

The Art of the Endgame

My Journeys in
the Magical
World of
Endgame Studies

by Jan Timman

NEW  IN CHESS

Jan Timman

The Art of the Endgame

My Journeys in the Magical World of Endgame Studies

New In Chess 2011

For Geertje

© 2011 New In Chess

Published by New In Chess, Alkmaar, The Netherlands

www.newinchess.com

All rights reserved. No part of this book may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission from the publisher.

Cover design: Volken Beck

Translation: Peter Boel

Proofreading: René Olthof, Steve Giddins

Supervisor: Peter Boel

Production: Anton Schermer

ISBN: 978-90-5691-369-4

Contents

Preface	7
Chapter 1	11
Miniature Studies	11
Chapter 2	22
Rook versus Bishop	22
Chapter 3	32
Preventing Pawn Promotion	32
Chapter 4	56
Various Promotion Combinations	56
Chapter 5	81
Knight Promotions	81
Chapter 6	99
Bishop Promotions	99
Chapter 7	120
Mating Patterns	120
Chapter 8	147
Stalemate Patterns	147
Chapter 9	168
Mutual Zugzwang	168
Chapter 10	183
Building a Fortress	183
Chapter 11	199
Systematic Manoeuvres	199
Chapter 12	224
The Disappearing Trick	224

The Art of the Endgame

Chapter 13	248
Three Themes	248
1. Troitzky/Amelung position	248
2. Valladao Task	252
3. Liquidation to a pawn ending	255
 Chapter 14	 260
Various Endgame Studies	260
1. Studies with others	260
2. Studies with no specific theme	262
 Explanation of Symbols	 266
Index of Composers	267
Acknowledgements	269

Preface

In my early youth, there were fascinations. I imagined how it would be to live in a house in the woods. Castles would bring me to raptures. I remember my excitement when I was standing with my parents on the ferry that transported visitors to Loevestein Castle. I dreamed that on the playground in our neighbourhood there was a castle you could play in.

In the summer holidays, we travelled along the Rhine in a Ford Taunus – my father behind the wheel, my mother next to him and we, the four kids, pressed together on the back seat. Our destination was Tuscany: Siena and Lucca, with its all-embracing city wall, which we rounded again and again during our long walks.

Along the Rhine stood the robber baron castles with their impressive names: Reichenstein, Rheinfels, and the Fürstenberg, the ruin that towered high above the Rheindiebach village. There we used to find lodgings in a little hotel, concluding the first stage of our trip. At home, in the living room, I would build Lego cities and Citadel castles.

M.C. Escher's 'Metamorphosis' starts with black-and-white squares that transform into salamanders. The salamanders become beehives. Out of these, bees emerge, which are ingeniously transformed into birds. Then there are fish, and in the accompanying pattern – birds again.

Here the 'Metamorphosis' arrives at things made by human hands. The new birds transform into blocks. Out of these, houses in a South-Italian town are formed. Now the systematic pattern of forms is broken. A bridge connects the town with a chessboard. On a3 is a white rook, which also exists in the other reality. On the chessboard, a position is depicted where White perishes due to a smothered mate. And then Escher is back at the black-and-white squares.

From building miniature cities to chess: this was a step I already made in my youth.

The world of chess was the most fascinating. I devoured Euwe's books. The memory of the game Réti-Alekhine, annotated in his book *Practical Chess Lessons*, which never ceased to amaze me: the black rook appearing on e3 and remaining *en prise* there for several moves. Another game that was indelibly printed in my memory was Tartakower-Botvinnik from Hans Müller's *Mikhail Botvinnik, One Hundred Selected Games*. It was an im-

The Art of the Endgame

pressive image: the white king was pinned down in the corner by a knight on f3, supported by a mighty pawn front.

Within the romantic world of chess there was a sector that was even more hermetically closed off from the outside world. I first became acquainted with it when I read Herbstman's book 'De schaakstudie in onze dagen' (i.e. 'Contemporary Chess Studies'). In this new world there was no struggle in the sense of a man-to-man fight. The competitive element was gone – only scientific and artistic elements remained. The studies by Troitzky and Kubbel had a special magic. I felt that their masterpieces were made for eternity.

It is the strict regulations that lend a special status to the endgame study. White always has only one move to reach his goal, whether it is to force a win or a draw. Black, on the other hand, may have alternatives, and these extra possibilities can enhance the content and the richness of a study.

In practical chess, you think about what lies in the distance. You make plans and calculate variations. Creating an endgame study requires a significantly different thinking process. As a rule, the endgame study composer has an end position in mind, which contains a spectacular hidden point. Then comes the stage of retrograde thinking: he investigates the position backwards, asking himself: 'What was White's last move?' and then: 'What was Black's last move?' Today I still ask myself these questions in my mind.

I composed my first studies in the early 1970's, when I had just finished my secondary school education and the world was my oyster. Now I look back on this, four decades later, it strikes me how uncomplicated these early pieces of work look. The points are nice, but the play misses the depth of my later studies. Not until the 1980s did I manage to create a few high-level studies.

Nowadays I can hardly imagine how it was to compose studies without a computer. In those days it was extremely difficult to work out all the tactical details. You could spend days eliminating little tactical tricks that upset the play. And then sometimes, there would still remain questions. Nowadays you can simply move your pieces and pawns to the right squares on the analysis board of your computer. Tactical snags are often useful for adding new elements to the study.

In December 2010, I decided to write *The Art of the Endgame*. I wanted to show systematically, guiding the reader along themes and genres, why endgame studies are so beautiful and so interesting. Especially the system-

atics were important. It had struck me that most books on endgame studies were quite random collections. My intention was to reveal the secrets from the world of endgame studies in 14 chapters. I also had a second intention: in 1991, my book *Schaakwerk II* had appeared in Dutch (later translated as *Studies and Games*). In the second part of this book I had included a number of endgame studies. I wanted to put this material under the microscope one more time. With the help of the computer I would establish if the studies were correct, after polishing them up in some cases.

In January 2011, I started my journey in the world of endgame studies. I kept making new, fascinating discoveries. This stimulated me to create new studies. Before, I had never occupied myself with the question how you could incorporate the Novotny theme and the related Plachutta theme in studies. Studying a number of examples pointed me in the right direction. Never before have I been so productive as an endgame study composer as in the seven months that I wrote this book. It was a sensational experience. Whether I looked at bishop promotions, systematic manoeuvres, or the Valladao Task, I kept finding new paths.

The computer has refuted a number of studies by great composers. Nowadays there is a trend to publish such refutations as if they were great achievements. In this book I have striven to use the computer in a constructive way. An impressive work of art that has been damaged, must be repaired with great care. I have treated studies with such defects in the same way. I corrected them in ways that did not affect the brilliant ideas.

In the first chapter I discuss miniature studies, i.e. pieces of work that are often closely related to the theoretical side of the endgame. The second chapter continues on this path, and is purely theoretical. Then we come to the real romanticism. Pawn promotion is an important factor in chess. First I discuss several methods to prevent pawn promotions, and after that the various promotion combinations are reviewed. I have given a representative picture of the themes. As with every theme, I cannot pretend to be comprehensive; there are more than 75,000 studies in existence!

In the chapter on knight promotions, I have had to restrict myself even further. This is the type of pawn promotion that is most frequent after the regular queening, in practice as well as in studies. I have exclusively dealt with knight promotions that repeat themselves according to a certain pattern. With bishop promotions I could paint a slightly more comprehensive picture again, even though I was forced to make choices here as well.

The Art of the Endgame

In the chapters on mate and stalemate, I have selected those studies that appealed to me most. That was anything but easy. Each study (or game) ends in mate or stalemate, and the motifs can be surprising and beautiful.

Mutual zugzwang and building a fortress are themes that can be of practical use. It is remarkable how often strong players do not recognize these themes. For this reason, I think that Chapters 9 and 10 are highly instructive.

On the other hand, the next two chapters contain themes that are entirely disconnected from practice. Systematic manoeuvres do not occur in games. Nor will a player strive to lose pieces in the course of a variation. However, it is worthwhile to see how these offerings are justified in studies.

In the chapter called 'Three Themes' I have dealt with three of my favourite themes. The final chapter is a collection of remaining studies. Again, I had to make a selection here. There were studies from the past with nice ideas, which nevertheless had to be rejected for publication, either because the computer refuted certain variations, or because the variations were insufficiently special.

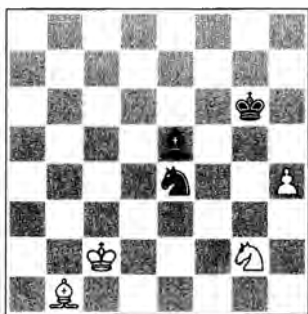
And that is how my seven months' journey came to an end. It was not only a fascinating experience, but also an instructive one. It seemed as if I was finally allowed to probe depths in the endgame that had been hidden from me before. I have tried to describe and explain my findings as clearly as possible. And I sincerely hope that the depth and beauty of endgame studies will also move the reader.

*Jan Timman,
August 2011*

Chapter 1

Miniature Studies

A miniature study is a study with no more than seven pieces in the starting position. With minimal material, the composer must weave the maximum amount of finesses into the position. A classical example is the following study by the brilliant Russian composer Mark Liburkin.



Liburkin, '64' 1933
White to play and win

First of all White pins the black knight, in order to capture it next.

1. ♖c2-d1 ♜g6-f5
2. ♜d1-e2

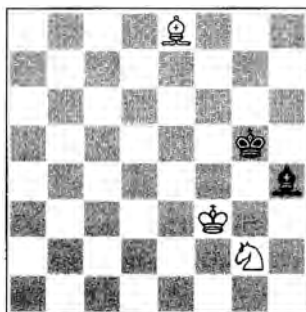
Because his bishop is in the way, Black cannot unpin his knight. However, he has a resource in store.

2. ... ♞e5-f6
3. ♜e2-f3 ♞f6xh4

Black appears to save himself, since after 4. ♞xh4+ ♜g5 the

white knight is also under attack. But now White changes tack.

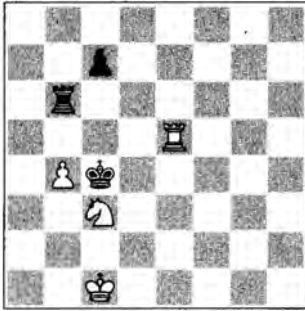
4. ♞b1xe4+ ♜f5-g5
5. ♞e4-d5! ♜g5-h5
6. ♞d5-f7+ ♜h5-g5
7. ♞f7-e8



And the black bishop is lost.

This miniature study contains some themes that we will touch upon later. It starts with a pin. The final position shows a case of 'mutual zugzwang': if it were his move, White would not be able to win. Furthermore, the 'domination' theme makes an appearance: the black bishop has no squares and is dominated by the white pieces.

I have composed a modest number of miniature studies myself; it is not easy to build in enough points and finesses with so little material.



Timman 1983
White to play and win

In this position it is hard to foresee that the black king can be drawn into a mating net. Yet, that is precisely what this study was based on.

1. ♖c3-a2

Now Black has two possibilities.

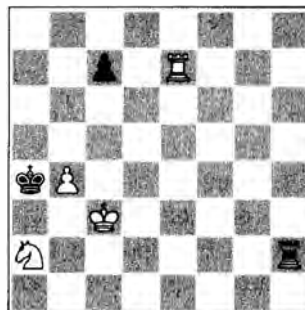
A) **1...♗b3** The most obvious move. The black king penetrates in order to disturb the cooperation between the white pieces. **2.♖b1** By protecting the knight with the king, White keeps his rook mobile. After **2.♜e2 ♜h6 3.♜b2+ ♔a3 4.♖b1 ♜h1+ 5.♘c1 c6** he would have no winning chances whatsoever. **2...♜h6 3.♜e3+ ♔a4**



The black king has been driven back, but how should White proceed? After **4.♜c3 ♜h1+ 5.♖b2 ♜h2+ 6.♜c2** Black can comfortably exchange the rooks.

An elegant idea is **4.♖b2**, as after **4...♜h2+ 5.♖c3 ♜xa2 6.♜e5** Black can only prevent the threatened mate on a5 by giving up the rook. However, this idea does not work since Black can play **5...c5** instead of **5...♜xa2**. After **6.bxc5 ♖b5** White loses either his knight or his pawn, and in both cases the draw is inevitable.

For this reason I initially thought that there was no win for White here. Until I found the plausible solution to the problem of the position, which lies in **4.♜e7!**. The penetration by the black king with **4...♖b3** would now be parried by **5.♜xc7 ♜h1+ 6.♜c1 ♜xc1+ 7.♖xc1**, with an easy win for White. **4...♜h1+ 5.♖b2 ♜h2+ 6.♖c3**

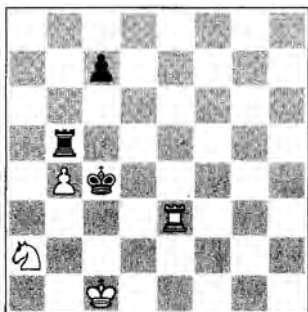


6...♜xa2 is again met by **7.♜e5**, which means that Black again has to try his luck by pushing the c-pawn: **6...c5** Hoping for **7.♜a7+**

♔b5 8. ♖a5+ ♔b6, with a draw. However White now exploits the strong position of his rook in another way:

7. ♖c4 Threatening mate in one. After both 7... ♖h4+ 8. ♖xc5 and 7... ♖c2+ 8. ♖c3+ White wins without trouble.

B) 1... ♖b5 A somewhat artificial move which is, however, connected with a clear plan: Black wants to carry through the saving thrust ...c7-c5 as soon as possible.
2. ♖e3

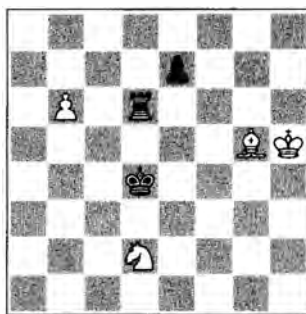


Only this rook move wins. Of course, after the rook exchange it would be a draw, and 2. ♖e7 c5 3. ♖c7 ♖d4 didn't bring anything either. 2...c5

What can White do now against the exchange of the last pawns?

3. ♖c3 This is the answer. White sacrifices his b-pawn. 3... ♖xb4 4. ♖c2 and mate on e4 cannot be satisfactorily avoided.

This mating position can also be achieved without a black pawn, as we see in the following miniature study.



Matous, 'Shakhmaty v SSSR' 1984
White to play and win

White obviously tries to force Black to give up his rook for the b-pawn.

1. b6-b7 ♖d6-d8

After 1... ♖b6 2. ♖e3+ Black would lose immediately.

2. ♖g5-f4 e7-e5

3. ♖d2-f3+ ♖d4-e4

Attacking the knight, so that capturing on e5 brings White nothing. However, White still has a knight check.

4. ♖f3-g5+ ♖e4-f5

5. ♖f4xe5

Here, 5. ♖f7! also wins.

5. ... ♖d8-e8

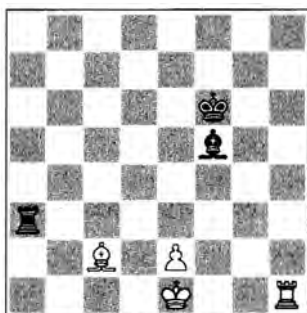
The alternative 5... ♖g8 fails to 6. ♖f7 ♖e6 7. ♖h6, followed by 8. b8♔. After the text move White cannot promote to a queen in view of 6... ♖h8+ with stalemate. At the same time the bishop cannot budge, since it has to keep controlling the squares b8 and h8. And neither 6. ♖f3 ♖e4 7. ♖g4 ♖g8+ nor 6. ♖f7 ♖e6 7. ♖d6 ♖b8 bring White anything either. So there remains:

6. b7-b8♖ ♖e8xe5

7. ♖b8-f8#

The Art of the Endgame

This study received second prize in a competition organized by *Shakhmaty v SSSR*.



Timman 1986
White to play and win

1. 0-0

In studies the players are always allowed to castle, unless it can be proved in the starting position that either the king or the rook has already moved.

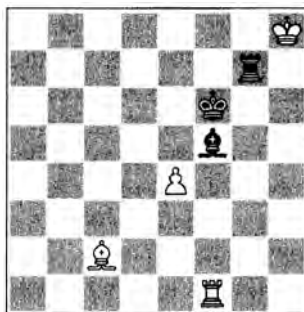
1. ... ♖a3-g3+
2. ♔g1-h2 ♖g3-g5
3. e2-e4

After castling kingside, White now plays the most popular starting move. Black cannot save the bishop, but he does have a long series of checks.

3. ... ♖g5-h5+
4. ♔h2-g3 ♖h5-g5+
5. ♔g3-h4

The white king has to advance to escape the checks.

5. ... ♖g5-g4+
6. ♔h4-h5 ♖g4-g5+
7. ♔h5-h6 ♖g5-g6+
8. ♔h6-h7 ♖g6-g7+
9. ♔h7-h8

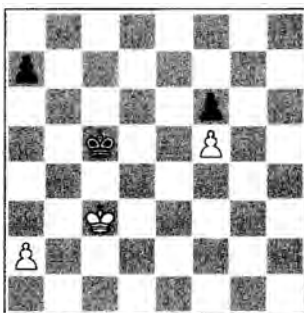


The white king has reached the corner, but the enemy checks are far from being exhausted.

9. ... ♖g7-h7+
10. ♔h8-g8 ♖h7-g7+
11. ♔g8-f8 ♖g7-f7+
12. ♔f8-e8 ♖f7-e7+
13. ♔e8-d8 ♖e7-d7+
14. ♔d8-c8

And on the following move White captures the bishop. The white king had to march along the edges of the board in order to escape the rook checks.

In the following pawn ending, mutual zugzwang plays an important role.



Timman 1988
White to play and draw

It is clear that the white f-pawn is doomed. If Black goes and collects this pawn, the white king will have to go for the enemy a-pawn. And in order to advance his own a-pawn far enough, he has to push it first.

1. a2-a4 a7-a5

But now there is a new problem: White must lose his a-pawn.

2. ♖c3-d3

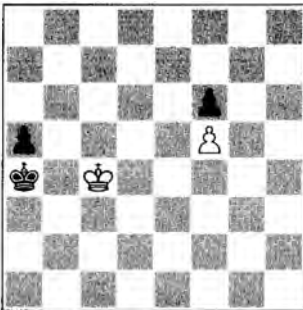
Only thus. After 2. ♖b3 ♖d4 White will be pushed back.

2. ... ♜c5-b4

3. ♜d3-d4 ♜b4xa4

The critical moment. If White continues with the unsuspecting 4. ♜d5 he will lose: 4... ♜b5 5. ♜e6 a4 6. ♜xf6 a3 7. ♜e7 a2 8. f6 a1 ♙ 9. f7 ♙g7 10. ♜e8 ♜c6 11. f8 ♙ ♙d7 mate. That is why, before he approaches the f-pawn, White must first force the enemy king to a worse square.

4. ♜d4-c4!!

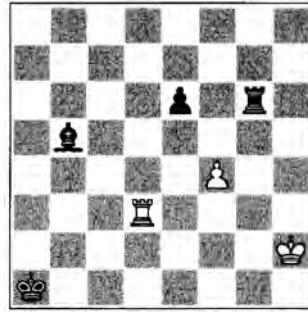


This is the moment of mutual zugzwang. If it were his move, White would lose.

4. ... ♜a4-a3

5. ♜c4-d5

The rest plays itself. The white f-pawn will reach f7 and the black king is too far away.



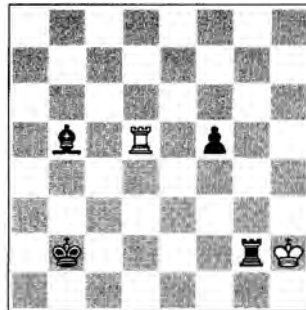
Timman 1993
Draw (dedicated to Judit Polgar)

White must start with a check.

1. ♜d3-d1+

After this move we are at a cross-roads:

A) 1... ♜b2 The most natural reaction. 2. f5! The thematic push. Black has to capture the pawn. 2... exf5 3. ♜d5 This double attack seems to solve all the problems. However, Black has another finesse up his sleeve. 3... ♜g2+!



Now a sharp exchange of pins follows. The king has to move upwards, otherwise 4... ♜c6 is lethal. 4. ♜h3 ♜f1 5. ♜d1! Certainly not 5. ♜xf5 on account of 5... ♜f2+ 6. ♜g4 ♜h3+, winning. 5... ♜e2 6. ♜e1 ♜f3 7. ♜f1 ♜e4 8. ♜f5 draw.

The Art of the Endgame

B) 1...♔a2 This king move has a specific point. 2.f5 exf5 3.♖d5 ♜g2+ 4.♔h3 So far the play is identical to Variation A. 4...♞b2 Black's first move left this square vacant. The bishop is protected, while the f-pawn is taboo for the moment. 5.♔h4! An instructive move. The king will attack the pawn from g5. 5...f4 6.♞f5 ♞b4 7.♔g5 Winning the f-pawn.



Timman 1994
Black to move – White wins

This is a miniature study in the true sense of the word. The solution is simple, but attractive. Black, who is to move, will have to try and eliminate the white pawn.

1. ... ♜g4-e3

On 1...♜d7, 2.♞g6 ♜e3 3.♞g7+ ♜c8 4.♞g5 was winning.

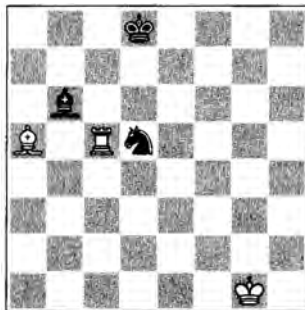
2. ♞c6-c5

The only way to keep the pawn. After 2.d6 ♞b8 there is no win; by advancing further, the d-pawn has become too weak, e.g. 3.♞b6 ♞a7 4.♞f6+ ♜e8 5.♞b7 ♜d5+ 6.♞xa7 ♜xf6 7.♔g2 ♜d8! 8.♔f3 ♜e8 and Black is just in time to eliminate the pawn.

2. ... ♞c7-b6

Introducing the motif of the indirect pin.

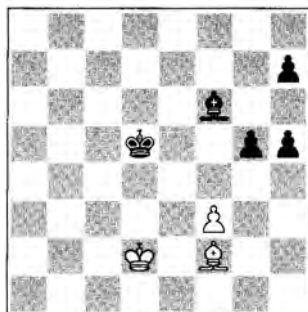
3. ♞c3-a5 ♜e3xd5



The pins are piling up. White now has only one king move that wins.

4. ♔g1-h1!!

The king moves further away from the scene of battle. Insufficient was 4.♔h2 on account of 4...♞c7+, while after other king moves Black would have a saving knight check. Now there is no defence for Black. White remains a rook up.



Timman 2008
White to play and draw

Black has two extra pawns and his king is nicely centralized. However, White can make use of a chance circumstance in the position.

1. ♖f2-h4!!

Pinning the enemy g-pawn. If Black captures the bishop he will be left with the bishop of the wrong colour.

1. ... ♜f6-c3+!

A pretty counter-sacrifice that cannot be accepted either. The white king must be within the square of the g-pawn after the latter captures on h4.

2. ♔d2-d3!

The only square for the king. It has to keep attacking the enemy bishop.

2. ... ♜h7-h6



Protecting the g-pawn. Things look gloomy for White, but he has a resource.

3. f3-f4!

Forcing the g-pawn to reveal its plans.

3. ... ♜g5xh4

4. ♔d3-e2 ♜h4-h3

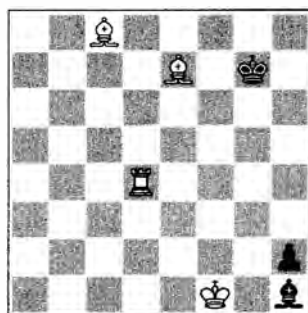
5. ♔e2-f2!

The only good square for the king. After either 5.♔f1 ♜d4 or 5.♔f3 ♜e1!, it would be cut off.

5. ... ♜c3-e1+

6. ♔f2-g1

Draw.



Timman 2009

Black to move – White draws

White is far ahead in material, but the black pawn is about to promote.

1. ... ♜h1-e4

Cutting off the white rook. If White allows the pawn promotion, he will lose due to the bad coordination of his pieces. Therefore he has to give checks in order to try and reach the h-file with his rook.

2. ♜e7-f8+!

Not 2.♜f6+ in view of 2...♔g6! and White does not have any effective checks left.

2. ... ♔g7-h8

2...♔g8 would have been met by 3.♜e6+.

3. ♜f8-g7+!

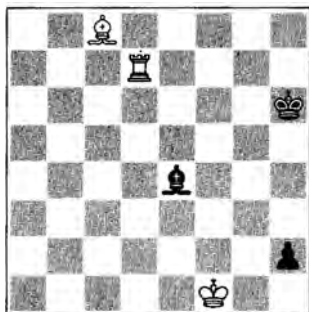
White keeps offering the bishop.

3. ... ♔h8xg7

The same position we had two moves ago, only now without the white queen's bishop. The path of the rook to the seventh rank has been opened.

4. ♜d4-d7+ ♔g7-h6

Now what? After 5.♜d6+ ♔g5 White would be at the end of his wits.



5. ♖d7-h7+!!

A fantastic rook sacrifice. Black has to take with the king.

5. ... ♔h6xh7

6. ♕c8-f5+!

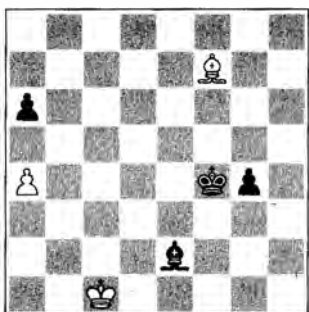
The last white piece is sacrificed as well.

6. ... ♕e4xf5

7. ♔f1-g2

With a draw.

A follow-up study on this promotion theme can be found in Chapter 4.



Timman 2009
White to play and draw

White is a pawn behind, but he has drawing chances, as he can give his bishop for the enemy g-pawn in the right circumstances. There are also chances for him in the pawn

ending, as the course of the solution will show.

1. ♖c1-d2

Otherwise the g-pawn would march on.

1. ... ♕e2-f3

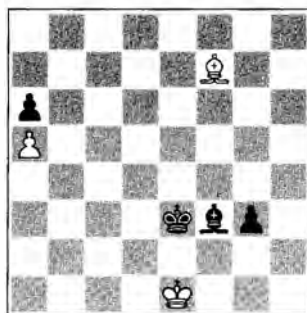
On 1...♖f3 White has the important finesse 2. ♕h5!. He will take on g4 next and bring his king to the safe zone, on the lower left side of the board.

2. a4-a5!

Even with strongly reduced material, the strategic principles must still be adhered to. After other moves Black would play 2...a5 himself, after which the white rook's pawn would become a fatal weakness.

2. ... g4-g3

3. ♖d2-e1 ♔f4-e3



4. ♕f7-c4!

The prelude to a miraculous saving clause. 4.♖f1 would have been met by the winning 4...♖d4. Then the black king can march to the queen-side unhindered and win the white a-pawn.

4. ... ♕f3-e2

Resourceful play by both sides. On 4...g2 White had prepared the re-

ply 5. ♖f1!. If Black then promotes to a queen or rook, White is stalemated. This trick was discovered in 1856, by the Italian Luigi Centurini.

After the text move White cannot take on e2, because then the promotion of the g-pawn will decide after all.

5. ♖c4-d5 ♖e2-c4

6. ♖d5-g2!

The only square for the bishop. After 6. ♖b7 ♖d4 7. ♖d2 ♖d5 White would have no choice but to enter a lost pawn ending.

6. ... ♖c4-d3

7. ♖g2-h3 ♖e3-f3

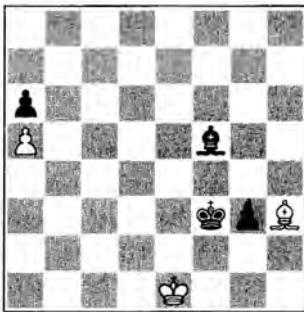
Black has consistently worked on depriving the white bishop of squares. Still, there is a way out for the bishop.

8. ♖h3-f1!

White can now save himself in the pawn ending, since he has the opposition. But even this does not put an end to his worries.

8. ... ♖d3-e4

9. ♖f1-h3 ♖e4-f5



A final attempt. 10. ♖f1 ♖c8! would lead to mutual zugzwang.

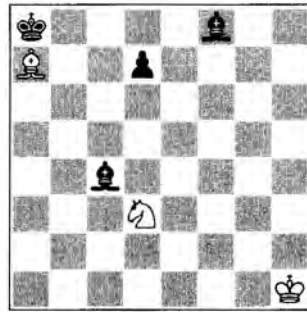
However, White has a radical solution to his problems.

10. ♖h3xf5 g3-g2

11. ♖f5-e4+! ♖f3xe4

12. ♖e1-f2

And the remaining pawn ending is just barely drawn.



Timman 2009
White to play and draw

Both white pieces are under attack. He will need to find a few cunning manoeuvres to remain on his feet.

1. ♖a7-c5 d7-d6

If White now captures on d6, he will end up in a theoretically lost endgame.

2. ♖d3-e5!

The second piece is also put *en prise*. Black is forced to give check.

2. ... ♖c4-d5+

3. ♖h1-g1 d6xc5

4. ♖e5-d7

The point of the previous moves. White wins back the piece. However, new troubles await him.

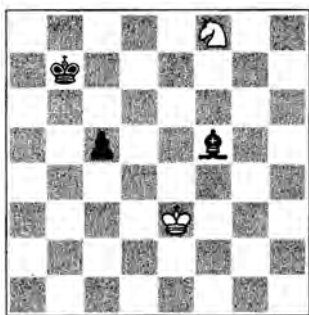
4. ... ♖d5-e6

5. ♖d7xf8 ♖e6-f5

The white knight is completely dominated by the bishop. Now there follows a duel between the kings.

6. ♖g1-f2 ♔a8-b7

7. ♖f2-e3



Up to here, everything was logical. If Black now continues 7...♔b6, White will hold the draw by 8.♖f4 c4 9.♖xf5 c3 10.♘d7+. Via e5 and d3 the knight can prevent the c-pawn's promotion. And after 7...♔c6 it will find its way via e6 and d4. However, Black has yet another, almost paradoxical king move.

7. ... ♔b7-a7!

The king steps aside in order to evade all the knight checks. Now White has to take care. After 8.♖f4 c4 a situation of mutual zugzwang would occur, with fatal consequences for White, e.g. 9.♔e3 ♔b6 10.♔d4 ♔b5, and the black c-pawn will decide the issue. Therefore, the white king too must step aside.

8. ♔e3-f3!!

Now Black must either choose an unfavourable square for his king or advance his pawn.

8. ... c5-c4

9. ♖f3-f4 c4-c3

Black still has no good king moves.

10. ♖f4-e3

The black king is too far away to support the c-pawn. After 10.♖b6, both 11.♘d7 and 11.♘e6 are good enough for a draw.

A fascinating endgame. If in the final diagram position we move all the pieces one file to the right, Black wins, as his king has more squares available to it on the queenside.

By the way, I didn't have to invent the final part of the study by myself. In the tablebases, all endgames with six pieces or less have been analysed to the end. It won't be long before seven-piece endgames will also be included. Then we will be able to pick our miniature studies from the tablebases.

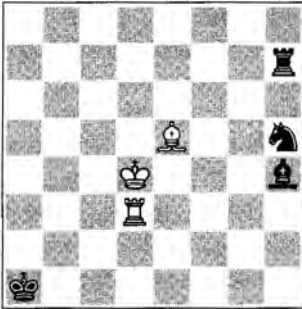
In the beginning of 2009 I visited Bessel Kok in his apartment at the Groenburgwal in Amsterdam. We were just drinking a glass of fine white wine when his phone rang. It was Garry Kasparov. For the first time in many years I spoke to Garry again.

'What are you doing these days?', he asked.

'I'm busy composing endgame studies', I replied.

Then he promised to send me a new tablebase with seven-piece endgames; he had just received it from Elmar Magerramov. When I came home I found the document in the mail. The tablebase contains the strangest endgames; for instance, it shows how four knights win against a lone queen. There

were also a few 'random' end-games, like the following.



White to play and win

It's amazing that White can win here, especially as his pieces are not very close to the black king. The black pieces are not only far removed from the battleground, but they are also in each other's way. For instance, without the black knight the position would be a draw.

1. ♖d3-d1+ ♔a1-b2
2. ♕d4-d3+ ♔b2-b3
3. ♖d1-b1+

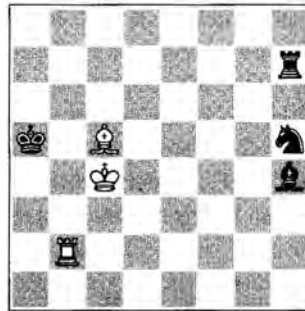
Forcing the king to the edge again.

3. ... ♔b3-a2
4. ♕d3-c2 ♔a2-a3

5. ♔c2-c3 ♔a3-a2
6. ♖b1-b2+ ♔a2-a3
7. ♕e5-d6+

In the corner the enemy king cannot be mated. Therefore it is driven up the board.

7. ... ♔a3-a4
8. ♔c3-c4 ♔a4-a5
9. ♕d6-c5



Depriving the king of the square b6.

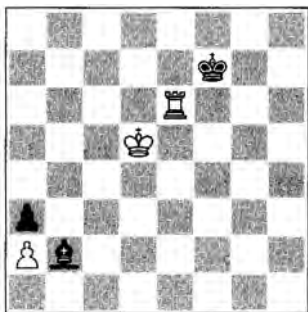
9. ... ♔a5-a6
10. ♖b2-a2+ ♔a6-b7
11. ♖a2-a7+

Thus White wins the rook, and then yet another piece.

Chapter 2

Rook versus Bishop

I have noticed that many top players use *Dvoretsky's Endgame Manual* as a work of reference, and it is true that it is a good handbook, more exhaustive than Keres' *Practical Chess Endings*. Recently, however, I found a striking error in the book. Dvoretsky refers to my game against Velimirovic from Rio de Janeiro 1979. After White's 68th move the following endgame had arisen:



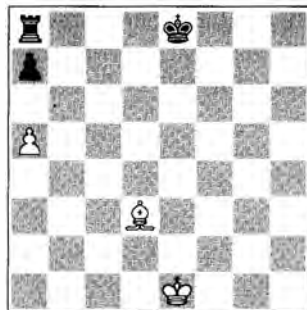
Timman-Velimirovic
Rio de Janeiro 1979

Dvoretsky makes the following general observation about this endgame: 'It was proven that White should win. However the probability of its occurrence in a practical game is rather low, while the proof itself is quite complicated, so we have decided to omit it.'

It is not true that this endgame is always winning. In 1981 I pub-

lished a long article in *Schaak-bulletin* 166 in which I used a diagram to indicate where the safe zones for the black king were. Later, these conclusions were completely confirmed by the database. I also indicated that Velimirovic made the decisive error in the diagrammed position by playing 68...♔f8? (most sources erroneously give 68...♔g7), allowing White to take his king to g5, so that its black counterpart will inevitably be cut off on the back rank. All this can be found in my book *Studies and Games*.

As an interesting illustration I will give you the following mini-study.



White to play and draw

In order to draw White must start with

1. ♖d3-e4

It is important to ensure that the bishop will be able to go to square b7 before advancing the pawn. If

the bishop covers the pawn from the f1-a6 diagonal, the position will always be lost.

1. ... ♖a8-b8

1...0-0-0 would have been an ideal move, but unfortunately this is impossible. The position shows that Black's last move must have been a king or rook move.

2. ♖e1-d2!

Certainly not 2...♖b2, and the white king is cut off. Now 2...♖b2+ 3.♖c3 ♖a2 runs into 4.♖b4.

2. ... ♖e8-d7

3. a5-a6

Now this is possible.

3. ... ♖b8-b6

4. ♖e4-b7

And White is safe.

Dvoretzky is not the only person who thinks that this endgame is always won. Spinhoven and Bondarenko are of the same opinion in their book *De strijd tussen loper en toren* ('The battle between bishop and rook'). This misunderstanding has probably been fostered by the Swiss endgame theoretician Chéron, who had investigated the endgame extensively in the 1960s. He gave a plethora of variations, always with the conclusion that White would win, while emphasizing that there are certain key positions that White must strive for. Chéron never explicitly states that the endgame is winning as such, but a brief study of his work suggests that it is, and he probably thought so himself. It

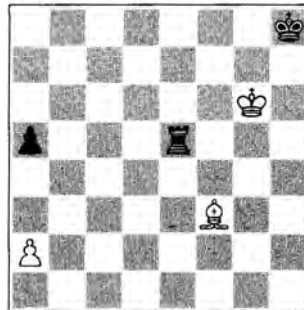
wasn't until after a very deep study of the endgame that I discovered that those key positions cannot always be achieved.

Remarkably enough, the endgame only occurred in my game against Velimirovic.

There exists an endgame of this type – i.e. both sides have a rook's pawn, and these pawns are standing nose to nose – which is won, namely with a white pawn on a6 versus a black one on a7. It occurred with reversed colours in the game Aronian-Kramnik, Shanghai 2010. Remarkably enough, during the game both players thought it was a theoretical draw.

Chéron had already concluded as early as 1948 that the endgame is won in all cases. Only if White were to succeed in winning the enemy a-pawn without endangering his king would it be a draw.

In the following position, White has to pull out all the stops to get the draw.



Timman 2010
White to play and draw

If White manages to push his a-pawn to a4 in order to cover it

The Art of the Endgame

with the bishop from c6, the draw is in the bag. But after 1.a4, both 1...♖c5 and 1...♗e3 will win, which means that White must first improve the position of his king.

1. ♔g6-f6 ♖e5-e3
2. ♗f3-c6!

Preventing the advance of the enemy a-pawn.

2. ... ♗e3-a3
3. ♗c6-d5

Now White will have to allow the advance, but since the black rook will have to vacate a3 again, White has gained a crucial tempo.

3. ... a5-a4
4. ♔f6-e5 ♗a3-h3

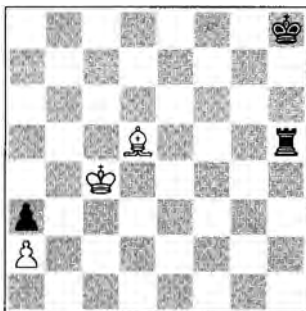
The alternative was 4...♗g3. I will return to this later.

5. ♔e5-d4 a4-a3
6. ♔d4-c4

Threatening 7.♔b4 followed by 8.♗b3. Black has only one move to prevent this.

6. ... ♗h3-h5

Now White will have to choose a square for his bishop.



7. ♗d5-a8!!

Improbable as it seems, this is the only move. After, for example, 7.♗f3 Black would win with 7...♗h2.

If Black had played 4...♗g3 and 6...♗g5, White would have been forced to find another square for his bishop, since 7.♗a8 would then run into 7...♗g8! and 8...♗b8, and the white king has been cut off. Then the only move would have been 7.♗f3, intending to meet 7...♗g3 with 8.♗d1!, after which Black will be unable to stop White executing his plan with the king on b4 and the bishop on b3. Note that this is always possible because of the remote position of the black king.

7. ... ♗h5-h6
8. ♔c4-b4 ♗h6-b6+
9. ♔b4-a5!

Again the only move. Incredibly enough, the white king has had to trek from g6 to a5 in order to secure the draw.

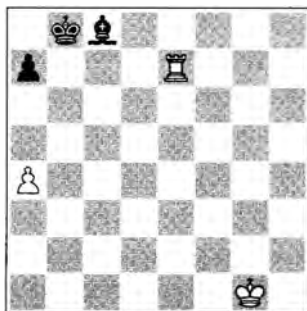
9. ... ♗b6-g6
10. ♔a5-b4

And a draw. Black will be unable to make any progress.

Remarkably, most of the theoretical investigations into endgames of ♖+♔ vs ♗+♔ (without any passed pawns) concentrate on positions with rook pawns not separated by a square. The position only becomes really interesting with one or more squares between the pawns. Sometimes the moves and conclusions of the database are difficult to understand, but closer analysis usually showed me what exactly was going on.

In the conclusions of my investigations I will restrict myself to positions that can be explained in an

acceptable and logical manner, with special focus on the crucial manoeuvres that lead to technical positions – which are the most important for endgame theory. The generally lengthy technical process then unfolds gradually. As this contains few surprises, I will ignore it. I will start with positions with two rook pawns.



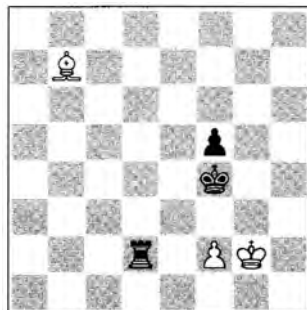
White to play and win

As a rule, the position is winning with the black king cut off on the back rank, regardless of the position of the white king. In the diagrammed position, however, White must watch out. After 1. ♖f2? a5! 2. ♔e3 ♙b7! it's a draw. There is no remedy against the threat of 3... ♙c6. 2... ♙g4 won't do in view of 3. ♖d2!, and the black bishop is dominated. White wins by playing 1.a5 before deploying the white king.

Even with the black king not cut off White can win if he succeeds in taking his king to c5, after which Black cannot prevent his king from being cut off. The position is a draw, however, if Black has the king's bishop, since this will enable

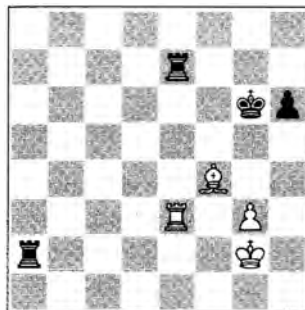
him to build a fortress by putting his bishop on the g1-a7 diagonal and advancing his pawn to a6.

There are two famous practical examples in which the pawns are separated.



Gligoric-Polugaevsky
Amsterdam 1970

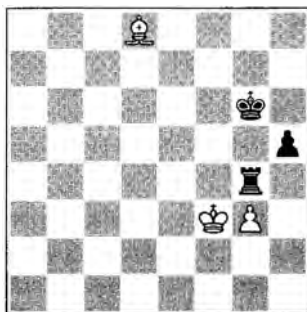
Although Black eventually managed to win, this position is a theoretical draw. This would be different with the black pawn on f5 instead of f5, when Black would have the winning plan of taking his king to e1 via the queenside. White's counterplay then would be to attack the black f-pawn. On f7, however, it is just too far away.



Reshevsky-Fischer
Los Angeles 1961

White played **53.♔f3?** here, and now Black could have reached a winning position with **53...♚e3+ 54.♙xe3 h5**, as Evans indicated in *Chess Life*, since White will be unable to stop the black king from reaching the crucial g4-square.

How important it is to secure the square h3 for the white king is clear to see in the following position:



White to play and draw

1. ♔f3-g2!

On its way to h3.

1. ... ♙g6-f5

2. ♔g2-h3 ♚g4-c4

3. ♙d8-e7!

The only square for the bishop, as we'll see.

3. ... ♚c4-c1

4. ♙e7-f8!

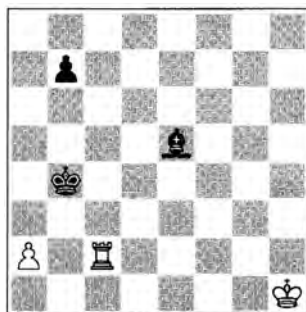
The point of the previous move. The bishop is forced to hide itself; otherwise Black would give check on h1 and then attack the white bishop.

4. ... ♚c1-b1

5. ♙f8-g7(h6)

and Black won't make any progress.

In the Reshevsky-Fischer example, the position would also have been winning if the black pawn had been on its starting square. Sometimes it's even winning if the king of the attacking player is far away.



White to play and win

Black is threatening to draw immediately by playing **1...♔a3**, followed by **2...♙b2**.

1. ♚c2-e2! ♙e5-d4

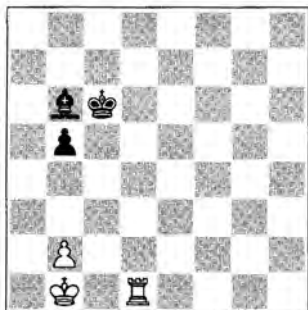
2. ♚e2-d2 ♙d4-c3

3. ♚d2-d3

White has brought the situation under control. Now he has all the time in the world to take his king closer. The quickest route is via the fourth rank, since its eventual destination is c8. The win will take another 65 moves.

Remarkably enough, the diagram position with the king on h7 instead of h1 would be a draw. In that case Black can save himself with **3...b5!** **4.♔g6 ♔a3!** **5.♚xc3+ ♔xa2**, and the white king is not in time to reach the square e2 to restrict its black counterpart's freedom of movement. With the king on h5, however, the position would be winning by the narrowest margin.

In the following position White has only one winning move.



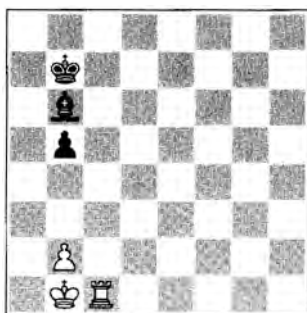
White to play and win

1. ♖d1-c1+!

The main point is that Black can no longer take his bishop to c5.

1. ... ♜c6-b7

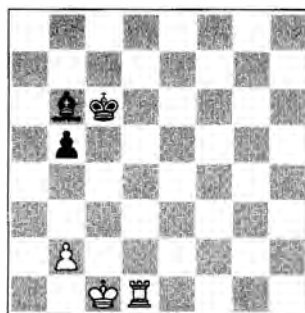
Now White has two entirely different winning plans:



A) 2. ♜f1 ♜a6 3. ♜f6 ♜a5 4. b4+! ♜a6 5. ♜c2 ♜b7 6. ♜d3, and now it becomes clear why 2. ♜h1 was insufficient for the win, since in that case, Black would be able to activate his bishop with 6... ♜f2. White must always make sure to continue to dominate the enemy bishop. After 6... ♜c7 7. ♜e4 ♜b7 8. ♜d5 ♜g1 9. ♜g6 ♜f2 10. ♜g7+ ♜b6 11. ♜g2 ♜e3

12. ♜e4! the black bishop is forced to leave the g1-a7 diagonal, after which the win is simple.

B) 2. ♜c2 ♜c5, and now White will have to be careful: after 3. ♜d3 ♜b6! 4. ♜e4 ♜e7! 5. ♜f1 ♜a5! Black would throw up an efficient defensive line. Winning is 3. ♜f1! ♜b6 4. ♜c3!, and the black bishop is dominated again. The white king is threatening to penetrate via d4. If Black has a queen's bishop, he can build an effective defensive line by keeping his b6 pawn and his bishop on the long h1-a8 diagonal, from which they cannot be driven away through domination. With the white king on c1 (instead of b1) in the diagrammed position White would have no win, since he doesn't have the crucial rook check. But Black would have to play very accurately to hold his ground.



The main line goes as follows:

1. ♜c1-c2 ♜b6-c5!
2. ♜c2-d3 ♜c5-f8!
3. ♜d1-g1

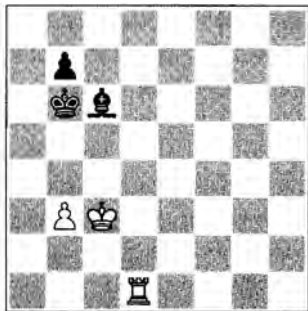
Keeping the bishop from g7.

3. ... ♜c6-c5
4. ♜g1-g6 ♜c5-b4

The Art of the Endgame

And White will make no progress. All Black's moves were the only moves with which to maintain the balance.

Sometimes White is able to win because of chance circumstances.



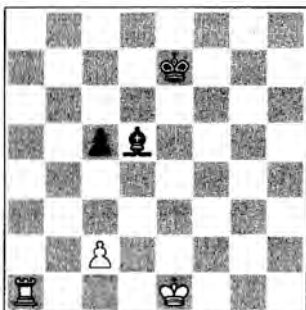
White to play and win

1. ♔c3-b4! ♕b6-c7
2. ♕b4-a5! b7-b6+
3. ♕a5-a6

And the white king has penetrated decisively.

If both players have a c-pawn, there are more winning positions. White usually wins, for example, if the pawns are on their starting squares and Black has a king's bishop.

The following position is curious.



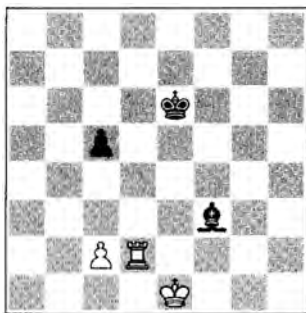
White to play and win

The solution is:

1. 0-0-0!

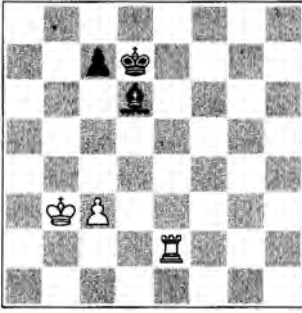
Black's problem is that his king remains cut off. White's winning plan involves taking the king to a4. A possible continuation is: 1...♔e6 2.♕b2 ♕e5 3.♕a3 ♖c6 4.♕b3 ♖b5 5.♕c3, followed by 6.♖b1. The bishop cannot stay on the f1-a6 diagonal, which means that the white king will penetrate. An important consideration is that the king has the square c3: with the white pawn on c3 (instead of c2) the diagrammed position would be drawn.

White cannot win with 1.♖d1, because after 1...♔e6 2.♖d2 ♖f3! his own king would also be cut off.



3.♖d8 is no good, as this is met by 3......♖d5, and the trap is sprung behind the white rook.

Here, too, it is very important that the white pawn was still on its starting square, but the endgame contains an interesting paradox: generally speaking it is advisable to keep the pawn back, but once it is on the third rank, it is often better to advance it as far as possible. This can be seen in the following position.



White to play and win

1. ♖b3-c4 ♜c7-c6
2. ♖c4-d4

Centralization.

2. ... ♜d7-c7

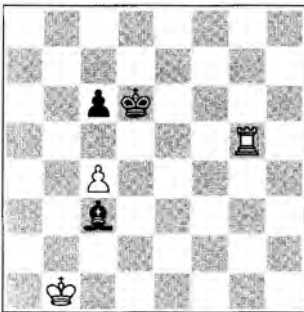
2...♙a3 would have been met by 3.♞a2!. But not 3.c4? in view of 3...♜d6, and Black has the situation under control.

3. c3-c4!

The only way to make progress.

3. ... ♜c7-b6
4. ♞e2-b2+ ♜b6-c7
5. c4-c5

And this position is winning, because the black bishop's movements are restricted. Only if the bishop can be taken to the g1-d4 diagonal does a position arise which, in certain circumstances, may be drawn.



White to play – draw

1. c4-c5+ ♜d6-c7
2. ♖b1-c2 ♙c3-d4!
3. ♖c2-d3 ♙d4-f2
4. ♞g5-f5 ♙f2-g1!
5. ♜d3-c4

Threatening 6.♖b4 and 7.♖b5.

5. ... ♙g1-e3

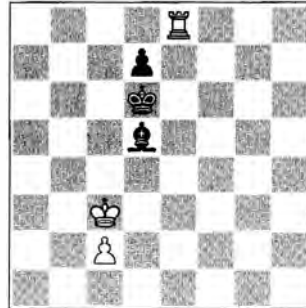
or

5. ... ♜c7-b7

And White can make no progress.

With the pawns moved one square to the left, there are even fewer winning chances. The pawn structure prevents White from penetrating with the king via the queen-side.

The following position is also interesting.



White to play and win

1. ♜c3-d4

Centralization.

1. ... ♙d5-b7

The most tenacious defence. The obvious move now is 2.♞h8, intending to create more room for the rook for horizontal checks. But this is met by 2...♜c6, with the threat of 3...d6, and Black has a fortress. And 3.♜e5 is met strongly by 3...♜c5!: now it is not the black

king which is cut off, but the white one.

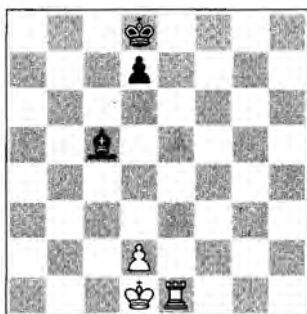
2. ♖e8-e3!

The only winning move. White prepares a check on c3 in order to prevent Black from building a fortress.

2. ... ♔d6-c6

3. ♖e3-c3+ ♔c6-d6

And now 4. ♔g3 makes for the quickest win. Eventually the black king will be forced back, and then White will have to play accurately: if the black king goes to e7, White takes his king to c5; if Black withdraws the king to c7, White penetrates via e5.



White to play and win

Black is threatening to build an impregnable defensive line with 1... ♔c7, followed by 2... d5.

1. ♖e1-e4!

The same principle as in the previous position. White takes the rook to the c-file in order to upset the coordination in the enemy camp.

1. ... ♔d8-c7

2. ♖e4-c4! ♔c7-d6

3. ♔d1-c2

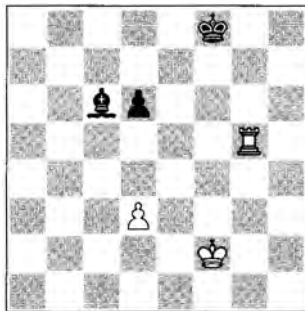
The only way. After 3. ♔e2? ♔d5 4. ♔d3 ♔c6! the white d-pawn

would be blocked, giving Black time to play 5... d5.

3. ... ♔d6-d5

4. ♔c2-c3!

And White has the situation under control. From this point on it will take another 67 moves to the mate.



White to play – draw

With the pawn on d2 White would have an easy win. Now he will have to advance the pawn again.

1. d3-d4! ♔f8-f7

2. d4-d5!

And now White will bring up his king.

If White starts with 1. ♔e3, Black can draw with very accurate play:

1. ♔f2-e3 ♔f8-e7

2. ♔e3-d4 ♔c6-f3!

The only move. Black wants to take his king to d7, after which he can make his sortie via c6 and e6.

3. ♔d4-c4 ♔e7-d7

4. ♔g5-g3

After 4. ♔b5 ♔e6! 5. ♔b6 ♔e2! Black will just be able to save himself.

4. ... ♔f3-h1!

Unlikely. Black has to keep his bishop on the long diagonal at all costs.

5. ♖c4-b5 ♔d7-e6!

Threatening to take the king to the fifth rank.

6. ♜g3-g5 ♕h1-f3

And the drawn position in the comment to White's fourth move has arisen again.

I will finish with an example of lighter calibre.

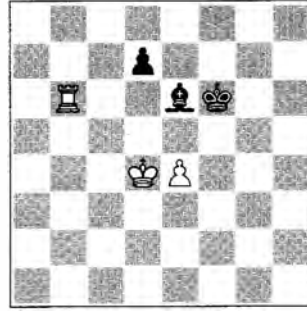


White to play and win

In light of the above it is not difficult to find White's moves.

1. ♜d4-d6! ♔g8-f7
2. ♖c3-d4 ♖f7-f6
3. ♜d6-b6

(or 3. ♜a6)



And Black is in zugzwang. After

3. ... ♖f6-e7

4. ♖d4-e5

Black will be forced onto the back rank, after which the play could continue as follows:

4. ... ♕e6-f7

5. ♜b6-h6 ♕f7-e6

6. ♜h6-h7+ ♕e6-f7

7. ♜h7-g7 d7-d6+

8. ♖e5-f5 ♖e7-e8

9. ♖f5-f6 ♕f7-c4

10. ♜g7-c7 ♕c4-b3

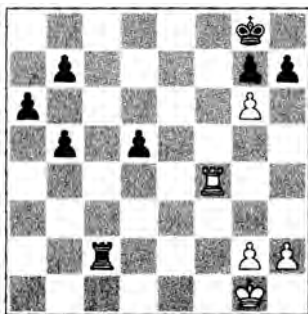
11. ♜c7-c3

followed by 12. ♜d3 and wins.

Chapter 3

Preventing Pawn Promotion

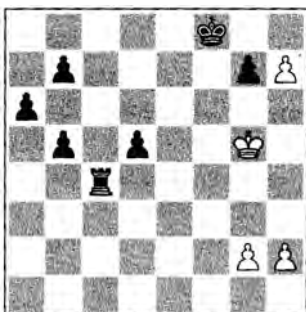
In a simultaneous game Lasker-Loman, London 1910, the following happened:



34. ♖f4-f8+! ♔g8xf8
35. g6xh7 ♜c2-c1+
36. ♔g1-f2 ♜c1-c2+
37. ♔f2-g3 ♜c2-c3+
38. ♔g3-g4?

This seems winning, but Black has a nasty riposte.

38. ... ♜c3-c4+
39. ♔g4-g5



39. ... ♜c4-h4!!

Thus Black succeeds in preventing the promotion of the h-pawn.

40. ♔g5xh4 g7-g5+

41. ♔h4xg5 ♔f8-g7

White resigned.

This is probably the best-known simultaneous fragment in chess history.

The following study was based on Loman's 39th move.



Timman 2008
White to play and win

White is a piece up, but Black has all kinds of counterchances – especially with the pawn on e3, which will play an important role.

1. ♜d5-d1 a4-a3!

The start of a clever action. After 1...exf2 2.♙xc7 ♜e8 3.♙g3 ♜e2 4.♜f1 White would have a technically winning position.

2. b2xa3

Forced, as otherwise Black would obtain another dangerous passed pawn.

2. ... ♖a8-a4+

3. f3-f4!

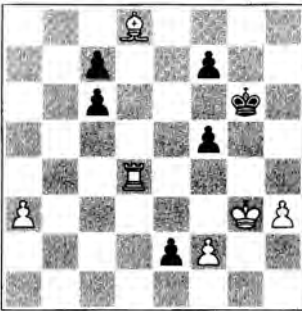
Before retreating his king, White first sacrifices a pawn. Only at the end of the study will it become clear why this is necessary.

3. ... ♖a4xf4+

4. ♔h4-g3 ♖f4-d4

This is the point of Black's play. If White does not take the rook, a rook ending ensues that cannot be won.

5. ♖d1xd4 e3-e2



How can White stop the pawn now? His task is much more difficult than Loman's.

6. ♖d4-d6+!

The first rook sacrifice.

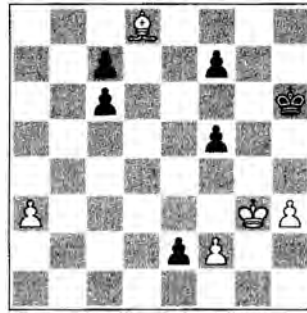
6. ... ♔g6-h7

6...cxd6 is met by the winning 7.♔a5.

7. ♖d6-h6+!

The second rook sacrifice. Black is forced to accept this one, as otherwise his king will be caught in a mating net.

7. ... ♔h7xh6



8. ♔d8-g5+! ♔h6xg5

9. f2-f4+

Now the point of White's third move becomes clear: the square f2 is vacated for the white king, after which the remote passed pawns decide the issue. The combination carried out by White in this study is called a 'magnet combination'. The black king is drawn towards the fatal square g5 as if by a magnet.

This study received second prize in the annual tourney of the magazine *The Problemist*.

It is also possible to use Loman's move to clear the way for a bishop, which then saves the day. By way of an illustration I give the following little study.



Timman 2011

White to play and draw

The Art of the Endgame

White is truckloads of material up, but once the enemy h-pawn queens, he will be mated soon. Therefore, drastic measures are called for.

1. ♖d6-e4!

With the winning threat 2. ♖f2+, so Black has to take the knight.

1. ... d5xe4

2. ♜a5-h5!

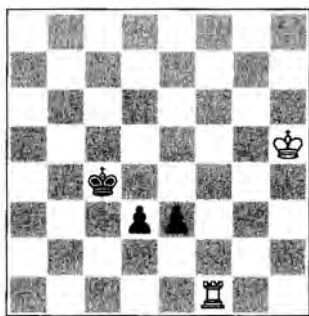
Loman's move.

2. ... ♔g4xh5

3. g2-g4+ ♔h5xg4

4. ♙b1xe4 ½-½

Sometimes White has to sacrifice a rook to prevent a pawn promotion.



Prokes, 'Schackvarlden' 1939
White to play and draw

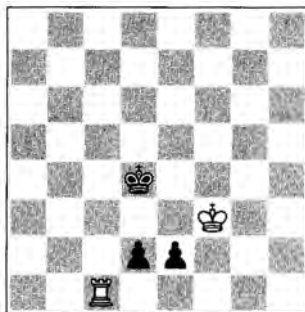
The situation looks hopeless for White because his king is so far away. But he has a miraculous saving clause.

1. ♔h5-g4 e3-e2

An important alternative is 1...d2, in order to meet 2. ♔f3 with 2...♔d3. Then White has 3. ♜a1, saving the draw. The rook will keep giving lateral checks.

2. ♜f1-c1+ ♔c4-d4

3. ♔g4-f3 d3-d2



Now comes the crucial move.

4. ♜c1-c4+!!

You could call this rook check a 'desperado', i.e. the sacrifice of a piece which is lost anyway, in a way that yields the best result. But then this is a very special desperado. Everything revolves around the fact that the d-pawn, which is on the verge of promotion, comes within reach of the white king.

4. ... ♔d4xc4

5. ♔f3xe2 ♔c4-c3

6. ♔e2-d1

Draw.

White's 4th move is known as the Prokes Manoeuvre. There are various examples with this theme from tournament practice. Also, numerous other studies have been made with the Prokes Manoeuvre as a theme.

In June 1993, I was in Moscow, where a blitz tournament was held in memory of Misha Tal. I was working on a study that would feature the Prokes Manoeuvre via a hidden mechanism. Eventually it worked out, and I decided to dedicate the study to Tal.



Timman, 'New In Chess' 1994/3
White wins (in memory of Misha Tal)

Again we see that Black has several far-advanced passed pawns. White must bring his king closer to the fray.

1. ♖f1-e2 ♜b2-b1

A thematic rook sacrifice that White has to accept.

2. ♜a1xb1 c3-c2

But now what? After 3. ♜d1 c1 ♙4. ♜xd2 ♙c4+ Black has a draw within reach. Therefore White has to try and find a path towards the black king.

3. ♜g8xg6

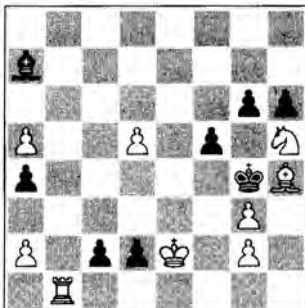
Threatening mate in one.

3. ... f7xg6

Forced, as after 3... ♖xg6 4. ♜b6+ White would win right away.

4. ♜h3-f4+ ♖h5-g4

5. ♜f4-h5!!



The climax of the study. Again White threatens mate in one.

5. ... ♖g4xh5

The same position occurs as two moves ago, but without the white knight. Alternatives weren't satisfactory either, viz.:

A) 5... ♜d4 6. ♜f6+ ♜xf6 7. ♜b4+ and again the rook has found its way towards the enemy king;

B) 5... f4 6. ♜f6+ ♖f5 7. g4+ ♖e5 8. ♜d7+ ♖d6 9. ♜b6+ ♜xb6 10. ♜xd2 ♜xa5+ 11. ♜xc2 ♖xd7 and amazingly enough, a technical bishop endgame has come on the board. White continues with 12. ♜d3, followed by 13. ♖e4. He is winning due to the fact that the black kingside pawns are very weak.

6. g3-g4+!

Opening the short diagonal for the white bishop.

6. ... f5xg4

But now what?

7. ♜b1-h1! c2-c1 ♙

8. ♜h4-e1+!

Here we have the hidden mechanism.

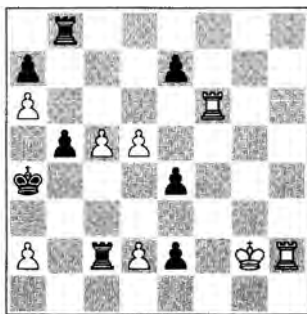
8. ... ♖h5-g5

9. ♜e1xd2+

And wins.

My interest in the Prokes Manoeuvre was aroused by Tim Krabbé. In the summer of 1992 we met on an estate in the south of France, in the vicinity of Ste Maxime. Misha Tal had just died, and I was analysing games for an 'In Memoriam'. After I had showed Krabbé a couple of

findings, he started talking about the 'Double Prokes'. From that moment on it seemed as if my chess understanding had changed. A fascinating world opened itself before my eyes. Was it really possible that such an ingenious idea could be doubled in a study? Krabbé had thought up the following scheme.



Krabbé 1992
White to play and draw

The intention was that White would draw as follows:

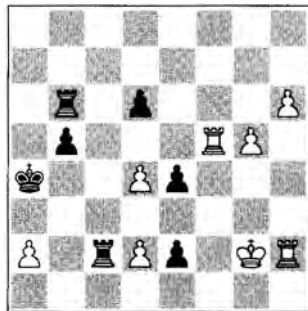
1. ♖h2-h1 e4-e3
2. ♔g2-f3 ♜c2-c1
3. ♜h1xc1 e3xd2
4. ♜c1-c4+ b5xc4
5. ♔f3xe2 c4-c3
6. ♜f6-f1 ♜b8-b1
7. ♜f1xb1 c3-c2
8. ♜b1-b4+ ♔a4xb4
9. ♔e2xd2

With a draw.

The idea is fantastic, but this construction contains many flaws. Krabbé realized this all too well. He asked me to make a version that worked. I toiled over this for days. The Double Prokes turned out to be a head-spinning task. My intuition told me I could make an award-win-

ning study of it, but I couldn't come up with a good version. All the studies I published in the 1990s turned out to be incorrect.

Not until 18 years later did I manage to make a good, solid version.



Timman/Krabbé 1992/2010
White to play and win

In fact, all the elements of Krabbé's scheme have been retained. Only here White has two highly dangerous passed pawns, which forces Black to act quickly. White's first move is forced.

1. ♖h2-h1

On 1. ♔f2 Black would save himself by 1...e3+! 2.dxe3 ♜c1 3. ♔xe2 ♜c2+.

1. ... e4-e3!

Still the best chance, even in these circumstances.

2. ♔g2-f3! ♜c2-c1
3. ♜h1xc1 e3xd2
4. ♜c1-c4+!

The first Prokes Manoeuvre.

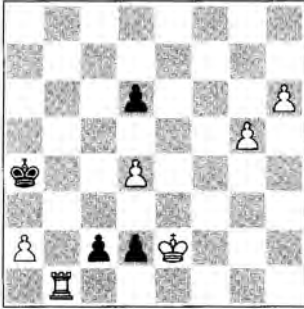
4. ... b5xc4
5. ♔f3xe2 c4-c3

The white king has come closer, but in the meantime Black has created a mighty pawn pair.

6. ♖f5-f1 ♜b6-b1

The second black rook offers itself. After other moves the white passed pawns would quickly decide the game.

7. ♖f1xb1 c3-c2



8. ♜b1-b4+!

The second Prokes Manoeuvre.

8. ... ♖a4xb4

9. ♖e2xd2

And wins.

The solution is also identical to what Krabbé had envisaged.

Now that I had finally made this old dream come true, I decided to find out if I could achieve more with this theme. This led to the following spectacular study.



Timman 2010
White to play and win

Again, White has a powerful pawn pair. But first he will have to do something about Black's threat of promoting the f2 pawn.

1. ♜f3-d2 ♜d1xd2

The best chance. The thematic 1...f3 would have been prospectless in view of 2. ♜c4+! ♖b4 3. ♜e3, and the black pawns are harmless. Also insufficient was 1...♜d6 on account of 2. ♜g2 ♜6xd2 3. ♖xf2 ♜xc2 4. ♜g1! ♜dd2 5. ♜e1 and White's passed pawns decide.

2. ♜c2-c1

After 2. ♜g2 ♜xc2 3. ♖xf2 ♜c1! White would not be able to win.

2. ... ♜f4-f3

3. ♖h2-g3! ♜d2-d1!

Both sides make the moves we know by now. Black's last move is a so-called 'switchback', i.e. a piece – in this case, the rook – moves back to a previously used square. White must be very careful now: only one move wins, all other moves lose.



4. ♜b3-b4+!!

The path to the black king must be opened by force. White could not wait with this check, since after 4. ♜xd1? ♜xe2 5. ♜b4+ ♖a6! Black

would gain the upper hand. After 6.b5+ ♖a5 7.b4+ cxb4 8.♖d8 b3 9.♜xf2 ♜c1 10.♜xe2 b2 the black c-pawn decides the issue.

4. ... ♜a5xb4

Alternatives wouldn't do either:

A) 4...♜a6 5.b5+ ♜a5 6.♜xf2! and wins;

B) 4...cxb4 5.♜xd1 fxe2 6.♜d5+ and wins. In this line, one Prokes Manoeuvre suffices.

5. ♜c1xd1 f3xe2

6. ♜d1-d4+!

The first Prokes Manoeuvre.

6. ... c5xd4

7. ♜g3xf2 d4-d3

8. ♜g4-g1 ♜c6-c1

The second rook sacrifice.

9. ♜g1xc1 d3-d2

10. ♜c1-c4+!

The second Prokes Manoeuvre.

10. ... ♜b4xc4

11. ♜f2xe2

And wins. With this I had concluded a magical chapter.

