ULF ANDERSSON (See §4 on Page 668), a leading endgame expert, and the English grandmaster JONATHAN MESTEL (See §27 on Page 673), played this game in the famous Philips and Drew Kings 1982, a strong 14-player round-robin tournament.

Andersson and the World Champion ANATOLY KARPOV (See §18 on Page 671) shared the 1-2 places with  $8\frac{1}{2}/13$ .

Mestel shared 12-13 places only with 5/13. If he managed to win this game, Andersson would have pushed to the third place.

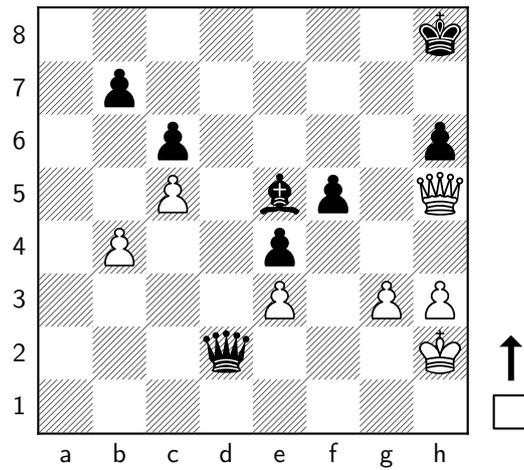
29

...

♖d2!

The mate threat on g2 forces the capture. Instead, Black played 29...♖d5? and lost eventually.

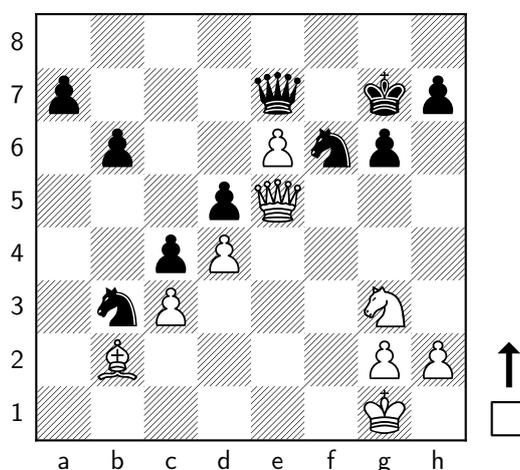
- |     |      |       |
|-----|------|-------|
| 30. | ♖×d2 | ♔×e1+ |
| 31. | ♔h2  | ♙e5+  |
| 32. | g3   | ♔×d2+ |



and Black should win. 33. ♔g1 ♔e1+ 34. ♔g2 ♔×g3+ 35. ♔f1 ♔f3+ forces a queen trade and wins with the extra piece.

## 6.5. Winning deflection: Botvinnik – Capablanca, 1938

Puzzle 80  
 MIKHAIL BOTVINNIK – JOSE RAUL CAPABLANCA  
 Holland: 1938  
 8/p3q1kp/1p2Pnp1/3pQ3/2pP4/1nP3N1/1B4PP/6K1 w - - 5 30



*White is a pawn down, but his strong pawn on e6 and more active pieces gives him an edge. How can he win this game?*

This historic game, played in the AVRO tournament in 1938, the young future world champion MIKHAIL BOTVINNIK (See §8 on Page 669) grabs a full point from the former world champion JOSE CAPABLANCA (See §9 on Page 669) in a spectacular finish.

30.                    ♖a3!!                    ♔xa3

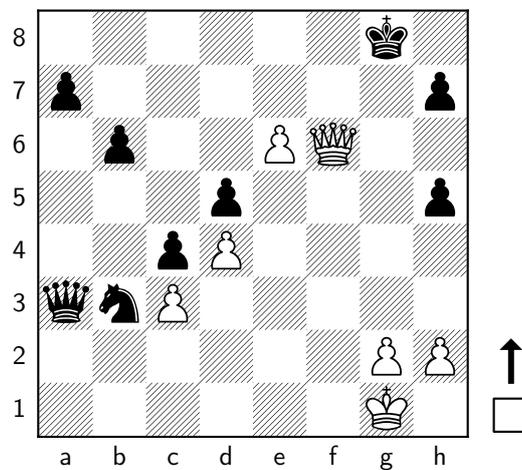
30... ♕e8 31. ♕c7+ ♖g8 32. ♗e7 ♔g7 (32... ♘h5 33. ♘xh5 g×h5 34. ♕g3+ ♕g6 35. ♕b8+-.) 33. ♗d8+-.

31.                    ♘h5+!

This follow-up with the pseudo-sacrifice of the Knight is essential. 31. e7?? will lose to 31...♖c1+ 32. ♔f2 ♕f7, defending. For example, 33. ♖xf6+ ♔xf6 34. e8♖ ♖f4+-+.

31. ♖c7+? also is ineffective. After 31...♔h6, White has nothing better than 32. ♖f4+ ♔g7 33. ♖c7+, with perpetual check.

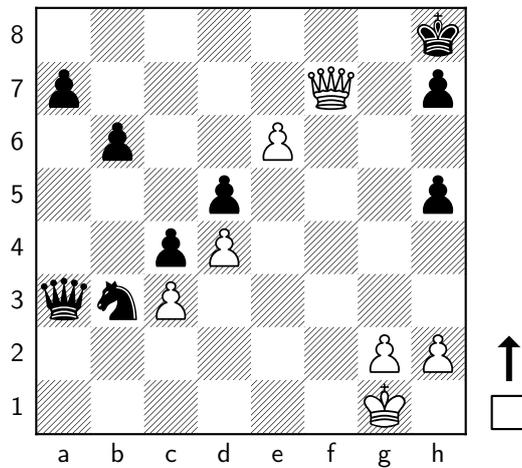
<b>31.</b>	...	<b>g×h5</b>
<b>32.</b>	♖g5+	♔f8
<b>33.</b>	♖xf6+	♔g8



<b>34.</b>	♖f7+
------------	------

In the actual game, Botvinnik continued with 34. e7, and after trying for perpetual check with 34...♖c1+ 35. ♔f2 ♖c2+ 36. ♔g3 ♖d3+ 37. ♔h4 ♖e4+ 38. ♔×h5 ♖e2+ 39. ♔h4 ♖e4+ 40. g4 ♖e1+ 41. ♔h5, Capablanca resigned. Post-game analysis showed that this move is stronger.

<b>34</b>	...	<b>♔h8</b>
-----------	-----	------------



**35. g3!**

This move makes sure that White's King can avoid perpetual checks by hiding in the h3 square, and threatens advancing the pawn to e8. Black is helpless in preventing this, as the Knight is far away, the Queen alone cannot prevent it, and there is no perpetual check.

Note that 35. e7? only draws, as Black gets perpetual checks by 35...♙c1+ 36. ♔f2 (36. ♙f1?? ♙e3+ wins the pawn on e7.) 36...♙d2+ 37. ♔g3 ♙g5+ 38. ♔f2 ♙d2+ 39. ♔g1 ♙c1+ etc.



3	...	♔g7
4.	♚xf7+	♔xf7
5.	♜xb7+	

5. ♚f1+ ♘f4 6. ♚xf4+ ♜xf4 and White will have to give up the Queen to avoid checkmate.

5	...	♔g8
6.	♜b8+	♔h7
7.	♜c7+	♔h6

White resigns.

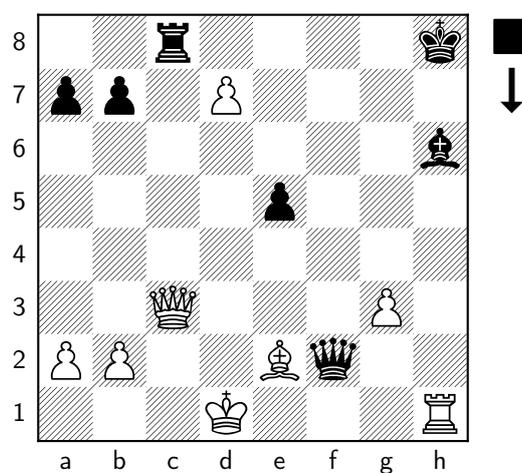
## 6.7. Queen in time: Smirnov – Zelesnov, 1969

### Puzzle 11

SMIRNOV – ZELESNOV

Correspondence: 1969

2r4k/pp1P4/7b/4p3/8/2Q3P1/PP2Bq2/3K3R b - - 0 1



*Black's Rook and Bishop are en prise, and 1...♖×c3 will be met with 2. d8♙+ ♔g7 3. b×c3+-+. But Black has killer move that will win. Which one?*

1 ... ♙d4+!!

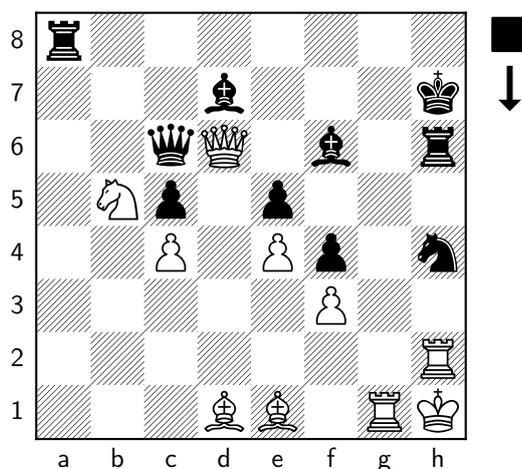
White loses the Queen, as 2. ♙×d4 ♖c1# is checkmate. 2. ♔e1 ♖×c3 3. ♖×h6+ ♔g7 4. b×c3 ♙×c3+ 5. ♔g2 ♙d2+-+.

6.8. The hidden win: Passerotti – Aldrovandi, 2000

Puzzle 90

PIERLUIGI PASSEROTTI – COSTANTINO ALDROVANDI  
Montecatini Terme: Montecatini Terme

r7/3b3k/2qQ1b1r/1Np1p3/2P1Pp1n/5P2/7R/3BB1RK b - - 0 40

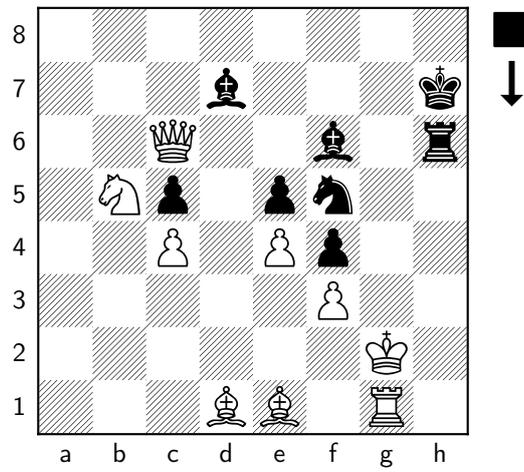


The game continued 40... ♔×d6 41. ♖×d6 ♗e6 and the game ended in a draw after 63 moves. What did Black miss?

40. ... ♖a2!!  
41. ♔×c6

41. ♖×a2 ♗f5+ 42. ♖h2 ♖×h2+ 43. ♔×h2 ♗×d6--+

41. ... ♖×h2+  
42. ♔×h2 ♗f5+!  
43. ♔g2



43. ... ♖e3+
44. ♔f2 ♜h2+
45. ♝g2 ♜xg2#

## 7. Overload

When a unit is doing more than one defensive tasks, like protecting more than one squares, an attack on one of those defenses *deflects* (Section 6 (Page 107)) it from the other, which can be crucial. This chapter gives some examples.

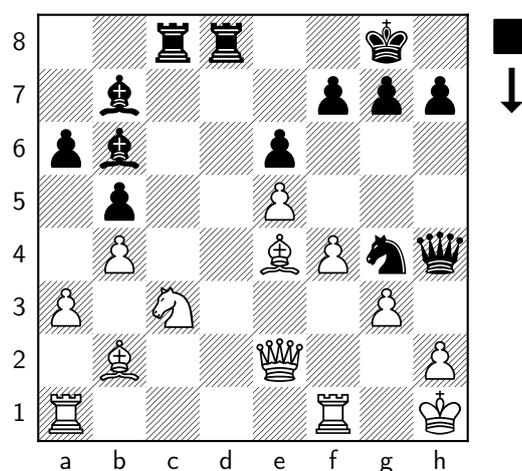
## 7.1. Too much overload: Rotlewi – Rubinstein, 1907

### Puzzle 95

GEORGE ROTLEWI – AKIBA RUBINSTEIN

Lodz: 1907

2rr2k1/1b3ppp/pb2p3/1p2P3/1P2BPnq/P1N3P1/1B2Q2P/R4R1K b - - 0 22



*Black's pieces are aimed to the White King. How can Black bring home victory, despite the fact that his own Queen is under attack?*

AKIBA RUBINSTEIN (See §38 on Page 675) was an expert of end games and positional play, but this game shows his tactical skills.

All Black pieces are aimed at White's King, and White's Queen is overloaded with protecting the Bishop on e4 and the pawn on h2, preventing ...♙×e4+ and ...♚×h2+. However, e4 is protected by the Knight on c3 as well, so 22...♙×e4+ 23. ♘×e4 defends.

The theme is to deflect the Queen. The game continued...

22

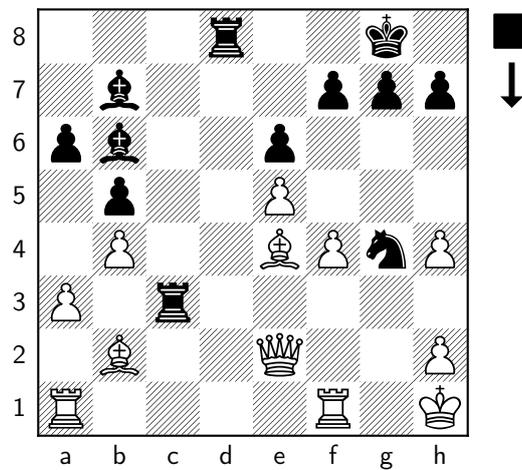
...

♙×c3!

Removing one protection of e4, so that 23. ♔xc3 will lose to 23...♕xe4+ 24. ♖g2 ♖xh2#. But White has some other defences as well.

**23.** ♗g4

Another important variation to consider is 23. ♕xb7. Black wins here by 23...♖xg3!, with the threat 24...♗xh2 25. ♖xh2 ♖h3 or the simple 24...♖h3. Here, 24. ♖f3 ♖xf3 25. ♕xf3 will be met with 25...♗f2+ 26. ♔g1 ♖h3! with the threat 27...♗e4+ 28. ♔h1 ♗g3#.



**23** ... ♖d2!!

The next deflection!

**24.** ♖xd2

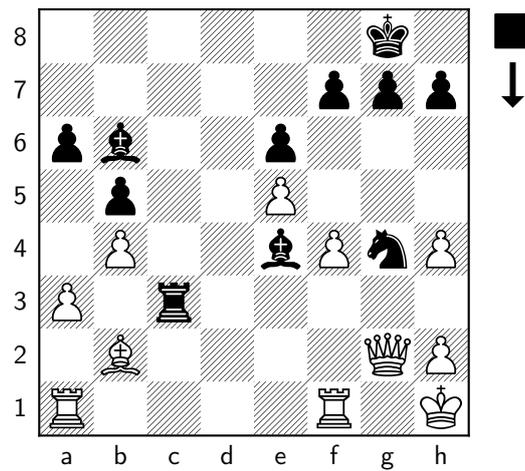
Since White already got Black's queen, he can afford to lose his own, but there is no way. For example,

- A) 24. ♖f2 ♕xe4+ 25. ♖xe4 ♗xf2+ 26. ♔g1 ♗xe4+ wins.
- B) 24. ♕xc3 ♕xe4+ 25. ♖xe4 ♖xh2#.
- C) 24. ♖xg4 ♕xe4+ 25. ♖f3 ♖xf3 (Threatens 26...♖xf1#), and now:

a) 26. ♖xf3 ♔xf3#

b) 26. ♖g2 ♜f1+ 27. ♞xf1 ♔xg2#

24 ... ♔xe4+  
 25. ♖g2



Looks like White has defended everything. After 25... ♔xg2+ 26. ♖xg2 ♞c2+ 27. ♖g3 ♘e3 28. ♞fb1, White is an exchange up. But Black has a killing move...

25 ... ♞h3!

There is no defence to the threatened 26... ♞xh2#, so White resigns.

25... ♞c2! also wins in this position.

An amazing combination where all of Black's six pieces took part in the final attack!

## 7.2. Relentless harassing: Steinitz – Bardeleben, 1895

Puzzle 99  
 WILHELM STEINITZ – CURT VON BARDELEBEN  
 Hastings: 1895

r1r1k3/pp1qn2p/5pp1/3p2N1/6Q1/8/PP3PPP/2R1R1K1 w - - 2 22

*White is a pawn down but Black King is stuck in the center. How can White drive home victory without allowing Black to exploit his back rank weakness?*

WILHELM STEINITZ (See §41 on Page 675) was the first official World Chess Champion. CURT VON BARDELEBEN was also one of the best players in that era.

White has sacrificed a pawn for an attack, so 22. ♔×d7+ ♚×d7 23. ♘×h7 doesn't appeal much. Instead, White launches an attack based on Black King's poor position.

**22.** ♖×e7+!

White needs to foresee 14 moves ahead to make this sacrifice, because this move leaves White with a very bad back rank, and any non-check continuation will result in . . . ♖×c1+, checkmating.

22

...

♔f8!

22... ♖xe7 23. ♜xc8+ will leave Black with a full piece up, while 22... ♔xe7 leads to 23. ♖b4+, and now:

A) 23... ♔e8 24. ♜e1+ ♔d6 25. ♘e6+ +-.

B) 23... ♖d6 24. ♖xb7+ ♖d7 25. ♜e1+ ♔d8 26. ♘f7+ +-.

C) 23... ♔d8 24. ♖f8+ ♖e8 25. ♘f7+ ♔d7 26. ♖d6#.

23.

♜f7+!

♔g8

Not, of course, 23... ♔e8 24. ♖xd7#, and 23... ♖xf7 24. ♜xc8+, as before.

24.

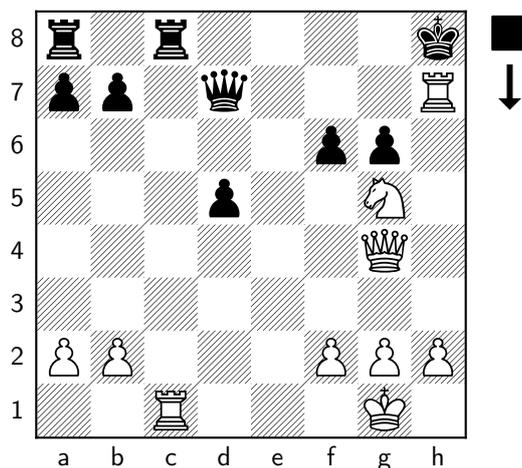
♜g7+!

♔h8

24... ♔xg7 25. ♖xd7+ captures the Queen with check. 24... ♖xg7 25. ♜xc8+ wins. After 24... ♔f8, 25. ♘xh7+ forces Black to make one of these two moves.

25.

♜xh7+



In a very curious incident in chess history, this game showed a peculiar way of resigning: Bardeleben went out of the tournament hall and didn't return that day! May be too much annoyed by the harassing rook!

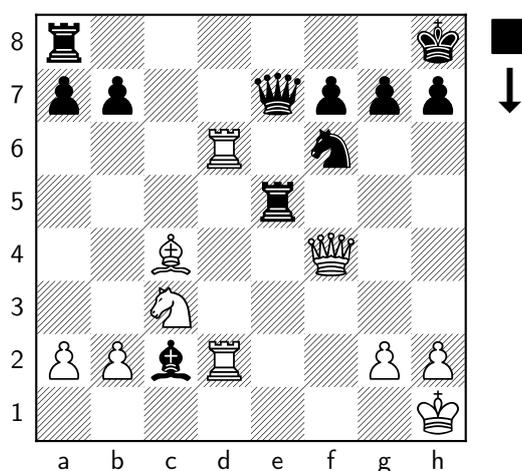
Stenitz demonstrated that Black cannot escape checkmate: 25...♔g8 (25...♖xh7 26. ♖xc8+ wins as before) 26. ♖g7+ ♔h8 27. ♗h4+ ♔xg7 28. ♗h7+ ♔f8 29. ♗h8+ ♔e7 30. ♗g7+ ♔e8 31. ♗g8+ ♔e7 32. ♗f7+ ♔d8 33. ♗f8+ ♖e8 34. ♗f7+ ♔d7 35. ♗d6#. He had to see this finish when he played the 22<sup>nd</sup> move!

## 8. Interference

### 8.1. : Fuchs – Korchnoi, 1965

Puzzle 19  
 FUCHS – KORCHNOI, VICTOR  
 Yerevan, USSR: 1965

r6k/pp2qppp/3R1n2/4r3/2B2Q2/2N5/PPbR2PP/7K b - - 0 25



*Black to play and win.*

Another gem by VIKTOR KORCHNOI (See §21 on Page 672).

25                      ...                      ♖d3!!

Threatens checkmate by 26... ♔e1+, because the f1-a6 diagonal is blocked, and winning a Rook with 26... ♙×d6, as the d-file is blocked. White cannot prevent both simultaneously, losing at least an exchange.

26.                      ♗×d3

26. ♖2×d3 or 26. ♖6×d3 will be met by 26... ♗e1+, checkmating. Note that the White Rook blocks the f1-a6 diagonal so 27. ♘f1 is not possible.

26. ... ♗×d6

With an exchange and an extra pawn, Black wins easily. The game continued...

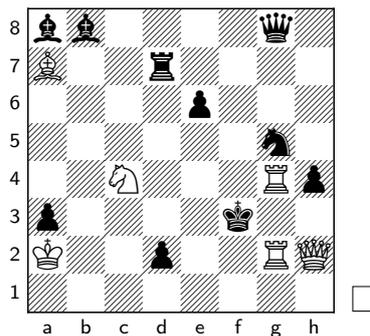
27. ♘f1 ♗c5

White resigns.

Problem solvers will recognize this combination as a case of *Novotny*, a problem theme where a piece is sacrificed on a square and every capture of that piece will block a line (rank, file or diagonal) that will allow a checkmate on that line.

An example where Novotny is featured is below:

Composed by Milan Vukcevic, *Schach-Echo*, 1976



Mate in 2.

The key is

1. ♗d6!

This blocks two lines – the d-file, threatening 2. ♘×d2# and the h2-b8 diagonal, threatening 2. ♘e5#.

There are several defenses:

A) The Novotny theme is illustrated in the following variations:

- a)  $1\dots\text{♖}\times\text{d6}$  blocks the diagonal, allowing  $2.\text{ ♜e5}\#$ .
  - b)  $1\dots\text{♗}\times\text{d6}$  blocks the d-file, allowing  $2.\text{ ♜}\times\text{d2}\#$ .
- B) Another defence is to get rid of the Bishop on a7, thereby freeing e3 for the Black King.
- a)  $1\dots\text{♖}\times\text{a7}$  gives up the control over the d-file, allowing  $2.\text{ ♜d3}\#$ .
  - b)  $1\dots\text{♗}\times\text{a7}$  gives up the control over the b8-h2 diagonal, allowing  $2.\text{ ♜f4}\#$ .
- C) A third defense is to pin the Knight on c4, because it is the piece that delivers the mate in the threats. The units that allows this blocks a line, leading to a mate on that line.
- a)  $1\dots\text{e5}$  and the Black Queen pins the Knight, but allows  $2.\text{ ♜f6}\#$ , because the b8-h2 diagonal is blocked by the Black pawn.
  - b)  $1\dots\text{♗d5}$  and the Black Bishop pins the Knight, but it allows  $2.\text{ ♜}\times\text{a3}\#$ , because the d-file is now blocked by the Black Bishop.

This problem has three different themes, Novotny being one of them.

## 9. Pawn promotion

Many chess puzzles are composed around the theme of pawn promotion. A pawn, when it reaches the eighth rank, can be promoted to a piece other than the King. Usually it is promoted to a Queen, and that itself can lead to victory.

Promoting a pawn and stopping a pawn from promoting by *catching* it sometimes requires careful maneuverings. Sometimes, a pawn need to be *underpromoted*, i.e., promoted to a piece other than the Queen to have the maximum advantage.

There are a variety of themes around pawn promotion. Some of them are discussed here.

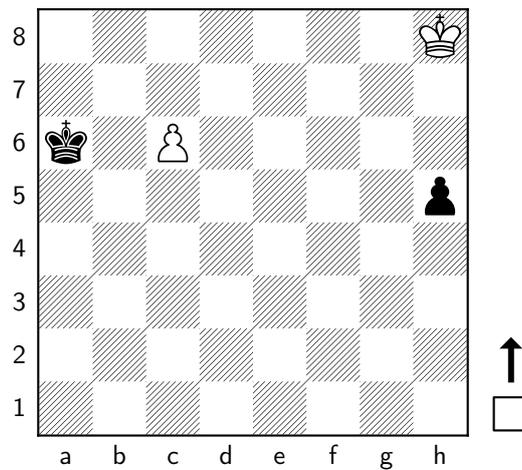
## 9.1. Catch it if you can... : Réti (Study), 1921

Puzzle 108

RICHARD RÉTI (Study)

Deutschösterreichische Tages-Zeitung, 1921-09-11

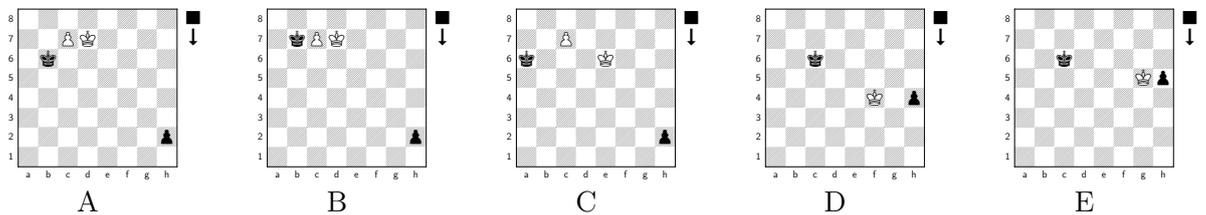
7K/8/k1P5/7p/8/8/8/8 w - - 0 1



*The Black King is too close to the White Pawn and can catch it before queening, while the Black Pawn is too ahead for White to catch. Can White save this game?*

One of the most famous endgame studies. Practically no book on endgames or endgame studies can be seen without this problem.

Before solving it, let us consider some positions that arise in the lines.



All the five positions are with Black to move, and all are drawn.

In A and B, both sides promote together with 1...h1♚ 2. c8♞ and the Queen ending is drawn.<sup>2</sup>

C is a little different. After 1...h1♚ 2. c8♞+, the game is drawn because Black is in check, otherwise a ...♞h3+ would have skewered the White Queen.<sup>3</sup> And 1...♚b7 2. ♚d7 leads to B.

In D and E, White catches the Black pawn and draws.

1. ♚g7! h4

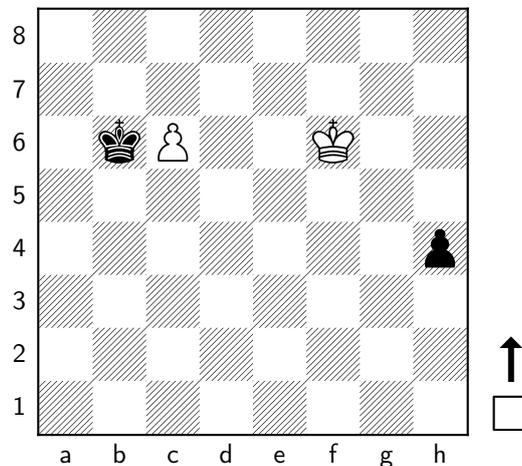
1...♚b6 2. ♚f6 h4 transposes to the main line.

2. ♚f6! ♚b6

2...h3 3. ♚e6 (3. ♚e7 also draws, but not 3. ♚e5?? h2! 4. ♚d6 h1♚ and now both 5. c7 ♚b7 and 5. ♚d7 ♞d5+ lose.), and now:

A) 3...♚b6 4. ♚d7 (4. ♚d6 also is sufficient.) 4...h2 5. c7 draws (Position A).

B) 3...h2 4. c7 ♚b7 5. ♚d7 draws (Position B).



<sup>2</sup>Note that, in position A, Black can exchange the promoted queen with 1...h1♚ 2. c8♞ ♞h3+ 3. ♚d8 ♞xc8+, but since Black doesn't have any more pawns, the game will be drawn.

<sup>3</sup>This is not entirely true. In the variations leading to this position, white could have moved the King to e7 (instead of e6) from f6, avoiding the skewer.

**3.**                    ♔e5!

Not 3. ♔e6?? ♕xc6 and White cannot catch the h-pawn.

**3**                    ...                    **h3**

3... ♕xc6 4. ♕f4 catches the h-pawn and draws.

**4.**                    ♕d6!                    **h2**  
**5.**                    c7!

Note that 6. ♕d7?? h1♖ 7. c7 loses (See Section [B.1.4](#) (Page 682)) to 7... ♖c6+ followed by 8... ♖xc7.

**5**                    ...                    ♕b7

5... h1♖ 6. c8♖ also is draw.

**6.**                    ♕d7!

Reaches Position B and draws.

The Table 1 summarizes these lines.

No.	1	2	3	4	5	6	
1	♔g7! h4	♕f6! h3	♖e6 ♗b6	♘d7 h2	c7!		= (A)
2	...	...	...	c7! h2			= (C)
3	...	...	♖e5! h3	♘d6! h2	c7! ♗b7	♘d7!	= (B)
4	...	...	...	♕f4!			= (D)
	...	...	♗xc6				
5	...	♕f6! ♗xc6	♖g5				= (E)
	♗b6						
6	...	...	♖e5!	Same as Line 3.			=
	...	h4					

Table 1: Solution of Puzzle 9.1

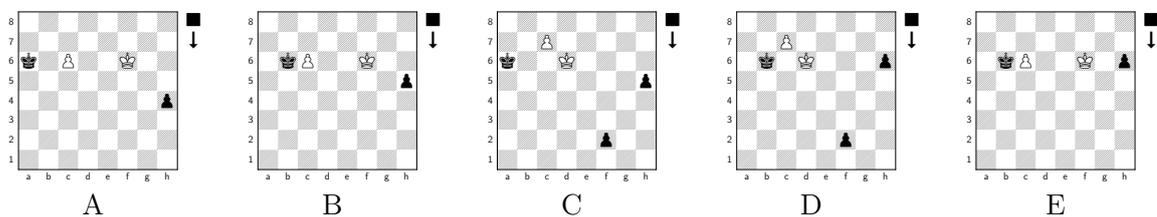
## 9.2. Catch 'em if you can... : Réti (Study), 1928

Puzzle 134  
 RICHARD RÉTI (Study)  
 1928

8/6p1/k1P2p1p/7K/8/8/8/8 w - - 0 1

*White to play and draw.*

After the famous study by RICHARD RÉTI (Section 9.1 (Page 134)) was published, many endgame studied were composed based on that. This is one of them by the same author. This one has a more complex set up. It reduces to the other problem in many cases, but there are a few independent lines as well.



1. Positions A and B are dealt in the last study by RÉTI (Section 9.1 (Page 134)).

- a) Position A is Line 1 in the Table 1. White draws after 1...h3 2. ♔e6 or 1...♔b6 2. ♔e5!.
  - b) Position B is Line 5 in the Table 1. White draws after 1...h4 2. ♔e5! or 1...♔xc6 2. ♔g5.
2. Positions C and D are crucial to this study. The h-pawn may be on h6 or h5.
- a) In Position C, after 1...f1♔ 2. c8♔+, White draws by continuously checking Black.
  - b) Even without check, White draws, as in Position D. After 1...f1♔ 2. c8♔, Black has the move and an extra pawn that will queen after the queen exchange, but Black cannot force queen exchange: For Black's checks, White only need to avoid the rank, file and diagonals his Queen is situated to avoid a skewer.
- It doesn't matter whether Black queens the f-pawn or the h-pawn. In the resulting position, even with the move and no check, Black cannot win.
3. There are positions (like Position E) where the White king can stop the remaining Black pawn. These are drawn.

Table 2 lists all crucial variations.

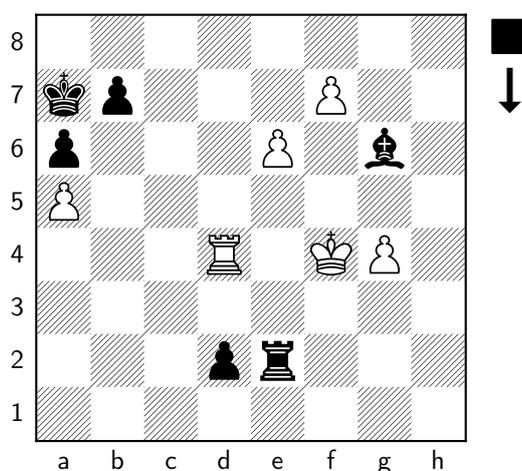
No.	1	2	3	4	5	6	7	
1	♔g6! ♚b6	♚xg7! ♚xc6	♚xf6					= (E)
2	...	...	♚xf6!					= (B)
	...	h5						
3	...	...	♚f6!	♚e5	♚d6!	c7!		= (D)
	...	f5	f4	f3	f2			
4	...	...	...	...	♚xf4!			= (E)
	...	...	...	♚xc6				
5	...	♚xg7!	♚xf6!					= (A)
	h5	h4						
6	...	...	♚xf6!					= (B)
	...	♚b6						
7	...	...	♚f6	♚e5	♚d6	c7!		= (C)
	...	f5	f4	f3	f2			
8	...	...	...	♚e6	♚d7	c7!		= (B)
	...	...	h4	♚b6!	h3!	h2!		
9	...	♚xg7!	♚f6!	♚e6	c7!			= (A)
	f5	f4	f3	f2				

Table 2: Solution of Puzzle 9.2

### 9.3. Divert the guard: Lin – Wu, 2016

Puzzle 59  
 JULIAN LIN – TIN WU  
 Pleasanton: 2016

8/kp3P2/p3P1b1/P7/3R1KP1/8/3pr3/8 b - - 0 47

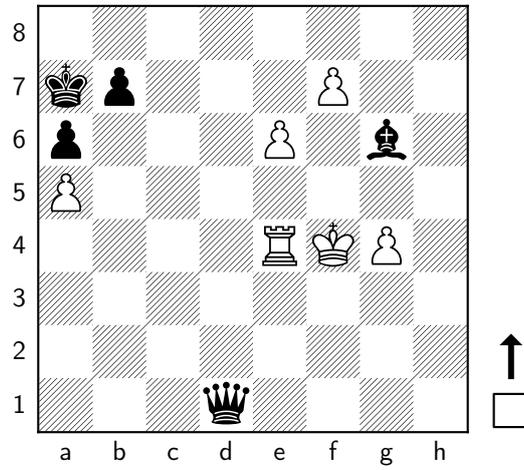


The game continued 47... ♔×f7 48. e×f7 ♖f2+ 49. ♔e5 ♖×f7 with an equal position, even though White won on move 56. What is the winning move Black missed?

47 ... ♖e4+!!  
 48. ♖xe4

After 48. ♔g5 ♖×d4 49. f8♖ d1♖, Black wins.

48 ... d1♖

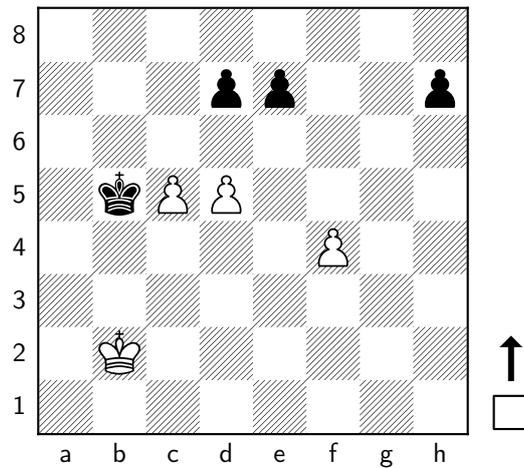


Now, both 49. e7 ♗×f7 and 49. f8♖ ♔f1+ are hopeless for White.

## 9.4. Dont allow him to get through: Fontana (Study), 1943

Puzzle 124  
 FONTANA (Study)  
 1943

8/3pp2p/8/1kPP4/5P2/8/1K6/8 w - - 0 1



*White to play and win.*

The Black King can reach f8 in four moves, and e8, d8 and c8 in three moves, so is able to hold any of the White pawns queening... unless his own pawns block the path. White's winning tactics lies in creating obstacles to the Black King with Black pawns.

**1.            c6!**

Threatens 2. c7 and 2. cxd7, and the Black King cannot catch up with it.

**1            ...            ♔b6**

After 1...dxc6 2. d6!, threatens both 3. d7 and 3. dxe7. 2...cxd6 3. f5!, and White pawn queens in three moves and the Black King cannot reach in time, because his own pawn blocks him on c6.

2. d6!

Threatens 3. dxe7.

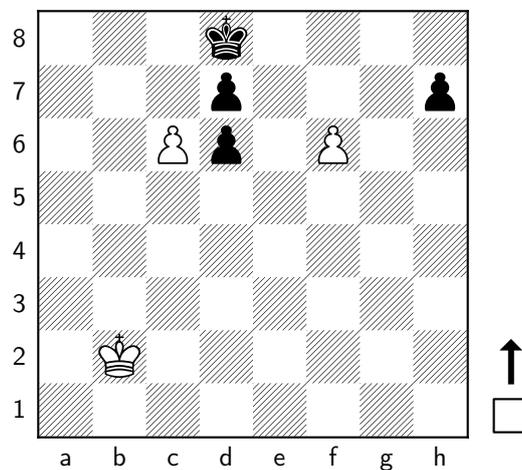
2 ... cxd6

After 2...e6 3. cxd7 and the Black King cannot catch the pawn.

3. f5 ♔c7

3...♔xc6 4. f6 and the two Black pawns block's the Black King's path.

4. f6 ♔d8

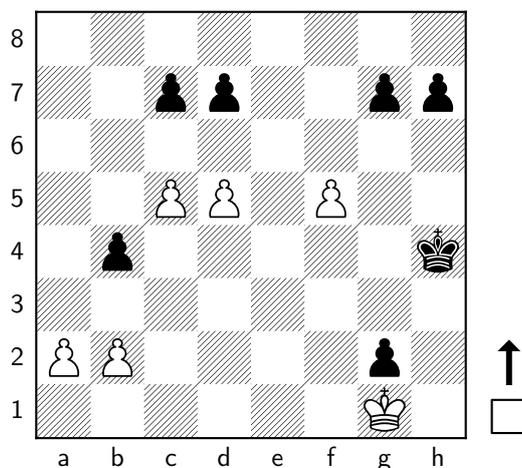


Now, either 5. c7+ ♔xc7 6. f7 or 5. f7 ♔e7 6. c7 wins by queening a pawn.

## 9.5. Making hurdles: Troitsky, A.A. (Study), 1913

Puzzle 165  
TROITSKY (Study)  
1913

8/2pp2pp/8/2PP1P2/1p5k/8/PP4p1/6K1 w - - 0 1



*White to play and win.*

A nice endgame study by the great composer A. TROITSKY (See §47 on Page 676).

The beauty of this study, like most of the studies, is that each of the White moves is the only winning move at that position.

**1. f6!**

Blocking the King's path via the f6-square. Instead, if 1. ♔xg2? ♕g5 2. a4 bxa3 3. bxa3 ♕f6! (3... ♕xf5? 4. a4! ♕e5 5. d6! cxd6 6. c6! dxc6 7. a5! wins as in the main line.) 4. a4 ♕e7! 5. a5 ♕d8! catches the pawn. Now 6. a6? ♕c8 7. a7 ♕b7 actually wins for Black, so White should continue 6. c6 dxc6 7. dxc6 ♕b8 8. ♕f3 to draw the game.

1. a4? will actually lose after 1...bxa3 (1...♔g3 also wins.) 2. bxa3 ♕g3! and Black mates by h7-h5-h4-h3-h2# before White pawn queens.

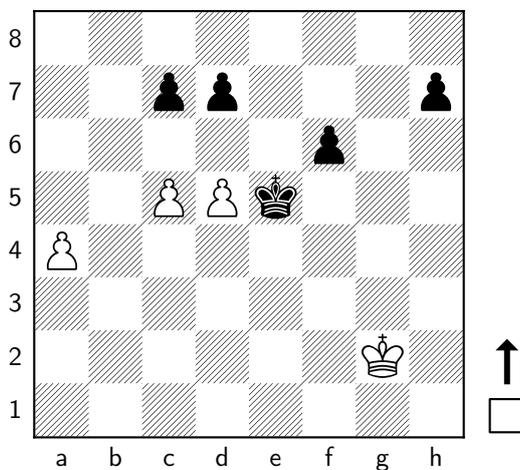
1. ... gxf6  
 2. ♕xg2!

White should capture this pawn, otherwise ...2...♕g3! wins.

2. ... ♕g5  
 3. a4! bxa3  
 4. bxa3! ♕f5  
 5. a4!

Not 5. d6? cxd6! 5. c6 dxc6! 6. a4 ♕e6!-+.

5. ... ♕e5

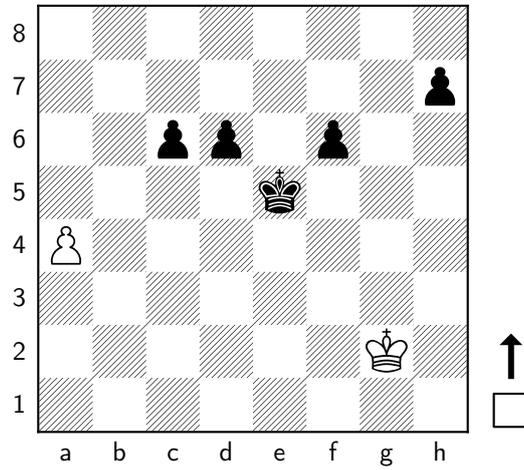


6. d6! cxd6

6...c6 completely shuts off the BK from a8 and 7. a5 wins.

7. c6! dxc6

7... ♔e6 8. c7 wins.



8. a5!

White queens the only remaining pawn. Black is either a rank away (8... ♔d5 9. a6! ♔c5 10. a7!) or a file away (8... ♔e6 9. a6! ♔d7 10. a7!) from controlling the a8-square before the White pawn reaches there.

## 9.6. Make her queen!: Szulc, J. (Study), 1948

Puzzle 126  
SZULC, J. (Study)  
1948

8/1P6/8/1n1K4/8/kb6/8/8 w - - 0 1

*White to play and win.*

The White King is in check, and it has four squares to move: c5, c6, e5 and e4. One of them wins and the rest only draw.

Black can draw if the BN reaches b8 or any of the squares one move away from b8 (a6, c6 or d7) without getting captured before the pawn queens. He can also draw if the N can reach one of these squares immediately after the WP queens and forks the WK and WQ.

It is clear that 1. ♔e4? will actually lose to 1... ♖d6+ followed by 2... ♖xb7.

We can also eliminate 1. ♔c6?, as 1... ♜d5+! 2. ♔xd5 ♖c7+ followed by 3... ♖a6 draws.

That leaves two squares (c5 and e5) for the King in the first move. Let us consider each.

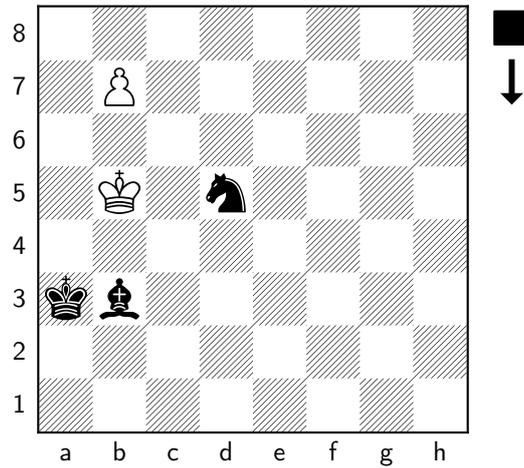
Try 1. ♔c5?

- |    |      |     |
|----|------|-----|
| 1. | ♔c5? | ♖c7 |
| 2. | ♗b6  |     |

Otherwise, 2... ♖a6 draws.

- |    |     |      |
|----|-----|------|
| 2  | ... | ♖d5+ |
| 3. | ♗b5 |      |

All other moves will be met with 3... ♖b4, threatening 4... ♖a6 or 4... ♖c6 or repeating position.



Position 9.6.1: Position in the drawing line

- |   |     |      |
|---|-----|------|
| 3 | ... | ♗a4+ |
|---|-----|------|

3... ♗c4+ also draws, as 4. ♔xc4 ♖b6+ followed by 5... ♖d7 draws.

- |    |     |
|----|-----|
| 4. | ♔c4 |
|----|-----|

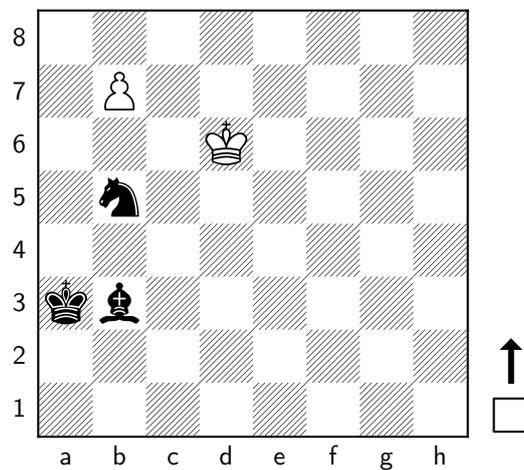
For other moves, 4... ♖b4 is sufficient to draw.

4 ... ♖b6+

followed by 5... ♖d7 draws.

Key 1. ♔e5!

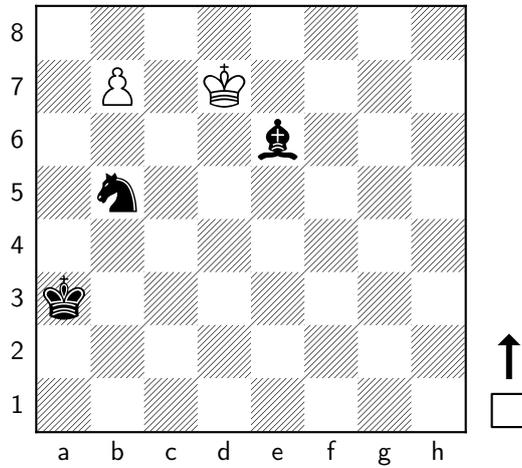
1. ♔e5! ♖a7  
2. ♔d6 ♖b5+



3. ♔d7

3. ♔e7?! ♖a7 4. ♔d6 (4. ♔d7 ♗a4+) 4... ♖b5 repeats the position and White has to go with 5. ♔d7 to win.

3 ... ♗e6+

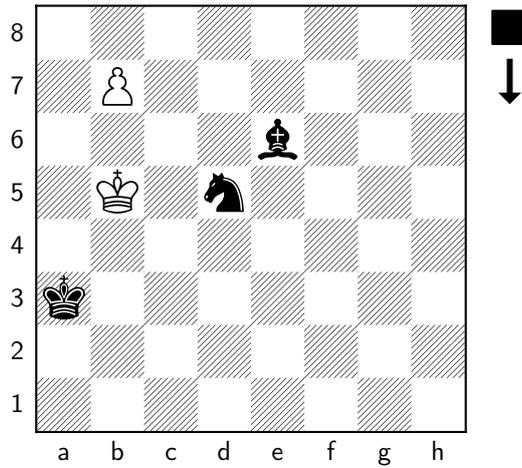


4. ♔e7

The author's solution was 4. ♔d8 ♖a7 5. ♔c7! ♜b5+ 6. ♔b6, and the pawn queens. However, I found this move by checking with Nalimov tablebases. This line is longer, but checkmates in less moves in the worst case.

4. ♔xe6? ♜c7+, followed by 5... ♜a6=.

4	...	♜a7
5.	♔d6	♜b5+
6.	♔c5	♜c7
7.	♔b6	♜d5+
8.	♔b5	



Position 9.6.2: Position in the winning line

Compared to Figure 9.6.1, here Black doesn't have  $8... \text{♙a4+}$  or  $8... \text{♙c4+}$ , and White wins.

In the case of  $8... \text{♙d7+}$   $9. \text{♖c4} \text{♜b6+}$   $10. \text{♖d4}$ , the pawn queens because d7 is not available for the Knight.

This solution ( $4. \text{♖e7}$ ) was overlooked till endgame tablebases became popular.

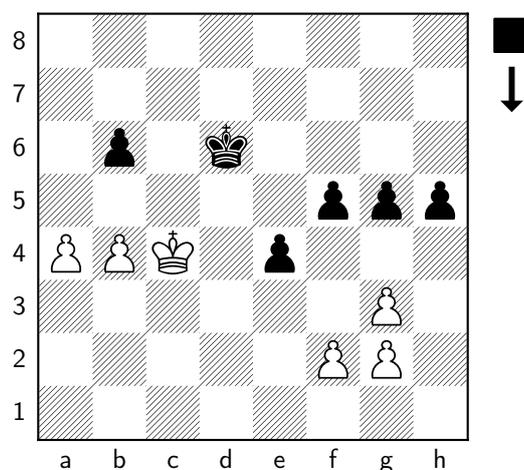
## 9.7. The other pawn: Weinstein – Rohde, 1977

### Puzzle 76

NORMAN WEINSTEIN – MICHAEL ROHDE

Lone Pine, CA, USA: 1977

8/8/1p1k4/5ppp/PPK1p3/6P1/5PP1/8 b - - 0 40



*The game continued 40...h4 41. g×h4 g×h4 42. ♔d4 ♔e6 43. a5 b×a5 44. b×a5 ♔d6 45. a6 ♔c6 46. ♔e5 and White won. What did Black miss?*

40

...

f4!

It is strange to move the pawn closer to the King, but the whole idea is to pave way to the farthest pawn.

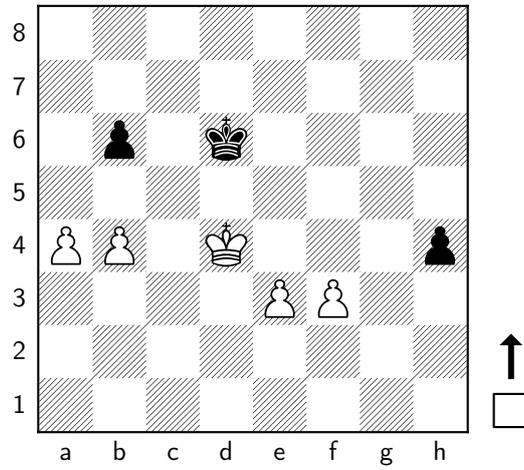
41.

g×f4

Other moves are not better:

A) 41. g4 h4 followed by 42...f3 wins.





The White King is within the distance to stop the pawn, but his own pawns prevent the path via d4-e3-f2-g2 or d4-e4-f3-g2.

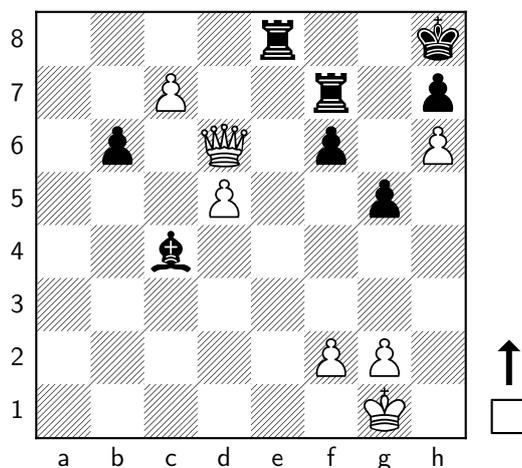
## 9.8. Difficult promotion: Anand – Moroviv-Fernadez, 1990

### Puzzle 53

VISWANATHAN ANAND – IVAN MOROVIV-FERNADEZ

Novi: 1990

4r2k/2P2r1p/1p1Q1p1P/3P2p1/2b5/8/5PP1/6K1 w - - 1 34



*Black has material advantage, but White has a strong pawn on c7, ready to promote. Also his Queen is very strong. How can White convert that into a full point?*

White, Indian Grandmaster and future World Champion VISWANATHAN ANAND (See §2 on Page 668), manages to promote the pawn in a spectacular way and beats the Chilean Grandmaster IVAN MOROVIV-FERNADEZ (See §28 on Page 674).

**34.** ♔e6!

There are many other ways to win in this position. For example, 34. ♔d8 ♖ff8 35. ♔d7 ♖g8 36. ♔c6! (36. ♔f7 ♖ef8 37. c8♔ ♖xf7 38. ♔xc4 doesn't win.) 36... ♖gf8 (36... ♖ef8 37. c8♔!) 37. d6 ♕e6 38. d7 ♕xd7 39. ♔xd7 ♖g8 40. ♔f7 ♖ef8 41. ♔e7 intending 42. c8♔ also wins.

But Anand's continuation is the strongest.

**34** ... ♖ff8

34... ♖xe6 35. c8♗+ checkmates on next move.

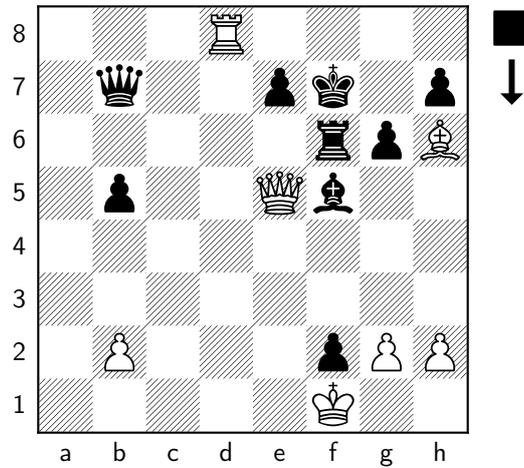
**35.** c8♗!

35. ♗d7 or 35. ♗c6 also wins here, but this is immediately winning. After 35... ♖xc8  
36. ♗e7! checkmates.

## 9.9. Resurrection!: Baseler – Mueller, 1962

Puzzle 25  
 BASELER – MUELLER, H  
 London: 1962

3R4/1q2pk1p/5rpB/1p2Qb2/8/8/1P3pPP/5K2 b - - 0 1



White is threatening 2. ♖f8#. How can Black use his advanced pawn on f2 to win the game?

1 ... ♘d3+!

Reversing the move order doesn't work. 1... ♖xg2+?? 2. ♔xg2 ♘h3+ 3. ♔g3! (3. ♔xh3? f1♖+ 4. ♔h4 ♖f2+ 5. ♖g3 ♖xh2 and Black has some drawing chances.) and Black cannot play 3... f1♖ due to 4. ♖f8#.

2. ♖xg2+!!  
 3. f1♖+  
 4. ♖xg3

and Black won.

## 9.10. Olympiad win: Adhiban – Pineda, 2016

Puzzle 21  
 BASKARAN ADHIBAN (INDIA) – SERGIO MINERO PINEDA (COSTA RICA)  
 Olympiad, Baku: 2016

3b4/R4P2/3k4/2pP1r2/5p2/8/8/B5K1 w - - 0 1

*This game was played on 2016 September 8, one day before this puzzle was published, in the Baku Olympiad 2016. The material is level but White has a winning line. Find it.*

1. ♖f6!

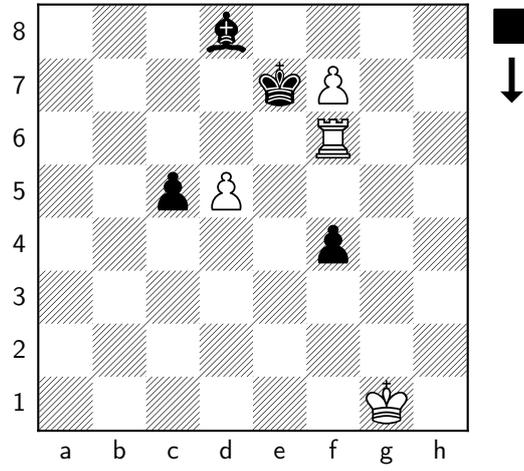
This is possible because after 1... ♗xf6 2. f8♞+ is a check.

1. ♖a6+? ♔xd5 2. ♖f6 (2. ♗f6 ♗e7 3. ♗xe7 ♖xf7=) 2... ♗xf6 3. f8♞ ♗d4+=.

1	...	♖xf6
2.	♖a6+	

Black resigned here, foreseeing...

2 ... ♔e7  
3. ♖xf6



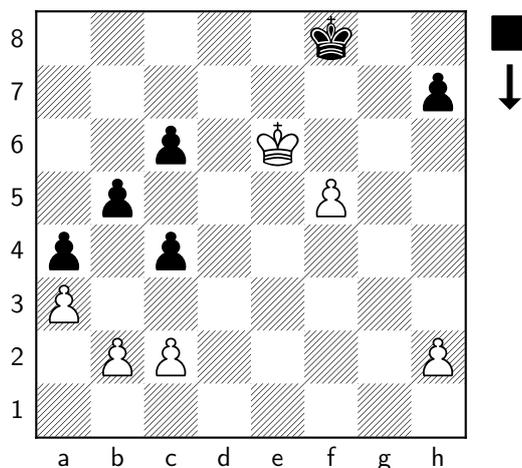
3 ... ♔f8  
4. ♖xf4

White wins with his extra material.

### 9.11. Pawn power: Vitomski – Volkov, 1975

Puzzle 89  
 VITOMSKI – VOLKOV  
 Riga: 1975

5k2/7p/2p1K3/1p3P2/p1p5/P7/1PP4P/8 b KQkq - 0 1



*Looks like White has an advantage in this King and pawn ending, with the advanced King and a strong passed pawn, but Black, having the move, has a way to win. Can you find that?*

1. ... c3!  
 2. bxc3

After 2. b4 or 2. b3, 2...axb3 3. cxb3 c2  $++$ .

2. ... c5!  
 3. ♔d5

3. c4 b4 4. axb4 a3! 5. bxc5 a2 6. c6 a1♔ 7. c7 ♔a6+ 8. ♔d7 ♔a4+ 9. ♔d4 ♔xc4  $++$ .

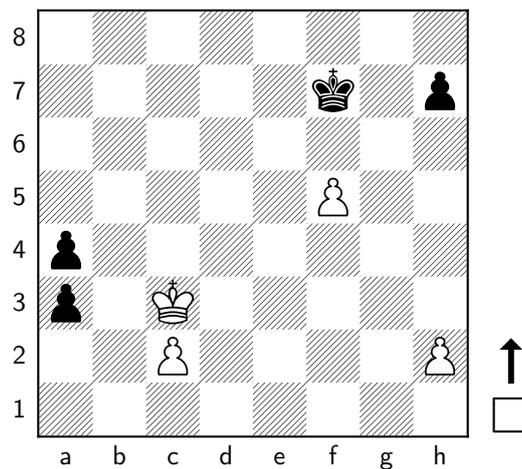
3 ... b4  
4. cxb4

4. ♔xc5 bxa3 --+.

4 ... cxb4  
5. ♔c4

5. axb4 a3 6. b5 a2 7. b6 a1♚ --+.

5 ... bxa3  
6. ♔c3 ♔f7



White is in a pathetic situation: His own pawn on c2 is blocking the way of his King. The doubled pawns take care of themselves and the King cannot approach them. (7. ♔b4 a2! --+.) The King cannot go around the pawn either: 7. ♔d2 a2! --+. In short, the King is paralyzed.

7. h4 h5  
8. f6 ♔xf6

Now the White King is forced to move and the a-pawn queens. Black wins.

## 9.12. Surprising first move: Sarychev, A. K. (Study), 1922

Puzzle 164  
A. K. SARYCHEV (Study)  
1922

8/1pPK3b/8/8/8/5k2/8/8 w - - 0 1

*White to play and draw.*

1. ♔c8!!

An incredible and unexpected move, going behind the enemy pawn and blocking his own. The idea of this move is force the Black pawn to move so that it can be captured later.

Instead, the obvious 1. ♖d6? loses after 1... ♜f5! 2. ♔c5 ♖e4 3. ♖b6 ♜c8!, as the Bishop is protecting its own pawn and blocks the opponent's pawn. Any attempt to attack the Bishop will allow the pawn to advance uncatchable.

1 ... b5

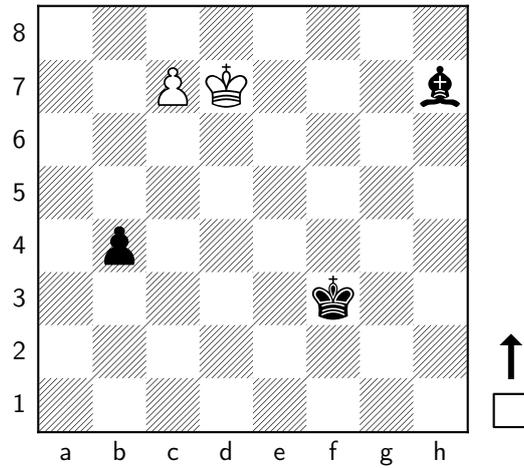
Otherwise, 2. ♖x b7 draws. 1... ♜e4 2. ♖b8! and Black cannot prevent both 3. c8♔ and 3. ♖x b7 simultaneously.

2. ♔d7!

2. ♖b7? ♜f5! and the b-pawn is unstoppable.

2 ... ♔d7 ♜f5 ♖b4

2... ♜f5+ 3. ♔d6 ♖b4 4. ♖e5 transposes to the main line.



3. ♔d6!

3. ♖e6? fails to 3... ♖e4!, and the White King cannot move to the fifth rank, and 4. c8♖ will be met with 4... ♜f5+.

3 ... ♜f5!  
4. ♖e5!



### 9.13. I don't want this queen!: Benko (Study), 1987

Puzzle 173  
 BENKO, PAL (Study)  
 First Prize, *Sakkelet*, 1987.

8/2P2p1K/1Pq1kb1P/1p3p1Q/8/8/8/8 w - - 0 1

*White to play and win.*

A Study by PAL BENKO (See §6 on Page 669.)

1. ♔d1!

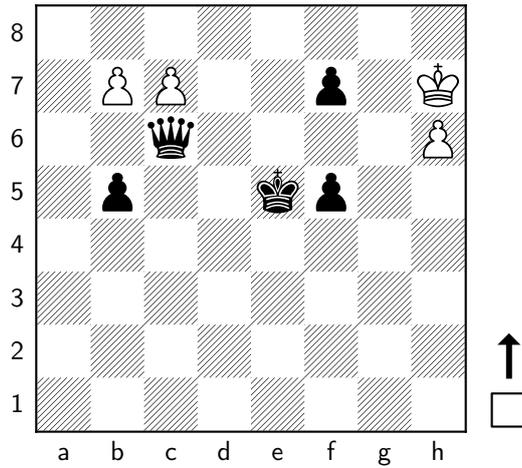
Threatens 2. ♔d8! ♕x d8 3. cxd8 ♖+. Black has two defenses: 1... ♖e8 and 1... ♖a8. Let us consider them separately.

**Variation A:** 1... ♖e8

1. ... ♖e8  
 2. ♔e2+

2. ♖d8+? ♗xd8! 3. c8♖+ ♔d5! 4. b7 ♗e7!, and now 5. ♗xf5 f6+ 6. ♔g6 ♗e8+ 7. ♔h7 ♗e7+ or 5. b8♗ f6+ 6. ♔g6 ♗e8+ 7. ♔h7 (7. ♔xe4?? ♗e4#) 7... ♗e7+ leads to perpetual checks.

2	...	♗e5
3.	♗xe5!	♔xe5
4.	b7!	♗c6

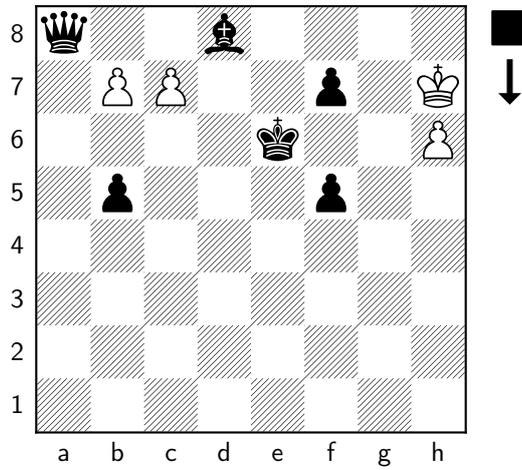


5. c8♗!

5. b8♗? ♗g6+ 6. ♔h8 ♗xh6+ 7. ♔g8 ♗g6+ 8. ♔f8 ♗h6+ 9. ♔e8 ♗e6+ 10. ♔d8 ♗d6+ 11. ♔c8 ♗e6+ 12. ♔b7 ♗d5+ 13. ♔a6 ♗a2+ etc. and Black draws by perpetual check. The Queen on c8 controls c6 and e6 and prevents perpetual check.

5	...	♗g6+
6.	♔h8	♗xh6+
7.	♔g8	♗g6+
8.	♔f8	♗h6+
9.	♔e8	



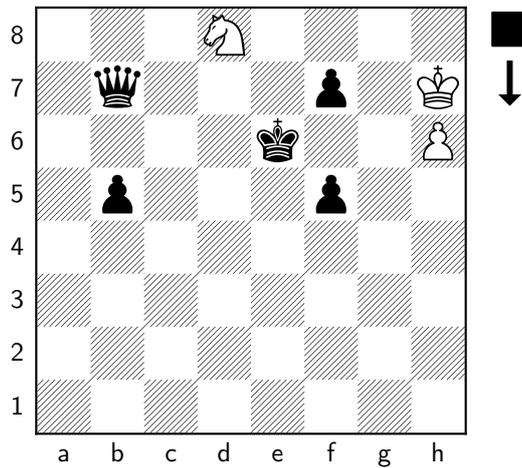


An incredible position where two pawns win against a Queen and Bishop!

3 ... ♖xb7

3... ♗xc7 4. bxa8 ♖ immediately wins for White.

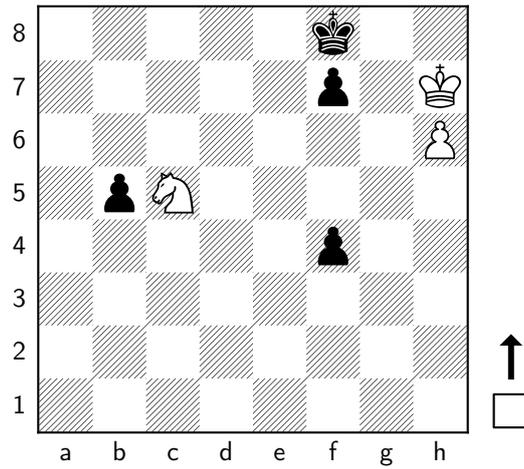
4. cxd8 ♗+!



There are two main moves considered here: 4... ♖e7 and 4... ♖d5.

Variation B1: 4... ♔e7

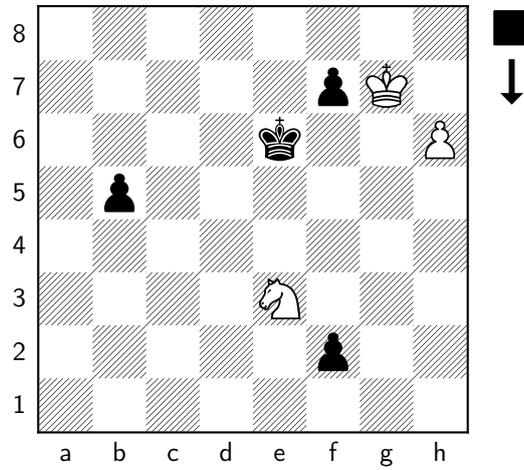
- |    |      |     |
|----|------|-----|
| 4  | ...  | ♔e7 |
| 5. | ♘xb7 | ♔f8 |
| 6. | ♘c5  | f4  |



- |    |      |     |
|----|------|-----|
| 7. | ♘d7+ | ♔e7 |
| 8. | ♔g7  | f3  |
| 9. | ♘f6  |     |

9. ♘b6? ♔e6! =.

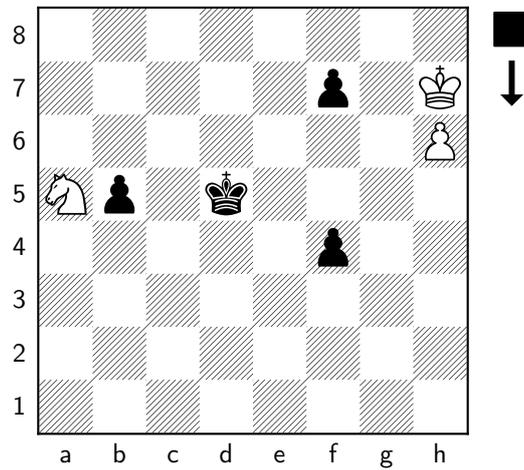
- |     |      |     |
|-----|------|-----|
| 9   | ...  | f2  |
| 10. | ♘d5+ | ♔e6 |
| 11. | ♘e3  |     |



prevents queening the f-pawn, and wins by queening the h-pawn.

**Variation B2: 4... ♔d5**

- |    |      |     |
|----|------|-----|
| 4  | ...  | ♔d5 |
| 5. | ♘xb7 | f4  |
| 6. | ♘a5  |     |

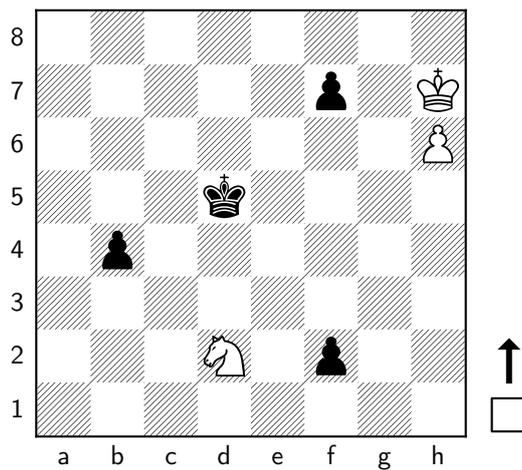


We need to consider 6... ♔e4 and 6... f3.



Variation B22: 6...f3

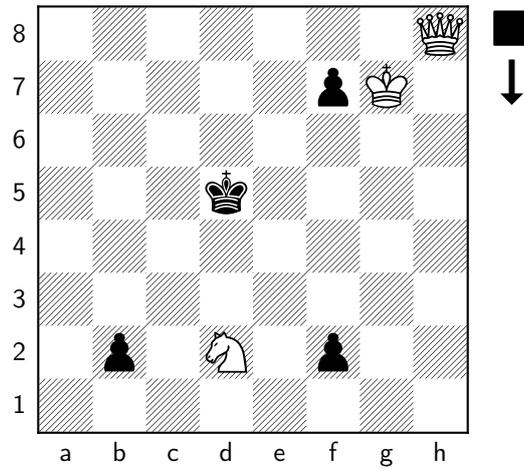
6	...	f3
7.	♖b3	f2
8.	♗d2	b4



9. ♔g7!

9. ♔g8 b3 10. h7 b2 11. h8♙ b1♙ draws.

9	...	b3
10.	h7	b2
11.	h8♙	



Black can queen one pawn, and when the Knight captures it, can queen the other. But White can prevent queening the other pawn before capturing the first queen.

**11** ... **f1**♚

11... b1♚ 12. ♚d8+ ♔c5 (12... ♔e5/Ke6 13. ♚f6+ and 14. ♘xb1 +-.) 13. ♚c7+, and now:

- 1) 13... ♔b5/Kb4 14. ♚b7+ and 15. ♚xb1 +-.
- 2) 13... ♔d5 14. ♚xf7+ and 15. ♘xb1 +-.
- 3) 13... ♔d4 14. ♚f4+ and 15. ♘xb1 +-.

**12.** ♚d8+ ♔c6

12... ♔c5 13. ♚c7+ followed by 14. ♚b7+/Qb6+ and 15. ♘xf1 wins.  
 12... ♔e5/Ke6 13. ♚b8+/Qb6+ followed by 14. ♘xf1 wins.

**13.** ♚c8+ ♔d6

13... ♔d5 14. ♚b7+ followed by 15. ♘xb1 wins.

**14.** ♚b8+

Followed by 15. ♘xf1 wins.

## 9.14. Hiding King: Rossolimo (Study), 1927

Puzzle 139  
N. ROSSOLIMO (Study)  
1927

7R/6p1/6rP/K7/8/k7/8/8 w - - 0 1

*White to play and win.*

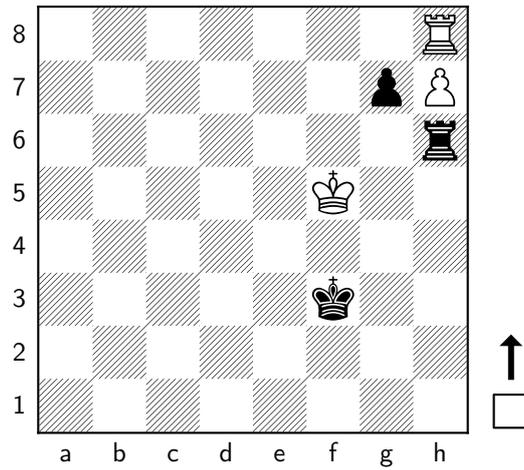
The famous Grandmaster NICOLAS ROSSOLIMO (See §37 on Page 675) was a problem composer also. Here is one of his compositions.

This first move is obvious, as 1.  $h \times g7$   $\text{R} \times g7$  is a draw, and other moves will be met with 1...  $\text{R} \times h6$  or 1...  $g \times h6$ .

- |    |               |              |
|----|---------------|--------------|
| 1. | $h7!$         | $\text{R}h6$ |
| 2. | $\text{Q}b5!$ | $\text{Q}b3$ |

Black King hides behind the White King, otherwise a check by White Rook followed by  $h8$   $\text{Q}$  wins.

- |    |     |     |
|----|-----|-----|
| 3. | ♔c5 | ♔c3 |
| 4. | ♔d5 | ♔d3 |
| 5. | ♔e5 | ♔e3 |
| 6. | ♔f5 | ♔f3 |



Enough with hide and seek. Now, a small trick helps White to win.

- |    |     |      |
|----|-----|------|
| 7. | ♖f8 | ♖xh7 |
|----|-----|------|

Otherwise 8. h8♔ wins.

- |    |       |
|----|-------|
| 8. | ♔g6+! |
|----|-------|

wins the rook and the game.

## 9.15. The tale of two pawns and a Knight: Benko (Study), 1983

Puzzle 170  
PAL BENKO (Study)  
First place, Hungarian Ch., 1983

8/8/8/KP3Pk1/8/8/7n/8 w - - 0 1

*Looks like the BK will capture the f-pawn and the BN can sacrifice itself to win the b-pawn. How can White win this game with precise moves?*

Another great study by PAL BENKO (See §6 on Page 669).

1. ♔b6!

1. b6? ♖g4 (1... ♗f3 also draws.) 2. b7 ♗e5! 3. ♔b6 (3. b8♙ ♗c6+!=.) 3... ♗d7!  
4. ♔c7 ♗c5! 5. b8♙ ♗a6+!=.

1 ... ♗g4

1... ♔xf5 2. ♔c7 and the Knight cannot reach in time to refute the b-pawn queening.

2. ♖c7! ♜e3

2... ♜f6 3. ♖d6! ♜e4+ 4. ♖c6! ♜d2 5. ♖d5! (5. b6? ♜c4! 6. b7 ♜a5+!=.) 5... ♜b3  
6. b6 (6. ♖e5 also wins.) 6... ♜a5 7. ♖e6+-.

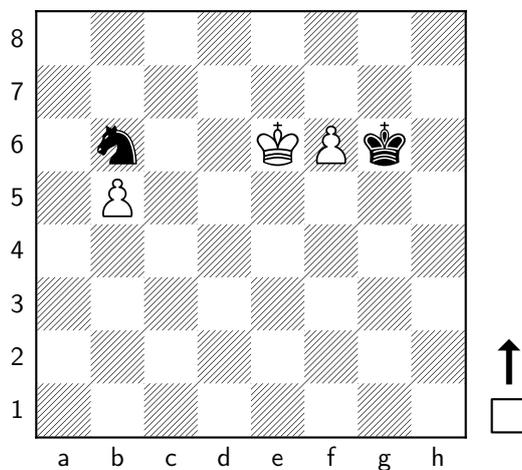
3. ♖d7! ♜d5

3... ♜c4 4. ♖e6+-.

4. ♖d6! ♜b6  
5. ♖e6! ♖h6  
6. f6

6. ♖f7 also wins.

6 ... ♖g6



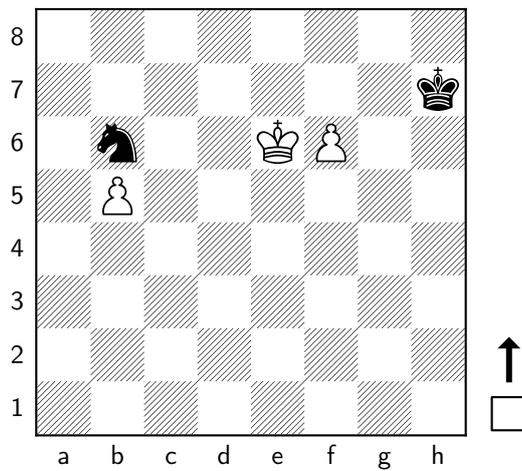
7. ♖e7!

7. f7? ♖g7 8. ♖e7 ♜d5+ 9. ♖e8 ♜f6+ 10. ♖d8 ♜d5=.

7 ... ♖d5+  
 8. ♔d6

8. ♖e6 ♗b6 9. ♖e7 also wins if White comes back to the main line after 9... ♗d5+.

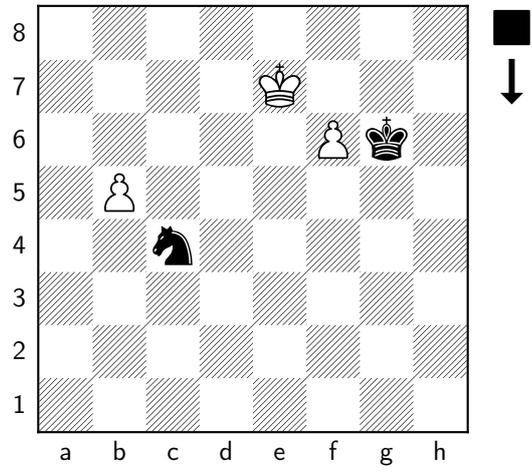
8 ... ♗b6  
 9. ♖e6 ♖h7



10. ♖e7

10. f7? ♖g7 11. ♖e7 ♗d5+= but 10. ♖f7 ♗d5 11. ♖e6, returning to the main line, also wins.

10 ... ♗d5+  
 11. ♖d6 ♗b6  
 12. ♖c6 ♗c4  
 13. ♖d7 ♖g6  
 14. ♖e7



Black cannot stop both pawns.

9.16. Use the enemy!: Kalandadze (Study), 2008

Puzzle 132  
VELMIR (Study)  
1<sup>st</sup> special price, NONA, 2008

8/1q1P3K/5k2/8/Q7/p7/P7/8 w - - 0 1

*White to play and win.*

1. ♔f4+ ♕e6

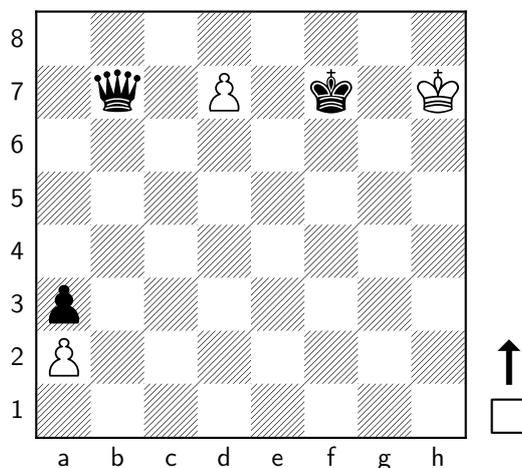
1... ♖e7 2. ♗f7+ as in the main line.

2. ♗f7+!

After 2. ♗g4+ ♖e7 3. ♗g7+ ♖d8 4. ♗f8+ ♖xd7 5. ♗xa3, Black gets perpetual checks.

2 ... ♖xf7

2... ♔d6 3. d8♚+ immediately wins.

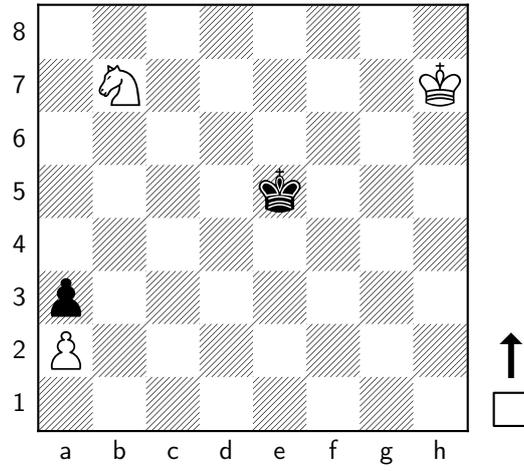


3. d8♚+!

Many studies show this theme of promoting to Knight and winning the enemy queen. But here the problem is the White King is too far and the Black King can approach and win the pawn on a2.

Note that 3. d8♚ ♚h1+ and Black wins.

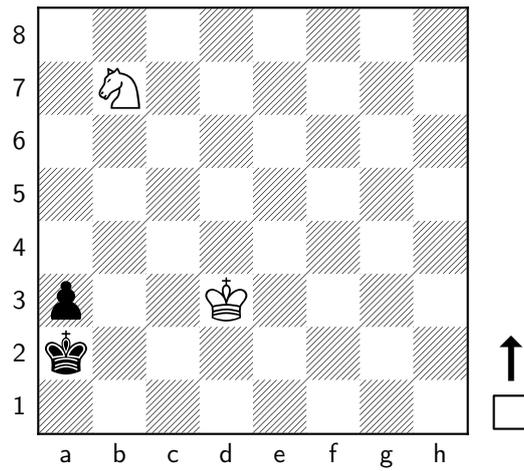
3 ... ♔f6  
4. ♚x b7 ♔e5



5. ♔g6!

5. ♘c5? ♕d5 and White cannot win.

- |    |     |      |
|----|-----|------|
| 5. | ... | ♔d4  |
| 6. | ♕f5 | ♕c3  |
| 7. | ♕e4 | ♕b2  |
| 8. | ♕d3 | ♕xa2 |



White could not prevent Black from capturing his last pawn. We thought King and Knight cannot win against a lone King. But wait a minute! This is King and Knight against King and pawn! Does it make a difference?

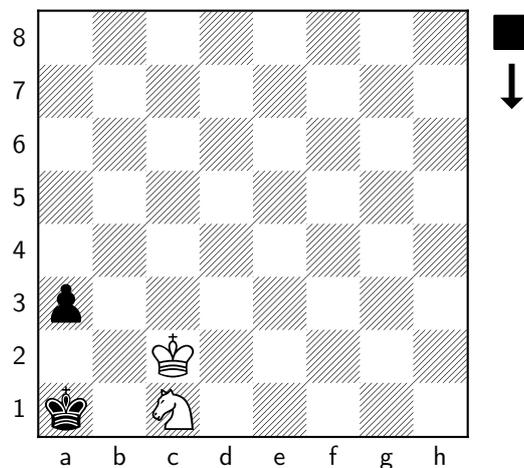
9. ♔c2 ♖a1  
10. ♘c5

10. ♘a5 ♖a2 11. ♘c6 ♖a1 12. ♘d4 ♖a2 13. ♘e2 ♖a1 14. ♘c1 a2 15. ♘b3# also wins, but slower. Other Knight moves only draw, as Black can play 10...a2 leading to stalemate or getting the King out.

10 ... ♖a2

10...a2 11. ♘b3# ends a little earlier.

11. ♘d3 ♖a1  
12. ♘c1



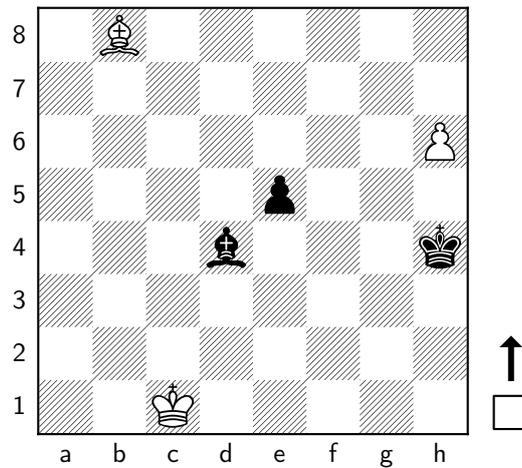
Now Black has to move the pawn.

12 ... a2  
13. ♘b3#

## 9.17. Stop the Bishop!: Heuacker (Study), 1930

Puzzle 130  
PAUL HEUACKER (Study)  
1930

1B6/8/7P/4p3/3b3k/8/8/2K5 w - - 0 1



*If White plays 1. h7 Black prevents the queening by 1...e4. How can White win this game?*

1.                    ♖a7!

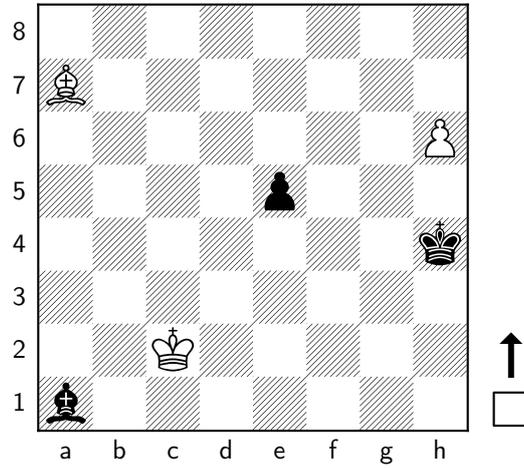
Obviously, 1... ♗xa7 will fail to 2. h7. But it can move to other squares in the diagonal.

1... ♖g5 or 1... ♖h5 will be met with 2. h7, here or any subsequent moves.

1                    ...                    ♗a1

1... ♗c3 2. ♖c2 transposes to the main line.

2.                    ♖b1!                    ♜c3  
 3.                    ♖c2!                    ♜a1

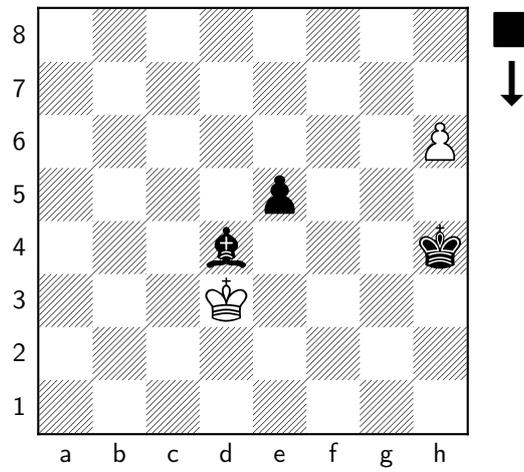


Now what? 4. ♖d3? e4+ 5. ♖xe4 ♜f6 6. ♜d4 ♖g5=.

4.                    ♜d4!!                    ♜xd4

For 4...e4, White continues 5. ♖d3!, blocks the pawn, and cuts the diagonal of the Bishop, and the White pawn queens.

5.                    ♖d3!



If the Bishop moves, White plays 6. ♔e4 and blocks the pawn. 5...e4+ 6. ♔xd4 also allows White pawn to queen.

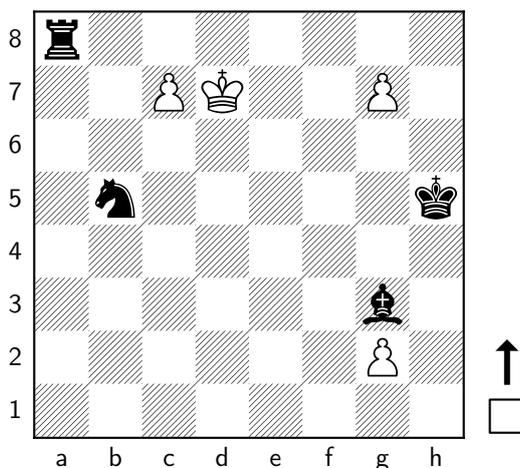
White queens the h-pawn and wins.

## 9.18. When the Bishop goes away... : Krug (Study), 2015

### Puzzle 155

KRUG, PETER SIEGFRIED (Study)  
*1st prize, 3<sup>rd</sup> UAPA Bicentennial, 2015*

r7/2PK2P1/8/1n5k/8/6b1/6P1/8 w - - 0 1



1. c8♚!

1. c8♚? ♖a7+! followed by 2... ♗xg7 draws. The Black King, Rook and Bishop remain close to one another, and even if he loses the Knight, the game will be drawn.

1 ... ♗xc8

There is nothing better. White queens the g-pawn using the Knight as a shield. Since the Black pieces are disconnected, it is not possible to form a fortress without losing one of them.

1... ♖a2 (1... ♖a1 is not much better.) 2. g8♚ ♗d2+ (2... ♗xg2 3. ♚d5+ +-.) 3. ♙e6 ♘d4+ 4. ♙f7 ♗f2+ 5. ♙f7 ♗xg2 6. ♙h7 +-.

