Chess Endgame Training

Bernd Rosen

An experienced coach guides you through a practical training course
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Symbols

+ check
++ double check
x capture
# checkmate
!! brilliant move
! good move
!? interesting move
?! dubious move
? bad move
?? blunder
+- White is winning
= equal position
-> Black is winning
Ch championship
Cht team championship
Wch world championship
Ct candidates event
OL olympiad
jr junior event
corr. correspondence game
1-0 the game ends in a win for White
1/2-1/2 the game ends in a draw
0-1 the game ends in a win for Black
(n) nth match game
(D) see next diagram
W White to move
B Black to move
W/B The position should be considered first with White to move, then with Black to move.
B/W The position should be considered first with Black to move, then with White to move.
Preface to the First German Edition

In recent years so many new chess books have been published that one needs compelling arguments and a good portion of confidence to add yet another one to this legion. The subject of the endgame has also been examined from various angles. Nevertheless, this book offers something new.

Whoever tries to prepare endgame training material for a chess group soon finds out that one is left alone here despite the overwhelming wealth of material. The classic works by Averbakh, Chéron, Euwe and Keres are too comprehensive and dry. Furthermore, these books lack examples which allow a topic to be practised by repetition. It is true that collections of studies offer interesting positions but usually they are too difficult and they do not offer a systematic coverage. Books about teaching chess usually address much stronger chess-players. Perhaps Kostiev is an exception; his book Schach lehren leichtgemacht particularly addresses teachers but offers very little material that goes beyond an introduction.

In this book, I will present 15 lessons that you can use immediately, either for coaching or for self-instruction. The material will be complemented by a collection of exercises which will revisit all subjects dealt with; these could function either as an assessment in the beginning of a training course or as a means of measuring success at the end of the course.

In the years 1987-8 I developed this course while acting as a trainer at the Katernberg chess club. Later I refined it after testing it at clubs, at chess groups in companies and last but not least at training courses for the North Rhine-Westphalia chess federation.

The encouragement to present this endgame course in a book also developed from these training courses because I saw that chess teachers constantly found it necessary to reinvent the wheel. Individual lessons were published in the newsletter of the North Rhine-Westphalia chess federation and these also met with a positive response.

My chess friend Karlheinz Bachmann had the task of a critical review of the manuscript. I am grateful to him for many valuable hints on both the chess aspects and the layout and organization of the material.

From a technical point of view, this book probably would not have been realized without the support of Rolf Schlösser.

My girlfriend Beate also actively assisted in the preparation of the text. Furthermore, especially in the last phase of this work, she encouraged me to carry on and thus her contribution to the fact that I actually crossed the finishing line was crucial.
I am very much indebted to all the people mentioned above. Without their encouragement and support, the present work would never have gone beyond the planning stage.

Bernd Rosen
Essen, August 1995

Preface to the Second German Edition

More than five years have passed since the publication of the first German edition of Chess Endgame Training. Despite being an optimist by nature, I am still surprised by the positive reception of this book.

With regard to the first edition, I have received a few (fortunately not so many!) comments about mistakes or inaccurate variations. These have all been corrected for this second edition. I am indebted to all readers who have bothered to draw my attention to such flaws. Especially I have to name GM Karsten Müller from Hamburg who turned out to be an extremely attentive reader and user of Chess Endgame Training. This second edition particularly profits from my correspondence with him.

Beyond these corrections, I have made several comments more detailed in order to mention additional side variations. This particularly takes into account the needs of the less able among the readers.

Bernd Rosen
Essen, June 2001
Foreword by
GM Karsten Müller

The lessons of the legendary chess schools of the old Soviet Union widely practiced the method of starting at the end, i.e. with endings that only include kings and pawns. Based upon that, each piece can be introduced in turn to move towards more complex endings.

But which books are available in order to learn the basic principles of the endgame? The classic works by Yuri Averbakh, André Chéron and Max Euwe consist of several volumes; these encyclopaedias of chess endings are indispensable reference books but for practical use in chess instruction they are too voluminous and too dry.

This is the problem Bernd Rosen wants to tackle with his book. He has structured the material into 16 chapters which are all organized in more or less the same way. After an introductory example, which is used to explain the most important basic principle, he presents exercises and detailed solutions, together with rules and concepts. Thus the teacher can start immediately without any further preparation, and self-instruction is also made a lot easier. The space that is allocated to each type of ending depends on its significance in practice; for example, it is completely justified that four full chapters are dedicated to rook endings, which occur very often — only pawn endings, which are the basis for all the other endings, occupy more space. Despite this, knight, bishop and queen endings are not neglected.

I wish you a lot of fun with Chess Endgame Training, whether you intend to use it for teaching or for self-instruction.

Karsten Müller
Hamburg, August 2000
Introduction

The famous German grandmaster Siegbert Tarrasch – one of the strongest players of his time – recommended learning the game of chess by starting with the endgame. His still very readable teaching book *Das Schachspiel* is structured accordingly. After an explanation of the rules, he begins with the endgame, then demonstrates typical tactical procedures in the middlegame, and only in conclusion does he give an overview of the opening.

Leading grandmasters of the past and the present share his view about the extraordinary significance of the endgame.

Despite this, the endgame knowledge of most chess-players is surprisingly poor. Young players especially prefer opening knowledge and brilliant combinations. This book is designed to counterbalance this bias. It covers some important and basic principles, presents elementary positions and manoeuvres and last but not least tries to convey a sense of the endgame’s beauty.

The reader is assumed only to have the most basic endgame knowledge (especially the mating of the ‘lone king’). Usually each topic starts with the simplest basic positions. If you come across something familiar, you may take it as a positive sign that you already possess some knowledge and that something learned before has not been forgotten.

The selection of topics is based on two main points. I have dedicated five chapters to pure pawn endings as they form the basis of all other endings (possible simplifications to a pawn ending have to be evaluated again and again in almost every other ending). The topic of rook endings covers four chapters, as rook endings appear most often in practice. Endings with minor pieces occur less often and so are afforded less detailed coverage.

I haven’t included endings with minor piece(s) vs rook and endings with various pieces vs queen. From my point of view such endings with a complicated balance of material could be the subject of a additional course which focuses even more on endgame principles. Readers could refer to the more advanced book *Endgame Strategy* by Shereshevsky.

Those who wish to use the material in this book for chess instruction will find recommendations for the design of the lectures at the end of the book.

For those who wish to use the material for self-instruction, here are a few tips. At the beginning of each chapter you will find an example to introduce the topic (diagram x.1). Next is a ‘standard program’ (generally exercises x.2 to x.7) which
covers the most important aspects. In any case, these examples should be solved independently. The more seriously you solve the positions yourself, the more you will learn! Only after a serious attempt at a solution should you consult the solution part for help. The subsequent examples (given in the text as ‘further examples’) are often more complicated but illustrate the topic in more depth. Here again independent solutions increase the learning effect.

If you don’t find your own solution in the text it isn’t necessarily incorrect—it could be a side variation which isn’t mentioned in the text. Every attempt has been made to include the most important lines and check them for accuracy, but possible errors can’t be totally ruled out. From this viewpoint I recommend that you read the final section of Chapter 17, ‘How to deal with errors’.

And now I wish you a lot of fun with *Chess Endgame Training*!

Bernd Rosen
1 King and Pawn vs King: Basic Themes

Square • Obstacle • Opposition • Waiting Move • Key Squares

The Rule of the Square

If the defending king can step into the square of the pawn, then he can stop the pawn. If not, the pawn can promote. We call the square that encloses the pawn’s diagonal to the promoting rank the ‘square of the pawn’.

If the pawn is still on its starting square, then the square rule must be applied to the square in front of the pawn.

1 a4 +–
The pawn on a4 has the square a4-e4-e8-a8. The black king is not able to catch it any more:

1...f4 2 a5 e5 3 a6 d6 4 a7 c7 5 a8

With Black to move, his king steps into the square of the pawn and secures the draw:

1...f3 =
1...f4 = obviously serves the same purpose.

2 a4 e4 3 a5 d5 4 a6 c6 5 a7 b7 6 a8+ xa8

If White is to play, then he can win the game by simply advancing his pawn:
The Obstacle

1.2

Although the black king is ‘actually’ close enough, his own d5-pawn prevents him from stepping into the square of the a5-pawn. After 1...d4 2 a6 d3 3 a7 d2 4 a8\textsuperscript{#}+ -- he is one step too late!

The Opposition

In many endings the possession of the opposition is crucial, especially when the kings are fighting about the promotion of a pawn.

The kings ‘oppose’ each other when all the corners of the square around the kings are of the same colour (see below). Whoever in this position is not to move has the opposition.

Close Opposition

The kings directly face each other.

Distant Opposition

The two kings face each other on a vertical or horizontal line but further apart.

Diagonal Opposition

The kings are placed on the same diagonal.

1.3

1 d7+

If the pawn moves to the seventh rank with check, then promotion can’t be forced:

1...\textsuperscript{#}d8 2 \textsuperscript{#}d6 stalemate
If it is Black to move, White has the opposition and wins: 1...\(d\)8 2 d7 \(e\)c7 3 \(e\)e7 +–.

The pawn will queen if it reaches the seventh rank ‘silently’ (i.e. without check).

1.4
Black has the opposition because he is not to move.
1 \(d\)d5 \(d\)d7
1...\(f\)f6?? voluntarily abandons the opposition – Black loses: 2 \(d\)d6 (2 \(e\)5+? is wrong because then Black achieves a draw again: 2...\(e\)e7 3 \(e\)6 \(e\)e8! 4 \(d\)d6 \(d\)d8! 5 \(e\)7+ \(e\)e8 6 \(e\)e6 =) 2...\(f\)f7 3 e5 \(e\)e8 4 \(e\)e6 \(f\)f8 5 \(d\)d7 +–
2 e5 \(e\)e7 3 e6 (D)

3...\(e\)e8!
3...\(d\)d8? 4 \(d\)d6 \(e\)e8 5 \(e\)7 (without check!) 5...\(f\)f7 6 \(d\)d7 +–.
4 \(d\)d6 \(d\)d8 5 \(e\)7+
With check!
5...\(e\)e8 6 \(e\)e6 =
If Black is to move, he has to abandon the opposition and loses: 1...\(d\)d7 (1...\(f\)f7 2 \(d\)d6 +– is symmetrical) 2

\(f\)f6 \(e\)e8 3 \(e\)e6 \(f\)f8 4 \(d\)d7 \(f\)f7 5 \(e\)5 +–.

1.5
When the king reaches the sixth rank before his pawn then the pawn will promote, no matter who is to move: 1 \(f\)f6 \(f\)f8 2 e6 \(e\)e8 3 e7 \(d\)d7 4 \(f\)f7 +–.

1.6
Here Black has to be very careful. It is again the opposition which helps him out of a dangerous situation:
1...\(d\)d8!
Thus Black wins the distant opposition. All other moves lose: 1...\(e\)e7? 2 \(e\)e5! +–; 1...\(d\)d7? 2 \(d\)d5! +–; 1...\(f\)f7? 2 \(d\)d5 \(e\)e7 3 \(e\)e5 +–; 1...\(f\)f8? 2 \(d\)d5 \(f\)f7 3 \(d\)d6 +–.
2 \(d\)d5
2 \(e\)e5 \(e\)e7! =
2...\(d\)d7!
Shifting to the close opposition which is already familiar to us.
3 \(e\)e5 \(e\)e7! =

The Waiting Move

1.7
If it were Black to move he would have to abandon the opposition and lose. White can profit from the fact that his pawn is still on e3 to win with the waiting move 1 e4!: 1...\(f\)f7 2 \(d\)d6 \(e\)e8 3 \(e\)e6 \(f\)f8 4 \(d\)d7 +–.

Key Squares

In the previous examples quite a lot of important rules have been explained
that can be summarized by the term 'key squares':

If the king manages to step on one of the marked key squares in front of his pawn then promotion is secured, independent of the right to move.

Note: this does not apply for rook's pawns – more about this topic later on, particularly in Chapter 6.

Further Examples

1.8

Salvioli

1887

Black must not give away the a6-pawn too easily because then White would force the promotion of the b-pawn (king in front of the pawn on the 6th rank).

1...a5!

The alternative 1...b8 2 b6 a5! works as well.

2 bxa5

2 b5 b6! (2...a4? 3 c7 a3 4 b6+ a6 5 b7 a2 6 b8 a1 7 a8+ —) 3 c5 =

2...a6 =

1.9

White wins if his king can step on one of the squares a5, b5 or c5 without advancing the pawn first. These are the key squares of the b3-pawn.

1 b2!

Only the a5-square is so far away from the black king that he cannot stop the white king from going there. 1 c2? d7 2 c3 c7! (the black king takes the distant opposition) 3 b4 b6 =.

1...d7 2 a3! c6 3 a4 +

b6 (D)
Now White has the opposition and wins:

4...\(\text{c6}\)
4...\(\text{a6}\) 5 \(\text{c5}\) ++
5 \(\text{a5}\) ++

1.10
1 \(\text{c6}!\)
White takes advantage of the obstacle theme.
1...\(\text{dxc6}\) 2 \(\text{a5}\) \(\text{d5}\) 3 \(\text{a6}\) ++

1.11
Gorgiev
_Izvestia_, 1928

It seems as if White is going to lose, as he cannot stop the black pawn. However, if he uses his two passed pawns skilfully he can achieve a draw:

1 \(g4+!\)
1 \(h4? c5 2 g4+ \text{hxh4!} 3 \text{g6 xg4}++\)

1...\(\text{g5}!\)
1...\(\text{hxg4}\) 2 \(\text{g6}\) \(\text{c5}\) \(\text{h4}\) \(\text{c4}\) (after 3...\(\text{hxh4}\) 4 \(\text{f5} =\) the king is in the square) 4 \(\text{h5}\) \(\text{c3}\) 5 \(\text{h6}\) \(\text{c2}\) 6 \(\text{h7}\) \(\text{c1}\) \(\text{h8}\) =.

2 \(\text{g7!} (D)\)
2 \(\text{h4+? xh4}\) 3 \(\text{g6 xg4}++\).

1.12
Duclos
_Sportzeit_, 1903

This position provides another illustration of the key squares theme. The \(d5\)-pawn is lost, and if it were to be captured at \(d5\), the black king would be on a key square of his \(c7\)-pawn. Thus:

1 \(\text{d6!}\)
After 1 \(\text{b3? c5 2 c3} (2 \text{d6 now does not help either}: 2...\(\text{xd6!} 3 \text{c4 c6} =\)\) 2...\(\text{xd5}\) 3 \(\text{d3}\) \(\text{c5}\) 4 \(\text{c3}\) the waiting move 4...\(\text{c6}\) is decisive.
1...\(\text{cx d6}\) 2 \(\text{b3}\) \(\text{c5}\) 3 \(\text{c3}\) \(\text{d5}\) 4 \(\text{d3}\) =
White maintains the opposition.

1.13
Kranki – W. Lange
_Bad Oeynhausen 1940_

Black’s only advantage is his active king. Is this sufficient for a win?

1...\(\text{g2}!\)

The black king takes the distant opposition (a distance of three squares!), with the help of which he will invade the white position:

2 \(\text{c3 f1}!\)

With other moves Black would lose the opposition again: 2...\(\text{f3? d3}\); 2...\(\text{f2? d2}\).
3 \(\text{d2 f2}\!\)

Black reaches the close opposition.
4 \(\text{d3}\)
4 ♕d1 ♖e3 5 ♖c2 ♖e2 6 ♖c1 ♕d3 7 ♕b2 ♕d2 8 ♕b1 ♕c3 9 ♕a2 ♕c2 10 ♕a3 ♕b1 —+
4...♕e1! 5 ♕e4 ♕d2 6 ♕d5 ♕c3 7 ♕c6 ♕xb3 8 ♕b5 ♕c3 9 ♕xb6 ♖b4 0-1

1.14
The second pawn offers White two winning variations:
1 ♔f7+!
This is the most straightforward way. 1 ♕f5 ♕f7 2 ♕e5 ♕f8 3 ♕e6 ♕e8 4 ♕f7+ ♕f8 5 ♕f5 — also wins; in the end the waiting move is decisive here.
1...♕xf7 2 ♕f5 —

1.15
In this position a fierce fight breaks out over the opposition:
1 ♕b5! ♕a7 (D)
1...♕b8 2 ♕b6 ♕c8 3 ♕c7 — (silently).

2 ♕a5! ♕a8 3 ♕a6!
3 ♕b6? ♕b8 4 ♕c7+ (with check)
4...♕c8 5 ♕c6 —.
3...♕b8 4 ♕b6 ♕c8 5 ♕c7 —

1.16
Once again an impressive demonstration of the opposition’s power:
1...♕f6!
First Black takes the distant opposition. His aim is to prevent the white king from invading his territory.
2 ♕e3
2 ♕h5 ♕g5 3 ♕e3 ♕xh5 4 ♕f4 ♕h6!
5 ♕xg4 ♕g6 —.
2...♕e5 3 ♕d3 ♕d5 4 ♕c3 ♕e5!
(D)
Diagonal opposition. Of course the black king must not leave the square of the h4-pawn: 4...♕c5?? 5 ♕h5 —.

5 ♕b4 ♕d4 6 ♕a4 ♕e4!
Distant opposition.
7 ♕b5 ♕d5 8 ♕b6 ♕d6 9 ♕a7 ♕e7! ½-½
2 The King's Typical Fighting Methods

Triangulation • Zigzag • Body-check • Play on Two Wings • Opposition

Triangulation

If it were Black to move in the diagram position he would immediately lose after 1...\textit{c}c7 2 \textit{c}c5 \textit{c}c8 3 \textit{b}b6 +– or 1...\textit{d}d8 2 \textit{d}d6 \textit{c}c8 3 \textit{c}7 +–.

In such situations, triangulation is the right way to pass the right to move to the opponent.

1 \textit{d}d4!

The direct way does not lead to success yet: 1 \textit{d}d6 \textit{d}d8 2 \textit{c}7+? \textit{c}c8 3 \textit{c}c6 stalemate; 1 \textit{c}c5 \textit{c}7. However, 1 \textit{c}c4! \textit{d}d8 2 \textit{d}d4! \textit{c}c8 3 \textit{c}c5 +–

also wins – this is just a change of move-order, and it is typical that there is more than one way to carry out a triangulation.

1...\textit{c}d8

1...\textit{c}c7 2 \textit{c}c5 \textit{c}c8 3 \textit{b}b6 +–.

2 \textit{c}c4! \textit{c}c8

2...\textit{c}c7 3 \textit{c}c5 +–.

3 \textit{d}d5! (D)

Thanks to the triangulation White has achieved his aim and passed the burden to move to Black. Now the two winning variations that were mentioned in the comments to the first move will be realized:

3...\textit{c}d8
3...\texttt{c}7 4 \texttt{c}5 +--
4 \texttt{d}6 \texttt{c}8 5 \texttt{c}7 +--

This example has often been cited as a game Fahrni-Alapin, but the details of this game are unclear.
THE KING'S TYPICAL FIGHTING METHODS

2.7

2.10

2.8

2.11

2.9

2.12

W
2.2

Herberg

*Deutsche Schachzeitung, 1936*

1 ½f3!

White cannot make any progress in a direct way: 1 ½f4? ½xh4 2 ½xf5
½g3 =; 1 ½h3? ½f4 =.

1...½xh4 2 ½f4 +- 

The Zigzag

2.3

1 ½d7!

Apart from this winning move, White also has a way to draw and a possibility to lose at his disposal: 1 ½d6? ½b5 —, when Black not only captures the c5-pawn but he also gets his king to one of the key squares b4, c4 or d4; 1 ½e5 ½a5! 2 ½e4 ½b4 3
½d4 ½b5 4 ½d3 ½xc5 5 ½c3 = — here the opposition just saves White half a point.

1...½b5

After 1...½b7 2 ½d6 ½b8 3 ½xc6
½ — the white king manages to get to the 6th rank in front of his pawn — promotion is therefore secured.

2 ½d6 +- 

In this kind of position the side that can attack the pawn from further behind has the advantage.

2.4

Prokeš

*Prace, 1947*

This study illustrates very well what the term zigzag means:

1 ½b7!

1 ½a7 a5 2 ½a6 a4 3 ½a5 a3 4 ½a4
½b2 —-.

1...a5 2 ½c6! a4

2...½b2 3 ½b5 =.

3 ½d5! a3

3...½b2 4 ½c4 ½xa2 5 ½c3 a3 6
½c2 =.

4 ½e4! ½b2 5 ½d3 ½xa2 6 ½c2 =

In Chapter 6 we will get to know more about the special features of the rook’s pawn.

The Body-check

2.5

Schlage – Ahues

*Berlin 1921*

1 ½e6 ½c3 (D)

2 ½d6?

White gives away half a point! Like the text-move, 2 ½d5! also approaches the a7-pawn but at the same time blocks the black king. Like in ice hockey, the white king tries to make himself as broad as possible so as not to let the opponent past. 2...½b4 (no better is 2...½d3 3 ½c6 ½d4 4 ½b7
½c5 5 ½xa7 ½c6 6 ½b8 =-) 3 ½c6
½a5 4 ½b7 ½b5 5 ½xa7 ½c6 6 ½b8
+-.
2...\textit{d}d4 3 \textit{c}e6 \textit{e}e5!
Now Black is in time to trap the white king at the edge of the board.
4 \textit{b}b7 \textit{d}d6 5 \textit{x}xa7 \textit{e}c7 =
This example also shows us that in positions with a rook's pawn, different rules often have to be applied compared to other pawns. More about that in Chapter 6.

Play on Two Wings

2.6

Réti
Kagans Neueste
Schachnachrichten, 1922
This is probably the most famous pawn-ending study: the black pawn seems to be unstoppable but White can skilfully combine the fight against the black pawn with the support of his own.
1 \textit{g}g7! \textit{b}b6
1...\textit{h}4 2 \textit{f}f6 \textit{h}3 3 \textit{e}e6 \textit{h}2 4 \textit{c}7 =.
2 \textit{f}f6! \textit{h}4 3 \textit{e}e5! (D)

Here the king's effect in two different directions becomes very clear.
3...\textit{h}3

3...\textit{x}c6 4 \textit{f}f4 =.
4 \textit{d}d6 \textit{h}2 5 \textit{c}7 \textit{b}7 6 \textit{d}d7 =
If one looks at the route of the king in more detail then he has moved along the h8-a1 diagonal so long as he could approach both his pawn and his opponent's at the same time. This is a typical idea in pawn endings: for a king, the zigzag path may not be longer than a linear route.

2.7

Neustadl
International Chess Magazine, 1890
We have already become familiar with one of the king's fighting methods in Chapter 1: the opposition. Here is another example of this important theme:

\begin{center}
\begin{tikzpicture}
\draw (0,0) rectangle (2,2);
\draw (3,0) rectangle (5,2);
\end{tikzpicture}
\end{center}

1 \textit{h}1!
The distant opposition saves the draw for White. Not:
a) 1 \textit{f}f1? \textit{d}d2 2 \textit{f}f2 \textit{d}d3! (persistent: White would have to move to f3 in order to keep the opposition; however, his own pawn is in the way and thus White has to lose the opposition) 3 \textit{g}3 \textit{e}3 4 \textit{g}2 (4 \textit{g}4 \textit{f}2 5
Further Examples

2.8

**Rinck**
Schweizerische Schachzeitung, 1922

In contrast to the Réti study, the king is on h2 instead of h3 here. This proves to be the decisive difference:

1 a4 ♖b3 2 a5 ♖c4

The black king tries to play on two wings.

1...♖a6 2 ♖d4
3...♖d3 4 ♖b5 a8♖f1 (without check) 6 ♖a6+ --
4 ♖g1 ♖e3 5 ♖f1 --

2.9

**Réti**
Narodny Listy, 1928

This time the play on two wings even leads to a successful defence against three white pawns:

1...♖h3 2 a4
2 ♖g3 ♖xb2 3 ♖xf3 ♖xc3 also leads to a draw.

1...♖xh2 2 a5 ♖xc3 3 ♖a4 ♖f8 4 ♖g3 ♖d4! 5 ♖a6 (5 ♖xf3 ♖c5 =)
6 ♖xe3 =
7...♖d2 =

2.10

**Dobias**

Narodny Listy, 1926

In this deceptively simple position, only a timely body-check leads to a win:

1 ♖d4! (D)
2...♖e5? ♖e4 2 ♖f6 ♖d3 3 ♖xg6 ♖e4 =; 1 ♖d5? ♖b4 2 ♖d4 ♖d3 3 ♖f6 ♖e4 =; 1 ♖d5? ♖b4 2 ♖d4 ♖d3 3 ♖f4

2...♖f4 (3 ♖d3 ♖b4 4 ♖f4 ♖c5 =) 3...♖c2 =

2.11

**Moravec**

Ceske Slovo, 1940

White's task is to win the black pawn without losing his own. This can only be done by 1 ♖b4! (1 ♖c3? ♖g4
2 ♖d4 ♖f4 3 ♖xd5 ♖e3 =) 1...♖g4 2 ♖c5 ♖f4 3 ♖d4! --

2.12

**Salvioli**

Trattato Completo dei Finali di Partita, 1888
A short repetition of the key squares topic:
1 g5!
White can win the black pawn in any case but only if he captures it on the g6-square will it lead to a win: 1...e6? g5! 2 f5 f7 3 xg5 g7 =.
1...f7 2 d7 f8 3 e6 g7 4 e7 g8 5 f6 h7 6 f7 h8 7 xg6 g8 8 h6 h8 9 g6 =

2.13

Sackmann
Deutsche Schachblätter, 1924
This example presents the power of a zigzag in shining colours:
1...h8!
1...f6? loses a key tempo: 1...f6!
2 g8 e5 3 g7 d4 4 f6 c3 5 e5 b2 6 d4 xa2 7 c3 b1 +.
1...f6 2 h7!
2...g8? e5 = leads to the variation given in the note to the first move.
2...e5 3 g6 d4 4 f5 c3 5 e4 b2 6 d3 xa2 7 c2 =
Here again a reference to Chapter 6 is appropriate.

2.14

Bianchetti
L'Opinio, 1926
White succeeds by paying close attention to the opposition:
1 h4!
After 1 g3? g5 = Black has the opposition; 1 g4? g6 (here again White has lost the opposition to Black)
2 f4 f6 3 e4 e6 4 d4 b3! 5 cbxb3 d6 c4 c6 7 b4 b6 =.
1...g6 2 g4 f6 3 f4 e6 4 e4 d6 5 d4 b3
5...c6 6 c4 b3 7 cbxb3 b6 8 b4 +=.
6 cbxb3 c6 7 c4 b6 8 b4
c6 9 a5 =

2.15

Adamson
The Chess Amateur, 1915
The themes of opposition and body-check complement each other very well in White's winning manoeuvre. Moreover, at some points White needs a waiting move.
1 c7!
1 d7? b6 2 e6 c5 3 f5 d4 4 g6 e4 =.
1 a6 2 c6! a5 3 c5 a4 4 c4 a3 5 c3 a2 6 c2 a3 7 g3!
A waiting move. 7 g4? is a mistake due to 7 b4 8 d3 c5 9 e4 d6 10 f5 h5! 11 gxh5 e7 =. The possibility to make a waiting move when necessary is called having a spare tempo.
7 b4 8 d3 e5 9 e4 d6 10 f5 d5 11 g4! =
This is in one sense a waiting move, since the black king now has nothing useful to do, and it also parries Black's threat to draw by playing...d4. Not 11 g6? e4 12 xh6 f3 =.
After the text-move, White wins in straightforward fashion.
3 Typical Pawn Structures in Pawn Endings (1)

Protected Passed Pawn • Connected Passed Pawns • Outside Passed Pawn

The Protected Passed Pawn

9...\texttt{\textcolor{red}{\texttt{\#c7}}} 10 \texttt{\textcolor{red}{\texttt{\#e6}}} \texttt{\textcolor{red}{\texttt{\#b6}}} 11 \texttt{\textcolor{red}{\texttt{\#d6}}} \texttt{\textcolor{red}{\texttt{\#b7}}} 12 \texttt{\textcolor{red}{\texttt{\#c5}}} \texttt{\textcolor{red}{\texttt{\#a7}}} 13 \texttt{\textcolor{red}{\texttt{\#c6}}} \texttt{\textcolor{red}{\texttt{\#a8}}} 14 \texttt{\textcolor{red}{\texttt{\#b6}}} +

Thanks to the protected passed pawn on b5, the black king must not leave the square b5-e5-e8-b8 and also cannot capture the trouble-maker. This enables White calmly to carry out the outflanking manoeuvre \texttt{\textcolor{red}{\texttt{\#d3}}} - \texttt{\textcolor{red}{\texttt{\#e3}}} - \texttt{\textcolor{red}{\texttt{\#f3}}} - \texttt{\textcolor{red}{\texttt{\#f4}}} - \texttt{\textcolor{red}{\texttt{\#e4}}} - \texttt{\textcolor{red}{\texttt{\#f4}}} - \texttt{\textcolor{red}{\texttt{\#e4}}}, etc. Eventually, White will force the black king away from the a5-pawn and thereby win a second pawn.

White wins with the aid of the protected passed pawn on b5.

1 \texttt{\textcolor{red}{\texttt{\#d3}}} \texttt{\textcolor{red}{\texttt{\#d5}}} 2 \texttt{\textcolor{red}{\texttt{\#e3}}} \texttt{\textcolor{red}{\texttt{\#e5}}} 3 \texttt{\textcolor{red}{\texttt{\#f3}}} \texttt{\textcolor{red}{\texttt{\#d5}}} 3...

5. \texttt{\textcolor{red}{\texttt{\#f5}}} ? leaves the square of the b5-pawn and White wins by pushing the pawn: 4 \texttt{\textcolor{red}{\texttt{\#b6}}} +

4 \texttt{\textcolor{red}{\texttt{\#f4}}} \texttt{\textcolor{red}{\texttt{\#d6}}} 5 \texttt{\textcolor{red}{\texttt{\#e4}}} \texttt{\textcolor{red}{\texttt{\#e6}}} 6 \texttt{\textcolor{red}{\texttt{\#d4}}} \texttt{\textcolor{red}{\texttt{\#d6}}} 7 \texttt{\textcolor{red}{\texttt{\#e4}}} \texttt{\textcolor{red}{\texttt{\#c7}}} 8 \texttt{\textcolor{red}{\texttt{\#e5}}} \texttt{\textcolor{red}{\texttt{\#b7}}} 9 \texttt{\textcolor{red}{\texttt{\#d5}}}!