Related to the Prokes Manoeuvre is a theme that was first adapted by the renowned Georgian study composer Gia Nadareishvili.



Nadareishvili 1965
White to play and draw

At first glance, the situation looks very bad for White. His bishop is threatened with capture with check, while at the same time Black is threatening a deadly discovered check with his own bishop. How can White exploit his far advanced passed pawns?

1. ♜h1-c6+!

This bishop sacrifice forces the king onto the long diagonal.

1. ... ♜d7xc6

2. ♜g3-g8

A second piece sacrifice with a special point.

2. ... ♜h8-h1

A clever trick. Now 3.exd8♜ is not possible due to 3...♜a1+ and White will get mated.

3. ♜g8-g1!

The rook has to keep following the queen.

3. ... ♜h1-h8

4. ♜g1-g8 ♜h8xg8

Otherwise Black cannot make progress.

5. f6-f7



This is what White was aiming for. An area of tension has occurred which Black can only remove with a check. If there is no such check in

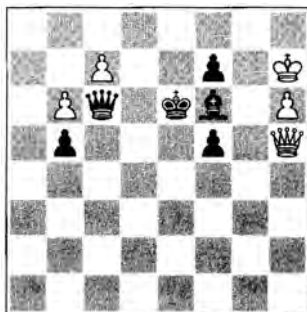
the position, then the pawn promotion will be unavoidable.

5. ... ♖g8xf7

6. e7xd8♖+

And now Black is the one who has to go all out for a draw.

For this study Nadareishvili received shared first/second prize in the 'Vecherny Leningrad' tourney. Yet this isn't one of Nadareishvili's best achievements. The final play is weak. Pal Benkő must have been thinking the same when he made the following study.



Benkő, 'Magyar Sakkelet' 1987
White to play and win

White has two powerful passed pawns, but his king is threatened with being caught in a mating net.

1. ♖h5-d1!

A queen sacrifice is not sufficient. After 1. ♖f3 ♖xf3 2. c8♖+ ♔e7 3. b7 ♕e5, White cannot win.

1. ... ♖c6-a8

Threatening mate in one.

2. ♖d1-d8! ♕f6xd8

3. b6-b7

Nadareishvili's area of tension again. Black has to take the b-pawn.

3. ... ♖a8xb7

4. c7xd8♖+

Here, too, White promotes to a knight. In this position it turns out to be winning.

4. ... ♖e6-d5

5. ♖d8xb7 f5-f4

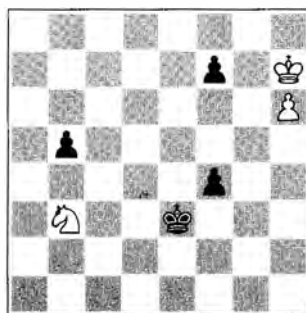
It looks as if the win is still difficult.

6. ♖b7-a5!

Via the edge of the board White tries to reach the d2-square in order to stop the enemy f-pawn.

6. ... ♖d5-e4

7. ♖a5-b3 ♖e4-e3



The king controls the d2-square. But White has another subtlety up his sleeve.

8. ♖b3-d4! ♖e3xd4

9. ♖h7-g8 f4-f3

10. h6-h7 f3-f2

11. h7-h8♖+

And wins.

This study was awarded first prize in the tourney of the above-mentioned Hungarian chess magazine.

When, five years ago, I wanted to use this theme, I did not know either of these two studies. I had only had a look at an incorrect study by the Bulgarian I. Ionchev. A diagram with Nadareishvili's area of tension was given in Krabbé's *Chess Curiosi-*

ties. For me this was the starting point for the following study.



Timman 1992
White to play and win

White enjoys a large material advantage, but his king is unsafe. In order to avert the immediate danger, he has to sacrifice a bishop.

1. ♖h2-d6+!

The alternative 1.♖e6 narrowly fails in view of 1...♙e8 2.♙f5 ♙h5, with sufficient counterplay for Black.

1. ... ♙e7xd6

2. ♜c5xd5+ ♙d6-e7

Black is threatening again, but this time the bishop sacrifice on e6 does work.

3. ♖g8-e6 ♙e7xe6

After 3...♙e8 4.♙f5 ♙h5 5.♙f4 the white king will eventually manage to reach the queenside, where it is safe.

4. ♜d5-d8!

After two bishop sacrifices the first rook sacrifice follows. Due to the last bishop sacrifice the route to g4 was blocked for the black queen, and now g8 is made inaccessible.

4. ... ♜f6xd8

5. ♜a7-a8

The second rook sacrifice forces the Nadareishvili position.

5. ... ♜c8xa8

6. b6-b7



As in Nadareishvili's study, Black now has two possibilities. The main line continues:

6. ... ♙a8xb7

The alternative is 6...♙a6, in order to wait for 7.cxd8♙ ♙e5+ 8.♙g5 before continuing with 8...♙xb7, so that the knight promotion with a fork is avoided. White must then play accurately to secure the win, because if the queens stay on the board, a draw is inevitable. The only winning move is 9.♙h8!, in order to force a queen swap after 9...♙d6 10.♙d4+.

7. c7xd8♙+ ♙e6-d5

8. ♙d8xb7 ♙d5-c4

At first sight, this looks like a draw, because Black is going to capture both queenside pawns.

But the white king is just in time to corner its black colleague, after which the contours of the Stamma mate begin to take shape.

9. ♙g6-f5 ♙c4-c3

10. ♙f5-e4 ♙c3-b2

11. ♖e4-d3 ♔b2-a2
12. ♖d3-c2 ♔a2-a1
13. ♖b7-c5

The knight is going to force mate in the usual fashion.

13. ... ♔a1-a2
14. ♖c5-d3 ♔a2-a1
15. ♖d3-c1 ♔a3-a2
16. ♖c1-b3

Mate.

With hindsight I am not so satisfied with my version. It starts with a lot of sacrifices, but all this violence does not really add anything substantial to the theme. Stamma's mate is a nice touch, but it isn't sufficient to give the study extra cachet. I thought it would be a good idea to make a study where Nadareishvili's area of tension continues to exist for a couple of moves, and where Black just fails to break out with his queen and bishop due to various self-blocks by the opponent.



Timman 2011
White to play and draw

Black has a great surplus in material. White can only try to save himself with a series of checks.

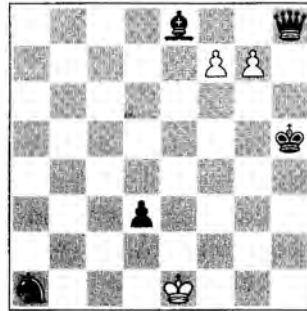
1. f6-f7+ ♔g8-g7
2. ♕g5-h6+

With this bishop sacrifice White lures the enemy king further forward.

2. ... ♔g7xh6
3. ♔c5-h5+

Now it has grown into a magnet combination. The king is drawn further out, enabling White to build Nadareishvili's area of tension on the board.

3. ... ♔h6xh5
4. g6-g7



Now there are two main lines:

A) 4...d2+ 5.♕f2! d1♖+ 6.♕e1 and despite his enormous material supremacy there is no win for Black;

B) 4...♖c2+ 5.♖d1! The knight blocks the black bishop's diagonal. Now 5...♔xg7 would bring Black nothing after 6.fxe8♔+ ♔h6 7.♖d2! ♖b4 8.♔e6+ ♔g6 9.♔h3+ and there is no good way for Black to escape from the checks. 5...♖e3+ 6.♖c1! and now the knight blocks the black queen's diagonal.

Also related to the Prokes Manoeuvre is a famous promotion combination from a game played in Madrid in the 1930s.



Position after 30.h3
Ortueta-Sanz, Madrid 1933

Black is two pawns up, but his structure is shattered. An easy win is not on the cards.

30. ... ♖d8-d2

The introduction to a magnificent combination.

31. ♘c3-a4

This allows the combination. More tenacious was 31.a4 in order to meet 31...♖xb2 with 32.a5. In that case it is probably best for Black to strengthen his position with 31...♙g6.

31. ... ♖d2xb2!

A rook sacrifice which is based on a series of marvellous finesses.

32. ♘a4xb2 c4-c3

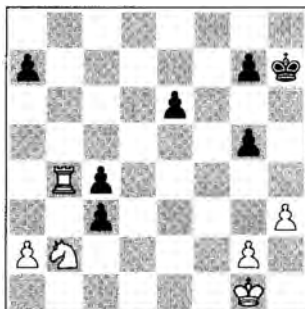
33. ♖b7xb6

White appears to save himself, but now there follows a colossal surprise.

33. ... c5-c4!!

The main point is that the white knight is deprived of the d3-square.

34. ♖b6-b4



Again White appears to have everything under control, but a new surprise awaits him.

34. ... a7-a5!!

The third pawn move. In spite of his enormous material advantage White cannot prevent the promotion of the c-pawn.

It is almost incredible that such a combination, full of study motifs, can occur in a practical game. However, the story becomes stranger still: in 1953 a game from 1931 between the Polish players Tylkowski and Wojciechowski was published, which contained exactly the same combination! This game is shrouded in mystery. Originally it was claimed that it had been played in the national championship, but this turned out to be untrue. There is a game between the same players from that championship, but here Tylkowski was the winner. No problem, according to the sources from Poznan that had made the game public: it had been a casual game. There were supposed to have been onlookers as

well. Witnesses insisted that they had seen the game in question, including the combination. One of them claimed that the game had been published at the time in *Dziennik Poznanski*, the local newspaper, which had a weekly chess column. This latter message turned out to be untrue as well.

So how credible does this make this game's authenticity? If there had been so many witnesses, this incredible combination had to have found its way to the newspaper column. It is also conspicuous that both players had died by the time the game was published. Nothing could be checked with either of the two persons directly involved.

Despite all this, Tim Krabbé, who has published a lot about this mysterious game on his website, claims that Tylkowski-Wojciechowski has really been played. I quote:

'It is hard to think of a reason why it would have been invented, and it would have been very difficult to invent it.' As for the first argument: to me it looks like an understandable attempt of local Poznan chess players to put their city on the global chess map. In 1953, Ortueta-Sanz had already been a famous combination for a long time. What could be more beautiful than the suggestion that all this had already occurred two years earlier in Poznan? And as for the game itself: it contains a bizarre episode.



After 22. ♖f3, the game is said to have continued as follows:

22. ... c5-c4+

Understandable. Black wants to get rid of his doubled pawns.

23. d3-d4?

But this is very strange. The d-pawn could have been lost now. There was nothing against 23. ♕f1.

23. ... c6-c5??

And this is simply a grotesque strategic blunder. With 23... ♖d8 he could have gained a big advantage.

24. d4-d5 e6xd5

25. ♖d1xd5

With a big strategic advantage.

25. ... ♕g8-h7

A strange move which, however, fits into the scheme.

26. ♖d5-d7 ♖a8-d8

27. ♖d7-b7?

What is this? White puts his rook out of play and hands the only open file to his opponent. The only justification for the text move appears to be that White wants to reach the position where the famous combination can start as soon as possible.

27. ... ♖f6-g6

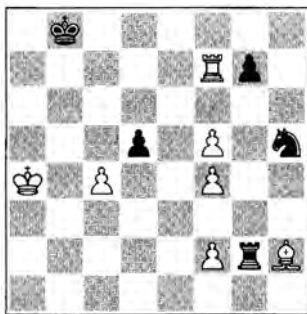
28. ♖f3-g3 ♖g6xg3

29. h2xg3 ♖d8-d2

The Art of the Endgame

Now the aim has been achieved. The position is ripe for the combination. Tylkowski and Wojciechowski were pretty strong players. It seems to me to be out of the question that they were able to play such bad moves.

Back to Ortueta-Sanz. The position after Black's 30th move is often published in a stylized version, without the black pawns on e6 and g5. In that case the capture on b2 would have been the only way to win. Then you could turn the board around in order to make an endgame study of it, with the stipulation 'White to play and win'. This wouldn't be a bad study, but it should be possible to get more out of it. There are studies by the Italian Rossi and the Russian Lomov, but they are incorrect. And there is little use in trying to restore them, since they hardly add anything to Sanz's combination. A good study is the following one by Ernest Pogosyants, the man who composed more than 1700 endgame studies.



Pogosyants, 'Thèmes-64' 1977
White to play and win

The first move is obvious. White must save his bishop.

1. ♖h2-g3 d5xc4

The technical background of this study is that both 1...d4 and 1...♟xg3 lead to lost rook endings.

2. ♜f7xg7!

Here is the rook sacrifice, in the other corner of the board.

2. ... ♟h5xg7

3. f5-f6 ♜g2xg3

4. f4-f5!!

If White captured on g3, Black would be able to scrape a draw.

4. ... ♜g3-g5

5. f2-f4! ♟g7xf5

6. f6-f7 1-0

The rook sacrifice can also be made on another square.



Timman 2010
White to play and win

The situation on the queenside is familiar. But on the other wing there's also something going on. First White has to stop the h-pawn.

1. ♖f1-g1 ♜b2-b1+

2. ♖g1-h2 ♜b1-b2

Black's counterplay is not to be underestimated. White has to take drastic measures now.

3. ♖c6-g6+!!

White sacrifices his rook in order to clear the way for the pawn on c5, and at the same time to open the a2-g8 diagonal. Black is forced to accept the sacrifice, as otherwise White will take on g4.

3. ... f7xg6

4. c5-c6

The rest is well-known territory.

4. ... ♜b2xb3

5. c4-c5 ♜b3-b5

6. a2-a4 ♞b7xc5

7. c6-c7

And the c-pawn queens.

When I showed this study to Yochanan Afek, he shook his head and said: 'You paid a high price for this rook sacrifice'. Afek likes maximum economy in a study. As little material as possible should be used to convey the ideas. In this study there is an entire structure on the kingside that doesn't play any role in the main variation. I fear that this is inevitable if we want to add any new ideas to the combination. Instead of a rook, White can also sacrifice two knights in order to break through.



Timman 2011
White to play and win

Black threatens to capture the knight on f4 with check. Therefore this knight is sacrificed first.

1. ♞f4-g6! h7xg6

2. ♞c7-b5!

Keeping the black knight from d6 and the rook from b6.

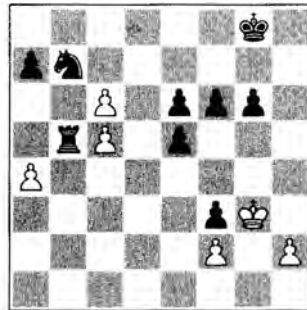
2. ... ♜b2xb5

3. c4-c5!!

In the circumstances, this is a quite special pawn move.

3. ... e4xf3

An ingenious defence. Black vacates the e4-square for the knight. If White now plays 4.axb5, Black can save himself by 4...♞xc5 5.c7 ♞e4+, followed by 6...♞d6.



4. ♞g3-h3!!

A marvellous quiet move. White takes his time and first eliminates the knight check, while maintaining the threat to take the rook.

4. ... ♞b7xc5

5. c6-c7

And wins.

Here again, we see this heavy structure on the other wing, but an extra element has been added: the quiet move at the *supreme moment*. Fourteen years earlier I had already tried to use this idea.



Timman 1997
White wins (first publication)

White is a pawn up, but his queen-side is very weak. He will have to act decisively.

1. f5-f6! g7xf6

Forced, as White's main threat was 2. ♖h8+ ♔g8 3. f7, while 1... ♔g8 would have run into 2. fxg7+ ♖e7 3. ♖h8 ♖xb3 4. ♖xg8 ♖f6 5. ♔e6!, and White wins.

2. ♖h7xf7+ ♖f8-g8

Not, of course, 2... ♖e8, in view of 3. ♔a4+.

This is the start of the well-known combination.

3. ♖f7xb7! ♔a5xb7

After 3... fxg5 4. ♖xa7 ♖xb3 5. ♖xa5 ♖xe3+ 6. ♖g4 ♖f7 7. ♖f5 the rook ending should be winning.

4. c5-c6 ♖b2xb3

5. c4-c5

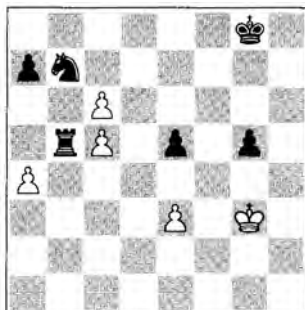
The well-known theme. With this pawn move the black knight is kept away from d6 and the rook from b6.

5. ... ♖b3-b5

6. a3-a4

Nothing new so far. But Black has a nice riposte.

6. ... f6xg5!



With the point that 7. axb5 is impossible in view of 7... ♔xc5 8. c7 ♔e4+, followed by 9... ♔d6.

We have now reached the high point of the study.

7. ♖g3-h3!!

An enormous surprise. Although a rook and a knight down, White is in no hurry to win back material, but starts by hiding his king. The absolute high point of the study is thus lengthened by one move.

7. ... g5-g4+

8. ♖h3-h4

And wins in two moves. The pawn on c6 decides the outcome.

'It has become a kind of Prokes theme', observed Krabbé when I showed him this study.

After making this study I hadn't indulged in the passion of composing endgame studies for two years – until I found three messages from Tim Krabbé on my answering machine in the space of thirty minutes. In the first message he said: 'Eh Jan, in that study after Ortueta-Sanz the bishop is not covered. Wouldn't it be better if it was?'. And the second message, about

two minutes later: 'OK, no, I get it now, the bishop cannot be covered.' And finally, in the third message, he said: 'But still, wouldn't it be better if the bishop *was* covered?' Hearing these messages, I felt something stir in my innermost chess soul.

Rusty retrograde cogs started churning, picking up speed.

I decided to tackle the study on a larger scale. Having the bishop on b4 instead of on b3 turned out to be a good starting-point.

The result looks as follows:



Timman 1999
White to play and win

As far as material is concerned, the situation is roughly equal. White obviously depends on his passed c-pawns. 1.c6 ♖d6 at once yields nothing, so he will have to start by trying to dominate the enemy knight.

1. ♕d2-b4 ♜f1-b1

There is no other defence against the threatened 2.c6, as may be seen from:

1...♜g1+ 2.♖f2, and now:

A) 2...♜g8 3.c6 ♖d8 4.♕e7!, and wins;

B) 2...♜c1 3.c6 ♜xc4 4.c7 ♜c6 (otherwise 5.♕c5) 5.f4 e4 6.f5, and wins.

2. a2-a3

Tempting, in view of what we have seen before, is 2.c6 ♜xb4 3.c5, but this fails to 3...♖xc5 4.c7 ♖e4+, followed by 5...♜c4.

2. ... a7-a5

3. c5-c6

Only now can the bishop be sacrificed.

3. ... a5xb4

4. c4-c5

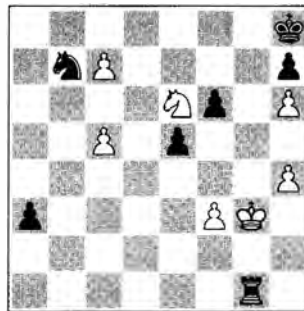
The Ortueta-Sanz motif. Now 4...♖xc5 is insufficient in view of 5.c7 ♖e4+ 6.fxe4 ♜c1 7.axb4, and wins.

4. ... b4xa3

5. c6-c7

Now the black rook has to hurry back to the bottom rank to stop the foremost white passed pawn.

5. ... ♜b1-g1+



6. ♖g3-h3!

For two reasons, both of which will become apparent, this is the only good square for the king.

6. ... ♜g1-g8

Interesting is the try 6...a2 7.c8♖+ ♜g8, which leaves White only one

The Art of the Endgame

way to win, viz. 8. ♖d8! (threatening mate in one) 8... ♜xd8 9. ♕a6, and the black a-pawn is eliminated.

7. ♜e6-d8 ♜g8xd8

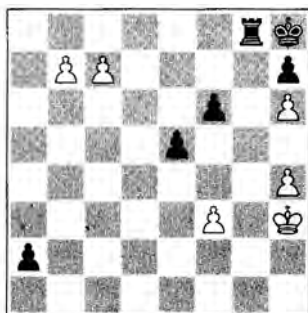
8. c5-c6!

The Prokes motif. Here we see the first reason why the white king had to go to h3; on the second rank it could be checked by the rook.

8. ... ♜d8-g8

The best defence; Black turns the game into a pawn race.

9. c6xb7 a3-a2



10. b7-b8♕

This is the only way to queen which wins, as will become clear in a while.

10. ... a2-a1♖

11. ♕b8xg8+ ♔h8xg8

12. c7-c8♕+ ♔g8-f7

13. ♕c8-d7+

Now it is clear why the b-pawn had to queen first: the black king must not be allowed to go to e6. If the black king now goes to g8, he loses the h-pawn with check via g7 and g8/h8

13. ... ♔f7-g6

14. ♕d7-g7+ ♔g6-h5

15. ♕g7-f7+

And this is the second reason for White's 6th move: the white king assists in weaving a mating net. If the black king had gone to f5, White would have taken on h7 with check and then escaped the perpetual.

15. ... ♔h5xh6

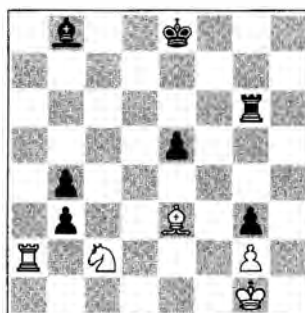
16. ♕f7xf6+ ♔h6-h5

17. ♕f6-g5

Mate.

A wonderful Excelsior of the black a-pawn, with the newly-born queen powerless to do anything. I failed to find a way to create an Excelsior with the hindmost c-pawn in a similar way.

The difference between the Prokes Manoeuvre and the combination from Ortueta-Sanz is that with the manoeuvre the pawn promotion is prevented, whereas in the second case, the promotion is realized by the combination. I thought it would be a challenge to create an 'Anti-Ortueta-Sanz study' – i.e. a study where White manages to prevent the pawn promotion.



Timman 2010
White to play and draw

White's first move is forced.

1. ♖a2-a8 ♜g6-b6!

A thematic sacrifice that serves to shield the b-file.

2. ♙e3xb6 b3-b2

Threatening to promote the pawn, which would even mean mate here. White must retreat his rook.

3. ♜a8-a1 b4-b3

Just like in the previous study we see a mix of the Prokes Manoeuvre and the Ortueta-Sanz combination. White must find a way to get to the enemy king.

4. ♙b6-d4!!

A curious situation. Two moves ago none of the white pieces was under attack. Now all three of them are. However, for the moment there is no reason for Black to capture either of the pieces.

4. ... ♜b8-a7!



The tension on the board is increased to the maximum. White's bishop is pinned, and the black bishop cannot be taken. How can he save himself?

5. ♘g1-f1!

The solution! Black has two ways to capture the bishop, but then a

rook check on a8 or e1 respectively, is possible. Insufficient was 5. ♖h1 on account of 5...bxa1 ♙+ 6. ♙xa1 exd4 7. ♙xb3 d3 and White cannot save himself.

5. ... b2xa1 ♙+

6. ♙c2xa1 ♙a7xd4

7. ♙a1xb3

With a draw.

Related to the Ortueta-Sanz combination is an idea from a quite unknown study by the Russian end-game study composer Alexander Herbstman.



Herbstman, 'De Schaakwereld', 1937

White to play and win

Materially White is in bad shape, but he has a dangerous passed pawn.

1. b5-b6 ♜d4-d1+

The rook has to hurry in order to stop the b-pawn.

2. ♘g1-f2

Definitely not 2. ♘g2? in view of 2...♙b1! followed by 3...♙e4+ and the black rook can stop the dangerous pawn.

2. ... ♜d1-a1

A curious situation. Black would prefer to get rid of one of his mi-

The Art of the Endgame

nor pieces, or both. They are hopelessly in each other's way.

3. h3-h4!

A tempo move.

3. ... e5-e4



4. ♔f2-g2

Now that the black pawn is on e4, this square is accessible to the king.

4. ... e4-e3

5. ♔g2-g3 ♖a1-g1+

6. ♔g3-f4 ♖g1-f1+

7. ♔f4-g5 ♖f1-g1+

8. ♔g5-h6 ♖g1-a1

There are no more checks, and the rook returns to its post.

9. h2-h3

Mutual zugzwang. White wins.

A nice study; but on move 4 there are two duals in the position. 4. ♔e3 wins too, and the little move 4. h3 leads to mate in 14.

This is a pity, as the idea of a tiny pawn dominating three black pieces is spectacular, and it deserved a better adaptation. I considered that all kinds of sacrifices would be possible to reach the spectacular position. Also, more can be done with the theme of mutual zugzwang.



Timman 2011

White wins (after Herbstman)

The black bishop is ready. The other pieces still have to be moved to the crucial squares.

1. e6-e7+ ♗f8-e8

2. ♘e4-d6+!

Forcing Black to take with the c-pawn, after which White can open the path for his b-pawn.

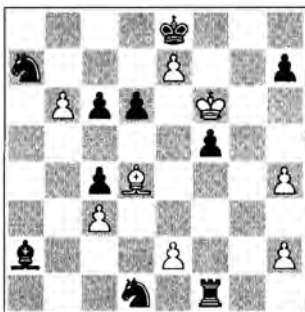
2. ... ♙c7xd6

3. a6-a7!

A pawn sacrifice to wrongfoot the black knight.

3. ... ♞c8xa7

4. b5-b6



The paralysing passed pawn arrives on the scene.

4. ... ♞d1-e3!

With this knight sacrifice Black clears the back rank for his rook.

White has to accept the sacrifice, since a check on d5 is threatened.

5. ♖d4xe3 ♜f1-a1

Now Black threatens to clear the c6-square for his knight with 6...c5.

6. ♜e3-c5!!

The only way to thwart Black's plan. Black has to accept the bishop sacrifice, because 7.b7 ♜b1 8.♜b4 is threatened.

6. ... d6xc5

7. h4-h5!

Not 7.h3 on account of 7...h5! 8.e3 f4 9.exf4 ♜d7! and 10.♜f7 fails to 10...♜g6+. It is very important for White to gain control of the g6-square.

7. ... f5-f4



8. h2-h3!

With this tempo move White comes out on top. Insufficient was 8.h6 in view of 8...f3 9.exf3 ♜d7! and Black is OK again.

8. ... h7-h6

9. h3-h4

Mutual zugzwang. For rook, bishop and knight, White only has one pawn, but still Black is powerless.

9. ... ♜a2-b1

10. b6-b7 1-0

I made the following study on October 31, the day that rumours were buzzing about that the great Dutch writer Harry Mulisch had died. While anxiously following the news, I was working on the ideas. When the study was finally finished, the news came through that Mulisch had died the night before. I decided to dedicate the work to his memory.



Timman 2010

Draw (in memory of Harry Mulisch)

It is clear that White cannot prevent the loss of a piece. Therefore he goes after the enemy c-pawn.

1. ♜e7-d7+ ♜d6-e6

2. ♜d7xc7 ♜e1-e3+

Black wants to capture the knight with the king. To this end, he must interpolate this rook check.

3. ♜e5-f3!

Drawing the black rook to a less favourable square.

3. ... ♜e3xf3+

4. ♜h3-g2 ♜f3-c3!

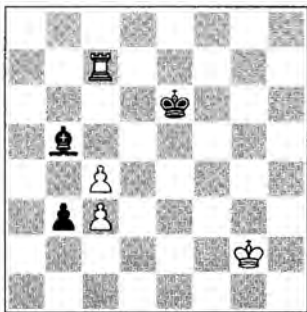
Black's best chance. After 4...♜d3 5.♜c6+ ♜e5 6.♜xa6 ♜d2+ 7.♜f3 ♜xb2 8.♜e3 the rook ending would be a draw.

5. b2xc3

The Art of the Endgame

The only move. After 5.♖c6+ ♔e5 6.♖xa6 ♜c2+ 7.♕f3 ♕d4! the rook ending is winning for Black, as the white king is shouldered off.

5. ... ♜a6-b5!



The fantastic point of the previous move. Black blocks the b-file, and now White's task to prevent the promotion of the b-pawn seems impossible. On 6.♖b7, for example, Black has 6...♜c6+.

6. ♜c7-c5!!

A calm move. White threatens to take the bishop.

6. ... ♜b5-d7

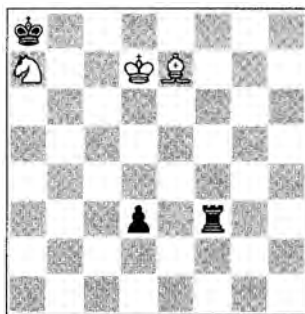
Now what?

7. ♜c5-g5!!

Only with this rook move can White prevent promotion. The rook aims for three different squares. The threat is 8.♜g6+, followed by 9.♜b6. Should Black try 8...♜c6+, then the white king steps aside, after which the g1-square is available for the rook. Finally, 8...♕f6 is met by 9.♜g8; then the rook will have access to the square b8.

The great Russian endgame study composer Vladimir Bron has created a study where White tries to

prevent promotion by hiding a stalemate in the position. Unfortunately the study turned out to be incorrect, for a surprising reason.



Bron, 'Sovietskaya Rossiya' 1957
White to play and draw (incorrect)

The intended solution was:

1. ♕a7-b5

White has to try and prevent the promotion of the d-pawn.

1. ... d3-d2

Otherwise the knight goes to c3.

2. ♕d7-c8

Suddenly White threatens mate in two. There is only one parade:

2. ... ♜f3-f5

3. ♕b5-c7+ ♔a8-a7

4. ♜e7-b4

Forcing the b-pawn to promote.

4. ... d2-d1♚

5. ♜b4-c5+!

The point of the previous move.

5. ... ♜f5xc5

Stalemate.

A charming miniature study, wouldn't you say? The main line is short and sweet. However, the problem is that Black can win with 4...d1♚!. The tablebases indicate that this is mate in 79 moves. For a long time it was thought that the

ending of ♖+♙ versus ♙+♘ with opposite-coloured bishops was a theoretical draw. To be frank, I have always had my doubts about this theoretical verdict. Even with limited material, the presence of opposite-coloured bishops provides attacking chances. This is not the only study that was proven incorrect by the findings of the table-bases. The same fate befell studies by, among others, Fritz and Rinck.

In itself, the bishop promotion is an attractive starting-point for a new study. For example, you could reverse the colours and turn it into a win study. But more can be made of this theme.



Timman, 'Schaaksite' 2011
White to play and draw (after Bron)

Here, too, it is hard to stop the black d-pawn. For instance, 1. ♙xb2? would fail to 1...d3!.

1. ♙a3-d6

With this bishop move White seems to solve his problems. On 1...d3 he has planned 2. ♘e6, when 2...♖a7 gives nothing because of 3. ♙f4!. The struggle becomes sharper after 2...d2 3. ♘c7+

♖a7 4. ♘xb5+. Now Black has two king moves:

A) 4...♖b6 5. ♘c3 ♙xc3 6. ♘d5+, followed by 7. ♘c3, with a draw;

B) 4...♖a6 Now White cannot stop the pawn, but he has a hidden perpetual check mechanism: 5. ♙b4! d1♖ 6. ♘c7+ ♖b6 7. ♘ed5+ ♖c6 8. ♘e7+ and the black king cannot walk out of the checks.

1. ... ♙b2-a3!

This bishop sacrifice enables Black to disturb the coordination in the white camp. White has to take the bishop, as 2. ♘e6 ♙xd6 would result in another theoretically winning ending for Black: rook + bishop versus two knights.

2. ♙d6xa3 d4-d3

How can White stop the pawn? 3. ♘e6 is met by first 3...♖b8+, after which the d-pawn marches on.

3. ♘e7-f5!

White sacrifices one of his knights in order to deflect the rook to a less favourable square.

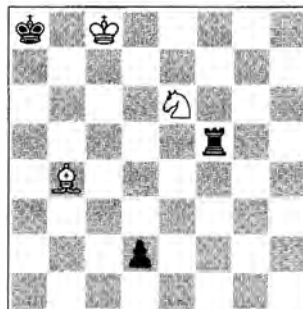
3. ... ♖b5xf5

4. ♘f8-e6

Bringing the other knight into position.

4. ... d3-d2

5. ♙a3-b4!



The Art of the Endgame

Bron's move, which does work in these circumstances. There are now two variations:

A) 5...d1♔ 6.♘c7+ ♔a7 7.♙c5+ ♚xc5 stalemate, as in Bron's study;

B) 5...d1♙ This is the point. 6.♙c5! Draw, since the mate threat on c7 can only be averted with an exchange sacrifice. The black rook is unfortunately placed. It is important that White postpones the knight check on c7. From e6 the knight protects the bishop on c5.

Sometimes it looks easy to prevent promotion. But then the position turns out to contain an unexpected problem.



Grinblat 'Israel Ring Ty' 1988
White to play and win

If White plays 1.♚g8 immediately, there follows 1...♚c7+ and surprisingly enough, the white king cannot escape the checks. If it goes to h8, Black plays his rook to the 8th rank as well, pinning the white rook. Therefore White must give check first.

1. ♚h8-a8+ ♔a3-b2
2. ♚a8-b8+ ♔b2xc2

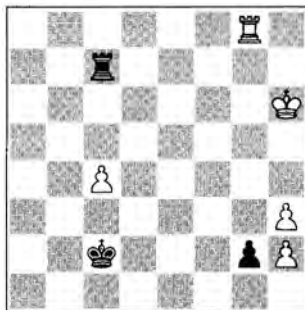
Black must take the bishop, otherwise White will put his rook on the first rank.

3. ♚b8-g8

Now he can play this.

3. ... ♚c6-c7+

4. ♔h7xh6!



The white king first walks to h4, in order to force Black to take his c-pawn.

4. ... ♚c7-c6+

5. ♔h6-h5 ♚c6-c5+

6. ♔h5-h4 ♚c5xc4+

7. ♔h4-h5

And now, up again.

7. ... ♚c4-c5+

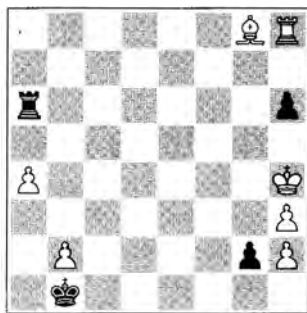
8. ♔h5-h6 ♚c5-c6+

9. ♔h6-h7 ♚c6-c7+

10. ♔h7-h8

And wins. Now the black rook cannot move to the 8th rank, since it will be taken with check.

The study is based on a pretty idea, but its execution leaves a little to be desired. The white sacrifices are passive; neither the bishop nor the c-pawn contributes anything. My search for a livelier version produced the following result.



Timman 2011
White wins (after Grinblat)

The starting position already contains a temptation. 1. ♖h7+ is insufficient, in view of 1... ♗a1 2. ♜g8 ♜xa4+ and Black has perpetual check. The white bishop is in the way.

1. ♖g8-a2+!

This bishop check forces the black king to leave the b-file.

1. ... ♗b1-a1

The side variations contain echoes of Grinblat's idea:

A) 1... ♗xb2 2. ♜b8+! ♗xa2 3. ♜g8 ♜xa4+ 4. ♗h5 ♜a5+ 5. ♗xh6 ♜a6+ 6. ♗h7 ♜a7+ 7. ♗h8 and wins, entirely according to Grinblat's scheme.

B) 1... ♗c1 2. ♜c8+! ♗d2 3. ♜g8 ♜xa4+ 4. ♗h5 ♜a5+



5. ♖d5! This bishop sacrifice forces the rook to move to the d-file. 5... ♜xd5+ 6. ♗xh6 ♜d6+ 7. ♗h7 ♜d7+ 8. ♗h8, and wins.

2. ♜h8-g8 ♜a6xa4+

3. ♗h4-h5

First the king collects the black h-pawn. 3.b4 ♜xa2 would spoil the win.

3. ... ♜a4-a5+

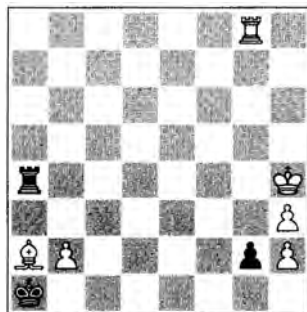
4. ♗h5xh6 ♜a5-a6+

5. ♗h6-h5

The king goes back again.

5. ... ♜a6-a5+

6. ♗h5-h4 ♜a5-a4+



7. b2-b4!

Forcing the rook to go to the b-file.

7. ... ♜a4xb4+

8. ♗h4-h5 ♜b4-b5+

9. ♗h5-h6 ♜b5-b6+

10. ♗h6-h7 ♜b6-b7+

11. ♗h7-h8 ♜b7-b8

12. ♜g8xb8 g2-g1 ♕

13. ♜b8-b1+

The final point.

13. ... ♕g1xb1

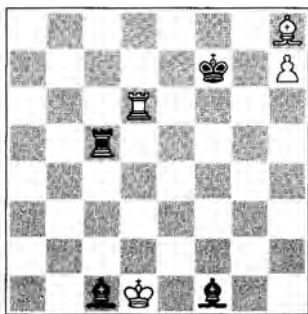
14. ♖a2xb1

And wins.

Chapter 4

Various Promotion Combinations

The Ortueta-Sanz combination is the most famous promotion combination. However, promotions can be forced in all kinds of interesting ways. Let me start with a study that is linked to one of the miniature studies in Chapter 1.



Timman 1987
White to play and win

It looks logical to start with 1. ♖e5. Then, on 1... ♜c8, 2. ♜c6! is the winning move. But Black has a better option. After 1... ♙g5! 2. ♙b2 ♜c8 White cannot win.

1. ♜d6-f6+ ♙f7-e8

After 1... ♙e7 2. ♜xf1 White would win immediately thanks to the threat of 3. ♙f6+. Now the capture on f1 would yield White nothing, because Black would put his rook on h5.

2. ♜f6-f8+!!

Also insufficient was 2. ♙g7 in view of 2... ♜h5 3. ♙h6 ♜xh6

4. ♜xh6 ♙b2 and Black holds. The rook sacrifice opens the path to e5 for the bishop.

2. ... ♙e8xf8

Now the starting position is again on the board, without the white rook. A further difference is that the black king is on the back rank. This is of cardinal importance for White, as now he can threaten to promote with check.

3. ♙h8-e5

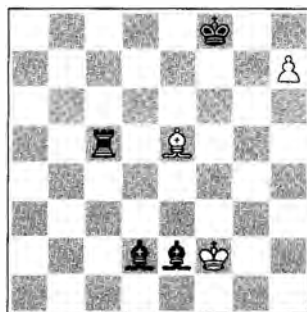
The black rook is cut off. Now Black only has bishop checks left.

3. ... ♙f1-e2+

4. ♙d1-e1! ♙c1-d2+

5. ♙e1-f2!

White leaves the second bishop untouched as well. He must keep preventing effective rook checks by Black.



5. ... ♙d2-e3+

6. ♙f2-g2!

The only square for the king. After 6. ♙g3 ♙f4+! 7. ♙xf4 ♜c4+

8. ♖g5 ♜g4+ Black would succeed in giving his rook for the h-pawn.

6. ... ♜e2-f1+

7. ♖g2-g3!

White consistently refuses to take bishops. Now 7...♜f4+ is not effective in view of 8. ♖xf4 ♜c4+ 9. ♖g5 or 9. ♖g3 and Black has no good rook checks left.

This means that Black has run out of resources. After 7...♜f2+ White cannot take this bishop either, but both 8. ♖f3 and 8. ♖h2 suffice for the win.

Incidentally, g3 was the only square for the king. After 7. ♖h1? ♜g2+! Black would draw in a way we know from the miniature study in Chapter 1.

The following study is a great sacrificial slugfest.



Timman 2005
White to play and win

White is a lot of material behind, but his mighty passed pawns compensate for that.

1. g6-g7

Threatening to promote.

1. ... ♜e7-e8+!

Black sacrifices a full rook with the sole purpose of vacating the e7-square for his knight.

2. ♜h5xe8 ♜c6-e7

Now the promotion of the g-pawn is much less effective. White has to tread very carefully to achieve the promotion of the h-pawn.

3. c3-c4!

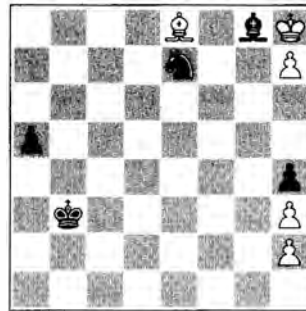
The aim of this pawn sacrifice is to open the long diagonal. The purpose of this will become clear eight moves later.

3. ... ♜d5xc4

4. g7-g8♚

This pawn promotion actually boils down to a pawn sacrifice that serves to vacate the square g7 for the king.

4. ... ♜c4xg8



5. ♜e8-f7+!!

After two pawn sacrifices, White also offers his bishop into the bargain. The idea is to draw the g8 bishop out to a less favourable square. Capturing on g8 is insufficient. White has an extra bishop, but with the wrong rook pawn he cannot win.

5. ... ♜g8xf7

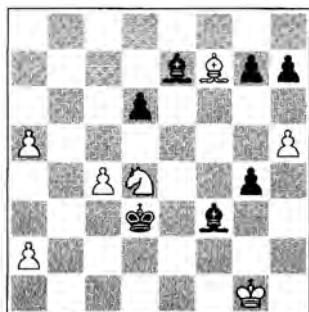
6. ♖h8-g7 ♜e7-g6

7. ♖g7xf7 ♜g6-h8+

8. ♖f7-g7 a5-a4
 9. ♖g7xh8 a4-a3
 10. ♖h8-g8 a3-a2
 11. h7-h8♚

Now the purpose of White's 3rd move becomes clear. Black cannot promote.

This study won 6th prize in the John Nunn 50 Jubilee Tourney.



Timman 2008
 White to play and win

It is clear that the passed a-pawn is White's chief trump card. However, before he can march with this pawn, White first has to take a few precautionary measures.

1. h5-h6!

The point of this pawn sacrifice will become clear after a few moves.

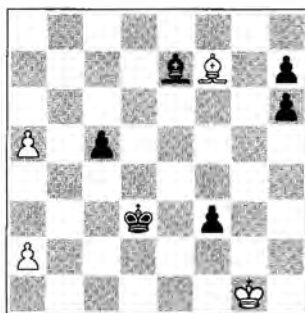
1. ... g7xh6

The alternatives lose:

A) 1...g5 2. ♖d5! ♙f6 3. ♖c6 and the a-pawn decides. By playing the g-pawn to g5, Black has deprived his bishop of the square g5, and as a result the bishop is dominated;

B) 1...g6 2. ♖xf3 gxf3 3. ♖f1 ♙d8 4.a6 ♙b6 5. ♙g8 and White obtains a decisive passed h-pawn.

2. ♖d4xf3 g4xf3
 3. c4-c5! d6xc5



4. ♙f7-c4+!!

A magnificent bishop sacrifice, with which White keeps the a7-g1 diagonal closed. As a result, the white a-pawn can march on freely.

4. ... ♖d3xc4
 5. a5-a6 ♖c4-d3
 6. ♖g1-f1!

Otherwise the black c-pawn becomes too dangerous.

6. ... c5-c4
 7. a6-a7 c4-c3
 8. a7-a8♚ c3-c2

The black c-pawn is still dangerous, and White has to keep playing accurately.

9. ♙a8xf3+

First the f-pawn is eliminated with check.

9. ... ♖d3-d4
 10. ♙f3-f2+!

Forcing the king back to the third rank.

10. ... ♖d4-d3
 11. ♙f2-e2+ ♖d3-c3
 12. ♙e2-e3+ ♖c3-b2
 13. ♙e3-b3+

And wins.

In the following study White must first sacrifice a bishop and then create a 'nerve square' in order to force promotion.



Timman 2009
White to play and win

White is an exchange down, so speedy action is required. However, 1.h6 achieves nothing as Black has the simple 1...hxg6 2.hxg7 ♖f7. So first of all, the black king must be diverted.

1. ♖b7-c8+ ♜e6-e7

On 1...♜f6, 2.♖d8+ is immediately decisive.

2. ♖c7-d6+!

This bishop sacrifice deflects the black king from the kingside.

2. ... ♜e7xd6

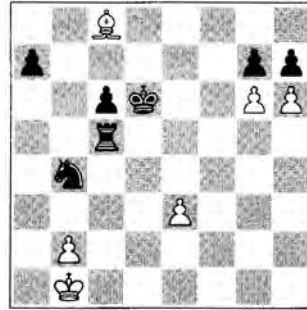
3. h5-h6!

The time is ripe to set up the 'nerve square'. Black can take neither of the two pawns. But he has a hidden resource up his sleeve.

3. ... ♜d3-b4!

A subtle knight move. Black weaves a mate threat into the position. Consequently, White cannot resolve the 'nerve square': 4.gxh7 would fail to 4...♜h5 and 4.hxg7 to 4...♜g5. In both cases

Black would emerge as the winner.



4. b2-b3!!

An astonishing quiet move. White postpones the choice of pawn capture. Meanwhile, Black's mate threat is prevented.

4. ... ♜c5-h5

The alternative was 4...♜d3 in order to play for a perpetual check. After 5.hxg7 ♜c1+ 6.♜a2 ♜c2+ 7.♜a3 ♜c1 White decides the game by creating space for his king with 8.b4.

5. h6xg7 ♜h5-h1+

6. ♜b1-b2 ♜h1-h2+

7. ♜b2-c1

The king can only run away along the first rank. Otherwise it would be caught in a mating net.

7. ... ♜b4-a2+

8. ♜c1-d1 ♜a2-c3+

9. ♜d1-e1

It looks as if the white king escapes to the kingside without trouble. However, Black manages to stop the g-pawn by sacrificing his rook.

9. ... ♜h2-h1+

10. ♜e1-f2 ♜c3-e4+

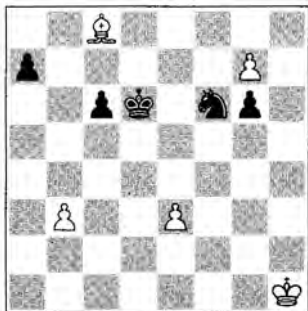
11. ♜f2-g2 ♜e4-f6

12. ♜g2xh1

The king has travelled a long way and ends up in the opposite corner.

12. ... h7xg6

Threatening 13...♔e7, after which Black could look to the future with confidence. But White has a method at his disposal to cut off the king.



13. ♕c8-a6! ♔d6-e7

14. ♕a6-c4 1-0

In the following study, White also tries to take profit from two remote passed pawns.



Timman 2010
White to play and win

White has an extra pawn, but the far advanced h-pawn is threatened with extinction. Swift action is called for.

1. b3-b4

Threatening 2.b5, after which White would have a winning majority on the queenside. Black's reply is therefore forced.

1. ... c7-c6

2. f2-f4!

The point of this pawn sacrifice is that the b8-h2 diagonal is obstructed. The intention behind this will become clear later on.

2. ... g5xf4

The alternative was 2...♔d8 in order to pre-empt the coming breakthrough combination. White then wins with a thematic variation: 3.fxg5+ ♔xg5 4.h7 ♕f6 5.b5! cxb5 6.c6! dxc6 7.♔e7! and the h-pawn decides.

3. b4-b5! f4-f3!



4. ♔h2-g1!

Not 4.gxf3 on account of 4...cxb5 5.c6 ♔d8 and Black has a bishop check in reserve.

4. ... c6xb5

5. c5-c6! ♔e7-d8

6. ♔a3-e7+!

And wins. Black must allow the promotion of either the c- or the h-pawn.

The Austrian judge Alois Wotawa is known for his original ideas in endgame studies. In the following study he has built in a hidden mechanism to achieve the pawn promotion.



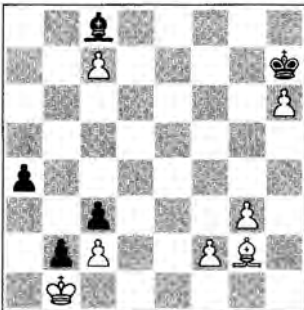
Wotawa, 'Schach Magazin' 1949
White to play and win

The intended solution is:

1. g2-g3

A quite remarkable little move. White vacates the square g2 for the bishop. With this late fianchetto White prepares a combination with which the black bishop will be cut off from play.

1. ... a7-a5
2. ♖a8-g2 a5-a4



Black's counterplay is assuming threatening proportions. It's high

time for White to lay his cards on the table.

3. f2-f3!!

The point of the fianchetto. The white bishop lies in ambush in order to carry out the combination.

3. ... a4-a3

4. ♖g2-h3!

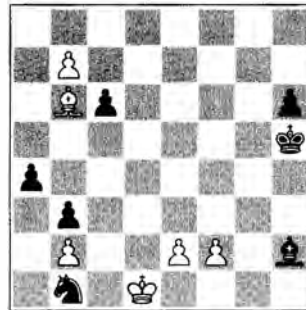
Just in time.

4. ... ♜c8xh3

5. g3-g4 1-0

The problem is that White can also win with 1.f4 or 1.♖e4+ ♜xh6 2.f4. The white pawns are too strong. We could start the study one move later, but then it would be a rather dull affair.

Wotawa published another study on this theme in the same issue of *Schach Magazin*.



Wotawa, 'Schach Magazin' 1949
White to play and win

First of all, White will have to put things right on the queenside.

1. ♔d1-c1 a4-a3
2. ♔c1xb1 a3-a2+
3. ♔b1-a1

The white king is again boxed in on the queenside, and the threat is 4.♖a7.

3. ... ♖h2-b8

4. f2-f3

Not a fianchetto, but it still works.

4. ... ♖h5-g5

5. ♖b6-g1!! ♖g5-f5

6. e2-e3! ♖f5-e6

7. ♖g1-h2 ♖b8xh2

8. f3-f4 1-0

This version is correct, but it makes a rather crude impression. With his king White collects a knight that has no further function.

It seemed to me that the theme with the white bishop lying in ambush deserved a better execution.



Timman 2009
White to play and win

A quite natural starting position. Since 1.cxd6 ♖d7 yields nothing, White has to make a breaking move.

1. d4-d5! d6xc5

2. d5xc6 ♖e8-f7+

Heading for d5. Otherwise Black cannot stop the passed pawn.

3. ♔a2-a1!

Only much later will it become clear why this is the right square for the king.

3. ... ♖f7-d5

4. ♖b7-a8

The only way to make progress. White threatens 5.c7 ♖e6 6.♖b7, winning the bishop.

4. ... ♖d5-e6

5. c6-c7 ♖e6-c8



Black has just managed to hold his ground. Now White sets an ambush with his bishop.

6. ♖a8-g2!!

Wotawa's fianchetto.

6. ... h6-h5

The only way to try and stop White executing his plan. On 6...f3 7.♖xf3 ♖g7, 8.h3! would have been winning.

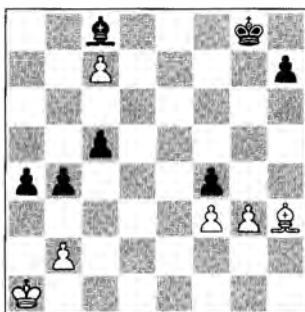
7. f2-f3! h5-h4

8. ♖g2-h3!!

The point of the previous. Black cannot take the bishop.

8. ... h4xg3

9. h2xg3

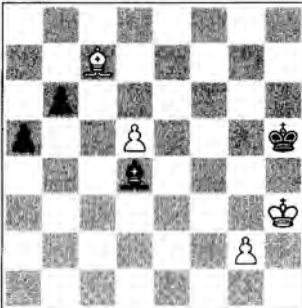


Now Black has a choice between two options:

A) **9...fxg3 10.♙xc8 g2 11.♙f5! g1♖+ 12.♙b1** Now the point of White's 2nd move becomes clear. The queen cannot stop the b-pawn.

B) **9...♙b7** If White now continues with 10.gxf4, he cannot win due to the fact that Black has a passed pawn on the kingside. Therefore White must play very accurately: **10.♙e6+ ♖g7 11.g4! ♜f6 12.c8♞ ♙xc8 13.♙xc8 ♜g5 14.♙d7** and White wins by the smallest of margins.

Wotawa later elaborated on the theme in a slightly simpler study, with less material, as follows:



Wotawa, 'Schach Magazin' 1951
White to play and win

A perfectly natural starting position. The first move is obvious.

1. **d5-d6 ♙d4-e5**
2. **♙c7-b8**

This principle, to move the bishop one square further away in order to achieve promotion, stems from the Czech composer Jindrich Fritz. Later in this chapter we will meet him again.

2. ... **♙e5-f6**
3. **d6-d7 ♙f6-d8**

Again Black has apparently managed to avoid the loss of his bishop. However, White has a nice trick up his sleeve.

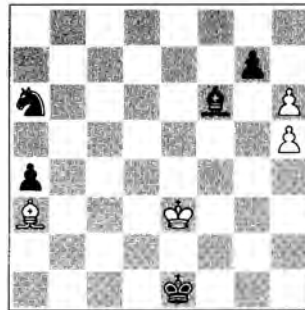
4. **♙b8-g3! a5-a4**
5. **♙g3-h4**

Basically this is the same principle, but now both kings are involved in the combination. The black bishop is drawn to a critical square on the short d8-h4 diagonal.

5. ... **♙d8xh4**
6. **g2-g4+**

And wins.

The top Latvian player Herman Mattison was a gifted endgame study composer. With little material he could weave subtle ideas into a position.



Mattison, 'Magyar Sakkvilág' 1925
White to play and win

The intended solution is:

1. **h6-h7 g7-g6**

Black must grant White a mighty pawn pair to avoid the promotion.

2. **h5xg6 ♜a6-c7**
3. **♙a3-f8 ♜c7-e6**
4. **g6-g7 ♜e6xg7**

5. ♖f8-b4+ ♜e1-d1
6. ♖b4-c3!! ♜f6xc3
7. ♜e3-d3

And wins.

The problem, however, is that the white passed pawns are so strong that he can win in many ways, all the more so since the black king is so far removed from the scene. For example, 3. ♖b4+ and 3. ♜e4 are also more than sufficient for the win.

It seemed to me that the elegant 'petite combinaison' with which White forces the promotion deserved a better fate. I managed to make an addition.



Timman 2008
White to play and win

It's clear that White has to try and promote his h-pawn. Black has nothing to fear after 1. hxg7 ♜f7.

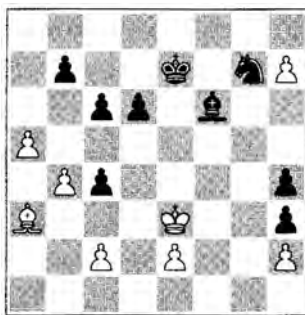
1. h6-h7 ♜e1-c3

The only way to parry the promotion threat. Black must keep the knight check in reserve. After 1... ♜xf5+ 2. ♜f4 ♜c3 3. ♜xf5 White would reach a winning bishop ending. The h-pawn is too strong.

2. f5-f6+!

With this pawn sacrifice White clears the d2-square for his king.

2. ... ♜c3xf6



White still cannot promote his pawn in view of the knight check. Now Mattison's move follows, in a subtler version.

3. ♜a3-b2!!

This bishop sacrifice has an astonishing point. 3... ♜xb2 will be met by the quiet move 4. ♜d2!. White rules out the knight check without attacking the enemy bishop. The subtle point is that any black knight move is met by 5. c3, closing the long diagonal for the black bishop.

3. ... ♜g7-f5+

The best defence. Black is going to block the long diagonal in order to prevent the pawn promotion.

4. ♜e3-d2 ♜f5-d4



5. ♔d2-d1!!

White must retreat his king further in order to avoid being disturbed by more knight checks.

5. ... ♖e7-f7

The king is on its way to eliminate the dangerous h-pawn.

6. e2-e3

Winning the knight. Now a pawn ending ensues by force.

6. ... ♖f7-g7

7. ♘b2xd4 ♘f6xd4

8. e3xd4 d6-d5

A necessary measure. On 8...♔xh7 White would have broken through decisively with 9.d5!, when one of the white queenside pawns will promote.

9. ♔d1-d2 ♖g7xh7

10. b4-b5

There is a dual here. First 10.♔c3 and only then 11.b5 is also good.

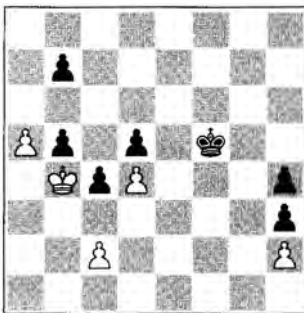
10. ... c6xb5

11. ♔d2-c3

White's plan is clear. He is going to collect the black b-pawn.

11. ... ♖h7-g6

12. ♔c3-b4 ♖g6-f5



Now a race starts. The black king is going after the white h-pawn.

13. ♖b4xb5 ♖f5-e4

14. ♖b5-b6 ♖e4-f3

15. ♖b6xb7 ♖f3-g2

16. a5-a6 ♖g2xh2

17. a6-a7 ♖h2-g2

18. a7-a8♚

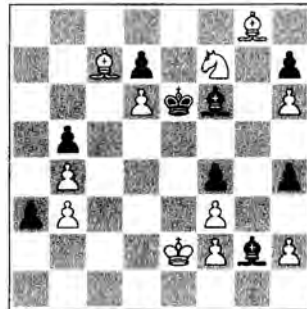
In the end the other rook pawn is the one that promotes. The finale still requires precision.

18. ... h3-h2

19. ♚a8-g8+

And wins. On the next move White will capture on d5.

In the following study White achieves the promotion with two successive bishop sacrifices.



Timman 2009

White to play and win

There are only minor pieces on the board. Apart from the black king's bishop, they are all more or less scattered over the board. White is a piece up, but the black a-pawn can become very dangerous. Evidently, White must give a discovered check with his knight.

1. ♘f7-d8+ ♖e6-e5

2. ♘d8-c6+!

White sacrifices his knight in order to create a passed d-pawn.

2. ... d7xc6

The alternative was 2...♔f5. After the follow-up 3.♙xh7+ ♕e6 4.♙g8+ ♕f5 White must pull out all the stops to stay on top. The only good move is 5.♙b6! in order to force Black to take on c6. There follows 5...dxc6 6.d7 a2 7.♙d4! ♙xd4 8.d8♖ ♙f1+ 9.♔d2! ♙c3+ 10.♔c2! a1♖ 11.♖d7+ and Black gets mated.

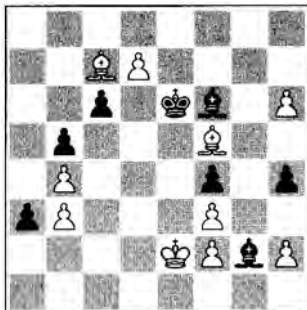
3. d6-d7+ ♕e5-f5

4. ♙g8xh7+ ♕f5-e6

And now for the bishop sacrifices.

5. ♙h7-f5+!!

Insufficient for the win was 5.♙b1, since after 5...♔xd7 6.♙xf4 ♙h3 7.♙c1 a2! 8.♙xa2 ♙f5 the white king's bishop would be cut off from play. The text move forces the black king to go to an unfavourable square.



5. ... ♕e6xf5

6. ♙c7-e5!!

Absolutely stunning.

6. ... ♙g2-f1+!

Bishop sacrifices from both sides. White cannot take, as then the black a-pawn promotes with check.

7. ♕e2-d2! ♕f5xe5

8. h6-h7 a3-a2

9. d7-d8♖ a2-a1♖

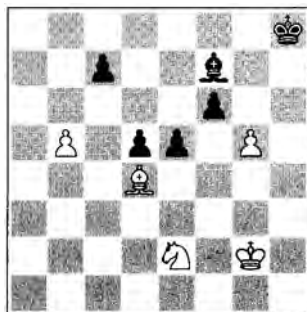
If Black took on d8, the white queen would prevail over the bishop pair after the promotion.

10. ♖d8xf6+ ♕e5xf6

11. h7-h8♖+

And wins.

In the next study White strives for domination of the enemy bishop.



Timman 2010
White to play and win

White is a piece up, but he is running the risk that both his pawns will disappear from the board. So he has to try and prevent one pawn being traded off. But first of all he has to choose the right square for his bishop.

1. ♙d4-c5!

The introduction to a magnificent combination. Insufficient for the win was 1.♙c3 on account of 1...♔g7 2.♙a5 ♙e8 3.♙c3 d4 4.gxf6+ ♔f7! and White cannot protect both his pawns from elimination.

1. ... ♕h8-g7

Now the threat is again 2...♙e8, with an immediate draw.

2. ♙c5-e7!

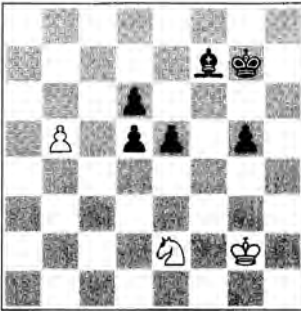
An important move. White forces his opponent to capture on g5.

2. ... ♜f6xg5

3. ♙e7-d6!!

The brilliant point of the previous move. Now on 3...♙e8 White plays 4.♙xe5+, followed by 5.♘d4, with an easy win. Therefore Black has no choice. He must take the bishop.

3. ... ♜c7xd6



4. ♘e2-d4!!

The second piece sacrifice. White prevents Black advancing his d-pawn and also deprives the bishop of the squares c6 and e6. The b-pawn cannot be stopped any more, even though it is only on b5.

4. ... ♜e5xd4

5. ♜b5-b6 ♜d4-d3

Now White has to watch his step. He has only one winning move, and all other moves lose.

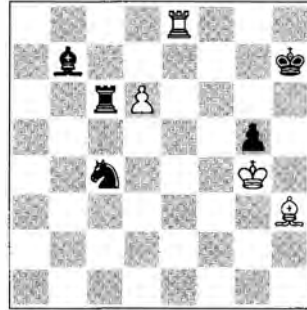
6. ♔g2-f1!

The right square for the king. After 6.♔f2 g4 7.b7 g3+ Black would win.

6. ... ♙f7-h5

7. ♔f1-e1

The black bishop is still dominated. The promotion of the b-pawn can no longer be prevented.



Timman 1990/2011

White to play and win

This is an old study that I corrected several decades later. It looks as if the promotion of the d-pawn can be achieved without trouble.

1. ♜d6-d7 ♘c4-e5+!

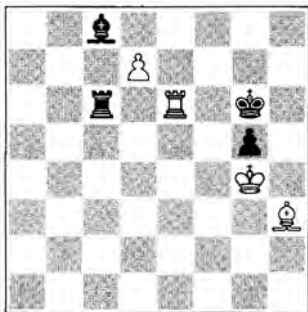
Insufficient was 1...♜d6, since the endgame that arises after 2.♔xg5 ♔g7 3.d8♜ ♜xd8 4.♜xd8 is won according to the tablebases, e.g. 4...♘e5 5.♙e6! ♙c6 6.♜g8+ ♔h7 7.♔f6, and the king penetrates with devastating effect.

2. ♜e8xe5 ♙b7-c8

The point of the previous move. Because the white rook has been deflected from the 8th rank, Black can pin the pawn that is about to promote. However, White has an unpinning mechanism at his disposal.

3. ♜e5-e7+ ♔h7-g6

4. ♜e7-e6+!!



A lot of traffic on the c8-h3 diagonal! Black cannot take the rook.

4. ... ♖g6-f7

5. d7-d8♖

The point of the previous move. The rook check served to unpin the white passed pawn.

5. ... ♙c8xe6+

6. ♖g4-h5!

The only correct king move. White has to leave the g-pawn in peace for the time being, since after 6. ♖xg5 ♜c5+ 7. ♖h6 ♙xh3 8. ♚d6 ♜c8! Black would build an impregnable fortress.

6. ... ♙e6xh3

From this moment on everything goes according to the tablebases, though of course I did not know that when I composed the study.

7. ♚d8-d5+

Driving the rook to a less favourable square.

7. ... ♜c6-e6

8. ♚d5-f3+ ♖f7-g7

The only square for the king. White cannot capture the bishop, because then there is a rook check on h6.

9. ♚f3-c3+ ♖g7-h7

Black keeps preventing the capture of the bishop. But now White can drive his king to the back rank.

10. ♚c3-c7+

From here on several 'waste-of-time duals' will crop up. This is a term that signifies that other moves are also sufficient, but they only delay the winning process, e.g. by move repetition. At this point there were the duals 10. ♚d3+ and 10. ♚c2+. I will not mention them in the following.

10. ... ♖h7-g8

11. ♖h5xg5

Finally White has found time to take the g-pawn. Black now has to move his bishop to the long diagonal in order to avoid immediate defeat.

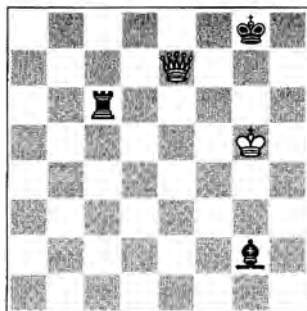
11. ... ♙h3-g2

12. ♚c7-d7

Methodically White tries to gain territory.

12. ... ♜e6-c6

13. ♚d7-e7



So far I had found all the moves by myself in 1990. It seemed to me that White should be winning, although I couldn't see clearly how to go about it. What I didn't realize was that here a situation of mutual zugzwang has arisen. Both sides' pieces are on their best squares.

13. ... ♔g2-h1

The most tenacious defence.

14. ♖g5-f5

Now that Black has no check on h3, this is strong. The black rook now has to move to a less favourable square.

14. ... ♜c6-h6

15. ♚e7-d8+

Here there is a real dual. 15. ♚e3 also leads to mate in 41.

15. ... ♖g8-h7

16. ♚d8-g5

Forcing Black to play his bishop.

16. ... ♔h1-f3

17. ♚g5-e7+ ♖h7-g8

18. ♖f5-g5 ♜h6-c6

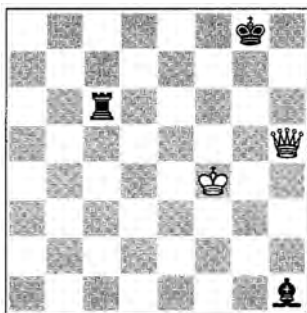
19. ♖g5-f4 ♔f3-h1

This is almost the same position as a few moves earlier, only now the white king is on f4 instead of f5.

20. ♚e7-e8+ ♖g8-g7

21. ♚e8-e5+ ♖g7-g8

22. ♚e5-h5!



This attack on the bishop is lethal.

22. ... ♜c6-c1

A last desperate line of defence.

23. ♖f4-e3 ♜c1-f1

24. ♚h5-g6+ ♖g8-f8

25. ♖e3-e2

And White wins the bishop.

The Novotny theme signifies that a piece is placed on the intersection between a diagonal of the opponent's bishop and a file (or rank) on which his rook operates. This theme occurs in problems and studies as well as practical games.

In the Czech problem composer Anton Novotny's original problem, the interference was performed by a bishop, in his second problem it was performed by a knight. Both problems were published in the *Leipziger Illustrierte Zeitung* in 1854. One year later he came up with the following problem, where the theme was repeated.



Novotny, Leipziger Illustrierte Zeitung 1855
Mate in 3

This looks a little like a position from a game. First White will have to set things right on the queenside, since the interference move 1. ♔g4 fails to 1... ♜xc3.

1. ♜c3-c5!

Threatening mate in 1.

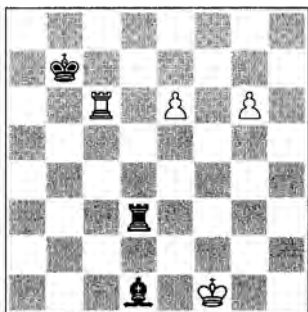
1. ... ♔a7xc5

Black is forced to close the c-file for the rook, as 1... ♜xc5 was not possible in view of 2. ♚f2+ and mate.

2. ♖e2-g4!

After the interference on the queenside, White moves the battle scene to the kingside. This interference move with the bishop is the only move that wins. Black is mated on g3 or h2.

In studies, the Novotny mostly serves to enforce a pawn promotion. As an example I give a very good study made by the Hungaro-American grandmaster and study composer Pal Benkő.



Benkő, 'Magyar Sakkélet' 1977
White to play and win

In this miniature, as so often, a pawn promotion is the main point of the Novotny theme. White has to choose whether he wants to promote the e- or the g-pawn. In the first case the intersection of the Novotny is on e6, in the second it is on g6.

1. e6-e7

Insufficient is 1.g7 on account of 1...♖g3 2.e7 ♖h5 3.♖g6 ♖xg6 (not 3...♖xg6, as then White has the winning intermediate move 4.♔f2) 4.e8♚ ♖f6+ 5.♔e1 ♖xe8 6.g8♚ ♖d7! and Black has built a fortress.

1. ... ♖d3-e3

2. g6-g7 ♖d1-b3

Everything appears to be ready for the Novotny, but closer inspection shows that White has to be patient.

3. ♖c6-c7+!

After 3.♖e6 ♖xe6 4.g8♚ ♖c4+ White cannot win. Therefore he introduces an intermezzo. With the rook check he protects the e-pawn, which gives him time for a zwischenzug with the king.

3. ... ♔b7-a6

The only square for the king. After 3...♔b6 4.♖c3 White would win immediately.

4. ♔f1-f2

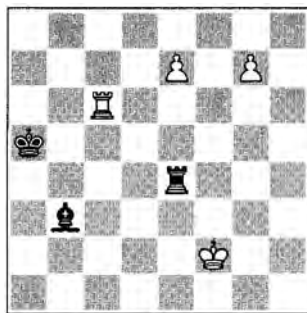
On this square the king is better placed, as there will be no bishop checks later on.