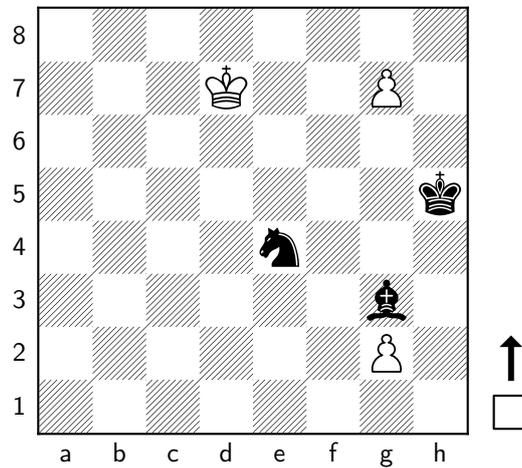
1... ♖a6 2. g8♙ ♖g6 will fail to 3. ♗d5+ ♖g5 4. ♗f7+ ♔h4 5. ♘e7 +-.

2. ♔xc8 ♘d6+  
 3. ♔d7

3. ♔c7? or 3. ♔b8? will be met by 3... ♘e8+, winning the g7-pawn, while 3. ♔d8? will be met by 3... ♘f7+ followed by 3... ♘h6, stopping the pawn.

3 ... ♘e4

Prevents 4. g8♙ due to the threat 4... ♘f6+.



4. ♔e6 ♘g5+  
 5. ♔e7

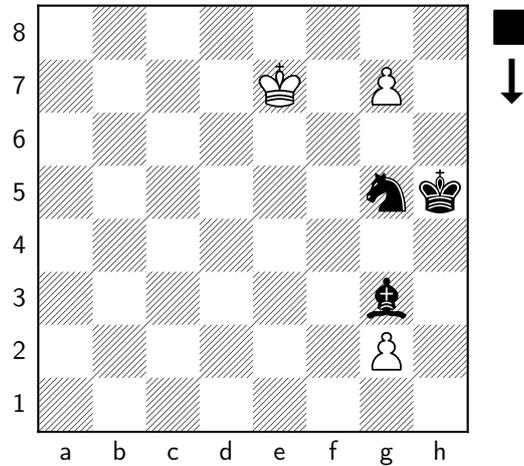
Other moves are inferior.

A) 5. ♔e5? ♘f7+ followed by 6... ♘h6=.

B) 5. ♔f6? ♘e5+ 6. ♔xe5 ♘f7+ followed by 7... ♘h6=.

C) 5. ♔d5 ♘h7! threatening the fork on f6 if White queens, so 5. ♔e6 ♘g5+ goes back to the main line.

D) 5. ♔f5? ♕f7 prevents 6. g8♚ with the fork threat 6... ♖h6+. In other cases, Black will play 6... ♖h6 and stops the pawn.



5                   ...                   ♘d6+  
6.                   ♔d7

6. ♔xd6?, of course, will be met with 6... ♕f7+ followed by 6... ♖h6=. 6. ♔e8? ♕e4 and Black draws. 6. ♔d8? ♕e6+ also doesn't win.

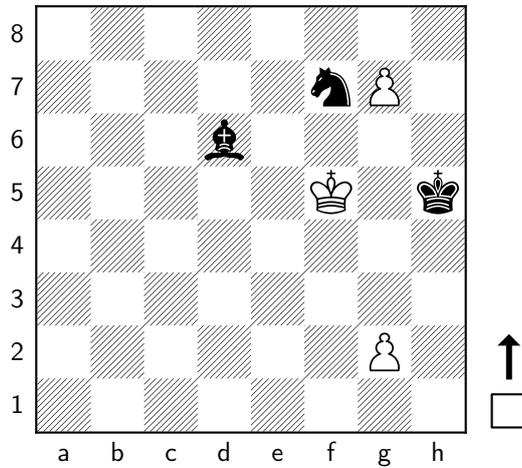
6                   ...                   ♕e4

This is almost the same as the position after Black's 3<sup>rd</sup> move (See the diagram above), with the exception that the Black Bishop is on d6 instead of g3. Does that make any difference?

7.                   ♔e6                   ♕g5+  
8.                   ♔f5!

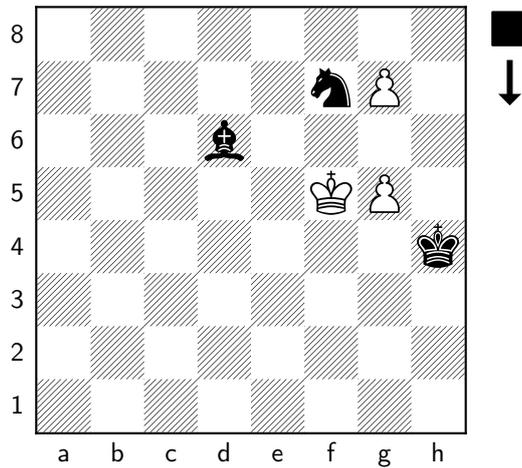
8. ♔d5? ♕h7 9. ♔xd6 (9. ♔e6 ♕g5+ 10. ♔f5 also wins by transposing to the main line.) 9... ♕f6 =.

8                   ...                   ♕f7



In the comments of White's 5<sup>th</sup> move, we saw this position (with the Black Bishop on g3 instead of d6) will only draw because Black can play 9... ♖h6 on the next move. But the absence of the Bishop on g3 gives White a crucial continuation preventing the Knight reaching h6. Note that the BK cannot go to h6.

- 9.           g4+!           ♞h4
- 10.          g5!



Controls h6 and wins by 11. g8♔.

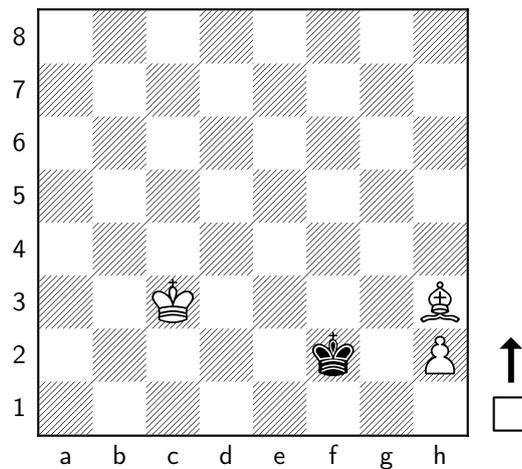
## 9.19. Winning with the wrong Bishop: Vancura (Study), 1922

Puzzle 144

J. VANCURA (Study)

Ceské Slovo 1922

8/8/8/8/8/2K4B/5k1P/8 w - - 0 1



*In general, ♔+♘+Rook pawn against ♔ is a draw if the Bishop doesn't control the queening square, like in this case. All Black has to do is get the King to h7, h8, g7 or g8 (or win the pawn) and White cannot force a win. How can White force a win from this position?*

It is clear the first move should be by the Bishop (Otherwise  $1... \text{♔g1}$  wins the pawn and draws.), but to where?

1. ♘d7! ♔e3

$1... \text{♔f3}$  2. ♔d4 ♔f4 3. h4 controls all the squares forward for the Black King, forcing it to go back and the White pawn queens.

For all other moves, White plays 2. h4 and The Black King cannot catch the pawn.

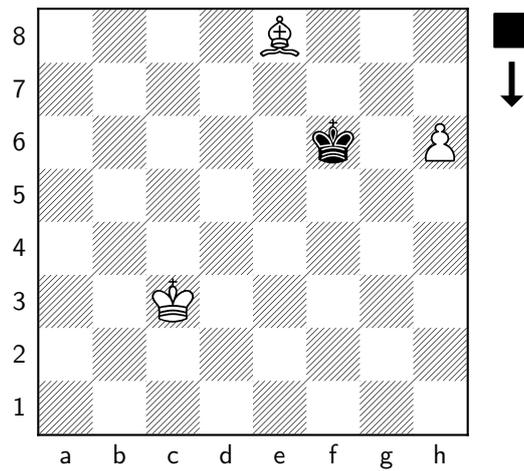
2. h4! ♔e4

2... ♕f4 3. ♖d4 and we are in the line mentioned in the notes of move 1.

3. h5! ♔e5  
4. h6

4. ♙e8 also transposes and wins.

4 ... ♔f6  
5. ♙e8!



Blocks all paths. This is why the first move should be 1. ♙d7. If it were 1. ♙c8?, this move is not possible. If it were 1. ♙e6?, a 4. ♙f7? here will not work due to 4... ♕x7!

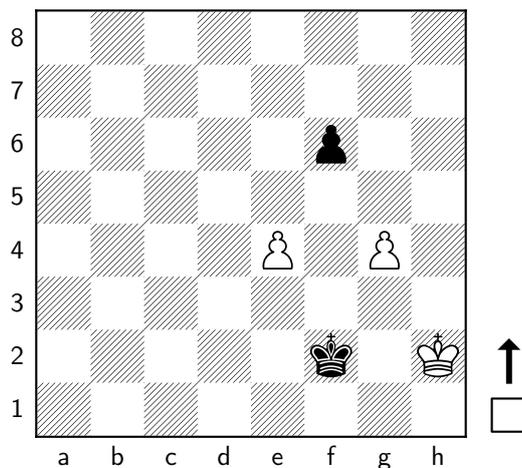
Black is in a zugzwang. Any move will lose the King's access to g7 and White wins by 6. h7.

## 9.20. Pawn race: Van der Heijden (Study), 2003

Puzzle 117

H. VAN DER HEIJDEN (Study)  
2003

8/8/5p2/8/4P1P1/8/5k1K/8 w - - 0 1



*White to play and win.*

The main try is 1. e5? fxe5 2. g5 e4 3. g6 e3 4. g7 e2 5. g8♚ e1♚, and now 6. ♚g3+ ♖e2! only draws. However, this idea is used in every variation of the solution. The problem tries to drag the Black King into a more unfavorable square.

White needs an extra move (so that he can win the ending with ♖+♚ vs ♖+♗ on 7<sup>th</sup> rank ending. See Section B.1.2 (Page 680).) or a position with a checkmate.

1. ♖h1!

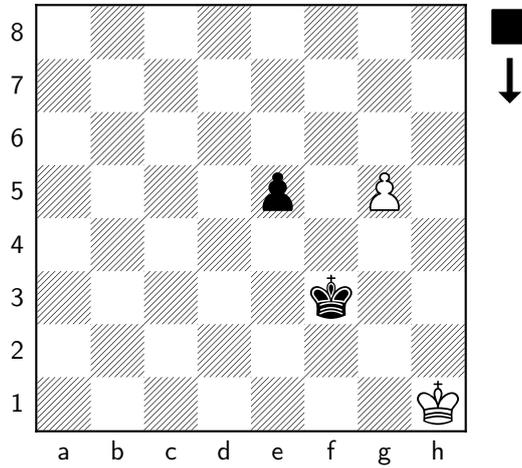
The only move. 1. ♖h3? ♖f3! 2. e5 fxe5 3. g5 e4 4. g6 e3 5. g7 e2 6. g8♚ e1♚ is only a draw. 1. g5?? f×g5 2. e5 will lose because Black gains time by checking when the pawn reaches g3 and then queens first leading to checkmate.

1 ... ♔f3

1... ♔g3 exposes to check when the White pawn queens on g8. 1... ♔e3, 1... ♔e1 or 1... ♔e2 blocks the e-pawn's path, losing time. In both cases, Black pawn will reach only the 7<sup>th</sup> rank when White pawn queens, leading to positions described in Section B.1.2 (Page 680).

The only other possibility is 1... ♔f1, and it loses to 2. e5 fxe5 3. g5 e4 4. g6 e3 5. g7 e2 6. g8 ♖ e1 ♖ 7. ♖g2#, using the new Black queen for a self-block.

2. e5! fxe5  
3. g5! g5!



3 ... e4

3... ♔f2 will lose a move and after 4. g6! e4 5. g7! e3 6. g8 ♖! and wins against the pawn on the seventh rank.

4. ♔g1! e3

4... ♔e2 5. g6 ♔d1 6. g7 e3 7. g8 ♖ wins.

5. ♔f1! e2+
6. ♔e1!

blocks the Black pawn, and the White pawn queens.

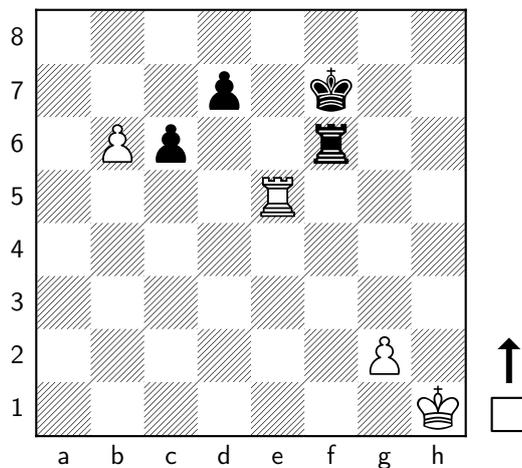
## 9.21. Stop that rook!: Benko (Study), 1990

Puzzle 152

PAL BENKO (Study)

*Inside Chess*, 1990

8/3p1k2/1Pp2r2/4R3/8/8/6P1/7K w - - 0 1



*White's only hope is to queen the b-pawn, but the Black Rook has too many ways to control b8 because of possible checks. How can White win this game?*

Another miniature by PAL BENKO (See §6 on Page 669).

1. b7? is not effective due to 1...♖f1+ 2. ♔h2 ♜b1 or 1...♜h6+ 2. ♔g6 ♜h8.

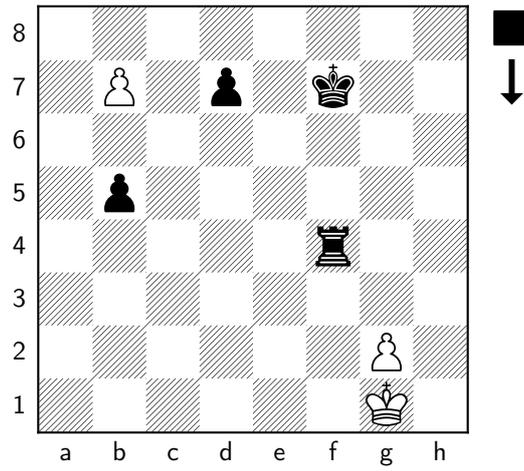
1. ♜e1? d5 2. b7 ♜h6+ 3. ♔g1 ♜h8 4. ♜b1 ♜b8 5. ♔f2 ♔e6 6. ♔e3 c5 7. g4 ♔f6 =.

1. ♔g1!

This move wins. The rook is able to block the other Rook's path in all variations.

### Variation 1

- |    |      |      |
|----|------|------|
| 1  | ...  | ♖f4  |
| 2. | ♖b5! | cxb5 |
| 3. | b7!  |      |



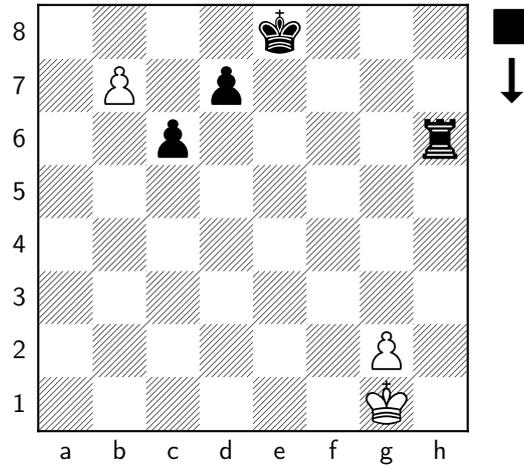
And the pawn queens.

### Variation 2

- |    |      |     |
|----|------|-----|
| 1  | ...  | ♖h6 |
| 2. | ♖e8! |     |

2. ♖f5+ ♔e7 3. ♖f8! also wins.

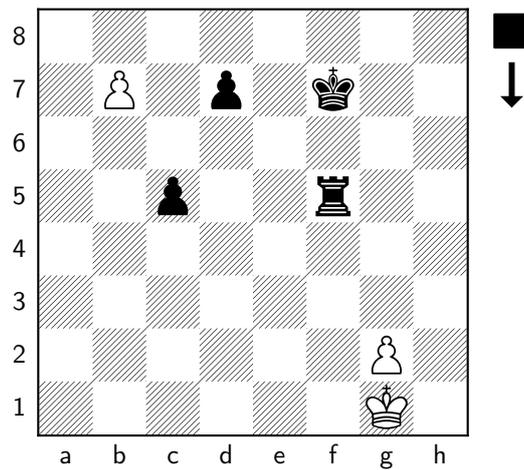
- |    |     |      |
|----|-----|------|
| 2  | ... | ♔xe8 |
| 3. | b7! |      |



And the pawn queens.

**Variation 3**

- 1. ... c5
- 2. ♖f5! ♖xf5
- 3. b7!



And the pawn queens.

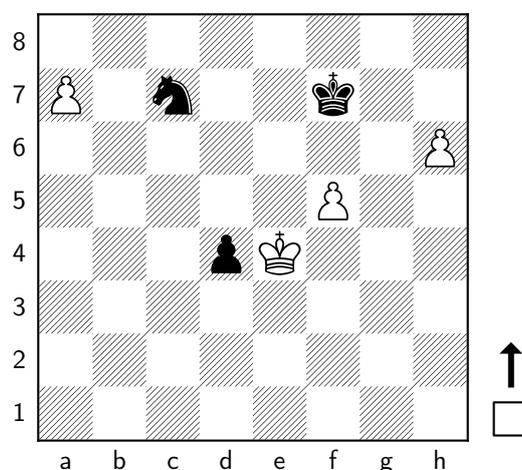
## 9.22. Drawn with a win in hand: Svidler – Anand, 1999

### Puzzle 91

PETER SVIDLER – VISWANATHAN ANAND

Dos Hermanas: 1999

8/P1n2k2/7P/5P2/3pK3/8/8/8 w - - 1 70



*Having found no way to make progress, White offered a draw, which was accepted. What did the Grandmaster miss against the future World Champion?*

White relies on his three isolated but powerful passed pawns. None of them can be captured at their current positions but cannot be advanced either. Black also has a similar isolated pawn. If advanced, it will be captured, but at its position, capturing it by 70. ♔×d4 will allow 70... ♖b5+ followed by 71... ♖×a7.

The presence of these pawns (both White and pawn) prevents the Kings from leaving them and helping his own pawns to advance. It is a strange case of helplessness!

There are several narrow misses here:

A) 70. ♔×d4 ♖b5+ 71. ♔e5 ♖×a7 72. h7 ♔g7 73. f6+ ♔×h7 74. ♔e6 ♔g8 75. ♔e7 ♖c8+ 76. ♔e8 ♖d6+ and Black draws.

B) 70. ♔d3 ♔f6 71. ♔c4 ♔f7 72. ♔c5 d3 73. ♔c6 ♖a8! 74. ♔b7 d2 and now

White needs to be very careful not to lose: 75. h7 ♔g7 76. f6+ ♔xh7 77. f7 ♔g7 78. f8♚+ ♔xf8 79. ♔xa8 and draws because it is a Rook pawn.

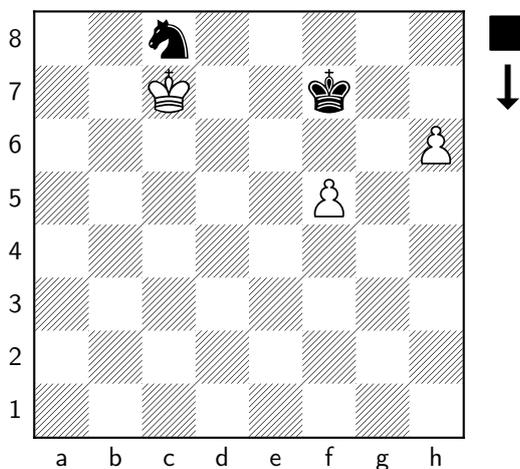
C) 70. ♔e5 d3 71. f6 ♔g6 72. ♔d6 (72. a8♚? ♔xa8 73. ♔e6 ♖c7+ 74. ♔e7 d2 75. f7 ♖d5+ 76. ♔e8 ♖f6+ 77. ♔d8 d1♚+--.) 72... ♖a8 73. ♔e7 d2 74. f7 d1♚ 75. f8♚=.

However, White has a way to win from this position. White missed it in the game, and offered a draw.

70. ♔xd4

It turns out that White can indeed play this move. He can delay it a move or two by ♔d3 or ♔f4, but ultimately, this move has to be played.

70	...	♖b5+
71.	♔c5!	♖xa7
72.	♔b6!	♖c8+
73.	♔c7!	



73 ... ♖e7

After 73... ♖a7 74. ♔d7!,

A) 74... ♖b5 75. h7! ♔g7 76. f6+! ♔xh7 77. f7! ♔g7 78. ♔e7!+-.

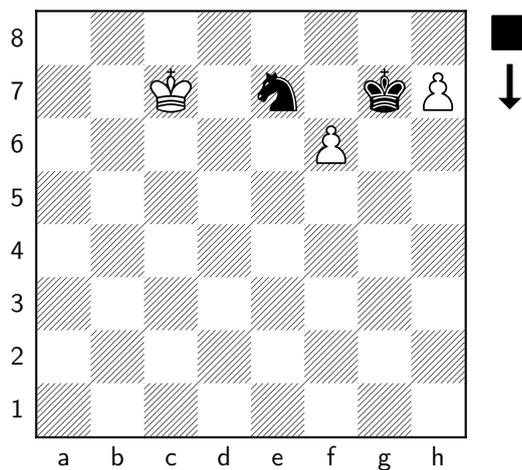
B) 74... ♔f6 75. h7! ♔g7 76. f6+! ♔xh7 77. f7! ♔g7 78. ♔e8!+-.

Depending on where the Black Knight is, the White King moves to a square that cannot cause a Knight check, and wins by 79. f8♚+.

74. h7! ♔g7

74... ♖xh7 will prolong the checkmate a little more, but it is obvious White will win after 75. h8♚.

75. f6+!

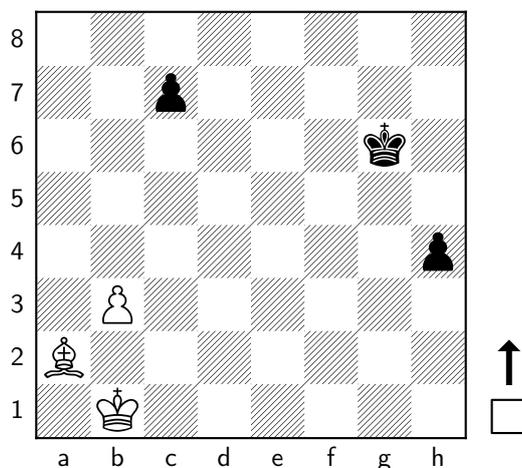


White wins. After 75... ♔xh7 76. fxe7, the pawn queens. Note that, if the Black Knight won't be there, 76. f7 ♔g7 only draws.

## 9.23. Taking longer route: Benko (Study), 1997

Puzzle 176  
 PAL BENKO (Study)  
*Blitz*, 1997

8/2p5/6k1/8/7p/1P6/B7/1K6 w - - 0 1



*White to play and win.*

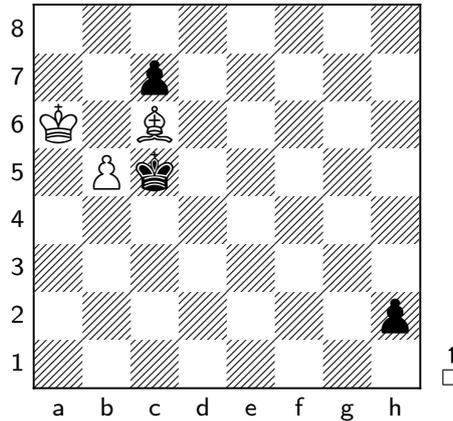
Yet another endgame study by the legendary PAL BENKO (See §6 on Page 669).

In order to win, White should not lose the b-pawn, should successfully prevent queening of the h-pawn (It is OK to give up the Bishop for that), win Black's c-pawn and queen the b-pawn. To defend, Black should make sure that the c-pawn is not lost unless the b-pawn also can be won.

After the obvious 1. b4?, Black draws with 1... h3 (1... c6? 2. ♙e6 prevents 2... h3 and threatens 3. ♙d7.) 2. ♙d5 ♖f6 3. ♔c2 ♖e5! 4. ♙h1 ♔d4!, the Black King obtains a strong position, and 5. ♗b3 c5 6. b5 c4+! 7. ♗b4 c3! 8. ♗b3 ♖c5 draws. Moves marked with ! are the only moves to draw, but there are more than one choices in other cases.

In the variation given above, another trial is 4. ♙c6 instead of other moves by the Bishop. This prevents the c-pawn from advancing in some critical variation, restricts the

Black King from crucial squares around the Black pawn, and it can be supported by advancing the pawn to b5. The idea is that, while the Bishop guards h1 to prevent the queening, the White King forces Black to retreat to defend c7, and by creating zugzwang, wins the pawn. But Black has a strong defense here. 4... ♖d4 5. ♗b3 h2 6. ♖a4 ♖c4 7. b5 ♖c5 8. ♖a5 ♖c4 9. ♖a6 ♖c5, reaching the following position.



Here, 10. ♖b7 will be met by 10... h1♔! 11. ♕xh1 ♖xh5, drawing. White cannot win the c7-pawn without losing the b5-pawn. To defend, the Black King should not go back to defend the c-pawn, but should take a strong position in the center near the White pawn.

Another idea is to use the White King to win the h-pawn, while the Bishop and the pawn supporting each other, and then the King going back to the queenside. This, however, doesn't work, as the Black King can prevent the White King from approaching the h-pawn. For example, in the last variation, 5. ♖d2 h2 6. ♖e2 will be met with 6... h1♔ 7. ♕xh1 ♖c4, winning the White pawn. If the pawn is advanced to b5 and the Black King reaches c4, the White King cannot go away from supporting the b-pawn, as given in the line above.

The solution is possible by taking Bishop through another, less obvious, route:

1. ♖c2! h3

For 1... ♖f5, White can continue with 2. ♖d3 or 2. ♕b1, transposing to the main line.

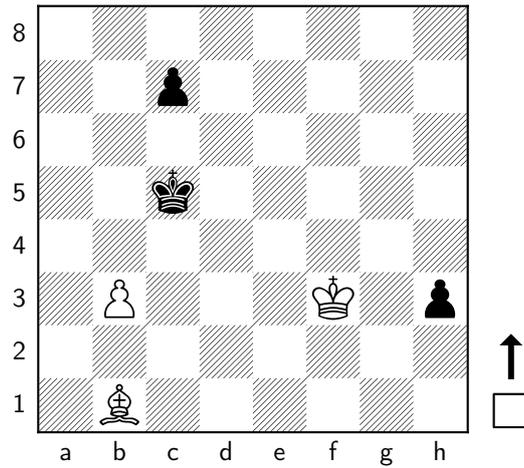
2. ♕b1!



5. ♔f3

5. ♔f2 also wins. Another way to win is 5. ♕e4+ ♖c5 6. ♔f3 (Or 6. ♔f2).

5 ... ♖c5

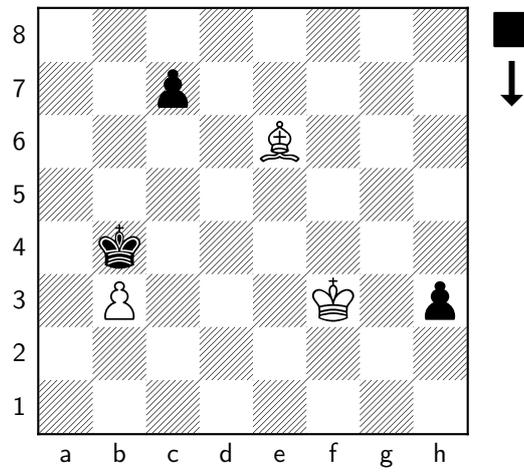


Looks like the Black King approaches the Black pawn as in the previous lines. The difference here is, since the White pawn is still on b3, it can be supported by the Bishop on the a2-g8 diagonal, and the White King can stop the h-pawn from queening.

6. ♕f5

6. ♕g6, 6. ♕h7, 6. ♕d3 or 6. ♕e4 also wins.

6 ... ♖b4  
7. ♕e6!

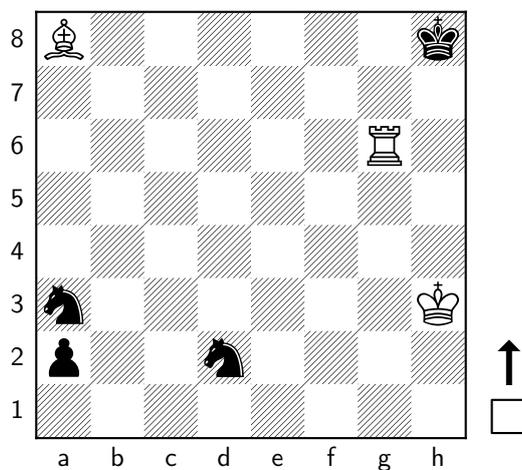


Protects the b-pawn and prevents the Black pawn reaching c4. Now the White King will win the h-pawn and then easily win the c-pawn and the game.

## 9.24. Let it queen!: Asaba (Study),

Puzzle 138  
ASABA, EDUARD (Study)

B6k/8/6R1/8/8/n6K/p2n4/8 w - - 0 1



*White to play and draw.*

The only threat Black has is the pawn on a2, ready to get promoted on the next move. White can afford to give up the Rook and the Bishop for that pawn, because Black cannot win with just the King and two Knights.

Ideas White have are:

1. Play  $\text{B}g8+$ . Black can't capture  $\dots \text{K} \times g8$  due to  $\text{K}d5+$  and  $\text{K} \times a2$ . However, Black has  $\dots \text{K}h7$ .
2. Play  $\text{R}g1$ , and control a1. Black can defend to this by playing one of the Knights to b1.
3. If the Knight moves away from a3,  $\text{R}a6$  will control the a1 square.
4. Play  $\text{K}d5$ , forcing  $\dots a1\text{Q}$ , and find a way to win the Queen.

All of these are used in the solution.

1. ♖g1!

1. ♖g8+? ♔h7 2. ♖g1 ♘db1 -+.

1 ... ♘db1

1... ♘ab1 2. ♖g8+ ♔h7 3. ♙e4+ and 4. ♖a8 =.

2. ♖g8+! ♔h7

2... ♔xg8 3. ♙d5+ and 4. ♙xa2 =.

3. ♙e4+ ♔h6

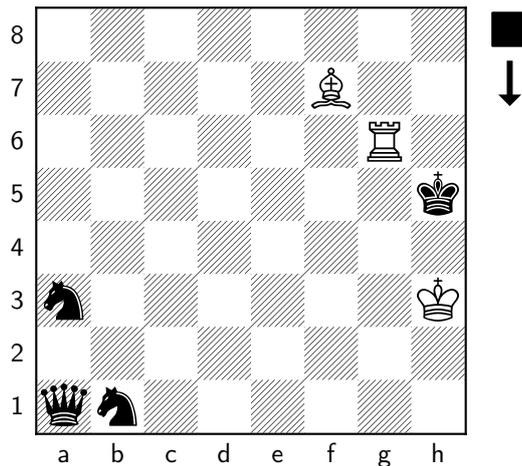
4. ♖g6+ ♔h5

After 4. ♔h7, the simplest is 5. ♖g8+, repeating the position.

5. ♙d5! a1♚

Any other promotion is not sufficient to win.

6. ♙f7!



Black is in a terrible zugzwang. Any Black move will lose the Queen immediately or invites a discovered check that loses the Queen. Also, the Black Queen doesn't have a move attacking the White Bishop. White wins the Queen and draws. For example, 6... ♖c3+ 7. ♔g3+ ♕h6 8. ♗xc3 ♘xc3 =.



- A) 1...♔b1 2. g7 a2 3. g8♖ a1♗ 4. ♖g1+ ♔b2 5. ♗xa1+ ♔xa1 6. d7 +-.
- B) 1...b3 2. g7! b2 3. g8♖+! ♔a1 (3...♔b1 4. ♖g1+ ♔a2 5. ♔c2 b1♗ 6. ♖xb1 #) 4. ♖h8 ♔a2 5. ♖h2 ♔a1 6. ♗e5 ♔a2 7. ♖d5+ ♔a1 8. ♖d4 ♔a2 9. ♖c4+ ♔a1 10. ♖c3 ♔a2 11. d7 b1♗+ 12. ♖c2+ ♖xc2+ 13. ♔xc2 ♔a1 14. d8♖.

We have reached the classic K+Q vs K+RP ending, which is generally a draw if the pawn can be pushed to the seventh rank. Here, it is not possible because the White King is too close:

- a) 14...a2 15. ♖d1#
- b) 14...♔a2 15. ♖a8 ♔a1 16. ♖xa3 #.

This is the most interesting variation in this study.

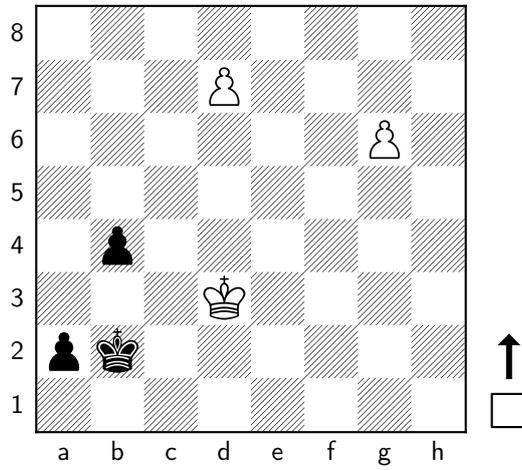
## 2. d7

This was Benko's continuation, assuming that 2. g7 a2 3. g8♖ a1♗ only leads to a draw by perpetual checks. However, using Nalimov's tablebases, I found that 2. g7 also wins, even though much slower.

Here is one of the the longest defenses, where White and Black play their best moves: 2. g7 a2 3. g8♖! a1♗ 4. ♖g2+ ♔a3 5. ♖a8+! ♔b3 6. ♖d5+ ♔a4 7. d7 ♖c3+ 8. ♔e4 ♖c2+ 9. ♔e5 ♖h2+ 10. ♔e6 ♖h6+ 11. ♔e7 ♖h4+ 12. ♔d6 ♖d8 13. ♖a2+ ♔b5 14. ♖a7 ♖f6+ 15. ♔c7! ♖c3+ 16. ♔b8 ♖h8+ 17. ♔b7 ♖h1+ 18. ♔c8 ♖c6+ 19. ♔b8 ♖d5 20. ♖b7+, winning.

This is one of the rare cases where computer analysis debunked a well-known composition.

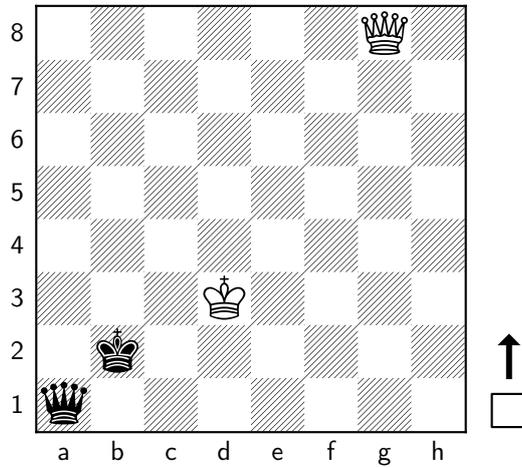
## 2 ... a2



**3.                    d8♞!**

The key move of the study. 3. d8♞? a1♞ 4. ♞d4+ ♔b3! draws, as 5. ♞x a1 is stalemate! Also, 5. g7 ♞d1+ 6. ♔e4 ♞g4+ 7. ♔d3 ♞d1+ =.

<b>3.</b>	...	♔b1
<b>4.</b>	♞f6!	b3
<b>5.</b>	g7!	b2
<b>6.</b>	♞x b2!	♔x b2
<b>7.</b>	g8♞!	a1♞



Looks like we reached an equal King and Queen ending. But, like in many such endings, the Kings' positions are very crucial, and there are many winning lines.

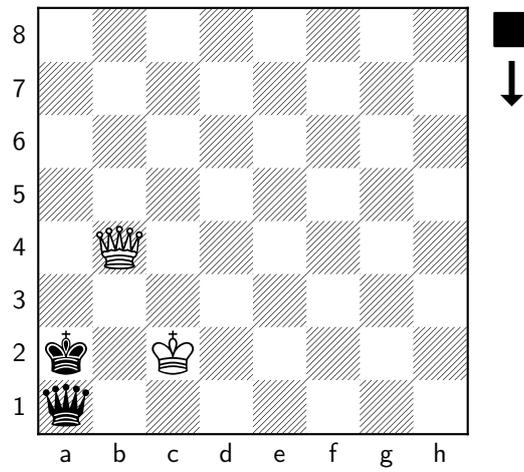
8. ♚b8+

8. ♛g2+ also wins, but this is faster. The following is one of the fastest paths to check-mate.

8. ... ♔c1  
9. ♛c7+ ♕b2

Black cannot go to the other side: 9... ♔d1 10. ♛c2+ ♕e1 11. ♛e1#.

10. ♛b6+ ♔a3  
11. ♛a5+ ♕b2  
12. ♛b4+ ♕a2  
13. ♛c2

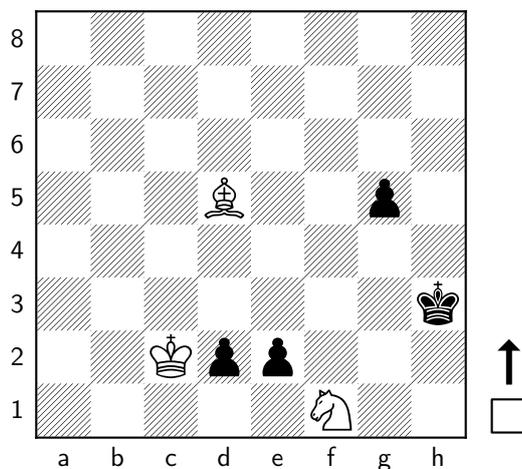


White wins. Black cannot prevent the threatened checkmate by ♔a4♯ or ♔b3♯.

## 9.26. Freeze all promotions!: Benko (Study), 1997

Puzzle 160  
 BENKO, PAL (Study)  
 E.G., 1997

8/8/8/3B2p1/8/7k/2Kpp3/5N2 w - - 0 1



*White to play and win.*

Another gem from PAL BENKO (See §6 on Page 669).

1. ♖e6+ ♔h4

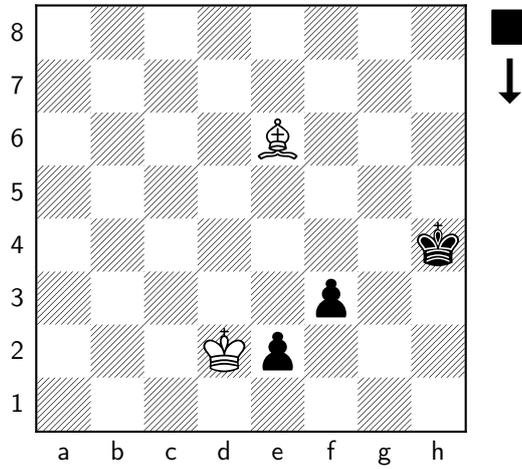
1...g4 2. ♖xg4 ♔xg4 (2...♔g3? 3. ♖xe2 +-.) 3. ♗e3+ ♔f3 4. ♔xd2=.

1...♔g2 2. ♗e3+ ♔f2 3. ♗d1+! ♔e1 (3...exd1♔+ 4. ♔xd1=) 4. ♖g4! =.

2. ♗xd2 g4

2...e1♔ 3. ♗f3+ +- . Same with promoting to Rook or Bishop. 2...e1♗+ only draws.

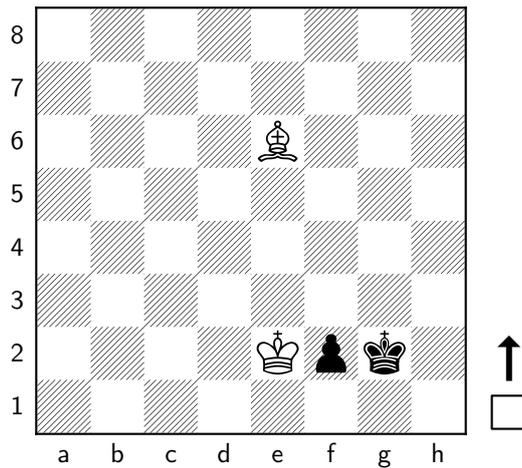
3.            ♖f3+!            gxf3  
 4.            ♔d2!



- 4            ...            ♔g3  
 5.            ♔e1!            f2+

5... ♔g2 6. ♔d5! draws.

6.            ♔xe2            ♔g2

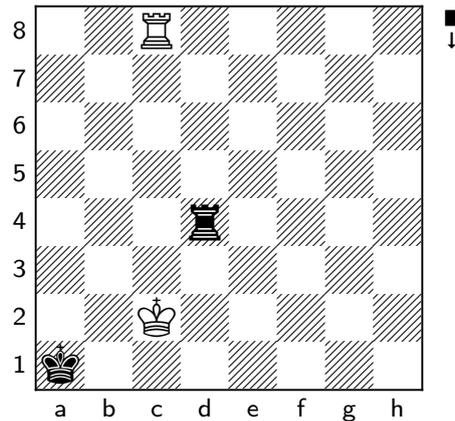


7.  $\mathbb{h}3+$ !

and draws.

## 10. á la Saavedra

One of the most famous endgame studies features an accidental discovery by amateur that a puzzle that was thought to be drawn is actually a win. It leads to the following position.



White threatens 2. ♖a8#, so Black need to play 1... ♖a4, after which 2. ♔b3 wins. White is threatening both 2. ♔xa4 and 2. ♖c1#, and Black cannot prevent both of them.

This occurred in an endgame study enhanced by an amateur chess enthusiast and opened a new chapter in the theory of Rook vs Pawn endings. It is so popular that devoting a chapter on this theme is not inappropriate.

## 10.1. Win or draw, that is the question... : Saavedra (Study), 1895

Puzzle 143  
A. SAAVEDRA (Study)  
1895

8/8/1KP5/3r4/8/8/8/k7 w - - 0 1

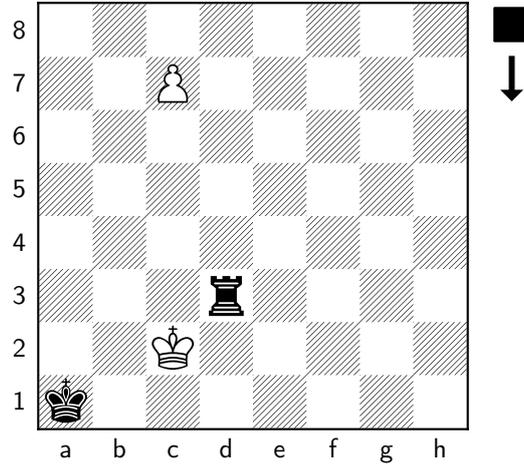
*White to play. What is the result?*

There is a fascinating story behind this position. This was published on April 27, 1895 in the chess column of the *Weekly Citizen* magazine from Glasgow, Scotland, under the title “White to move, Black draws.” A Spanish priest named REV. FERNANDO SAAVEDRA found an amazing way to win from this position by a curious *underpromotion*. Even though Saavedra was a mediocre chess player, he became famous by this discovery.

- |    |     |      |
|----|-----|------|
| 1. | c7  | ♖d6+ |
| 2. | ♙b5 |      |

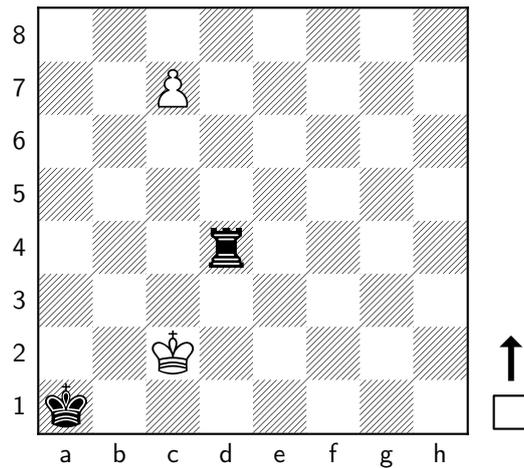
If 2. ♖c5, Black draws by 2... ♖d1, followed by 3... ♖c1 (with or without check) and capturing the pawn.

- |    |     |      |
|----|-----|------|
| 2  | ... | ♖d5+ |
| 3. | ♔b4 | ♖d4+ |
| 4. | ♔b3 | ♖d3+ |
| 5. | ♔c2 |      |



Looks like White will win now, as Black has no way to prevent the pawn from queening. But Black has an unexpected defense.

- |   |     |      |
|---|-----|------|
| 5 | ... | ♖d4! |
|---|-----|------|



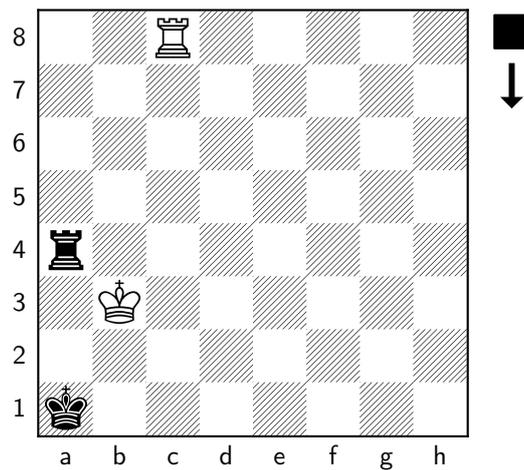
The article mentioned that 6. c8♖ ♖c4+! 7. ♖×c4 is stalemate, so Black draws.  
 Pondering on this position, Saavedra found a surprising way to win.

6. c8♖!!

Now, 6... ♖c4 7. ♖×c4 is not stalemate: 7... ♔a2 8. ♖a4#.

Even though this is K+R vs K+R ending, White is threatening mate in one by 7. ♖a4#. There is only one way to defend against that.

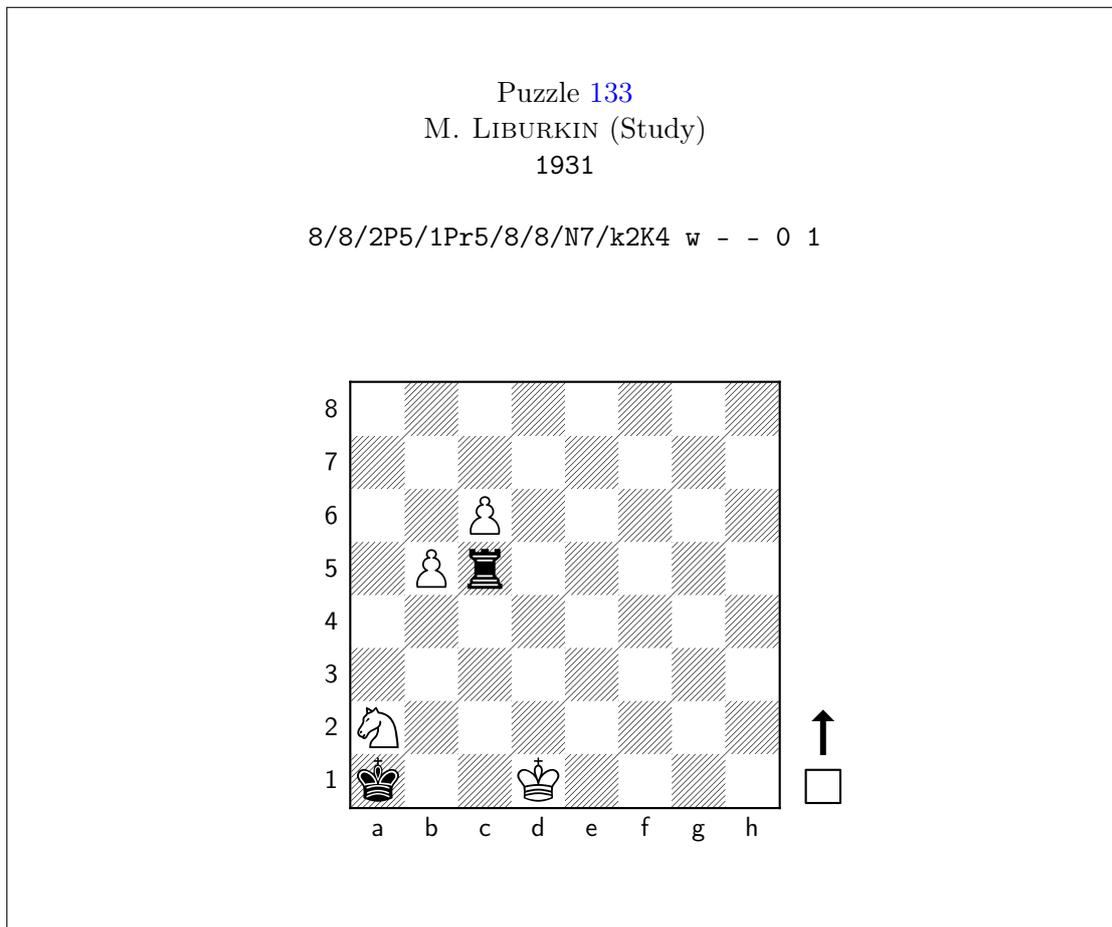
6 ... ♖a4  
 7. ♔b3!



Now White threatens 8. ♖c1# and 8. ♔×a4. Black cannot avoid both, so he will be either checkmated or will lose the Rook.

White wins.

## 10.2. Sac to Saavedra: Liburkin (Study), 1931



1.            ♖c1!

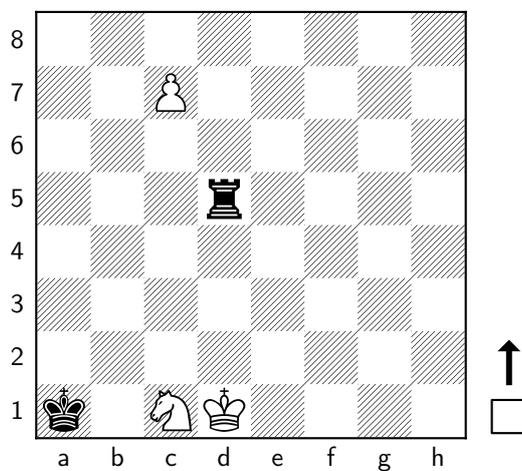
Controls b3 and d3 for two different purposes. 1... ♙b1 2. ♘d3 ♜x b5 3. c7 wins.

1            ...            ♜x b5

After 1... ♜d5, White wins by 2. ♙c2! ♜c5+ (2... ♜x b5 3. ♘b3+ ♙a2 4. c7 +-.) 3. ♙d3! ♜x c1 4. ♙d4 and escorting the pawns to the eighth rank.

2.            c7            ♜d5+

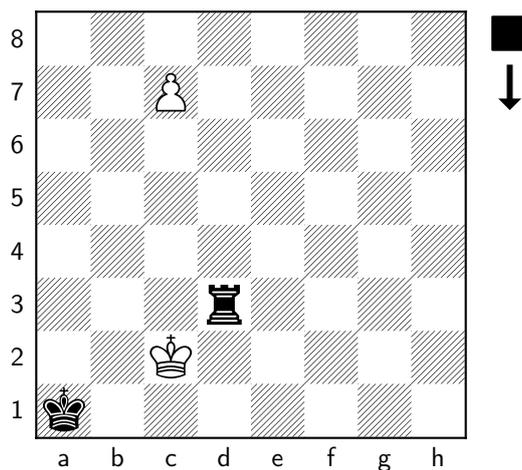
2... ♖c5 3. ♘b3+ +-.



3. ♘d3!

3. ♔e2? ♖e5+ 4. ♔d3 ♖e8, followed by 5... ♖c8 draws.

3 ... ♖xd3+  
4. ♔c2!

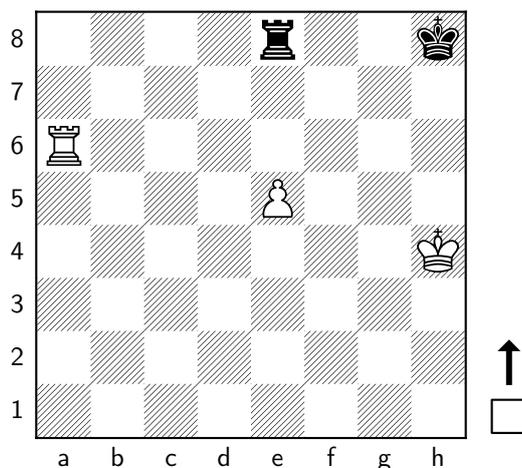


Reaching the position after White's 5<sup>th</sup> move in SAAVEDRA'S STUDY, 1895 (See Page [221](#).)  
The play continues 5...♖d4 6. c8♖!! (6. c8♖? ♖c4 7. ♖xc4 =due to stalemate.)  
6...♖a4 7. ♖b3 +-.

### 10.3. Remembering Saavedra: Ulrichsen (Study), 2001

Puzzle 121  
ULRICHSEN (Study)  
2001

4r2k/8/R7/4P3/7K/8/8/8 w - - 0 1



*White to play and win.*

There are two ways to keep the pawn:

After 1. ♖a5, Black has many ways to draw, one of them being 1... ♜e6 2. ♔g5 ♔g7 3. ♔f5 ♔f7, and White cannot make any progress.

1. e6 is more interesting. Black needs to play precise: 1... ♜e7 (1... ♔g7 also will draw.) 2. ♔g5 ♔g7 3. ♔f5, and Black has only two moves to draw.

1) 3... ♔f8 4. ♔f6 ♜f7+! draws.

2) 3... ♜b7 4. ♔e5 ♜b5+ (4... ♔f8 also draws: 5. ♔d6 (5. ♔f6 ♜f7+!) 5... ♜b8! 6. e7+ ♔e8 7. ♜c6 ♜a8 draws.) 5. ♔d6 ♜e5 6. ♜a7 ♜e1 draws.

So, if White cannot save the pawn, how can he win?

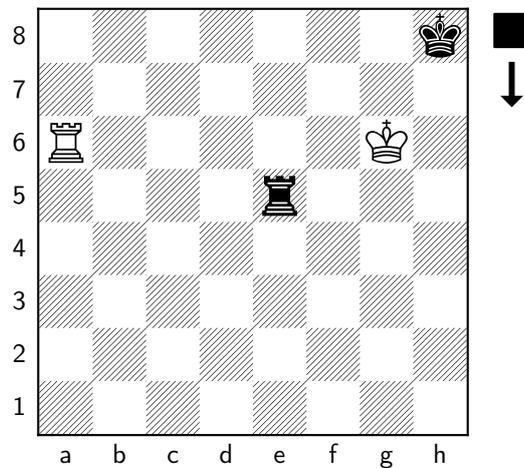
1. ♔g5!!

Sacrificing the pawn and inviting check, but this Rook vs Rook ending is won.

1 ... ♖xe5+

After 1... ♔g7, White wins by 2. ♖a7+ ♔f8 3. ♔f6 wins. Some variations:

2. ♔g6



People who has seen a lot of end game studies might recognize this position. It is the same position after White's 6<sup>th</sup> move in Problem 10.1 (Page 220), with some rotation.

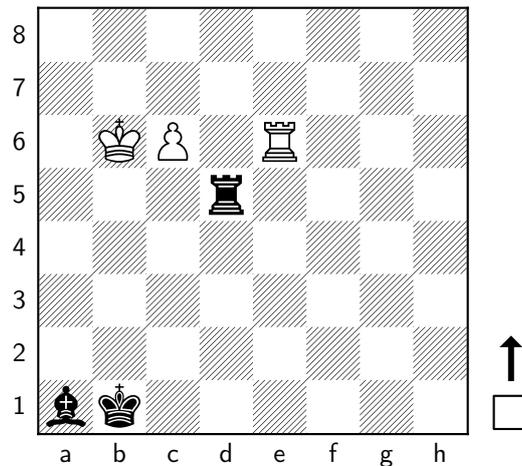
2 ... ♖e8  
3. ♔f7!

Threatens both 4. ♔xe8 and 4. ♖h6#, and wins.

## 10.4. Exchange sacrifice to Saavedra: Dehler (Study), 1910

Puzzle 150  
DEHLER (Study)  
1910

8/8/1KP1R3/3r4/8/8/8/bk6 w - - 0 1

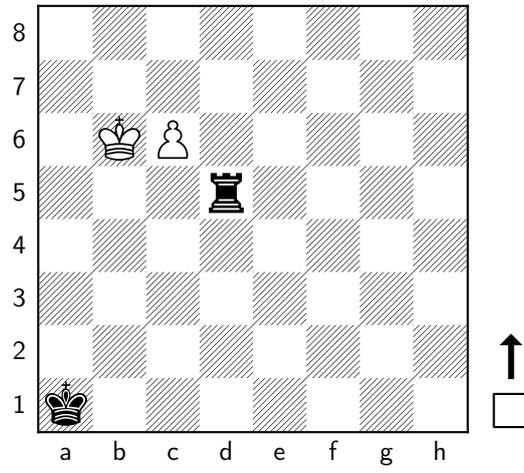


*White to play and win.*

1. c7? is a tempting try, but after 1... ♔d4+,
- 1) 2. ♕c6 ♜c5+ 3. ♕d7 ♜xc7+ 4. ♕xc7 ♕c2 draws, as White cannot win with a Rook against a Bishop unless the King is pushed to an edge.
  - 2) 2. ♕b7 ♜b5+ 3. ♕a8 (3. ♕c8 ♔b6 and draws.) 3... ♜c5, captures the pawn on the next move, and draws.

1.	♜e1+	♕b2
2.	♜xa1	♕xa1

Black has to capture, otherwise after 3. ♜a5, White will win the R + P vs R ending.



Now we reached Saavedra study (See Section 10.1 (Page 220)). 3. c7 etc. wins.

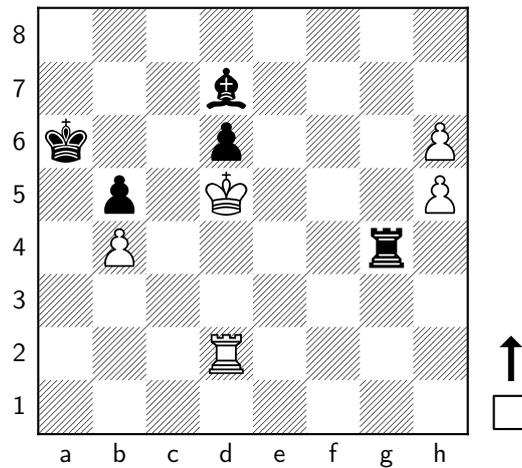
## 10.5. Inspired by Saavedra: Troitsky (Study), 1924

Puzzle 151

A. TROITSKY (Study)

*Ceske Slovo*, 1924

8/3b4/k2p3P/1p1K3P/1P4r1/8/3R4/8 w - - 0 1

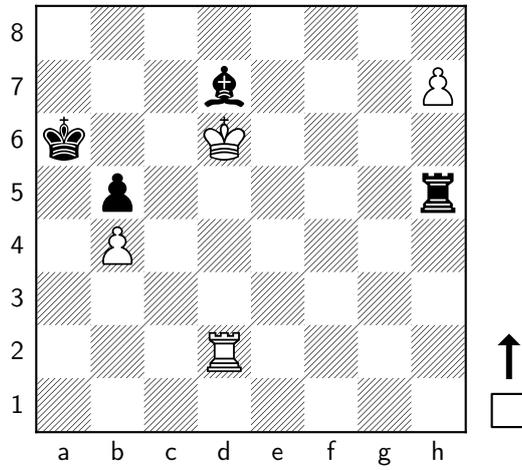


*White to play and win.*

This study, inspired by the Saavedra study, is by the great composer A. TROITSKY (See §47 on Page 676).

- |    |              |             |
|----|--------------|-------------|
| 1. | <b>h7!</b>   | <b>♖g5+</b> |
| 2. | <b>♔xd6!</b> | <b>♗xh5</b> |

Black's moves were forced because that was the only way to prevent the h-pawn from queening.



3. ♔c7!

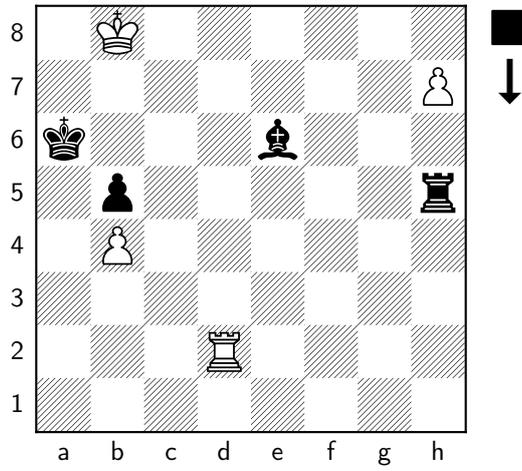
Threatens 4. ♖a2#.

3 ... ♗e6

So that 4. ♖d3? or 4. ♖d1? can be met with 4... ♖xh7+!

4. ♕b8!

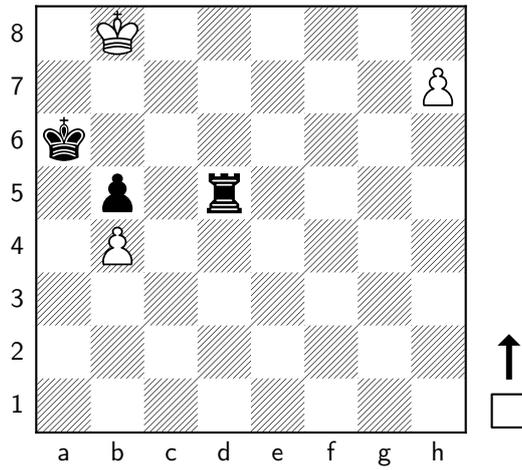
Threatening 5. ♖d6#. Note that the pawn on h7 blocks the Black Rook from 4... ♖h8+.



4 ... ♙d5

4...♙d5 5. ♖xg5 ♗xg5 6. ♙h8 ♚+-.

5. ♖xg5! ♖xg5

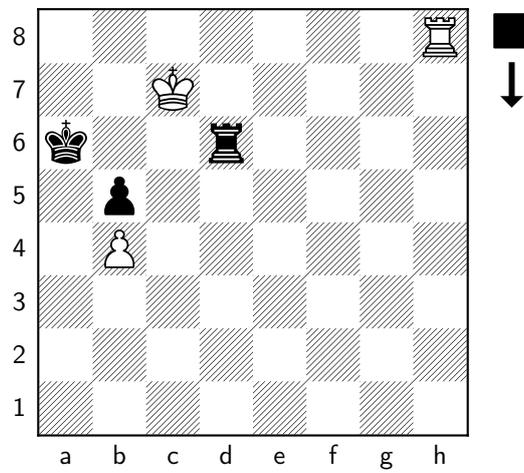


Now, 6. ♙h8 ♚ will only draw after 6...♖d8+! 7. ♗xg5 stalemate!

6. h8♖!

Similar to the Saavedra study, this avoids the stalemate, because after 6...♗d8+ 7. ♗×d8, the Black King can move to b6 and will get checkmated by 8. ♖d6#. Now, White threatens checkmate by 7. ♗h6+, so Black's move is forced.

6 ... ♗d6  
7. ♗c7!



White wins, because Black cannot avoid 8. ♖a8# without losing the Rook.

## 11. Shutting the path

Sometimes, a game is decided by preventing a defense by shutting down a crucial path of a piece. One example is closing the freeing path of the King. This chapter gives some fine examples.

## 11.1. Buying time by queen sacrifice: Spassky – Korchnoi, 1955

Puzzle 66  
BORIS SPASSKY – VIKTOR KORCHNOI  
USSR: 1955

8/4P1k1/6P1/1p6/pB1P1b1q/P4r1P/6P1/4R1QK w - - 1 41

*Black is threatening 41... ♖×h3+! with checkmate following. How does White escape from that and win the game?*

BORIS SPASSKY (See §40 on Page 675), the future world champion, and VIKTOR KORCHNOI (See §21 on Page 672), the future World Championship challenger, were two of the strongest young chess players in the world during 1950s. This position is from one of their encounters from the USSR championship 1955. Later, Spassky defected to France and Korchnoi defected to Switzerland.

41. ♕h2!!

This is brilliant, but 41. e8♖+! also wins. For example,

A) 41... ♖×g6 42. g×f3+ +-.



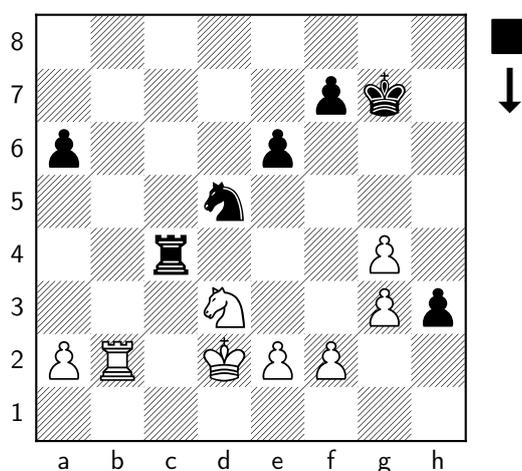
## 11.2. On her majesty's service: Averbach – Korchnoi, 1965

### Puzzle 2

YURI AVERBACK – VIKTOR KORCHNOI

Yerevan URS: 1965

8/5pk1/p3p3/3n4/2r3P1/3N2Pp/PR1KPP2/8 b - - 3 39



*Black is a pawn down, but his h-pawn is very close to queening. However, the White rook can stop the pawn. Can Black stop the White rook from stopping the pawn?*

This puzzle was posted on the day VIKTOR KORCHNOI (See §21 on Page 672) died. In this game, he finishes off YURI AVERBACK (See §5 on Page 668) one of the best chess theoreticians (has authored some of the best books on endgames) in the world.

39

...

**♖c1!**

Threatens to queen the pawn. After 40. ♔×c1 or 40. ♘×c1, Black plays 40...h2 and the pawn cannot be stopped.

### 11.3. Shielding Knight: Karpov – Korchnoi, 1978

Puzzle 35  
ANATOLI KARPOV – VIKTOR KORCHNOI  
Wch Game 8, Baguio: 1978

4rk2/2p2prp/pq2b2N/1p6/8/2PR1Q2/PP4PP/5R1K w - - 4 26

*How can White take advantage of pathetic position of the Black King?*

This was the first decisive game after seven draws in the World Championship match between the champion ANATOLY KARPOV (See §18 on Page 671) and the challenger VIKTOR KORCHNOI (See §21 on Page 672).

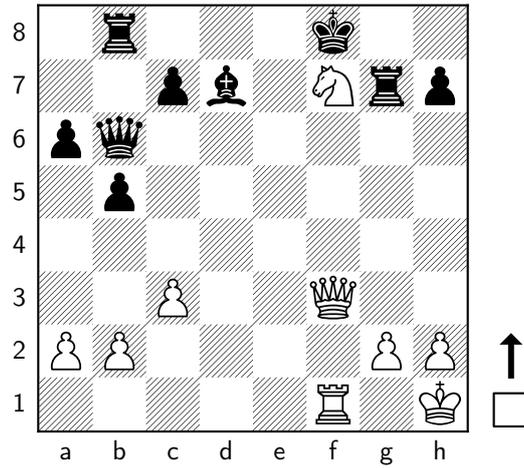
Karpov won the match narrowly with +6-5=21. The rule was the first player to win 6 points will win the match, with draws not counting.

The score (Karpov vs Korchnoi) became 1-0 at game 8, 1-1 at game 11, 2-1 at game 13, 3-1 at game 14, 4-1 at game 17, 4-2 at game 21 and 5-2 at game 27. Then it became 5-3 at game 28, 5-4 at game 29 and 5-5 at game 31. Finally, Karpov won the 32<sup>nd</sup> game and won 6-5.

26.                    ♖d7!                    ♜b8

26... ♖xd7 27. ♔xf7+! ♚xf7 28. ♔xf7#.

27. ♖xf7 ♖xd7



Now, 28. ♖h6+? allows Black to escape with 28... ♖e7. Other discovered checks by the Knight allows 28... ♖g8. The move played shields the f8-square from the Rook.

28. ♖d8+!

Now, 28... ♖e7 will be met with 29. ♔f8#. Black resigns.

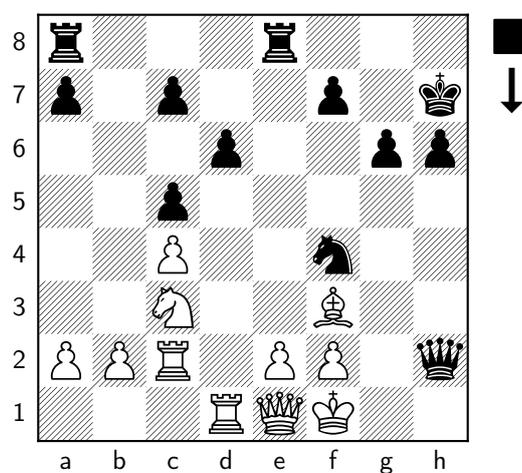
## 11.4. Sealing the exit: Friedman – Thornblom, 1973

### Puzzle 28

SHMUEL FRIEDMAN – NILS THORNBLOM

Stockholm: 1973

r3r3/p1p2p1k/3p2pp/2p5/2P2n2/2N2B2/PPR1PP1q/3RQK2 b - - 5 26



*Black sacrificed a piece for two pawns. How can he finish the game off without allowing White to escape?*

26

...

**♖e3!**

This move blocks the e-pawn from moving, giving the White King an escape route. Black plays 27...♘h3 and 28...♔g1#.

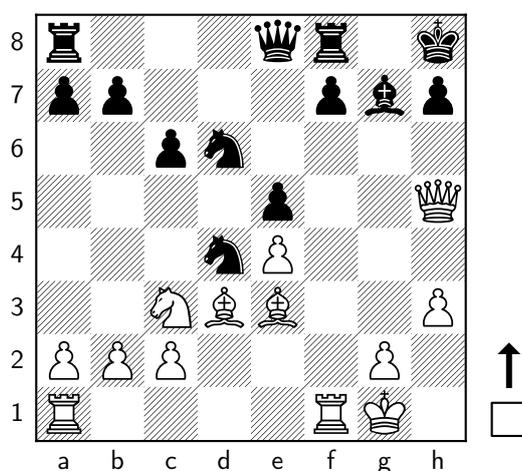
## 11.5. Blocking castle: Fischer – Benko, 1963

### Puzzle 57

BOBBY FISCHER – PAL BENKO

New York USA: 1963

r3qr1k/pp3pbp/2pn4/4p2Q/3nP3/2NBB2P/PPP3P1/R4RK1 w - - 2 18



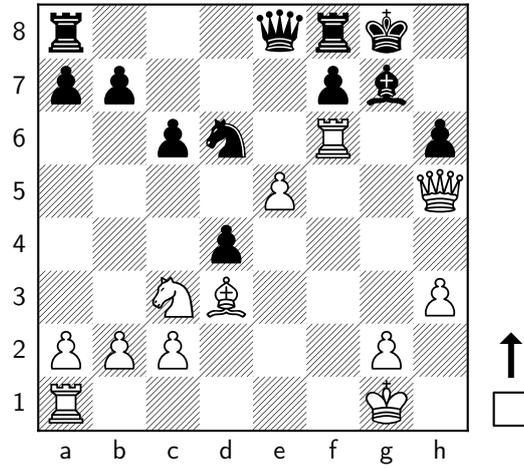
18. ♙×d4 e×d4 19. e5 is tempting but Black defends with 19...f5. How can White win by a tempo?

Future World Champion BOBBY FISCHER (See §11 on Page 670) gets the better of another promising American master of the era, PAL BENKO (See §6 on Page 669).

18. ♙×d4 e×d4  
19. ♗f6!

Preventing ...f5 in a peculiar way. Threatens 20. e5 with mate threat on h7. 20...h6  
21. ♗×h6+! checkmates. After 19...♙×f6 20. e5, the checkmate on h7 cannot be avoided.

19. ... ♔g8  
 20. e5 h6



21. ♞e2!

White saves the piece. Black cannot do it, because moving the Knight from d6 will follow 22. ♜f5, with inevitable mate. 22... ♙×f6 23. ♜×h6 also will result in checkmate. Black resigns.

## 12. Interesting maneuvers

Some complex manoeuvres to achieve a result.

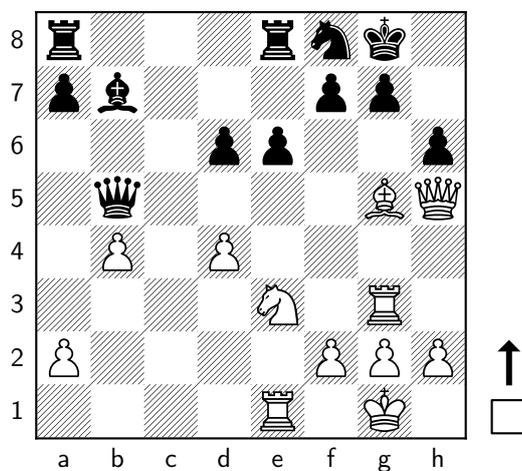
## 12.1. The windmill attack: Torre, C. – Lasker, Em., 1925

### Puzzle 45

CARLOS TORRE – EMMANUEL LASKER

Moscow: 1925

r3rnk1/pb3pp1/3pp2p/1q4BQ/1P1P4/4N1R1/P4PPP/4R1K1 w - - 4 25



*The material is level, but looks like White will lose the Bishop on g5 because it is pinned against the Queen. How can White avoid it and win the game?*

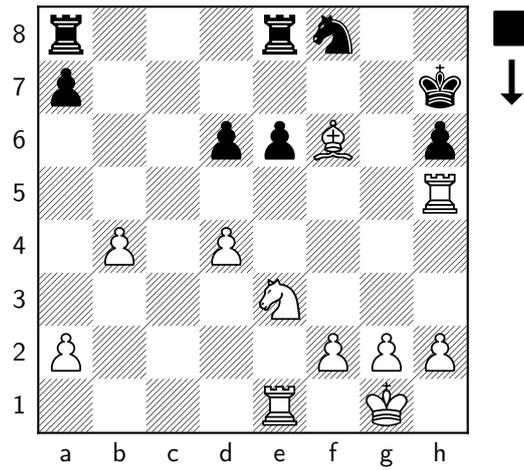
The less known CARLOS TORRE (See §46 on Page 676) beats the former World Champion EMMANUEL LASKER Pl:EmLasker with a spectacular *Wind-mill combination*.

25. ♖f6!

Black has to accept the Queen sacrifice as his Queen also is *en prise*.

25	...	♙xh5
26.	♖xg7+	♚h8
27.	♖xf7+	♚g8

28. ♖g7+ ♔h8  
 29. ♗xb7+ ♕g8  
 30. ♖g7+ ♕h8  
 31. ♖g5+ ♕h7  
 32. ♗xh5



White is up a piece and two pawn here. Black gets the piece back but White wins anyway.

32. ... ♕g6  
 33. ♖h3 ♕xf6  
 34. ♖xh6+ ♕g5  
 35. ♖h3

With three extra pawns, White wins easily. The game continued 35... ♖eb8 36. ♖g3+ ♕f6 37. ♖f3+ ♕g6 38. a3 a5 39. bxa5 ♖xa5 40. ♖c4 ♖d5 41. ♖f4 ♖d7 42. ♖xe6+ ♕g5 43. g3 1-0.

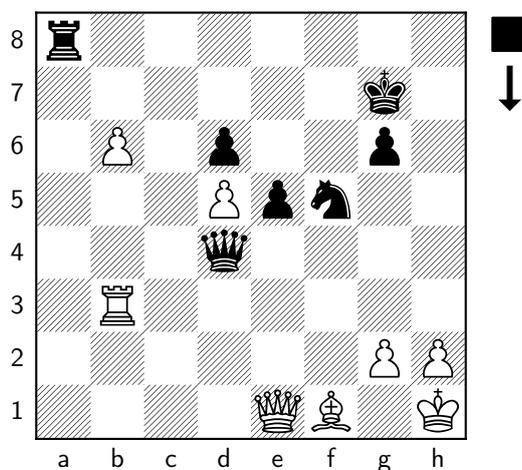
## 12.2. Shuttling Rook: Karpov – Taimanov, 1977

### Puzzle 73

ANATOLY KARPOV – MARK TAIMANOV

Leningrad, USSR: 1977

r7/6k1/1P1p2p1/3Ppn2/3q4/1R6/6PP/4QB1K b - - 0 37



*White has an extra dangerous passed pawn, but Black finds a brilliant combination to win the game. Can you find it?*

Black's last move was moving the Queen from b6 to d4, setting this trap. Without realizing that, White played 37. b6??. where 37. ♖b1 would have kept the balance.

**37**                    ...                    ♖a1!

The only move to get an advantage. 37... ♗g3?? can be met with 38. ♙xg3 or 38. ♖xg3, while 37... ♙x d5? will be refuted with 38. b7.

The move played diverts the White Rook from the third rank.

**38.**                    ♖b1

After 38. ♖e2, Black has several ways to win:

- A) 38... ♖c5, with the threat 39... ♘d4, and 39. b7 ♖c2 40. b8 ♖ ♖×e2 41. ♜b7+ ♙h6 42. ♖h8+ ♙g5 43. h4+ ♙f4 44. ♜b4+ ♙g3 45. ♜b3+ ♙f2 and White cannot avoid the checkmate.
- B) 38... ♖×d5 39. ♜f3 (39. ♜d3 ♘d4 40. ♜×d4 ♖×d4 41. b7 ♖b2-+) 39... ♘d4 40. ♖b2 ♜a2-+.
- C) 38... ♖f4 39. ♜f3 ♘d4!-+.

38... ♖a4, 38... ♖d2 and 38... ♖g4 also win.

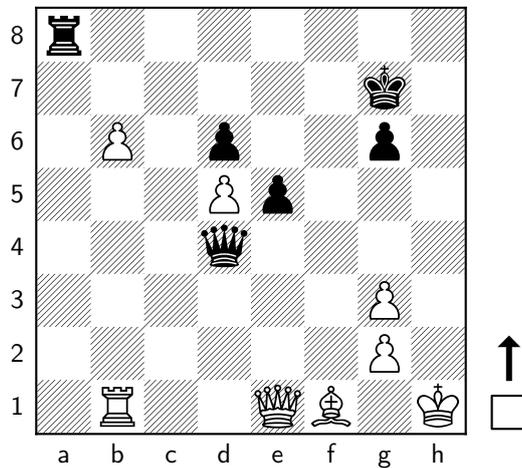
38 ... ♘g3+!

White resigned here, anticipating the defeat that follows.

39. h×g3

After 39. ♖×g3 ♜×b1 40. ♖f3 e4 41. ♖e2 ♖d3, Black wins.

39 ... ♜a8!



The point! There is no reply to the threatened mate by 40... ♜h8+.

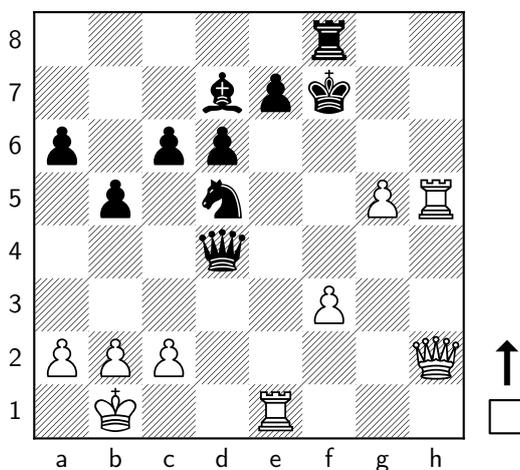
It is interesting to watch the journey of the Rook from a8 to a1 and back to a8 to h8!

### 12.3. Missed win: Naiditsch – Svidler, 2009

#### Puzzle 63

ARKADIJ NAIDITSCH – PETER SVIDLER  
World Cup, Khanty-Mansiysk RUS: 2009

5r2/3bpk2/p1pp4/1p1n2PR/3q4/5P2/PPP4Q/1K2R3 w - - 0 37



*White played 37. g6+? and lost. Can you find a winning line?*

ARKADIJ NAIDITSCH (See §29 on Page 674) and PETER SVIDLER (See §42 on Page 676), two strong grandmasters currently, played this game in a rapid (G/30) game.

**37. ♖h4!**

In the actual game, White played 37. g6+? and lost.

**37 ... ♕c5**

37... ♕g7 38. ♖h7+-.

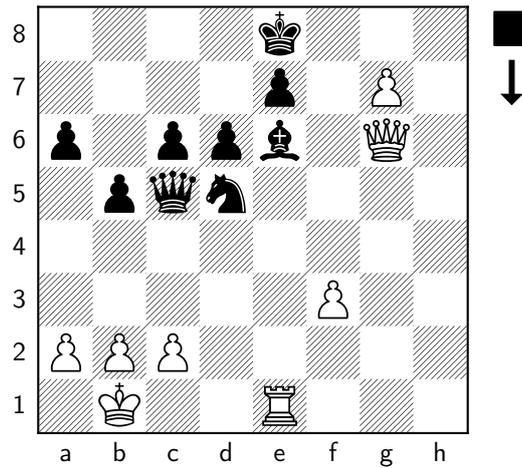
38. ♖f4+! ♔e8

38... ♗xf4 39. ♖h7+ ♔e8 40. ♖xe7# is too fast, while 38... ♕f5 39. ♖xf5+ ♔e8  
40. ♖h5+ ♔d7 41. ♖xf8 is too painful.

39. ♖xf8+ ♔xf8  
40. ♖h8+ ♔f7  
41. ♖h7+ ♔f8

41... ♔e8 42. ♖g8#

42. g6 ♕e6  
43. g7+ ♔e8  
44. ♖g6+!



White wins. Both 44... ♔d8 45. ♖xe6 followed by 46. g8♖+ and 44... ♕f7 45. g8♖+ win.

### 13. Knight power

Knights are sometimes very annoying – they can do damage without getting attacked back. Fork is a good example. There are some positions where the Knights absolutely dominate the board. This chapter has some examples.

### 13.1. Dancing Knight: Larsen – Kristiansen, 1991

Puzzle 103  
BENT LARSEN – JENS KRISTIANSEN  
Lyngby DEN: 1991

3R4/pqr3kp/r3ppp1/4N2P/1P2pP2/2P3P1/5P2/3Q2K1 w - - 0 32

*White is an exchange down, but does he have a winning combination?*

BENT LARSEN (See §22 on Page 672), master of innovative combinations, finds a neat way to win from this position.

**32.** ♖g8+!

32. h6+ ♔xh6 33. ♖g8! also wins, but it is more complicated. For example, 33... ♜c8  
34. ♘g4+ ♔h5 35. ♘xf6+ ♔h6 36. ♘g4+ ♔h5 37. ♘e3+ ♔h5 38. ♚d4!! (In-  
tending 39. ♚f6!) 38... ♜xg8 39. ♘g4+ ♔h5 40. ♘f6+ ♔h6 41. ♘xg8+ ♔h5 42.  
♚d1#

**32** ... ♔xg8

32... ♔h6 33. ♖g4+ ♕h5, and White has two ways to win:

A) 34. ♗e3+ ♕h6 35. ♖g2! ♜b5 36. ♜h1+ ♜h5 37. ♖g4#.

B) 34. ♗xf6+ ♕h6 35. ♖g4+ ♕h5 36. ♗e5+ ♕h6 37. g4! and 38. g5#.

<b>33.</b>	♜d8+	♖g7
<b>34.</b>	h6+	♗xh6
<b>35.</b>	♖g4+	♕h5

35... ♖g7 36. ♜xf6+ ♖g8 37. ♗h6#.

<b>36.</b>	♗xf6+	♖h6
<b>37.</b>	♖g4+	

Black resigns. Both 37... ♖g7 38. ♜f6+ ♖g8 39. ♗h6# and 37... ♖h5 38. ♜h4# are checkmates.

### 13.2. The Spartan Knight: Beliavsky (Study), 1998

Puzzle 190  
A. BELIAVSKY (Study)  
Korolkov Mem. Tourney, 1998

3q1k2/p2r1p1R/2p1n2K/N2rp3/8/5PP1/8/1Q1N4 w - - 0 1

*White to play and win.*

This marvelous problem, by the famous player ALEXANDER BELIAVSKY (See §7 on Page 669) resembling a real game, has many stages, and some intermediate positions are used as separate problems.

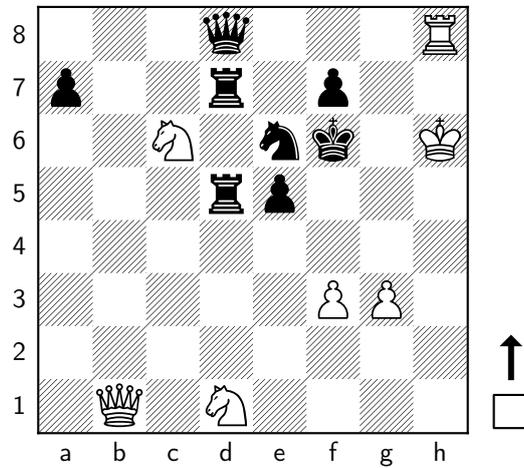
The first move is expected, but it takes a different turn thereafter.

1. ♖h8+ ♔e7
2. ♘xc6+

2. ♙xd8? ♞xd8 and Black wins.

- 2 ... ♔f6

2... ♖d6 3. ♘xd8 ♘xd8 4. ♘e3+-.



The next problem: White to play and win.

3. ♖g8!

A hard to find move. Insufficient are

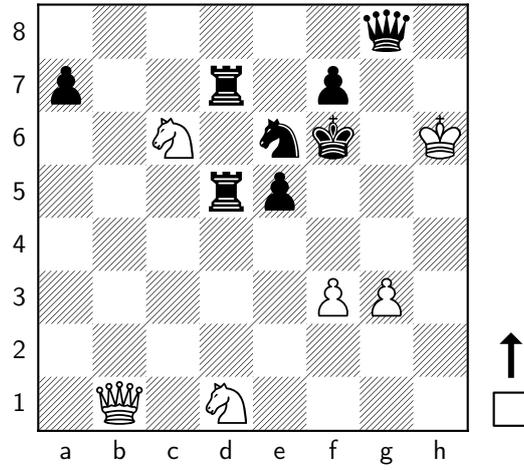
A) 3. ♘xd8? ♖xd1+-.

B) 3. ♖xd8 ♘xd8 (3... ♖xd8? 4. ♖f5+! ♗xf5 5. ♘e3+ ♗f6 6. ♘g4+ ♗f5 7. ♘e7#)  
4. ♘e3 ♘xc6 5. ♖f5+ ♗e7 6. ♘xd5+ ♖xd5 and White has a long way to go to win this game.

C) 3. ♖f5+ ♗xf5 4. ♘e3+ ♗f6 5. ♘g4+ ♗f5 6. ♘e3+ only draws.

3 ... ♖xg8

Forced, as White was threatening 4. ♖g6+ f×g6 5. ♖xg6#. Also, 3... ♘g7 4. ♖xd8 ♖xd8 5. ♘xd8 ♖xd8 6. ♗h7+-.

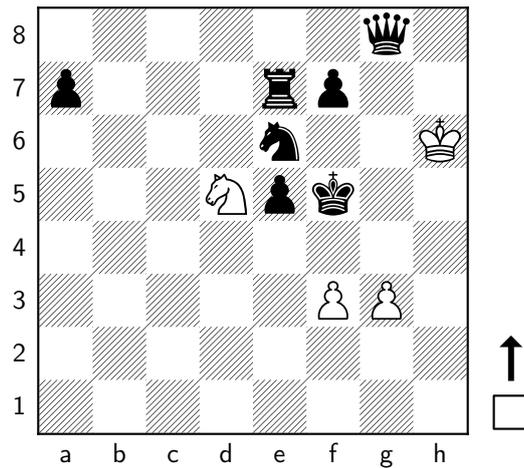


The next problem: White to play and win.

4. ♔f5+!!

Start of beautiful variation.

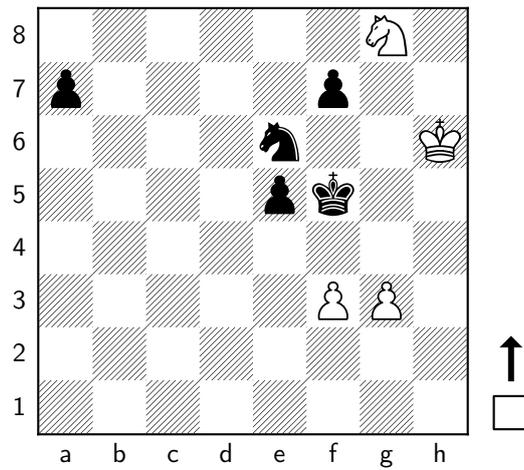
4	...	♙xf5
5.	♘e7+!	♚xe7
6.	♘e3+	♙f6
7.	♘xd5+	♙f5



8.                    ♖xe7+

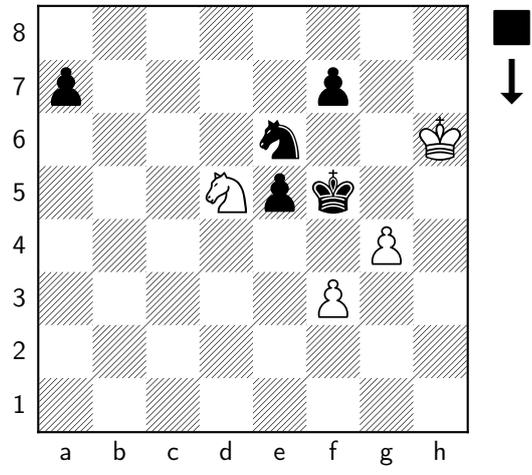
8. g4+?? ♔×g4--+

8                    ...                    ♔f6  
 9.                    ♖xg8+                    ♔f5



While the helpless Black King shuttles between f5 and f6, the Knight returns via the same path to force the win.

