starting out: pawn endgames

GLENN FLEAR

EVERYMAN CHESS

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Gloucester Publishers plc www.everymanchess.com

First published in 2004 by Gloucester Publishers plc (formerly Everyman Publishers plc), Northburgh House, 10 Northburgh Street, London EC1V 0AT

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British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library.

ISBN 1 85744 362 4

Distributed in North America by The Globe Pequot Press, P.O Box 480,
246 Goose Lane, Guilford, CT 06437-0480.

All other sales enquiries should be directed to Everyman Chess, Northburgh House, 10 Northburgh Street, London EC1V 0AT
tel: 020 7253 7887; fax: 020 7490 3708
email: info@everymanchess.com
website: www.everymanchess.com

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To my friend Jean-Claude

EVERYMAN CHESS SERIES (formerly Cadogan Chess)
Chief Advisor: Garry Kasparov
Commissioning editor: Byron Jacobs

Typeset and edited by First Rank Publishing, Brighton.
Cover design by Horatio Monteverde.
Production by Navigator Guides.
Printed and bound in the US by Versa Press.

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Introduction

The book that you have in your hands is primarily intended for those who aren't that experienced in the endgame. I would include in this category those who have just started out on their chess adventure, club players (many of whom are useful middlegame exponents but whose endgames could do with improvement), and wise juniors who have come to realise that there is more to study than opening theory.

In my opinion pawn endings are the building blocks upon which all endgames are built and are an ideal place to start learning about the latter phase of the game.

How often do we see the inexperienced player hold his own for hours against the master, until in a simplified ending the draw seems virtually certain? Then, more often than not, the weaker player goes astray. The master's erudition tips the balance in his favour.

At some point we've all lost 'dead drawn' endings or 'missed an easy win' when everyone around claims to have seen it, or knows the technique etc. If you are tired of this happening to you, then read on!

Chess is at times a complicated game. There are six types of pieces with various rules concerning their movements and middlegames can therefore lead to a rich tapestry of variations and fascinating possibilities. So towards the end of a tiring struggle when mass exchanges lead to a simplified endgame, who can blame the inexperienced player for relaxing just a little...

It's so easy to let one's guard slip, and yet we will see in the pages that follow that one moment of inattention can mean that several hours of effort can be thrown away.

Endgames, and in particular pawn endings, involve limited material. But as the board clears the importance of each remaining chess piece increases as does an advantage in material. This seems understandable, but it also applies to errors and lack of understanding. Even serious blunders can sometimes be clawed back in the early part of a game, but towards the end a seemingly insignificant slip can be fatal.

WARNING: Mistakes in middlegames may be miserable, but errors in endgames are essentially the End!

There are many 'golden' rules concerning endgame play, and a great number

concern pawn endings. These are best learnt in combination with thematic examples that reinforce the principle and we'll come across these throughout the book. This way the learning process is worthwhile and hopefully enjoyable.

It wasn't my intention to write (yet another!) endgame book so soon, but when the offer from Everyman Chess came I was happy to expand (and share with the reader) my appreciation of pure pawn endings, an area that I would have liked to have dealt with more comprehensively in my earlier books.

As a teenager I was a fan of Averbakh's series of endgame books and in particular I remember reading *Pawn Endings* that he co-wrote with Maizelis. I enjoyed and benefited greatly from that book, but it's very detailed and some sections are so complicated that I occasionally became confused. I have thus aimed to keep my book reasonably straightforward.

For those unfamiliar with various terms used in pawn endings and throughout the book then Chapter 1 is for you; it also gives a taste of what is to come.

Chapters 2-9 are concerned with the fuller details of pawn endings. As pawn endings don't exist in isolation, I've also discussed the result of queening pawns, when sometimes the struggle continues (Chapter 10) and also the moment of exchanging into pawn endings (Chapter 11).

Exercises in each section should enable the reader to test his understanding, and Chapter 12 has eight further exercises for those who are really keen! Finally, Chapter 13 has all the answers. Well at least those concerning the exercises!