4. ... ♖e3-e4

5. ♖c7-c6+

It's time for the Novotny theme.

5. ... ♔a6-a5



6. ♖c6-e6!!

With his king on a safe square, White's interference is now lethal.

6. ... ♖e4xe6

7. g7-g8♚ ♖e6-f6+

8. ♔f2-g1!

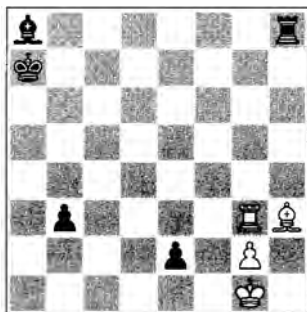
Another safe square for the king.

8. ... ♖b3xg8

9. e7-e8♔

And wins. Black loses a piece. Benkő received first prize for this study in the competition organized by the Hungarian magazine. The only thing missing in this study is the thematic sacrifice with which one of the enemy pieces is drawn beyond the intersection point.

So far we have seen a knight and a rook occupy the intersection point. A bishop can also do it.



Timman 2011
White to play and win

White is a pawn behind. He must try and eliminate the far-advanced e-pawn.

1. ♖g3-e3

Insufficient was 1. ♖f2 in view of 1... ♖e8 2. ♖e1 ♖d5, and Black keeps both pawns.

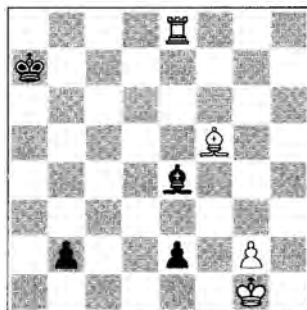
1. ... ♖h8-e8!

The thematic sacrifice, drawing the white rook beyond the intersection point. A dangerous alternative was 1... ♖f3. Then White has to play very accurately to hold his ground. He has to avoid the rook ending,

and 2. ♖f2 ♖h5! 3. ♖e1 ♖b8 is also prospectless. The only road to the draw runs as follows: 2. ♖f5! ♖f8 3. ♖d3 ♖e4! 4. ♖xe2 ♖c2 5. ♖c4 b2 6. ♖a2 and White holds by a thread.

2. ♖e3xe8 b3-b2

3. ♖h3-f5 ♖a8-e4!



Here is the Novotny. But now White has an incredible saving clause.

4. ♖e8-a8+!!

This anti-Novotny sacrifice enables White to stop both passed pawns.

4. ... ♖e4xa8

5. ♖g1-f2 ♖a8xg2

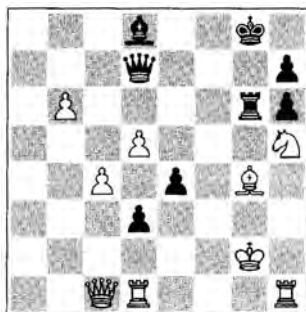
6. ♖f2xe2

Draw.

I have thought for a long time that a Novotny with a queen as interfering piece would be very unlikely. Until 2004, that is, when Forster's voluminous biography of Amos Burn came out. In this book, Forster included a casual game that was played in 1910. The combination it contains had been lying hidden for 94 years.



MacDonald-Burn
Liverpool 1910



Timman 2011 (after MacDonald-Burn)
White to play and win

It looks as if the open g-file gives White a decisive attack. However, Burn comes up with a fantastic resource.

33. ... ♔c8-g4!!

A pure Novotny with the queen. Not only is the g-file obstructed for the moment, the short d1-h5 diagonal is also temporarily closed off.

White has to liquidate to an endgame.

34. ♖g1xg4 ♜h4-f3+

Now White could have obtained an advantage with 35. ♖g3 ♜xd2 36. ♖xg5+ ♜h6 37. ♖f5. From here on he can activate his king via h4 in order to gain the initiative. However, MacDonald played 35. ♖g2 and after 35... ♜xd2 36. ♖xg5+ ♜h6 37. h4 ♜xb3 Black eventually managed to win the game.

Burn's 33rd move belongs to the most beautiful moves in the entire history of chess. I have incorporated it into the following study, and added a few extra points.

White is a rook up, but the open g-file is giving him headaches. Black's attack can become dangerous, especially with his far advanced passed pawns in the centre.

1. ♖h1-h4!!

The thematic sacrifice, drawing the black bishop beyond the intersection point g5. Black has to take the rook, as otherwise he will be left with too little material for the attack.

1. ... ♜d8xh4

2. ♖c1-g5!!

Burn's Novotny with reversed colours.

2. ... ♖g6xg5

Under these circumstances, too, this capture represents Black's best chance.

3. ♜h5-f6+ ♖g8-g7

4. ♜f6xd7

White has regained the queen. Now, however, a pawn race starts, with strong passed pawns on both sides.

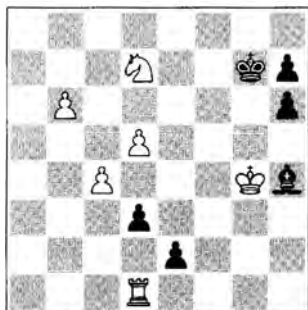
4. ... ♖g5xg4+

5. ♖g2-h3 e4-e3

6. ♖h3xg4

It's a close call. The immediate 6.b7 was insufficient for the win in view of the following attractive line: 6...e2 7.♖e1 ♔g3! 8.♕xg4 d2 9.♖xe2 d1♚ 10.♕xg3 ♚b3+ 11.♕g2 ♚xb7 12.♖e7+ ♕h8! and White cannot win.

6. ... e3-e2



7. ♖d1-g1!

Again, the g-file is the scene of action. The rook is lying in ambush. On 7...d2 White now has 8.♕f3+, winning.

7. ... ♕h4-f2

8. b6-b7 ♕f2xg1

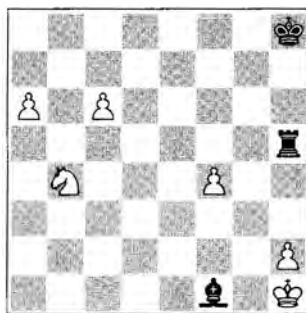
9. b7-b8♚ e2-e1♚

The race has ended in a tie, but with the new queens on the board White has a mating attack.

10. ♚b8-f8+

With mate next move.

In principle, you cannot achieve an interference of a diagonal and a line with a pawn – after all, the pawn is already on the line of the rook. But it can interrupt a rank on which the rook is standing, and this motif has served as the basis for a study.



Herbstman 1929

White to play and win

A typical Novotny position. White has to try to promote one of his queenside pawns.

1. c6-c7 ♕f1-h3

Black has to try and stop the a-pawn with his rook.

2. f4-f5!!

Here is the pawn Novotny. Black has to capture with the bishop, closing off the 5th rank for his rook.

2. ... ♕h3xf5

3. a6-a7 ♕f5-e4+

4. ♕h1-g1 ♖h5-g5+

5. ♕g1-f2!

Not 5.♕f1 on account of 5...♖f5+, followed by 6...♖f8, and Black wins.

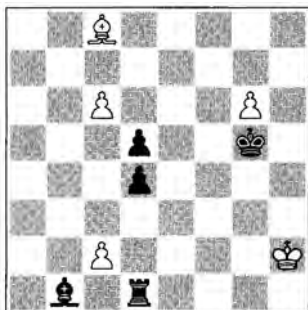
5. ... ♖g5-c5

Now 5...♖f5+ would fail to 6.♕e3, attacking the bishop.

6. ♕b4-c6!

This knight Novotny immediately decides the battle.

It seemed interesting to create a study where the Novotny theme is linked with an en-passant capture. I did realize that this would merely be a pseudo-Novotny. The result looks like this:



Timman 2010
White to play and draw

The white pawns are still more than one square away from promotion, and so White has to take some unusual measures to maintain the balance.

1. ♖c8-f5!!

A stunning bishop sacrifice. The g-pawn is protected and the black king is decoyed to f5, so that White can promote with check later on. Insufficient was 1.g7 ♖a2 2.♖f5 ♜f4! 3.c7 ♖d5, when the white king is trapped in a mating net.

1. ... ♜g5xf5

After 1...♜e1 2.g7 ♜e8 3.♖d7 White would reach a tenable bishop ending.

2. g6-g7 ♖b1-a2

Things look gloomy for White, but he has a miraculous escape.

3. c2-c4!!

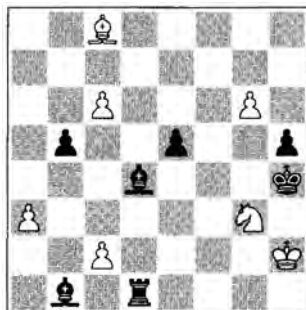
No matter how Black takes this pawn, the c-file will be closed.

3. ... d4xc3

4. c6-c7

Draw.

The following study is a slight elaboration on this theme.

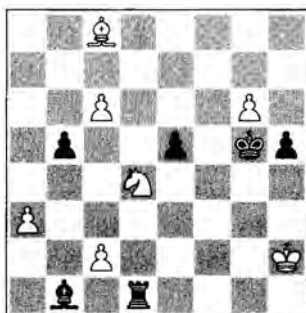


Timman 2010
White to play and draw

First two introductory moves.

1. ♖g3-f5+ ♜h4-g5

2. ♖f5xd4



Black can capture the knight in two ways:

A) 2...♜xd4 3.g7 ♖a2 4.c4!! ♜d2+ 5.♜g1 ♖xc4 6.c7 with a draw;

B) 2...exd4 3.♖f5!! The same sacrifice as in the previous study. 3...♜xf5 4.g7 ♜d2+ 5.♜g1! ♖a2 6.c4!! dxc3 7.c7 and again Black cannot win.

The move c2-c4 never fails to be spectacular, but it never results in a real Novotny. The en-passant capture closes off the c-file for the black rook.

It is, however, possible to make studies where a pawn is moved to the intersection point of two diagonals. This is called the 'Plachutta theme', after the Austrian problem composer who invented it in 1858. A Plachutta is also possible when a file and a rank are crossed by an enemy piece. The famous French endgame study composer Henri Rinck has made an adaptation of this theme.



Rinck, 'Gazette de Lausanne' 1932
White to play and win

White has two passed pawns that are about to promote. With two thematic piece sacrifices he creates a Plachutta.

1. ♔f1-c4!

Drawing the queen beyond the critical point.

1. ... ♜e6xc4

2. ♝a1-h1!

And now the bishop.

2. ... ♞c6xh1

3. d4-d5!

And mate is unavoidable.

This study received first prize in the tourney of the Swiss newspaper. To be frank, this surprised me. The study does not contain any

surprises, and Rinck uses many superfluous pawns for his adaptation of the theme. Hardly a typical situation. Usually Rinck was a past master when it came to economic use of material.

Probably the study received first prize because in the 1930s there were not yet many studies with the Plachutta theme. However, I thought it ought to be possible to make a better adaptation of the theme. In general, in studies with a queen on the board you have to use a lot of material to get everything right. But in this case it turned out to be possible to build in many interesting points from a natural position.



Timman 2011
White to play and win

Black has a large material superiority, but the white g-pawn is very dangerous, and the a-pawn can become dangerous as well.

1. a5-a6 c3-c2

Black has to look for counterplay. On 1... ♜d5 the most convincing win for White is 2. ♖h1 ♞h3 3. ♞f1.

2. ♜g1-h2!!

The Art of the Endgame

A marvellous quiet move. It was tempting to play 2.a7. Then 2...♙e6 is met by the winning 3.♖xe6 c1♔+ 4.♙f1. However, Black has 2...♙e4!, winning after 3.♖xe4 c1♔+ 4.♙h2 ♖ca3!. With the text move White prepares further actions.

2. ... c2-c1♔

Black sacrifices his c-pawn to create counterthreats. Useless was 2...♙e4 in view of 3.♖f1 and the bishop has to go back again.

3. ♖e1xc1 ♙f5-e4



Now what? On 4.♙e2, 4...♖g8 is sufficient.

4. ♖c1-c2!!

This rook sacrifice not only serves to prevent mate, but it also forces the black bishop to leave the long diagonal.

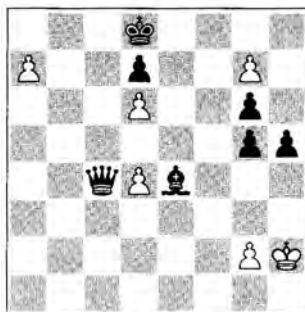
4. ... ♙e4xc2

5. ♙b5-c4!!

Just like in Rinck's study, White sacrifices a rook and a bishop to realize the Plachutta. The queen is drawn beyond the critical square b3 and now it can only try to stop the g-pawn. Insufficient was 5.g7 in view of 5...♙b3, after which White runs out of options.

5. ... ♖a2xc4

6. a6-a7 ♙c2-e4



7. d4-d5!

The Plachutta. Black must capture with the bishop in order to avoid immediate mate. It is astonishing how safe the white king is, though protected by one pawn only. Because the black bishop had to go to e4, the 4th rank is closed off for the queen.

7. ... ♙e4xd5

8. g7-g8♔+ ♙d5xg8

9. a7-a8♔+ ♖c4-c8

10. ♖a8-a5+ ♙d8-e8

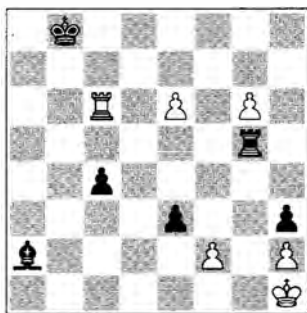
11. ♖a5-e5+ ♙g8-e6

11...♙f7 is met by 12.♖e7#. The capture on g8 has blocked an important escape square for the king.

12. ♖e5-h8+

And wins. In three moves the queen has moved from one corner square to another.

Analogously to the Double Prokes, there are also Double Novotnys. With this I mean Novotnys with the same piece, so Herbstman's study does not meet this demand. Fritz composed a magnificent study that also served as a source of inspiration for Benkö.



Fritz, 'Lidova Demokracie' 1950
White to play and win

Black has dangerous counterplay. White has to play sharply in order to gain the upper hand.

1. e6-e7 ♖g5-e5
2. g6-g7 c4-c3

Opening the a2-g8 diagonal and at the same time bringing one of his own passed pawns closer to the promotion square.

3. ♖c6-e6!!

The first Novotny.

3. ... ♙a2-d5+
4. f2-f3!

Otherwise Black can take on f2 with check.

4. ... ♙d5xf3+
5. ♔h1-g1 ♖e5-g5+
6. ♔g1-f1 ♙f3-h5



Black has built up a new line of defence. But now comes the second Novotny.

7. ♖e6-g6!!

The intersection point has been shifted. White wins.

There is no doubt that this construction, with a rook as the interfering piece, is the most manageable.

Eight years after Fritz, the Hungarian study composer L.Zoltan succeeded in activating a third Novotny in one study.



Zoltan 1958
White to play and win

It is clear what is going to happen here.

1. c6-c7 ♖b5-c5
2. e6-e7 ♙e2-b5
3. ♖f6-c6!

The first Novotny.

3. ... ♖c5-e5+
4. ♔e1-d1 ♙b5-e2+
5. ♔d1xc1 ♙e2-g4
6. ♖c6-e6!

The second Novotny.

6. ... ♖e5-c5+
7. ♔c1-b1 ♙g4-f5+
8. d2-d3!

The Art of the Endgame

White has to sacrifice the pawn, and now Black gets the opportunity to build up a new line of defence with his rook and bishop.

8. ... ♖f5xd3+
 9. ♔b1-a2 ♖d3-b5
 10. ♜e6-c6!

The rook is back. This third Novotny is absolutely lethal.

The Israeli endgame study composer Noam Manella has made a study in which a knight functions as the interfering piece twice. The version he published in *The Problemist* in 1991 contained some snags. However, it wasn't hard to repair the study.



Manella, 'The Problemist' 1991
 (correction Timman 2011)
 White to play and win

To the original version, a white pawn on h5 and a black knight on h6 have been added. The white knight has been moved from g5 to g3, and also a first move by White with the e-pawn has been added.

1. e6-e7 ♜f2-e2

Black has to try and stop the pawn.

2. ♜g3-e4!!

The first Novotny.

2. ... ♖g2xe4

Forced, since after 2...♜xe4 3.♜b8 Black would get mated quickly. He cannot cover both the a6- and the c6-square at the same time.

3. e7-e8♚!

The Phoenix Principle. The promoted knight aims for the square c7. Insufficient was 3.e8♚? on account of 3...♖b7 and Black draws the long end of the stick.

3. ... ♖e4-b7

4. ♜e8-c7



4. ... ♜e2-e6

With all his might Black will try to protect the squares a6 and c6.

5. ♜d7-b8 d6-d5

6. ♜b8-c6+!

The second Novotny. There are two mate patterns now:

- A) 6...♖xc6 7.♜xa6#

- B) 6...♜xc6 7.♜xd5#

In both cases, the promoted knight gives mate.

I invented a new challenge: a Double Novotny with a queen as the interfering piece. Here is the result:



Timman 2011
White to play and win

Black not only has a huge material advantage, but he also has dangerous threats. These are presumably the necessary conditions for a queen Novotny to work.

1. ♖f5-e5!!

The first Novotny. White threatens mate in one move in two ways. Black has to give a number of checks.

1. ... ♜b5-a3+

2. ♙c2-d2 ♜a3-b1+

The move 2...b1 ♜+ has no power. The most convincing win for White then is 3. ♙d1 ♜d3+ 4. ♙e2 ♜d2+ 5. ♙f1 ♜d1+ 6. ♙f2 ♜d2+ 7. ♚e2, and Black is finished. The white passed pawns decide.

3. ♙d2xe3 ♜h7-h3+



The point of the preceding checks. With this third check Black averts the mate threat. If White moves away his king, Black will take on e5 with the bishop and he can look to the future with confidence.

4. ♚e5-g3!!

The second Novotny. The intersection point is shifted from e5 to g3.

4. ... ♙h2xg3

The best chance. After 4...♜xg3+ 5. ♙f2 Black would lose quickly.

5. e7-e8 ♚+ ♜h8-h7

6. ♚e8-e4+

Now the point of the second queen sacrifice becomes clear. The e-file has remained open for the new queen. Without this check White would be lost.

6. ... ♜h7-g8

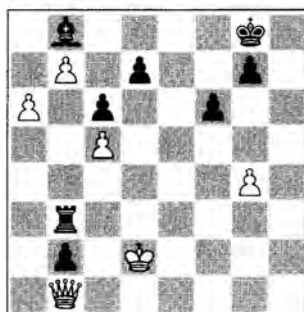
The king cannot stay on the h-file. 6...g6 would be met by the devastating 7. ♚g2, when White threatens to capture the rook with check.

7. ♚e4xb1

It is clear that White is in control. However the battle isn't over yet, since Black can maintain his dangerous b-pawn.

7. ... ♙g3-b8+

8. ♙e3-d2 ♜h3xb3



The Art of the Endgame

Black has blocked the passed pawns on the queenside for the moment and is also supporting his own b-pawn. Nevertheless, there is a forced win for White.

9. ♖d2-c2 ♜b3-b5
10. ♜b1-a2+ ♖g8-f8
11. ♖c2-b1

The king has taken the place of the queen. As a result the queen has free rein. White wins.

In Fritz's and Zoltan's studies, the two intersection points of the interfering piece were on a rank, in mine it was on a diagonal.

There is also such a thing as a Double Plachutta, with a knight as the interfering piece. With the following study, the brilliant Polish study composer Jan Rusinek won first prize in the tourney organized by the magazine *Problem*.



Rusinek, 'Problem' 1976
White to play and draw

This is a quite complex position. Black has a considerable material advantage and he also threatens to promote his a-pawn. White will have to rely on his a- and g-pawns.

1. ♖a8-c7+ ♜e8-d8
2. g5-g6 a2-a1♚
3. g6-g7 ♜a1-a2
4. c3-c4!

Preparation for the Plachutta. The queen is deflected from the a-file.

4. ... ♜a2xc4
5. ♖c7-d5!!



The first Plachutta.

5. ... ♜c4-c1+
6. ♖d5-f4!

The point of this move is that after 6... ♜xf4+ 7. ♖g6 Black has no checks on the g-file.

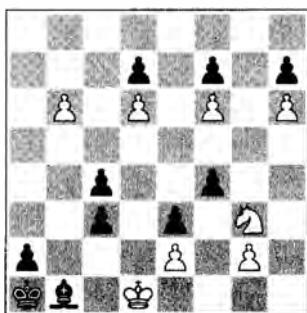
6. ... ♜c1-g1
7. ♖f4-g2!!

The second Plachutta. The intersection point has been shifted from d5 to g2. Now Black has nothing better than a check on c1, after which White can repeat the moves.

Chapter 5

Knight Promotions

Late summer 2010. In a hotel room in Antwerp I was thinking about the possibilities of studies with multiple knight promotions. Quite soon I had finished the following study.



Timman 2010
White wins– Mate in 13

This study has a main line in which White gives a forced mate in 13. This means that in a certain way, it can also be seen as a problem. First of all White has to prevent the pawn on c3 from becoming dangerous.

1. ♖d1-c1

Insufficient was 1.b7 f3! 2.gxf3 c2+ 3.♖c1 c3 and whatever White does, Black will be stalemated.

1. ... c3-c2

Now 1...f3 fails to 2.exf3! c2 3.♗e2 c3 4.♗d4 with mate next move.

2. b6-b7

It is time to think of promotion. After 2.♗f5 f3 White would not have time to give mate.

2. ... f4xg3

2...f3 would be met by 3.b8♖, with mate soon.

3. b7-b8♗!

The 'Phoenix Principle': the knight that has been captured on g3 rises from its ashes on b8.

3. ... c4-c3

4. ♗b8-c6

This was the intention of the knight promotion. By offering his knight to be captured, White avoids the stalemate.

4. ... d7xc6

5. d6-d7 c6-c5

6. d7-d8♗!

The procedure is repeated. The previous knight has been sacrificed, and a new knight arises.

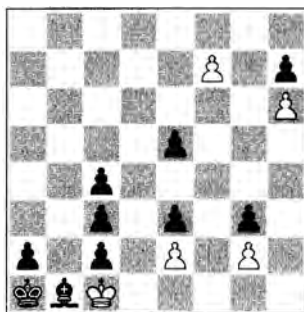
6. ... c5-c4

7. ♗d8-e6

Again White is in time to avoid stalemate.

7. ... f7xe6

8. f6-f7 e6-e5



9. f7-f8♖!

The third knight promotion.

9. ... e5-e4

10. ♖f8-g6

This knight too is sacrificed immediately.

10. ... h7xg6

11. h6-h7 g6-g5

12. h7-h8♚

Finally the purpose of all these knight promotions becomes clear; this promotion enables White to work his way to the enemy king. Incidentally, White could also have promoted to a bishop.

12. ... g5-g4

13. ♚h8xc3#

In Antwerp I was the guest grandmaster during the 4th Inventi tournament. It seemed a nice opportunity to show this study to the audience. It was received with enthusiasm. Two weeks later I met Yochanan Afek in Wageningen during a competition game for the club of the same name for which we both played. Afek was clearly less impressed.

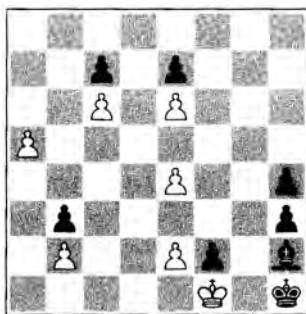
'I hope you didn't spend too much time on this', he remarked. At my negative answer he continued: 'This theme was first used in the beginning of the previous century by the Jewish-Romanian study composer Sigmund Herland. Many versions have followed after that, sometimes with a total of five knight promotions.'

This stimulated me to investigate the theme further. As I delved deeper into the subject, new chess

vistas were opened up before me. In the end I had seen so many knight promotions that my head started swimming.

I shall give a short overview, in chronological order where possible.

Herland's study may indeed be the first with the type of knight promotion that I had discovered in Antwerp. His study – and in fact many that will follow in this chapter – can also be seen as a problem. I will not mention this aspect again in the following.



Herland, 'Deutsches Wochenschach' 1913. White to play and win

This looks a lot like my construction. First White promotes his a-pawn.

1. a5-a6 ♖h2-g1

Black is going to lock himself in.

2. a6-a7 h3-h2

3. a7-a8♖!

Black has one move left with his hindmost h-pawn.

3. ... h4-h3

4. ♖a8-b6 c7xb6

5. c6-c7 b6-b5

6. c7-c8♖! b5-b4

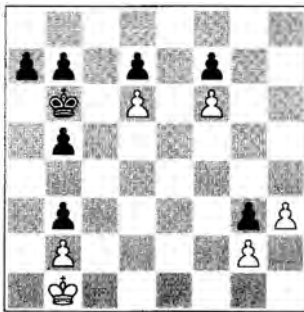
7. ♖c8-d6

The familiar pattern.

7. ... e7xd6
8. e6-e7 d6-d5
9. e7-e8 ♖

And wins. An elegant study, but with a modest set-up.

It is not certain that Herland was the first to compose such a study. In Harold van der Heijden's database the following study can be found.



F.Fritz
White to play and win

A pure pawn ending. White has to promote his h-pawn.

1. h3-h4 ♔b6-a5

He cannot stop the h-pawn. Therefore the king heads for a4 to wedge itself in.

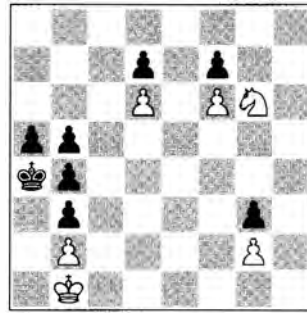
2. h4-h5 ♔a5-a4
3. h5-h6 b5-b4
4. h6-h7 b7-b5

This is given as the main line in the database. The alternative 4...a5 demands more of White. I will return to this later on, in another context.

5. h7-h8 ♖!

This is necessary to prevent stalemate.

5. ... a7-a5
6. ♖h8-g6



Starting up the mechanism again.

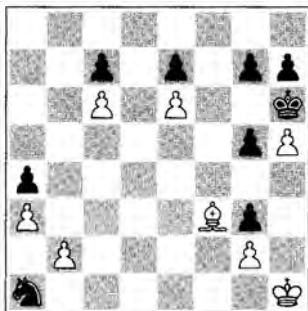
6. ... f7xg6
7. f6-f7 g6-g5
8. f7-f8 ♖! g5-g4
9. ♖f8-e6 d7xe6
10. d6-d7 e6-e5
10. d7-d8 ♖!

And now White can choose the route along which he wants to give mate.

This study differs from Herland's in that Black has active counterplay; he has to put his king into a stalemate position, which is a well-known theme in the world of endgame studies.

It is unclear when this study was made. In the database it has been adorned with the label 'source unknown'.

Who was F. Fritz? He should certainly not be mixed up with Jindrich Fritz, who featured so prominently in the previous chapter. When I asked Van der Heijden himself, he couldn't give me a satisfactory answer. In any case we know for certain that the great Russian Alexey Troitzky did not know him. This is proved by the following study, which has been erroneously labelled incorrect.



Troitzky, '64' 1934/Timman 2011
White to play and win

My contribution to this study is very modest: I have moved the white king from g1 to h1. Nevertheless, we will see that this is an improvement.

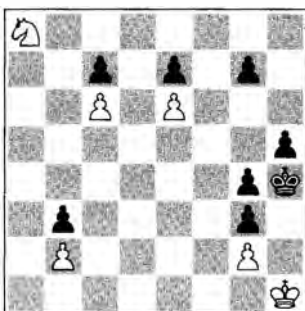
1. ♔f3-d1

Threatening to capture on a4, which results in a pawn ending by force.

- | | |
|-----------|--------|
| 1. ... | ♟a1-b3 |
| 2. ♔d1xb3 | a4xb3 |
| 3. a3-a4 | ♞h6xh5 |
| 4. a4-a5 | ♞h5-h4 |

From this point onwards the study is, apart from my relocation of the white king, a mirrored version of the previous one.

- | | |
|------------|-------|
| 5. a5-a6 | g5-g4 |
| 6. a6-a7 | h7-h5 |
| 7. a7-a8♞! | |



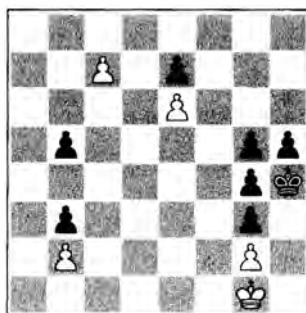
7. ... g7-g6

This little move was considered to be the refutation of the study. Black postpones the choice of either boxing in his king or letting it out via the escape square g5. 8. ♞xc7 is met by 8...g5, with inevitable stalemate, while 8. ♞b6 ♞g5 doesn't lead to a win either. However, White is not obliged to move his knight. Now we come to my relocation. With the king on g1 White would have two winning moves – in other words, the study would contain a dual.

8. ♞h1-g1!

The only move that wins.

- | | |
|-----------|-------|
| 8. ... | g6-g5 |
| 9. ♞a8-b6 | c7xb6 |
| 10. c6-c7 | b6-b5 |



- | | |
|-------------|-------|
| 11. c7-c8♞! | b5-b4 |
| 12. ♞c8-d6 | e7xd6 |
| 13. e6-e7 | d6-d5 |
| 14. e7-e8♞! | |

And again White can choose how he will give mate here.

Remarkably enough, there are more imitators of Herland's study than of Fritz's or Troitzky's. The reason is that more knight promotions are possible if the enemy king is anchored in the corner.

Four years before Troitzky's study, a follow-up on Herland's study was published.



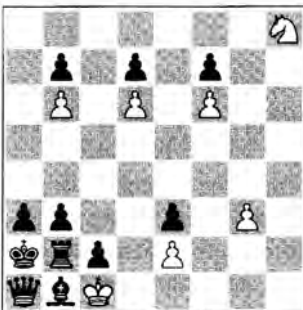
Novikov, '64' 1930
White to play and win

Anyone who knows anything about retrograde analysis will notice that the bishop on b1 has to be a promoted piece, since the bishop on c8 can only have been captured on its starting square. The first move of the solution is obvious.

1. ♔d2-c1

The enemy forces on the queenside must be kept under control.

1. ... e6-e5
2. h6-h7 e5-e4
3. h7-h8♖! e4-e3



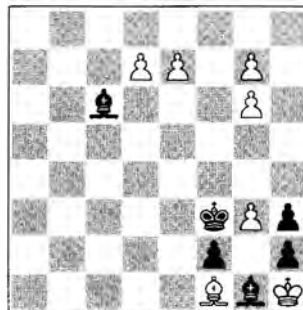
4. ♖h8-g6 f7xg6
5. f6-f7 g6-g5

6. f7-f8♘! g5-g4
7. ♘f8-e6 d7xe6
8. d6-d7 e6-e5
9. d7-d8♘! e5-e4
10. ♘d8-c6 b7xc6
11. b6-b7 c6-c5
12. b7-b8♘!

The fourth knight! Now White again has two routes to give mate.

We see that the number of knight promotions has risen from two to four. Now, study composers faced a challenge. Would it be possible to build in a total of five knight promotions? The English chess author and study composer Harold Lommer worked intensively on this task.

Lommer had a habit of making record-breaking studies. For example, in 1933 he had won first prize in a tournament organized by the *Journal de Genève* with a study that contained all possible promotions (in study circles this task is given the term *Allumwandlung*, in short: AUW). In itself, that study is not so special. Much more attractive was the one Lommer published a little later.



Lommer, 'Feuille d'Avis de
Lausanne' 1933. White wins

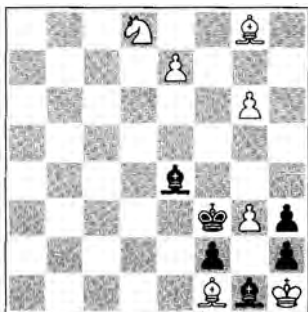
The Art of the Endgame

Black threatens mate, and so the knight promotion is forced.

1. **d7-d8♖** ♖c6-d5

Now White has to pay attention. After 2.g8♔ ♔e3+! 3.♔xd5 Black would be stalemated.

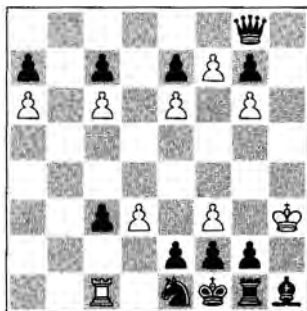
2. **g7-g8♕!!** ♕d5-e4



3. **e7-e8♖!!**

For the same reason White must promote his third pawn to a rook. No AUW, since the regular queen promotion fails, but still quite beautiful because the starting position is so natural.

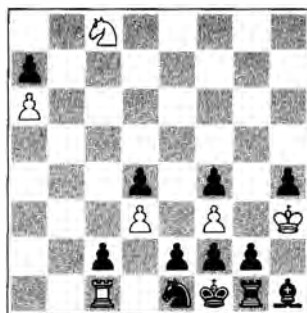
Lommer took up any new challenge eagerly. In 1935 he published the following study.



Lommer, 'Journal de Genève' 1934
White to play and win

The first move is not very elegant. In 1968, in an article entitled 'The Phoenix principle in the End-Game' in the endgame study magazine *EG*, Lommer returned to this study. On the task of realizing five knight promotions in one study he wrote: '... It confirmed my belief that the first promotion could only be achieved by the capture of a Black Rook or a Black Queen'. Now, more than four decades later, we can conclude that this still holds true.

1. **f7xg8♖** c3-c2
2. ♖g8-h6 g7xh6
3. **g6-g7** h6-h5
4. **g7-g8♖!** h5-h4
5. ♖g8-f6 e7xf6
6. **e6-e7** f6-f5
7. **e7-e8♖!** f5-f4
8. ♖e8-d6 c7xd6
9. **c6-c7** d6-d5
10. **c7-c8♖** d5-d4



The first four knights have promoted without a problem. But now the troubles start. White has a prosaic win here with 11.♖g4: 11...h3 12.♖xf4 h2 13.♖b6 axb6 14.a7 b5 15.a8♔ b4 16.♖g3 b3 17.f4! b2 18.♔f3 and mate next

move. This problem is typical for studies with a record number of knight promotions: the construction around the black king has to be very solid. Otherwise White will be able to find his way to the black king with a regular queen promotion.

11. ♖c8-b6

The thematic path.

11. ... a7xb6
12. a6-a7 b6-b5
13. a7-a8 

The fifth knight.

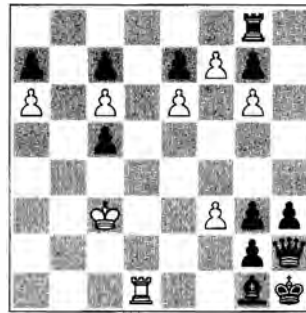
13. ... b5-b4
14. ♖a8-b6 b4-b3
15. ♜b6-c4 b3-b2
16. ♜c4-d2#

Not only Lommer was working on knight promotions. In Russia, Liburkin was interested in manufacturing a correct and ultimate version. Lommer writes:

As far back as in 1935 I published a 5-fold effort in the *Journal de Genève*, but some time later I received a letter from the great Russian composer M.S. Liburkin, telling me that he had found a “cook” and had corrected it for me. At that time I was busily engaged in the publication of *1234 Modern Endgame Studies* and just had the time to replace it by Liburkin’s under his own name. I thought I was doing this great composer justice, all the more as his composition was far superior to mine. Unfortunately I did this person a great disservice, for later, when I had more time, I checked it carefully, finding two bad cooks..’

This passage raises several questions. Firstly, Lommer's memory must have played tricks on him, since he had published his study one year earlier. It is interesting that in Stalinist times it should have been possible for a Russian to get hold of the *Journal de Genève* and also to react to it in a letter. In chess study circles, Russian emigrants must have done some courier work.

Somewhat puzzling is the fact that three studies by Liburkin have found their way into the original Dover edition of *1234 Modern Endgame Studies*. Besides the incorrect study that Lommer also gives in his article, the other two look as follows:



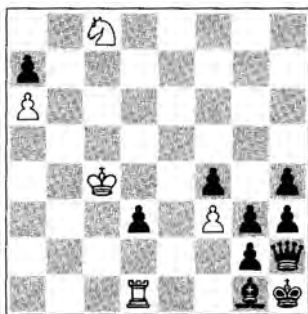
Liburkin 1938

White to play and win

Again White has to start with the ugly capture.

- | | | |
|----|-----------------|--------------|
| 1. | f7xg8 ♘ | c5-c4 |
| 2. | ♘g8-h6 | g7xh6 |
| 3. | g6-g7 | h6-h5 |
| 4. | g7-g8 ♘! | h5-h4 |
| 5. | ♘g8-f6 | e7xf6 |
| 6. | e6-e7 | f6-f5 |
| 7. | e7-e8 ♘! | f5-f4 |

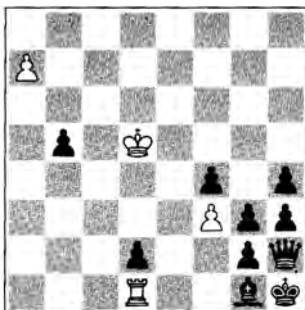
8. ♖e8-d6 c7xd6
 9. c6-c7 d6-d5
 10. c7-c8♖ d5-d4+
 11. ♔c3xc4 d4-d3



12. ♔c4-d5

There is a dual here. First 12.♖b6 also leads to the desired result. In this phase of a study such a dual is not really a big problem.

12. ... d3-d2
 13. ♖c8-b6 a7xb6
 14. a6-a7 b6-b5



15. a7-a8♖!

The fifth knight!

15. ... b5-b4
 16. ♖a8-b6

The finale requires a delicate touch. The knight must be ma-

noeuvred to c3, and there is only one route available.

16. ... b4-b3
 17. ♖b6-a4 b3-b2
 18. ♖a4-c3 b2-b1♚
 19. ♖d1xb1 d2-d1♚+
 20. ♖c3xd1

The stalemate is prevented and Black has to move the bishop.

20. ... ♗g1-e3
 21. ♖d1-f2#



Liburkin 1938
 White to play and win

Liburkin started this study with an admirable pawn move, namely 1.d8♖. However, there is something wrong with the starting position. Just as in Novikov's study, the bishop on g1 has to be a promoted piece. And that is not all. When I showed this position to my wife Geertje, she immediately remarked that the position could not have been reached with regular play. Geertje is an expert on retrograde problems. She pointed out that Black still has all his pawns and can therefore not have a promoted piece. This makes the starting position illegal and the solution, however refined, irrelevant.

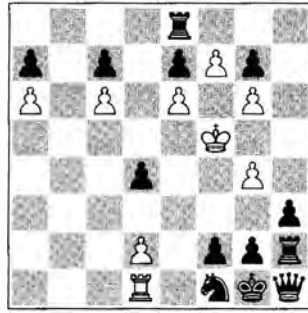
'Geertje is probably the only person to notice this after all these years', Afek remarked. Yet it is possible that Lommer had discovered it as well. With uncommon fierceness, he devoted himself to the task of composing a study with five knight promotions. He describes this as follows:

'I tried to clinch these five elusive horses in 1945 and again in 1946 in the *British Chess Magazine*, but both versions were found incorrect. I cannot remember how many times I have tried to achieve this quest in the last 30 years(!), but each time I failed dismally. As I dealt with the knight promotions, I thought of the stubborn mule and continued working whenever I was in the mood.'

These are all too familiar signs of addiction. If Liburkin's last study version had been correct, Lommer would probably not have gone to all this trouble.

Incidentally, Lommer wasn't the only one working on knight promotions. In 1935, the Dutch study composer Th.Kok published a study with four knight promotions, and eight years after that the Finn V.Karhia followed suit with the same number. I won't give these studies, as they do not add anything significant to the one by Novikov.

Lommer's last attempt looked as follows:



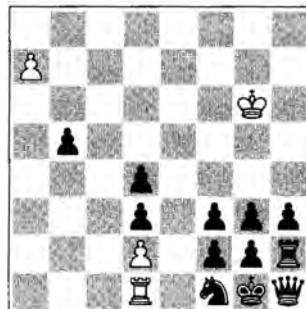
Lommer, 'Szachy' 1965
White to play and win

The pawns are again poised to promote.

1. f7xe8 ♖ d4-d3
2. ♖e8-f6 g7xf6
3. g4-g5

Unfortunately, there is already a second solution here. With 3. ♖f4 White achieves the same result.

3. ... f6xg5
4. g6-g7 g5-g4
5. g7-g8 ♖! g4-g3
6. ♖g8-f6 e7xf6
7. ♖f5-g6 f6-f5
8. e6-e7 f5-f4
9. e7-e8 ♖! f4-f3
10. ♖e8-d6 c7xd6
11. c6-c7 d6-d5
12. c7-c8 ♖! d5-d4
13. ♖c8-b6 a7xb6
14. a6-a7 b6-b5



The Art of the Endgame

15. a7-a8♖!

The fifth knight.

15. ... b5-b4

16. ♖a8-c7

And the knight will make its way to f3.

A dual on move 3 – this significantly devaluates the study. There is, however, a fully correct study by Lommer with four knight promotions, where the final promotion is to an ordinary queen. The fifth knight is hidden in a side variation – the ‘try’, as it is called in study circles.



Lommer, 'Szachy' 1965
White to play and win

The solution develops quite schematically.

- 1. f7xg8♗ d4-d3**
- 2. ♗g8-h6 g7xh6**
- 3. g6-g7 h6-h5**
- 4. g7-g8♗! h5-h4**
- 5. ♗g8-f6 e7xf6**
- 6. ♔f5-g6**

The king again steps aside to yield passage to a black pawn.

- 6. ... f6-f5**
- 7. e6-e7 f5-f4**

8. e7-e8♗! f4-f3

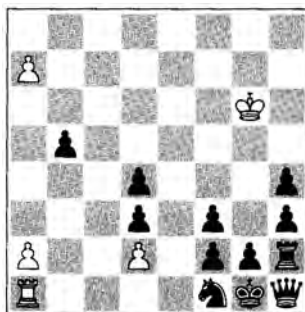
9. ♗e8-d6 c7xd6

10. c6-c7 d6-d5

11. c7-c8♗! d5-d4

12. ♗c8-b6 a7xb6

13. a6-a7 b6-b5



14. a7-a8♗

Unfortunately, 14.a8♗ is insufficient. After the continuation 14...b4 15.♗c7 b3 16.♗e6 bxa2 White would not be in time to give mate.

14. ... b5-b4

15. ♗a8xf3 b4-b3

16. ♗f3-g4!

A pretty quiet move.

16. ... b3xa2

17. ♖a1xf1+ ♔g1xf1

18. ♗g4-d1

Mate.

Thus, in 1965 we could take stock: only one Liburkin study with five knight promotions had stood its ground.

Six years after that, the Norwegian study composer Jarl Ulrichsen created a study with five knight promotions, without duals.



Ulrichsen, 'Stella Polaris' 1971
White to play and win

The pawns are standing in line, like narrow gates, which the Phoenix knights can dance through. The main line is clear and contains no surprises:

1. **h7xg8** ♖ **♙e1-a5**
2. **♜b3-b1+** ♙ **a5-e1**
3. **♞g8-h6** **g7xh6**
4. **g6-g7** **h6-h5**
5. **g7-g8** ♜ **h5-h4**
6. **♞g8-f6** **e7xf6**
7. **e6-e7** **f6-f5**
8. **e7-e8** ♜ **f5-f4**
9. **♞e8-d6** **c7xd6**
10. **c6-c7** **d6-d5**
11. **c7-c8** ♜ **d5-d4**
12. **♞c8-b6** **a7xb6**
13. **a6-a7** **b6-b5**
14. **a7-a8** ♜ **b5-b4**
15. **♞a8-b6** **b4-b3**
16. **♞b6-c4** **b3-b2**
17. **♞c4-d2#**

It was a very heavy construction that Ulrichsen used; all black pieces are on the board without joining the play. I am not sure if this was what Lommer had been searching for. More than a decade later, the Ukrainian study composer Mikhail

Zinar became involved. However, his first two versions in 1983 and 1984 contained irritating duals. This must have discouraged Zinar, who was a great expert on pawn endings. For many years he stopped working on the theme. Only in 2008 did he come up with two fully correct studies with five knight promotions. The first was published in the *Ukrainian Problemist*, the second in the *Uralski Problemist*.



Zinar, 'Ukrainian Problemist' 2008
White to play and win

The construction in the lower left-hand corner is the same as Novikov's. On the construction in the upper right-hand corner, Zinar remarked in an article in the January 2011 issue of *EG*: 'Top right is the shape H – Cyrillic "N" for Novikov! – just the right dedication.'

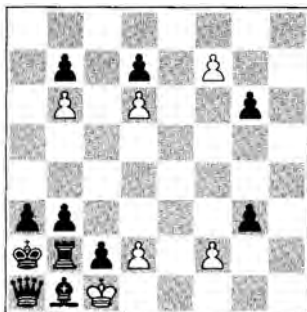
1. **g7xf8** ♞

The correct knight promotion. Now Black must move his remaining knight.

1. ... **♞h8-g6**
2. **♞f8xg6** **h7xg6**
3. **h6-h7** **g6-g5**
4. **h7-h8** ♞ **g5-g4**

The Art of the Endgame

5. ♖h8-g6 f7xg6
6. f6-f7 g4-g3



7. f2xg3

White has to spend a tempo to take the pawn.

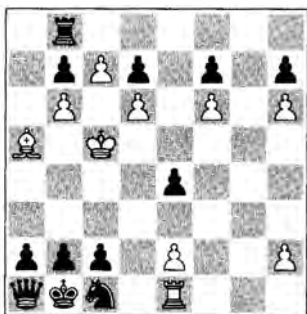
7. ... g6-g5
8. f7-f8♖ g5-g4
9. ♖f8-e6 d7xe6
10. d6-d7 e6-e5
11. d7-d8♖ e5-e4
12. ♖d8-c6 b7xc6
13. b6-b7 e4-e3
14. d2xe3

Again a time-out, to take the pawn.

14. ... c6-c5
15. b7-b8♖

And the knight will give mate on b4.

Here is number two:



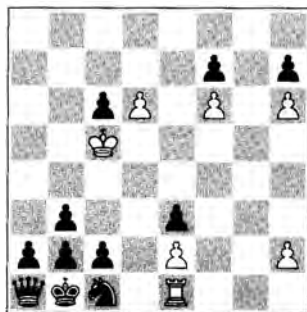
Zinar, 'Uralski Problemist' 2008
White to play and win

In this study, White's handling of his bishop is quite subtle.

1. c7xb8♖ e4-e3
2. ♖b8-a6 b7xa6
3. ♙a5-b4!

The right square for the bishop.

3. ... a6-a5
4. b6-b7 a5xb4
5. b7-b8♖! b4-b3
6. ♖b8-c6 d7xc6



7. ♙c5-b6

The king has to step out of the way again.

7. ... c6-c5
8. d6-d7 c5-c4
9. d7-d8♖! c4-c3
10. ♖d8-e6 f7xe6
11. f6-f7 e6-e5
12. f7-f8♖! e5-e4
13. ♖f8-g6 h7xg6
14. h6-h7 g6-g5
15. h7-h8♖!

The fifth knight. Now White can again choose his route towards the mate on a3 or c3.

This was what Lommer had been searching for all those 30 years! But Zinar had also needed a quarter of a century to get the job done.

Now, three studies with five knight promotions had been made with-

out duals. But still Zinar wasn't satisfied. He considered that a great number of knight promotions on the same promotion square could also be realized, drawing inspiration from an old study.



Shmulenson, 1970
White to play and draw

The three white centre pawns will promote to knights.

1. e5-e6 ♖b7-d8!

The best try. An attractive side variation was 1...♙b5 2.♘d5 h2+ 3.♙h1 ♙a4 4.e7 ♙c2 5.♘d3! (in order to control the e4-square after promotion) 5...♙a4 6.♘e5 with move repetition.

2. e6-e7!

Not 2.♘xd8? in view of 2...♙b5, and Black controls the board – White will be mated within a couple of moves.

2. ... h3-h2+

3. ♖g1-h1 ♙a6-b7

4. e7xd8♘!

The first knight promotion.

4. ... ♙b7-a8

5. ♘d8-b7 ♙a8xb7

6. d7-d8N

The second...

6. ... ♙b7-a8

7. d6-d7 ♖g3-h3

8. ♘d8-b7 ♙a8xb7

9. d7-d8♘

And the third.

9. ... ♙b7-a8

10. ♘d8-b7 ♙a8xb7

Stalemate.

For this study, Shmulenson received first prize in the 7th USSR Team Championship. The play is varied and interesting – only the number of knight promotions can be improved. The Russian end-game composer Sochniev achieved four promotions, but Zinar managed to surpass that.



Zinar/Didukh, 'EG' 2009
White to play and draw

White has an army of seven pawns. Of these, only the b-pawn will *not* promote to a knight.

1. d7-d8♘ ♙e8xd8

2. e7xd8♘ ♙h8xd8

3. c7xd8♘ ♘b8-c6

The first three knight promotions have taken place. Now White advances his pawn front in order to achieve the next three as well.

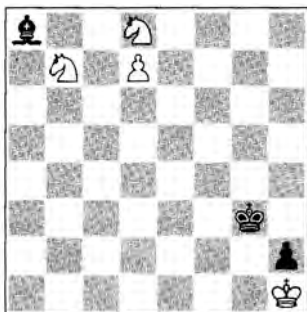
4. e6-e7 ♘c6xd8

5. e7xd8♘ ♖f2-g3

6. e5-e6

Another pawn on its way to a knight promotion.

6. ... ♖g1xb6
 7. e6-e7 ♖b6xd8
 8. e7xd8 ♖g3-h3
 9. d6-d7 ♖h3-g3



10. ♖d8-c6

Here the Phoenix Principle makes its appearance. White sacrifices a knight in order to clear the promotion square for the next knight.

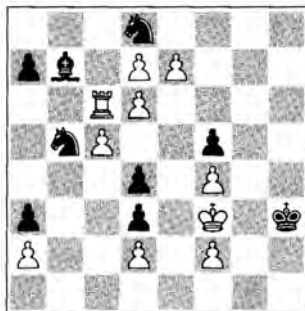
10. ... ♖a8xb7
 11. d7-d8 ♖!

The sixth knight.

11. ... ♖b7-a8
 12. ♖d8-b7 ♖a8xb7

Stalemate.

Zinar made this study together with Sergey Didukh, a brilliant young study composer from the Ukraine. The number of knight promotions in this study is unparalleled. Yet it makes a somewhat artificial impression, especially since five of these six knight promotions are captures. Doubtlessly for this reason, Zinar started working on a study that would make a more natural impression. This is what he came up with:



Zinar 2010

White to play and draw

Again the battle will take place on the long diagonal.

1. e7xd8 ♖ ♖b7-a8
 2. ♖d8-b7

The first Phoenix knight is about to rise.

2. ... ♖a8xb7
 3. d7-d8 ♖! ♖b7-a8

Maintaining the tension on the long diagonal.

4. d6-d7



4. ... ♖b5-d6

Black does all he can to eliminate the stalemate threat. Now the thematic 5. ♖b7 is met by the winning 5... ♖xb7. Therefore White must first take the knight.

5. c5xd6 ♖h3-h2

Black can only wait.

6. ♖d8-b7 ♙a8xb7
7. d7-d8♖! ♙b7-a8
8. d6-d7 ♙h2-h3
9. ♖d8-b7 ♙a8xb7
10. d7-d8♖! ♙b7-a8
11. ♖d8-b7

After the fourth knight promotion comes the fourth thematic knight sacrifice.

11. ... ♙a8xb7

Stalemate.

There is a difference between minor promotions on one and the same square and minor promotions on different squares. The former serve as protecting moves, the latter as preparation for avoiding stalemate.

So far, a total of 63 knight promotions have been seen here. In all of them, except in Shmulenson's study, one element has been lacking: the lively play that is (usually) the hallmark of a good study. The following study by Zinar will please true study lovers.



Zinar 2010
White to play and win

It is clear that White must support his foremost a-pawn. He has a choice between two king moves.

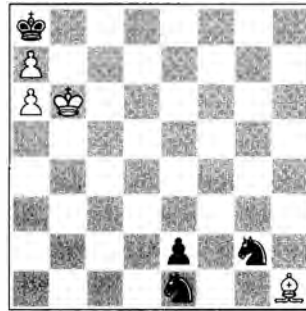
1. ♔b5-a6

Three moves further on we will see why this is the only winning move.

1. ... ♖e2-e1♖

The knights make an appearance again, but this time they won't save Black.

2. ♙h4xe1 d2xe1♖
3. ♙a6-b6 ♖e3-e2
4. a5-a6



A situation of mutual zugzwang has arisen. Black is forced to make a thematic knight sacrifice.

4. ... ♖e1-f3
5. ♙h1xg2 ♖e2-e1♖
6. ♙g2-h3!

Now that Black does not have any dangerous passed pawns left, the white bishop can leave the long diagonal, and head for b7.

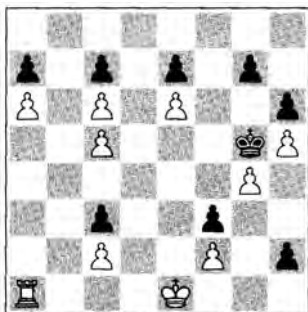
6. ... ♖e1-d3
7. ♙h3-c8 ♖d3-c5
8. ♙c8-b7+

And mate next move.

For this study Zinar received the special prize in the traditional Moscow Tourney.

The Art of the Endgame

Even prettier is the study that Zinar made one year later. He returned to the theme of the scattered knight promotions.



Zinar 2011
White to play and win

There's only one way to stop the black h-pawn.

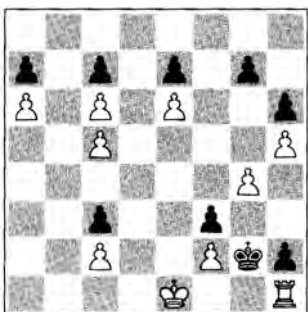
1. 0-0-0 ♖g5-h4

The best chance. After 1...♗xg4 2.♖h1 ♖h3 3.♗d1 ♖g2 4.♗e1 ♗xh1 5.♗f1 g5 6.hxg6 h5 7.g7 h4 8.g8♘! h3 9.♘f6 exf6 10.e7 f5 11.e8♚ f4 12.♗e1 ♖g2 13.♚g6+ White wins easily. This winning method is not possible when the white g-pawn remains on the board.

2. ♜d1-h1 ♖h4-h3

3. ♖c1-d1 ♖h3-g2

4. ♖d1-e1



The white king returns in time to lock up his black colleague in the corner.

4. ... ♗g2xh1

5. ♖e1-f1 g7-g5

6. h5xg6 h6-h5

7. g6-g7 h5-h4

8. g7-g8♘!

The first knight promotion. There are no surprises in the remainder of the solution.

8. ... h4-h3

9. ♘g8-f6 e7xf6

10. e6-e7 f6-f5

11. e7-e8♘ f5-f4

12. ♘e8-d6 c7xd6

13. c6-c7 d6xc5

14. c7-c8♘! c5-c4

15. ♘c8-b6

And wins.

With his last promotion White will get a queen, as he did in Herland's study.

In this study Zinar completed the so-called 'Valladao Task'. The requirements for this task are that the main line of the study should contain all 'special' chess moves: castling, an en passant capture and underpromotion. See also Chapter 14. An incredible achievement.

What could I add to all this knight violence? I thought that it might be interesting to try and make a study with four knight promotions, rounded off with a bishop promotion. The result looks like this:

(see diagram next page)



Timman 2011
White to play and win

I didn't manage to avoid the short-coming of the ugly capture on the first move either.

1. **h7xg8** **d6-d5**
2. **♙e4-f3**

White cannot take the pawn. Moreover, the bishop has to stay on the long diagonal in order to prevent Black breaking loose.

2. ... **d5-d4+**

In reply to the alternative 2...dxc4 White has a clear-cut winning method: 3.♙c2 c3 4.♖d1 cxd2 5.♘h6 gxh6 6.g7 h5 7.g8♘! h4 8.♘f6 exf6 9.e7 f5 10.e8♘! f4 11.♘d6 cxd6 12.c7 d5 13.c8♘ d4 14.♙b1 d3 15.♘b6 axb6 16.a7 b5 17.a8♖ (or ♙) 17...b4 18.♙e4 b3 19.♙xd3 b2 20.♙f1! ♙e3 21.♙xg2#. This scheme, where a bishop is used to temporarily block the back rank, we will also encounter in the main variation.

3. **♙c3-b4!**

Only much later will it become clear why this is the only square for the king.

3. ... **d4-d3**
4. **♘g8-h6** **g7xh6**
5. **g6-g7** **h6-h5**

6. **g7-g8** **h5-h4**
7. **♘g8-f6** **e7xf6**
8. **e6-e7** **f6-f5**
9. **e7-e8** **f5-f4**
10. **♘e8-d6** **c7xd6**
11. **c6-c7** **d6-d5**
12. **c7-c8**



So far things have developed schematically. Now Black has a choice.

12. ... **d5-d4**

The alternative was 12...dxc4. In that case White wins by 13.♘b6 c3 14.♙c4! cxd2 15.♙xd3 axb6 16.a7 b5 17.a8♖ b4 18.♙e2! and White will again give mate by bringing his bishop to f1.

13. **♘c8-b6** **a7xb6**
14. **a6-a7** **b6-b5**



15. **a7-a8**

The Art of the Endgame

The only winning move. After 15.a8♚? bxc4 16.♙e4 f3! White wouldn't be able to give mate in time. The problem is that the pawn on d3 is protected, so that the white bishop cannot reach the f1-square in time. Also, here it becomes clear why the white king had to be played to b4. If it were on b2 or b3, then Black would now react with 15...b4, after which the draw would be unavoidable.

15. ... b5xc4

16. ♙a8-e4

The point of the bishop promotion. The newly-promoted bishop is on its way to f1 in order to give mate.

16. ... c4-c3

17. ♙e4xd3 c3-c2

With 17...cxd2 Black could have postponed the mate for one move, but the text demands more of White.

18. ♙d3-f1 d4-d3

19. ♔b4-b3 (a4,b5,c4)

The king has to move to a light square, otherwise Black would give a deadly bishop check.

19. ... c2-c1♚

20. ♖a1xc1 ♙g1-d4

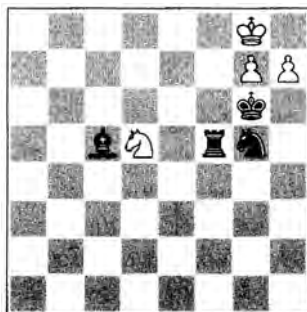
21. ♙f1xg2

Mate. On this study I worked intensively for approximately twelve hours.

Chapter 6

Bishop Promotions

In the preceding chapter, I showed how a bishop promotion can serve to avoid stalemate. This type of promotion can also have the opposite effect: supporting self-stalemate. Let me show you a modest example.



Timman 2011
White to play and draw

The white king is in the way of the g-pawn's promotion, and it also threatens to be caught in a mating net. For example, White would be mated by force after 1.h8♔? ♕xd5.

1. ♖d5-f4+! ♕f5xf4

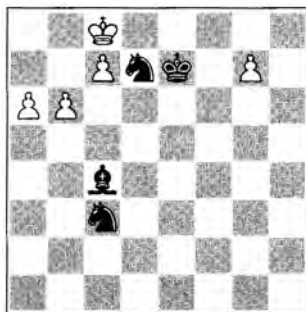
Otherwise White will queen his h-pawn.

2. h7-h8♕!

And despite his huge material superiority (or maybe because of it!) Black cannot avoid stalemate.

Incidentally, White could not play 1.♕e7+?, as then Black wins with 1...♕xe7 2.h8♕ ♕f6! and the stalemate threat is eliminated.

Of course, this can be achieved in a much more elegant way.



Rusinek, 'New Statesman' 1971
White to play and draw

Here, too, the white king is in grave danger. Especially the c-pawn is in the way.

1. a6-a7 ♕c4-a6+

2. b6-b7 ♖c3-e4

Threatening mate in one.

3. g7-g8♖+

The first minor promotion.

3. ... ♖e7-e8

4. ♖g8-f6+

This was what it was all about. The knight that threatened to give mate is deflected.

4. ... ♖e4xf6

After 4...♖dxf6 5.♖b8 White would manage to bring his king into safety.

5. a7-a8♕!!

A very elegant solution to the problems in the position. Black must now try to eliminate the

stalemate threat and weave new mate threats into the position.

5. ... ♖d7-e5

On 5...♖f1 White could draw with 6.b8♖!

6. ♖c8-b8 ♖e5-c6+

7. ♖b8-c8 ♖a6-f1

Threatening to give mate from the other side. Now 8.b8♖? wouldn't do on account of 8...♗e7+ 9.♖b7 ♖g2+ 10.♖a7 ♗c8+ and the promoted bishop is lost.

8. b7-b8♖!!

A real treat of minor promotions. This rook too will serve to construct a self-stalemate.

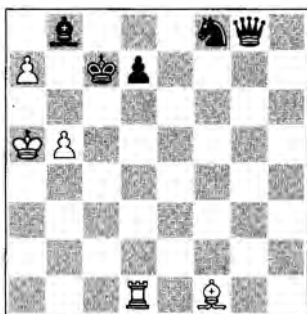
8. ... ♖f1-a6+

9. ♖b8-b7!

Draw. Black has no time to threaten mate since neither of the two promoted pieces can move, and nor can the white king.

Not surprisingly, with this study Rusinek won first prize in the *New Statesman* tourney.

It is even more elegant if the bishop promotion takes place at a moment when the self-stalemate is not yet in sight.



Gurvich, 'Trud' 1928
White to play and draw

Again, White has to compete against a large material superiority. At this point it is hard to imagine that this position will culminate in stalemate.

1. b5-b6+ ♖c7-b7

2. ♖f1-c4!

A strong bishop sacrifice which Black has to accept, as otherwise a check on d5 follows.

2. ... ♗g8xc4

3. ♖d1xd7+!

This rook sacrifice Black has to accept as well, since after 3...♖a8 4.axb8♗+ ♖xb8 5.♖b7+ White easily holds the draw.

3. ... ♗f8xd7

4. a7-a8♖+!!

A tremendous surprise. Insufficient was 4.a8♗+ in view of 4...♖c8 and Black wins.

4. ... ♖b7-c8

5. b6-b7+

The point. The bishop is walled in after all. Wherever the king goes, White is stalemated.

This same principle can be doubled.



Hurtig, 'Schackvarlden' 1943
White to play and draw

White starts on the queenside.

1. **a7-a8♙+!** ♖b7-c8

2. **b6-b7+**

The first bishop is walled up.

2. ... ♗c8-d7

3. ♕a5-d5+

The battle scene is moved to the kingside.

3. ... ♗d7-e7

4. ♕d5-e5+ ♗e7-f7

5. ♕e5-g7+!

This queen sacrifice prepares the second bricking-up.

5. ... ♖f7-g7

6. **h7-h8♙+!**

The second bishop appears on the board.

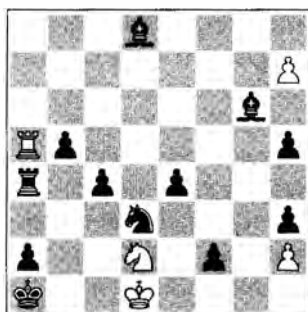
6. ... ♗g7-f8

7. **g6-g7+**

With stalemate on the next move.

For this study A.Hurtig received second prize in the tourney of the Swedish chess magazine.

Sometimes the self-stalemate is nowhere in sight at the moment of the bishop promotion.



Rokirovkin 2009

White to play and draw

Black has a huge material superiority, but his king is in danger. It is

clear that White has to promote his pawn.

1. **h7-h8♙+!**

Why not 1.h8♖+ ? The answer to this question will be revealed at the end of the study.

1. ... ♗d3-b2+

2. ♗d1-c1

Threatening mate. Now Black has to drive the white king away from its current position with checks.

2. ... f2-f1♖+

3. ♗d2xf1 ♗d8-g5+

4. ♗f1-e3!

Keeping the b1-h7 diagonal closed for the time being.

4. ... ♗g5xe3+

5. ♗c1-c2 ♗e3-d4!

Black sacrifices his bishop in order to open the diagonal.

6. ♗h8xd4 e4-e3+

7. ♗c2-c1 c4-c3

Now it becomes clear why White couldn't promote to a queen. In that case he would have been hopelessly lost in this position.

8. ♗d4xc3 ♖a4-b4

8...♖c4 would have been met by 9.♖xa2+ ♗xa2 with stalemate. After the text move, Black threatens to win with 9...♖b3.

9. ♖a5-a3!

Preventing this.

9. ... ♖b4-c4

There is nothing better.

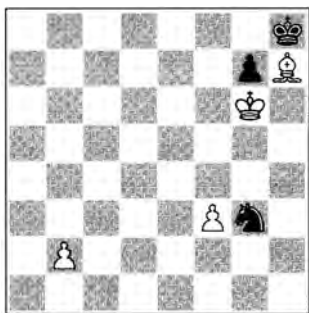
10. ♖a3xa2+ ♗a1xa2

Stalemate.

In the great majority of studies, bishop promotions serve to prevent stalemate. This theme does, however, allow for a lot of choice.

The Art of the Endgame

The following study by Benkő is very good.



Benkő, 'Magyar Sakkélet' 1988
White to play and win

In this miniature study White has trouble freeing his bishop. He has to start pushing his passed pawn.

1. b2-b4 ♖g3-e2

The only way for the knight to try and stop the b-pawn. After 1...♖e4 2.♟f5! ♖d2 3.♙g6 ♖xf3 4.♜e4 the knight would be dominated, while the black king is too remote to stop the b-pawn.

2. b4-b5 ♖e2-d4

3. b5-b6 ♖d4-c6

4. b6-b7

Black has managed to stop the promotion of the b-pawn, but this does not mean that his troubles are over. After 4...♖b8 5.f4 ♖d7 6.f5 ♖b8 7.f6 gxf6 8.♟h6 f5 9.♙xf5 the white bishop would be freed, and White wins by bringing his king to d6.

4. ... ♖c6-d8!

Black is playing for stalemate.

5. b7-b8♙!

The white pawn has travelled the entire road from starting square to promotion square. This motif is

called the Excelsior Principle. Although White now has a big material advantage, the win is far from easy. His king's bishop is still walled in.

5. ... ♖d8-c6

6. ♙b8-g3!

The only square for the bishop. On 6...♖e5+ White can now play 7.♟f5 with a win.

6. ... ♖c6-e7+

7. ♟g6-f7 ♖e7-g6!

Another fantastic resource. White cannot take the knight.

8. ♙h7-g8! ♖g6-e5+

9. ♟f7-e8!

And wins.

For this study Benkő received second prize in the tourney of the Hungarian chess magazine.

If I think of bishop promotions, I am immediately reminded of Vasily Smyslov.

Smyslov as an endgame composer

It is a striking fact that Smyslov started composing studies at a very young age. This craft lay dormant during the time of his great successes. It was only at an advanced age, when blindness stopped him playing practical games, that he picked it up again. For 60 years he had produced very little in the area of endgame studies.

In 2001 a little pocket-sized booklet called *Moi Etudy* was published. It contains 57 studies, 48 of which are from after 1998. I got the booklet, autographed by Smyslov

himself, via Genna Sosonko. 'To dear Jan Timman', said the inscription. I was struck by the steadiness of his handwriting; it had not been affected by his blindness. In 2005 a second edition appeared, containing a total of 114 studies. This means that in four years he had made exactly another 57 studies. Curiously, *Moi Etudy* does not contain the first study that Smyslov had made back in 1936, a year after his well-known game against Gerasimov. That study looks as follows:



Smyslov, '64' 1936
White to play and win

It goes as follows:

1. ♖c2-b1! a2-a1♚+
2. ♜a5-b5 ♙f2-g3
3. g6-g7 ♙g3-b8(!)
4. g7-g8♙!! ♙b8-f4
5. ♙g8-a2 ♙f4xd2
6. f5-f6 ♙d2-f4
7. f6-f7 ♙f4-d6
8. ♜b5-c6 ♙d6-f8
9. ♜c6-c7

And wins.

It's a great study, but it does have a few snags – which is understandable if you consider that Smyslov was only 15. The end does not re-

quire great precision, and the pawns on the h-file make the study uneconomical. Smyslov and Pervakov, who edited the booklet, may have decided to leave it out.

The book does contain a variety of follow-up studies on the same theme: a black queened pawn surrounded by white minor pieces, followed by a minor promotion for White.

All those studies are more economical than the original one, but I find them less impressive. An example:



Smyslov 1999
White to play and win

The solution goes as follows:

1. ♙f5-b1 a2-a1♚
2. ♜c5-b4 ♜f3-f4
3. g5-g6 ♜f4-g5
4. g6-g7 ♜g5-h6
5. g7-g8♙!

Here, too, meant to prevent a stalemate.

5. ... ♜h6-g5
6. ♙g8-a2

And now the picture is complete.