Neware the trap: 9 \texttt{\textcolor{red}{\texttt{\#b6}}}? \texttt{\textcolor{red}{\texttt{\#a6}}} 10 \texttt{\textcolor{red}{\texttt{\#c6}}}

Stalemating. Another winning possibility is 9 \texttt{\textcolor{red}{\texttt{\#d6}}} \texttt{\textcolor{red}{\texttt{\#b6}}} 10 \texttt{\textcolor{red}{\texttt{\#e6}}}! \texttt{\textcolor{red}{\texttt{\#a7}}} 11 \texttt{\textcolor{red}{\texttt{\#e7}}}!
Passed Pawns
A pawn that cannot be hindered by an opponent's pawn on its way to the promotion square is called a passed pawn.

If this pawn is protected by a friendly pawn, then we talk about a protected passed pawn.

If this second pawn is also a passed pawn, then we talk about two connected passed pawns.

A passed pawn that is far away from the main mass of pawns is called an outside passed pawn.

3.2
Prokeš
Ceskoslovensky Sach, 1946

1 h6 f8
The black king has to step into the square of the pawn.

2 g5
Now White has a protected passed pawn.

2...g8
2...f5? 3 gxf6 f7 4 h7 +--.

3 d2 h7 (D)

This procedure is called breaking-up and will be dealt with in more detail later.

5 gxf6 xh6 6 f4 g5+
6...h7 7 g5 h8 8 h6! g8 9 xg6 +--.

7 f5 h7 8 xg5 h8 9 h6!
Never forget the opposition!

9...g8 10 g6 f8 11 f7 +--
Silently moving to the seventh rank.

Connected Passed Pawns
If one side has two connected passed pawns, then the power of the protected passed pawn is magnified.

3.3
1 f6 d8
1...h2 2 e7 h1+ 3 d8+ xc6 4 a8+ +--.

2 e6 h2 3 d6 h1+ 4 c7#

3.4
1...e3! (D)
1...h1+?? 2 xh1 f3 3 g1 +--.

2 c7 h1+ 3 xh1 f2 4 c8+ g2+ 5 h2 g1+ 6 h3 g3#

4 e3 f6
As we can see, far-advanced connected passed pawns may give rise to mating themes.

**Outside Passed Pawn**

**3.5**

This typical position illustrates the principle of the outside passed pawn very clearly:

1 a4 ∙d5 2 b5 axb5

After 2...a5 a protected passed pawn is created: 3 b6 ∙c6 4 ∙xe4 ∙xb6 5 ∙d5 ∙b7 6 ∙c5 ∙a6 7 ∙c6 ∙a7 8 ∙b5 ∙b7 9 ∙xa5 ∙a7 10 ∙b5 ∙b7 11 ∙c5 ∙c7 12 ∙d5 ∙b6 13 ∙e5 and White wins.

3 axb5 ∙c5

We observe how the king is lured to the queenside by the outside passed pawn. Meanwhile the kingside will be easy prey for the white king.

4 ∙xe4 ∙xb5 5 ∙f5 ∙c4 6 ∙g6 ∙d3 7 ∙xh6 ++

The starting position would also be won for White if Black were to move first.

**3.6**

This seemingly totally equal position is in fact won for White, as he possesses the outside passed pawn. Therefore White will be able to attack the opponent’s pawns on the queenside first. The game might continue as follows:

1 ∙g2 ∙g7 2 ∙g3 ∙g6 3 ∙g4 ∙f6 4 h3 ∙g6 5 h4 ∙h6 6 h5 f6 7 f5 ∙xb5 8 ∙xf6 ∙g4 9 ∙e6 ∙f3 10 ∙d6 ∙e3 11 ∙c7 ∙d2 12 ∙xb7 ∙c2 13 ∙xc6 ∙xb2 14 c4 ++

The power of the outside passed pawn lies in its ability to deflect the opponent’s king from the main theatre of battle. Usually the outside passed pawn will be sacrificed for this purpose.

**3.7**

**Nimzowitsch – Tarrasch**

*San Sebastian 1911*

Here again the outside passed pawn constitutes a decisive advantage. However, Black has to proceed very energetically:

1...a5 2 ∙e4 f5+!

This way Black neutralizes White’s kingside pawns.

3 ∙d4

After 3 ∙xf5 the white king has stepped out of the square of the a5-pawn: 3...a4 ++.

3...f4! +

Now Black’s king will definitely capture both white pawns while his white counterpart is taking care of the a-pawn. After 3...a4? 4 g3! White has created a protected passed pawn. The game would then end in a draw:

4...g6 5 c4 h5 6 b4 g4 7 xa4 f4 (7...xg3 8 h5 f4 9 h6 f3 10 h7 f2 11 h8 f1 w) 8 gxf4 ∙xf4 =.

**Further Examples**

**3.8**

**Schuster**

*Das Endspiel im Schach, 1975*

White simplifies to a won pawn ending with an outside passed pawn:

1...h5+ 2 h4 xe4+ 3 bxc4

xe2 4 xe2 ++
3.9
Apart from the outside passed pawn, Black can count on another advantage: his g5-pawn blocks the white pawns at g4 and h3, so despite being a pawn down, Black can even win (more about the subject of blockade in Chapter 5).

1...a4 2 d4 a3 3 c3 xe5 4 b3 f4 5 xa3 g3 6 b3 xh3 →+

3.10
Averbakh
Lehrbuch der Schachendspiele, 1979

White is able to boast an outside passed pawn, but it is outside the square of the b-pawn and therefore White will not be able to prevent Black from capturing it. If the white king tries to capture the a5-pawn he steps out of the square of the b-pawn and it will queen in three moves. Therefore Black is winning.

1...e6 2 d4 d6 3 e4 e6 4 c3
4 f4? b3 →+
4...f6 5 d4 g5 6 e3 xg4 7 e4! (D)

The most stubborn defence. White wants to keep the black king away with the help of the opposition. Nevertheless, Black can make progress because the white king is tied to the square of the b-pawn.

7...g5
7...g3 8 e3.
8 e3 f5 9 d3 e5 10 d2
d3 d5 11 d3 c5 also wins
for Black.
10 d4 11 c2 c4 12 b2
b4!
12 b3? 13 a3 =.
13 c2 d3 14 c1 d3 15 b2
2 d2! 16 b3 c1! 17 a2 c2 18
a1 b3! →+
Not 18...b3?? stalemate!

3.11
Kyhle – Andersson
corr. 1973

The queenside is obviously blocked, but how can White make progress?
1 f5! gxf5+ 2 f4
White has created an outside passed pawn by means of a pawn sacrifice.
2 e6 3 h5 f6 4 h6 g6 5 h7
xh7 6 xf5 g7 7 e6 g6 8 d7
f6 9 c7 e6 10 b7 d6 11
a7 c5
11 c7 12 a6 b8 13 xb6.
12 a6 1-0

3.12
Kling and Horwitz
Chess Studies and Endgames. 1851
1 e6!

The most elegant solution. Some readers of the first German edition of this book recognized that White can
also win with the simple 1...a2 c d7 2
xa3 c e6 3 b4 xe5 4 c5.
1...f6e6 2 a2 e5 3 xa3 e4 4 b3
e3 5 c3 e2 6 d2 f7 7 xe2 e6
8 c3 f7 9 c4 e6 10 d4 f7
11 c5 f8 12 f7 +–

3.13
Louma
Slovensky Narod, 1926
Both sides possess outside passed
pawns and so the game is decided by a
race of the passed pawns – this is a
very typical situation in pawn endings:
1 g4!
Cautious players would probably
prefer 1 xa7, but after 1...h5! 2 b6
c2 3 c5 c3 4 c4 f2 5 d4
cxg2 6 c4 g3 7 c3 xh4 8 f2
c3 9 c1 = they would have to be
content with a draw.
1...a5 2 g5 hxg5
2...a4 3 xh6.
3 h5!
3 hxg5? a4 4 g6 a3 5 g7 a2 6 g8#
a1 w 7 w+ b2 =.
3...g4
3...a4 4 h6 a3 5 h7 a2 6 h8# wins,
although after 6...b1 White has to
play accurately to secure victory. More
about this in Chapter 14.
4 h6 g5 5 h7 g2 6 h8+ g1 w 7 w+ a1+

3.14
Grigoriev
64, 1930
1 b4!
1 c2? c7 2 f3 d6 3 xf4
d5 =.
1...c7?

1...axb4? 2 a5.
2 b5! Now White has a protected passed
pawn. The alternative 2 bxa5 d7 is
useless for White.
2...d6 3 c2 e6 4 f3 e5 5
g4! e4!
5...d5? 6 xf4 +– is hopeless for
Black. Therefore the black king has to
leave the square of the b-pawn, hoping
to save the day with his own passed
pawn.
6 b6 f3 7 g3 e3 8 b7 f2 9 b8#
f1 w + (D)

White can now force the win of the
a5-pawn and then the exchange of
queens. Otherwise this exercise would
belong in Chapter 15.
10 w5+ d2
10...d3? 11 b5 +–.
11 xa5+ d1
11...e2 12 c5+ b3 13 b5+
++.
12 d5+ c1
12...c2 13 g2 +–.
13 c5+ d1 14 d4+ c2
14...c1 15 a1 +.
15 f2 +–
3.15

Horwitz

*The Chess Monthly*, 1879

1 g6!
1 hxg7? fxg5+! 2 ∆xg5 ∆xg7 = leads to a simple draw. 1 gxf6 gxf6 2 ∆h5 ∆f7 =.

1...gxh6 2 ∆g4 ∆f8 3 ∆f4 ∆e8 4 ∆e4 ∆f8 5 ∆d5 ∆e7 6 ∆c5 ∆e8 7 ∆d6 ∆f8

White now faces the problem of having to keep an eye on the h6-pawn. The white king must not leave the pawn's square without good reason.

8 ∆d7! (D)

White hurries back into the square of the h6-pawn – and at the same time puts Black in zugzwang.

10...h5
10...g8 11 ∆xf6 +−.
11 ∆d5 h4 12 ∆e4 +−

3.16

Wotawa

*Wiener Montag*, 1951

White's situation seems to be hopeless: how can he stop the f5-pawn?

1 b6!
1...∆e7? ∆a7 2 ∆d7 ∆b6 +−.
1...∆b8
1...∆xb6 2 ∆e7 +−.
2...e6! ∆c8
2...f4 3 ∆d7.
3 b7+ ∆b8 4 ∆xf5

White has already achieved a lot: the f5-pawn is gone and he has created a powerful protected passed pawn on b7.

4...∆a7 5 ∆e4 ∆b8 6 ∆d5 ∆a7
6...g5 7 hxg6 hxg6 8 ∆f6.
7 ∆e4 ∆b8 8 ∆b5 ∆a7 9 ∆a5
9 ∆b8 10 ∆a6! (D)
Now the black king has no more moves and Black has to weaken his pawns.

10...g5 11 hxg6 hxg6 12 b5 a7
12...g5 13 c4 g4 14 d4 g3 15 e3 d5 16 f3.
13 c4 b8 14 d5 a7 15 e6 b8 16 f6 a7 17 xg6 b8 18 f5
Back to a6.

18...a7 19 c4 b8 20 d5 a7
21 c4 b8 22 b5 a7 23 a5 b8 24 a6 (D)

24...d5
Now the d-pawn is ripe for plucking:
25 b5 d4 26 c4 a7 27 xd4 b8 28 d5 a7 29 e6 b8 30 d7 --
4 Typical Pawn Structures in Pawn Endings (2)

Pairs of Isolated Passed Pawns • Space Advantage

Pairs of Isolated Passed Pawns

4 f5!
White has reacted in time by advancing his f-pawn, this rendering the h-pawn immune.
4...h6 5 xa6 g7 (D)

4.1 W

Passed pawns that are separated by one file can protect each other:
1 h4 f5
1...xf3? 2 h5 ++.
2 h5 g6
Black tries to capture the front pawn. White prevents this:
3 f4!
3...xa6? is a big mistake due to
4 h5 4 f4 xh4 =.
5 h5
1 h5 4 h5! ++.

Once again White must take care:
6 h5!
6 b6? f6 7 h5 xf5 =.
6...f6
6...h6 7 f6 ++.
7 h6 f7 8 b6 f6
Black can only watch helplessly as the white king steadily approaches.
After 8...g8 9 f6 f7 10 h7 ++ the pawns even queen without the support of their king.
9 c6 ++
The Common Square

In order to simplify the assessment of positions containing pairs of isolated passed pawns, one defines the 'common square' of two isolated passed pawns as the square which has a diagonal that goes from the least advanced pawn to the file of the other pawn. For example:

Thus the diagonal can also reach beyond the edge of the board. In positions with pairs of isolated passed pawns that stand on the same rank, the following rules are valid:

1) If the common square of the pawns reaches the eighth rank or beyond, the pawns will queen without the support of the king.

2) If the common square of the pawns does not extend to the opponent's baseline, the distance between the pawns is decisive:

2a) If there are one or three files between the pawns they defend each other.

2b) If there are two files between the pawns they can be captured by the opposing king.

4.2

If there are two files between the pawns, they can be captured by the opposing king.

1...\( \text{h}5 \) 2 e5 \( \text{g}6! \)

2...\( \text{xh}4? \) 3 e6 +-.

3 \( \text{g}2 \)

3 h5+ \( \text{xh}5 =. \) The king is still in the square of the e-pawn.

3...\( \text{f}5 \) 4 h5

4 g3 xe5 5 g4 f6 6 h5 g7 =. See also Chapter 6, 'The Rook's Pawn'.

4...xe5 =

4.3

If the common square of two isolated passed pawns reaches the eighth rank or further, then the pawns queen without their king's support.

1...\( \text{h}6 \) 2 e6 \( \text{g}7 \) 3 h6+ —+

4.4

Rosen
1989

The black pawns are separated by three files. Thus the white king cannot capture them. However, the common square of the pawns does not reach the eighth rank and if they are advanced incautiously, White will attack the front pawn and then win both of them.

1 \( \text{e}6! \)

After 1 \( \text{f}6? \) c5 2 e5 g5 the pawns are far enough advanced to queen independently; 3 \( \text{f}5 \) c4 4 \( \text{xg}5 \) c3 +.

1...\( \text{e}8! \)

1...g5? 2 \( \text{f}5 \) c5 3 \( \text{xg}5 \) c4 4 \( \text{f}4 \) =. White cannot win after the capture of the c4-pawn either as Black can
save himself with a stalemate; for example, 4...c3 5 e3 c2 6 d2 c1 w+ 7 xel b8 8 c2 b7 9 c3 b8 10 c4 b7 11 c5 b8 12 c6 a8 13 b7+ (13 c7 stalemate) 13...a7 14 c7 stalemate.

2 e5 d7! (D)

Black uses the limited room allowed by the b6-pawn to its full extent.

3 e4 d6! 4 e3 c5 5 e4 g5

With the help of their king, the black pawns have advanced decisively. Now their common square reaches the eighth rank and so they can promote independently.

6 f5 c4 7 e4 g4 ++

Space Advantage

4.5

Heilmert – Rosen 1976

We have already seen that far-advanced connected passed pawns may create mating possibilities. In general, more advanced pawns are an asset as they provide a space advantage. In the present position as well, Black’s space advantage allows him an easy win:

44...f3 45 e1 e3 46 fxe3 xe3 47 d1 xd4 48 d2 e4

48...e4.

49 c2 d4 49...h3+? gives away the win: 50 d2 d4 51 e2 e4 52 d2 d4 53 e2 d3+ 54 d2 d4 55 d1! =.

50 d2 e4 51 e2 d4 52 e1 52 b3 d3+ 53 d1 c3 54 e1 d2+ 55 d1 e4 56 xd2 d4 57 c2 c3 58 c1 d3 59 b2 d2 60 b1 c3 61 c2 ++.

52...d3 53 d1 b3 ++

4.6

Kostiev

Schach lehren – leicht gemacht, 1987

Here again White’s space advantage proves decisive:

1 g6 a8 2 f5 h5 2...b7 3 e6 h5 4 d7 h4 5 a8 w+ x8 a6 c7 +=.

3 e6! h4 4 d7 b7 5 a8 w+!

4.7

Maizelis 1956

Two connected passed pawns face a pair of isolated pawns. As the black pawns are separated by one file, they defend each other. If White wants to win, he can therefore only count on his space advantage and possible mating themes.

1 c5 g7

One must not deal with pairs of isolated passed pawns in a careless way
1...a4 loses simply to 2 \( \text{b}4 \) and the pawns are captured.

\[ 2 \text{d}6! \text{a}4 3 \text{e}7 \text{a}3 4 \text{h}8# + \text{xe}8 5 \text{f}7 \text{a}2 6 \text{g}7# + \text{h}7 7 \text{g}8# + \text{h}6 8 \text{g}6# \]

**Further Examples**

**4.8**

A test to make sure you are paying attention! White has to take care of his pawns. 1 \text{h}4! +— advances the h-pawn in time so that the f-pawn is indirectly defended.

**4.9**

The common square of the h5- and d5-pawns reaches the opponent's first rank, so the pawns promote without the support of their king. The white king cannot support his pawns fast enough to generate mating ideas, and therefore Black wins very easily:

\[ 1 \text{e}5 \text{h}4 2 \text{xd}5 \text{h}3 3 \text{c}5 \text{h}2 4 \text{b}5 \text{h}1# + \]

**4.10**

Makhatadze

_Chervoni Girmik, 1986_

The white pawns queen without the support of their king. Therefore Black has to try to make something out of his far-advanced connected passed pawns as soon as possible.

\[ 1 \text{g}4 \]

First of all White has to take care of the h-pawn.

\[ 1...\text{h}3 \]

1...\text{xe}3 2 \text{a}5 \text{h}3 3 \text{g}3 +—; 1...\text{d}5

\[ \text{a}5 \text{c}5 3 \text{e}4. \]

\[ 2 \text{g}3! (D) \]

GM Karsten Müller points out that the endgame tablebases prove that the queen ending after 2 \text{xe}3 \text{f}3 3 \text{a}5 \text{g}4+ 4 \text{h}4 (4 \text{h}2? \text{f}2 5 \text{a}6 \text{g}3+ 6 \text{h}3 \text{g}2 7 \text{a}7 \text{g}1\text{w} 8 \text{a}8\text{w} \text{g}3#) 4...\text{g}3

\[ 5 \text{a}6 \text{g}2 6 \text{a}7 \text{g}1\text{w} 7 \text{a}8\text{w} + \text{is also won (7...\text{xe}3? 8 \text{a}7\text{w} + at least does not have to be analysed further), but of course the text-move is much simpler.} \]

2...\text{g}4 3 \text{a}5 \text{xe}3 4 \text{a}6 \text{h}2 5 \text{g}2! \text{5xe}2? \text{f}2 6 \text{a}7 \text{g}3+ 7 \text{h}3 \text{g}2 8 \text{a}8\text{w} \text{g}1\text{w} =.

\[ 5...\text{h}1\text{w} + 6 \text{xe}1 \text{f}2 7 \text{a}7 \text{g}3 8 \text{a}8\text{w} + — \]

**4.11**

Kling and Horwitz

_Chess Studies, 1851_

The black pawns are not far enough advanced. White can creep up to the pawns on the file midway between them and at the right time turn left to his connected passed pawns:

\[ 1 \text{f}4! \]

The black pawns must not advance because then White would attack the more advanced of them and capture it within the square of the other pawn.
1...bate6
1...h5 2 g5+; 1...d5 2 e5+.
2...f5! c7 3 f6!
One should not be too hasty; after 3
e6? h5 4 d5 (4...f5? d5 is very
good for Black) 4...h4 5 b6+ xb6 6
dx6 h3 White cannot win.
3...b6 4 e6 c7
4...h5 5 xd6 h4 6 c7 h3 7 c8# h2
8 a6#.
5 d5 h5 6 b6+! xb6 7 xd6 h4
8 c7 +
Now the black pawn is too slow.

4.12
Bozdoghina – Soos
Romania 1960
The connected passed pawns on d3
and c3 look threatening, but White can
skillfully use his pawn majorities to
create an even more dangerous pair of
isolated passed pawns:
1 f5 gxf5 2 gxf5 d5 3 e6 fxe6 4
f6! 1-0
Black resigned due to 4...d6 5 b5
axb5 6 axb5 +–.

4.13
Esser – Davidson
Amsterdam 1910
Black has a space advantage and
some spare tempi (see Chapter 5), but
with accurate play White can draw:
1...f4! 2 xf4!
2...g4 3 e2?
Réti pointed out the correct de-
defence, 3...f1. Then:
a) 3...g6 4 g2 dxe4 4...h5? 5 f3+
exf3+ 6 f2 dxe4 7 dxe4 g5 8 e4!
+–) 5 f3 exf3+ 6 xf3 g5 7 e4 h3 =.
b) 3...dxe4 4 f3 exf3 5 e4 g4 6
e5 dxe5 7 e2 =.
3...h5
3...dxe4? 4 f3.
4 f1
4 f3+ exf3+ 5...g2 f6 –.
4...xh4 5 g2 g4 6 h2 f3 7
h1 b4 0-1
8 f1 h3 9 g1 h2+ 10 xh2 xf2
11 h3 xe3 12 g4 g6 13 g5 f3
–.

4.14
Sveshnikov – Kasparov
USSR Ch (Minsk) 1979
In this early game of today’s world
number one, Black was able to convert
his space advantage into a full point:
36...b4 37 c2 a3 38 b1 a5
39 a4 a4 40 bxa4 xa4 41 b1
41 b2 b4 42 c2 a3 43 b1 b3
–.
41...a3 42 a1 b4 43 b1 b3 0-1
In the end the pawns on the kingside
will be easy prey for Black’s king.

4.15
Behting
Rigaer Tageblatt, 1894
Here too White’s connected passed
pawns are far-advanced, so that ma-
ting ideas arise quite naturally. How-
ever, White must not pursue his aim
too hastily:
1 f3!
White cannot make any progress
with 1 e4? c5 2 d3 e8 3 e4
f7 = since 4...e5? d5 5 d6 d2 6
d7 d1W+ – even loses. Also 1
g5? leads to a lost queen ending for
White after 1...d3 2 h6 d2 3 e8W+
\textbf{TYPICAL PAWN STRUCTURES IN PAWN ENDINGS (2)}

\textbf{4.16}

\textbf{Zinov and Archakov}

\textit{Kliborob Ukraine, 1986}

Here are the most important features of this position:

1. The white king is not inside the square of the \textit{a7}-pawn.
2. The common square of the black pawns does not extend to White's first rank.
3. The black pawns are separated by two files and thus they are not able to defend each other.
4. White has a space advantage which makes mating themes possible.

\textbf{1.} \textit{g3!}

In order to be successful, the white king must be effective on both wings. Therefore he chooses to move along the diagonal.

\textbf{1...} \textit{a5 2.} \textit{f4! 3.} \textit{e5! (D)}

A branching point is reached. White threatens to start a mating attack with \textit{f6} or to step into the square of the \textit{a}-pawn with \textit{d4}. A beautiful example of play on two wings!

\begin{center}
\begin{tikzpicture}
\end{tikzpicture}
\end{center}

\begin{center}
\begin{tikzpicture}
\end{tikzpicture}
\end{center}

\textbf{3...} \textit{g7}

\textbf{3...} \textit{a3 4.} \textit{f6 a2 5.} \textit{g7+ xh7 6.} \textit{f7 a1+}} \textit{g8+ xh6 8.} \textit{g6#.}

\textbf{4.} \textit{d4 d5 5.} \textit{c3! +--}

Everything works with mathematical precision and White wins both black pawns.
5 Typical Pawn Manoeuvres in Pawn Endings

Spare Tempo • Blockade • Breaking Up • Breakthrough

The Spare Tempo

Sveda – Sika
Brno 1929

Here we see a typical problem in pawn endings. Both kings are tied to the defence of their pawns and whoever has to step back first loses. The game will be decided by the supply of pawn moves.

1...a5!

Not:

a) 1...b6? 2.h4! h5 (2...h6 3.h5 b5 4.b4 ++) 2...b5 3.b4 h5 4.a3 ++, 3.a3 a5 4.a4 ++.

b) 1...b5? 2.b4! h6 3.h4 h5 4.a3 and White wins.

c) 1...h6? 2.b4! h5 3.h4 b6 (3...b5 4.a3 +=) 4.a4 a5 5.b5 +–.

2.b3

2.h4 a4! 3.h5 h4 b3 axb3 5.axb3

b6 b4 b5 ++; 2.a3 a4 ++, 2.a4 h6 3.h4

h5 4.b3 b6 ++.

2...b5 3.a3

3.h4 b4 4.h5 h6 ++; 3.a4 b4 4.h4 h5 ++.

3...a4 4.bxa4 bxa4 5.h4 h5 ++

At first glance the variation tree just seems to be inscrutable. Is there perhaps a key idea that will help us to understand the position?

Black started with the a-pawn because it had already moved before, whereas his other pawns could still decide between moving forward one or two steps. It is obvious that in a fight for tempi such a possibility should be conserved as long as possible.

In pawn endings in which it is necessary to put the opponent in zugzwang with the help of pawn moves (‘run him out of tempi’), usually the side that has more pawns in their original positions has the advantage.
Typical Pawn Manoeuvres in Pawn Endings

5.2  W

5.5  W

5.3  B

5.6  W

5.4  W

5.7  W
5.2

Grigoriev

*Shornik Shakhmatnik Etiudov*, 1954

The white king is nearer the kingside. This is sufficient for a win provided White saves his spare tempi long enough:

1.\(\text{\#e2 \#d7 2 \#f3!}\)

After 2 \(\text{\#e3? g5 3 h4 f4+!}\) Black destroys the white pawn position by a breaking-up manoeuvre. 4 \(\text{gxh4 gxh4 5 \#f3 \#e6 6 \#g2 \#f5 7 \#h3 \#xf4 8 \#xh4 \#f3 9 \#xh5 \#xf2 =}\)

2...\(\text{\#e6}\)

2...\(g5\) no longer saves Black: 3 \(h4! gxh4 4 gxh4 \#e6 5 \#f4 \#f6 6 f3 \#g6 (6...\#e6 7 \#g5 ++) 7 \#e5 +--.

3 \(\#f4 \#f6 4 h4! (D)\)

White fixes the black pawns while reserving the f-pawn for tempo moves.

4...\(\#f7 5 \#g5 \#g7 6 f3!\)

The first tempo move clears the way for the king to advance to f6 or h6.

6...\(\#f7 7 \#h6 \#f6 8 f4!\)

The second tempo move wins the opposition.

8...\(\#f7 9 \#h7 \#f6 10 \#g8 +--\)

The Blockade

5.3

If White were to move, he would win immediately with 1 \(h4\) because the black king is outside the square of the h-pawn. Black to move can fix the whole white kingside with 1...\(g4!\). After 2 \(a3 \#b5 3 \#b3 a4+ 4 \#a3 \#a5 5 \#a2 \#b4 6 \#b2 a3+ 7 \#a2 \#a4 8 \#b1 \#b3 9 \#a1 a2\) White is in zugzwang and has to move the h- or f-pawn. Black promotes first and mates immediately.

Breaking Up

5.4

Horwitz

*Neue Berliner Schachzeitung*, 1867

White simplifies to an easily won pawn ending:

1 \(\#xf5 exf5\)

1...\(gxf5\) allows White an outside passed pawn: 2 \(\#d4 \#f6 3 h4 +--.

2 \(\#f4 \#f6 3 h4 \#f7 4 \#g5 \#g7\)

The black pawn-chain appears to be intact, but the following break-up makes it clear how unstable the chain is:

5 \(h5! gxh5 6 \#xf5 +--\)

Breakthrough

The pawn breakthrough is one of the most important tactical themes in pawn endings. This tactic is based on the fact that promoting a pawn to a queen provides such an overwhelming advantage that it can justify the sacrifice of several pawns.
5.5

Cozio

Il Gioco degli Scacchi, 1766
This breakthrough position is famous:
1 b6! cxb6
1...axb6 2 c6! bxc6 3 a6 ++
2 a6! bxa6 3 c6 ++

5.6

Ed. Lasker – Moll

Berlin 1904

1 f4?
White misses his chance. Instead he could have won with 1 f6!: 1...gxf6 2 f4 d4 3 g5 fxg5 4 fxg5 e5 (4...hxg5 5 h6++) 5 gxh6 e6 6 e2 ++ and Black is in zugzwang and has to leave the square of the h6-pawn.
1...f6! 2 g5 d4 0-1

5.7

Woława

Deutsche Schachzeitung, 1961
Stalemate and breakthrough themes play an important part in this study.
1 e6!
After 1 f4? g4++! (but not 1...gxf4? 2 g4!, when White achieves his breakthrough after all: 2...dxe5 3 g5 ++) 2 hxg4 dxe5 3 fxe5 c5 -- the black c-pawn is too fast.
1...fxe6 2 f4! g4++!
After 2...gxf4 3 g4 c3 4 g5 d3 5 hxg4 e4 6 gxh6 f3 7 g3 e3 8 h7 f2 9 h8# f1# the queen ending is a draw.
3 hxh4! d5
3...c5 4 f5 c4 (4...exf5 is stalemate)
4 fxe6 c3 6 e7 c2 7 e8# c1# 8 b8#

5.8

Of course the position is an easy draw if Black can create a passed pawn. In order to do this he just has to prevent his pawns from being blocked.
1...f6!
1...g6? 2 g5! ++ – blockade.
2 c4 g6 3 b4 f5 =

Further Examples

Hints for a possible breakthrough:
• A majority of pawns in the relevant part of the board.
• Space advantage in the relevant part of the board.
• Weakness in the enemy pawn-structure (for example, doubled pawns).
• The opposing king is far away and will be outside the square of a passed pawn.
5.9

Kling and Horwitz
The New Chess Player, 1853
White must aim to promote on f8 so as to check Black’s king.

1 h5! (D)
The only move leading to a successful breakthrough. The other advances result in defeat; for example, after 1 g5? fxg5 2 h5 gxf4 and 1 e5? fxe5 2 h5 exf4 Black promotes with mate, while 1 f5? exf5 is an easy win for Black.

1...gxh5
Or 1...g5 2 e5! fxe5 (2...gxf4 3 exf6 and 2...f5 3 gxf5 also win for White) 3 f5! e4 4 f6 and White promotes with check.