10.                    ♖e7+                    ♔f6  
 11.                    ♖d5+                    ♔f5  
 12.                    g4#



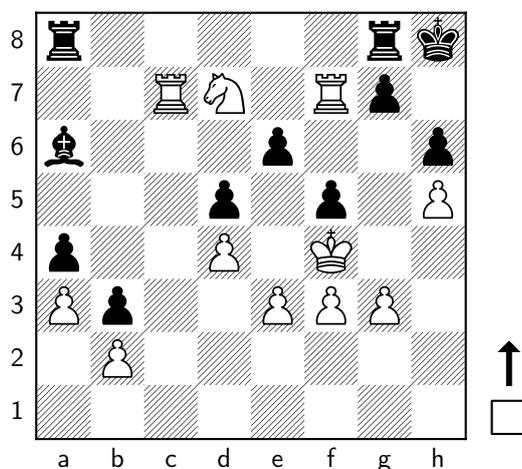
## 14. Daring King

Normally, Kings comes out to action in the end game, but there are some games in which the King takes an active part in the middle game, with many pieces and pawns around it. Here are some examples.

### 14.1. The royal warrior: Alekhine – Yates, 1922

Puzzle 78  
 ALEXANDER ALEKHINE – FRED DEWHURST YATES  
 London ENG: 1922

r5rk/2RN1Rp1/b3p2p/3p1p1P/p2P1K2/Pp2PPP1/1P6/8 w - - 7 36



*White definitely has an advantage, and there are many ways to win. For example, 36. ♖b6 followed by ♖xa4 wins. But there is a more forceful way to win in this position. Can you find it?*

Another famous game by World champion ALEXANDER ALEKHINE (See §1 on Page 668).

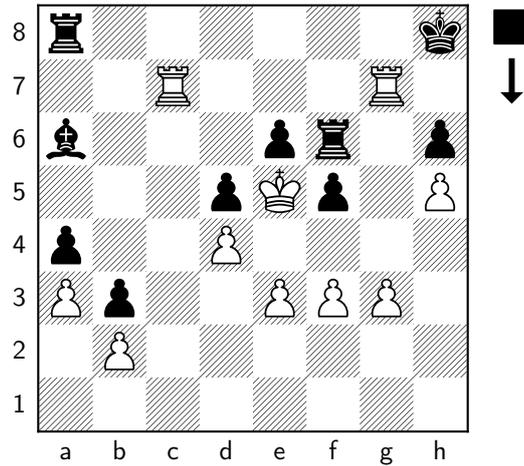
36. ♖f6! ♖gf8

36...gxf6 37. ♖h7# is too quick. After 36...♖gc8 37. ♖xg7 ♖xc7 38. ♖xc7 and Black cannot prevent 39. ♖h7#.

37. ♖xg7!

Threatens 38. ♖h7# as g8 is covered by the Knight.

37 ... ♖x f6  
 38. ♗e5!!



Black resigns. The rook is trapped, as 38... ♖ff8 or 38... ♖af8 will be met with 39. ♖h7+ ♗g8 40. ♖cg7#. After the King captures the rook on f6, Black is not only an exchange down, but will have to address the mate threat by 40. ♖h7+ ♗g8 41. ♖cg7+ ♗f8 42. ♖h8# as well.

An interesting example where the King takes an active part in the middle game.

## 14.2. The daredevil King: Short – Timman, 1991

Puzzle 65  
NIGEL SHORT – JAN TIMMAN  
Tilburg: 1991

2r2rk1/1bpR1p2/1pq1pQp1/p3P2p/P1PR3P/5N2/2P2PPK/8 w - - 2 32

*White has an advantage, but how can he win from this position?*

White won the game with one of the strangest sequence of moves in chess history.

**32.**                    ♔g3!!

The idea is to march the King through g3-f4-g5-h6 and checkmate with ♔g7. Surprisingly, Black doesn't have a defense. The Rook on f8 cannot move due to ♔xf7+, while moving the Queen to c1 via c5 and a3 can be met by placing the Knight on d2.

The game continued

<b>32</b>	...	♖ce8
<b>33.</b>	♔f4	♘c8
<b>34.</b>	♔g5	

And Black resigned.

## 15. Tying up

There are some combinations where all the pieces are tied up and paralyzed so that the winning side can get time to improve the position before doing the final assault. Here are some examples.

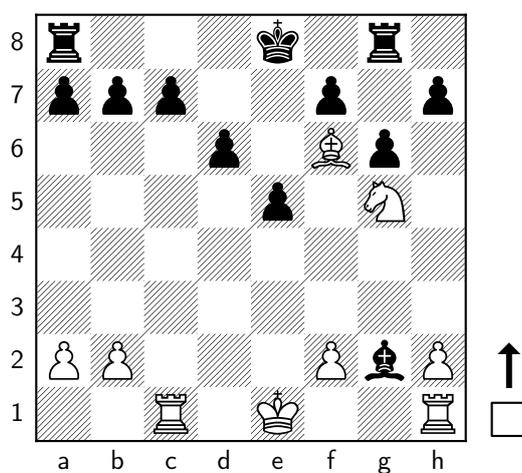
## 15.1. Paralysis!: Kupferstich – Andreassen, 1953

Puzzle 102

A. KUPFERSTICH – J. ANDREASSEN

Denmark: 1953

r3k1r1/ppp2p1p/3p1Bp1/4p1N1/8/8/PP3PbP/2R1K2R w Kq - 0 21

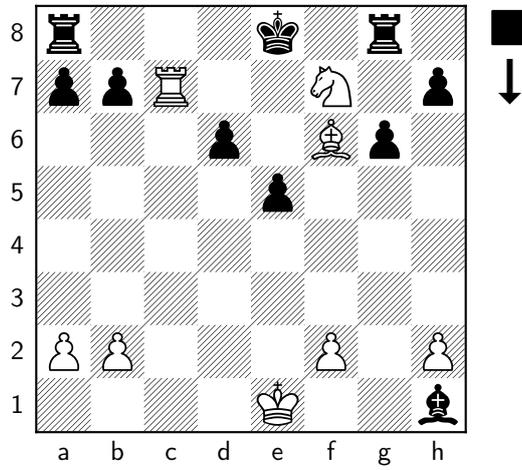


*White is a piece up but Black has four pawns for it, and his Rook is threatened. How can he win from this position?*

21.                    ♖xc7!                    ♜xh1

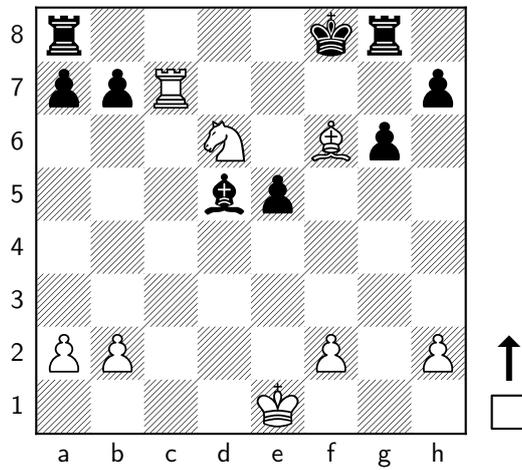
Black cannot defend the oncoming attack by 21...♙d5 due to 22. ♖e7+ ♔d8 23. ♖xe5+ ♔d7 24. ♖xd5 +-.

22.                    ♜xf7



Threatening 23. ♘xd6+ ♔f8 24. ♖f7#.

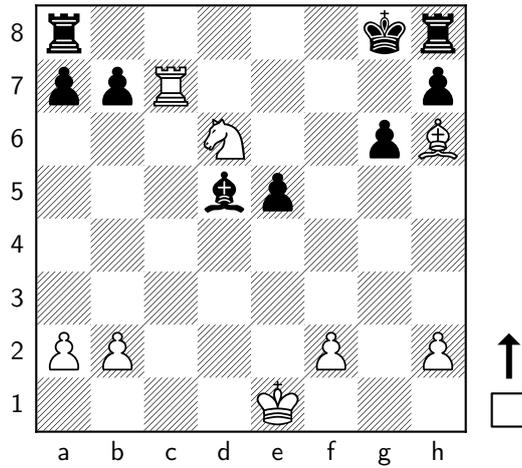
22. ... ♘d5  
 23. ♘xd6+ ♔f8



24. ♘g5

Threatening mate by 25. ♖h6+. 24. ♖e7+ ♔g7 25. ♖g5+ ♔f8 (25... ♖h8 26. ♖f6+ +-)  
 26. ♖h6+ also wins.

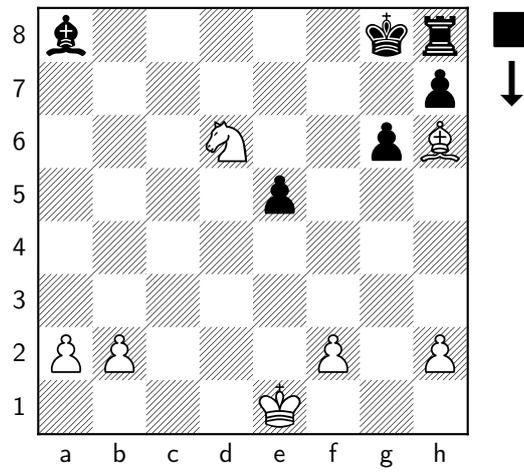
24.	...	♖h8
25.	♖h6+	♔g8
26.	♖g7+	♔f8
27.	♖c7+	♔g8



28.	♖c8	♖c6
-----	-----	-----

28... ♖xc8 29. ♖xc8+ ♔f7 30. ♖xh8 +-.

29.	♖g7+	♔f8
30.	♖xb7+	♔g8
31.	♖g7+	♔f8
32.	♖xa7+	♔g8
33.	♖xa8	♖xa8
34.	♖d6	



Black resigns. White's winning method is simple: March the King to e7 to cover f7 and then move the Knight in some route to reach f6 to deliver mate. It may take a lot of moves but Black cannot do anything during that time.

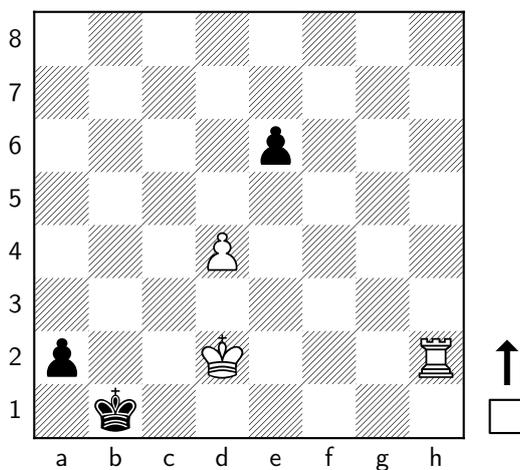
## 15.2. Win by stalemating: Benko (Study), 1980

Puzzle 127

PAL BENKO (Study)

Third prize, Canadian Chess, 1980

8/8/4p3/8/3P4/8/p2K3R/1k6 w - - 0 1

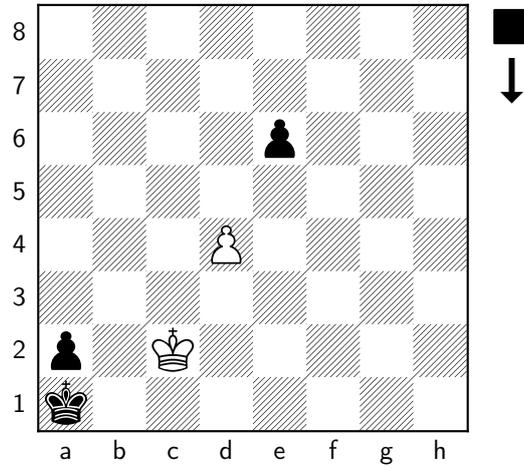


White to play and win. 1. ♔c3 a1♙+ 2. ♔b3 ♙a8 wins for Black, because the BQ controls h1. An attempt to block the diagonal by 1. d5 e×d5 2. ♔c3 also won't win due to 2...d4+ 3. ♔b3 a1♙+!. What is the winning plan?

A nice endgame study by PAL BENKO (See §6 on Page 669).

White wins by an interesting maneuver.

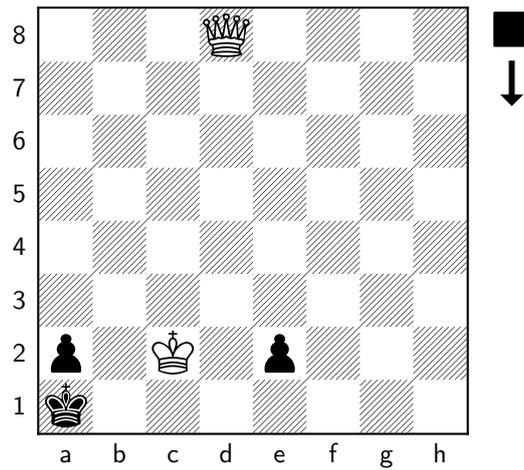
- |    |       |      |
|----|-------|------|
| 1. | ♙h1+! | ♔b2  |
| 2. | ♙a1!! | ♔xa1 |
| 3. | ♔c2!  |      |



Black is stalemated except for the pawn on e6. White uses Black's pawn to win.

- |    |      |    |
|----|------|----|
| 3  | ...  | e5 |
| 4. | d5!  | e4 |
| 5. | d6!  | e3 |
| 6. | d7!  | e2 |
| 7. | d8♔! |    |

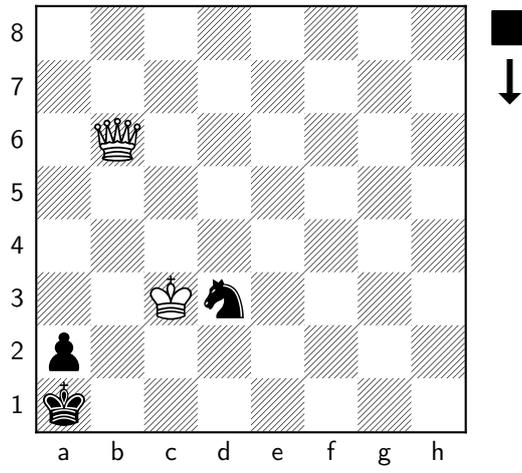
Note that 7. d8♘? won't win because of 7...e1♗+!



7 ... e1♘+

If promoted to anything else, 8. ♖d4+ mates.

8. ♖c3 ♘d3  
9. ♖b6



White wins.

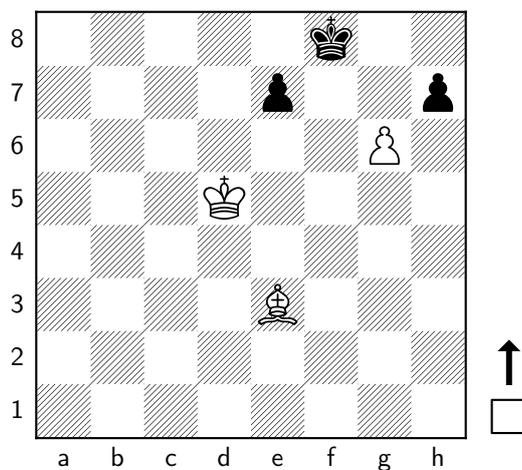
### 15.3. Squeeze the King: Troitsky, A.A. (Study), 1895

Puzzle 112

A. TROITSKY (Study)

*Novoye Vremya*, 1895

5k2/4p2p/6P1/3K4/8/4B3/8/8 w - - 0 1



*White to play and win.*

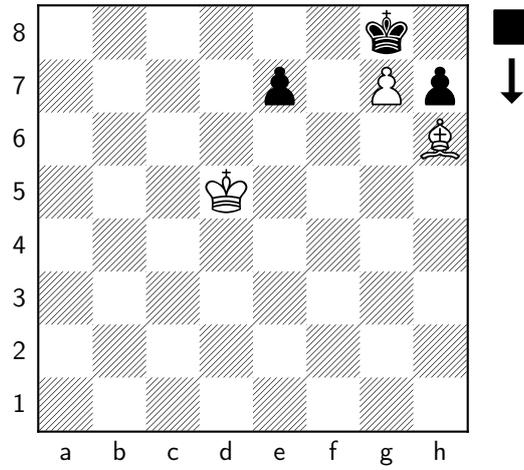
Another endgame study by the great TROITSKY (See §47 on Page 676).

The first two moves are straightforward.

1.            ♖h6+!            ♔g8

Otherwise, 2. g×h7 wins.

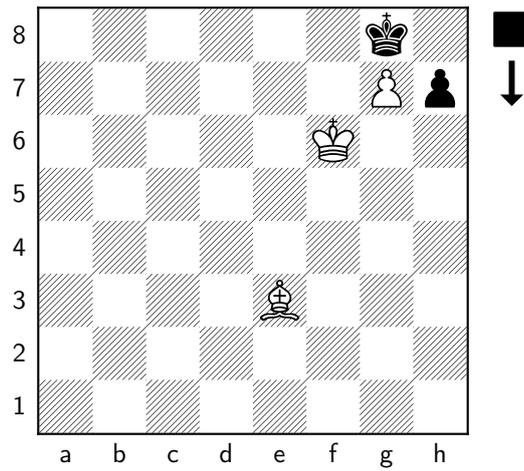
2.            g7



Now Black has several ways to continue.

## Defence 1

- |    |      |    |
|----|------|----|
| 2  | ...  | e5 |
| 3. | ♔e6  | e4 |
| 4. | ♚f6  | e3 |
| 5. | ♗xe3 |    |



allowing Black to move the h-pawn and then the King to h7, after which ♔f7 wins.

## Defence 2

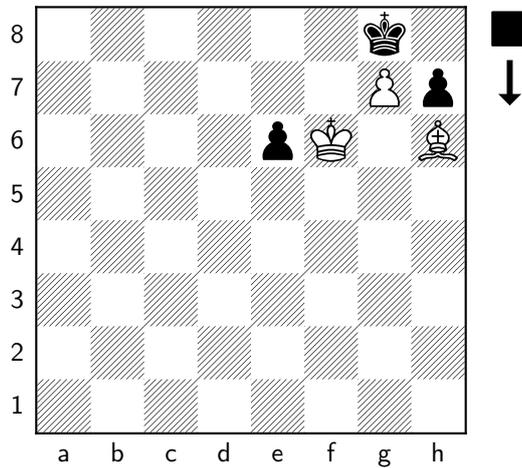
2 ... e6+  
 3. ♔d6!

3. ♔xe6 and 3. ♔e5 are stalemates, while 3. ♔c5 ♔f7 (3... e5 also draws.) 4. ♔d6 e5! draws: 5. ♔xe5 ♔g8 and Black King moves from f7 to g8 and back, and White cannot protect the pawn with the King without causing stalemate; while 5. ♔d5 e4 6. ♔d4 e3 and White has to play either 7. ♔xe3 leading to the situation above or 7. ♔xe3 giving up the pawn.

3 ... ♔f7

3...e5 4. ♔e6 (4. ♔e7 also wins.) transposes to Defense 1.

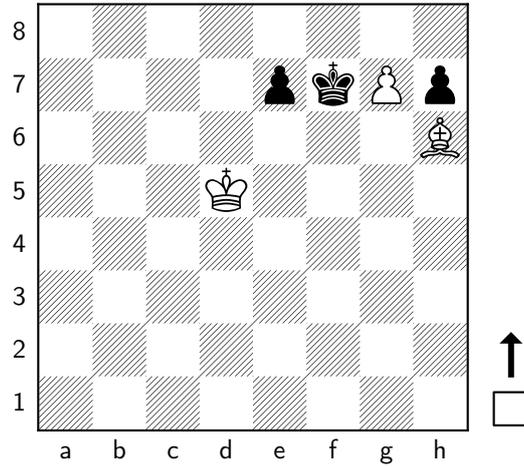
4. ♔e5 ♔g8  
 5. ♔f6



and wins.

## Defense 3

2                    ...                    ♔f7



3.                    g8♞+

Incredibly, giving up the last pawn can also win, with a forced mating attack.

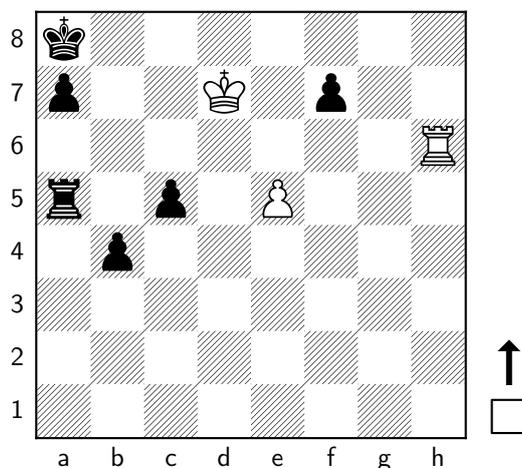
Theoretically, 3. g8♞+ also wins (But 3. g8♞ e6+ 4. ♔e5 ♔xg8 draws, while for 3. g8♞, both 3...e6+ and 3...e5 are fine to draw.), but this is more forcing.

3	...	♔xg8
4.	♔e6!	♔h8
5.	♔f7	e5
6.	♞g7#	

## 15.4. Mating net with minimum pieces: Herbstmann (Study),

Puzzle 154  
HERBSTMANN (Study)

k7/p2K1p2/7R/r1p1P3/1p6/8/8/8 w - - 0 1



*With only a pawn against Black's four, can White win this ending exploiting the poor position of the Black King?*

The hardest to find is the first move. After that, it is straightforward.

**1. e6!**

Unbelievable that the only way to win is to give up the last pawn!

The obvious motive behind this move is to open the seventh rank for a Rook check later, but it also makes ♔c6 possible, as the immediate 1. ♔c6?? will lose to 1... ♖a6+ ++.

1. ♔c7 is another try, but after 1... a6 2. ♔b6 ♖b5+ 3. ♔xa6 ♖b8 =, White cannot win.

1 ... fxe6

1... ♖a6 2. exf7+-.

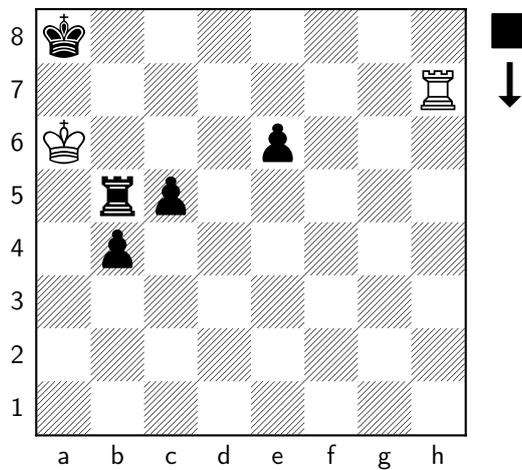
2. ♔c6

Threatens 3. ♖h8#.

2 ... a6  
 3. ♖h8+ ♔a7  
 4. ♖h7+ ♔a8

4... ♔b8 5. ♔b6 ♖b5+ 6. ♔xa6 and the rook is lost.

5. ♔b6 ♖b5+  
 6. ♔xa6



Black's own pawns block its Rook, so it has only one square to go.

6 ... ♖b8  
 7. ♖a7#

## 15.5. Problem-like finish: Capablanca – Em. Lasker, 1924

Puzzle 14  
 JOSÉ R. CAPABLANCA – EMMANUEL LASKER  
 Berlin: 1924

1R6/k1nK4/1p6/1P6/8/8/8/8 w - - 0 1

*White to play and win.*

This problem-like position occurred in a game between CAPABLANCA (See §9 on Page 669) and EMMANUEL LASKER (See §25 on Page 673).

1. ♖a8+!

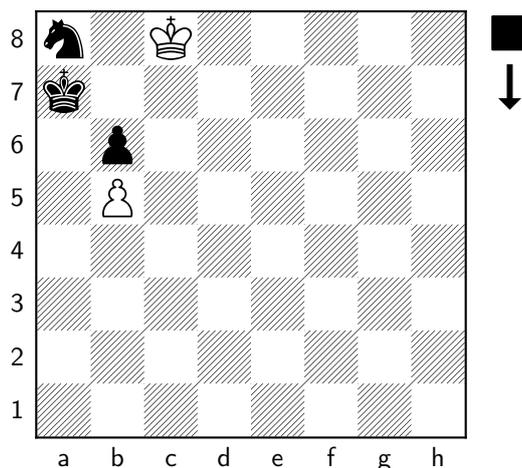
The only move to win!

1 ... ♞xa8

Other moves also lose:

- A) 1... ♖xa8 2. ♔xc7 ♕a7 3. ♖c6 ♕a8 4. ♖xb6 ♖b8 5. ♕a6 ♕a8 6. b6 ♖b8  
 7. b7 ♖c7 8. ♕a7 wins.
- B) 1... ♖b7 2. ♜a7+! ♖xa7 3. ♖xc7 ♕a8 4. ♖xb6 wins as in the line [A](#).

2. ♖c8!



Leaving Black with only one move.

2 ... ♖c7  
 3. ♖xc7

Reaching the variation [B](#), winning.

### Fake Game?

When I first saw this position, I was skeptical whether this happened in an actual game. I could not trace the full game, and absence of other pieces and a problem-like finish increases the suspicion. If this actually occurred in a game position, what was Black's last move? Must be a Knight move or ...b6. Why didn't he capture the Rook instead?

I could not trace the game yet, but found a position occurring a move before, which is

The game continued 1. ♖xc7 ♖xc7 (1... ♖xb8 2. ♖xd5 +-.) to reach the position.

## 16. Winning intermediate move

In some combinations, the crucial move may not be the first one which starts the combination, nor the final ones that realize the advantage, but some intermediate moves that are hard to find. Solvers often give up without spotting such intermediate moves. Some examples here.

## 16.1. Intermediate check: Hort – Portisch, 1973

Puzzle 58  
VLADIMIR HORT – LAJOS PORTISCH  
Madrid ESP: 1973

5rk1/r1q2p1p/p3pQ2/1bPp1p2/1R6/3BP3/P4PPP/1R4K1 w - - 15 30

*The material is level, but Black's Kingside is exposed and weak. How does White win this game?*

This game between VLADIMIR HORT (See §15 on Page 671) and LAJOS PORTISCH (See §33 on Page 674), two leading grandmasters in the last decades of the twentieth century, illustrates the power of an intermediate move.

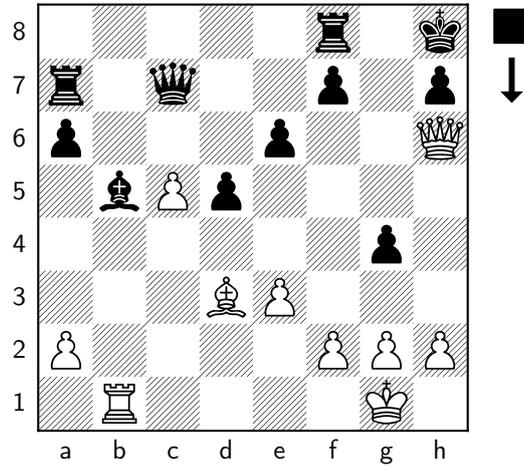
30.            ♖g4+!            f×g4  
31.            ♚g5+!

This intermediate move wins the game. The immediate 31. ♚h6?? will be met with 31...f5!.

31  
32.

...  
♔h6!

♕h8



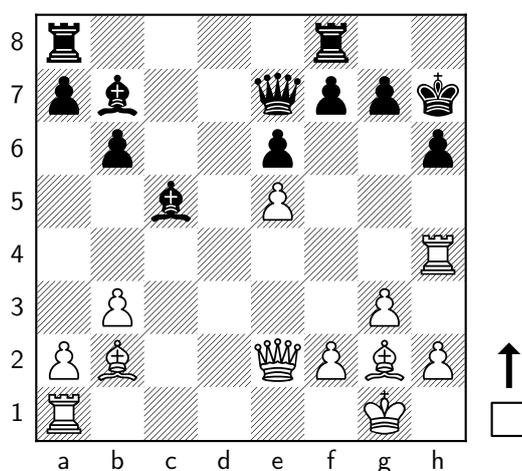
Black resigns. Both 33. ♚×h7# and 33. ♚×f8# are threatened.

## 16.2. Intermezzo: Pakleza – Sjodahl, 2016

### Puzzle 86

ZBIGNIEW PAKLEZA – PONTUS SJODAHL  
Cellavision Cup, Lund, Sweden: 2016

r4r2/pb2qppk/1p2p2p/2b1P3/7R/1P4P1/PB2QPBP/R5K1 w - - 0 22



*White to play and win.*

Looks like White has a King-side attack, but trying to materialize that doesn't lead to anywhere.

Another point is that the Black Bishop on c5 doesn't have anywhere to go, but 22. b4 doesn't work because of 22... ♗xg2 23. ♔xg2 (23. bxc5 ♗b7=.) 23... ♗xh4. Diverting the overloaded Queen by 22. ♗xh4 ♖xh4 23. ♗b4 also don't work, because the Bishop can now go to e7, vacated by the Black Queen.

However, the pathetic case of the Black Queen, overloaded protecting b7 and b4, can be utilized by a powerful *intermezzo*.

22. ♗e4+! ♔g8

22... ♖xe4 23. ♗xe4+ ♔g8 24. b4 also wins a piece.

**23.                    b4!**

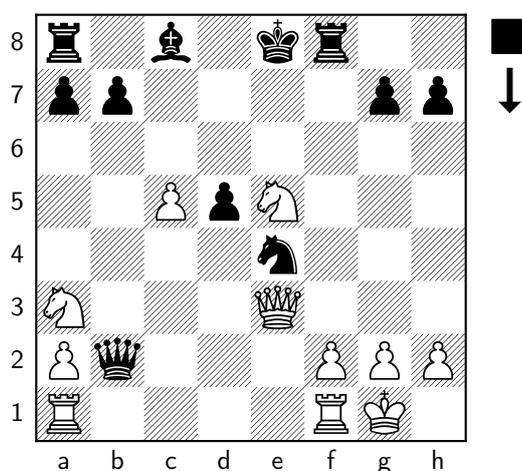
Black resigns as he will lose a piece, because 23... ♖xb4 24. ♖xb7 and the Black Queen is overloaded defending both bishops.

16.3. Missed win in Simul: Mr. G. – Ann Mary Thomas, 2018

Puzzle 20

MR. G. (SIMUL, 25 BOARDS) – ANN MARY THOMAS  
Cupertino: 2018

r1b1kr2/pp4pp/8/2PpN3/4n3/N3Q3/Pq3PPP/R4RK1 b - - 1 17



The game continued 17... ♔×e5 18. f3 and White won eventually. What did Black miss?

17 ... ♖×f2!

In the actual game, Black continued with 17... ♔×e5?, and White won back the piece with 18. f3, and eventually won a difficult endgame.

18. ♖×f2

Forced, as Black was threatening 18... ♖×g2+.



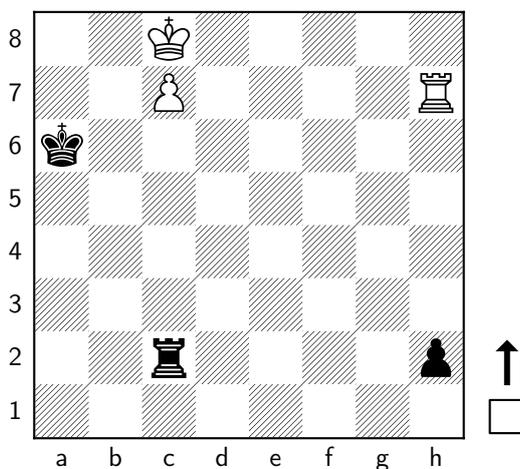
## 17. Domination

Domination is a theme (The most important book on this is “Domination in 2545 endgame studies” by KASPARYAN (See [672](#))), where some pieces win against some other pieces of almost the same strength, often winning enough material to win.

## 17.1. Dancing partners: Lasker (Study), 1890

Puzzle 140  
LASKER, EM. (Study)  
1890

2K5/2P4R/k7/8/8/8/2r4p/8 w - - 0 1



*White to play and win.*

This study was composed by EMMANUEL LASKER (See §25 on Page 673), World champion from 1894 to 1921.

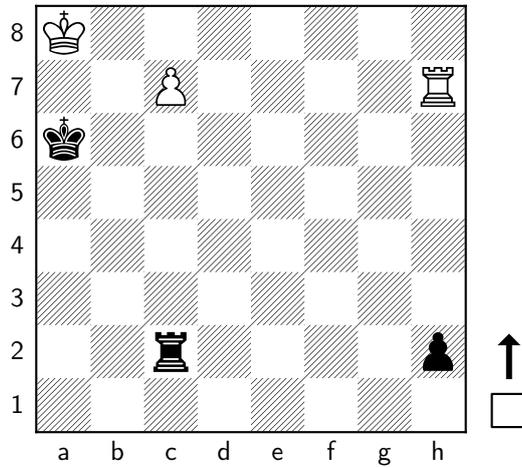
In the absence of the Black h-pawn, White wins easily with 1. ♔d8 ♖d2+ 2. ♜d7, but that pawn keeps the White Rook on the h-file.

1. ♜h8?, with the idea of 2. ♕b8 and 3. c8♗ doesn't work: For example, 1... ♕b6  
2. ♜h6+ ♜c6 3. ♜h7 h1♗ and draws.

1. ♕d8? ♜d2+ 2. ♕e8 ♕b7 draws.

So, the only way to win is...

1.	♕b8!	♜b2+
2.	♕a8!	♜c2



3.                    ♖h6+!                    ♔a5

If the Black King goes to the b-file, 4. ♕b8 wins immediately. This is true for the subsequent moves as well.

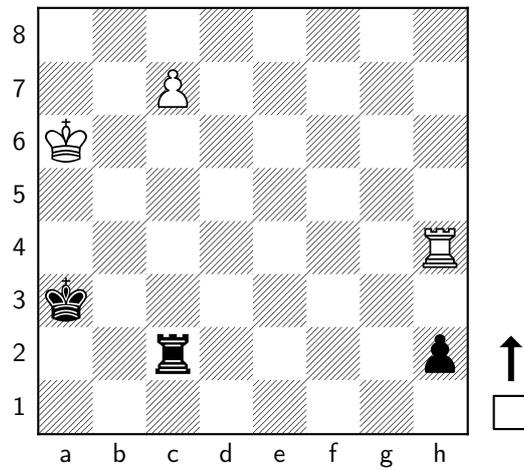
4.                    ♕b7

4. ♕b8 also will do.

4                    ...                    ♜b2+  
 5.                    ♕a7!                    ♜c2  
 6.                    ♜h5+!

The technique is now clear. In each step, the Black King is pushed down the a-file.

6                    ...                    ♕a4  
 7.                    ♕b7                    ♜b2+  
 8.                    ♕a6!                    ♜c2  
 9.                    ♜h4+                    ♕a3

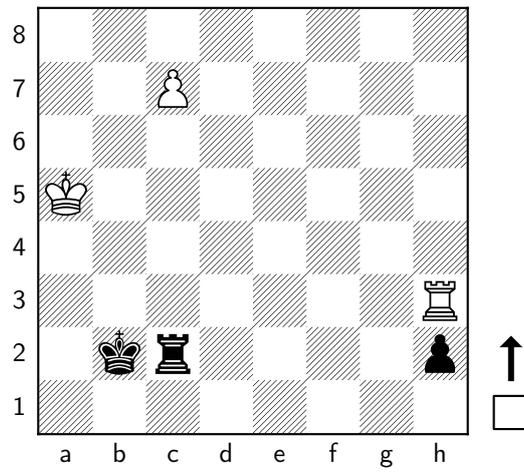


10.            ♖b6!

White is not threatening to promote the pawn, but this move, protecting the pawn, leaves Black with only one choice, as 10... ♔a2 11. ♜xh2! wins as in the main line, and the Rook leaving the second rank will lose the h2 pawn, while leaving the c-file without check will allow the pawn to promote. So...

10	...	♜b2+
11.	♖a5!	♜c2
12.	♜h3+!	♖b2

12... ♔a2 13. ♜xh2 makes no difference.



13.                    ♖xh2!

This pins the Black Rook, preventing thge capture of the White pawn. The best Black can do now is 13... ♜xh2 14. c8♚, and White wins the Q vs R endgame.

## 17.2. Q wins against Q: Anand – Thipsay, 1987

Puzzle 56  
VISWANATHAN ANAND – PRAVEEN THIPSAY  
Coimbatore IND: 1987

8/8/8/8/p1P5/k2K4/8/8 w - - 0 60

*If both sides push their pawns, they will queen at the same time. How can White from this position?*

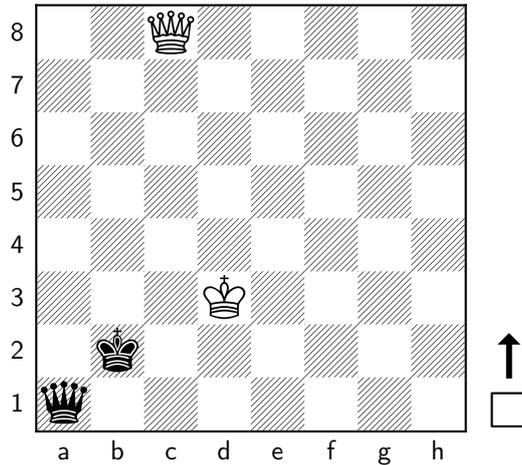
Future World Champion VISWANATHAN ANAND (See §2 on Page 668) gives an endgame lesson to his fellow Indian Grandmaster PRAVIN THIPSAY.

ALEXANDER ALEKHINE (See §1 on Page 668)

**60. c5**

60. ♔c3? ♕a2 61. ♔c2 (61. c5 ♕b1 62. c6 a3 63. c7 a2 64. c8♚ a1♚+ draws.)  
61...a3 62. c5 ♕a1 63. c6 a2 and the threat of stalemate forces White to move the King away, so 64. ♕b3 ♕b1 65. c7 a1♚ 66. c8♚ and Black draws on time.

60	...	♔b2
61.	c6	a3
62.	c7	a2
63.	c8♚	a1♚



A crucial position. The question is whether White can win this K+Q vs K+Q ending.

Here there are four moves that wins. 64. ♚b7+ (Checkmate in 8 moves), 64. ♚b8+ (Checkmate in 8 moves), 64. ♚c2+ (Checkmate in 9 moves) and 64. ♚c3+ (Checkmate in 10 moves).

We examine two lines. The best (quickest) line and the line Anand played.

### Quickest way to checkmate

64. ♚b7+ ♔c1

64... ♔a2 65. ♔c2! and Black has to give up the Queen to avoid 66. ♚b3#.

64... ♔a3 65. ♚a6+ ♔b2 66. ♚b5+ ♔a3 67. ♚a5+ ♔b2 68. ♚b4+ ♔a2 69. ♔c2 wins.

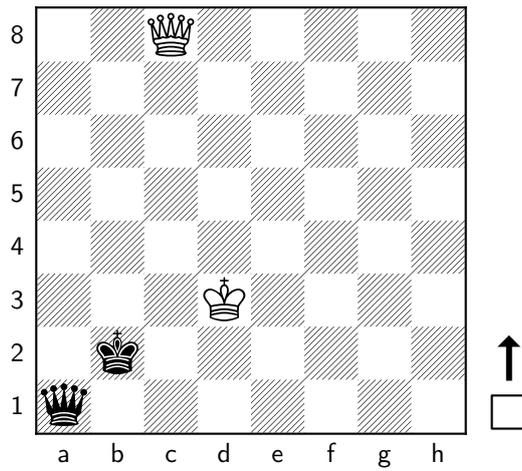
65. ♚c6+ ♔b2

65... ♔b1 66. ♚c2# and 65... ♔d1 66. ♚h1# and mate in ones.

66. ♚b5+ ♔c1  
 67. ♚c4+ ♔b2  
 68. ♚b4+

And now 68... ♔c1 69. ♚d2+ ♔b1 70. ♚c2# or 68... ♔a2 69. ♚c2 wins as above.

### How Anand played



64. ♚c2+ ♔a3  
 65. ♚c5+!

The only move that wins.

- 65 ... ♔a2  
 66. ♚c4+!

Again, the only move to win.

- 66 ... ♔a3  
 67. ♚a6+

Reaching the 65<sup>th</sup> move in the first line, and the game continued

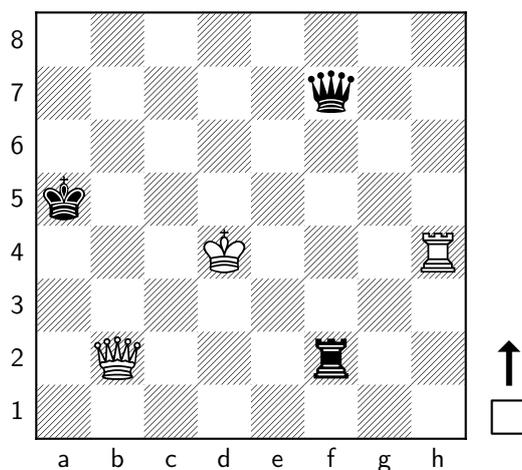
67	...	♔b2
68.	♖b6+	♔c1
69.	♖c5+	♔b2
70.	♖b4+	

Thipsay resigned without playing 70...♔a2 71. ♔c2.

### 17.3. Fighting the equals: Benko (Study), 1999

Puzzle 157  
BENKO, PAL (Study)  
1999

8/5q2/8/k7/3K3R/8/1Q3r2/8 w - - 0 1



*White to play and win.*

Another nice study by PAL BENKO (See §6 on Page 669).

Queen and Rook against Queen and Rook. And Black's Queen and Rook support each other. There is no obvious forking, skewering or checkmating chances. Most White players will split the point and walk home at this position. But there is a unique way to win this game.

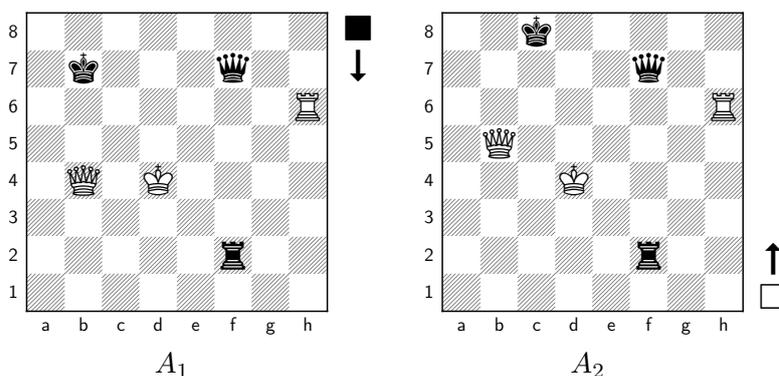
1. ♔a1+! wins; 1. ♔a3+? and 1. ♔c3+?, as well as 1. ♖h5+ ♔xh5 (Black needs to capture. All other moves lose. Those variations are left as an exercise to the reader.)
2. ♔xf2 draw; and all other first moves lose.

Table 3, gives the winning lines. The **Nunn Notation** (See Section C.3 (Page 686)) is used to annotate the lines in this problem.

Before checking the variations, let us examine the different possibilities with which White can win from this situation.

1. **Mate threats:** There are situations where the Queen and Rook working together (and may be using the White King's position), a mating net can be formed.

The most plausible means is the classic *rook roller*, where two major pieces shoulder out the opponent King by continuously checking on adjacent files or ranks till the edge of the board. Black may be able to avoid immediate mate by giving up the Queen for Rook, but we are not discussing those variations here.



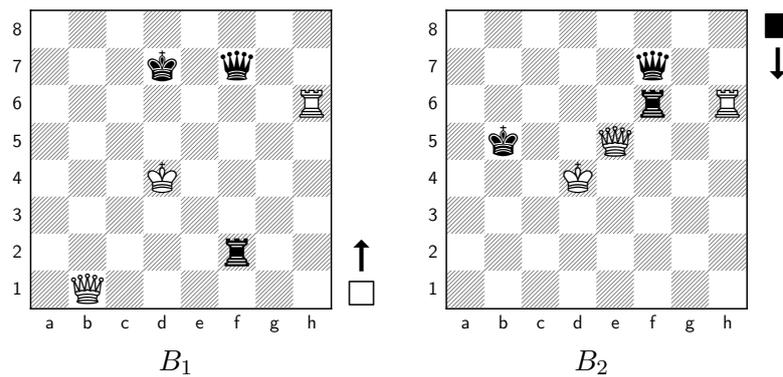
In Position  $A_1$ , 1... ♔a7 2. ♖c5+ ♚b8 3. ♜b6+ ♔a8 4. ♕a5+ ♕a7 5. ♝a6+- and 1... ♚c7 2. ♖b6+ ♔c8 3. ♜c6+ ♔d7 3. ♖b7+ ♔d8 4. ♝d8# follow the rook roller, while 1... ♚c8 2. ♜c6+ ♔d8 (2... ♔d7 3. ♖b7+ ♔d8 4. ♝c8#) 3. ♖b8+ ♔e7 4. ♖d6+ ♔e8 5. ♝c8# follow another mating pattern.

Another possibility is the major pieces attacking through the edge. In Position  $A_2$ , 1. ♜c6+ will win as in the discussion of Position  $A_1$ , but a faster checkmate is achieved by 1. ♜h8+ ♔c7 2. ♖b8+ ♔d7 (2... ♔c6 3. ♜c8+ ♔d7 4. ♝d8+ transposes.) 3. ♜d8+ ♔c6/Ke7/Ke6 4. ♝d6/Qd6/Rd6#.

Both of these can occur in lines 2–5.

There are other checkmates also possible. One of them is shown in Line 12.

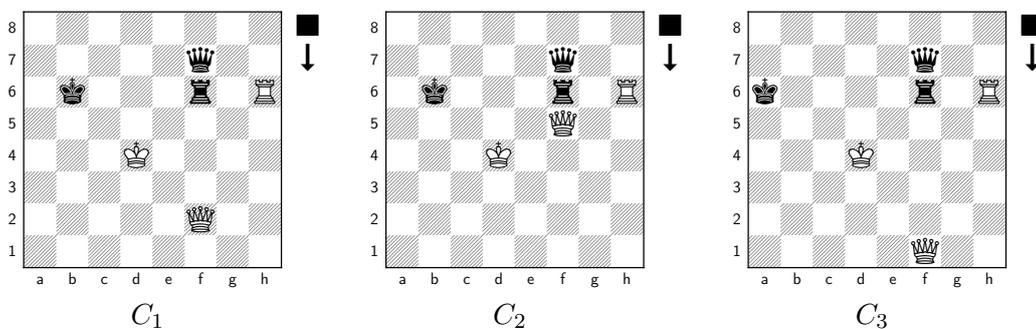
2. **Simplifying to win the Rook:** In some cases, White checks continuously and forces a queen exchange and then win the Rook. Line 11 is an example.
3. **Winning the Queen for Rook:** In many variations, when the White Queen is on the b1-h7 diagonal, the Black King cannot go to the seventh rank due to the threat of pinning the Queen with ♜h7.



In Position  $B_1$ , 1. ♖h7 wins the Queen for a Rook. This is simpler, even though a faster checkmate is achieved via 1. ♖b7+ ♔e8 2. ♖b8+ ♔e7 3. ♖e5+ ♔d8 4. ♖d6+ etc.

Lines 7, 10 and 14 are examples of this technique.

4. **Attacking the Rook twice with check, winning it:** In Position  $B_2$ , Black King is in check while both the White Queen and Rook attacks the Black Rook. Lines 8 and 9 illustrate this.
5. **Double-pinning the Rook, without allowing a counter-check:** In these cases, the Black Rook is pinned in both the rank (against the King by the White Rook) and the file (against the Black Queen by the White Queen). Black has the move, but doesn't have a way to free himself.



In Position  $C_1$ , the Black Rook is attacked twice and pinned on both directions. Black's 1... ♖d7+ will be met with the discovered check 2. ♔c3+, and Black loses the Rook. Line 1 follows this path.

In Position  $C_2$ , White wins the Rook by the double attack, and 1... ♖d7+ is not possible because the White Queen controls that square. 2. ♖xd7 ♖xh6 and White

wins the Q vs R endgame easily. Note that in this case  $1 \dots \text{♔a7+}$  is not possible because the Black King is blocking the diagonal. Lines 6 and 13 follow this technique.

In Position  $C_3$ , the Black King is under check, so will have to lose the Rook, or the Queen for Rook after  $1 \dots \text{♜xf1}$  2.  $\text{♚xf7}$ .

	1	2	3	4	5	6	7	Result		
1	$\text{♚a1+!}$ $\text{♘b6}$	$\text{♚b1+!}$ $\text{♘a5}$	$\text{♚e1+!}$ $\text{♘b6}$	$\text{♞h6+!}$ $\text{♞f6}$	$\text{♚f2!}$				+-	Pos. $C_1$
2	...	...	...	...	$\text{♚b4+}$				+-	Pos. $A_1$
3	...	...	...	$\text{♚e5+}$ $\text{♘b6}$	$\text{♞h6+}$ $\text{♘b7}$	$\text{♚b5+}$			+-	Pos. $A_1$
4	...	...	...	...	...	$\text{♚c5+}$			+-	Pos. $A_1$
5	...	...	...	...	$\text{♞h6+}$ $\text{♘b7}$	$\text{♚b5+}$			+-	Pos. $A_1$
6	...	...	...	$\text{♞h6+!}$ $\text{♘b7}$	$\text{♚b4+}$				+-	Pos. $A_1$
7	...	...	...	...	$\text{♚f1+!}$				+-	Pos. $C_3$
8	...	...	$\text{♞h6+}$ $\text{♞f6}$	$\text{♚e4+}$ $\text{♘b6}$	$\text{♚f5}$				+-	Pos. $C_2$
9	...	...	...	...	$\text{♞h7}$				+-	Pos. $B_1$
10	...	...	...	...	$\text{♚e5+}$ $\text{♘b5}$				+-	Pos. $B_2$
11	...	$\text{♚b1+!}$ $\text{♘a4}$	$\text{♚c3+}$ $\text{♞f4}$	$\text{♚d1+!}$ $\text{♘b5}$	$\text{♚d3+}$ $\text{♘c6}$	$\text{♞h6+}$ $\text{♞f6}$	$\text{♚a6+}$		+-	Wins Rook
12	...	...	...	...	...	...	$\text{♞h7}$ $\text{♘c7}$		+-	Pos. $B_1$
13	...	...	...	...	$\text{♚a1+}$ $\text{♚a2}$	$\text{♚xa2+}$ $\text{♘xa2}$	$\text{♞xf4}$		+-	Wins Rook
14	...	...	...	$\text{♞a4+}$ $\text{♘xa4}$	$\text{♚b4\#}$				+-	Checkmate
15	...	...	$\text{♞h6+}$ $\text{♞f6}$	$\text{♚e4+!}$ $\text{♘b6}$	$\text{♚f5!}$				+-	Pos. $C_2$
16	...	...	...	$\text{♞h7}$					+-	Pos. $B_1$

Table 3: Solution of Puzzle 17.3

Like every good chess puzzle, the solution is unique. Two other possibilities are shown in the table below, with one line that defeats the win.

	1	2	3	Result	
17	♔a3+? ♕b5	♔c5+ ♕a6!	♖h6+ ♗f6!	=	4. ♗f5?? ♔a7+ -+.
18	...	♔d3+ ♕a5!		=	
19	♔c3+? ♕b5			=	Same as lines 17 & 18.

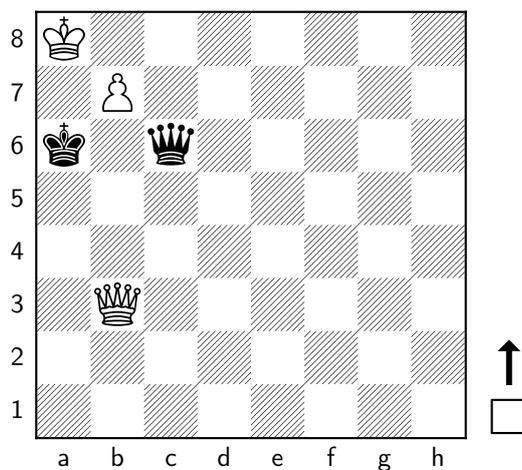
17.4. Queen's best square: van Vliet, L. (Study), 1888

Puzzle 146

VAN VLIET, L. (Study)

*Deutsche Schachselung*, 1888

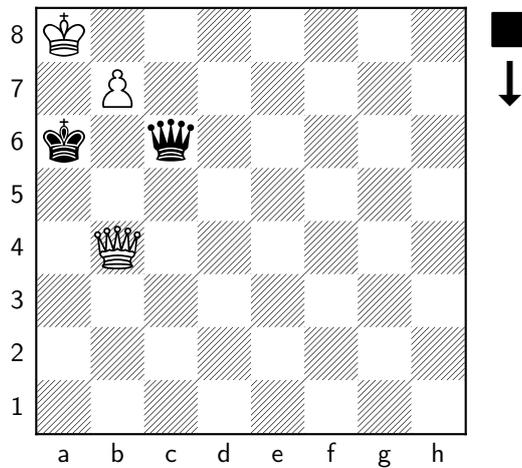
K7/1P6/k1q5/8/8/1Q6/8/8 w - - 0 1



*White to play and win.*

1. ♔b4!

It is amazing that this is the only move that wins.



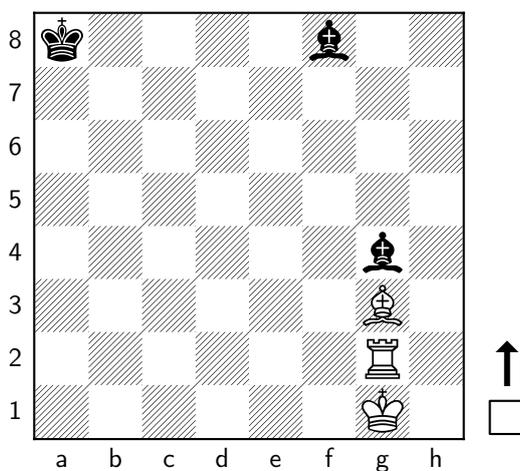
The Black Queen has to move along the a8–h1 diagonal only, otherwise White will queen the pawn. Each of this squares has its own problem.

- A) 1... ♕d5 2. ♖a4+! ♜b6 3. ♕b3+ ♕×b3 4. b8♕+ +-.  
 B) 1... ♕f3 2. ♖a4+! ♜b6 3. ♕b3+ ♕×b3 4. b8♕+ +-.  
 C) 1... ♕g2 2. ♖a3+ ♜b6 3. ♕b2+ ♕×b2 4. b8♕+ +-.  
 D) 1... ♕h1 2. ♖a3+ ♜b6 (2... ♜b5 3. ♕b2+ ♜c4 4. ♜a7 is similar to variation Dc.) 3. ♕b2+, and now:  
 a) 3... ♜a6 4. ♖a2+ ♜b6 5. ♕b1+ ♕×b1 6. b8♕+ +-.  
 b) 3... ♜c7 4. ♖h2+ ♕×h2 5. b8♕+ +-.  
 c) 3... ♜c5 4. ♜a7 ♕h7 5. ♕b6+ ♜c4 6. ♜a6+ -.

17.5. Annoying rook: M. Harvel (Study), 1926

Puzzle 158  
M. HARVEL (Study)  
1926

k4b2/8/8/8/6b1/6B1/6R1/6K1 w - - 0 1



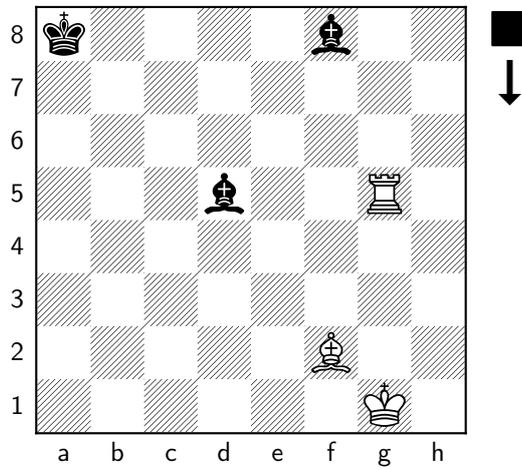
*White to play and win.*

1.           ♙f2

White shields the King from any checks and attacks the light-squared Bishop. For a random move by the Black Bishop, 2. ♖g8 wins the other Bishop, so the reply is forced.

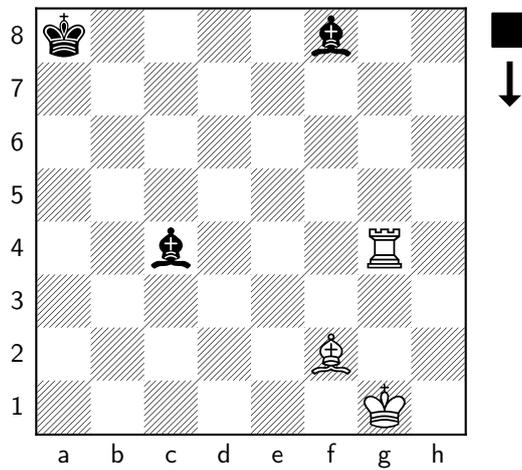
1           ...           ♗e6  
2.           ♖g8





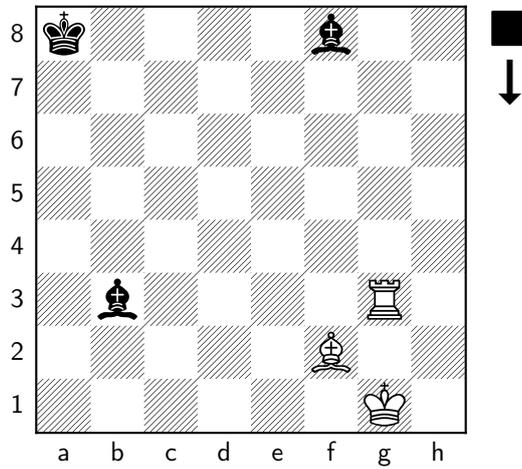
Now, 3...♙e6 4. ♖e5 ♘d7 (4...♙f7 5. ♖f5+-) 5. ♖d5 followed by 6. ♖d8+-.  
 3...♙b3 will be met by 4. ♖g3 or 4. ♖a4+ ♚b7 5. ♖b5+ winning the Bishop.

3 ... ♙c4  
 4. ♖g4



Now, 4...♙d5 5. ♖d4 followed by 6. ♖d8+-, 4...♙e6 5. ♖e4 ♘d7 6. ♖d4+-and  
 4...♙a2 5. ♖a4+-.

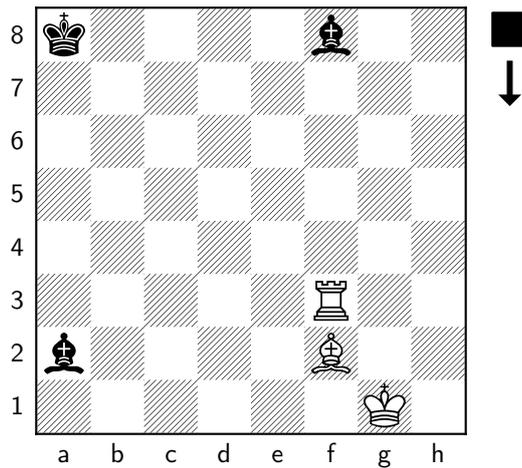
4 ... ♖b3  
 5. ♗g3



Going back to c4, d5, e6 or f7 will be met with 6. ♗c3, 6. ♗d3, 6. ♗e3 or 6. ♗f4, winning a Bishop as explained above.

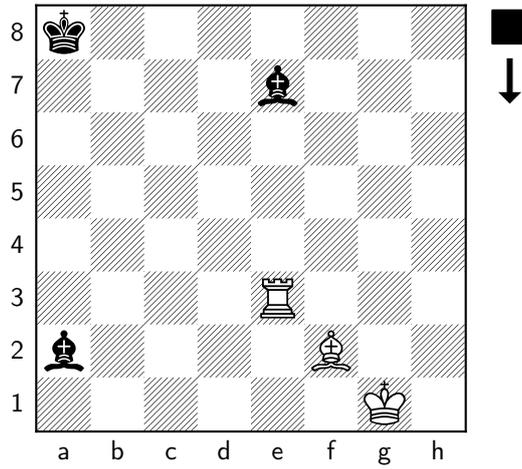
However, it can go to a2 now, as 6. ♗a3+ is not possible due to 6... ♗×a3. So,

5 ... ♗a2  
 6. ♗f3!

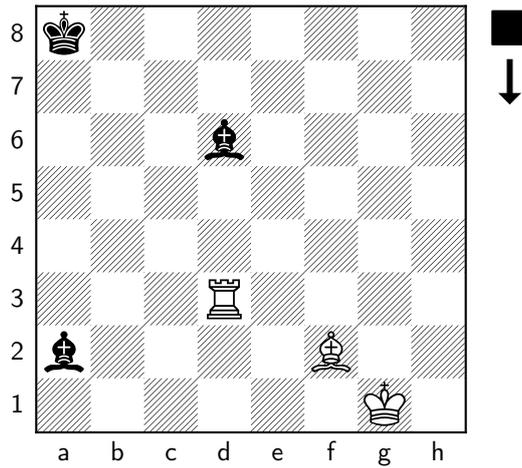


Now, the Rook chases the other Bishop.

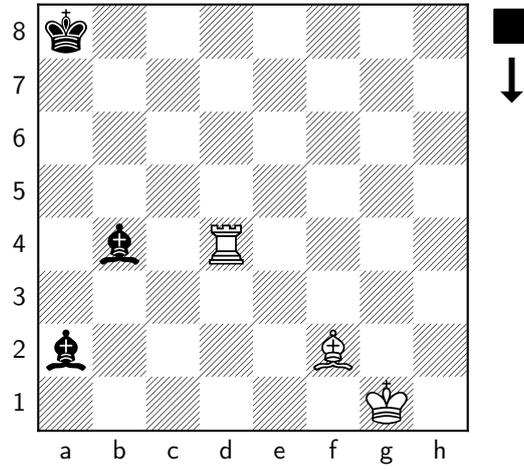
6 ... ♖e7  
7. ♜e3



7 ... ♗d6  
8. ♜d3



8 ... ♖b4  
9. ♔d4

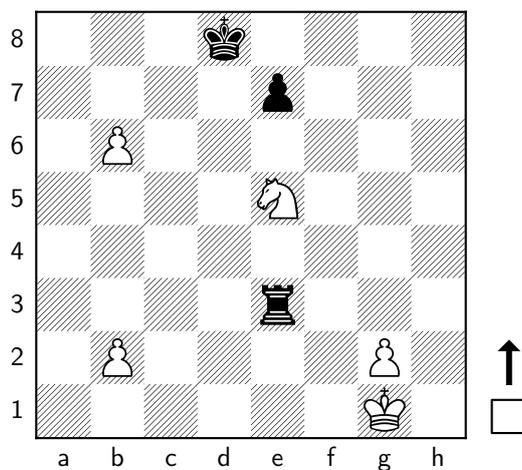


Now, for any move by Black, 10. ♔a4 wins.

17.6. Poor Rook!: sussmann (Study), 2000

Puzzle 131  
 SUSSMANN, PETER (Study)  
 2000

3k4/4p3/1P6/4N3/8/4r3/1P4P1/6K1 w - - 0 1



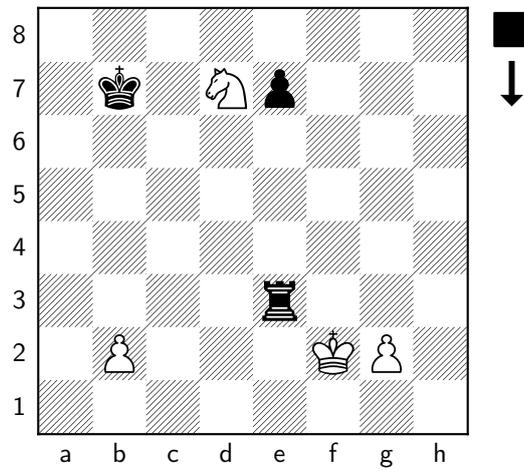
*White to play and win.*

1.                    b7                    ♔c7

1... ♖b3 2. ♘c6+ ♔c7 3. b8♙+ ♖xb8 4. ♘xb8 ♔xb8 5. ♔f2 +-.

2.                    ♘d7                    ♔xb7

3.                    ♔f2!

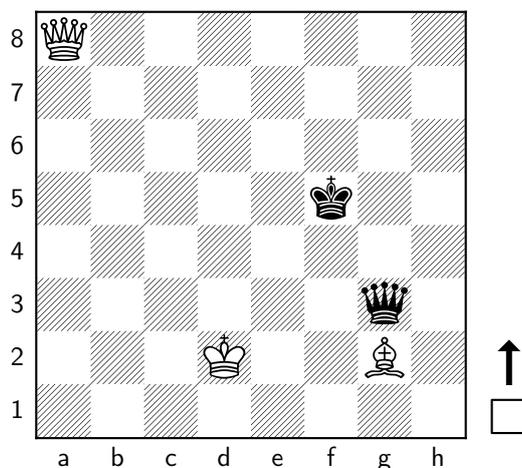


An incredible position! The Rook can be in 13 squares, including the one it is in now; 9 are attacked by enemy units; the remaining 4 are prone to a Knight fork ♖c5+!

## 17.7. Taming the Queen: H. Rinck (Study), 1902

Puzzle 137  
H. RINCK (Study)  
1902

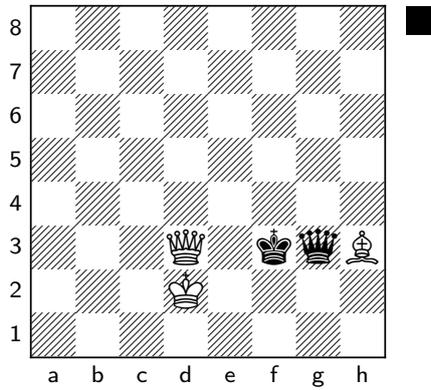
Q7/8/8/5k2/8/6q1/3K2B1/8 w - - 0 1



*Winning ♔+♗ (or ♘) vs ♚ is hard, because exchanging queens will lead to draw, and the weaker side has a lot of chances for perpetual checks. The theory is ♔+minor piece vs ♚ has many interesting positions where White forces checkmate or winning of Black Queen by interesting maneuvers. This is one of them. White to play and win.*

First of all, throughout this puzzle, the Black Queen is on g3, and hence the Black King cannot move to e5 due to a check along the b8–h2 diagonal, or g6 due to a check along the g-file, skewering to win the Black Queen. These variations are not separately listed.

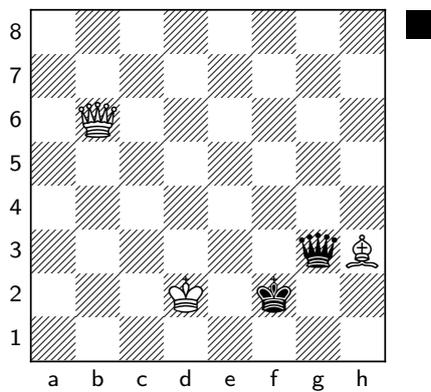
In order to analyze this, let us consider four positions.



**Position 1**

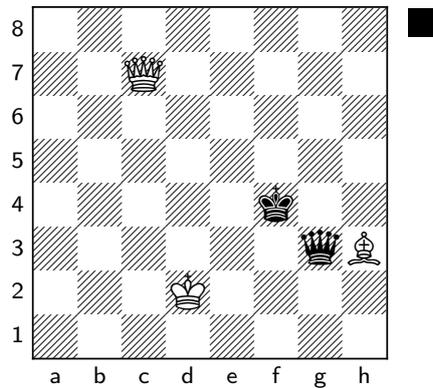
If White achieves this, it is checkmate in one move.

- A) 1... ♔f4 2. ♚f5#.
- B) 1... ♔f2 2. ♚f1#.



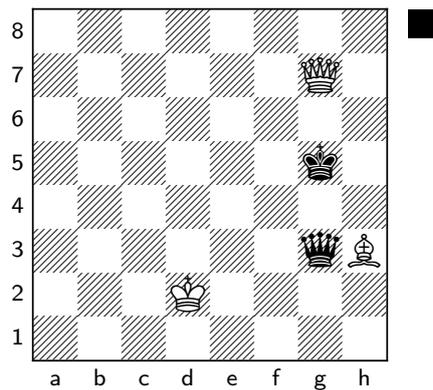
**Position 2**

Any check on the a7-g1 diagonal in this position achieves mate in one by 1... ♚e3 2. ♚xe3# or 1... ♔f3 2. ♚e3#.



**Position 3**

Here. 1... ♔f3 2. ♚c6+ ♔f4 (2... ♔f2 3. ♚c5+ +- , Position 2) 3. ♚d6+ ♔f3 4. ♚d3 +- , Position 1.



**Position 4**

Here, 1... ♔f4 (1... ♔h4 2. ♚h6#) 2. ♚c7+ +- , Position 3.

Now, let us analyze the position given in the puzzle.

1. ♘h3+

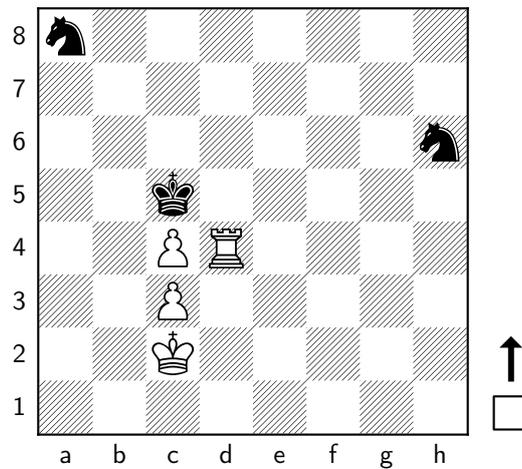
The only move to win. The Bishop cannot be taken because 1... ♚xh3 2. ♚c8+ wins the Queen.



## 17.8. Domination and symmetrical mate: Unknown (Study),

### Puzzle 147 UNKNOWN (Study)

n7/8/7n/2k5/2PR4/2P5/2K5/8 w - - 0 1



*White to play and win.*

We can assume that ♔+♚+♙ vs ♔+♘ is a win.

1. ♚h4 ♘f7

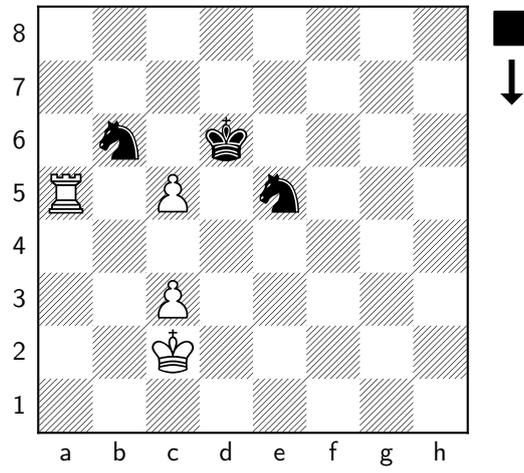
1... ♘f5 2. ♚h5 +-.

1... ♘g8 2. ♚h8 +-.

2. ♚h7 ♘e5

2... ♘d6 3. ♚a7 ♘b6 4. ♚c7#

3. ♖a7 ♘b6
4. ♖a5+ ♙d6
5. c5



White wins.

17.9. A pawn can move two ways: Kubbel, L (Study), 1927

Puzzle 125  
KUBBEL, LEONID (Study)  
1927

8/8/1p1K4/Pp6/2k1p3/8/1P6/8 w - - 0 1

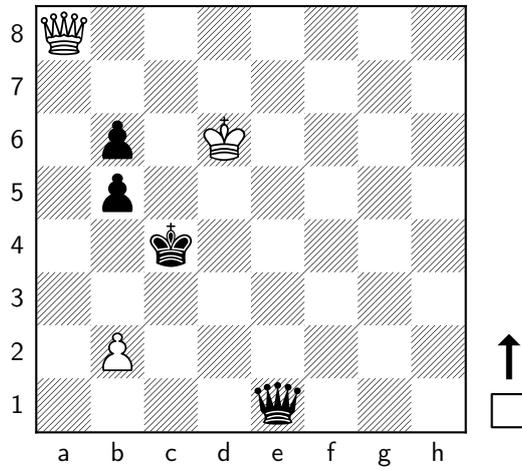
*White to play and win.*

Composed by LEONID KUBBEL (See §23 on Page 673), one of the most famous composers of endgame studies during the first half of the twentieth century.

1.           a6!

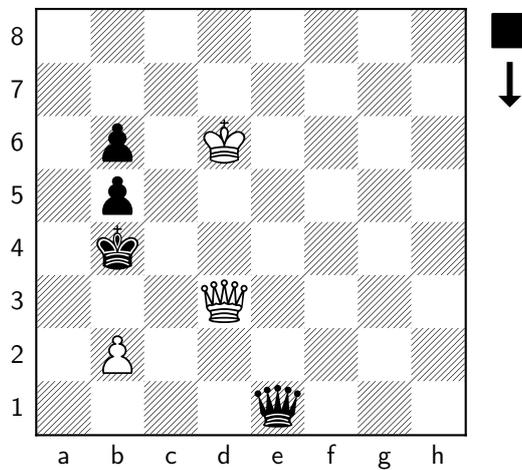
1. a×b6? does not win after 1...e3 2. b7 e2 3. b8♙ e1♙.

1	...	e3
2.	a7	e2
3.	a8♙	e1♙



Both pawns queened and looks like we are heading to a draw, but White has the move, and that makes all the difference.

- 4. ♔d5+ ♚b4
- 5. ♔d3!!



Black is in zugzwang. Black has to move his Queen, and when he does, he has to control either c3 or a3, as White is threatening both 6. ♔c3+ ♚a4 7. ♔a3# as well as 6. ♔a3+ ♚c4 7. ♔c3#. (Note that Black cannot give a check on the move.) There are two ways to do that, but doing that in either way has some terrible consequences.

A) 5... ♖a1 6. ♖c3+ ♗a4 6. b3+ ♗a3 7. ♖x a1+ +-.

B) 5... ♖c1 6. ♖a3+ ♗c4 6. b3+ ♗d3 (Or 6... ♗c3) 7. ♖xc1 +-.

The symmetry in the two variations is striking.

### 17.10. Castling to give way: Benko (Study),

Puzzle 113  
BENKO, PAL (Study)

4k1rr/R7/8/8/8/8/R3K3 w - - 0 1

*White to move and win.*

A study by PAL BENKO (See §6 on Page 669).

1.                   O-O-O!

In chess problems and studies, castling is permitted unless it can be proved that it is illegal at that position.

For any other non-check move, Black draws by checking the White King and exchanging one pair of rooks.

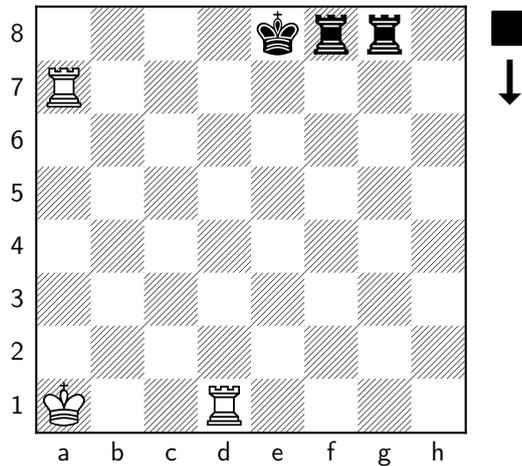
1                   ...                   ♖f8

Any move by the Rook on g8 along the file will lose a Rook by 2. ♖a8+, while any move by the Rook on h8 along the h-file (other than 1...♖h1) will lose to 2. ♖a8+ ♔f7 3. ♖f1+ ♔g7 4. ♖g1+. And 1...♔f8 will, of course, lose to 2. ♖d8#. So, this is the only choice.

2. ♖b1 ♖hg8

Moving the Rook on f8 along the file will lose to 3. ♖a8+, while any move by the Rook on h8 (other than 2...♖h1) along the file will lose to 1. ♖a8+ ♔e7 2. ♖e1+ ♔f7 3. ♖f1+. That leaves 1...♖fg8, in which case White continues 3. ♔a1 as in the main line.

3. ♔a1



The threat is 4. ♖b1 and 5. ♖b8#. Black doesn't have any satisfactory defense. Note that 3...♖f7 will lose the Rook on g8 to 4. ♖a8+.

3	...	♖f6
4.	♖b1	♖d6
5.	♖b8+	♖d8
6.	♖xd8+	♔xd8
7.	♖a8+	

Wins the Rook and the game.

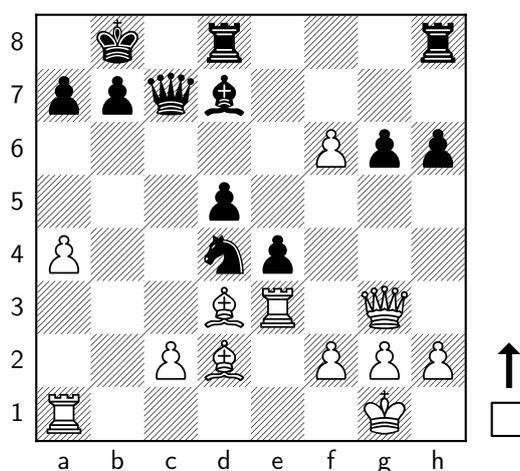
White King's journey to a1 while shielding a check on the back rank is interesting.

17.11. Leaving no square: Fischer – Schweber, 1970

Puzzle 96

FISCHER, BOBBY – SCHWEBER, SAMUEL  
Buenos Aires: 1970

1k1r3r/ppqb4/5Ppp/3p4/P2np3/3BR1Q1/2PB1PPP/R5K1 w - - 0 23



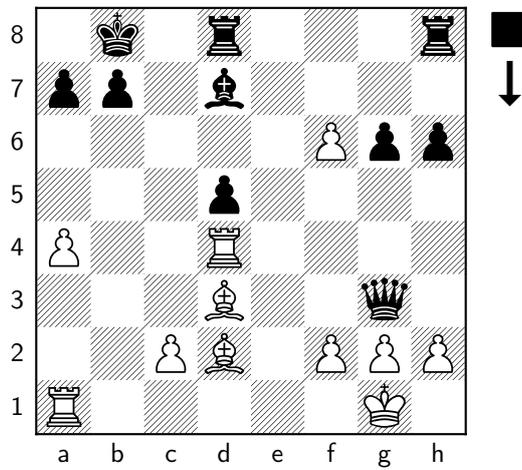
1. ♔xc7+ ♚xc7 2. ♘f1 will lead to an equal game. Does White have anything better?

Bobby Fischer found an incredible continuation.

23. ♖xe4! ♔xg3

23...dxe4 24. ♘f4 wins the Queen.

24. ♖xd4!

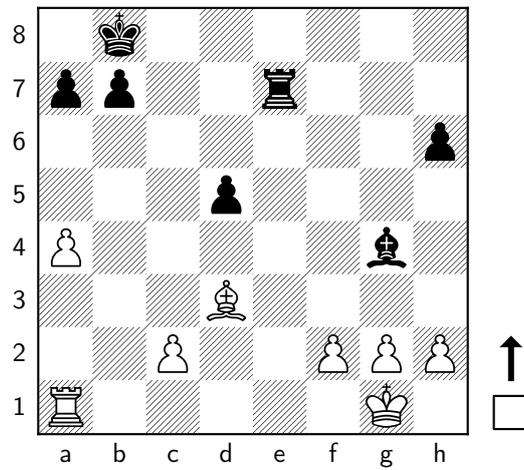


Leaving the Black Queen without a square! The game continued

24	...	♔g4
25.	♖xg4	♗xg4
26.	♘xg6	

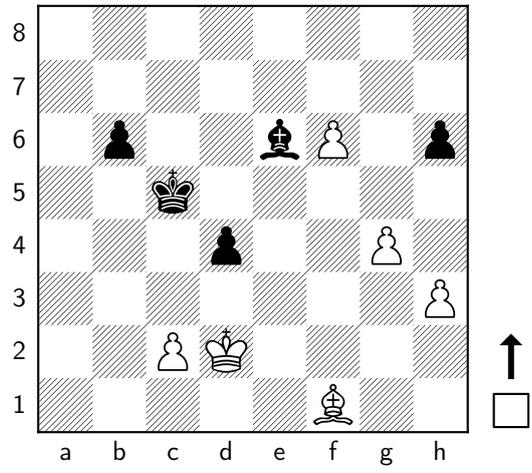
White is an exchange down, but Fischer correctly calculated that the two Bishops combined with the passed pawn on the f-file will win back the exchange and leave him with a solid extra pawn.

26	...	♖hg8
27.	♗h7	♖h8
28.	♗d3	♖de8
29.	f7	♖e7
30.	f8♔+	♖xf8
31.	♗b4	♖ff7
32.	♗xe7	♖xe7



White regained the exchange and ended up with a solid extra pawn. The rest of the game is pure technique.

- |     |      |      |
|-----|------|------|
| 33. | f3   | ♘d7  |
| 34. | a5   | ♙c7  |
| 35. | ♙f2  | ♚f7  |
| 36. | ♙e3  | ♙d6  |
| 37. | g3   | ♙c5  |
| 38. | f4   | ♘g4  |
| 39. | ♚b1  | ♚e7+ |
| 40. | ♙d2  | b6   |
| 41. | axb6 | axb6 |
| 42. | h3   | ♘d7  |
| 43. | g4   | d4   |
| 44. | f5   | ♚e3  |
| 45. | f6   | ♚f3  |
| 46. | ♚f1  | ♚xf1 |
| 47. | ♘xf1 | ♘e6  |



And White won.

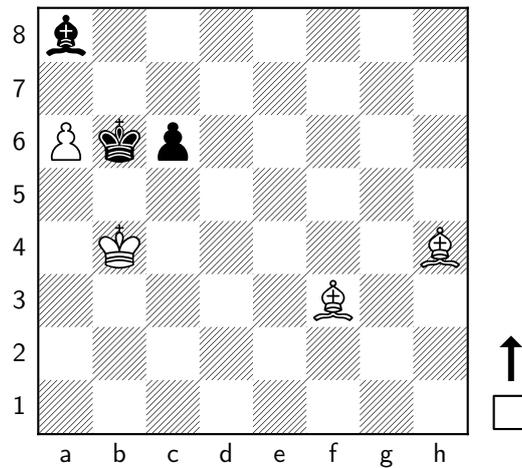
## 17.12. Squeeze the Bishop in: Sonntag (Study), 2014

Puzzle 159

SONNTAG, G. (Study)

*Die Schwalbe*, 2014

b7/8/Pkp5/8/1K5B/5B2/8/8 w - - 0 1



*White to play and win.*

Black easily draws if the Bishop is allowed to escape. For example, 1. ♗e2? allows 1...c5+! 2. ♔a3 ♗c6 =. Also, 1. ♔c4? ♔×a6 2. ♔c5 ♗b7 =.

White's winning strategy involves four ways:

1. Without losing the a-pawn, the King reaches b6 and captures c6, winning the K+B+P vs K ending.
2. Give up the a-pawn, King reaches a7, win the Black Bishop and win with K+B+B vs K+P.
3. Win the Black Bishop with some way and win the endgame.
4. Create mating attacks.

1. ♔a4!⊕ ♚xa6

Not capturing the pawn is not better: 1... ♚c7 (1... ♚a7 2. ♚a5 ♚b8 transposes.) 2. ♚a5 ♚d7 (2... ♚b8 leads to mate: 3. ♚b6 ♚c8 4. ♙g4+ ♚b8 5. a7#) 3. ♚b6 ♚d6 4. ♙g3+ ♚d7 5. a7 and 6. ♙xc6 +-.

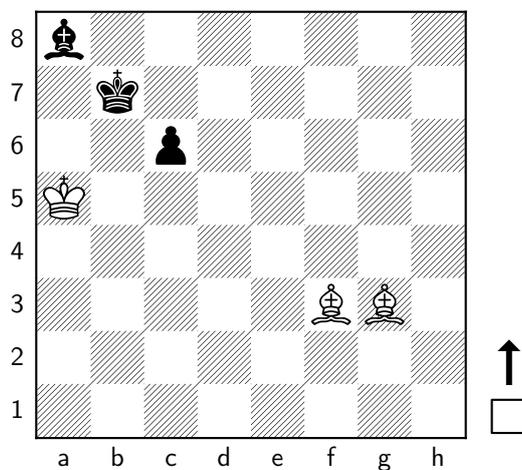
2. ♙f2 ♚b7

After 2... ♚b7, there is an unexpected mate 3. ♙e2#!

3. ♚a5 ♚c7

3... ♚c8 4. ♚b6 ♚b8 (4... ♚d7 5. ♚a7+-.) 5. ♙g4 ♚b7 6. ♙g3+ ♚a8 7. ♙f3 ♙c8 8. ♙xc6+ ♚b7 9. ♙xb7 #.

4. ♙g3+ ♚b7



5. ♙d6!⊕

The only move to win. 5. ♙f4? ♚a7 6. ♙e3+ c5! 7. ♙xc5+ ♚b8 and draws.

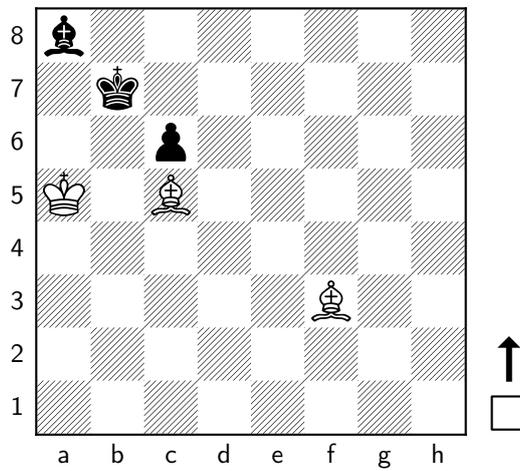
5 ... ♔a7

5... ♖c8 6. ♗b6 ♖d7 7. ♘f4 followed by 8. ♘xc6 +-.

6. ♘c5+ ♗b7

6... ♖b8 7. ♗b6 ♘b7 8. ♘g4 ♖a8 9. ♘f5 ♗b8 10. ♘d7 ♖a8 11. ♖c7 wins the Bishop and the game.

6... ♖b8 7. ♗b6



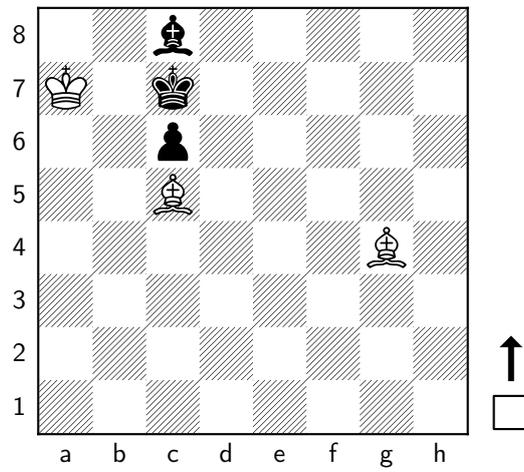
7. ♘g4! ⊙ ♖c7

7... ♖b8 8. ♗b6 ♘b7 9. ♘d6+ ♖a8 10. ♘f3! mates.

8. ♖a6 ⊙ ♘b7+

8... ♖b8 9. ♘d6# is quick mate, while 8... ♖d8 9. ♖a7 will lose the Bishop.

9. ♖a7 ⊙ ♘c8



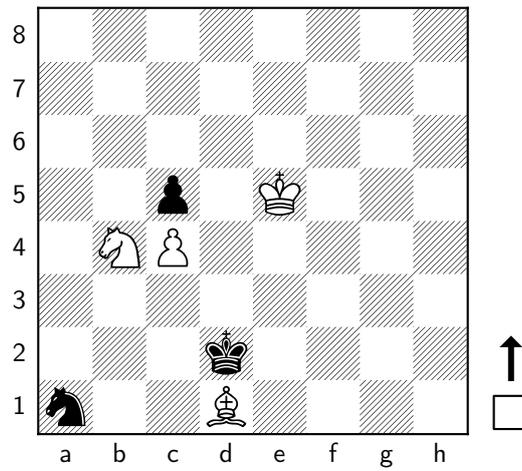
10.                    ♖b6+                    ♔d6  
 11.                    ♗xc8

and wins.

### 17.13. Cornered Knight: Afec (Study), 1978

Puzzle 169  
 AFEK (Study)  
 1978

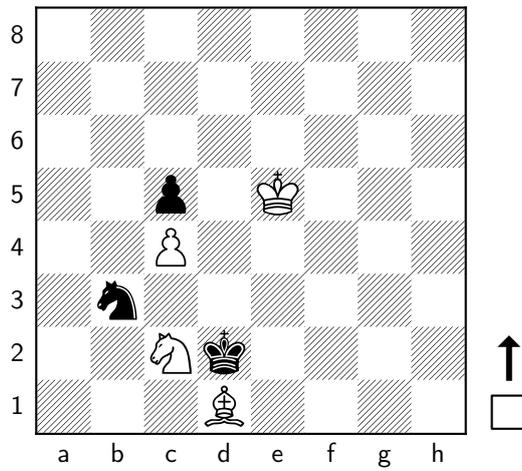
8/8/8/2p1K3/1NP5/8/3k4/n2B4 w - - 0 1



*White to play and win.*

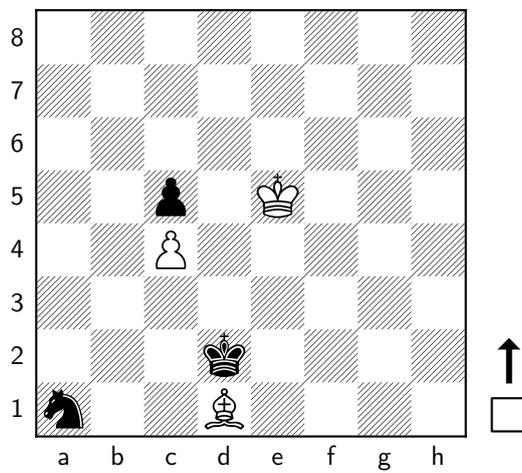
1.                    ♖c2!                    ♖b3

1... ♗xc2 2. ♔xc2 ♕xc2 3. ♕d5 +--.