6. ... ♜g5xg4
7. ♜b4-c3 ♜g4-f3
8. ♜c3-d2 ♜f3-g2

9. ♖d2-e2 ♜g2xh2

10. ♜e2-f2 ♜h2-h1

11. ♜a3-b5 (c4)

And wins. But not 11. ♜c2 in view of 11... ♜xb1! 12. ♜xb1 h2, and stalemate is inevitable.

In 2009 I started working on a variation on Smyslov's original study with the intention of making it economical, adding some elements and creating an interesting ending. This is how it looks:



Timman 2010 (after Smyslov)
White to play and draw

The first few moves are obvious.

1. a6-a7 ♜d6-b8

2. a7-a8 ♜+ ♜a4-b4

White seems to have run out of options, since 3. ♜a6 is met by 3...g2.

3. ♜f7-g6!

An improbable move. Now 3...hxg6 can be met effectively by 4. ♜a6 after all, since the white queen can now go to either g6 or f1.

3. ... g3-g2

4. ♜g6-b1 g2-g1 ♜!

The well-known motif.

5. ♜b1-f5 ♜g1xd4+

6. ♜a1-b1 ♜d4-a7

7. ♜f5xd7 ♜b4-c3

The situation is critical for White. He must be careful not to be out-tempoed, e.g. 8. ♜f5? h5 9. ♜c1 h4 10. ♜d1 d4, and this is a situation of mutual zugzwang.

8. ♜b1-c1 h7-h5

9. ♜d7-b5!

The only bishop move to take control of the situation.

9. ... h5-h4

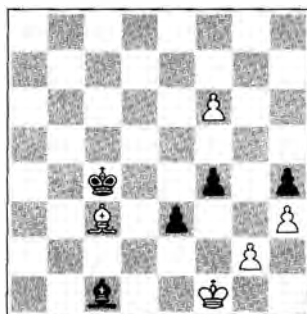
10. ♜b5-f1 d5-d4

11. ♜c1-d1

And another situation of mutual zugzwang has arisen. White to move would lose, Black to move cannot make progress, since after 11...d3 12. ♜h3 d2 13. ♜f1 he would even lose.

It had been my intention to show this study to Smyslov, but I never had time to do it.

In the years when Smyslov was inactive in the area of studies, he created a fantastic twin study.



Smyslov, 'Pravda' 1976
White to play and win

A simple bishop ending is on the board. It's hard to imagine that White will soon promote to a bishop.

1. f6-f7 ♖c1-a3
2. ♙c3-g7

After 2. ♙b2 ♙f8 3. ♖e2 ♔d5
Black will save himself.

2. ... f4-f3!
3. g2xf3

White has to take the pawn, since after 3. f8 ♖ ♙xf8 4. ♙xf8 e2+ 5. ♖f2 fxf2 he would even lose.

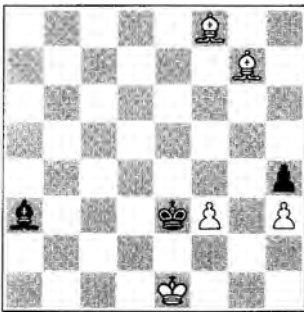
3. ... ♙c4-d3!

The point of the preceding moves. On 4. f8 ♖? Black has planned the reply 4...e2+ 5. ♖f2 ♙c5. If White takes the bishop, then Black promotes his e-pawn to force stalemate. If he plays 5. ♖e1, then 5...♙xf8 follows, with a draw after 6. ♙xf8 ♖e3.

4. f7-f8 ♙!

Removing the stalemate from the position. The question remains if White can win with his unusual bishop pair.

4. ... e3-e2+
5. ♖f1-f2 e2-e1 ♖+
6. ♖f2xe1 ♙d3-e3



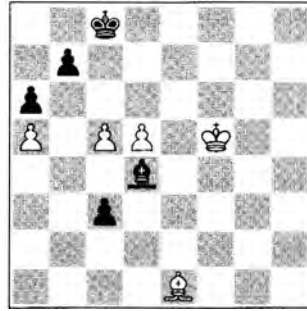
Black defends as stubbornly as possible. After 7. ♙xa3 ♖xf3 he would also win the h-pawn.

7. f3-f4! ♖e3xf4
8. ♖e1-f2 ♙a3-c1

The exchange of bishops would not help Black.

8. ♙g7-h6+ 1-0

In the second study Smyslov shows that the defensive plan can also be successful.



Smyslov, 'Pravda' 1976
White to play and draw

We have switched colours. The main reason why White can draw is that his bishop eventually has enough squares.

1. d5-d6 c3-c2
2. ♙e1-d2 ♙d4-b2
3. c5-c6!

Same procedure.

3. ... b7xc6
4. ♖f5-e6 c2-c1 ♙
5. d6-d7+ ♖c8-d8
6. ♖e6-d6 c6-c5
7. ♖d6xc5 ♖d8-c7
8. ♙d2-e1!

And Black cannot win.

Shortly after Smyslov had made this twin study, he showed it to the American grandmaster Lubosh Kavalek.

'What do you think of it?', the former World Champion asked.

'Brilliant', Kavalek replied.
'Do you really think it's good?' Smyslov asked once again. And again Kavalek professed his enthusiasm. Later he told me that he had been quite surprised by Smyslov's apparent lack of self-confidence. I think that things are slightly different. If you have completed such a beautiful work, you are fully aware of its worth. But you still want to sound out the opinion of an expert; his enthusiasm will strengthen your deep feelings of satisfaction.

Just as with knight promotions, there once was a contest to include the greatest number of bishop promotions in one study. And again, Lommer and Zinar were the greatest rivals, albeit in different periods. Lommer achieved a total of four promotions.



Lommer, 'British Chess Magazine' 1945
White to play and win

The white pawns are poised to promote.

1. **f7xg8♖**

Not 1.fxg8♚ in view of 1...♘f7
2.♚xf7 ♚xb6+ 3.♚xd5 ♚b8+
4.♙xb8, stalemate.

1. ... ♘h6xg8

2. **h7xg8♖**

The same principle.

2. ... ♖d5xg8

3. ♖d8xg5 ♖g8-d5

4. **g7-g8♖** ♖d5xg8

5. **g6-g7**

A fourth pawn is getting ready to promote to a bishop.

5. ... ♖g8-d5

6. **g7-g8♖** ♖d5xg8

7. ♖h5-g6

This square has been cleared for the boxed-in bishop. Mate has become unavoidable.

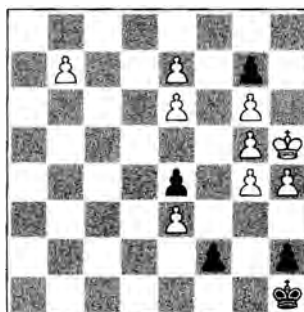
7. ... ♖g8-d5

8. ♖g6-d3+

And mate follows.

Not a very impressive study. The play contains no highlights and half of the bishop promotions are achieved with captures.

Before Zinar composed his study with a series of bishop promotions he had set himself another goal: a pawn ending with a melange of bishop and knight promotions.



Zinar 1980. Black to move –
White wins (incorrect)

The intended solution is:

1. ... **f2-f1♖**

Threatening mate in one. In most cases the pawn structure around the white king serves to play for stalemate, and in that event the opposing side has to try and give mate in time (see for instance Troitzky's study in Chapter 5 and one of my own studies in Chapter 8). In the present case, stalemate motifs do not play a role. White has to try to prevent an enemy knight from mating him.

2. b7-b8♗

As after 2.b8♗? ♘g3+ 3.♔xg3 Black is stalemated.

2. ... ♖h1-g2

3. e7-e8♗

After 3.e8♗ h1♗ Black would win immediately.

3. ... h2-h1♗

4. ♗e8xg7

And wins.

For this creation Zinar was inspired by a fantastic study by Troitzky and Korolkov.



Troitzky/Korolkov 1938/1939
White to play and win

Actually, White must take great care not to lose. Black is threatening mate on g3 and if White tries

to prevent this with 1.♔a3, Black brings along another knight to reinforce the threat.

1. ♔b4-c3!!

This queen sacrifice has the same function as the knight sacrifice from Zinar's (incorrect) study. White attacks the enemy g-pawn, and therefore Black has to accept the queen sacrifice.

1. ... ♗e4xc3

2. d7-d8♗!!

Not 2.d8♗ in view of 2...♗de4 3.♔xc7 f1♗ 4.♗f4 ♗e2, and White cannot prevent Black giving three knight checks on g3 and then being stalemated.

2. ... ♗c3-e2

3. ♗d8xc7 f2-f1♗



4. b7-b8♗!!

The climax of the study. The critical square g3 can only be protected by bishops.

4. ... ♗d2-e4

5. ♗c1-f4

And the three white bishops keep the three black knights under control.

For this study Troitzky and Korolkov received first prize in the Chigorin Memorial Tourney.

The Art of the Endgame

In Zinar's version, White's second bishop promotion fails, but there is a second black knight promotion plus a white knight promotion. However, the study is incorrect because Black can win with the simple 1...f1♚. Both sides can get two queens and then the white king is too exposed, despite the defensive pawn construction. More generally, something else is wrong with this concept. The purpose of the white knight promotion is to attack the enemy g-pawn and thus to clear the escape square h6 for the king. However, White can also attack the pawn with his newly promoted bishop. I decided to try and construct a new version of the study with the same idea. Soon I came to the conclusion that this cannot be realized in a pawn ending. A heavier construction was needed.



Timman 2011
White to play and win (after Zinar)

White has enough material to win if Black decides to get two queens. The black rook will deprive the newly-promoted white pieces of the crucial square e5.

1. **b6-b7** **f2-f1♖!**

After 1...f1♚ 2.b8♚ Black will have no chance.

2. **b7-b8♖!**

Not 2.b8♚ on account of 2...♘g3+ 3.♚xg3 ♚xg5+ 4.♙xg5 with stalemate.

2. ... **♙h1-g2**

Preparing the second knight promotion.

3. **e7-e8♖!**

Certainly not 3.e8♚? h1♖! and White gets mated.

3. ... **h2-h1♚**

The best chance in the circumstances. Now there follows an interesting finish.

4. **♖e8xg7** **♖f1-g3+**

Otherwise White would play his promoted knight to f5.

5. **♖b8xg3** **♙g2xg3**

6. **♙h5-h6**



After two promoted minor pieces have been swapped, the white king must flee upwards.

6. ... **♚h1xe4**

The best chance. After 6...♚h1xe4+ 7.♖h5+ ♙f3 8.e5! the white pawn mass would march on undisturbed.

7. **♖d7-f6!**

White sacrifices his bishop in order to keep the g-pawn. It is vital

that the solid construction on the kingside remains intact.

7. ... ♖e4xa4

8. a6-a7!

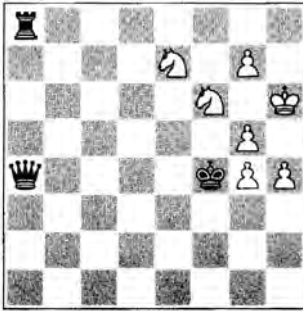
Not 8. ♖f5+ in view of 8... ♖xf5. Therefore White also sacrifices his a-pawn in order to make his kingside front as strong as possible.

8. ... ♖a5xa7

9. ♖g7-f5+ ♖g3-f4

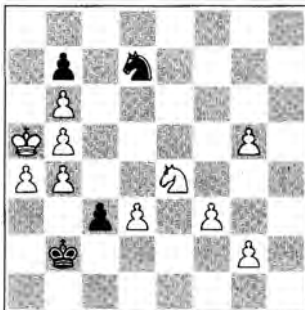
10. g6-g7 ♖a7-a8

11. ♖f5-e7



The promoted knight has the final word. White wins because his kingside pawns can march on in closed formation.

The Israeli study composer Gady Costeff has also adapted this theme.



Costeff, 'Shahmat' 1986
White to play and win

A highly unusual knight ending. White has no fewer than six extra pawns, but his king is again trapped inside the well-known pawn construction, in this case on the queenside. Both sides will have to push their passed pawns.

1. g5-g6 c3-c2

2. g6-g7

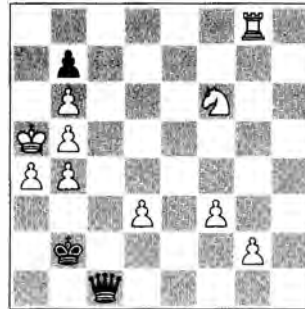
At first sight this looks like an easy win for White. However, Black has a resource which enables him to play for stalemate.

2. ... ♖d7-f6!

3. ♖e4xf6

And now Black can promote in two ways. In both cases White reacts with a minor promotion.

A) 3...c1 ♖ 4.g8 ♖! Not 4.g8 ♖? in view of 4... ♖a3 5. ♖d7 ♖c2 6. ♖c5 ♖xa4+ 7. ♖xa4, stalemate.



4... ♖a3 5. ♖d7 ♖c3 6. ♖g4 ♖c8 7. ♖c5 ♖a8+ 8. ♖a6 and wins.

B) 3...c1 ♖ 4.g8 ♖! and wins. Only not 4.g8 ♖? on account of 4... ♖a1!, followed by 5... ♖b3+ with stalemate.

Costeff has added a rook promotion to the theme. For this study he received shared first/second prize in the Czerniak Memorial.

The Art of the Endgame

Let's go back to the attempts to incorporate a record number of promotions into a study.

Almost half a century after Lommer's study, Zinar came up with the following piece of work.



Zinar 1983
White to play and win

Five of the seven white pawns are going to promote.

1. f6-f7 ♖g8-h8

The well-known recipe. If White queens, Black will first play 2...♜a1! and after 3.♙xa1 sacrifice on h5.

2. f7xe8♙ ♜a8xe8

3. d7xe8♙ ♜h8xe8

4. ♙b2-d4

The best square for the bishop. If necessary, White is prepared to sacrifice the bishop on f2.

4. ... ♜e8-h8

Black keeps forcing White to promote to bishops.

5. e7-e8♙ ♜h8xe8

6. e6-e7 ♜e8-h8

7. e7-e8♙ ♜h8xe8

8. e5-e6

Now the point of the promotions becomes clear. The long diagonal is opened, and the rook is deprived

of the square h8. However, Black has still another resource.

8. ... ♜e8-f8

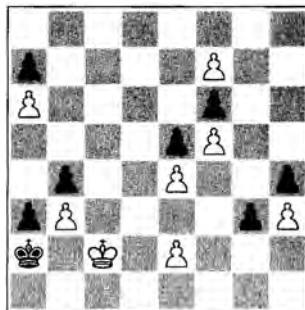
9. e6-e7 ♜f8-f5

10. e7-e8♙

The fifth and last bishop promotion. White wins.

These studies with whole series of bishop promotions are not very attractive. Lively play is only possible in studies with two bishop promotions.

It is a remarkable coincidence that in the two studies by Lommer and Zinar, the bishop promotions took place on the same square. This was also the case in a pawn ending with two bishop promotions by Zinar.



Zinar, 'Shakhmaty v SSSR' 1988
White to play and win

The black king is hedged in, which allows for a stalemate motif.

1. f7-f8♙!

Also here, promotion to a bishop is necessary to avoid stalemate.

1. ... g3-g2

2. ♙f8-c5 ♔a2-a1

White has avoided the first stalemate trick, but now the threat is re-

newed. Black wants to play 3...a2, followed by 4...g1 ♖.

3. ♖c5-e3

2...a2 is met by 4. ♖c1 with mate.

3. ... g2-g1 ♖

4. ♖e3xg1 a3-a2

5. ♖g1-d4+

White must sacrifice his bishop to prevent the stalemate.

5. ... e5xd4

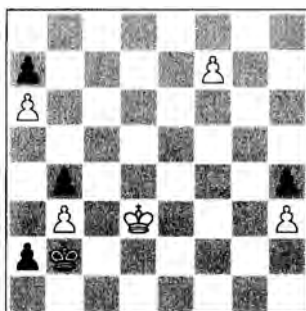
6. e4-e5 f6xe5

7. f5-f6 e5-e4

8. f6-f7 d4-d3+

9. e2xd3 e4xd3+

10. ♖c2xd3 ♖a1-b2



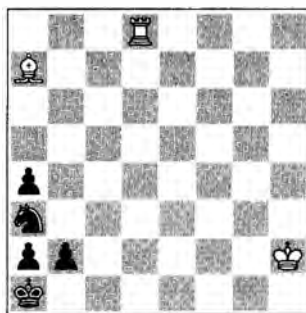
Black has weaved a new stalemate trap into the position. Now 11.f8 ♖ a1 ♖ 12. ♖g7+ is met by the nasty 12...♗xb3!.

11. f7-f8 ♖! a2-a1 ♖

12. ♖f8-g7+

And wins.

I thought it would be interesting to compose a study where the bishop promotion is not intended to prevent an immediate stalemate; the promoted bishop would have to serve to block a line and then prepare mate. As an introductory study, I constructed the following.



Timman 2010

White to play and win

First of all, White puts his rook in ambush.

1. ♖d8-d1+ ♖a3-b1

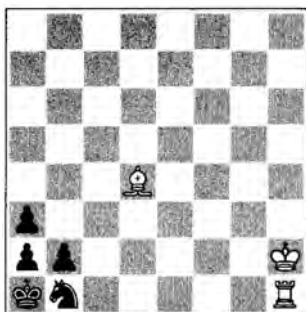
2. ♖d1-h1! a4-a3

3. ♖a7-g1!

The point of the previous move. Black is forced to move his knight, and after that, White will put his bishop on a better square.

3. ... ♖b1-c3

4. ♖g1-d4+ ♖c3-b1



5. ♖h2-g1!

White repeats the motif with his king.

5. ... ♖b1-c3

6. ♖g1-f2+ ♖c3-b1

7. ♖f2-e1

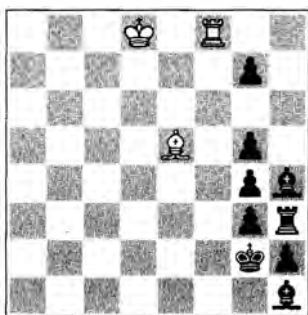
The king approaches, in order to give mate!

The Art of the Endgame

7. ... ♖b1-c3
 8. ♙d4xc3 ♖a1-b1
 9. ♔e1-d2#

The idea of the study is to put the rook in ambush and then use two other pieces to temporarily block the back rank, preventing stalemate. Eventually mate follows by the three pieces in cooperation.

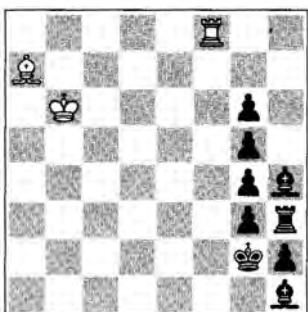
You can also do something similar on a diagonal. Then the bishop is the piece lying in ambush.



Lommer 1975
 White to play and win

First of all White puts his bishop in ambush.

1. ♙e5-b8 g7-g6
 2. ♔d8-c7 ♔g2-g1
 3. ♙b8-a7+ ♔g1-g2
 4. ♔c7-b6



This way White is going to bring his king closer.

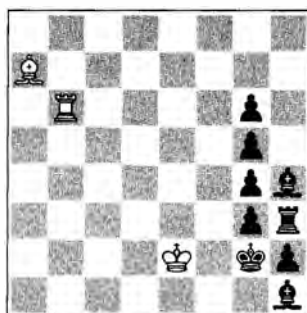
4. ... ♔g2-g1
 5. ♙b6-b5+

The alternative was 5. ♔c6, with the same consequences. Later on, the king also has an alternative route.

5. ... ♔g1-g2
 6. ♙b5-c5 ♔g2-g1
 7. ♔c5-c4+ ♔g1-g2
 8. ♔c4-d4 ♔g2-g1
 9. ♔d4-d3+ ♔g1-g2
 10. ♔d3-e3 ♔g2-g1
 11. ♔e3-e2+ ♔g1-g2
 12. ♙a7-b8

Now that the white king has come closer, the bishop temporarily leaves the crucial a7-g1 diagonal in order to put the rook into position.

12. ... ♔g2-g1
 13. ♙f8-f1+ ♔g1-g2
 14. ♙f1-f6! ♔g2-g1
 15. ♙b8-a7+ ♔g1-g2
 16. ♙f6-b6



This was the point of the 14th move. Now the rook will edge its way through and give mate.

16. ... ♔g2-g1
 17. ♙b6-b3+ ♔g1-g2
 18. ♙b3-e3! ♔g2-g1
 19. ♙e3xg3#

This was the last study that Lommer made.

Let's get back to bishop promotions. In the following study White again has to put his rook in ambush first.

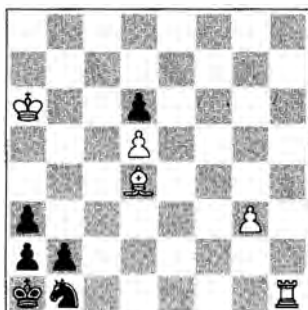


Timman 2010
White to play and win

1. ♖c1-h1! g4-g3
2. h2xg3 a4-a3
3. ♔b6-a6!

The king makes way for the bishop, which is heading for g1 again. Only seven moves later will it become clear why the king could not go to a5 or c7.

3. ... d7-d6
4. ♕a7-g1! ♜b1-c3
5. ♕g1-d4+ ♜c3-b1



6. ♕d4-e5!

White sacrifices his bishop in order to create a passed d-pawn. Again, this leads to the Phoenix Principle, since White will promote to a new bishop before long.

6. ... d6xe5
7. d5-d6 e5-e4
8. d6-d7 e4-e3
9. d7-d8 ♕!

Other promotions would be of no use to White.

9. ... e3-e2
10. ♕d8-a5

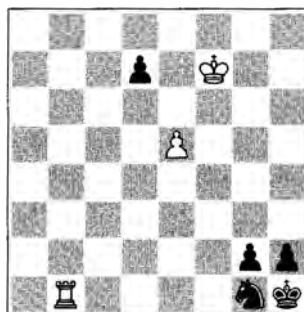
Now it becomes clear why the king had to go to a6. The passage for the promoted bishop had to be kept free.

10. ... e2-e1 ♔
11. ♕a5xe1

Again the back rank has been closed by a bishop, this time with devastating effect.

11. ... ♜b1-d2
12. ♕e1xd2+ b2-b1 ♔
13. ♕d2-c3#

Later I found a study by Costeff which contains a nice addition to this theme.



Costeff 1979
White to play and win

The Art of the Endgame

White's first move is anything but obvious.

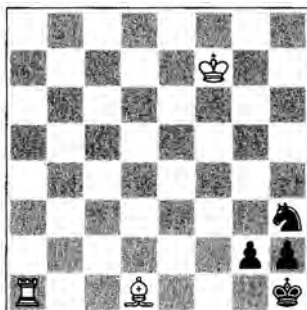
1. ♖b1-a1!

Only seven moves later will the purpose of this little rook move become clear. 1.♔d1 looked obvious, but after 1...d5 2.e6 d4 3.e7 d3 4.e8♔ d2 5.♔xd2 ♘f3 6.♙f2 g1♔ 7.♙xf3 Black has 7...♕d1!, and White cannot win.

1. ... d7-d5
2. e5-e6 d5-d4
3. e6-e7 d4-d3
4. e7-e8♔!

The familiar bishop promotion.

4. ... d3-d2
5. ♔e8-a4 d2-d1♔
6. ♔a4xd1 ♘g1-h3



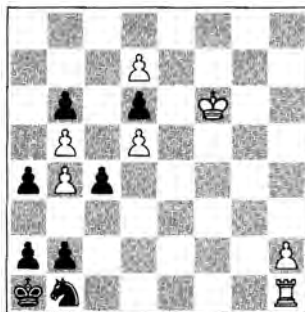
7. ♔d1-c2+!

On its way to b1. That is why the white rook had to go to the corner square.

7. ... ♘h3-g1
8. ♔c2-b1 ♘g1-h3
9. ♔b1-e4+ ♘h3-g1
10. ♖a1-a2

And wins.

The same can be done with two bishop promotions.



Timman 2011

White to play and win

If White queens, he cannot win. An illustrative line is 1.d8♕ c3 2.♙d1 a3 3.♙d4? ♘d2 4.♕c7 b1♕ 5.♕xc3+ ♕b2 6.♕xd2 ♘b1 7.♕e1+ ♕c1 8.♙d1 a1♕+ and Black wins.

1. d7-d8♔!

On its way to g1.

1. ... c4-c3
2. ♔d8xb6 a4-a3
3. ♔b6-g1! ♘b1-d2
4. ♔g1-d4+ ♘d2-b1
5. ♔d4-e5!

Again, the thematic bishop sacrifice.

5. ... d6xe5



6. b5-b6

White has to push this passed pawn. After 6.d6 e4 7.d7 e3 stalemate would be unavoidable.

6. ... e5-e4
7. b6-b7 e4-e3
8. b7-b8♙!

Like a Phoenix, the bishop has risen from the grave.

8. ... e3-e2
9. ♗b8-g3

This is what it was all about. White is in time to temporarily close off the back rank again.

9. ... e2-e1♔
10. ♗g3xe1 ♖b1-d2
11. ♗e1xd2+ b2-b1♔
12. ♗d2xc3#

Is it possible to have two bishop promotions alongside each other? I have spent a lot of time trying to find an answer to this question. The following study is a first attempt, although the bishop promotions occur in the side variations.



Timman 2009
White to play and win

White cannot play 1.g7 on account of 1...♖xb3+ 2.♗a6 ♖b7 3.g8♔ ♖b6+! with stalemate. This theme will crop up again and again.

1. ♗b3-d5+! e6xd5
2. g6-g7 ♖a3-b3+
3. ♗b6-a6

If the king moves to the c-file, Black will save himself with a check on c3.

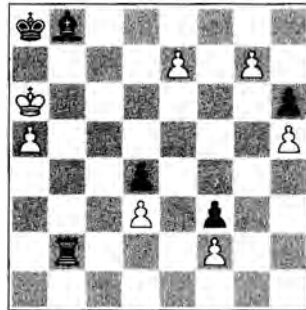
3. ... d5-d4!

Re-introducing the stalemate motif into the position.

4. e5-e6

An important alternative was 4.g8♗. As White threatens mate on d5, he now wins the rook on b3. But Black can just save himself with 4...♗xe5 5.♗xb3 ♗f6 6.♗d5+ ♗b8 7.♗xf3 ♗h4 8.♗b6 ♗d8+! 9.♗c5 ♗xa5.

4. ... ♖b3-b2
5. e6-e7



Both pawns are about to promote and Black now has to choose how to organize his defence from here.

5. ... ♖b2-b7

The best defence. On 5...♖b1, both 6.e8♗ and 6.g8♗ would be winning. Now both bishop promotions fail to 6...♖a7+ 7.♗b6 ♖b7+, and White cannot win.

6. g7-g8♗!

The only correct promotion. After 6.e8♗ ♖xg7 7.♗xg7 ♗g3 Black would not need to worry.

6. ... ♖b7-b1

Black keeps playing for stalemate.
White cannot promote his e-pawn.

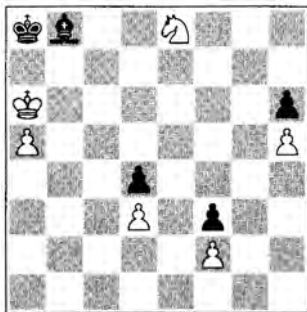
7. ♘g8-f6 ♖b1-e1

8. e7-e8♙

But now he can.

8. ... ♖e1xe8

9. ♘f6xe8



The complications are over and a knight vs bishop ending has arisen. The finish still requires precision.

9. ... ♖b8-g3

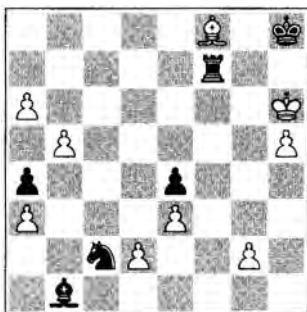
10. ♖a6-b6 ♖g3xf2

11. ♘e8-c7+ ♖a8-b8

12. a5-a6

And wins.

The same stalemate motif also occurs in the following study.



Timman 2011
White to play and win

The white passed pawns are dangerous, but after 1. ♖d6 ♖a2 Black can just save himself.

1. ♖f8-g7+!

With this bishop sacrifice, White renders the 6th rank inaccessible to the black rook.

1. ... ♖f7xg7

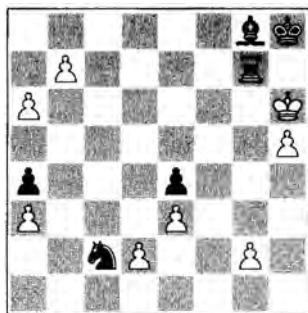
2. b5-b6

An unbelievable situation: Black has a rook and two minor pieces for a handful of pawns, and yet he is lost. He still has one chance left:

2. ... ♖b1-a2

3. b6-b7 ♖a2-g8

Now 4.b8♙ runs into 4...♘xe3! 5.dxe3 ♖g6+! and stalemate is unavoidable. The logical 4.a7 is also insufficient for the win after 4...♘xe3! 5.dxe3 ♖xg2 and White doesn't have an effective minor promotion.



4. g2-g3!!

A very subtle little move. The point is that after 4...♘xe3 5.dxe3 ♖xg3 White has at his disposal 6.b8♖!, winning. This means that the rook's range of action is restricted.

4. ... ♘c2xe3

Black cannot postpone this knight sacrifice any longer.

5. d2xe3 ♖g7-g4

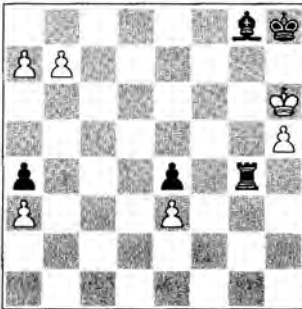
6. a6-a7 ♖g4-g7

Now 7.a8♙? is insufficient on account of 7...♖xb7! 8.♙xb7 ♙d5 9.♙c8 ♙e6 10.♙a6 ♙c4 and again, White cannot avoid stalemate.

7. g3-g4!

A pawn sacrifice, enforcing a situation of mutual zugzwang. Black has to help himself to the pawn.

7. ... ♖g7xg4



8. a7-a8♙!

Just as in the previous study, a knight promotion provides the solution to the problem.

8. ... ♖g4-g7

On 8...♖g1, 9.♙b6! would have been winning.

9. ♙a8-c7!

An indirect defence of the b-pawn. Again, a situation of mutual zugzwang has arisen.

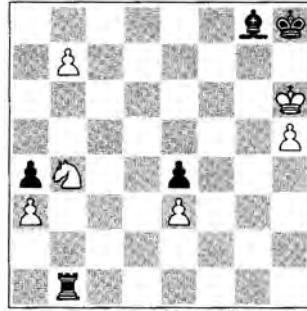
9. ... ♖g7-g1

10. ♙c7-d5!

Centralization. Now on 10...♖g7, both 11.♙f4 and 11.♙e7 are winning.

10. ... ♖g1-b1

11. ♙d5-b4



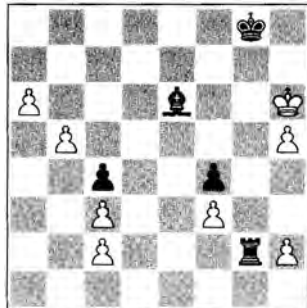
Screening off the b-file.

11. ... ♖b1-g1

12. ♙b4-c6

And wins. Black has to give his rook for the b-pawn, after which the knight vs bishop ending is an elementary win.

It's possible to make an even more beautiful version of this theme.



Timman 2011

White to play and win

Black has an enormous material advantage, but he cannot stop the white queenside pawns.

1. b5-b6 ♔g8-h8

Making room for the bishop.

2. b6-b7 ♙e6-g8

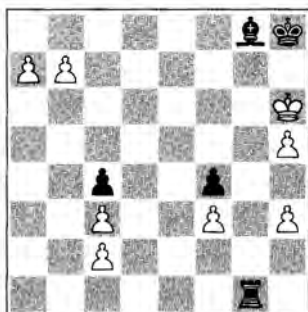
The stalemate construction is ready.

3. a6-a7

White could not queen immediately, since after 3.b8♚ ♖g6+! stalemate would be unavoidable.

3. ... ♖g2-g1

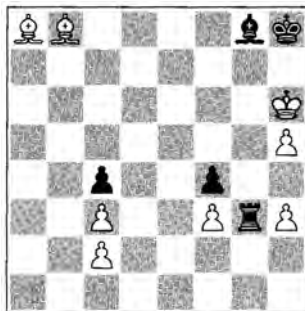
4. h2-h3!



Mutual zugzwang. The rook is forced to a less favourable square on the g-file, and then minor promotions will become possible. There are now two main lines:

A) 4...♖g3 5.a8♘! Not 5.a8♙ in view of 5...♖g7! with mutual zugzwang. 6.h4 is met by 6...♖h7+ 7.♔g5 ♖g7+ and White does not have the square h4 for the king. And if White continues 6.b8♙, Black has the little saving move 6...♙d5!. White does not have a check on e5;

B) 4...♖g7 5.a8♙! Again a situation of mutual zugzwang has arisen. The black rook has to go down again, as after 5...♖xb7 6.♙xb7 ♙d5 White would prevent the stalemate threat by 7.♙a6. 5...♖g3 6.b8♙! The second bishop promotion. The newly-created bishop pair reigns supreme.



6...♙d5 After 6...♙f7 7.♙e5+ ♔g8 8.h4 ♖h3 9.♔g5 White would have a clearly winning position. 7.♙e5+ and wins.

I consider this study to be the best I have composed so far.

Studies with bishop promotions on both sides are rare. Inevitably, the bishop promotions will have different motifs: the attacking side wants to avoid stalemate, whereas the defending side strives to achieve just that.



Timman 2011

White to play and win

Again, the kings are facing each other in the upper right-hand corner. Both sides have dangerous passed pawns. In order to realize

promotion, pieces will have to be sacrificed.

1. ♖d6-f7+!

With this knight sacrifice White closes off the f-file for the enemy rook. At the same time, he wants to promote his b-pawn with check.

1. ... ♜g8xf7

2. b5-b6

It looks as if Black has run out of options now. What can he do against the threat of 3.b7? 2...b2 runs into the devastating 3.♙b1!.

2. ... ♜a2-e2!

A stunning rook sacrifice. Black threatens to play his rook to e8, and therefore White has to accept the sacrifice.

3. ♙d3xe2

A somewhat uncommon bishop ending has emerged on the board. Soon it will be a four-bishop ending.

3. ... b3-b2

4. ♙e2-d3 a3-a2



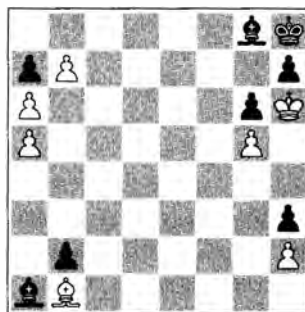
5. ♙d3-b1!!

Here too, the correct move. This blockade motif – in a slightly different form – was invented by Stamma.

5. ... ♙f7-g8

Preparing a stalemate construction.

6. b6-b7 a2-a1♙!



The point of the previous move. White cannot promote to a queen or rook on account of stalemate. Moreover, he does not have a waiting move with his bishop, since then the compromised position of his king would seal his fate: Black promotes his pawn and gives mate on g7.

7. b7-b8♙!

A real treat for lovers of bishop promotions. The stalemate has been removed.

7. ... ♙g8-c4

8. ♙b8xa7 ♙c4-d3

A final attempt. After 8...♙xa6 9.♙d4+ ♖g8 10.♙g7 Black would have no chance to survive.

9. ♙a7-d4+

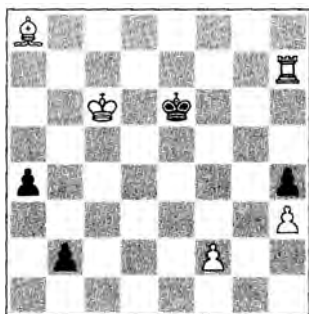
And wins.

Chapter 7

Mating Patterns

In the first chapter I gave two miniatures in which the black king was mated in the middle of the board. This is the most attractive mating pattern.

Wotawa has made various studies where the mating pattern seems to appear out of the blue. A good example is the following study.



Wotawa, 'Deutsche Schachzeitung' 1961
White to play and win

The white pieces seem to be badly positioned for stopping Black's far advanced passed pawns. White even runs the risk of coming off worse.

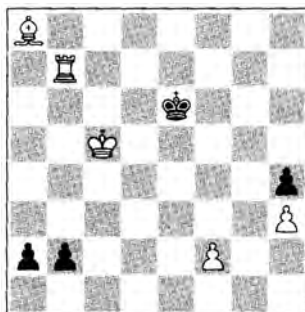
1. ♖h7-b7 a4-a3

2. ♕c6-c5!

The first step in the direction of the mate, even though such a mate is nowhere to be seen at this point.

2. ... a3-a2

Now what?



3. ♖b7-f7!!

Magnificent. White deprives the black king of escape squares.

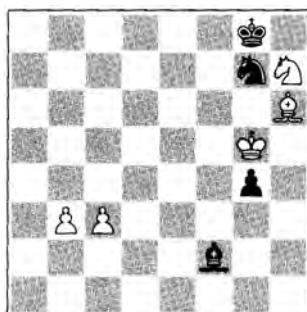
3. ... a2-a1 ♕

3... ♖xf7 4. ♕d5+ and White wins.

4. ♕b7-d5+ ♖e6-e5

5. f2-f4#

It's impressive if in the main variation the composer manages to draw the king from the corner to the centre, where it is then mated. Ghenrikh Kasparyan has tried to realize this theme in a study, but unfortunately this study is incorrect.



Kasparyan 1962
White to play and win (incorrect)

First of all White has to eliminate the g-pawn.

1. ♖h7-f6+ ♜g8-f7
2. ♖f6xg4 ♜g7-e6+
3. ♜g5-f5

He must centralize his king as much as possible.

3. ... ♔f2-e1

Black besieges the white passed pawns. White cannot push the c-pawn, as after 4.c4 ♜d4+ the b-pawn will be lost.

4. ♜g4-e5+ ♜f7-e7
5. ♜e5-c6+

The aim of the knight checks is clear. White wants to control the square d4.

5. ... ♜e7-d6

After this king move, White eventually manages to catch the enemy king in a mating net. However, with 5...♜d7! Black could have held the draw. After 6.c4 ♜c5 7.♜e5+ Black again has to find the right square for the king.



In *Endgame Challenge*, Nunn gives 7...♜c8, after which White reaches a technically winning endgame with 8.♜f3 ♔c3 9.♔d2. Better is 7...♜c7, as after 8.♜f3 ♔c3 9.♔d2

♔xd2 10.♜xd2 ♜b6 11.♜e5 ♜a5, followed by 12...♜b4, Black effectively blocks the white passed pawns.

6. c3-c4 ♔e1-c3
7. ♜c6-a7!

Surprising, but strong. The knight aims for the critical square b5.

7. ... ♜e6-d4+
8. ♜f5-e4 ♜d4xb3
9. ♜a7-b5+ ♜d6-c5

It looks as if Black is going to eliminate the last pawn, but:

10. ♔h6-f8+! ♜c5xc4
11. ♜b5-a3#

Can this study be saved? I fear that the long march by the black king cannot be maintained. But still it is possible to make a good study out of it.



Timman 2011
(correction of a study by Kasparian)
White to play and win

First White must centralize his king.

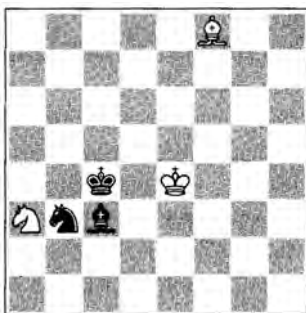
1. ♜g6-f5 ♔h4-e1

Now everything is clear.

2. c3-c4 ♔e1-c3
3. ♜c6-a7! ♜e6-d4+
4. ♜f5-e4 ♜d4xb3
5. ♜a7-b5+ ♜d6-c5

6. ♖h6-f8+! ♔c5xc4

7. ♘b5-a3#



All the pieces are playing – the study is still lively.

In the following study the mate is given by the bishop.



Timman 1984
White to play and win

The first move is obvious.

1. ♖g3-g4

Protecting his own knight and attacking the enemy knight.

1. ... ♗e8-f7!

The best defence. Black gives up the knight, hoping to set up a pin which is unpleasant for White.

2. ♗h2xd6 ♗h6-f8

The point of the previous move.

3. ♘h5-f4+ ♔g6-f6

How to continue?

4. ♗d6-b4!

Preparing a mate on the long diagonal. For this purpose 4. ♗a3? was not suitable, because then Black would close the long diagonal with 4...d4!, after which White cannot avoid losing the bishop.



4. ... b6-b5!

A subtle defence. 4...d4 would have been met by the devastating 5. ♖x b7. But now Black does threaten to close the long diagonal.

5. ♗b4-c5!

Threatening to unpin the rook by 6. ♖c7.

5. ... b7-b6

6. ♗c5-a3

The last finesse. White first provokes ...b7-b6, and then eventually retreats his bishop to a3, since the passage to a7 has now been cleared for the white rook.

6. ... b5-b4

7. ♗a3xb4 ♗f8xe7

8. ♗b4-c3#

It is very rare for a rook to remain *en prise* for so many moves.

Later, I encountered the same mating pattern in a study by Matous.



Matous, Chavchavadze MT 1987
White to play and win

White can only hope to win if he can keep his pawn – either that, or he must succeed in giving mate. At this point, mate is nowhere in sight.

1. ♖c4-e5+ ♔d3-e4
2. ♗g5-g6 ♕c1-h6
3. ♖e5-f7 ♕h6-g7

Now what? The g-pawn looks doomed.

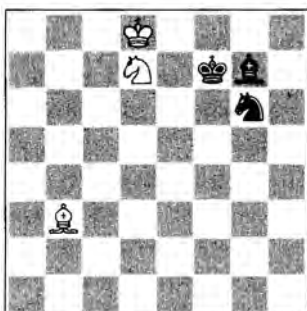
4. ♕g4-d1!

For the moment the pawn is indirectly protected.

4. ... ♖e4-f5
5. ♕d1-c2+ ♖f5-f6
6. ♖a8-b6!

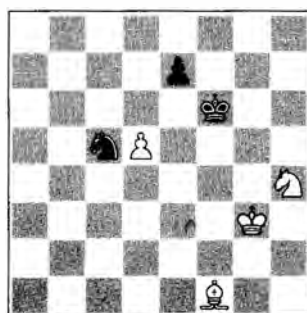
The other knight comes to the rescue.

6. ... ♖h4xg6
7. ♖b6-d7+ ♖f6xf7
8. ♕c2-b3#



With the sacrifice of a knight and a pawn, the same mating position appears on another side of the board. It does not make any difference that one of the pieces which blocks the king's escape route is a knight instead of a bishop.

The following study is a very subtle one.



Sochniev, 'Vecherny Leningrad' 1987
White to play and win

The main question is whether Black will manage to exchange pawns.

1. ♖g3-f4

A natural and strong move.

1. ... ♗e7-e6

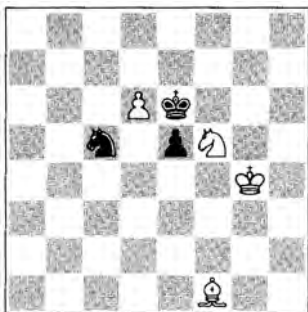
Black cannot wait too long with this, otherwise White will consolidate his position.

2. ♗d5-d6 ♗e6-e5+
3. ♖f4-g4!

Again White chooses the best square for the king.

3. ... ♖f6-e6
4. ♖h4-f5

For the time being, White has managed to maintain the pawn, but Black keeps harassing it.



4. ... ♖c5-e4

5. ♙f1-c4+

The bishop comes into action.

5. ... ♙e6-d7

6. ♙c4-b5+ ♙d7-e6

7. d6-d7!

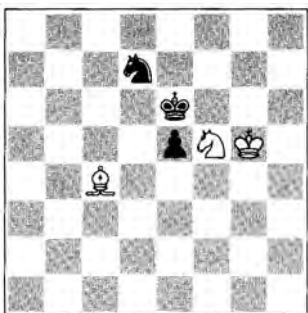
Driving the black knight to a square where it blocks the black king.

7. ... ♙e4-f6+

8. ♙g4-g5 ♙f6xd7

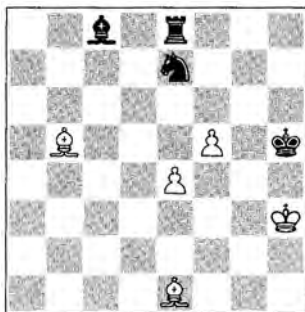
9. ♙b5-c4

Mate.



For this study, Sochniev received first prize in the 'Vecherny Lenin-grad' tourney.

If the harassed king is on the edge of the board, in principle no blocking pieces are needed for the mate.



Timman 1984

White to play and win

White can capture the rook, with check even, but that wouldn't bring him anything: 1. ♙xe8+ ♙g5 2. ♙d2+ ♙f6 and Black is ready to give his knight for the white pawns, keeping his bishop, which is a reliable weapon in the battle against the bishop pair.

1. ♙e1-d2

Threatening mate from both sides.

1. ... ♙c8xf5+

The only defence.

2. e4xf5 ♙e7-c6

The sensational knight move 2... ♙g6 would save the draw after 3. fxg6 ♙g8 4. g7 ♙g6, but it loses after 3. ♙c6, which renews the mate threat. The stalemate attempt 3... ♙f4+ 4. ♙xf4 ♙e3+ turns out to be a useless demonstration after 5. ♙g2.

3. ♙b5-a4!

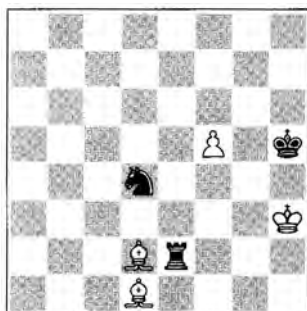
A very subtle move. White now threatens mate on d1. Insufficient was 3. ♙xc6 in view of 3... ♙e3+ 4. ♙g2 ♙e2+ with a draw.

3. ... ♙e8-e2!

Again, the only defence. Black voluntarily places his rook in an unpleasant pin. Another method to

prevent immediate mate is not available.

4. ♖a4-d1 ♜c6-d4



Black has built up a shaky defence. Nevertheless, it is not so easy to breach. Black cannot be brought into zugzwang as he can always play his knight to f3.

5. ♖d2-e3!

The mate motif is disturbed by a stalemate motif. In combination with the next move, this is the only winning method. After 5. ♖c1 ♜f3 6. ♜g3 ♜d4, White cannot make progress, for example:

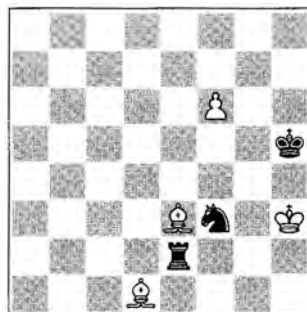
A) 7. ♜f4 ♜h6 8. ♜g4+ ♜g7 9. ♖xe2 ♜xe2 10. ♖b2+ ♜f7 11. ♜f3 ♜g1+ and White cannot catch the knight without losing his f-pawn. Incidentally, 7... ♜h4 is also insufficient for the draw in view of 8. ♖xe2 ♜xe2+ 9. ♜e5 ♜xc1 10. f6 ♜d3+ and the knight stops the f-pawn via c5 or f4;

B) 7. ♖b2 ♜g5 (not 7... ♜xf5+ 8. ♜h3 and Black loses a full rook, ending up in a 2 bishops vs knight ending) 8. ♖xd4 ♜e4 (the only move to prevent White reaching a theoretically winning position)

9. ♖b2. Now Black should definitely not take on f5, but both 9... ♜b4 and 9... ♜e3+ lead to a draw.

5. ... ♜d4-f3

6. f5-f6!



This push is only effective when the queen's bishop is on e3. There it blocks the black rook's path to stopping the f-pawn, and also, after 6... ♜g6 7. ♖xe2 Black has no check on g1.

6. ... ♜e2-h2+

The only reasonable try. After both 6... ♜xe3 7. f7 and 6... ♜g5+ 7. ♜g3 ♜e4+ 8. ♜f4 Black runs out of moves.

7. ♜h3-g3 ♜h5-g6

8. ♖d1xf3

The rook has no good squares. On 8... ♜h8, both 9. ♖e4+ and 9. ♖c5 are winning.

8. ... ♜h2-h7

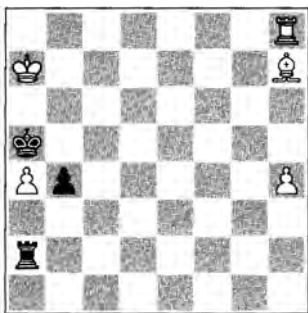
9. ♖f3-e4+

And wins. Black can still try the cheap trap 9... ♜h5, but then White has a large range of winning continuations.

The Russian endgame study composer A.S.Gurvich created a famous miniature in which a mating

The Art of the Endgame

net is woven around the black king in a surprising way.



Gurvich, 'Shakhmatnaya Moskva' 1959
White to play and win

It seems like an impossible task. White's a-pawn is very hard to protect, whereas Black has a strong passed pawn. However, the position contains a subtle combination.

1. **♙h7-g8!** **♜a2-b2**

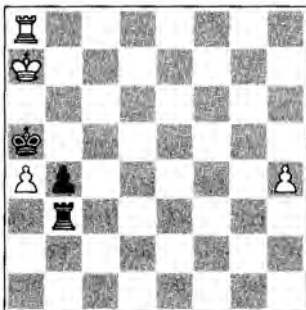
The a-pawn was taboo on account of mate in one.

2. **♙g8-b3!!**

Blocking the black b-pawn.

2. ... **♜b2xb3**

3. **♜h8-a8!**



The point of the bishop sacrifice.

3. ... **♜a5xa4**

4. **♙a7-b6#**

Interestingly, this mating net can also be constructed if Black has much more material.



Timman 2011
White to play and win (after Gurvich)

Material is equal. White has the bishop pair and a strong passed pawn, but the black pawns aren't exactly harmless either. White has to act energetically, otherwise he may end up in trouble.

1. **♙h6-f8!!**

A bishop sacrifice Black has to accept.

1. ... **♜e7xf8**

On 1...♜c2, 2. ♙b7! is winning.

2. **♙e6-e7!** **♜f8xe7**



The same theme that was discussed earlier in this chapter. The starting position is again reached, but this

time without the queen's bishop and the e-pawn. So the a2-g8 diagonal has been opened for the other bishop.

3. ♖g8-b3!!

Gurvich's bishop sacrifice turns out to be equally effective here.

3. ... ♜b2xb3

4. ♜h8-a8! ♙a5xa4

5. ♙a7-b6#

The study has gained in content with the extra sacrifices. But still Gurvich's study is better, because it shows the brilliant idea in all its simplicity. In my study, the fact that the black knight doesn't move is especially annoying. Therefore I decided to make a study in which Gurvich's mating position features in a side variation.



Timman 2011
White wins

Here Black's passed pawns are even more dangerous.

1. f5-f6!

The intention of this pawn sacrifice will soon become clear.

1. ... ♙g7xf6

2. ♖g3-d6!!

The well-known bishop sacrifice. After 2... ♙xd6 3.e7! ♙xe7

4. ♙b3!! Black would get mated in the way that we have already seen. However, he has a better defence.

By the way, after 2. ♜h7 ♙f8 3.e7 ♙xe7 4. ♜xe7 ♜c3 Black would have sufficient counterplay.

2. ... ♜a3-c3!

Now the battle will revolve around the square e7.

3. ♜h8xh5+

Now the intention of the pawn sacrifice becomes clear.

3. ... ♜f6-f5!

Black also sacrifices his f-pawn. After 3... ♙xa4 4. ♙xe7 ♜c7+ 5. ♙b6 ♜xe7 6. ♜h7 he would have been left without a chance.

4. ♜h5xf5+ ♙a5xa4

5. ♙d6xe7 ♜c3-c7+

6. ♙a7-b6 ♜c7xe7

7. ♜f5-a5+

Necessary in order to break the blockade on e7. Insufficient for the win was 7. ♙c5, as becomes clear from the following variation: 7...d3 8. ♜d5 ♜e8 9. ♜f5 ♜c8+ 10. ♙b6 ♜b3 11.e7 ♜b2 12. ♜a5+ ♙b4 13. ♜b5+ ♙c3 14. ♜b3+ ♙d2 15. ♜xb2 ♙c1, followed by 16...d2, and White cannot win.

7. ... ♙a4-b3

8. ♜a5-a7



The Art of the Endgame

It looks as if White wins comfortably, but Black has a fantastic resource:

8. ... ♖c2-e3!

Indirectly protecting the rook. White has to take the knight.

9. f2xe3 d4xe3

An interesting situation. If White takes the rook, the black pawn will queen undisturbed, after which he draws easily.

10. ♖a7-c7!!

A very strong move. The black king is cut off and can therefore not support the e-pawn.

10. ... ♜b3-a3

Black wants to march on with the b-pawn. Now 11. ♖c1 would be insufficient for the win due to 11...b3 12. ♖e1 b2 13. ♖xe3+ ♔a2. After White has been forced to give his rook for the b-pawn, the black king marches to the kingside, just in time to conquer the white h-pawn.

However, White has a hidden trick up his sleeve.

11. ♖c7xe7! e3-e2

12. ♖e7-a7+ ♔a3-b2



13. ♖a7-a2+!

With this rook sacrifice White forces the passage of his e-pawn with check.

13. ... ♜b2xa2

14. e6-e7+

And wins.

The Russian endgame study composer Viktor Evreinov is from the same generation as Vladimir Bron and Vladimir Korolkov, but he has left behind a much smaller body of work. Whereas Bron and Korolkov each have more than 400 studies to their names, Evreinov hasn't even made 100. This is mainly due to the fact that he only started to compose seriously when he was 50. To my mind, he composed one of the most beautiful mate studies imaginable.



Evreinov, 'Shakhmaty Riga' 1959
White to play and win

The white bishop is lying in ambush. It will play the starring role in the mating combination.

1. ♖d4-e4!!

An absolutely stunning first move. White opens up one diagonal for his bishop and closes another for

the black queen. The sacrifice of his rook – with check! – is necessary in order to get everything right.

1. ... **d5xe4+**

2. ♔f3-g2!

Walking away from all the queen checks.

2. ... **e4-e3+**

3. ♔g2-g1



Again, the only square for the king. The position is intriguing. Black is a full queen up, but he cannot avert the catastrophe along the a1-h8 diagonal.

3. ... ♙g8-f7

A desperate attempt to keep the long diagonal closed.

4. e6xf7 ♚c6xc5

5. f7-f8♚+ ♚c5xf8

6. f6-f7+ ♚f8-g7+

7. ♔g1-h2!

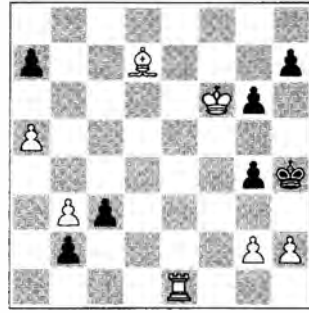
For the third time, the only square for the king.

7. ... ♚g7xa1

8. f7-f8♚

Mate.

Evreinov also worked on another ingenious mating position.



Evreinov, 'Ceskoslovensky Sach' 1960

White to play and win

The black passed pawns cannot be stopped. Therefore, White has to search for mates.

1. ♙d7-b5 **c3-c2**

2. ♚e1-e7!

Forcing the h-pawn to move forward, after which the black king loses one escape square.

2. ... **h7-h6**

3. ♚e7-e3!

Suddenly there is a concrete mate threat: 4. ♚h3+ gxh3 5.g3+, followed by mate on e2.

3. ... **c2-c1♚!**

The only defence.

4. ♙b5-f1!



Depriving the black king of the h3-square. Now Black has to promote his other pawn, too.

The Art of the Endgame

4. ... **b2-b1♚**
5. **g2-g3+** **♔h4-h5**
6. **♖e3-e5+** **g6-g5**
7. **♙f1-c4!**

The mating net is shifted. The deadly check on f7 cannot be prevented. Black now starts to play for stalemate.

7. ... **♚b1-g6+**
8. **♔f6-e7** **♞c1-d3**
9. **♖e5-e3!**

The only square for the rook.

9. ... **♞d3-e5**
10. **♖e3xe5** **a7-a6**



11. h2-h3!

With this final little move White manages to avoid stalemate and wins.

A pretty study, but you can sense that more can be got from this theme. Apparently Evreinov felt the same. He made three other studies with this theme; one in the same year, the other in 1967 and the third in 1980, not long before he died. Although Evreinov won prizes with these last two studies, none of them turned out to be correct – a good challenge for me. I set to work and improved Evreinov's idea as follows.



Timman 2011

White to play and win (after Evreinov)

Black still has all his pawns. The passed pawns threaten to become very dangerous, so White has to search for a mate.

1. ♖b1-e1

White brings his rook into play. The alternative 1.♖d1 was no good in view of 1...g3, giving the black king some air.

1. ... ♙c8-a6!

With this surprising bishop sacrifice, Black manages to create counterplay. After 1...d5 White would weave a mating net around the enemy king, as follows: 2.g3+ ♔h5 3.♙d3 (threatening 4.♙xg6+ hxg6 5.♖e8 with mate), 3...♔h6 4.h3 or 4.♖h1, followed by 5.h3. Black is helpless.

2. ♙f1xa6

White has to accept the bishop sacrifice. After 2.♖e7 h6 3.g3+ ♔h5 4.♖e5+ g5 5.♙xa6 b1♚ he would have no more than a draw. It is important to keep the check by the g-pawn in reserve.

2. ... c3-c2

3. ♖e1-e7!

Now this Evreinovian thematic move is good.

3. ... h7-h6
4. ♖e7-e3



There are two main lines here:

A) 4...c4 Black sacrifices a pawn now in order to play for stalemate later on. 5. ♖xc4 c1♟! Here, too, the only way to prevent the mating combination. 6. ♖f1! b1♚ 7. g3+ ♜h5 8. ♖e5+ g5 9. ♖c4 ♚g6+ 10. ♜e7 ♞d3 Black is also going to sacrifice his knight.



11. ♖e3! The only square for the rook. On 11. ♖e2 ♞f4! saves Black. 11...d5 12. ♖xd5 ♞e5 13. ♖xe5 a3 14. h3! Evreinov's final move. White avoids stalemate and wins;

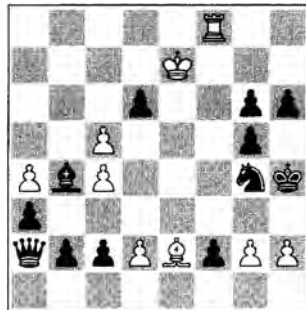
B) 4...c1♟ After this immediate knight promotion the play takes on a different character. 5. ♖f1! d6! Preventing the check on e5. Now White has to corner the black king

in another way. 6. ♜xg6! Here it becomes clear why White had to wait with the g-pawn check. 6...b1♚+ 7. ♜xh6 White has allowed the queen promotion with check. He now threatens mate in one. 7...g3 The only way to prevent it.



8. ♖d3!! A surprising bishop sacrifice. Again there is a threat of mate in one, so Black's reply is forced. 8...♚xd3 9. hxg3+ ♜xg3 11. a6 c4 12. a7 c3 13. a8♚ c2 14. ♚f3+ ♜h2 White would not be able to win. 9...♜g4 10. ♖xd3 ♞xd3 11. a6 and wins.

Variation B looked like an interesting starting-point for a new study.



Timman 2011
White to play and win

White is a large amount of material behind, but he can create a powerful mating threat.

1. ♖f8-f3

Mate on h3 can only be prevented with heavy material sacrifices.

1. ... ♔a2-b3!

This queen sacrifice draws the white rook beyond the critical e3-square.

2. ♖f3xb3 ♘g4-e3

Black sacrifices his knight in order to be able to push his foremost g-pawn.

3. ♖b3xe3 g5-g4

The first mate threats are warded off. But White has more trumps.

4. ♕e7-f6!

Depriving the black king of the g5-square. As in the previous studies, White is threatening 5. ♖h3+ gxh3 6. g3 mate. Again Black has to make huge sacrifices to avert the new mate threat.



4. ... ♖b4-c3+!

Only with this bishop sacrifice can Black stay afloat. After 4...f1 ♖+ 5. ♕xf1 c1 ♘ 6. ♕xg6 b1 ♖+ 7. d3! he would soon be mated. Here the intention of the black bishop sacri-

fice becomes clear: he wants to deflect the white d-pawn to c3.

5. d2xc3

Alternatives were no good:

A) 5. ♖xc3 f1 ♖+ 6. ♕xf1 c1 ♘ and White cannot win. His rook is less favourably placed, so he cannot work with the little d2-d3 move;

B) 5. ♕xg6 ♕e5! and Black is winning, as the mate threat is gone.

5. ... ♔f2-f1 ♖+

6. ♕e2xf1 c2-c1 ♘!

Here too, Evreinov's knight promotion is the only way to prevent immediate mate.

7. ♕f6xg6

Not 7. g3+ ♕h5 8. ♕g2 in view of 8...b1 ♖ 9. ♕e4 a2! and Black comes out on top.

7. ... b2-b1 ♖+

8. ♕g6xh6 g4-g3

9. ♕f1-d3!

All still as in the previous study. After 9... ♖xd3 10. hxg3+ ♕g4 11. ♖xd3 ♘xd3 12. c6 White promotes with check and then reaches a winning queen ending. However, Black has a more tenacious defence.

9. ... ♖b1-b7!



Black continues the struggle for the square e4. 10. ♖e4+ now runs into 10... ♗xe4 11. h×g3+ ♕xg3 12. ♙xe4 dxc5 13. ♙b1 ♖b3 and the draw is inevitable.

10. ♙d3-f5!!

White keeps playing for mate. With the text White deprives the black king of the g4-square.

10. ... ♖c1-e2!

Both promoted pieces rush to the aid of the black king. Now White cannot increase the pressure. However, he still has another trump.

11. c5xd6

This passed pawn is going to decide the issue.

11. ... a3-a2

12. d6-d7 ♗b7-b6+

13. ♖e3-e6 g3xh2



The situation remains tense.

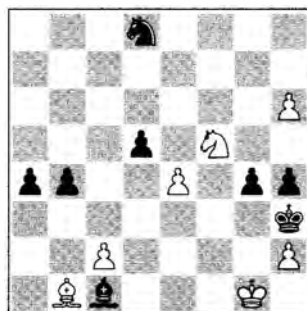
14. ♖e6xb6 h2-h1 ♗

15. d7-d8 ♗+ ♕h4-g3+

16. ♕h6-g7!

Not 16. ♙g6 in view of 16... ♖f4+ 17. ♕g7 ♗h5! and White cannot win. After the text move Black can promote a fifth pawn, but after 16...a1 ♗ 17. ♗d3+ ♕f2 18. ♗f3+ ♕e1 19. ♖b1+ White emerges with an easily winning endgame.

In the following study, White sacrifices a knight and three pawns in order to open the diagonal for his bishop.



Timman 2009

White to play and win

1. h6-h7 ♙c1-b2

On 1... ♖f7, 2.e5 is winning.

2. c2-c3! ♙b2xc3

3. e4-e5!

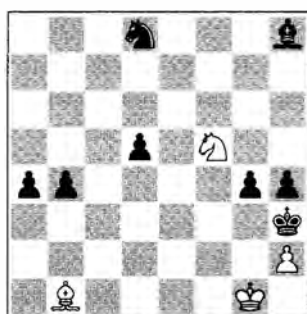
The second pawn is sacrificed.

3. ... ♙c3xe5

4. h7-h8 ♗!

And the third.

4. ... ♙e5xh8



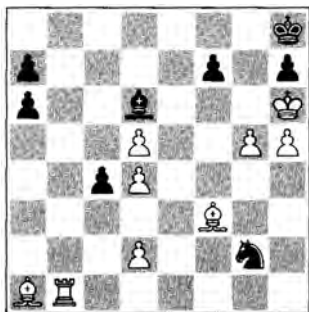
5. ♖f5-g7!

This was White's intention. The square f5 is vacated for the bishop. With the immediate 5. ♙d3 g3 White would achieve nothing.

5. ... ♖h8xg7
6. ♙b1-d3 ♙g7-d4+
7. ♔g1-h1 g4-g3
8. ♙d3-f5

Mate.

A nice piece of work, but it's annoying that the black knight does not move. The following study is more interesting.



Timman 2011
White to play and draw

Black is threatening mate, so White is forced to sacrifice his rook.

1. ♖b1-b8+! ♙d6xb8
2. d5-d6

The pawns are slowly set in motion, in order to open up the long diagonal for the queen's bishop.

2. ... ♙b8xd6

The starting position, only without the white rook and the pawn on d5, is on the board again. This is a separate theme: in the main variation of a study the same position appears on the board with the same player to move, but without a certain piece. I will return to this theme in Chapter 12.

3. d4-d5+ ♔h8-g8
4. ♙a1-g7

The first mating attack has been repelled, but the white king is still in an awkward predicament. The battle will now be between the white king's bishop and the knight.

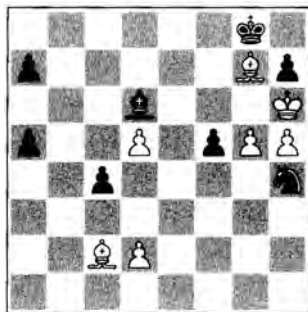
4. ... ♖g2-h4
5. ♙f3-e4

The black king too turns out to be unsafe. However, he has a nice finesse in reserve.

5. ... f7-f5!
6. ♙e4-b1!

Only move. Not until 11 moves(!) later will we see why the alternative 6. ♙c2 is not sufficient.

6. ... a6-a5
7. ♙b1-c2



A situation of mutual zugzwang has arisen. This will also be explained at the end of the study.

7. ... a7-a6

This is the little move that White wanted to provoke.

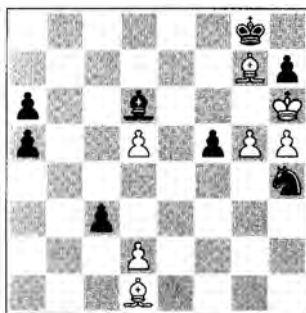
8. ♙c2-d1!

The obvious move was 8. ♙a4, in order to besiege the black king again via a detour. However, Black gets the upper hand after 8... ♖f3 9. ♙d7 ♖d4 10. ♙e8 f4 11. ♙f7+ ♔xf7 12. ♙xd4 (12. ♔xh7 is met by the winning 12... ♖f5)

12...♖g8 13.g6 ♔f8+. The black passed pawns decide. With the text move White takes the crucial f3-square from the black knight.

8. ... c4-c3!

A pawn sacrifice to make more squares available for the knight.



9. d2xc3

The only move. After 9.♔a4 ♕f3 10.♔d7, 10...♕e5 is winning. An illustrative variation: 11.♔e6+ ♕f7+ 12.♔xf7+ ♖xf7 13.g6+ hxg6 14.hxg6+ ♖g8 15.♔xc3 f4, and again the black passed pawns decide.

9. ... ♕h4-g2

10. c3-c4 ♕g2-e3

11. c4-c5!

The play is becoming very sharp. Black has to take the pawn.

11. ... ♔d6xc5

12. d5-d6!

The consequence of the previous move. White sacrifices a piece in order to eventually free his king.

12. ... ♕e3xd1

13. d6-d7 ♔c5-b6

14. ♔g7-d4

Finally the queen's bishop can move again.

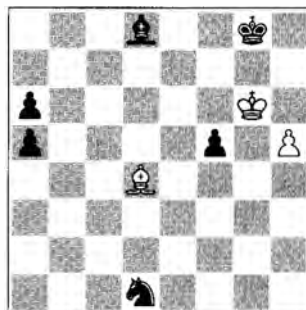
14. ... ♔b6-c7

But White still cannot play his g-pawn. He will also have to give his d-pawn in order to free his king.

15. d7-d8♖+ ♔c7xd8

16. g5-g6 h7xg6

17. ♖h6xg6



Now it becomes clear why White had to play 6.♔b1!. If the black pawn were on a7 here, Black could have played his bishop to b6, winning. Without this possibility, Black has only one method to maintain the balance, despite his great material surplus.

As for the alternative 17.♔c2: in study composers' circles such a move, which looks perfectly natural but is still insufficient on account of a later subtlety, is called a 'logical try'.

17. ... ♔d8-g5

Otherwise the white h-pawn cannot be stopped.

18. ♖g6xg5 ♖g8-h7

Draw.

I have made a version of this study, which features the Excelsior theme.



Timman 2011
White to play and draw

The white king again finds itself in a mating net. White will have to try to open the long diagonal for the queen's bishop.

1. c2-c3!

On its way to d8!

1. ... ♖g2-h4

The alternative 1...♗d6 eventually transposes.

2. ♗f3-e4 f7-f5

3. ♗e4-b1!!

In this position, this bishop move is even more mysterious. It takes no fewer than 15 moves before its intention will become apparent.

3. ... ♗c7-d6

4. b7-b8♖+ ♗d6xb8

5. c3xd4 c5-c4

Black must keep the long diagonal closed for a little longer. The rest of the main line is known.