2 e5! fxe5 3 f5! hxg4 4 f6 g3 5 f7 g2 6 f8#+
White wins.

5.10

Schuster
Das Endspiel im Schach, 1975
A basic example:

1 a6! d5!
1...bxa6 2 bxc6 ++.

2 b6! axb6
2...bxa6 3 bxa7 ++.
3 a7 ++

5.11

Grigoriev
64, 1933
The black pawns have no more moves whereas the c2-pawn still has two spare tempi. If White uses both correctly, he will decide the game in his favour:

1 c3! (D)
1 c4? carelessly gives away one of the two spare tempi - and also half a point: 1...d8 2 c6 e8 3 b6 cxb6 4 xb6 (4 xd6 b5 5 cxb5 b7) 4...d5 5 cxd5 d7 =.

5.12

Capablanca – Conde
Hastings 1919
Black is relying on his protected passed pawn. The white majority on the kingside seems to be devalued by
the doubled pawns while the white queenside seems to be safely blocked. Nevertheless, with the help of pawn breakthroughs White can create an unstoppable pair of isolated passed pawns:

1 b4! axb4
1...cxb4 2 @xd4 @d6 3 g5 fxg5 4 fxg5 hxg5 5 hxg5 +–
2 g5! fxg5 3 fxg5 hxg5 4 hxg5 b3 5 @d3 +–

5.13

Rosen
1989

“Well”, one inevitably asks oneself, “isn’t this a familiar position?”. If we look at it in more detail we will recognize that it is different from the study by Cozio (5.5) in that the black king is inside the square of the c-pawn. Therefore White has to work hard to save the game because otherwise the black king will capture his pawns. Again a pawn breakthrough comes to his aid:

1 b6! (D)

1...axb6? loses to 2 c6 bxc6 3 a6 +–; the black king cannot reach that far!

2 axb6!
2 a6? is wrong due to 2...bxa6 3 c6 @e6 +–, but White has a second drawing option in 2 cxb6 a6 3 @f2 @e4 4 @g3! @d5 5 @f4 @e4 6 @f5 = @c4 +7 @e6 @b5 8 @d7 @xa5 9 @c7 @b4 10 @xb7 a5 11 @c7 a4 12 b7 a3 13 b8@+ +–.

2...axb6
2 a5? 3 c6 +–.

3 cxb6 @e5 4 @e2 @d5 5 @d3 @c5 6 @e3 @xb6 7 @b4 =

Once again we have reached the mother of all drawn positions!

5.14

Grigoriev (end of study)
Shakhmaty v SSSR, 1938

Apart from his better king position White can also count on the spare tempo of the g2-pawn.

1...@d7 (D)

1...@e7 ultimately leads to the same picture: 2 @c6 @e6 3 g3! @e7 4 @c7 @e6 5 @d8 @f7 6 @d7 transposes to the main line.
2 \text{d}5 \text{e}7 3 \text{e}5 \text{f}7 4 \text{d}6 \text{f}6 5 \text{d}7 \text{f}7 6 \text{g}3! (D)

B

White gains the opposition.

6...\text{f}8
6...\text{ff}6 7 \text{e}8 \text{e}6 8 \text{f}8 \text{f}6 9 \text{g}8 \text{e}6 10 \text{g}7 \text{g}6 10 \text{f}7 \text{h}6 11 \text{g}8 +--

5.15

Kok

De Schaakwereld, 1940

This position is certainly not as straightforward as it appears at first glance because the black king is ready to support his own pawns, if necessary. Moreover, White’s space advantage is not as big as in the study by Cozio (5.5) since his pawns are only on the 4th rank.

1 \text{d}2! (D)

Not:

a) 1 b5? c5! 2 dxe5 dxe5 3 \text{c}2 \text{f}3 4 \text{d}3 \text{f}4 +--.

b) 1 \text{b}2? \text{f}2 2 c5 bxc5 3 d5? (3 dxc5 =) 3...\text{cxd}5 4 b5 d4 5 b6 d3 6 b7 d2 7 b8\text{w} d1\text{w} +--.

c) 1 c5?! dxc5 2 bxc5 (2 b5? cxd4+ 3 \text{xd}4 \text{c}5 + 4 \text{d}5 \text{f}3 5 \text{c}6 \text{c}4 6 \text{xb}6 \text{c}3 7 \text{a}6 c2 8 b6 c1\text{w} +-- 2...\text{bxc}5 3 \text{dxc}5 =.

d) 1 d5? c5!(1...\text{cxd}5? 2 \text{d}4! \text{dxc}4 3 \text{xc}4 \text{f}3 4 \text{d}5 +--) 2 bxc5 bxc5 3 \text{b}3 \text{f}3 4 \text{a}4 \text{e}4 5 \text{b}5 \text{d}4 6 \text{c}6 \text{xc}4 7 \text{xd}6 \text{b}4 8 \text{e}7 \text{c}4 =.

B

1...\text{f}3

Other moves do not help either:
1...\text{b}5 2 d5 exd5 3 \text{xb}5 +--; 1...\text{d}5 2 \text{b}5 +--; 1...\text{c}5 2 dxe5 dxe5 3 bxc5 bxc5 4 \text{e}3 +--.

2 c5! dxc5
2...bxc5 3 d5 cxd5 4 b5 +--.

3 b5! \text{xb}5 4 d5 +--

5.16

Halberstadt

64, 1930

A seemingly hopeless position for White, but the game is saved by a hidden stalemate idea:

1 g5! \text{hxg}5 2 \text{e}6! \text{dxe}6
2...\text{f}xe6 3 dxe6 dxe6 4 \text{f}6! \text{exf}6.

3 \text{f}xe6

3 d6? \text{exf}5 +--.

3...\text{f}xe6 4 \text{d}6! \text{exd}6 =
6 The Rook’s Pawn

Key Squares of the Rook’s Pawn • Rook’s Pawn and Minor Piece

The Key Squares of the Rook’s Pawn

If Black is to move, he manages to get his king to the key square g2 and forces the promotion of the h5-pawn:

1...\textcolor{red}{\texttt{g3}} 2 \textcolor{red}{\texttt{e2}} \textcolor{red}{\texttt{g2}} →

Many of the rules of Chapter 1 cannot be applied to positions with a rook’s pawn. The diagram shows the critical position: only if Black manages to get his king to one of the key squares g1 or g2 can he force the pawn’s promotion.

If White is to move, he can prevent this and secure the draw:

1 \textcolor{red}{\texttt{e2}} \textcolor{red}{\texttt{g3}} 2 \textcolor{red}{\texttt{f1}} h4

Or 2...\textcolor{red}{\texttt{h2}} 3 \textcolor{red}{\texttt{f2}} h4 4 \textcolor{red}{\texttt{f1}} h3 5 \textcolor{red}{\texttt{h1}} h1 6 \textcolor{red}{\texttt{f1}} h2 7 \textcolor{red}{\texttt{f2}} stalemate.

3 \textcolor{red}{\texttt{g1}} h3 4 \textcolor{red}{\texttt{h1}} h2

and this time it is White who is stalemated.
Rook’s Pawn and Minor Piece

6.2a
The possibility of stalemate prevents White from exploiting his big material advantage: the black king stays in the corner and the approach of the white king leads to stalemate: 1 \( \mathbf{d}d5 \mathbf{b}b7 2 \mathbf{d}d6 \mathbf{a}a8 3 \mathbf{c}c7 \) stalemate.

6.2b
The same principle holds when the knight defends the pawn from \( \mathbf{c}6 \). White’s king cannot defend the \( \mathbf{a}7 \)-pawn without giving stalemate.

6.2c
Here again the approach of the white king leads to a stalemate: 1 \( \mathbf{a}a5 \mathbf{b}b7 
1 \mathbf{b}b5 \mathbf{a}a8 3 \mathbf{c}c6 \) stalemate.

Rook’s Pawn + Bishop
In positions with a rook’s pawn and a bishop against a lone king, the promotion of the pawn cannot be forced if the opponent’s king reaches the promotion square and the bishop cannot control it. In such a case we talk about the wrong bishop.

6.1
It is true that we do not have a rook’s pawn in this instance, but there are some similar ideas because the pawn’s proximity to the edge of the board provides drawing possibilities. White must play very accurately even with a knight’s pawn:

\[
1 \mathbf{c}c7
\]

1 b6\+ gives away the win: 1...\( \mathbf{a}a8 \)!
2 b7\+ (with another pawn \( 2 \mathbf{c}c7 \) leads to a win but with the knight’s pawn only to a stalemate) 2...\( \mathbf{b}b8 \) 3 \( \mathbf{b}b6 \) is a stalemate we are already familiar with.

1...\( \mathbf{a}a8 \) 2 \( \mathbf{b}b6 \)
2 b6? is again stalemate.

2...\( \mathbf{b}b8 \) 3 \( \mathbf{a}a6! \) (D)

Only when the white king moves to the edge can he force a win. 3 \( \mathbf{c}c6 \) \( \mathbf{a}a7! \) repeats the original position.

3...\( \mathbf{a}a8 \)
3...\( \mathbf{c}c7 \) 4 \( \mathbf{a}a7 \) ++
4 b6 \( \mathbf{b}b8 \) 5 b7 ++

With the king at \( \mathbf{a}6 \), the black king can escape via \( c7 \) and so there is no stalemate. White wins.

6.4
This is another important position, and knowing it could save some half-points. Black can block the white king in the corner but he has to choose the right square:

1...\( \mathbf{c}c8! \)

1...\( \mathbf{c}c7? \) 2 \( \mathbf{b}b6 \) (2 \( \mathbf{d}d6 \) also wins) 2...\( \mathbf{x}xb6 \) 3 \( \mathbf{b}b8 \) ++. 
2 QB6+ Qc7 3 Qd7 Qc8 4 Qc5 Qc7 =

The knight cannot prevent the king from moving up and down on the squares c7 and c8.

Rook's Pawn + Knight

In positions with the pawn on the seventh rank in which the defending king blocks the opposing king in the corner, his should choose the square that has the same colour as that occupied by the enemy knight.

6.5

The white bishop is so badly placed that it cannot move without abandoning the protection of the g7-pawn. When the white king tries to approach, the game ends once again in stalemate:

1 Qe5 Qg8 2 Qe6 stalemate

Note that the same position would be easily won for White when pushed one file to the left:

Black can do nothing against the manoeuvre Qd5-e5-f5, h5 followed by g6xg7.

6.6

Troitsky

Novoe Vremia, 1895

Without the e7-pawn the position is a draw (see 6.5) – with it, White wins the game!

1 g8Q+!

1 Qe5? e6 2 Qd6 e5 3 Qxe5 g8 =

4 Qe6 stalemate.

1...Qxg8 2 Qe6 Qh8 3 Qf7

Without the e7-pawn Black would now be stalemated, but in this case there is:

3...e5 4 Qg7#

6.7

Stalemate ideas also play a role in this ending:

1 Qa1 Qc4 2 Qd3! Qd5

2...Qxd3 stalemate.

3 Qe4! Qa2 (D)

4 Qc2!

White keeps the black king pinned down on the edge.

4...b3

After other moves White continues the pursuit of the bishop.

5 Qxb3! Qxb3 =
Black is left with a ‘wrong bishop’. 
5...axb3 is stalemate.

Further Examples

6.8
Here it is easy to go wrong:
1 f5
1 g6? stalemate.
1...g7 2 h8#+
Without this sacrifice no win is possible because Black has occupied the corner. 2 e6 h8 3 f7? is stalemate.
2...xh8 3 f6 g8 4 g7 --

6.9
The proximity of the edge prevents a white win. When the pawns are one rank less advanced, White has an easy win, as we have already seen (see 3.1).
1 b2 b7 2 b3 b8 3 c4 b7 4 d5 b8 5 e6 a8 6 b7+ 6 c7 stalemate.
6...b8 =

6.10
We already know that White cannot win with the h4-pawn alone, so the try is to sacrifice this outside passed pawn and to rely on the a-pawn:
1 h5 f6 2 h7 f7 3 h6 f8 4 g6 g8 5 f6 h7 6 e6 xe6 xh6 7 g6 g8 8 c6 f6 9 b6 e6 10 a6 d7!
10 d6? 11 b6 +--.
11 b6 c8 =
Black controls the key b7-square in

6.11
A knight alone cannot mate? In the case that the king is blocked in and the opponent has a rook’s pawn that takes away an important escape square, he can:
1...g5+ 2 h8 f8 3 h7 f7#

6.12
Rosen – Brunner
Berlin 1987
White easily forces a draw against a rook’s pawn and a knight:
70 xg4!
This is the easiest solution.
70...xg4+ 71 g3 h2 72 g2 f5 73 h1 e4 74 g2 1/2-1/2
Be careful: a stalemate can easily become a checkmate: 74 f5?? f3 75 f6 g3 76 f7 f7 f2#.

6.13
Troitsky
Shakhmaty Zurnal, 1896
Due to the wrong bishop, White has to prevent the black king from reaching the corner square h8 because that would mean an elementary draw.
1 e6! (D)
1...\textit{\$e7}
1...\textit{\$f8} 2 h6 ++.
2 h6! \textit{\$f6}
2...\textit{\$xe6}? 3 h7 ++.
3 \textit{\$f5}!
After 3 \textit{\$g8? \$g6} 4 h7 \textit{\$g7} = the
king has arrived exactly where he
needs to be to secure the draw.
3...\textit{\$f7} 4 \textit{\$h7}!
4 \textit{\$f4 \$g8} 5 \textit{\$g5 \$h8} =.
Now the bishop and pawn form a
two barrier, and after...
4...\textit{\$f6} 5 \textit{\$f4}
...the problem is solved because the
black king's access to the h-file has
been definitely blocked.
5...\textit{\$f7} 6 \textit{\$f5 \$f8} 7 \textit{\$f6} ++

6.14
\textbf{Loyd}

*The Chess Monthly*, 1860

Here a sharp fight flares up about
the promotion square h1:
1 \textit{\$c6+ \$g1! (D)}
1...\textit{\$f3+} 2 \textit{\$e2 h1\#} 3 \textit{\$xf3+ \$g1}
4 \textit{\$xh1 \$xh1} =.

2 \textit{\$h1}!

After other moves, ...\textit{\$g2} will lock
out the bishop; for example, 2 \textit{\$d5}
\textit{\$g2+} ++.
2...\textit{\$g2+} 3 \textit{\$e2 \$xh1} 4 \textit{\$f1} =.
White moves to a light square, be-
cause the black knight is also on a
light square. Not 4 \textit{\$f2? \$e3} ++.

6.15

For the sake of completeness, here
is a normal win with a knight plus a
rook's pawn. When the pawn has not
yet reached the seventh rank, every-
thing works very smoothly:
1 \textit{\$d4 \$a8} 2 \textit{\$c5 \$a7} 3 \textit{\$b5 \$a8}
4 \textit{\$b6 \$b8} 5 \textit{\$d5}
5 \textit{\$a7+}, however, is still premature:
5...\textit{\$a8} =.
5...\textit{\$a8} 6 \textit{\$c7+ \$b8} 7 \textit{\$a7+} ++

6.16

\textbf{Mendheim}

*Aufgaben für Schachspieler*, 1832

The giant black knight is a match
for no fewer than four pawns:
1...\textit{\$b5} 2 \textit{\$e6}
2 d4 \textit{\$xd4} 3 \textit{\$a7} 4 \textit{\$a8} \textit{\$b5}
transposes to the text.
2...\textit{\$c7} 3 \textit{\$d4 \$xd4} 4 \textit{\$a7} \textit{\$b5+}
\textit{\$a8} 6 \textit{\$c7} 7 \textit{\$xc7} 7 \textit{\$a7} \textit{\$d6} 8 \textit{\$b6}
\textit{\$c4} 9 \textit{\$b6}+ \textit{\$xb6}#

This chapter completes the topic
of pawn endings for now. The last six
amples served as a foretaste of end-
ings with minor pieces.

Many rules and principles valid for
pawn endings also serve as a valuable
guide for the correct treatment of other
endings.
Knight vs Pawn(s)

2...\textcolor{red}{\text{d}7} 3 \textcolor{blue}{\text{b}7} \textcolor{blue}{\text{b}5} 4 \textcolor{blue}{\text{b}6} \textcolor{red}{\text{d}6}!\textcolor{red}{5}\textcolor{blue}{a}7 \textcolor{red}{\text{c}8}+\textcolor{red}{6}\textcolor{blue}{b}7 \textcolor{blue}{\text{d}a}7 =

7.1a

However, if the rook's pawn is already on the seventh rank then the knight will be trapped in the corner and be captured.

1 \textcolor{blue}{\text{b}7} +–

Due to its special way of moving, the knight is particularly adept at double attacks. Although by nature it optimises over short distances, it can often considerably extend its range with the help of such forks. It can also use this possibility in the fight against a far-advanced passed pawn. Even under unfavourable circumstances of the above diagram it still manages to stop the pawn. For example:

1 \textcolor{blue}{\text{b}6} \textcolor{red}{\text{c}8}+ 2 \textcolor{blue}{\text{c}7}
3 \textcolor{blue}{\text{b}7} \textcolor{red}{\text{d}6}+ 3 \textcolor{red}{\text{c}7} \textcolor{blue}{\text{b}5}+ 4 \textcolor{blue}{\text{b}6}
\textcolor{blue}{a}7 \textcolor{red}{\text{c}8}+ and Black eliminates the pawn.

7.2  W
How should 1...\texttt{Exc}4+ be evaluated?
Knight vs Pawn(s)

The knight on its back rank is helpless against an attack from an enemy pawn on its seventh rank.

The knight faces particular difficulties when it has to stop a rook’s pawn.

7.2

A basic example: 1 \( \texttt{Kxb8+ Nh8} \) 2 \( \texttt{Nh6 -} \).

7.3

Here the knight has to hurry in order to catch the pawn.

1 \( \texttt{Nf7!} \)
1 \( \texttt{Nh6} \) 2 \( \texttt{Nh4} \) 3 \( \texttt{Nh2} \) 4 \( \texttt{Nh1} \) 5 \( \texttt{Nh1} \) 6 \( \texttt{Nh1} \) 7 \( \texttt{Nh1} \) 8 \( \texttt{Nh1} \) 9 \( \texttt{Nh1} \) 10 \( \texttt{Nh1} \) 11 \( \texttt{Nh1} \) 12 \( \texttt{Nh1} \) stalemate.

White starts a zigzag that ultimately leads to Black’s king being locked up in the corner.

5... \( \texttt{Nn6} \) 6 \( \texttt{Nh7} \) 7 \( \texttt{Nh6} \)
6... \( \texttt{Nh5} \) 7 \( \texttt{Nh4} \)
7 \( \texttt{Nh5} \) 8 \( \texttt{Nh5} \) 9 \( \texttt{Nh5} \) 10 \( \texttt{Nh5} \) 11 \( \texttt{Nh5} \) 12 \( \texttt{Nh5} \) stalemate.

7.4

Chekhover

1955

Normally the knight is not able to draw by itself against two connected passed pawns. In this position, however, it makes good use of a great number of forks:

1 \( \texttt{Nh6} \) 2 \( \texttt{Nh6} \) 3 \( \texttt{Nh6} \) 4 \( \texttt{Nh6} \) 5 \( \texttt{Nh6} \) makes it simpler for White to achieve the same draw as in the main line.

3 \( \texttt{Nh6} \) 4 \( \texttt{Nh6} \) 5 \( \texttt{Nh6} \) (D)

3 \( \texttt{Nh6} \) 4 \( \texttt{Nh6} \) 5 \( \texttt{Nh6} \) 6 \( \texttt{Nh6} \) also leads to a draw.

The knight can stop any pawn except the rook’s pawn if it can control the promotion square; this applies even if the pawn has already reached the seventh rank. The opposing king is
unable to force it away from the promotion square of the pawn:
7...\( \text{e}3 \) 8 \( \text{g}1 \) \( \text{f}2 \) 9 \( \text{h}3+ \) \( \text{g}3 \)
10 \( \text{g}1 \) \( \text{h}2 \) 11 \( \text{f}3+ \) \( \text{g}3 \) 12 \( \text{g}1 = \)

**Knight and Pawn vs Knight**

In this ending the aim of the weaker side is to sacrifice his knight for the pawn. Usually this can only be prevented by the attacker if the defender’s king or knight is placed offside or if the pawn is already very far advanced.

7.5

A draw is possible against a pawn on the seventh rank only in exceptional cases.

1 \( \text{d}5! \) \( \text{f}6 \) 2 \( \text{h}6+ \) \( \text{g}6 \) 3 \( \text{g}4! \)

Deflection is the attacker’s most important idea in the fight for the promotion square.

7.6

**Averbakh**

*Lehrbuch der Schachendspiele*, 1979

If the pawn is still on the sixth rank then a draw can be achieved most of the time:

1...\( \text{g}7 \) 2 \( \text{e}8 \) \( \text{h}6! \) 3 \( \text{e}7 \)
3 \( \text{f}5 \).
3...\( \text{f}6 \) 4 \( \text{d}7 \) \( \text{g}7 \) 5 \( \text{d}5 \) \( \text{g}8 = \)

White is unable to make any progress.

**Strategy in Knight Endings**

7.7

**Chigorin – Marshall**

*Karlsbad 1907*

Many of the themes that are valid for pawn endings can also be applied to knight endings. In this position White has three advantages:

1) The outside passed b5-pawn.
2) The more active king.
3) Space advantage on the kingside.

1 \( \text{d}5! \) (D)

B

1...\( \text{d}7 \)

1...\( \text{xd}5? \) 2 \( \text{xd}5 ++ \) and the black king does not get into the square of the b5-pawn.

2 \( \text{g}5! \)

This blocking move fixes Black’s kingside.

2...\( \text{h}6 \) 3 \( \text{f}6! \) \( \text{b}6 \) 4 \( \text{h}4 \) \( \text{hxg}5 \) 5 \( \text{hxg}5 \) \( \text{f}8 \) 6 \( \text{c}5 \) \( \text{a}4+ \) 7 \( \text{d}6! \) \( \text{g}7 \)
7...\( \text{b}6 \) 8 \( \text{d}7+ ++ \).

8 \( \text{c}6 \) \( \text{f}8 \) 9 \( \text{h}6 \) \( \text{xb}6 \) 10 \( \text{xb}6 \) \( \text{e}7 \)

Black’s last hope is to exchange the last white pawn.

11 \( \text{c}7 \) \( \text{f}8 \)
11...\( \text{e}6 \) 12 \( \text{d}8 \) \( \text{f}5 \) 13 \( \text{h}7 \) also wins for White.

12 \( \text{d}7 \) \( \text{g}7 \) 13 \( \text{e}7 \) \( \text{h}8 \) 14 \( \text{e}8 \)
\( \text{g}8 \) 15 \( \text{f}6 \) 1-0
An outside passed pawn is as important in a knight ending as it is in a pawn ending.

**Further Examples**

**7.8**

Once again the white knight has to extend its range with the help of a fork:

1. \( \text{Qe6}! \)
2. \( \text{Qd5=} \) \( \text{Qf3} +=. \)
1. \( \text{Qf3!} \)
2. \( g2 2 2 \text{Qf4 g1=} \) \( \text{Qh3} +=. \)
3. \( \text{Qe3} \)
4. \( \text{Qg3} \)
5. \( \text{Qg2} \)
6. \( \text{Qh3} +=. \)
7. \( \text{Qd4!} \)
8. \( \text{Qg5=} \) \( \text{Qg4 --}. \)
9. \( \text{Qf2} \)
10. \( \text{Qe3} \)
11. \( \text{Qf5=} \) \( \text{Qf3} \)
12. \( \text{Qxg3} +=. \)
13. \( \text{Qe6} +=. \)

**7.9**

This very simple example shows that a rook’s pawn often cannot be stopped:

1. \( \text{h3} \)
2. \( \text{f2} \)
3. \( \text{h2} +=. \)
4. In the end the knight is even in the king’s way.

**7.10**

A typical drawn position against a rook’s pawn that is still on the sixth rank:

1. \( \text{Qe3} \)
2. \( \text{h2} \)
3. \( \text{Qf1=} \) \( \text{Qg2} \)
4. \( \text{Qxh2} +=. \)

**7.11**

Grigoriev

1932

This example is a little bit more complicated:

1. \( \text{Qg3} +! \)

1. \( \text{Qf2=} \) \( \text{Qe2} \)
2. \( \text{Qh1} \)
3. \( \text{Qf3} \)
4. \( \text{Qd6} \)
5. \( \text{Qg2} +=. \)

The point is that the knight creates a barrier against the black king, which can move neither to e3 nor to d2 because a fork on f1 would follow. In order to attack the white knight, the king must travel via c2-d1-e1-f2. In the meantime, however, the white king moves closer:

1. \( \text{e2} \)
2. \( \text{d2} \)
3. \( \text{f1=} +=. \)
4. \( \text{e3} \)
5. \( \text{f1} +=. \)

2. \( \text{d6} \)
3. \( \text{d1} \)
4. \( \text{e5} \)
5. \( \text{e1} \)
6. \( \text{f4} +=. \)

**7.12**

Selezniev

*Shakhmatny Listok*, 1930

Even with the check on f6 the knight cannot stop the pawn. Nevertheless White is able to draw.

1. \( \text{Qf6=} \) \( \text{Qh8} \)
2. \( \text{Qd5!} \)
3. \( \text{e2} \)
4. \( \text{Qf4!} (D) \)

3. \( \text{e1=} \)
4. \( \text{Qg6=} \) \( \text{Qh7} \)
5. \( \text{Qf8} +=. \)

The saving perpetual check!

**7.13**

As the white pawn has already progressed to the seventh rank, Black has
to play accurately in order to secure the draw:

1...\(\text{d}8+\)!
2...\(\text{c}6+? 2 \text{c}8 \text{d}8 3 \text{b}5 \text{c}6 4 \text{d}4! \) (the white knight uses deflection manoeuvres) 4...\(\text{d}8 5 \text{c}7 \text{f}7 6 \text{f}5+ \text{e}6 7 \text{h}6! ++.

2 \(\text{c}8 \text{d}6+ 3 \text{c}7 \text{e}8+ 4 \text{c}6 \text{f}6=
\)

The \(d7\)-pawn falls and thus a draw is inevitable.

7.14

Chéron

*Nouveau Traité complet d'Échecs, 1952*

It is true that the pawn is only on the sixth rank but in return White’s pieces have been pushed to the corner; his knight doesn’t have a single move. Black uses this fact to win:

1...\(\text{d}1 2 \text{a}2 \text{c}1 3 \text{a}3 \text{b}1!
3...\(\text{c}2+? 4 \text{b}3=!.

4 \(\text{b}4 \text{b}2 5 \text{c}4 \text{e}2 6 \text{b}3\)\(\text{D}\)
6 \(\text{d}3 \text{x}a1 7 \text{xe}2 \text{c}2 --.

7.15

Averbakh

1955

In knight endings containing several pawns, an extra pawn is almost always sufficient for a win. In this case White wins very easily thanks to his protected passed pawn; the plan is just to activate his king:

1 \(\text{d}5 \text{g}8 2 \text{e}6 \text{f}8 3 \text{d}7 \text{g}8 3...\(\text{h}8 4 \text{e}5.
4 \text{c}7 \text{b}8
\)
The knight had to move into the corner.

5 \(\text{e}5 --.
\)

Averbakh gives three cases where an extra pawn is not sufficient for a win:

1) A passed pawn cannot be created.
2) The passed pawn cannot be supported.
3) The king cannot attack the opponent’s pawns.

7.16

Strobel – Bachmann

*Treuen 1960*

1...\(\text{x}c4+?\)

This wins a knight but it underestimates the danger of White’s queenside pawns:

2 \(\text{x}c4 \text{e}3+ 3 \text{b}5 \text{x}f1 4 \text{b}6 \text{e}3 5 \text{xb}7 \text{c}4 6 \text{a}6 \text{d}6+ 7 \text{b}6? 7 \text{c}6 wins comfortably.
7...\(\text{c}8+?\)
7...\(\text{d}7 puts up a far better defence.
8 \(\text{b}7? \text{d}6+? 9 \text{b}8 \text{b}5 10 \text{a}7 \text{xa}7 11 \text{xa}7 1-0\)
The Bishop: Strong and Weak

8.1 Loyd

American Chess Nuts, 1868

Here we have a very strong bishop. White draws against eight pawns because the stopping squares of the d- to h-pawns lie on a single diagonal. The white king stops the c-pawn and simultaneously contains the black king at the edge of the board.

1 \( \text{d7}+! \)

After 1 \( \text{g2? b5} \) -- the avalanche of black pawns gets under way (...c6, ...d5, etc.).

1...\( \text{a3} 2 \text{c6} \)

The ideal square for the bishop. It controls the a8-h1 diagonal and the a4- and b5-squares, shutting the black king's cage. If Black lures the bishop away from c6 to try to activate his king, the bishop always returns to c6 with gain of tempo: 2...h1w 3 \( \text{xe1} \) \( \text{a4} 4 \text{c6}+ = \). Playing 2...\( \text{a2} 3 \text{c2} \) = also does not improve Black's position.

8.2 Otten (end of study)

Boy's Own Paper, 1892

Here, in contrast, the bishop does not manage to control the stopping square a7 in time:

1 \( \text{e4}! \)

Not 1 a6? \( \text{e3} = \).

1...\( \text{h4} 2 \text{f3!} \) --
Bishop vs Pawn(s)

Stopping Squares
Stopping squares are squares which a passed pawn has to cross on its way to promotion and which need to be controlled by the bishop.

By itself, the bishop can only contain two (or more) passed pawns if their stopping squares lie on one diagonal.

8.3

Hedlinger – Dossenbach
1958

White missed the following possibility to win (later the game ended in a draw):

1 \( \text{d}x\text{d}6! \text{d}x\text{d}6 2 \text{a}5 \text{c}7 (D) \)

\( \text{W} \)

3 \( \text{h}5! \text{axh}5 \)
3...\( \text{a}x\text{a}5 4 \text{bxa}6 \text{is the same}: \text{Black cannot stop both of White's passed pawns.} \)
4 \( \text{a}6 += \)

The stopping squares \( \text{a}7 \) and \( \text{c}7 \) do not lie on one diagonal, and therefore Black’s bishop is unable to stop both pawns.