2.                    ♖a1!                    ♘xa1

2... ♗d4 3. ♗b3 +-.



3.                    ♗a4!                    ♖c3  
 4.                    ♖d5                    ♖b4  
 5.                    ♗d1                    ♖a5  
 6.                    ♖xc5



## 18. Mating sacrifice

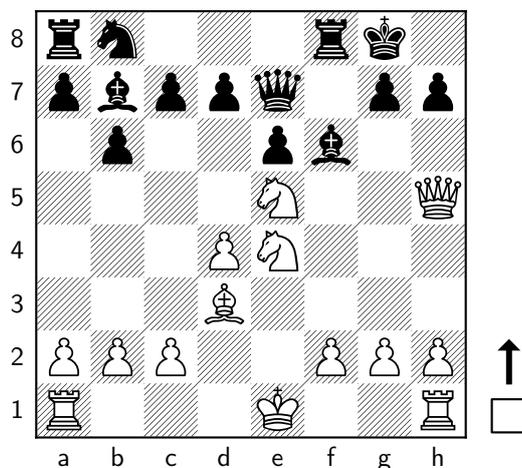
## 18.1. Bringing the King home: Lasker, Ed. – Thomas, 1912

### Puzzle 61

EDWARD LASKER – GEORGE ALAN THOMAS

London: 1912

rn3rk1/pbppq1pp/1p2pb2/4N2Q/3PN3/3B4/PPP2PPP/R3K2R w KQ - 6 11



White achieves nothing by 11. ♖×f6 + g×f6, as the Black Queen protects h7. How can White win by a Kingside attack?

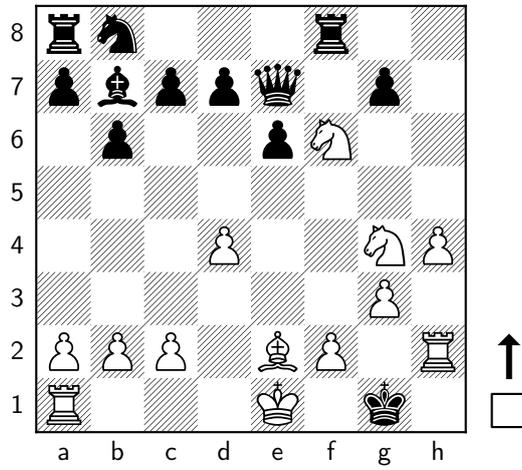
EDWARD LASKER (See §24 on Page 673) was a strong chess player at the beginning of the 20<sup>th</sup> century. (Don't confuse him with EMMANUEL LASKER (See §25 on Page 673), the second World Champion.) His book *Chess Strategy* was a popular chess book for several decades.

Ed. Lasker's best known game is this one against GEORGE ALAN THOMAS, where he sacrifices his Queen and checkmated eight moves later.

11. ♙×h7+!!

A bold queen sacrifice. The double check following the sacrifice is easy to see, but White needs to see through the end before doing the sacrifice.





18.                    ♔d2#

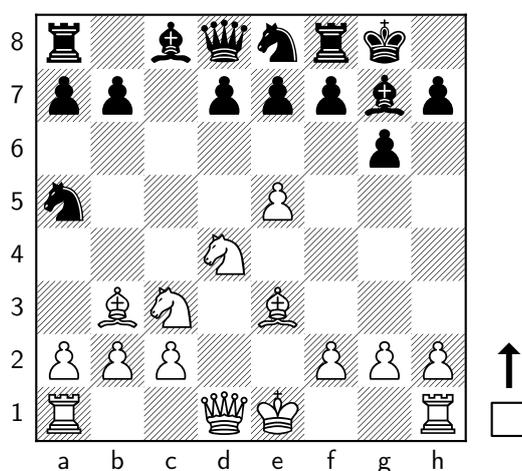
One of the rare cases where a King move can checkmate! Another King move – 18. 0-0-0, also checkmates.

## 18.2. King or Queen?: Fischer – Reshevsky, 1958

### Puzzle 81

ROBERT J. FISCHER – SAMUEL RESHEVSKY  
US Championship: 1958/59

r1bqnrk1/pp1pppbp/6p1/n3P3/3N4/1BN1B3/PPP2PPP/R2QK2R w KQ - 1 10



*This position occurred in the opening phase after just 9 moves (1. e4 c5 2. ♘f3 ♗c6 3. d4 c×d4 4. ♗×d4 g6 5. ♕e3 ♗f6 6. ♗c3 ♕g7 7. ♕c4 0-0 8. ♕b3 ♗a5? 9. e5 ♗e8) between two of the strongest grandmasters in the United States. How can White punish Black's careless 8<sup>th</sup> move?*

BOBBY FISCHER (See §11 on Page 670) and SAMUEL RESHEVSKY (See §34 on Page 674) were two leading grandmasters and champions in the United States during 1950s to 1970s. Reshevsky, an eight-time US champion, lost his charm after Fischer appeared, and there was a rivalry between the two. This game was played much before this started.

Reshevsky had a problem memorizing opening variations, and took a lot of time finishing the opening phase. In this game also, he falls into a trap in the early opening.

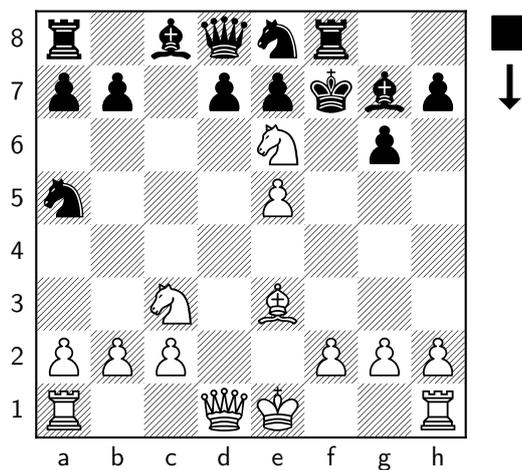
10.

♕×f7+!

♖×f7

10... ♔h8 is not better, because 11. ♘e6 will still win the Queen.

11. ♘e6!

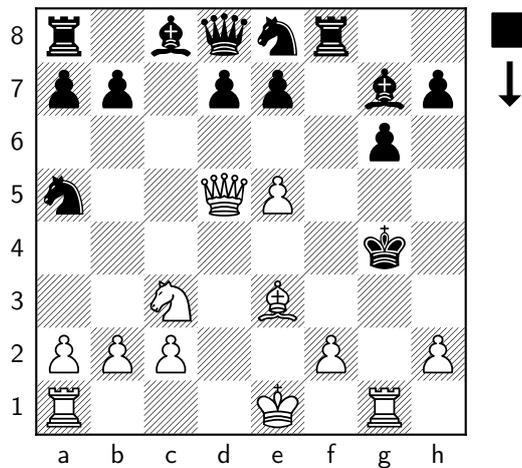


The queen is trapped. Now, Black is faced with the checkmate or loss of the Queen either by suffocation or by 11... dxe6 12. ♖xd8.

11 ... ♔xe6

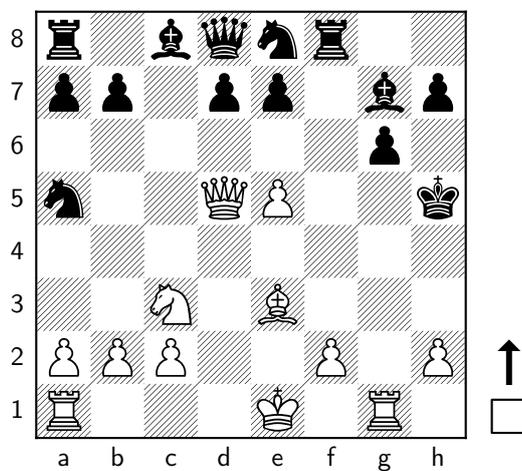
In the game, Reshevsky continued 11... dxe6 12. ♖xd8 ♘c6 and continued for another 30 moves before giving up.

12. ♖d5+ ♔f5  
 13. g4+! ♔xg4  
 14. ♖g1+



14                      ...                      ♔h5

After 14... ♔h4, 15. ♘g5+ ♔h5 16. ♕d1+ ♖f3 17. ♕xf3#.



15.                      ♘g2!

Checkmates on the next move. 16. ♕d1+ ♖f3 17. ♕xf3+ ♔h4 18. ♘g5# also wins.

### 18.3. An attack from nowhere!: Geller – Portisch, 1967

Puzzle 82  
EFIM GELLER – LAJOS PORTISCH  
Moscow: 1967

r3rbk1/1bp1qpp1/p6p/np2p2Q/4P2N/1BP4P/PP3PP1/R1B1R1K1 w - - 1 18

*In this calm position arising from a Ruy Lopez, Black has just played the thematic 17... ♖a5, and after the normal 18. ♗c2 g6, Black has an equal and comfortable position. But White found an ingenious combination. What?*

The Russian Grandmaster EFIM GELLER (See §12 on Page 670) and the Hungarian Grandmaster LAJOS PORTISCH (See §33 on Page 674) were two prominent grandmasters during the second half of the twentieth century. This game between them, which contributed to the theory of Ruy Lopez, Smyslov variation, was indeed interesting.

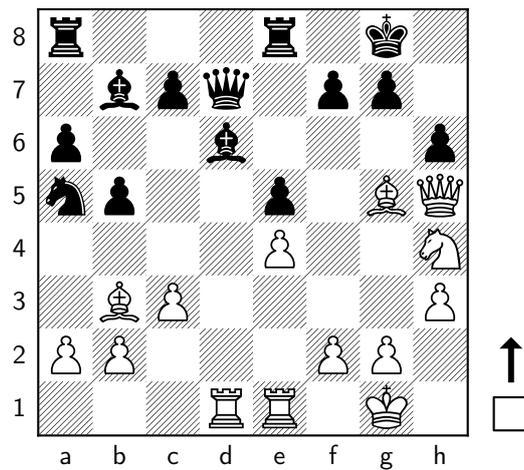
18. ♗g5!

The Bishop is untouchable. 18... ♖xg5 19. ♖xf7+ ♔h8 20. ♖g8 is checkmate, while after 18... hxg5, White continues 19. ♗g6, and there is no defence to the threatened checkmate on h8.

So, the Queen has to move, and while doing that, she should keep protect d7, so Black's move is forced.

18. ... ♕d7  
 19. ♖ad1 ♗d6

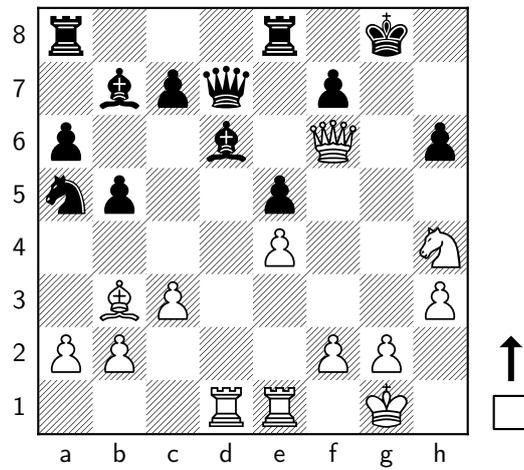
Again forced. Now White breaks Black's King-side.



20. ♗xh6! ♗xh6  
 21. ♕g6+ ♕f8  
 22. ♕f6

Threatening 23. ♗g6+.

22 ... ♖g8



23. ♖e3

Black resigns. White is threatening 24. ♖g3+, and 23... ♔h7 will be met with 24. ♗f5 with checkmate on h6.

In fact, 23. ♗f5 is better than 23. ♖e3. Black has to give up the Queen to prevent the checkmate on g7.

## 18.4. Sac, check and quiet move: Petrosian – Pachman, 1961

Puzzle 104  
TIGRAN PETROSIAN – LUDEK PACHMAN  
Bled: 1961

r1br4/1p2npkp/3Bpbp1/pqp5/2N1R3/1P1P1QP1/1PP2PBP/R5K1 w - - 6 19

*The material is even, but White dominates the board with his active pieces. How can he convert it to a winning attack?*

TIGRAN PETROSIAN (See §32 on Page 674), the Russian World Champion during 1963–'69 and one of the greatest positional players, beats LUDEK PACHMAN (See §31 on Page 674), the famous German grandmaster and chess author, in a spectacular combination.

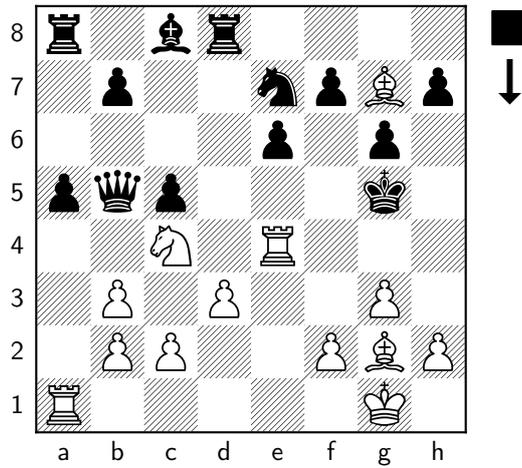
19. ♔xf6+!

This unexpected queen sacrifice forces checkmate. Many people trying to solve this puzzle suggested 1. ♖f4, but after 1... ♕f5! (1... ♕g8? 2. ♖xf6! ♕xf6 3. ♔e5 is curtains.), Black avoids immediate catastrophe even though White still keeps an advantage.

19 ... ♔xf6

After 19... ♔g8 20. ♖f4 ♗f8 21. ♘e5, mate follows.

20. ♘e5+ ♔g5  
21. ♘g7!!



This quiet move decides the game. There is no defence to the threatened 22. ♗h4+ ♔h5  
23. ♘f3+.

Black resigns.

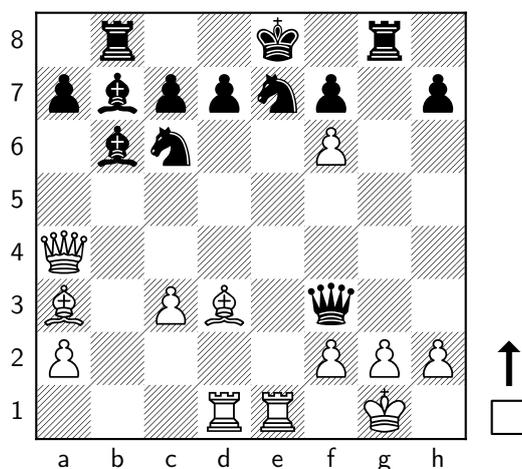
18.5. The evergreen finish: Anderssen, A. – Dufresne, J, 1852

Puzzle 101

ADOLF ANDERSSEN – JEAN DUFERSNE

Berlin: 1852

1r2k1r1/pbppnp1p/1bn2P2/8/Q7/B1PB1q2/P4PPP/3RR1K1 w - - 0 20



Black has just won a piece on f3, and is threatening many things like 20... ♖×g2 ♯, 20... ♖×g2+, 20... ♖×f2+, 20... ♗×f2+ etc., but White has a forced sequence to win. How?

This happened in a friendly game by the legendary ADOLPH ANDERSSEN (See §3 on Page 668), well-known for his deep combinations.

20. ♖xe7+! ♗xe7

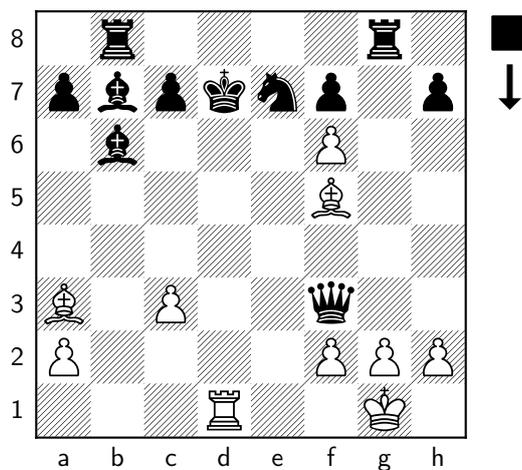
20... ♔f8 21. ♖e3+ d6 22. ♖xf3+- 20... ♔d8 21. ♖xd7+! ♔c8 (21... ♔xd7 22. ♗f5+ ♔e8 23. ♗d7+ ♔d8 24. ♗xc6 checkmates.) 22. ♖d8+ ♔xd8 (22... ♗xd8 23. ♖d7+! ♔xd7 24. ♗f5+ ♔e8 25. ♗d7 ♯) 23. ♗f5+ ♔e8 24. ♗d7+ ♔d8 25. ♗xc6+ checkmates.

21. ♖xd7+! ♔xd7

21... ♕f8 22. ♗xe7#.

22. ♗f5+

Power of double check, similar to the RETI - TARTAKOWER game (Game 4.1, Page 90), is demonstrated here.



22 ... ♔e8

22... ♕c6 23. ♗d7#.

23. ♗d7+ ♔f8  
24. ♗xe7#

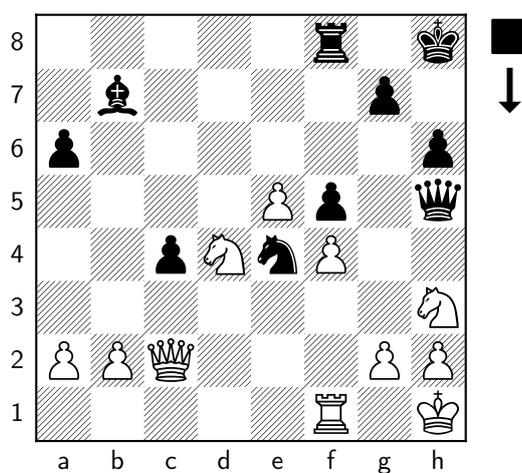
## 18.6. Power of double check: Torres – Alekhine, 1922

### Puzzle 12

JOAQUIN TORRES – ALEXANDER ALEKHINE

Sevilla: 1922

5r1k/1b4p1/p6p/4Pp1q/2pNnP2/7N/PPQ3PP/5R1K b - - 0 28



*Black is a pawn down, but has a strong attack. How can Black take home victory by a neat combination?*

Another queen sacrifice by World Champion ALEXANDER ALEKHINE (See §1 on Page 668).

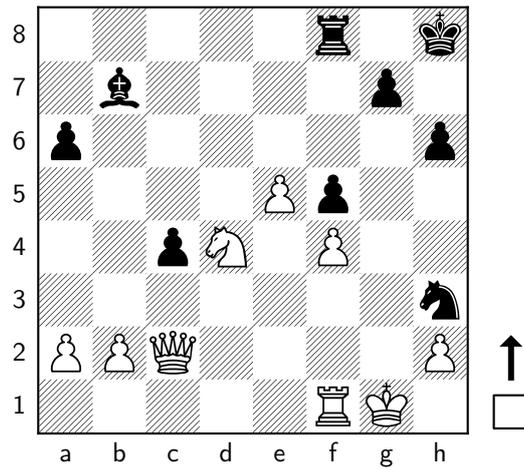
28 ... ♔×h3!  
29. g×h3

White could avoid the immediate defeat by a move like 29. ♖f3, but Black will be a piece up.

29 ... ♖f2+

The double check!

30.                    ♔g1                    ♞xh3#



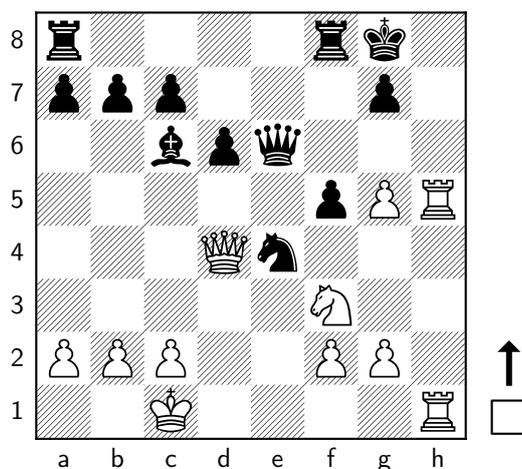
## 18.7. Reversing moves: Alekhine – Hoelscher, 1933

### Puzzle 22

ALEXANDER ALEKHINE – HOELSCHER

Simul (50b): 1933

r4rk1/ppp3p1/2bpq3/5pPR/3Qn3/5N2/PPP2PP1/2K4R w - f6 0 16



*White launched a King-side attack sacrificing a piece. Black just played 15...f5, giving an escape square for the King at f7 to parry the mate threat on h8. How can White force a win?*

The clue that Black's last move was 15...f5 is a red herring. 16. gxf6 (en passant) is bad for White after 16...♙xf6 (16...♙xa2! also is very strong.), White's attack has ended and Black should win with the extra piece.

White can play 16. g6 but after 16...♙xg6, White cannot win: 17. ♖c4+ d5 defends, while 17. ♘e5 is met by 17...♙xh5! (17...dxe5?? 18. ♖c4+ followed by 19. ♚h8#.) 18. ♙xh5 dxe5 and Black wins.

We saw that 16. g6? ♙xg6 17. ♘e5? dxe5?? (17...♙xh5!-+.) 18. ♖c4+ wins, so a reversal of moves technique suggests 16. ♘e5 dxe5 17. g6.

16. ♘e5!



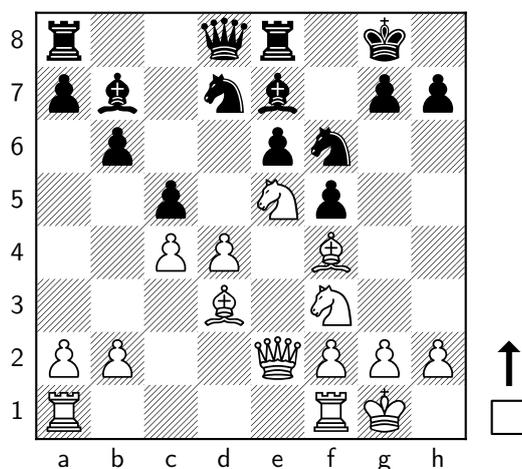
## 18.8. Blind master's Queen: Alekhine – von Feldt, 1916

### Puzzle 52

ALEXANDER ALEKHINE – M VON FELDT

Tarnopol UKR: 1916

r2qr1k1/pb1nb1pp/1p2pn2/2p1Np2/2PP1B2/3B1N2/PP2QPPP/R4RK1 w - - 0 15



*White's active pieces and Black's weak pawn on e6 give White a definite advantage. How can White convert that to a quick full point?*

Future World Champion ALEXANDER ALEKHINE (See §1 on Page 668) was playing blindfolded in this friendly game in a hospital after a rescue mission for red cross. However, the pain and inability to see doesn't prevent him from finding this amazing combination!

15. ♘f7!

15. ♘c6 ♙xc6 16. ♚xe6+ ♔h8 17. ♚xc6 wins a pawn, but the text achieves more.

15 ... ♙xf7

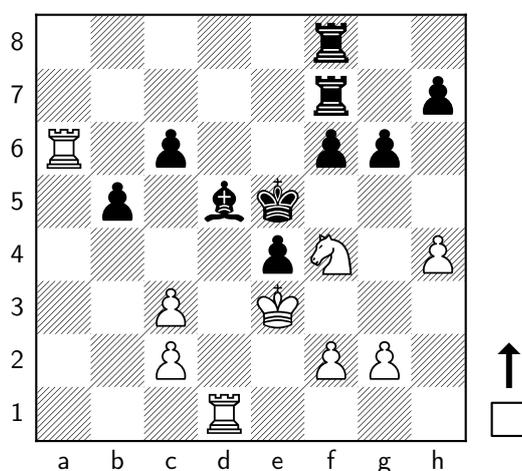


## 18.9. Karel vs Karel: Opocensky – Hromadka, 1931

### Puzzle 38

KAREL OPOCENSKY – KAREL HROMADKA  
Christmas Tournament: 1931

5r2/5r1p/R1p2pp1/1p1bk3/4pN1P/2P1K3/2P2PP1/3R4 w - - 2 24



*Black has an extra pawn, but the vulnerable position of his King gives White a chance to launch a mating attack. Can you spot it?*

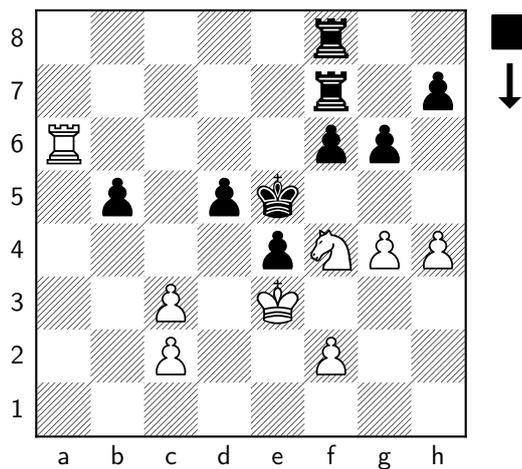
Some sources say this game, played on the Christmas day in 1931, was played with colors reversed, i.e., Hromadka played White and Opocensky played Black. Nobody has any more information on this tournament.

24. ♖xd5!

In the actual game, White played 24. g4? revealing the intention too early, and the game continued 24...♞e8? 25. ♖xd5! cxd5 26. ♘d3+ exd3 27. f4#. Black could have avoided the defeat by 24...♞d8 or 24...♞d7, so that 25. ♖xd5 can be met with 25...♞xd5!. White still maintains a small advantage (For example, 24...♞d8

25. ♖×d5 ♗×d5 26. ♖×c6 (Threat 27. ♖e6♯) 26...♗e7 27. ♘×d5 ♙×d5 28. ♖b6 ♙c4 29. ♖xf6 ♙xc3 30. ♖c7+ ♙b4 31. h5±) but not sufficient to win.

24 ... cxd5  
25. g4!

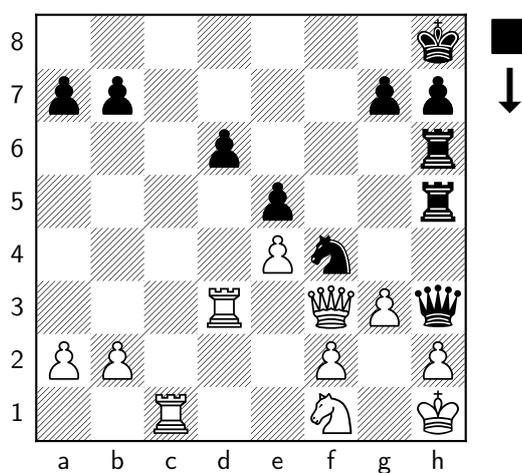


White wins, as there is no escape from the threatened checkmate by 25. ♖e6♯ as well as 26. ♘d3+ e×d3 27. f4♯. (The knight sacrifice not only clears the f4 square for the pawn, but diverts the Black pawn on e4 from capturing it en passant.) 25...d4+, the only move that gives the Black king a square to escape, will be met with 26. c×d4♯.

## 18.10. Breaking the fortress: Thybo – Christensen, 2011

Puzzle 88  
 THYBO – CHRISTENSEN  
 Denmark: 2011

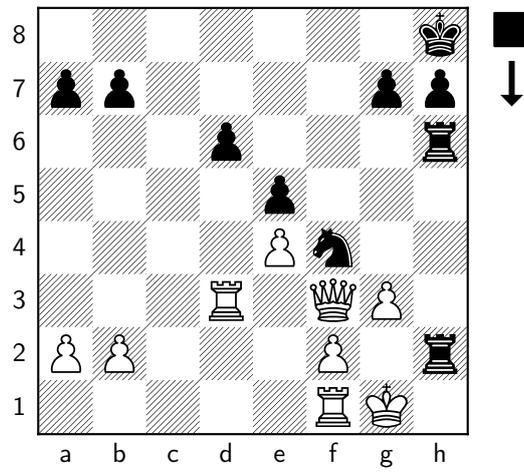
7k/pp4pp/3p3r/4p2r/4Pn2/3R1QPq/PP3P1P/2R2N1K b - - 0 1



*Black definitely has a strong attack, but looks like White has defended all the points. But there is a weak point. Where?*

Black needs to be careful, because he has a terrible back rank weakness. For example, 1... ♖g6? will be met with 2. ♔f7! and White wins.

1	...	♔xf1+!
2.	♖xf1	♖xh2+
3.	♔g1	



This position itself is a puzzle. Black to play and win.

3                   ...                   ♖g2+!  
 4.                   ♙xg2                   ♘e2#

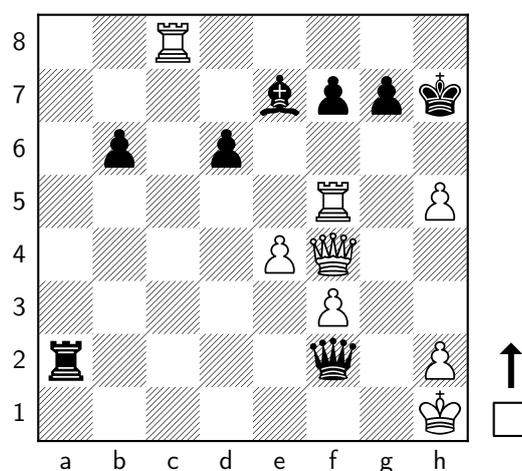
## 18.11. Rapid conclusion: Carlsen – Karjakin, 1933

### Puzzle 16

MAGNUS CARLSEN – SERGEI KARJAKIN

World Ch.: 2016

2R5/4bppk/1p1p4/5R1P/4PQ2/5P2/r4q1P/7K w - - 5 50



*White to play and win.*

This happened in the last game of the rapid tie-break series of the 2016 World Championship between MAGNUS CARLSEN (See §10 on Page 670) and SERGEI KARJAKIN (See §17 on Page 671). Carlsen concluded the game and the championship by a spectacular queen sacrifice.

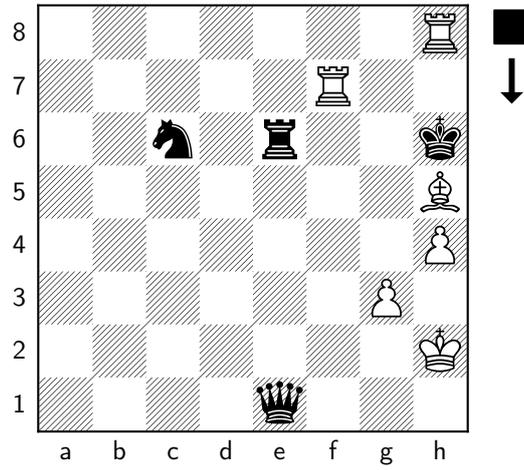
50. ♔h6+!!

Black resigns as both 50... ♙xh6 51. ♖h8# and 50... g×h6 51. ♖×f7# lead to checkmate.



Or 56... ♔h7.

57. ♖f7+ ♔h6  
58. ♖h8#



18.13. A racist brutally defeated: Wenzhe – Donner, 1978

Puzzle 54  
WENZHE, LIU – DONNER, JAN HEIN  
*Olympiad*, Buenos Aires: 1978

r2qnr2/pp3kbQ/2npb1p1/2pN1pP1/4P3/8/PPP1BP2/R1B1K1NR w KQ - 2 16

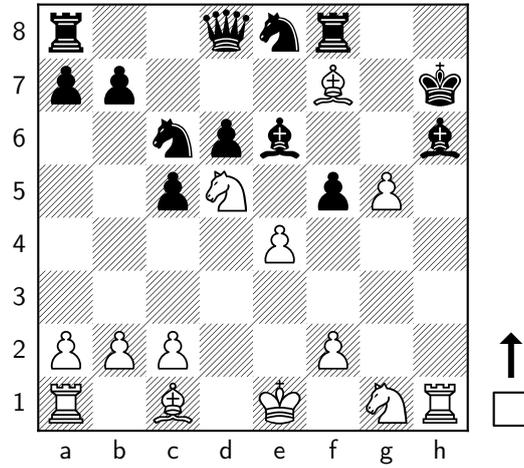
*White to play and win.*

In this game, Black was the infamous Dutch Grandmaster JAN HEIN DONNER, who was notorious for his outspoken political, racist and sexist comments. Donner once said, “Women cannot play chess, but they cannot paint either, or write, or philosophize. In fact, women have never thought or made anything worth considering.”

This game happened in the 1978 Chess Olympiad in Buenos Aires. When the Icelandic Grandmaster GUÖMUNDUR SIGURJÓNSSON lost to QI JUNG XUAN in the China-Iceland match, Donner asked Sigurjónsson: “Tell me, Grandmaster, how can a Western European Grandmaster lose to a Chinaman?” (In 1978, China was not that strong in chess.) This racist comment got its reward in the China - Holland match in the same event, and Donner was brutally defeated by LIU WENZHE just in 22 moves.

16. ♔xg6+! ♔xg6

17.            ♖h5+            ♔h7  
 18.            ♖f7+            ♖h6



19.            g6+!            ♔g7  
 20.            ♖xh6+            ♖xh6+

Black resigns. 20... ♔h8 21. ♖xh6+ ♔h4 22. ♖xh4#.

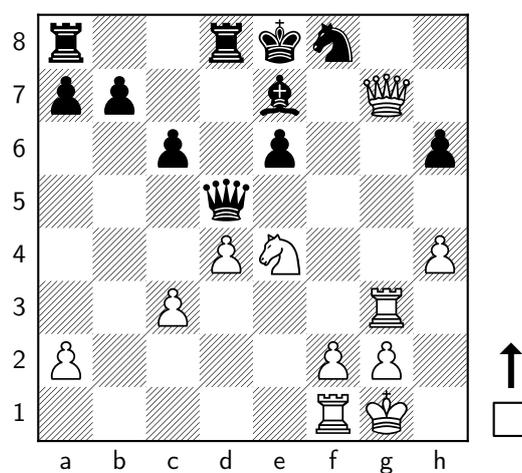
## 18.14. Demolishing Queen sacrifice: Korchnoi – Petersons, 1965

### Puzzle 36

VIKTOR KORCHNOI – ANDREJS PETERSONS

USSR Ch, Kiev: 1965

r2rkn2/pp2b1Q1/2p1p2p/3q4/3PN2P/2P3R1/P4PP1/5RK1 w - - 6 32



White can increase pressure and win with 32. ♖e1 ♕f5 33. ♖f3 but there is a quicker forced win. Can you find that?

VIKTOR KORCHNOI (See §21 on Page 672), one of the greatest players in recent years, rarely missed tactical chances like this.

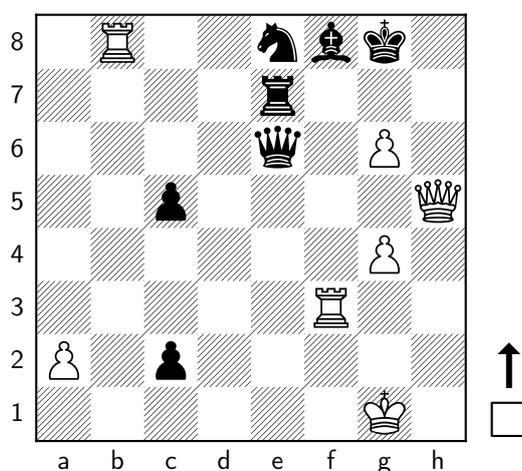
- |     |       |      |
|-----|-------|------|
| 32. | ♕xe7! | ♖xe7 |
| 33. | ♖g7+  | ♖e8  |
| 34. | ♗f6#  |      |

18.15. Mating combination: Iljin – Tsydypov, 2016

Puzzle 34

ILJIN, TIMOFEY – TSYDYPOV, ZHAMSARAN  
St. Petersburg: 2016

1R2nbk1/4r3/4q1P1/2p4Q/6P1/5R2/P1p5/6K1 w - - 0 43



*White to play and win.*

43. ♖xf8+ ♔xf8  
44. ♕h8+ ♕g8  
45. ♖xe8+

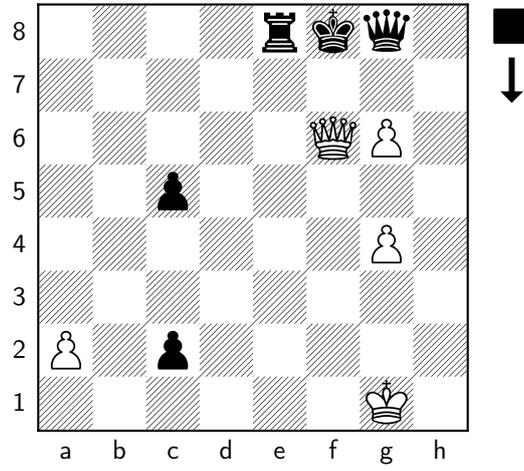
45. ♕f6+ ♖f7! and there is no win.

- 45 ... ♖xe8

45... ♔xe8 46. ♕xg8+ wins.

46.

♔f6+

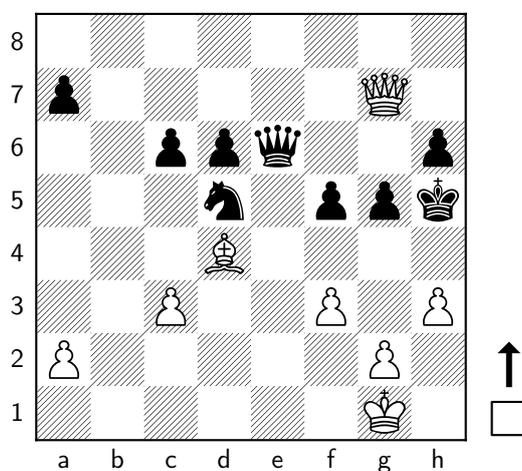


White wins. A spectacular finish!

18.16. Sac the queen, the King will do the rest: Schlechter – Meitner, 1899

Puzzle 67  
SCHLECHTER – MEITNER  
Vienna: 1899

8/p5Q1/2ppq2p/3n1ppk/3B4/2P2P1P/P5P1/6K1 w - - 0 1

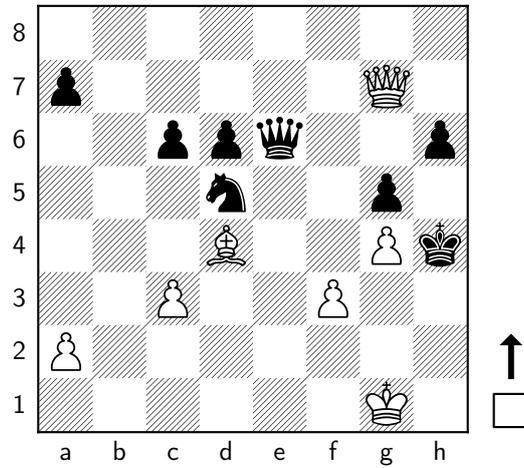


*White is a pawn down, but managed to corner the Black King into a mating net. How can White win from this position?*

1.                    g4+                    f×g4

If 1... ♔h4, 2. ♕×h6+ wins as in the main line.

2.                    h×g4+                    ♔h4



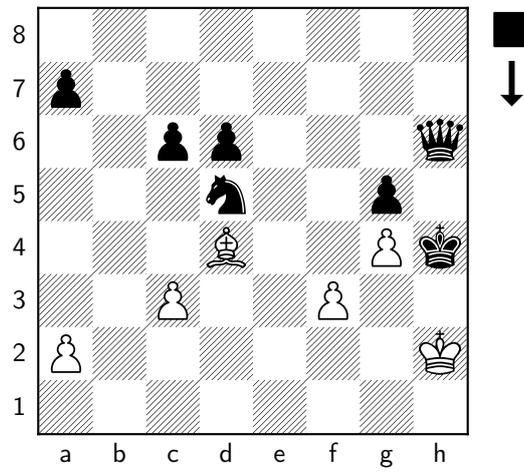
Now, 3. ♖f2+? ♙h3 and the Black King escapes. Covering h3 is tough: 3. ♙h2? ♜e2+! and 3. ♙g2? ♞f4+!.

So, White needs to play ♙h2 or ♙g2 after deflecting the Black Queen or Knight. This gives the next killer move...

**3. ♜xh6+!!**

An unexpected sacrifice! Since 3... ♙g3 4. ♜xh6 is hopeless,

**3 ... ♜xh6**  
**4. ♙h2!**



And Black cannot stop checkmate by the Bishop on f2!

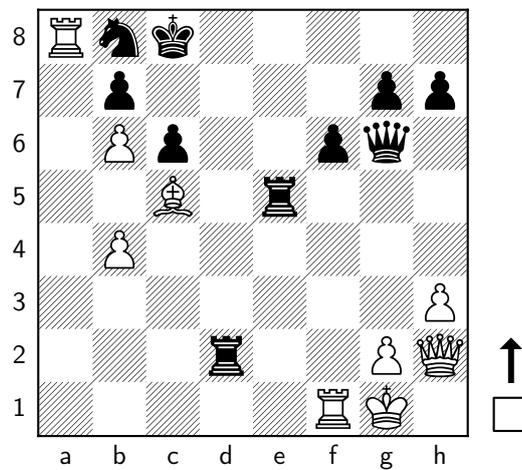
18.17. Sac, sac and mate: Alekhine – Reshevsky, 1937

Puzzle 5

ALEXANDER ALEKHINE – SAMUEL RESHEVSKY

Kemerli LVA: 1937

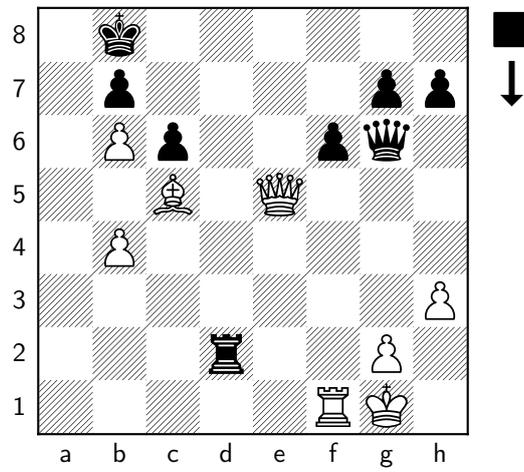
Rnk5/1p4pp/1Pp2pq1/2B1r3/1P6/7P/3r2PQ/5RK1 w - - 10 35



*White is a pawn down but has led Black to a cramped position. How can he bring home the victory?*

World Champion ALEXANDER ALEKHINE (See §1 on Page 668) finishes off the American master SAMUEL RESHEVSKY (See §34 on Page 674) in an elegant way.

35. ♖×b8+!      ♔×b8  
 36. ♕×e5+!

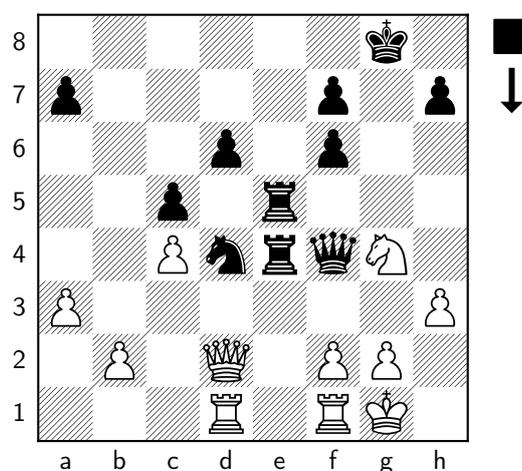


Black resigns. After 36...f×e5 37. ♔f8+ checkmates.

## 18.18. Anastasia's mate: Gygli – Henneberger, 1941

Puzzle 30  
 GYGLI – HENNEBERGER, W.  
 Zurich: 1941

6k1/p4p1p/3p1p2/2p1r3/2PnrqN1/P6P/1P1Q1PP1/3R1RK1 b - - 0 1

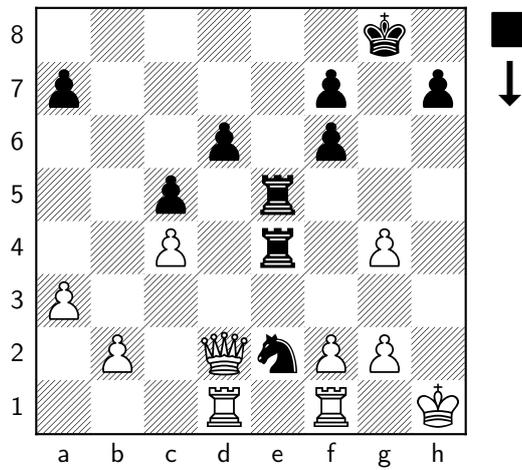


*Can you find the winning combination for Black?*

This is a very popular position among books discussing tactics, illustrating *Anastasia's mate*. Most references give it as a game played in Zurich in 1941, but chessgames.com lists it as a game (<http://www.chessgames.com/perl/chessgame?gid=1739430>) played in 1938 at Leningrad.

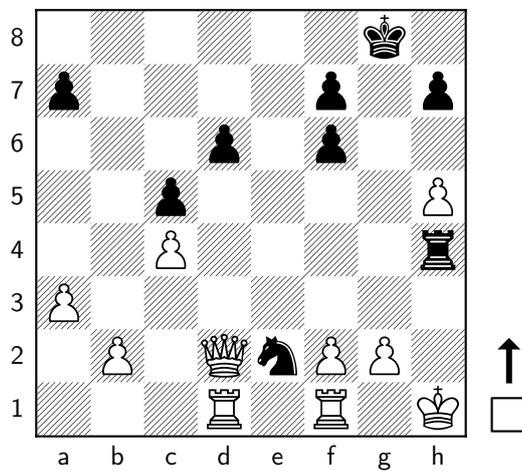
1.	...	♘e2+
2.	♔h1	♚xg4+!
3.	hxg4	

A move like 3. ♚xd6 would avoid the mate, but Black will end up a full piece ahead.



This position also is very famous.

3                   ...                   ♖h5+!  
 4.                   g×h5                   ♗h4#



This checkmate, where a Knight on e2 or e7 controlling g1 or g8 and a Rook checkmating along the h-file, is called *Anastasia's mate*.

18.19. Rook and Queen Sacrifice: Waitzskin – Frumkin, 1987

Puzzle 69  
 JOSHUA WAITZSKIN – EDWARD FRUMKIN  
 New York: 1987

r1b1qr1k/5ppp/2p1p3/p1PpP3/P2N1PQB/2P1R3/6PP/3n2K1 w - - 0 26

*White has just sacrificed a rook on d1. How can he force a win?*

JOSHUA WAITZSKIN, the protagonist in the movie *Searching for Bobby Fischer*, drives home victory with a neat queen sacrifice.

26. ♖xg7+! ♔xg7  
 27. ♘f6+ ♕g6

27... ♕g8 28. ♖g3# is immediate mate, and 27... ♕h6 28. ♖h3+ ♕g6 29. ♖g3+ transposes to the game.

28. ♖g3+ ♕h6  
 29. ♘g7+ ♕h5

30.  
31.

$\mathbb{R}g5+$   
 $\mathbb{C}f3\#$

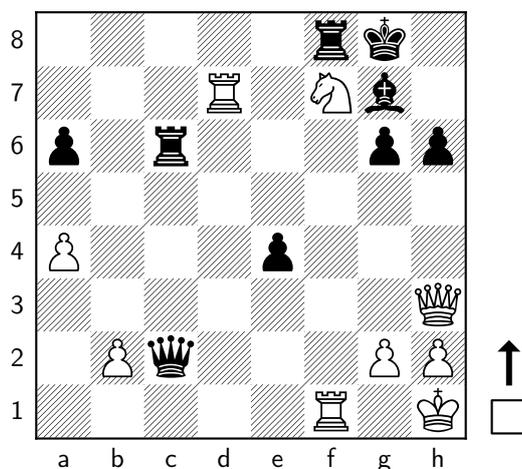
$\mathbb{C}h4$

## 18.20. Missed win against World Champion: Schneider – Tal, 1982

### Puzzle 43

LARS SCHNEIDER – MIKHAIL TAL  
Lucerne Olympiad: 1982

5rk1/3R1Nb1/p1r3pp/8/P3p3/7Q/1Pq3PP/5R1K w - - 4 30



*In an unforgettable game, White missed a chance to beat the former World champion and one of the greatest tacticians in the world. How could White win the game?*

This happened in the Sweden – USSR match in the 1982 Olympiad. The Swedish International Master LARS SCHNEIDER who was paired against the legendary MIKHAIL TAL (See §43 on Page 676) got a winning advantage. When they reached this position, everyone who watched the game, including Tal, saw the winning combination. Well, everyone except Schneider! He played 30. g3 h5 31. ♖g5 ♜xb2 32. ♗e6 ♜xf1+ 33. ♜xf1 ♗f6 34. ♜d8+ ♜f7 35. ♗g5+ ♜e7 36. ♗xe4 ♜xd8, and Black won.

Instead, he had winning combination.

**30. ♜xh6!!**

Threatens 31. ♜h8+! ♗xh8 32. ♗h6#. Capturing the Queen will lead to checkmate: 30... ♗xh6 31. ♗xh6+ ♜h8 32. ♜xf8#.

30

...

♖xf7

30... ♖c1 31. ♖xc1 ♗xh6 32. ♗xh6+ ♘h8 33. ♖e1 (33. ♖xc6?? ♖f1 ♯) leaves White with a solid extra piece.

31.

♖d8+

♖f8

32.

♖xf8+

♗xf8

33.

♖xf8 ♯

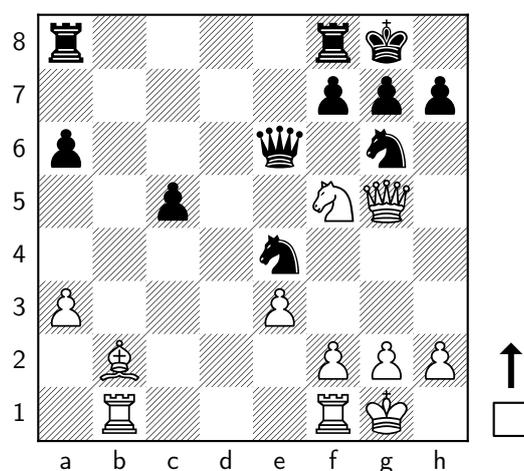
18.21. Daring Queen: Rabinovich – Goglidze, 1939

Puzzle 41

ILYA RABINOVICH – VIKTOR GOGLIDZE

Leningrad RUS: 1939

r4rk1/5ppp/p3q1n1/2p2NQ1/4n3/P3P3/1B3PPP/1R3RK1 w - - 6 23



*In an even position, Black just moved his Knight from f6 to e4, which allowed White to launch a winning attack. What did White play?*

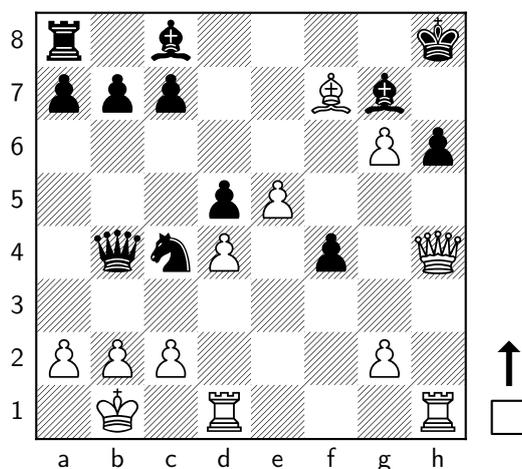
23. ♔h6!

Black resigns. 23...g×h6 24. ♕×h6# is mate, and otherwise Black has no way to prevent the checkmate on g7.

18.22. Mate, not just material advantage: Richter – J. K., 1935

Puzzle 55  
 RICHTER – J. K.  
 Berlin: 1935

r1b4k/ppp2Bb1/6Pp/3pP3/1qnP1p1Q/8/PPP3P1/1K1R3R w - - 0 1



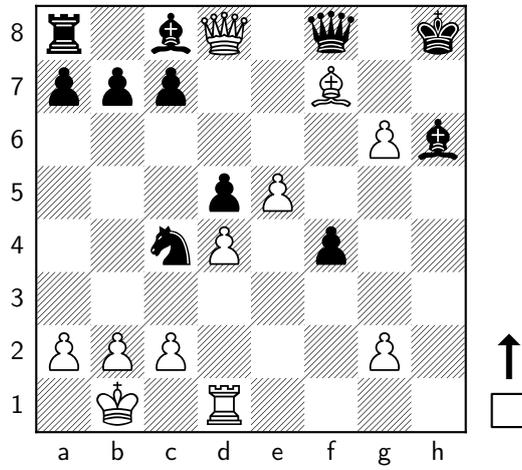
*White is an exchange up and has a good chance to win. But there is a combination in this position that will lead to forced checkmate. Can you find it?*

This position gives us a feeling that there is a mating combination, but there are some false leads also. For example, 1. ♖xh6+?? ♕xh6 2. ♖xh6+ ♔g7 3. ♖h7+ ♔f8 4. ♖h8+ (4. g7+ ♔xf7 -+.) 4... ♔e7 5. ♖e8+ ♔d7 doesn't lead anywhere.

1. ♖d8+! ♖f8

1... ♕f8 2. ♖xh6+ ♔g7 3. ♖h7#.

2. ♖xh6+! ♕xh6



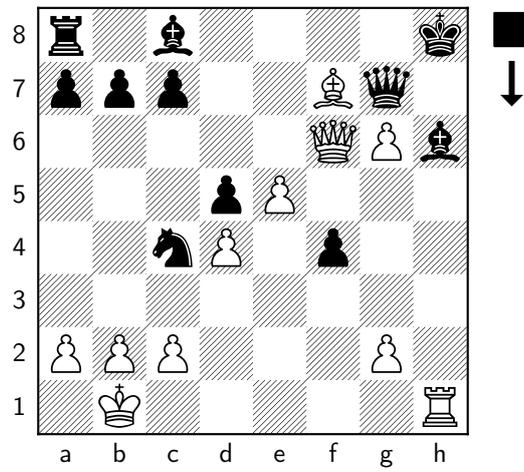
3. ♖f6+

3. g7+ also checkmates. 3... ♔xg7 4. ♖h1+ ♔h6 5. ♖xh6+ ♔g7 6. ♖f6# or 3... ♔xg7  
 4. ♖f6+ ♔h7 5. ♖g6+ ♔h8 6. ♖h1 mates.

3 ... ♖g7

3... ♔g7 4. ♖h1 #.

4. ♖h1!



Threatens 5. ♖xh6#. After 4... ♕xf6 5. exf6, there is no escape from the threatened mate.

18.23. A deep sacrifice: Tarrasch – Romberg, 1893

Puzzle 44  
SIEGBERT TARRASCH – ROMBERG  
Nuremburg: 1893

r3qr2/ppp2pkp/3p3n/2bNn1NQ/2B1P1b1/8/PPp3PP/2B2R1K w - - 0 15

*White, playing a Rook odd game, is a Rook and two pawns down. How can he win with a spectacular combination?*

A famous combination by Siegbert Tarrasch (See §44 on Page 676) when played at rook odds, i.e, without the Rook on a1.

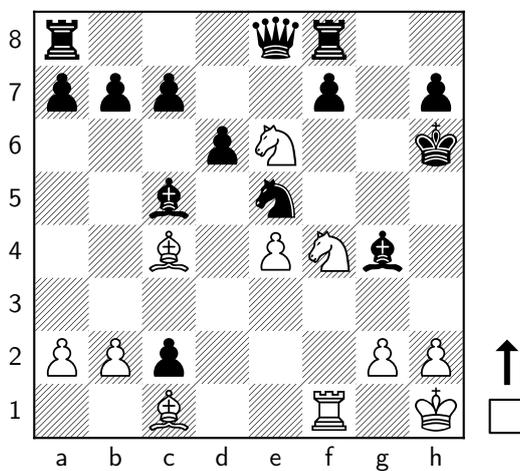
White is a rook (due to the odds) and two pawns down, and need to have some magic to win this game.

- |     |         |      |
|-----|---------|------|
| 15. | ♚×h6+!! | ♔×h6 |
| 16. | ♞e6+    | ♕h5  |

16...♕g6 17. ♜f6+ ♕h5 18. ♜h6#.

17.                    ♖df4+                    ♔h6

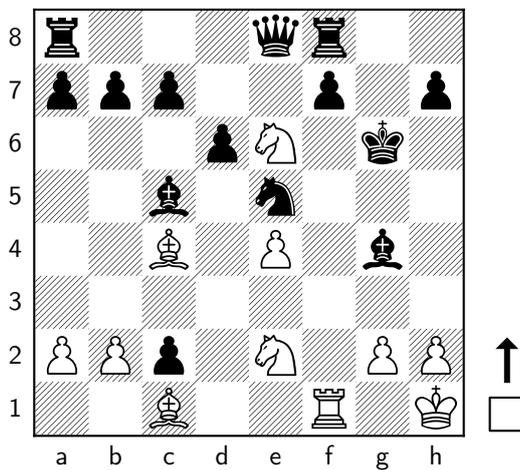
17... ♕h4 18. g3#.



Does White have anything better than perpetual check?

18.                    ♖e2+                    ♔g6

18... ♕h5 19. ♖g3+ ♕h4 20. ♔g5#.



Now what? 19. ♖g3+?? ♕g6 and Black wins!

19.	♖f6+	♔xf6
20.	♗g5+	♔g6
21.	♘2f4#	

White had to foresee seven moves ahead till this checkmate before sacrifices his Queen on move 15!

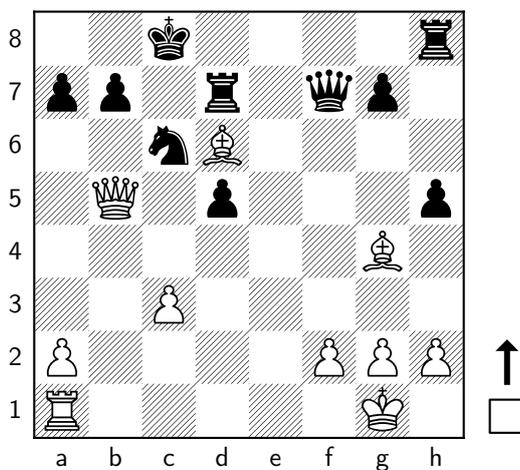
18.24. Reverse the moves: Portmann – Andres, 1999

Puzzle 74

DANIEL PORTMANN – JESUS DE ANDRES

Zuerich: 1999

2k4r/pp1r1qp1/2nB4/1Q1p3p/6B1/2P5/P4PPP/R5K1 w - - 0 21



Black just played 20...h5. White could obtain a clear advantage by 21. ♖×d7+ ♗×d7 22. ♕×d5, but is there anything better?

21. ♖b1 is tempting, but after 21...hxg4 22. ♗xc6+ ♖c7, Black defends.

21. ♕×c6+!!

Black resigned, foreseeing

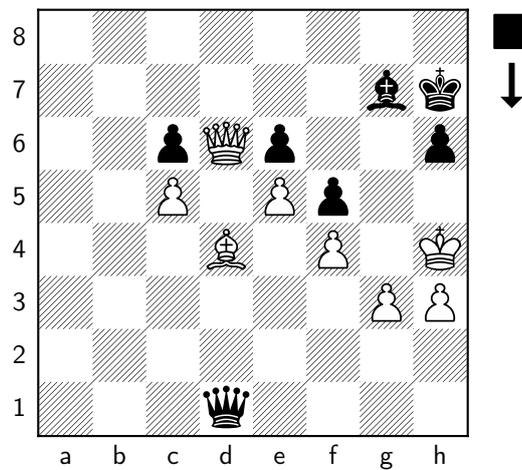
21 ... bxc6  
22. ♖b1

There is no way to stop ♖b8#.

18.25. Closing line: Buza – Kovacs, 1964

Puzzle 51  
 BUZA – KOVACS  
 Hungary: 1964

8/6bk/2pQp2p/2P1Pp2/3B1P1K/6PP/8/3q4 b - - 0 1



*White seems to have an overwhelming advantage, but Black found a way to win. How?*

1 ... ♖f6+!

To prevent ♕xe6+ after ... ♔g6. All other moves lose.

2. ... exf6 ♔g6!

Threatens 3... ♕h5#. White resigns as 3. g4 will follow 3... ♕e1+ 4. ♖f2 ♕xf2#.

18.26. Sac, sac, check and pawn move: Khalifman – Serper, 1994

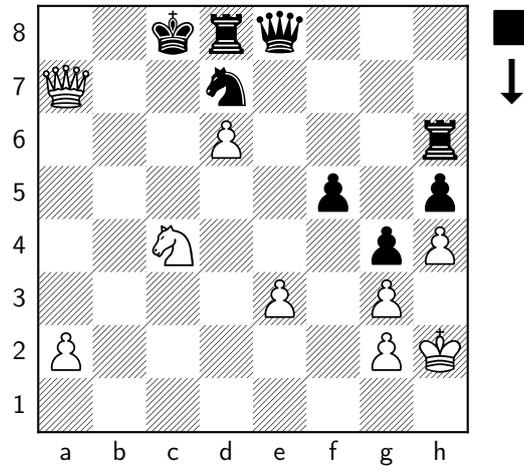
Puzzle 17  
ALEXANDER KHALIFMAN – GRIGORY SERPER  
St. Petersburg: 1994

1k1rq3/pppn4/7r/2RP1p1p/Q1N3pP/4P1P1/PR4PK/8 w - - 0 28

*White to play and win.*

White has a forced checkmate in 5.

- |     |       |      |
|-----|-------|------|
| 28. | ♖×b7+ | ♔×b7 |
| 29. | ♗×c7+ | ♔×c7 |
| 30. | ♞×a7+ | ♔c8  |
| 31. | d6    |      |



Black resigns. White threatens 32. ♔c7#. 31... ♖x6 will be met with 32. ♘x6#.

18.27. Drag, beat and mate!: Botvinnik – Yudovich, 1933

Puzzle 72  
 MIKHAIL BOTVINNIK – MIKHAIL YUDOVICH  
 USSR Ch, Leningrad: 1933

r1b2r2/1p1nq1bk/1np1p1pp/p7/3PN2N/1P2B3/2Q1BPPP/2RR2K1 w - - 3 22

*White can win an exchange by 22. ♖g5+ h×g5 23. ♜×g6 ♔e8 24. ♜×f8+ ♔g8 25. ♜h7. Is there anything better?*

Future World Champion MIKHAIL BOTVINNIK (See §8 on Page 669) gives a tactical lesson to the Future Grandmaster MIKHAIL YUDOVICH.

22. ♜×g6! ♔×g6

22... ♔e8 23. ♜×f8+ ♔g8 24. ♜×d7 leaves Black a full rook down.

Most people find the first move by intuition, but the same intuition, which suggests a discovered check in the second move, fails to find the second move.

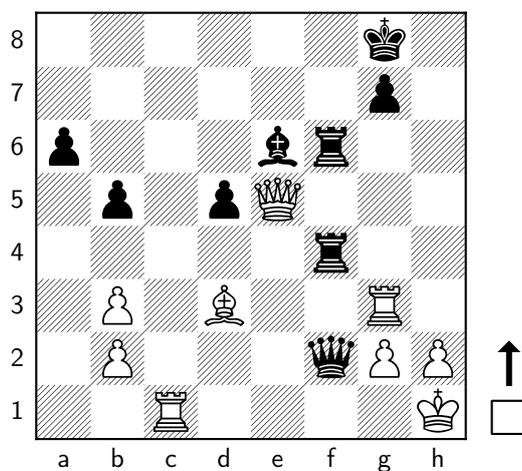
23. ♜h5+!



18.28. Deep combination: Horowitz – Amateur, 1941

Puzzle 93  
 HOROWITZ – AMATEUR  
*Simul*, USA: 1941

6k1/6p1/p3br2/1p1pQ3/5r2/1P1B2R1/1P3qPP/2R4K w - - 0 1

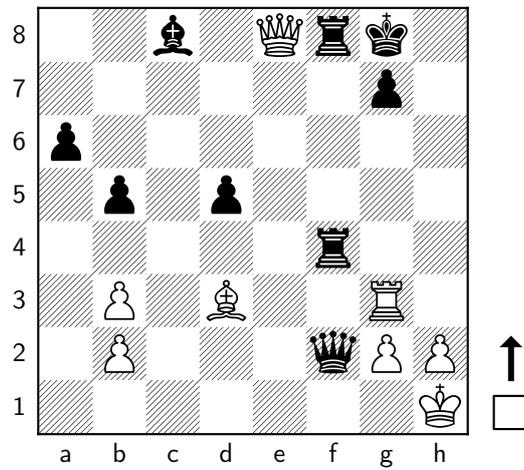


*White to play and win.*

1. ♖c8+! ♗xc8

1... ♕f7 2. ♖c7+ and 1... ♖f8 2. ♖xg7# ends much quicker.

2. ♕e8+ ♖f8



Now what? 3. ♘h7+? works against 3...♙xh7?? 4. ♖g6+ and 5. ♖xg7#, but after 3...♙h8!, Black wins.

3. ♖xg7+! ♙xg7

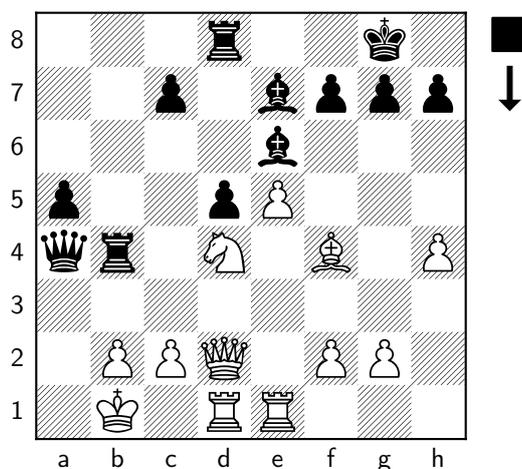
3...♙h8 4. ♖h7+ ♙g8 5. ♖g6# is no better.

4. ♖g6+ ♙h8  
5. ♖h7#

18.29. Never castle Q-side when the b-file is open!: Vistaneckis – Soler,

Puzzle 4  
VISTANECKIS – SOLER  
:

3r2k1/2p1bPPP/4b3/p2pP3/qR1N1B1P/8/1PPQ1PP1/1K1RR3 b - - 0 1



*Black to play and win.*

Any chess player with some tactical sense will find the solution quite easily.

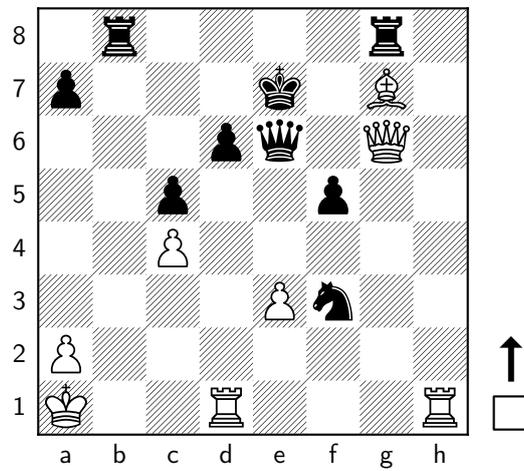
- |    |      |       |
|----|------|-------|
| 1. | ...  | ♖xb2! |
| 2. | ♔xb2 | ♗a3+  |
| 3. | ♘b1  | ♖b8+  |
| 4. | ♞b3  | ♖xb3+ |
| 5. | cxb3 | ♙f5+  |
| 6. | ♞c2  | ♗xb3+ |

And mates. Practically all moves are forced.

## 19. Mate or winning material



31... ♖xg7 32. ♗xe6+-.



32. ♗f8+!! ♖bxf8

32... ♔xf8 33. ♗xe6+-.

32... ♖gxf8 33. ♖h7+ ♖f7 34. ♖xf7+ ♗xf7 35. ♗xd6+ ♔e8 36. ♗xb8+ ♔e7  
37. ♗d6+ ♔e8 38. ♗d8#.

33. ♖h7+

Black resigns. After 33... ♖f7 34. ♖xf7+ ♔d8 (34... ♗xf7 35. ♗xd6+ ♔e8 36. ♗d8#)  
35. ♗xg8+ ♗e8 36. ♖xd6+ ♔c8 37. ♗xe8#.

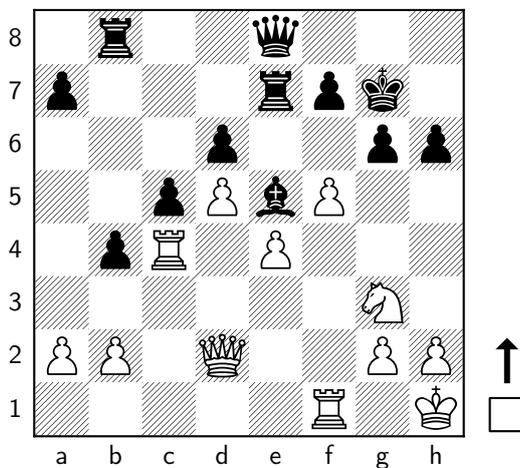
## 19.2. Dragging the King: Ramdas – Joshi, 1987

### Puzzle 64

RAMDAS – S.G. JOSHI

Bhilai IND: 1987

1r2q3/p3rpk1/3p2pp/2pPbP2/1pR1P3/6N1/PP1Q2PP/5R1K w - - 0 1



*White has a winning combination in this even-looking position. Which one?*

1.                    f6+!                    ♙xf6
2.                    ♖xf6!

Instead, if 2. ♘h5+ g×h5 3. ♖xf6, Black can play 3... ♗e4 4. ♙×h6+ ♕g8 and White doesn't have anything better than perpetual checks.

- 2                    ...                    ♕xf6
3.                    ♘h5+!                    g×h5
4.                    ♙×h6+                    ♕e5
5.                    ♙g5+                    f5
6.                    ♙×f5#

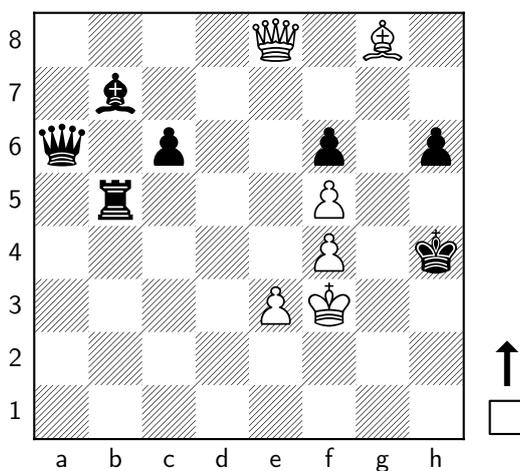
### 19.3. The bishop who never gave up: Mitrofanov (Study), 1953

Puzzle 162

L. MITROFANOV (Study)

USSR Sports Committee Tourney, 1953-'54

4Q1B1/1b6/q1p2p1p/1r3P2/5P1k/4PK2/8/8 w - - 0 1



*Black is a full rook up and threatens 1...c5+, checkmating, but White has a surprising sequence to win this game. What?*

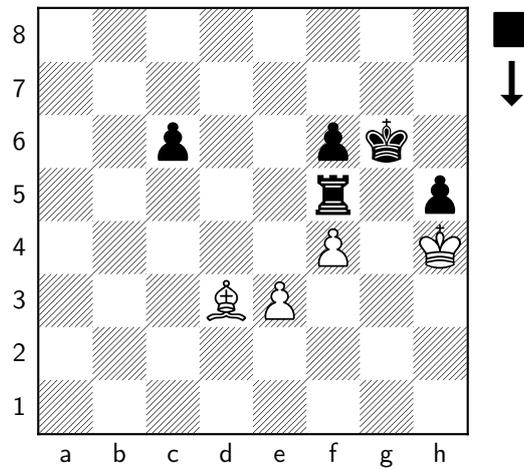
- |    |                |               |
|----|----------------|---------------|
| 1. | $\text{♙h5+!}$ | $\text{♚xh5}$ |
| 2. | $\text{♜g3!}$  |               |

Threatens 3.  $\text{♘f7\#}$ .

- |    |               |              |
|----|---------------|--------------|
| 2  | ...           | $\text{♙a2}$ |
| 3. | $\text{♘xa2}$ | $\text{♞d5}$ |
| 4. | $\text{♘c4}$  |              |

Threatens 5.  $\text{♘e2\#}$ .





Putting Black in a zugzwang. If Black moves the c-pawn, White can move the Bishop along the b1-h7 diagonal, capturing or blocking the pawn on c2. Ultimately, Black will have to move the King, after which White will play ♖xf5 and wins with the extra piece.

19.4. Precise combination: Alekhine – Colle, 1925

Puzzle 48  
ALEXANDER ALEKHINE – EDGAR COLLE  
Paris: 1925

3r2k1/p2r1pp1/1pQ3p1/3P2q1/P7/6P1/5P1P/2R1R1K1 w - - 0 30

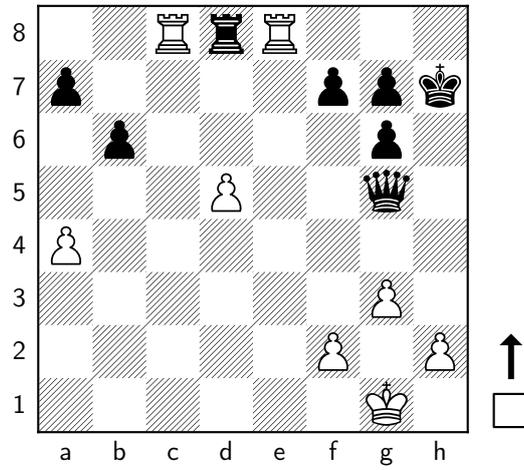
*White wins with a precise combination.*

A well-calculated Queen sacrifice by World Champion ALEXANDER ALEKHINE (See §1 on Page 668).

30. ♔xd7 ♖xd7  
31. ♖e8+

31. ♖c8+?? ♖d8! -+.

31 ... ♔h7  
32. ♖cc8 ♖d8



33. ♖cxd8! ♔exd8!

33. ♖cxd8?? ♔c1+ 34. ♔g2 g5 ++.

Black resigns. After 33... ♔xd8 34. ♖xd8, White ends up a full Rook ahead.

## 19.5. Hard to find combination missed: Yudovich – Ragozin, 1937

Puzzle 92  
 MIKHAIL YUDOVICH – VIACHESLAV RAGOZIN  
 USSR Ch, Tbilisi: 1937

3r3k/pp4pp/8/1P6/3N4/Pn2P1qb/1B1Q2B1/2R3K1 w - - 0 32

*The game continued 32. ♔f2 ♚×f2 33. ♕×f2 ♞×c1 34. ♜×c1 ♞×g2 35. ♞×g2 and ended in a draw. What did White miss?*

This position resulted from a highly tactical battle. White is temporarily a piece up, but his Bishop and Knight are pinned, and a Knight fork would cost an exchange.

There is a deep combination that wins.

**32.** ♞f5!!

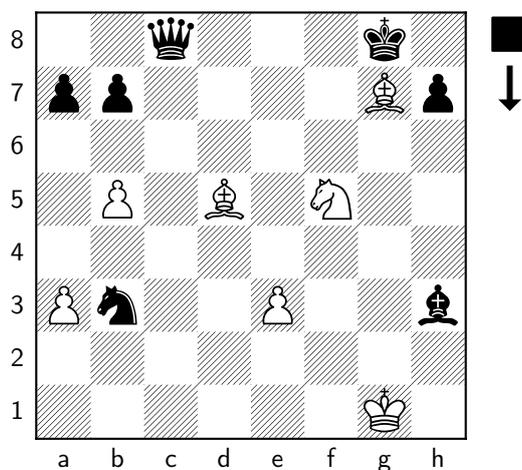
The actual game continued 32. ♔f2 ♚×f2 33. ♕×f2 ♞×c1 34. ♜×c1 ♞×g2 35. ♞×g2 and was drawn in 54 moves.

**32** ... ♔g5

32... ♖xd2 33. ♗xg3 ♕xg2 34. ♔xg2 leaves White with a full piece up.

After 32... ♖xg2+ 33. ♖xg2 ♕xg2 34. ♕xg7+ ♔g8, 35. ♖c7!, (threatening 36. ♗h6#) 35... h5 36. ♖xg2 also leaves White with a full piece up.

- |     |        |      |
|-----|--------|------|
| 33. | ♖xd8+! | ♖xd8 |
| 34. | ♖c8!!  | ♖xc8 |
| 35. | ♕xg7+  | ♔g8  |
| 36. | ♕d5+   |      |



and mates next move.

## 19.6. That is a fast Knight!: Fleiscer – Amateur, 1938

Puzzle 79  
 FLEISCHER, BERNHAD – AMATEUR  
 Switzerland: 1938

1kr4b/p1p5/p1B5/6nP/8/1P6/K1Q5/5qNR w - - 0 1

*White to play and win.*

Winning is only a secondary issue for White in this position. The main problem is how to avoid defeat. Black is threatening  $1. \dots \text{♙a1}\#$ , which is a hard thing to handle. What is the best way for White to proceed?

1.  $\text{♜f3!!}$

The Rook on h1 guards the checkmate on a1 via an x-ray. Black's reply is forced as the Queen has no other place to go.

After  $1. \text{♜h3} \text{♙f6} \ 2. \text{♜xg5} \ \text{♙xg5}$ , the game is equal.  $1. \text{♜e2} \ \text{♙f6}$  also is equal.

Note that  $1. \ \text{♙b1?}$  will lose to  $1. \dots \text{♙f2+} \ 2. \ \text{♚a3} \ \text{♙c5+}$  winning the Bishop on c6.

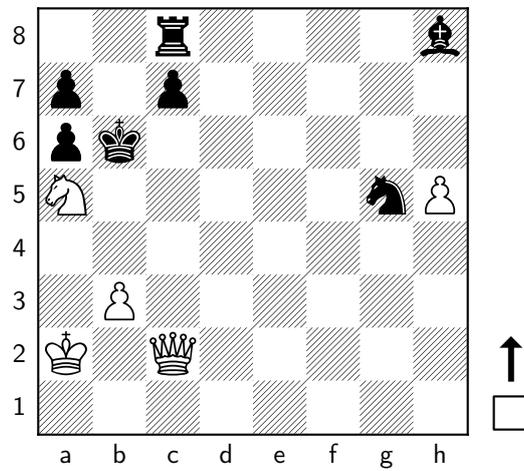


3. ♖xc6+ ♔b7

3... ♔a8 4. ♕c5 ♙d4 (4... ♔b7 5. ♖a5+ ♔b8 6. ♕c6 and 7. ♕b7#.) 5. ♕xd4 ♔b7 6. ♖a5+ ♔a8 (6... ♔b8 7. ♕b4+ and 8. ♕b7#.) 7. ♕d7 ♗g8 8. ♕c6+ and 9. ♕b7#.

4. ♖a5+ ♔b6

4... ♔b8 5. ♕c6 and 6. ♕b7 #.



5. ♕c6+ ♔xa5  
6. ♕c5#

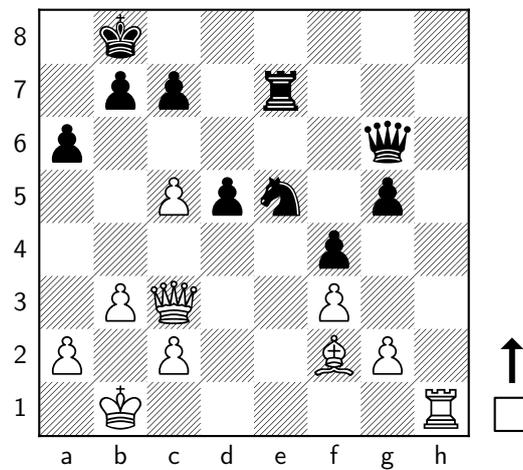
19.7. Taking help from enemy: Havasi – Nemeth, 2016

Puzzle 40

HAVASI, GERGO – NEMETH, ZOLTAN

Budapest: 2016

1k6/1pp1r3/p5q1/2Ppn1p1/5p2/1PQ2P2/P1P2BP1/1K5R w - - 0 32

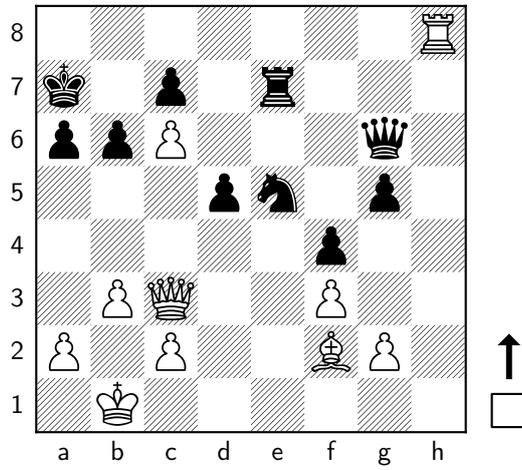


*White to play and win.*

32. ♖h8+ ♔a7

32... ♜e8 33. ♕xe5 +-.

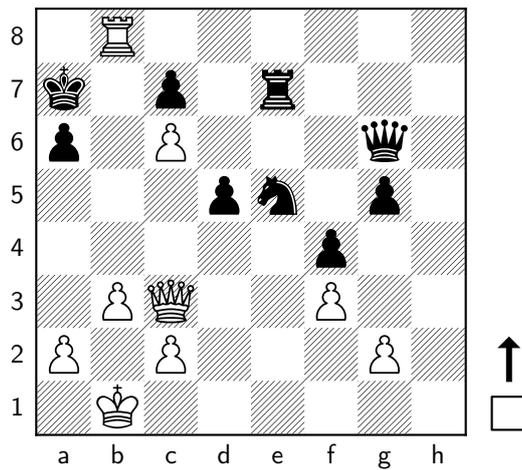
33. c6+ b6



34. ♖xb6+! ♔xb6

34...cxb6 35. c7 +-.

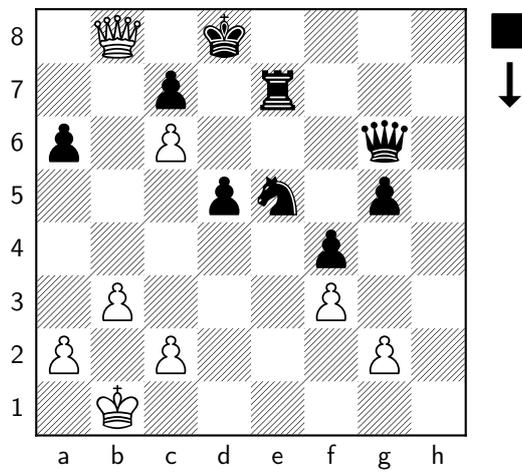
35. ♖b8+ ♔a7



36. ♔c5+

36. ♔d4+ also is fine.

36.	...	♔xb8
37.	♔b4+	♔c8
38.	♔b7+	♔d8
39.	♔b8#	



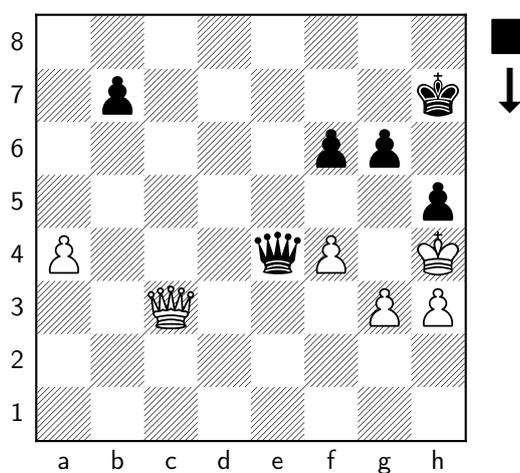
White uses the help of the Black Rook to deliver mate!

## 20. Checkmate in endgame

## 20.1. Unexpected checkmate: De Roi – Kramer, 1962

Puzzle 6  
 DE ROI – KRAMER  
 Beverurjik: 1962

8/1p5k/5pp1/7p/P3qP1K/2Q3PP/8/8 b KQkq - 0 1



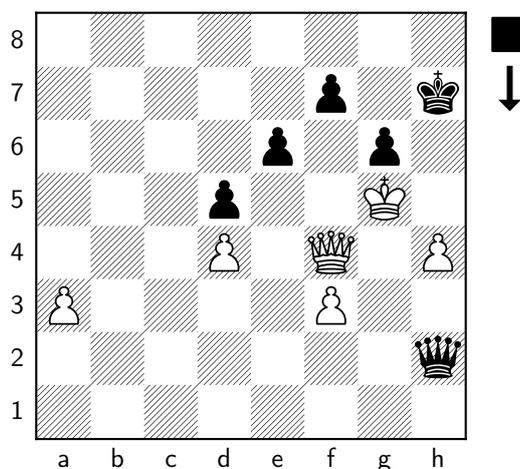
*A lot of Queen endings are drawish, due to the chances of perpetual checks, but cramped position of King can cause defeat. How can Black take advantage of the cramped position of the White King?*

1.	...	g5+
2.	♔xh5	♕e2+
3.	g4	♕e8#

20.2. Problem-like finish: Matokhin – Kuzmin, 1970

Puzzle 174  
 MATOKHIN – KUZMIN, G.  
 USSR: 1970

8/5p1k/4p1p1/3p2K1/3P1Q1P/P4P2/7q/8 b - - 0 1



*If the queens are traded, White will win with his external passed pawn. But Black has a beautiful winning combination. Which one?*

1. ... f6+!  
 2. ♔g4

1... ♕xf6 2. ♖xf4 would lose the Queen, while 1... ♖xf6 2. ♖g3# is checkmate.

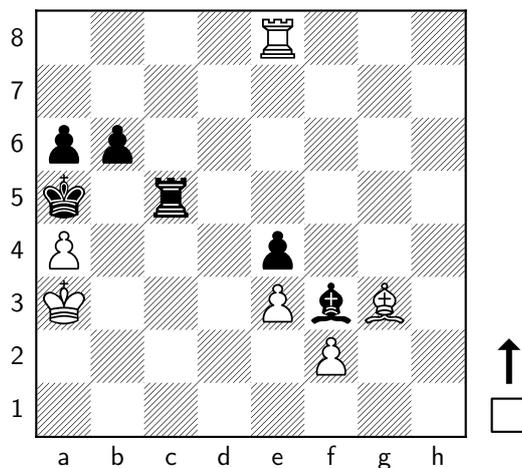
2. ... ♖g2+  
 3. ♖g3 f5+!  
 4. ♔f4



### 20.3. Mate threat in Endgame: Wachtel – Musiol, 1953

Puzzle 24  
 WACHTEL – MUSIOL  
 : 1953

4R3/8/pp6/k1r5/P3p3/K3PbB1/5P2/8 w - - 0 1



*The game seems heading towards a draw, with equal material and opposite color bishops in case the rooks are exchanged. However, the poor placement of Black's King gives White a winning attack. Can you find that?*

1. ♖e5!

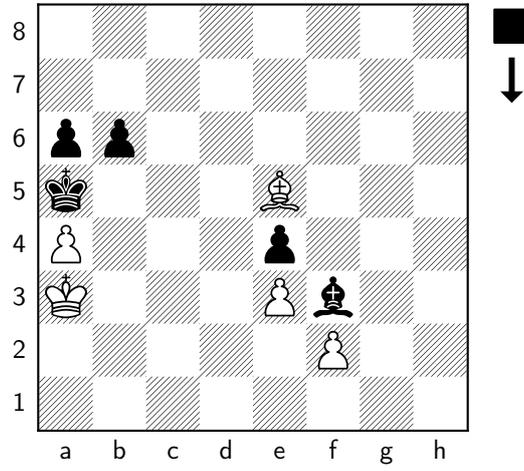
Going for an opposite color Bishop ending looks like a mistake, but it is the only move to win in this position!

1 ... ♜xe5

1...b5 will lose the Rook to 2. ♜xc5, while a random move by the Bishop will be met with 2. ♜xc5+ bxc5 3. ♔c7#.

2.

♖xe5

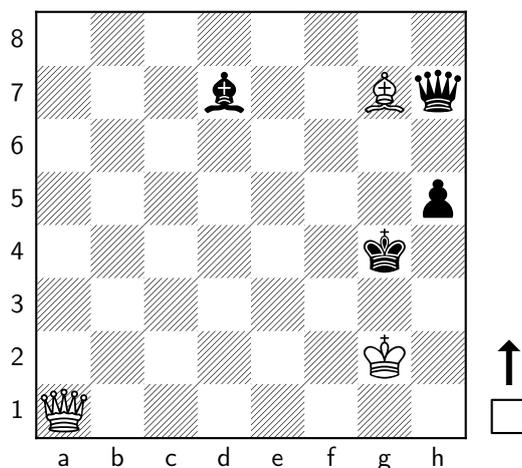


Threatens 3. ♖c3#. If 3...b5, then 4. ♖c7#.

## 20.4. Mate or Skewer: A. Troitsky (Study), 1916

Puzzle 122  
A. TROITSKY (Study)  
1916

8/3b2Bq/8/7p/6k1/8/6K1/Q7 w - - 0 1



*How does White win in this otherwise drawn endgame?*

An endgame study by the famous composer A. TROITSKY (See §47 on Page 676).

There are two ideas in this position.

1. If the Black King moves to f5 or e4, and White can check along the b1-h7 diagonal, he wins the Black Queen and the game.
2. Lure the Black King into a checkmate.