6. d5-d6 ♗b8xd6

7. d4-d5+ ♖h8-g8

8. ♗a1-g7 a6-a5

9. ♗b1-c2 a7-a6

10. ♗c2-d1! c4-c3!

11. d2xc3 ♖h4-g2

12. c3-c4 ♖g2-e3

13. c4-c5! ♗d6xc5

14. d5-d6 ♖e3xd1

15. d6-d7 ♗c5-b6

16. ♗g7-d4 ♗b6-c7

17. d7-d8♖+

Excelsior!

17. ... ♗c7xd8

18. g5-g6 h7xg6

19. ♖h6xg6 ♗d8-g5

20. ♖g6xg5 ♖g8-h7

Draw.

In the tourney of *Het Tijdschrift van de KNSB* in 1948, the Dutch end-game study composer J.Fernhout received first prize for the following study.



Fernhout 1948
White to play and win

The intended solution was:

1. e6-e7 ♖d8xe7

2. ♖b3-a3 ♗b6-d8

3. ♗d4-c5 ♖e7-e5

4. ♗c5-b6 ♖e5-e7

5. ♗b6xd8 ♖e7-d6

6. ♗d8-e7 ♖d6-d8

7. ♗e7-f8

with mate.

Unfortunately this variation contains a number of duals, which is why that first prize was withdrawn later. On the first move 1.♖b4 is winning, on the 4th move the al-

ternative 4. ♖a4 is also sufficient. On move 6 there are all kinds of methods to force mate. On the last move, 7. ♖a8 forces mate in a more elegant way.

The Dutch endgame study composer Jan van Reek tried to repair the study, but his attempts weren't too successful. He put the white queen on d3, removing the first dual. Next, his main line continued with 3... ♖b6 (instead of 3... ♖e5), but here, too, the fun is over after 4. ♖a8+. On 4... ♖d8, 5. ♖d4 is a nice *coup de grâce*, but the prosaic exchange on d8, followed by manoeuvring the bishop to f8, is also quite sufficient.

I thought that not much had been left of the attractive motifs in the original study. After delving deeper into the matter I managed to construct a good version with the same motifs.



Timman 1990
White to play and win

The kings are condemned to each other's company in the same way as before. Anchored in the corner, they cannot move. No other substantial changes have been made to the position either. White is going

to try to give mate, but he must watch out for stalemate, and even his own king will face mate threats.

1. ♖a5-b4

The first queen sacrifice. After 1... ♖xa4 2. ♖f8 Black would be mated.

1. ... ♖a8-b8

Now 2. ♖f8 doesn't work on account of 2... ♖g3 and Black wins.

2. ♖a4-a8!

The second queen sacrifice.

2. ... ♖d5xe3

3. d2xe3 b7-b6

The first counter-sacrifice of a queen.

4. ♖b4-c5!

Only in this way can White force the win. Alternatives do not suffice, see:

A) 4. ♖f8? ♖g3 and Black wins;

B) 4. ♖e7 ♖d6! and the white bishop is caught in a bizarre way – stalemate is inevitable;

C) 4. ♖a3. This quiet little bishop move is hard to refute. Black saves himself in the following long variation: 4... ♖d6 5. ♖d5 ♖e7! 6. ♖xf7 ♖f8+ 7. ♖g6 ♖g3+ 8. ♖xf6 ♖e7+! (forcing the white king to go to a less favourable square) 9. ♖e6 (if White takes, Black will have a 'kamikaze queen') 9... ♖xa3 10. ♖e8+ ♖xh7 11. ♖g6+ ♖xg6 12. hxc6+ ♖g7 (here it becomes clear why Black's 8th move was useful: the square g7 has been vacated for the king) 13. ♖e5 ♖c5 14. ♖xe4 ♖f6 15. ♖d3 ♖f8! 16. e4 ♖e5 and Black can prevent the enemy king from penetrating.

4. ... ♖b8-d6!

The Art of the Endgame

The second counter-sacrifice. Now 5. ♖c6 or 5. ♖xe4 would not yield anything in view of 5... ♖e7, followed by 6... ♖f8+, and after the bishop and the queen have been captured, Black is stalemated.

5. ♖a8-d5!!



The third queen sacrifice, and at the same time the climax of the study. All pieces are hanging, but neither of the two sides shows any intention of capturing anything. 5... ♖xd5 would obviously be met by 6. ♖f8 and mate.

5. ... ♖d8-e7

The third counter-sacrifice. Black is still hoping for stalemate.

6. ♖d5xf7

Vacating the g6-square for the white king. The rest is rather prosaic.

6. ... ♖e7-f8+

7. ♖h6-g6 ♖d6-g3+

8. ♖g6xf6 ♖f8xc5

9. ♖f7-e8+

White is aiming for a queen exchange, otherwise he won't achieve anything.

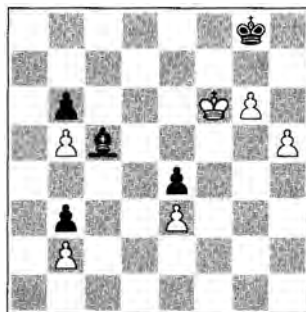
9. ... ♖h8xh7

10. ♖e8-g6+ ♖g3xg6

11. f5xg6+

Here we see the difference with variation C after White's 4th move. The long diagonal is inaccessible to the black bishop.

11. ... ♖h7-g8



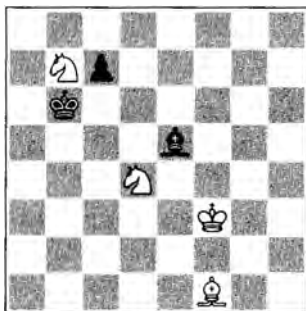
12. h5-h6 ♖c5xe3

13. h6-h7+ ♖g8-h8

14. g6-g7+ ♖h8xh7

15. ♖f6-f7 1-0

Mating patterns with the king in the corner are essentially the most natural. There is a well-known motif where bishop and knight keep the enemy king captive in the corner. The French endgame study composer E. Ratner was the first to work out this theme.



Ratner, 'La Stratégie' 1920
White to play and win

White must lose a knight. However, he manages to drive the black king into the corner.

1. ♖d4-b3! ♔b6xb7

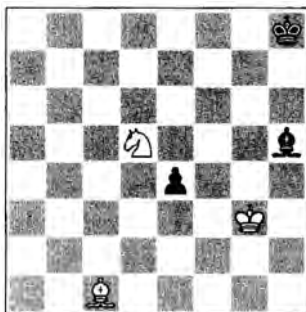
2. ♖b3-a5+ ♔b7-a8

There's nothing to be done about it. After any other king move, Black loses the bishop.

3. ♖a5-c6

Followed by 4. ♔a6, and the white king marches to c8 undisturbed, after which the bishop will give mate.

That was quite easy. The adaptation by the Dutch endgame study composer C.J.de Feijter has more content.



De Feijter 1932
White to play and win

White begins by walling in the enemy king.

1. ♖d5-f6 ♔h5-d1

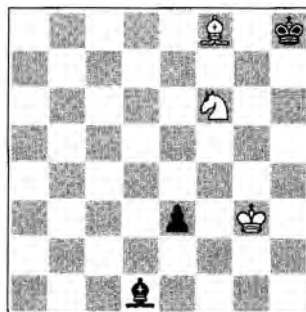
The best defence. Black wants to push his passed pawn as far as possible.

2. ♔c1-h6 e4-e3

Now White has to watch out. If he plays the careless 3. ♔g2, then 3... ♔e2! follows. Black transfers the bishop to the f1-a6 diagonal

and advances his pawn, and White has no way to make progress. Therefore he has to opt for another waiting move.

3. ♔h6-f8!



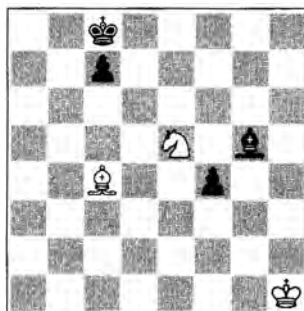
Black is in zugzwang.

3. ... e3-e2

4. ♔g3-f2

Winning the e-pawn. After that, the king will have free rein.

The Finnish endgame study composer Julius Gunst elaborated on this theme later on, with the following result.



Gunst, 'Tijdschrift van den KNSB' 1949
White to play and win

The starting position is clearly based on Ratner's study. Thanks to

The Art of the Endgame

the unfortunate pawn on c7 Black cannot prevent his king from being driven into the corner.

1. ♖c4-a6+ ♜c8-b8

Otherwise the bishop will be lost.

2. ♜e5-c6+ ♜b8-a8

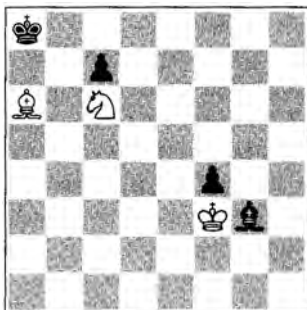
3. ♜h1-g2

White cannot allow the black pawn to reach the f2-square.

3. ... ♙g5-h4

If the black pawn had been on f5, the draw would have been inevitable. Black could have played his bishop to a square on the c1-h6 diagonal, after which he has enough tempo moves. With the pawn on f4, his movements are restricted.

4. ♜g2-f3 ♙h4-g3



Now White faces a problem. After 5. ♜g4 ♙h2 he cannot follow up with 6. ♜f5 because then Black holds the draw with 6...f3 7. ♜e6 f2 8. ♜d7 f1 ♖ 9. ♙xf1 ♜b7 and the black king escapes just in time.

5. ♙a6-c8!

The same tempo move as in De Feijter's study.

5. ... ♙g3-h2

6. ♜f3-f2

The start of a king triangulation.

6. ... ♙h2-g3+

7. ♜f2-e2!

Certainly not 7. ♜g2? in view of 7...♙e1!, followed by 8...♙d2, and the bishop makes it to the safe diagonal.

7. ... ♙g3-h2

8. ♜e2-f3 ♙h2-g3

9. ♜f3-g4

Good alternatives are 9. ♙a6 and 9. ♜e4.

9. ... ♙g3-h2

10. ♙c8-a6! ♙h2-g3

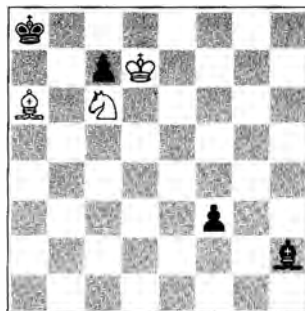
11. ♜g4-f5

Now it becomes clear what White has achieved with his king triangulation. As the black bishop is on g3, 11...f3 fails to 12. ♜g4 and the f-pawn is lost.

11. ... ♙g3-h2

12. ♜f5-e6 ♙f4-f3

13. ♜e6-d7



Just in time.

13. ... ♙f3-f2

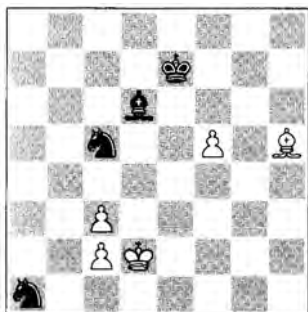
14. ♜d7-c8 ♙f2-f1 ♖

15. ♙a6-b7

Mate.

This mating net with ♙+♜ is especially effective, since the attack-

ing side always has a tempo move with the bishop. There are situations where the defending side can save himself by avoiding the mating net with all his might.



Timman 2009
White to play and draw

If Black succeeds in liberating the knight on a1, he will win easily. Therefore the first move is obvious.

1. ♖d2-c1

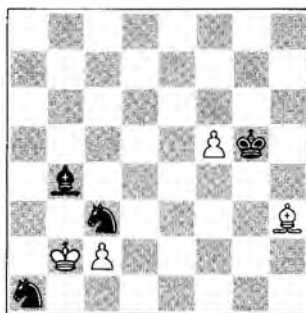
On its way towards collecting the knight.

1. ... ♜c5-a4

2. ♖c1-b1

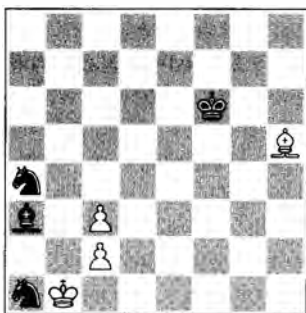
Now there are two main lines:

A) 2... ♜xc3+ If White now took the knight, the play would transpose to Gunst's study with reversed colours. However, White has something better. 3. ♜b2!! White leaves the knight in peace. The reason is that now Black cannot gain a tempo with his bishop, whereas the knight can always be captured at a later stage. 3... ♜b4 4. ♜f3! Again, the only move. After 4. ♜g4 ♜f6 5. ♜h3 ♜g5 White would end up in zugzwang. 4... ♜f6 5. ♜g4 ♜g5 6. ♜h3



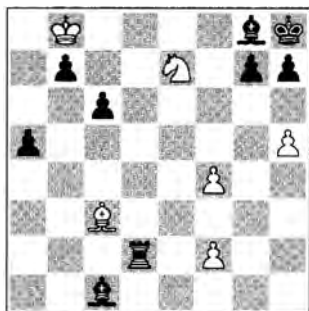
A mutual zugzwang situation. Black cannot make any progress;

B) 2... ♜a3 Another try to tempt White into capturing on a1. White doesn't fall for it. 3. ♜f6+! Not 3. ♜a2? on account of 3... ♜b2! 4. ♜f6+ ♜f8. Black maintains his knight on a1 and will eventually liberate it. 3... ♜xf6 Otherwise, with his pawn on f6 White would capture on a1 after all.



4. ♜a2! ♜c1 5. ♜b1! The white king keeps oscillating around the knight. 5... ♜b2 Otherwise he will not make progress. Now, however, a piece is lost. 6. ♜e8 The point of the check on the third move: draw.

Bishop and knight can also force the enemy king into a mating net, if the defending side has pieces and pawns around his king.



Timman 2011
White to play and win

White's task is clear.

1. h5-h6

Threatening mate in one. There is only one defence.

1. ... ♖d2-d4!

Interrupting the long diagonal of the white bishop and opening the c1-h6 diagonal for his own king's bishop. 1...♖d8+ fails to 2.♔a7, when Black will be irrevocably mated.

2. ♙c3xd4 ♙c1xf4+

Now where should the white king go?

3. ♔b8-a8!!

Unbelievable, but true. In the near future the white king has to avoid all contact with the black bishops. The reason will soon become clear.

3. ... ♙f4xh6

4. ♙e7-f5



Now Black has the clumsiest bishop pair imaginable. It is important that the white king is on the corner square. Had he played 3.♔a7, then Black would now have had the pinning move 4...♙e3!.

4. ... c6-c5

5. ♙d4-e5!

The only good square for the bishop. Now it becomes clear why White couldn't take on b7 on move 3: Black would have a check on d5 in that case.

5. ... b7-b5

The king's bishop cannot be saved. Therefore Black sets his queenside pawn majority in motion.

6. ♙f5xh6 b5-b4



Now White has two plans that both look promising: he can either bring his king to f8 or advance his f-pawn. If he chooses the first plan, things can continue as follows: 7.♔b7 c4 8.♔c6 and now the lines fork:

A) 8...c3 9.♔d6 c2 10.♙f4! (not 10.♙b2? in view of 10...a4 11.♔e7 a3 and Black wins) 10...b3 11.♙c1 ♙d5 12.♔e7! gxh6 13.♔f8 and mate follows. It's nice

to see how the white bishop temporarily leaves the long diagonal in order to slow down the advance of the black pawns;

B) 8...a4! 9.♖d6 a3 10.♖e7 a2 11.♖f8 a1 ♔ 12.♙xa1 c3 and the white bishop is cut off from play. After 13.♘xg8 h5! 14.♘e7 ♕h7 White cannot win.

7. f2-f4!

The second plan is the correct one.

7. ... c5-c4

Black can also try 7...♙e6, in order to immediately sacrifice the bishop. After 8.f5 ♙xf5 9.♘xf5 c4 10.♖b7 a4 11.♖c6 c3 12.♘e3 a3 13.♘c2 a2 14.♙a1! White wins in the nick of time.

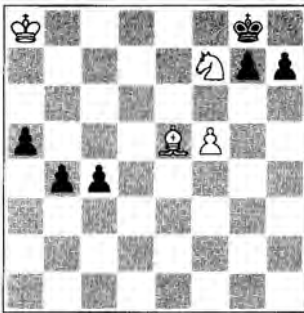
8. f4-f5

With the devastating threat of 9.f6.

8. ... ♙g8-f7!

Only by sacrificing his bishop can Black prevent mate.

9. ♘h6xf7+ ♕g8



10. ♘f7-d8!!

The knight also has to go to the rim. After other knight moves, Black could achieve a draw.

10. ... c4-c3

11. ♘d8-c6

This is the square White had to go to.

11. ... c3-c2

12. ♙e5-b2 h7-h5

13. ♘c6xa5 h5-h4

14. ♘a5-b3

Just in time. The knight stops the c-pawn, enabling White to use his bishop to stop the h-pawn.

14. ... ♕g8-h7

15. ♙b2-c1!

Holding off the king.

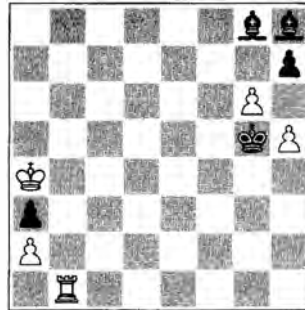
15. ... g7-g6

16. f5-f6! h4-h3

17. ♙c1-f4

And wins. The white king, which has been standing on the corner square for 14 moves, will arrive back in time to keep its colleague at bay.

It's a pretty sight if the enemy king is drawn to the corner to be mated.



Kuznetsov/Sakharov 1954

White to play and win

It is clear that White will have to try and win one of the black bishops. However, 1.♙b8 is insufficient in view of 1...♙xa2 2.♙xh8 hxg6, and Black saves himself. Therefore White must first give a check, in

The Art of the Endgame

order to drive the enemy king to a less favourable square.

1. ♖b1-b5+! ♔g5-h6

2. ♖b5-b8 ♙g8xa2

An important alternative was 2...♔g7. In that case White continues 3.h6+ ♔xh6 4.♖xg8 and now:

A) 4...♙b2 5.gxh7 ♔xh7 6.♖g3, followed by 7.♖a3 and wins;

B) 4...♙g7. Now White has to be careful, as 5.gxh7 ♔xh7 6.♖e8 ♙b2 leads to a theoretical draw. However White wins after 5.♖xg7! ♔xg7 6.gxh7 ♔xh7 7.♔xa3 and the black king will be held off by its white counterpart.

3. ♖b8xh8 ♙a2-g8!

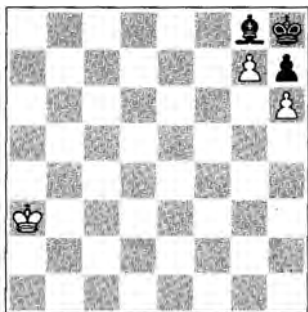
A surprise. The black bishop returns in order to lock in the rook.

4. ♔a4xa3 ♔h6-g7

It may seem as if White has not achieved anything, but...

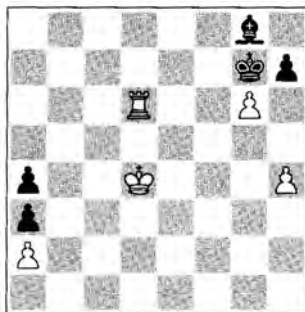
5. h5-h6+! ♔g7xh8

6. g6-g7



Mate.

I thought that a better study could be built around this mating position.



Timman 2010

White to play and win

The problem for White is that his a-pawn is hanging. For example, 1.gxh7 would not suffice for the win on account of 1...♙xa2.

1. h4-h5

Preventing the capture on a2.

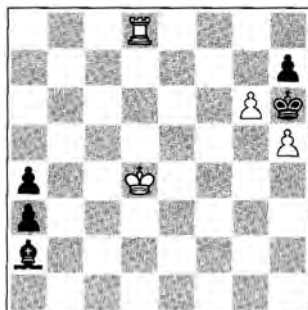
1. ... ♔g7-h6

The best defence. Black renews the threat of taking on a2. Bad was 1...hxg6 in view of 2.♖xg6+ ♔h7 3.♖g2 and the white a-pawn is protected, after which he wins easily.

2. ♖d6-d8!

Only so. After the tempting 2.g7+ ♔xg7 3.h6+ Black would deliberately allow White to lock him up after 3...♔h8. The stalemate motifs would then render the win impossible.

2. ... ♙g8xa2



3. ♖d8-h8!

The only way to worry Black. On 3...♗xh5, 4.g7 wins. Black has to give his bishop for the g-pawn, and then the white rook and king will prevail over the enemy pawns. However, Black again has the self-incarceration trick.

3. ... ♖a2-g8!

4. ♔d4-c3

The king has to rush to the queenside in order to stop the foremost a-pawn.

4. ... ♗a3-a2

5. ♔c3-b2 ♗a4-a3+

6. ♔b2-a1

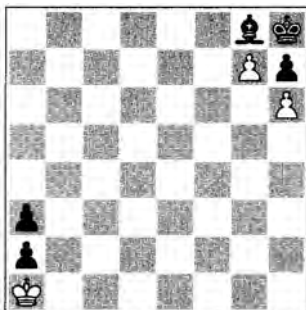
The white king is bricked in. Now the same will happen to its colleague, with the difference that the latter will not be stalemated, but mated.

6. ... ♔h6-g7

7. h5-h6+! ♔g7xh8

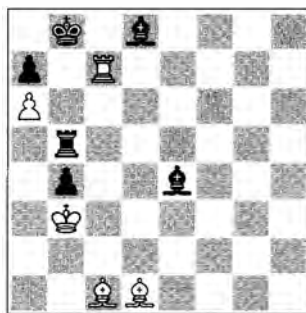
8. g6-g7

Mate.



A magnificent spectacle. As if by a magnet, both kings have been drawn to the corner squares.

The mating position in the corner can also be completely different.



Timman 1983/2011

White to play and win

White is a pawn down, but in spite of the reduced material he has dangerous attacking chances.

1. ♖c7-c4

With this attack on the bishop White wins an important tempo; he will manage to give a bishop check on f4. His rook will land in a pin, but that is less important.

1. ... ♖e4-d5

2. ♖c1-f4+ ♖d8-c7!

Black sacrifices his bishop, with the sole purpose of blocking the c-file. After 2...♗a8 3.♖f3 he would be quickly mated.

3. ♖f4xc7+ ♗b8-a8

Not 3...♗c8 in view of 4.♖g4+ and mate.

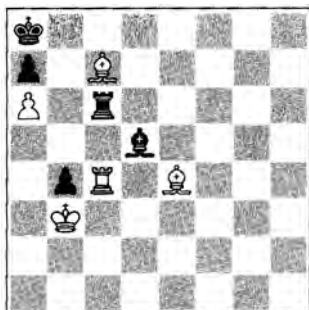
4. ♖d1-c2!

A quiet move. White is going to bring his bishop to e4. The move 4.♖f3 was insufficient for the win. After 4...♖xf3 5.♖f4 ♖d5+, followed by 6...♖b8, Black achieves an endgame that is just tenable.

4. ... ♖b5-c5

The best defence. Black is playing for stalemate.

5. ♖c2-e4 ♖c5-c6!



A curious situation. The rook interrupts the pin by the bishop which, in turn, keeps the white rook pinned. White cannot take the

bishop because of stalemate. Now the study reaches its climax.

6. ♖b3-b2!

A quiet unpinning move. Black is forced to exchange on e4.

6. ... ♗d5xe4

7. ♜c4xe4 ♜c6xa6

Otherwise a back-rank mate follows. But now mate comes from the other side.

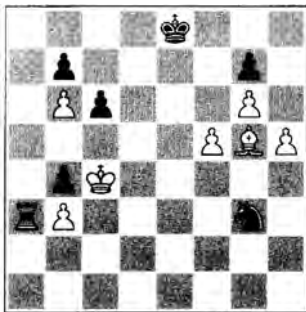
8. ♜e4xb4

And mate on b8 cannot be prevented. The black rook is on the most unfavourable square imaginable.

Chapter 8

Stalemate Patterns

Stalemate patterns have in common with mating patterns that they are very attractive when they occur with the king in the middle of the board. The great Russian endgame study composer Leonid Kubbel wove many stalemate motifs into his studies.



Kubbel, 'Shakhmatny Vestnik' 1914
White to play and draw

White is a rook behind, but he can create threats on the kingside.

1. f5-f6 ♖g3xh5

Not 1...♔f8 on account of 2.h6!.

2. f6-f7+ ♔e8-f8

The black king is now bricked in and, consequently, vulnerable. White is going to exploit this in a curious way.

3. ♔g5-d2! c6-c5

Please take note: White still has four squares for his king here.

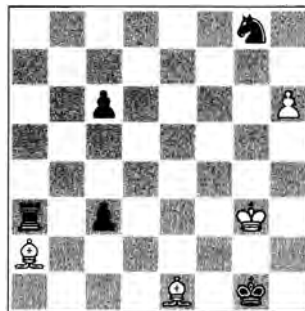
4. ♔d2-e3 ♜a3-a5

5. ♔e3-f4! ♜h5xf4

Stalemate.

This is hardly one of Kubbel's best studies, but it is nice to see how Black, due to the mate threats against his own king, is forced to deprive the white king of its last squares.

In Kubbel's study, White's king did not move. It is more attractive if it moves to the middle of the board in order to be stalemated. Kubbel also composed studies with this motif.



Kubbel, 'Shakhmaty' 1925
White to play and draw

Both sides have a dangerous passed pawn. Due to certain circumstances, the black king turns out to be the safer of the two.

1. ♔e1-f2+

Driving the king into the corner.

1. ... ♔g1-h1

2. h6-h7 c3-c2+

Now the white king cannot move upwards: 3.♔g4 fails to

The Art of the Endgame

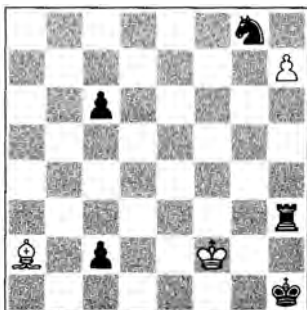
3...♖f6+, while 3.♔h4 does not work in view of 3...♗e7, when there is a family check in the position.

3. ♖f2-e3!

White sacrifices his bishop in order to obtain the f2-square for his king.

3. ... ♜a3xe3+

4. ♔g3-f2 ♜e3-h3



Things look gloomy for White. After 5.hxg8♖ ♜h2+ 6.♔f3 c1♖ he has nothing to hope for.

5. ♖a2-d5+!!

But with this bishop sacrifice White introduces a surprising stalemate.

5. ... c6xd5

6. h7xg8♖ ♜h3-h2+

7. ♔f2-f3 c2-c1♖

8. ♖g8-g2+!!

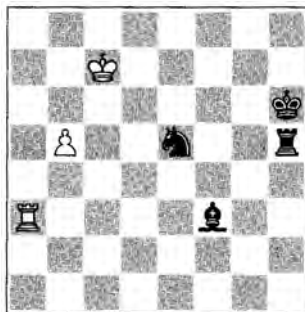
The beautiful point of the bishop sacrifice.

8. ... ♜h2xg2

Stalemate.

For this study, Kubbel received first prize in the *Shakhmaty* tourney.

Rusinek is a past master in this genre.



Rusinek, 'Problem' 1973

White to play and draw

White is two pieces behind, but his passed pawn is not easy to stop.

1. b5-b6 ♜h5-f5

2. b6-b7!

White sacrifices the pawn in order to disturb the coordination in the enemy camp.

2. ... ♜f5-f7+

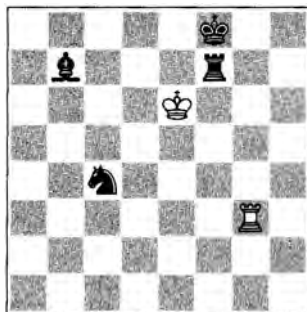
3. ♔c7-d6 ♗e5-c4+

It looks as if White is heading for disaster. However, there is a hidden rescue.

4. ♔d6-e6 ♖f3xb7

5. ♜a3-h3+ ♔h6-g7

6. ♜h3-g3+ ♔g7-f8



7. ♜g3-g8+! ♔f8xg8

Stalemate.

For this study, Rusinek received first prize in the *Problem* tourney.

Five years later he made a new variation on this theme, which again was awarded first prize!



Rusinek, 'Szachy' 1978
White to play and draw

Again White is two pieces behind, and again he has a dangerous passed pawn.

1. a6-a7 ♖b5-a5
2. e5-e6!

With this pawn sacrifice White tries to disturb the coordination in the enemy camp. Black has to take the pawn.

2. ... ♙d7xe6
3. ♖c4-e4

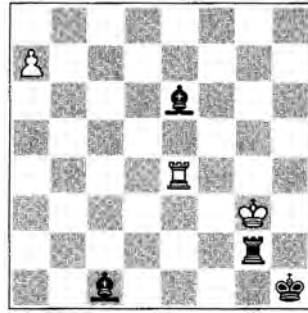
The point of the previous move. White attacks the queen's bishop and at the same time threatens to give check on e1.

3. ... ♙b2-c1+
4. ♔f4-g3 ♖a5-a3+
5. ♔g3-f2!

White must choose the squares for his king with care.

5. ... ♖a3-a2+
6. ♔f2-g3 ♖a2-g2+

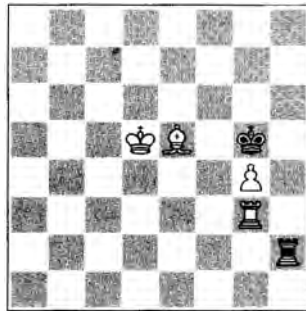
Again it looks as if White is hopelessly lost. And again, salvation is close at hand.



7. ♔g3-f3! ♙e6-d5
8. a7-a8 ♙ ♙d5xa8

Stalemate.

Nice stalemate motifs can also occur in practical play.



Vedder-Gagunashvili
Vlissingen 2004

Black threatens 72...♖h4. White has several ways to prevent this.

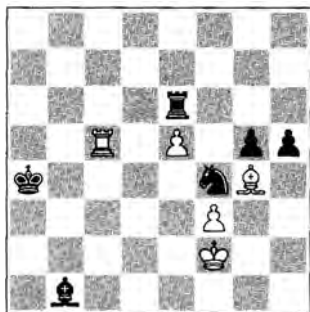
73. ♙e5-d6?

But this is not one of them.

73. ... ♖h2-h4!
74. ♙d6-e7+ ♔g5-f4
75. ♙e7xh4

Stalemate.

A bitter disappointment for Vedder, but it inspired me to make a nice study.



Timman 2011
White to play and draw

White cannot capture the rook, since after 1. ♖xe6 ♜d3+ 2. ♔e3 ♜xc5 3. ♖f7 ♖f5! Black obtains a technically winning position.

1. ♖c5-c4+ ♔a4-b3
2. ♖c4xf4

Here also, 2. ♖xe6 was insufficient in view of 2... ♜xe6 3. ♖c6 ♖f5 and now White cannot prevent Black bringing his king closer.

2. ... ♖e6xe5
3. ♖f4-d4

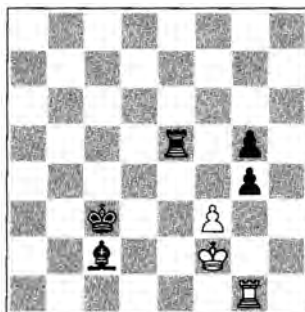


White doesn't have to fear the capture on g4 yet. After 3... ♖hxg4 4. ♖xg4 White would be able to trade off the last black pawn.

3. ... ♔b3-c3

Forcing the rook to leave the 4th rank, since 4. ♖a4 is met by 4... ♖c2.

4. ♖d4-d1 ♖b1-c2
5. ♖d1-g1 h5xg4



Now 5. ♖xg4 is insufficient in view of 5... ♖d1!, and the f-pawn cannot advance.

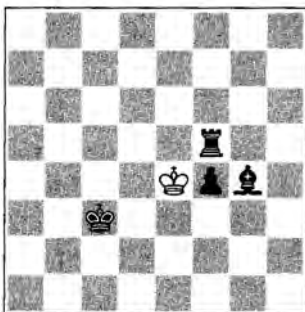
6. f3-f4!!

Highly surprising. White sacrifices a pawn instead of capturing one.

6. ... g5xf4
7. ♖g1xg4 ♖e5-f5
8. ♔f2-f3!

Steering towards Gagnashvili's stalemate with reversed colours.

8. ... ♖c2-d1+
9. ♔f3-e4 ♖d1xg4



Stalemate.

In January 1984, I made the following study on a flight from Belgrade to Amsterdam.



Timman 1984
White to play and draw

White is a piece down, but it looks as if he will have no trouble winning it back.

1. ♖d8-d7 ♜b7-c8

On closer inspection, this turns out to be not so easy. On 2. ♖xg7 Black replies 2... ♜f6! and after 3. ♜g5 c4, followed by a general exchange on f5, he wins the pawn ending. Not, however, 2... ♜xf5 in view of 3. ♜c7! with a draw.

2 ♜d7-c7 ♜c8xf5

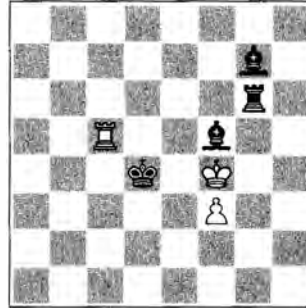
Now White has two possibilities. The first is:

3. ♜xf5 ♜f6+ 4. ♜g5 Black now has to abandon either the bishop or the pawn. Of course, he opts for the first. **4... ♜d4** Why not 4... c4 ? That will soon become clear. **5. f4** Before capturing the bishop, White first saves his f-pawn. After **5... ♜h8** **6. ♜c8** Black can no longer save his bishop. **5... ♜xf4!** Now the purpose of Black's 4th move becomes clear. If White captures the rook, there follows **6... ♜e5**; if he takes the bishop he will end up in a lost rook ending, and his situation is not improved by **6. ♜d7+ ♜e3**. The last possibility is **6. ♜xc5**

whereupon Black deals the final blow: **6... ♜h6+!**

Despite pointed play, White cannot save himself in this way. So, this variation is the temptation.

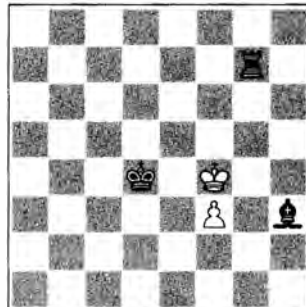
3. ♜c7xc5+! ♜c3-d4



This position drove many strong players, to whom I showed the study, to despair. It is clear that White cannot capture the queen's bishop in any way, since after both **4. ♜xf5 ♜h6+** and **4. ♜xf5 ♜f6+** he loses his rook. So he will end up two bishops down, and then what does he have in this position?

4. ♜c5-c7!

This is the answer. The rook returns to capture the black king's bishop, if the queen's bishop is removed from f5. After, for instance, **4... ♜h3** **5. ♜xg7 ♜xg7...**



The Art of the Endgame

White is stalemated.

4. ... ♖f5-e4
5. f3xe4 ♖g7-e5+
6. ♔f4-f5 ♜g6-f6+
7. ♔f5-g5 ½-½

The stalemate in the diagram position was my starting point for this study. In fact, it is not more special than a stalemate on the edge of the board, as the black king plays the part of 'the edge' here. It deprives the white king of all squares on the e-file.

Chapter 3 centred on the famous combination from the game Ortueta-Sanz. This fragment did not contain a stalemate combination. Nevertheless, it is possible to conceive of a stalemate combination against this background.



The black e-pawn has to be stopped.

1. ♜g2-g1 ♖g6-f7+
2. ♔a2-a3!

The only square for the king. After six moves, the reason will become clear.

2. ... ♖g3-f1

Black starts the combination.

3. ♜g1xf1 e4-e3
4. ♖b7-a6!



This seems like the final straw, but the position contains a hidden resource.

4. ... b6-b5

Closing off the diagonal for the bishop. However, White is not discouraged.

5. ♖a6xb5! c6xb5
6. ♜f1-e1!

Preparing the stalemate.

6. ... e3xd2
7. ♜e1xe2 d2-d1♚

Promotion to queen amounts to the same.

8. ♜e2-d2+! ♜d1xd2

Stalemate.

In the following study, the king saves itself on the corresponding square on the kingside.



Timman 2009

White to play and draw

The white pieces are hanging. He will have to wriggle and squirm to avoid decisive material loss.

1. ♖d6-e4 ♙a2-d5

2. ♙f1-g2

Only move. On 2...♙d3, 2...♖e6 would have decided immediately.

2. ... ♙d5xe4

3. ♙g2xe4 ♖g6-e6

Again White has to think of something to avoid the loss of a piece. He cannot capture on c5, as then an endgame arises which is a theoretical win for Black.

4. ♖c3-b3+!

Forcing the king to step aside.

4. ... ♙b4-c4

5. ♙e4-c2!!



Introducing a stalemate combination.

5. ... ♖e6-e1+

6. ♙h1-g2 ♖e1-e2+

7. ♙g2-h3

Only on this square will the king turn out to be safe.

7. ... ♖e2xc2

8. ♖b3-g3 ♙c5-e7

The only way to protect the g-pawn. However, now the black king and rook turn out to be unfortunately placed.

9. ♖g3-g2 ♖c2-c1

10. ♖g2-g1!



This stalemate trick saves White.

10. ... ♖c1-c3+

11. ♖g1-g3 ♙e7-b4

A final attempt. 11... ♖xg3+ is met by 12. ♙xg3, followed by 13.h4, when Black is left with the bishop of the wrong colour.

12. ♖g3xc3+ ♙b4xc3

Threatening 13... ♙e1, after which the bishop could nestle on h4. But White pips him at the post.

13. ♙h3-g4 ½-½

The following study is much more complicated. In the various stages, the variations are so complicated that this version is devalued by duals.



Timman 1987
White to play and win

The Art of the Endgame

Here the black king has barricaded itself on the same square as the white king had in the previous study. White has a clear material plus and also a far-advanced passed pawn. However, the position contains all kinds of stalemate motifs, and moreover, the white king is not entirely safe.

1. ♖d2-d3!

A quiet move with a positional justification. White's plan is simple: he wants to play 2.c3 and then promote his h-pawn.

1. ... ♜c7-b5!

The first knight sacrifice, which White has to accept.

2. a4xb5 ♜a5-b3!

The point of the previous move. White cannot accept the second knight sacrifice, since after 3.cxb3 ♜d4+! 4.♖xd4 Black is stalemated.

3. c2-c3!

White continues the struggle for the d4-square. However, also sufficient for the win was 3.h8♔, in order to drive the bishop to the other end of the diagonal. The main line runs as follows: 3...♜xh8 4.c3 ♜c5 5.♔e3 ♜e4 6.♜b4! ♜e5 7.h5 ♜g5 8.h6 ♜f4 9.♖d3 ♜e5. This is as far as Mark Dvoretzky's variation goes in his book *Studies for Practical Players*, followed by the conclusion that Black can hold. However, with careful manoeuvres White can still make progress: 10.♜a3 ♜f4 11.♜b2! ♜h7 12.c4 ♜xh6 13.♜d4 and White will collect the b-pawn. Here too, he has to keep playing accurately. An important line is 13...♜g5 14.♜xb6 ♜g7

15.♜f2! ♜e5 16.c5! ♜e4 17.♜d4! ♜xd4+ 18.♖xd4 ♜xc5 19.♖f4 and Black is powerless against the penetration of the white rook.

3. ... ♜b3-d4!

Only by sacrificing the knight again can Black continue the battle. After 3...♜xc3 4.♖xc3 ♜d4 5.♔e3, he would run out of possibilities.

4. ♖d3xd4 ♜a1xc3



Black's defence is based on the fact that White cannot get a queen. Now comes the climax of the study.

5. ♜a3-b2!!

As preparation for a bishop promotion White first sacrifices his queen's bishop. The purpose of this is to force the black bishop to move to a less favourable square on the long diagonal. After immediately 5.h8♜? ♜e1 he would even lose.

5. ... ♜c3xb2

6. h7-h8♜!

Here we have the Phoenix Principle, which I discussed in Chapter 5. Now it looks as if White wins easily, but Black can continue the struggle since the white king is still unsafe.

6. ... ♖b2-c3

Again threatening 7...♗e1.

7. ♗h8-e5!

With the idea of capturing on g3.

7. ... d6xe5

8. ♜d4-e4

In this phase of the study, White must keep restraining the black king's bishop with his rook. With the text move he takes control of the square e1.

8. ... ♗c3-b2

The bishop is looking for new squares.

9. h4-h5

Certainly not 9.d6 in view of 9...♗a3 with the double threat of 10...♗c5+ and 10...♗d6. With the text move White creates a new strong passed h-pawn.

9. ... ♗b2-a3

10. ♜e4-c4



Preventing the deadly check on c5. From here on, the study contains a few more duals. 11.♞c2 is forced only after 10...♗f8, and then it is indeed a clear win. The real main variation continues as follows:

10. ... ♗a3-b2

11. h5-h6

11.d6 also wins.

11. ... e5-e4

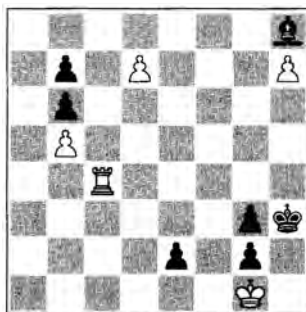
12. h6-h7

Also here, 12.d6 is a dual solution.

12. ... ♗b2-h8

13. d5-d6 e4-e3

14. d6-d7 e3-e2



15. ♜c4-h4+! ♗h3xh4

16. d7-d8♞+

And wins.

For this study I received second prize in the Kaminer Memorial. That was nice, of course, but the duals in the final play continued to nag at me, even though the first dual, on move 3, had gone unnoticed by the jury. I decided to make a new version, with a correct finale.



Timman 1987/2011
White to play and win

The Art of the Endgame

Instead of a passed pawn on h4, White has one on f5. This makes no difference for the opening phase of the study, apart from the joyful fact that the dual has been eliminated.

1. ♖d2-d3 ♜c7-b5
2. a4xb5 ♜a5-b3
3. c2-c3 ♜b3-d4
4. ♖d3xd4 ♙a1xc3
5. ♙a3-b2 ♙c3xb2
6. h7-h8♙ ♙b2-c3
7. ♙h8-e5 d6xe5
8. ♖d4-e4 ♙c3-b2
9. f5-f6

From here on, things will be different. The white f-pawn is less dangerous for Black than the h-pawn, since both White's passed pawns can be stopped by the bishop on the a3-f8 diagonal. This means that White will have to play very accurately in order to convert his advantage to a win.

9. ... ♙b2-a3
10. ♖e4-c4 e5-e4
11. ♖c4-c2!

The only way to win. The foremost black g-pawn has to be eliminated.

11. ... e4-e3
12. ♖c2xg2 ♙h3-g4



Black threatens to bring his king to f3, after which White would not be able to win. Black would just keep playing waiting moves with his bishop on the a3-f8 diagonal.

13. ♖g2-a2!

With this attack on the bishop White vacates the g2-square for his king with gain of tempo.

13. ... ♙a3-c5

14. ♙g1-g2

And wins.

A satisfactory version of the study. All the pieces take part.

In the following study, the stalemate is hidden.



Timman 2008
White to play and win

The white rook is under attack, and so is the f-pawn. White makes a virtue out of necessity by sacrificing the rook.

1. ♖h4-h1! ♖f1xh1
2. ♙b3-d5 ♖h1-f1
3. ♙d5-f3

The point of the rook sacrifice. The black rook is held off and it looks as if White will win without trouble. However, there is a stalemate combination for Black.

3. ... ♖c8-d6!
 4. c5xd6 ♜f1-f2!
 5. f6-f7 ♕e1-f1



Black's plan becomes clear. If White queens, he plays his king to g1, after which White cannot evade the rook checks on g2 and h2.

6. f7-f8♖!

Shadows of Chapter 5. Only by this knight promotion can White avoid the stalemate. But the stalemate threat continues to loom in the background.

6. ... ♕f1-g1
 7. ♖f8-e6 ♜f2-b2!

The best defence, as we will see. If White now plays his knight, Black again has the check on g2.

8. ♘f3-c6!!



A curious position. White deliberately puts both his minor pieces *en prise*, thus eliminating the stalemate threat. Now the study enters a new phase.

8. ... d7xe6
 9. d6-d7

Here there is a dual. The alternative 9. ♕f3 would lead to the same result.

9. ... ♜b2-b8

This is why Black's 7th move was best. The rook can go back and defend.

10. ♕g3-f3 ♕g1-h2
 11. ♕f3-e4 ♕h2-g3

Now the kings dominate the battlefield.

12. ♕e4-e5 ♕g3xg4



13. ♕e5-d6!

There's no time to take the e-pawn.

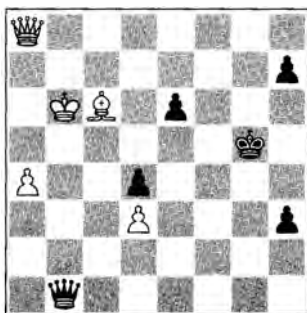
13. ... ♕g4xh5
 14. ♕d6-c7 ♜b8-f8
 15. d7-d8♙ ♜f8xd8
 16. ♕c7xd8

From this point on, there are duals in the main line. White is going to collect the a-pawns, which can be done in two different ways. Despite this, the struggle remains sharp, since it will be decided by a race.

16. ... g5-g4
 17. ♔d8-c7 ♕h5-g5
 18. ♕c7-b7 h6-h5
 19. ♕b7xa7 h5-h4
 20. ♕a7xa6 h4-h3
 21. ♕a6-b6!

The best king move.

21. ... g4-g3
 22. a5-a6 g3-g2
 23. a6-a7 g2-g1 ♖
 24. a7-a8 ♖ ♗g1-b1+



Another important moment.

25. ♕c6-b5

Protecting the d-pawn, after which White wins easily.

In Chapter 6, I introduced the Excelsior theme. It also features in the following study.



Timman, 'The Problemist' 2009
 Draw (dedicated to Geertje)

The black rook and bishop are boxed in on the queenside. The bishop cannot very well move, as then the a-pawn falls. However, the black knight threatens to liberate its colleagues in a few moves. Therefore White must act very energetically.

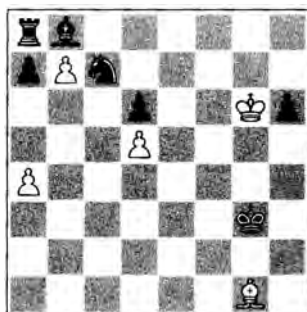
1. b2-b4! ♖e1-d3
 2. b4-b5 ♖d3-b4

Now the situation looks critical for White.

3. b5-b6!

Not 3. ♖a5 in view of 3... ♕c7 4. b6 ♖g8+, followed by 5...axb6, and Black wins.

3. ... ♖b4xa6
 4. b6-b7 ♖a6-c7



Now all Black's pieces are boxed in, but he threatens to free himself with 5...a5 or 5...a6.

5. ♕g1-c5!!

A spectacular move that poses Black a difficult question.

5. ... d6xc5
 6. d5-d6 a7-a5!

The only move that doesn't lose.

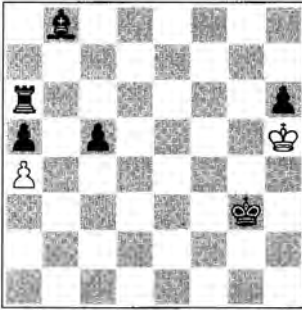
7. d6xc7 ♖a8-a6+
 8. ♕g6-h5!

Preparing the stalemate.

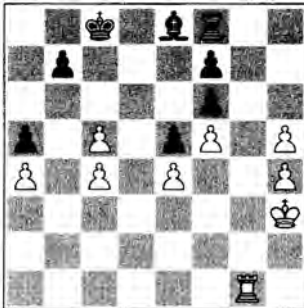
8. ... ♕b8xc7
 9. b7-b8 ♖

Excelsior!

9. ... ♖c7xb8
Stalemate.



In the following study, White spends a number of moves on the creation of a self-stalemate. Black manages to dismantle this threat, but then the white king finds a new square on which to get stalemated.



Timman 1986
White to play and draw

White is a piece behind and has to act courageously in order to prevent Black consolidating his position.

1. h5-h6 ♜f8-h8
2. h6-h7

White must sacrifice this pawn as quickly as possible. Other moves will not do, for example: 2. ♖g7

♜d8 3.h7 ♜e7, followed by a decisive intervention by the bishop.

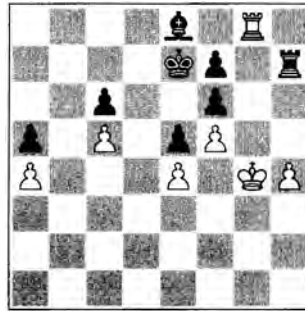
2. ... ♜h8xh7
3. ♜g1-g8

Shutting the black rook off from play.

3. ... ♜c8-d8
4. c5-c6!

Limiting the black bishop's freedom of movement.

4. ... b7xc6
5. c4-c5 ♜d8-e7
6. ♜h3-g4



Black is a full bishop to the good, but he cannot free his pieces. The white rook keeps both Black's rook and his bishop under control at the same time. Still, White has to keep playing purposefully, because if he keeps alternating between g3 and h3 with his king, he will lose. See: 6. ♜g3 ♜d7 7. ♜h3 ♜h6 8. ♜g3 ♜e6! and Black frees his bishop, since in the pawn ending after 9.fxe6 ♜g6+ White doesn't stand a chance.

6. ... ♜h7-g7+!

This rook sacrifice is Black's best chance. He has to make it right away, as after 6...♜d7 7.h5 it would

be too late. In that case White could never be brought into zugzwang, as he would always have the squares g4 and h4 for his king.

7. ♖g8xg7 ♔e7-f8

By sacrificing his passive rook, Black has now managed to put the white rook out of play.

8. ♜g7-h7

Tempting is 8. ♜g5. Black then wins in the nick of time: 8...fxg5 (not 8...♙d7 9.h5!) 9. ♖xg5 ♖g7 10.f6+ ♖h7 11. ♖f5 ♙d7+ 12. ♖xe5 ♙e6 13. ♖d6 ♙b3 14. ♖xc6 ♙xa4+ 15. ♖b6 ♙c2!. Or 14.e5 ♖g6 15. ♖xc6 ♙xa4+ 16. ♖b6 ♙c2 17. ♖xa5 ♖f5 and the rest is not difficult. Originally I had made this study without the a-pawns. In this variation the reason for their presence becomes clear. Since the pawn on a4 is vulnerable, White cannot achieve the draw in this way.

8. ... ♜f8-g8

9. ♜h7-h6!

Only move. 9. ♜h5 is prospectless, as Black will then bring his bishop outside the chain and attack the white pawns.

9. ... ♜g8-g7

10. ♖g4-h5



Compare this position with Vukceвич's. White is about to create a self-stalemate situation.

10. ... ♙e8-d7

11. ♜h6-h8!

The consequence of the preceding play. The enclosed rook is sacrificed.

11. ... ♖g7xh8

12. ♖h5-h6 ♖h8-g8

The black king has to leave the corner in order to eliminate the stalemate threat.

13. h4-h5 ♖g8-f8

14. ♖h6-h7



The white king is on its way to the corner in order to establish a new self-stalemate situation there.

14. ... ♙d7xf5+

There was no time to play the bishop round to a better square. So it is better to sacrifice it right away in order to create a passed e-pawn.

15. e4xf5 e5-e4

16. h5-h6 e4-e3

17. ♖h7-h8 e3-e2

18. h6-h7

Forcing the black king to leave f8.

18. ... ♜f8-e7

19. ♖h8-g8

Not 19. ♖g7 in view of 19...e1♖ 20.h8♖ ♖g3+ 21. ♖h7 ♖h3+

22. ♖g7 ♜g4+ 23. ♕h6 ♜g5+, and the f-pawn will be lost with check.

19. ... e2-e1 ♜

20. h7-h8 ♜

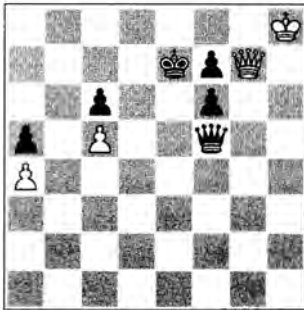
Finally a queen ending has arisen, where White still has to find a few accurate moves.

20. ... ♜e1-g3+

21. ♜h8-g7 ♜g3-g5

The most interesting try. After 21... ♜b8+ 22. ♖h7 White would have nothing to fear.

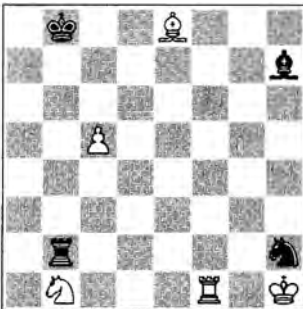
22. ♖g8-h8 ♜g5xf5



23. ♜g7-f8+!

The final point. 23. ♜xf7+ would have led to the same result.

A simple example of stalemate in the corner is seen in the following study.



Timman, 'The Problemist' 2004
White to play and draw

The white king is caught in a mating net. White has to keep the enemy bishop from the e4-square.

1. ♜f1-f4!

The only way to control both the e4- and f3-squares.

1. ... ♖h7-e4+!

With this bishop sacrifice the knight gets access to the crucial f3-square.

2. ♜f4xe4 ♖h2-f3

Now White will have to achieve the aim by either sacrificing all his pieces or reaching the h-file with his rook.

3. ♖b1-d2

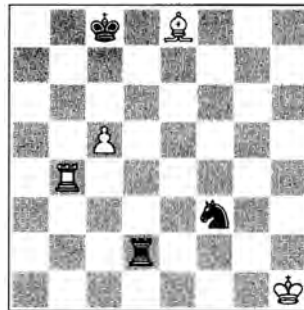
First the knight.

3. ... ♜b2xd2

4. ♜e4-b4+

With the knight sacrifice White has cleared the way to the b-file for the rook.

4. ... ♖b8-c8



A new sacrifice is hanging in the air.

5. ♖e8-d7+!

If the king now takes the bishop, there follows a check on b7, after which the white rook reaches the h-file.

5. ... ♖c8-c7

6. ♜b4-b7+!

The Art of the Endgame

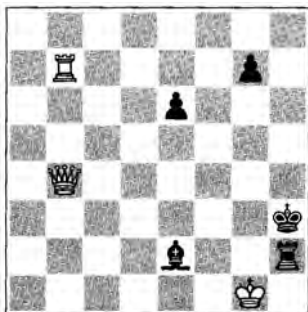
Black must always accept this rook sacrifice.

6. ... ♖c7xb7

7. ♕d7-c6+! ♖b7xc6

Stalemate.

In the following study it is even clearer that White aims for stalemate.



Timman 1989

Black to move – White draws

White has an overwhelming material surplus, but Black now sets up a lethal battery.

1. ... ♜h2-g2+

2. ♖g1-h1 ♜e2-f3

3. ♜b7-f7

Only by attacking the bishop with the rook can White defend himself. After 3. ♜b3 ♜g3+ 4. ♜xf3 ♜xf3 5. ♜xg7 ♜f1+ Black would win the pawn ending.

3. ... ♜f3-d5

The only safe square on the long diagonal. The bishop has to be on a protected square.

4. ♜f7-f3+

With clear intentions. After 4... ♜xf3 White forces stalemate with 5. ♜h4+.

4. ... ♜g2-g3

5. ♜b4-e4!

Generally the queen doesn't get a defensive role, but necessity knows no law. Now 5...g5 would not yield anything after 6. ♜h7+ ♜g4 7. ♜h2.



5. ... g7-g6!

An extremely level-headed reply. Black prevents the check on h7 and again puts the question to White: how does he want to lose both of his pieces?

6. ♜e4-f5+!

Bull's eye. Black must take the queen, and then the stalemate is achieved.

Stalemate in the corner can be much more subtle.



Timman 2010

White to play and draw

The white king is in danger. Moreover, he cannot exchange on f6 as then the bishop on f7 will be lost.

1. ♖f7-d5! ♜c6-c7!

Threatening mate in one.

2. ♖b2-e5!

A beautiful, problem-like move, which serves to transfer the bishop to the h-file.

2. ... ♜c7-h7+

3. ♖e5-h2

White seems to have warded off the danger. However, now Black starts an interesting combination.

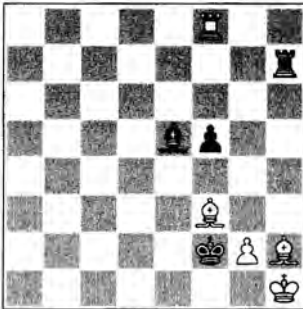
3. ... ♞e1-f3!

With this knight sacrifice, the f-file is closed.

4. ♖d5xf3

The only move. After 4.gxf3 ♖e5 White would be irrevocably mated.

4. ... ♜f6-e5



5. ♖f3-h5!

In turn, White sacrifices his king's bishop in order to re-open the f-file.

5. ... ♜h7xh5

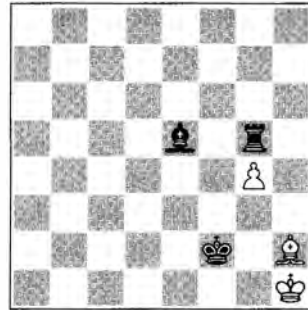
6. ♜f8xf5+!

This rook sacrifice is the consequence of the bishop sacrifice.

6. ... ♜h5xf5

7. g2-g4 ♜f5-g5

The only square for the rook. Now comes the climax of the study.



8. ♖h2-f4!

With this second bishop sacrifice White puts the black rook in a predicament. Black cannot capture the bishop, as that would mean stalemate.

8. ... ♜g5xg4

9. ♖f4xe5 ♜g4-g1+

10. ♜h1-h2 ♜g1-g5

A last try.

11. ♖e5-d4+

Draw.

The construction of the following study is even more complex.



Timman 2010

Draw (dedicated to Geertje)

The Art of the Endgame

Both sides have a far-advanced passed pawn, so White's first move speaks for itself.

1. h6-h7 ♖c1-b2

But now things become complicated. Not only has Black prevented promotion, but he also threatens to give a devastating rook check.

2. ♜e6-c5+!!

This knight sacrifice introduces a stalemate combination eight moves deep.

Alternatives were:

A) 2. ♖xb2 ♖g1+ 3. ♜f7 ♖f1+ 4. ♜g6 (it looks as if Black cannot win, as after the mutual promotions, the white king would be safe enough) 4... ♖f6+!! (a tremendous surprise) 5. ♜xf6 a1 ♔ and wins;

B) 2. ♜f8+ ♜c6 3. ♖xb2 ♖g1+ 4. ♜f7 ♖g7+! (an echo of variation A) 5. ♜xg7 a1 ♔ 6. h8 ♖ ♖xb2+ 7. ♜g8 ♖xh8+ 8. ♜xh8 and now both 8...d5 and 8...♜d5 suffice for the draw.

The point of the text move will be revealed later on. Incidentally, White could not switch round the first and second moves. After 1. ♜c5+ dxc5 2. h7 Black would win with 2... ♖b1!, for example: 3. ♖a2 ♖b8+ 4. ♜g7 ♜e3, followed by 5... ♜d4+.

2. ... d6xc5

On the alternative 2... ♜c6 White had the following road to a draw: 3. ♖xb2 ♖g1+ 4. ♜f7 ♖f1+ 5. ♜g6 ♖f6+ 6. ♜xf6 a1 ♔ 7. ♜d3!, followed by promotion. The knight is used to protect the rook. Now stalemate motifs start to play a role.

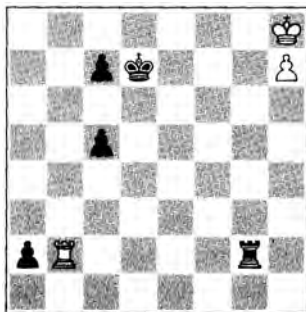
3. ♖e2xb2 ♖a1-g1+

4. ♜g8-h8!

The stalemate trap is set. Black cannot promote to a queen.

4. ... ♖g1-g2!

The best try. After 4...a1 ♖ 5. ♖d2+ White would have a 'rampant rook'. This means that he can keep giving checks with his rook, even in it is *en prise*. If the opponent accepts the sacrifice, White is stalemated.



5. ♖b2-b1!!

A fantastic riposte. Firstly White threatens 6. ♖d1+, when he would again have a rampant rook. And on 5... ♖h2, 6. ♖a1 suffices for the draw.

5. ... ♖g2-g8+!

A stunning attempt. Black also sacrifices his rook, steering towards a queen ending where he has two extra pawns.

6. h7xg8 ♖ a2xb1 ♖

7. ♖g8-g4+

The only correct check. He must not let the black king escape via c8.

7. ... ♜d7-d8

8. ♖g4-g8+ ♜d8-d7

9. ♖g8-g4+ ♜d7-d6

There's nothing to be done about it. Now White finally forces stalemate – with a queen sacrifice.

10. ♖g4-g6+! ♖b1 xg6

Stalemate.

For this study I received second prize in the *Nona 2010* tourney. It is dedicated to my wife Geertje, because I made it just before her 36th birthday.

The study was received enthusiastically and published in many places. Unfortunately, later it was discovered that it contained a dual. In variation B, in the comments to White's second move, 3. ♖c2+ ♔d5 4. ♖xb2 ♖g1+ 5. ♔g6! ♖xg6 6. ♔h8 leads to a draw. Here, too, White gets a rampant rook; I hadn't thought of that possibility at all. I had to construct a new version. It looks like this:



Timman 2011
White to play and draw

White's king is stuck in the corner. He has to give check.

1. ♖h1-f1+ ♔d1-f2!

With this knight sacrifice, Black creates space for his rook, although this cannot be seen at this point. After other moves White could play 2. ♔g8 without trouble.

2. ♖f1xf2+ ♔f7-e7

On 2... ♔e6 White would already have 3. ♔c5+.

3. ♖f2-e2+

White has to keep giving checks. After 3. ♔c3 ♖b1! 4. ♔d5+ ♔e6 5. ♔xc7+ ♔d7 6. ♖xa2 ♔xc7 Black would be winning. The white passed pawn is not strong enough.

3. ... ♔e7-d7

4. ♔a4-c5+!

The well-known sacrifice – only the knight comes from the other side this time.

4. ... d6xc5

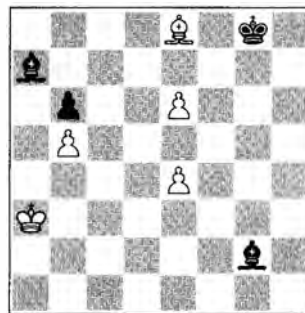
5. ♔h8-g8 ♔c1-b2

6. ♖e2xb2

And we know the rest.

The echo variations are lost, but instead a pretty knight sacrifice for Black has been added.

Besides a rampant rook, there is also such a thing as a rampant bishop.



Kubbel, 'Kölnische Volkszeitung' 1926
White to play and draw

The white king has so many squares that stalemate looks improbable. Nevertheless, the decisive stalemate trick will appear soon enough.

1. e6-e7 ♖a7-b8

The only way to stop the foremost e-pawn.

2. e4-e5!

An important pawn sacrifice.

2. ... ♜b8xe5

3. ♜e8-d7 ♜e5-d6+

4. ♔a3-a4!

The king barricades itself on the edge of the board.

4. ... ♜d6xe7

5. ♜d7-e6+ ♔g8-g7

6. ♜e6-d5!

Black cannot capture the bishop in view of stalemate.

6. ... ♜g2-f1

7. ♜d5-c4 ♜f1-h3

8. ♜c4-e6

And the black bishop cannot escape the attacks.

The same principle is also possible with the king in the corner.



Timman 1983/2009
White to play and draw

This is an extended version of an old study of mine. White must push his f-pawn.

1. f5-f6 ♜a5-b4

2. f6-f7

Threatening 2...♜g7, so Black's reply is forced.

2. ... ♜b4-f8

Now what is left for White to do? Black threatens to collect the f-pawn with his king.

3. b2-b4!

Threatening 4...♜c5, so Black has to take en passant.

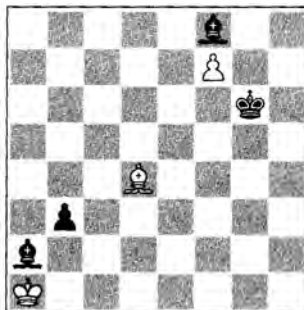
3. ... c4xb3

4. ♔c1-b2

Now a new motif emerges. If White managed to exchange bishops, the position would be a dead draw, even without the f-pawn, since the black queen's bishop is very unfortunately placed on a2. If Black succeeds in avoiding this exchange, then he will bring his king to d1 and give check on c1, driving the white king into the corner. Next he will play his king to c2 and his queen's bishop to b1, and give mate. In order to avoid this scenario, White has a hidden manoeuvre at his disposal that gives him a rampant bishop.

4. ... ♔h4-g5

5. ♔b2-a1 ♜g5-g6



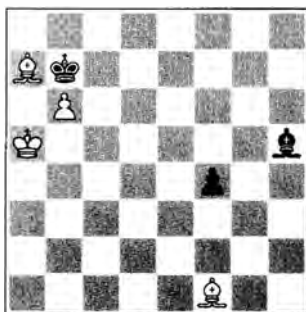
6. ♜d4-b2!

The bishop retreats to make the drawing mechanism work.

6. ... ♖f8-c5
7. f7-f8♔ ♖c5xf8
8. ♖b2-a3 ♖f8-g7+
9. ♖a3-b2 ♖g7-h6
10. ♖b2-c1

Draw.

A follow-up study shows how accurately the attacking side must play in order to avoid the exchange of bishops.



Timman 2011
White to play and win

In this miniature study, Black is threatening to initiate the same drawing mechanism that White had in the previous study. So White has to play sharply from move 1.

1. ♖f1-g2+ f4-f3
2. ♖g2-h1!

White deliberately positions his bishop in the corner in order to fix the black bishop on h5/g4. If Black reached the long diagonal, the draw would be inevitable.

2. ... ♖h5-g4
3. ♖a5-b5

The white king heads for the kingside. However, he couldn't play 3.♖b4? in view of 3...♖a6! 4.♖c3 f2 5.♖g2 ♖e2 with a draw.

3. ... ♖g4-h5

Black must keep waiting. After the tempting 3...♖d7+ 4.♖c5 ♖c6 White would free his queen's bishop with 5.♖b8! and win easily.

4. ♖b5-c4! ♖b7-a6
5. ♖c4-d3!

As a consequence of these manoeuvres, White has taken control of the e2-square. This renders the march of the black f-pawn harmless.

5. ... ♖h5-g4



6. ♖d3-d2!

White makes a king triangulation, the point of which will become clear at the end of the study.

6. ... ♖g4-h5
7. ♖d2-e3

7.♖e1 is also good.

7. ... ♖h5-g4
8. ♖e3-f2 ♖g4-h5
9. ♖f2-g3

Now everything becomes clear. Black has been put into fatal zugzwang.

Chapter 9

Mutual Zugzwang

In pawn endings, mutual zugzwang (also known as reciprocal zugzwang) within the margins of winning and losing is a quite common phenomenon. Take, for instance, a white pawn on d4 and a black one on d5, flanked by both kings, a pattern known as *trébuchet*. The obligation to move inescapably leads to one of the players' downfall. Outside pawn endings, mutual zugzwang within the margins of winning and losing does not often occur. Kubbel composed a famous study on this theme.



Kubbel 1928/1929
White to play and win

The white b-pawn is dangerous, but if White pushes it right away, Black can stop it with 1...♔xe4+ followed by 2...♔d6.

1. d2-d4+!

The battle for the d6-square flares up.

1. ... ♔e5-e6

The king scorns the white pawns in order to keep control of the square d6.

2. d4-d5+ ♔e6-e5

3. b5-b6

The time has come for the pawn push.

3. ... ♔g5xe4+

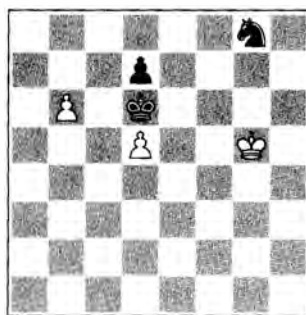
4. ♔g3-h4!

Avoiding all knight checks.

4. ... ♔e4-d6

5. ♔a3xd6+ ♔e5xd6

6. ♔h4-g5!



A situation of mutual zugzwang has arisen. If it were his move, White would lose.

6. ... ♔g8-e7

What else?

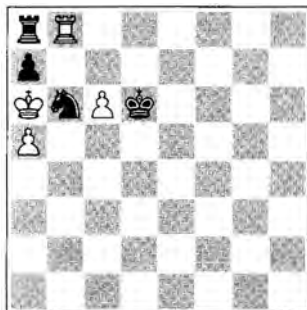
7. b6-b7 ♔d6-c7

8. d5-d6+

And wins.

This study gained Kubbel first prize in the 'Siberian Chess Section Tourney'.

The Russian endgame study composer M.G.Kliatskin has made a draft study that has become very famous.