Bishop and Pawn vs Bishop

Again, in this ending the weaker side tries to sacrifice his bishop for the enemy pawn. This may be difficult if the pawn is already far-advanced and the attacker’s king controls the promotion square. The defender’s task becomes even more difficult if the pawn is near the edge of the board.

8.4

Centurini
1856

1 \( \text{h}4 \text{b}5! \)

White’s winning idea becomes obvious in the following variation in which Black plays passively: 1...\( \text{f}4? \)
2 \( \text{f}2 \text{h}2 3 \text{a}7! \text{f}4 4 \text{b}8 \text{e}3 5 \text{h}2 \text{a}7 6 \text{g}1! +++. \) The basic plan is to force a decisive deflection.

2 \( \text{f}2 \text{a}6! (D) \)

Black is alert; he prevents the manoeuvre \( \text{a}7-\text{b}8. \)

\( \text{W} \)

3 \( \text{c}5! \)

This waiting move forces the \( \text{h}2-\text{bishop} \) to move. In the end this makes the crucial win of a tempo possible. 3
\( \text{d4?} \) is weaker because then Black plays 3...\( \text{d6?} \), and after 4 \( \text{f6 b5 5 d8 c6 6 e7 g3} \) White has not made any progress as he cannot play \( \text{c5}. \)

3...\( \text{g3 4 e7 b5} \)
The black king hurries back to c6 to prevent \( \text{d8-c7}. \)

5 \( \text{d8 c6 6 h4!} \)
Now White wins the decisive tempo to get the bishop to a7:

6...\( \text{h2 7 f2} \)
The black king does not reach a6 in time and White achieves the deflection that was already planned at the first move:

7...\( \text{f4 8 a7 g3 9 b8 f2 10 h2 a7 11 g1!} \) +

In this ending the weaker side can only survive if his bishop has at least three squares on both stopping diagonals (the diagonals on which the stopping square is situated).

8.5

If White wants to win, he has to push the b5-bishop away from the stopping diagonal a4-e8. In order to accomplish this, the bishop has to move to c6 because on d7 it would be obstructing its own pawn.

1 \( \text{f3 d4} \)
1...\( \text{e8 2 c6 ++} \)

When Black is to play, he has to prevent the manoeuvre \( \text{f3-c6}: \)

1...\( \text{d4!} \)
1...\( \text{d5} \) does the same job. When in doubt the king should always move to squares which cannot be controlled by the opposing bishop.

2 \( \text{f3 c5} \)
Black has arrived in time to control the critical square c6.

3 \( \text{g4} \)
A last attempt.

3...\( \text{a4 4 d7 d1} \)
Now the white bishop is blocking its own pawn.

5 \( \text{e8 g4} = \)

**Opposite-Coloured Bishops**

8.6

If there are opposite-coloured bishops, then many positions are drawn. In the diagram position the connected passed pawns only guarantee the win when they can advance to light squares (the colour of the opposing bishop):

1 \( \text{g5+!} \)

After 1 \( f6+? \) \( f7 \) = White cannot break through Black's domination of the light squares. 1 \( e6? \) is the correct idea but it must be prepared first:

1...\( \text{xe6 2 fxe6} \) \( \text{xe6} = \)

1...\( \text{f7} \)
Also after 1...\(\text{d}7\) White’s king participates decisively in the fight for the light squares: 2 \(\text{f}4!\) (2 \(\text{f}6?\) \(\text{e}6=\)) 2...\(\text{a}2\) 3 \(\text{h}4!\) \(\text{f}7\) 4 \(\text{g}5\) \(\text{e}7\) 5 \(\text{h}6+\) \(\text{d}7\) 6 \(\text{g}7\) \(\text{c}4\) 7 \(\text{f}6\) \(+\)
(White is ready to play \(\text{e}6\)) 7...\(\text{b}3\) 8 \(\text{e}6+\) \(\text{e}8\) 9 \(\text{e}5\) \(\text{c}4\) 10 \(\text{e}1\) \(\text{b}3\) 11 \(\text{b}4\) \(\text{c}4\) 12 \(\text{f}6\) \(\text{b}3\) 13 \(\text{f}7\)++.
2 \(\text{d}4\)
Now the white king approaches from the other side.
2...\(\text{a}2\)
2...\(\text{c}2\) abandons control of \(\text{e}6\): 3 \(\text{e}6+\) \(\text{e}8\) 4 \(\text{e}5\) \(\text{d}3\) 5 \(\text{f}6\) \(\text{g}6\) 6 \(\text{h}6\) \(\text{h}5\) 7 \(\text{f}5\) ++.
3 \(\text{c}5\) (D)

3...\(\text{b}1\)
3...\(\text{b}3\) 4 \(\text{d}6\) \(\text{a}2\) 5 \(\text{e}6+\) ++.
4 \(\text{e}6+\) \(\text{e}8\) 5 \(\text{f}6\) \(\text{g}6\)
5...\(\text{a}2\) 6 \(\text{f}7\) (White can still fail: 6 \(\text{e}7??\) \(\text{f}7=\)) 6...\(\text{f}8\) 7 \(\text{h}6+\)++.
6 \(\text{h}6\) \(\text{h}5\) 7 \(\text{d}6\) \(\text{g}6\) 8 \(\text{e}5\) \(\text{h}5\) 9 \(\text{f}5\) ++

With opposite-coloured bishops, two connected passed pawns only win if they can advance on squares of the colour of the opposing bishop.

8.7

Kotov – Botvinnik

USSR Ch (Moscow) 1955

Here we see a typical winning theme in endings with opposite-coloured bishops: the creation of a pair of isolated passed pawns.

59...\(\text{g}5!\) 60 \(\text{fxg}5\)
60 \(\text{hxg}5\) \(\text{h}4\) 61 \(\text{d}6\) \(\text{f}5\) 62 \(\text{g}6\) (otherwise Black’s \(\text{h}\)-pawn goes through)
62...\(\text{xg}6\) 63 \(\text{f}5\) \(\text{xf}5\) 64 \(\text{xb}3\) \(\text{g}2\) ++.

60...\(\text{d}4++\) 61 \(\text{exd}4\) \(\text{g}3\) 62 \(\text{a}3\) \(\text{xh}4\) (D)

63 \(\text{d}3\)

An instructive situation arises after 63 \(\text{g}6\) \(\text{g}4\) 64 \(\text{g}7\) \(\text{h}4\) 65 \(\text{d}6\) \(\text{f}3\). White is helpless; he has to give up his bishop for the \(\text{h}\)-pawn and afterwards watch passively while the black king collects his pawns. The ideal placing of the \(\text{e}6\)-bishop is crucial; it defends the \(\text{b}3\)-pawn as well as controlling the stopping squares of White’s passed pawns, which are all situated on one diagonal.

63...\(\text{xg}5\) 64 \(\text{e}4\) \(\text{h}4\) 65 \(\text{f}3\) \(\text{d}5++\)
0-1
Here is a possible variation: 66 \texttt{Qf2} \texttt{f4} 67 \texttt{Qc1+} \texttt{Qe4} 68 \texttt{Qb2} h3 69 \texttt{g3} \texttt{Qe6} 70 \texttt{Qh2} \texttt{Qd3} 71 d5 \texttt{Qd7+} --. Once again the stopping square d7 and the h3-pawn lie on the diagonal of the bishop.

**Good and Bad Bishops**

8.8

**Rosen – Daub**

*Enger-Spenge 1979*

White’s advantage is based on two factors:

1) The more active king.
2) The more active bishop.

Black’s bishop is bad because the h6- and g5-pawns are fixed on the same colour squares as the black bishop.

49 \texttt{Qc5! Qd6!} 50 \texttt{Qb4} 
50 \texttt{Qxd6? Qxd6} 51 \texttt{Qd4} a5 --.

50...\texttt{Qc7} 51 \texttt{Qf8} \texttt{Qe5} (D)

51...\texttt{Qf6} 52 \texttt{Qxh6} \texttt{Qd6+} 53 \texttt{Qa5} 
\texttt{Qg6} 54 \texttt{Qxg5} \texttt{Qxg5} 55 \texttt{Qxa6} \texttt{Qh4} 56 
\texttt{Qb5} \texttt{Qxh3} 57 g5 \texttt{Qh4} 58 g6 \texttt{Qe5} 59 a5 
\texttt{Qh5} 60 a6 --. The stopping squares are on different diagonals.

52 \texttt{Qxh6} \texttt{Qf4}

52...\texttt{Qd6+} 53 \texttt{Qa5} \texttt{Qf6} 54 \texttt{Qxa6} 
\texttt{Qe6} 55 \texttt{Qxg5} \texttt{Qxg5} 56 a5 \texttt{Qh4} 57 
\texttt{b5} \texttt{Qxh3} 58 a6 \texttt{Qb8} 59 g5 ++.

53 h4! \texttt{Qxg4} 54 \texttt{Qxg5} \texttt{Qf5} 55 \texttt{Qc5} 
\texttt{Qa5} 56 \texttt{Qc6} \texttt{Qc3} 57 \texttt{Qb6} a5 58 \texttt{Qb5} 
\texttt{Qc1} 59 \texttt{Qd8} \texttt{Qg4} 60 \texttt{Qxa5} \texttt{Qxh4} 61 
\texttt{Qb4} \texttt{Qf2}

61...\texttt{Qd8} 62 \texttt{Qc5} \texttt{Qf5} 63 \texttt{Qb6} ++.

62 a5 \texttt{Qa7} 63 \texttt{Qc5} \texttt{Qb8} 64 \texttt{Qc6} ++

In order to increase a bishop’s activity, friendly pawns need to be placed on squares which are not controlled by the bishop. In such a case we talk about a good bishop.

A bishop that is obstructed by its own fixed pawns is called a bad bishop.

**Further Examples**

8.9

**Rosen**

1989

The bishop’s freedom of movement is restricted by its own pawn. Nevertheless, Black manages to achieve a draw:

1...\texttt{Qf5} 2 \texttt{Qe3} \texttt{Qh3} 3 \texttt{Qf3}

This is the only place where White controls the squares g2, f3 and e4. However, the king’s position on the diagonal allows a little tactic:

3...\texttt{Qf1}! 4 a7 \texttt{Qc4!} 5 a8\texttt{Q} \texttt{Qd5+} 6 
\texttt{Qxd5 exd5} 7 \texttt{Qc3} =

8.10

**Heuäcker**

*Neue Freie Presse, 1930*

The e5-pawn causes Black some problems as it greatly restricts the d4-bishop.
1 \( a7! \) \( a1 \)
1...\( c3 \) 2 \( c2 \) only shortens the solution.

2 \( b1 \) \( c3 \) 3 \( c2 \) \( a1 \) (D)

\[
\begin{array}{|c|c|c|c|c|c|c|}
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\hline
\end{array}
\]

4 \( d4! \) \( xd4 \)
4...\( exd4 \) 5 \( d3 \) --.
5 \( d3 \) \( a1 \) 6 \( e4! \) --
Not 6 \( h7? \) \( e4 = \).

8.13

Black wins very easily by pushing away the c4-bishop from the stopping diagonal a6-f1. White's king is placed badly as it does not control the critical square f3.

1...\( g2 \) 2 \( b5 \)

It is true that the position of the king on d1 makes the defence 2 \( e2 \) possible, but after 2...\( f3 \) 3 \( xf3 \) \( xf3 \) 4 \( e1 \) \( e2 \) we can demonstrate our knowledge of pawn endings: the pawn silently advances to the seventh rank and thus queens.

2...\( f1 \) --

Had the white king been on f4, simply \( xf1 \) followed by \( xe3 \) would have been possible.

8.14

Here the critical square is f6, control of which is vital for Black. White has a thematic win:

1 \( e7 \) \( e1 \) 2 \( a3 \) \( h4 \)

By playing his bishop to f6, White can push the black bishop away from the stopping square c7:

3 \( b2 \) \( e4 \) 4 \( f6 \) --

Black has to bring his king into contact with the f6-square to prevent his bishop from being pushed away from the stopping square c7.

1...\( e4! \) (D)
1...\e5? is a concrete case in which one should not expose the king to a potential bishop check: 2 \e7 \e1 3 \f6+ --.

\[\text{Diagram:}\]

The king has arrived in time and White cannot improve his position.

**8.15**

**Silve – Karakas**

*Sinaia 1960*

Black's pawns are correctly placed on the same coloured squares as the opponent's bishop; the c6-bishop controls the promotion square h1, which means that White cannot draw by giving up his bishop for the g-pawn.

1...\g3!

1...h3? 2 \h2 =. Black cannot break through the dark-squared blockade.

2 \c7+

2 \xg5 h3 --.

2...\h3 3 \f2 g4 4 \e3 g3 5 \f4 \b7 6 \d6 \a8 7 \c7 g2 8 \b6 \h2 9 \g4 h3 10 \h4 \f3! 11 \c5 \g1\#! 12 \xg1+ \g2! 13 \a8\# \xa8 14 \g4 \f3+ 15 \h4 \d1 0-1

Now White is definitely in zugzwang.

**8.16**

If you do not know exactly what a bad bishop is, the black bishop in this position is a particularly sad example of its species. Other important details are:

- White possesses the more active king.
- The d8-bishop controls the promotion square of the h5-pawn.

1 \e7!

A waiting move immediately puts Black into zugzwang.

1...\h4 (D)

Otherwise the f6-pawn is lost without compensation.

\[\text{Diagram:}\]

2 f4! exf4 3 e5

White exploits the pin of the f6-pawn.

3...f3

3...fxe5 4 \xh4 ++. White collects the black pawns one after the other. Afterwards he queens the h-pawn because the bishop controls its promotion square.
4 exf6+ ♘xf6
4...♘h7 5 f7 +−
5 ♘xf6+ ♘h7 6 ♘d4 +−

8.17
Rosen – Tschendel
Essen 1988

Apart from being a pawn down, Black also suffers from his bad bishop. White has an easy win:
40 c4
Fixing another pawn on a dark square.
40...♗f8 41 ♘d2 ♘g7 42 a5 ♘b2
42...bx a5 43 ♘xa5 ♗f8 44 ♘c7 +−.
43 a6
White increases his space advantage:
43...♘g7 44 ♘e3 (D)

44 ♘a5! +− would have shortened Black’s suffering considerably.

44...♗f8 45 ♘f2 ♘e7 46 ♘e1 ♘f8
47 ♘c3 ♘e7
47...♘d6 48 ♘e5 +−.
48 ♘e5 ♘d8 49 ♘b8 1−0
9 Knight vs Bishop Endings

Basic Endings with Knight vs Bishop • Bishop or Knight?

Knight and Pawn vs Bishop

10...g4?? 11 e6 ──
11 d7 h1 12 d8 a6 13 c7 b5 14 e5 e8 =

Averbakh
Lehrbuch der Schachendspiele, 1979

Here the bishop can stop the pawn without the support of its king:
1 e6 b5
Of course Black could also approach with his king, but we want to demonstrate how to draw independently of the black king position.
2 e7 c6 3 d8 b5 4 c7
Now the king is in the right place to lock out the bishop with a knight on c6.
4...g1 5 d3 h1 6 e5 e8
6...g1?? 7 c6 ──
7 d7 g1 8 d8 g6 9 e7 f5
10 c5 c8

9.1

9.2

9.3
Knight and Pawn vs Bishop

9.2

Fine

Basic Chess Endings, 1941

1 ...c6! (D)

Here one stopping diagonal is not long enough and so the bishop cannot do without the support of its king:

The bishop is able to stop a passed pawn without the support of its king if it has at least five squares on each stopping diagonal.

If one of the diagonals is shorter then the bishop needs the support of the king.

9.3

Jagodzinski – Olarasu

1984

An interesting situation. The white king is tied to the h2-pawn so the bishop has to deal with the d3-pawn all on its own. If it manages to sacrifice itself for the pawn, we arrive at a drawn ending that is already familiar to us from 6.2.

1 g5?

White could have achieved a draw if he had switched to the other, less dangerous, stopping diagonal in time:

1 f8! e3+ (1...d2 2 b4 e2 3 xd2! xd2 4 h1 =; 1...e2 2 b4 e3+ 3 xh2 d5 4 a5 =) 2 xh2 d5 3 h6 e2 4 c1 =.

1...e2 2 c1 h1=+! 3 xh1 f2!

4 g5 e3 0-1

Bishop and Pawn vs Knight

9.4

Averbakh

Lehrbuch der Schachendspiele, 1979

The pawn has already advanced to the seventh rank and Black has to act energetically to secure the draw:

1 d6+

1...d8? 2 c4 c6 (2...b7 3 e7 c6 4 a6 ++) 3 d5 d8 4 e7 +=.
2 \text{e}7 \text{c}8+! 3 \text{e}6 \text{b}6 =

If White is to move, he can prevent the active ...\text{d}6+:
1 \text{e}7!

This forces the knight to d8, where White can take away all its squares by playing his bishop to d5:
1...\text{d}8 2 \text{e}4 \text{f}7! 3 \text{f}3! \text{d}8 4
\text{d}5! +-

With a far-advanced pawn on the seventh rank a win is possible if the knight can be immobilized and the defender brought into zugzwang.

Ideal case: the imprisonment of the knight by the bishop at the edge of the board:

The bishop controls all the knight’s squares so that it is practically stalemated. This is a case when the cliché ‘a knight on the rim is dim’ is certainly true.

9.5

\textbf{Averbakh}

\textit{Lehrbuch der Schachendspiele, 1979}

In this position, the bishop controls the promotion square. If Black is to move, he holds the draw: 1...\text{e}7+ 2
\text{d}8 \text{c}6+ 3 \text{e}8 \text{e}6 =.

In contrast, if it is White’s turn to move, he can force his opponent into zugzwang: 1 \text{b}4+! \text{e}6 2 \text{c}7 \text{d}5
3 \text{a}3 +-

\textbf{Knight or Bishop?}

Inexperienced chess-players often ask: which piece is the stronger, bishop or knight? Many players develop a clear preference for one of them even though from an objective point of view they are more or less equally strong. It all depends on the circumstances. The following two examples show the pros and the cons of the two pieces.

9.6

\textbf{Averbakh – Panov}

\textit{Moscow Ch 1950}

A typical situation in which the knight feels really happy. It occupies the blockading square c4, from which it cannot be driven away. With regard to its own pawns, the black bishop bites on granite and has to safeguard the d6-pawn. It is no compensation that Black has a protected passed pawn.

1 g5 \text{g}7 2 \text{f}3 \text{f}7 3 \text{g}4 \text{e}7 4
\text{f}5 \text{f}8 5 \text{f}6 \text{h}6 6 \text{gxh6} \text{xh6} (D)
90

CHess EndGAME Training

7 0e4 f8 8 h6! xh6
8...e7 9 h7 g7 10 e6 f8 11 h8++! xh8 12 f7 h6 13 e7 +--.

9 xdx6+ e7 10 e4
10 xe5?? y7+ --.

10...e3 11 d6+!
After 11 xe5? d4+ Black can offer a more stubborn defence.

11...d7 12 xe5 1-0

9.7

Krogius
Zakoni Endspielia, 1971

The bishop is superior to the knight when there are mobile passed pawns on both wings. In the diagram position Black is fighting for survival:

1 h4! (D)

B

The bishop is better at combining offensive and defensive tasks than the knight.

1...e6

After 1...f7 2 h5 we have a beautiful demonstration of the fact that the dark-squared bishop can indirectly secure the light-squared pawn. The black king has to take the long way via g8 in order to be able to attack the h5-pawn. 2...g8 3 f3 h7 4 g3 h6 5 h4 a5 6 d2+ g7 7 g5 a4 8 c1 b4 9 x5f5 +--.

2 h5 d5 3 h6 e7
3...xc5? 4 h7 +--.

4 h7 g6 5 b4 a5 6 a3 h8 7 f3 g6 8 e3 f4+
8...a4 9 b4 f4+ 10 f3 c6 11 e4 leads to the same result.

9 f3 e6 10 e4 b5 11 f5 f3
12 xg6 f2 13 h8w f1w 14 we8+

White can force the exchange of queens:

14...a6 15 c6+ a7 16 b6+ a8 17 d8+ b7 18 e7+ a8 19 c8e8+ b7 20 f7+ ++)---

Further Examples

9.8

Berger – Chigorin
Barmen 1905

It is true that the h5-pawn is lost, but by imprisoning the knight White nevertheless wins very easily:

1 f4! xh5 2 e5! -- e8 3 xc6 e7 4 b7 e6 5 c6! xe5 6 c7 1-0

9.9

Dimentberg
1949

Obviously the black pieces are a sorry sight, as they hinder each other. White wins even though his knight starts rather offside.

1 c7 c6 2 e4! +--

Thanks to various forks, the knight dominates all the bishop's possible squares.
9.10

We are already familiar with the corresponding position with a d-pawn. The nearby edge of the board offers Black an additional defensive idea:

1 $\text{d7} \text{f8} 2 \text{d4} \text{e7} 3 \text{e3} \text{c8} (D)$


$W$

4 $\text{c5}$

Thus White has once again created a 'zugzwang' situation with the imprisoned knight at the edge of the board. However...

4...$\text{a8}$! 5 $\text{c6}$

Or 5 $\text{xc8}$ stalemate.

5...$\text{b6}$! 6 $\text{xb6}$ stalemate

9.11

Once again the bishop can operate on both wings, whereas the knight can only deal with White’s a-pawn.

1 a7 $\text{g4} 2 \text{f2}$!

2 $\text{h2}$? allows Black a hidden saving opportunity: 2...$\text{f4} 3 \text{xe3} \text{e5} 4 \text{g4} \text{d6} 5 \text{f5} \text{c7} 6 \text{e5} \text{a8}! 7 \text{xa8} \text{b6}$ =.

2...$\text{f4} 3 \text{e2} \text{f5} 4 \text{e3} \text{e5} 5 \text{d3} \text{e6} 6 \text{c3} \text{d6} 7 \text{b4} \text{d7} 8 \text{b5} \text{c7} 9 \text{a6}$ =

9.12

Averbakh – Lilienthal

Moscow Ch 1949

As in 9.6, the knight is superior to the bishop.

1 $\text{g5}$!

White fixes at least one other pawn on a light square and removes the f6-pawn, which defends the e5-square.

1...$\text{fxg5}$

1...$\text{f5} 2 \text{f3} \text{e8} 3 \text{f3} \text{e5} \text{d8} 4 \text{f3} \text{e7} 5 \text{e3} \text{e6} 6 \text{d4} \text{e7} 7 \text{d3}$

$\text{e6} 8 \text{b4} a5 9 \text{d3} \text{d7} 10 \text{a4} \text{e8} 11 \text{b4 axb4} 12 \text{xb4}$ +–.

2 $\text{fxg5}$

Now the way for the white king is cleared:

2...$\text{c8} 3 \text{f4}$ 1–0

The finish could be 3...a5 4 $\text{e5} \text{g4} 5 \text{f6} \text{h5} 6 \text{e7} \text{g4} 7 \text{a3}$

$\text{d1} 8 \text{e6}+ \text{b7} 9 \text{d6} \text{xb3} 10 \text{d8+} \text{c8} 11 \text{xc8} a4 12 \text{de7}$ +–.

9.13

Averbakh – Frishtein

Moscow 1957

In positions with blocked pawns and a bad bishop, sometimes the side with the knight can create a fortress. In the diagram position the players agreed to a draw because the black king cannot invade White's position. Here are some possible variations:

1...$\text{g4} 2 \text{h4}$!

2 $\text{g2}$? is incautious: 2...$\text{e3}$! (opening a route for the king into the white position) 3 $\text{xe3} \text{g5} 4 \text{g2} \text{f5} +–.

2...$\text{g6} 3 \text{g3} \text{h5} 4 \text{g2!} \text{g5}$

4...$\text{e3}$? 5 $\text{f4}+ +–.

5 $\text{c3} \text{g6} 6 \text{h4} \text{f6} 7 \text{g3} \text{g5}$

8 $\text{g2}$ =
9.14  Réti

Hastings and St Leonards Post, 1922

This position provides another great example of the knight’s possibilities:

1 \( \square d4 \)
2 \( \square xh2? \square b5 = \)
1...\( \square c5 \)
2 \( \square h1! (D) \)

Not 2 \( \square xh2? \square f4+ 3 \square g2 \square xd4 4 \square a6 \square b8 = \).

1...\( \square e5! \)

Forcing the bishop to switch to the e8-a4 diagonal.

1...\( \square e8 2 \square d8 \square b5 \)
2...\( \square h5 3 \square d7 \)
3 \( \square c7 \square e8 4 \square c6! = \)

9.16  A.P. Kuznetsov

Shakhmaty v SSSR, 1955

Once again the we see the domination of a knight by a bishop:

1 \( h5 f5 \)

1...\( \square e7 2 \square h6 \square f8 3 \square b5 \square g8 4 \square b6 \square h7 5 \square b7 \square xh6 6 \square xh8 \square g5 7 \square d7 \square f4 8 \square f5 = \)

2 \( h6 \square f6 3 \text{ exf5!} \)
3 \( e5+? \square g6 4 \square e6 \square xh6 5 e7 \square a6! \)

3...\( \square a6 4 \square b5! \square c7+ (D) \)

9.15  Herberg

Deutsche Schachzeitung, 1954

According to our rule, the bishop should be able to stop the pawn, as it has at least five squares on both stopping diagonals. However, the badly placed black king allows a win:

5 \( \square c5! \)

5 \( \square c6? \square xe8 6 \square d7 \square xf5 7 h7 \square f6 = \)
5...\( \square x e 8 \)

5...\( \text{ d6+ 6 } \square c4! \square c7 7 \square c6 \text{ d6 8 } \square b5 \square c7+ 9 \square b6 also leads to a win for White.} \)
6 \( \square c6 = \)
10 Rook Endings (1)

Endings with Rook vs Pawn(s)

The Cut-Off King

10.1

Averbakh
Lehrbuch der Schachendspiele, 1979

White wins easily, even though Black is to move and the white king is as offside as possible:
1...\text{b6}

After 1...b4 2 \text{g7} b3 Black loses the pawn: 3 \text{h3} b2 4 \text{b3} +--.
2 \text{g7} a5 3 \text{f6} a4 4 \text{e5} b4 5 \text{d4} b3 6 \text{c3} +--

If the defender's king is behind his pawn, then the rook wins if it cuts off the king on its fourth rank (from the defender's point of view; i.e. the attacker's fifth rank).

10.2

B/W

10.3

W
The Extended Square

An important fundamental situation in the ending rook vs pawn occurs when the rook controls the pawn’s promotion square and the attacker’s king can approach unhindered. In such positions the extended square can help in the evaluation.

One forms the extended square by extending the side of the square of the pawn by as many squares as the defending king needs to control the promotion square. As we shall see later, the rule must be applied with care, and it may be necessary to calculate the variations to be sure of the evaluation.

10.2

Averbakh

Lehrbuch der Schachendspiele, 1979

If Black is to move, he draws because the white king does not get into the extended square of the pawn: 1...f3 2 \(a\) b5 f2 3 c4 g2 4 d3 f1 = 5 xf1 xf1 =.

However, if White is to move, he can win: 1 \(a\) b5 f3 2 c4 f2 3 d3 g2 4 e2 +.

If the king of the side with the rook is inside the extended square, or if he can step into it, then the pawn will be captured provided the king can approach the pawn unhindered.

10.3

Averbakh

Lehrbuch der Schachendspiele, 1979

The rule of the extended square only applies to positions in which the attacker’s king can approach unhindered. Here this is not the case:

1 \(a\) b6 (D)

Even though White thereby steps into the extended square of the pawn, Black can hold the draw by using a body-check:

1...f3!
1...f3? loses according to the familiar pattern: 2. \( \text{\texttt{c5}} \) f2 3. \( \text{\texttt{d4}} \) g3 4. \( \text{\texttt{e3}} \) g2 5. e2 ++.

2. \( \text{\texttt{c5}} \) e3!

Now White does not have a useful move. The white king could only attack the pawn from the f-file but the way there is obviously too long.

3. \( \text{\texttt{a3+}} \) e4!

Black maintains his policy of blocking the white king. White cannot win.

3...e2?, however, still lets the white king approach: 4. \( \text{\texttt{d4!}} \) f3 5. \( \text{\texttt{c3+}} \) f2 6. \( \text{\texttt{e4+}} \) ++.

The king of the side with the rook has to approach the pawn from the side that is not occupied by the opposing king.

10.4

**Averbakh**

*Lehrbuch der Schachendspiele*, 1979

Interesting positions arise when the rook is in an awkward position. Then it may be impossible to stop the pawn:

1. d7

Black cannot get his rook onto the d-file or the first rank, so the promotion of the pawn can only be delayed by harassing the white king:

1...\( \text{\texttt{g6+}} \) 2 e5!

This is the only square; 2 e7? g1 3 d8\( \text{\texttt{w}} \) e1++ 4 d7 d1++ is a typical skewer; 2 d5? g1 3 d8\( \text{\texttt{w}} \)? (3 c6 d1 4 c7 =) 3 d1+ ++; 2 f5?? d6 ++.

2...g5 3 e4! (D)

Again the only move that avoids the skewer.

3...g4+ 4 e3 g3+ 5 d2!

Now the king controls the d1-square and can finally step on the d-file. You will soon see why this is helpful:

5...\( \text{\texttt{g2+}} \) 6 e3! g3+ 7 e4 g4+ 8 c5 g5+ 9 c6 g6+ 10 c7 ++.

In the starting position the king is placed very badly on g7. It not only prevents the rook from moving to g8, but also blocks the g7-square and so prevents a saving pin.

10.5

**Barbier/Saavedra**

*Glasgow Weekly Citizen*, 1895

The theme of an unfavourable rook position is beautifully presented in this study.

1. c7

Again the rook lacks access to the critical squares.

1...\( \text{\texttt{d6+}} \) 2 b5!

Not: 2 b7? d7 = is a saving pin; 2 a5?? c6 ++; 2 c5? d1 3 c8\( \text{\texttt{w}} \)? c1++ is a winning skewer.

2...d5+ 3 b4 d4+ 4 b3 d3+ 5 c2 d4! (D)

This move is not equivalent to resignation as it conceals a last tricky defensive resource:
6 c8\#!
Avoiding 6 c8\#? \#c4 + 7 \#xc4 stalemate.
6...\#a4
The only defence against \#a8+.
7 \#b3! ++
An elegant double attack ends the fight. Due to the mating threat on c1 Black cannot save the rook.