1. ♔d4+ ♚g5

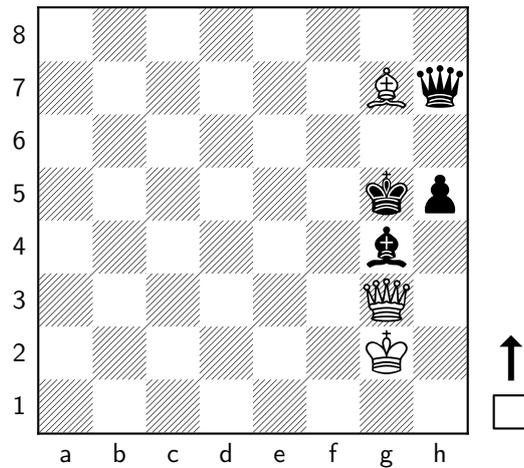
1... ♚f5 2. ♔d3+ +-.

2. ♖f6+ ♔g4  
 3. ♖f3+ ♔g5

3... ♕h4 4. ♘f6#.

4. ♖g3+ ♘g4

4... ♔f5 5. ♖d3+ +-.



5. ♖h4+!! ♔f4

5... ♔xh4 6. ♘f6# is checkmate, while 5... ♔f5 6. ♖f6+ ♔e4 7. ♖d4+ ♔f5 8. ♖e5+ (8. ♖d3+ also wins.) 8... ♔g6 9. ♖f6#.

6. ♖f2+ ♘f3+

6... ♔g5 7. ♖f6# is quick mate, while 6... ♔e4 7. ♖d4+ wins as given in the notes of move 5.

7. ♖xh4+ ♔g5  
 8. ♖g3+ ♔f5  
 9. ♖d3+

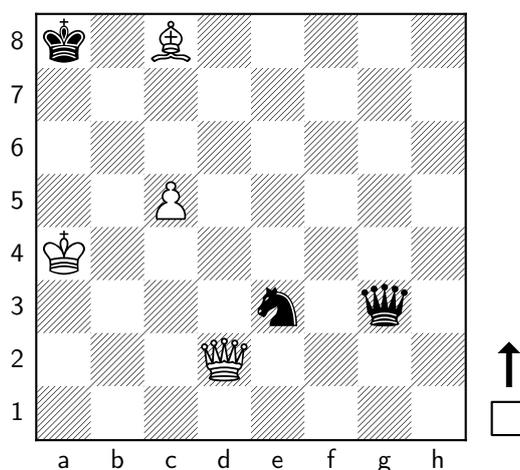
and wins.

## 20.5. Model mates: Gurgenzidze & Minski (Study), 2017

### Puzzle 148

DAVID GURGENIDZE AND MARTIN MINSKI (Study)  
1<sup>st</sup> prize, Polish Chess Federation, 2017

k1B5/8/8/2P5/K7/4n1q1/3Q4/8 w - - 0 1



*White to play and win.*

1. ♔d8!

Threatens 2. ♕a6+ ♖a7 3. ♗b6+ ♔a8 4. ♗b7#.

Now Black has two main moves. 1... ♗b8 and 1... ♗f4+.

**Line 1:** 1... ♗b8

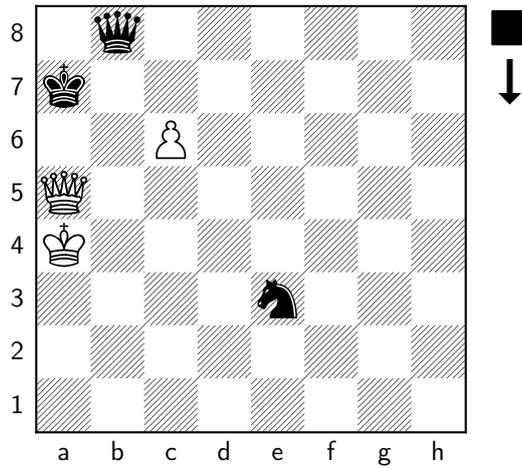
1	...	♗b8
2.	♕b7+!	♖x b7

2... ♖a7 3. ♗b6#

3. c6+! ♔a7

3... ♕xc6 4. ♖xb8+- is obvious, but what is not that obvious is 3... ♕a8 4. c7!+-.

4. ♖a5#



Line 2: 1... ♖f4+

1 ... ♖f4+  
2. ♔a5!

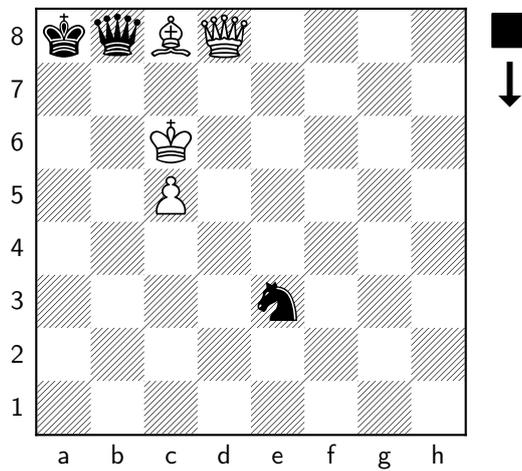
Escaping checks from the Queen. After 2... ♘c4+ 3. ♕a6, a discovered check by the Bishop mates. 3... ♖b8 4. ♙b7#.

2. ♕b5? ♖c4+ =.

2 ... ♖b8  
3. ♕a6!

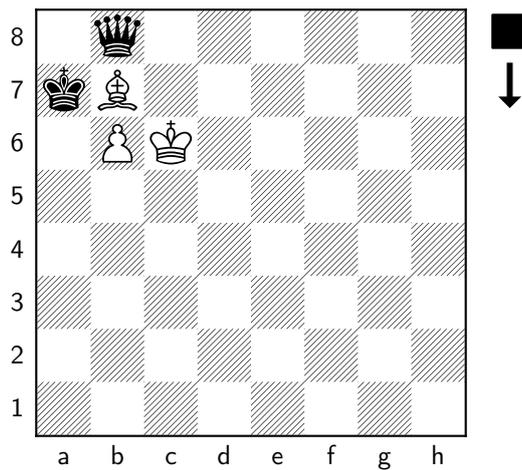
3. ♙b7+? ♕xb7 4. c6+ ♕a7 and White doesn't have 5. ♖a5+, as in the first line.

- 3. ... ♖a7+
- 4. ♔b5 ♖b8+
- 5. ♕c6!



Again, Black doesn't have a check. White threatens 6. ♘b7+ ♔a7 7. ♖b6#.

- 5. ... ♘c4
- 6. ♘b7+ ♔a7
- 7. ♖b6+!! ♘xb6
- 8. cxb6#



The beauty of this study is the model mates by ♔+♚+♘, ♔+♚+♞ and ♔+♘+♞ in different lines.

## 20.6. The power of two rooks: Wotava (Study), 1948

Puzzle 136  
WOTAVA, ALOIS (Study)  
1948

4R3/8/7R/1K1k4/p7/8/p5r1/8 w - - 0 1

*White to play and win.*

White has an extra rook for two pawns, but looks like the a2-pawn cannot be prevented from queening. White has perpetual check, but how can he win?

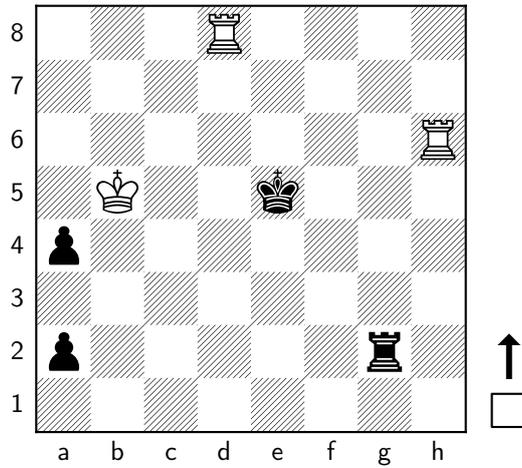
1. ♖e1? ♜b2+ 2. ♔a5 ♜b1 3. ♜hh1 a1♚ 4. ♜xb1 ♚c3+ and White has nothing better than a draw.

1. ♜h5+ ♔d6 2. ♜h6+ ♔d5 repeats the position.

The solution is...

1. ♜d8+! ♔e5

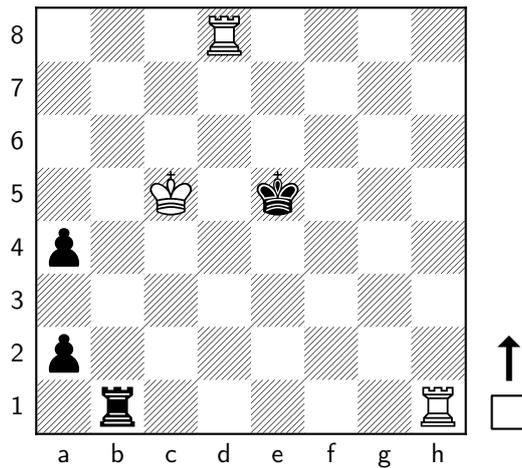
1... ♔e4 2. ♜h4+ ♔f3 3. ♜xa4 +-.



Generally endgame studies have only one line of solution for White. If there is a line not intended by the composer, it is called a *cook*. This study has a cook, discovered by me using a chess engine. The intended somution is given below as Solution 1, and the cook is given as Solution 2.

### Solution 1: Composer's solution

2. ♖h1 ♜b2+  
 3. ♙c5 ♜b1



4. ♖f1!

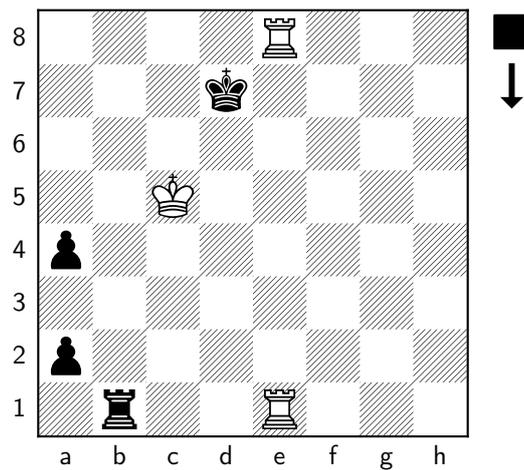
Threatens 5. ♜e8#.

4 ... ♔e6

4... ♜xf1 5. ♜e8+ ♕f4 6. ♜f8+ ♕g3 7. ♜xf1 +-.

4... ♕e4 5. ♜e8+ ♕d3 6. ♜f3+ ♕d2 (6... ♕c2 7. ♜e2+ ♕d1 8. ♜xa2 +-.) 7. ♜f2+ ♕d3 8. ♜xa2 +-.

5. ♜e8+ ♕d7  
6. ♜fe1



Now, Black has a choice of getting mated by 6... a1♖ 7. ♜1e7# or get into a lost endgame after 6... ♜xe1 7. ♜xe1 or 6... ♜c1+ 7. ♜xc1 ♕xe8 8. ♜a1.

### Solution 2: Another solution

This solution, discovered in 2019 using a chess engine, sets up a rook roller mating net.

2. ♜h5+ ♕f6

2... ♔e6 2. ♖d1 ♜b2+ 3. ♕c5 ♜b1 4. ♜d6+ ♕f7 5. ♜h7+ ♕g8 6. ♜a7 +-.

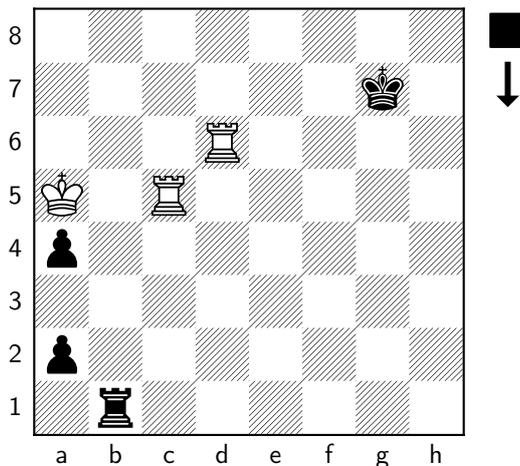
3. ♜d1! ♜b2+  
4. ♕a5!

The only move to win. For example, 4. ♕a6? ♜b1 5. ♜d6+ ♕g7 6. ♜c5 ♕f7 7. ♜c7+ ♕e8 8. ♜g6 (8. ♜h6 ♜a1!) 8... ♕f8 9. ♜d6 ♕e8 =.

4 ... ♜b1  
5. ♜d6+ ♕g7

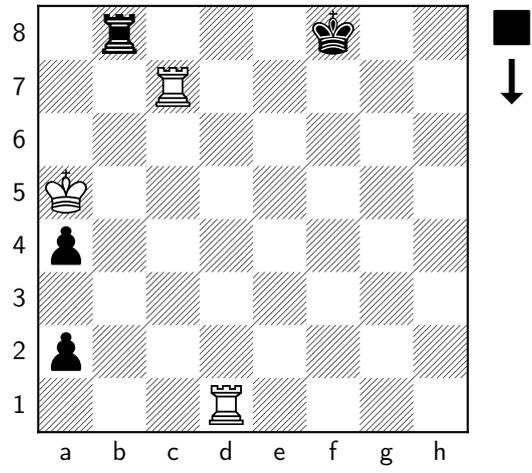
5... ♕e7 6. ♜a6 ♕f7 7. ♜h7+ ♕g8 8. ♜c7 ♜b8 9. ♜c1 ♜b1 10. ♜c8+ ♕f7 11. ♜c7+ ♕e8 12. ♜a8#.

6. ♜c5



White's intention is clear: To form a rook roller checkmate. Even if Black queens, the Rooks do not go to any squares the queen attacks.

6 ... ♜b8  
7. ♜c7+ ♕f8  
8. ♜d1



It is mate or losing the advanced pawn. White wins.

## 21. Zugzwang and Reciprocal zugzwang

*Zugzwang* refers to a situation where having the move is a disadvantage. The player may be doing fine without having to move, but every possible move is losing. This is very common in endgames, but can occur in middle games as well.

Sometimes, both the players have zugzwangs, which is called *Reciprocal Zugzwang*. In many cases, the winning side overcomes the situation by *losing a move* (See Section [22](#) (Page [473](#))), but there are situations where this is not possible.

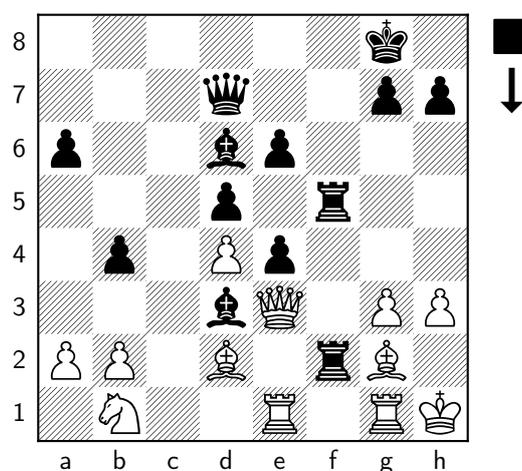
## 21.1. Immortal zugzwang: Sämisch – Nimzowitsch, 1923

### Puzzle 97

FRIEDRICH SÄMISCH – ARON NIMZOWITSCH

Copenhagen: 1923

6k1/3q2pp/p2bp3/3p1r2/1p1Pp3/3bQ1PP/PP1B1rB1/1N2R1RK b - - 7 25



*Black is down a piece for two pawns, but the move he made here forced resignation. What was the move?*

ARON NIMZOWITSCH (See §30 on Page 674), the father of modern positional chess game, gives a positional lesson to the attacking FRIEDRICH SÄMISCH.

**25**

...

**h6!!**

This calm move forces resignation. It denies the White Queen the g5 square and threatens ...♖5f3. Any White move loses immediately. For example,

A) 26. g4 ♖5f3--+

B) 26. ♖h2 ♖5f3--+

C) 26. ♖c1 ♗e2--+.

D) 26. ♙c1 ♙xb1 27. ♗gf1 ♖f7 28. ♔g1 ♗xf1 29. ♗xf1 ♙xa2--+.

If White plays one of the limited waiting moves like 26. b3, Black can choose to play 26...♗5f3 or play a waiting move like 26...♖b7, forcing a zugzwang.

This game is called *The immortal zugzwang game*.

## 21.2. Zugzwang forcing capture: Aryan – Umesh, 2017

Puzzle 71  
 ARYAN ACHUTHAN – UMESH NAIR (SIMUL 25)  
 Cupertino: 2017

8/p1k5/8/2Kp1p2/3P1Pp1/6P1/8/8 b - - 2 42

*Black to play and win.*

The position is very interesting. The BK is locked out from approaching the White pawns, and despite having an extra pawn, he is helpless in realizing any advantage.

42...a5?? is a grave mistake: White will play 2. ♖b5 and then capture the a-pawn without allowing the BK to get through. After that White will win.

White also is in a tight corner. He cannot capture the pawn on d5: Black will push the a-pawn, and when White chases it, Black will approach the White pawns via d6-d5xd4-e3 etc. and wins.

He cannot win the a-pawn and come back, because when the WK reaches a6, if the BK reaches c6, Black wins. (See the notes on move move 42 below.)

So, both sides should be very careful not to lose this ending. Now the question is, is it a draw, or does one side have a forced win?



44 ... ♔d8!

44...a4? 45. ♕e7! (45. ♕xf5? a3--+) and now both 45...♔c6 46. ♕e6 ♕c7 (46...a3 47. d5+ ♕c7 48. ♕e7 a2 49. d6+ ♕b7 49. d7 a1♖ 50. d8♗=.) and 45...a3 46. d5 a2 47. d6+ ♕b7 48. d7 a1♗ 49. d8♗ lead to draw.

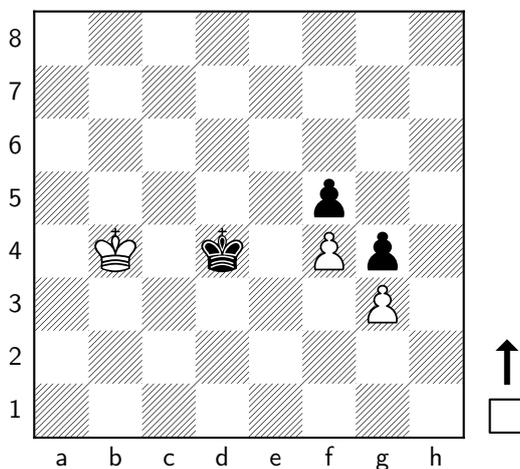
45. ♕d5

45. ♕xf5 a4 46. ♕xg4 a3--+.

45 ... ♔d7

45...a4 also wins.

46.	♕c5	a4
47.	♕b4	♕d6
48.	♕xa4	♕d5
49.	♕b4	♕xd4



And Black wins.

### 21.3. Cat-and-mouse game: Benko (Study), 1967

Puzzle 186  
PAL BENKO (Study)  
1967

1B6/8/8/8/8/7k/r4p2/5K2 w - - 0 1

*Generally, K+R+P wins against K+B. How can White obtain a draw from this position?*

PAL BENKO (See §6 on Page 669), one of the greatest chess problem composers, created this beautiful study.

1. ♖c7!

Other moves will not draw.

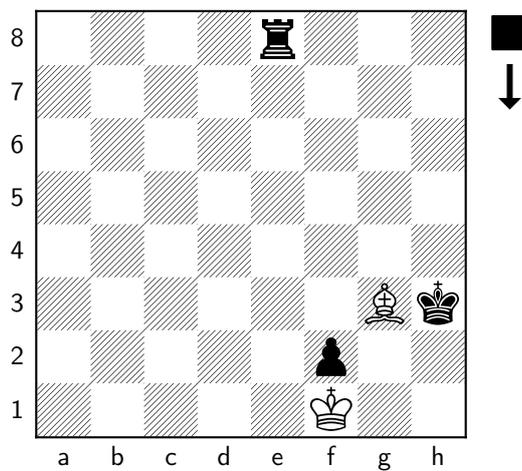
- A) 1. ♖d6? ♜a6 2. ♖b8 (2. ♖c5 ♔g3! 3. ♖xf2 ♔f3!-+.) 2... ♜f6-+.
- B) 1. ♖e5? ♜a5 2. ♖b8 (2. ♖d4 ♔g3! 3. ♖xf2 ♔f3!-+.) 2... ♜f5-+.
- C) 1. ♖f4? ♔g4 2. ♖b8 ♔f3-+.



5. ♘b8!

Not 5. ♔xe2? ♕g2! --+.

5 ... ♖e8  
6. ♘g3!



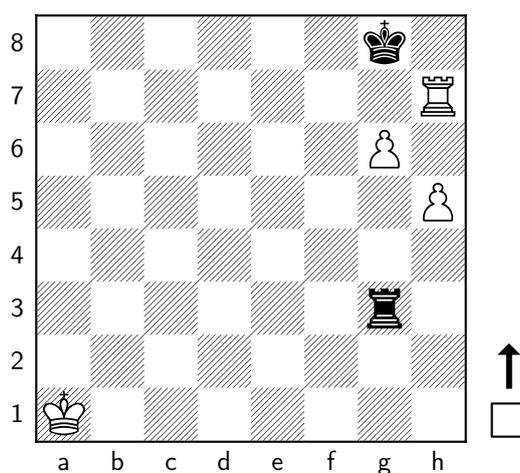
Now, 6... ♕xg3 is stalemate, while 6... ♖f8 7. ♘xf2, White draws.

## 21.4. Reciprocal zugzwang: Kasparyan (Study), 1946

Puzzle 172

GENRIKH KASPARYAN (Study)  
1946

6k1/7R/6P1/7P/8/6r1/8/K7 w - - 0 1



*White has two extra connected pawns in this R+P ending, but the winning task is not so easy. What is the right path for White to victory?*

An interesting endgame study by the famous composer GENRIKH KASPARYAN (See §19 on Page 672). This is a practical endgame lesson rather than an endgame study. It illustrates the concept of *reciprocal zugzwang* where both sides are at disadvantage having the move.

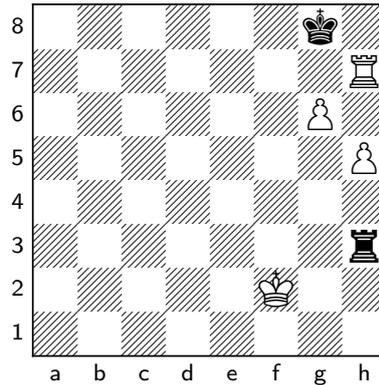
Generally, White should win this ending with two extra connected passed pawns, but White is in a tight corner: The rook doesn't have many moves. It has the responsibility of defending the h5 pawn, so it cannot make waiting moves. If the Rook can get out of h7 and support the pawn along the h-file or the 5<sup>th</sup> rank, it is easy to win this ending. The King and Rook can work together in supporting the pawns by advancing the King and shielding it with the Rook. Also, if the White King can get near the pawns to support them, the win is easy.

Black's defending mechanism relies on shuttling his Rook on g3 and h3. This will help

limiting the White King to the first two ranks and keeping the White Rook on h7. If the Black Rook is on h3, White Rook cannot move. It cannot move when the Black Rook is on g3 either: For example, 1. ♖a7? will lead to 1...♜g5! and White has nothing better than 2. ♜h7, and Black draws by 2...♜g2!.

So, the problem reduces to activating the White Rook without losing a pawn. For that, the Black rook should be dislodged from g3 and h3.

Now, consider the following crucial position first.



**Crucial position**

This is a case of *reciprocal zugzwang*. Whoever having the move has a disadvantage.

If it is Black's move, he cannot play 1...♜g3, so 1...♜a3 will allow White to reposition the Rook with 2. ♜b7 ♜h3 3. ♜b5!, winning.

Also note that Black cannot move his King: 1...♔f8 2. ♔g2 ♜a3 (2...♜h4 3. ♔g3 ♜h1 4. ♔g4 and wins.) 3. ♜f7+ ♔g8 4. h6 wins.

On the other hand, if it is White's move, he cannot move his King and keep g3 under control. 1. ♔g2 will allow 1...♜a3 2. ♜b7 ♜a5! and now 3. h6 ♜g3+ picks up the pawn on g6. 3. ♜h7 ♜a3 just repeats the position.

So, the solution should aim at reaching the crucial position given above with *black to move*.

**1. ♔a2!!**

The only move to win.

A) 1. ♔b2? ♜h3 2. ♔c2 ♜g3 3. ♔d2 ♜h3 4. ♔e2 ♜g3 5. ♔f2 ♜h3 and we reached the crucial position with White to move. It is a draw.

B) 1. ♖b1? ♜b3+ 2. ♖c1 (2. ♖a2 ♜g3! or 2. ♖b2 ♜h3! or 2. ♖c2 ♜g3! puts White in zugzwang.) 2...♜c3+ 3. ♖d1 ♜d3+ 4. ♖e1 ♜e3+ 5. ♖f1 ♜f3+ and now 6. ♖f2 ♜h3 or 6. ♖e2 ♜g3 or 6. ♖g2 ♜a3 draws.

1	...	♜h3
2.	♖b2	♜g3
3.	♖c2	

3. ♖a2 also will win repeating two moves and then continuing with 5. ♖c2, but other moves fail to win. For example, if White plays 5. ♖c1, Black plays 5...♜c3+, and draws by 6. ♖b2 ♜h3, 6. ♖d2 ♜h3 or 6. ♖d1 ♜d3+ or 6. ♖b1 ♜b3+.

3	...	♜h3
4.	♖d2	♜g3
5.	♖e2	♜h3
6.	♖f2	

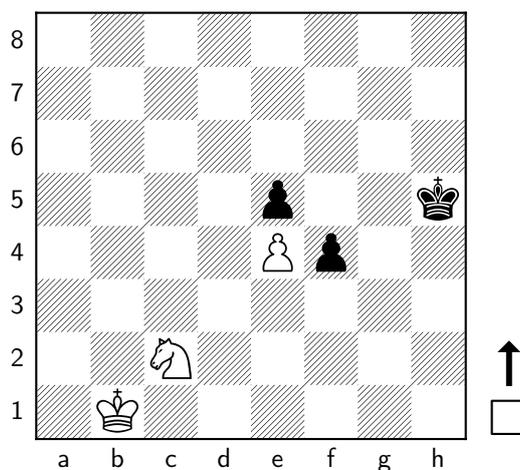
Now we have reached the crucial position with Black to move. White wins.

## 21.5. A Knight in the corner: Blundell (Study), 1995

Puzzle 187

DAVID BLUNDELL (Study)  
1<sup>st</sup> prize, *diagrammes*, 1995

8/8/8/4p2k/4Pp2/8/2N5/1K6 w - - 0 1



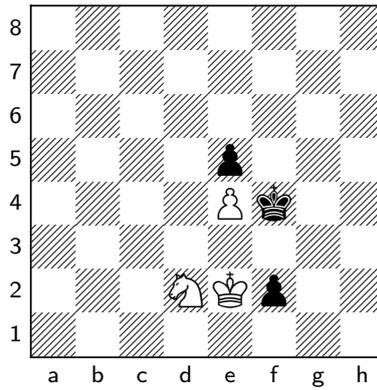
*There is only one move that wins in this position. Which one?*

This is a beautiful problem. JOHN BEASLEY, a famous problem composer and editor, said about this study: “David Blundell’s this problem is perhaps the finest original study that I have had the pleasure of publishing as an editor.” In this minimal setting, there are a number of zugzwangs (indicated by the symbol  $\odot$ ) and only moves. The ending is very instructive.

Here are some points to consider:

1. White cannot afford to lose the pawn on e4.
2. White can lose his Knight, if he captures both Black pawns, preserve his pawn, and the WK can forward enough to support the pawn for queening.
3. White should not allow the BP to queen without getting captured immediately.

Before getting into the solution, let us examine some interesting positions:

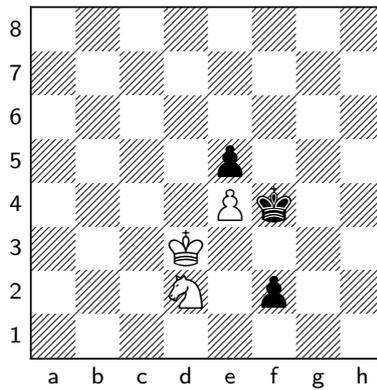


Position 21.5.1: White wins. Black draws.

In Position [21.5.1](#), with move, White wins with 1. ♔×f2, but with Black to move, Black draws by

- |    |      |        |
|----|------|--------|
| 1. | ...  | f1 ♖+! |
| 2. | ♔×f1 | ♔e3!   |
| 3. | ♔e1  | ♔d3!   |
| 4. | ♔d1  | ♔e3!   |
| 5. | ♔c2  | ♔d4!   |

And White cannot get to the Black pawn.



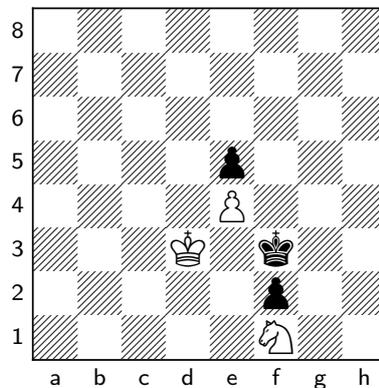
Position 21.5.2: White draws. Black loses.

In Position 21.5.2, with White to move, it is a draw: 1. ♔e2 reaches Position 21.5.1 with Black to move. But with Black to move, it is a zugzwang.

1 ... ♔g3

1... ♔g4 2. ♔e2 ♔g3 3. ♔f1+-.

2. ♔e2 ♔g2  
3. ♔f1+-

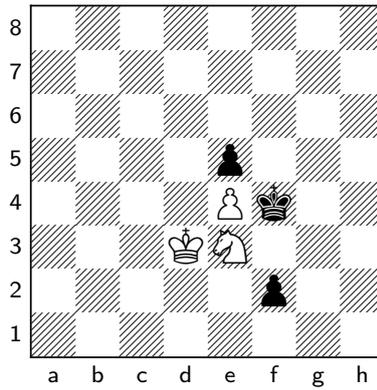


Position 21.5.3: White draws. Black loses.

White to play can only draw: 1. ♘d2+ ♔f4 reaches Position 21.5.2.

With Black to move, all moves lose.

- A) 1... ♔g2 2. ♔e2 ♔h1 (2... ♔g1 3. ♘e3+-) 3. ♔f3 (3. ♔xf2? stalemate) 3... ♔g1 4. ♘d2+-.
- B) 1... ♔f4 2. ♘d2+-, as Position 21.5.2 is reached with Black to move.
- C) 1... ♔g4 2. ♔e3 (2. ♔c4 also wins.) wins the pawn and the game.



Position 21.5.4: White draws. Black draws.

Position 21.5.4 is a draw, irrespective of whose move it is. With White to move, 1. ♔e2 f1♚ 2. ♘xf1 ♔xe4 draws. 1. ♘f1 ♔f3⊕ reaches Position 21.5.3 and draws.

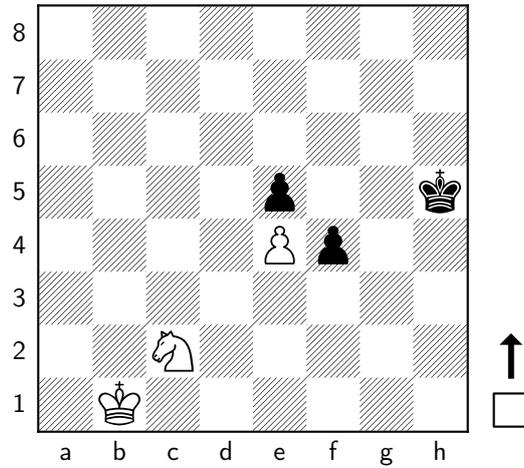
With move, Black draws by

- |           |      |      |
|-----------|------|------|
| <b>1.</b> | ...  | ♔g3! |
| <b>2.</b> | ♘f1+ | ♔f3⊕ |
| <b>3.</b> | ♘d2+ | ♔f4⊕ |

reaching Position 21.5.2 with White to play, drawing.

With the Knight on d2, the situation is a little different. See Position 21.5.2.

Now let us come back to the problem.



### Trial 1

- |    |      |     |
|----|------|-----|
| 1. | ♔c1? | f3  |
| 2. | ♔d2  | f2  |
| 3. | ♔e2  | ♔g4 |
| 4. | ♞e3+ |     |

4. ♔xf2 ♔f4 wins the pawn and draws.

- |   |     |     |
|---|-----|-----|
| 4 | ... | ♔f4 |
|---|-----|-----|

4... ♔g3 also draws.

- |    |     |
|----|-----|
| 5. | ♔d3 |
|----|-----|

Reaches Position [21.5.4](#). It is a draw.

### Trial 2

An interesting idea to win is to get the Knight to d2, from where it supports e4 and controls f1, so that the King can go up or to the right to win one of the Black pawns. One way is ♞c2-a3-c4-d2.

1. ♖a3? f3
2. ♖c4 ♕g5

2... ♕h4 also draws, but 2... ♕g4? 3. ♖c2⊙ ♕g3 4. ♖c3⊙ ♕g4 (4... ♕f4 5. ♖d3 +-.) 5. ♖xe5+ ♕f4 6. ♖d4 f2 7. ♖d3+ +-.

2... f2? also loses to 3. ♖d2 ♕g4 4. ♖c2! ♕g3 5. ♖c3 ♕g2 6. ♖c4 +-.

3. ♖c2

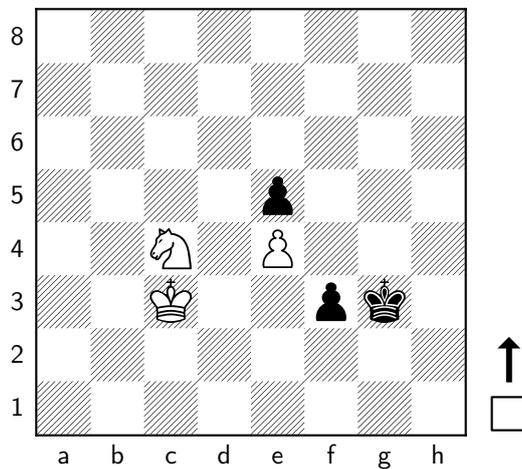
3. ♖d2? ♕f4 4. ♖c2 ♕e3 =

- 3 ... ♕g4⊙
4. ♖c3

4. ♖d2 ♕f4! 5. ♖d3 f2⊙, draws by reaching Position 21.5.2 with White move.

- 4 ... ♕g3

4... ♕g5 also draws.



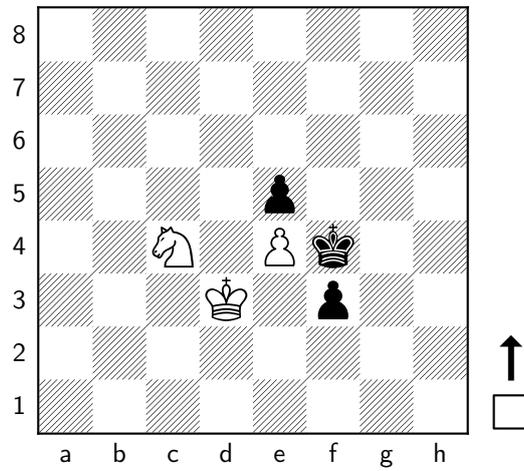
Compare this position with the solution, where the White Knight is on b3 and White can play 5. ♖c4.

5. ♔d3

5. ♖xe5?? f2 -+.

5 ... ♕f4

5...f2 6. ♖e2 ♕f4 7. ♖d2 also is a draw, by reaching the Position [21.5.1](#) with Black to move.



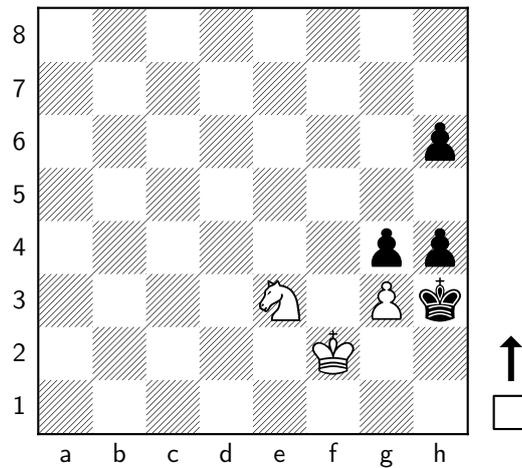
Black draws. 6. ♖d2 f2 is Position [21.5.2](#), while 6. ♖e3 f2 is Position [21.5.4](#), both with White to move. Both are draws.



21.6. A Knight is enough: Troitsky, A. (Study),

Puzzle 119  
TROITSKY, A. (Study)

8/8/7p/8/6pp/4N1Pk/5K2/8 w - - 0 1

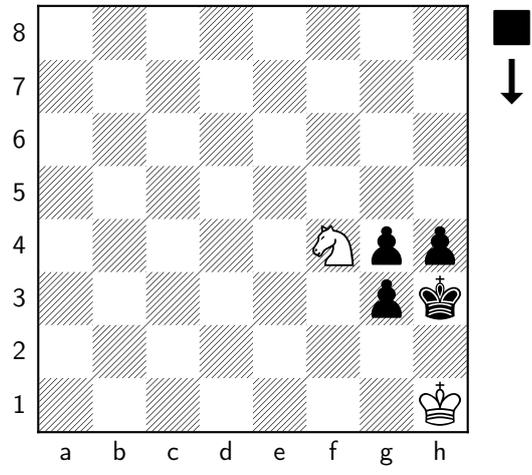


*Looks like White cannot avoid losing his last pawn. How the King and a lone Knight would win?*

1.                    ♖g2!                    hxg3+

After 1...h5 2. ♘xh4 ♕h2 3. ♘f5 +--.

2.                    ♔g1!                    h5  
3.                    ♔h1!                    h4  
4.                    ♘f4#



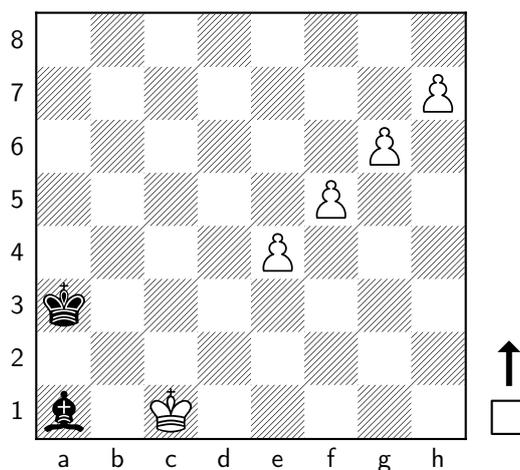
## 21.7. The dark squares!: Kalgin (Study), 1966

Puzzle 116

KALGIN, M. (Study)

1966

8/7P/6P1/5P2/4P3/k7/8/b1K5 w - - 0 1



*White to play and win.*

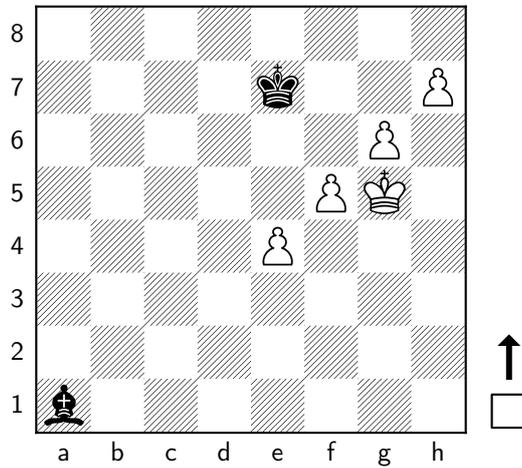
1. ♔d2!

White needs to take this shortest path to h6, otherwise the Black King will reach the a1-h8 diagonal and White cannot win.

1. ... ♔b4  
2. ♔e3 ♔c5

Here, or in subsequent moves, Black cannot defend with a move like 2... ♙e5, because White can sacrifice a pawn to gain the access to critical squares. One of the many winning ways is 3. h8♚ ♙xh8 4. ♔f4, and the Black King is too far to defend.

3.                    ♖f4                    ♖d6  
 4.                    ♖g5                    ♖e7

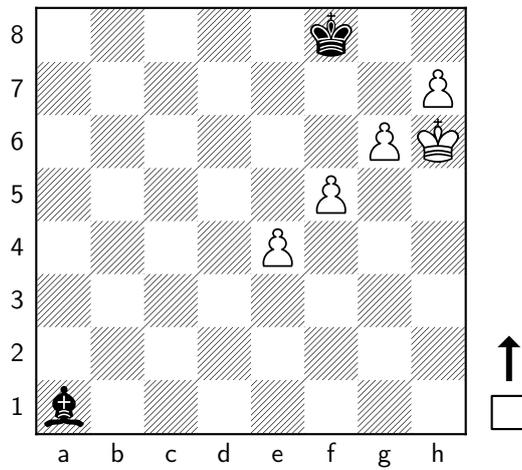


5.                    ♖h6!

White needs to be precise in the moves. After 5. g7? ♙xg7 6. ♖g6, Black defends with 6...♖f8! and it is White who is in zugzwang! 7. f6 ♙h8 8. e5 ♖e8 9. e6 ♖f8, leaving White in zugzwang.

- 5                    ...                    ♖f8

The Black King and the Bishop defended the dark squares so far so that White cannot advance the pawns. White breaks the barrier by sacrificing a pawn.



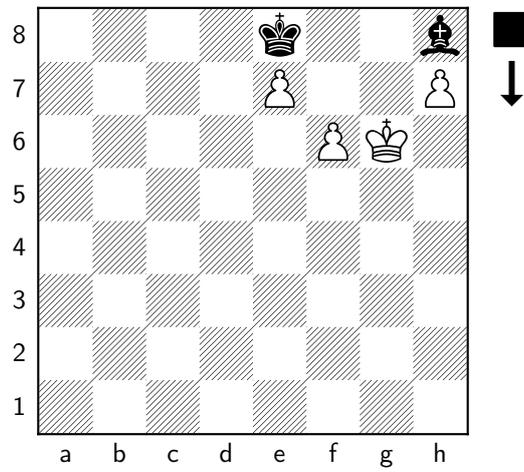
6.           g7+!           ♙xg7+  
 7.           ♖g6!

Zugzwang!

7           ...           ♙h8

After a move like 7...♙a1, 8. f6 shuts out the long diagonal and the h-pawn queens.

8.           f6           ♖e8  
 9.           e5           ♖f8  
 10.          e6           ♖e8  
 11.          e7

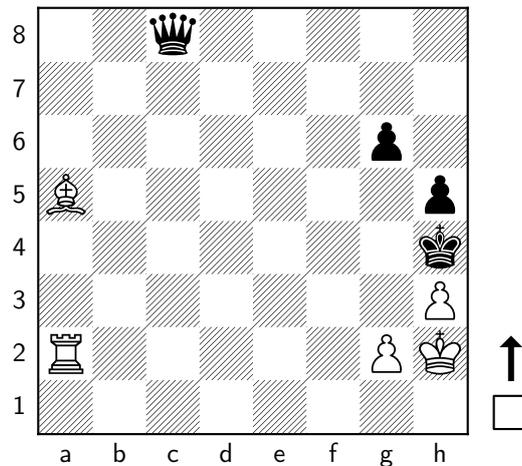


Again zugzwang. After 11... ♔d7 12. ♔f7, White wins.

## 21.8. A Bishop is better than the Queen: Kaminer (Study), 1925

Puzzle 171  
KAMINER, S. (Study)  
1925

2q5/8/6p1/B6p/7k/7P/R5PK/8 w - - 0 1



*White to play and win.*

If White can cover the g5 square, g3+ or ♖g3+, but a move like 1. ♕d2? will be met by 1... ♔b8+ 2. ♖h1 ♕g3, escaping.

1. ♖c2!! ♔xc2

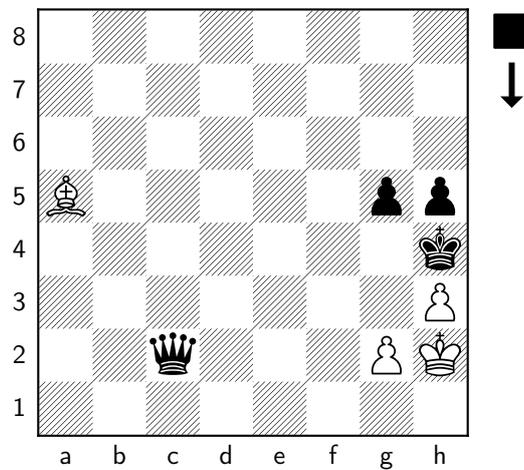
Not accepting the gift won't help:

A) 1... ♔b8+ 2. ♕c7!, and now:

- Moving the Queen away from the eighth rank will lose to 3. ♕d8+ g5 4. g3#.
- Keeping the Queen on the eighth rank will allow 2. ♖c5 followed by 3. ♕g3# or 3. g3#.

- c) 1... ♖f8 2. ♜c5! ♗xc5 3. ♔d8+ ♗g5 (Or 3... ♗g5) 4. ♗g3#.
- B) 1... ♖f8 2. ♜c4+! ♔g5 3. ♔d2+ ♖f6 4. ♜f4+ +-.
- C) 1... ♖d7 2. ♜d2! ♗c8 3. ♔d8+ mates or wins the Queen for the Bishop.
- D) Other moves will lose to either 2. ♔d8+ or 2. ♜c5 followed by 3. ♗g3+ or 3. ♔e1+.

2. ♔d8+! ♗g5  
 3. ♔a5!!

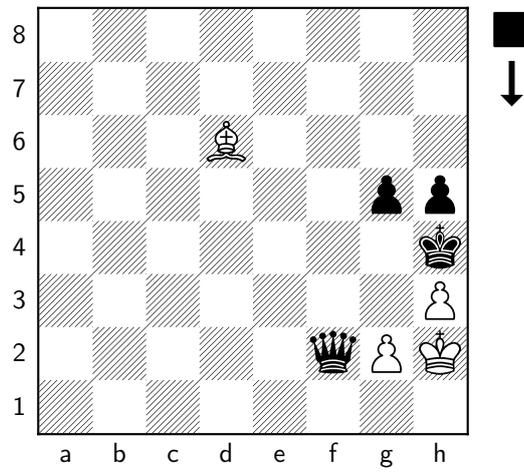


White threatens 3. ♔e1+. Black Queen needs to cover e1 to prevent 3. ♔e1+, and remain on the second rank to prevent 3. ♗g3#.

3 ... ♕e2

3... ♖f2 4. ♔c7 immediately puts Black in a zugzwang.

4. ♔c7! ♗f2  
 5. ♔d6!



Black is in zugzwang. 5...g4 5. ♖e7+ leads to mate, and Black Queen cannot keep control of g3 (to prevent 6. ♖g3+) and remain on the second rank (to prevent 6. g3+) at the same time. White wins.

## 21.9. Surprising second move: Réti (Study),

Puzzle 179  
 RICHARD RÉTI (Study)  
*Hastings and St. Leonards Post*

8/8/2k4b/P7/8/8/2N2PKp/8 w - - 0 1

*White to play and win.*

A classic study in the *domination* theme. In general, being just a pawn up in a minor piece ending is a draw, because the piece can be sacrificed for the last pawn. Here, White cannot afford to lose either pawn. The only winning chance is the unfortunate position of the Black Knight which cannot reach in time to control White a-pawn's queening. By this reason, the Black King cannot go beyond the 5th rank or d-file and is unable to guard the f-pawn. However, given enough time, the Black Bishop can reach the queenside and control the a7 square before the pawn reaches there (for example, via f8 and c5), after which the game will be a draw.

White also is restricted by his King held up preventing the h-pawn from queening. An obvious 1. ♔×h2? will only draw after 2...♙f4+ 3. ♔h3 ♙b8, which will take care of the a-pawn, and the Black Knight and King can handle the f-pawn.

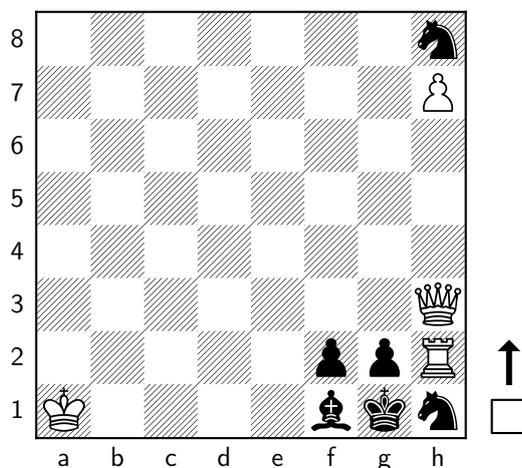
1. ♘d4+



## 21.10. Unusual King walk: Chekhover (Study), 1937

Puzzle 178  
CHEKHOVER (Study)  
1937

7n/7P/8/8/8/7Q/5ppR/K4bkn w - - 0 1



*White to play and win.*

An entertaining puzzle.

If Black moves the Bishop, he will be checkmated on g2. If he moves the ♘ on h1, it will be captured and all the threats will remain. So, Black has to move the other ♘ to f7 or g6 and back to h8. This means the ♘ will be on light squares and dark squares in alternate moves. In other words, each square on the board can be reached in either an odd number of moves or even number of moves, irrespective of the path it takes. This parity of the ♘ is the theme in many endgame studies.

There is a similar parity for the W♔ as well. White can move only the ♔. If the W♔ moves losing the control of g2, Black will move the B♖ and play ...f1♔ on the next move. ♔g3 is not possible due to the B♗ on h1, while ♔f3 will be met with ...♔xh2. So, White can move only the ♔.

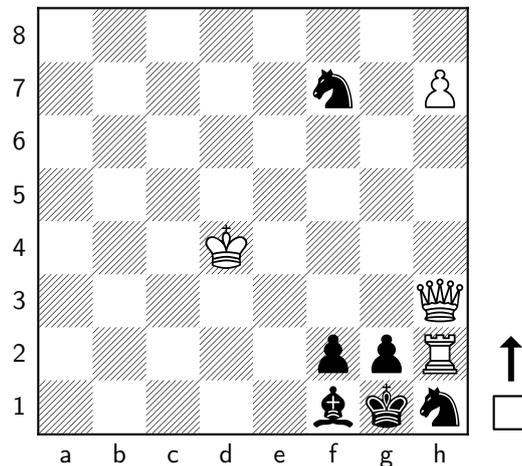
W♔ too has a serious handicap: It can move only in dark squares. If it moves to a light

square, the B♗ will move with check, and ...f1♔ will follow.

The restriction to dark squares only leaves the W♔ with the same kind of parity the B♖ has. It takes an even number of moves to return to a square. In other words, each dark square on the board is reached either in an odd number of moves or an even number of moves, irrespective of the path it takes.

For example, let us consider the possibility of the W♔ marching to the h8 square, winning the B♖ on h8 and promoting the h-pawn, or winning the B♖ for the h-pawn and thereby forcing Black to move the Bishop and checkmate on g2.

- |    |     |     |
|----|-----|-----|
| 1. | ♔b2 | ♖f7 |
| 2. | ♔c3 | ♖h8 |
| 3. | ♔d4 | ♖f7 |



Now, White cannot move to e5. It is amazing that the B♖ alone creates a fortress against the W♔ from approaching it. For example,

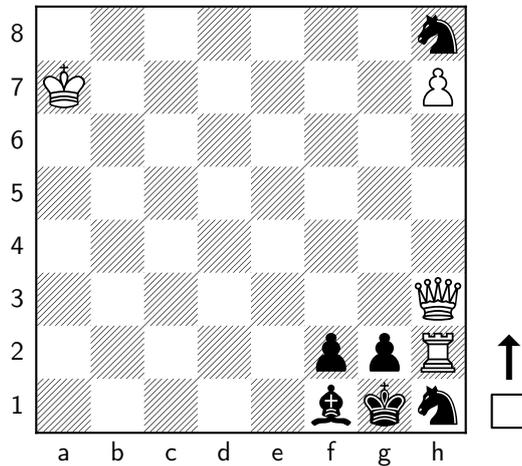
A) 4. ♔e3 ♖h8 5. ♔f4 ♖f7, guards both e5 and g5.

B) 4. ♔c5 ♖h8 5. ♔d6 ♖g6, guards both e5 and e7.

W♔ doesn't have a *triangulation* to lose a move, and has a corresponding parity like the B♖. White can break the parity by queening the pawn, but after capturing the queened pawn, White can no longer force Black to move the Bishop. For example, 4. h8♔ ♖xh8 5. ♔xh8 ♔e2 followed by 6...f1♔, and Black wins!

So, White should find a way to lose a move, or a completely different approach.

4.                    ♔c5                    ♖h8
5.                    ♔b6                    ♖g6
6.                    ♔a7                    ♖h8



There are many ways to arrive at this position. For example a1-b2-a3-b4-a5-b6-a7 is another way. The point is, the King reaches a7 in an even number of moves, or b8 in an odd number of moves. Now, there is a way to break the parity.

7.                    ♔a8!!

This is the only light square (other than the inaccessible h3 and h1) that cannot be attacked by the Black Bishop in one move! Now, the White King can do the triangulation by a7-a8-b8-a7 or a7-b8-a8-a7. It is possible to reach b8 first also. The only point is to reach a7 in an odd number of moves, or b8 in an even number of moves. This is made possible by visiting the a8 square once (or an odd number of times) during the journey.

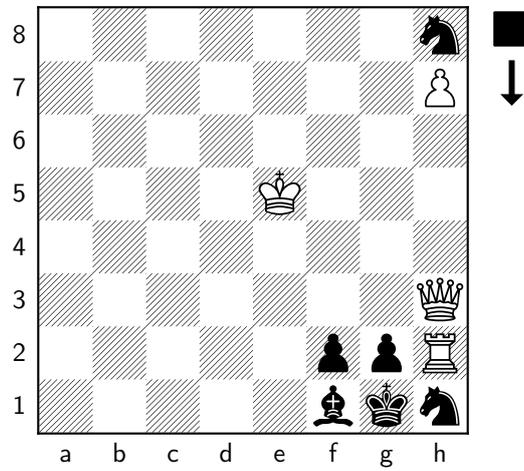
- 7                    ...                    ♖f7
8.                    ♔b8!

The square b8 is reached in an even number of moves, breaking the parity. 8. ♔a7? ♖h8 9. ♔b6 ♖f7 10. ♔c5 ♖h8 11. ♔d4 ♖f7 and White cannot play 12. ♔e5. (He can trace the path back via c5-b6-a7-a8-b8-c7 though.)

8 ... ♖h8  
 9. ♔c7 ♗f7

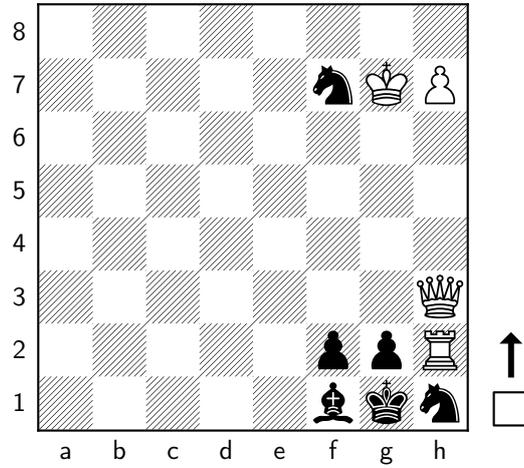
Looks like there is a fortress not allowing the King to d6 and d8, but that can be broken.

10. ♖b6 ♗h8  
 11. ♖c5 ♗g6  
 12. ♖d4 ♗h8  
 13. ♖e5



The fortress is broken!

13 ... ♗f7+  
 14. ♖f6 ♗h8  
 15. ♖g7 ♗f7

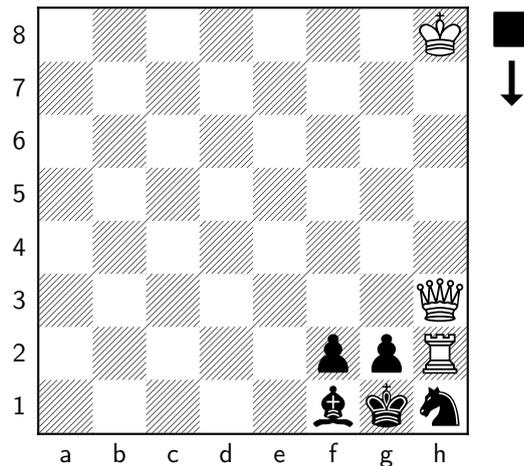


16. h8♔

The composer of this problem states 16. ♔×f7? is a blunder losing to 16... ♕c4+ 16. ♕e7 f1♔, but I find White wins even here: 17. ♖e3+ ♗f2 (17... ♘f2 18. h8♔+- or 17... ♙×h2 18. h8♔#.) 18. ♖×f2+ ♙×f2 19. h8♔+-.

But the text continuation checkmates faster.

16 ... ♘×h8  
17. ♔×h8

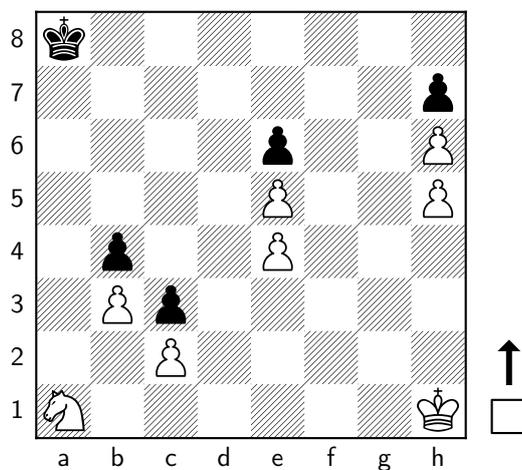


Now, Black will have to move the Bishop on this move or the next, and White checkmates by ♔xg2#.

## 21.11. Watch his moves!: Karlsson (Study), 1946

Puzzle 145  
LISS KARLLSON (Study)  
1946

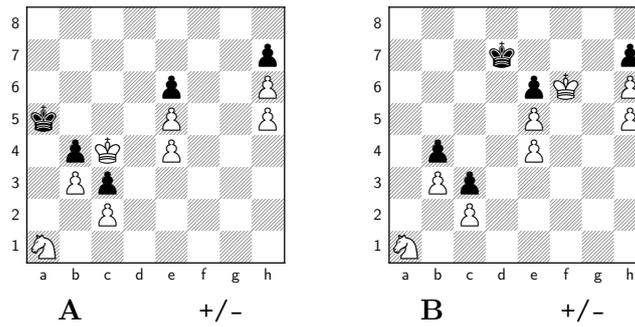
k7/7p/4p2P/4P2P/1p2P3/1Pp5/2P5/N6K w - - 0 1



*White to play and win. The White King has three squares – h2, g1 and g2 – and exactly one leads to win. Which one?*

An interesting study, with fifteen reciprocal zugzwangs combined with the theme of racing to critical squares.

Two crucial squares for White are c4 and f6. If the White King reaches one of these squares, White wins.



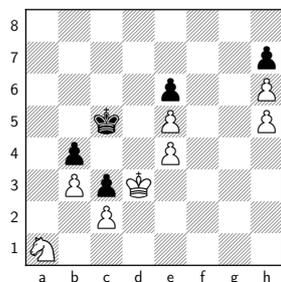
In positions **A** and **B**, White wins irrespective of whose move it is. In **A**, Black loses the crucial pawn on b4 with move. With White to move, 1. ♔c5! forces Black to give up the pawn. In **B**, Black loses the crucial pawn on e6 with move. With White to move, 1. ♔f7! wins the pawn.

The rest of the strategy involves reaching (or not allowing to reach) position **A** or **B**. Table 5 shows each square the White King can occupy and the *safe* squares for the Black King not allowing the White King to reach c4 or f6 directly.

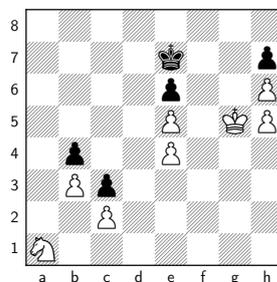
Distance		W♔ at	Safe squares for Black	
To c4	to f6		Equal	Closer
1	4	d3	b5 c5	
2	3	e3	c6	
2	4	e2	b6	b5 c6 c5
2	5	a6	a5	
3	2	f4	d7	
3	3	f3	c7	c6 d7
3	4	f2	b7	b6 b5 c7 c6 c5 d7
3	5	d1 e1 f1	a7	a6 a5 b7 b6 b5 c7 c6 c5 d7
4	1	g5	e7	
4	2	g4	d8 e8	d7 e7
4	3	g3	c8	c7 c6 d8 d7 e8 e7
4	4	g2	b8	b7 b6 b5 c8 c7 c6 d8 d7 e8 e7
4	5	g1	a8	a7 a6 a5 b8 b7 b6 b5 c8 c7 c6 c5 d8 d7 e8 e7
5	1	f7	f7	e7
5	2	h4	f8	d8 d7 e8 e7 f7
5	3	h3		c8 c7 c6 d8 d7 e8 e7 f8 f7
5	4	h2		b8 b7 b6 b5 c8 c7 c6 c5 d8 d7 e8 e7 f8 f7
5	5	h1		a8 a7 a6 a5 b8 b7 b6 b5 c8 c7 c6 c5 d8 d7 e8 e7 f8 f7

Table 5: Safe squares for Black to reach c4 or f6 in time

But being in one of the *safe* squares is not good enough for Black: It just prevents a direct race to c4 or f6. Among these positions, there are many zugzwangs. In fact, this problem has as many as fifteen reciprocal zugzwangs. Positions **C** to **Q** show these reciprocal zugzwangs. With the move, White only draws, but Black loses.



**C** =/-



**D** =/-

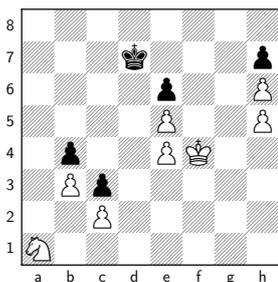
- C)** Black to move loses: 1... ♔b5 2. ♕d4! ♔a5 (2... ♕b6 3. ♕c4! ♔a5 4. ♕c5! +-.) 3. ♕c4 +- . For any other Black move, White plays 2. ♕c4 and wins.

With White to move, it is a draw: 1. ♕e3 ♔c6! reaches **F**. 1. ♕e2 ♔b6! reaches **G**. With White to move, both these positions are draws.

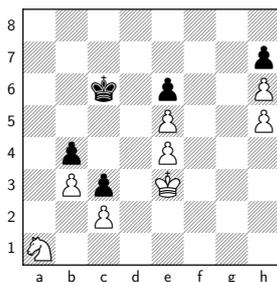
- D)** Black to move loses. He has no square that is within 4 squares to c4 and 1 square to f6.

With move, White only draws: 1. ♕f4 ♔d7! reaches **E**. 1. ♕g4 ♔d8! reaches **K**. 1. ♕h4 ♔d7! also draws.

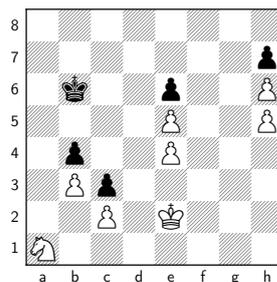
White's strategy to win this ending is to get the King to c4 (**A**) or f6 (**B**), or to reach **C** or **D** with Black to move. It turns out that it is always possible with precise play.



**E** =/-



**F** =/-



**G** =/-

- E)** From Table 5, Black doesn't have any squares from d7 to keep a safe distance from f4. 1... ♕c6 2. ♕g5! ♔d7 3. ♕f6!+- or 1... ♕e7 2. ♕e3! ♔d7 3. ♕d3! ♕c6 4. ♕c4!+-.

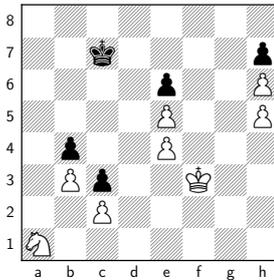
With the move, White only draws: 1. ♖g5 ♜e7!, reaching **D**. 1. ♖e3 ♜c6!, reaching **F**.

- F)** From Table 5, Black doesn't have any squares from c6 to keep a safe distance from e3. 1...♜d7 2. ♖d3! ♜c6 3. ♜c4!+- or 1...♜b6 2. ♜f4! ♜c6 3. ♜g5! ♜d7 4. ♜f6!+-.

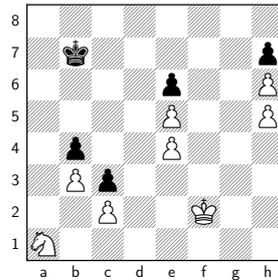
With the move, White only draws: 1. ♜f4 ♜d7!, reaching **E**. 1. ♜d3 ♜c5!, reaching **C**. 1. ♜e2 ♜b6!, reaching **G**.

- G)** From Table 5, only safe squares are c6, c5 and b5. However, 1...♜c6 2. ♜e3! reaches **F**. After 1...♜b5, White can play 2. ♜f3, and the only safe square c6 for Black leads to **F** after 2. ♜e3. After 1...♜c5 2. ♜d3, reaches **C**. Hence any Black move from **G** loses.

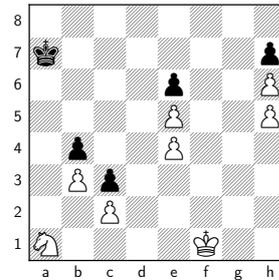
With the move, White only draws: 1. ♜e3 ♜c6!, reaching **F**. 1. ♜d3 ♜c5!, reaching **C**. 1. ♜f2 ♜b7!, reaching **I**. 1. ♜f1 ♜a7 (1...♜c7 also draws, but not 1...♜c5? 2. ♜f2! wins for White. See **R**.), reaching **J**.



**H** =/-



**I** =/-



**J** =/-

- H)** From Table 5, the only safe squares are c6 and d7. However, 1...♜c6 2. ♜e3! reaches **F**, and 1...♜d7 2. ♜f4! reaches **E**.

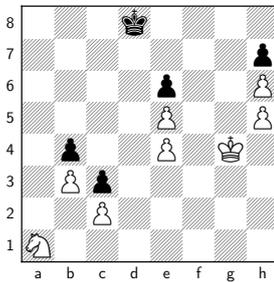
With the move, White only draws: 1. ♜f4 ♜d7!, reaching **E**. 1. ♜d3 ♜c5!, reaching **C**. 1. ♜e2 ♜b6!, reaching **G**.

- I)** From Table 5, the only safe squares are b6, c6 and c7. However, 1...♜c6 2. ♜e3! reaches **F**. 1...♜c7 2. ♜f3! reaches **H**. 1...♜b6 2. ♜e2! reaches **G**. So, any Black move loses.

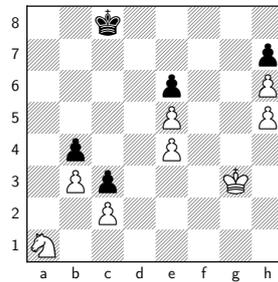
With the move, White only draws: 1. ♜f3 ♜c7!, reaching **H**. 1. ♜d3 ♜c5!, reaching **C**. 1. ♜e3 ♜c6!, reaching **F**. 1. ♜e2 ♜b6!, reaching **G**, or 1. ♜g3 ♜c8!, reaching **L**.

- J)** From Table 5, the only safe squares from a7 are a6, b7 and b6. However, 1...♜b7 2. ♜f2! leads to **I**, while 1...♜b6 2. ♜e2! reaches **G**. In the case of 1...♜a6 2. ♜g2!, Black is forced to reach **G** by 1...♜b6 2. ♜e2! or **I** after 1...♜b7 2. ♜f2!. So, any Black move loses.

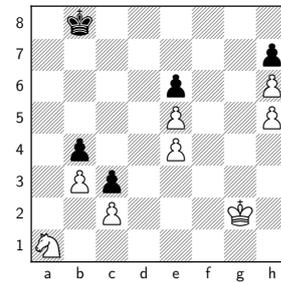
With the move, White only draws: 1. ♖f2 ♗b7!, reaching **I**. 1. ♖e2 ♗b6!, reaching **G**, or 1. ♗g3 ♘c8!, reaching **L**.



**K** =/-



**L** =/-



**M** =/-

**K** From Table 5, the only safe squares from d8 are e8, d7 and e7. 1... ♗d7 2. ♖f4 reaches **E**. 1... ♗e7 2. ♗g5 reaches **D**. After 1... ♗e8 2. ♖f3 ♗d7 (Only safe square) 3. ♖f4 reaches **E**.

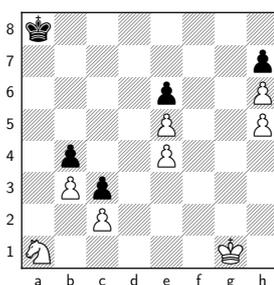
With move, White only draws. 1. ♖f4 ♗d7! reaches **E**. 1. ♖f3 ♗c7! reaches **H**. 1. ♗g3 ♘c8! reaches **L**. 1. ♗h4 ♗d7! reaches **O**. 1. ♗g5 ♗e7! reaches **D**.

**L** From Table 5, the only safe squares from c8 are c7, d8 and d7. 1... ♗c7 2. ♖f3 reaches **H**. 1... ♗d8 2. ♗g4 reaches **K**. After 1... ♗d7 2. ♖f4 reaches **E**.

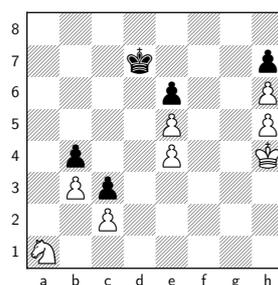
With move, White only draws. 1. ♖f4 ♗d7! reaches **E**. 1. ♖f3 ♗c7! reaches **H**. 1. ♗g4 ♗d8! reaches **K**. 1. ♗h4 ♗d7! reaches **O**. 1. ♗g2 ♗b8! reaches **M**. 1. ♗h3 ♗c7! reaches **P**.

**M** From Table 5, the only safe squares from b8 are b7, c8 and c7. 1... ♗b7 2. ♖f2 reaches **I**. 1... ♗c8 2. ♗g3 reaches **L**. After 1... ♗c7 2. ♖f3 reaches **F**.

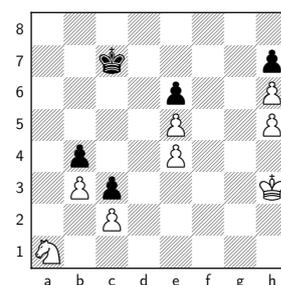
With move, White only draws. 1. ♖f4 ♗d7! reaches **E**. 1. ♖f2 ♗b7! reaches **I**. 1. ♖f3 ♗c7! reaches **H**. 1. ♗g3 ♘c8! reaches **L**.



**N** =/-



**O** =/-



**P** =/-

**N** From Table 5, all the three squares accessible from a8 are safe. 1... ♗b7 2. ♖f2 reaches **I**. 1... ♗b8 2. ♗g2 reaches **M**. 1... ♗a7 2. ♖f1 reaches **J**.

With move, White only draws. f1 f2 g2 h2 h1. 1. ♖f1 ♕a7! reaches **J**. 1. ♖f2 ♕b7! reaches **I**. 1. ♖g2 ♕b8! reaches **M**. 1. ♖h2 ♕b7! also draws.

**O** From Table 5, the only safe squares from d7 are d8, e8 and e7. 1...♖d8 2. ♖g4 reaches **K**. 1...♖e8 2. ♖g2 reaches **M**.

With the move, White only draws. 1. ♖g5 ♕e7! reaches **D**. 1. ♖g4 ♕d8! reaches **K**. 1. ♖g3 ♕c8! reaches **L**.

**P** From Table 5, c8, c6, d8 and d7 are safe squares. 1...♖d8 2. ♖g4 reaches **K**. 1...♖c8 2. ♖g3 reaches **L**. 1...♖d8 2. ♖g4 reaches **K**. 1...♖d7 2. ♖h4 reaches **O**.

For, 1...♖c6, any of 2. ♖g4, 2. ♖g3 or 2. ♖g2 wins, because their drawing squares (d8, c8 and b8, respectively) are far from c6 and White reaches the winning squares wherever Black moves to.

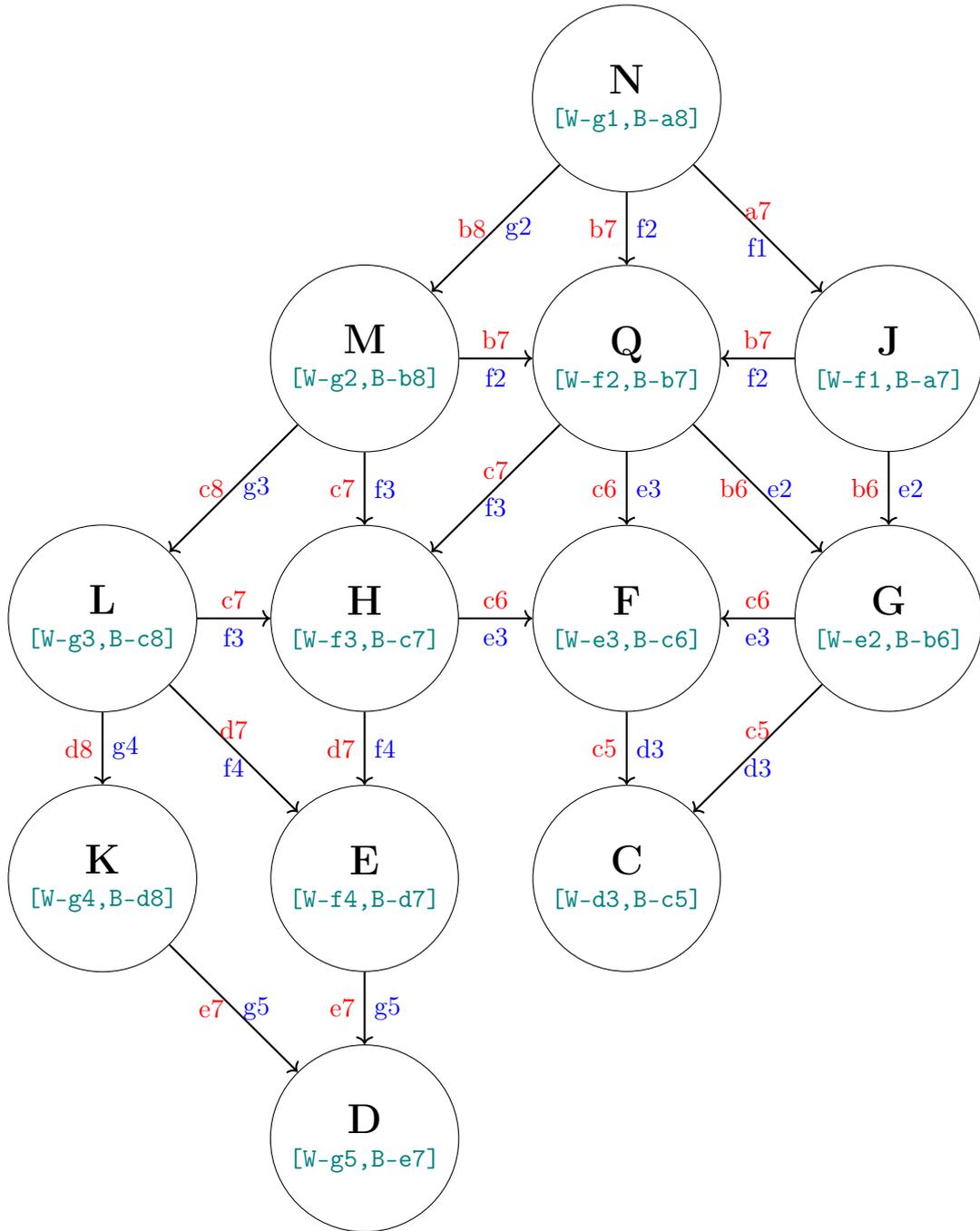
With the move, White only draws. 1. ♖g5 ♕e7! reaches **D**. 1. ♖g4 ♕d8! reaches **K**. 1. ♖g3 ♕c8! reaches **L**.

White's winning strategy is detailed in Figure 21.11.1. White plays

1. ♖g1!!

to reach **N**, then follows the acyclic directed graph given in the figure. Unsafe squares as per Table 5 are not explicitly listed.

**Postscript:** In the puzzle diagram, with move, Black draws by either 1...♕b7 (White cannot reach f2) or 1...♕a7 (White cannot reach f1) but loses with 1...♕b8? 2. ♖g2!.

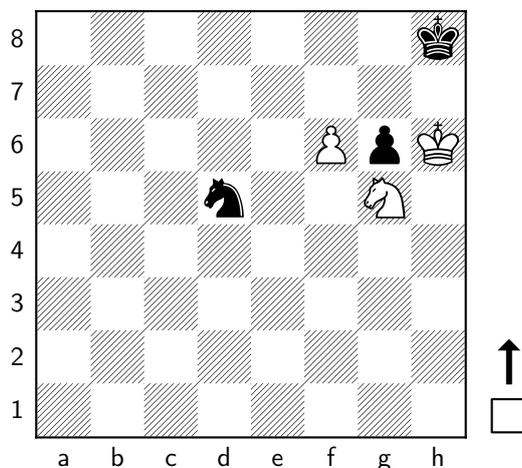


Position 21.11.1: White's winning strategy

## 21.12. Avoid stalemates: Selezniev (Study), 1939

Puzzle [142](#)  
A. SELEZNIEV (Study)  
1939

7k/8/5PpK/3n2N1/8/8/8/8 w - - 0 1



*White to play and win.*

**Step 1:** Save the last pawn.

If Black wins the f-pawn, there is no way White can win with the King and a lone Knight.

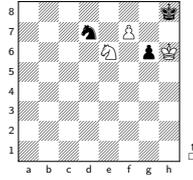
1.                    **f7!**                    ♖f6

1... ♗e7 2. ♗e6 and the pawn queens, as the White King can now move to g5.

2.                    ♔xg6!

2. f8 ♖+? ♗g8+ 3. ♔xg6 is stalemate! After the Black pawn is captured, the White King can move to h5 and there won't be stalemate. Black has to shuttle the Knight between f8 and d7.

2. ♖e6? won't work here because of 2... ♘d7! =, and now White is in zugzwang:



Any Knight move will allow ... ♘f8, that protects g6, and the Knight shuttles between f8 and d7. When the Black Knight on d7, White cannot play ♙xg6 due to ... ♘e5+ and ... ♘xf7. Finally, 2. ♗g5 will allow 2... ♗h7! and White cannot make any progress.

2. ♗g5 ... ♘d7

After 2... ♘g8, 3. f8♙? is stalemate, but 3. f8♗ wins, by winning the Knight on the next move and checkmating with a Bishop and Knight. Or, White can win with the simple 3. ♖e6 or 3. ♘h7, protecting f8 and threatening 4. f8♙, after which 3... ♘e7+ 4. ♗g5 ♗g7 5. f8♙+ wins.

After 2... ♘h7, the fastest way to win is 3. ♖e6 ♘f8+ 4. ♗f6 (4. ♘xf8 stalemate!) 4... ♘h7+ 5. ♗e7.

3. ♗h6! ♘f8

**Step 2:** Get the Knight to f5.

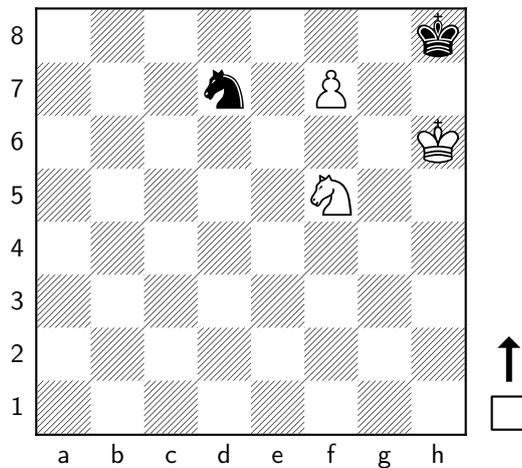
4. ♘f3

♘e4-g3-f5 also works.

4 ... ♘d7  
5. ♘h4

5. ♘d4 is equally good.

5 ... ♘f8  
6. ♘f5! ♘d7

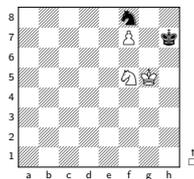


White wins this position if it is Black's move. So,

**Step 3:** Lose a move.

7.                      ♖h5                      ♖h7

Note that g7 is covered by the Knight. 7... ♜f8 8. ♖g5 ♖h7 (8... ♜d7 9. ♖h6 loses a move as in the main line.), and now:

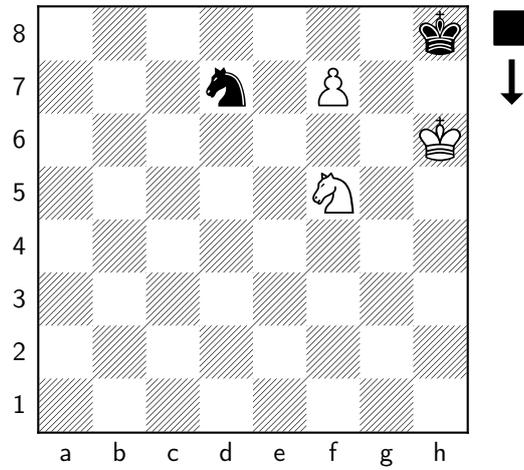


9. ♖f6! ♜d7+ (9... ♜g6 10. ♜h4 ♜f8 11. ♖e7 +-.) 10. ♖e6! (10. ♖e7? ♜e5! 11. f8 ♖ ♜g6+ =.) 10... ♜f8+ (10... ♖g6 11. ♖e7 zugzwang.) 11. ♖e7 wins.

8.                      ♖g5!                      ♖h8

8... ♜f8 9. ♖f6! wins as in the note to the last move.

9.                      ♖h6!

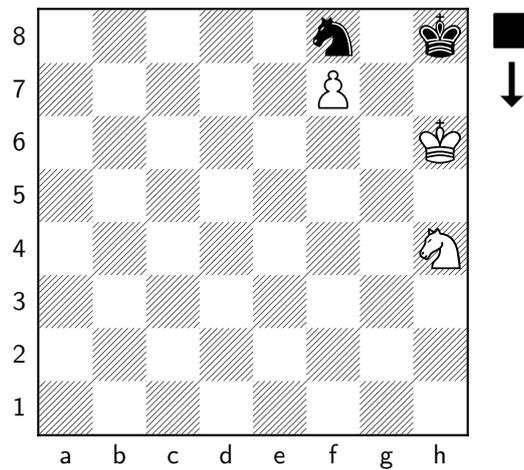


We reached the position above with Black to move.

9 ... ♖f8

**Step 3:** Win by zugzwang!

10. ♘h4!



Black is in zugzwang. When the Knight moves, White mates by 11. ♘g6#.

## 22. Lose a move

In the case of a *reciprocal zugzwang* (See Section 21 (Page 425)), one way to obtain an advantage is by losing a move and hand the move over to the opponent. Here are some examples.

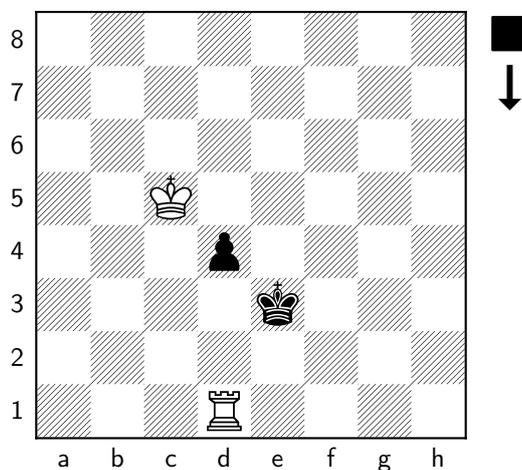


1... ♖e4 2. ♜d1 d4 3. ♔d6 transposes to the main line.

2. ♜d1! ♖e4

2... ♔d5 3. ♔d7! and now 2... ♖c5 3. ♔e6! or 2... ♖e5 3. ♔c6! approaches the pawn from the other side. This is sufficient even after 2... ♖c4 and 2... ♖e4.

3. ♔d6 ♖e3  
4. ♖c5



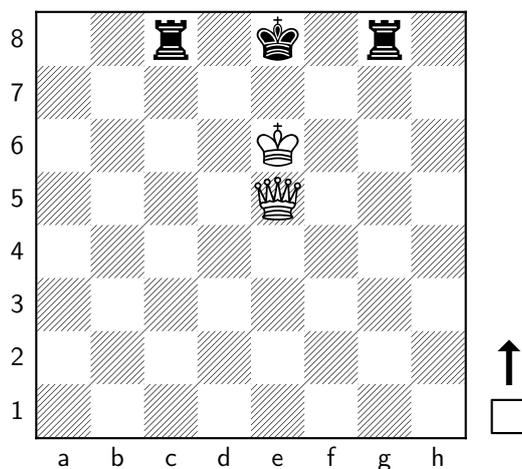
4. ... d3  
5. ♖c4 d2  
6. ♖c3

Wins the pawn and the game.

## 22.2. Helpless rooks: Khortov (Study), 1978

Puzzle 110  
KHORTOV (Study)  
1978

2r1k1r1/8/4K3/4Q3/8/8/8/8 w - - 0 1



*♔ vs ♖ + ♗ is hard to win, in the absence of tactical motifs. But there is one in this position. What?*

This position is remarkable. With Black to move, every move loses. White only needs to transfer the move back to Black.

1. ♔h5+ ♖d8
2. ♗a5+ ♖e8
3. ♗e5

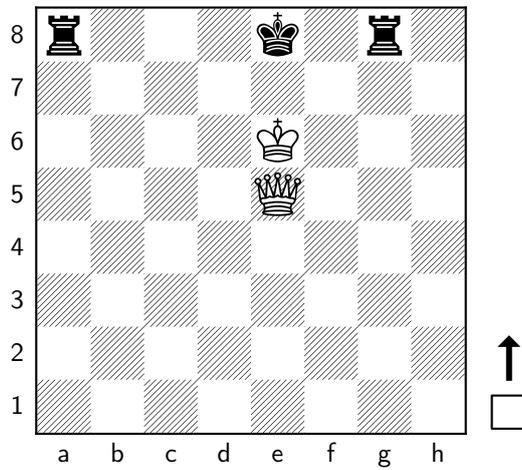
The same position is reached with Black to move. A strange way to do triangulation!<sup>4</sup>

Now,

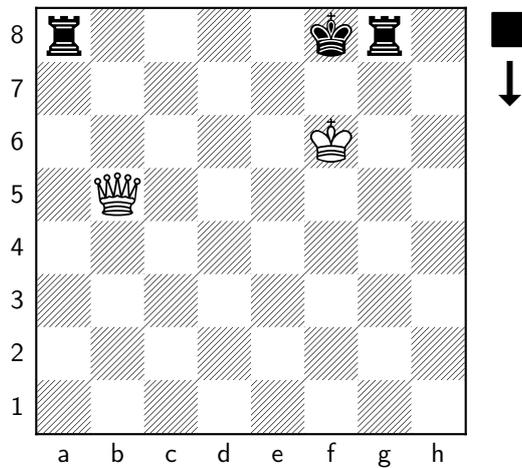
<sup>4</sup>See the note at the end of this article for an explanation.

- A) 3... ♖d8 4. ♜h5+ ♔f8 5. ♜f7#.
- B) 3... ♜f8 4. ♜a5+ ♔d8 5. ♜d7#.
- C) 3... ♜c6+ 4. ♔d5+ (4. ♔f5+ also wins.) 4... ♔d7 5. ♜f5+ ♔c7 6. ♜f7+ wins the g8 rook.
- D) 3... ♜c6+ 4. ♔d5+ (4. ♔d5+ also wins.) 4... ♔f7 5. ♜d5+ ♔g7 6. ♜d7+ wins the c8 rook.

3 ... ♜a8



4. ♜b5+ ♔f8  
 5. ♜f6!



Threatens 6. ♖c5+ ♔e8 7. ♕e7#.

5 ... ♖g7

5... ♖h8 6. ♖c5+ ♔g8 7. ♕d5+ ♔h7 8. ♕h5+ ♔g8 9. ♕f7#.

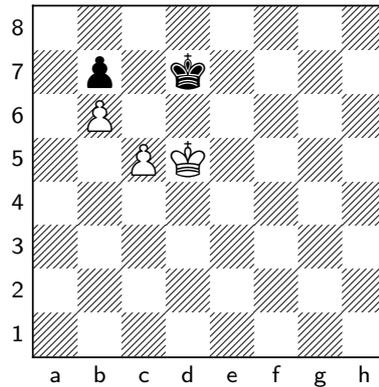
6.	♖c5+	♔g8
7.	♕d5+	♔h7
8.	♕e4+	

Wins a rook and the game.

It is interesting that the WQ should be on e5 to win this game. Moving it to another square loses the grip. For 1. ♕e4?, Black can draw with 1... ♔d8 or 1... ♔f8. For 1. ♕e3, 1... ♔d8, 1... ♖g7 or 1... ♖c7 draws.

### Triangulation

Triangulation is a technique used by the attacker in end games to lose a move when the defender will be in zugzwang if it were the latter's move. For example,



Position 22.2.1: White wins. Black loses.

1. c6? bxc6? 2. ♖c5 ♖c8 3. ♖xc6 wins, but Black can draw with 1...♖c8! 2. ♖d6 (2. c7 ♖d7 3. ♖e5 ♖c8!, and White cannot approach further due to stalemate.) 2...♖b8! 3. ♖d7 (3. c7+ ♖c8 =) 3...bxc6! 4. ♖xc6 ♖c8 draws.

It is interesting to note that Black will lose if it is Black's move. For example,

A) At any move, if the BK moves to the e-file, c6 wins.