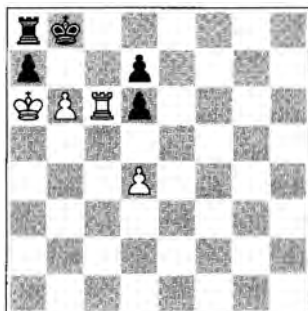
Kliatskin, 'Shakhmaty' 1924
White to play and win

The solution plays itself.

1. **c6-c7!** ♔d6xc7
2. **a5xb6+** ♔c7xb8
3. **b6-b7**

And wins. The reciprocal zugzwang is lethal.

More than a decade later, the well-known Russian player and endgame study composer A.S.Selesniev added an element to Kliatskin's draft study.



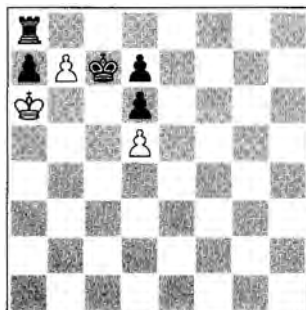
Selesniev, '64' 1935
White to play and win

The white rook is under attack and has to be sacrificed.

1. **♖c6-c8+** ♜b8xc8
2. **b6-b7+** ♜c8-b8
3. **d4-d5**

In Kliatskin's study, the mutual zugzwang meant the difference between a win and a draw, but here we have a win-or-lose situation. Black's doubled d-pawn makes the difference. These two pawns also make a stalemate trap possible.

3. ... ♜b8-c7



It may be exaggerated to speak of a trap, as this is Black's only move. Now White has to take care which piece he promotes to.

4. **b7xa8♙!**

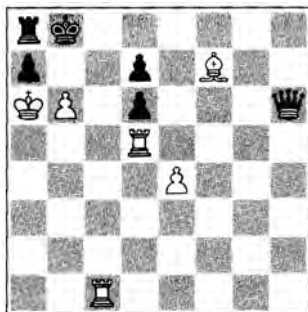
Not 4.bxa8♘+ ♜b8, and the win is gone.

4. ... ♜c7-b8
5. **♙a8-b7**

And wins.

The final position is also a case of mutual zugzwang.

It irritated me that Selesniev's study, however pointed, lacked fitting introductory play. I succeeded in making a study where White starts with a double rook sacrifice.



Timman 2011
White wins (after Selesniev)

White starts with the same rook sacrifice.

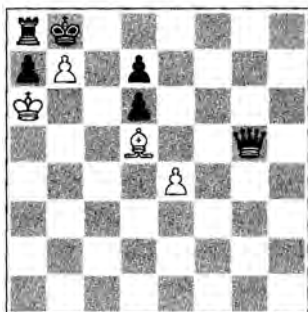
1. ♖c1-c8+! ♙b8xc8
2. ♜b6-b7+ ♙c8-b8

But now what? Without the rook it would be simple – the bishop would go to d5 with deadly force. With the rook on the board, White must even take care that he does not lose. On 3.♖b5 there would follow 3...d5+.

3. ♖d5-g5!!

Absolutely the only move. Black has to take the rook, since after 3...d5+ 4.♖g6 White keeps a devastating check on g8 in reserve.

3. ... ♙h6xg5
4. ♙f7-d5



An incredible situation. In spite of his enormous surplus in material Black is lost.

4. ... ♙g5xd5
5. ♜e4xd5

And the rest as in Selesniev's study.

In this study, the Phoenix Principle made another appearance: the white bishop, which had been captured by the queen, rose from its ashes on a8. It's possible to build in a knight promotion as well.



Timman 2011
White to play and win (after Selesniev)

Here Black has counterplay because he has a check on f1.

1. ♜b6-b7+ ♙c8-b8

An important alternative is 1...♙c7. If White then reacts thoughtlessly with 2.bxa8♙?, Black has a perpetual check starting with 2...♙f1+. The only way to win is 2.bxa8♙+!. After 2...♙b8 3.♖hxd6 ♙f1+ 4.♖d3 ♙a1+ 5.♙b5 ♙b2+ 6.♙c4 ♙c2+ 7.♙b4 ♙b2+ 8.♖b3! Black has no useful checks left.

After the text move White has a problem. If he continues with 2.bxa8♙+ ♙xa8 3.♖hxd6, then

3... ♖f1+ does give Black enough counterplay, for example: 4. ♖d3 ♖a1+ 5. ♘b5 ♖b2+ 6. ♘c5 ♖c2+ 7. ♘d4 ♖f2+ and there is no good way for White to escape the checks.

2. ♙h5-f7!!

Only with this problem move can White win. The queen's passage to f1 is cut off, and at the same time the bishop is ready to take up its position.

2. ... ♖f8xh6

3. ♖d5-h5 ♖h6xh5

4. ♙f7-d5

And the rest is well-known.

The play in the following study is quite sharp.



Timman 2011
White to play and win

The black passed pawns are very dangerous. For example, after 1. ♖e1 exd6+, followed by 2...f2, Black could look to the future with confidence.

1. d6-d7!

Opening the h2-b8 diagonal for the bishop.

1. ... ♙e8xd7

2. ♖f1-e1!

The main intention of this little rook move is to block the e-file. After 2.exd7 exf1 ♖ 3.d8 ♖+ ♘b7 4. ♖d7+ ♘b6 5. ♖c6+ ♘a5 White wouldn't be able to win.

2. ... f3-f2

Black has to bite the bullet, otherwise White would block the black pawns with 3. ♙g3.

3. e6xd7 ♘b8-c7

An important alternative was 3...fxe1 ♖. Then the play continues as follows: 4.d8 ♖+ ♘b7 5. ♘e6! (threatening mate) 5...g3 6. ♖d5+ ♘b6 7.b4! and the black king is caught in a mating net.

4. ♘e5-e6+ ♘c7-d8



How can White continue his siege on the black king? He cannot move his rook.

5. b5-b6!

Threatening mate on c7.

5. ... a7xb6

6. ♙h2-g1!

The point of the previous move. Black cannot take the rook in view of mate on b6. Now a field of tension has been created that looks like Nadareishvili's.

6. ... g4-g3

The Art of the Endgame

Protecting the f-pawn. The situation is extremely sharp. Paradoxically, this calls for a quiet little move.

7. b2-b3!

All other moves lose.

7. ... b6-b5

8. b3-b4



Mutual zugzwang. Black is going to get mated.

8. ... g6-g5

9. h4xg5 f2xe1♔

10. ♔g1-b6#

Besides in pawn endings, the opposition motif can also occur in rook endings. And with it, mutual zugzwang.



Timman 1993
White to play and draw

The rooks and pawns on the queenside form an unmovable block. In order to maintain the opposition, White has to keep his king on the first rank.

1. ♔h1-g1!

After 1. ♔g2 ♔g4 White would be lost.

1. ... ♔h5-g5

2. ♔g1-f1 ♔g5-f5

3. ♔f1-e1 ♔f5-e5

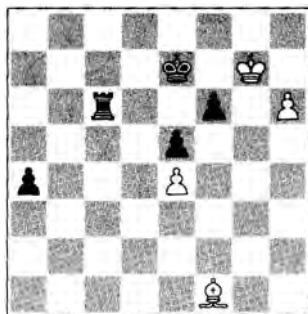
4. ♔e1-d1 ♔e5-d4

Otherwise Black cannot make progress.

5. ♔d1-d2

Mutual zugzwang. Black cannot win.

As opposition and mutual zugzwang go together, so do corresponding squares. This is shown in the following study.



Nadareishvili, 'Československý
Šach' 1953 – White to play and draw

The first moves are obvious.

1. h6-h7 ♖c6-c8

Now White has to be on his guard. After the obvious 2. ♔c4 a3 he would end up in a fatal zugzwang situation, for instance: 3. ♔f7 ♖b8! 4. ♔c4 ♖b2 5. h8♔ ♖g2+ 6. ♔h7 ♖h2+ 7. ♔g7 ♖xh8 8. ♔xh8 f5!

9. exf5 ♖f6 and the bishop cannot stop the two black passed pawns.

2. ♖f1-b5!

Forcing the pawn to move forward.

2. ... a4-a3

3. ♖b5-c4

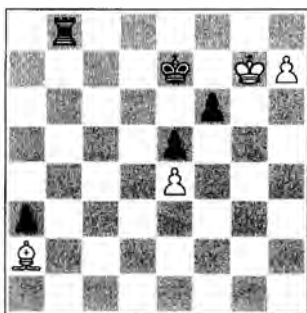
The same position, with Black to move. By carefully choosing the best squares for his bishop, White prevents the black rook from turning up behind the white lines.

3. ... ♜c8-a8

4. ♖c4-a2

Preventing the further advance of the a-pawn.

4. ... ♜a8-b8



An important moment. White does not have the b3-square at his disposal, because there his bishop would simply be captured. Therefore, he will have to find another corresponding square.

5. ♖a2-f7!

Now the rook cannot penetrate.

5. ... ♜b8-c8

6. ♖f7-c4

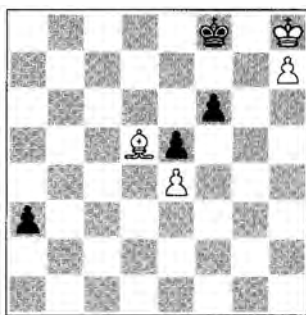
This is the corresponding square.

6. ... ♜c8-d8

7. ♖c4-d5 ♜d8-h8

A last try.

8. ♔g7xh8 ♔e7-f8



The situation still looks precarious for White. However, there is a way out.

9. ♖d5-g8!

Preparing a self-stalemate.

9. ... f6-f5

10. e4xf5 e5-e4

11. f5-f6 e4-e3

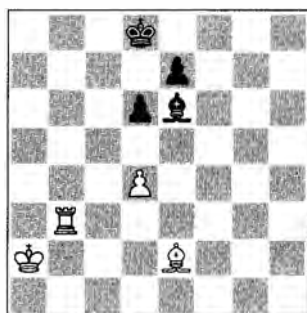
12. f6-f7

And stalemate is unavoidable.

Summarizing: the corresponding squares were a2-a8, f7-b8, c4-c8 and d5-d8.

For this study Nadareishvili received third prize in the Prague Problem Tourney.

In the following endgame, mutual zugzwang also plays a crucial role.



Timman 1984/2010
Black to move – White wins

The Art of the Endgame

In order to properly understand this position, it is necessary to realize that Black's king aims for f6. After he has swapped his bishop for the pinned rook, he must try to prevent White fixing the e-pawn with d4-d5.

1. ... ♖d8-e8

2. ♙e2-h5+!

Not 2. ♙f3 right away in view of 2.... ♙xb3+ 3. ♖xb3 ♙f7 4. ♖c4 ♙f6 5. ♖b5 d5!, followed by 5...e5, when White's last pawn will be exchanged.

2. ... ♖e8-d7

After 2... ♙f8 3. ♖b2 ♙xb3 4. ♙xb3 ♙g7 5.d5! White would win effortlessly.

3. ♙h5-f3!

Threatening 4.d5, and so forcing Black to capture the rook. Insufficient for the win was 3. ♖b2 on account of 3... ♙xb3 4. ♙xb3 d5, followed by 5... ♖d6 and 6...e5, with a draw.

3. ... ♙e6xb3+

4. ♖a2xb3 ♖d7-e6!

Black has to play as actively as he can. Waiting too long would hand White a technically winning position.

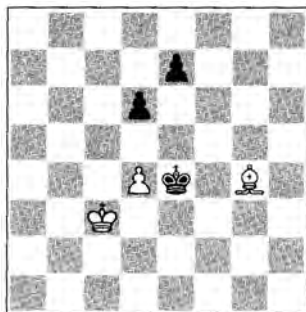
5. ♙f3-g4+

Not 5. ♖c4 in view of 5... ♙f6, with the same position as in the comment to White's second move. The bishop check forces the black king to move forward.

5. ... ♖e6-d5

Not 5... ♙f6, as then White fixes the pawn formation by 6.d5.

6. ♖b3-c3 ♖d5-e4



The critical moment in this study.

7. ♙g4-h3!

Only this little bishop move wins. White does not want to put his bishop on e6 until Black has pushed his d-pawn. The alternative 7. ♙c8 was not a good waiting move, as Black would then hold the draw with 7...e5 8. ♙b7+ d5.

7. ... d6-d5

Now, 7...e5 was insufficient in view of 8. ♙g2+, followed by 9.d5, and White keeps his pawn.

8. ♙h3-e6

Reciprocal zugzwang. Both sides have taken up their optimum positions. Black has to release the pressure on the white d-pawn.

8. ... ♖e4-f4

9. ♖c3-b4

Of course not 9. ♙xd5 because of 9...e5.

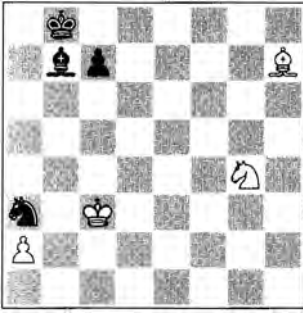
9. ... ♖f4-e4

10. ♖b4-c5 ♖e4-f4

11. ♖c5xd5

And wins.

In the following study too, the mutual zugzwang arises when both sides have taken up their optimum positions.



Kuriatnikov, 'Shakhmaty (Baku)' 1988
White to play and win

This looks like a simple exercise. The black knight is hemmed in and will be captured by the king.

1. ♔c3-b4 ♚a3-c4!

After this sharp reply, things turn out to be more complicated. White has to take the knight.

2. ♔b4xc4 ♚b7-c8

With a double attack. Black wins the a-pawn.

3. ♚g4-e5 ♚c8-e6+

An important moment. Who wouldn't automatically play 4. ♔c5 here? But that is the wrong square.

4. ♔c4-b5!

Anticipating the mutual zugzwang situation which will arise shortly.

4. ... ♚e6xa2

5. ♚e5-c6+ ♔b8-b7

6. ♚h7-e4

After other bishop moves Black would play 6... ♚d5.

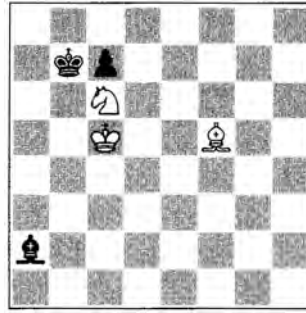
6. ... ♔b7-c8

The only move to prevent the immediate loss of the bishop.

7. ♚e4-f5+ ♔c8-b7

8. ♔b5-c5!

Mutual zugzwang. Black has only one move to prevent the immediate loss of his bishop.



8. ... ♚a2-g8

9. ♚f5-b1

Besides the mutual zugzwang, domination also plays an important role in this study. The black bishop is systematically deprived of squares.

9. ... ♔b7-a6

10. ♚b1-e4!

After this accurate move the black bishop is irrevocably lost.

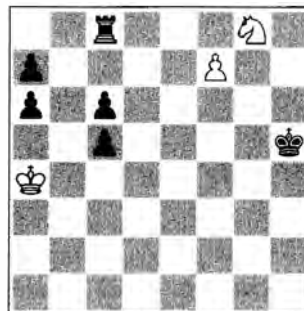
10. ... ♚g8-b3

11. ♚e4-d3+ ♔a6-b7

12. ♚c6-a5+

And wins.

Sometimes mutual zugzwang can be overlooked by the best endgame study composers.



Fritz, 'Svobodno Slovo' 1955
White to play and draw (incorrect)

The Art of the Endgame

The intended solution runs as follows:

1. ♖g8-f6+ ♔h5-g6
2. ♖f6-e8 ♕g6xf7
3. ♖e8-d6+ ♕f7-e7
4. ♖d6xc8+ ♕e7-d7
5. ♖c8xa7 ♕d7-c7
6. ♕a4-a5! ♕c7-b7
7. ♖a7-b5

And whichever way Black takes, White is stalemated.

The stalemate appears out of the blue here. In that sense, this is a nice study. However, it is not correct. Probably Fritz didn't realize that the position after White's 5th move is a case of mutual zugzwang. By losing a tempo with his king somewhere along the way, Black can win. With a revised study with the same background, constructed by myself, I will explain this.



Timman 1984
White to play and win

One of my colleagues, to whom I showed this position, inquired if White was supposed to make a draw here. Indeed, Black's three pieces and advanced passed pawn are superior to White's queen. On

the other hand, White has a trump card that is not to be underestimated: inside the crumbled pawn structure on the queenside – which the attentive reader will immediately associate with Fritz's study – the black king is caught in a mating net. First White has to clear a passage to c6 for the queen.

1. ♕f6-f5

If the white king moves to h7 to hide from the checks, then Black can save himself:

1. ♕f7 ♖f3+ 2. ♕g8 ♖g3+ 3. ♕h7 ♖g4 4. ♕c6 ♖e4 5. a4 ♖h4+ 6. ♕g6 ♖xa4 and White will not manage to collect the black rook with checks, for instance: 7. ♕a8+ ♕b5 8. ♕e8+ ♕a6 9. ♕c8+ ♕a7 and White cannot make any progress. He constantly has to watch out that Black doesn't parry a check by interposing his knight on b6.

1. ... ♖g3-f3+

After 1...e2 2. ♕c6 ♖f3+ 3. ♕g4 ♖g3+ 4. ♕h4 Black would soon run out of moves.

2. ♕f5-g4 ♖f3-g3+!

Black sacrifices a full rook in order to be able to promote with check.

3. ♕g4xg3

Certainly not 3. ♕h4 ♖f2, and Black wins by the force of his battery.

3. ... e3-e2

Now White has to withdraw his queen in order to prevent promotion.

4. ♕h6-c1



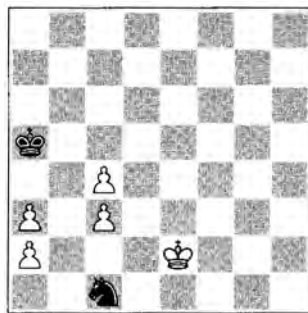
Now Black has two possibilities:

A) **4...♖d3** The most obvious move. Now White conquers the e-pawn with a series of checks: **5.♜g5+ ♜c5 6.♜d8+ ♜a6** Otherwise the queen will give mate on the a-file.



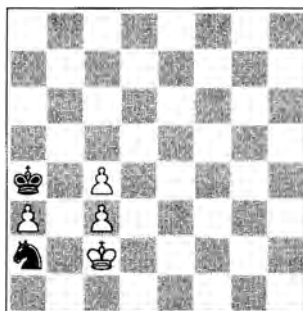
7.♜c8+! Only this check wins. After **7.♜a8+ ♜a7** White would have no better than a perpetual. **7...♜a5 8.♜a8+ ♜b6 9.♜b8+ ♜a6** Or **9...♜c6 10.♜e8+** and wins. **10.♜b5+ ♜a7 11.♜d7+** followed by a check on e6 or e8, winning the e-pawn.

B) **4...♜f2+** This is the main line. After first having sacrificed a whole rook, he now gives the bishop. White has no choice. **5.♜xf2 ♜d3 6.♜xe2 ♜xc1+**



With reversed colours we have now reached the same position as in Fritz's study. However, now White decides to lose a tempo.

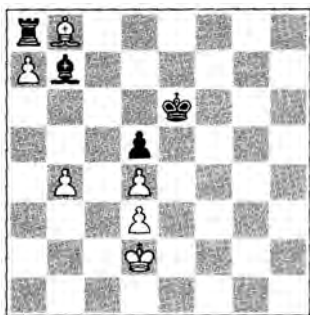
7.♜e3!! This is the key. The black knight remains boxed in, but White makes no haste to collect it. **7...♜xa2 8.♜d2 ♜a4** After **8...♜b6** White has to be patient again, because if he goes for the knight right away, it is a draw: **9.♜c2 ♜c5 10.♜b2 ♜xc4 11.♜xa2 ♜xc3**. Winning is **9.a4 ♜c5 10.a5** or **9...♜a5 10.c5**. The black knight is kept under control by the white pawn on c3. **9.♜c2**



Black is in zugzwang. After **9...♜xa3 10.c5**, again, the hindmost pawn keeps the knight under control, while the foremost pawn promotes.

The Art of the Endgame

Sometimes one side has an enormous material surplus, but he can still be put in zugzwang if he has too little space at his disposal.



Timman 1984
White to play and draw

White is a rook behind, but Black has trouble bringing his forces into play.

1. b4-b5

Certainly not 1. ♖c3 ♙a6 and White doesn't stand a chance.

1. ... ♙e6-d7

Black wants to eliminate the white bishop as soon as possible.

2. ♖d2-c3 ♙d7-c8

3. ♖c3-b4 ♙a8xb8



It looks as if Black is heading straight for a technically winning position. After 4. axb8 ♖+ ♙xb8

5. ♙c5 ♙c7 6. b6+ ♙d7 7. ♙b5 ♙d6 White will be out-tempoed. But now comes a surprise.

4. ♙b4-c5!!

Gaining an important tempo by leaving the black rook untouched.

4. ... ♙b8-a8

The alternative 4... ♙a8 does not lead to a win either, as is shown by 5. axb8 ♖+ ♙xb8 6. b6 ♙c8 7. ♙d6 ♙d8 8. ♙e6 and the white king cannot be driven from its active position.

5. ♙c5-b6

This is the moment of reciprocal zugzwang. Black has to give his rook.

5. ... ♙a8xa7

6. ♙b6xa7 ♙c8-c7

7. b5-b6+ ♙c7-c6

8. ♙a7-b8 ♙c6xb6

Stalemate.

Here, at the end, it becomes clear why there had to be this seemingly useless pawn on d3. Without this pawn, Black could have aimed for a winning pawn ending with 8... ♙a6 9. ♙a7 ♙b5.

Mutual zugzwang can suddenly appear in complicated positions.



Timman 2008
White to play and draw

Black has an enormous material surplus, but still it will be hard for him to stop the white passed pawns.

1. d6-d7

After 1. ♖xe3 d1 ♔ 2. ♖xd1 ♔d2+! Black would win.

1. ... ♜e3-e2+

2. ♖g4-f2!

White sacrifices his knight in order to block the enemy f-pawn. After 2. ♖h1 ♖h4, mate would be inevitable.

2. ... ♜e2xf2+

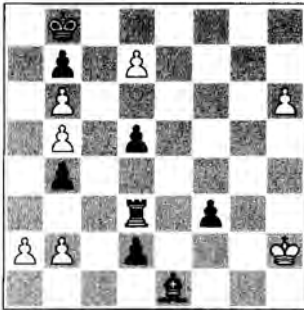
3. ♖h2-h3

Now Black has to sacrifice a lot of material to stop the d-pawn.

3. ... ♜f2-h2+

The first sacrifice. White has to accept.

4. ♖h3xh2



4. ... ♜e1-g3+

The second sacrifice.

5. ♖h2xg3

Forced, because after 5. ♖h3 ♜c7! 6. h7 f2+ there is no hope for White.

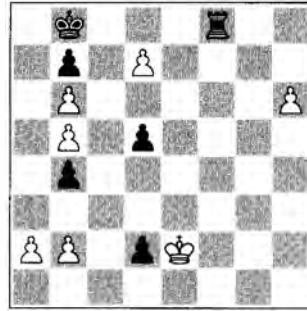
5. ... ♜f3-f2+

The f-pawn has to be sacrificed too.

6. ♖g3xf2 ♜d3-f3+

White cannot accept this sacrifice, as Black then promotes with check.

7. ♖f2-e2 ♜f3-f8



Finally Black has managed to stop the dangerous white d-pawn. Now White has to be on his guard.

8. b2-b3!

Only move. On any other move Black would play 8...b3. In order to understand this, it is important to realize which plan White has here. The white d- and h-pawn will inevitably be swapped for the black d-pawn. Next, White will have to try to reach the square a5 with his king, and then push his a- and b-pawns. We know this stalemate construction from Chapter 5. If the black pawn were on b3, the white king would need an extra tempo to reach the square a5, as he would first have to capture that pawn.

8. ... ♜f8-d8

9. h6-h7 d5-d4

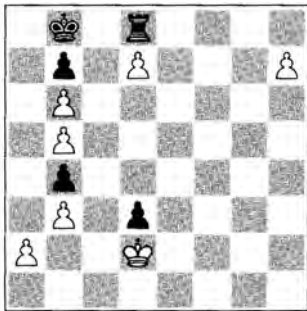
Again White must choose his move carefully.

10. ♖e2-d1!

Paradoxically, White must lose a tempo in the heat of the battle. Only after the trade of pawns will speed become important again. I

will explain later why the alternative 10. ♖xd2 loses.

10. ... d4-d3
11. ♖d1xd2



Mutual zugzwang. If White had played 10. ♖xd2, it would now be his move. Then the play would continue as follows: 10...d3 11.h8♖ ♖xh8 12.♖xd3 ♖d8 13.♖c4 ♖xd7 14.♖xb4 ♖d8 15.♖a5 ♖c8! 16.a4 ♖d7, and 17.b4 fails to 17...♖a8#. Now that it is Black's move, everything is different. Black cannot move his rook.

11. ... ♖b8-a8

There is nothing else. Now White does have success with his plan.

12. h7-h8♖

Not 12. ♖xd3 in view of 12...♖xd7+ 13.♖c4 ♖d8! and again Black is in time to give mate on a8 with his rook. He does not have to collect the white h-pawn.

12. ... ♖d8xh8
13. ♖d2xd3 ♖h8-d8
14. ♖d3-c4 ♖d8xd7
15. ♖c4xb4 ♖d7-d6
16. ♖b4-a5

With a draw. Black cannot prevent White continuing with 17.a4 and 18.b4.

In the following study, White aims for an ending of bishop versus boxed-in rook. This ending is highly similar to a pawn ending, where the motif of mutual zugzwang fits in nicely.



Timman 2010
White to play and win

The first move is obvious.

1. b5-b6

Not only protecting the bishop, but also creating a strong passed pawn.

1. ... ♖d4-e5

An important alternative was 1...♖e7+. Then White has to pursue a different winning plan than in the main line. Play continues as follows: 2.♖f1 ♖e5 3.♖c8! ♖g7 4.b7! ♖xc7 5.b8♖ ♖c1+ 6.♖xc1 ♖xb8 7.♖g1 ♖d6 8.♖c6 and White has a technically winning position. In this variation it is important that White can protect the h-pawn with his king, which is a consequence of the black rook check.

2. ♖c7xe5

Under these circumstances, 2.♖c8 was just insufficient for the win. Black has the strong reply 2...♖g6!.

He does not have to fear rook endings, since after 3.♔f1 (threatening 4.b7) 3...♙xc7 4.♖xc7 ♖f8 5.b7 ♖b8, he will hold. After the text move, Black cannot enter the rook ending with 2...fxe5 on account of 3.b7, after which Black cannot prevent White from giving a rook check and then promoting his b-pawn.

2. ... ♖f7-e7!

The chief aim of this little move is to put the rook behind the white passed pawn. For example, after 3.♔d2 ♖xe5 4.b7 ♖b5 White would have no winning chances. So White has to try something else.

3. f2-f4!

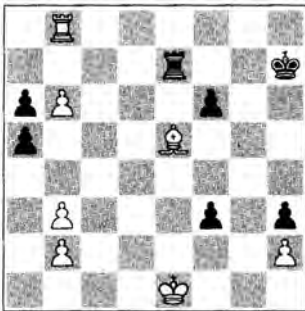
The introduction to a pretty combination. The intention of this move is to let Black take en passant, after which his kingside pawn structure is weakened.

3. ... g4xf3

The alternatives were:

A) 3...fxe5 4.b7 exf4+ 5.♔d2 and wins;

B) 3...g3 4.b7 gxh2 5.♖h8+ ♔xh8 6.b8♖+ ♔g7 7.♖a8! fxe5 8.♖e4 and wins.



4. ♖b8-b7!!

This rook sacrifice is the point of the previous move.

4. ... ♖e7xb7

5. ♙e5-c7

The bishop cuts off the black rook from further play, so that there is now virtually a pawn ending on the board.

5. ... ♔h7-g6

6. ♙e1-f2 ♙g6-g5

Now White has to be careful. After 7.♔xf3 ♔f5 he would be in zugzwang, for example: 8.♔g3 ♔e4 9.♔xh3 ♔f3! and Black has nothing to fear.

7. ♔f2-g3!

Anticipating the mutual zugzwang.

7. ... ♔g5-f5

8. ♔g3xf3



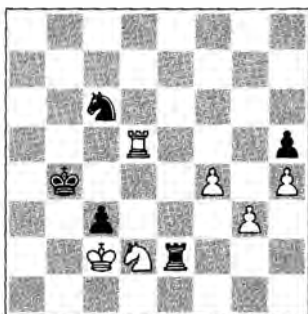
Black is in zugzwang now. He cannot prevent the white king reaching the important centre square e4, after which the winning process is automatic.

Shortly after finishing this chapter, I played a small open tournament in Torre delle Sterre, a spa in the south of Sardinia. Asphalted sand tracks, a bungalow at sea and Sar-

The Art of the Endgame

inian red wine were ingredients for a quite special time.

In the fourth round I got the following endgame on the board:



Timman-Shytaj
Torre delle Stelle 2011

It is clear that White is going to lose a piece. Where do his best chances of salvation lie? White can try 66.f5, but after 66...♖f2 67.f6 cxd2 68.♖xd2 ♜xf6 69.♖d5 ♜h6 there is no immediate draw. Fortunately, I had enough time on the clock. After fifteen minutes' thought I discovered a hidden mutual zugzwang.

66. ♖c2-d1! ♜e2xd2+

67. ♖d5xd2 c3xd2

68. ♖d1xd2 ♖b4-c4

Black brings his king closer. It looks as if he will manage to block the white pawns.

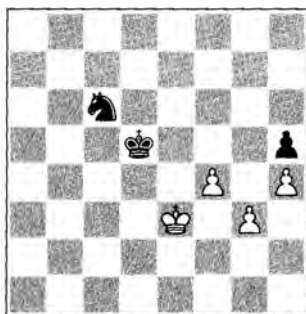
69. ♖d2-e2!!

The only move.

69. ... ♖c4-d5

69...♖d4 would be met by 70.♖f3, with an immediate draw.

70. ♖e3



The mutual zugzwang is established.

70. ... ♖c6-d4

Now White can force the draw by advancing his f-pawn. The best winning try was 70...♖e6. After 71.♖e4 ♖f6 72.f5 ♖e5 Black would manage to block the white pawns after all. However, here the problem is that another mutual zugzwang situation has arisen, for example: 73.♖f4 ♖g4 74.♖e4 ♖h6 75.♖f4. With a knight you cannot win (or lose) a tempo.

71. f4-f5! ♖d5-e5

72. f5-f6 ♖d4-e6

73. f6-f7

Draw.

Chapter 10

Building a Fortress

When Smyslov was 83, he created the following study.



Smyslov 2005
White to play and draw

In view of the closed structure of the position, it is clear that Black will have great problems converting his material advantage. Yet, White will have to tread very carefully in order to actually build a fortress.

1. ♖a6-b8

Insufficient was 1. ♖c5 on account of 1... ♗h8! and Black keeps all his trumps.

1. ... ♜c6-d6

Black tries to dominate the knight.

2. ♖b8-d7+!

Anyway! The aim of this knight sacrifice is to lure the black rook away from the 6th rank.

2. ... ♜d6xd7

3. ♜g1xg7!

With this exchange sacrifice White builds up his fortress further.

3. ... ♜f6xg7

Black could play 3...h4 here, to maintain perspectives for his bishop. It wouldn't have yielded him any winning chances: White just places his rook on g5 and waits. After the inevitable rook swap he has nothing to fear.

4. h3-h4



An unbelievable situation. Black is a rook and a bishop to the good, but the position is so closed that the only try he has left is to penetrate with his rook.

4. ... ♜d7-d6

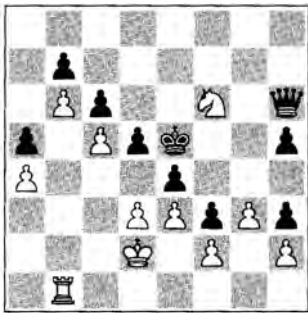
Black is going to bring his rook to the g-file, hoping to penetrate the white position. However, a surprise awaits him.

5. ♜h1-g2 ♜d6-g6+

6. ♜g2-h3!

And the black rook has to leave the g-file again in order to prevent stalemate.

This principle of making a line inaccessible to an enemy piece can also be realized on a diagonal.



Hasek, 'Narodni Listy' 1951
White to play and draw

Both sides still have all their pawns. In order to avoid a breaking move with the black h-pawn, White sacrifices his knight.

1. f6-g4+ h5xg4

Now how can White meet the threat of a penetration by the queen?

2. d3-d4+ ♔e5-f5
3. ♖b1-h1!

This mysterious rook move provides the answer to the above question. White is weaving a stalemate construction into the position.

3. ... ♖h6-f8
4. ♔d2-e1 ♗f8-a8
5. ♔e1-f1 ♗a8-a6
6. ♔f1-g1



A curious situation. In view of stalemate, the black queen cannot infiltrate along the f1-a6 diagonal.

Hasek's study looked to me like an invitation to new adaptations. I made two new versions.



Timman 2010
White to play and draw (after Hasek)

First of all White must concentrate on closing the position.

1. d2-d3+ ♔e4-d4
2. ♔e1-d2

Threatening mate in one, so Black is forced to allow the closure of the position.

2. ... e5-e4
3. e2-e3+ ♔d4-e5
4. d3-d4+ ♔e5-f6



Now the position is almost completely closed. Just as in the two previous studies, White must now sacrifice a knight, though for a different reason this time.

5. ♖g7-e8+!

With this knight sacrifice White closes off the back rank for the black queen, thus winning a tempo.

5. ... ♕f7xe8

6. ♖g1-h2!

Otherwise Black would play ...h3-h2.

6. ... ♖h7-d7

7. ♜c1-h1!

The self-enclosing process is in full swing.

7. ... ♖d7-c8

8. ♔d2-e1 ♖c8-a8

9. ♔e1-f1

Just in time.



9. ... ♔f6-e7

Before Black plays his queen to a6, he first improves the position of his king.

10. ♔f1-g1 ♔e7-d7

11. ♔g1-f1 ♖a8-a6+

It makes no sense to wait any longer.

12. ♔f1-g1 ♖a6-b5

This was the intention of the king march. Although White remains a

rook up after the queen sacrifice, he must play precisely in order to reach the safe haven of a draw.

13. a4xb5 c6xb5

14. ♖g1-f1

The king hurries back to the threatened wing.

14. ... ♔d7-c6

15. ♖f1-e1 b5-b4

16. ♔e1-d2 ♖c6-b5



17. ♜h1-c1!

An accurate little move.

17. ... ♔e8-c6

18. ♔d2-c2

And there is no way for Black to make any real progress.

My second adaptation contains a new element.



Timman 2010

White to play and draw (after Hasek)

The Art of the Endgame

Again, first of all White has to try to close the position as much as possible.

1. e2-e3

Otherwise Black would play 1...e3+.

1. ... a6-a5!

Vacating the a6-square for the queen.

2. ♖g7-e8!

This knight sacrifice is familiar by now. Black has to accept.

2. ... ♔f7xe8

3. ♖a2-a1!

Heading for the other corner.

3. ... ♖h7-d7



A crucial moment. If White thoughtlessly continues to build up his self-stalemate construction, he is lost; 4. ♖h1? is met by 4...♗h7!. Black can then evade the white stalemate trap by leaving the square h7 with the bishop at the right moment, for example: 5. ♖e1 ♖c8 6. ♖f1 ♖a8 7. ♖g1 ♖e7 8. ♖f1 ♖a6+ 9. ♖g1 ♗g6 10. h7 ♖e2 with mate.

4. h6-h7!

In view of the above, White has to sacrifice the pawn right away.

4. ... ♗g6xh7

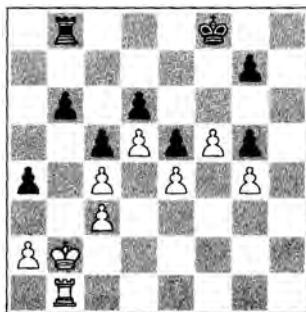
5. ♖a1-h1 ♖d7-c8

6. ♖d2-e1 ♖c8-a8

7. ♖e1-f1

With a draw, as in the previous study.

It can happen that certain strong grandmasters are not familiar with the notion of a fortress.



Position after 52. ♖b2
Larsen-Ivkov, Manila 1973

In those days, the time control was after the 56th move. Doubtlessly, Ivkov was in blood-curdling time-trouble here, a shortcoming which seemed to be an addiction for him. The rook ending is easily tenable, as long as Black realizes that he has a fortress.

However, he produced the horrible 52...g6?, destroying his fortress with his own hands. After this, Larsen had no trouble winning the endgame: 53. fxg6 a3+ 54. ♖b3 ♖g7 55. ♖a4 ♖xg6 56. ♖b5 ♖f8 57. ♖c6 ♖f2 58. ♖xb6 ♖xa2 59. ♖xd6 ♖b2 60. ♖a6 1-0.

As Hans Bouwmeester showed in *Schaakbulletin*, Black could safely

have given his b-pawn and protected his a-pawn from a7 with his rook, also keeping the 7th rank under control, for instance: 52...♖a8 53.♙a3 ♖a7 54.♖xb6 ♙e7 55.♖b8 ♙f7 56.♖h8 ♙e7 57.♖h5 ♙f6, and White cannot make progress. The black king can always protect all the weak pawns, while the white king cannot penetrate anywhere.

So far I have shown only positions with fixed pawn structures. There are also fortresses possible in positions where the structure is not fixed. And then it can happen that even a World Champion in his comments does not spot the fortress.



Position after 69...♖d6xb5
Taimanov-Bronstein, Riga 1958

Here, Taimanov continued 70.♙xf5, after which Black saved himself with the manoeuvre 70...♖c3+ 71.♙b3 ♖d5!. After 72.♙xe4 ♖f6 73.♙g6 ♙c6 74.♙c4 ♙d6 75.♙d3 ♙e6 76.♙e2 c4 77.♙d2 ♙e5 78.♙c3 ♖e4+ 79.♙xc4 ♖xf2 80.♙xh5 ♖e4 81.♙xg4 ♖xg3 82.♙d3 ♖f1

83.h5 ♖xe3 84.h6 ♙f6 the game was drawn.

In his book *Hogeschool van het eindspel* ('Endgame University') Max Euwe indicates that 70.♙f7 would have been 'much more convincing'. He considers this position winning for White, substantiating this with the following variation: 70...♖c3+ 71.♙b3 ♖d1 72.♙xh5 ♖xf2 73.♙g6 f4 74.exf4 e3 75.♙c2 e2 76.♙d2 and White wins.

However, Black has a much stronger defence: 70...♖d6!. The knight does not go out on a pawn hunt, but restricts itself to a purely defensive task. After 71.♙xh5 ♙c6 72.♙g6 ♙d7 the black king is in the square of the white h-pawn. White does not have a better plan than to push his passed pawn. After 73.h5 ♙e7 74.h6 Black has to watch out.



He cannot play 74...♙f6? in view of 75.♙h5!, and Black is in zugzwang. However, 74...♙f8 is sufficient, after which the black king calmly awaits the proceedings. The range of the knight is remarkable. On the one hand, it has a

defensive function on the kingside by protecting f5. On the other hand it keeps the white king at bay on the queenside. The passed pawn on c5 is of crucial importance here: it deprives the white king of the squares b4 and d4.

There is no way for the white king to penetrate. If it goes to b6, then the black c-pawn marches on.

A little further on in *Hogeschool van het eindspel*, Euwe once again misses the concept of a fortress which can be built on the ♔+♚ cooperation.

Diagram after Black's 36th move.



Krylov-Runza
Prague 1951

Euwe investigates this endgame under the theme 'The king penetrates'.

The game continued as follows:

37. a2-a4 ♔d7-c8

38. b4-b5 a6xb5+

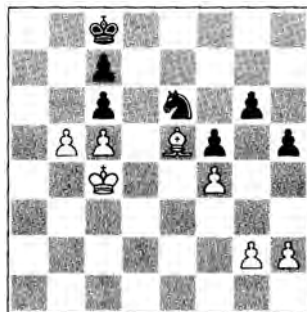
39. a4xb5 ♔c8-b7

After this move Euwe remarks: 'White has carried through the breakthrough on the queenside, and Black has positioned himself accordingly.'

40. h2-h4

Euwe gives this move an exclamation mark, and rightly so. The position is indefensible for Black and White won after a few more moves.

This looks like an instructive example of a bishop outside the pawn chain becoming tremendously strong. Nevertheless, the diagram position is not at all winning for White. What's more, he isn't even better here! To understand this, we will return to the position after White's breakthrough on the queenside.



Position after 39.axb5

Here Runza made a terrible mistake by decentralizing his king. Instead of 39...♔b7?? he should have preferred 39...♔d7!, since Black doesn't have to fear the further advance of the b-pawn. After 40.b6 cxb6 41.cxb6 ♔c8 42.♔b4 ♔b7 43.♔a5 ♚c5 Black can look to the future with confidence.

If White does not push his b-pawn, Black plays 40...cxb5+ and after 41.♔xb5 c6+ he has a comfortable fortress.

Fortresses can also be built with heavily reduced material. As an illustration I give a study where White just barely manages to prevent the building of a fortress.



Timman 2010
White to play and win

Actually, this is a middlegame position where White must play for an attack.

1. ♖c1-f4

Insufficient for the win was 1. ♖b2 on account of 1... ♖d4. White wins an exchange, but loses his attacking chances. After the text move White threatens to administer a devastating check on e5.

1. ... ♜f2-d4

Controlling the long diagonal. White has to find new attacking ideas.

2. h5-h6

Threatening 3. ♔d8+ ♔g8 4. ♔xd4+! cxd4 5. ♖e5+, winning.

2. ... ♜d4-f6

The only defence. At first sight it is unclear how White can breathe new life into his attack.

3. ♜b5xb6!

A rook sacrifice which serves to give the bishop control of the square e5.

3. ... ♜e6xb6

Black could not take the queen, as after 3... ♖xg5 4. ♜b8+ ♔g8 5. ♖e5+ he would get mated.

4. ♖f4-e5



What can Black think of now?

4. ... ♜c3-h3+!

Black also sacrifices a rook. The point of the sacrifice is that Black tries to build a fortress.

5. g2xh3

White could not capture with the king on account of a queen check on e6. Now Black is going to try to exploit the doubling of White's pawns on the h-file.

5. ... ♜b6-d6!



This was the plan. The white bishop is pinned, and White does

not seem to have anything better than 6. ♖xf6+. However, that leads to an ending he cannot win, due to the presence of the pawn on h6. White cannot make progress because there are constantly stalemates in the position. So he will have to find a method to breach the fortress.

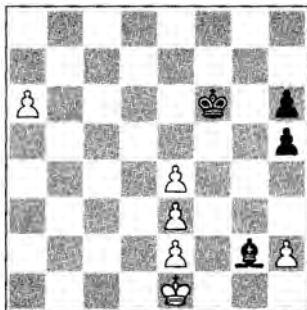
6. ♖g5-g7+!

White sacrifices his foremost h-pawn, after which the endgame is winning after all.

6. ... ♜f6xg7
7. h6xg7+ ♜h8-g8
8. ♜e5xd6

And wins.

If, in the final position, Black had a far advanced a-pawn instead of his worthless c-pawns, he would have been able to build a fortress after all. This is shown in the following study.



Timman 2011
White to play and draw

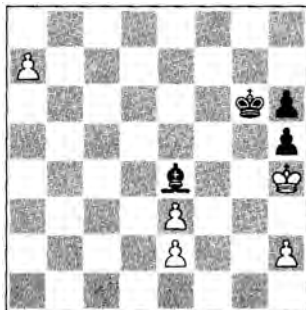
In principle, the white pawns are not strong enough to hope for a draw. For example, after 1. ♖f2 ♜xe4 2. ♖g3 ♜g5 Black would be winning.

1. e4-e5+!

White sacrifices a pawn in order to drive the black king to a worse square.

1. ... ♜f6xe5
2. ♜e1-f2 ♜g2-e4
3. ♜f2-g3 ♜e5-f5
4. ♜g3-h4 ♜f5-g6
5. a6-a7

Keeping the white king from f4.



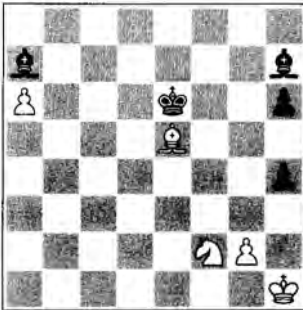
Mutual zugzwang. If White were to move, he would be driven back. For a good understanding of the position, you have to realize that White would have a fortress without the e-pawns. Then he would move his king to and fro on g3 and h3, from where it cannot be driven away. If Black puts his king on g5 and pushes his pawn to h4, then White promotes, with stalemate as a result. With a pawn on e2 or e3 there is no stalemate and, consequently, no fortress.

5. ... ♜e4-b7
6. e3-e4!
6. ... ♜b7xe4
7. e2-e3

Sacrificing the second e-pawn.

And again, mutual zugzwang has arisen. White will also sacrifice his third e-pawn, after which he has completed his fortress.

We have seen that there is no win if White has the queen's bishop, and if there is a white pawn on h6 and a black one on h7. In that case White cannot achieve anything, even with a king's bishop. And if we move the pawns one file to the left, the result remains the same: neither of the two bishops can breach the fortress.



Timman 1989
White to play and draw

Material is equal, but due to the double attack White cannot avoid losing material. What he has to do is give the piece in the most favourable circumstances.

1. ♖f2-g4 ♗h7-f5

Otherwise White will easily hold the draw, as both 1...♗f5 and 1...h5 are met by 2.♖f6, attacking the queen's bishop.

2. ♖g4xh6

Not 2.♗h2 in view of 2...♗xg4 3.♗g1 ♗xg1 4.♗xg1 ♗f5, and Black will stop the a-pawn.

2. ... ♗f5-e4!

The point of the previous move. Obviously Black does not take the bishop, as then White will exchange on f5, after which there is no winning potential left. Now Black has the nasty double threat of 3...♗e5 and 3...h3.

3. ♖h6-f7!

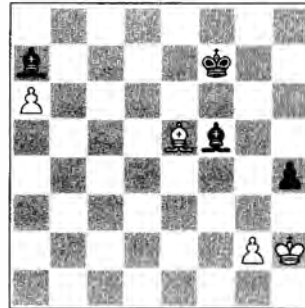
A deflecting sacrifice. Since 3...h3 fails to 4.♖g5+ ♗xe5 5.♖xe4, Black has to take the knight.

3. ... ♗e6xf7

4. ♗h1-h2

Threatening 5.g3 with an immediate draw.

4. ... ♗e4-f5



The situation looks awkward for White. Black threatens to support the h-pawn with his king, after which the win will only be a matter of time.

5. ♗e5-g3!!

An extraordinary way to attack the black h-pawn.

5. ... h4xg3+

6. ♗h2-h1

An incredible situation. Black is a full bishop pair ahead, but he cannot win. To avoid stalemate he will

The Art of the Endgame

have to sacrifice one of his bishops. After 6...♖h3 7.gxh3 ♖g6 8.♖g2 he cannot maintain his g-pawn, while after 6...♖g1 White takes the king's bishop and obtains a fortress.

In Chapter 8 I gave a study with which I won second prize in the *Nona 2010* tourney.

First prize in this tourney went to the following study:



Zakharov 2010
White to play and draw

If the black c-pawn advances further, it will soon be over. With tactical tricks White remains on his feet for a while.

1. ♖c5-e5+

Not 1.♖g6 on account of 1.♗e3! 2.♗e3 ♜f2+, followed by 3...♜e3+, when White is helpless.

1. ... ♖e1-d2

2. ♖e5-d5+ ♖d2-c1

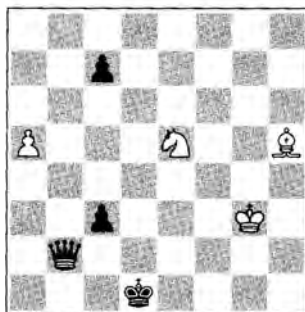
The black king has walked out of the checks. But White has another trump card up his sleeve.

3. ♖d5xd1+

With this exchange sacrifice White realizes optimum cooperation between his bishop and knight.

3. ... ♖c1xd1

4. ♗g4-e5+



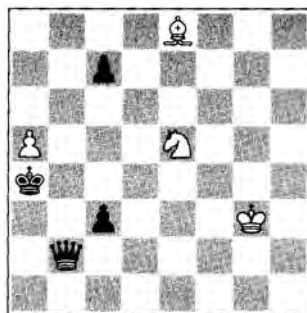
This discovered check makes things difficult for Black. He has no direct win, since 4...♖e1 5.♗d3+ ♖d2 6.♗xb2 c2 is met by 7.♗d3, and Black cannot promote. His next king moves are intended to rule out this trick.

4. ... ♖d1-c2

5. ♖h5-g6+ ♖c2-b3

6. ♖g6-f7+ ♖b3-a4

7. ♖f7-e8+



It looks as if the black king cannot escape. However, he still has one little move to keep the struggle going.

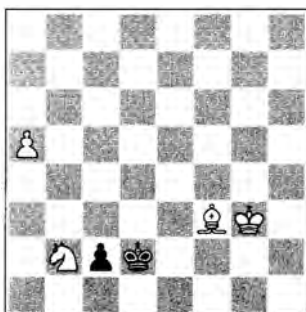
7. ... c7-c6!

This pawn sacrifice wrongfoots the white bishop.

8. ♖e8xc6+ ♔a4-b3
 9. ♖c6-d5+ ♔b3-c2
 10. ♖d5-e4+ ♔c2-d1
 11. ♖e4-f3+ ♔d1-e1

Now he can. White cannot prevent the c-pawn's promotion after he has captured the black queen.

12. ♜e5-d3+ ♔e1-d2
 13. ♜d3xb2 c3-c2



From here on, White's play is focused on building a fortress.

14. ♜b2-c4+ ♔d2-c3

Not 14...♜d3 in view of 15.♖e4+! ♜xe4 16.♜d2+, followed by 17.♜b3, after which the c-pawn is stopped after all.

15. ♜c4-d6

On its way to the central square e4.

15. ... c2-c1♚

16. ♜d6-e4+ ♔c3-b4

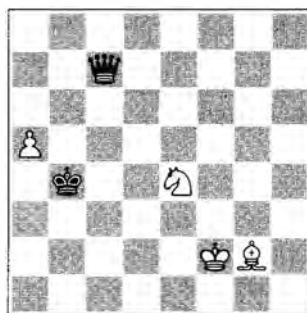
17. ♖f3-g2

Protecting the knight, and aiming for a type of drawn position which was discovered by Max Karstedt in 1903.

17. ... ♚c1-c7+

Preventing 18.♜h2. If the white king reaches that square, then Karstedt's fortress is realized.

18. ♜g3-f2!



Certainly not 18.♜h3?, since after 18...♜xa5 there is no fortress.

18. ... ♚c7-a7+

19. ♜f2-g3

Again, White has to choose the square for his king with care. If Black now takes the pawn, White brings his king to h2.

19. ... ♚a7-g1

A last try. Without the a-pawn this position would be lost for White.

20. a5-a6 ♔b4-b5

21. a6-a7!

Forcing the queen to leave her post.

21. ... ♚g1xa7

22. ♜g3-h2 ½-½

This study inspired me to make an adaptation where White has to prevent the building of a fortress.



Timman 2010
 White to play and win

Black has a great material advantage, but he will have to give his rook for the e-pawn. And then White still has a strong passed a-pawn.

1. e6-e7 ♖f4-f8

Now the trouble starts. After 2.exf8♖ ♙xf8 3.a5 ♙h6 the black bishop stops the a-pawn.

2. g4-g5!

White sacrifices the g-pawn in order to block the c1-h6 diagonal for the bishop.

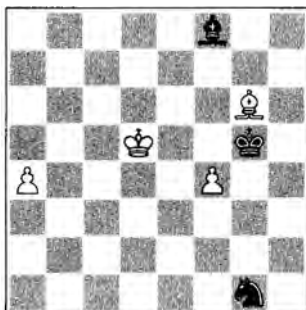
2. ... ♗h4xg5

3. f3-f4+!

In order to understand this second pawn sacrifice it is necessary to analyse what would happen if White took on f8. After 3.exf8♖ ♙xf8 White has the following possibilities:

A) 4.a5 ♖xf3 5.a6 ♖xg6 6.a7 ♙g7 7.a8♖ ♗h7! and White cannot prevent the knight reaching the crucial square e5, when Black has built the Karstedt fortress;

B) With the pawn check 4.f4+ White tries to disturb the coordination in the black camp. But now comes a tremendous surprise.



4...♗h6!! The point of this king move is that Black wants to capture the white bishop with the knight. It is striking how little weight the white bishop carries.

5.a5 ♖e2 6.a6. Otherwise the knight can stop the pawn. 6...♖xf4+ 7.♗c6 ♖xg6, and again Black is in time to build Karstedt's fortress.

The intention of the text move is to force the black king to go to another square than h6. Curiously, first the black king was forced to block the bishop's diagonal, and now the bishop blocks a square for the king.

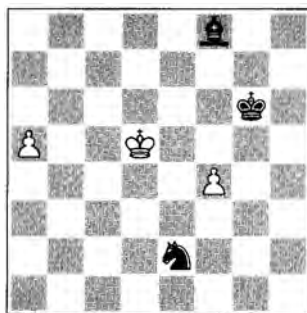
3. ... ♖g5xg6

4. e7xf8♖ ♙h6xf8

5. a4-a5

Again the a-pawn has a free passage. But Black can try to build Karstedt's fortress.

5. ... ♖g1-e2



6. f4-f5+!

The third pawn sacrifice, which is intended to drive the black king to a worse square.

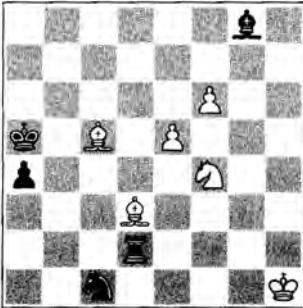
6. ... ♖g6xf5

7. a5-a6 ♖e2-f4+

8. ♗d5-c6

And wins. The a-pawn will reach the promotion square unhindered, whereas Black just misses the decisive tempo that is needed for building the fortress.

With an extra pawn there are more chances for bishop + knight versus queen. At the end of the following study, White must choose the right square for his king in order to prevent the construction of a fortress.



Timman 2011
White to play and win

White has two powerful passed pawns, but Black is not without counterplay. It is vital for White to try and promote his pawn.

1. **♔d3-h7!**

A bishop sacrifice, in order to be able to march on with the f-pawn.

1. ... **♕g8xh7**

An important alternative is 1...♔c4. Now White has to play very accurately in order to secure the win: 2.e6 ♖d1+ 3.♖h2 ♖d2+ 4.♖g3 ♜e2+ 5.♖f3! ♜xf4 6.e7 ♔f7 7.♖xf4 ♖e2 8.♔f5! and the white passed pawns decide the battle.

2. **f6-f7** ♖d2-d8

3. **e5-e6**

It seems impossible to stop the white passed pawns. However, Black has a clever defence.

3. ... **♕h7-g8!**

On 4.e7 Black has planned 4...♖d1+. Therefore White must close off the d-file for the rook with a combination.



4. **♕c5-b6+!!**

A second bishop sacrifice. Black has to accept.

4. ... **♖a5xb6**

5. **♜f4-d5+**

The point of the previous move. The knight check closes the d-file for the black rook, after which the e-pawn can march on. But that still doesn't decide the argument.

5. ... **♖b6-c5**

The best square for the king.

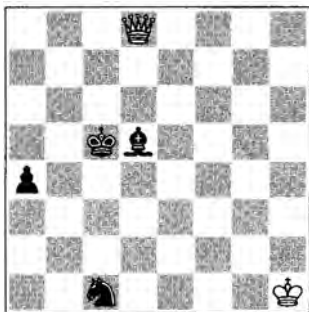
6. **e6-e7**

Nadareishvili's field of tension has appeared on the board, only now with a black rook instead of a queen.

6. ... **♕g8xf7**

The only defence. Black has to allow promotion, and tries to get as much material for the queen as possible.

7. **e7xd8♖ ♕f7xd5+**



Which square should White choose for the king?

8. ♖h1-h2!

The alternative 8. ♖g1 was insufficient for the win, since Black replies 8... ♜e2+ and then brings his knight to c3. Even then the draw requires a delicate touch, as after 9. ♜f2 ♜c3 the fortress is not entirely realized yet. White can try the following moves:

A) 10. ♜e3 ♜b5! 11. ♜a5 ♜b3, and the white king is held off;

B) 10. ♜a5+ ♜d4! and Black has taken up a new fortress. Here also, the white king is kept at a distance. Insufficient was 10... ♜c4? in view of 11. ♜e3!, after which there is no fortress.

8. ... ♜c1-b3

Under these circumstances the knight could not reach the square c3, since 8... ♜a2 fails to 9. ♜a5+, winning the a-pawn. That is why Black tries to build a different fortress.

9. ♜h2-g3

Not the only move; six queen checks would also eventually achieve the aim. Yet, we cannot speak of real duals here. The tablebases indicate that the text

move leads to mate in 64 moves, whereas with the strongest queen check, 9. ♜e7+, it would take 6 more moves. It is important to bring the white king to the battle scene as soon as possible.

9. ... ♜d5-c4

Now White has to pay attention. After 10. ♜e7+ ♜b5 11. ♜f4, Black would be able to build a fortress after all with 11... ♜a5!, followed by 12... ♜c6.

10. ♜g3-f4

Only move. Black has no time to bring his knight to c6. The white king will penetrate, causing death and destruction.

In 1984 it was established that two bishops win against a knight. The situation where Black has an additional pawn is interesting. Sometimes he can use this to realize promotion, if the white king is far off. It is also possible to use the pawn to build a fortress.



Timman 2010
White to play and win

Black threatens to bring his king to b7, after which he would build an impregnable fortress. White has to

play very precisely in order to prevent this plan. The tablebases indicate that it takes 99 moves to give mate.

1. ♖a1-d4

Driving the knight forward.

1. ... ♜a7-b5

2. ♖d4-c5!

The only way. To 2.♖f6 Black would react with 2...c5!. Then the black c-pawn cannot well be stopped, as the white king is too far away.

2. ... ♜b3-c4

3. ♖c5-f8!

Not 3.♖e7? on account of 3...♜c3! and the knight will reach the central square d5 with tempo.

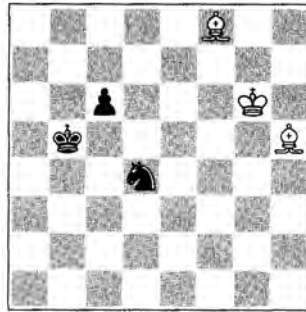
3. ... ♜b5-d4

Vacating the b5-square for the king. It is important to understand what Black's fortress is going to look like exactly. When he has brought his king to b7, his knight should be either on a7 or b5. Then White cannot make progress, even if his king is close by on d7. The black king can oscillate between b6, b7 and b8, and thus will not end up in zugzwang. So after the text move Black threatens 4...♜b5, followed by 5...♜b6 and 6...♜b5, after which he will be safe. After the alternative 3...d4, both 4.♜g8 and 4.♜g6 are winning, as White can meet 4...♜b5 with 5.♖g7!. Only not 4.♜g7?, since then White cannot prevent the construction of a fortress after 4...♜b5.

4. ♜h7-g6

The moment has come to bring the king one step closer.

4. ... ♜c4-b5



5. ♖f8-g7!

Preventing the knight reaching the b5-square.

5. ... ♜d4-e6

Threatening to give check on f4.

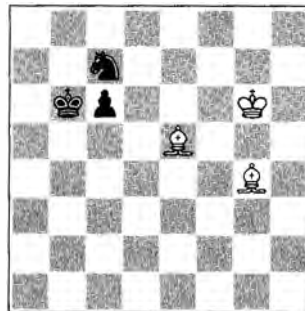
6. ♖g7-e5 ♜b5-b6

The black king has almost reached the safe haven. The white bishop pair has to frantically continue manoeuvring in order to prevent the construction of a fortress.

7. ♖h5-g4

The king's bishop also comes into action.

7. ... ♜e6-c7



8. ♖g4-c8!

Keeping the black king from b7.

8. ... ♜c7-b5

9. ♖e5-g3

The Art of the Endgame

9. ♖h2 was also possible. However, 9. ♖f4 was insufficient for the win. The reason will not become apparent until much later.

9. ... ♜b5-a7

Black does all he can to drive the king's bishop from its dominant position.

10. ♖g3-f2+ ♜b6-c7

11. ♖c8-a6!

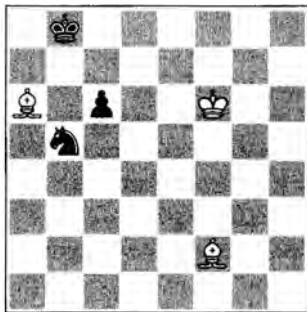
Still keeping the black king from b7.

11. ... ♜a7-b5

12. ♜g6-f6

Finally White has time to bring his king closer. 12. ♜f7 was also good.

12. ... ♜c7-b8

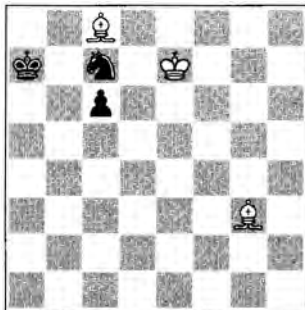


Threatening 13...♜c7, when the king will finally reach the square b7. The white king is just close enough to frustrate this plan.

13. ♖f2-g3+ ♜b5-c7

14. ♜f6-e7 ♜b8-a7

15. ♖a6-c8!



Now it becomes clear why 9. ♖f4 was not good. In that case Black would have a check on d5 here. After the text move Black runs out of options, since after 15...♜b8 White can protect the king's bishop with his king.

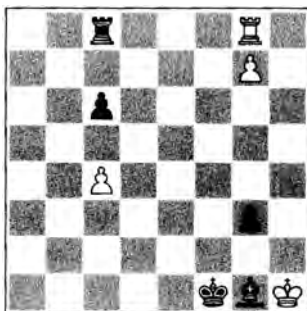
Chapter 11

Systematic Manoeuvres

One of the characteristics of a systematic manoeuvre is the lack of captures.

The pieces on both sides play moves that adhere to a certain pattern, which is repeated. Only at moments where the manoeuvres are interrupted, in between events, a pawn can be snatched away.

One possible aim of a systematic manoeuvre can be stalemate.



Kotov/Mitrofanov 1976
White to play and draw

Black threatens mate in one, which is why White does not have time to take the rook on c8.

1. ♖g8-f8+ ♙g1-f2

Renewing the mate threat, but now White can promote his pawn.

2. g7-g8♚ ♜c8xf8

The situation remains critical for White, as mate is threatened from both sides. If White removes the queen, a deadly check on h8 follows.

3. c4-c5!

Mutual zugzwang as a precursor of the systematic manoeuvre. Black has to move his rook.

3. ... ♜f8-f7

4. ♚g8-g7!

And the queen keeps pursuing it.



4. ... ♜f7-f6

5. ♚g7-g6!

The pattern becomes clear.

5. ... ♜f6-f5

6. ♚g6-g5! ♜f5-f4

7. ♚g5-g4! ♜f4xg4

Black resigns himself to the inevitable: stalemate.

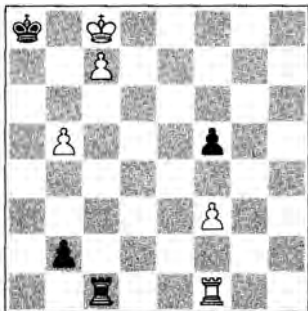
For this study Kotov and Mitrofanov received first prize in the 'Leninska Smena' tourney.

Leopold Mitrofanov was a brilliant Russian endgame study composer. The systematic manoeuvre was one of his many specialties. Alexander Kotov – not to be confused with

The Art of the Endgame

the grandmaster of the same name – specializes in studies containing systematic manoeuvres.

In the following study, the rook is successful in the fight against the queen.



Kotov, 'Vecherny Petersburg' 1995
White to play and win

The pawn promotion cannot stop White; he's going to play for mate.

1. **b5-b6 b2-b1**♚

Defending against the mate threat.

2. **♜f1xc1 f5-f4**

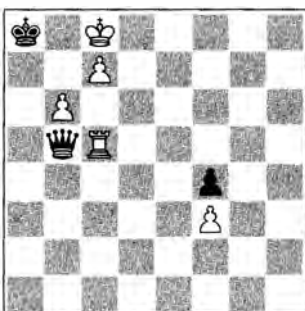
And this time it is Black who plays for stalemate. Rook and queen are dribbling upwards together.

3. **♜c1-c2 ♚b1-b2**

4. **♜c2-c3 ♚b2-b3**

5. **♜c3-c4 ♚b3-b4**

6. **♜c4-c5 ♚b4-b5**



There are no more squares. But White has another string to his bow.

7. **b6-b7+**!

With the white rook on the 5th rank, this pawn sacrifice is decisive. Black has to take with the queen.

7. ... ♚b5xb7+

8. **♞c8-d8**

The pawn on c7 is much stronger than the bishop in Mitrofanov's study. Black has to pin the pawn.

8. ... ♚b7-b6

9. **♞d8-d7!**

White doesn't have to bother about the rook.

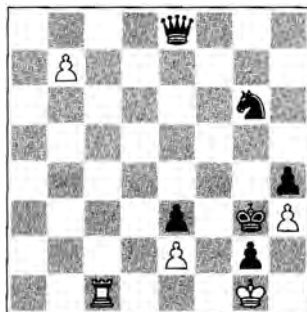
9. ... ♚b6xc5

10. **c7-c8**♚+ ♚c5xc8+

11. **♞d7xc8**

And White wins the pawn ending.

In the two studies I have presented, the systematic manoeuvres occurred on lines. Major pieces can also pursue each other along adjacent diagonals, but only queens can do this. The studies with this theme are spectacular.



Bondarenko/Kakovin, 'Shakhmaty' 1954
White to play and draw

White has to force the pawn promotion as quickly as possible, but

that does not put an end to his problems.

1. ♖c1-c8 ♜g6-f4

Threatening mate.

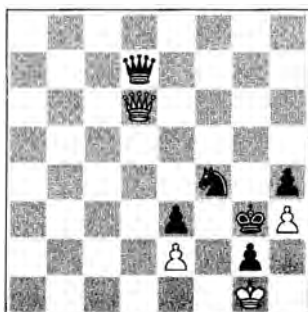
2. ♜b7-b8 ♜ ♜e8xc8

3. ♜b8-c7!

Keeping the knight pinned, and preventing the passage of the black queen to c1.

3. ... ♜c8-d7

4. ♜c7-d6!



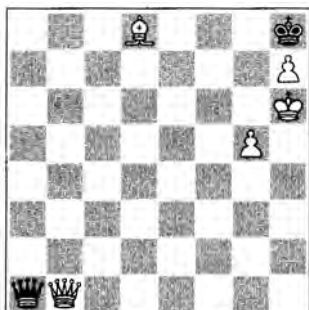
The pattern repeats itself.

4. ... ♜d7-e6

5. ♜d6-e5! ♜e6xe5

Stalemate.

Kotov used this study as a basis for adaptations with a record number of queen sacrifices on both sides.



Kotov, 'Shakhmaty v SSSR' 1977
White to play and win

In this situation, White cannot capture the queen on account of stalemate.

1. ♜d8-f6+

Threatening mate on b8. Black has to screen off the b-file.

1. ... ♜a1-b2!

The start of a fascinating dance of the queens. Black is threatening check on g2.

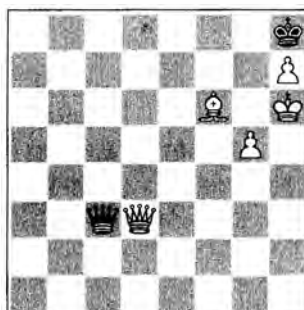
2. ♜b1-c2!

The queen screens off the second rank.

2. ... ♜b2-c3!

Black has to follow suit, and so the ritual is continued.

3. ♜c2-d3!



While the black queen is screening off the files, the white queen is doing the same with the ranks.

3. ... ♜c3-d4!

4. ♜d3-e4! ♜d4-e5

5. ♜e4-a8+

And mate.

In a follow-up study, Kotov increased the number of queen sacrifices. Here also, the kings are condemned to hold each other in check.



Kotov, 'Shakhmaty v SSSR' 1977
White to play and draw

In order to prevent direct mate, White has to promote his pawn.

1. **h7-h8♚ h2-h1♚!**

Black also promotes. 1...♙xh8 would have been met by 2.♚xb3+ with stalemate.

2. **♚d1xh1 ♘g3xh1**

3. **♚h8-g7!**

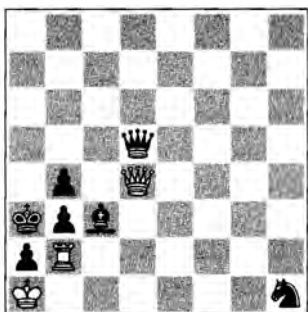
The systematic manoeuvres start.

3. ... **♚g8-f7!**

4. **♚g7-f6! ♚f7-e6!**

5. **♚f6-e5! ♚e6-d5!**

6. **♚e5-d4!**



Herein lies the difference with the previous study. As the h1-square is blocked by the knight, Black does not have a winning check.