10.6
Again, the rook cannot prevent the pawn from promoting. However, Black demonstrates a typical defensive idea that is possible against a bishop's pawn:

1...\#b1!
Here the black king secures the squares a2, b2 and c2 for rook checks.
2 c8\# \#b2 + 3 \#a7 \#a2 + 4 \#b7 \#b2 +
The white king cannot cross the c-file without losing the queen.

Rook vs Connected Passed Pawns

Usually two connected passed pawns win if they reach at least the sixth rank.

However, the rook is a very strong piece and can sometimes draw even in such a position.

10.7
Black pursues the white king with constant mating threats and thereby achieves a draw:

1...\#h8! 2 \#g1 \#g8+ 3 \#f1 \#h8 4
\#e1 \#e3 5 \#d1 \#d3 6 \#c1 \#c3 7
\#b1 \#h1 +
7...\#b3? 8 b8\#w +--.
8 \#a2 \#h2 + 9 \#a3 \#h1! (D)

Further Examples

10.8
Wotawa
Deutsche Schachzeitung, 1953

A challenging example of a king's march out of the checks, combined with an ingenious mate:

1 \#e2!
1. \( \textit{d}2? \ \textit{c}5 2 \textit{d}8/\textit{d}5+ 3 \textit{x}d5 \textit{cx}d5 \rightarrow; 1 \textit{g}5+? \textit{g}6 \rightarrow \ (1...\textit{gx}5?? 2 \textit{d}8/\textit{d}+ \rightarrow); 1 \textit{d}8/\textit{d}? \textit{allows another skewer:} 1...\textit{d}1+ \rightarrow. \\

1...\textit{c}2+ 2 \textit{e}3 \textit{c}3+ 3 \textit{e}4 \textit{c}4+ 4 \textit{e}5! (D)

This looks like a mistake, as the black rook now reaches the secure d5-square. However:

4...\textit{c}5+ 5 \textit{f}6! \textit{d}5 6 \textit{d}8/\textit{d}! \textit{xd}8 7 \textit{g}5#

10.9

This stereotyped position demonstrates a winning theme that is only possible against a rook's pawn:

1...\textit{h}7+ 2 \textit{b}8 \textit{h}6 3 \textit{a}8\textit{c}+ 3 \textit{a}8/\textit{a} 4 \textit{h}8\textit{#}.

3...\textit{c}6 \rightarrow

The knight is lost due to zugzwang.

10.10

\textbf{Tarrasch} \ \(1912\)

The two connected passed pawns are already far-advanced. However, Black’s king is placed on the same rank as the pawns, and this gives White some tactical options; therefore Black has to proceed very accurately:

1...\textit{b}2!

1...\textit{c}2? 2 \textit{x}b3+ \textit{d}4 (2...\textit{d}2 3 \textit{b}2 = is a pin) 3 \textit{b}4+ \textit{d}5 4 \textit{b}8! \textit{c}1\textit{??} (4...\textit{d}4 =) 5 \textit{d}8+ \textit{c}4 6 \textit{c}8+ \rightarrow.

2 \textit{e}5+ \textit{f}3! (D)

2...\textit{c}2? 3 \textit{h}3+ \textit{d}2 4 \textit{x}b2 =; 2...\textit{d}3 3 \textit{d}5 \textit{e}2? (Black can still win by backtracking with 3...\textit{e}3) 4 \textit{c}4 =.

3 \textit{f}5 \textit{e}2! 4 \textit{e}4 \textit{d}1 5 \textit{d}3 \textit{c}2 6 \textit{h}8 \textit{c}1\textit{??} \rightarrow

Not 6...\textit{c}1\textit{??} 7 \textit{h}1\textit{#}.

10.11

\textbf{Prokeš} (end of study)

\textit{La Stratégie, 1939}

Black can rely on the defensive manœuvre against the bishop’s pawn:

1...\textit{h}6!

1...\textit{h}3? 2 \textit{e}7 \textit{e}3+ 3 \textit{d}6 \textit{d}3+ 4 \textit{c}5 \textit{c}3+ 5 \textit{d}4 \textit{c}8 6 \textit{h}7 \textit{g}2 7 \textit{e}5 \textit{g}3 8 \textit{f}6 \textit{g}4 9 \textit{g}7 +–.

2 \textit{g}7 \textit{h}2! 3 \textit{f}8/\textit{f} \textit{g}2 =

The white king cannot cross the f-file without losing the queen.
Two connected passed pawns that have reached their 6th rank promote without the support of their king.

10.12

It is true that the white king is far away from the pawns but that also means that there are no tactical tricks for Black. 1 b6 +–.

If Black is to move, he must prevent the pawns from both reaching the sixth rank. In this case he can even win:

1...Ec1! 2 Ee3 Ec5! 3 Ec4 Ec7 4 Ec4 Ed7 ––.

3...Exb5 4 Ee4 Eb8 5 Ec5 Ed7 6 Ed6 Ec8 7 Ec8 Ec6 Ec7 ––

10.13

von der Lasa

1864

No rule is without exception: here the sad position of the black king allows White an easy win, based on zugzwang:

1 Ee1! a2
1...Eh3 2 Eh1#.
2 Exb2+ +–
A beautiful idea.

10.14

Amelung

Baltische Schachblätter, 1902

This seemingly simple position is quite tricky:

1 Eb7!

Putting Black in zugzwang, he now has to move his king one way or the other and then White chooses the other side to approach with his king. This is another application of the opposition.

After 1 Ed6? the king approaches from the wrong side and cannot reach the pawn: 1...Ec4! 2 Ec5 b3 3 Ec4 Ec3 4 Ec3 b2 =.

1...Ec4

The symmetrical line is 1...Ec4 2 Eb6! b3 3 Ec5 Ea3 4 Ec4 b2 5 Ec3 +–.

2 Eb6! b3 3 Ea5 Ec3 4 Ea4 b2 5 Ea3 +–

If it is Black to move, he uses the opposition for his own purposes:

1...Ec5! (D)

1...Ec4? 2 Eb6 b3 3 Ea5 Ec3 4 Ea4 b2 5 Ea3 +–; 1...Ec4? 2 Eb6 b3 3 Ec5 Ea3 4 Ec4 b2 5 Ec3 +–.

2 Eb7

2 Eb2 loses a crucial tempo, as the black king will attack the rook on b2: 2...Ec4 3 Eb6 Ec3 =; 2 Ec1+ later also allows Black to win a tempo when the pawn advances to b2: 2...Ed4! 3 Eb6 b3 4 Ea5 b2 5 Eh1 Ec3 6 Ea4 Ec2 =.

2...Eb5! 3 Ea7 Ea5! =

White is unable to improve his position.
10.15  
Wotawa  
_Deutsche Schachzeitung_, 1962  
This is probably the most complicated example of this chapter. The white rook is locked in both by his own pawns and those of his opponent; thus the g3-pawn represents a real danger for White. The solution is full of tactical twists that are mostly based on the relative king positions: good for White and bad for Black.

1 g5  
1 gxe5? g2 --.

1...hxg5  
1...g8 2 g6 g2 3 gxf7+ sf8 4 g7! xg7 5 xg7 +--; 1...g2 2 gxh6 g1+ 3 h8+ ++.

2 xh5! f6 (D)

3 h8+!
3 hxn5? g2 --.
3...g7  
3...xf7 4 h7+ and now:

a) 4...e6 5 xc7 g2 6 c1 gxe4 7 b6 h3 8 b7 h2 9 b8+ g1+ 10 b3+ xe5 (10...d6 11 d1+ ++; 10...f5 11 b1+ ++) 11 c5+ xe4 12 d5+ xe3 13 c3+ ++.

b) 4...g8 5 xc7 g2 6 c1 gxe4 7 b6 h3 8 b7 h2 9 b8+ g1+ 10 c7! ++.

4 hxg5! g2  
4...xh8 5 xf6+ g2 6 f7 g7 7 e8 ++; 4...fxg5 5 h3 g2 6 g3 ++.

5 xf6+ f7 6 g8! xg8 7 e8 g1+ 8 f7+ h7 9 f8+ --.

The queen ending is won for White, especially because 9...xe3+? loses immediately to 10 xe7+.

10.16  
V. and M. Platov  
_Deutsche Schachzeitung_, 1908  
This is an interesting expansion of the study by Barbier/Saaavedra (see 10.5).

1 c7 h4+  
1...h8?? allows the long-range bishop fork 2 e5+ ++.

2 b5 xh5+ 3 b6 h6+(D)

4 d6! xd6+  
Now we have reached the Saavedra position. Here is once again the main winning variation:

5 b5 d5+ 6 b4 d4+ 7 b3 d3+ 8 c2 d4! 9 c8+! a4 10 b3 --
11 Rook Endings (2)

The Bridge Manoeuvre • The Philidor Position • The Karstedt Manoeuvre

The Bridge Manoeuvre

1...<em>e2+ 2 <em>e5 <em>d2 3 <em>d5 <em>e2+ 4 <em>d6 +
2 <em>d5 <em>e1+ 3 <em>d6 +

11.1

11.2

This is the last phase of a typical winning manoeuvre in a rook ending. The white rook moves to the fifth rank to protect its king from checks by the black rook:

1 <em>f5!

If White advances his king in order to support the pawn, the black rook will annoy him with checks and force him to block his own pawn: after 1 <em>e7?! <em>e2+ 2 <em>d6 <em>d2+ 3 <em>c7 <em>c2+ 4 <em>d8 <em>d2 White hasn’t made any progress and will have to come back to the bridge manoeuvre.

1...<em>d1

11.3 W/B
11.2

Salvio

Il passato, 1634

Here we see the bridge manoeuvre in full detail.

First phase: the black king is pushed aside from the pawn:
1 \text{g}1+ \text{h}7
1...\text{f}6?! 2 \text{f}8 +--.

Second phase: the rook is placed on the fourth rank.
2 \text{g}4!

After 2 \text{g}5?! 2...\text{h}6 is annoying; as we already saw, after 2 \text{f}7?! \text{f}2+ 3 \text{e}6 \text{e}2+ 4 \text{f}6 \text{f}2+ 5 \text{e}5 \text{e}2+ White is not making progress.
2...\text{d}1 (D)

Third phase: the white king is freed by building the bridge.
3 \text{f}7 \text{f}1+ 4 \text{e}6 \text{e}1+ 5 \text{f}6 \text{f}1+
5...\text{e}2 6 \text{g}5 +--. It is only now that the rook moves to the fifth rank in order to build the bridge there. 5...\text{h}6
6 \text{g}8 +--.
6 \text{e}5 \text{e}1+ 7 \text{e}4 +--

In this case the bridge is built on the fourth rank.

The Philidor Position

11.3

The defender's king is placed on the promotion square, which greatly increases Black's drawing chances. Nevertheless, White to move can force a win:

1 \text{g}6!

The king and pawn take away the squares on the seventh rank from the black king. Thus the black rook is tied to the first rank to prevent mate, and this passive position will prove fatal for Black.
1...\text{e}8 (D)

2 \text{h}7!

A switch around the other side of the black king cracks Black's defensive position.
2...\text{e}8
2...\text{g}8 3 \text{f}7 +--.
3 \text{h}8+ \text{d}7 4 \text{x}c8 \text{x}c8 5 \text{f}7 +--

If Black is to play, he is able to save the game if he activates his rook immediately:
1...\text{b}1!
Now the white king cannot find a hiding-place to escape from the checks by the rook. 1...\texttt{\textit{Ec8}}? loses as above to 2 \texttt{\textit{g6}} ++. 1...\texttt{\textit{b5}}? also loses routinely: 2 \texttt{\textit{g6}} \texttt{\textit{b8}} 3 \texttt{\textit{h7}} ++.

2 \texttt{\textit{g6}}
2 \texttt{\textit{a8}}+ \texttt{\textit{f7}} is not an improvement for White.

2...\texttt{\textit{g1}}+

11.4

Philidor
1777

White to move wins:

1 \texttt{\textit{g6}}! (D)
1 \texttt{f6}? \texttt{\textit{b1}} = leads to a successful rook attack from behind.

![Chess Diagram]

1...\texttt{\textit{b1}}
1...\texttt{\textit{b6}}+ 2 \texttt{f6} ++; 1...\texttt{\textit{c8}} 2 \texttt{f6} ++.

Now White pushes the black king aside from its defensive position with gain of tempo:

2 \texttt{\textit{a8}}+ \texttt{\textit{e7}} 3 \texttt{\textit{f6}}+ \texttt{\textit{e6}} 4 \texttt{\textit{e8}}+ \texttt{\textit{d7}} 5 \texttt{f7} ++

The easiest way for Black to defend this position was demonstrated by Philidor in the 18th century:

11.5

If White had to retreat his rook to the first rank the game would be lost.

A little tactic saves him:

1 \texttt{\textit{d2}}+
1 \texttt{\textit{h1}}? \texttt{\textit{g2}} ++.
1...\texttt{\textit{e4}}
1...\texttt{\textit{exd2}} is stalemate.

2 \texttt{\textit{d8}}

1...\texttt{\textit{b6}}! (D)
The rook controls the whole third rank and prevents the dangerous move \texttt{\textit{g6}}. 1...\texttt{\textit{c8}}? loses as above due to the passive position of the rook: 2 \texttt{\textit{g6}} \texttt{\textit{c1}} 3 \texttt{\textit{a8}}+ \texttt{\textit{e7}} 4 \texttt{\textit{f6}}+ \texttt{\textit{e6}} 5 \texttt{\textit{e8}}+ \texttt{\textit{d7}} 6 \texttt{f7} ++.
White has organized an adequate defence based on checking the enemy king from behind.

The Karstedt Manoeuvre

11.6

**Karstedt**

Even though White has managed to keep the black king away from the pawn, Black can draw by using his rook to attack the white king from the side:

1...\text{Ha7}+ 2 \text{d6 Ha6}+ 3 \text{e5 Ha5}+ 4 \text{f4 Ha4}+ 5 \text{g5 Kg7} 6 \text{h8 Ha6} 7 \text{h7+ Kg8} =

Black has created the drawing Philidor position.

11.7

**Karstedt**

1897

Here Black has to decide on the correct side:

1...\text{g8}!

The king has to move to the short side in order to allow his rook enough space to annoy the white king with checks from the side. Not 1...\text{e1??} 2 \text{a8e8} 3 \text{exe8+ xe8} 4 \text{g7} =; Black also loses if his king moves to the long side: 1...\text{e8?} 2 \text{a8+ d7} 3 \text{f8!} (3 \text{g6?? e7} 3...\text{f2} (3...\text{a1 makes no sense here because after 4 g7 the black king is in the way) 4 g7 e7} (4...\text{g2+ 5 f7} 5 \text{f6+ d7} 6 \text{a8} (6 f7? would be premature, as the white king lacks a hiding place after 6...g2+=) 6...g2+ 7 f8 f2 8 f7 and now White can demonstrate that he knows the bridge manoeuvre:

8...\text{g2} 9 \text{a1 g3} 10 \text{d1+ c6} 11 \text{d4} =.

2 \text{a8+ h7} 3 \text{f8}!

3 \text{e6? g7} =.

3...\text{a1}! (D)

4 \text{e8}

4 \text{e7 a7} =.

4...\text{f1! 5 f8}

5 \text{e7+ g8} =; 5 \text{e6 g7} =.

5...\text{a1} =

White cannot improve his position.

With the Karstedt manoeuvre, the defender’s king has to move to the short side in order to allow the rook enough space for side attacks. This defensive procedure only works if there is a distance of at least three files between the king of the side with the pawn and the defender’s rook.

Further Examples

11.8

With a knight’s pawn, the passive defence with the rook on the first rank is sufficient:

1 \text{f1 a2} =
This doesn’t change anything. The change of sides doesn’t work, as there is no threat of ...$\texttt{a}$1+.

11.9

Tarrasch
1906

There is only a distance of two files between the defender’s rook and the pawn. Then the Karstedt manoeuvre doesn’t work any more because the king approaches the rook:

\[
1 \texttt{h}1+ \texttt{e}2 2 \texttt{h}2+ \texttt{e}3 3 \texttt{h}3+ \texttt{e}4 4 \texttt{h}4+ \texttt{f}3 5 \texttt{h}3+ \texttt{g}2 6 \texttt{d}3 =
\]

11.11

Lombardi – Rosen
Essen 1981

This game brings back pleasant memories.

58 $\texttt{f}$1?!?

After the normal 58 $\texttt{g}$1 $\texttt{g}$5 59 $\texttt{b}$6 $\texttt{h}$3 60 $\texttt{b}$1 I would have agreed to a draw, as White has reached the Philidor position. Even 60 $\texttt{b}$1 would have been sufficient for a draw here, as Black has a knight’s pawn.

58...$\texttt{g}$5 59 $\texttt{b}$6?

59 $\texttt{g}$1 $\texttt{g}$3 60 $\texttt{f}$1 =.

59...$\texttt{g}$3 60 $\texttt{b}$3+ $\texttt{h}$2

Not 60...$\texttt{g}$4? 61 $\texttt{g}$1 =. After the text-move, Black’s king controls the promotion square. The Karstedt manoeuvre (rook checks from the side) is not possible, so Black will eventually win by building a bridge:

61 $\texttt{b}$4

61 $\texttt{b}$5 $\texttt{g}$4 62 $\texttt{h}$5+ $\texttt{g}$3 63 $\texttt{h}$8 $\texttt{a}$1+ =.

61...$\texttt{g}$2 62 $\texttt{b}$8
62 \texttt{Hb}5 g4 63 \texttt{Hh}5+ \texttt{Eg}3 64 \texttt{Hf}5 \texttt{Ha}2 65 \texttt{Eg}1 \texttt{Ha}1+ --.
62...g4 63 \texttt{Hh}8+ \texttt{Eg}3 64 \texttt{Hf}8 \texttt{Ha}2 65 \texttt{Hf}7 \texttt{Ha}1+ 66 \texttt{Ee}2 \texttt{Eg}2 67 \texttt{Hf}2+ \texttt{Eg}1 68 \texttt{Hf}8 g3 69 \texttt{Eg}8 g2 70 \texttt{Eg}7 \texttt{Ha}8 71 \texttt{Eg}6 \texttt{Ee}8+ 72 \texttt{Ed}1 \texttt{Ee}5 73 \texttt{Eg}8 \texttt{Eh}2 74 \texttt{Hh}8+ \texttt{Eg}3 75 \texttt{Eg}8+ \texttt{Eh}3 76 \texttt{Ed}2 \texttt{Ee}4 0-1

11.12

\textbf{Ed. Lasker}

1925

This is another example of the Karstedt manoeuvre.

1...\texttt{Ee}8!? (D)

Black correctly moves to the short side. However, this is not sufficient for a draw here, as the black rook does not have the h-file at its disposal and the distance from the g-file to the pawn is too short.

1...\texttt{Ee}8?! loses more simply: 2 \texttt{Hh}8+ \texttt{Ef}7 3 \texttt{Ed}7 \texttt{Ha}1 4 d6 \texttt{Ha}7+ 5 \texttt{Ec}6 \texttt{Ha}6+ 6 \texttt{Ec}7 \texttt{Ha}7+ 7 \texttt{Eb}6 \texttt{Ed}7 8 \texttt{Ec}6 +-

Thus Black’s king is driven too far away:

3 \texttt{Ef}7 \texttt{Ef}1+ 3...\texttt{Ha}7+ 4 e7 +-
4 \texttt{Ee}8 \texttt{Ee}1 5 e7 +-

Followed by the bridge manoeuvre.

11.14

\textbf{Ed. Lasker}

\textit{Deutsche Schachzeitung}, 1911

White wins easily by activating his king but he has to avoid a trap:

1 \texttt{Ec}5+!
1 $\text{h}5? \text{d}7+! 2 \text{c}5 (2 \text{cxd7 stalemate}) 2...\text{d}1 =.
1...\text{c}8 (D)
1...\text{c}8 2 \text{b}6 ++.

2 \text{b}6 \text{h}7
2...\text{b}8 3 \text{d}8+ \text{c}8 4 \text{xc}8+ \text{xc}8
5 \text{c}7 ++.
3 \text{g}5 \text{h}8 4 \text{a}5 \text{b}8 5 \text{c}7 ++

11.15

Chéron

_Nouveau Traité complet d’Échecs_,
1944

With a knight's pawn, unfortunately, the short side is too short: Black has to switch to the long side and therefore loses.
1...\text{c}8 (D)

2 \text{h}8+ \text{d}7 3 \text{b}8! \text{b}2 4 \text{a}7
\text{c}7 5 \text{b}6+ \text{c}6 6 \text{c}8+ \text{b}5 7 \text{b}7
\text{a}2+ 8 \text{b}8 \text{b}6 9 \text{c}1 \text{h}2 10 \text{b}1+
\text{c}6 11 \text{a}1 \text{b}2 12 \text{a}8! \text{xb}7 13
\text{c}1+ \text{b}6 14 \text{b}1+ ++

11.16

Chéron

_Nouveau Traité complet d’Échecs_,
1944

Even though the white king is relatively far back, Black cannot make use of the extra time as his king cannot approach the promotion square. As he is on the long side, the Karstedt manoeuvre also cannot be employed:
1 \text{c}5 \text{a}5+ 2 \text{d}6 \text{a}6+ 3 \text{c}6 ++
12 Rook Endings (3)

The Frontal Attack • The Rook’s Pawn • Typical Tactics

The Frontal Attack

12.1 W/B

Averbakh 1979

The typical features of the position are that the black king is cut off from the pawn on the side and the black rook is ready to attack the white king from the front. 1  a5  a8+  2  b6  b8+  3  a6  a8+  4  b7 ++ and eventually White will build a bridge for his king.

If Black is to move, he can save the game by challenging White’s control of the c-file: 1...c8! 2 h1 (2 xc8 xc8 3 c5 c7 = draws by means of the opposition) 2...c7 3 h7+ b8 =.

12.2 W/B

12.3 W
12.2 Averbakh

When the pawn has not crossed the middle of the board, the defender can normally draw. In this case there is a three-rank distance between rook and pawn – this ‘magic number’ shows up again and again in the theory of rook endings.

1  \texttt{c4} \texttt{c8+} 2  \texttt{b5} \texttt{d8} 3  \texttt{c5} \texttt{c8+} 4  \texttt{b6} \texttt{d8}!
   4...\texttt{b8+?} 5  \texttt{c7} \texttt{b5} 6  \texttt{c6} \texttt{b8} 7  \texttt{d5} ++.
   5  \texttt{c5} \texttt{c8+} =

White cannot make any progress, and the position remains drawn.

If it is Black to move, the assessment of the position does not change:
1...\texttt{f6}!

Not:
   a) 1...\texttt{d7}? unnecessarily decreases the distance to the pawn: 2  \texttt{c4} \texttt{c7+} 3  \texttt{b5} \texttt{d7} 4  \texttt{c5} \texttt{c7+} 5  \texttt{d6}! \texttt{c8} 6  \texttt{d5} ++.
   b) 1...\texttt{f4}? (the black king must not give up the control over the c6-square) 2  \texttt{e6}! \texttt{f5} 3  \texttt{c6} \texttt{d7} 4  \texttt{c4} \texttt{d8} 5  \texttt{d5} \texttt{d7} 6  \texttt{c5} \texttt{d8} 7  \texttt{e6} and White wins.
2  \texttt{e4} (D)

White wants to relieve the king from the protection of the d4-pawn: 2  \texttt{c4} \texttt{c8+} 3  \texttt{b5} \texttt{d8} 4  \texttt{c5} \texttt{c8+} 5  \texttt{b6} \texttt{d8} 6  \texttt{c5} \texttt{c8+} =.

\textbf{B}

2...\texttt{f5}!
2...\texttt{f7?} 3  \texttt{c4} \texttt{c8+} 4  \texttt{b5} \texttt{d8} 5  \texttt{c5} \texttt{c8+} 6  \texttt{b6} \texttt{d8} 7  \texttt{c7} \texttt{d5} 8  \texttt{c6} \texttt{d8} 9  \texttt{d5} ++.
3  \texttt{e1} \texttt{f6} =

In order to defend successfully with a \textbf{frontal attack}, there has to be at least a \textbf{three-rank distance} between the defending rook and the pawn.

\textbf{The Rook’s Pawn}

In rook endings too, some special features arise with a rook’s pawn. Usually there are fewer winning prospects with a rook’s pawn than with other pawns.

12.3

In contrast to every other pawn, here a bridge is not possible. Thus
White cannot make any progress and the position is drawn:
1 \( \text{Hh}2 \text{Dd}7 \) 2 \( \text{Hh}8 \text{Cc}7 = \)

12.4

**Tarrasch**

*Lehrbuch des Schachspiels*

White's rook protects its pawn from the front. In order to avoid loss of the pawn, the rook can only move to give a check or to set up an indirect tactical defence of the pawn. The white king also cannot participate, as it has no shelter from rook checks from behind.

1...\( \text{Gg}7! \) (D)
2...\( \text{Ff}7 \) 2 \( \text{Hh}8 \) (the indirect tactical defence) 2...\( \text{Hxa}7 \) 3 \( \text{Hh}7 + = \); 1...\( \text{Hxa}2 \) 2 \( \text{Ff}8 + = \).

2 \( \text{Ff}6 \text{Hb}1 + 3 \text{Cc}5 \text{Ha}1 = \)

**Typical Tactics in Rook Endings**

12.5

**Troitsky**

*500 Endspielsstudien, 1924*

The promotion of the pawn will be forced tactically.

1 \( \text{b}7 \)

Black does not have a big choice here:

2...\( \text{Hh}2 \)

1...\( \text{Hd}8 \) is no better: 2 \( \text{Cc}6+ \text{Dd}2 \) 3 \( \text{Dd}6+ ! + = \) is another decisive rook deflection.

2 \( \text{Ff}1+ \text{Dd}2 \) 3 \( \text{Ff}2+! + = \)

12.6

**Wotawa**

*Deutsche Schachzeitung, 1953*

White has to be cautious if he wants to stop the \( b2 \)-pawn:

1 \( \text{Gg}4+! \)
2 \( \text{Ff}1? \text{Ha}7+ \) 2 \( \text{Cb}3 \text{Ha}1 = + \); 1...\( \text{Bb}4? \text{Hh}4+ \) 2 \( \text{Cc}4 \text{Xx}c4+! = + \).

2...\( \text{Ff}8 \) (D)
3...\( \text{Hh}8 \) 2 \( \text{Hb}4 = \text{Hh}4?? \) 3 \( \text{Xx}h4+ + = \); 1...\( \text{Ff}7 \) 2 \( \text{Gg}1 = ; 1...\( \text{Gg}7 \) 2 \( \text{Hb}4 = \text{Gg}4?? \) 3 \( \text{Xx}g4+ + = \).

2 \( \text{Ff}4+! \text{Ed}8 3 \text{Ec}4+ \text{Dd}8 4 \text{Dd}4 \text{Cc}8 5 \text{Hb}4! \)
5 \( \text{Cc}4+? \text{Db}8 = + \).
5...\( \text{Hh}4 \)
5...\( \text{Ed}7+ \) 6 \( \text{Cb}5 \text{Da}5+ 7 \text{Cc}6! (7 \text{Dxb}5? \text{Hh}8! \) 8 \( \text{Xxb}2 \) 8 \( \text{Hb}8+ = + = \) is yet another unpleasant skewer; 7 \( \text{Cc}4? \)
Further Examples

12.8

If White is to move, he draws:
1  ♕c3
Here White can also draw by a transition to a pawn ending: 1 ♕xd1 ♕xd1 2 ♕xd1 ♕d5 3 ♕e1! =.
1...♕f5 2 ♕f1+ ♕g4 3 ♕e1 ♕d5
3...♕f4 4 ♕f1+ ♕g3 5 ♕e1 =.
4 ♕c4! ♕a5
The rook has to leave the d-file and allow the white king in front of the pawn. Thus the draw is safe:
5 ♕d3 =

Black to move can force the pawn’s advance beyond the half-way mark:
1...♕f5 2 ♕f1+ ♕g4 3 ♕e1 ♕f4 4 ♕f1+ ♕g3 5 ♕e1 ♕d5! 6 ♕c3
White lacks one tempo to attack the d5-rook.
6...♕f2 7 ♕e4
7 ♕c4 ♕d4+ --.
7...♕f3 8 ♕e1 e4 --

12.9

Troitsky
1896

Black has to hide his king from a check by the a8-rook:
1...♕g5!
1...♕g4? allows a tricky winning idea: 2 ♕f6! ♕f4 3 ♕e6 ♕e4 4 ♕d6 ♕d4 5 ♕c6 ♕c4 6 ♕c8! ♕xa7 7 ♕b6+ --.
2 ♕f7 ♕f5 3 ♕e7 ♕e5 4 ♕d7 ♕d5
5 ♕e7 ♕c5 6 ♕b7
The move 6 ♕c8 is no longer dangerous: 6...♕xa7+ 7 ♕b8+ ♕b6 leads to a draw.
6...\( \text{b1}+7 \text{a6} \text{a1}+8 \text{b7} \text{b1}+9 \text{c7} \text{a1} = \)

12.10

In this position, the outcome depends on the right to move. If White is to move, he wins by approaching the pawn with his king: 1 \( \text{d6} \text{b5} 2 \text{c7} \text{c5} 3 \text{b7} +\.)

Black to move can save the game:

1...\( \text{c5}! \)

It is important to take away the sixth rank from the white king: 1...\( \text{b5?} 2 \text{d6! b6} 3 \text{b1+! xa7} (3...\text{a6 4 c7! xa7+ 5 c6 -- is similar}) 4 \text{c7 -- and the mating threat costs the rook.} \)

2 \( \text{d7 b6} 3 \text{d6} \)

3 \( \text{b1+ c5!} \) (the only move to draw; 3...\( \text{xa7?} 4 \text{c7 --; 3...\text{a6?} 4 \text{c7 xa7+ 5 c6 --}) 4 \text{b7 h8 = demonstrates very clearly why Black has to play 1...\text{c5!}} \) (Ka. Müller).