B) 1...♖d8 2. ♖e6 ♖c8 3. ♖e7 ♖b8 4. ♖d7 ♖a8 5. c6 bxc6 6. ♖xc6 (6. ♖c7 wins faster.) 6...♖b8 7. b7 wins.

C) 1...♖c8 2. ♖d6 ♖b8 (2...♖d8 3. ♖e6 +-, as above.) 3. ♖d7 +-, as above.

In order to win, White uses triangulation to *lose a move* to reach the position with Black to move.

1. ♖d4

1. ♖e5, 1. ♖e4 or 1. ♖c4 also will win.

1 ... ♖c6

1...♖d8 2. ♖e5 ♖c8 (2...♖d7 3. ♖d5 reaches the original position with Black to move.) 3. ♖d6 ♖d8 (3...♖b8 4. ♖d7 ♖a8 5. c6 +-, as above.) 4. ♖e6 +-, as above.

2.                    ♔c4                    ♔d7
3.                    ♔d5

reaches the same position with Black to move, and wins as given above. It is called triangulation because the White King traverses a triangle.

## 23. King and Pawn endings

King and pawn endings are very interesting: The basic principles are simple, but there can be some subtle problems in individual cases. The examples here are extremely useful in practical play.

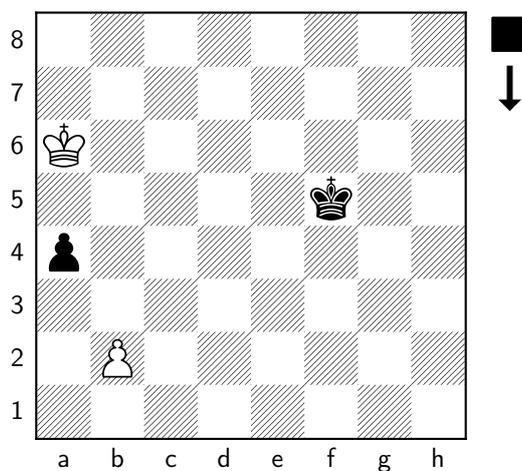
## 23.1. Basic K+P ending: Tukmakov – Ubilava, 1972

### Puzzle 68

V. TUKMAKOV – E. UBILAVA

USSR Ch., Moscow: 1972

8/8/K7/5k2/p7/8/1P6/8 b - - 0 1



*With the King so close to the enemy pawn and well-ahead of own pawn, this position looks like an easy win for White. But Black has one way to draw. Which one?*

This was played in a real game, but the solution is like an endgame study. Black has to play very precisely to draw this game.

**1** ... **♔e6!**

1...a3? 2. bxa3! ♔e6 3. ♔b7 ♔d5 4. a4+-.

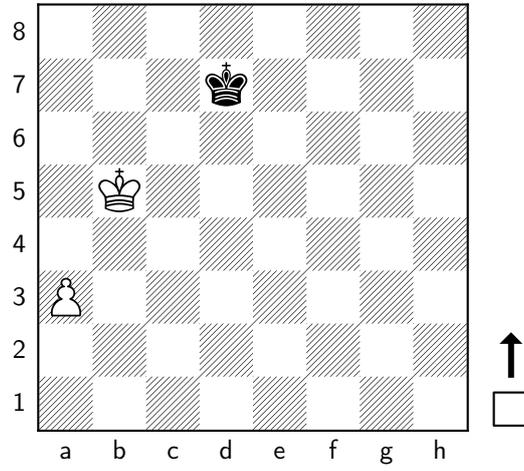
**2.** ... **♔b5** ... **a3!**

2...♔d5? 3. ♔xa4 ♔c6 4. ♔a5+-

3.

bxa3!

♔d7!

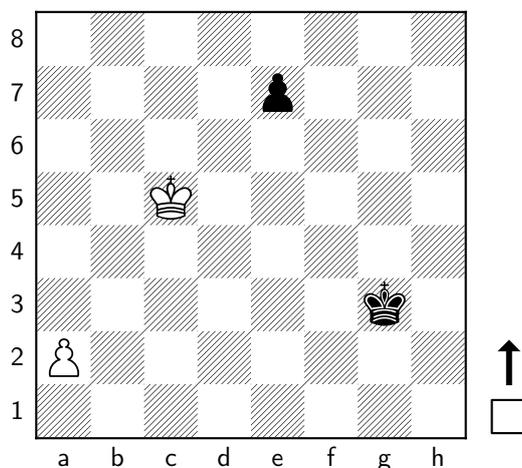


Black reaches c8 in time, and draws.

## 23.2. Pawn race: Benko (Study), 1957

Puzzle 109  
PAL BENKO (Study)  
1957

8/4p3/8/2K5/8/6k1/P7/8 w - - 0 1



*White to play and win.*

A simple endgame study by PAL BENKO (See §6 on Page 669).

**1.                    a4!**

Other moves won't win.

A) 1. ♔d5? ♚f4! 2. ♚e6 ♚e4 3. ♔xe7 ♚d4=.

B) 1. ♔d4? ♚f4! 2. a4 e5+! 3. ♔d3 ♚f3 (3...e4+ 4. ♚e2 ♚e5 5. a5 ♔d5 also draws.) 4. a5 e4+! 5. ♔d2 ♚f2! 6. a6 e3+! 7. ♚c2 e2 8. a7 e1♚ 9. a8♚=.

**1                    ...                    e5**  
**2.                    a5!**

2. ♔d5? ♕f4 3. a5 e4 4. a6 e3 and both pawns promote together.

2	...	e4
3.	♕d4!	

3. a6 e3!=

3	...	♕f4
---	-----	-----

3... ♕f3 places the Black King on the a8-h1 diagonal, so 4. a6 e3 5. a7 e2 6. a8♕+ queens with check and wins.

4.	a6!	e3
5.	♕d3!	♕f3

Otherwise, 6. ♕e2 will stop the pawn forever.

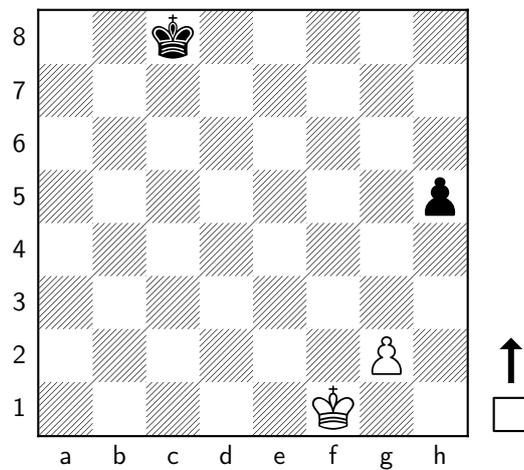
6.	a7!	e2
7.	a8♕+	

Queens with check and wins.

### 23.3. Watch for key squares: Moravec (Study), 1952

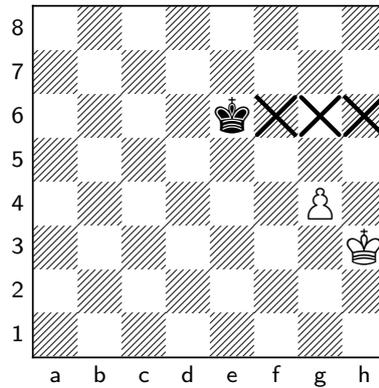
Puzzle 163  
 J. MORAVEC (Study)  
 1952

2k5/8/8/7p/8/8/6P1/5K2 w - - 0 1



*White to play and win.*

Before solving this puzzle, it will help to revive the theory behind ♔+♙ vs ♚ endings. For pawns on the ranks 2, 3 or 4, the key squares are the three squares 2 ranks ahead. For example, in Position 1, if the WK manages to reach any of the squares marked with “X”, white wins, irrespective of whose move it is.

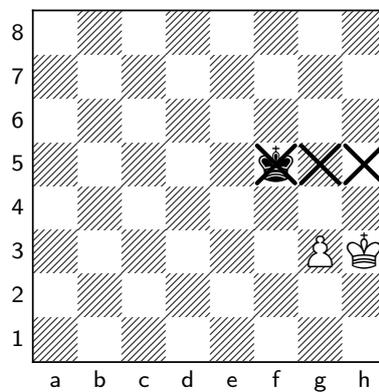


**Position 1**

With White to move, 1. ♔h4! ♕f6 2. ♔h5! (Threatening to occupy the key square h6) 2... ♕g7 3. ♕g5! wins, as the WK can occupy h6 or f6 depending on Black's move.

With Black to move, Black plays 1... ♕f6 2. ♔h4 ♕g6 and draws, because the WK cannot occupy any of the key squares.

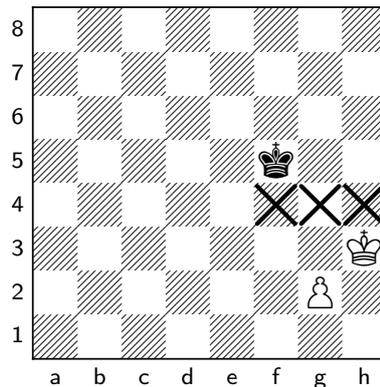
Position 2 gives the situation with the pawn on g3.



**Position 2**

With White to move, 1. ♔h4 ♕g6 2. ♕g4 wins. With the move, Black draws with 1... ♕g5.

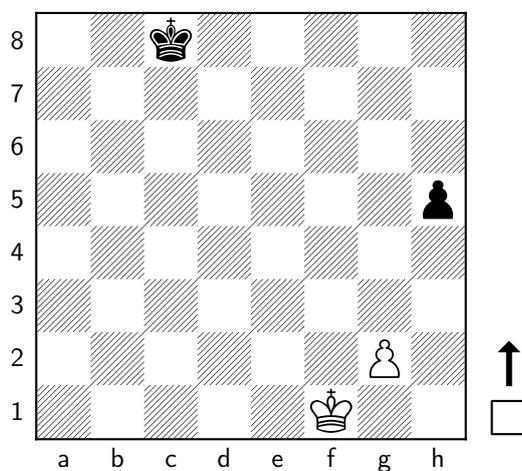
Position 3 gives the situation with the pawn on g2.



**Position 3**

The WK needs to get into the three marked squares to win. White wins irrespective of whose move it is. With White to move, 1. ♔h4 wins. With Black to move, 1... ♔g5 prevents White to reach the key squares on this move, but after 2. ♔g3, it can occupy a key square on the next move.

Now, let us consider the puzzle.



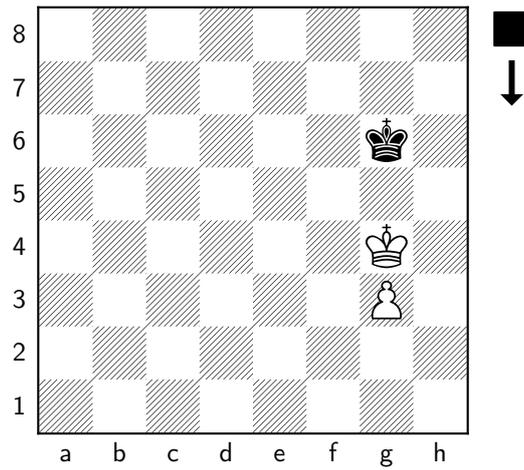
1. ♔f2!

1. ♔g1? is too slow, as 1... ♔d7 2. ♔h2 ♔e6 3. ♔h3 ♔f6 4. ♔h4 ♔g6 supports the pawn and draws.



White has reached the Position 2, and wins by

6.            ♔h4            ♚g6
7.            ♚g4



## 23.4. Win at any cost: Benko (Study), 1989

Puzzle 128  
PAL BENKO (Study)  
First prize, *Magvar Sakkele* 1989

1K2k2N/7p/8/6P1/8/8/8/8 w - - 0 1

*White to play and win.*

Another entertaining study by PAL BENKO (See §6 on Page 669).

1. ♔c8!

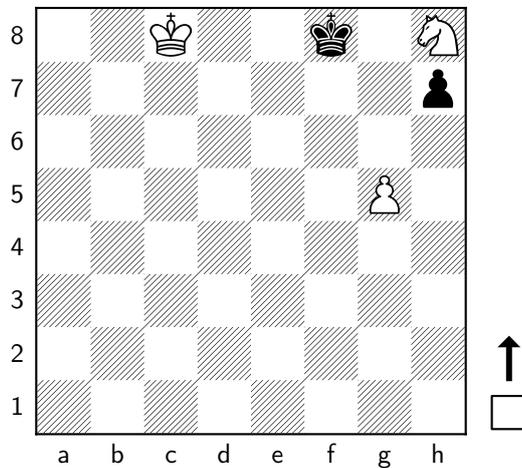
1. ♔c7? ♔e7! 2. ♔c6 (2. ♔c8 ♔e8! =) 2... ♔e6 and the g5-pawn is lost.

1 ... ♔f8

1... ♔e7 2. ♔c7!, and now:

A) 2... ♔e6 3. ♔d8 ♔f5 4. ♔f7 ♔g6 (4... h6 5. g×h6! ♔g6 6. ♔e7 ♔h7 7. ♔f6 ♔g8 8. ♔g6 +-.) 5. ♔e8 ♔g7 6. ♔e7 +-.

B) 2... ♔e8 3. ♕d6 (3. ♘g6 also wins.) 3... ♖f8 4. ♗e6 (4. ♘g6 also wins.) 4... ♗g8 5. ♖f6 +-.



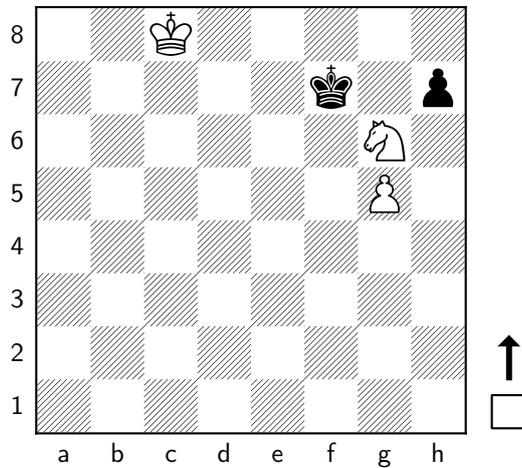
2. ♘g6+!!

2. ♕d8? wins against 2... ♗g8? 3. ♗e8 ♕xh8 4. ♖f7 h6 5. g6 and 2...h5? 3. ♘g6+ ♗g8 4. ♗e7, but 2...h6! draws: 3. g6 ♗g7 4. ♗e8 h5 =.

2 ... ♖f7

2...h×g6 3. ♕d8 (3. ♕d7 ♖f7 4. ♕d6 also wins.) 3... ♖f7 4. ♕d7 ♖f8 5. ♗e6 ♗g7 6. ♗e7 ♗g8 7. ♖f6 ♖h7 8. ♖f7 ♖h8 9. ♕xg6+-.

For 2... ♗g7, both 3. ♘h4 and 3. ♘f4 win.



3. ♖f4!!

3. ♖h4? ♔e8! (3... ♔e6 4. ♔f8 ♔e5 5. ♔e7 ♔f4 6. ♔f6+-.) 4. ♖g2 ♔e7 5. ♖f4 ♔d6 4. ♖h5 ♔e6 =.

3 ... h6

3... ♔e8 doesn't work here, because after 4. ♔c7 ♔e7 5. ♔c6, Black King cannot move to e6.

After 3... h5, it is a mistake to play 4. g6+?, because after 4... ♔f6!, the Black pawn is one move ahead compared to the main line and will threaten to queen before the Knight catches it: 4. ♔d7 h4 5. ♔e8 ♔g7 6. ♔e7 h3 7. ♔e6 h2, and White will have to give up the g6-pawn by 8. ♖h5+ ♔xg6 9. ♖g3 to prevent the Black Pawn from queening.

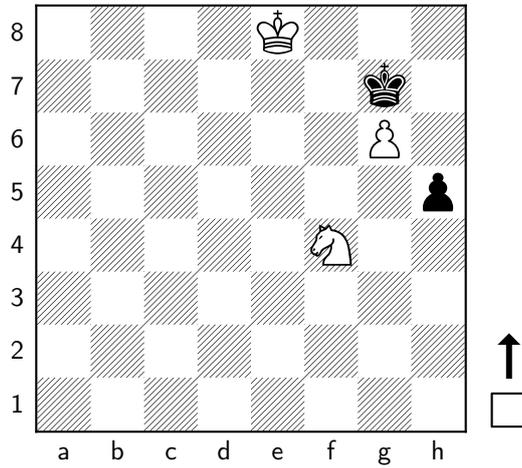
Instead, White should keep Knight to prevent the Black pawn from queening, while the King and pawn win against Black King. For example, 4. ♔d8 h4 5. ♔d7 ♔g8 6. ♔e6 ♔g7 7. ♔f5 ♔f7 8. g6+ etc. wins.

4. g6+

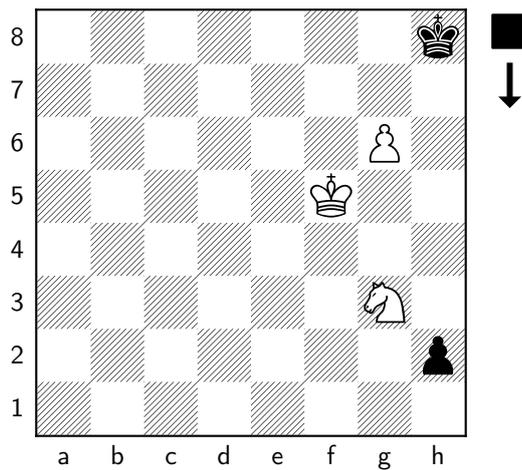
5. gxh6? ♔g8 =.

4	...	♔f6
5.	♕d7	h5
6.	♕e8	♕g7

6...h4 7. ♔f8 h3 8. g7 h2 9. ♖h5+ followed by 10. ♖g3 +-.



7.	♕e7	h4
8.	♕e6	h3
9.	♕f5	h2
10.	♖h5+	♕h8
11.	♖g3	



White wins.

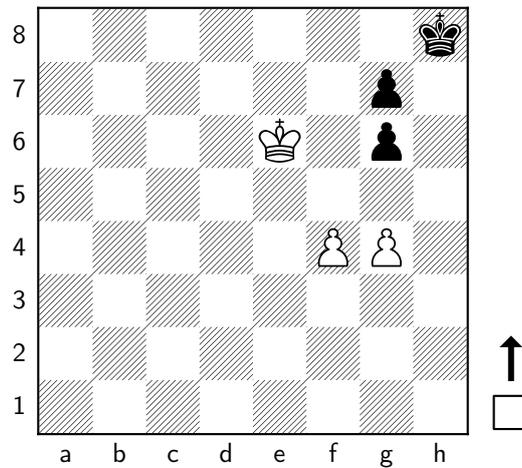
<b>11</b>	...	♔g8
<b>12.</b>	♕f6	♕f8
<b>13.</b>	g7+	♕g8

Now, either 14. ♖h1, forcing 14...♔h7 15. ♕f7 or 14. ♖f5, threatening a deadly 15. ♖e7+, wins.

### 23.5. Which of the two moves?: Unknown (Study),

Puzzle 115  
UNKNOWN (Study)

7k/6p1/4K1p1/8/5PP1/8/8/8 w - - 0 1



*White to play and win.*

Susan Polgar posted this puzzle on her Facebook page on 2017-04-26.

There are two candidate moves: 1. g5! and 1. ♔f7?. The former wins and the latter only draws.

The full set of variations are presented in the following table.

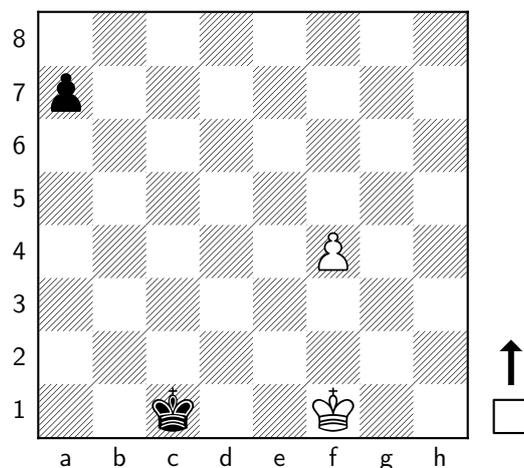
No.	1	2	3	4	5	6	7	8	9	10	11	
1	g5! ♙g8	♚e7! ♙h8	♚f8 ♙h7	♚f7 ♙h8	♚xg6 ♙g8	f5 ♙f8	♚h7 ♙f7	♚h8 ♙f8	g6			+ -
2	...	...	...	...	...	...	♚f7 ♙h7	♚f8 g6	f6 ♚h8	f7 ♙h7	♚e8	+ -
3	...	...	...	...	...	...	...	...	f6 gxf6	g6 f5	g7+	+ -
4	...	...	...	...	...	...	...	...	...	f7 g6	♚e8 ♙h7	+ -
5	...	...	...	...	...	...	...	...	...	f7 ♙h7	♚e8 ♙h8	+ -
6	...	♚f7 ♙h7	♚f8 ♙h8								LINE 1	
7	♚f7? g5!	f5 ♙h7!	f6 gxf6!	♚xf6! ♙h6	♚f5 ♙h7!	♚xg5 ♙g7!						=
8	...	...	♚f8 ♙h8									=
9	...	f x g5 ♙h7!	g6+ ♙h8									=
10	...	...	♚f8 ♙g6									=

Table 6: Variations in the puzzle 23.5

## 23.6. Jump into the winning zone: Birnov (Study), 1970

Puzzle 114  
BIRNOV (Study)  
1970

8/p7/8/8/5P2/8/8/2k2K2 w - - 0 1



*White to play and win.*

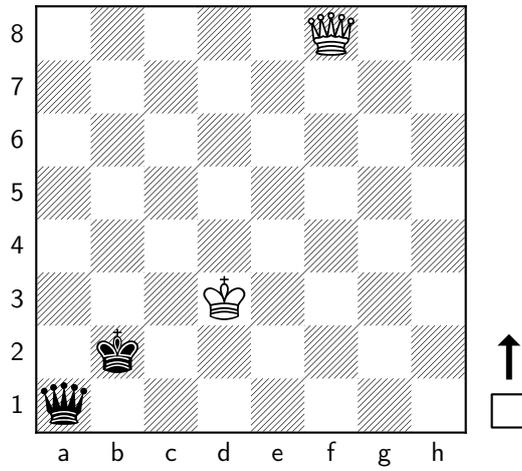
The most obvious 1. f5? will lead only to a draw after 1...a5 2. f6 a4 3. f7 a3 4. f8♙ a2 and this is a book draw. See Section B.1.3 (Page 680). The White King is still outside the winning zone, so it is a draw.

1. ♔e2!

White King moves into the winning zone shown in Section B.1.3 (Page 680), but Black gets an extra move so he can promote at the same time as White. Depending on whether he will do it or not, we need to deal with a ♙ vs ♙ or ♙ vs ♚ ending.

We have two cases: 1...a5 and 1...♙c2.

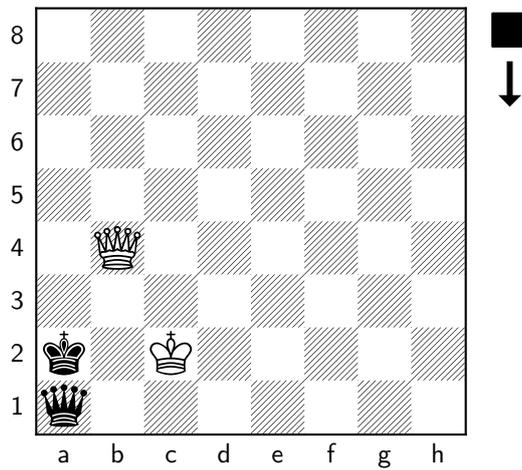




7. ♔b4+ ♚a2

7... ♚c1 8. ♕d2+ ♚b1 9. ♕c2#

8. ♚c2



White threatens 9. ♕a4# and 9. ♕b3#. Black cannot do much for that.

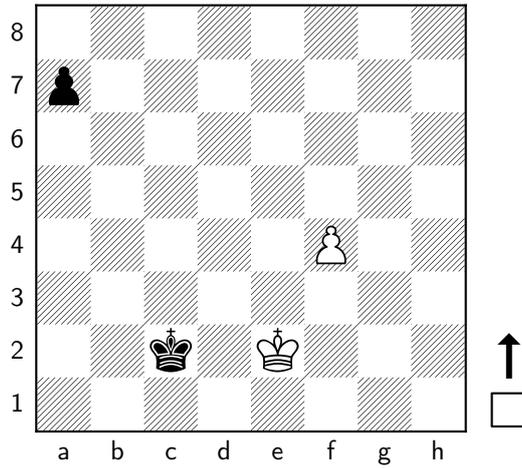
8 ... ♔c3+

The last trap. 9. ♕xc3 is stalemate!

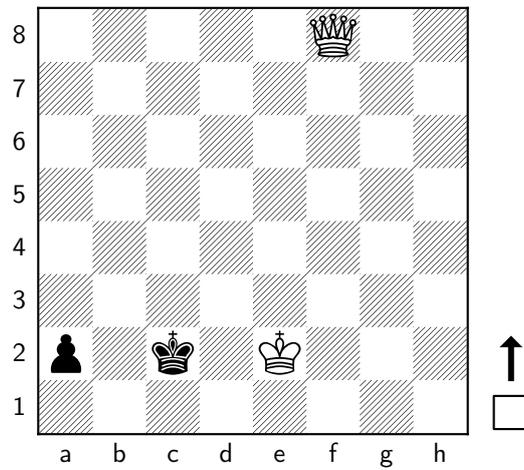
9. ♕xc3! ♔a1  
 10. ♕b2#

Variation 2: 1... ♔c2

1 ... ♔c2



2. f5 a5  
 3. f6 a4  
 4. f7 a3  
 5. f8 ♕ a2

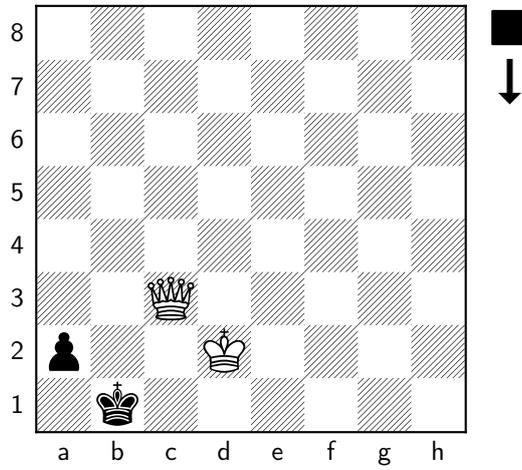


Here, the White King is in the winning zone of the diagram given in Section [B.1.3](#) (Page [680](#)). It is only a matter of following the techniques given there.

- |    |      |     |
|----|------|-----|
| 6. | ♔a3  | ♚b1 |
| 7. | ♔b3+ | ♚a1 |

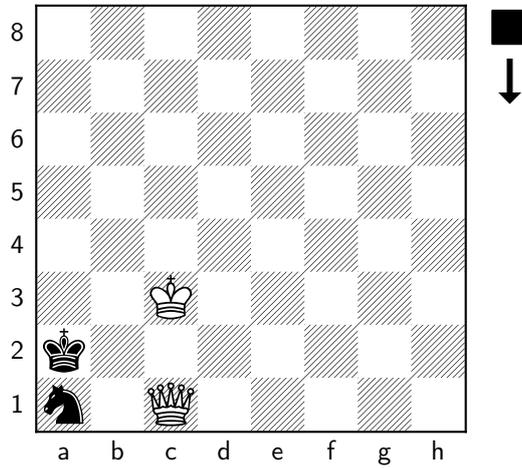
7...♚c1 8. ♚d3 (Transposing to the main line with 8. ♔c3+ ♚b1 9. ♚d2 also wins, but 8. ♔xa2? is stalemate!) 8...a1♙ 9. ♔a2 mates next move.

- |    |      |     |
|----|------|-----|
| 8. | ♔c3+ | ♚b1 |
| 9. | ♚d2  |     |



Now, both 9...a1♚ 10. ♚c2# and 9...♚a1 10. ♚c1# are immediate mates, so...

- |     |      |     |
|-----|------|-----|
| 9   | ...  | a1♚ |
| 10. | ♚c1+ | ♚a2 |
| 11. | ♚c3  |     |



And mates by 12. ♚b2#.

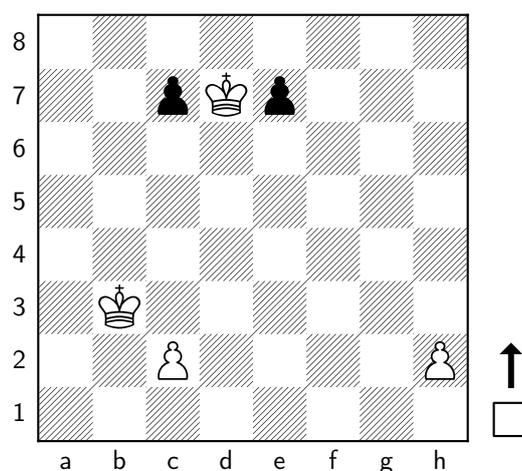
## 23.7. Tricky Endgame: Adamson, H. A. (Study), 1927

Puzzle 149

ADAMSON (Study)

1927

8/2pKp3/8/8/8/1K6/2P4P/8 w - - 0 1



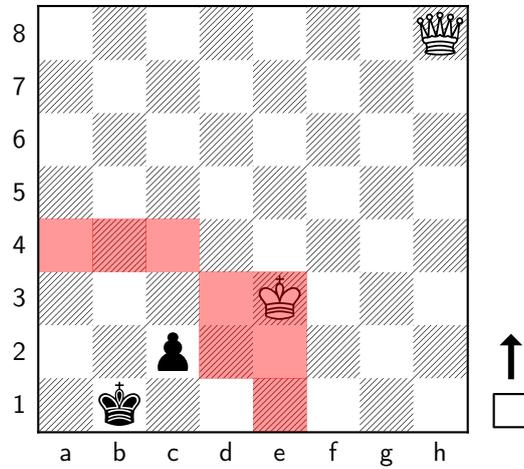
*White to play and win.*

White's winning strategy involves pushing the h-pawn to queen, which takes five moves. If White allows Black to play  $\dots e5$  without capturing it, both White and Black promote at the same time and the game will end in a draw. So White should either capture the e-pawn or catch up with it so that it won't queen.

This leaves the c-pawn. Black needs a move to capture b2 and five moves to queen the c-pawn, which means the Black pawn will be on c2 when the White pawn queens on h8. If the e-pawn is captured or immobile by this time, we reach a position described in Section B.1.4 (Page 682), which is a draw in most of the cases.

In order to win this puzzle, we need to make sure that, when the ending resolves to queening the h-pawn on h8 and the Black pawn reaches c2, the White King should be one of the squares highlighted in Position 23.7.1 (Page 505). (See Section B.1.4 (Page 682) and Position B.1.6 (Page 684) for full details.)

The problem is solved using this in mind.



Position 23.7.1: ♔ vs c- or f-♙: B♔ on the shorter side

Only 1. ♔e6! wins in this position. 1. ♔e8?? loses because Black's e-pawn queens with check before White's h-pawn. With all the other first moves, White only draws.

The full set of variations are presented in the table given in the next page. The **Nunn Notation** (See Section C.3 (Page 686)) is used to annotate the lines in this problem.

No.	1	2	3	4	5	6	7	8	9	10	11	12	
1	1. ♖xe7? c5?	♔d6 c4	♔d5 ♖xb2	♖xc4! ♔c2	h4							White P marches to victory.	+--
2	...	...	♖xc5 ♖xb2	h4 ♔c3								White P marches to victory.	+--
3	...	♔e6 ♖c3	h4 c5!	♔d5 c4	h5 ♖b3	h6 c3!						Both White P and Black's c-pawn queen together.	=
4	...	h4 c5!										Both White P and Black's c-pawn queen together.	=
5	♖c6? e5!	♔d5 ♖xb2!	h4 ♖b3!	h5 c6+!	♖xe5 c5!	h6 c4!	h7 c3!	h8♖ c2!				Q vs BP on 7 <sup>th</sup> , WK far. See Position 23.7.1 (Page 505)	=
6	...	...	♖xe5 ♖c3!	h4 c5!	h5 c4	h6 ♖b2	h7 c3!	h8♖ c2!	♔e4+ ♖b1			Q vs BP on 7 <sup>th</sup> , WK far. See Position 23.7.1 (Page 505)	=
7	...	♔c5 ♖xb2!	h4 e4	♔d4 c5+	♖xe4 c4	h5 c3						Both White P and Black's c-pawn queen together.	=
8	♖e6! ♖xb2	h4! c5	h5? c4	h6 c3	h7 c2	h8♖+ ♖b1						Q vs BP on 7 <sup>th</sup> , WK far. See Position 23.7.1 (Page 505)	=
9	...	...	♔d5! e5	♖xc5!								White P marches to victory.	+--
10	...	...	...	♖xc4!								White P marches to victory.	+--
11	...	♔d5 c5	h4! e5	h5! e4	♖xe4? ♖xb2	h6 c3	h7 c2	h8♖+ ♖b1				Q vs BP on 7 <sup>th</sup> , WK far. See Position 23.7.1 (Page 505)	=
12	...	...	...	...	♔d4! e3	♖xe3! ♖xb2	h6! c3	h7! c2	h8♖+! ♖b1			Q vs BP on 7 <sup>th</sup> , WK near. See Position 23.7.1 (Page 505)	+--
13	...	...	...	♖c5! e6+	h5! e5	♔d4!						Same as Row 12 above, one move later.	+--

The line 5 is the most exciting. Black has exactly one series of moves to draw in that line.

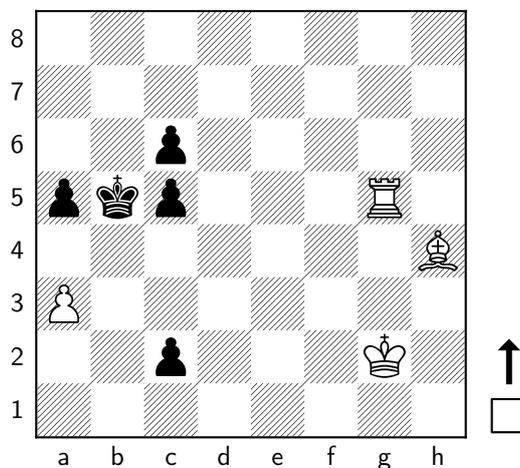
## 24. Stalemate: Achieving and avoiding

It is often very tricky to achieve stalemate and avoid them. Some interesting examples.

## 24.1. Force the draw: Mattison, H. (Study), 1913

Puzzle 161  
MATTISON, H. (Study)  
1913

8/8/2p5/pkp3R1/7B/P7/2p3K1/8 w - - 0 1



*White has a Rook and a Bishop for three pawns, but looks like Black's c-pawn is unstoppable. How can White obtain a draw out of this position?*

Preventing the c-pawn from queening is tricky. After 1. ♖xc5 ♔xc5 2. ♘g5, Black wins White's a-pawn, and easily wins with his three pawns marching against the Bishop. For example, 2... ♕c4 3. ♖f2 ♕b3 4. ♘c1 (4. ♖e2 ♕xa3 5. ♘c1+ ♕b3 6. ♕d3 a4 -+.) 4... ♕a2 5. ♖e2 ♕b1 6. ♕d2 a4 -+.

Another try is 1. ♘f2 c1♚ 2. ♖xc5 ♚xc5 3. ♘xc5 ♔xc5, but Black wins after 4. ♕f3 ♕c4 5. ♖e3 ♕b3.

**1. a4+!**

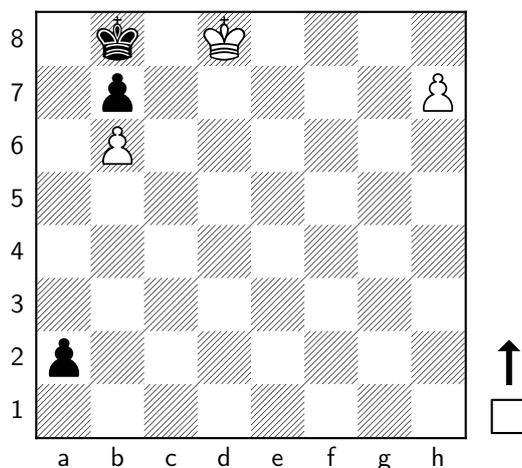
Pushes the King to the b6 square from where it cannot make a move without losing control over c5, and making White run out of moves for the final stalemate.



## 24.2. Avoiding draw: Joseph, D. (Study), 1922

Puzzle 156  
 JOSEPH, D. (Study)  
 1922

1k1K4/1p5P/1P6/8/8/8/p7/8 w - - 0 1



After 1.  $h8$  ♔  $a1$  ♕!, how can White win this game, as 2. ♕×a1 is stalemate?

1.  $h8$  ♔!  $a1$  ♕

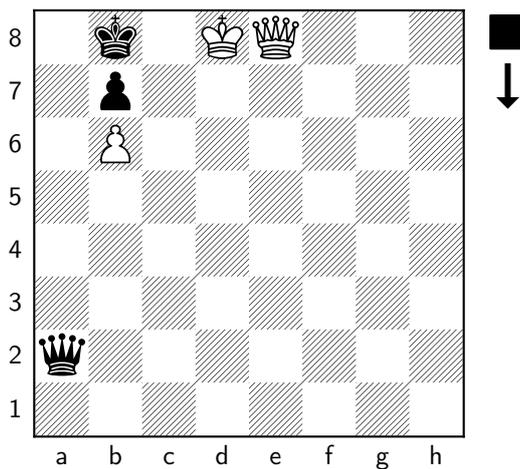
Now, 2. ♕×a1 is stalemate. White needs to find a way where either (a) his Q is on the eighth rank without being attacked and can checkmate by moving the King, or (b) he can capture the queen without causing a stalemate.

2. ♕g8!

For 2. ♕e8?, Black will reply with 2... ♕g7! not allowing the WK to escape the eighth rank.

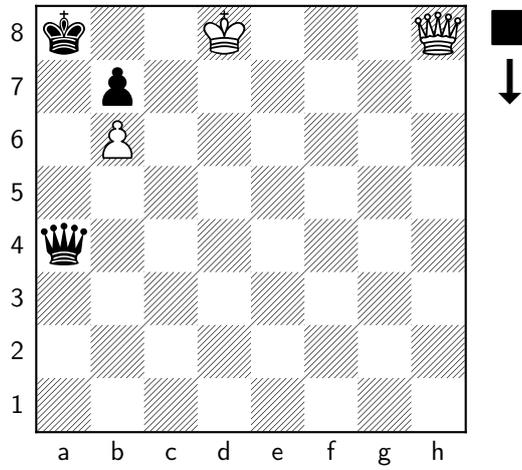
After 2. ♖f8? ♜a3! 3. ♜e8 ♜d6+! 4. ♜d7 ♜x d7+ 5. ♔x d7 ♔a8, Black can get a draw by shuttling the King on a8 and b8.

2. ♖f8? ... ♜a2  
 3. ♜e8! ♜e8!



Moving to e8 when ... ♜g7 no longer exists. 3. ♖f8? ♜a3! draws as above.

3. ♖f8? ... ♜a4  
 4. ♜e5+! ♔a8  
 5. ♜h8!

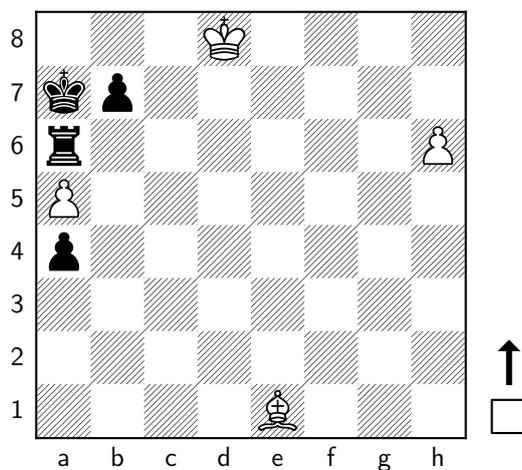


The Queen went back to the original square, and White is now threatening to checkmate by moving the King to the seventh rank. Black cannot prevent that, as 5... ♔a1 will be met with 6. ♕x a1+. Black doesn't have a check at d6, so nothing can prevent a discovered check by the King.

24.3. Avoiding draw: Full study: Joseph, D. (Study), 1921

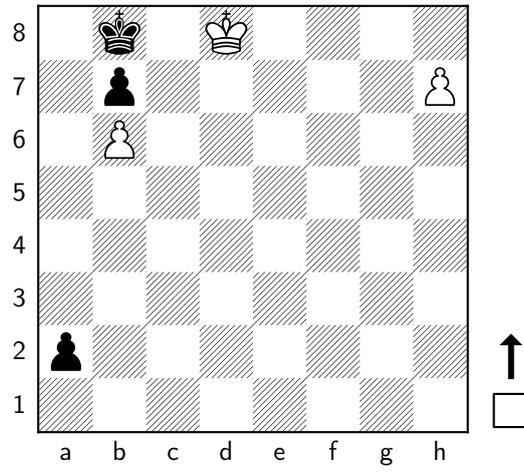
Puzzle 167  
 JOSEPH, D. (Study)  
 1921

3K4/kp6/r6P/P7/p7/8/8/4B3 w - - 0 1



*White to play and win.*

- |    |      |      |
|----|------|------|
| 1. | ♙f2+ | ♚b8  |
| 2. | ♙b6  | ♚xb6 |
| 3. | axb6 | a3   |
| 4. | h7   | a2   |



And we reached Puzzle [24.2](#).

## 24.4. Stop pawn or stalemate?: Réti and Rinck (Study), 1935

Puzzle 184  
R. RÉTI AND H. RINCK (Study)  
1935

8/3k4/1K6/8/4BR2/4p3/4p3/8 w - - 0 1

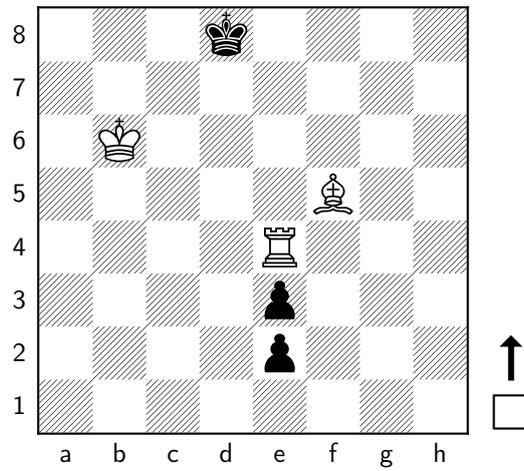
*Looks like it is quite tricky to avoid Black queening the e-pawn. How can White win this game?*

This problem was originally composed by RICHARD RÉTI (See §35 on Page 675), later corrected by H. RINCK (See §36 on Page 675), when he found a *cook*.

1. ♙f5+

1. ♙c6+? ♚e7 2. ♜e4+ ♚d6! 3. ♜xe3 is not effective because of 3...e1♚ 4. ♜xe1 stalemate!

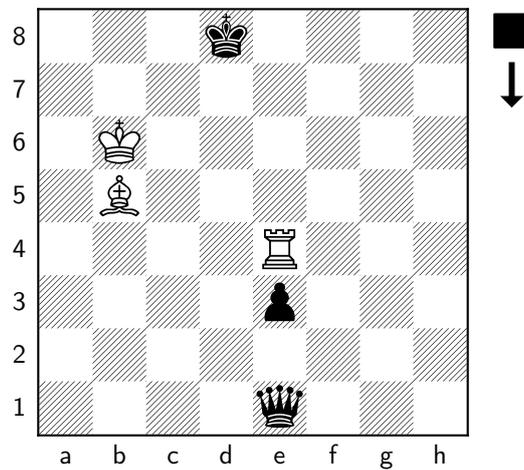
1	...	♚d6
2.	♜d4+	♚e7
3.	♜e4+	♚d8



4. ♖d7!

This clever move wins. Now, 4... ♙×d7 5. ♖×e3 wins, so...

4 ... e1 ♙  
 5. ♖b5!

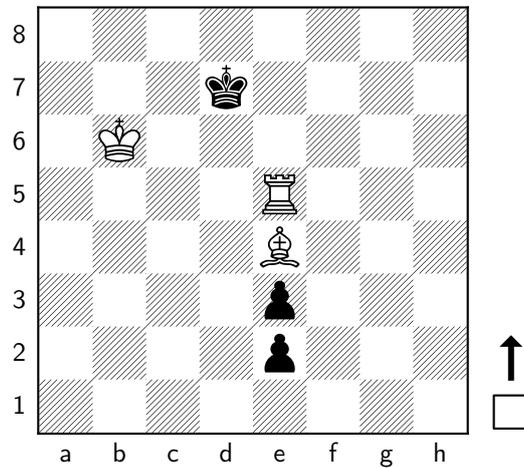


Now, there is no defense to the threatened 6. ♖e8#. White wins.

Note that the Bishop has to move to b5 to avoid the check 5... ♙b1+.

## The original study

Réti's original study was this:



The intended solution was

- |    |      |     |
|----|------|-----|
| 1. | ♘f5+ | ♔d8 |
| 2. | ♘d3  | e1♚ |
| 3. | ♘b5  |     |

followed by

- |    |      |
|----|------|
| 4. | ♖e8# |
|----|------|

Later, H. RINCK found a cook 2. ♘d7, and by adjusting the Rook's position slightly, he managed to create a flawless puzzle given above.

## 24.5. Walking through stalemate to stop the pawn: Cohn (Study), 1928

Puzzle 120  
COHN (Study)  
1928

8/8/8/1p2k3/4q3/4R1K1/8/8 w - - 0 1

*White to play and draw.*

1. ♖xe4+? ♔xe4 2. ♕f2 ♕d2 3. ♔e1 ♕c2 wins for Black, so White's move is forced.

1. ♕f2! ♔b4

1... ♕xe3 2. ♔xe3 ♕d5 (2... b3 3. ♕d3 and the pawn is lost.) 3. ♕d3 ♕c5 4. ♕c2 ♕c4 5. ♕b2 and White stops the pawn.

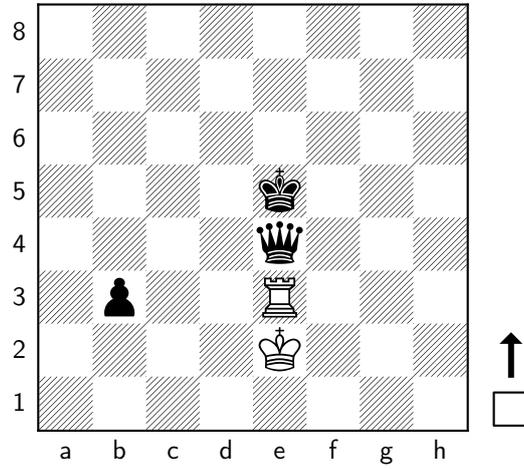
2. ♕e2!

2. ♖xe4? ♔xe4 3. ♕e2 ♔b3 4. ♕d2 ♕d4 5. ♕d1 ♕d3 6. ♕c1 ♕c3 7. ♕b1 ♔b2 8. ♕a2 ♕c2+.

2

...

b3



3.

♔d1!!

Now, 3... ♙xe3 is stalemate, 3... b2 4. ♖xe4+ ♔xe4 5. ♕c2 catches the pawn, or 3... ♕d4 4. ♖xe4+ ♔xe4 5. ♕c1 ♕d4 6. ♕b2 ♕c4 7. ♕b1 draws.

## 24.6. Cat-and-mouses game: Matouš (Study), 1982

Puzzle 182  
MARIO MATOUŠ (Study)  
*Duras MT, 1982*

7k/2q3pP/6P1/8/8/8/6Pp/2RR3K w - - 0 1

*White to play and Win.*

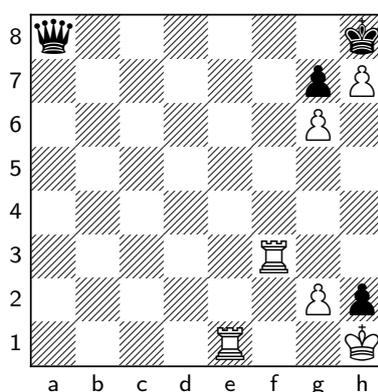
This is a crazy puzzle. Both sides are continuously trying to avoid backrank mate, while White is trying to avoid stalemate.

There are a few things in similar positions with only the Rooks and Queen are repositioned:

1. White should not allow the Black Queen to give a check. The check can be on the back rank or on g2.
2. White cannot capture the pawn on h2 with the King: Black has more chances to give a check in this case.
3. When the BQ is on the a8-h1 diagonal, one Rook should be on the same diagonal blocking a check on g2.

4. In other cases, a White Rook should be on the first rank or should be blocking the path (file or diagonal) to the first rank.
5. If Black is allowed to capture g6, one Rook should be able to check on the 8<sup>th</sup> rank, and the other should deliver check on the h-file. Otherwise, the Black King escapes.
6. If both rooks are allowed to be doubled on a file, White generally wins unless Black can capture with Rook. However, Black may be able to defend by moving the Queen on a square in front of the rooks.

Before getting into the puzzle, let us examine some key positions that occur many times in the solution.

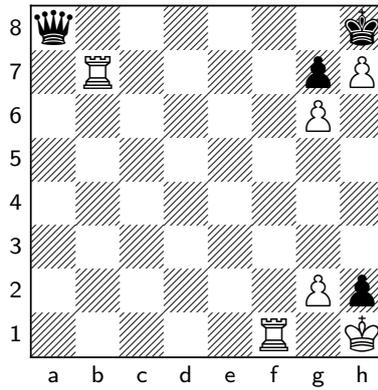


Position 24.6.1: White draws. Black loses.

If it is White's move, the Rook on f3 cannot move due to  $\dots \text{♙} \times g2+$ , and the Rook on e1 cannot leave the first rank due to  $\dots \text{♙} \text{a}1+$ . If it moves along the rank leaving e1, Black plays  $1 \dots \text{♙} \text{e}8$ , threatening both  $2 \dots \text{♙} \text{e}1+$  and  $2 \dots \text{♙} \times g6$ .  $1. \text{♜} \text{e} \text{f}1$  fails to win due to  $1 \dots \text{♙} \times \text{f}3$ . All cases end in a draw.

With Black to move, the Queen has to leave the a8-h1 diagonal, which leads to defeat.

$1 \dots \text{♙} \text{b}8$   $2. \text{♜} \text{f} \text{e}3 \text{ ♙} \text{e}5$   $3. \text{♜} \text{f}1 \text{ ♙} \text{b}8$  ( $3 \dots \text{♙} \text{e}7$   $4. \text{♜} \text{e} \text{f}3$   $+ -$ .)  $4. \text{♜} \text{e}7 \text{ ♙} \text{a}8$   $5. \text{♜} \text{b}7$  wins by reaching Position 24.6.2 with Black to move.  $+ -$



Position 24.6.2: White wins. Black loses.

This is a win for White, irrespective of whose move it is.

With Black to move, the Queen has to move, and  $1 \dots \text{Q} \times \text{g}2+$  is no longer possible, and White will win by  $2. \text{R} \times \text{b}7$  and  $3. \text{R} \times \text{f}8+$ .

1	...	$\text{Q} \times \text{e}8$
2.	$\text{R} \times \text{b}7!$	$\text{Q} \times \text{f}7$
3.	$\text{g} \times \text{f}7!$	$\text{K} \times \text{h}7$
4.	$\text{f}8 \text{Q}$	

and wins  $+-$ .

With move, White wins by

1.  $\text{R} \times \text{e}1!$

Leaving Black in a zugzwang.

1 ...  $\text{Q} \times \text{d}8$

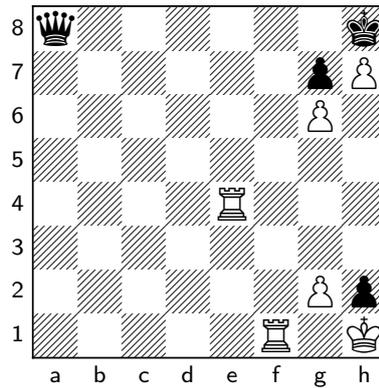
$1 \dots \text{Q} \times \text{f}8$   $2. \text{R} \times \text{f}7$ , and now  $2 \dots \text{Q} \times \text{f}7$   $3. \text{g} \times \text{f}7!$  wins  $+-$ , while  $2 \dots \text{Q} \times \text{a}8$   $3. \text{R} \times \text{f}3$ , wins by reaching Position 24.6.1  $+-$ .

2.                    ♖f7                    ♔a8

For other moves, 3. ♖ef1 wins. 2... ♕e8 3. ♖ef1 ♕×f7 4. g×f7! wins +-.

3.                    ♖f3!

wins by reaching Position 24.6.1 without the move +-.



Position 24.6.3: White draws. Black loses.

With move, White is in zugzwang. The Rook on e4 cannot move because of ... ♕×g2+. The Rook on f1 cannot leave the first rank due to ... ♕a1+. The remaining possibilities are:

- A) 1. ♖b1 ♕f8! (Threatens 2... ♕f1+.) 2. ♖f4?? ♕×f4 guards b8.
- B) 1. ♖c1 ♕f8! 2. ♖f4 ♕c5! draws, with c8 and f8 guarded and 3... ♕g1+ being threatened.
- C) 1. ♖d1 ♕f8! 2. ♖f4 ♕e8! 3. ♖e4 (3. ♖ef1 ♕×g6 =.) 3... ♕f8 =.
- D) 1. ♖fe1 ♕×e4 =.

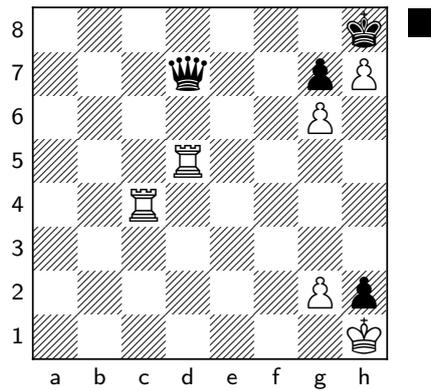
With the move, Black also is in a zugzwang. Moving the Queen from the a8-h1 diagonal allows 2. ♖ef4, because ... ♕×g2+ is no longer possible.

1                    ...                    ♕b8  
2.                    ♖e7

After 2. ♖f1 ♔e5!, White will have to go back to the original position and transpose to the main line with 3. ♜f1 ♔b8 4. ♜e7.

2. ... ♔a8  
3. ♜b7

Reaches Position 24.6.2 and White wins +-.



Position 24.6.4: White wins. Black loses.

With move, White plays 1. ♜f4 ♔e8 2. ♜e4 ♔f8 3. ♜f5 ♔b8 (3... ♔a8 4. ♜f1 =, Position 24.6.3, with Black to move.) 4. ♜e1 ♔a8 5. ♜f3, reaching Position 24.6.1 with Black to move.

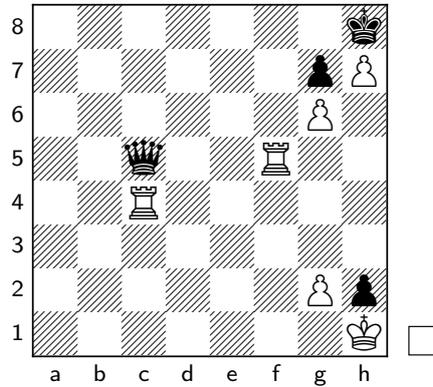
Black to play loses.

1. ... ♔e8  
2. ♜e4 ♔a8

2... ♔xg6 3. ♜d8+ ♔xh7 4. ♜h4+ +-.

3. ♜e1 ♔f8  
4. ♜f5 ♔a8  
5. ♜f3

Reaches Position 24.6.1 and wins  $+-$ .



Position 24.6.5: White wins.

1.                    ♖f2

Necessary to prevent  $1... \text{♔g1+}$ .

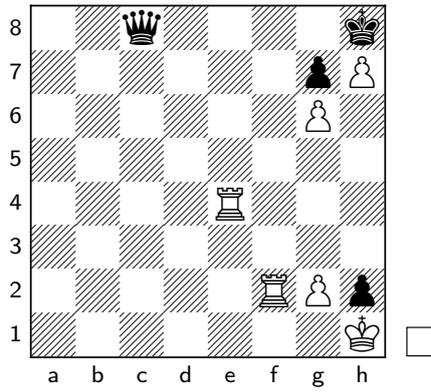
1                    ...                    ♔f5  
2.                    ♖e4

To prevent  $2... \text{♔b1+}$ .  $2. \text{♖c1}$  or  $2. \text{♖c2}$  is not sufficient due to  $2... \text{♔xg6}$ .

2                    ...                    ♔d8

$2... \text{♔xg6}$  3. ♖f8+ ♔xh7 4. ♖h4  $+-$ .

We have reached position 24.6.6, and White wins.



Position 24.6.6: White wins.

1. ♖e1

1. ♜f1? ♚a8! draws by reaching the Position [24.6.3](#) with White to move.

1	...	♚a8
2.	♜f3	♚b8
3.	♜ff1	♚a8
4.	♜e4	

Reaches Position [24.6.3](#) with Black to move, and wins +-.

Now the main problem.



1... ♔b8 2. ♖f1 ♔a8 3. ♖e4 reaches Position [24.6.3](#).

2. ♖d5

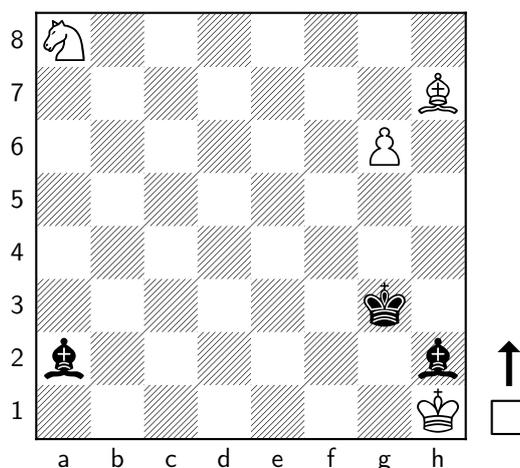
Reaches Position [24.6.4](#) and wins +-.

## 24.7. The helpless Bishop on the edge: Konstantinov (Study), 1989

### Puzzle 107

ALEKSANDR KONSTANTINOV (Study)  
*The Problemist*, 1989

N7/7B/6P1/8/8/6k1/b6b/7K w - - 0 1



*White to play and win.*

Black is threatening to checkmate by  $1... \text{♜d5+}$ . The Bishop can checkmate from anywhere on the h1-a8 diagonal, but being on the edge, it cannot move to the center. In the solution, the Bishop ends up in g8, facing the same problem of getting centralized to reach a convenient square in the long diagonal. Meanwhile the White Knight, which is in the farthest corner of the board, manages to come for rescue covering vital squares.

1.  $\text{♞c7!}$

There are only two other moves that prevent  $1... \text{♜d5+}$ .

A) 1.  $\text{♞b6?}$  is not sufficient due to 1...  $\text{♜b1}$  2.  $\text{g7 ♜xh7}$  3.  $\text{g8 ♞+ ♜xg8}$  and White is in zugzwang. Only the Knight can move and Black checkmates with  $4... \text{♜d5+}$ .

B) 1. ♖g8? ♜xg8 2. ♞c7 ♚h3 3. g7 ♜h7 (3... ♜xc7, and a few other moves also win.) 4. g8♚ (This is not a check anymore!) 4... ♜e4+ 5. ♚g2 ♜xg2#.

Preventing 1... ♜d5+ and threatening g6-g7-g8♚.

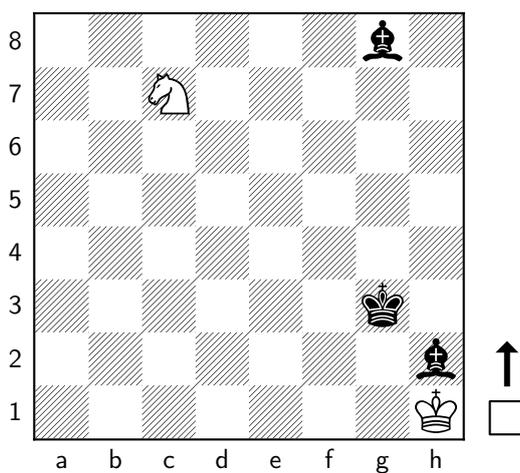
1 ... ♜b1

Renewing the mate threat by 2... ♜e4+.

2. g7!  
3. g8♚+ ♜xh7

3. g8♚+ also is sufficient to draw, but other promotions will lose to 3... ♜e4#.

3 ... ♜xg8



4. ♞e6!

Now, since all the other White pieces are gone, 4... ♜xe6 will be stalemate.

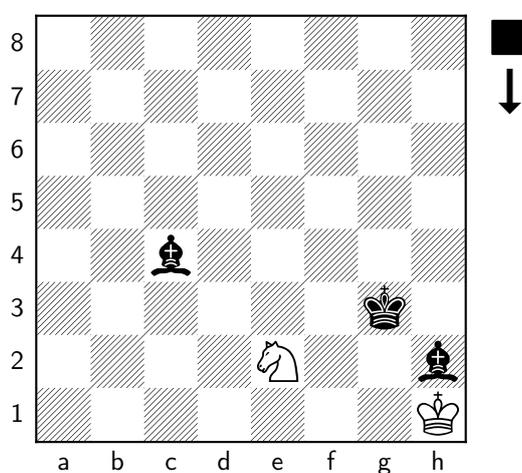
4 ... ♜f7

After 4... ♖h7, 5. ♗g5! covers e4 and threatens 6. ♗f3, either causing a stalemate or trading one pair of pieces leading to a draw by insufficient material.

5. ♗f4!

Again controlling d5.

5 ... ♖c4  
6. ♗e2+!



6 ... ♔h3

6... ♖xe2 is stalemate.

7. ♗g1+ ♔g3

7... ♖xg1 8. ♔xg1 =.

8. ♗e2+

Draws by triple repetition.

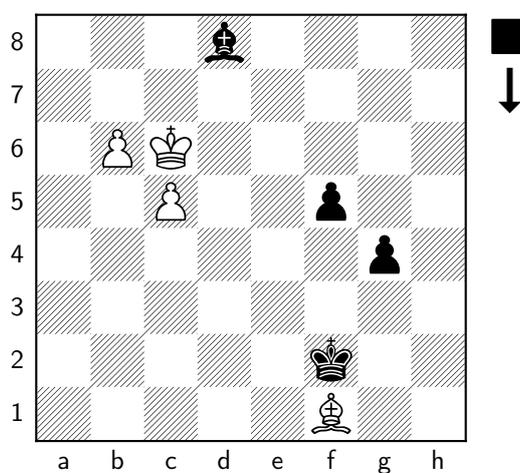
## 25. Other drawing techniques

## 25.1. Impossible draw: Sanal – van Foreest, 2017

### Puzzle 75

SANAL, VAHAP – VAN FOREEST, JORDEN  
European Championship, Hersonissos: 2017

3b4/8/1PK5/2P2p2/6p1/8/5k2/5B2 b - - 0 81



*Black top play and draw.*

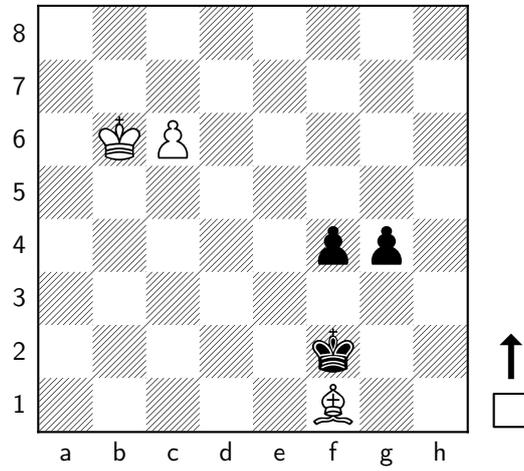
81                    ...                    ♖f6!

Only this move draws. Black needs to transfer the Bishop to b8-h2 diagonal without hindering the advance of the pawns to meet the variation 82. b7 ♗e5 83. ♔d7.

82.                    ♔b5

The game continued 82. ♔d5 ♗d8 83. ♔c6 ♗f6 drawing by repeating the position. 82. b7 ♗e5 83. ♔d7 (83. ♗d3? g3 +-.) 83... ♔xf1 84. c6 g3 draws.

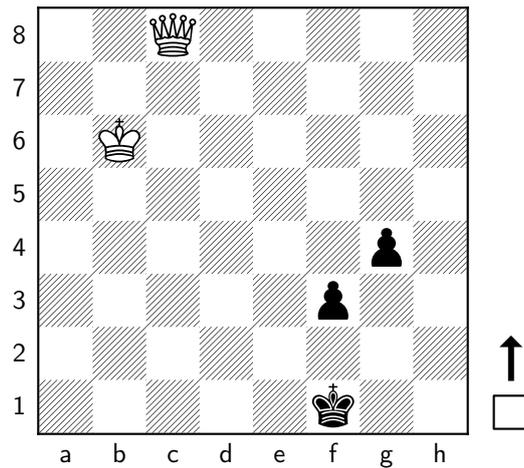
82. ... ♖d4  
 83. c6 ♗x6  
 84. ♙x6 f4



85. c7

5. ♗c4 g3 6. ♗d5 f3 7. c7 g2 =.

85. ... ♙x6  
 86. c8 ♖ f3



Now, 87. ♔xg4 f2 draws with Bishop pawn on the seventh rank against Queen. Otherwise, Black plays ...g3 and draws.

## 26. Incredible moves

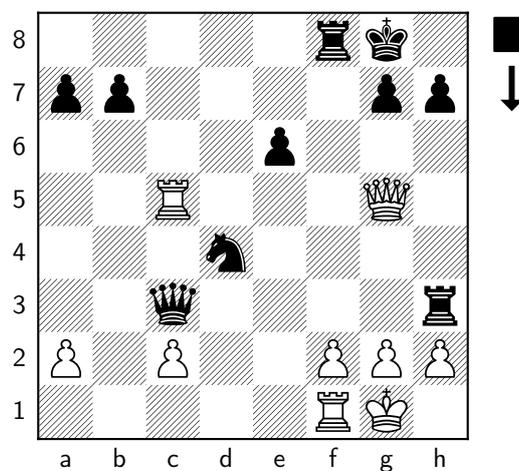
These puzzles are distinguished by some unbelievable, unintuitive moves in the solution.

## 26.1. What a move!: Levitsky – Marshall, 1912

### Puzzle 62

STEFAN LEVITSKY – FRANK MARSHALL  
18<sup>th</sup> DSB conference: 1912

5rk1/pp4pp/4p3/2R3Q1/3n4/2q4r/P1P2PPP/5RK1 b - - 1 23



*Black is a piece up and should win this game in any case, but Marshall found a beautiful move here. Which one?*

This move by FRANK MARSHALL (See §26 on Page 673) is considered to be one of the most beautiful chess moves ever played.

23                    ...                    ♔g3!!

White resigns. Black is threatening checkmate by 24... ♕xh2+. The Queen can be taken in three ways, each leading to White's defeat.

- A) 24. h×g3 ♖e2#.
- B) 24. f×g3 ♖e2+ 25. ♔h1 ♗×f1#.

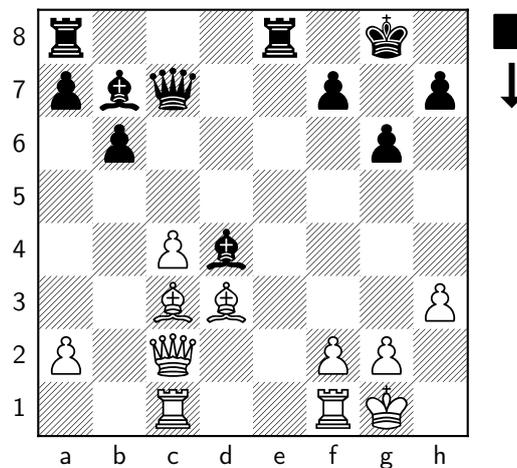
C) 24. ♖xg3 ♗xe2+ 25. ♘h1 ♗xg3+ 26. ♙g1 (26. f×g3 ♚xf1#) 26... ♗e2+ 27. ♘h1 ♚c3 wins. Here, Black wins by the piece he already won, and not with the combination.

## 26.2. Bolt in the blue: Ruthvik – Umesh, 2016

### Puzzle 10

RUTHVIK SINGIREDDY – UMESH NAIR  
*Best of West 2016*, Santa Clara: 2016

r3r1k1/pbq2p1p/1p4p1/8/2Pb4/2BB3P/P1Q2PP1/2R2RK1 b - - 2 20



*In this even-looking position, Black has two ways to win. Can you find at least one?*

20                      ...                      ♔g3!!

In the game, Black played the less forcing but still winning 20... ♔c6! 21. ♘e4 ♔xe4  
 22. ♔xe4 ♖xe4 23. ♘xd4 ♖xd4 and won after 25 more moves.

21.                      ♘e4                      ♘xe4  
 22.                      ♔xe4                      ♘xf2+  
 23.                      ♖xf2                      ♖xe4

And Black wins.

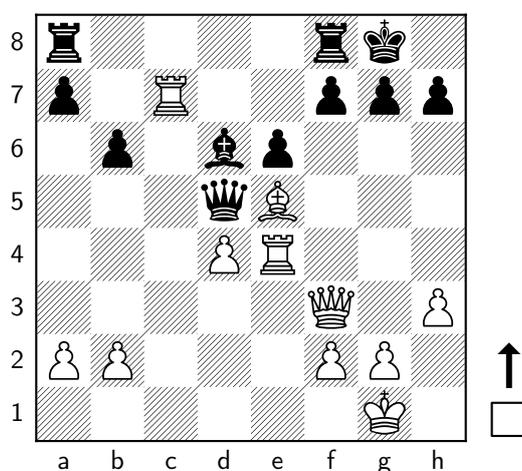
### 26.3. Brave queen!: Nimzowitsch – Nielsen, 1930

#### Puzzle 85

ARON NIMZOWITSCH – BJORN NIELSEN

Simul, Copenhagen: 1930

r4rk1/p1R2ppp/1p1bp3/3qB3/3PR3/5Q1P/PP3PP1/6K1 w - - 3 21



*White has a forced win in this position. Can you find it?*

ARON NIMZOWITSCH (See §30 on Page 674), one of the founders of the modern chess system, played this combination in a simultaneous chess exhibition on 30 boards.

**21.** ♖d7!

21. ♖xg7 is tempting, but after 21... ♗xc7 22. ♗f6 (22. ♖g4 h5!-+) 22... ♖d8 23. ♖g4+ ♗f8 24. ♖g7+ ♗e8 25. ♖g8+ ♗d7 26. ♖xf7+ ♗c6 27. ♗xd8 (27. ♖xe6+ ♖d6-+) 27... ♖d8, White's checks are over and Black has material advantage.

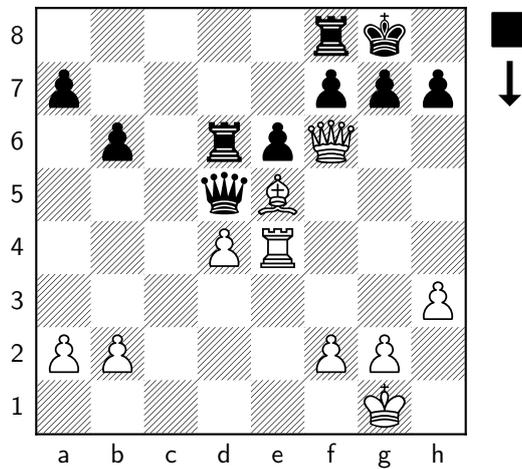
**21** ... ♖ad8

After 21...f6, 22. ♖g4, with the threat 23. ♖g×g7+ ♔h8 24. ♖×h7+ ♔g8 25. ♖dg7# is immediately winning. For example, 22...g6 23. ♖×g6+! h×g6 24. ♖d3! (Not 24. ♖g3? ♖e4!±) 24...f5 25. ♖g3! ♖f6 26. ♖h4 and checkmates.

22. ♖×d6!

22. ♖f6? is premature due to 22...♔×e5! ++.

22 ... ♖×d6  
23. ♖f6!!



Black resigns. After 23...g×f6, 24. ♖g4+ ♔h8 25. ♔×f6#. To avoid checkmate, Black will have to give up his Queen by 25...♖×e5.

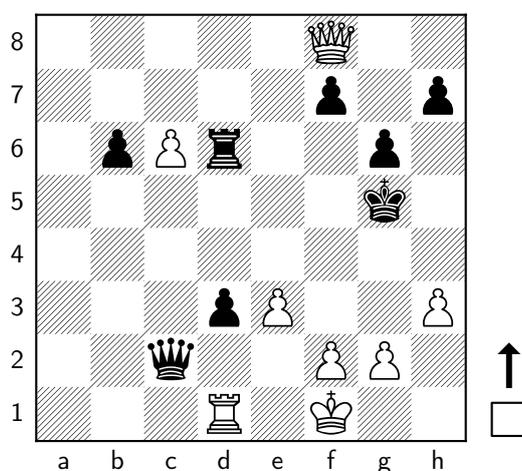
26.4. Fleeing to win: Khismatullin – Eljanov, 2015

Puzzle 94

DENIS KHISMATULLIN – PAVEL ELJANOV

Jerusalem ISR: 2015

5Q2/5p1p/1pPr2p1/6k1/8/3pP2P/2q2PP1/3R1K2 w - - 4 44

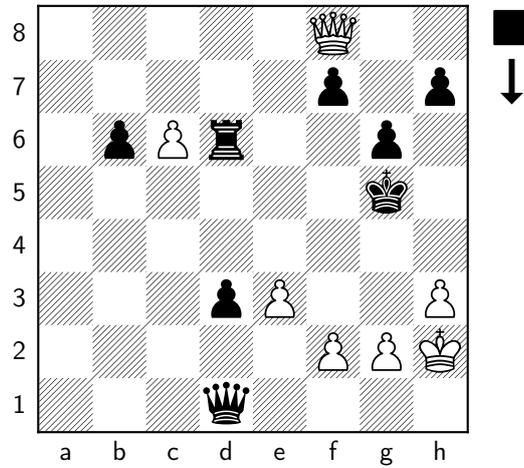


*With ... ♙×d1 ♯ threatened and the presence of a menacing d-pawn makes White's position appear too hopeless. How can White win from this position?*

44. ♔g1!!

An unexpected move, saving the King by giving up a whole Rook!

44 ... ♙×d1+  
45. ♔h2

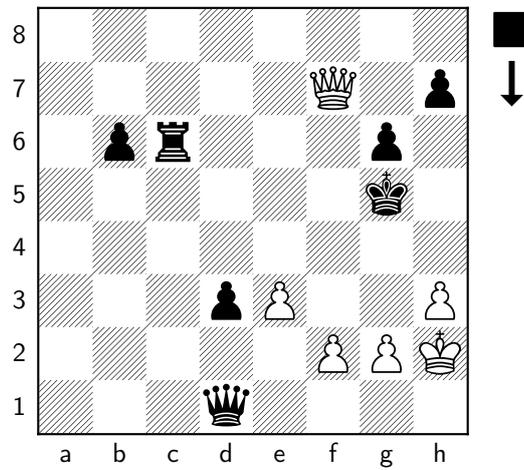


Unbelievable! Black is lost here. Since both ♔×d6 and c7 are threatened, Black's reply is forced.

45                   ...                   ♖×c6  
 46.                   ♔e7+

In the actual game, White was gaining time. 46. ♔×f7 wins, as happened in move 48.

46                   ...                   ♔h6  
 47.                   ♔f8+                   ♔g5  
 48.                   ♔×f7



White is threatening both 49. ♔f4# as well as 49. f4+ ♕h6 50. ♔f8+. Black gives up the Rook to avoid checkmate.

48	...	♖f6
49.	f4+	♕h6
50.	♔xf6	

Now Black is lost.

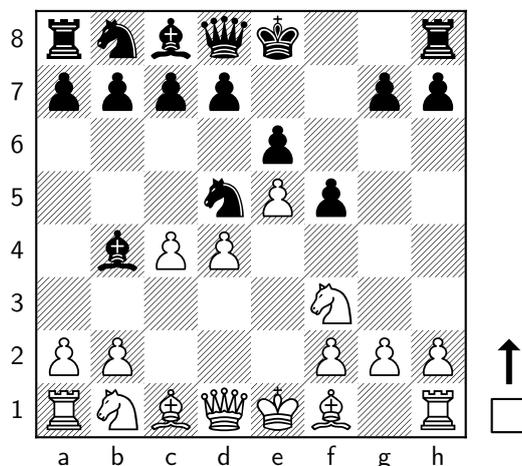
50	...	♔e2
51.	♔f8+	♕h5
52.	♔g7	h6
53.	♔e5+	♕h4
54.	♔f6+	♕h5
55.	f5	gxf5
56.	♔xf5+	♕h4
57.	♔g6	

Black resigns.

## 26.5. The last way to handle a check: Umesh – Phil, 1997

Puzzle 13  
 UMESH NAIR – PHIL B.  
 Chicago: 1997

rnbqk2r/pppp2pp/4p3/3nPP2/1bPP4/5N2/PP3PPP/RNBQKB1R w - - 0 6



*This position occurred after 1. e4 ♘f6 2. e5 ♗d5 3. d4 e6 4. ♗f3 f5 5. c4. Black wanted to move the Knight to e7 but that would block his Bishop. So, he played 5...♙b4+, so that after exchanging on c3 or d2, the Knight can go to e7. Was this decision good? What is White's best move after 5...♙b4+?*

**6. ♔e2!!**

Now, Black loses a piece.

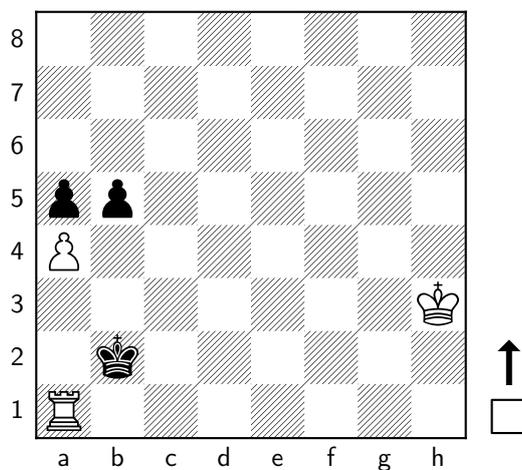
- A) 6...♗e7 7. a3 ♙a5 8. b4 ♙b6 9. c5 wins the Bishop.  
 B) 6...♗b6 7. c5! ♗d5 8. a3 ♙a5 9. b4 wins the Bishop. An attempt to win back two pawns by 9...♗×b4 10. a×b4 ♙×b4 or 9...♙×b4 10. a×b4 ♗×b4 will fail to 11. ♙g5, losing the Queen.

White wins a piece and the game.

## 26.6. Die for a tempo: Grinfed (Study), 1903

Puzzle 153  
GRINFED (Study)  
1903

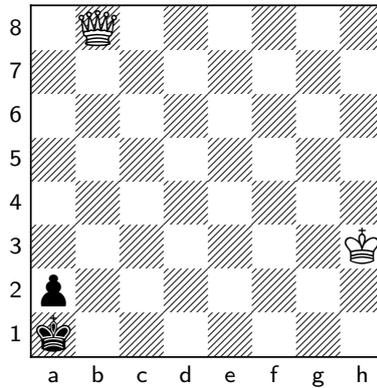
8/8/8/pp6/P7/7K/1k6/R7 w - - 0 1



*Looks like an easy win for White, but it is not that easy. Black has too many drawing resources. How can White win from this position?*

The first idea is to save the rook and try to win against the rook pawns: 1. ♖g1 b×a4 and White doesn't have anything better than a draw.

Next idea is to give up the Rook and queen the pawn, and then play a ♔+♚ vs ♔+♙ ending. Since the Black pawn is a rook pawn, let us consider some crucial positions:



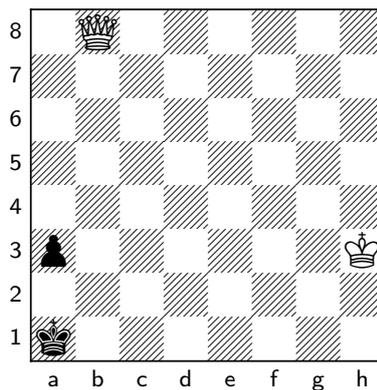
**First crucial position**

Black draws if he can reach this position. With Black to move, it is a stalemate. With the move, White has to move the Queen away from the b-file, and wherever it goes, Black continues with  $1 \dots \text{♞b2}$  or  $1 \dots \text{♞b1}$ , threatening  $2 \dots \text{a1♞}$ . When checked, the Black King will move between b2 and b1, and when both are not possible, move to a1.

When the B♘ is on a2, the only way White can checkmate without bringing his King over is by moving his Queen to c1 when the Black King is on a1, but this is not possible: To deliver checkmate on c1, White will have to give a check to the B♞ standing on b1 or b2 on the previous move, forcing it to a1, and then move to c1 from that square. There is no square that satisfies this.

So, if the first crucial position is reached, Black draws.

Now, let us consider another crucial position.



**Second crucial position**

With move, Black plays 1...a2, reaching the first crucial position, thereby drawing. With move, White can win by continuously checking and creating threats of winning the pawn or checkmating. This is true wherever the Queen is.

For example, from this position, White wins by (This is only one of many ways to win)  
 1. ♖f4, preventing 1...a2 because of 2. ♕c1#. If Black plays 1...♙b2 or 1...♙b1, White wins by 2. ♖b4+ ♔a2 3. ♙g3, and wins the pawn on the next move.

Now, let us come back to the original problem.

The following continuations fail to win by just one tempo.

1. 1. a×b5 ♙×a1 2. b6 a4 3. b7 a3 4. b8♖ a2 and we reached the first crucial position, drawing. We can count four moves for the a4-pawn to reach b8, and Black needs one move to capture the Rook on a1 and three moves for the pawn to reach a2. So, Black draws just in time.
2. 1. ♜b1+ forces the B♙ to be exposed to W♖'s check but allows the B♘ to move without any hinderance: 1...♙×b1 2. a×b5 a4 3. b6 a3 4. b7 a2 5. b8♖+ ♙a1 reached the first crucial position, drawing. Here, White needs one move for the initial check and four moves to queen the pawn, while Black needs one move to capture the Rook, one move to answer the check and three moves for the pawn to reach a2. Here also, Black draws just in time.
3. 1. ♜a2+ ♙×a2 2. a×b5 a4 3. b6 a3 4. b7 ♙a1 5. b8♖ a2 reaches the first crucial position, drawing. Here also, both White and Black takes five moves to reach the first crucial position.

We need a line where when White pawn reaches b8, Black pawn reaches only a3, reaching the second crucial position. This one tempo can change the outcome. The only remaining possibility is...

1. ♜a3!! ♙×a3

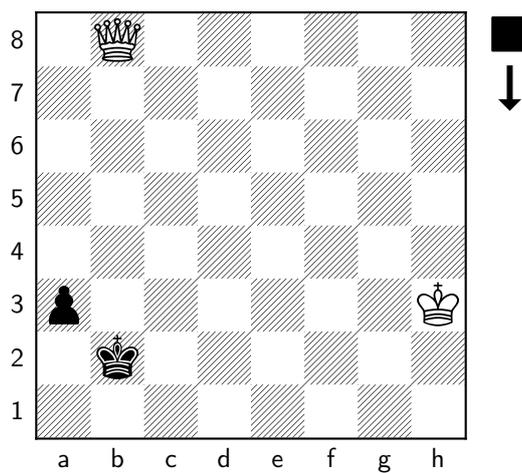
Now, White pawn on a4 can reach b8 in four moves, but Black needs two moves to move the King to a1 and three moves to move the pawn from a5 to a2, ending up one move short. If Black moves the King to b2 instead, the check the W♖ gives forces it to do another move.

Note that Black doesn't have any alternatives: Both 1...b×a4 2. ♜×a4 is hopeless, while 1...b4 2. ♜g3 intending 3. ♜g5 and 4. ♜×a5 wins for White: The rook can be sacrificed for the Black pawn and the White pawn will queen on a8.

2. a×b5 ♙b2

After 2... ♔a2 3. b6 a4 4. b7 a3 5. b8♚ ♔a1, we reached the second crucial position with White to move. White wins.

- |    |      |    |
|----|------|----|
| 3. | b6   | a4 |
| 4. | b7   | a3 |
| 5. | b8♚+ |    |



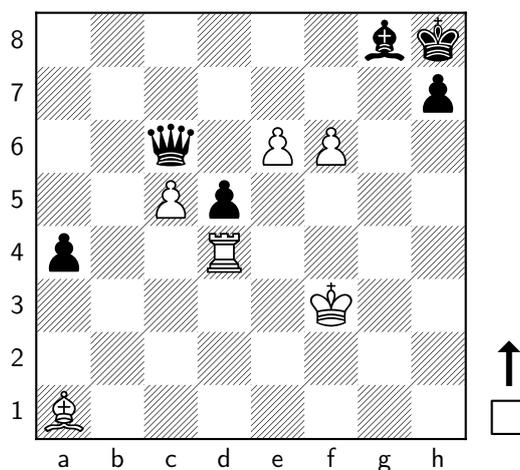
After 5... ♔a1, we reached the second crucial position with White's move. White wins.

## 26.7. Escaping checks: Evreinov (Study), 1959

### Puzzle 193

VIKTOR EVREINOV (Study)  
1959

6bk/7p/2q1PP2/2Pp4/p2R4/5K2/8/B7 w - - 0 1



*White to play and win.*

The ♕-♖-♔ battery is powerful, and White needs to move the ♖ and the ♔ on f6 to deliver a deadly check. But the position is not that simple: Black has some defense in most of the continuations, and even wins in many of them.

- A) 1. f7 ♕×f7 2. ♖g4+ d4+ 3. ♖f2 ♕g6 4. ♖×d4 ♖g8 5. ♖d8+ ♕e8 --+.
- B) 1. f7 ♕×f7 2. e×f7 ♖g7 3. ♖f4+ d4 4. ♖f2 (4. ♖g3 ♖f8 5. ♕×d4 ♗g6+=) 4...♖f8 5. ♕×d4 ♗g6 6. c6 ♗c2+ 7. ♖g3 ♗g6+ 8. ♖f2 (8. ♖f3 ♗×c6+ --+; 8. ♖g4 ♗×c6 --+) 8...♗c2+ =.
- C) 1. ♖g4 d4+ 2. ♖g3 (2. ♖f2 ♗×e6 --+) 2...♗c7+ 3. ♖g2 ♗b7+ 4. ♖f2 ♕×e6 --+.
- D) 1. ♖f4 ♕×e6 2. f7 d4+ 3. ♖g3 ♕×f7 --+.

The only move to win is...

1. ♖e4!!

An incredible key! White not only sacrifices the rook, but exposes his King to a check as well. The Rook blocks the a8-h1 diagonal and now White threatens checkmate by 2. f7+ as 2...d4 is not a check.

1 ... dxe4+

1... ♖xc5 2. f7+ d4 3. ♔xd4+ ♗xd4 4. f×g8 ♖+ ♔×g8 5. ♖xd4 +-.

2. ♔g2!

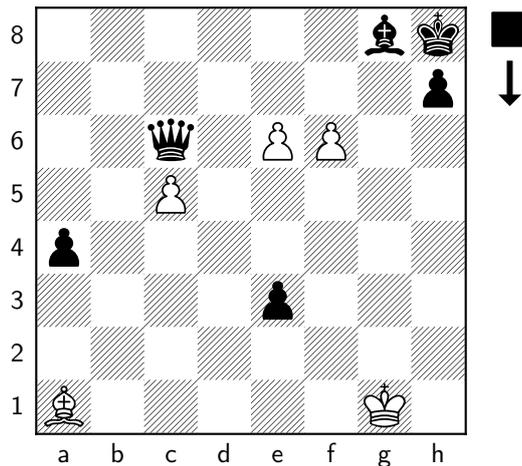
2. ♔f4 ♗c7+, 2. ♔f2 ♖xc5+ or 2. ♔e2 ♗b5, and Black wins in all.

2 ... e3+

2...h5 3. f7+ ♔h7 4. f8 ♖ e3+ 5. ♔g1 +-loses for Black, while 2...♔f7 3. exf7 e3+ 4. ♔g1 transposes to the main line.

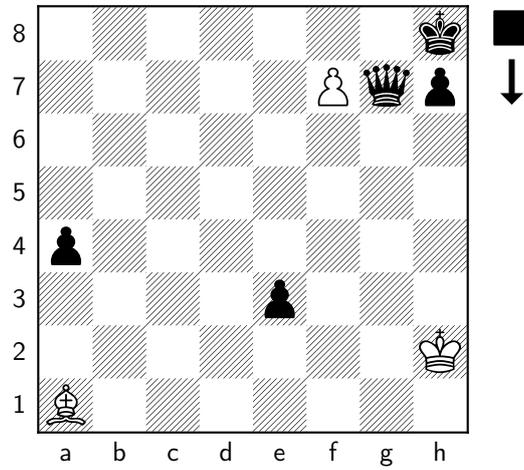
3. ♔g1!

Again the only move. Both 3. ♔g3? (Or 3. ♔h2?) 3... ♖c7+ 4. ♔g2 ♔f7 5. exf7 ♖×f7 +- , and 3. ♔f1? ♖f3+ +- wins for Black.





Even here, it is the only move. Both 7. ♔xg7+? ♚xg7 8. f8♚+ ♚xf8-- and 7. ♚h1 (Or 7. ♚f1) 7...♚xa1+-- wins for Black.



There is no defense to the threatened 8. f8♚+, followed by checkmate.