6. ... **♚d5-c5**

Preventing the check on a7. However, White has another way out.

7. **♚d4xb4+ ♙c3xb4**

8. **♚b2xa2+**

The final sacrifice.

8. ... **b3xa2**

Stalemate.

Later that year the Russian endgame study composer Leonard Katsnelson made a new adaptation.



Katsnelson 1977
White to play and draw

No immediate mate is threatened, so White has a little time to give material; in this study he will have to play for stalemate, too.

1. **b7-b8♚**

Threatening to give an annoying check on the a-file, which is why Black has to take the queen.

1. ... **♚d8xb8**

2. **f7-f8♚ ♚b8xf8**

3. **h7-h8♚**

This promoted queen cannot be captured. Since no check is threatened on the a-file, Black has time to bring his bishop into position.

3. ... **♙e1-c3**

4. **♚h8-f6! ♚f8-d6!**

5. **♚f6-d4!**



White seems to be safe, but now the systematic manoeuvres are shifted to another diagonal.

5. ... ♔d6-a6!

Suddenly threatening to give a devastating check on f1. White can only just save himself.

6. ♔d4-d3!

Pinning the bishop.

6. ... ♔a6-b5!

The queen sacrifices continue.

7. ♔d3-e2!



Protecting the knight. The white queen always has two squares available on the f1-a6 diagonal.

7. ... ♔b5-c4

8. ♔e2-d3 ½-½

For this study Katsnelson received second prize in the 'All Union Team Championship'. It is hard to imagine a better study on this theme.

In 1980, Katsnelson published an article in *EG* entitled 'Both sides sacrifice queens – development of an idea'. After presenting the studies by Kotov and himself he concluded:

'A general shortcoming can be seen in static initial positions where the Royal prisons are already prepared and the introductory play is forced.'

This is indeed a blot that is not easy to avoid. I succeeded in constructing a version where both kings move, although this is restricted to a single move.



Timman 2011

White to play and win

By moving the construction one file to the left, I have created some space for a modest introductory play. The shift has yet another point, which will be revealed later on.

1. g6-g7+ ♔h8-g8

2. ♔b1-a2+

Forcing the rook to step into a pin.

2. ... ♔f8-f7

3. ♔h6-g6

On the kingside everything is ready for systematic manoeuvring.

3. ... ♖d6-e6



Black puts his second rook on the a2-g8 diagonal as well. After the alternative 3...♖d5 White would quickly give mate by 4.♙xd5 ♙xf5+ 5.gxf5 ♖a2 6.♖h1!. There are no stalemate traps.

4. ♙a2xe6 ♙c2xf5+

Black also has to sacrifice his bishop in order to play for stalemate.

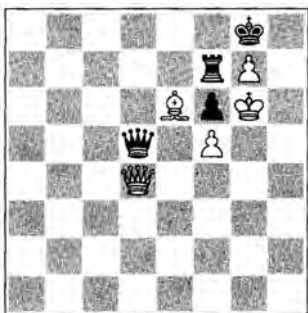
5. g4xf5 ♖a6-a2!

The systematic manoeuvres start.

6. ♖a1-b2! ♖a2-b3!

7. ♖b2-c3! ♖b3-c4!

8. ♖c3-d4! ♖c4-d5!



Here the difference with Kotov's first study becomes clear. Because

the construction has been shifted one file to the left, White has no immediate mate. In Kotov's second study this mate wasn't available either, as the corner square was occupied by a knight. In the diagrammed position, two further queen sacrifices are necessary to give mate with the bishop in the end.

9. ♖d4-e4! ♖d5-a2

10. ♖e4-a8+!

The final queen sacrifice.

10. ... ♖a2xa8

11. ♙e6xf7#

Earlier on, I had already made a version where White first makes a double rook sacrifice.



Timman, 'New in Chess' 2008
White to play and win

For the time being it is mainly the white king that is in danger. Mate in three is threatened, starting with 1...♖xg7+. A nice detail is that both queens are hanging, but this does not play a role during the first moves of the study. The battle scene is elsewhere.

1. ♖c7-c8+! ♙d7xc8

2. ♙c5-e6

Protecting the g-pawn.

2. ... ♖c8xe6

3. ♜c4-c8+!

The second rook sacrifice serves to open up the a2-g8 diagonal for the king's bishop.

3. ... ♙e6xc8

4. ♙b1-a2

Finally Black's threats have been neutralized.

4. ... ♖c8xf5+

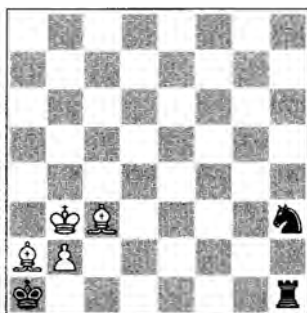
The only chance. Black is playing for stalemate.

5. g4xf5 e7-e6

6. ♙a2xe6 ♚a5-a2!

And now the queen dance starts. White wins in the same way as before.

So far I have only given studies where the systematic manoeuvres were carried out by major pieces. The fight between rook and bishop is also interesting. In the following study the white bishop is strutting step-by-step up the long diagonal to escape from the attacks by the enemy rook.



Liburkin, '64' 1940
White to play and win

The black king is caught in a mating net. To close the net, White must first move aside with his king.

1. ♔b3-a3 ♜h1-c1

The only defence against the threats of 2.b3/b4 mate.

2. ♙c3-d4!

Preventing a side attack by the rook. After 2...♙e5? ♜c5 there would be no win.

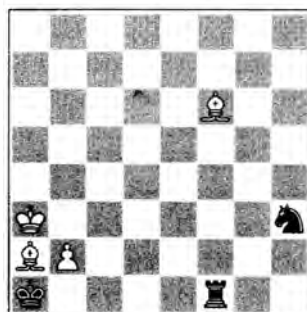
2. ... ♜c1-d1

3. ♙d4-e5!

The same principle.

3. ... ♜d1-e1

4. ♙e5-f6! ♜e1-f1



5. ♙f6-g7!

Patiently, White keeps moving the bishop one square at a time.

5. ... ♜f1-g1

6. ♙g7-h8

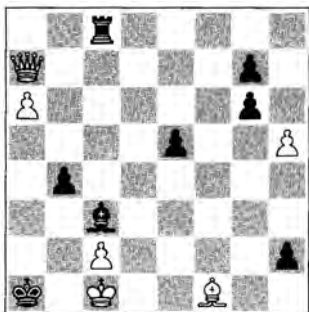
The corner square is reached, and since the black knight obstructs the h-file, no further rook attacks are possible.

6. ... ♜g1-g3+

7. b2-b3+

With mate next move.

The duel between rook and bishop can also revolve around the theme of line control.



Korolkov, 'Shakhmaty v SSSR' 1934
White to play and win

The first move is obvious.

1. ♔a7-b7

Stopping the dangerous h-pawn and making way for the a-pawn.

1. ... e5-e4

A pawn sacrifice to open the e-file. After 1... ♖d8 2. ♙d3, Black would have no chance.

2. ♙b7xe4 ♜c8-e8

Play becomes sharp.

3. a6-a7!

Both sides strive for promotion.



3. ... h2-h1♚!

4. a7-a8♚+!

The appropriate reply. Now both promoted queens will be eliminated.

4. ... ♜e8xa8

5. ♙e4xh1 ♜a8-e8

The start of the systematic manoeuvres. Black threatens to give check on e1.

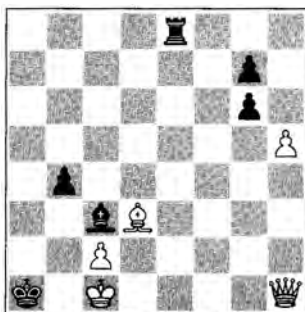
6. ♙f1-e2

Screening off the e-file.

6. ... ♜e8-d8

A new danger: Black threatens to give mate in one.

7. ♙e2-d3 ♜d8-e8



8. ♙d3-e4!

In zigzag fashion the bishop finds its way upwards, screening off the d- and the e-file in turn.

8. ... ♜e8-d8

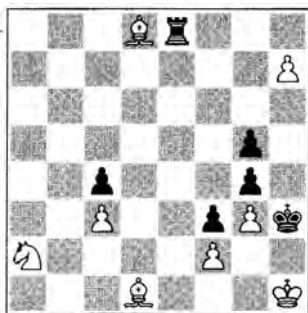
9. ♙e4-d5! ♜d8-e8

10. ♙d5-e6! ♜e8-d8

11. ♙e6-d7

Completing the ladder manoeuvre. The black rook is now dominated. Vladimir Korolkov was one of the great Russian endgame study composers. For this study he received shared first/second prize in the *Shakhmaty v SSSR* tourney.

One year later Kasparian made an adaptation of this theme, only, in this study, the bishop zigzags downwards.



Kasparian, 'Shakhmaty v SSSR' 1935
White to play and win

Both kings are imprisoned. White must prevent Black from getting a rampant rook.

1. ♖d8-e7 ♜e8-d8

Now danger looms on d1.

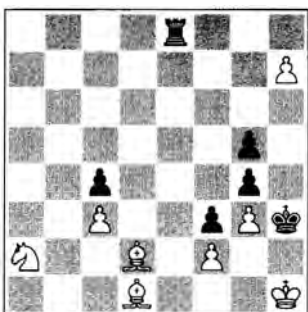
2. ♖e7-d6 ♜d8-e8

3. ♖d6-e5 ♜e8-d8

4. ♖e5-d4 ♜d8-e8

5. ♖d4-e3 ♜e8-d8

6. ♖e3-d2 ♜d8-e8



7. ♖d1-e2!

Other moves don't suffice.

7. ... ♜f3xe2

8. ♖d2-e1 ♜e8-h8

9. ♖a2-c1 ♜h8xh7

10. ♖c1xe2 ♜h7-e7

11. ♖e2-g1#

A knight can dominate an enemy rook in similar fashion.



Gorgiev, 'Schackvarlden' 1937
White to play and win

In Gorgiev's book *Izbrannye etudy* this study can be found in a chapter called 'Geometric manoeuvres'. This is a nice alternative term.

White has an enormous material advantage, but as both kings are boxed in, the motif of the rampant rook plays a role.

1. ♖f5-g3

The h-pawn has to be stopped.

1. ... ♜h2-h1 ♖+!

The only chance. After 1...♜h8 2.♖h1 the black rook would not have a single file at its disposal.

2. ♖g3xh1 ♜d8-h8

Now, if the knight budges, Black sacrifices his rook on h1.

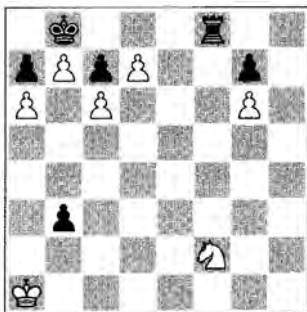
3. ♜a3-f8+!!

White sacrifices his queen in order to win a tempo.

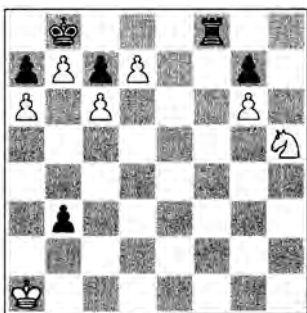
3. ... ♜h8xf8

4. ♖h1-f2

This is the start of the systematic manoeuvres. The knight will screen off the f- and the h-file in turn.



4. ... ♖f8-h8
5. ♖f2-h3 ♖h8-f8
6. ♖h3-f4 ♖f8-h8
7. ♖f4-h5 ♖h8-f8

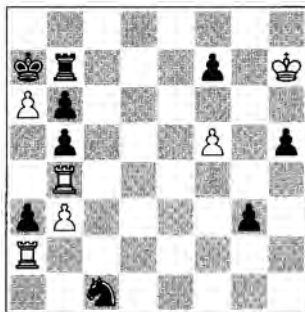


8. ♖h5-f6!

Now, 8...gxf6 will be met by 9.g7 ♖g8 10.♖b1, after which White calmly brings his king into play. The black rook does not have enough freedom of movement.

8. ... ♖f8-h8
9. d7-d8♖+ ♖h8xd8
10. ♖f6-d7+ 1-0

Almost half a century later, at the age of 75, Korolkov worked on a very long study, where two rooks eventually manage to triumph over an enemy knight.



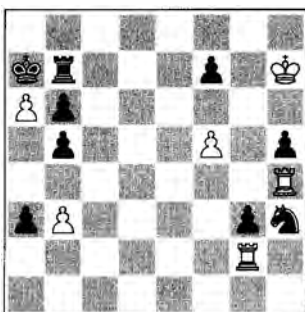
Mitrofanov/Korolkov/Dolgov 1983
White to play and win

Korolkov and Mitrofanov had worked on this theme before. This is the final version.

1. ♖a2-c2 ♖c1-d3
2. ♖b4-d4 ♖d3-e1

The scheme becomes clear. On each move, the knight attacks one of the rooks, who are at a knight jump's distance from each other.

3. ♖c2-e2 ♖e1-f3
4. ♖d4-f4 ♖f3-g1
5. ♖e2-g2 ♖g1-h3
6. ♖f4-h4

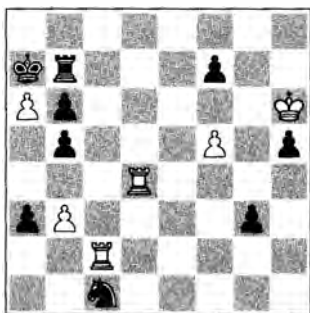


The end of the first phase. The black knight has to give check, and then it will harass the white rooks from the other side.

6. ... ♖h3-g5+
7. ♖h7-h6!

The only time that the king attacks the knight.

- | | |
|------------|--------|
| 7. ... | ♞g5-f3 |
| 8. ♜h4-f4 | ♞f3-e1 |
| 9. ♜g2-e2 | ♞e1-d3 |
| 10. ♜f4-d4 | ♞d3-c1 |
| 11. ♜e2-c2 | |



11. ... ♞c1xb3

The first capture. A few skirmishes follow, and then the third phase starts: the knight is driven towards the kingside again.

12. ♜d4-b4 a3-a2

With this pawn sacrifice Black again safeguards the c1-square for the knight.

- | | |
|------------|--------|
| 13. ♜c2xa2 | ♞b3-c1 |
| 14. ♜a2-c2 | ♞c1-d3 |
| 15. ♜b4-d4 | ♞d3-e1 |
| 16. ♜c2-e2 | ♞e1-f3 |
| 17. ♜d4-f4 | |



The end of the third phase. Black must give his g-pawn to gain control of the square e1 for the knight. And then the knight will travel all the way back to the queenside for the last time.

- | | |
|------------|--------|
| 17. ... | g3-g2 |
| 18. ♜e2xg2 | ♞f3-e1 |
| 19. ♜g2-e2 | ♞e1-d3 |
| 20. ♜f4-d4 | ♞d3-c1 |
| 21. ♜e2-c2 | ♞c1-b3 |
| 22. ♜d4-b4 | |

And wins.

This study was awarded the special prize of the 'Friendship Tourney'.

So far I have exclusively dealt with studies where both kings largely refused to take part in the battle. Only the last study, the long one, contained a king move. In the others, the kings were on squares where they could be mated or stalemated.

Play becomes more lively when one of the kings is involved in the systematic manoeuvres.



Gurgenidze, 'Shakhmaty v SSSR 1974'
White to play and win

In his book *Chess Curiosities* Tim Krabbé categorizes this study un-

The Art of the Endgame

der the heading 'Prokes Manoeuvre'. He had good reasons for this, but it seems to me that this is also a striking example of systematic manoeuvring.

1. h6xg7

Now Black has to try to sacrifice his rook on h8. This can only be done by first offering the other rook as a gift.

1. ... ♖f2-g2+

2. ♔g1-f1!

White does not accept the rook sacrifice. Only at the end of the study will we see why.

2 ... ♜g2-f2+

3. ♔f1-e1

The king continues its march to the queenside.

3. ... ♜f2-e2+

4. ♔e1-d1 ♜e2-d2+

5. ♔d1-c1 ♜d2-c2+

6. ♔c1-b1 ♜c2-b2+

7. ♔b1-a1



The corner square is reached. Black has to take the a-pawn.

7. ... ♜b2xa2+

8. ♔a1-b1

And now – back to the kingside again.

8. ... ♜a2-b2+

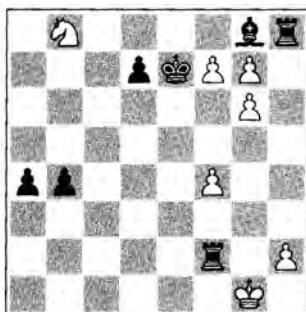
9. ♔b1-c1 ♜b2-c2+

10. ♔c1-d1 ♜c2-d2+

11. ♔d1-e1 ♜d2-e2+

12. ♔e1-f1 ♜e2-f2+

13. ♔f1-g1



The same position is reached as after White's first move, but now without the white a-pawn.

13. ... ♜f2-g2+

14. ♔g1xg2!

Now he can.

14. ... ♜h8xh2+

Finally Black can sacrifice his 'Prokes rook'.

15. ♔g2xh2 ♜g8xf7

16. g6xf7 ♜e7xf7

17. ♜b8xd7

The tension rises. Can the white knight stop the enemy passed pawns?

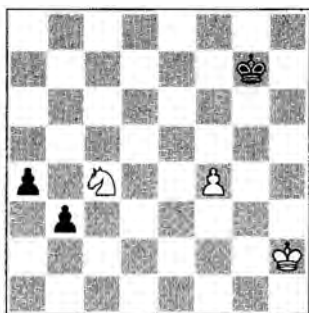
17. ... b4-b3

In the event of 17...a3, White blocks the pawns by 18.♜c5 a2 19.♜b3.

18. ♜d7-e5+ ♔f7xg7

19. ♜e5-c4

Only now does the sense of White's long king manoeuvre become clear.



If the white pawn were still on a2, then Black would capture on a2 here and win. By sacrificing the pawn, White has ultimately succeeded in blocking the black passed pawns. Amazingly, White would even have lost if he had played 2. ♖xg2?.

19. ... b3-b2
20. ♖c4-a3 1-0

In the following study, the white king eventually captures the rook for another reason.



Timman 2011
White to play and win

Black is threatening to castle queenside.

1. ♔h2-b8!!

The only way to prevent this.

1. ... ♜b7-b5+

2. ♜c5-c4 ♜b5-b4+

3. ♜c4-c3!

The time still isn't right to capture the rook.

3. ... ♜b4-b3+

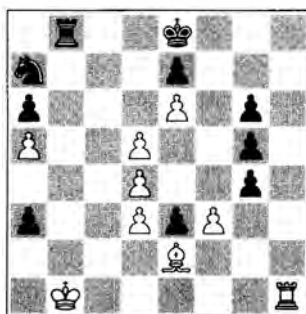
4. ♜c3-c2! ♜b3-b2+

5. ♜c2-c1 ♜b2-b1+

6. ♜c1xb1

Only now.

6. ... ♜a8xb8+



7. ♜b1-a1!

The king has to go to the corner square. The reason for this will become clear later.

7. ... ♜e8-d8

8. d5-d6!

Thus White wins a rook. But that does not mean the game is over.

8. ... e7xd6

9. ♜h1-h8+ ♜d8-e7

10. ♜h8xb8 g4-g3



The Art of the Endgame

The black passed pawns are dangerous. White has to play extremely accurately in order to safeguard the win.

11. d4-d5!

Creating a dangerous passed pawn for himself. Now it becomes clear why the white king has to be on a1. If White had played 7.♔a2, there would have followed 11...g2 12.♚b1 ♖b5 here. Because of the possibility of a check on c3 Black would have sufficient counterplay.

11. ... ♖a7-b5

12. ♜b8-b7+ ♔e7-f8

After 12...♔f6 13.d4! the black king would land up in a mating net.

13. ♜b7xb5!

The a-pawn will decide the issue.

13. ... a6xb5

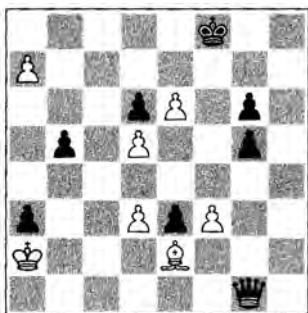
14. ♔a1-a2

Obviously, White could also push the a-pawn first.

14. ... g3-g2

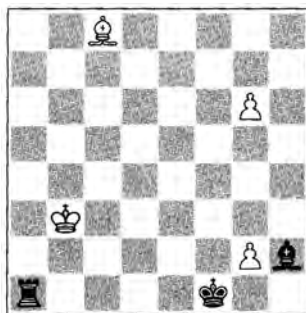
15. a5-a6 g2-g1♚

16. a6-a7



The promotion cannot be prevented. White wins.

The battle between king and rook can also take place from a distance, as we can see in the following study.



Dolgov, 'Shakhmaty v SSSR' 1966
White to play and win

The pivotal question in this miniature is whether the black rook will be able to stop the g-pawn.

1. g6-g7 ♜a1-b1+

2. ♔b3-a4!

The king has to move up. After 2.♔c2 ♜b2+! 3.♔d3 ♜b3+ the black rook will reach the g3-square.

2. ... ♜b1-a1+

3. ♔a4-b5 ♜a1-b1+

4. ♔b5-a6

The king strolls on in zigzag fashion. For the time being, the purpose of this manoeuvre is totally unclear.

4. ... ♜b1-a1+

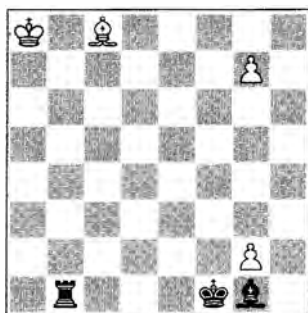
5. ♔a6-b7 ♜a1-b1+

6. ♔b7-a7

Suddenly the king moves to a dark square. Now, on 6...♜a1+ 7.♔a6+ wins, so the black bishop has to give check.

6. ... ♜h2-g1+

7. ♔a7-a8!



The corner square is reached. Now White's plan will become clear soon.

7. ... ♖b1-a1+
8. ♔a8-b8

Again forcing Black to check with the bishop.

8. ... ♗g1-h2+
9. g2-g3!!

This little move is what it was all about. The long manoeuvre with the king was necessary to make it possible. Black has to accept the pawn sacrifice.

9. ... ♗h2xg3+
10. ♔b8-b7 ♖a1-b1+
11. ♔b7-a6

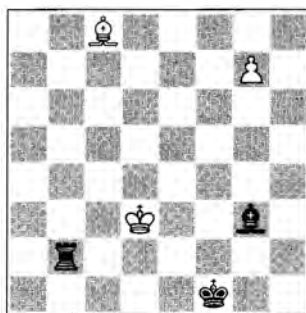
Now that the g3-square is blocked for the black rook, the king travels the long way back.

11. ... ♖b1-a1+
12. ♔a6-b5 ♖a1-b1+
13. ♔b5-a4 ♖b1-a1+
14. ♔a4-b3

Step-by-step the king has arrived downstairs, and now it is ready to move to the kingside.

14. ... ♖a1-b1+
15. ♔b3-c2 ♖b1-b2+
16. ♔c2-d3

Now he can.



The black bishop blocks the g3-square.

16. ... ♗b2-b3+
17. ♔d3-e4 ♖b3-b4+
18. ♔e4-f5 ♖b4-b5+
19. ♔f5-g4

And wins.

There are also studies possible where both kings are involved in the systematic manoeuvre.



Dolgov/Kuznetsov, 'Burevestnik' 1974
White to play and win

In general, two rooks are stronger than a queen. However, here White has the initiative, and he has to hold onto it.

1. ♖h4-c4+ ♔c6-d6
2. ♔b8-c8

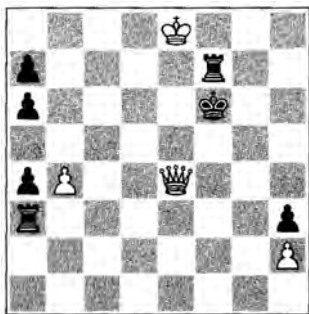
Forcing the rook to step aside.

The Art of the Endgame

2. ... ♖d7-e7
3. ♔c4-d4+ ♕d6-e6
4. ♕c8-d8

The queen and king are cooperating effectively. The enemy king is driven to the kingside.

4. ... ♖e7-f7
5. ♔d4-e4+ ♕e6-f6
6. ♕d8-e8



All very systematic.

6. ... ♖f7-g7
7. ♔e4-f4+ ♕f6-g6
8. ♕e8-f8 ♖g7-h7
9. ♔f4-g4+

9. ♔e4+ was also sufficient, but it would slow down the winning process.

9. ... ♕g6-f6
10. ♕f8-g8 ♖h7-e7



The systematic manoeuvre now continues in the opposite direction.

11. ♔g4-f4+ ♕f6-e6
12. ♕g8-f8 ♖e7-d7
13. ♔f4-e4+ ♕e6-d6
14. ♕f8-e8 ♖d7-c7

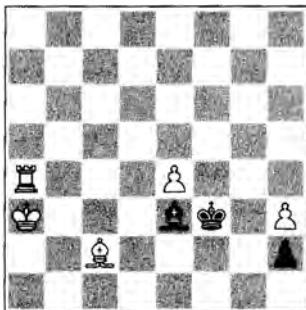


How to go on from here?

15. ♔e4-f4+! ♕d6-c6
16. ♔f4-c1+

This is what it was all about. White wins the other rook.

Especially beautiful are those studies where king, rook and bishop work together.



Korolkov, 'Shachmaty v SSSR' 1964
White to play and win

White is a rook up, but how can he prevent the promotion of the enemy h-pawn?

1. e4-e5

Clearing the e4-square for the bishop.

1. ... ♖e3-c5+

2. ♔a3-a2!

The only square for the king. The square b3 must be kept free for the bishop.

2. ... ♖c5-d4!

A fantastic defence. 3. ♜xd4 is met by 3...h1 ♚ 4. ♖e4+ ♜e3 5. ♖xh1 ♜xd4, when White is left with the wrong bishop.

3. ♖c2-b3

The bishop is crawling up. Now Black has to protect the d5-square.

3. ... ♜f3-e4

4. ♜a4-a5

The rook also crawls up.

4. ... ♖d4-c5!

Again Black tries to lure the rook to a critical square.



5. ♖b3-a4!

White carries on with the systematic manoeuvre regardless. His bishop stills aims for a square on the long diagonal.

5. ... ♖c5-b6

6. ♜a5-a6!

Now this is possible. The black king is drawn outside the square of the white h-pawn.

6. ... h2-h1 ♚

7. ♖a4-c6+ ♜e4-d4

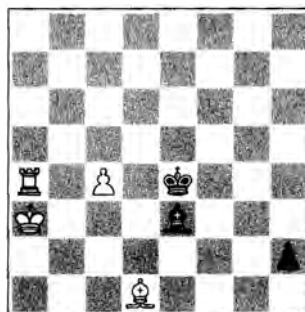
8. ♖c6xh1 ♜d4-c5

9. h3-h4

And wins.

Korolkov received 4th prize for this study in the tourney of the Russian chess magazine.

The study is impressive, but I felt that it could be improved.



Korolkov 1964/Timman 2009

White to play and win

In this setting, too, the white bishop has to try to reach the long diagonal. However, White cannot give check, since after 1.c5+? ♖d4 he cannot win.

1. ♖d1-c2+ ♜e4-f3

2. c4-c5

Now he can.

2. ... ♖e3xc5+

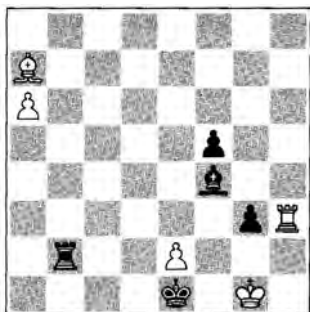
3. ♜a3-a2 ♖c5-d4

4. ♖c2-b3

And the rest is well-known. In this version the white bishop travels the entire route along the short diagonal d1-a4.

The Art of the Endgame

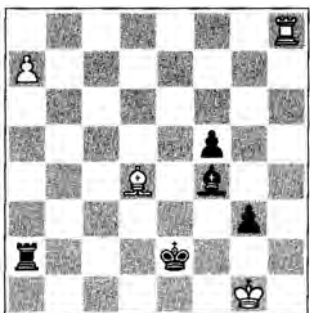
There is a study by Bron that greatly impressed me. Unfortunately it turned out to be incorrect.



Bron, Galitzky Memorial 1964
White to play and win (incorrect)

The intended solution runs as follows:

1. ♖a7-d4 ♜b2-a2
2. a6-a7 ♛e1xe2
3. ♝h3-h8



3. ... ♞f4-e5

With this move Bron starts a systematic manoeuvre. However, Black could have achieved a draw with 3...♞d3!. The point is that after 4.♞c5 ♛c4 5.♝c8 he has time to improve the position of his bishop with 5...♞g5!. White can try a few things, but there is no win.

4. ♝h8-e8 ♛e2-d3
5. ♞d4-c5 ♞e5-d6
6. ♝e8-d8 ♛d3-c4

So far, the systematic manoeuvre is correct. But now 7.♞e3 suffices for the win.

7. ♞c5-b6

This is also possible.

7. ... ♞d6-c7
8. ♝d8-c8 ♛c4-b5
9. ♞b6-d4 ♛b5-c4
10. ♞d4-e3 ♛c4-d3
11. ♞e3-c5 ♝a2-a1+
12. ♛g1-g2 ♝a1-a2+
13. ♛g2-f3 ♝a2-f2+
14. ♞c5xf2 g3xf2
15. ♛f3-g2 ♛d3-e2
16. ♝c8-e8+

And wins.

Of course it is a great pity that such a study should be incorrect. I delved deeper into the matter, trying to find a way to save this fantastic systematic manoeuvre. In the end I found the solution: the structure must be shifted one file to the right.



Timman 2011
White to play and win
(correction of a study by Bron)

The situation of the white king looks a little precarious. However, the white passed pawn is strong enough.

1. **b6-b7** ♖a2-b2
2. ♜h6-h8

Threatening to promote the pawn. Black must attack the white bishop.

2. ... ♙g4-f5

Neither was 2...♙e3 sufficient. After 3.♙d5 ♙d4 4.♜d8 White wins effortlessly.

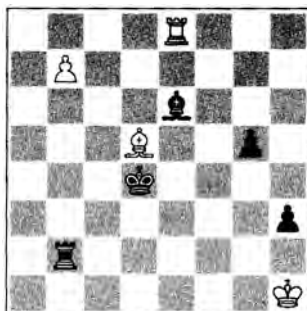
3. ♜h8-f8

Pinning the bishop, and so Black, in turn, must attack the white bishop again.

3. ... ♙f2-e3
4. ♙e4-d5! ♙f5-e6
5. ♜f8-e8!

The pattern is repeated.

5. ... ♙e3-d4



6. ♙d5-c6!

In these circumstances this is the only move. On 6.♙f3 Black has the saving move 6...g4.

6. ... ♙e6-d7
7. ♜e8-d8!

For the third time, the bishop is pinned.

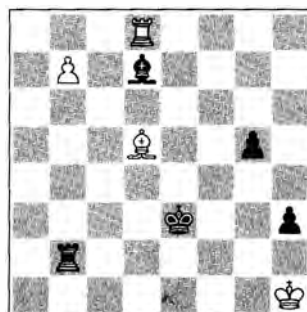
7. ... ♙d4-c5

And for the third time, the counterattack.

8. ♙c6-e4! ♙c5-d4

Black must attack the bishop with the king, since after 8...♙f5 9.♜d5+ he would lose immediately.

9. ♙e4-f3 ♙d4-e3
10. ♙f3-d5



Finally Black is outmanoeuvred. He can still try a bishop move.

10. ... ♙d7-e6
11. ♙d5-c6

And now what's left is two spite checks.

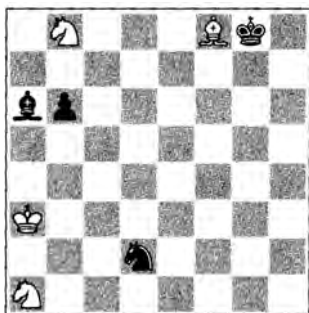
11. ... ♜b2-b1+
12. ♙h1-h2 ♜b1-b2+
13. ♙h2-g3

And wins.

When Benkö turned 80, he organized an endgame study tourney, where the condition was that no captures should be made during the first 8 moves of the main line. This study has a phase of 13 moves, where there is only manoeuvring. It seems to me that all the elements of Bron's study have been preserved.

The Art of the Endgame

Also interesting is the struggle between king and minor piece.



Katsnelson, Herbstman Centennial 2001
White to play and win

Both sides' bishops are hanging. White must not only preserve his bishop, but he also has to win an enemy piece – otherwise he won't have enough winning potential.

1. ♖f8-h6

Forcing Black to give check.

1. ... ♜d2-c4+

2. ♗a3-b4

Now Black cannot move away his bishop, as then the knight on c4 will be lost. Therefore he has no choice but to attack the bishop with his king.

2. ... ♜g8-h7

3. ♖h6-g5!

The only square. 3. ♖f4 would be met by 3... ♜b2, whereas after 3. ♖c1 Black would have a way out with 3... ♜e5. The bishop must stay outside the range of knight checks.

3. ... ♜h7-g6

4. ♖g5-h4

The downward ladder movement.

4. ... ♜g6-h5

5. ♖h4-g3



The bishop will only find safe squares on the g- and h-files.

5. ... ♜h5-g4

6. ♖g3-h2 ♜g4-h3

7. ♖h2-g1 ♜h3-g2

8. ♖g1-d4

After the bishop has climbed down the entire ladder, it sets off for a centre square where it is relatively safe.

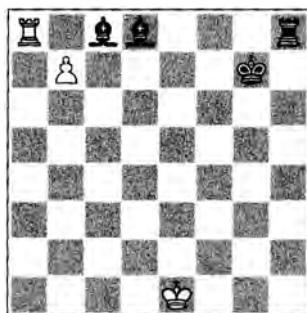
8. ... ♜c4-a5

Another resource. After 9. ♜xa6 ♜c6+ 10. ♜c3 ♜xd4 11. ♜xd4 b5! White can't win since the black b-pawn is not blocked on the right square. Then the knight pair is powerless in the fight against the king.

9. ♖d4xb6 ♜a5-c4

10. ♖b6-d4 1-0

A struggle between king and two bishops is also possible.



Liburkin, 'Sachove Umeni' 1946
White to play and win

White wants to promote his pawn, but he must watch out that the newly-born queen is not captured by the black rook after a bishop check.

1. **b7-b8♚** ♖d8-h4+

2. ♔e1-d2

The king cannot go to a light square.

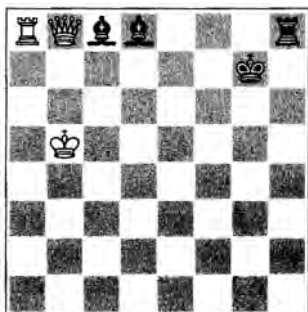
2. ... ♖h4-g5+

3. ♔d2-c3 ♖g5-f6+

4. ♔c3-b4 ♖f6-e7+

5. ♔b4-a5 ♖e7-d8+

6. ♔a5-b5!



Only now that the king's bishop is blocking the 8th rank again, the light squares are available for the king.

6. ... ♖c8-d7+

The duel between the king and the queen's bishop starts. Now White has to avoid the dark squares.

7. ♔b5-c4 ♖d7-e6+

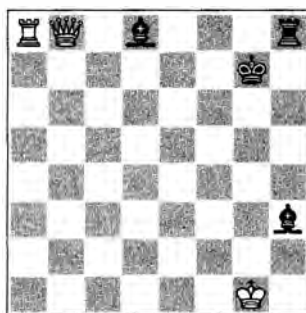
8. ♔c4-d3 ♖e6-f5+

9. ♔d3-e2 ♖f5-g4+

10. ♔e2-f1 ♖g4-h3+

11. ♔f1-g1!

Finally the white king can move to a dark square again.



11. ... ♖d8-b6+

12. ♚b8xb6 ♜h8xa8

13. ♚b6-b7+ 1-0

The struggle between king and knight is fascinating.



Liburkin, 'Shakhmaty v SSSR' 1938
White to play and win

The white knight and the black bishop are both under attack. By giving checks, White hopes to save his knight, and then to capture the bishop.

1. ♞b3-d4+ ♜c2-c3

2. ♞d4-b5+ ♜c3-c4!

Not 2... ♜b4 in view of 3. ♜b1+ and 4. ♞xe1.

3. ♞b5-d6+ ♜c4-c5

Once more Black has to allow a knight check, as otherwise a rook check would follow.

The Art of the Endgame

4. ♖d6-b7+

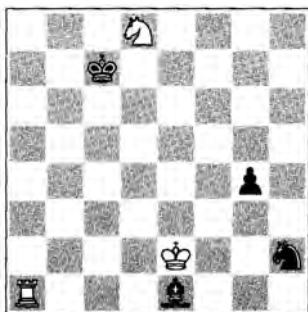
The knight has to move up further. With 4. ♖e4+? ♔d5 5. ♖f6+ ♔e5 6. ♖d7+ ♔e6 White would achieve nothing.

4. ... ♔c5-c6

5. ♖b7-d8+

The king-and-knight dance continues.

5. ... ♔c6-c7



The knight and king have reached the edge of the board. Now the systematic manoeuvre is continued in the direction of the kingside.

6. ♖d8-e6+ ♔c7-d7

7. ♖e6-f8+ ♔d7-e7

Black must keep avoiding rook checks.

8. ♖f8-g6+ ♔e7-f7

9. ♖g6-h8+!

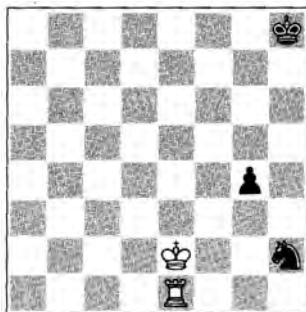
The ninth and last check! White allows his knight to be caught in the corner in order to conquer the enemy knight with tactical tricks.

9. ... ♔f7-g7

10. ♔a1xe1

Finally White finds time to capture the bishop.

10. ... ♔g7xh8



The finish contains a few more attractive points.

11. ♔e1-h1 g4-g3

12. ♔e2-e3!

Now the white king is going to collect the g-pawn via f4.

12. ... ♔h8-g7

The king moves out, just too late to save the knight.

13. ♔e3-f4 g3-g2

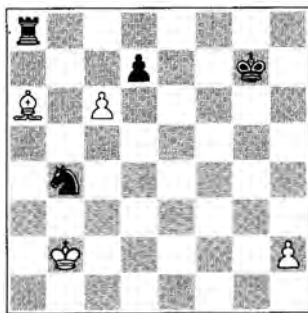
14. ♔h1-g1 ♖h2-f1

15. ♔g1xg2+

And wins. On the next move White plays 16. ♔f2, after which the knight is lost.

For this study Liburkin received 4th prize; a scant reward for such an extraordinary idea. I started investigating in what circumstances the duel between the king and knight could take place. The knight must be supported by a rook. Only then is the enemy king forced to attack the knight diagonally in order to avoid rook checks. The board has to be almost empty. This is in fact a necessary condition for studies with systematic manoeuvres – space is needed.

Moreover, it seemed a good idea to add a theoretical endgame to the manoeuvres as a finale.



Timman 2011

White to play and draw (after Liburkin)

White is a rook behind. He has to try to promote his c-pawn.

1. **♖a6-b7** **♜b4-d3+**

The knight checks start. Insufficient for the win was 1...♜a2+ 2.♜b3 dxc6 3.♖xc6 ♜c2 4.♖b5 and the knight is lost.

2. **♜b2-c2!**

The diagonal attack. After 2.♜c3 ♜a3+ Black would win.

2. ... **♜d3-e1+**

3. **♜c2-d2**

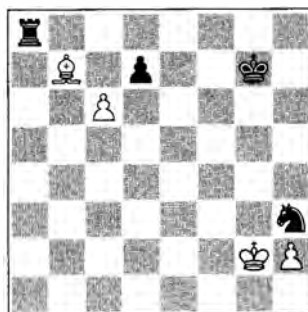
The king-and-knight dance starts. First they move towards the kingside.

3. ... **♜e1-f3+**

4. **♜d2-e2** **♜f3-g1+**

5. **♜e2-f2** **♜g1-h3+**

6. **♜f2-g2**



The first series of checks is finished, and now the king and knight move up.

6. ... **♜h3-f4+**

7. **♜g2-g3**

Again White has to attack the knight diagonally. After 7.♜f3? ♜f8 Black would have a winning discovered check at his disposal.

7. ... **♜f4-h5+**

8. **♜g3-h4!**

For the first time White avoids a knight check.

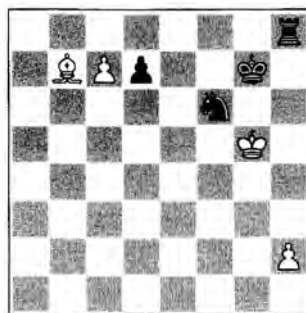
8. ... **♜a8-h8**

9. **c6-c7**

Now the discovered check is less dangerous. But Black can still make a serious winning attempt.

9. ... **♜h5-f6+**

10. **♜h4-g5**



White must put his king in as active a position as possible.

10. ... **♜f6-e4+**

With this fine point Black reaches a rook versus bishop ending with one pawn on each side.

11. **♖b7xe4** **♜h8-c8**

A continuation of Chapter 2. White must push his passed pawn quickly, as otherwise the ending is a theoretical loss.

12. h2-h4 ♖c8xc7
 13. h4-h5 ♖c7-c5+
 14. ♕e4-f5

White must maintain his active set-up.

14. ... d7-d6
 15. h5-h6+

With a draw.

In the end, just as in Liburkin's study, the main line contained nine knight checks; however, the final two were not thematic. I started looking for a study version with even more interesting content and more thematic knight checks.



Timman 2011
 White to play and win

Before the ritual starts, White has to take some precautions.

1. ♔f1-g2 h2-h1 ♖+!

Black sacrifices a pawn in order to have more space for his king later on, when it has to travel the long road to the kingside.

2. ♖g2xh1 ♕c1-b2
 3. ♖b5-d6+

Starting the king-and-knight dance.

3. ... ♖b7-c7
 4. ♖d6-e8+ ♖c7-d7
 5. ♖e8-f6+ ♖d7-e7



6. ♖f6-g8+

The knight has to travel to the far edges of the board again.

6. ... ♖e7-f7
 7. ♖g8-h6+ ♖f7-g7
 8. ♖h6-f5+ ♖g7-g6

Not 8...♖f6 on account of 9. ♖f1, followed by a devastating discovered check by the knight.

9. ♖f5-h4+ ♖g6-g5

The h-pawn is in the way. Again, Black has to allow a thematic check.

10. ♖h4-f3+ ♖g5-g4

An important moment. Now the thematic temptation is 11. ♖h2+. But with this ninth thematic check White would let the win slip through his fingers. Black would reply 11...♖h3, when the white rook cannot intervene decisively. For the win, an extremely subtle move is needed.

11. ♖a1-a2!!

Highly unexpected. Now Black cannot take the knight, since after 11...♖xf3 12.dxc3 he would not have any good squares for his bishop.

11. ... c3-c2

The best chance. Now White has the same resource as in the previous study.

12. ♖f3-e5+! ♙b2xe5

Again, his best chance. If the white knight reaches the d3-square, Black has nothing left to hope for.

13. ♜a2xc2 ♔g4-f3

14. ♜c2-c4!

In this final phase too, White has to keep playing accurately. With the text he denies the black king access to the e-file.

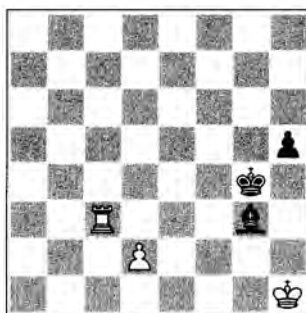
14. ... ♙e5-g3

Threatening 15...h4, when White cannot win.

15. ♜c4-c3+

Again the black king is cut off from the e-file.

15. ... ♖f3-g4



16. d2-d4!

You can also start a game with this move, but in these circumstances, on an almost empty board, it can be quite effective. Black cannot stop the passed d-pawn any more.

Chapter 12

The Disappearing Trick

In Chapter 7 I already touched on the theme of the present chapter: in a study variation one of White's pieces disappears – in other words: the same position arises as before, but now without a certain piece. The absence of this piece gives White extra possibilities.

Such piece sacrifices are always spectacular. I have named this theme 'the disappearing trick' since it made me think of the work of an illusionist: you make something disappear and then a brilliant point follows.

Kubbel has made three studies where he used the disappearing trick to force stalemate.



Kubbel, 'Novoye Vremya' 1914
White to play and draw

This one is quite straightforward.

1. d6-d7+

Forcing the king to step aside.

1. ... ♖c8-b8

2. d7-d8 ♔+

First the pawn is sacrificed.

2. ... ♙a5xd8

After 2... ♔xd8 3. ♘d7+, followed by 4. ♖f8, White would immediately attain the draw.

3. ♖f7-b7+

Introducing the disappearing trick.

3. ... ♜b8-c8

4. ♖b7-b8+! ♜c8xb8



On the board we have the same position as two moves ago, only now without the white rook. The stalemate is not far off now.

5. ♘f8-d7+ ♜b8-c8

6. ♘d7-b6+!

The third and last sacrifice. If Black does not take the knight, White will give perpetual check with it.

6. ... ♙d8xb6

Stalemate.

This was a study without great surprises. More or less the same goes for the following study.



Kubbel, 'Bohemia' 1909
White to play and draw

Again White has to try to sacrifice all his pieces.

1. ♖b6-d7+

First the knight.

1. ... ♗g4xd7

2. ♜a6-c6+ ♕c5-b5

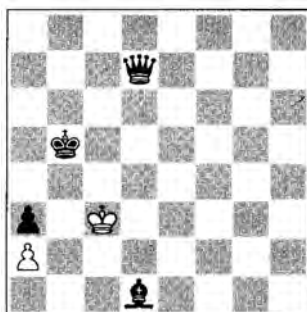
Without the rook and bishop this would be stalemate. How does White get rid of these pieces?

3. ♙e4-d3+!

Black has to capture the rook, as otherwise he will be mated.

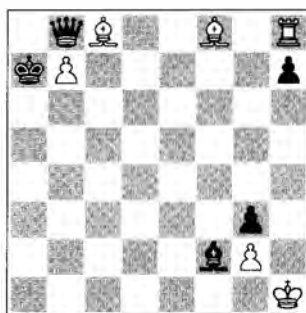
3. ... ♗b5xc6

4. ♙d3-b5+! ♕c6xb5



The rook and bishop have disappeared from the stage and White is stalemated.

The next study is of a higher calibre.



Kubbel, 'Deutsche Schachzeitung' 1907
White to play and draw

The white king is already in a stale-mate position. He has to sacrifice his pieces in an accurate way.

1. ♙f8-d6 ♗b8xd6

2. b7-b8♖+

Black has two ways to take back:

A) 2... ♕xb8 3. ♙h3+! ♕c7 4. ♜xh7+ ♕b6 5. ♜h6! ♗xh6 stalemate;

B) 2... ♗xb8 In this variation our theme is featured. 3. ♜xh7+ ♕a8 4. ♙b7+ ♕a7 5. ♙c8+ with either perpetual check or stalemate.

There are also present-day variations on this interpretation of our theme.



Kralin/Pervakov
'Uralski Problemist' 2003
White to play and draw

The Art of the Endgame

Both kings are in danger, but the white king more so. Moreover, it is almost stalemated. For this reason White will now sacrifice all his pieces.

1. ♖f4-f8+

White must first sacrifice the rook – otherwise he will not lose everything in the end.

1. ... ♜b8-a7

2. ♖f8-a8+ ♜a7xa8

Not yet a disappearing trick; the black king has landed on another square.

3. d7-d8♖+ ♜a8-a7

4. ♖d8-b8+!

With this queen sacrifice White makes new checks possible.

4. ... ♜a7xb8



Now the starting position is reached, without the rook and the d7 pawn.

5. d6-d7+ ♜b8-a7

6. ♖g3-b8+!

The second queen is sacrificed on the same square.

6. ... ♜a7xb8

And now the starting position appears on the board without the white queen, rook, and pawn on d6! The depletion of the white forces is very swift.

7. d7-d8♖+ ♜b8-a7

8. ♖d8xd4+ ♜a7xa6

9. ♘b7-c5+ ♜a6-b5

10. ♖d4-a4+

Forcing the king to take the knight.

10. ... ♜b5xc5

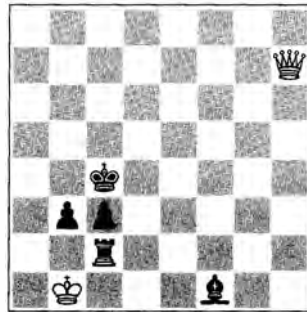
11. ♖a4-a7+

The third queen sacrifice. This time Black does not have to accept.

11. ... ♜c5-c4!

Sacrificing his own queen. Black plays for mate.

12. ♖a7xh7



12. ... ♜c2-b2+

13. ♜b1-c1 ♜b2-b1+!

Now it is Black's turn to take refuge in a disappearing trick.

14. ♖h7xb1

Certainly not 14... ♜xb1 in view of 14... ♜d3+ and Black wins.

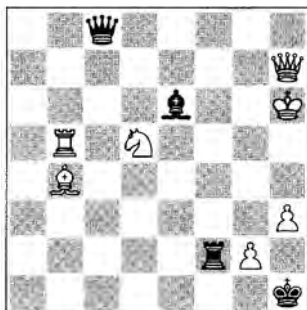
14. ... ♜f1-d3

The situation is precarious for White. However, he still has a stalemate trap.

15. ♖b1-c2!

The final queen sacrifice. Which ever way Black takes, it is stalemate. For this study, Kralin and Pervakov received second prize in the tourney of the Russian magazine.

Nikolay Kralin and Oleg Pervakov are both grandmasters in the field of the endgame study. Together they have made magnificent studies. Pervakov has also used our theme in a study he composed on his own.



Pervakov 2005
Black to move – White draws

As far as material is concerned, White has nothing to complain about, but his king is unsafe.

1. ... ♖c8-c1+
2. ♔h6-h5

The only square.

2. ... ♕e6-f7+
3. ♔h5-h4 ♜f2xg2

After a few introductory checks Black has created dangerous threats.

4. ♕b4-d2!!

With this bishop sacrifice White clears the way for his rook.

4. ... ♖c1xd2
5. ♜b5-b1+ ♔h1-h2
6. ♜b1-h1+!

Here is the theme. White clears the way for his queen.

6. ... ♔h2xh1
7. ♕h7-b1+ ♔h1-h2
8. ♕b1-b8+ ♔h2-h1
9. ♕b8-b1+ ♜g2-g1

The only way to escape the checks.

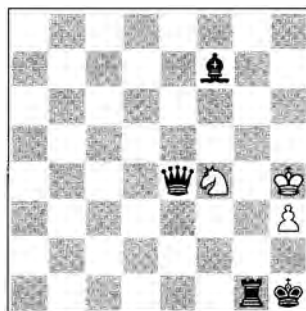
10. ♕b1-e4+ ♕d2-g2

11. ♘d5-f4!!

A magnificent dénouement.

11. ... ♖g2xe4

Stalemate.



For this study Pervakov received first prize in the World Cup.

There is a difference between stalemate studies from the beginning of the 20th century and those from the beginning of this century; the present-day adaptations are more complicated, and play takes place over the entire board. By the way, for studies with a great number of disappearing pieces, the stalemate motif is quite suitable.



Timman 2011
White to play and draw

The Art of the Endgame

The white king is caught in a mating net. He could give his queen with 1. ♔b1 ♚h8+ 2. ♕h7, but the ensuing ending is prospectless.

1. ♕a3-c5+! ♔a7-b8

Otherwise White would trade queens on a1.

2. ♕c5-a7+! ♔b8-a8

Again, the only square. After 2... ♔c8 3. ♕f5+ White would win. But what can he do now against the threatened mate?

3. ♕d3-g6!!

A true problem move. The enemy queen is driven to g6, after which the white queen can control the h8-square.

3. ... ♚g7xg6

An important alternative was 3... ♚f6+ 4. ♔xg4 ♚e1!. With 5. ♕c2! White can just hold.

4. ♚f1-a1! f7-f5!

The best attempt. After 4... ♚g8 5. ♕e3+! ♔b8 6. ♚a7+ ♔c8 7. ♚a8+ ♔d7 8. ♚xg8 ♚xg8 9. f5! White would have the advantage. After the text move he must again arm himself against the threat of mate in one.



5. ♕a7-b8+!

This fourth bishop sacrifice marks the beginning of a sacrificial slugfest.

5. ... ♔a8xb8

Now, all white pieces will be sacrificed on the corner square.

6. ♚a1-a8+!

First the queen.

6. ... ♔b8xa8

7. ♚g1-a1+

The first rook presents itself.

7. ... ♔a8-b8

8. ♚a1-a8+! ♔b8xa8

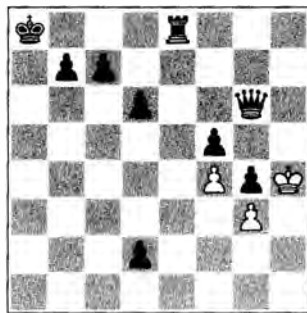
9. ♚h1-a1+

And the second.

9. ... ♔a8-b8

10. ♚a1-a8+! ♔b8xa8

Stalemate.



A real deforestation has taken place. The previous diagram position is again on the board, only now without the four white pieces.

In almost all the other studies that I will present, White uses the disappearing trick to win. Sometimes White wants to lose a piece in order to create a passage for a pawn.



Bron, 'Magyar Sakkélet' 1948
White to play and win

Black threatens mate in one. Although three of his pawns are about to promote, White cannot solve this problem. He will have to create a new candidate for promotion.

1. ♖b7-a7+ ♔a8-b8

2. ♖a7-a8+

Thus White gets rid of his rook.

2. ... ♔b8xa8

3. b6-b7+

The point of the rook sacrifice. The b-pawn gets free passage.

3. ... ♔a8-a7

The only move to prevent immediate mate.

4. b7xc8♘+

With this minor promotion, the important black defender of the back rank is eliminated with tempo.

4. ... ♔a7-a6



Introducing a stalemate trap into the position.

5. g7xh8♙!

The carousel of minor promotions continues. After 5.gxh8♙? d4! 6.♙xd4 ♖a1+ Black would force stalemate.

5. ... d5-d4!

Under these circumstances, too, Black continues to play for stalemate.

6. ♘h8xd4 ♖a3-d3

7. ♘f7-h5

Covering the d1-square.

7. ... ♖d3-b3

Continuing to harass White.

8. ♘h5-g6 ♖b3-c3!

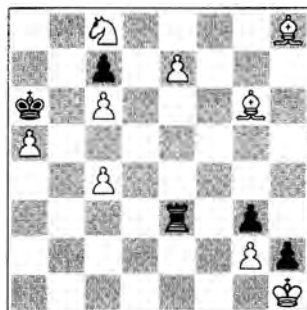
Making use of the stalemate trap. Now White has to put his queen's bishop on another diagonal.

9. ♘d4-e3 ♖c3-a3

10. h7-h8♙!

The second bishop promotion on the same promotion square.

10. ... ♖a3xe3



The last attempt.

11. e7-e8♚!

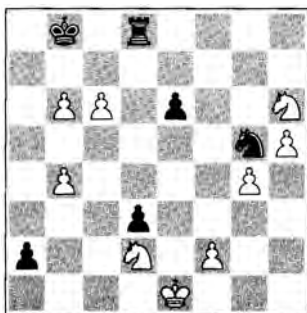
And wins.

For this study, Bron received first prize in the tourney of the Hungarian magazine.

The Art of the Endgame

Incidentally, the disappearing trick was not central in this study: it served to make several minor promotions possible.

The Romanian endgame study composer Emilian Dobrescu has made a study where the disappearing trick serves via an ingenious manoeuvre to grant a passed pawn free passage.



Dobrescu, 'L'Italia Scacchistica' 1968
White to play and win

A coincidence: just as in the previous study by Bron, White has passed pawns on b6 and c6.

1. **c6-c7+** ♖b8-b7

His best chance.

2. **c7xd8** ♖+!

A second coincidence: here, too, White captures a rook and promotes to a knight with check.

The three white knights that are now on the board will all be sacrificed on the same corner square in the end.

2. ... ♜b7xb6

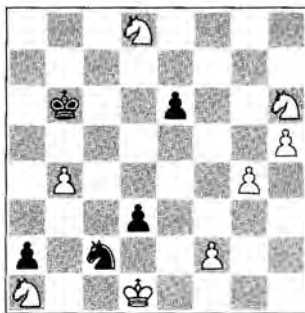
3. **♖d2-b3**

The first episode is concluded. White has a great material advantage, but the a-pawn remains very dangerous.

3. ... ♘g5-f3+

4. **♚e1-d1** ♘f3-d4

5. **♘b3-a1** ♘d4-c2



Black's counterplay materializes. He steers towards a repetition of moves.

6. **♘d8xe6!**

The introduction to the disappearing trick. It is important that the black e-pawn disappears from the board.

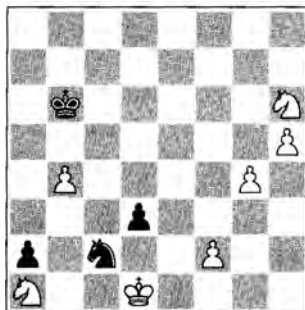
6. ... ♘c2xa1

7. **♘e6-d4** ♘a1-c2

The ritual continues; the two knights will change places.

8. **♘d4-b3** ♘c2-d4

9. **♘b3-a1** ♘d4-c2



In four moves the same position will occur, only without the knight on h6.

10. **♘h6-f5!**

This is now possible because there is no longer a black pawn on e6.

10. ... ♖c2xa1

11. ♖f5-d4

The third knight enters the battle.

11. ... ♖a1-c2

12. ♖d4-b3

The ritual is played out for the third and last time.

12. ... ♖c2-d4

13. ♖b3-a1 ♖d4-c2

14. h5-h6!

This was what it was all about. The white kingside pawns decide the outcome of the battle.

14. ... ♖c2xa1

15. h6-h7 ♖a1-c2

16. h7-h8♖ a2-a1♖+

17. ♖h8xa1 ♖c2xa1

18. g4-g5 1-0

For this study Dobrescu received first prize in the tourney of the Italian magazine.

Things are a little more difficult if the disappearing trick serves to enable a pawn to march, which is then also sacrificed in order to open up a diagonal for the queen.

White has three extra pawns, but his knight is offside and also the safety of his king is not guaranteed.

1. ♖b8-d7!

Black has to accept this knight sacrifice, otherwise the knight would reach the vital square f6.

1. ... ♖e6xd7

2. e5-e6!

The point of the knight sacrifice. With a further pawn sacrifice, White opens up the long diagonal for the queen.

2. ... ♖d7xe6

The starting position, without the white knight and e-pawn.

3. ♖c3-c8+!

The third consecutive sacrifice. White's attacking play is based on the strong f-pawn, which paralyses Black's defences.

3. ... ♖e6xc8

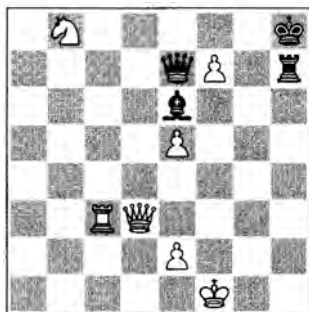
4. ♖d3-c3+ ♖h7-g7

5. ♖c3xc8+

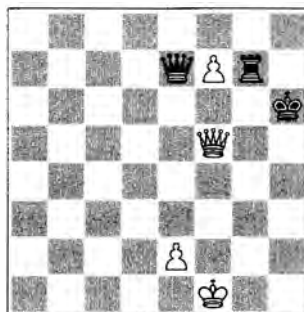
White has regained material with check, while his attack rages on.

5. ... ♖h8-h7

6. ♖c8-f5+ ♖h7-h6



Bazlov 2009
White to play and win



Setting a stalemate trap.

7. f7-f8♔!

Certainly not 7.f8♔? on account of 7...♕xe2+! with stalemate.

7. ... ♖g7-g6

The white attack is unstoppable.

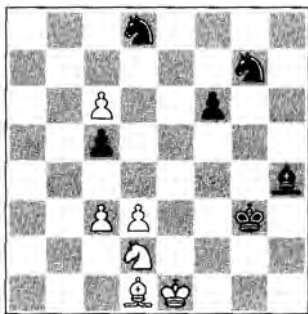
8. ♕f5-h3+ ♔h6-g7

9. ♕h3-h8

Mate.

For this study Bazlov received first prize in the Sarychev Memorial Tourney.

Dobrescu has made another interesting study with the disappearing trick. Although only a single pawn disappears, the motif behind this is worth seeing.



Dobrescu, 'Thèmes 64' 1981
White to play and win

Black cannot prevent the promotion of the white c-pawn, but he gets counterplay because the white king has few squares at its disposal.

1. c6-c7 ♘d8-e6

2. c7-c8♕ ♔g3-g2+

The start of a long series of checks.

3. ♔e1-e2 ♘e6-f4+

4. ♔e2-e3 ♘f4-d5+

5. ♔e3-e4



The king has to move up further.

5. ... ♘d5xc3+

6. ♔e4-f4

The king moves to the kingside, in order to conquer the black bishop, which deprives it of the square e1.

6. ... ♘c3-d5+

7. ♔f4-g4 ♘d5-e3+

8. ♔g4xh4 ♘e3-f5+

9. ♔h4-g4

And now, back again.

9. ... ♘f5-e3+

10. ♔g4-f4 ♘e3-d5+

11. ♔f4-e4 ♘d5-c3+

How can White escape from the checks now?

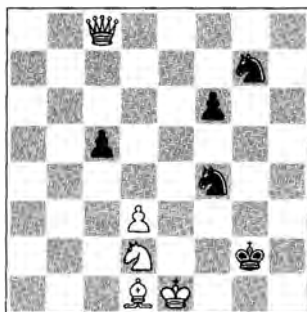
12. ♔e4-e3

Down again.

12. ... ♘c3-d5+

13. ♔e3-e2 ♘d5-f4+

14. ♔e2-e1!



The theme becomes apparent. White forces Black to take the d-pawn.

14. ... ♘f4xd3+
 15. ♔e1-e2 ♘d3-f4+
 16. ♔e2-e3

And wins, as White now gets the square d3 for the king.

For this study Dobrescu received first prize from the French magazine.

In the previous study, White made the pawn disappear in order to avoid perpetual check. For this purpose, we can also make two white pieces disappear.



Timman 2011

Black to move – White wins

White threatens to give mate. Black has to take drastic measures to continue the struggle.

1. ... ♚b2-e5+
 2. ♔f4-g4

Now the queen is in the way of a knight check. For this reason, Black is the first to resort to a disappearing trick.

2. ... ♚e5-e6+
 3. ♔g4-h4

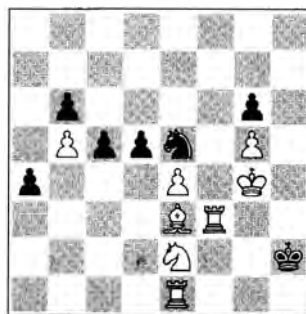
It looks as if Black has already run out of moves. However, he still has a surprising resource.

3. ... ♚e6-g4+!!

An astonishing queen sacrifice, and at the same time Black's contribution to the theme.

4. ♘h4xg4 ♘d7-e5+

The knight takes the place of the queen.



5. ♔g4-h4!

White sacrifices a rook in order to create an escape square for the king.

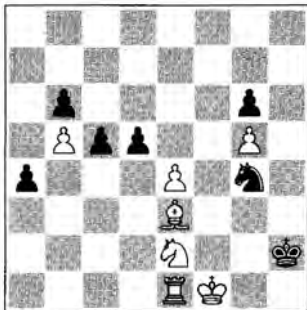
5. ... ♘e5xf3+
 6. ♔h4-g4

The same position as two moves earlier, only now without the rook on f3.

6. ... ♘f3-e5+
 7. ♔g4-f4 ♘e5-d3+
 8. ♔f4-f3 ♘d3-e5+

The alternative was 8... ♘xe1+. After 9. ♔g4 dxe4 10. ♘c3 a3 11. ♔f4 ♘c2 12. ♔xe4 ♔g3 13. ♔c1! Black cannot prevent the white king's decisive penetration via e5. After the text move White has to continue manoeuvring.

9. ♔f3-f2 ♘e5-g4+
 10. ♔f2-f1!



As in Dobrescu's study, White sacrifices his bishop in order to clear the e3-square for his king.

10. ... ♘g4xe3+
11. ♔f1-f2 ♘e3-g4+
12. ♔f2-f3 ♘g4-e5+
13. ♔f3-e3

Finally the white king has some space. But the enemy checks are not exhausted yet.

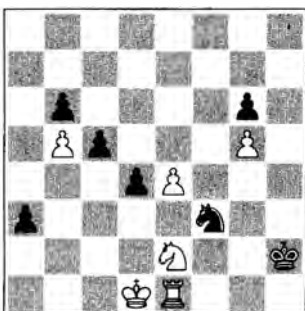
13. ... d5-d4+
14. ♔e3-d2!

Not 14. ♖xd4 cxd4+ 15. ♕e2 on account of 15... ♖g3 16. ♖f1 a3!, and thanks to his strong knight Black can just hold.

14. ... ♞e5-f3+
15. ♔d2-d1

The conclusion of a long king march. But Black has yet another string to his bow.

15. ... a4-a3



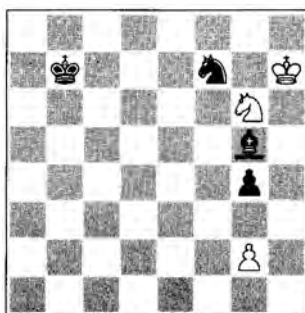
- 16. ♖e2-c1!**

It all fits nicely.

16. ... ♘f3xe1
17. ♔d1xe1 ♙h2-g3
18. e4-e5

And the e-pawn decides.

Square clearance for the king as a motif for the disappearing trick can also occur in a miniature study.



Bazlov, Nunn 50-JT 2005
White to play and draw

Without the knight, White could play 1.♔g6. If the white king takes a detour, it will be too late: 1.♔g7 ♚d6 2.♜e5 g3 3.♔g6 ♜d8! 4.♔h5 ♜e4 5.♔g4 ♜c7 and the black g-pawn is solidly defended. White has no chance to exchange the knights.

1. g6-h8!

Offering the exchange of knights. If Black complies, the white king will be back just in time, as becomes clear after 1...♖xh8 2.♗xh8 ♕c6 3.♗g7 ♕d5 4.♗g6 ♙d8 5.♗f5 g3 6.♗f4! ♙c7+ 7.♗e3 and the king reaches the safe square e2, after which White has a fortress.

1. ... f7-e5

Centralization. Now what can White do?

2. ♖h8-f7!!

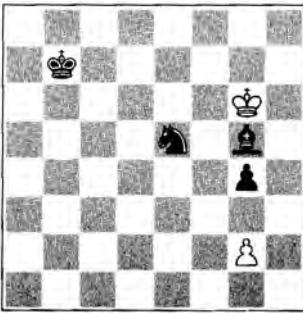
The magnificent point. White sacrifices his knight in order to obtain the square g6 for the king.

2. ... ♜e5xf7

3. ♔h7-g6

The king takes the place of the knight.

3. ... ♜f7-e5+



The best try. Now, after 4. ♔xg5 ♜c6 5. ♜f4 ♜d6!, White would not stand a chance. But he does not have to take the bishop.

4. ♔g6-f5!!

A fantastic move. White would rather take the knight than the bishop and therefore he puts his king in between the two pieces.

4. ... ♜e5-f7

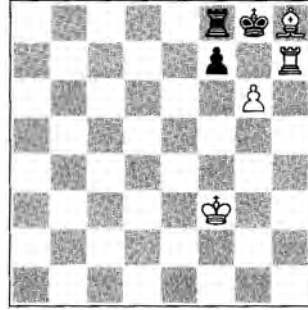
There is nothing better. 4... ♜f3 would be met by 5. ♔xg4.

5. ♜f5-g6

And Black cannot make progress.

In my opinion, this is the best study with the disappearing trick theme.

The disappearing trick can also serve to clear a square for other pieces than the king. The following miniature study is famous.



Kozlowski, 'Swiat Szachowy' 1931
White to play and win

The solution is not difficult. White forces the decision with:

1. ♜h7-g7+! ♜g8xh8

2. ♜g7-h7+ ♜h8-g8

3. g6-g7

The bishop sacrifice has cleared the h8-square for the rook.

It is harder to prove that the alternative 1.g7 does not win. After all, if White managed to exchange rooks, it would no longer matter that the bishop on h8 is bad. The defensive scheme that Kozlowski indicated implies that in the end Black sacrifices his f-pawn and puts his king on h7 and his rook on the g-file. Indeed, it looks as if Black has a fortress in that case. By the way, I wouldn't enjoy defending such an endgame in practice.