3...\( \text{xa7} 4 \text{b1+ a5!} \)

We have already seen 4...\( \text{a6?} 5 \text{c6 --.} \)

5 \( \text{c5 c7+} = \)

12.11

Troitsky

_Deutsche Schachzeitung_, 1896

Again the black king has to stay in the sheltered zone of his white counterpart. A little tactic allows White to win:

1 \( \text{f4 f2 2 e4 e2} \)

2...\( \text{a4+?} \) simplifies White’s task, as the black king is no longer sheltered by the white king: 3 \( \text{d3 a3+ 4 c2 a2+ 5 b3 a1 6 f8+ --.} \)

3 \( \text{d4 d2 4 c5 c3 (D)} \)

Once again 4...\( \text{c1+ 5 b4 b1+ 6 a3 a1+ 7 b2 a6 leaves the black king unprotected in open territory: 8 d8+ --.} \)

5 \( \text{c8! xa7 6 b6+ --} \)

A beautiful discovered check!

12.12

_Moravec

_Ceskoslovensky Sach_, 1931

The black pieces stand in each other’s way and the black king has to remain behind his rook to avoid a deadly check. The upshot is that the white king can just approach its pawn.

1 \( \text{b5 d5 2 b6 d6+ 3 c7 c6+ 4 b7 --} \)

12.13

Selezniev

_Tidskrift för Schack_, 1940

Without the black pawn, the position would be a dead draw. Its presence is fatal for Black as he has trouble avoiding a back-rank mate.

1 \( \text{f6! g8} \)

1...\( \text{e8 2 g7 f8 3 e5+ --.} \)

2 \( \text{g6 f8 3 d8+ --} \)
12.14

Chéron

Schweizerische Schachzeitung, 1926

1 e5!

White advances the pawn beyond the middle line with the help of a tactical resource, whereupon the frontal attack isn’t sufficient any more. 1...g6 2 g5? throws away the win; e.g., 2...d4 3 d8+ 4 c5 e8 5 d5 d8+ 6 d6 e8 7 e5 f5 8 f6+ g5 is a theoretical draw.

1...ex5+ 2 f4 ++

12.15

A.P. Kuznetsov

Schakend Nederland, 1966

Both rooks are placed extremely badly: the white one can only be activated by a check, while the black one has to keep an eye on the b7-pawn. The study demonstrates a pretty winning idea for White. However, as a reader Thomas Wytrych pointed out, Black can save the game with a remarkable idea:

1 f8! f6 2 g8 g6 3 h8 h6 4 e3!

By zugzwang, Black is forced to expose his king to a check.

4 h5 5 xh7 (D)

5...g4?

5...g4! was suggested Wytrych as an improvement: 6 g6 (6 g8+ f3 7 g7 xh7 8 xh7 xh7 =; 6 h6 h4 =) 6 a6+! 7 f7 b6 8 g8+ f5!? (or the straightforward

8...f3 9 b8 xh8 =) 9 b8 b7++!

6 h6 h3 7 h5 h2 8 h4 h1 9 h3 +-

Black’s king finally has to expose himself to a check.

12.16

Wotawa

Deutsche Schachzeitung, 1952

The solution involves various deflections:

1 a4+

1 h5? xh5 2 h7 h3+ 3 g2 g6! (3 g4? allows a deflection by 4 f3!) 4 xh3 xh7 =.

1...g5

1...h5? 2 h7 +=; 1...f5? 2 h4 +-

2 h4!

Now this idea works because after capturing the rook the black king is on the fourth rank rather than the fifth.

2 xh4 3 h7 h3+ 4 g2 g4 5 f3+ +=
13 Rook Endings (4)

Strategy in Rook Endings

Maxim 1: Rooks belong behind passed pawns

8 ∆xd5 ∆c3 9 a8! ∆f3 10 f7 ++ is also possible.

Lasker – Rubinstein
St Petersburg 1914

13.1

13.2

White's pieces occupy an ideal formation: the rook supports the passed pawn from behind while the black rook remains passive.

1 ∆f4! b4

Black will soon be in zugzwang and must allow the white king to occupy d4. 1... ∆f8 2 f6 ∆f7 3 b4+ ∆d6 4 ∆d4 ∆e6 5 ∆c5 ∆xf6 6 ∆xf6+ ∆xf6 7 ∆xd5 ++; 1... ∆d6 2 ∆d4 ++.

2 b3 ∆f7 3 f6 ∆d6 4 ∆d4 ∆e6 5 ∆f2! ∆d6 6 a2! ∆c7 7 a6+ ∆d7 8 ∆b6! 1-0

Assess the options 1 a4 and 1 d5.
13.2

Alekhine – Capablanca
Buenos Aires Wch (34) 1927

A famous example. White has to decide whether to protect the pawn from the side or from behind:

1 \texttt{Ea4}!

Here the rook is much better placed than on d5. It supports the a-pawn's advance and ties down black rook, because if it moves, the passed pawn will advance. 1 \texttt{Ed5}?! is less precise, as the rook is not placed so actively here.

1...\texttt{f6}

The king should take over the rook's blockading function. If Black leaves the king on the kingside then the march of the white king to the passed pawn will decide.

2 \texttt{f3} \texttt{e5} 3 \texttt{e3} h5?

This makes White's task easier, as the g5-square is weakened. Later this will facilitate the white king's invasion. 3...\texttt{d5} is better.

4 \texttt{d3} \texttt{d5} 5 \texttt{c3} \texttt{c5} (D)

that the rook usually has an unlimited supply of tempo moves.

6...\texttt{b5}

Or: 6...\texttt{a8} 7 a6 ++; 6...\texttt{d5} 7 \texttt{b4}

\texttt{c6} 8 \texttt{c2}+ ++.

7 \texttt{d4!} \texttt{d6}+!

This check enables Black to move his king to a6. Of course, the pawn ending after 7...\texttt{xa5} 8 \texttt{xa5}+ \texttt{xa5} 9 \texttt{e5} is clearly lost.

8 \texttt{e5} \texttt{e6}+ 9 \texttt{f4} \texttt{a6} 10 \texttt{g5}!

(D)

Now we see the negative effect of 3...h5?: the white king invades the kingside. Without 3...h5 White would have had to prepare this invasion with g4 followed by h5.

10...\texttt{e5}+ 11 \texttt{h6} \texttt{f5} 12 \texttt{f4}?

Alekhine pointed out that 12 \texttt{g7}! is more accurate: after 12...\texttt{f3} 13 \texttt{g8}! \texttt{f6} 14 \texttt{f8} \texttt{f3} 15 \texttt{g7} \texttt{f5} 16 f4! Black is in zugzwang.

12...\texttt{c5}! 13 \texttt{e3}!

13 \texttt{g7}? \texttt{c3} gives Black active play again.

13...\texttt{e7} 14 \texttt{g7} \texttt{e7}

After this move we have reached the position of the next diagram (13.3).
13.3

Alekhine – Capablanca
Buenos Aires Wch (34) 1927

15...f5!

We have already become familiar with the method of ‘blowing up’ in the section on pawn endings. Another option is 15...f6 £c7 16 £f3 £xa5 17 £f5 ++, which also uses the blowing-up move f5.

This variation makes it clear that the a5-pawn has done its duty. It has deflected the black king from the kingside so that he cannot carry out any defensive tasks there.

15...gxf5 16 £f6 f4! 17 gxf5 £d5 18 £g7 £f5 19 £a4 £b5 20 £e4! £a6 (D)

20...£xa5 21 £e5+ +-.

21 £h6
21 £g8 £f6 22 £f8 £f5 23 £g7 +-.

21...£xa5

21...£b7 22 £e5 £xf4 23 £xh5 f6 24 £e1 £a6 25 £h1 +-.

22 £e5 £a1 23 £xh5 £g1 24 £g5 £h1 25 £f5 £b6 26 £xf7 £e6 27 £e7! 1-0

The easiest way to win. White cuts off the black king and Black cannot defend himself any longer.

Maxim 2: Play as actively as possible!

13.4

Capablanca – Tartakower
New York 1924

The c3-pawn cannot be defended. However, White has a very active rook that controls the seventh rank, and a protected passed pawn. As is almost always the case in rook endings, the most active continuation is also the best:

1 £g3!

This brings the king into an active position. After the passive 1 £d7? £xc3+ 2 £e2 £a3 3 £xd5 £xa4 4 £xf5+ £g7 White has to fight for a draw.

1...£xc3+ 2 £h4 £f3 (D)

2...£c1 3 £h5 c5 (3...£h1+ 4 £g6 ++) 4 £d7 cxd4 (4...c4 5 £g6 ++) 5 £xd5 £d1 6 £g6 d3 7 £f6 £e8 8 £g6 +-.

3 g6!
Opening the path for the king to reach f6, whereupon mating threats arise.

3...\(\text{\textit{xe}}\)f4+ 4 \(\text{\textit{g}}\)5 \(\text{\textit{e}}\)4
4...\(\text{\textit{xd}}\)4 5 \(\text{\textit{f}}\)6 \(\text{\textit{e}}\)8 (5...\(\text{\textit{g}}\)8 6 \(\text{\textit{d}}\)d7 intending \(\text{\textit{d}}\)d8#) 6 \(\text{\textit{xc}}\)7! \(\text{\textit{xa}}\)4 7 \(\text{\textit{g}}\)7 \(\text{\textit{g}}\)4 8 \(\text{\textit{xa}}\)7 +—.
5 \(\text{\textit{f}}\)6! +— 5...\(\text{\textit{g}}\)8 6 \(\text{\textit{g}}\)7+ \(\text{\textit{h}}\)8 7 \(\text{\textit{xc}}\)7 \(\text{\textit{e}}\)8 8 \(\text{\textit{xf}}\)5! (D)
8 \(\text{\textit{f}}\)7?!! \(\text{\textit{d}}\)8 intending ...\(\text{\textit{f}}\)4.

Maxim 3: Prevent counterplay

13.6

Marshall – Chigorin
Barmen 1905

Preventing active counterplay is even more important than playing actively oneself. Here Black is better due to the weakness of the d4-pawn and the active position of his rook. However, Black must not act precipitately.

39...\(\text{\textit{e}}\)6!
39...\(\text{\textit{c}}\)3+? is inferior due to 40 \(\text{\textit{e}}\)4 \(\text{\textit{xa}}\)3 41 \(\text{\textit{d}}\)5! \(\text{\textit{e}}\)7 42 \(\text{\textit{c}}\)2 \(\text{\textit{d}}\)7
43 \(\text{\textit{c}}\)6 b4 44 \(\text{\textit{b}}\)6 a5 45 \(\text{\textit{b}}\)7+ with strong counterplay.

40 \(\text{\textit{b}}\)3 \(\text{\textit{d}}\)5 41 \(\text{\textit{d}}\)3 \(\text{\textit{f}}\)5 (D)


13.5

Botvinnik – Boleslavsky
‘Absolute’ USSR Ch
(Leningrad/Moscow) 1941

As in 13.3, White has an extra queenside pawn that is blocked by the enemy king. The decision will come on the kingside and therefore the king needs an invasion route there.

1 \(\text{\textit{h}}\)6! \(\text{gxh}6$

This puts White in zugzwang.

42 \(\text{\textit{h}}\)3 \(\text{\textit{h}}\)5 43 \(\text{\textit{e}}\)2

White had to part with a pawn in any case: 43 \(\text{\textit{h}}\)4 \(\text{\textit{g}}\)6 44 \(\text{\textit{d}}\)1 \(\text{\textit{c}}\)3+ 45
\(\text{\textit{d}}\)3 \(\text{\textit{xd}}\)3+ 46 \(\text{\textit{x}}\)d3 \(\text{\textit{a}}\)5 47 \(\text{\textit{e}}\)3 \(\text{\textit{b}}\)4+
48 axb4 axb4+ 49Nx b4 Nxd4 results in a hopeless pawn ending.

43...Nxd4 44 Qc3 Re4+ 45 Qd2 h4!

Black continues with his active play. He doesn’t rely solely on his extra queenside pawn, but also breaks up the white kingside.

46 Qc7 hxg3 47 Nxg3 Nxf4 48 Nxf4 Qe5 49 Re2 Qc4 50 Kg6 Na4
51 Kg3 f4 52 Nh3 Qc4 53 f1 d1 Qe4
54 h4 f3 55 Qd1 Qf4 56 h5 Qc1+ 57 Qe2 Qc2+ 58 Nf1 Qg3 59 h6 Qe2+ 60 f1 d1 Qh2 61 a4 b4 62 h7 Nh7 63 Nxb4 Nh1+ 64 Qd2 f2 65 Nc8 fl=Q
0-1

Further Examples

13.7

Tarrasch – Rubinstein
San Sebastian 1911

Black’s situation does not seem very enviable. He is already a pawn down and further losses loom on the queenside.

1...d2!

1...d6? loses to 2 a4 followed by a5 –; 1...c8 is also too passive: 2 a4.

2 Nxb6+ g5 3 Kg1

3 a4 f4 4 a5 f3 forces the draw after 5 Qe1 Kg2+ 6 Kh1 (6 Qd1? even loses: 6...Nxf2 7 a6 e3 8 a7 Kh2+ 9 Kg1 f2 –+) 6...c2 7 Kg1 Kg2+ =.

3...c2 4 c5 b5! Kg4! 5 c3+!

5 a4? f4 6 a5 f3 7 a6 Kg1+ 8 c2 Kg2 9 a1 Nh2 f5+.

5...Nh3 6 Kh5 Kg2 (D)

Now the white pawns are split up and are no longer dangerous.

7 Kh4 Nxa2 8 Nxe4 h5 9 c4 Kg2 10 Kh2 Nc2 11 Kg4

11 Kg1 Nxf2 12 Kxh2 Kg1+ 13 Kg2 Nc2 14 c5 Kg1

The following five positions (diagrams 13.8-13.12) stem from a game between Smyslov and Keres.
three weak pawns on b2, d4 and h2, whereas the black pawns are all well-protected. Secondly, the black rook is almost ideally placed. It attacks b2, protects b7 and cuts off the opposing king along the third rank. And thirdly, Black has an active king that will sooner or later threaten a crucial invasion via d5. As White has no active counterplay in the given situation, the mentioned advantages amount to a decisive plus for Black.” (Keres, Ausgewählte Partien 1931-1958)

36...\textit{f6} 
36...\textit{d3}? 37 \textit{e7+} would activate the white rook.
37 \textit{e1} \textit{h6!} 38 \textit{g2} 
This move leads to diagram 13.9. It allows the black king to cross the e-file but it is not easy to find a better option; e.g., 38 \textit{d1} leads to diagram 13.8.

13.8 
Here 38...\textit{d3}+ wins the d4-pawn because White cannot go for the pawn ending after 39 \textit{d2} \textit{xd2+} 40 \textit{xd2:} 40...\textit{e6} 41 \textit{c3} \textit{d5} 42 \textit{d3} h5 43 h4 b5 44 \textit{e3} \textit{c4} 45 \textit{e4} \textit{b3} 46 \textit{e5} \textit{xb2} 47 \textit{d6} b4 48 \textit{xc6} bxa3 49 d5 a2 50 d6 a1 \textit{w} ++.

13.9 
\textbf{Smyslov – Keres} 
\textit{‘Absolute’ USSR Ch} 
\textit{(Leningrad/Moscow) 1941}

The next step is to activate the black king.
38...\textit{e6} 39 \textit{d1} 
39 \textit{g6+} \textit{d5} 40 \textit{hx6} \textit{xb2} ++.
39...\textit{d5} 40 \textit{c2}

42...\textit{h5} 
Smyslov writes that here he was planning the typical manoeuvre ...\textit{f3}, ...\textit{h4-h3} and ...\textit{f1-g1-g2}. 42...\textit{h4}++ also results in a winning position.
43 \textit{a2} \textit{h4} 44 \textit{f2} \textit{xd4} 45 \textit{f7} b5 46 \textit{f2} \textit{h3} 47 \textit{d2+} \textit{d3}

An immediate 47...\textit{c5} followed by ...\textit{b6} and ...\textit{c5} would have saved several moves compared to game continuation. However, it is not bad to repeat moves from time to time in a situation where the opponent has no counterplay. This can wear him down and confuse him as to your exact intentions.
48 \textit{f2} \textit{c4} 49 \textit{c2+} \textit{d5} 50 \textit{g2} \textit{h3} 51 \textit{d2+} \textit{c5} 52 \textit{c2+} \textit{b6}
Black plays for the ...\texttt{Qb6} manoeuvre after all.
53 \texttt{Nf2} c5 54 \texttt{Rf6+} \texttt{a5} 55 \texttt{Nf2} c4?
55...b4 is correct.
56 \texttt{Rg2}

13.11

\textbf{Smyslov – Keres}

\textit{‘Absolute’ USSR Ch (Leningrad/Moscow) 1941}

56...c3 57 b4+? (D)

After 57 bxc3! \texttt{Bxc3} Black intends to carry out the long-planned manoeuvre ...h4-h3 and ...\texttt{Qc1-g1-g2}.

However, GM Karsten Müller points out that the position \texttt{Wb1,Qc3,c3}, \texttt{b5b6,Qh2,c4,b3,h3} is only drawn, no matter who is to move, and that therefore Black’s 55th move probably squandered his winning chances.

57...\texttt{axb3+} 58 \texttt{Qxb3}

13.12

\textbf{Smyslov – Keres}

\textit{‘Absolute’ USSR Ch (Leningrad/Moscow) 1941}

58...c2! 59 \texttt{Qxc2} \texttt{Qxa3} 60 \texttt{Qb2} \texttt{Qf3} 61 \texttt{Qe2} h4 62 \texttt{Qd2} h3?!

An inaccuracy. It is better for Black first to improve the king’s position with 62...\texttt{Kh3!} 63 \texttt{Qf2} \texttt{Qa4!} 64 \texttt{Qd2} b4 and only then to move on with the manoeuvre ...\texttt{Qf3}, ...\texttt{h3} and ...\texttt{Qf1-g1-g2} —.

63 \texttt{Kh2}?

63 \texttt{Qd4!} \texttt{Qf2+} 64 \texttt{Qb3 Qxh2} 65 \texttt{Qh4} is more stubborn, since White has finally activated his pieces. Black will have to get his king to the h-pawn in order to win.

63...\texttt{Qa4} 64 \texttt{Qb1 Qf1+} 65 \texttt{Qc2} b4
66 \texttt{Qd3} \texttt{Qd1+} 67 \texttt{Qc2 Qg1} 0-1

The finish could be 68 \texttt{Qe3 Qg2+}
69 \texttt{Qb1 Qxh2} 70 \texttt{Qf3} b3 71 \texttt{Qf8 Qg2} followed by ...\texttt{h2} —.

Diagrams 13.13-13.15 are from the game Flohr-Vidmar, Nottingham 1936, and are as advantageous for White as the last example was for Black:

\textbf{Flohr – Vidmar}

\textit{Nottingham 1936}

Here White also has several advantages: his rook and king are more active and the black pawns can be attacked.

1 h4! \texttt{Qe6} 2 \texttt{Qg4 Qa8}
13.13

Flohr – Vidmar
Nottingham 1936

3 h5!
A familiar plan: White creates invading options on the kingside.

3...g5 (D)
3...gxh5+ 4 hxh5 g8 5 g4! d6 a6 +–.

4 g3 a7 5 f3 a8 6 e4 a7
Black has to wait and hope for the best.

13.14

Flohr – Vidmar
Nottingham 1936

7 e5+!
Forcing the black king to abandon either the queenside or the kingside.

7...d6
7...f6 8 c5! c7 9 a5! a7 (with interesting tempo-play, White has paved the way for his king to penetrate the black queenside) 10 d4 e6 11 c5 d7 12 a6 d3 13 xc6+ f7 14 a4 xg3 15 xh6 +–.

8 e8 c5!? (D)
This desperate attempt at counterplay meets with a well-calculated answer. 8...e7+? loses to 9 xe7 xe7 10 e5 +–.

9 d8+! c6
After 9...c7 10 h8! cxb4 11 h7+ b8 12 xa7 xa7 13 cxb4 b6 14 f5 b5 15 g6 xb4 16 xh6 a5 17 xg5 Black loses the race of the pawns by one move: 17...a4 18 h6 a3 19 h7 a2 20 h8+ +–.

10 c8+ b6 11 xc5 +–
White has won a pawn while maintaining his other advantages.

11...h7 12 e5 c6 13 e6+ b5 14 f5 f7+ +–

13.15

Flohr – Vidmar
Nottingham 1936

15 f6 1–0
Once again a slip by White would allow Black some counterplay: 15 g6? f3 16 xh6 xg3 17 e5+ c4 18 xg5 xa3.
14 Queen Endings (1)

Endings with Queen vs Pawn(s)

The Staircase Manoeuvre

14.1

13 \textit{c6} \textit{c2} 14 \textit{c2} \textit{e1} 15 \textit{e4+ f2} 16 \textit{d3 e1} 17 \textit{e3+ d1} (D)

18 \textit{d5} \textit{c2} 19 \textit{e2} \textit{c1} 20 \textit{e4+ h2} 21 \textit{d3 c1} 22 \textit{c3+ d1} 23 \textit{e4 e2} 24 \textit{e3+ d1} 25 \textit{d3 +—}

Usually a queen wins against a pawn even in the most unfavourable case: the pawn is on the seventh rank, supported by its king and with the attacker's king offside:

1 \textit{e7+ f2} 2 \textit{d6 e2} 3 \textit{e5+ f2} 4 \textit{d4+ e2} 5 \textit{e4+ f2} 6 \textit{d3 e1} 7 \textit{e3+}

The staircase manoeuvre of the white queen forces the black king to block its own pawn. This gives the white king the chance to approach.

7...\textit{d1} 8 \textit{b7 c2} 9 \textit{e2 c1} 10 \textit{c4+ b2} 11 \textit{d3 c1} 12 \textit{c3+ d1}

The same idea is repeated until the white king is near enough to win.
14.2
The side with the queen cannot force a gain of tempo against a rook’s pawn on the seventh rank and thus the king is not able to approach:
1 ♙b4+ ♙c2 2 ♙a3 ♙b1 3 ♙b3+

It is true that Black has to block his pawn here, but nevertheless White cannot make any progress as a king move would produce stalemate.

14.3
A bishop’s pawn also reduces the winning chances. In the present position the white king does not get near enough:
1 ♙e6 ♙d2 2 ♙b2 ♙d1 3 ♙d4+

Up to now everything has worked as before but now Black shows that the bishop’s pawn also offers an additional stalemate resource:
6...♗b2 7 ♙d2 ♙b1 8 ♙b4+ ♙a2 9 ♙c3 ♙b1 10 ♙b3+ ♙a1! (D)

Black is not forced to block his own pawn. Therefore the white king cannot approach any closer, and capturing the pawn gives stalemate:
11 ♙xe2 stalemate

Winning Zones with Rook’s and Bishop’s Pawns

For most needs it is enough to know the staircase manoeuvre and the problems involved in winning against the rook’s and bishop’s pawns. Endgame specialists have gone further and calculated the following winning zones. White (to play) wins if his king is situated in the marked areas:
14.5

If the attacker’s king is near enough, even a rook’s or bishop’s pawn cannot save the game. In the diagram position the black king is situated on the wrong side of the pawn. As the route to the stalemate square a1 is via c1, it has to grant the white king yet another tempo to approach:

1 \( \text{\#h1} \)

Not, of course, 1 \( \text{\#f7} \) c2, when Black draws according to the above pattern: 2 \( \text{\#e6} \) d2 3 \( \text{\#b2} \) d1 4

14.6

Kashdan – Flohr

_Hamburg OL 1930_

At the end of a pawn race, it quite often happens that the emerging queen ending has to be evaluated:

1 \( \text{\#f5} \)!
White realizes that in the coming queen ending he will need to control the e4-square. Given the choice between d5 and f5, it is better to have the king nearer the corner to be inside the winning zone if Black does not promote.

1...h4 2 e6 h3 3 e7 h2 4 e8

4...g2!
4...h1?? 5 e4+ — reveals why e4 had to be covered.
5 g4!
Now White makes use of the proximity of his king to the corner.
1-0

Black resigned because he did not wish to be shown the rest: 5...h1 6 e2+ g1 7 g3+—.

14.7
'Less is sometimes more!' — this proverb applies to the black position here. The f6-pawn gives White an easy win — without the pawn Black would have had an equally easy draw!
1 g7+ f2 2 b7!
It is quite wrong to take the f-pawn.
2 xf6+? is only a draw.

2...g1 3 b1+ g2 4 e4+ g1 5 g4+ f2 6 h3 g1 7 g3+ h1 8 f2! f5 9 f1#

The queen has covered a lot of ground in this line.

Further Examples

14.8
Invanchuk – Hellers
Baguio City jr Wch 1987
Here it is again necessary to assess the race of passed pawns correctly:
41 g5 hxg5+ (D)

42 e3!
After 42 xg5? xa2 43 h6 a3 44 h7 b1 45 h8 a2 = the white king is too far away to support any mating threats.

The text-move leaves Black with the harmful g5-pawn, which destroys any hope for a stalemate in the forthcoming queen vs pawn ending.
1-0

Black resigned as the finish might be 42...xa2 43 h6 a3 44 h7 b1 45 h8 a2 46 h7+ b2 47 b7+ c2 48 e4+ b2 49 b4+ c2 50 a3
14.11

Gorgiev
1959

Interestingly, the a5-pawn does not help White to win. Without access to the b4-square, the queen cannot force the black king to a1:

1 \( \text{w}d1+ \text{b}2 2 \text{w}d4+ \text{b}1 3 \text{w}b6+ \text{c}2 4 \text{w}c5+ \text{b}2 5 \text{w}b5+ \text{c}6 6 \text{w}a4+ \text{b}2 = \)

14.12

Averbakh
Lehrbuch der Schachendspiele, 1979

Here we see a demonstration of the winning procedure with a queen against three connected passed pawns:

1 \( \text{w}f1+ \text{h}4 2 \text{w}f3+ \text{x}g2 = - \).
2 \textit{We2+! \textit{Kh4}}
2...f3 3 \textit{We4+ \textit{Kh3}} 4 \textit{Xf3 \textit{Kh4}} 5 \textit{Wg2+}--
3 \textit{Wf3! \textit{h1}}
After 3...\textit{Kh3} the white king simply approaches: 4 \textit{We6+}--
4 \textit{Xh1+ \textit{Gg4}} 5 \textit{We4 \textit{Kh3}} 6 \textit{Wf3}--

\textbf{14.13}
\textbf{Grigoriev} (end of study)
\textit{Shakhmaty v SSSR}, 1932

If the black king were on d2, the white king would be out of the winning zone. In this case, however, White can book the full point:
1 \textit{Wd5+ \textit{Ke2}} 2 \textit{Wa2! \textit{Kd1}} 3 \textit{Kd4!}
\textit{c1}--
4 \textit{Kd3}--

\textbf{14.14}
\textbf{Bodding}
\textit{Sissa}, 1852

The white king seems to be too far away for a win in the resulting queen vs rook's pawn position. However, the very bad position of the black king allows White to win.
1 g7 \textit{h3} 2 \textit{g8}--h2 3 \textit{g6}!
Neutralizing the stalemate position.
3...\textit{g2} 4 \textit{f5}+

Now we have reached a position from the game Kashdan-Flohr:
4...\textit{f1} 5 \textit{h8} \textit{g1} 6 \textit{a1}+ \textit{g2} 7 \textit{a2}+ \textit{g1} 8 \textit{g4} h1-- 9 \textit{g3}--

\textbf{14.15}
\textbf{Hultberg}
\textit{Tidskrift f"or Schack}, 1940

Which pawn should White capture?
1 \textit{exf5}!

Of course, White does not leave his opponent a bishop's pawn.
1...d4 2 f6 \textit{xe2} 3 f7 d3 4 f8\textit{w} d2--

After so many examples, we do not need to give the concluding staircase manoeuvre by the queen.

\textbf{14.16}
\textbf{Kalandadze}
\textit{Leninska Smena}, 1968

This study contains some very attractive ideas. The rook will soon disappear from the board and we have to deal with the familiar problem of a passed-pawn race.
1 \textit{b4}!
1 \textit{f1}? \textit{xb6}! wins for Black. We already know from Chapter 10 that Black's connected passed pawns will promote without their king's support.
1...\textit{xb4}

After 1...a3 2 b7 a2 3 b8\textit{w} a1\textit{w} White mates: 4 \textit{b6}+ \textit{xd5} 5 \textit{d4+ c5} 6 \textit{d6+ f5} 7 \textit{f4+ g5} 8 \textit{f6+ h5} 9 \textit{f5}#.---

2 b7 \textit{a3} 3 \textit{b8}\textit{w}!
Beware of the trap 3 b8\textit{w}? b1\textit{w}! 4 \textit{xb1} stalemate.
3...\textit{a2} 4 d6 b1\textit{w} 5 \textit{xb1} \textit{xb1}

The second rook also has to leave the board. Black loses the new passed pawn race due to the harmful h4-pawn.
6 d7 a3 7 d8\textit{w} a2 8 \textit{d1+ b2} 9 \textit{d2+ b1} 10 \textit{b4+ c2} 11 \textit{a3 b1} 12 \textit{h3+ a1} 13 \textit{g4}!
13 \textit{xb4??} is stalemate; 13 \textit{g2? h3+ 14 f2 h2}--.
13...h3 14 \textit{c2} h2 15 \textit{c1}#
Queen and Pawn vs Queen

Black has to switch to passive defence.

6...Legacy
6...\(g6+\) 7 \(g2++\); 6...\(e3+\) 7 \(\text{h}2++\).
7 \(\text{f}6 \text{a}3\)
7...\(\text{c}5+\) 8 \(\text{f}2++\).
8 \(\text{f}1 \text{a}2 9 \text{e}6+ \text{b}2 10 \text{e}8\)

Averbakh

*Lehrbuch der Schachendspiele*, 1979

Black tries to prevent the promotion of the pawn by means of checks and pins. A typical procedure leads to the win:

1 \(\text{h}6\)

After 1 \(\text{g}8?! \text{h}3\) 2 \(\text{h}8 \text{c}3+\) White has not made any progress.