An unbelievable key, and an incredible continuation, where there is only a single series of moves that wins!

## **27. Winning by strong defense**

Sometimes, when your opponent has sacrificed a lot to have a mating attack, an adequate defense will give you a winning advantage. This chapter deals with such hard-to-find defenses.

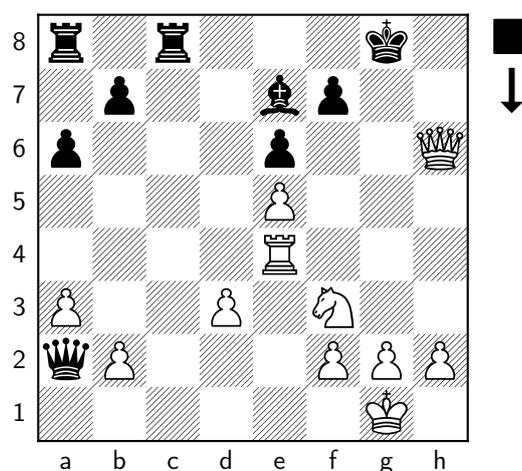
## 27.1. Blitz magic: Geller – Gufeld, 1961

### Puzzle 29

EFFIM GELLER – EDWARD GUFELD

Moscow, Blitz: 1961

r1r3k1/1p2bp2/p3p2Q/4P3/4R3/P2P1N2/qP3PPP/6K1 b - - 0 1



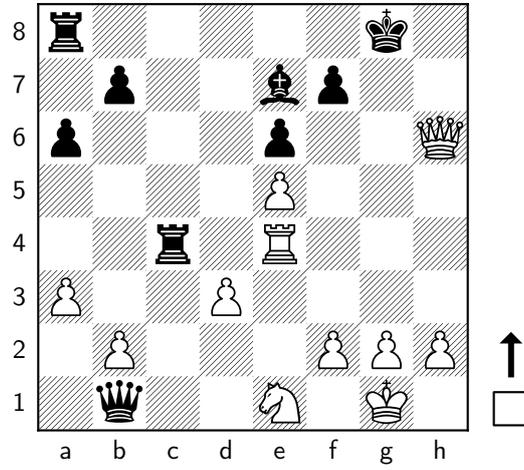
*Black's pieces are too far from the King-side and White's threat of 2. ♖g4+, checkmating, looks very strong. How can Black escape from this mess and actually win the game?*

This position occurred in a blitz game. Despite having very little time to ponder, Russian Grandmaster EDUARD GUFELD (See §14 on Page 671) found the right continuation and beat an equally good EFFIM GELLER (See §12 on Page 670).

1. ... ♔b1+  
2. ♖e1 ♕xd3

2. ♖e1 ♕xd3 and the mate threat is gone and Black in ahead in material.

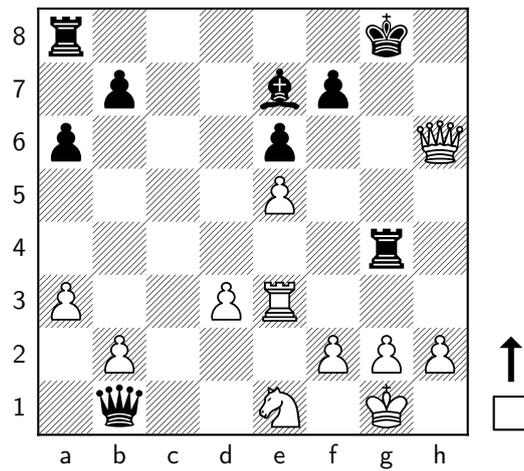
2 ... ♖c4!



3. ♖e3

Both 3. ♖xc4 ♕xe1# and 3. dxc4 ♕xe4 are bad for White.

3 ... ♖g4!



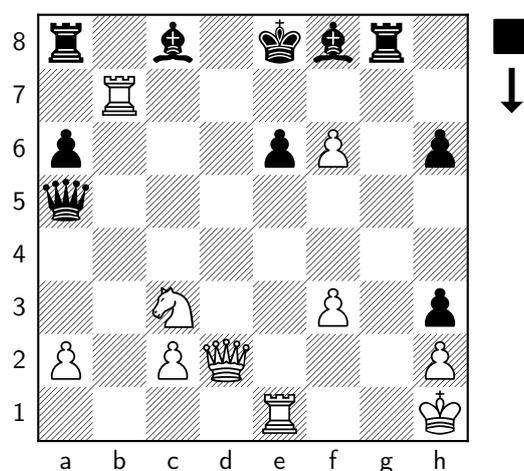
The mate threat is avoided, and Black wins with his extra material.

## 27.2. Vacate and decay: Pichot – Cheparinov, 2018

### Puzzle 49

PICHOT, ALAN – CHEPARINOV, IVAN  
Gibraltar Masters: 2018

r1b1kbr1/1R6/p3pP1p/q7/8/2N2P1p/P1PQ3P/4R2K b - - 0 21



*Black to play and win.*

Black is a piece up, and if he can maintain that without running into trouble, he can win. But White has a dangerous attack.

White threatens 22. f7#. Black cannot play 21... ♖×b7? due to 22. ♜×e6+ ♔f7 23. ♞d7+ ♔g6 24. f7+ +-.

21 ... ♜g1!

This sacrifice has two purposes. One, this facilitates a later ... ♖×b7, thus ending up a piece up. Two, by vacating the g8 square, Black prevents the 25. f×g8♞ in the variation given above.

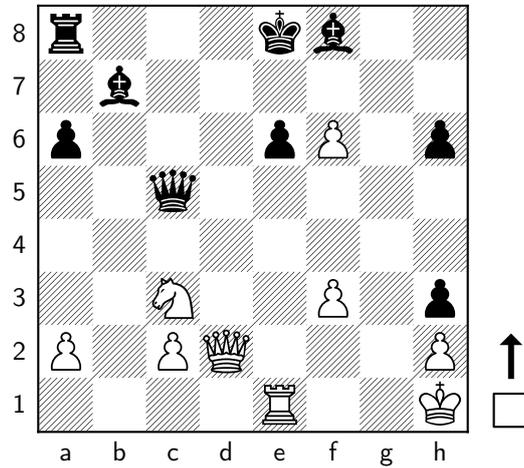
22. ♖×g1 ♔×g1

22. ♖×g1 ♔×b7, and White's attack is stopped and Black emerges a piece up. -+.

22 ... ♖c5+!

Not 22... ♔×b7? 23. ♖×e6+ ♖f7 24. ♖d7+ ♖g8 25. f7+ ♖g7 26. ♖d4+ ♖h7 27. ♖d3+ =.

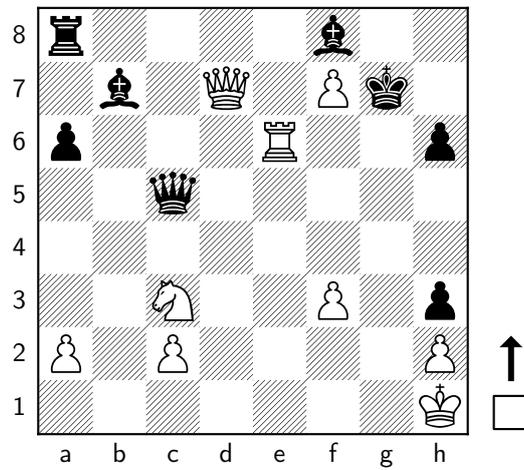
23. ♖h1 ♔×b7



The Black Queen controlling d4 and the absence of the rook on g8 makes all the difference when compared to the variation with 21... ♔×b7.

24. ♖×e6+ ♖f7  
 25. ♖d7+ ♖g8  
 26. f7+ ♖g7!

Not 26... ♖h8? 27. ♖×b7 ♖f2 28. ♖g6!



Black is a piece up, White's attack will come to an end, and Black is threatening mate by 27...♙xf3+.

27. ♔d3 ♙g5!  
 28. ♙d4+ ♔g5!

Immediately loses, but even after 27. ♙f1 (27. ♙e2 ♙c5 --+.) 27...♙f5 (27...♙c5 28. ♘e4) 28. ♚e3 ♙c5 29. ♘d1 ♙xe3 (29...♙d8! --+ also is very strong.) 30. ♘xe3 ♙xf3+ 31. ♙g1 ♙g6+ 32. ♙f2 ♙xf7 --+.

28 ... ♙xf7

White resigns.

## 28. Endgame theory

Puzzles that are part of the current endgame theory.

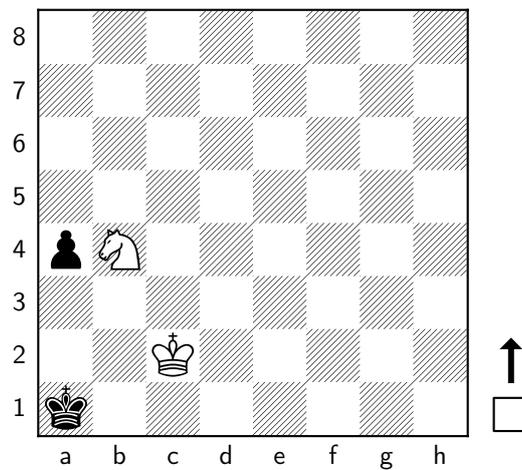
28.1. Desc: Carvajal (Study), 1889

Puzzle 118

CARVAJAL, V. (Study)

1889

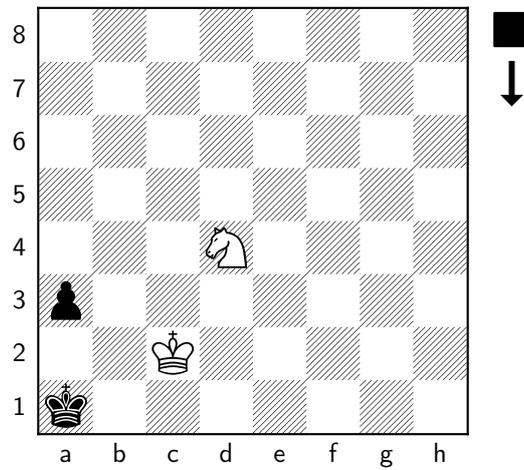
8/8/8/8/pN6/8/2K5/k7 w - - 0 1



*White to play and win.*

This has become a part of Knight vs Pawn endgame theory.

- |    |      |     |
|----|------|-----|
| 1. | ♔c1  | a3  |
| 2. | ♞c2+ | ♔a2 |
| 3. | ♞d4  | ♔a1 |
| 4. | ♔c2  |     |



Note that this position is the same as the position after White's fourth move in Puzzle 29.3.

4 ... ♔a2

4...a2 5. ♘b3#

5. ♘e2 ♔a1  
 6. ♘c1 a2  
 7. ♘b3#

## **29. Sacrifice in endgame**

Endgames are for realizing the material advantages you have, but in some cases, it is possible to do big sacrifices in the endgame. Some examples.

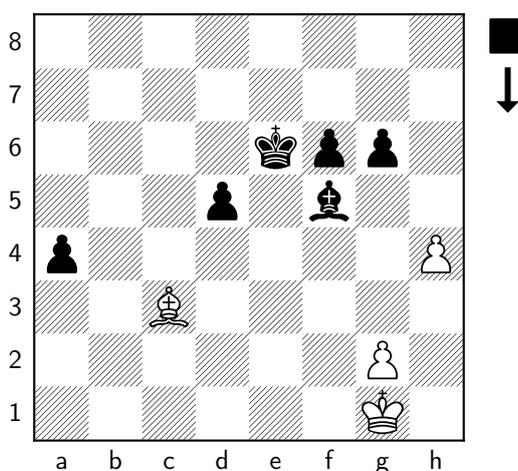
## 29.1. Move away, Mr. Bishop!: Topalov – Shirov, 1998

Puzzle 100

TOPALOV, V. – SHIROV, A.

Linares: 1998

8/8/4kpp1/3p1b2/p6P/2B5/6P1/6K1 b - - 2 47



*Black to play and win.*

Black is two pawns up, but the presence of opposite colored Bishops make this ending very hard to win. For example, 1... ♖g4 2. ♖f2 ♖f5 3. ♖e3, it is not possible for Black to make any progress. Or, 1... ♜b1 2. ♖f2 ♜f5 3. ♖e3 ♜d6 4. ♖d4 and White controls the center so well that Black cannot take advantage of his material advantage.

The winning move is very spectacular.

47

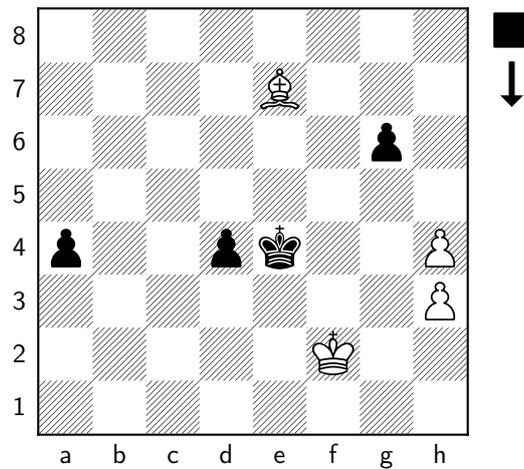
...

♜h3!!

Black vacates the f5-square for the King, without giving White the time to play 48. ♖f2. For example, 48. ♖f2 ♖f5 49. ♖f3 (49. ♖e3 ♜xg2 gains one more pawn, and

the f-pawn will be a third passed pawn.) 49... ♖xg2+ 50. ♔xg2 ♕e4 and wins as in the game.

48. g×h3 ♔f5!  
 49. ♔f2 ♔e4!  
 50. ♖xg2 ♔d4!  
 51. ♖e7



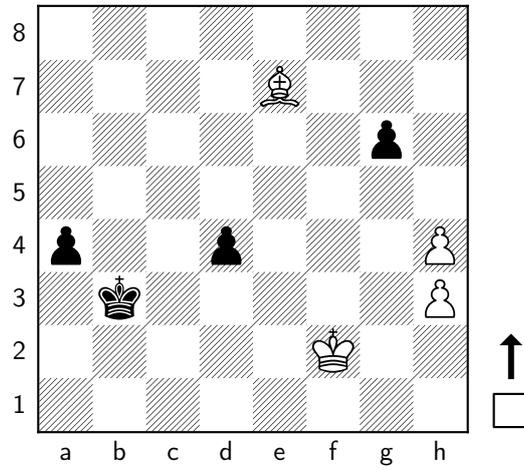
- 51 ... ♔d3!

Threatening 52... ♕c2 followed by marching the d-pawn down. The Bishop cannot prevent both the pawns.

52. ♖c5 ♔c4  
 53. ♖e7

So that 53... d3? can be met with 54. ♔e1 ♔c3 55. ♔d1, drawing.

- 53 ... ♔b3!



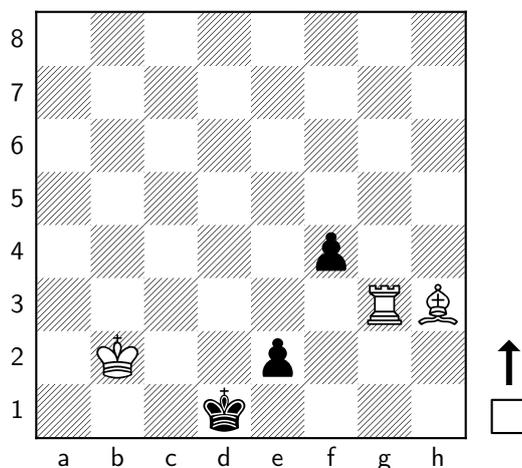
White resigns. Black threatens 54... ♔c2, and 55. ♙c5 is met with 55... d3 56. ♔e1 (56. ♔e3 ♔c2 57. ♙b4 a3 58. ♙xa3 d2 **++**.) 56... ♔c2 57. ♙b4 a3 58. ♙xa3 d2+ **++**.

## 29.2. Stop that pawn!: Réti and Cheron (Study),

### Puzzle 183

RICHARD RÉTI, CORRECTED BY ANDRÉ CHÉRON (Study)

8/8/8/8/5p2/6RB/1K2p3/3k4 w - - 0 1

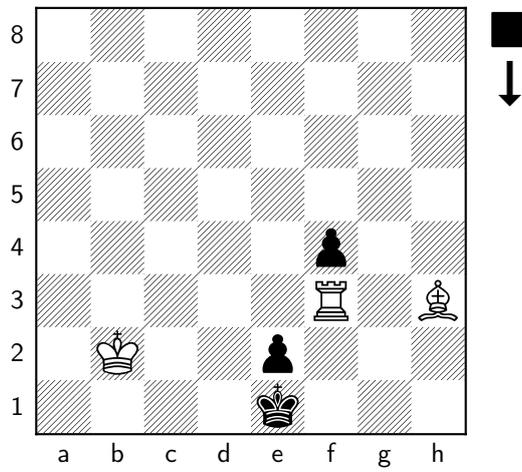


*The Black pawns are too advanced and it is hard to realize the advantage. Even after the Bishop sacrifices itself for a pawn, the pawn on the sixth rank with King support generally draw against rook. How can White win this position?*

RICHARD RÉTI (See §35 on Page 675) is one of the greatest chess players who never became a World champion. He was an excellent problem composer as well.

Réti composed a variation of this puzzle with the Rook on a3 instead of g3 (See later in this section), intending the solution outlined below, but ANDRÉ CHÉRON, a famous composer and an expert in finding errors in composed problems, found a cook for that, and corrected it to this one with a unique solution.

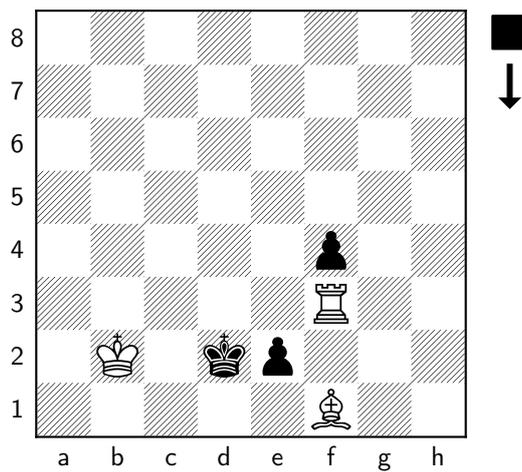
1. ♖d3+ ♔e1
2. ♖f3!



2 ... ♔d2

2... ♔d1 3. ♘g4+-.

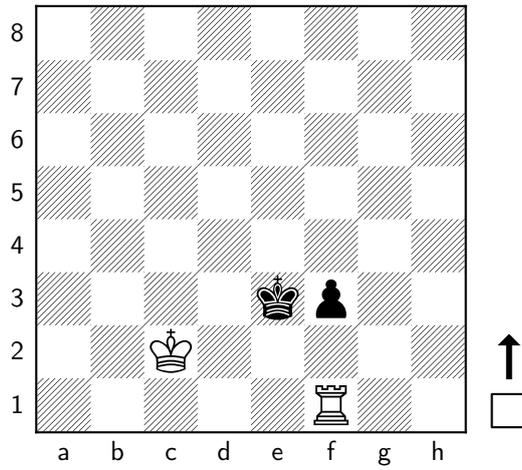
3. ♘f1



3 ... exf1 ♖

3...e1 ♖ 4. ♜d3 ♚.

4. ♜xf1 ♖e3  
5. ♖c2 ♜f3



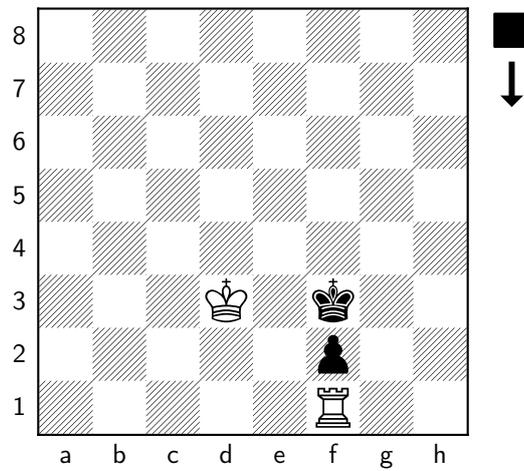
6. ♜e1+

6. ♖d1 f2=

6 ... ♖f4

6...♖f2 7. ♖d2 ♖g2 8. ♖e3 f2 9. ♜e2+-.

7. ♖d2 f2  
8. ♜f1 ♖f3  
9. ♖d3



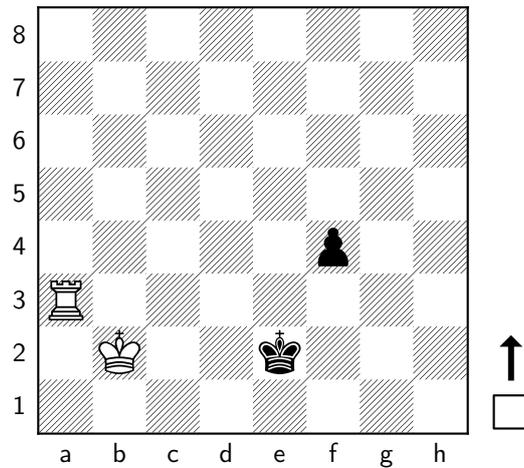
Black is in zugzwang. After any move, White wins by 10. ♔e2.

Puzzle 183  
ORIGINAL PROBLEM BY RICHARD RÉTI (Study)

8/8/8/8/5p2/R6B/1K2p3/3k4 w - - 0 1

In addition to 1. ♖d3+ given above, CHÉRON found another solution if the Rook were on a3 instead of g3. Can you find that?

1. ♖g4! ♔d2  
 2. ♖xe2 ♔xe2



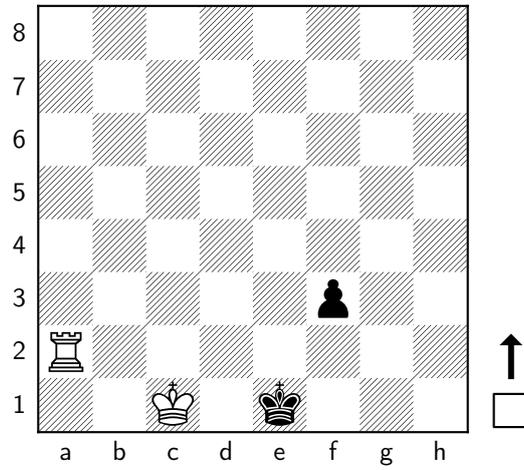
3. ♔c1

3. ♖a8? f3! 4. ♔c2 f2 5. ♖e8+ ♔f3! (5... ♔f1? 6. ♔d2 ♔g2 7. ♖g8+ ♔f1 8. ♖f8 ♔g2 9. ♔e2+-.) 6. ♖f8+ ♔e2 draws.

3. ♖a2 f3 4. ♔c1+, transposing to the mail line, also draws.

- 3 ... f3  
 4. ♖a2+ ♔e1

4... ♔e3 5. ♔d1 f2 6. ♖a3+ ♔f4 7. ♔e2+-.



Now it becomes a standard Rook against pawn ending, and is won by attacking the pawn from behind with the Rook and moving the King closer.

- |    |               |              |
|----|---------------|--------------|
| 5. | $\text{R}a8$  | $f2$         |
| 6. | $\text{R}e8+$ | $\text{K}f1$ |
| 7. | $\text{K}d2$  | $\text{K}g2$ |
| 8. | $\text{R}g8+$ | $\text{K}f1$ |

8...  $\text{K}h2$  9.  $\text{K}e2+-$ .

- |     |                |              |
|-----|----------------|--------------|
| 9.  | $\text{R}f8$   | $\text{K}g2$ |
| 10. | $\text{K}e2+-$ |              |

### 29.3. The deadly way to stop a pawn: Solovstov (Study), 1890

Puzzle 135  
SOLOVSTOV, V. (Study)  
1890

8/8/2B5/1N6/p7/8/1k6/3K4 w - - 0 1

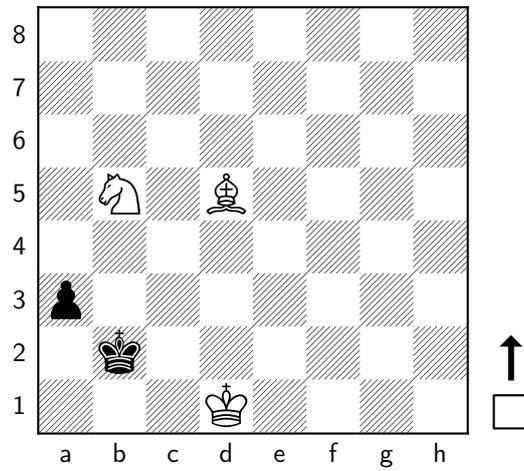
*White to play and win.*

This puzzle, composed a few months after, is inspired by Puzzle 28.1. The winning technique is the same.

♔+♘+♞ wins against a lone ♔, but ♔+♘ or ♔+♞ won't. What happens when a ♘ and ♞ are paired against a far advanced pawn?

**1. ♘d5! a3**

1...♔b1 2. ♞c3+ and 1...♔a1 2. ♔c2 a3 3. ♞d4 a2 4. ♞b3# are no better.

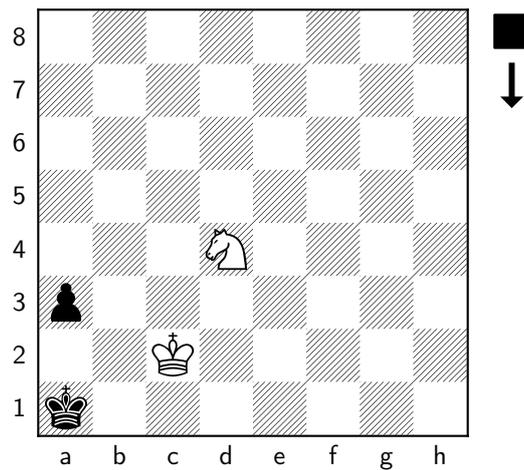


Black threatens  $2 \dots a2$ , winning a piece for the pawn. How can White prevent that?

2.                      ♖a2!!                      ♔xa2

$2 \dots \text{♔a1}$  3. ♔c1 ♔xa2 4. ♔c2 leads to the same position.

3.                      ♔c2                      ♔a1  
4.                      ♖d4



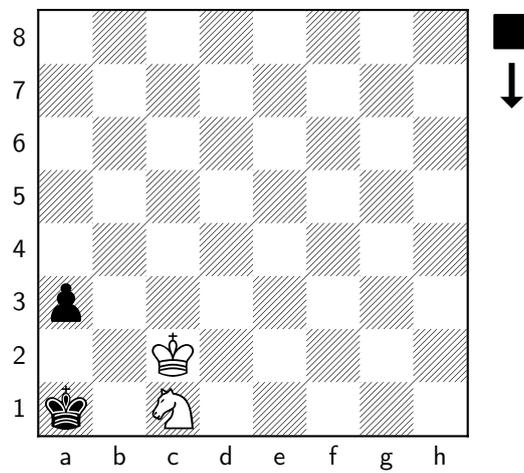
Note that this position is the same as the position after White's fourth move in Puzzle 28.1.

4 ... ♔a2

4...a2 5. ♖b3#

5. ♖e2 ♔a1

6. ♖c1



Now Black is forced to advance the pawn.

6 ... a2

7. ♖b3#

### **30. Several themes in one position**

This deals with some combinations where multiple themes play the major role.

### 30.1. Avoid stalemate: Horwitz and Kling (Study), 1858

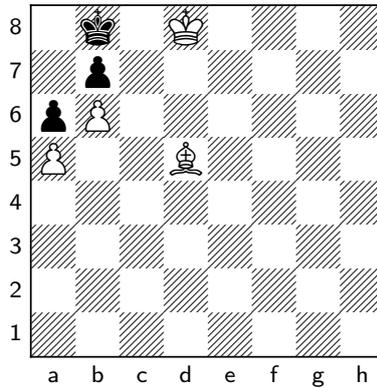
Puzzle 180  
BERNHARD HORWITZ AND JOSEF KLING (Study)  
1858

1k1K4/1p6/pP2B3/P4p2/6p1/8/8/8 w - - 0 1

*White to play and win.*

This is not an endgame study *per se*, but a position from the classic endgame book *Chess Studies* (first published in 1851) by BERNHARD HORWITZ (See §16 on Page 671) and JOSEF KLING (See §20 on Page 672).

Before analyzing the puzzle, let us check a few crucial positions:

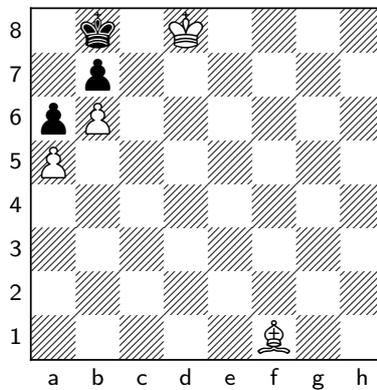


### First crucial position

This is a draw with either side to move.

With Black to move, he plays 1... ♔a8, and White cannot play 2. ♕c7 (threatening 3. ♘xb7#) due stalemate.

With White to move, and if he plays 1. ♔d7, the effect is the same as above. For this puzzle, d8 and d7 are equivalent squares for the White King, and moving from one to the other can be done to lose a move at any time.



### Second crucial position

This is a draw with either side to move.

With Black to move, he plays 1... ♔a8, and an attempt to win by 2. ♘xa6 bxa6 3. ♕c7 (threatening 4. b7#) also leads to stalemate.

White needs to arrive at one of these positions with Black having at least one extra pawn with a move. It should be blocked by the Bishop to force ... ♖a8 then the Bishop should be moved and the King should move to c7 to allow moves by the pawn. Looks like this is hard to do the two moves together.

Now, let us come back to the puzzle.

**1. ♔d7!**

After 1. ♕d5? f4, and Black manages to get rid of the pawns before forced to play ... ♖a8:

A) 2. ♕e6 g3 3. ♕d5 f3 4. ♕xf3 g2 5. ♕xg2=.

B) 2. ♕e4 f3 3. ♔d7 f2 4. ♕g2 g3 and now 5. ♖d8 f1♙ 6. ♕xf1 g2 and 5. ♕f1 g2 6. ♕xg2 f1♙ get rid of both the pawns.

1. ♖e8 and 1. ♖e7 also win, even though slower. If Black plays ... ♖c8, WB can check to push it to b8 and play ♔d7 to get back to the main line.

**1 ... g3**

Black needs to get rid of the f- and g-pawns before moving the King to a8. The immediate 1... ♖a8 will be followed by 2. ♖c7, 3. ♕d5 and 4. ♕xb7#. The pawns are not fast enough to counter this.

After 1... f4, White continues 2. ♕xg4 f3 3. ♕h3 f2 4. ♕f1, transposing to the 5<sup>th</sup> move of the main line with the White King on d7 instead of d8.

**2. ♕d5 f4**

2... g2 3. ♕xg2 f4 4. ♖d8 leads to the same position as the main line with The WK on d8 instead of d7.

Instead of moving a pawn, if Black moves the King, he will be checkmated quickly. 2... ♖a8 3. ♖c7 f4 4. ♕xb7#.

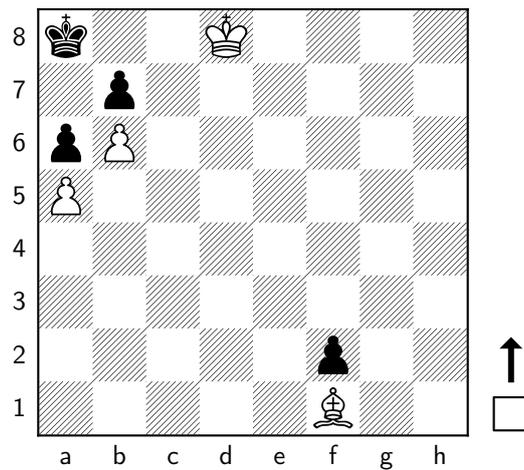
This is true for the subsequent moves also. Black cannot play ... ♖a8 until both the f- and g-pawns are captured.

**3. ♕f3 g2**  
**4. ♕xg2 f3**  
**5. ♕f1**

5. ♖h3 f2 6. ♖f1 also is fine, as it doesn't make any difference whether the WK is on d7 or d8.

5. ... f2  
6. ♖d8 ♖a8

Finally Black is forced to move the King.



7. ♜xa6! ♖b8

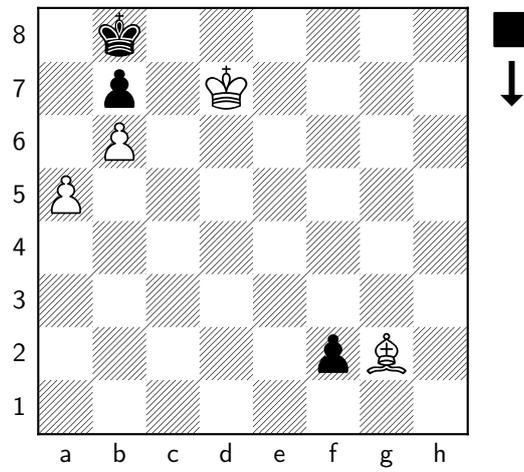
7... bxa6 8. ♖c7 f1♚ 9. b7+ ♖a7 10. b8♚♚.

Or 7... f1♚ 8. ♜xf1 ♖b8 9. ♖d7 ♖a8 10. a6, and now:

A) 10... bxa6 11. ♖c7 a5 12. ♜g2♚.

B) 10... ♖b8 11. a7+, transposing to the 13<sup>th</sup> move of the main line.

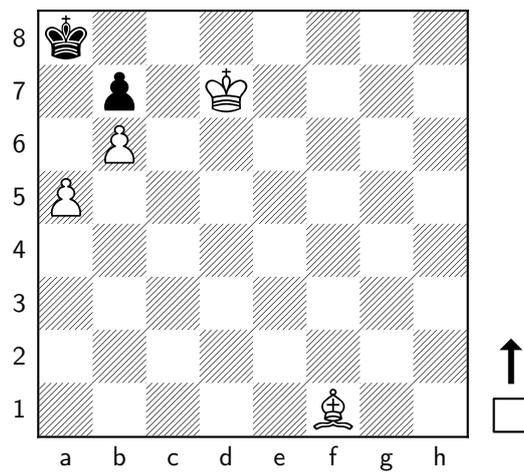
8. ♜f1 ♖a8  
9. ♜g2 ♖b8  
10. ♖d7



10                    ...                    f1♔

10... ♔a8 11. ♔c7 f1♔ 12. ♗xg2♯

11.                    ♗xg2                    ♔a8



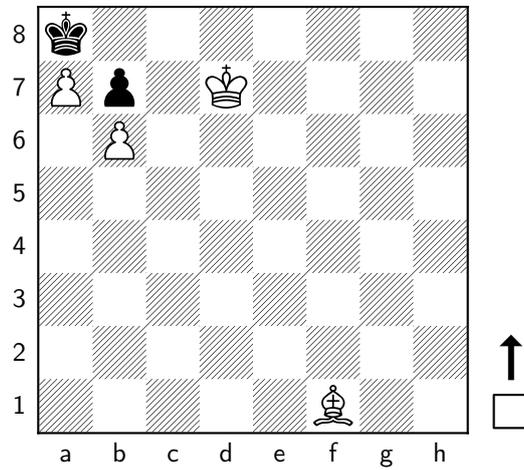
12.                    a6                    ♖b8

12...bxa6 13. ♔c7 a5 14. ♕g2#.

13.                    a7+

A waiting move like 13. ♕d3 also wins, as 13...bxa6 14. ♕xa6 ♖a8 15. b7+ ♖b8 16. ♖c6 wins.

13                    ...                    ♖a8



14.                    ♕a6!

This wins, and all other moves lead to stalemate.

14	...	bxa6
15.	♖c7	a5
16.	b7+	♖xa7
17.	b8♖+	♖a6
18.	♖b6#	

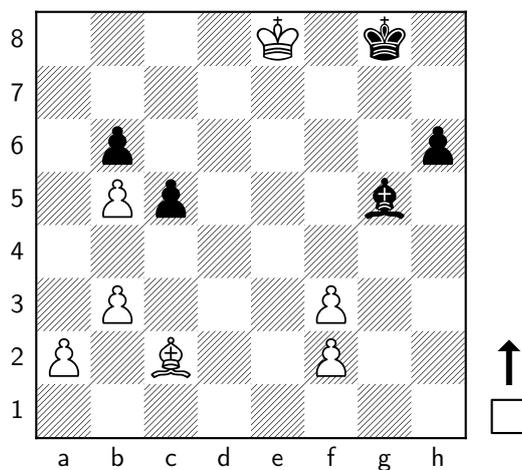
## 30.2. Half Bishop winning over dead Bishop: Salai (Study), 2011

Puzzle 175

LADISLAV SALAI JR. (Study)

Šachová skladba 2011

4K1k1/8/1p5p/1Pp3b1/8/1P3P2/P1B2P2/8 w - - 0 1



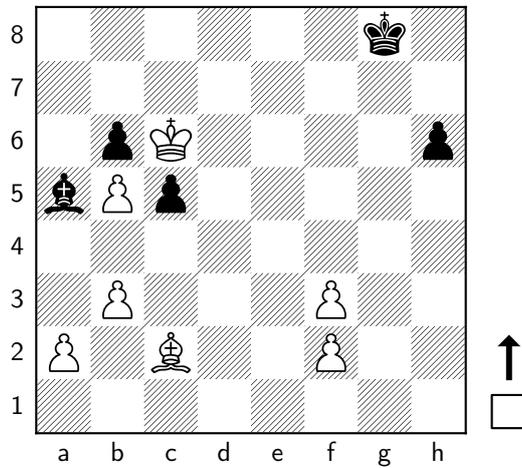
*White is two pawns up, but the opposite colored Bishop's ending makes it difficult for White to win this game. Black's passed h-pawn makes it more complicated. How can White win this game?*

This is a prize-winning study by LADISLAV SALAI, JR. (See §39 on Page 675).

### Almost (but incorrect) solution

The most obvious way to march the King to the queenside, grab the pawn on b6 and queen the b- or a-pawn. This creates some interesting possibilities.

- |    |     |     |
|----|-----|-----|
| 1. | ♔d7 | ♞d2 |
| 2. | ♔c6 | ♞a5 |



3.                    b4!

3. a3 ♔g7 4. b4 is not sufficient, as 4...cxb4 5. axb4 ♙xb4 6. ♔xb6 ♙f6 7. ♔c6 ♙e1 8. b6 ♙xf2 9. b7 ♙g3 draws.

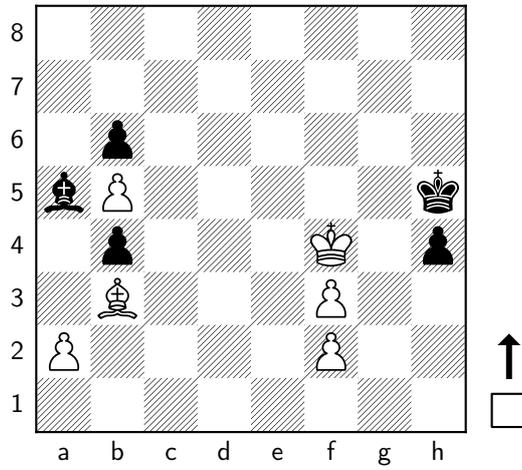
3                    ...                    ♔xb4  
4.                    ♙b3+

The idea behind the pawn sacrifice. The Black Bishop is hemmed in, and Black is immobile except for the King and the h-pawn. On the other hand, while not moving, the White Bishop on b3 plays an important part in the remainder of the game.

4                    ...                    ♔g7

An attempt to work on the other half by 4...♙f8 5. ♔d6 h5 6. ♙e5 ♙e7 7. ♙f6 ♙d6 also fail. See the corresponding discussion in the solution below.

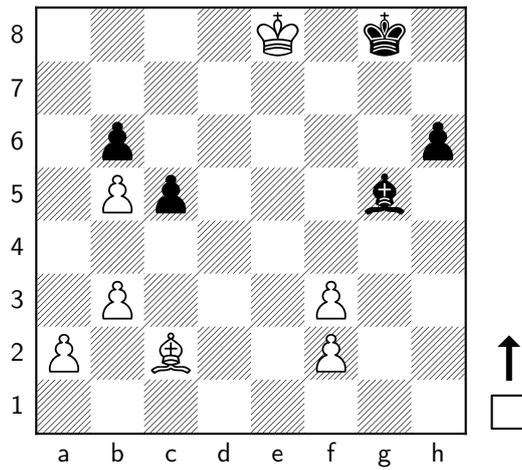
5.                    ♔d5                    ♙f6  
6.                    ♙e4                    h5  
7.                    ♙f4                    ♙g6  
8.                    ♙e5                    h4  
9.                    ♙f4                    ♙h5



White is in zugzwang. The King cannot move because the Black pawn will queen. White has nothing better than 10. ♖f7+ ♔h6 11. ♔g4 b3 12. ♗×b3 ♗e1=.

White cannot avoid this position in this line. Knowing that there will be a zugzwang here, the solution can be refined.

### The correct solution



1. f4!!

To avoid the zugzwang on the 10<sup>th</sup> move.

1	...	♙xf4
2.	♖d7	♙d2

2...h5 3. ♖c6 h4 4. ♖xb6 h3 5. a4 h2 6. ♙e4 +-.

3.	♖c6	♙a5
4.	b4!	cxb4
5.	♙b3+	♖g7

An attempt to work on the other half also still fail: 5...♖f8 6. ♖d6 h5 7. ♖e5 ♖e7 8. ♖f6 ♖d6 9. ♖g5 ♖c5 10. ♖xh5 ♖xb5 11. f4 ♖c6 12. f5 b5 13. f6 ♙d8 14. ♖g6 ♖d7 15. f7 ♙e7 16. ♖g7 +-.

6.	♖d5	♖f6
----	-----	-----

6...h5 7. ♖e5 h4 8. ♖f4 +-.

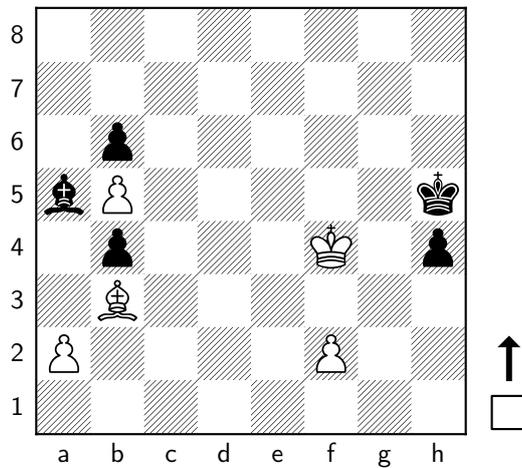
7.	♖e4	h5
----	-----	----

7...♖g5 8. ♖e5 h5 9. f4+ ♖g6 10. f5+ ♖g7 11. f6+ ♖f8 12. ♖f5+-.

8.	♖f4	♖g6
9.	♖e5	h4

9...♖g5 10. f4+- For all other King moves, 10. ♖f5 wins.

10.	♖f4	♖h5
-----	-----	-----



Here, it will be clear why we needed 1. f4. Without that, there will be an extra pawn on f3 here, and White is in a zugzwang. The absence of that pawn allows White to play...

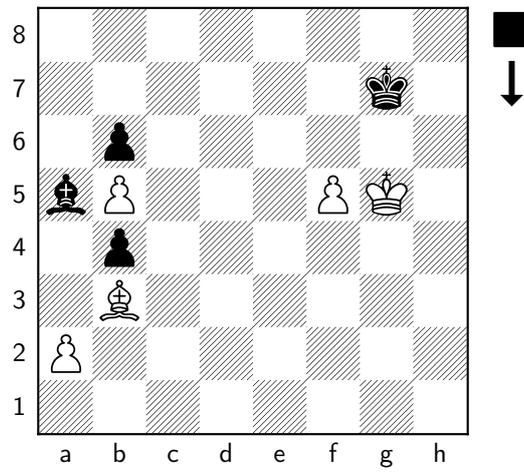
**11. f3!**

Now, it is Black who is in zugzwang. When the King moves, White King wins the pawn.

<b>11.</b>	...	♔h6
<b>12.</b>	♔g4	♔g6
<b>13.</b>	♔xh4	♔h6

Looks like Black has got the opposition and will be able to hold on, because he has no other move. But White's passed pawn is on the f-file, and the White Bishop controls the crucial f7 square, which forces Black to lose the opposition.

<b>14.</b>	♔g4	♔g6
<b>15.</b>	f4	♔f6
<b>16.</b>	f5	♔g7
<b>17.</b>	♔g5	



The fact that Black cannot move to f7 and g8 causes a serious handicap.

17	...	♔f8
18.	♔f6	♔e8
19.	♔g7	

And the pawn queens. White wins.

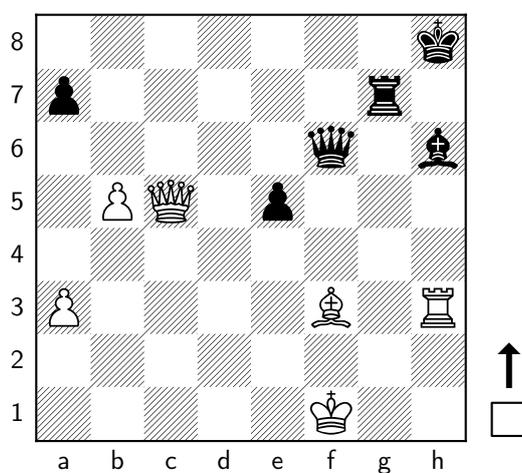
### 30.3. Simplify to win: Atabayev – Bosiocic, 2016

#### Puzzle 50

ATABAYEV, Y. – BOSIIOCIC, M.

*World Cup Rapid, Doha: 2016*

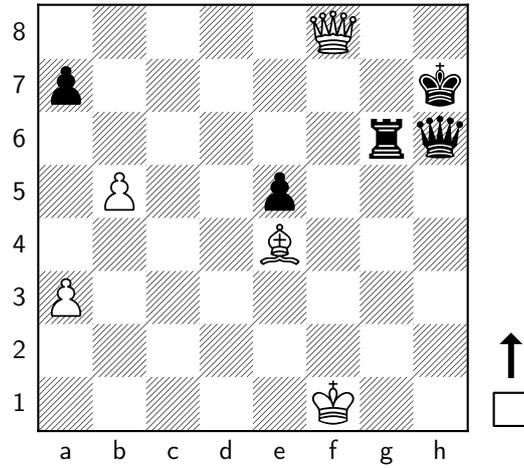
7k/p5r1/5q1b/1PQ1p3/8/P4B1R/8/5K2 w - - 0 45



*In this rapid game, White played 45. ♔c6 and the game ended in a draw after 57 moves. White had a forced win in this position. How?*

Simplify to win

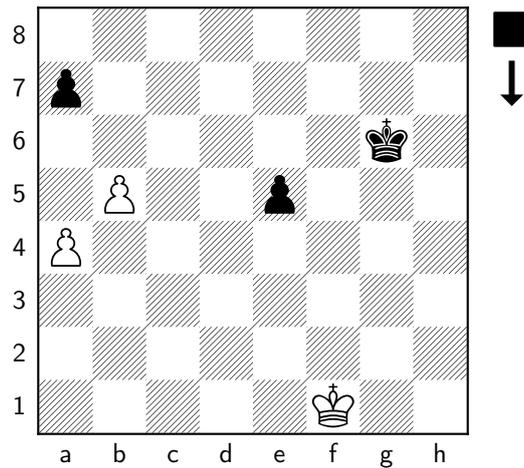
- |     |        |      |
|-----|--------|------|
| 45. | ♖xh6+! | ♔xh6 |
| 46. | ♔f8+   | ♕h7  |
| 47. | ♗e4+   | ♖g6  |



48. ♔xh6+

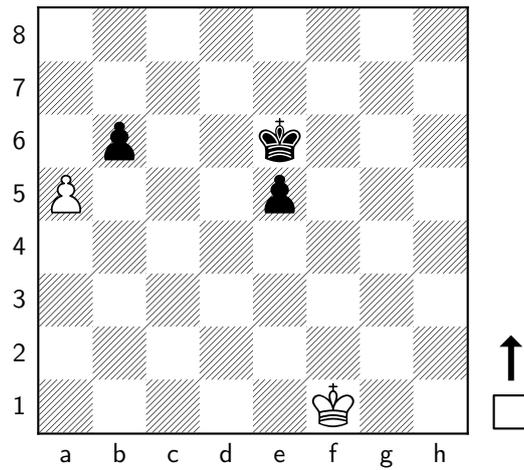
48. ♔f7+ ♚h8 (48... ♔g7 49. ♙xg6+-- ) 49. ♔xg6 also wins, but the continuation given wins without giving Black any chance of trying for perpetual checks by the Queen.

48.	...	♙xh6
49.	♙xg6	♙xg6
50.	a4	



The resulting pawn ending is winning for White, due to the pawn majority in the queen-side.

50                   ...                   ♔f6  
 51.                   a5                   ♔e6  
 52.                   b6                   axb6



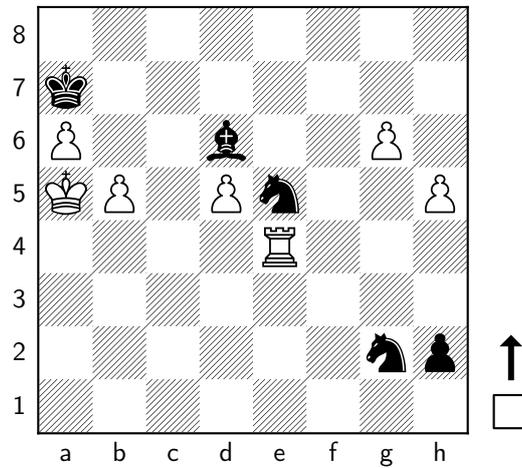
53.                   a6!

Wins by queening the a-pawn. 53. axb6? only draws after 53... ♔d6 54. b7 ♔c7.

### 30.4. No check for me!: Mitrofonov (Study), 1967

Puzzle 188  
MITROFONOV (Study)  
1967

8/k7/P2b2P1/KP1Pn2P/4R3/8/6np/8 w - - 0 1



*White to play and win.*

1.                   **b6+**

All other moves lose. For example, 1. g7?? ♔c7+! 2. ♔a4 h1♚ 3. g8♚ ♚a1+ 4. ♔b3 ♚b1+ checkmates.

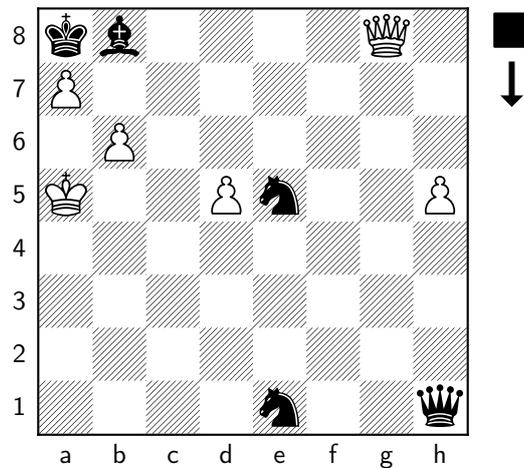
1                   ...                   ♔a8

1... ♔b8 2. g7 +-.

2.                   **♚e1!**

Stopping the future Black Queen from reaching a1. 2. g7 h1♚ 3. g8♚+ ♖b8 4. a7 ♚a1+! (Note that 4... ♗c6+? 5. dxc6 ♚xh5+ loses to 6. ♘a6, as Black doesn't have 6... ♚e2+.) 5. ♘b4 ♚b1+ draws.

2	...	♗xe1
3.	g7	h1♚
4.	g8♚+	♖b8
5.	a7	



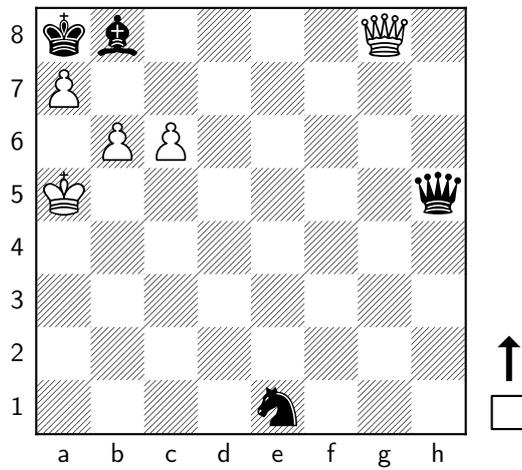
White threatens checkmate by 6. ♚xb8♯ and the Black Queen cannot get to b8 in one move.

However, Black has an incredible saving resource to avoid 6. ♚xb8♯.

5	...	♗c6+!
6.	dxc6	

Otherwise Black wins.

6	...	♚xh5+
---	-----	-------



Looks like Black succeeded in saving the game. Now, 7. ♔a6 ♚e2+ 8. ♔a5 ♚e5+ 9. ♔a6 ♚a1+ draws.

But White has an unbelievable sacrifice that wins.

7. ♚g5!!

White sacrifices a full Queen only two divert the Black Queen from light squares!

7 ... ♚xg5+

Black cannot escape defeat by declining the sacrifice: Both 7... ♚f7 8. a×b8♚+ ♔×b8 9. ♚d8# and 7... ♚e8 8. b7+ ♔×a7 9. ♚c5# lead to checkmates.

8. ♔a6!

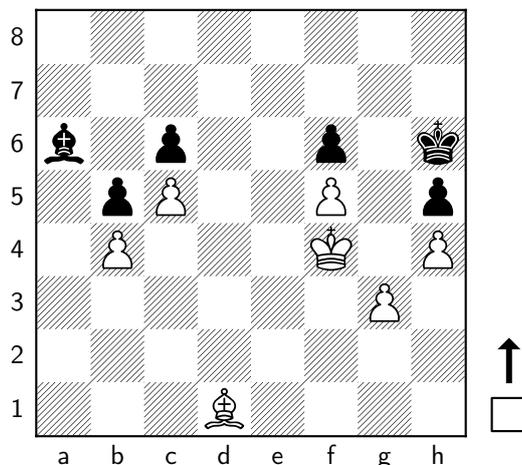




30.5. Many themes in one: Grigoriev, N.D. (Study), 1931

Puzzle 185  
GRIGORIEV (Study)  
1931

8/8/b1p2p1k/1pP2P1p/1P3K1P/6P1/8/3B4 w - - 0 1



*White to play and win.*

This is a position, if occurs in an actual game, both players would agree to a draw and go home. White has just one extra pawn in a Bishop ending, and it is hard to win. The only advantage White has is, Black's Bishop is *bad*, i.e., it will have to defend its pawns, and it is far from the Kingside.

One technique used in such situation is called *destruction of blockade*, by sacrificing the Bishop for a pawn or two and using the pawn majority in the King side to create threats before the Black Bishop arrives in the field. But it doesn't work here, as 1. ♖xh5? ♔xh5 2. g4+ ♕h6 3. g5+ ♔g7 4. h5 f×g5+ 5. ♕×g5 ♖c8, and the Black Bishop arrives the field just in time and draws.

So, White needs to push the Black Bishop to a8, so that it will take one more move to come out.

1. ♖f3 ♖b7

2. ♔e3!

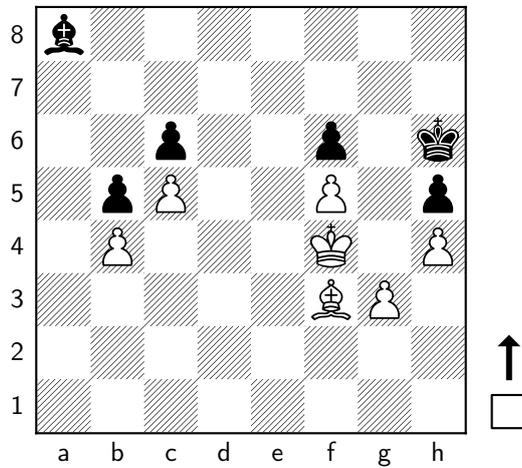
2. ♕xh5? is still premature. If it were Black's move, he will be forced to play ...♘a8, and ♕xh5 could be tried. For that, White employs a manoeuvre called *triangulation*, in which the King takes a triangular path f4-e3-e4-f4 to lose a move.

The triangulation should be in this order, because 2. ♔e4? ♘c8 3. ♔e3 ♘d7 4. ♔f4 ♘e8 and the Black Bishop defends both wings.

2. ... ♘a8  
 3. ♔e4 ♘b7  
 4. ♔f4

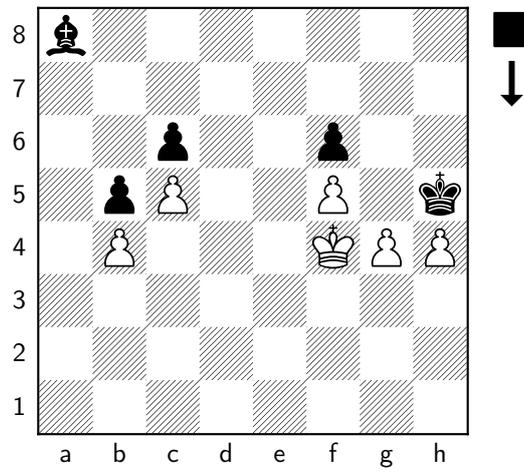
The triangulation is complete, reaching the position after Black's 1<sup>st</sup> move with *Black to move*. Black is in zugzwang, as any King move will lose the pawn on h5.

4. ... ♘a8



Now, the Bishop can be sacrificed.

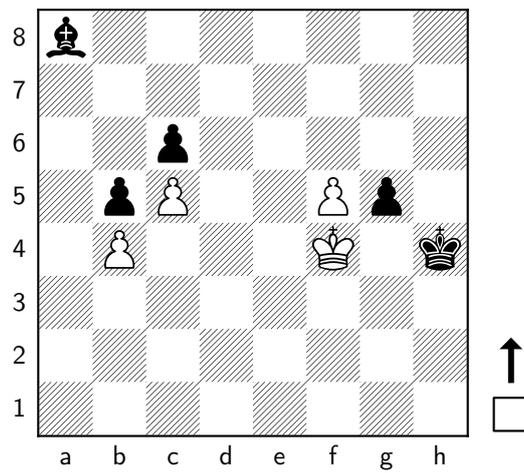
5. ♕xh5! ♔xh5  
 6. g4+



Here, it takes two main continuations:

### Variation 1

6 ... ♔xh4  
 7. g5 f×g5+



8. ♔e4!

The obvious 8. ♔e5? only draws after 8...g4 9. f6 g3 10. f7 g2 11. f8♖ g1♗  
 12. ♗h8+ ♔g3 13. ♗g8+ ♔f2 14. ♗×g1+ ♔×g1 15. ♔d6 ♔f2 16. ♔c7 ♔e3 17.  
 ♔b8 ♔d4 18. ♔×a8 ♔c4 19. ♔b7 ♔×b4 20. ♔×c6 ♔a4=.

8 ... ♔h5

The reason why 8. ♔e4! should be played instead of 8. ♔e5? is clear from the variation  
 8...g4 9. f6 g3 10. ♔f3! ♔h3 11. f7 g2 12. f8♖ g1♗ 13. ♗h8#.

9. ♔e5 g4  
 10. f6 g3

10...♔g6 11. ♔e6 g3 12. f7 g2 13. f8♖ g1♗ 14. ♗g8+ +-.

11. f7 g2  
 12. f8♖ g1♗  
 13. ♗h8+ ♔g4  
 14. ♗g8+

wins the Queen and wins.

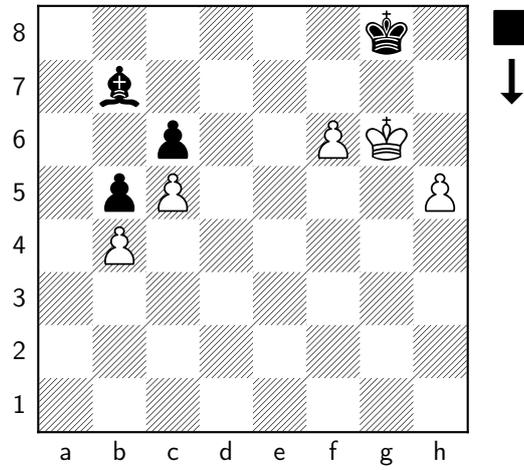
### Variation 2

After 1. ♖f3 ♖b7 2. ♔e3 ♖a8 3. ♔e4 ♖b7 4. ♔f4 ♖a8 5. ♖×h5 ♔×h5 6. g4+:

6 ... ♔h6  
 7. g5+ ♔g7  
 8. h5! ♔h5!

7. g×f6+? ♔×f6 8. h5 ♖b7 9. h6 ♖c6 =.





and the Black Bishop is one move away compared to the note on White's 2<sup>nd</sup> move. White wins.

### 30.6. What is the difference?: Neilsen (Study), 2017

Puzzle 181  
 NIELSEN, STEFFEN S. (Study)  
 1<sup>st</sup> Prize, 4<sup>th</sup> UAPA, 2017

5k2/8/5r2/1RRK4/6p1/8/5p2/8 w - - 0 1

*White has an extra rook for two pawns, but looks like that cannot defend against the advanced pawns. He needs to play 1. ♖b1 or 1. ♖c1 to prevent immediate defeat. Which move will draw the game?*

Black threatens 1...♙f5+ followed by exchanging off one pair of Rooks, and a lone Rook cannot draw against two connected pawns that much advanced. So, moves like 1. ♖b7, threatening 2. ♖c8+ won't work due to 1...♙f5+ 2. ♚d4 ♖xc5 3. ♚xc5 g3, winning.

That leaves only a few choices: Giving a check by 1. ♖b8+ or 1. ♖c8+, or preventing the pawn promotion by 1. ♖b1 or 1. ♖c1.

Giving check doesn't help White: After 1...♚g7, Black is out of all dangers of checkmate threats, and White cannot defend against the threatened g4-g3-g2.

That leaves with two choices. 1. ♖b1 and 1. ♖c1. These are similar-looking, but it turns out 1. ♖b1! draws while 1. ♖c1? loses.

The drawing line: 1. ♖b1!

1. ♖b1! ♖f5+

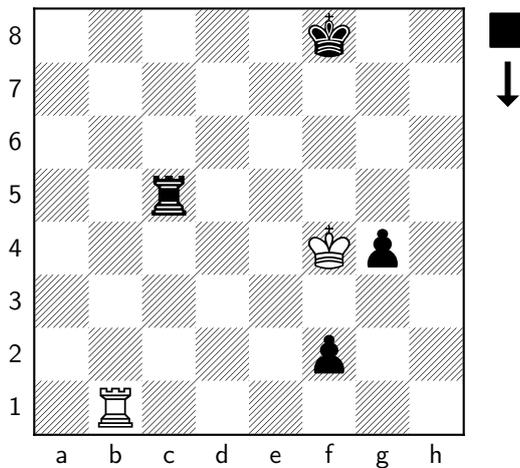
1...g3 2. ♖c3 g2 3. ♖b7 ♖f7 4. ♖b8+ ♔g7 5. ♖g3+ ♔f6 6. ♖f3+ ♔g6 7. ♖g3+ draws. 7...♔f5 8. ♖g3+ ♔g4 9. ♖xf7 wins for White, due to the mate threat 10. ♖g8+/11. ♖h7#.

2. ♔e4!

2. ♔d4? ♖xc5 3. ♔xc5 g3 wins for Black.

2 ... ♖xc5  
3. ♔f4!

Threatens 4. ♔xg4, drawing. 3...♖c4+ 4. ♔g3 draws.



3 ... ♖f5+

This is the crucial move in the problem. White's move is forced, as 4. ♔xg4 f1♔! 5. ♖xf1 ♖xf1 wins for Black.

4.                      ♔xf5                      g3

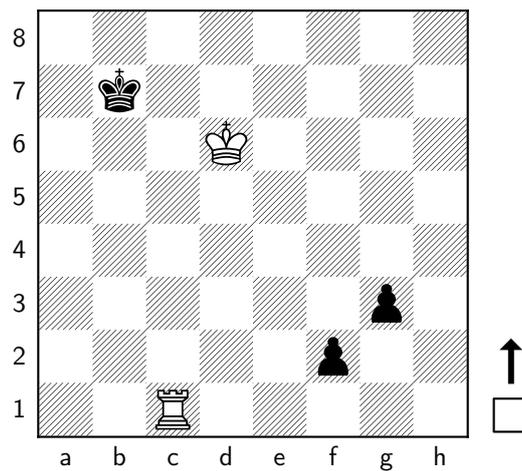
Now the fact that the R is on the b-file makes a lot of difference.

5.                      ♔f6!                      ♔e8

5... ♔g8 6. ♔g6 draws.

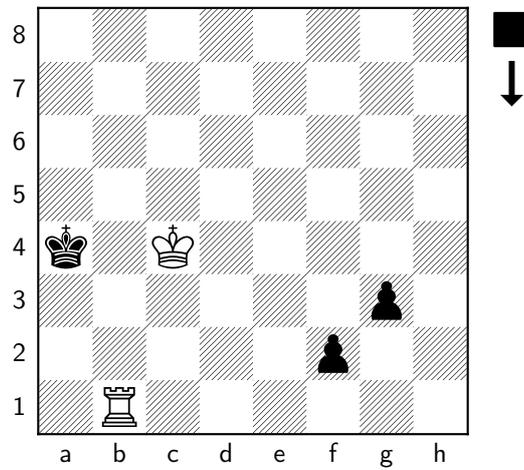
6.                      ♔e6!                      ♔d8  
 7.                      ♔d6                      ♔c8  
 8.                      ♖c1+                      ♔b7

8... ♔d8 9. ♖b1 repeats the position.



With move, White draws from this position. Compare it with the position after White's 9<sup>th</sup> move in the losing line.

9.                      ♖b1+                      ♔a6  
 10.                      ♔c6!                      ♔a5  
 11.                      ♔c5                      ♔a4  
 12.                      ♔c4



Draws due to the mate threat along the a-file.

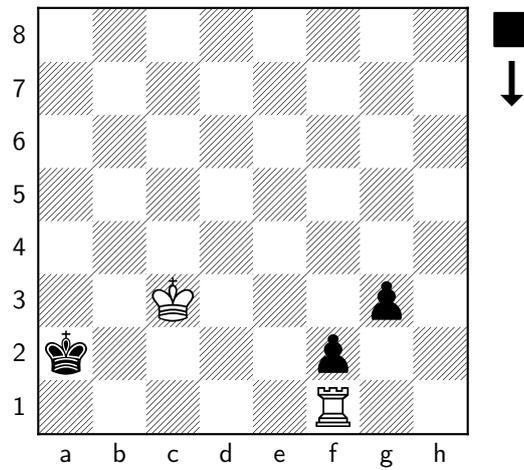
**What if Black tries to avoid repetition by going south?**

An attempt to escape by going down loses.

12. ... ♔a3  
 13. ♔c3 ♔a2?

13... ♔a4 draws.

14. ♖f1!



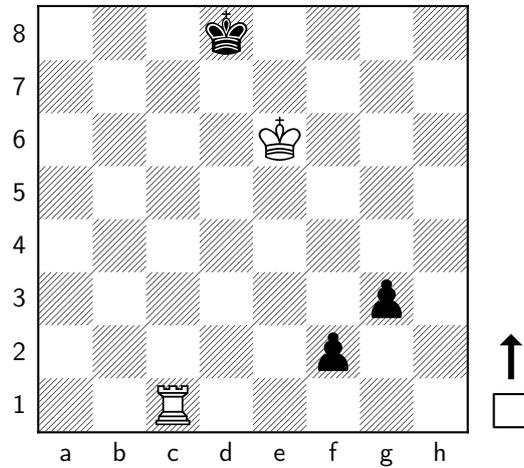
Now Black is in a zugzwang: both 14... ♔a3 15. ♖a1# and 14... g2 15. ♗xf2+ followed by 16. ♗xg2 win for White, so Black is better off playing 12... ♔a5, drawing.

The losing line: 1. ♖c1?

1.	♖c1?	♗f5+
2.	♔e4	

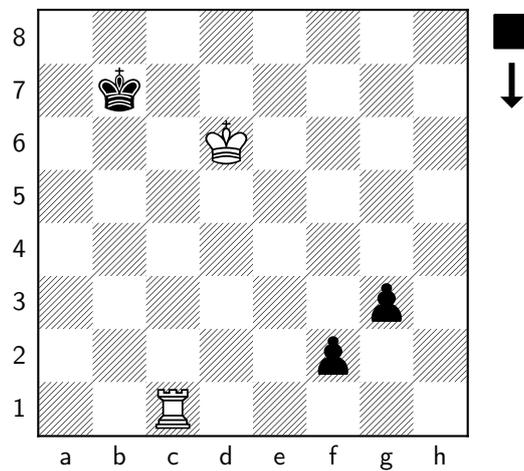
2. ♔c4 ♗xb5 3. ♔xb5 g3 --+.

2.	...	♗xb5
3.	♔f4	♗f5+!
4.	♔xf5	g3
5.	♔f6	♔e8
6.	♔e6	♔d8



In the drawing line, we saw that the Rook on b1 draws by 7. ♔d6 ♕c8 8. ♖c1+ ♔b7 9. ♖b1+ ♕a6 10. ♕c6, but such a continuation is not possible here.

- |    |      |     |
|----|------|-----|
| 7. | ♖d1+ | ♕c7 |
| 8. | ♖c1+ | ♕b7 |
| 9. | ♕d6  |     |



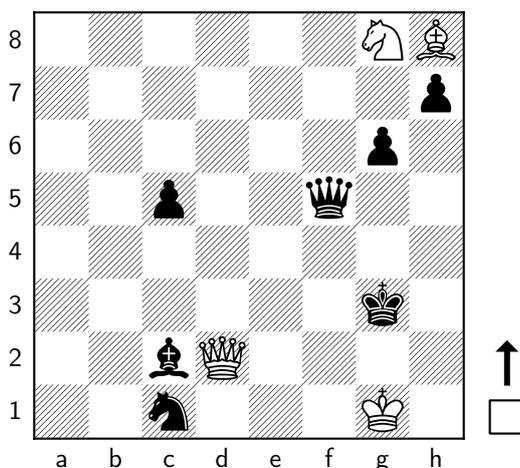
Reaches the position after Black's 8<sup>th</sup> move in the drawing line, but with Black to move instead of White, which gets Black a tempo to play 9...g2 and wins.

### 30.7. Too complicated?: Bezgodkov and Tarasiuk (Study), 2018

#### Puzzle 194

BEZGODKOV, A. AND TARASIUK, V. (Study)  
 First prize, A.Zinchuk-80, 2018

6NB/7p/6p1/2p2q2/8/6k1/2bQ4/2n3K1 w - - 0 1



*White to play and win.*

This is an extremely difficult study to solve. White is three pawns down, and since queens are present, Black has all the chances of perpetual checks, and can even sacrifice one or two pieces for that. If queens are exchanged, probably Black will win the endgame due to the material superiority.

It appears that, due to the presence of many active pieces, White needs to start checking to win, but none of them works. For example,

- A) 1. ♖h2+? ♔f3! 2. ♖f2+ ♔e4 3. ♖xc2+ ♘d3 =.
- B) 1. ♙e5+? ♔f3! (1... ♖xe5? 2. ♖h2+ +-; 1... ♔g4? 2. ♘h6+ +-; 1... ♔h4? 2. ♖e1+ ♔g4 3. ♘h6+ +-; 1... ♔h3? 2. ♖h2+ ♔g4 3. ♘h6+ +-.) 2. ♖f2+ ♔e4 3. ♖xc2+ ♔xe5 4. ♖xc5+ ♔e4 =.

The key first move is...

1. ♖h6!

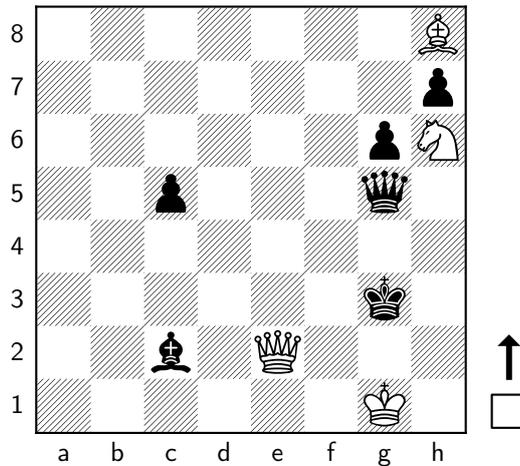
Threatens the Black Queen and controls g4, so ♕e5+ and ♖h2+ will be deadly. The Black Queen cannot leave the f-file due to 2. ♖f2+ ♗h4 3. ♖h2#. Also, 1... ♖f3 2. ♖h2# is immediate mate, while 1... ♖f8 2. ♖h2+ ♗f3 3. ♖f2+ will cost the Queen. 1... ♖f4 2. ♕e5 also is immediate loss.

Note that the Black pawn on c5 prevents 1... ♖c5+. This pawn plays a vital role in the study, blocking Black's path in some crucial variations.

The try 1. ♖f6? will not win because the long diagonal is blocked for the White Bishop; for example, 1. ♖f6? ♖e2+ 2. ♖xe2 ♖g5 3. ♖xc2 ♖e3+ 4. ♔f1 ♖f3+ 5. ♗e1 ♖e3+ 6. ♗d1 ♖g1+ 7. ♗d2 ♖f2+ 8. ♗c3 ♖d4+ 9. ♗b3 ♖b4+ 10. ♗a2 ♖a5+ 11. ♗b2 ♖b4+ 12. ♗c1 ♖e1+ 13. ♖d1 ♖c3+ =.

Black's only chance is to sacrifice the Knight and set up a discovered check, gaining time.

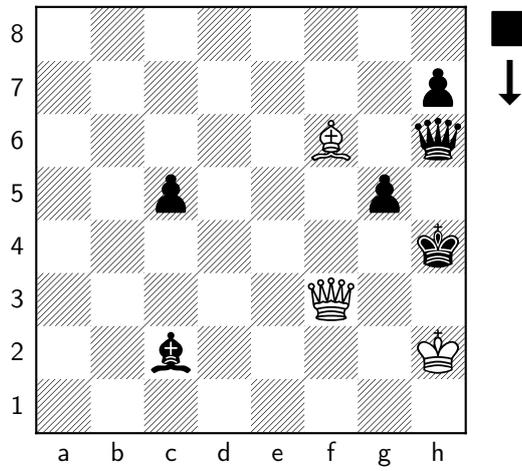
1. ... ♖e2+  
2. ♖xe2 ♖g5



Now, Black threatens a discovered check which will give a chance to perpetually checking the White King.

3. ♕e5+!



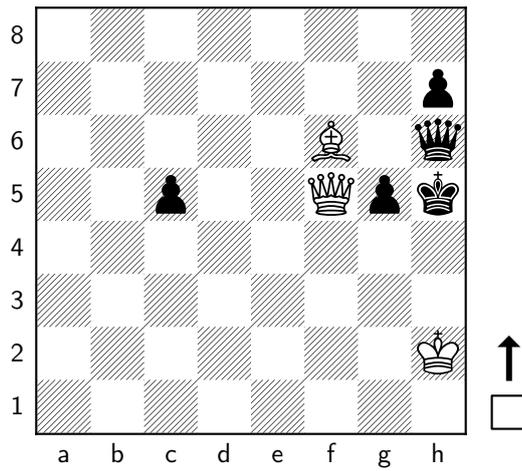


Threat 7. ♖h3#.

6 ... ♗f5  
 7. ♖xf5

Threat 8. ♖h3#.

7 ... ♔h5

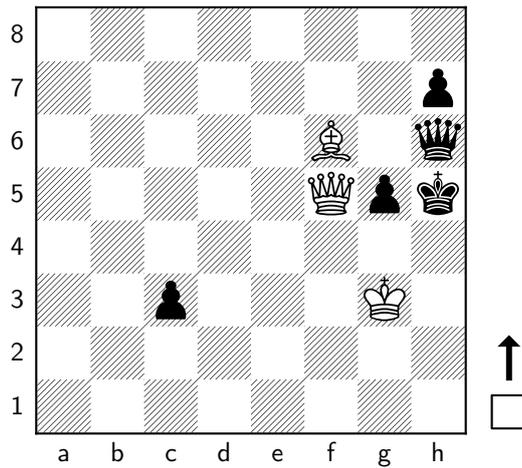


This position can be set as another *White to play and win* puzzle. It shows the technique known as *triangulation* by which a player *loses a move* by moving the King in a triangle while the opponent is in zugzwang. It is very rare to see this technique in non-trivial endings like this.

8. ♔g2!

8. ♔g3? won't win, after 8...c4 9. ♕e7 (9. ♔g2 c3 10. ♖f3+ ♔g6 11. ♕xc3 g4 12. ♖d3+ ♔f7 13. ♖d7+ ♔g8 14. ♖e8+ ♖f8 15. ♖e6+ ♖f7 16. ♖c8+ ♖f8 17. ♖xg4+ ♔f7 18. ♖f5+ ♔e8 19. ♖c8+ ♔f7 20. ♖c4+), 9...♖g7, and now 10. ♕f8 will fail to 10...♖c3+ =.

8. ... c4  
9. ♔g3! c3



What difference does it make? Well, the Black pawn on c3 plays an important role later!

10. ♕e7! ♖g7

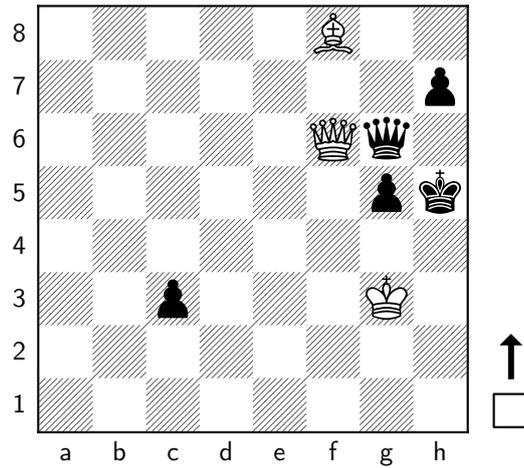
10...c2 11. ♖f7+ ♖g6 12. ♖f3+ ♔h6 (12...g4 13. ♖h1#) 13. ♕f8+ +-.

11. ♕f8! ♖g8

11... ♖c7+ 12. ♔h3 h6 13. ♕e6 ♖h7 14. ♕g4+ ♔g6 15. ♕e4+ +-.

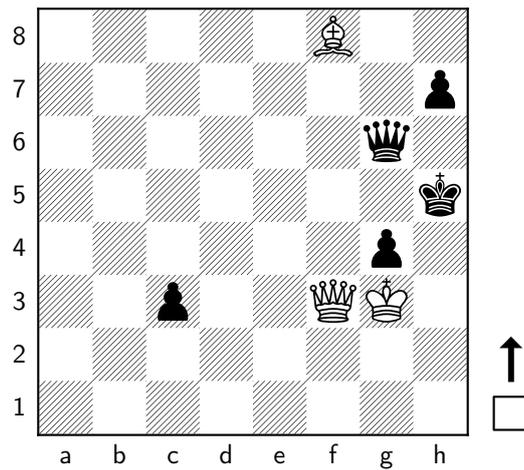
This is where the Black Pawn on c3 plays a role, otherwise Black could escape with 11... ♖c3+.

12. ♕f6! ♕g6



Another *White to play and win* position.

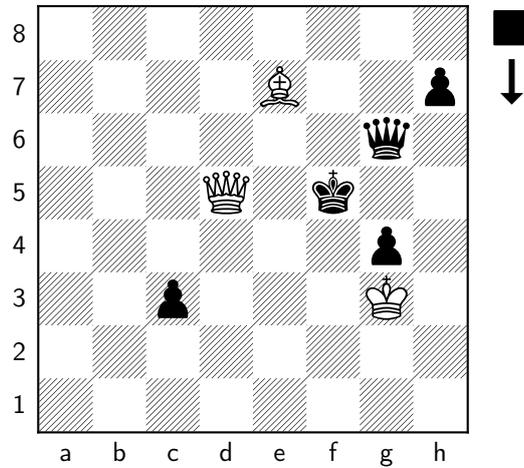
13. ♕f3+! g4



14. ♖h1+!

Not 14. ♖d5+? ♖g5 15. ♖e4 ♖h4+ 16. ♔g2 ♖h3+ =.

14.	...	♔g5
15.	♔e7+	♔f5
16.	♖d5#	



A 16-move deep combination with several themes, with each White move is the only move to win in that position. A rare achievement in study composition. No wonder it won the first prize in the A.Zinchuk-80 competition in 2018!

## 31. Humans better than computers

Modern chess engines running on a normal computer or phone can solve most of the problems in this book, because the tactics can be calculated even by a brute-force search with a few plies deep, and more sophisticated alpha-beta search, superior evaluation of resulting positions and availability of endgame tablebases makes computer programs crack difficult problems.

However, computers break down in positions that is decided over a large number of plies and the evaluation is wrong after the maximum number of plies they can handle. Also they cannot recognize that some positions are drawn when one side has a vast superiority. They still evaluate it to be favorable to one side.

A human can assess many of these positions easily, but a computer program cannot. In this chapter, a few of such problems are presented. If any chess engine can crack any of these puzzles without help from a human, please let me know.

### 31.1. Draw by complete blockade: Rudolf (Study), 1912

Puzzle 129  
W. E. RUDOLF (Study)  
*La Strategia*, 1912

3B4/1r2p3/r2p1p2/bkp1P1p1/1p1P1PPp/p1P1K2P/PPB5/8 w - - 0 1

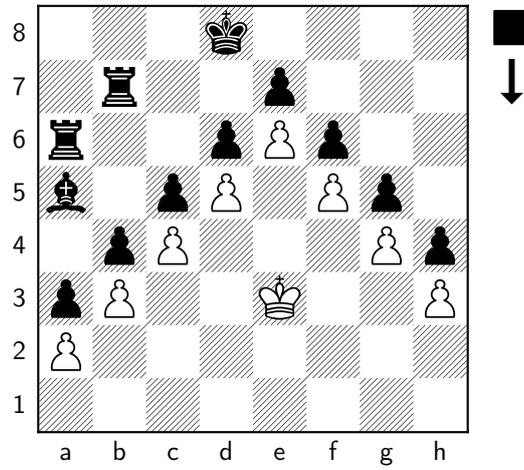
*White to play and draw.*

Black has a vast superiority in material, and it looks like achieving a draw is impossible. However, it is possible to build a fortress.

- |    |      |      |
|----|------|------|
| 1. | ♙a4+ | ♚xa4 |
| 2. | b3+  | ♚b5  |
| 3. | c4+  | ♚c6  |
| 4. | d5+  | ♚d7  |
| 5. | e6+  | ♚xd8 |

Other King moves doesn't change anything. White draws by 6. f5.

- |    |    |
|----|----|
| 6. | f5 |
|----|----|



Black has two rooks and a Bishop extra, but cannot break the fortress.

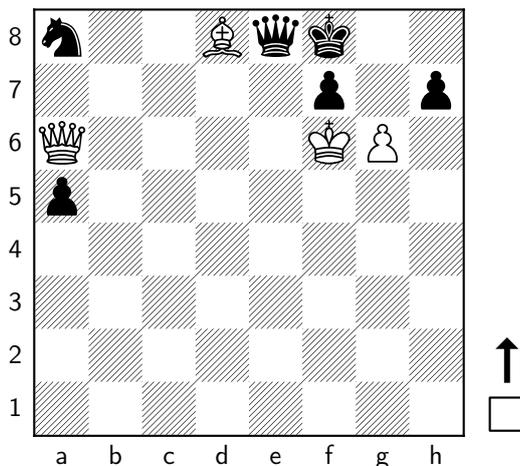
### 31.2. Zugzwang with twists: Matous (Study), 1975

Puzzle 189

M. MATOUS (Study)

1<sup>st</sup> *honorary mention, Szachy, 1975*

n2Bqk2/5p1p/Q4KP1/p7/8/8/8/8 w - - 0 1



*White to play and win.*

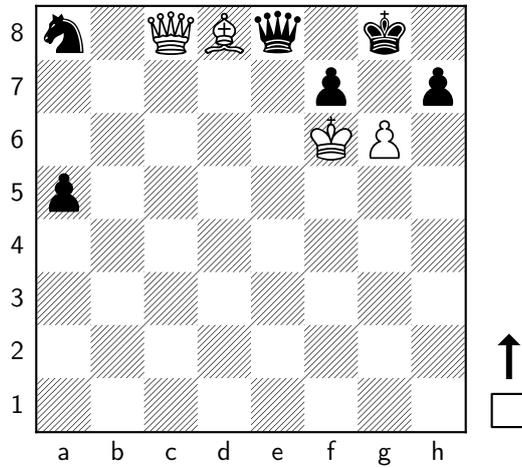
Chess engines fail to solve this problem, giving 1. ♔d6+ ♖g8 2. g×h7+ ♜h8 3. ♙×a5= as the best continuation.

1. ♔×a8?, 1... ♗e6+ 2. ♜g5 ♗×g6 draws, while after 1. g×h7? ♗×d8+ 2. ♜f5 ♜g7, Black wins.

1. ♔c8!

Threatens 2. ♙e7+, winning the Queen. White wins after 1... ♗e6+ 2. ♗×e6 f×e6 3. g×h7 +- . After 1... ♘c7, 2. ♙e7+ ♜g8 3. g×f7+ +- .

1 ... ♜g8



2. ♖c7!!

This incredible move, and only this move, wins. Other possibilities:

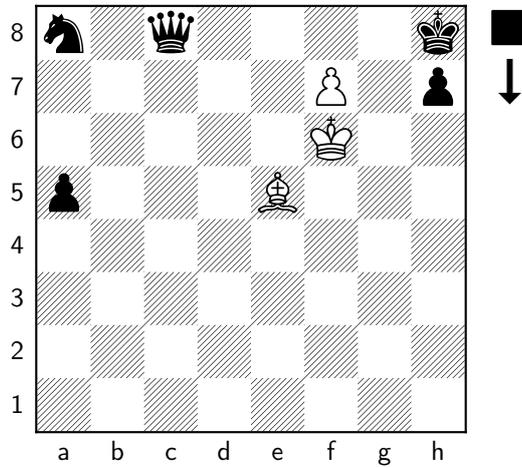
1. 2. g×h7+? ♔h8!=.
2. 2. ♖b6? ♚×c8 2. g×f7+ ♔f8!+-, as White cannot play 3. ♖c5+.
3. 2. ♖a5? ♚×c8 2. g×f7+ ♔h8!+-, as White doesn't have 3. ♖c3+.

2 ... ♚×c8

2... ♖×c7 3. g×f7++-.

3. g×f7+ ♔h8

4. ♖e5!



An amazing position! White threatens checkmate by moving the King. It has e7, e6, f5 and g5, (If Black moves the h-pawn, White wins by ♔g6#.) and Black needs to cover all of them or attack the Bishop. In doing this, he needs to keep the f8 square under control, otherwise f8♔ will be checkmate.

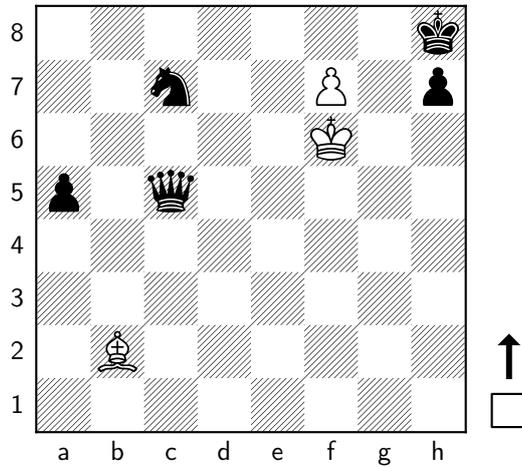
4 ... ♔c5

Keeping f8 under control and meeting a discovered check with 5... ♔×e5+ 6. ♔×e5 ♔g7.

5. ♔b2!

After 5. ♔a1? ♔c7 6. ♔b2 a4 7. ♔a1 a3, it is White who is in zugzwang!

5 ... ♔c7



Looks like Black has everything under control. f8 is covered, and the Queen, the Knight and the h-pawn control every flight square of the White King.

However, Black has a problem. Zugzwang! The Queen, Knight and the h-pawn are paralyzed. Any move by any of those units will give up one crucial square. His only move is with the pawn and soon it will run out.

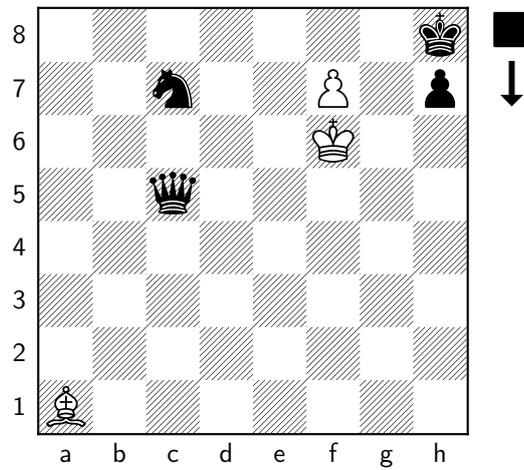
6. ♖a1

It is interesting to see how the composer has made the solution unique. All other squares in the diagonal are controlled by the Black Queen.

6. ... a4  
7. ♖b2 a3

Black cannot play 7... ♖b4 because of 8. ♔g5+ ♖x2 9. f8♖#.

8. ♖a1 a2  
9. ♖b2 a1♖  
10. ♖xa1



Black has run out of moves, and any move will lead to a checkmate by a discovered check or queening.

10 ... ♖d5+

10... ♔a3 11. ♕g5+ ♔xa1 12. f8♔#.