A bishop can also be sacrificed in order to clear a square for a knight.



Timman, WCCT-7 2004
White to play and win

Materially White clearly has the upper hand, but Black threatens to bring his queen to c2.

1. ♖f5-g3+!

Forcing Black to take the bishop. On 1...♔xg3, the *zwischenzschach* 2. ♜h7+ would win instantly.

1. ... ♔h5xh4

2. ♖g3-f5+ ♔h4-h5

The starting position, only without the white bishop.

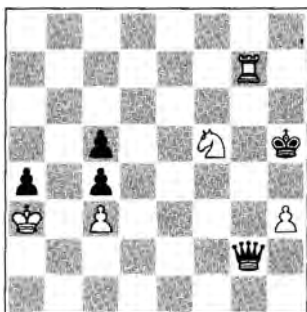
3. ♜g7-h7+

The point of the bishop sacrifice. Now that square h4 has been cleared for the knight, the black king cannot go to g6.

3. ... ♔h5xg5

Playing for stalemate.

4. ♜h7-g7+ ♔g5-h5



The g-pawn has also disappeared from the board, and stalemate is in the air. However, White has another trick.

5. h3-h4!

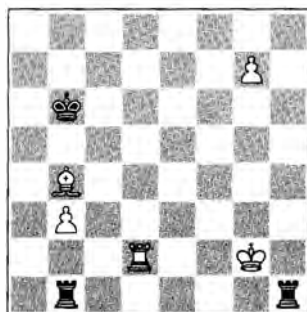
From stalemate to mate. The deadly check on g5 cannot be prevented.

5. ... ♔g2-g1

6. ♜g7-g5+

And wins.

Line clearance can also be a motif for the disappearing trick.



Wotawa, 'Deutsche Schachzeitung' 1954
White to play and win

It looks as if Black has managed to keep command of the situation. Without the white bishop and b-pawn, a check on b2 would decide the issue. But how can White lose the bishop and the pawn?

1. ♔g2-g3!

Forces Black to take on b3.

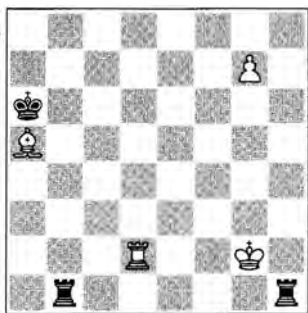
1. ... ♜b1xb3+

2. ♔g3-g2 ♜b3-b1

The b-pawn has been removed. Now the bishop.

3. ♜b4-a5+! ♔b6-a6

After 3...♔xa5 4. ♜a2+ followed by 5. ♜b2+ White would have achieved his goal.



5. ♖a5-b6!!

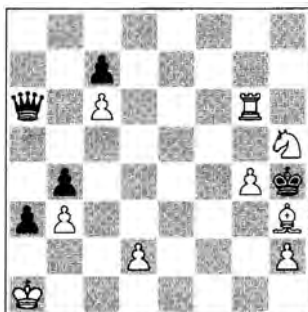
A fantastic move. As the bishop controls the square g1, it has to be captured.

5. ... ♗a6xb6
6. ♜d2-b2+! ♜b1xb2+
7. ♔g2xh1 ♜b2-b1+
8. ♔h1-g2

The white king marches to f6, and Black will run out of rook checks.

For my 2004 study I received 11th prize in the 2003 World Championships, which had the disappearing trick as its theme.

With hindsight I wasn't satisfied with this study. The play only occurs on the kingside, and the white king plays no active role. A better version turned out to be possible.



Timman 2011
White to play and win

Black's counterplay is not to be underestimated. White has to protect his bishop; all other moves lose.

1. ♖h5-f4 ♗a6-b6

An important alternative was 1...a2 with the threat of a queen sortie to a3. In that case White has an elegant, hidden way to win: 2. ♜h6+ ♔g5 3. ♜h5+! ♔xf4 4. ♜f5+ ♔e4 5. ♔g2+ ♔d4 (5...♔d3 6. ♔f1+) 6. ♜d5 mate.



A clean mate, in the middle of the board.

2. ♔a1-a2!

A quiet move, after which the black queen is dominated.

2. ... ♗b6-g1

2...♗d4 would be met by 3. ♜h6+ ♔g5 4. ♔e6+ and wins. Also after 2...♗f2 3. ♜h6+ ♔g5 4. ♜h5+ ♔f6 5. ♜f5+ the queen is lost.

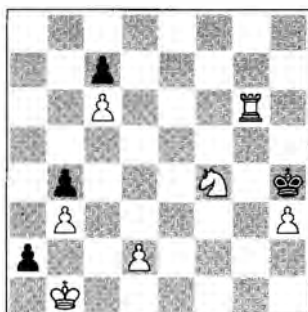
3. ♖f4-g2+

Preparing the disappearing trick.

3. ... ♔h4xh3
4. ♖g2-f4+ ♔h3-h4
5. ♜g6-h6+ ♔h4xg4
6. ♜h6-g6+ ♔g4-h4
7. h2-h3!

Again this little move. Black can still resist and play for stalemate.

7. ... ♖g1-b1+
8. ♔a2xb1 a3-a2+

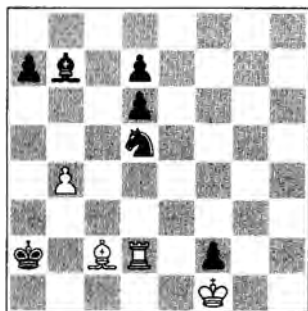


9. ♔b1-c2!

The only good square for the king. White has to avoid the a-pawn promoting with check.

9. ... a2-a1♖
10. ♖g6-g4#

After the bishop I made the g-pawn disappear, with the aim of opening the g-file. It is only logical that this is achieved by means of a pawn sacrifice. After all, the presence (or absence) of pawns determines if a file is closed, half-open or open. This motif also features in a youthful study by Kralin.



Kralin, 'Shakhmatnaya Moskva' 1968
White to play and win

White has to capture the knight in order to create winning potential.

1. ♔c2-e4+ ♔a2-b3
2. ♔e4xd5+ ♔b3-c3
3. ♖d2-d1 ♔c3-c2

Black's plan of defence consists of simply pursuing the rook with the king.

4. ♖d1-d4 ♔c2-c3
5. ♖d4-c4+ ♔c3-b3

How to go on from here?



6. ♖c4-c6+!!

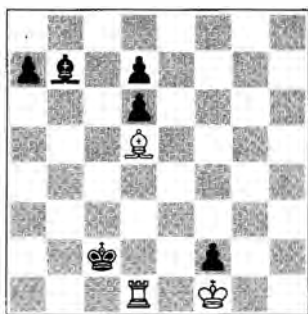
The climax of the study. White forces the king to capture the b-pawn.

Insufficient for the win would have been 6. ♖c5+. White has the same idea: 6... ♔xb4 is met by 7. ♖c4+. But with 6... ♔a4! 7. ♖a5+ ♔xb4 Black could wrongfoot the white rook.

6. ... ♔b3xb4
7. ♖c6-c4+

Now the rook will travel the whole way back.

7. ... ♔b4-b3
8. ♖c4-d4+ ♔b3-c3
9. ♖d4-d1 ♔c3-c2



10. ♖d5-b3+!

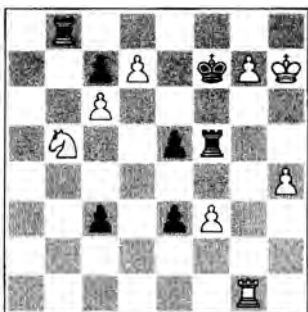
The final point. Now that the b-file is open, White has this tactical trick.

10. ... ♜c2xb3

11. ♖d1-b1+

And wins.

In the following study the f-file has to be opened.



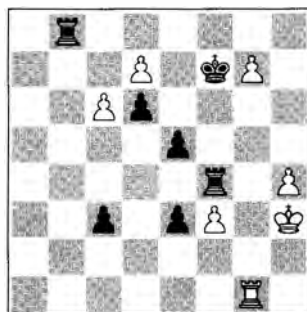
Sochniev, Gurgendize JT 2004
White to play and win

Black is threatening mate in one. Before White prevents this, he first sacrifices his knight in order to create a mighty, far-advanced pawn pair.

1. ♖b5-d6+! c7xd6
2. ♜h7-h6 ♜f5-f6+
3. ♜h6-h5 ♜f6-f5+

The win is not easy for White. For instance, he cannot play 4. ♜g5, as then the black passed pawns become too strong.

4. ♜h5-g4 ♜f5-f4+
5. ♜g4-h3!



This way White forces Black to take the f-pawn.

5. ... ♜f4xf3+
6. ♜h3-g4 ♜f3-f4+
7. ♜g4-h5 ♜f4-f5+
8. ♜h5-h6 ♜f5-f6+
9. ♜h6-h7 ♜f6-f5

Via a systematic manoeuvre we are back in the position of seven moves ago, but the white f-pawn has fallen.

10. ♜g1-f1!

That's why White wanted to open the f-file. With the rook sacrifice he gains time to promote his pawns.

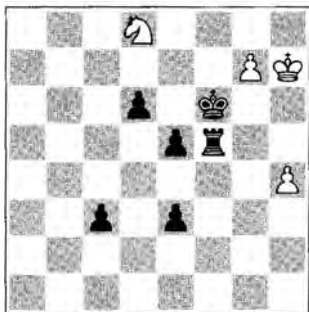
10. ... ♜f5xf1
11. c6-c7 ♜f1-f5

Black is defending tenaciously. Again, mate is threatened.

12. d7-d8♖+!

The only way.

12. ... ♜b8xd8
13. c7xd8♖+! ♜f7-f6



Black maintains his threat.

14. g7-g8♖!

Mate.

For this study Sochniev received shared first prize in the Gurgendzhe Jubilee Tourney.

Back to the 2003 World Championships. Second prize went to Pervakov, who incorporated a highly complicated square clearance in a study that makes a slightly chaotic impression.



Pervakov, WCCT-7 2004
White to play and win

Many things are going on here. White has two dangerous passed pawns, but the black h-pawn should not be underestimated either. For example, 1.f7? would be insufficient in view of 1...♗b8!

2.f8♔ ♖xf8 3.♗xf8 h3, and the h-pawn decides the issue. Therefore White must prepare the promotion of his b-pawn.

1. ♖a8-c7! ♖f2xd2+

2. ♗a2-a3!

The only good square for the king. Here is a long variation which illustrates why 2.♗b3 is not good: 2.♗b3 ♖b2+ 3.♗c4 ♖xb6 4.f7 ♗d6 5.♖e8 ♗e7 6.♗f6 ♖b4+ 7.♗c3 ♗f8 8.♗g7 ♗e7 9.♗e5 ♖xb7 10.♗d6 h3! and in the end Black draws the long end of the stick.

2. ... ♗d2xd3+

3. ♗a3-a2

The theme is clear again: White has given up the d-pawn in order to reach the same position. The absence of the pawn provides him with an extra square for the king later on.

3. ... ♗d3-d2+

4. ♗a2-b3

Now he can play this.

4. ... ♗d2-b2+

5. ♗b3-c4 ♖b2xb6

6. f6-f7 ♗e5-d6



7. ♖c7-e8!

So far the variation is the same as in the comments to White's second move. Now 7...♙e7 would fail to 8.♙f6 ♖b4+ 9.♙d3 ♙f8 10.♙c3, when White gains a decisive tempo by attacking the rook.

7. ... ♙d6-a3

The best try.

8. ♘e8-d6!

The thematic knight sacrifice. After 8.♙e5? ♖xb7 9.♙d6 ♙xd6 10.♘xd6 ♖b8 11.♘e8 ♖b4+, followed by 12...♗f4, Black would win.

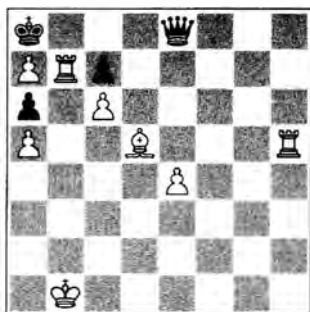
8. ... ♙a3xd6

9. ♙g7-e5 ♙d6-a3

10. ♙e5-c7

The bishop goes to the vacated square. White wins.

And the first prize study? That was a quite exceptional piece of work.



Bennō, WCCT-7 2004

White to play and win

If White does not play carefully, Black will have a kamikaze queen. Therefore he must first get rid of his foremost a-pawn.

1. ♖b7-b8+ ♙a8xa7

2. ♖b8-b7+ ♙a7-a8

3. ♖b7xc7 ♙e8xh5

Perpetual check is threatened. White now also sacrifices his second rook.

4. ♖c7-c8+ ♙a8-a7

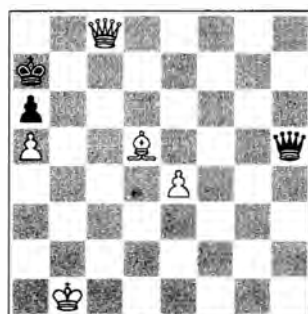
5. ♖c8-a8+ ♙a7xa8

6. c6-c7+

A familiar motif. The rook has disappeared in order to provide passage for the c-pawn.

6. ... ♙a8-a7

7. c7-c8♙



On 7...♙d1+ White has prepared 8.♙c1. Black has to play for stalemate.

7. ... ♙h5xd5

8. ♙c8-c7+ ♙a7-a8

The stalemate is still not forestalled.

9. ♙c7-a7+!

But now it is!

9. ... ♙a8xa7

The same position, now without the white queen.

10. e4xd5

And wins.

Avoiding stalemate is a useful motif for a disappearing trick.



Korolkov, 'Shakhmaty v SSSR' 1938
White to play and win

Black is threatening to sacrifice his rook on e8. There is only one way to avoid the stalemate.

1. ♖e3-d5! ♜e5xd5

Now White has a move's respite before Black has a concrete stalemate threat again.

2. ♖d1-e3

The second knight enters the stage...

2. ... ♜d5-e5

3. ♖e3-d5!

... and is sacrificed on the same square.

3. ... ♜e5xd5

4. ♜c1-d1 ♜d5-e5

5. ♜d1-d5!

The rook also chooses the central square on which to be sacrificed.

5. ... ♜e5xd5

6. ♙b2-c1



The knight on d1 was sacrificed in order to clear its square for the rook – the rook in its turn has made its original square available for the bishop.

6. ... ♜d5-e5

For the third time the rook returns to the centre square.

7. ♙c1-g5!

The battle scene is shifted to the g-file.

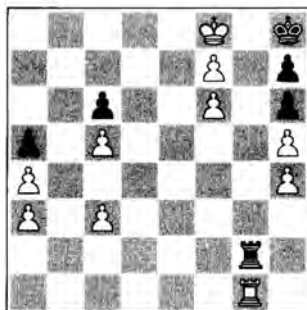
7. ... ♜e5xg5

8. ♜h1-g1

Forcing the rook to stay on the g-file. Now there follow several systematic manoeuvres.

8. ... ♜g5-g2

9. h3-h4!



Reciprocal zugzwang. The black rook has to move up.

9. ... ♜g2-g3

10. ♜g1-g2!

And the white rook follows suit.

10. ... ♜g3-g4

11. ♜g2-g3! ♜g4xg3

There's nothing to be done about it. There now follows a finale in which White manages to neutralize Black's rampant rook.

12. ♙f8-e7 ♜g3-e3+

13. ♙e7-d7 ♜e3-d3+

14. ♔d7xc6 ♚d3-d6+
 15. ♔c6-b5 ♚d6-b6+
 16. ♔b5-c4

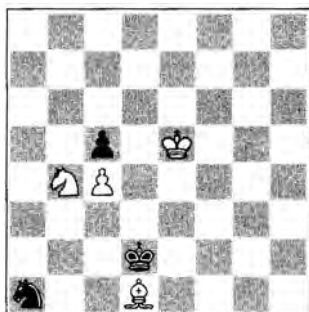


The checks are exhausted.

16. ... ♚b6xf6
 17. ♔c4-b5

And wins. An impressive study. There is also a version with a white queen on f3 instead of a knight on e3 in the starting position. There the first move is 1. ♕d5!.

An interesting occasion for a disappearing trick is when a piece is attacked by an enemy pawn. White wants to prevent this capture by sacrificing the piece in question on another square.



Afek, 'Thèmes 64' 1977
 White to play and win

Both white pieces are under attack. It looks as if White can win easily with 1. ♔a4 cxb4 2. c5, but with 2...b3 3. ♔xb3 ♚xb3 4. c6 ♚a5! 5. c7 ♚c6+ 6. ♔d6 ♚a7 Black succeeds in stopping the c-pawn.

1. ♚b4-c2!

White has no objections to playing a pawn ending.

1. ... ♚a1-b3

The only way to maintain the knight. Now it appears that White has not achieved anything special, since after 2. ♚e3 ♚a5 Black easily holds the draw.

2. ♚c2-a1!!

A tremendous surprise. White sacrifices his knight in order to dominate the enemy knight. This miniature looks like Bazlov's, only there the white knight was first played to the corner square and then sacrificed. Here the corner square is where the sacrifice takes place.

2. ... ♚b3xa1

Otherwise 3. ♚b3+ follows.

3. ♔d1-a4 ♔d2-c3

4. ♔e5-d5 ♔c3-b4

5. ♔a4-d1!



Reciprocal zugzwang. White wins.

My own contribution looks slightly different, as the piece that will be sacrificed is not under attack yet. White sacrifices his bishop in anticipation of that attack.



Timman 1999/2011
White to play and win

To the old version I have added a starting move.

1. d4-d5!

A thematic pawn sacrifice with which White increases the action range of his bishop.

1. ... ♔c6xd5

2. ♖e2-a2+!!

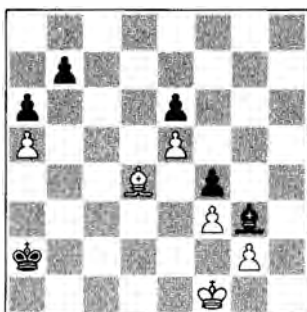
The beautiful point of the previous move. White wins the queen.

2. ... ♔d5xa2

3. ♕f2-d4+ ♔a1-b1

4. ♖d1-c3+ ♔b1-b2

5. ♖c3xa2+ ♔b2xa2



The picture has changed dramatically. The ensuing bishop ending does not seem so bad for Black. However, he has a problem: his remote king. White is going to exploit this factor.

6. ♕d4-f2

A 'switchback' by the bishop.

6. ... ♕g3-h2

Black should not consent to entering the pawn ending. The text move seems a safe option. If White sets his majority in motion, Black has no problems. After 7.g4 fxg3, each move by the white bishop is answered by 8...g2+, after which the black bishop is again free to move.

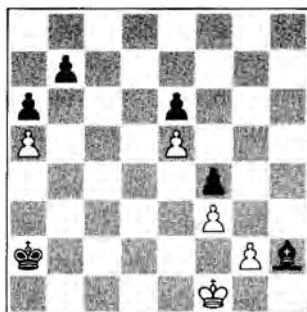
7. ♕f2-g1 ♕h2-g3

Again he avoids the bishop trade.

8. ♕g1-h2!!

An amazing version of the disappearing trick.

8. ... ♕g3xh2



9. g2-g4!!

Recently I read about someone who wanted to abolish the en passant rule. The game of chess would lose a lot of its beauty in that case.

9. ... f4xg3

10. ♔f1-g2

The point. Without the white bishop, the black bishop will remain cut off from play, and the white f-pawn has free passage.

10. ... ♖a2-b3
 11. f3-f4 ♖b3-c4
 12. f4-f5 ♖c4-d5
 13. f5-f6

And wins.

Is it possible to make a study where in the starting position no fewer than five white pieces are undeveloped on the first rank? Costeff succeeded in composing such a study, which is rich in content and striking in its originality.



Costeff, WCCT-7 2004
 White to play and win

Materially, White has a large advantage, but particularly the far-advanced black d-pawn creates danger for his king. Therefore he will have to do everything he can to achieve the exchange of queens.

1. ♔d1-a4!

After other moves White will have a draw at best, for example: 1. ♔b3 ♔d6! 2. exf5 ♔g3+ with a draw by perpetual check.

1. ... ♔f5xf3

His best chance. Black allows the queen exchange and tries to obtain counterplay with his rooks.

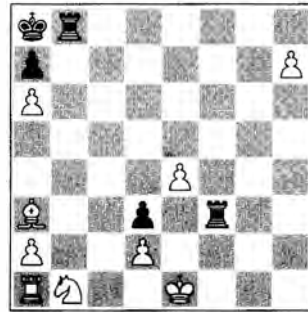
2. ♔a4-a6+ ♔e6xa6

3. b5xa6+ ♖b7-a8!

A clever move. The alternative 3...♖xa6 was insufficient on account of 4. ♖a3 (preventing 4...♖bf8), 4...♔h8 5. ♖c3 ♖xh7 6. 0-0-0! and wins.

4. ♖c1-a3

Now too, White has to prevent the black rook occupying the f8-square.



4. ... ♖b8xb1+!

The magnificent point of Black's previous move. Now, after 5. ♖xb1 Black forces stalemate by 5...♖f1+.

5. ♖a3-c1!!

The ultimate disappearing trick. The black rook has to go back.

5. ... ♖b1-b8

6. ♖c1-b2

Preventing the rook check.

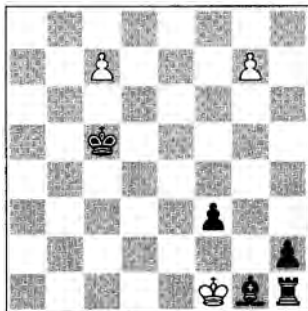
6. ... ♖b8-f8

7. 0-0-0

The final point. With the transaction that started with 4. ♖a3, White has lost his knight, eventually gaining time to get his king out of the danger zone by castling queenside. White wins.

The Art of the Endgame

I succeeded in making a study where both sides take refuge in the disappearing trick. Actually this happened by coincidence. I had been occupied with the following study by the Hungarian endgame study composer Attila Koranyi.



Koranyi, match Hungary-Finland 1979
White to play and draw

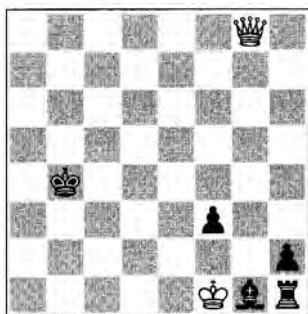
Black threatens to give mate. It's clear that White has to queen.

1. **c7-c8♚+** ♔c5-b4

Now what? Only by sacrificing his queen can White prevent mate in one.

2. ♚c8-c4+! ♔b4xc4

3. **g7-g8♚+** ♔c4-b4



Again, White has the same problem. But there is an elegant way out:

4. ♚g8-g2!

A second queen sacrifice, which Black again has to accept.

4. ... **f3xg2+**

5. ♔f1xg2 ½-½

A modest study with an attractive theme. Something more could be gotten out of it.



Timman 2011
Black to move – White draws

It looks hard to come up with something for Black. His king is caught in the crossfire of white pieces. With the disappearing trick he manages to turn the tables.

1. ... ♚g5-g2+!

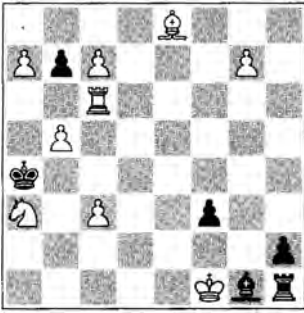
2. ♔f1xg2 **f2-f1♚+**

3. ♔g2xf1 **f4-f3**

Suddenly White has great trouble averting the mate threat. He cannot play 4.a8♚+ on account of 4...♔a7 mate. So he has to start sacrificing on a grand scale.

4. **♖c4-a4+** ♔a5xa4

Now White follows up with a disappearing trick.



5. ♖c6-c4+ ♔a4-b3
6. ♖c4-b4+ ♔b3xa3
7. ♖b4-a4+!

Not 7. ♖b3+? ♔a2 and Black wins.

7. ... ♔a3xa4

The same position as two moves earlier, only now without the white rook and knight. By the way, Black had to capture the rook. After 7... ♔b2 8. ♖a2+! ♔b1 9. ♖xh2! the mate threat would have been eliminated, and White would have won with his material surplus.

8. b5-b6+

The point. This discovered check renders the a7-square inaccessible for the black bishop.

8. ... ♔a4-a5

Not 8... ♔a3 9. a8 ♖+ ♔b2 10. ♖a2+! ♔xa2 11. g8 ♖+ followed by 12. ♖g2, and White wins.

9. a7-a8 ♖+ ♔a5xb6



And now for the queen sacrifices:

10. ♕a8xb7+ ♔b6xb7
11. ♕e8-c6+!

A bishop sacrifice in between events.

11. ... ♔b7xc6
12. c7-c8 ♖+ ♔c6-b5

Now 13. ♖e8+ fails to 13... ♔a5! and White has no good checks left.

13. ♖c8-c4+!

Koranyi's queen sacrifice.

13. ... ♔b5xc4
14. g7-g8 ♖+ ♔c4xc3
15. ♖g8-g2!

White's third queen sacrifice.

15. ... f3xg2+
16. ♔f1xg2

Draw.

Chapter 13

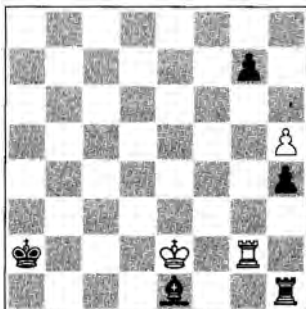
Three Themes

1. Troitzky/Amelung position

An interesting question is: can we compose a position where one side is a rook, bishop and pawn up, it is his move and yet he cannot win? I shall give two clues: stalemate is not a theme, and without that pawn it isn't possible.

In 1896 this position was discovered twice: by the Baltic/German endgame theoretician Friedrich Amelung in Riga, and by Alexey Troitzky in Smolensk. Each of them published a modest study in that year which showed the discovery: Amelung in the *Düna Zeitung*, and Troitzky in *Novoye Vremya*. In those times it was normal that new studies were published in daily newspapers.

Amelung's study looked as follows:



Amelung, 'Düna Zeitung' 1896
White to play and draw

White is a piece behind, and taking on g7 will not save him.

1. h5-h6!

This pawn sacrifice has a special intention.

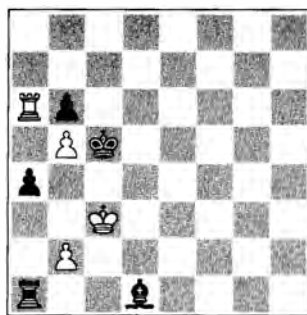
1. ... g7xh6
2. ♖e2-f3+ ♜a2-b1
3. ♝g2-b2+!

A rook sacrifice that serves to vacate the g2-square for the king.

3. ... ♜b1xb2
4. ♖f3-g2

And the black rook has no squares.

In Troitzky's study, the play unfolds on the queenside.



Troitzky, 'Novoye Vremya' 1896
White to play and draw

Here also, a crucial square must be cleared for the white king.

1. b2-b4+! ♜c5xb5
2. ♝a6xb6+! ♜b5xb6
3. ♖c3-b2

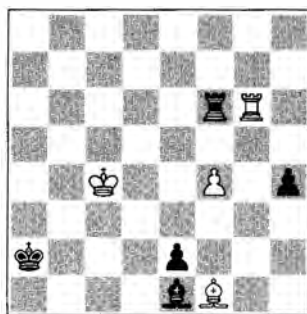
And again the black rook is caught.

Which of these studies appeared first? We don't know the publication date of Amelung's study in the *Diina Zeitung*, but we do have something to go on: his study was published again later, on May 17, in *Deutsches Wochenschach*. Troitzky's study is not dated. In fact this is a little strange.

In 1896, Troitzky published 51 studies in *Novoye Vremya*. The greater part of these were dated, but precisely this one isn't. Because of this, we cannot say with certainty who was first with this discovery. Somewhere in Russia there may be someone who knows; it's unlikely that all the newspapers from before the Revolution have been lost.

It does seem certain that Troitzky and Amelung did not know each other's studies. News did not travel so fast in those days, but there does seem to have been an exchange of studies between Russia and the Baltic countries. Nevertheless, it seems improbable to me that Troitzky and Amelung knew each other's studies. Both composers had a reputation to lose. If the drawing position had been already known, they would have had to make an effort to compose a special study. As it was, it sufficed for them to show the idea in a modest form.

A fair number of studies have been made on this theme. Four decades later, Herbstman came up with the following adaptation.



Herbstman 1934
White to play and draw

Black threatens to promote his e-pawn, and at the same time White's rook is under attack. The only solution to both these problems is a pin on the black e-pawn.

1. ♖g6-g2 ♜f6xf4+

This seems to guarantee an easy win. However, White can just save himself thanks to the Troitzky/Amelung position.

2. ♔c4-d3!

On the road to g2.

2. ... ♜f4xf1

3. ♔d3xe2

Driving the rook to the corner.

3. ... ♜f1-h1

4. ♔e2-f3+ ♔a2-b1

5. ♜g2-b2+!

Amelung's sacrifice.

5. ... ♔b1xb2

6. ♔f3-g2

Draw.

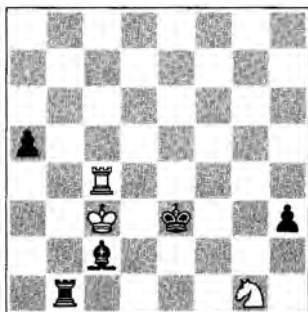
For this study Herbstman received third prize in the 'Communist Party Congress Tourney' published in 64.

This adaptation is not entirely convincing. There are actually few sur-

The Art of the Endgame

prises, and the black bishop is already poised to block the rook in the final position.

It turns out to be not at all easy to conceive of a fitting introduction. The Finnish study composer Pauli Perkonoja found this out when he made the following study.



Perkonoja, 'Tidskrift för Schack' 1963
White to play and draw

White will first have to take care of the black h-pawn. If he takes it with the knight, Black has a pretty win: 1. ♖xh3 ♕d1! (threatening mate on b3) 2. ♖f4 ♖b3+ 3. ♖c4 a4 and the a-pawn cannot be stopped, for example 4. ♖f7 ♕e2+ followed by 5...a3 and the black king will assist in the pawn promotion.

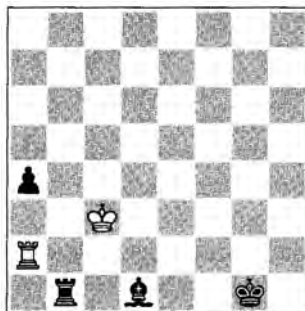
1. ♖c4-h4 ♕c2-d1
2. ♖h4xh3+ ♖e3-f2

So far everything is clear. However White now has two roads to a draw.

3. ♖h3-h2+

The thematic way. The alternative 3. ♖d2 was sufficient too.

3. ... ♖f2xg1
4. ♖h2-a2 a5-a4



5. ♖a2-a1!

An attractive rook sacrifice in order to reach the famous position.

5. ... ♖b1xa1

6. ♖c3-b2

Draw.

I had the same trouble myself. As an illustration of the disappearing trick I had invented the following mini-study.



Timman, 'New In Chess' 2004
White to play and draw

The intended solution was:

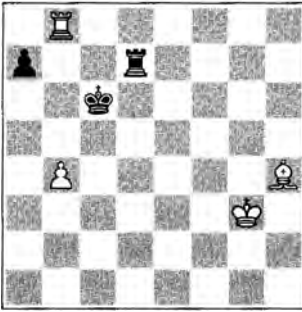
1. ♖b3-b2+ ♖g2xg1
2. ♖b2-g2+! ♖g1xg2

Two white pieces have disappeared.

3. ♖c3-b2 ½-½

1. ♖b5 also does the trick. In order to exclude this solution, a black pawn on a6 can be added.

In the following mini-study, White manages to avoid the Troitzky/Amelung position.



Timman 2002
Black to move – White wins

It is tempting to force a rook exchange by 1... ♖b7, but after 2. ♖xb7 ♜xb7 3. ♕d8! White wins. So Black has to try something else.

1. ... ♗a7-a5
2. ♖b4xa5 ♜d7-a7

If White now plays the careless 3. ♕d8, there follows 3... ♖a8! with a draw.

3. ♜b8-c8+!

An important zwischenschach.

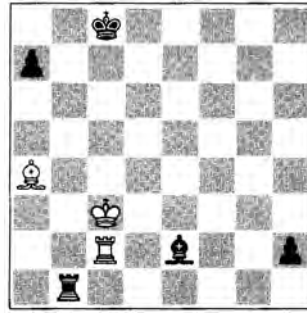
3. ... ♜c6-d6

Black has to keep control of the square c5.

4. ♕h4-d8 ♜d6-d7
5. ♜c8-b8

And wins.

So far my contribution to this theme had been modest. The following study is more ambitious.



Timman 2010
White to play and draw

First of all White has to stop the h-pawn.

1. ♕a4-c6

Now, on 1... ♖b6 White has planned 2. ♕d5, and 1... ♗b5 2. ♕e4 also leads to a problem-free draw. However, Black has a stronger move.

1. ... ♕e2-d1

Now what? This question brought many strong players to despair when I confronted them with this position. If White captures on h2, there follows a decisive check on c1.

2. ♕c6-d7+!!

Simply amazing! White sacrifices his bishop in order to drive the black king to a less favourable square.

2. ... ♜c8xd7

3. ♜c2xh2



The Art of the Endgame

At first glance it doesn't look as if White will be able to save himself. However, Black has trouble keeping the coordination of his forces intact. The a-pawn is indirectly attacked and 3...♖c6 is satisfactorily met by 4.♙h1, when, due to the pin along the first rank, Black cannot avoid the exchange of rooks.

3. ... a7-a5

Now 4.♙h1 can be met by 4...a4. Then 5.♖d2 is decisively answered by 5...a3, since the a-pawn becomes too strong. Therefore White shuffles the cards.

4. ♙h2-a2!

Forcing the a-pawn further forward.

4. ... a5-a4

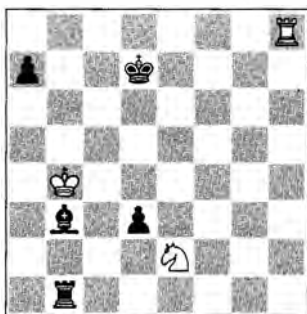
5. ♙a2-a1!

Perkonoja's rook sacrifice.

5. ... ♖b1xa1

6. ♖c3-b2 ½-½

I was very pleased with this study. The play is lively, and the position after White's third move is intriguing. Great was my disappointment when later I saw that this position had already been discovered by someone else, 31 years earlier.



Matous 1979
White to play and draw

White has to give his knight for the d-pawn.

- 1. ♖e2-c3 d3-d2**
- 2. ♙h8-h2! d2-d1♙**
- 3. ♖c3xd1 ♖b3xd1+**
- 4. ♖b4-c3!**

And the position has been reached. For this study Matous received second prize in the Réti Memorial. I could console myself with the thought that my introductory play was more surprising and probably also better.

2. Valladao Task

In Chapter 5 I already mentioned this task. Like the Novotny and Plachutta themes, the Valladao Task stems from the world of problem chess, only it is of a much more recent date. In 1964, the Brazilian Joaquim Valladao Monteiro composed the following problem.



Valladao Monteiro, 'O Globo' 1964
Mate in 2

The key move is

1. g2-g4

Threatening to give mate immediately by promoting on a8. Black has only two moves to postpone the mate.

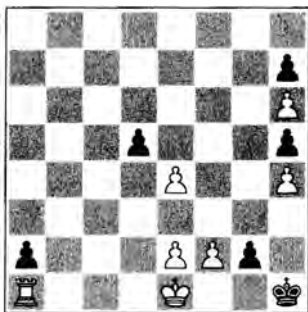
A) 1...hxg3 2.h8♔ mate;

B) 1...♔a2 2.0-0-0+ and Black is mated as well.

Not a very impressive problem.

Van der Heijden claimed that this task is better suited for endgame studies. Moreover, he specified the composer's task further: to the castling move and the en passant capture, a minor promotion should be added.

Not many studies have been made with this criterion so far. It isn't easy to add new points if all the 'Valladao ingredients' are already present. A study by Costeff is relatively highly valued.



Costeff, 'The Problemist' 2006

White to play and win

The first move is obvious.

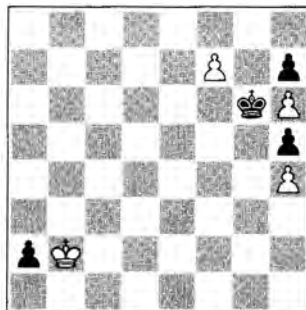
1. 0-0-0+ g2-g1♔
2. ♖d1xg1+ ♔h1xg1
3. ♕c1-b2 d5xe4
4. f2-f4!

Not 4.f3 in view of 4...e3, with a draw.

4. ... e4xf3
5. e2xf3 ♕g1-f2

Now the black king is going to pursue the f-pawn.

6. f3-f4 ♕f2-f3
7. f4-f5 ♕f3-f4
8. f5-f6 ♕f4-f5
9. f6-f7 ♕f5-g6

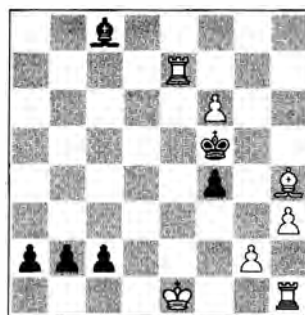


If White now queens, Black is stalemated; after a bishop promotion, Black has a fortress.

10. f7-f8♚!

The only correct promotion. White wins.

Afek has also fulfilled the Valladao Task in a nice way.



Afek 2011

White to play and win

The black pawns look threatening. White will have to play for mate.

1. g2-g4+ f4xg3

In order to prevent mate, Black has to take en passant.

The Art of the Endgame

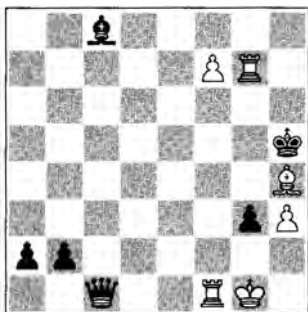
2. 0-0+

Two-thirds of the task has been completed.

2. ... ♔f5-g6

3. ♖e7-g7+ ♔g6-h5

4. f6-f7 c2-c1♚



Now for the final touch.

5. ♖g7-h7+ ♔h5-g6

6. f7-f8♜

Mate.

When I worked on my own interpretation of the task I decided, in imitation of Zinar, to focus on the trusted territory of bishop and knight promotions. The castling move and the en passant capture could then be fitted in, so I thought.



Timman 2011
White to play and win

We know the construction in the lower left-hand corner from Chapter 5. It is clear that White has to castle.

1. 0-0 c7-c5

2. e2-e4!

The alternative 2.e3 is too slow. After 2...f3! White would not promote in time at the end of the line.

2. ... f4xe3

After 2...f3 3.e5 c4 4.e6 h5 5.e7 h4 6.e8♚ h3 7.♚e5 h5 8.♙d2 h4 9.♙c1 Black would also be mated.

3. f2-f4!

The f-pawn has free passage.

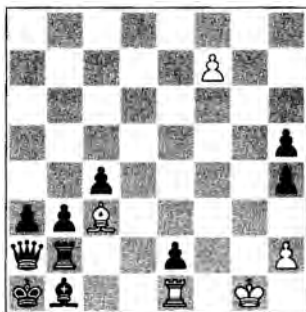
3. ... e3-e2

4. ♖f1-e1 c5-c4

5. f4-f5 h6-h5

6. f5-f6 h5-h4

7. f6-f7 h7-h5



8. f7-f8♙!!

Excelsior.

8. ... h4-h3

9. ♙f8-h6 h5-h4

10. ♙h6-c1!

The well-known point.

10. ... ♙b1-e4

11. ♙c1xb2

Mate.

I also made a livelier version.



Timman 2011

White to play and win

Black threatens to win with a queen check on b1.

1. **0-0+** ♖g6-b1

Black has to brick himself in, since after 1...♙b1 2.♙xb2+ he cannot recapture on account of mate on a6.

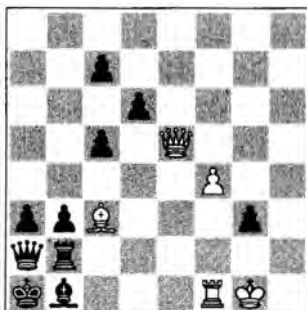
2. ♙e2xe5 d7-d6

If White now moves the queen, he will be too late, since his plan to move his bishop to c1 is prevented by Black's pawn mass. Therefore he has to sacrifice the queen.

3. **g2-g4!!** f4xg3

The alternative 3...dxe5 wouldn't help. After 4.g5 e4 5.g6 f3 6.g7 e3 7.g8 ♙ exf2+ 8.♙h2! c4 9.♙g7 c5 10.♙d2! c3 11.♙xc3 c4 12.♙c1 he would be mated.

4. **f2-f4!**



On its way to f8.

4. ... g3-g2

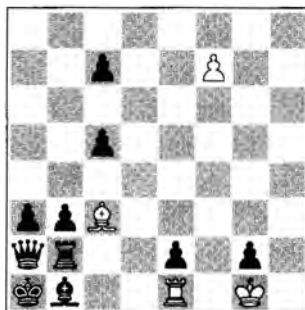
5. ♖f1-e1 d6xe5

There's nothing for it.

6. **f4-f5** e5-e4

7. **f5-f6** e4-e3

8. **f6-f7** e3-e2



9. **f7-f8♙!**

Again this combination of an Excelsior and a bishop promotion.

9. ... c5-c4

10. ♙f8-h6 c7-c5

11. ♙h6-c1

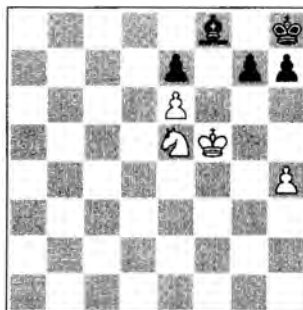
Just in time.

11. ... ♙b1-d3

12. ♙c1xb2#

3. Liquidation to a pawn ending

This is a theme that has been sublimely adapted by Shaya Kozlowski.



Kozlowski, 'Glos Poranny' 1931
White to play and win

The Art of the Endgame

The black bishop is boxed in on its starting square, and it will never leave there.

1. ♖e5-g6+!

A positional knight sacrifice. After other moves Black would free himself by pushing his g-pawn.

1. ... h7xg6+

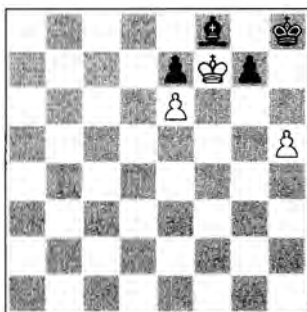
2. ♔f5xg6 ♔h8-g8

3. h4-h5

Mutual zugzwang. If it were his move, White would lose.

3. ... ♔g8-h8

4. ♔g6-f7



4. ... g7-g5

His best chance. A pawn race follows.

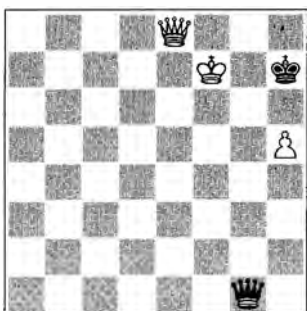
5. ♔f7xf8 g5-g4

6. ♔f8xe7 g4-g3

7. ♔e7-f7 g3-g2

8. e6-e7 g2-g1♔

9. e7-e8♔+ ♔h8-h7



Both sides have promoted their pawns. Now White forces the exchange of queens by a series of checks.

10. ♔e8-e4+ ♔h7-h8

11. ♔e4-e5+ ♔h8-h7

12. ♔e5-f5+

Step by step the queen approaches.

12. ... ♔h7-h8

13. ♔f5-f6+ ♔h8-h7

14. ♔f6-g6+

And White wins.

Even more interesting is the following miniature study.



Kozłowski, 'Głos Poranny' 1931

White to play and win

Without the black f-pawn this position would be drawn. As in the previous study, White is going to cut off the enemy bishop from play.

1. ♖e5-d7+ ♔b8-c7

2. ♖d7-f8!!

Amazing. White locks in his own knight in order to deprive the black bishop of the h7-square.

2. ... ♔c7-d8

The alternative was 2...♔d6. Then White wins with 3.♔g4 ♔d5 4.♔h5, and White has the opposi-

tion. Since the two minor pieces are condemned to keep each other imprisoned, this position can be treated as a pawn ending.

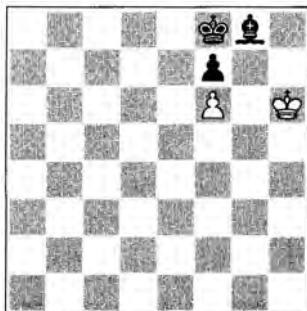
3. ♖f3-f4

Also good is 3. ♖g4.

3. ... ♔d8-e8

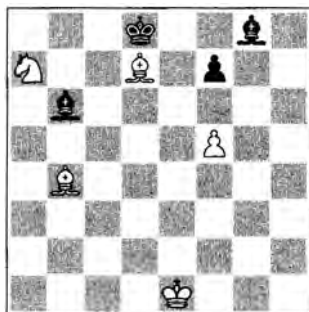
4. ♖f4-g5 ♖e8xf8

5. ♖g5-h6



Mutual zugzwang. White liquidates into a winning pawn ending. Without the black bishop it would be a draw.

I reckoned that it ought to be possible to elaborate on this study. With a little extra material, some new points can be added.



Timman 2011

White to play and win (after Kozlowski)

White is threatened with the loss of his extra piece.

1. ♖a7-c8

The only move to avoid this.

1. ... ♔b6-a5!

A subtle defence. Before he captures the king's bishop, Black drives the other bishop to a less favourable square.

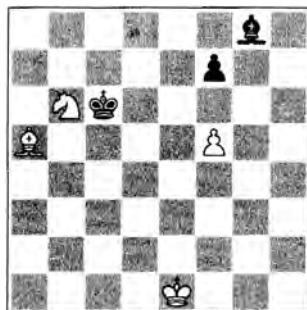
2. ♔b4xa5+ ♖d8xd7

Now White has a problem. If he plays 3. ♖a7, there follows 3...f6! 4. ♖b5 ♔h7 5. ♖d4 ♖d6, and he cannot maintain his f-pawn.

3. ♖c8-b6+!

Preparing a bishop sacrifice.

3. ... ♖d7-c6



4. f5-f6!

Fixing the black f-pawn.

4. ... ♖c6-b5

5. ♖b6-d7!

The point of the previous move. The knight is on its way to f8.

5. ... ♖b5xa5

6. ♖d7-f8!

Here also, with both kings further removed, Kozlowski's concept works.

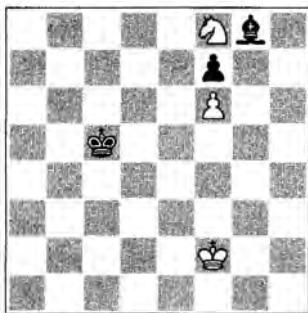
6. ... ♖a5-b6

7. ♖e1-f2

The only good king move.

7. ... ♖b6-c5

The alternative 7...♖c7 would lead to Kozłowski's main line.



8. ♔f2-g3!

Again the only move. The king is on its way to h4.

8. ... ♖c5-d5

9. ♔g3-h4!

Thus White gains the opposition.

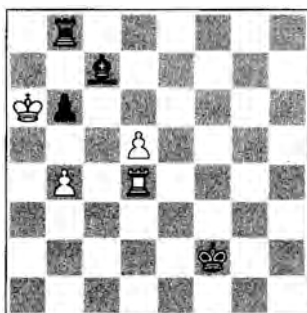
9. ... ♖d5-e4

10. ♔h4-g4 ♖e4-d4

11. ♔g4-h5! ♖d4-e5

12. ♔h5-g5 1-0

Obviously we can conceive of countless studies where White liquidates into a pawn ending.



Timman 2011
White to play and win

White must aim for maximum domination of the enemy pieces.

1. d5-d6 ♖c7-d8

Forced, since all rook endings are winning for White.

2. ♖a6-a7

Not immediately 2.♖f4+ ♔e3 3.♖f8, as then Black can save himself just in time with 3...♖c7.

2. ... ♖b8-c8

3. ♖d4-f4+

Insufficient for the win was 3.♔b7 in view of 3...♖c4.

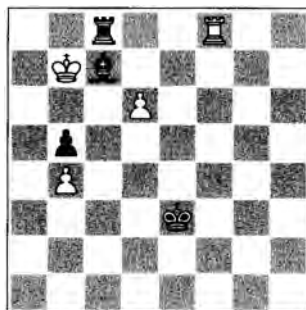
3. ... ♖f2-e3

4. ♖f4-f8

It looks as if the matter is settled. What can Black do against the threat of 5.♔b7?

4. ... b6-b5

5. ♖a7-b7 ♖d8-c7!



The point of the previous move. If White takes the rook, he cannot win, and after 6.dxc7 ♖xf8 he even has to be careful not to lose.

6. ♖f8-f3+!!

Terrific. White drives the black king further away from the b-pawns.

6. ... ♖e3xf3

7. d6xc7

Now the pawn endgame is won by the narrowest of margins.

7. ... ♖c8-f8

8. c7-c8 ♖f8xc8

9. ♖b7xc8 ♔f3-e4

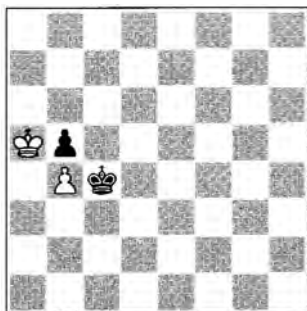
10. ♖c8-c7

Also good is 10. ♖b7.

10. ... ♔e4-d5

11. ♖c7-b6 ♔d5-c4

12. ♖b6-a5



An elementary mutual zugzwang situation. White wins.

Even with a board full of pieces, eventually a liquidation into a pawn ending may be possible.



Timman 2011
White to play and win

The same construction as we saw in Chapter 11. Black is threatening to bring his king to safety by castling queenside.

1. ♔b1-g6+!

White is willing to sacrifice a full queen just to open the h-file.

1. ... ♖h7xg6

2. ♔h2-b8!!

The same problem move we saw earlier on. Insufficient was 2. ♔c7? in view of 2... ♔d4! 3. cxd4 ♖xc7+ and Black wins.

2. ... ♔a7-d4!

Here, too, the only defence.

3. c3xd4 ♔a5-d2+

Black has to keep sacrificing, or else mate is unavoidable.

4. ♖c1xd2 ♔a3-c4+



White has to take the knight, as otherwise Black will play his king to f8. If Black controls the e5-square, his king can escape via g7.

5. b3xc4 ♔e3xf1+

6. ♖d2-c3!

The best square for the king.

6. ... ♔b7-b3+

Black has to keep sacrificing in order to avoid mate.

7. ♖c3xb3 ♔a8xb8+

8. ♖b3-c3 ♔e8-d8

Finally Black has managed to bring his king into safety. Now, however, White coolly liquidates.

9. ♖h1xf1 d5xc4

10. ♖f1-f8+ ♖d8-c7

11. ♖f8xb8 ♖c7xb8

12. ♖c3xc4 1-0

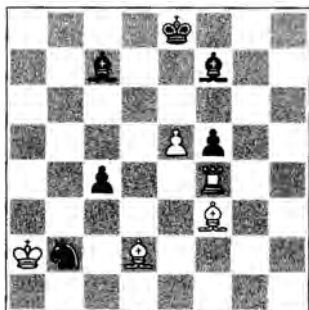
Chapter 14

Various Endgame Studies

1. Studies with others

Some endgame study composers regularly create studies in collaboration with colleagues. I have done this only very rarely.

One example of such a collaboration was a new, elaborated version that Jan van Reek made of one of my miniatures.



Timman/Van Reek 1994
White to play and win

In order to take control of the situation, White has to block the c-pawn.

1. **♙d2-c3 ♜c7xe5**

Black sacrifices a bishop in order to create a passage for the c-pawn anyway.

2. **♙c3xe5 ♜c4-c3+**

3. **♚a2-b1**

The only good square for the king.

3. ... **♞b2-d3**

4. **♞f4xf5**



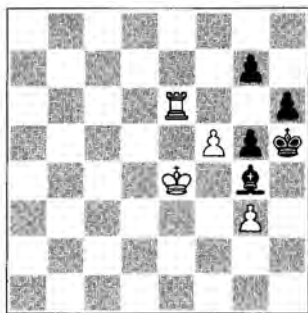
Now the lines divide into two:

A) 4...♙g6 5.♙h5 ♞xe5 6.♚a1, and we reach a mirror version of the final position from the first chapter, with an extra black pawn;

B) 4...♜c2+ 5.♚xc2 ♙g6 6.♙h5 ♞xe5 7.♚c3! and wins. Again, the white king is unassailable.

For this study Van Reek and I received first prize in the Wola Gulowska Tourney.

Israeli Grandmaster Emil Sutovsky is known to be well-disposed towards endgame studies. Together with Boris Gelfand, he has composed one magnificent study, published in New In Chess Magazine. During the closing ceremony of the third Inveni tournament in Antwerp he showed me an interesting idea for a finish.



Sutovsky

Black to move achieves a surprising draw with 1...g6! 2.♖xg6 ♕xf5+! 3.♔xf5 g4, and in order to prevent stalemate White has to consent to playing a pawn ending that offers him no chances.

Working backwards, I made the following study, which shows the idea in a slightly more pronounced way.



Sutovsky/Timman 2009
White to play and win

Material is depleted. White must exploit the exposed position of the black king.

1. f3-f4!

Insufficient for the win was 1.♕d3 on account of 1...♖c5+ 2.♔d4 ♖d5+ 3.♔c4 ♖xd3! 4.♔xd3

♕xf3, and White does not have enough pawns.

1. ... g6-g5

With 1...♕g2 Black could have aimed for further simplifications. But then White liquidates to a winning rook ending: 2.g4+ ♔h4 3.♕xg2 ♖xg2 4.♖xg6 ♔xh3 5.♖xg7, and the white f-pawn decides the battle.

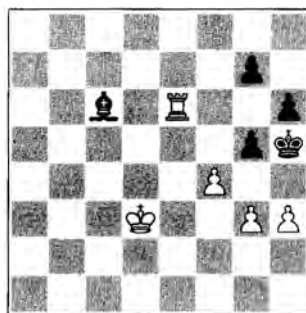
2. ♕f1-d3 ♖c2-c5+

In order to avoid mate, Black has to give the exchange.

3. ♔e5-d4 ♖c5-d5+

4. ♔d4-c4 ♖d5xd3

5. ♔c4xd3



5. ... ♕c6-g2

The bishop harasses the white pawns from behind.

Inadequate was 5...♕d7 in view of 6.f5 g4 7.h4 g5 8.♖e5! gxf4 9.gxf4 and again, the f-pawn decides.

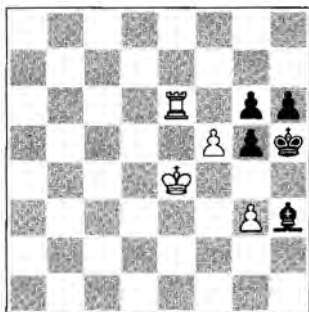
6. f4-f5!

White always has to strive to obtain a strong f-pawn.

6. ... ♕g2xh3

7. ♔d3-e4 g7-g6!

Here we have Sutovsky's clever discovery.



However, now that the black bishop is on h3 instead of g4, White has something up his sleeve.

8. g3-g4+!

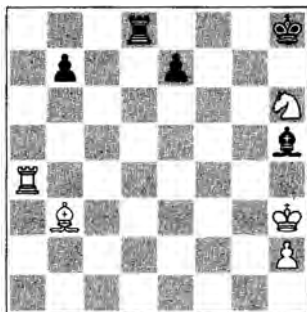
This little check eliminates the stalemate threat.

8. ... ♖h3xg4

9. ♜e6xg6 1-0

2. Studies with no specific theme

In the following study, the concentration of pieces at the edge of the board is striking. As if by a magnet, the remaining pieces are also drawn to the h-file.



Timman 1990

Black to move – White wins

As Black will not win anything back after 1...♜d3+ 2.♖h4, he has to attack the knight first.

1. ... ♔h8-h7

2. ♙b3-f7!

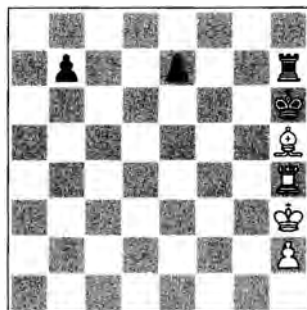
By preparing a pin on the black bishop, White manages to keep his piece.

2. ... ♔h7xh6

3. ♜a4-h4 ♜d8-h8

An interesting defence. Black could also have given a series of checks, but this wouldn't have brought him anything in the end, for instance: 3...♜d3+ 4.♖g2 ♜d2+ 5.♖g1 ♜d1+ 6.♖f2 ♜d6 7.♜xh5+ ♖g7 8.♙b3 ♜h6 9.♜g5+ ♖f6 10.♜g2 ♜g6 11.♜g3! and if Black exchanges rooks, White takes back with the h-pawn.

4. ♙f7xh5 ♜h8-h7!



A curious situation. White has a hard time avoiding the exchange of the rooks. For the time being the pieces, crammed together on the edge of the board, are condemned to each other's company. Black's threat is 4...♖g5.

5. ♖h3-g4 ♜h7-g7+

6. ♖g4-f3!

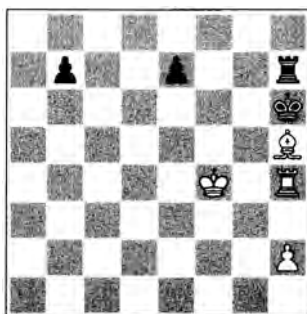
The only winning move. Obviously, 6.♖f5 failed to 6...♜g5+, but 6.♖f4 was harder to refute. Black achieves the draw with

6...e5+ 7.♔e4 ♖g5 8.♜g4+ ♔h6
9.h3 b5! 10.♙e8 ♜xg4+ 11.hxg4
♖g5 12.♖f3 e4+ 13.♖g3 b4 and
the black pawns are too far ad-
vanced for the white king and
bishop to block them effectively.

6. ... ♜g7-h7

After 6...♖g5 7.♜g4+ ♔h6 8.h3!
White would win without trouble.

7. ♖f3-f4!



Now this is possible. Insufficient was
7.♙e8+ ♖g7 8.♜g4+ ♔f8 9.♙d7
e5, with a draw soon to follow.

7. ... e7-e5+

8. ♖f4-f5

And wins.

In the following study, many
themes are combined.



Timman 2010

White to play and draw

White cannot take on c7 immedi-
ately, since after 1.bxc7 ♙h4+ he
cannot protect his king from rook
checks.

1. ♙c3-b4+ ♖d6-d5

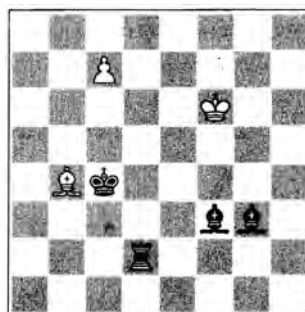
The only square for the king.

2. ♙b5-c4+!

With this bishop sacrifice, White
blocks the c-file for the black rook.

2. ... ♖d5xc4

3. b6xc7



Now Black has two bishop checks,
which White has to play accurately
to parry.

3. ... ♙g3-h4+

On 3...♙e5+ White has to prevent
Black from giving a winning rook
check. The play continues as fol-
lows: 4.♖e7! ♙d6+! 5.♖f6 ♙e7+
6.♖f5! ♜d5+ 7.♖f4!, with a draw.
The black rook blocks the long di-
agonal for the black queen's
bishop, and so the c-pawn cannot
be stopped.

4. ♖f6-f5 ♙f3-e4+

Without this bishop sacrifice Black
cannot keep any winning chances.
After 4...♜d5+ 5.♖f4 it would be
an immediate draw.

5. ♖f5xe4 ♜d2-e2+

6. ♖e4-f5 ♜e2-e8



It looks as if Black will triumph. However, White has a beautiful finesse up his sleeve.

7. ♖b4-e7!

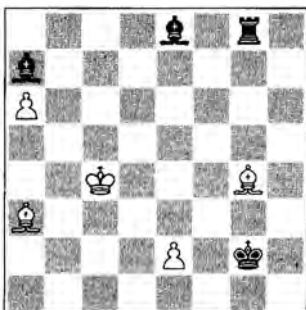
By sacrificing his second bishop, White conquers the e6-square for his king.

7. ... ♜h4xe7

8. ♔f5-e6

Draw.

Sometimes a strong passed pawn can almost compensate for a rook.



Timman 2011
White to play and draw

White will have to lift the blockade on a7 by playing his queen's bishop to c5. But first he has to do something about the unprotected position of his other bishop.

1. ♜g4-f3+ ♔g2-g3

2. ♜a3-d6+!

Before the bishop goes to c5, the black king has to be driven to a less favourable square. Later we will see why.

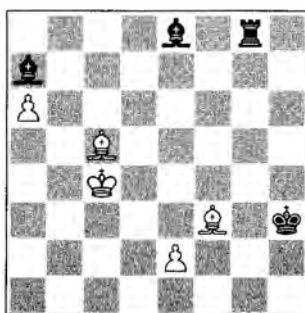
2. ... ♔g3-h4

3. ♜d6-e7+!

This check is necessary too.

3. ... ♔h4-h3

4. ♜e7-c5



Only now. The king is not well placed on h3.

4. ... ♜e8-b5+!

Without this surprising finesse, White would attain the draw with ease.

5. ♔c4xb5 ♜g8-g5

An unpleasant pin. Now, however, it is White's turn to sacrifice a bishop.

6. ♜f3-d5! ♜g5xd5

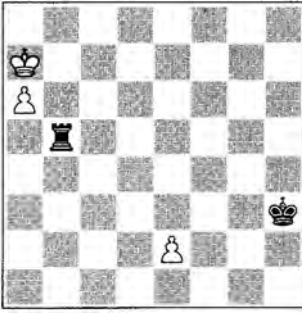
7. ♔b5-c6

The point of the bishop sacrifice. Black is forced to take on c5 with the rook, closing in the bishop on a7.

7. ... ♜d5xc5+

8. ♔c6-b7 ♜c5-b5+

9. ♔b7xa7



Without the white e-pawn it would be a draw without further ado. But the extra pawn may play tricks on White. Thus, Black would be winning if his king were on g3 or g4. Then he would succeed in blocking the e-pawn.

9. ... ♖h3-g4

10. e2-e4!

Cutting off the king. After 10. ♖a8 ♖f5 11.e4+ ♖e5 12.a7 ♖d6 13.e5+ ♖c7 Black would have time to catch the white king in a mating net.

10. ... ♖g4-f4

11. e4-e5!

According to the same principle.

11. ... ♖f4-f5

12. e5-e6

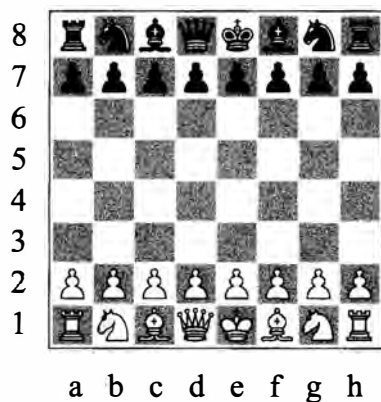
The last accurate move. After 12. ♖a8? ♖e6 13.a7 ♖d7 14.e6+ ♖c7 15.e7 ♖e5 White would get mated after all.

Draw.

Explanation of Symbols

□	White to move
■	Black to move
!	Good move
!!	Excellent move
?	Bad move
??	Blunder
!?	Interesting move
?!	Dubious move
♔	King
♚	Queen
♖	Rook
♗	Bishop
♘	Knight

The chess board with its coordinates:



Index of Composers

Numbers refer to pages

A		Koranyi		246	S	
Afek	243, 253	Korolkov	206, 214-215,	Selesniev	169	
Amelung	248			242	Shmulenson 93	
B		Kotov	200-202	Smyslov	103-105, 183	
Bazlov	231, 234	Kotov/Mitrofanov	199	Sochniev	123, 239	
Benkő	39, 70, 102	Kozłowski	235, 255-256	Sutovsky/Timman	261	
Bennō	241	Krabbé	36	T		
Bondarenko/Kakovin	200	Kralin	238	Timman	12, 14-19, 23,	
Bron	52, 216, 229	Kralin/Pervakov	225	32-33, 35, 37, 40, 41, 44,		
C		Kubbel	147, 165, 168,	48, 50, 51, 53, 55-60, 62,		
Costeff	109, 113, 245, 253		224-225	64-67, 71, 72, 74, 75, 79,		
D		Kuriatnikov	175	81, 97, 99, 104, 108, 111,		
De Feijter	139	Kuznetsov,AG/ Sakharov	143	113-118, 121, 122, 124,		
Dobrescu	230, 232	L		126, 127, 130, 131, 133,		
Dolgov	212	Liburkin	11, 87-88, 205,	134, 136, 137, 141, 142,		
Dolgov/Kuznetsov,AP	213	218-219		144, 145, 150-153, 155,		
E		Lommer	85-86, 89-90,	156, 158, 159, 161, 163,		
Evreinov	128-129	106, 112		165-167, 170-173, 176,		
F		M		178, 180, 184, 185, 189,		
Fernhout	136	Manella	78	191, 193, 195, 196, 203,		
Fritz,F	83	Matous	13, 123, 252	204, 211, 215, 216, 221,		
Fritz,J	77, 175	Mattison	63	222, 227, 233, 236, 237,		
G		Mitrofanov/Korolkov/ Dolgov	208	244, 246, 250, 251, 254,		
Gorgiev	207	N		255, 257-259, 262-264		
Grinblat	54	Nadareishvili	38, 172	Timman/Krabbé 36		
Gunst	139	Novikov	85	Timman/Van Reek 260		
Gurgenidze	209	Novotny	69	Troitzky 84, 248		
Gurvich	100, 126	P		Troitzky/Korolkov 107		
H		Perkonoja	250	U		
Hasek	184	Pervakov	227, 240	Ulrichsen 91		
Herbstman	49, 73, 249	Pogosyants	44	V		
Herland	82	Prokes	34	Valladao Monteiro 252		
Hurtig	100	R		W		
K		Ratner	138	Wotawa 61, 63, 120, 236		
Kasparyan	120, 207	Rinck	75	Z		
Katsnelson	202, 218	Rokirovkin	101	Zakharov 192		
Kliatskin	169	Rusinek	80, 99,	Zinar 91-92, 94-96, 106,		
			148-149	Zinar/Didukh 93		
				Zoltan 77		

Acknowledgements

The studies by Timman (1983) and Matous 1984 (Chapter 1), Timman 1984 and Timman 1990 (Chapter 7), Timman 1984 and Timman 1986 (Chapter 8) and Fritz 1955 and Timman 1984 (2x) have been published before in *Schaakwerk II* (Timman, 1991).

In Chapter 2, the study by Timman (2010) was published before in New In Chess 2010/8, the rest of this chapter was published before in New In Chess 2010/6.

In Chapter 3, the study Timman 1992 was published before in New In Chess 1994/3, the Ortueta-Sanz analysis was published in New In Chess 1997/3, and Timman 1997 and Timman 1999 in New In Chess 1999/5.

In Chapter 6, the article 'Smyslov as an Endgame Composer' up to the study Smyslov 1976 was published before in New In Chess 2010/3.

Here and there, slight alterations have been made.

The Art of the Endgame

My Journeys in the Magical World of Endgame Studies

All through his career Jan Timman has been captivated by the mystery and splendour of endgame studies. Even during his most successful and busy years as a world-class player, Timman continued to compose studies and admire those of others. For him there has never been any doubt that his journeys in this magical world helped him to grow as a player.

In this fascinating book, Timman has collected a wide range of the finest endgame studies by other composers and explains in his lucid style how they inspired him to create dozens of brand-new studies himself.

As Timman writes in the preface: 'Never before have I been so productive as an endgame study composer as in the seven months that I wrote this book. It was a sensational experience.'

The Art of the Endgame is a treasure-trove for lovers of beauty in chess. But it is also of great value for competitive players. Solving endgame studies is a vital part of improving one's endgame technique: it develops general understanding, calculation skills and resourcefulness.



Jan Timman is a former world championship candidate who rose to the number two spot of the FIDE world rankings. He is the author of several highly acclaimed bestsellers, such as *Curaçao 1962*, *On the Attack*, and *Power Chess with Pieces*.

PRAISE FOR JAN TIMMAN:

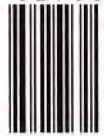
'Where Garry Kasparov likes to hide behind thick trees with variations, Timman always makes sure that the reader fully understands why the game develops the way it does.'
Harald Keilhack in Schach Magazine on *Power Chess with Pieces*

'Will be enjoyed by lovers of the game for years to come, and never grow old.'
IM John Watson in TWIC on *Curaçao 1962*

ISBN 978-90-5691-369-4



5 2 7 9 5



9

NEW IN CHESS

www.newinchess.com

Games / Chess

\$27.95 / € 24,95