1...\(\text{c}6+\) 2 \(\text{g}5 \text{d}5+\) 3 \(\text{g}4 \text{e}4+\)
4 \(\text{g}3 \text{g}6+\) 5 \(\text{h}2 \text{h}6+\) 6 \(\text{g}1!\)

This is the key idea. White arranges his pieces so that any further check can be met a check exchanging queens (this is known as a *cross-check*). Thus
Strategy and Tactics in Queen Endings

1: An easily converted extra pawn

15.2

Averbakh

Lehrbuch der Schachendspiele, 1979

White wins effortlessly as his queen simultaneously protects his king and supports the passed pawn. Here is just one possible variation:

1 \texttt{\texttt{$w_d$8+ $b_7$ 2 $b_5$ $e_7$ 3 $c_7+$ $e_6$ 4 $b_6$ $d_6+$}} (D)

\[ \text{Diagram} \]

The pawn cannot be stopped in any other way. Now the theme of the outside passed pawn is decisive:

5 $x_d6+$ $x_d6$ 6 $g_3$ $c_6$ 7 $f_4$

\[ \text{Diagram} \]

2: Perpetual check

15.3

Rosen – Noetzel

Wuppertal 1987

Perpetual check is the defender's most important weapon in the fight for a draw, but it may not be easy to decide whether a series of checks can be continued indefinitely. Sometimes the attacker can escape the checks by subtle manoeuvres.

1 $d_8+$ $b_7$ 2 $d_7+$ $a_8$ 3 $c_6+$ $b_8$

Although this does not yet throw away the win, it shows that Black has not spotted the key idea. The quickest route to victory is 3...

\[ \text{Diagram} \]

\[ \text{Diagram} \]

a) 5...

\[ \text{Diagram} \]

\[ \text{Diagram} \]

5... $a_5$? is a mistake because once White is allowed to start checking from the eighth rank the position is a draw: 6 $a_8+$ $b_5$ 7 $e_8+$! $b_6$ 8 $b_8+$ $c_6$ 9 $e_8+$ $d_5$ 10 $d_8+$ $e_5$ 11 $h_8+$! and Black cannot escape from the checks.

b) 5...$b_7$! 6 $e_6+$ $b_6$ 7 $a_2+$ (7 $c_8+$ $a_5$ 8 $a_8+$ $a_6$ 9 $b_8$

\[ \text{Diagram} \]

\[ \text{Diagram} \]

$b_5$ 10 $a_8+$ $b_4$ 11 $e_4+$ $c_3$ 12 $e_5+$ $c_2 +$; 7 $c_4+$ $b_7$ 8 $d_5+$ transposes to the main line) 7...

\[ \text{Diagram} \]

\[ \text{Diagram} \]

7...$b_7$ 8 $d_5+$ (after 8 $b_1$ $f_6$ Black wins easily as his queen soon reaches c1; note that 8 $f_7+$ is impossible because of 8...

\[ \text{Diagram} \]

\[ \text{Diagram} \]

$c_7+$ – interposition with
check is one of the most common methods of halting a series of checks)
8...c8! 9 g8+ (9 f5+ b8 10 f8+ b7 11 f3+ a6 12 a8+ a7 13 c6+ (a5 --) 9 d8 10 a2 (10 b3 h4+ and 10 e6+ c7 11 a2 h4+ win for Black just as in the main line) 10...h4+! (this intermediary check is the key idea) 11 g2 (11 g1 e1+) 11...b4 (the queen returns to its original square, but with the crucial difference that the white king is now on g2 rather than h2, which allows Black to interpose on b7 with check) 12 g8+ b7 13 d5+ b6 14 d8+ a7. Now the checks have come to an end and Black wins.

4 d6+ b7 5 d7+ b6
5...a6 is quicker.
6 d8+ c6? (D)
This move definitely throws away the win, as now White can start checking along the eighth rank. 6...b7 7 d7+ a6 is correct.

7 e8+?
7 c8+ draws, but the move played allows Black to return to the winning path.

7 b7
7 d5? 8 d8+ draws as in note ‘a’ to Black’s third move.
8 d7+ ½-½
The players agreed to a draw, even though the position is winning for Black.

3: Mating themes

15.4

Borisenko – Simagin
USSR Ch (Moscow) 1955
The queen is a very powerful piece so it is always advisable to look for possible mating ideas. With his last move (58 h3–g4) White was hoping to avoid perpetual check but in so doing he lost all caution:
59 f5+! 0-1
White resigned in view of 60 gxf6 (60 h4 h1#) 60...f5+ 61 h4 h5#.

4: A difficult-to-convert extra pawn

15.5

Ciocaltea – Unzicker
Moscow Alekhine mem 1956
The black queen is optimally placed. It defends the base of the pawn-chain (f7) and at the same time prevents the possible breaking-up move g4. For the purpose of defending the king, the pawns are also ideally placed. However, in order to win, Black will have to move his f-pawn and this will weaken the king’s position and give White chances for perpetual check. For attacking purposes, the black king is currently badly placed, so Black
first of all decides to improve his king position. Once the king arrives in the enemy camp, White will always have to be on the lookout for mating themes. This will limit the scope of the white queen, and in particular restrain the queen from attacking the g6-pawn, which will become weak once the f-pawn has advanced. Last but not least Black can threaten to exchange queens and liquidate to a winning pawn ending. Essentially, White is restricted to waiting and hoping for a possible perpetual check. His only other active possibility is to attack the g6-pawn once the f-pawn has moved.

67...\texttt{\texttt{gf}6!} 68 \texttt{\texttt{d}d8+} \texttt{\texttt{e}e6} 69 \texttt{\texttt{e}e8+} \texttt{\texttt{f}f5} 70 \texttt{\texttt{d}d7+} \texttt{\texttt{e}e4} 71 \texttt{\texttt{e}e7+}

Right now the black king blocks the fourth rank, but even so 71 g4? is not playable due to 71...\texttt{\texttt{a}e}2+ 72 \texttt{\texttt{h}h1} hxg4 --.

71...\texttt{\texttt{d}d3} 72 \texttt{\texttt{a}a3+} \texttt{\texttt{c}c2} 73 \texttt{\texttt{e}e7} \texttt{\texttt{d}d1} 74 \texttt{\texttt{d}d8+} \texttt{\texttt{e}e2} (D)

75 \texttt{\texttt{e}e7+} \texttt{\texttt{e}e6}!

Here the queen defends the g6-pawn.

76 \texttt{\texttt{b}b7} \texttt{\texttt{f}f2} 77 \texttt{\texttt{g}g2+} \texttt{\texttt{e}e1} 78
\texttt{\texttt{g}g1+} \texttt{\texttt{e}e2} 79 \texttt{\texttt{g2+} \texttt{\texttt{d}d3}} 80 \texttt{\texttt{f}f3+} \texttt{\texttt{d}d2} 81 \texttt{\texttt{f}f4+} \texttt{\texttt{e}e2} 82 \texttt{\texttt{c}c7} \texttt{f5} 83
\texttt{\texttt{e}e2+} \texttt{\texttt{f}f3} 84 \texttt{\texttt{g}g2+} \texttt{\texttt{e}e3} 85 \texttt{\texttt{b}b2}

85 \texttt{\texttt{g}g1+} \texttt{\texttt{e}e2} 86 \texttt{\texttt{g}g2+} \texttt{\texttt{d}d3} 87 \texttt{\texttt{f}f3+} \texttt{\texttt{d}d2} 88 \texttt{\texttt{f}f4+} \texttt{\texttt{e}e2} stops the checks.

85...\texttt{\texttt{c}c4} 86 \texttt{\texttt{a}a3+} \texttt{\texttt{d}d3} 87 \texttt{\texttt{c}c5+} \texttt{\texttt{f}f3} 88 \texttt{\texttt{c}c6+}

88 \texttt{\texttt{g}g1} f4! 89 gxf4 \texttt{\texttt{c}c2+} 90 \texttt{\texttt{h}h1} \texttt{\texttt{e}e4!} 91 \texttt{\texttt{g}g5} \texttt{\texttt{b}b1+} 92 \texttt{\texttt{h}h2} \texttt{\texttt{c}c2+} 93 \texttt{\texttt{h}h1} (93 \texttt{\texttt{h}h3} \texttt{\texttt{f}f5+}! --) 93...\texttt{\texttt{c}c1+} 94 \texttt{\texttt{h}h2} \texttt{\texttt{f}f4+} --.

88...\texttt{\texttt{e}e4} 89 \texttt{\texttt{c}c3+}

89 \texttt{\texttt{x}xg6?} \texttt{\texttt{e}e2+} 90 \texttt{\texttt{h}h3} \texttt{\texttt{g}g2#}.

89...\texttt{\texttt{f}f2} 90 \texttt{\texttt{c}c5+} \texttt{\texttt{e}e3} 91 \texttt{\texttt{c}c2+} \texttt{\texttt{e}e2}

All the pieces gather on the second rank!

92 \texttt{\texttt{c}c6} \texttt{\texttt{f}f1}+ 93 \texttt{\texttt{h}h3} \texttt{\texttt{g}g1} 94 \texttt{\texttt{c}c5+} \texttt{\texttt{f}f2} 95 \texttt{\texttt{e}e3!} (D)

A tricky stalemate trap!

95...\texttt{\texttt{f}f4}!

Not 95...\texttt{\texttt{x}xe3?} stalemate.

0-1
The finish would be 96 \textit{\texttt{xf2}}+ \textit{\texttt{xf2}}
97 \textit{\texttt{gxf4}} \textit{\texttt{f3}} --.

\textbf{Basic Ideas in Queen Endings}

(according to R. Kreutzkamp, Advanced Chess Trainer of North Rhine-Westphalia)

For the side playing for a win:
- Place your queen actively (usually in the centre)
- Move your king towards weak pawns or squares
- Create passed pawns
- Secure your own king position when passed pawns exist
- Liquidate to a winning pawn ending

For the side playing for a draw:
- Threaten a perpetual check
- Create a passed pawn of your own
- Weaken the enemy king position

For both sides:
- Watch out for stalemate and mating themes

\textbf{Further Examples}

15.6

\textit{Averbakh}

\textit{Lehrbuch der Schachendspiele}, 1979

This schematic example shows that one far-advanced passed pawn can be as dangerous as several enemy passed pawns. The a6-pawn is so powerful that Black must force perpetual check:

1...\textit{\texttt{f2+}}
2 \textit{\texttt{g3}} \textit{\texttt{e3+}}
3 \textit{\texttt{g2}} \textit{\texttt{e2+}}

= 15.7

\textit{Riego – Starck}

1963

Black’s passed pawn is already far-advanced, but it is not immediately clear whether this pawn is strong or weak.

1...\textit{\texttt{h4!}}
1...\textit{\texttt{xg4?}}
2 \textit{\texttt{b2+}} \textit{\texttt{f7}}
3 \textit{\texttt{b3+}} \textit{\texttt{g7}}
4 \textit{\texttt{c3+}} =.

2 \textit{\texttt{fl (D)}}

After 2 \textit{\texttt{xh4}} \textit{\texttt{gxh4}} the pair of isolated of passed pawns will promote without their king’s support (the rule of the common square).

2...\textit{\texttt{h1+}}
3 \textit{\texttt{g1}} \textit{\texttt{xg1+}}
4 \textit{\texttt{xg1}}

Suddenly the white king is out of the square of the pawn.

4...\textit{\texttt{d2}} --

15.8

\textit{Averbakh}

1962

How does White avoid a perpetual check?

1 \textit{\texttt{e1!}}
1 \textit{\texttt{e2?!}} \textit{\texttt{e5+}}
2 \textit{\texttt{f2?}} \textit{\texttt{f6+}}
3 \textit{\texttt{g2}}
\textit{\texttt{c6+}}
4 \textit{\texttt{h2}} \textit{\texttt{h6+}} is a draw.
1...\hhd1+
1...\ecd5+ 2 \whe2+ --; 1...\eae5+ 2
\wff1 \wbd5+ 3 \whe2+ --.
2 \wff2 \whe2+ 3 \wheg2! --

15.9

Averbakh
1962
The black queen is practically stalemated, so all White has to do is to pre-
vent the move ...\wfe7:
1 \wfe6! \wff8 2 \wff7 +--
Or 2 \wffg8.

15.10

Pospíšil
Ceskoslovenský Šach, 1984
In this position White must avoid
some traps:
1 \wfe6+!
Not:
a) 1 \wfe8?? is a joke which only
makes Black laugh: 1...\wfc8#.
b) 1 e8\whe? \wbd4+ 2 \wff6 \wff4+ 3
\wfh8 \wbb4+ 4 \wfe8 \wbd4+ leads to a
perpetual check.
c) 1 \wfd5? \wff5+! 2 \wff5 stale-
mate.
1...\wfh7 (D)

2 e8\he! +--
Not 2 e8\he? \wfe8+ 3 \wfe7 \wff8+! =,
when White has to capture since the
king cannot defend both queens, but
then Black is again stalemated.

15.11

Batuyev – Simagin
Riga 1954
1 \wfe1+ \wd2 2 \wfd1+ \wd3 3 \wee3#

15.12

Kling and Horwitz
Chess Studies, 1851
Again, White applies the technique
of moving his king onto the same line
(file in this case) as the black king to
stop the checks.
1 \wfe8 \wff4+ 2 \wff8 \wbd4+ 3 \wfe8+
+

15.13

Pogosiants
Propor Unosti, 1976
A tragicomic situation. The bad
position of queen and king enables
White to play for mate:
1 \wfe7 (D)
1 \wfe2?? \wfe8 +--.
1...\textit{\texttt{We}}8+!
An ingenious, yet insufficient defence:
2 \textit{\texttt{\texttt{Xe}}8 e1\textit{\texttt{w}}+ 3 f7! ++

15.14
\textit{\texttt{Proke\v{s}}}
\textit{\texttt{Prace, 1948}}

Of course, this becomes a queen ending!
1 c7 g2
1...gxf2 2 c8\textit{\texttt{W}} f1\textit{\texttt{W}} 3 c4+ e5 4 d4+ ++ is not an improvement. A beautiful discovered attack picks up the black queen.
2 c8\textit{\texttt{W}} g1\textit{\texttt{W}} 3 c4+ e5 4 c5+!
(D)

Preparing a deadly battery.

4...f4 5 e3+ g4
5...e5 6 f4+ ++
6 f3+ ++
16 Endings from Easy to Difficult

Test Your Endgame Knowledge

16.1  W
16.2  W
16.3  W
16.4  B
16.1

Mandler

Tidskrift för Schack, 1969

White is able to draw by carefully following the rule of the opposition:

1...\texttt{b2!}

Not:

a) After 1 \texttt{b3? b5!} Black wins the opposition and the game: 2 \texttt{c3 c5 3 d3 d5 4 e3 e5 5 f3 f5 6 g3 g5 7 h3 f4 \rightarrow.} The king has conquered a key square.

b) 1 \texttt{a3? a5!} fails the same way, as after the moves 2 \texttt{b3 b5 we have the variation mentioned above.}

1...\texttt{b6}

Black keeps the distant opposition.

2 \texttt{c2!}

2 \texttt{b3? b5!; 2 c3? c5!}.

2...\texttt{c6 3 d2! (D)}

We already know that 3 \texttt{d3? d5 and 3 c3? c5 are wrong.}

\begin{center}
\begin{tikzpicture}
\draw[step=0.5cm,gray,very thin] (0,0) grid (4,4);
\draw[ultra thick] (0.5,0.5) -- (3.5,3.5); % White king
\draw[ultra thick] (0.5,3.5) -- (3.5,0.5); % Black king
\end{tikzpicture}
\end{center}

3...\texttt{d6 4 e2 e6 5 f2 f6 6 g2!}

Black is unable to keep the distant opposition any longer as he would have to move to g6. Not 6 \texttt{g3? g5.}

6...\texttt{g5}

6...\texttt{f5 7 f3 \rightarrow; 6 e5 7 g3 f5 8 f3 \rightarrow.}

7 \texttt{g3=}

White has successfully fought for the opposition and holds the draw.

See Chapter 1.

16.2

Grigoriev

Shakhmaty, 1922

The protected passed pawn does not give White an automatic win and only a triangulation leads to success. White carries out this triangulation on the third and second ranks because the squares f3, g3, f2 and g2 are all available to him. Black only has access to three of the four corresponding squares and cannot duplicate the movements of the white king:

1 \texttt{g3!}

Or:

a) 1 \texttt{e7? is precipitate: 1 xe7 2 xf5 f7 \rightarrow.}

b) 1 \texttt{e3?! does not do any harm but the white king has no business on the queenside.}

c) 1 \texttt{f3 g6 2 g3 g7 3 h4?! g6 keeps White at bay; in order to win White must play his king to the second rank.}

1...\texttt{g7}

White has a larger choice of king moves if Black’s king cannot move to f7: after 1...\texttt{g6 2 h4 f6 (2 h6 e7 \rightarrow) the black king is tied to the square of the e6-pawn: 3 h5 g7 4 g5 \rightarrow.}

2 \texttt{g2!}

2 \texttt{f2 is inferior because the king does not threaten to go to h3. 2 f4?!}
\( \text{f6} \) returns to the original position and thus does not get White anywhere.

2...\( \text{f6} \) (D)

After 2...\( \text{g6} \) 3 \( \text{f3! f6} \) 4 \( \text{f4} \) White has managed to pass the move to Black: 4...\( \text{g6} \) 5 \( \text{e7! f7} \) 6 \( \text{xf5 xe7} \) 7 \( \text{g6} \) +--; 2...\( \text{f8} \) 3 \( \text{f3 g7} \) 4 \( \text{g3!} \) +--; 2...\( \text{g8} \) 3 \( \text{f3} \) 4 \( \text{g7} \) +. All these variations are similar: by manoeuvring with his king White exploits his extra space and gains the opposition.

3 \( \text{h3!} \)
3 \( \text{g3 g7!} \); 3 \( \text{f3 g6!} \).
3...\( \text{g7} \)
3...\( \text{g6} \) 4 \( \text{h4 f6} \) 5 \( \text{h5} \) +--.
4 \( \text{g3!} \)
4 \( \text{h4 g6} \) 5 \( \text{e7! f7} \) 6 \( \text{g5 xe7} \)
7 \( \text{xf5 f7} \) =.
4...\( \text{f6} \)
4...\( \text{g6} \) 5 \( \text{h4!} \) +--.
5 \( \text{f4!} \)
5 \( \text{h4? g6} \).
Now White has returned to the original position with Black to move:
5...\( \text{g6} \) 6 \( \text{e7! f7} \) 7 \( \text{xf5 xe7} \) 8 \( \text{g6} \) +--

See Chapters 1, 2 and 3.

16.3

Prokeš

*Sachove Umenie*, 1947

The black pawn seems to be unstoppable, but by using the king on both wings, White manages to get into the square of the black pawn:

1 \( \text{e8!} \)
1 \( \text{a6? c6} \) 2 \( \text{c8 b6} \) 3 \( \text{b8 xa6} \)
4 \( \text{c7 h5} \) +--; 1 \( \text{e8? h5} \) +--.

1...\( \text{e6} \)
1...\( \text{h5??} \) 2 \( \text{a6} \) -- even loses for Black!

2 \( \text{b8!} \)
2 \( \text{a6? b6} \) +--.
2...\( \text{b5} \)
Not 2...\( \text{h5??} \) 3 \( \text{a6} \) +--.

The black king has to move to b5, whereupon his white counterpart is finally able to leave the eighth rank:

3 \( \text{b7!} \)
3 \( \text{c7? h5} \) +--.
3...\( \text{xa5} \) 4 \( \text{c6} \) =

Done!

See Chapters 1 and 2.

16.4

Smejkal – Stulík

*Czechoslovak Ch (Bratislava) 1967*

White seems to be on his way to a win because the black king has to retreat away from the defence of the c5-pawn. However, Black still has one defensive resource:

1...\( \text{c6} \)

1...\( \text{a5?} \) 2 \( \text{f5 c6} \) (2...\( \text{a4} \) 3 \( \text{bxa4} \)
\( \text{c6} \) 4 \( \text{e5 b6} \) 5 \( \text{d5 a5} \) 6 \( \text{xc5} \)
\( \text{xa4} \) 7 \( \text{b6 a3} \) 8 \( \text{b5} \) +--) 3 \( \text{e6} \)
\( \text{c7} \) 4 \( \text{d5 b6} \) 5 \( \text{d6} \) +--; 1...\( \text{d7} \) leads to the main variation: 2 \( \text{e5} \)
\( \text{c6} \) 3 \( \text{e6} \).
2 \( \text{Ke6} \) \( \text{Kb6} \)

2...\( a5 \)? still loses. 2...

\( \text{Kc7} \) just transposes to the main line after 3 \( \text{Kd5} \) \( \text{Kb6} \) 4 \( \text{Kd6} \).

3 \( \text{Kd6} \) (D)

3...

\( \text{Ka5} \)!

3...\( a5 \)? 4 \( \text{Kd5} \) ++; 3...\( \text{Kb7} \)? 4 \( \text{Kxc5} \) ++.

4 \( \text{Kxc5} \) (stalemate) ½-½

See Chapter 4.

16.5

\textbf{Stoltz – Nimzowitsch}

\textit{Berlin 1928}

1...\( \text{f4} \)!

Black has realized that the common square of his d4- and g4-pawns reaches White's first rank. After 1...

\( \text{Kd5} \)? 2 a5 \( \text{Kc5} \) 3 a6 \( \text{Kb6} \) 4 \( \text{Kd3} \) the breakthrough only saves the draw. 4...\( \text{f4} \)! 5 \( \text{Kxd4} \) (5 \( \text{gxf4} \)? \( \text{g3} \) ++) 5...\( \text{f3} \) 6 \( \text{Kxe3} \). 1...\( \text{Ke4} ?? \) would be fatal after 2 \( \text{b6} \) ++.

2 \( \text{gxf4} \) (D)

2 \( \text{b6} \) \( \text{Kd6} \) ++; 2 a5 \( \text{Kd6} \) 3 a6 \( \text{Kc7} \) ++.

2...\( \text{Kd6} \) ++

2...

\( \text{xf4} \)? 3 \( \text{b6} \) ++; 2...

\( \text{d5} \)? results in a bad queen ending for Black after 3

a5 \( g3 \) 4 a6 \( g2 \) 5 a7 \( g1\) \( \text{Kh6} \) 6 a8\( \text{Kh8} \) + \( \text{Kc5} \) 7 \( \text{Kc6} \).

3 a5 \( g3 \) 4 a6 \( \text{Kc7} \) 5 \( \text{Ke2} \) \( \text{d3} \) 6 \( \text{Kxd3} \) \( g2 \) 0-1

See Chapter 4.

16.6

\textbf{Grigoriev}

\textit{Sbornik Shakhmatnik Etiudov, 1954}

Here White is successful thanks to the careful use of his spare tempi:

1 \( \text{f4} \)!

Fixing the black pawns. The h2-pawn plays the role of the reserve pawn since it still has two moves available. 1 \( g4 ?? \) even loses: 1...

\( \text{hxg4} \) 2 \( \text{fxg4} \) \( \text{f4} \) 3 \( \text{Kh3} \) \( \text{Kh5} \) ++; 1 \( \text{Kf3} \)? \( \text{g5} \) =; 1 \( \text{h3} \) is not an alternative solution, since 1...

\( \text{Kh7} \) draws (Nunn).

1...

\( \text{f7} \) 2 \( \text{g5} \) \( \text{g7} \) 3 \( \text{h3} \)!

Spare tempo number 1. 3 \( \text{h4} \) gives away one of the two spare tempi and only draws after 3...

\( \text{f7} \) 4 \( \text{h6} \) \( \text{f6} \) 5 \( \text{h7} \) \( \text{f7} \) 6 \( \text{h8} \) \( \text{f8} \) =.

3...

\( \text{f7} \) 4 \( \text{h6} \) \( \text{f6} \) 5 \( \text{h7} \) \( \text{f7} \) 6 \( \text{h4} \)!

Spare tempo number 2. Without \( \text{h4} \) White cannot make any progress; e.g.,

6 \( \text{h8} \) \( \text{f8} \).
6...\textit{f}6 7 \textit{g}8\textasciitilde
See Chapter 5.

16.7

\textbf{Knoppel}
\textit{Stella Polaris}, 1967

The correct assessment of this seemingly harmless pawn ending depends on an ending of queen vs pawn:

\textbf{1 \textit{c}4! (D)}

Not 1 \textit{g}4? \textit{d}6! (1...\textit{f}6? 2 \textit{d}5 \textit{g}6 3 \textit{xc}5 \textit{f}6 4 \textit{d}5 \textasciitilde), and then:

a) 2 \textit{c}4 \textit{e}6 3 \textit{d}3! (3 \textit{e}3? \textit{e}5 \textasciitilde) 3...\textit{e}5 4 \textit{e}3 \textasciitilde.

b) 2 \textit{f}5 \textit{d}5 3 \textit{x}g5 \textit{c}4 4 \textit{f}4 \textit{xc}3 5 g5 \textit{b}2 6 g6 c4 7 g7 c3 8 g8\textit{c}2 \textasciitilde. In this line Black relies on the bishop’s pawn to guarantee the draw. The white king is not near enough to create mating threats or reach the c-pawn.

\begin{center}
\begin{tabular}{c}
  \textbf{B} \\
  \includegraphics[width=0.4\textwidth]{chess_board1.png}
\end{tabular}
\end{center}

1...\textit{f}6
1...\textit{d}6 2 \textit{f}5 \textit{c}6 3 \textit{x}g5 \textit{d}6 4 \textit{f}5 \textasciitilde.

2 \textit{d}5 \textit{f}5 3 \textit{xc}5 \textit{g}4 4 \textit{d}4 \textit{x}g3 5 c5 \textit{f}2 6 c6 g4 7 c7 g3 8 e8\textit{c}2 \textasciitilde

White wins without problems by the standard staircase manoeuvre. See Chapter 14.

16.8

\textbf{Averbakh}

1954

The theme of this position is the fight of the good bishop vs the bad bishop, in which White is aided by his active position. If it were Black to move, he would have to give up a pawn immediately or allow the white king to invade his position via e5. Therefore White tries to pass the move to Black.

\textbf{1 \textit{d}1}

1 \textit{e}2 is similar to the main variation after 1...\textit{e}8 2 \textit{d}3 \textit{g}6 3 \textit{b}1.

1 \textit{g}2? does not get White anywhere, as his bishop does not have sufficient space on the kingside; for example, 1...\textit{g}8 2 \textit{h}3 \textit{e}6.

1...\textit{e}8 2 \textit{c}2! (D)

\begin{center}
\begin{tabular}{c}
  \textbf{B} \\
  \includegraphics[width=0.4\textwidth]{chess_board2.png}
\end{tabular}
\end{center}

2...\textit{g}6

After 2...\textit{d}7 3 \textit{d}3 \textit{e}6 (3...\textit{c}8 4 \textit{e}2 \textasciitilde) 4 \textit{e}2 \textit{f}7 5 \textit{f}3 \textasciitilde

White has achieved his aim.
White's winning idea after the text-move is based on the fact that the white bishop has three squares available on the b1-h7 diagonal, whereas the black one only has two. This gives White the opportunity for a 'triangulation' of the bishop:

3 \textcolor{red}{\textbf{\textit{d}1}}!

3 \textcolor{red}{\textbf{\textit{d}3}}! is also possible; for example, 3...\textcolor{red}{\textbf{\textit{h}7}} 4 \textcolor{red}{\textbf{\textit{b}1}} \textcolor{red}{\textbf{\textit{g}6}} 5 \textcolor{red}{\textbf{\textit{c}2}}.

3...\textcolor{red}{\textbf{\textit{h}7}} 4 \textcolor{red}{\textbf{\textit{d}3}}! \textcolor{red}{\textbf{\textit{g}6}} 5 \textcolor{red}{\textbf{\textit{c}2}}! \textcolor{red}{\textbf{\textit{h}7}} 6 \textcolor{red}{\textbf{\textit{b}3}}! \textcolor{red}{\textbf{\textit{g}8}} 7 \textcolor{red}{\textbf{\textit{d}1}} \textcolor{red}{\textbf{\textit{f}7}} 8 \textcolor{red}{\textbf{\textit{f}3}} +=

See Chapter 8.

16.9

\textbf{Christiansen – Root}

\textit{US Open (Pasadena) 1983}

Black's king stands offside and his knight cannot tame two white pawns on its own:

1 \textcolor{red}{\textbf{\textit{x}g6}}!

1 \textcolor{red}{\textbf{\textit{d}5}}? misses the opportunity. Then Black's king approaches and the e4-pawn is not sufficient for a win:

1...\textcolor{red}{\textbf{\textit{d}3}} 2 \textcolor{red}{\textbf{\textit{f}4}} \textcolor{red}{\textbf{\textit{d}4}} =.

1...\textcolor{red}{\textbf{\textit{x}g6}} 2 \textcolor{red}{\textbf{\textit{h}5}}! (D)

2 \textcolor{red}{\textbf{\textit{x}g4}}? only leads to a draw, because once again the black king arrives in time; for example, 2...\textcolor{red}{\textbf{\textit{c}3}} 3 \textcolor{red}{\textbf{\textit{h}5}} \textcolor{red}{\textbf{\textit{f}8}} 4 \textcolor{red}{\textbf{\textit{f}5}} \textcolor{red}{\textbf{\textit{d}4}} 5 \textcolor{red}{\textbf{\textit{h}6}} \textcolor{red}{\textbf{\textit{c}5}} 6 \textcolor{red}{\textbf{\textit{e}5}} \textcolor{red}{\textbf{\textit{d}5}} 7 \textcolor{red}{\textbf{\textit{f}6}} \textcolor{red}{\textbf{\textit{h}7}}+ 8 \textcolor{red}{\textbf{\textit{g}6}} \textcolor{red}{\textbf{\textit{f}8}}+ 9 \textcolor{red}{\textbf{\textit{g}7}} \textcolor{red}{\textbf{\textit{e}6}}+ 10 \textcolor{red}{\textbf{\textit{f}6}} \textcolor{red}{\textbf{\textit{f}8}} 11 \textcolor{red}{\textbf{\textit{e}6}} \textcolor{red}{\textbf{\textit{h}7}}+ =.

2...\textcolor{red}{\textbf{\textit{f}8}} 3 \textcolor{red}{\textbf{\textit{h}6}}

3 \textcolor{red}{\textbf{\textit{e}5}} +=.

3...\textcolor{red}{\textbf{\textit{d}3}} 4 \textcolor{red}{\textbf{\textit{e}5}} 1-0

4...\textcolor{red}{\textbf{\textit{d}4}} 5 \textcolor{red}{\textbf{\textit{e}6}} \textcolor{red}{\textbf{\textit{g}6}} 6 \textcolor{red}{\textbf{\textit{h}7}} \textcolor{red}{\textbf{\textit{d}5}} 7 \textcolor{red}{\textbf{\textit{e}7}} +=.

See Chapter 7.