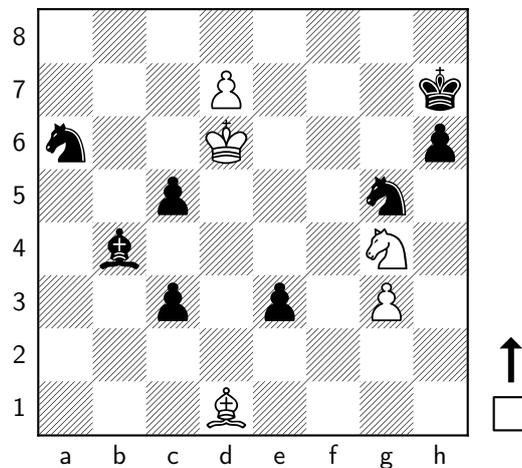
11. ♕e6+ ♖c3  
 12. ♗xc3+ ♔xc3  
 13. f8♔#

31.3. Just a Bishop against a large army: Breukelen, Gigs Van (Study), 1990

Puzzle 191

BREUKELEN, G. V. (Study)  
Schakend Nederland, 1990

8/3P3k/n2K3p/2p3n1/1b4N1/2p1p1P1/8/3B4 w - - 0 1



*White to play and win.*

This is an unusual study with an unusual solution. White's only hope is queening the pawn, but given a move, Black can stop it by ...♙a5 or ...♜f7. White cannot play 1. d8♙+ due to the fork 1...♜f7+.

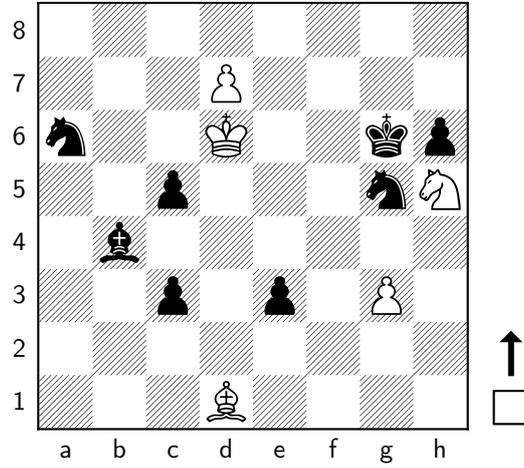
It looks like the play goes with making the queening possible, but it goes into a complete different direction.

1. ♜f6+ ♔g7

1...♙h8 or 1...♙g8 will follow 2. d8♙+, while 1...♙g6 2. ♙h5+ ♔g7 (2...♙×f6 3. d8♙+-.) 3. d8♙+-, as 3...♜f7+ will lose to 4. ♙×f7.

2.                    ♖h5+                    ♔g6

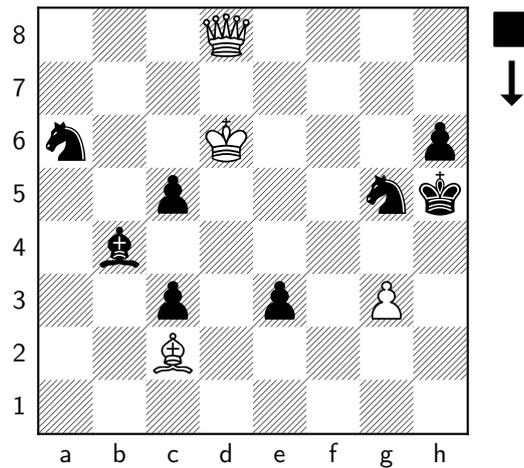
2... ♕h7 3. ♘c2+ followed by 4. d8♚+ wins.



3.                    ♘c2+!                    ♔xh5

3... ♕f7 4. d8♚! and Black doesn't have 4... ♖f7+.

4.                    d8♚!



The win is not with the queen! This is the right time to give up the promoted queen...

4 ... ♖f7+

Even though this is the most obvious move, we need to consider 4... ♔g4!? as well. Black has enough material to defend against the Queen, and his passed pawns are dangerous.

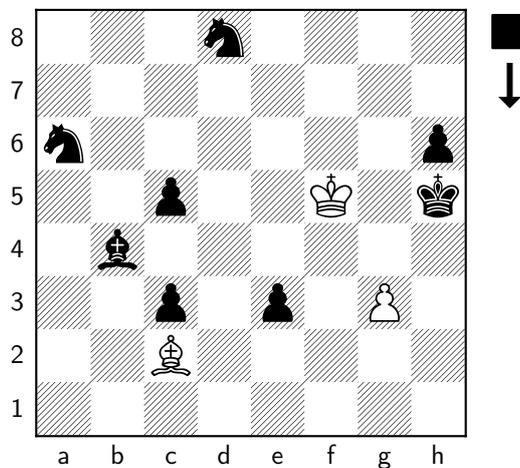
For a long time, this was considered to be a refutation, and various versions (like adding an extra White pawn on h2) were tried to fix this. However, with the help of chess engines, it was proved that White wins even in this case.

4... ♔g4 5. ♖f6 ♔xg3 6. ♖e5+ ♔f3 7. ♔d1+ ♔g2 8. ♖xe3 c4+ 9. ♔d5 ♔c5 10. ♖xc3 ♔f2 11. ♖f6 ♔c5 12. ♖xh6 and White wins.

5. ♔e6!

Not interested in winning back a Knight either...

5 ... ♖xh6+  
6. ♔f5!!



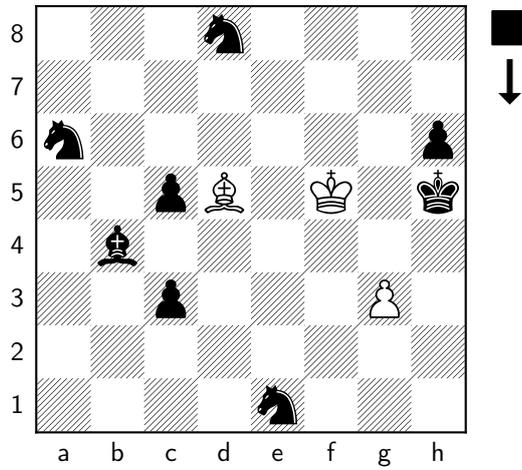
The intention is clear. The Black King is stalemated, Black has no checks and a single check with the Bishop will checkmate. The rest of the game is White trying to get the Bishop to the d1-h5 diagonal or e8-h5 diagonal to deliver the checkmate.

White threatens 7. ♔d1+ followed by checkmate.

6 ... e2  
 7. ♖e4!

Threatening 8. ♗f3#.

7 ... e1♘  
 8. ♗d5!

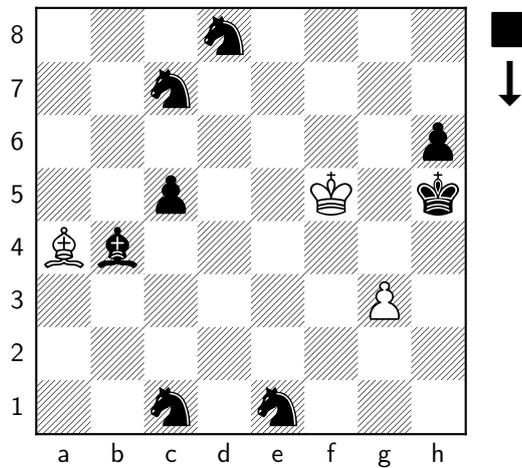


Threatening 9. ♗c4 and 10. ♗e2+ as well as 9. ♗b3 and 10. ♗d1+.

8 ... c2  
 9. ♗c4 c1♘  
 10. ♗b5!

Now the threat is 11. ♗e8+.

10 ... ♘c7  
 11. ♗a4!



The zig-zag movement of the Bishop is interesting. Now, despite having five minor pieces and two pawns against a Bishop and Pawn, there is no defense to the threatened 12. ♖d1+. Black can block the diagonal temporarily with pieces but there is no permanent blockage.

11.	...	♜e2
12.	♙d1	♜f3
13.	♙xe2	

And White checkmates by 14. ♙xf3# on the next move.

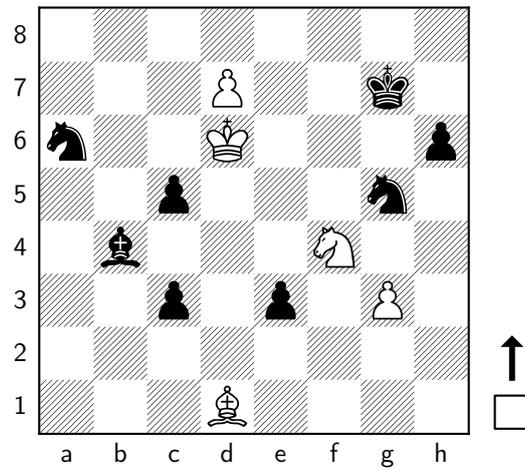
### 31.3.1. Some interesting stories behind this puzzle

This was composed by GIJS VAN BREUKELLEN in early 1970s, but he didn't publish it because he was not sure whether White will win in all variations, especially after 4... ♔g4. This became famous when Grandmaster James Plaskett presented a modified version of that (given above) as a challenge to the Grandmasters at a tournament in Brussels in 1987. Most of them couldn't crack it. Former World Champion MIKHAIL TAL (See §43 on Page 676) tried for some time, gave up, but figured it after one hour after going for a walk.

Later, Breukelen published it in *Schakend Nederland* in 1990.

I tried a number of chess engines with this puzzle, and none of them found the solution from the initial position.

Breukelen's original study was the following.



The solution goes 1. ♖h5+ and we reach the main puzzle after the 2<sup>nd</sup> move.

The one given above is the one modified by Plaskett, now known as Breukelen-Plaskett puzzle.

There were other versions (Like, with a White pawn on h2 to make the variation after 4... ♖g4 easier) of this puzzle, perfecting the theme..

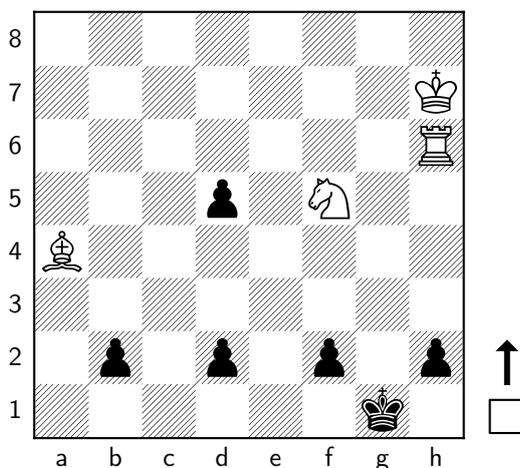
## 32. Long-move problems

There are some mate-in- $n$  problems where  $n$  is very large, which can be considered as endgame studies. Usually, White repeats the same theme several times to force Black moves and wins ultimately. These problems are very hard to solve using computers but humans tackle them quite easily.

### 32.1. Doing the impossible: Benko (Study), 1998

Puzzle 192  
 PAL BENKO (Study)  
 EG, 1998

8/7K/7R/3p1N2/B7/8/1p1p1p1p/6k1 w - - 0 1



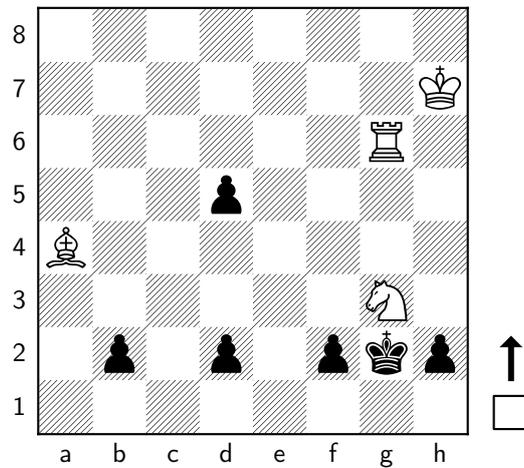
*There are four Black pawns ready to queen. There are many ways to get perpetual check, but can White win this game?*

A long study involving many ideas, by PAL BENKO (See §6 on Page 669), winning from a seemingly hopeless position.

1. ♖g6+ ♔h1

1... ♕f1 2. ♙b5+ ♕e1 3. ♜e6+ ♕d1 4. ♙a4+ ♕c1 5. ♜c6+ ♕b1 6. ♙c2+ ♕c1  
 7. ♙e4+ ♕d1 8. ♙f3+ ♕e1 9. ♜e6+ ♕f1 10. ♘e3+ ♕e1 11. ♘c4+ ♕f1 12. ♘xd2+ ♕g1 13. ♜g6#.

2. ♘g3+ ♕g2



The first two moves are obvious, and this is the point where most of the solvers get stuck. The Knight can move to six squares – h1, f1, e2, e4, f5, h5 – to give a discovered check, but only one of them works. It is incredible that the Knight has only one square to move without blocking the future paths of the Rook and Bishop!

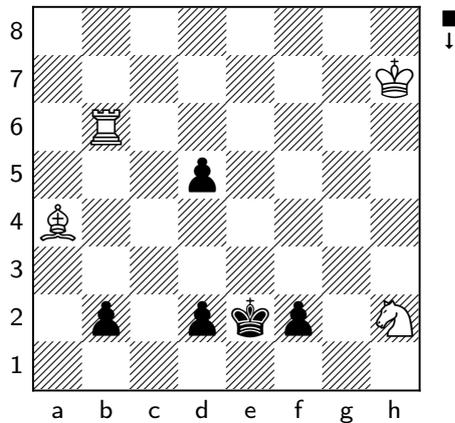
**3.**                      ♠f1+!

For any other Knight move, Black plays 3... ♕f3! and wins.

**3**                      ...                      ♕xf1

Black has three alternatives:

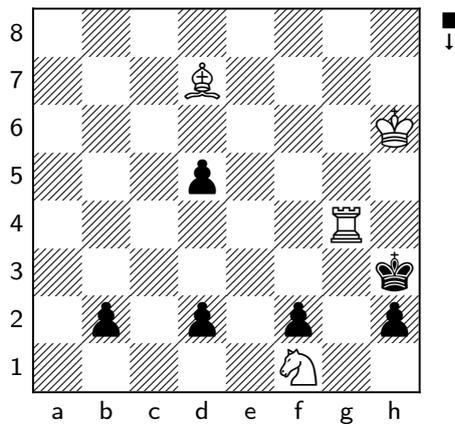
- A) 3... ♕h1 4. ♜d1!, threatening 5. ♜f3# +- . Note that three of the four pawns are blocked, and the fourth one is harmless even after queened after 4... b1♚, because the Rook blocks its check and it cannot reach f3.
- B) 3... ♕f3 4. ♜xh2+ ♕e2 (4... ♕e3 and 4... ♕e4 are similar) 5. ♖b6, and we have an incredible position:



One of the four queening pawns is captured, and each of the remaining three pawns are guarded from queening by a separate White piece!

After White wins the b-pawn, the White Rook and one of the minor pieces win against the remaining Black pawn.

C) 3... ♔h3 4. ♕d7+ ♔h4 5. ♖g4+ ♔h3 6. ♔h6!



Black can queen three pawns, but none of them is effective:

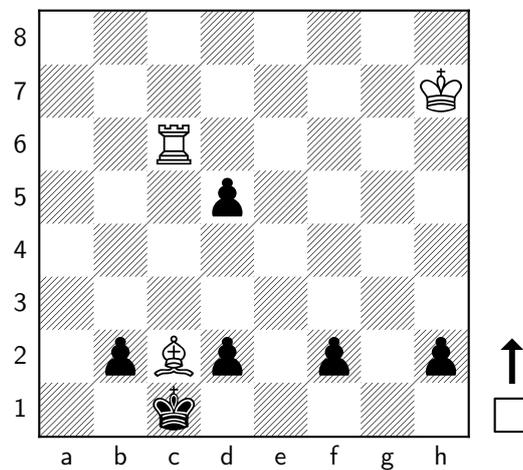
- a) 6... h1♔ 7. ♖g5+ ♔h4 8. ♖h5# (The Knight controls g3!).
- b) 6... d1♔ 7. ♖g3+ ♔h4 8. ♖h3#.
- c) For 6... b1♔, (Note that the King has moved, so this is not a check.) either 7. ♖g3+ or 7. ♖g5+ mates.

These three side-lines are the hardest to figure out in this puzzle. Once it is past this move, humans can figure out the rest of the solution pretty easily, while engines still struggle, as the checkmate is still 27 moves ahead!

Coming back to the main line after 3... ♖×f1,

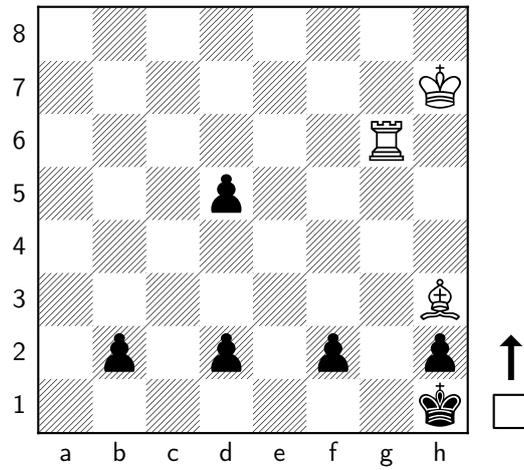
- |    |      |     |
|----|------|-----|
| 4. | ♜b5+ | ♔e1 |
| 5. | ♞e6+ | ♚d1 |
| 6. | ♜a4+ | ♚c1 |
| 7. | ♞c6+ | ♚b1 |
| 8. | ♜c2+ | ♚c1 |

After 8... ♚a1 or 8... ♚a2, 9. ♞a6#.



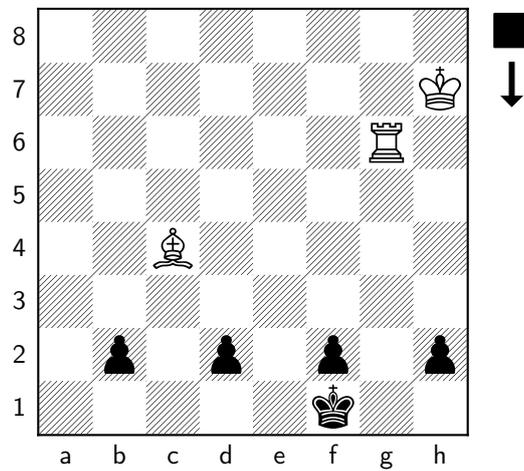
The King is pushed from the Kingside to the Queenside. Now the return journey starts.

- |     |      |     |
|-----|------|-----|
| 9.  | ♜f5+ | ♚d1 |
| 10. | ♜g4+ | ♚e1 |
| 11. | ♞e6+ | ♚f1 |
| 12. | ♜h3+ | ♚g1 |
| 13. | ♞g6+ | ♚h1 |



One round trip done. Starting the next one.

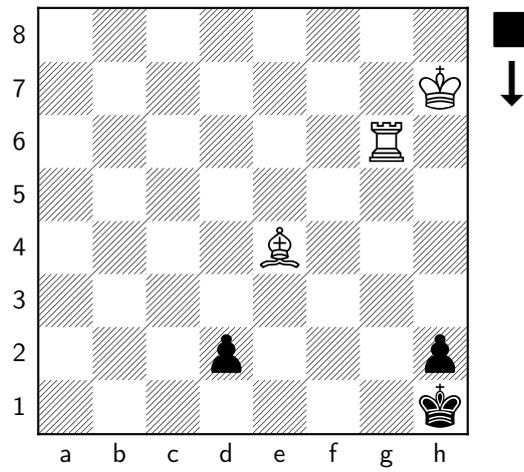
- 14.            ♘g2+            ♔g1
- 15.            ♘x d5+           ♔f1
- 16.            ♘c4+



The main difference now compared to the last journey is that the pawn on d5 is eliminated. Now the Bishop has more space to roam around.





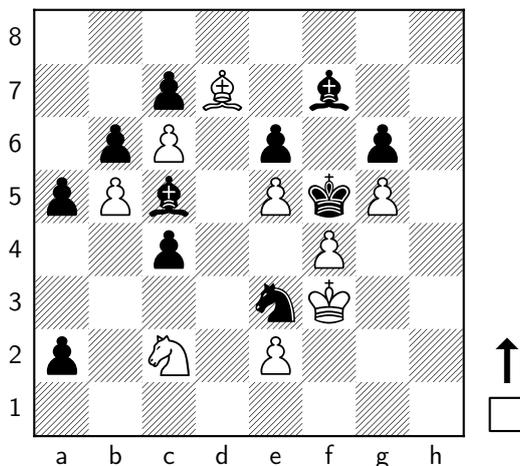


Since this is a 30-move deep variation, engines normally won't solve this puzzle, but humans normally will if they find the 3<sup>rd</sup> move!

### 32.2. Fight till end: Unknown (Study), ??

Puzzle 141  
UNKNOWN (Study)  
??

8/2pB1b2/1pP1p1p1/pPb1PkP1/2p2P2/4nK2/p1N1P3/8 w - - 0 1



*White to play and win.*

In the given position, Black's ♖ on c5 and the ♘ on e3 cannot move due to ♘d4# and e4#. Black ♖ on f7 also is paralyzed. 1... ♖g8 2. ♖e8 ♖h7 3. ♖f7 and no more moves by that Bishop.

If the Black pawns on a5, a2 and c4 are not there, or they are at least two moves away from queening, White can win by 1. ♘e1 followed by 2. ♘g2 (threat 3. ♘h4#) 2... ♘xg2 3. e4#.

White also is short of moves, but he can *lose a move* by ♖d7-c8-a6-b7-c8-d7 and reach the same position with Black to move. Using this technique, White can force all the pawns to move and capture them. Note that ... ♖xc6+ is not an option for Black, as after bxc6, the W♖ can reach d3 via a6-b5-c4.

So, the plan is to make Black run out of moves by capturing the advancing pawns. Whenever White has to play ♘xa1, the ♘ should go back to c2 on the next move. After

Black runs out of pawn moves, if it is Black's move, he is zugzwang. If it is White's move, he wins by  $\text{c2-e1-g2-h4}\#$ , and capturing it will lead to mate by  $\text{e4}\#$ .

1.                     $\text{c8!}$                      $\text{e8}$

White continues the same way if Black plays  $1... \text{g8}$  also. If Black plays  $1... \text{a1}\#$  2.  $\text{xa1 e8}$ , the win is faster: 3.  $\text{c2}$  followed by 4.  $\text{e1}$ , 5.  $\text{g2}$  and 6.  $\text{h4}\#$ .

In the subsequent play, if Black doesn't have a pawn within one move of queening, White can play  $\text{e1}$  followed by  $\text{g2}$ , winning.

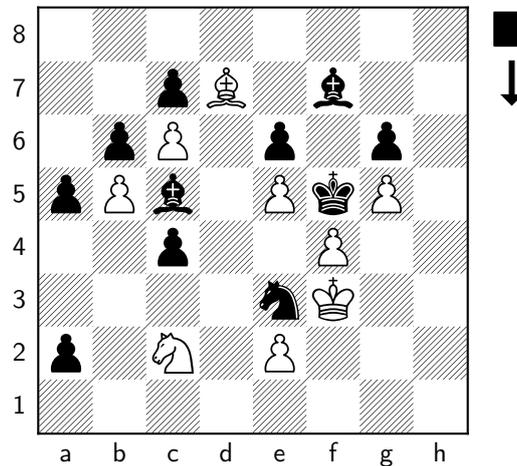
2.                     $\text{a6}$

2.  $\text{b7}$  also is fine. White *loses* a move by going to b7, a6 and back to c8 in three moves.

2                    ...                     $\text{f7}$

2...  $\text{xc6+}$  here or later will hasten the defeat as after 3.  $\text{bxc6 b5}$  4.  $\text{xb5 b6}$  5.  $\text{xc4}$ , White checkmates by 6.  $\text{d3}\#$ .

3.                     $\text{b7}$                      $\text{e8}$   
 4.                     $\text{c8}$                      $\text{f7}$   
 5.                     $\text{d7}$

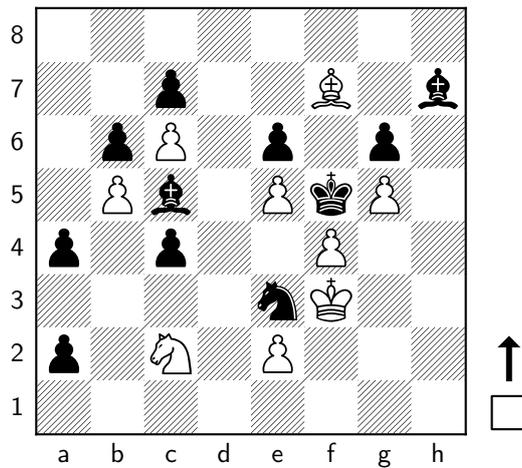


Now, we have reached the original position with Black to move.

5                    ...                    ♖g8

Trying to prolong the number of moves to mate. Moves like 5...a4 end the game early.

6.                    ♖e8                    ♖h7  
7.                    ♖f7                    a4



Now, White doesn't have a move other than retreating the Bishop, which gives Black a few more moves.

8 ♖e8 ♖g8 9 ♖d7 ♖f7 10 ♖c8 ♖e8 11 ♖a6 ♖f7 12 ♖b7 ♖e8 13 ♖c8 ♖f7 14 ♖d7 ♖g8 15 ♖e8 ♖h7 16 ♖f7 a3

Nine moves to force Black to move a pawn!

17 ♖e8 ♖g8 18 ♖d7 ♖f7 19 ♖c8 ♖e8 20 ♖a6 ♖f7 21 ♖b7 ♖e8 22 ♖c8 ♖f7 23 ♖d7 ♖g8 24 ♖e8 ♖h7 25 ♖f7 c3

Another nine moves for another pawn move.

26 ♖e8 ♖g8 27 ♖d7 ♖f7 28 ♖c8 ♖e8 29 ♖a6 ♖f7 30 ♖b7 ♖e8 31 ♖c8 ♖f7 32 ♖d7 ♖g8 33 ♖e8 ♖h7 34 ♖f7

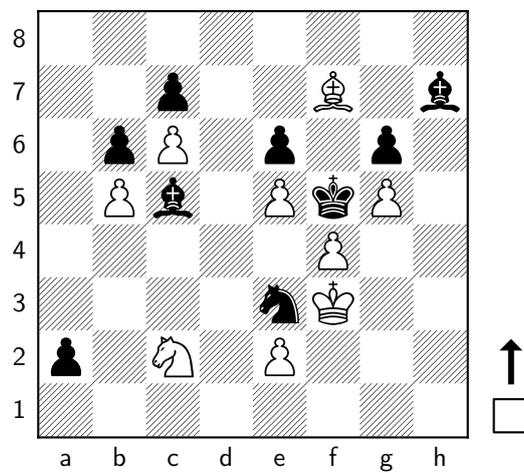
Another nine moves for another pawn move. Now the pawns will fall.

34 ... a1♔  
 35. ♖xa1 c2

35...a2 36. ♗c2 is similar.

35...♔d4 36. ♗c2 ♔c5 37. ♗e1 a2 38. ♗g2 and mates next move.

36. ♗xc2 a2



Here we go again!

37 ♔e8 ♔g8 38 ♔d7 ♔f7 39 ♔c8 ♔e8 40 ♔a6 ♔f7 41 ♔b7 ♔e8 42 ♔c8 ♔f7 43 ♔d7 ♔g8 44 ♔e8 ♔h7 45 ♔f7

Black has run out of moves, and here is the longest continuation.

45 ... a1♔  
 46. ♖xa1



White threatens 50.  $\text{Qh4}\#$ .

<b>49</b>	...	$\text{Qxg2}$
<b>50.</b>	$\text{e4}\#$	

This is the longest mate from the position.

### **33. Other combinations**

Combinations that do not belong to any of the ones given in previous chapters.

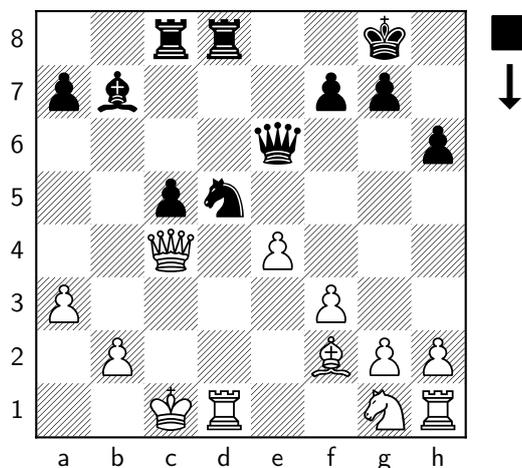
### 33.1. Unexpected blow: Gaasland – Carlsen, 2001

#### Puzzle 1

GLENN GAASLAND – MAGNUS CARLSEN

Ski NOR: 2001

2rr2k1/pb3pp1/4q2p/2pn4/2Q1P3/P4P2/1P3BPP/2KR2NR b - - 0 23



*The position looks equal, but Black has a winning combination. Can you find it?*

This was played by World Champion MAGNUS CARLSEN (See §10 on Page 670) when he was only 11 years old.

**23**                      ...                      ♘e3!

Threatens 24... ♖xd1# and 24... ♕xc4+.

**24.**                      ♖xd8+                      ♖xd8

Threatens 24... ♖d1# and 24... ♕xc4+.

25. ♔e2

25. ♕f1 also will be met with 25... ♕c4+. The Queen is not defended on f1.

25 ... ♕c4+

White resigns, as 26. ♕xc4 ♖d1# is checkmate, while 26. ♖b1 ♖d1+ will lose the Queen for a Rook and checkmate is not very far off.

### 33.2. Dying for a cause: Carlsen – Gulbrandsen, 2002

Puzzle 27  
MAGNUS CARLSEN – GUSTAV GULBRANDSEN  
Norway: 2002

r1b1k2r/pp1nqpp1/4p2p/3pP1N1/8/3BQ3/PP3PPP/2R2RK1 w - - 0 20

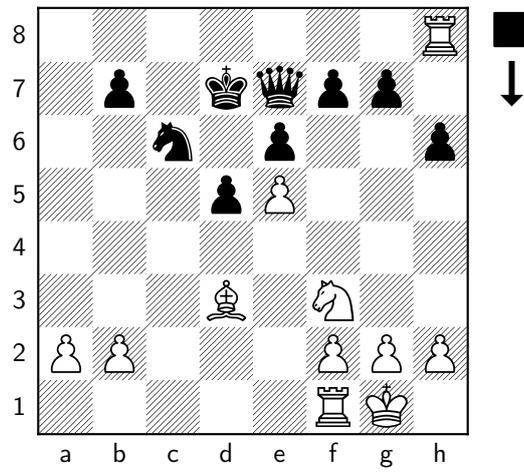
*White has a combination that wins material. Find it.*

A combination by the future world champion MAGNUS CARLSEN (See §10 on Page 670) when he was just 12 years old.

20. ♖xa7 ♜b8

20... ♜xa7 21. ♜xc8+ ♖d8 22. ♜xd8+ ♔xd8 23. ♘xf7+ +-.

21. ♖xb8 ♘xb8  
22. ♜xc8+ ♘d7  
23. ♜xh8 ♘c6  
24. ♘f3



White, having won two rooks and a bishop for the queen, won in another 10 moves.

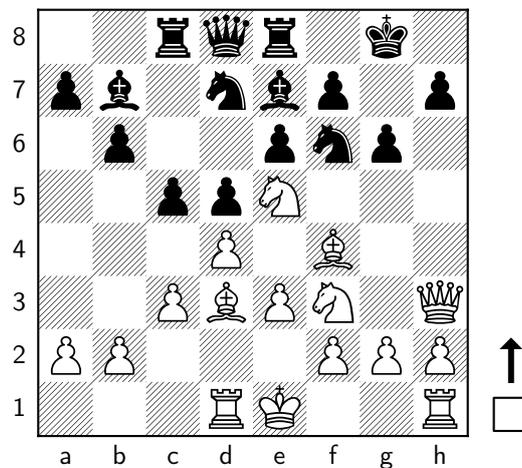
### 33.3. 13-year old's 13<sup>th</sup> move: Nihal – Jansson, 2017

#### Puzzle 31

NIHAL, SARIN – JENSSON, EINAR HJALTI

Runavik Open: 2017

2rqrk1k1/pb1nbp1p/1p2pnp1/2ppN3/3P1B2/2PBPN1Q/PP3PPP/3RK2R w K - 0 13



*White to play and win.*

This move was played by a 13-year old boy on his 13<sup>th</sup> move. Some claim that this move is mentioned in theory, but I am yet to see a reference.

This occurred after 1. d4 ♘f6 2. ♙f4 d5 3. e3 e6 4. ♘d2 ♙e7 5. c3 c5 6. ♙d3 0-0 7. ♘gf3 b6 8. ♘e5 ♙b7 9. ♚f3 ♘bd7 10. ♖d1 ♖c8 11. ♚h3 ♗e8 12. ♘df3 g6.

13. ♘xf7!

Black resigns, because after

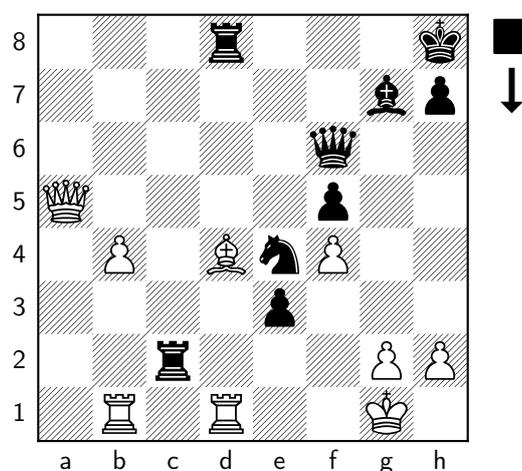


### 33.4. Unnecessary tactics: Sefchect – Umesh, 1997

#### Puzzle 98

MARK M. SEFCHECT – UMESH NAIR  
1997 Midwest Championship, Chicago: 1997

3r3k/6bp/5q2/Q4p2/1P1BnP2/4p3/2r3PP/1R1R2K1 b - - 0 34



*Black is a piece up but is in a tight corner. His Queen is attacked, and after it moves, 35. ♕xg7+ followed by 36. ♖xd8+ wins for White. How will Black escape from this and win this game?*

Several tries are interesting, but White has resources to beat most of them.

A) 1...e2? 2. ♖xd8+ ♖xd8 3. ♕xg7+ ♔xg7 4. ♖xd8 +-.

B) 1...♗xd4? 2. ♖xd4 ♖xd4 3. ♖a8+ +-.

C) 1...♗e7? 2. ♖xd8+ ♖xd8 3. ♕xg7+ ♔xg7 4. ♖xd8 +-.

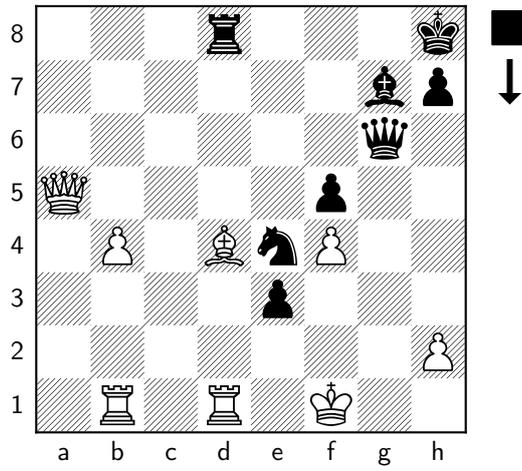
Three moves are interesting to consider:

#### CASE 1: RISKY SACRIFICE

The game continued

34. ... ♖xg2+  
 35. ♔xg2 ♗g6+  
 36. ♔f1

36. ♔h1 ♘f2# is mate, while 36. ♔f3 ♗g4+ 37. ♔xe3 ♙d4+ 38. ♖xd4 ♗h3+ 39. ♔e2 ♗g2+ 40. ♔d3 ♗d2+ 41. ♔c4 ♗xd4+ wins as in Case 2.



36. ... e2+!  
 37. ♔xe2

37. ♔e1 exd1♗+ (See the difference from Case 2: Black doesn't have 37... ♗g1+. 38. ♖xd1 ♖e8 and Black wins with the extra piece.)

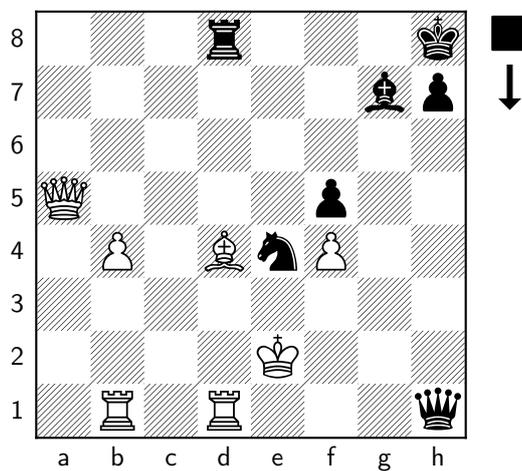
37. ... ♗g2+  
 38. ♔e1

38. ♔d3 ♖xd4+ 39. ♔e3 ♗f2# and 38. ♔e3 ♗f2+ 39. ♔d3 ♖xd4# end quicker.

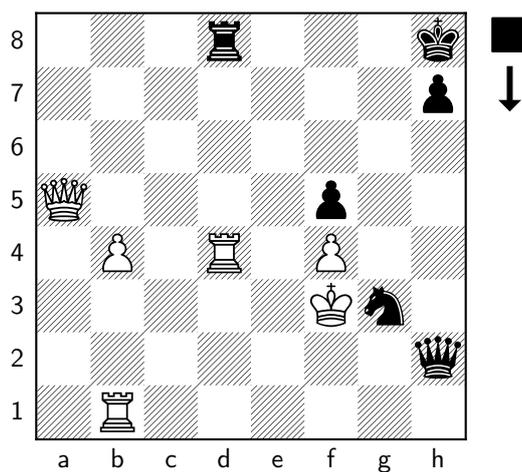
38. ... ♗h1+  
 39. ♔e2 ♗xh2+  
 40. ♔e1 ♗h1+

40... ♔h4+ 41. ♖e2 ♗xh4 wins enough material to win.

41. ♖e2



41. ... ♘g3+  
 42. ♖f2 ♗xh4+  
 43. ♗xh4 ♔h2+  
 44. ♖f3



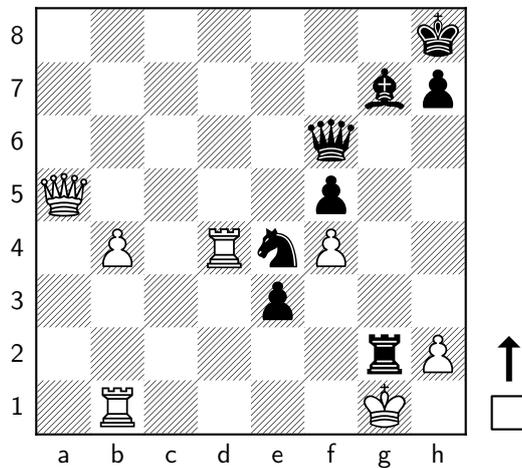
44 ... ♖e2+

White resigns. After 45. ♔×g3 ♜g8+ mates next move.

CASE 2: SAFER SACRIFICE

Case 1 is an interesting combination, but eliminating the Bishop on d4 helps Black to win more easily: It eliminates any ♘×f6 or ♘×g7+ threat and makes the dark squares f2 and g1 available for the Queen.

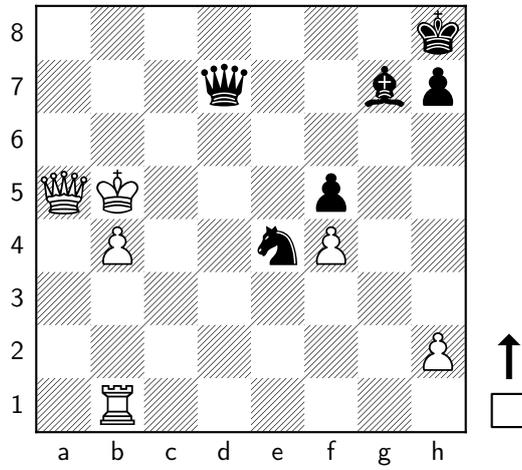
34 ... ♜×d4!  
35. ♜×d4 ♜×g2+



36. ♔×g2 ♕g6+  
37. ♔f3

37. ♔f1 e2+ 38. ♔xe2 (38. ♔e1 ♜g1+ 39. ♔xe2 ♜f2+ 40. ♔d1 ♜×d4+-+) 38... ♜g2+  
39. ♔d3 (39. ♔e1 ♜f2+ 40. ♔d1 ♜×d4+-+) 39... ♜d2+ 40. ♔c4 ♜×d4+-+.

37 ... ♕g4+  
38. ♔xe3 ♕h3+  
39. ♔e2 ♕g2+  
40. ♔d3 ♕d2+  
41. ♔c4 ♕×d4+  
42. ♔b5 ♕d7+



43. ♖b6

43. ♖c4 ♘d2+ 44. ♖c5 ♙d4#.

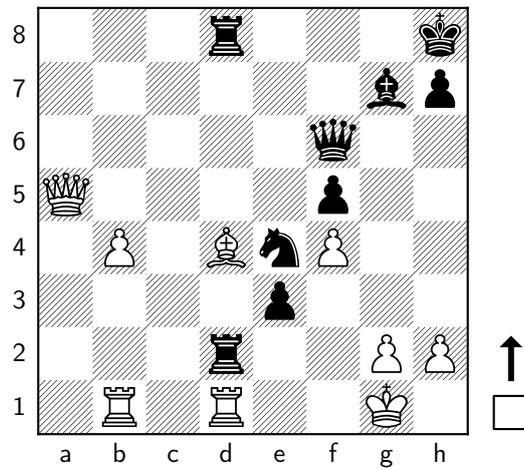
43 ... ♙d4+

+

White loses the Queen also and will be checkmated soon.

CASE 3: HARD-TO-FIND, UNBELIEVABLY SIMPLE MOVE

34 ... ♖d2!!

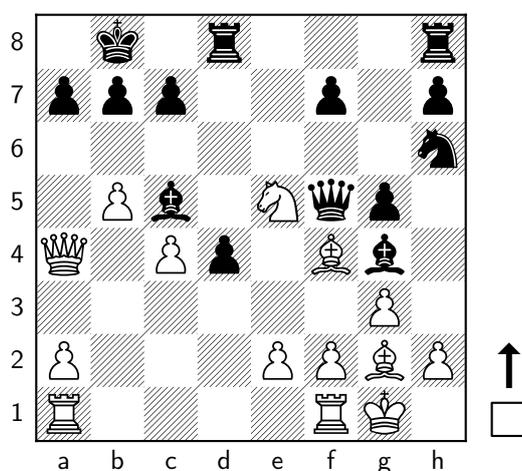


White is lost. Black is threatening 35... ♖×d4. If the White Bishop moves (including 35. ♗×f6), Black checkmates with 35... ♜×d1+. After 35. ♜×d2 e×d2, the same situation arises: Black threatens 36... ♖×d4, and any move by Bishop will lead to checkmate after 37... d1♖+.

### 33.5. Deep and wide combination: Ščipkov – Mészáros, 1993

Puzzle 87  
 ŠČIPKOV – G. MÉSZÁROS  
 Kecskemét: 1993

1k1r3r/ppp2p1p/7n/1Pb1Nqp1/Q1Pp1Bb1/6P1/P3PPBP/R4RK1 w - - 0 1



*All of White's pieces are aimed at Black's King. How can White finish it off?*

1.                   b6!!

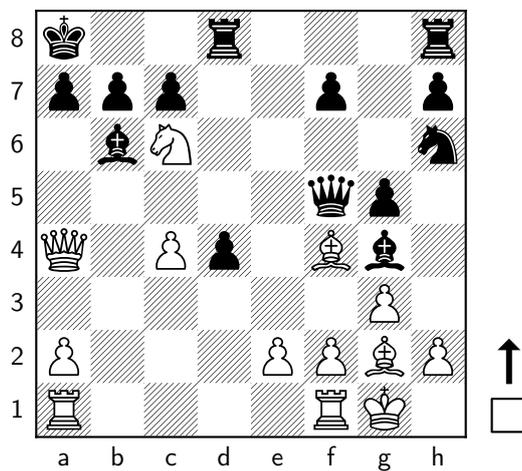
1. ♖c6+ ♔c8 2. b6 also works. For 1...bxc6, White should continue 2. b6!! and not 2. bxc6?? gxf4 --+.

1                   ...                   ♗xb6

1...axb6 2. ♖c6+! ♔c8 (2...bxc6 3. ♗xc6 +-) 3. ♖xa7+ ♔b8 4. ♖b5 gxf4 5. ♗xb7! ♔xb7 6. ♗xa7+ ♔c6 7. ♗xc7#.

2.                    ♖c6+!                    ♔a8

2...bxc6 3. ♕xc6 ♔c8 4. ♘xc7!! ♘xc7 5. ♖ab1! +- with the threat of 6. ♖b8+ ♔xb8 7. ♕b7#.



3.                    ♘xc7!                    ♔c5  
4.                    ♘xb6

Black resigns. 4... ♕xb6 5. ♖ab1 +-.

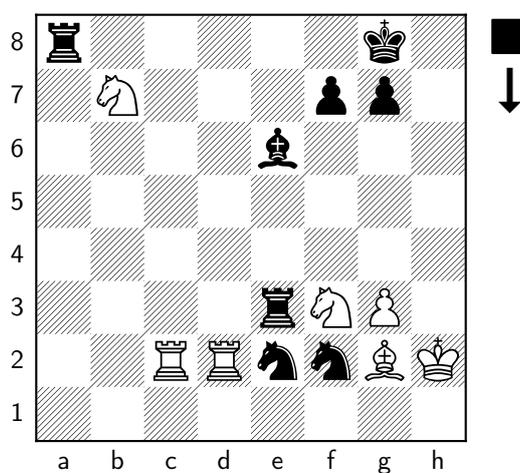
### 33.6. Very deep combination: Réti – Alekhine, 1925

#### Puzzle 105

RICHARD RÉTI – ALEXANDER ALEKHINE

Baden Baden: 1925

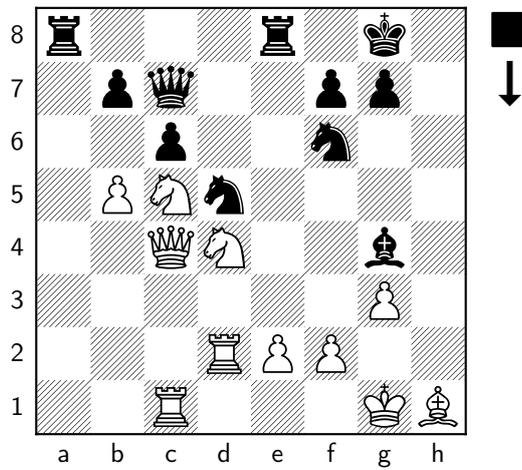
r5k1/1N3pp1/4b3/8/8/4rNP1/2RRnnBK/8 b - - 3 34



*Black to play and win.*

A fine game between RICHARD RÉTI (See §35 on Page 675), a strong player, theoretician and composer of early twentieth century and future world champion ALEXANDER ALEKHINE (See §1 on Page 668) features a long combination which Alekhine considers as his best. This puzzle shows its final part.

The combination started at the following position:



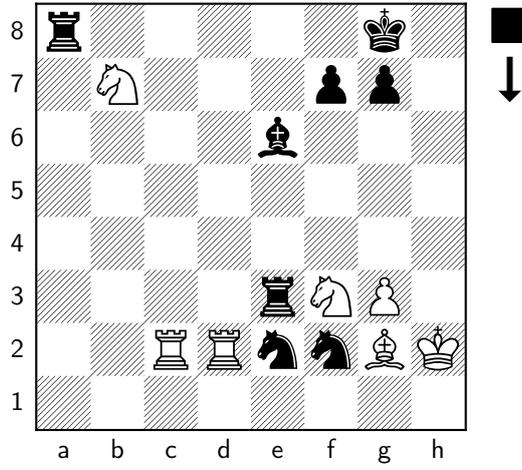
The game continued...

<b>26</b>	...	<b>♖e3!</b>
<b>27.</b>	<b>♗f3?</b>	

27. ♗f3 would have been better. White was threatening 27...♖xg3+. 27. fxe3 is impossible due to 27...♗xg3+ 28. ♗g2 ♗e3.

<b>27</b>	...	<b>cxb5</b>
<b>28.</b>	<b>♗xb5</b>	<b>♗c3</b>
<b>29.</b>	<b>♗xb7</b>	<b>♗xb7</b>
<b>30.</b>	<b>♗xb7</b>	<b>♗xe2+</b>
<b>31.</b>	<b>♗h2</b>	<b>♗e4!</b>
<b>32.</b>	<b>♖c4!</b>	<b>♗xf2</b>
<b>33.</b>	<b>♗g2</b>	<b>♗e6</b>
<b>34.</b>	<b>♖cc2</b>	

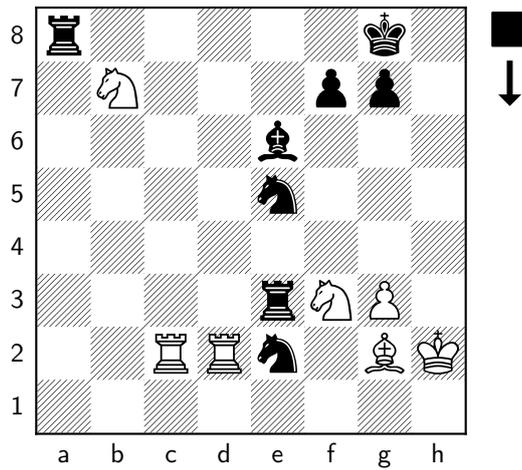
Reaching to the following position given in the puzzle:



34. ... ♖g4+  
 35. ♔h3

35. ♔h1 ♜a1+ 36. ♙f1 ♞xf1+ 37. ♔g2 ♞f2+ 38. ♔h1 ♞exf3 and White will be checkmated soon.

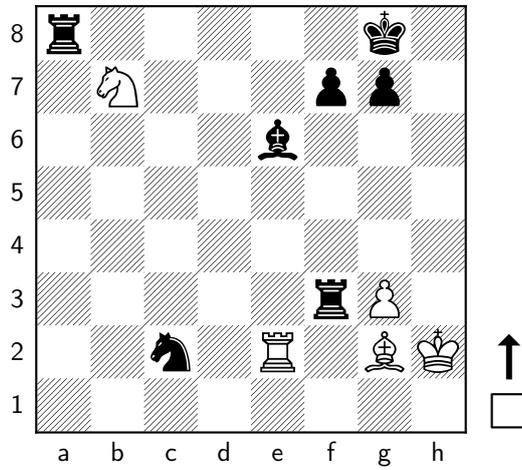
35. ... ♖e5+  
 36. ♔h2



36 ... ♖xf3!  
 37. ♖xe2

37. ♖xf3 ♜xf3+ 38. ♖g2 ♜xd2 leaves Black with an extra piece.

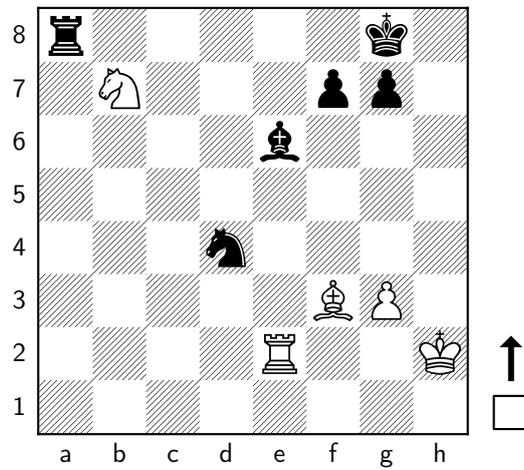
37 ... ♜g4+  
 38. ♖h3 ♜e3+  
 39. ♖h2 ♜xc2



40. ♖xf3

40. ♖xc2 ♜e3 leaves Black with a Rook and a pawn for a Knight.

40 ... ♜d4



White resigns. After 41.  $\text{Rf2}$   $\text{Nxf3+}$  42.  $\text{Rxf3}$   $\text{Bd5}$ , Black wins a full piece. (Note that either of the two pieces cannot move and protect the other.) So the best continuation for White is 43.  $\text{Rxe6}$   $\text{Nxf3+}$  44.  $\text{Kg2}$   $\text{fxe6}$  45.  $\text{Qxf3}$   $\text{Qf7}$  with an easy win with a Rook and Pawn for a Knight.

“I consider this,” writes Alekhine, “and the game against Bogoljubow at Hastings 1922, the most brilliant tournament games of my chess career.”

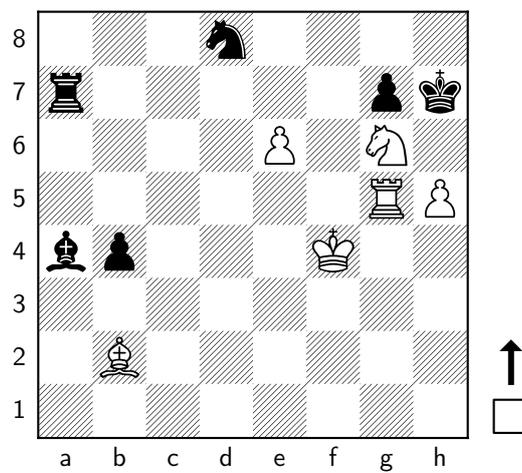
### 33.7. Missed win in World Candidates?: Caruana – Liren, 2018

#### Puzzle 33

CARUANA, FABIANO – LIREN, DING

World Championship Candidates, Berlin: 2018

3n4/r5pk/4P1N1/6RP/bp3K2/8/1B6/8 w - - 1 66



White to move. White missed a win by continuing 66. ♖e5 ♙e8 67. e7. How did he miss the win?

Commentators claimed that White missed a win here. This shows that line.

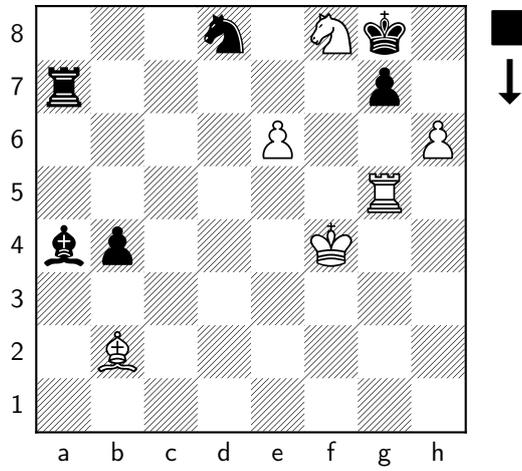
66. ♗f8+!

Note that 1. e7? is bad due to 1... ♗e6+.

66 ... ♙g8

66... ♙h8 67. h6 with similar results.

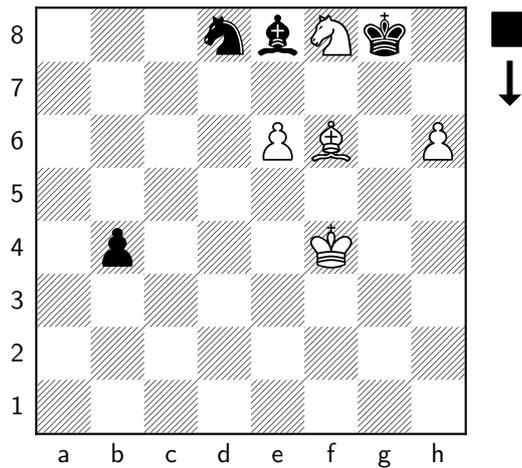
67. h6!



The Knight on f8 controls e6, which will prevent the Knight fork, and the triple attack on g7 decides. Note that 67... ♔×f8 68. h7! wins by queening the pawn.

However, I am yet to find the win after

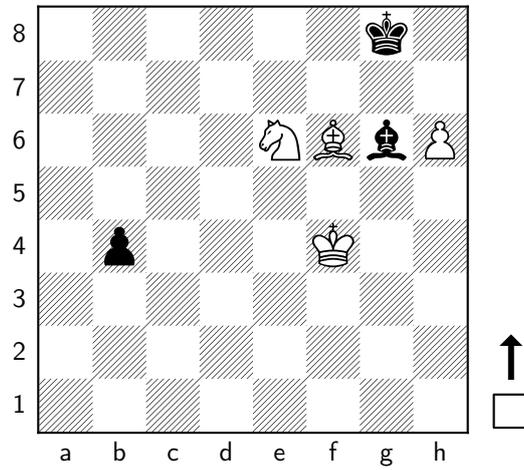
67.	...	♖e7
68.	♖×g7+	♖×g7
69.	♘×g7	♘e8
70.	♘f6	



70  
71.

...  
♖xe6

♗xe6  
♘g6



I am yet to find a clear-cut win for White here either.

## A. Famous players and composers mentioned in the puzzles

1. **Alexander ALEKHINE** (1892 – 1946) was the fourth world champion, and the only one who was the world champion when died. He was originally from Russia, and became a French citizen in 1924. He became world champion in 1927 defeating JOSÉ RAÚL CAPABLANCA (See §9 on Page 669), but became alcoholic and lost the title to MAX EUWE in 1935 with +8-9=13. Alekhine regained the title 1937, and retained the title till he died in 1946.

Alekhine is considered as one of the strongest chess players ever lived. He was very versatile in chess, doing numerous simultaneous and blindfold simultaneous (the largest being against 32 players in 1933, with +19-4=9) chess exhibitions, enhancing theory for openings (including *the Alekhine's Defense*) and endgames, composing endgame studies and raising money for chess players. His book *My best games of chess*, published in two volumes, is considered as one of the best game collections.

2. **Viswanathan ANANAD** (1969 – ) became the first Indian Grandmaster in 1988 at the age of 19, when he won the World Junior Championship. He challenged GARY KASPAROV in 1995 for the World Championship title, and became the FIDE world champion in 2000. There was some disputes between the two world chess associations FIDE and PCA, each one having its own world championships. In 2007, Anand became the undisputed World Champion by winning the World Championship tournament, and defended it in matches against VLADIMIR KRMANIK in 2008, VESELIN TOPALOV in 2010 (+3-2=7), and BORIS GELFAND in 2012. He lost his title in 2013 against MAGNUS CARLSEN (See §10 on Page 670), and lost the return match in 2014.

Anand is very active in tournament play, and won a number of strong tournaments. He is one of the fastest players in the world, winning many rapid, blitz and blindfold tournaments.

His peak FIDE rating was 2817 (March 2011).

3. **Adolf ANDERSSON** (1818 – 1879) was the world's strongest chess player immediately before the World Championship matches started. He is best known for his combinative style, including *the Immortal game* and *the Evergreen game* (See Section 18.5 on page 344.).
4. **Ulf ANDERSSON** (1951 – ) is a Swedish Grandmaster (Grandmaster since 1972) who is famous for positional games and precise endgame play. He is a grandmaster in correspondence chess as well. His peak FIDE rating was 2655 (January 1997).
5. **Yuri AVERBACK** (1922 – ) is a Russian Grandmaster (Grandmaster since 1952), author and theoretician. In 2016, he is the oldest living grandmaster, aged 94. Apart from his tournament play, he contributed a lot to the chess theory. He was an endgame theoretician, and his books *Chess Endings: Essential knowledge* and *Comprehensive Chess Endings* in five volumes are some of the best resources for

endgame. There are Averbach variations in the openings King's Indian Defense and Modern Defense.

His peak FIDE rating was 2550 (July 1971).

6. **Pal BENKO**(1928 – ) is a Grandmaster (Grandmaster since 1958), writer, theoretician and composer of chess problems. He contributed Benko Gambit and Benko Opening to the opening theory and enhanced the endgame theory with a lot of innovations.

His peak FIDE rating was 2530 (June 1973).

7. **Alexander BELIAVSKY** (1953 – ) is a Grandmaster who represented Soviet Union, Ukraine and Slovenia. He qualified in the 1982-'84 World Championship cycle to select the challenger to compete ANATOLY KARPOV, but lost to GARY KASPAROV in the quarter final. (Kasparov went on to win the championship and beat Karpov to become the world champion.)

His peak rating is 2710 (July 1997).

8. **Mikhail BOTVINNIK** (1911 - 1995) was the sixth world champion. He was the world champion three times: In 1948, he became world champion by winning the FIDE tournament after ALEXANDER ALEKHINE (See §1 on Page 668) died. In 1957, he lost the title to VASSILY SMYSLOV but regained the title in the return match next year. This repeated when he lost the title to MIKHAIL TAL (See §43 on Page 676) in 1960 and then regained in the return match next year. In 1963, he lost the title again to TIGRAN PETROSIAN (§32 on Page 674), but FIDE has stopped return matches, and he never came back. Botvinnik later retired from active play and became a chess coach and mentor, and is known as one of the fathers of *Soviet school of chess*, where prominent chess players like world champions ANATOLI KARPOV (See §18 on Page 671), GARY KASPAROV and VLADIMIR KRAMNICK got trained.

Botvinnik introduced scientific treatment to chess theory. He was one of the pioneers who developed computer chess. He developed many theories to evaluate a chess position mathematically. He was a master of studying players' styles and preparing against specific players, a skill that helped him to regain the world championship titles twice in return matches.

His peak FIDE rating was 2660 (January 1971).

9. **José Raúl CAPABLANCA** (1888 - 1942) was a Cuban master and the third world champion during 1921 – 1927. He became world champion by ending the 27-year reign of EMMANUEL LASKER in 1921. He lost the title to ALEXANDER ALEKHINE in 1927.

Capablanca was a master of simple games, getting the maximum out of simple positions. There are many tactical combinations he made, but most of his games follow simple realization of positional edge rather than complicated tactical combination. It is said that he was never checkmated (i.e., he always resigned before

getting checkmated) and has the best score (% of points won) among all world champions. He has lost only 34 games in his adult career and was undefeated for more than eight years during February 10, 1916 – March 21, 1924.

Capablanca was a chess author also. His *Chess Fundamentals* is considered to be a classic.

10. **Magnus CARLSEN** (1990 – ) is a Norwegian grandmaster (Grandmaster since 2004) and the current world champion. He became the world champion in 2013 by beating VISWANATHAN ANAND, and then retaining the title in the return match next year.

Carlsen has more similarities to Capablanca: His positional mastery, endgame skills and impressive track record resemble Capa. He is a master of complex tactical game as well, but what distinguishes him from others is the ability to materialize miniscule advantage.

He is the number 1 player in the world in classical, rapid and blitz chess.

His peak rating as of 2016 is 2882 (May 2014), the best achieved by any chess player in history.

11. **Robert J. (Bobby) FISCHER** (1943 – 2008) was a chess Grandmaster (Grandmaster since 1958) and World Chess champion during 1972-'75. He is considered as the greatest chess champion by some, and had some great achievements in his career, including winning eight US championship with at least one point margin (In 1963/64, he won the US Championship with a perfect 11/11, the only one who could that ever), becoming the youngest Grandmaster till then at 15, winning the 1970 interzonal tournament for the World championship with a record 3.5 points margin, beating MARK TAIMANOV and BENT LARSEN in the World championship candidate finals with 6–0 scores etc.

In 1972, Fischer became the world champion by beating BORIS SPASSKY in the most famous world championship match in the history of chess. After winning the world championship, Fischer quit chess and didn't play any public game except a match with Boris Spassky in 1992. In 1975, ANATOLY KARPOV became the world champion without playing a match with Fischer.

His collection of games - *My 60 memorable games* – is one of the best annotated collection of games.

Fischer's peak FIDE rating was 2785 (July 1972).

12. **Efim GELLER** (1925 – 1998) was a Soviet Grandmaster (Grandmaster since 1952). He was one of the top grandmasters in the 1950s, '60s and '70s. He has played with all of the nine world champions (Euwe, Botvinnik, Smyslov, Tal, Petrosian, Spassky, Fischer, Karpov and Kasparov) from MAX EUWE to GARY KASPAROV and has an overall plus score of +39-35=132 against them.

His peak FIDE rating was 2620 (January 1976).

13. **Anish GIRI** (1994 – ) is a Grandmaster from Russia and later Netherlands. He got an Indian name because his father is from Nepal.

His peak rating is 2798 (July 2017).

14. **Eduard GUFELD** (1936 – 2002) was a soviet (later emigrated to United States) grandmaster (Grandmaster since 1967), theoretician, coach and author.

His peak rating was 2570 (January 1997).

15. **Vlastimil HORT** (1944 – ) is a Czechoslovakian Grandmaster (Grandmaster since 1965) who later defected to Germany. He was one of the strongest grandmasters in the world during 1980s, playing the candidate tournament for World championship but never made it to the finals. He was an expert simultaneous chess player, once giving a simul with more than 600+ opponents immediately after his world championship quarter final match with BORIS SPASSKY (See §40 on Page 675).

16. **Bernhard HORWITZ** (1807 – 1885) was a German (later English) Chess master and composer in the nineteenth century. He had played matches with some strong players of that time including LIONEL KIESERITZKY, HOWARD STAUNTON and HENRY BIRD, and won against Bird.

He was more famous as an endgame specialist and composer. Along with JOSEF KLING, he pioneered systematic analysis of endgames. Their classic book *Chess studies*, first published in 1851, is one of the earliest books on endgame. They also co-edited the weekly journal *The Chess Player*.

17. **Sergei KARJAKIN** (1990 – ) is a Grandmaster from Ukraine and later Russia. He holds the record of becoming a grandmaster at the youngest age – 12 years and 7 months. He was the World Championship challenger against MAGNUSH CARLSEN in 2016, drawing the match 6–6 (1 win, 1 loss, 10 draws), but losing in the rapid tie-break. (See Page 356.)

His peak rating is 2788 (July 2017).

18. **Anatoly KARPOV** (1951 – ) is a Soviet/Russian Grandmaster (Grandmaster since 1970) and World Champion during 1975–'85 and FIDE world Champion during 1993–'99.

Karpov became world champion in 1975 without playing a match (The only one who did that) when Bobby Fischer refused to play the world championship. He defended the title against VIKTOR KORCHNOI in 1978 and 1981.

In 1984, Karpov played the world championship match against GARY KASPAROV, but the match was abandoned after 48 games (Karpov leading +5–3=40) because the health of both players were severely affected. In 1985, Karpov and Kasparov met again. Karpov lost the match with 11–13. Karpov played and narrowly lost three more world championships with Kasparov: In 1986, 1987 and 1990.

Later, Kasparov and a few other grandmasters left FIDE and formed PCA, and Karpov again became World Champion in 1993 by beating JAN TIMMAN. He then defended the title against GATA KAMSKY in 1996 and VISWANATHAN ANAND in 1998. Karpov refused to play any more world championships following FIDE introducing new rules.

His peak FIDE rating was 2780 (July 1994).

19. **Genrikh KASPARYAN** (1910 – 1995) is considered one of the greatest composers of endgame studies. He composed more than 600 endgame studies and compiled endgame studies into books, including the famous *Domination in 2,545 Endgame Studies*, a collection of 2545 studies by various composers conforming to the theme of pieces trapping pieces.

In addition to composing endgame studies, he was an International Master of over-the-board chess (IM since 1950) and has won many tournaments and championships. He was also a Grandmaster of Chess Compositions (since 1972) and International Judge of Chess Compositions (since 1956).

20. **Josef KLING** (1811 – 1876) was a German Chess player and composer in the nineteenth century. He is famous as an endgame expert, and along with BERNHARD HORWITZ, he pioneered systematic analysis of endgames. Their classic book *Chess studies*, first published in 1851, is one of the earliest books on endgame. They also co-edited the weekly journal *The Chess Player*.

21. **Viktor KORCHNOI** (1931 – 2016) is perhaps the strongest chess player ever who never became a world champion. A Grandmaster since 1956, he played for Soviet Union and later for Switzerland (from 1978).

Korchnoi was in the world championship cycle several times. He lost candidate final matches to BOBBY FISCHER in 1971 and ANATOLI KARPOV in 1974. He was the world championship challenger against ANATOLI KARPOV in 1978 and 1981.

He was very active in old age also, and won World senior championship. He passed away recently in June 2016.

His peak FIDE rating was 2695 (January 1979).

22. **Bent LARSEN** (1935 – 2010) was a Danish Grandmaster (Grandmaster since 1956) and four-time World championship candidate. (One of the historic matches in the world championship cycle, he lost 0-6 to BOBBY FISCHER.) He was the first recipient of Chess Oscar award.

Larsen was famous for his unorthodox style. He played a lot of rare and risky openings – Philidor’s defense, Bishop’s opening, Bird’s opening, Larsen-Nimzowtsch opening, Alekhine’s defense, Dutch defense, Scandinavian defense etc. – nobody else dared to play in top chess.

His peak FIDE rating was 2660 (January 1971).

23. **Leonid KUBBEL** (1891–1942) was one of the prominent composers during the first half of the twentieth century. His studies are distinguished by their composed beauty and have won many prizes. He is still considered as one of the best composers of endgame studies. He has composed chess problems as well.

Like TROITSKY (See §47 on Page 676), Kubbel died of starvation during 1942 siege of Leningrad.

24. **Edward LASKER** (1885 – 1981) was a German chess master who emigrated to America in 1914. He is not to be confused with EMMANUEL LASKER, the second World champion. He was an expert Go player as well.

Lasker was a chess author also. His books, *Chess Strategy*, and *Chess for fun and chess for blood* gained some popularity in the first half of the twentieth century.

25. **Emmanuel LASKER** (1868 – 1941) was a German chess master and the second world champion. He holds the record of the longest reign as the world champion: He became World champion in 1894 beating WILHELM STEINITZ, and held it for 27 years, a record, till he lost the title to JOSÉ RAÚL CAPABLANCA in 1921. During this time, he defended the title against Steinitz in 1897, FRANK MARSHALL in 1907, SIEGBERT TARRASCH in 1908, DAWID JANOWSKI in 1909 and 1910, CARL SCHLECHTER in 1910. (In those days, world championship matches were played based on challenges.)

Lasker was a well-known chess author also. His books, *Common Sense in Chess*, *Lasker's Manual of Chess* and *Lasker's Chess Primer* were very popular. He published a chess magazine, *Lasker's Chess Magazine*, from 1904 to 1909.

Lasker was a psychological player. His style could not be understood by others. He used to play weak and confusing moves only to confuse his opponent. Many of his games are full of such weird moves, aimed only at getting his opponent off the balance.

26. **Frank MARSHALL** (1877 - 1944) was an American Chess master and one of the strongest chess players in the world during early 20<sup>th</sup> century. He was the US Champion for 27 years, 1909 to 1936. He played (and lost) world championship matches against EMMANUEL LASKER and JOSÉ RAÚL CAPABLANCA, and won many international tournaments.

Marshall contributed to the opening theory considerably. There are several opening variations named after him, including the Marshall Defence and the Marshall Attack in the Ruy Lopez.

In 1915, he founded **Marshall Chess Club** in New York, one of the most popular chess clubs in the world which is still active.

27. **Dr. Andrew Jonathan MESTEL** (1957 – ) is one of the top grandmasters in England. In addition to the over the board play, he is a grandmaster in chess problem solving, a strong contract bridge player (represented England in many

international events) and a professor of Applied Mathematics at Imperial College of London.

28. **Ivan MOROVIV-FERNADEZ** (1963 – ) is a Grandmaster from Chile. His peak FIDE rating was 2613 (In 1999).
29. **Arkadij NAIDITSCH** (1985 – ) is a Grandmaster from Azerbaijan. His peak FIDE rating was 2737 (in December 2013).
30. **Aron NIMZOWITSCH** (1886 – 1935) was a leading chess master during early twentieth century and the most influential chess theoretist. In an era where people were after wild attacks, he introduced the concept of positional play through positions, blockade, getting better pawn formations, overprotection, *prophylaxis* etc. His books explaining his system – *My system*, *Chess Praxis* and *The blockade* – are classics in the chess theory and is read even today. He contributed a lot to the opening theory, founding the *hypermodern school*, where the classical principles like control the center, develop the pieces are abandoned for obtaining a solid position before attempting to seize the center. Many openings – The *Nimzowitsch Indian defense*, commonly known as *Nimzo-Indian*, the *Nimzowitsch defense*, the *Nimzowitsch variation* in the *French defense* etc. – were named after him.
31. **Luděk PACHMAN** (1924 – 2003) was a German Grandmaster in chess writer. He has authored several very classics, including *Modern Chess Strategy*, *Modern Chess Tactics*, *Complete Chess Strategy* and *Chess Endings for the practical player*.  
His peak FIDE rating was 2520 (in January 1976).
32. **Tigran PETROSIAN** (1929 – 1984) was a Soviet/Armenian Grandmaster (Grandmaster since 1952) and the world champion during 1963 – 1969. He became World Champion by beating MIKHAIL BOTVINNIK in 1963, defended the title against BORIS SPASSKY in 1966 and lost the title to Spassky in 1969.  
Petrosian was well-known (and notorious) for his ultra-positional and conservative playing style. He was very hard to beat, but because of his non-attacking style, many weak players could draw against him, and he got the nick name *The drawing master*.  
His peak FIDE rating was 2645 (in July 1972).
33. **Lajos PORTISCH**(1937 – ) is a Hungarian Grandmaster (Grandmaster since 1961) who was one of the strongest chess players during the 1960s and 1970s. He qualified for eight World championship candidate cycles from 1965 to 1988, but never made to the finals.  
His peak FIDE rating was 2655 (in January 1980).
34. **Samuel RESHEVSKY** (1911 – 1992) was one of the strongest chess players in the twentieth century, who has played with all the eleven World champions from EMMANUEL LASKER to ANATOLY KARPOV (Didn't play with the first world cham-

pion, WILHELM STEINITZ) and defeated seven of them. He was the US champion eight times, until Fischer came into picture. He was one of the top five players qualified in the 1948 World Championship tournament.

Reshevsky was a chess prodigy, who used to give simulms at the age of eight. He was an expert in playing matches. He won every match, including a four-game match against World champion MIKHAIL BOTVINNIK, except against VIKTOR KORCHNOI.

35. **Richard RÉTI** (1889 – 1929) was Grandmaster from Austria/Hungary/Czechoslovakia, one of the strongest who never became a world champion. He was a famous chess author and composer of endgame studies as well.

36. **Henri RINCK** (1870 – 1952) was one of the prominent early composers of endgame studies. His collection of 1414 endgame studies was published a few days before his death in 1952.

37. **Nicolas ROSSOLIMO** (1910 – 1975) was a Grandmaster (Grandmaster since 1953) and composer who lived in Russia, Greece, France and United States. He had many notable victories in top class tournaments and was World number 15 in 1953. He loved the artistic nature of chess, and was more interested in playing brilliant moves than scoring more points. The *Rossolimo-Nimzowitch Attack* against the Sicilian Defense (with 2. ♖f3 and 3. ♜b5) is named after him.

38. **Akiba Kivelowicz RUBINSTEIN** (1880 – 1961) was a Polish Chess Grandmaster, who was known to be one of the best chess players in the world at the beginning of the twentieth century and an expert in endgame and positional play. Being a Polish jew in Nazi-occupied Belgium, Rubinstein somehow managed to survive, but developed anthropophobia in later years, so didn't leave any big chess legacies, except some opening variations named after him.

39. **Ladislav SALAI, Jr.** (1961 – ) is a Slovak chess player, solver and composer. He is an International Solving Grandmaster (since 2011) and International Master of Chess Compositions (Since 2012).

His current solving rating is 2613.

40. **Boris SPASSKY** (1937 – ) was a Soviet (and later France) Grandmaster (since 1955) and World Champion during 1969–1972. He was one of the strongest players during the 1950s and 1960s and continued to be in the top circle during 1980s and 1990s.

He challenged the then-World champion TIGRAN PETROSIAN in 1966 but lost. He beat PETROSIAN in 1969 and then lost to BOBBY FISCHER in 1972.

His peak rating was 2690 (January 1971).

41. **Wilhelm STEINITZ** (1836 – 1900) was an Austrian (later American) chess master and the first official World champion during 1886 – '94. He was the first positional

player in the history of chess, and argued positional play is superior to attacking game. He won the title by beating JOHANNES ZUKERTORT in 1886 and lost to EMMANUEL LASKER in 1894. He was an author and editor also.

42. **Peter SVIDLER** (1976 – ) is a Russian Grandmaster (Grandmaster since 1994) and one of the top players in the world. He has won seven Russian championships and participated in three world championship tournaments and three world championship candidate tournaments.

His peak FIDE rating was 2769 in May 2013.

43. **Mikhail TAL** (1936 – 1992) was a Soviet Grandmaster (Grandmaster since 1957) and the eighth World Champion during 1960–'61. He is considered as one of the best tactical players ever lived, having produced numerous tactical combinations and attacking games. He was an expert blitz player and could play very complex tactical combinations in blitz as well.

He won the world championship by beating MIKHAIL BOTWINNINK in 1960, but lost the return match in 1961.

He was a skilled author and journalist also.

His peak FIDE rating was 2705 (January 1980). He had a very poor health and died at the age of 55.

44. **Siegbert TARRASCH** (1862 – 1934) was a German master and one of the strongest chess players in the late 19<sup>th</sup> century and early 20<sup>th</sup> century. He had plus positions against all the strong players in that period, except the World Champion EMMANUEL LASKER.

A doctor by profession, he was a famous chess teacher and a very popular chess writer. Several of his works are classics. He followed the classical style and didn't approve the hypermodern school.

Tarrasch contributed a lot to the chess theory. *Tarrasch defense* in Queen's Gambit (1. d4 d5 2. c4 e6 3. ♘f3 c5, *Tarrasch variation* in the French defense (1. e4 e6 2. d4 d5 3. ♘d2) and *Open variation* in the Ruy Lopez (1. e4 e5 2. ♘f3 ♘c6 3. ♗b5 a6 4. ♗a4 ♘f6 5. 0-0 ♘xe4) are some of them.

45. **Savielly TARTAKOWER** (1887 – 1956) was a Polish (later French) Grandmaster (Grandmaster since 1950), author and journalist. In addition to being a strong chess player, he is remembered for his quotations and aphorisms.

46. **Carlos TORRE** (1904 – 1978) was a Mexican Grandmaster (He was awarded the title in 1977, when he was 73 years old.), who spent most of his life in New Orleans, USA. The chess opening TORRE ATTACK is named after him.

Not to be confused with EUGENIO TORRE, the Grandmaster from Philippines.

47. **Alexei A. TROITSKY** (1866 – 1942) was one of the greatest composers of endgame

studies. He developed the theory of many endgames, including  $\text{♔}+\text{♖}+\text{♗}$  vs  $\text{♔}+\text{♘}$ . People could not find any flaw in most of his studies even by computer analysis and endgame tablebases later.

In 1942 at the age of 76, Troitsky died of starvation during World war II at the siege of Leningrad.

## B. Special Endings

### B.1. King + Queen vs King + Pawn ending

In general, the Queen wins against the Pawn, but there are a few cases where the game ends in a draw.

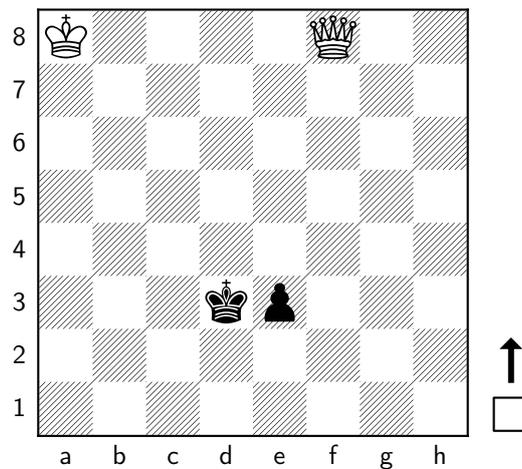
For the discussion here, let us assume White has ♔ + ♚, and Black has ♖ + ♗.

#### B.1.1. If the pawn hasn't reached the seventh rank

This is always a win for the Queen.

The winning method is continuously checking the King with the Queen, and trying to win the pawn. When the Black King blocks the pawn, or the pawn is pinned, move the White King closer. If White gets a chance to place his Queen on a square in front of the pawn on the same file, the rest is easy by moving the White King closer and attacking the pawn.

For example consider the following position.

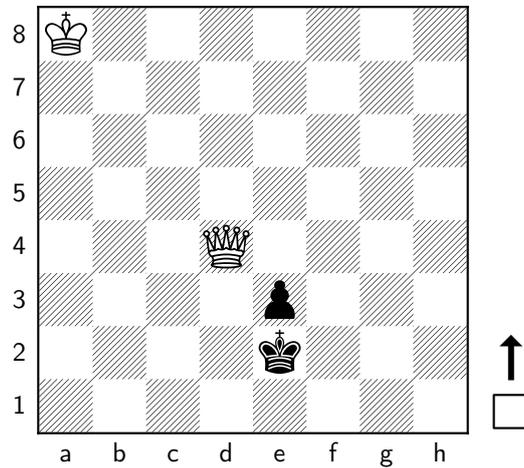


Position B.1.1: ♚ vs ♗: General case

1. ♚d6+ ♔c2
2. ♚c5+ ♔d2

2... ♔d3 3. ♚b4, threatening 4. ♚e1, forces 4... ♔e2 5. ♚b7 ♔f2 6. ♚f4+ etc.

3. ♚d4+ ♔e2



4. ♚b7

Bringing in the King closer to the Pawn, when the pawn cannot move. Now,

4 ... ♔f3

4... ♔f2 leaves the Pawn pinned, so 5. ♔c6. Other moves lose the pawn.

5. ♚h4

Threatens 6. ♚e1, so

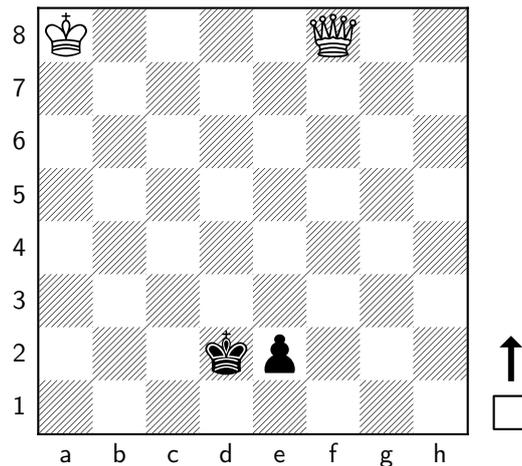
5	...	♔e2
6.	♔d5	♔d2
7.	♚d4+	♔e2
8.	♔e4	

and wins the pawn.

### B.1.2. King + Queen vs King + Pawn (Central or Knight Pawn) on the seventh

If the pawn is on the seventh rank of b, d, e or g file, the Queen wins against it. The technique is the same as above, except that chances of occupying a square in front of the pawn is less.

For example, consider the following position.



Position B.1.2: ♔ vs ♕ on seventh: General case

A possible winning method is 1. ♕f4+ ♔c2 (1... ♕d3 2. ♕c1 and 3. ♕e1.) 2. ♕c4+ ♔d2 3. ♕d4+ ♔c2 4. ♕e3 ♔d1 5. ♕d3+ ♔e1 6. ♔b7 ♔f2 7. ♕d2 ♔f1 8. ♕f4+ ♔e1 9. ♔c6 ♔d1 10. ♕d4+ ♔c2 11. ♕e3 etc.

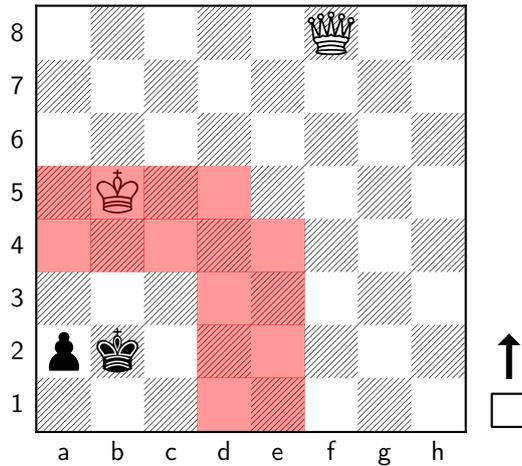
Two exceptions of this rule are the Rook pawn and the Bishop pawn on the seventh rank. In these cases, the defending King can move to the 8<sup>th</sup> rank square of the rook file, threatening stalemate if the attacking King moves closer.

However, if the attacking King is closer, it is still a win. The following sections give the full details.

### B.1.3. King + Queen vs King + Rook Pawn on the seventh

The technique given in Section B.1.2 (Page 680) may not work if the pawn is a Rook pawn. For example,





Position B.1.4: ♔ vs a- or h-♚: Win and draw

**King on a5, b5, c5:** 1. ♔b4+ ♚c2 2. ♔a3 ♚b1 3. ♔b3+ ♚a1 4. ♔d1+ ♚b2 5. ♚b4 a1♔ 6. ♔d2+ ♚b1 7. ♚b3 +-.

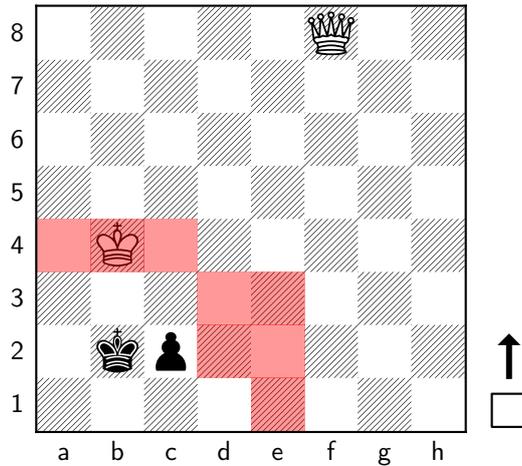
**King on d5:** 1. ♔b4+ ♚c2 2. ♔a3 ♚b1 3. ♔b3+ ♚a1 4. ♔d1+ ♚b2 5. ♚c4 a1♔ 6. ♔d2+ ♚b1 (6... ♚a3 7. ♔b4+ ♚a2 8. ♔b3#) 7. ♚b3 +-.

**King on e4, e3, e2:** 1. ♔b4+ ♚c2 2. ♔a3 ♚b1 3. ♔b3+ ♚a1 4. ♔d1+ ♚b2 5. ♚d3 a1♔ (6... ♚b3 7. ♔d4 +-) 7. ♚d3 a1♔ 8. ♔c2 #.

#### B.1.4. King + Queen vs King + Bishop Pawn on the seventh

The technique given in Section B.1.2 (Page 680) may not work if the pawn is a Bishop pawn. For example,





Position B.1.6: ♔ vs c- or f-♙: B♔ on the shorter side

For example,

**King on a4, b4, c4:** 1. ♔f2 ♙a1 (Or 1...♙b1) 2. ♙b3 +-, because 2...c1♔  
 3. ♔a2# and 2...c1♙+ 3. ♙a3 checkmates on the next move.

**King on e1, e2. e3:** 1. ♔b4+ ♙a1 2. ♙d2 +-.

Note that it is a draw if the White King is on d4, because after 1. ♔f2, Black draws with 1...♙a1 or 1...♙b1. For 1. ♔b4+, either 1...♙a1 or 1...♙a2 will draw.

2. If the Black King is on the longer side of the pawn, it is more difficult for Black to get into the stalemate position, so the White King can be a little farther. The following diagram gives the details. If the White King is in any of the highlighted squares, it is a win for White.



## C. Notation

### C.1. Figurine Algebraic Notation

Figurine algebraic notation is used in this document. Each piece is indicated by a small icon, as indicated in Table 7. Absence of an icon indicates that the move is by a pawn.

Unit	English Symbol	Figurine Symbol
King	K	
Queen	Q	
Rook	R	
Bishop	B	
Knight	N	
Pawn	(P)	(♙)

Table 7: Symbols for pieces in English and Figurine algebraic notations

Squares are indicated in a two-dimensional co-ordinated system. The eight columns (“files”) from White’s left to right are named with letters a–h. The eight rows (“ranks”) from White side to Black side are named with numbers 1–8.

### C.2. Annotation Symbols

In addition to annotating games with text, many sources use language-less symbols to indicate various elements and ideas. Some of these are used in this document also. Table 8 gives those symbols.

### C.3. Nunn Notation for endgames

When discussing some of the puzzles in this document, the *Nunn Notation* is used. According to Nunn Notation,

- A *good move* (Shown as **Move!**) is the *only* move that achieves the best result for the side with the move. Here, it means *the only move to win* in an otherwise drawn position for White or *the only move to draw* in an otherwise lost position for Black.
- A *bad move* (Shown as **Move?**) is a move that gives a worse result than the best achievable result for a side. Here, it means a move that doesn’t win for White in a won variation, or a losing move for Black in a drawn variation.

Symbol	Meaning
!	Good move
!!	Very good (excellent) move, often a move that changes the outcome of the game.
?	Bad move
??	Very bad move (blunder), often a move that changes the outcome of the game.
!?	An interesting move, but it is not clear whether it is a good move.
?!	A dubious move, but it is not clear whether it is a bad move.
+	Check
#	Checkmate
⊙	Zugzwang
±	White has a slightly better position.
∓	Black has a slightly better position.
±	White has a clearly better position.
∓	Black has a clearly better position.
+−	White has a winning advantage.
−+	Black has a winning advantage.
=	Even position. No advantage to either player.
∞	An unclear position. Not clear who has the advantage.
∞	The player who made the last ply is down material, but has compensation for that.
<b>1–0</b>	White wins (1 point for White, 0 points for Black)
<b>0–1</b>	Black wins (0 points for White, 1 point for Black)
$\frac{1}{2} - \frac{1}{2}$	Draw ( $\frac{1}{2}$ points each for White and Black)

Table 8: Additional symbols for annotation

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