16.10

Based on Yudovich – Averbakh

\textit{Moscow Ch 1949}

Black has the following advantages:

- The bishop dominates the knight.
- Black can create an outside passed pawn.
- The white king is offside.

1...\textcolor{red}{\textbf{\textit{a}5}}! (D)

1...\textcolor{red}{\textbf{\textit{f}7}} 2 \textcolor{red}{\textbf{\textit{g}3}} \textcolor{red}{\textbf{\textit{e}7}} 3 \textcolor{red}{\textbf{\textit{f}2}} \textcolor{red}{\textbf{\textit{d}6}} 4 \textcolor{red}{\textbf{\textit{e}3}} only increases White's defensive resources, as his king can join in.

\begin{center}
\begin{tikzpicture}
\node at (0,0) {\textbf{W}};
\node at (2,1) {2 \textbf{\textit{g}3} \textbf{\textit{b}4}};
\node at (2,0) {2...\textcolor{red}{\textbf{\textit{a}4}}? unnecessarily gives White the chance for a blockade that can only be broken by a pawn sacrifice: 3 \textcolor{red}{\textbf{\textit{a}3}} \textcolor{red}{\textbf{\textit{b}4}}}
\end{tikzpicture}
\end{center}
4 axb4 a3 5 g4 a2 (5... g6 6 f4 f5+ 7 f3) 6 dxa2 dxa2 7 b5 c4 8 b6 a6 9 b4. White starts to exchange pawns and Black will still have to fight hard in order to win.
3 f2 a4 4 e3 x a2!
4...b3+? throws away Black’s advantage: 5 axb3 axb3 6 d3.
5 d3
Resignation. 5 x a2 b3 6 c3 a3 7 d2 a2 =.
5...b1+ 6 c4 b3 7 c3 f5! 8 b2 c2 9 e5 e5 10 e4 e4 11 g3 gxf4 12 gxf4 g2 13 b4 f1 —
Again the knight is excluded from play.
See Chapter 9.

16.11

Rosen – Reinhard
Essen 1987

Here the theme of the wrong bishop enabled me to save half a point that seemed lost:
1 f4! (D)
After 1 e5? f4 — the important f-pawn remains on the board.

Black reluctantly agreed to the draw in view of 1...x f4 2 e6 c4 3 x f5 c1 4 e4 e3 5 f3 d3 6 g2 e3 7 b1 =.
See Chapter 6.

16.12

Averbakh

Lehrbuch der Schachendspiele, 1979

It is true that the white king can move into the extended square, but Black threatens to win a tempo by attacking the c1-rook.
1 d1+! (D)

First of all White improves his rook’s position. After 1 f7? e4 2 e6 e3 3 e5 e2 4 f4 d3 5 f3 d2 = Black wins the tempo that, as mentioned before, leads to a draw. 1 e1? e4 2 f7 e3 3 f6 d3 4 f5 d2 =.

1 c3
1 e3 2 e1+ f4 3 f7 e4 4 e6! (the king approaches the pawn from the side that is not occupied by the black king) 4 e3 5 d5 f3 6 d4 c2 7 d3 —.
2 e1!
2 $\text{c}7? nullifies the achievement of the first move: 2...$\text{e}4 3 $\text{e}1 $\text{d}3 4 $\text{e}6 $\text{e}3 5 $\text{f}5 $\text{d}2 =$

$\text{d}4 3 $\text{f}7 $\text{e}4 4 $\text{e}6 $\text{e}3 5 $\text{f}5 $\text{d}3 6 $\text{f}4 $\text{e}2 7 $\text{f}3 +$

See Chapter 10.

16.13

\textbf{Menas – Braunstein}

\textit{Bucharest 1960}

1 $\text{h}8? (D)$

After this Black effectively only has two legal moves, so it should have been possible for White to foresee Black’s reply. 1 $\text{xf}4+! $\text{xf}4 2 $\text{g}2$ would have won.

1...$\text{h}1 $\text{g}+ 2 $\text{xh}1 ($\text{stalemate}$) 1/2-1/2

See Chapter 14.

16.14

\textbf{Averbakh – Euwe}

\textit{Zurich Ct 1953}

It is true that the Black’s rook is ideally placed behind White’s passed pawn, but on the other hand Black’s kingside pawn-structure is badly damaged. The $g5$-rook combines offensive and defensive tasks in ideal fashion.

1 $\text{c}2!$

White chooses a possibility that avoids any risk. He moves the king to support the passed pawn without weakening the kingside. 1 $\text{xg}6? $\text{xa}5 2 $\text{g}5 $\text{a}8! gives Black options for counterplay; for example, after 3 $g3 (3 $\text{xh}5 $\text{a}2+) 3...$\text{h}8$ followed by $\text{xf}6$ the main danger is over for Black.

1...$\text{d}6 2 $\text{b}2 $\text{a}4 3 $g3 $\text{e}6 (D)$

4 $\text{b}3$

4 $\text{xg}6$ also looks very good, but White wants to make this move under even more favourable circumstances. 4...$\text{xa}5 5 $\text{xe}6+ $\text{d}7 6 $\text{g}6 +$ (6 $\text{e}3$ would be an even better square for the rook but Black can still annoy him with 6...$\text{c}5$).

4...$\text{a}1 5 $\text{b}4 $\text{b}1+ 6 $\text{c}4 $\text{a}1 7 $\text{b}3$ 1–0

Black only has the choice between two evils:

a) 7...$\text{d}6 8 $\text{b}4 $\text{b}1+ 9 $\text{c}4 $\text{a}1 10 $\text{b}5 $\text{b}1+ 11 $\text{a}6 +$.

b) 7...$\text{b}1+ 8 $\text{c}2 $\text{a}1 9 $\text{xg}6 $\text{xa}5 10 $\text{xe}6+ +$ $\text{d}7 11 $\text{e}3$. In contrast to the variation after 4 $\text{xg}6$
the white king is on c2 instead of b2, so the cutting-off move ...\( \text{c5} \) is not available.

See Chapter 13.

16.15

Fine

*Basic Chess Endings, 1941*

White’s king is very far away from the kingside, so Black manages to get rid of his harmful a5-pawn in time:

1...\( \text{h1} \)
1...\( \text{h1} \)? 2 \( \text{xf2} \) \( \text{#} \) is trivial.

2...\( \text{b7} \) \( \text{a4} \)! \( \text{(D)} \)

2...\( \text{e2} \) loses a valuable tempo: 3 \( \text{e5} + \) \( \text{d2} \) 4 \( \text{f4} + \) \( \text{e2} \) 5 \( \text{e4} + \) \( \text{d2} \) 6 \( \text{f3} \) \( \text{e1} \) 7 \( \text{e3} + \) \( \text{f1} \) 8 \( \text{c6} \) a4 9 \( \text{d5} \) a3 10 \( \text{e4} \) a2 11 \( \text{f3} \) a1 \( \text{w} \) 12 \( \text{xf2} \).

3 \( \text{c6} \) a3 4 \( \text{d5} \) a2 5 \( \text{g7} \) a1 \( \text{w} \)!

The easiest way. 5...\( \text{e2} \) is also sufficient because the white king does not get near enough; for example, 6 \( \text{b2} + \) \( \text{e1} \) 7 \( \text{a1} + \) \( \text{e2} \) 8 \( \text{xa2} + \) \( \text{f1} \) 9 \( \text{e4} \) \( \text{g1} \) 10 \( \text{g8} + \) \( \text{h1} \) 11 \( \text{h7} + \) \( \text{g1} \) 12 \( \text{g6} + \) \( \text{h1} \) 13 \( \text{h5} + \) \( \text{g1} \) 14 \( \text{g4} + \) \( \text{h1} \) 15 \( \text{h4} + \) \( \text{g2} \) 16 \( \text{g4} + \) \( \text{h2} \) 17 \( \text{e2} \) \( \text{g1} \) and White is unable to make any progress. However, the text-move avoids unnecessary difficulties.

6 \( \text{xa1} + \) \( \text{g2} = \)
White’s king is outside the winning zone of a bishop’s pawn.

See Chapter 14.

16.16

Csontos

If White cannot make use of his majority, he can throw in the towel:

1 \( \text{a6!} \)

1 \( \text{d7} \) a6! 2 \( \text{c7} \) (2 \( \text{b5?} \) \( \text{xc5} \) \( \text{=} \)) 2...\( \text{e4} \) 3 \( \text{xb7} \) e3 4 c6 e2 5 c7 e1 \( \text{w} \) 6 c8 \( \text{w} \) \( \text{xb4} \) 7 \( \text{xa6} \) leaves White with an extra pawn in a queen ending, but the endgame tablebases confirm that it is drawn.

1...\( \text{c6} \)! \( \text{(D)} \)

The best try. 1...\( \text{bxa6} \) 2 \( \text{d7} \) e4 3 c6 e3 4 c7 e2 5 c8 \( \text{w} \) e1 \( \text{w} \) 6 \( \text{e5} + \) \( \text{e4} \) 7 \( \text{w} \) e7 + \( \text{=} \); 1...\( \text{b6?} \) 2 \( \text{xb6} \) axb6 3 a7 + –.

2 \( \text{b5} \)

2 \( \text{xb7} \) \( \text{xb7} \) 3 \( \text{d7} \) also wins.

2...\( \text{c7} \) 3 \( \text{b6} + ! \) \( \text{b8} \)

3...\( \text{axb6} \) 4 \( \text{a7} \) + –.
4 axb7 axb6
4...@xb7 5 @d7 ++.
5 c6 @c7 6 b8@#! @xb8 7 @d7 ++
See Chapter 5.

16.17
J. Enevoldsen
Skakbladet, 1953

This is a difficult example based on the ending king and queen vs king and pawn:
1 @c7+!
Not:
a) 1 @d5? @c7 2 @c5 a5 3 @b5 a4
4 @xa4 @xc6 ++ shows the outside passed pawn in its element.
b) 1 @e6? a5 2 @f6 a4 3 @xg6 a3 4
@f7 a2 5 g6 a1@# 6 g7 @f1+ 7 @g6
@c4 ++.
1...@e8 (D)

2 @e6!
2 @c6? a5 3 @b5 @xc7 4 @xa5
@d6 ++.
2...a5
2...@xc7? 3 @f6 a5 4 @xg6 a4 5
@f7 a3 6 g6 a2 7 g7 a1@# 8 g8@# =.
3 @f6 a4 4 @xg6 a3 5 @f7!

5 @h7? loses according to the familiar pattern. 5...a2 6 g6 a1@# 7 g7
@b1+! (7...@h1+ 8 @g6 @g2+? 9
@f7 allows White to move his king to the correct side) 8 @h8 (8 @h6 @b6+ 9
@h7 @xc7 ++) 8...@h1+ 9 @g8
@xc7 ++.
5...a2 6 g6 a1@# 7 g7 @f1+ 8 @e7
@c4 9 @f8 @c5+ 10 @e8 @c6+ 11
@f8 @f6+

Black has achieved the desired position in which the king normally has to move in front of its own pawn. However, here an alternative exists:
12 @e8!
12 @g8?? @xc7 ++.
12...@xg7 stalemate
See Chapter 14.

16.18
Kling and Horwitz
Chess Studies, 1851

A rather stereotyped example of the knight's superiority over a bad bishop. The technique of forcing a way into the opponent's camp with the help of knight checks is typical:
1 @d6 @g8 2 @b5+
2 @e8+! is less methodical but offers a short-cut: 2...@d8 (2...@d7 3
@f6+ ++) 3 @f6 @f7 4 @d6 +--.
2...@d7 3 @b6 @f7 4 @d6 @g8 5
@b7 @d8
5...@h7 6 @f7 @g8 7 @h6 @h7 8
@b6 @d8 9 @c6 @e7 10 @c7 @e8 11
@d6 +--.
6 @c6 @c7 7 @c7 @h7 8 @c8+
@e8 9 @d6 @g8 10 @e7 @f7 11 @c6
@g8 12 @d4 +--
See Chapter 9.
17 Advice for Teachers

This short final chapter contains advice on how to make best use of the material in this book for training purposes.

General Advice

Each chapter of this book is structured according to the following scheme:

1) The opening example (diagram x.1) is intended to offer an introduction to the subject. It should be explained in front of all participants on the demonstration board (roughly 10 minutes).

2) Then follows a teamwork phase. Groups of two or three participants form a team that gets an exercise to solve. The grade of difficulty of the exercise should be chosen according to the abilities of the teams. You can also give additional helpful advice ('White wins' or 'The position is drawn', for example). Of course the teams can carry on with the solution of other exercises once they have solved the 'mandatory exercise'.

In total, six is the maximum number of exercises you should choose from each unit. As a 'standard program' I recommend diagrams x.2-x.7 but you should also note the advice below for the individual chapters.

Time for this solution phase: approximately 40-50 minutes.

3) Finally, the positions can be discussed together again on the demonstration board. If possible, at this stage some participants or participating teams should present their results themselves. This gives more variety than a mere 'lecture' by yourself. But be careful: it is nice when participants present an example on the demonstration board but it is terrible when they make negative comments about other participants!

Wherever possible you should emphasize instructive phrases, rules and generalizations in this concluding discussion. Usually you can find such points in the solutions.

Time for this discussion phase: approximately 30-40 minutes.

You can use the 'voluntary program' (exercises x.8-x.16) for 'homework', for an accompanying solution competition, as material for a second lesson on the same topic, or as an alternative to the 'standard program'.

It is advisable always to put the emphasis on the solution phase. Here all the participants become active rather than just listening to your lecture. Do not forget: 'One can talk about anything – but not for longer than 20 minutes!'

You should always adjust the course of events to the specific requirements
of your group. Thus, for a group with very young beginners it may be enough if you just discuss a single example for approximately 15 minutes and then continue with something more entertaining, e.g. a tournament.

The following table summarizes the structure:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Activity</th>
<th>Required Material</th>
<th>Time (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction</td>
<td>Lecture</td>
<td>Demonstration Board</td>
<td>approx. 10</td>
</tr>
<tr>
<td>2. Solutions</td>
<td>Teamwork</td>
<td>Sets, Boards and Exercise Papers</td>
<td>approx. 40-50</td>
</tr>
<tr>
<td>3. Presentation of results</td>
<td>Lecture/Reports</td>
<td>Demonstration Board</td>
<td>approx. 30-40</td>
</tr>
</tbody>
</table>

Here is some additional practical advice:
- Arrange the seating so that all the participants are able to see the demonstration board as well as each other (e.g. a horseshoe shape).
- Have the necessary material prepared in advance, including the demonstration board.
- Make sure that attention is always focused on one point. When a position is analysed on the demonstration board, the current position is only put up there and not on the analysis boards as well.
- Especially during the solution phase, keep in close contact with the teams. If necessary, give advice or point out errors in the analysis. During this phase, you learn where the problems are and thus you can better focus on them in the concluding discussion.

Advice on the Individual Chapters

1: King and Pawn vs King: Basic Themes
Standard program: 1.1-1.7

In its present form this chapter addresses beginners and so you should emphasize the basic principles. The material is necessarily somewhat 'dry'. For very young players the amount of work might even be far too much for a single session. A break would be very useful, for example by letting them play positions with one pawn and various king positions. To start with, it is a success when they understand that the king has to pave the way for the pawn.

With a very weak group it is in any case advisable to spread the material over several lessons.

The more interesting examples are from 1.8 onwards. In order to challenge
the stronger participants you should use some of these exercises for your instruction unit. For a stronger group as a whole you should only take these examples and once again concentrate on the principles in the concluding discussion.

This first instruction unit includes some studies. For the inexperienced player those are often too difficult; our position 1.11, for example, is not easy at all! Therefore it sometimes makes sense to reduce the level of difficulty by only presenting the end of the exercise. If you, for example, give the position after 2...c5 in 1.11, then beginners have a fair chance to solve it.

2: The King's Typical Fighting Methods
Standard program: 2.1-2.7

As dynamic themes predominate in this chapter it is not so easy to formulate any principles. The point that the king often has several paths to his destination is the focus of attention in all the exercises, although only one of these routes may be correct. This point has to be reinforced and emphasized in the concluding discussion.

When you talk about the two rook's-pawn examples, it is important that you refer to the later chapter on this topic. While explaining key squares, it must be stressed that rook's pawns form a special case.

The term body-check for the pushing-back procedure is my creation. If you prefer a more serious approach then you can just avoid it, but I am of the opinion that such vivid terms can help topics stick in the memory.

In example 2.9, I have deliberately changed colours to allow Black a feeling of success once in a while. This does not seem important for reasons of justice, but it should prevent learners from automatically searching for a successful continuation for White. This is a particular danger with endgame work because studies always end with a win or draw for White. This might result in a general overestimation of the right to move first.

3: Typical Pawn Structures in Pawn Endings (1)
Standard program: 3.1-3.7

In this instruction unit, fundamental themes are again to the fore and the examples are relatively easy. At most, 3.7 contains a little finesse, namely the blockade of the white kingside by Black. Those working with stronger groups should use the examples beginning with 3.8.

The topics dealt with involve pawn-structures which are also of great importance in the middlegame. Therefore it is particularly important that the participants know these structures and how to deal with them. When you deal with middlegame topics you can then easily refer to this knowledge.

4: Typical Pawn Structures in Pawn Endings (2)
Standard program: 4.1-4.7

This chapter complements the previous one. The rules for pairs of isolated pawns are an important tool for
the assessment of endgame positions. For beginners it is relatively easy to create further basic positions yourself (4.4, for example, I made myself) so that starting with 4.9 no further purely basic examples appear.

Concerning the topic of connected passed pawns on the seventh and sixth ranks, you will easily find material in study collections, as this topic is very attractive for composers. I have chosen some not especially difficult examples which are nevertheless quite tricky for inexperienced players.

By the way, the topic of space advantage also forms the basis for the pawn breakthroughs which are covered in more detail in the next chapter.

5: Typical Pawn Manoeuvres in Pawn Endings
Standard program: 5.1-5.7

The introductory example is particularly suitable for a collective discussion on the demonstration board. Grant five minutes of orientation time to the participants and then ask for any suggestions. Usually almost every pawn move is mentioned. Deal with each move in detail in order to end with the rule that ‘pawns in their original position are more valuable’ which serves as a thread out of the maze.

Concerning the very complicated study by Wotawa (5.7) you have to decide yourself when you want to interfere and help out with some advice. I have had the experience that even this study is solvable – many learners have at least found the stalemate!

Exercise 5.4 would also be very suitable as an introduction to the topic of pawn-chains in the middlegame. This example makes it very clear why an attack on a pawn-chain should usually be directed at its base.

6: The Rook’s Pawn
Standard program: 6.1-6.8

In this chapter, basic themes are again at the centre of attention, so the difficulty of the exercises is quite low. On the other hand I didn’t want to leave out any of the examples. Normally the mate with a knight against a rook’s pawn belongs in the standard program, but it was necessary to push it to the ‘voluntary program’. We do not find any big surprises in the voluntary program, but all the themes mentioned in the standard program are repeated.

I advise you not to use additional material for this lesson as in my experience this only leads to confusion. It’s not a problem if for once you don’t need the full 90 minutes. If there are participants who are particularly interested, they can look at the bishop ending at the end of this chapter (page 169). Perhaps it is sufficient to let them find the way to win with h- and e-pawn.

7: Knight Endings
Standard program: 7.1-7.7

Endings with pieces begin with this lecture and it now becomes difficult to restrict the material. For the knight alone, a detailed coverage would need several instruction units (the same
comment holds for the other pieces), but the course would then soon cover 25 or even 30 lectures. Therefore restriction is necessary. I have limited myself to three basic topics which illustrate the strength and the weakness of the knight. The percentage of tactical positions is – especially in the voluntary program – quite high, because the particular features of each piece can be demonstrated best in the field of combinations.

8: Bishop Endings
Standard program: 8.1-8.8
The material in this chapter is again very considerable, but I did not want to leave out any of the topics. Maybe it is a good idea to split this unit into two parts: the first for the topics of bishop vs pawn(s) and basic endings with bishop and pawn vs bishop and the second for the topics of opposite-coloured bishops and strategy in the bishop ending.

Of course the topic good bishop vs bad bishop is also very important for the middlegame.

My main objective in this chapter is to demonstrate the dangers of the bad bishop. There are few bad habits as widespread among inexperienced players as the fatal wish to place their own pawns, for safety reasons, on the same colour squares as their bishop!

9: Knight vs Bishop Endings
Standard program: 9.1-9.7
Again quite a lot of material for just a single instruction unit! Maybe it is advisable once again to split the material and deal with it in two lessons, but by now you probably know how much you can demand from your protégés in one session!

Looking back, I cannot deny that I have somehow preferred the knight, as its tactical abilities prove to be crucial in many examples.

10: Rook Endings (1)
Standard program: 10.1-10.7
At last a reasonably short instruction unit with the focus on tactical positions. Rook endings are the most common type of ending in practice and I have taken that factor into account. Rook endings occupy no fewer than four chapters; each unit is therefore compact and concentrates on relatively few topics.

The important aim in this chapter is to examine the tactical strengths and weaknesses of the rook from different angles. Rook activity ranges from the mobile, dynamic rook that can force a draw against two connected passed pawns on the seventh rank, to the blocked, immobile rook that cannot even sacrifice itself for a pawn.

The theme of 'rook activity' will turn up again in the later chapters, especially in Chapter 13.

11: Rook Endings (2)
Standard program: 11.1-11.7
This and the following chapter are rather technical. However, the attacking and defensive procedures are so important in practice that it seemed unavoidable for me to treat them in
detail. Only position 11.5 offers a little tactical relief.

At the end of this unit all participants should know the three rook manoeuvres covered. This time the exercises 11.8-11.16 offer a particularly good opportunity to study the topic in more depth. The extension to the Karstedt manoeuvre (three files distance) is also examined in more detail there.

12: Rook Endings (3)
Standard program: 12.1-12.7

We conclude our excursion into the purely technical side of rook endings with the topic of frontal attack. When we recall the key defensive procedures, then we can recall that the best defensive chance is to occupy the promotion square with the king. If the king is cut off, it becomes more difficult for the defence. A side attack is then more effective than a frontal attack, which is often only successful against a not very far advanced pawn.

It is worth pointing out the golden rule of the three file (or rank) distance again and again. In technical rook endings it is often a valuable guide.

The topic of ‘tactics’ lends some more colour to this chapter and this offers a good mixture of more and less difficult positions. If you have a different point of view you will find further ideas in the ‘voluntary program’ beginning with 12.8.

13: Rook Endings (4)
Standard program: 13.1-13.6

As the endgame course approaches its end, most of the participants will be able to deal with a more sophisticated lecture. Nevertheless, you could still reduce the number of exercises — perhaps it is even sufficient to look at a single example more closely. In order to do this, you can find two endings analysed in 13.8-13.12 and 13.13-13.15.

14: Queen Endings (1)
Standard program: 14.1-14.7

After the sophisticated lecture 13 we are back to some lighter stuff. Beginning with 14.8, you will find some slightly more difficult examples, especially those concerning the topic ‘rook’s/bishop’s pawn’.

For inexperienced players, it is necessary that they know the staircase manoeuvre and the difference between the rook’s/bishop’s pawn on the one hand and the central/knight’s pawn on the other hand.

I have added the winning zones mainly for reasons of completeness. With the help of this instrument you can at least create slightly different positions in order to let the participants find the win.

This time some quite interesting examples are presented, particularly 14.16. Despite its length, this study can also be solved by players who are not so strong.

15: Queen Endings (2)
Standard program: 15.1-15.5

In this final chapter it becomes far more difficult again. Queen endings, particularly the ending queen and pawn vs queen, certainly represent
one of the most difficult endgame topics.

You will probably have recognized that this time there are only four exercises for the participants to work on. As you will find out when you look at the substantial material in the voluntary program, this is not due to lack of material but because an attentive and detailed analysis of 15.5 should be the core of this lesson. However, this will consume so much time in the concluding discussion that everybody will be satisfied with only four examples.

If you prefer an exclusively tactics-orientated unit – and with weaker participants this is certainly worth considering – you can use some of the examples beginning with 15.6. While the standard program mostly dealt with strategy in queen endings, with a corresponding focus for the examples, these further positions are characterized by tactical ideas that contrast with the ‘normal cases’ covered in 15.1-15.5. Here you can find alternatives to tricky positions 15.1 and 15.5.

16: Endings from Easy to Difficult

This collection returns to the topics dealt with before. You can use these exercises in various ways; for example, at the beginning of the whole endgame course in order to test the pre-existing knowledge of the participants.

I have used this concluding chapter myself as a competition puzzle at the end of the endgame course in order to clarify the acquired knowledge, not only for me but especially for each learner. Particularly for young players (but not exclusively for them!) this is an attractive way of rounding up the whole endgame course.

How to Deal with Errors

If you are a teacher, the following is sure to have happened to you too. You have conscientiously prepared your lesson, you proudly present all your wonderful examples – and then there comes a doubter who just tears apart your most beautiful position. This little appendix is the story of one such situation and should give you courage to do your best, no matter what the circumstances.

In one of my first lessons an example proved to be faulty. This developed into quite a story:

1) The Game

\[ \text{Timoshchenko – Stephenson} \]

\[ \text{Hastings 1966/7} \]

White ‘talked’ his opponent into resignation after the following beautiful series of moves:
1 \textit{f5+!} gxf5
1...\textit{gxh5} 2 fxg6 fxg6 3 \textit{hxg6} hxg6
4 h7 +--.

2 \textit{gf4} \textit{g4} 3 \textit{c4+} e7 4 \textit{xf7!}
\textit{xf7} 5 e6+ \textit{xe6} 6 g6 1-0
Black resigned in view of 6...\textit{f6} 7
\textit{gxf7+} =.
So, Black was persuaded but should
he have been so easily convinced? In a
training session at Katernberg chess
club there were some doubts about the
position after White's 5th move.

2) Analysis at the Katernberg
chess club

\begin{center}
\includegraphics[width=0.5\textwidth]{image.png}
\end{center}

It turned out that Black had missed
a convincing answer here which would
have secured the draw:
5...\textit{g8!} 6 g6
6 e7? \textit{h5} +--.
6...\textit{h5!} 7 g7
7 \textit{gxf7+} \textit{xf7} =.
7...\textit{g6} 8 e7 \textit{e8}
Not, of course, 8...\textit{f7??} 9 e8\textit{w}+
\textit{xe8} 10 g8\textit{w}+ +--.
9 \textit{xf5} \textit{h5} =
This position cannot be won. If
White advances his king to d8 and
promotes the pawn, then an exchange
on e8 leads to stalemate!
So, is the original position only a
draw? I was prepared to believe it and
took the example with me to the next
training course at the North Rhine-
Westphalia Chess Federation in order
to demonstrate to the participants that
one can never totally avoid such sur-
pises. Unwillingly, I immediately
proved my thesis again – the partic-
pants of the course did in fact find a
win!

Their new idea started after Black's
3rd move:

3) Analysis at the North Rhine-
Westphalia Chess Federation

\begin{center}
\includegraphics[width=0.5\textwidth]{image2.png}
\end{center}

Here, instead of 4 \textit{xf7?} (the ques-
tion mark has to replace the exclama-
tion mark!), they played:
4 g6! fxg6
After 4...hxg6 5 h7 +-- White has
no problems.
5 \textit{g8} \textit{f8} 6 \textit{hxh7} \textit{d1!}
This tricky defence is better than
6...\textit{h5} 7 \textit{g5} \textit{f7} 8 \textit{xg6+!} \textit{xg6} 9
\textit{e6+}, when White wins easily.
7 \textit{hxg6} \textit{h3} 8 \textit{xf5} \textit{g8} 9 \textit{f6}

After 9 e6? \textit{xe6}+ 10 \textit{xe6} \textit{h8}

Black's defensive idea becomes clear:

White is unable win due to the wrong bishop (see Chapter 6).

9...\textit{h8} (D)

9...\textit{c4}? 10 \textit{xf7}+! \textit{xf7} 11 h7+ --.

\begin{center}
\begin{tikzpicture}
\end{tikzpicture}
\end{center}

10 \textit{f7} \textit{a4} 11 e6 \textit{h7} 12 \textit{g5}!

White has to play carefully until the end:

\begin{itemize}
\item a) 12 \textit{e7}? \textit{xe6} 13 \textit{d8} \textit{g7} 14 \textit{e8} \textit{d1} 15 e7 \textit{f6} 16 f7 \textit{a4} 17
\end{itemize}

\begin{itemize}
\item b) 12 e7? \textit{xe6} 13 \textit{e5} \textit{g7} 14 \textit{h5} \textit{e6} =
\end{itemize}

12...\textit{b3} 13 \textit{g6}+ \textit{g8} 14 e7 \textit{a4} 15 \textit{f6} +=

After \textit{e5}-d6-c7-d8 followed by \textit{f5}-d7 White will finally achieve his aim.

I hope that this little digression has not only amused you but also encouraged you to make something positive even out of unsound examples. After all, chess lives from the constant succession of certainty and error – your lessons will profit if some truth is only detected during your instruction and your protégés do not just dig out the bones where you have buried them intentionally!

With this last example I say goodbye to you. I thank you for your interest and I hope that you will benefit from the material, and so will your chess students.
Bibliography

During the construction of the present series of lessons I have used many sources. As the different parts have constantly changed over the years, it is no longer possible to indicate the precise origin of each example. Indeed, many examples can be found in several different endgame books.

Thus the following list remains incomplete but it offers enough material for extensive further reading.

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This is an endgame manual with a difference. As soon as a topic has been introduced and a few basic ideas discussed, you are immediately invited to immerse yourself in the subject by solving a series of relevant positions. The solutions to these positions feature a wealth of practical advice and further discussion of endgame principles and the key theoretical points. This carefully worked-out training programme will enable you quickly and painlessly to determine where your strengths and weaknesses lie, and thus set about correcting any faults.

All the main types of endgames are covered: pawn endings, minor-piece endings, rook endings and queen endings. Rosen discusses important elements in endgame strategy, such as pawn-structure, passed pawns, space advantage, breakthrough and zugzwang. Endgames are often highly tactical, and this is reflected throughout this book in exercises that require precise calculation, and in sections devoted to typical tactical themes.

The wealth of exercises throughout this book also make it an ideal endgame refresher course that will be of great benefit even to those who are already highly proficient in the endgame.

Bernd Rosen is a highly qualified trainer who writes a regular column in a German chess magazine. He gained his FIDE Master title in 1987 and has played in the German Bundesliga for many years.