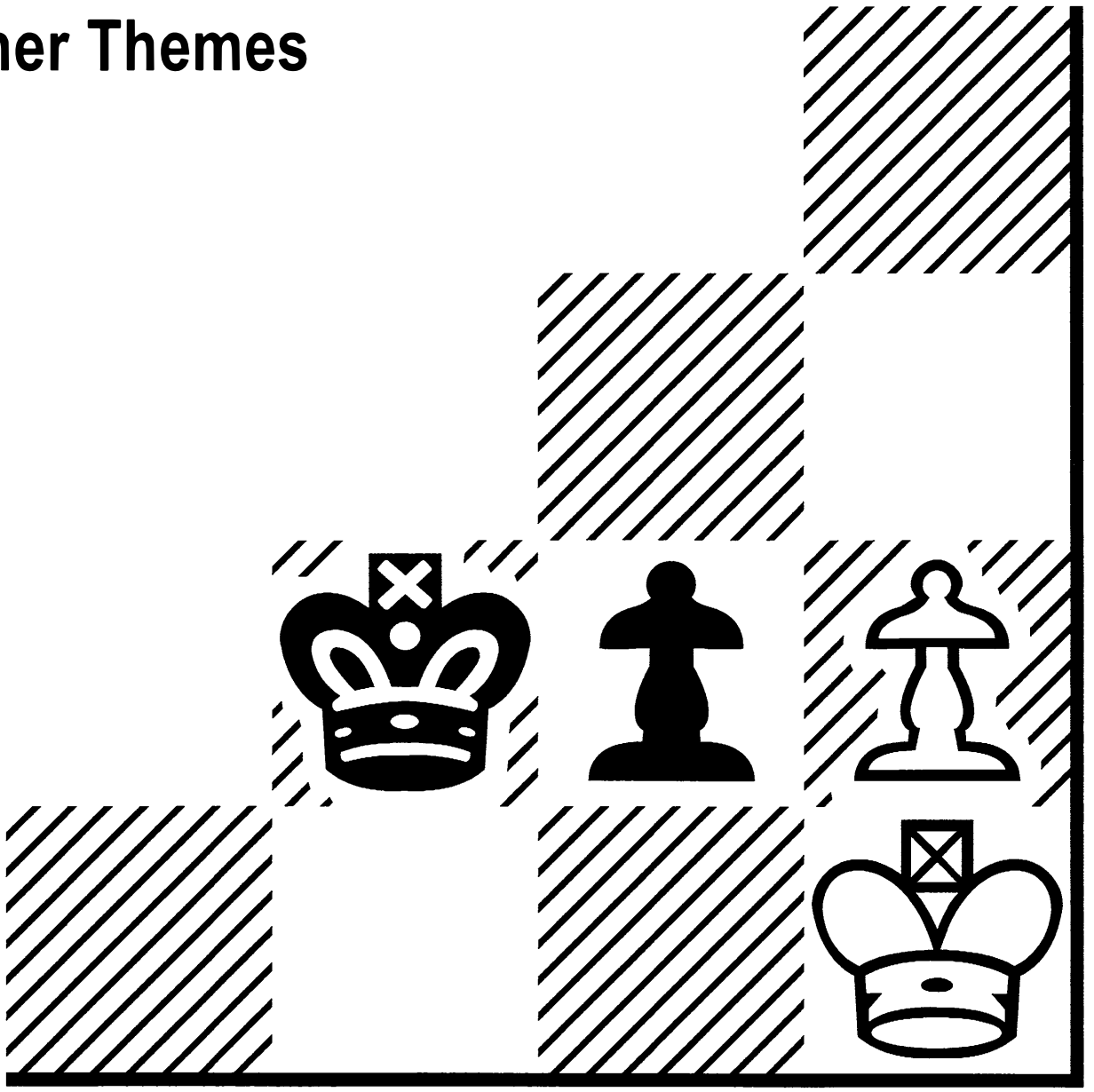
Better knowledge of pawn endings should lead to improvements in confidence, general understanding and results. However I also hope that after reading a few pages you'll learn that studying endgames can be great fun.

Glenn Flear,
France,
September 2004

Chapter One

Pawn Endgames are Special!

- Introduction
- Zugzwang
- King Themes
- Other Themes



Introduction

With no other pieces on the board except for kings and pawns, the aims of the players are less evident than in a middlegame. Kings naturally play a bigger role, and the timing of pawn moves is of particular importance. Direct mates are rare but trying to obtain a queen is often the primary aim once a side has obtained a clear advantage.

Here in this chapter we will make an overview of those idiosyncratic themes that occur in pawn endings and get to know the special terms that have come to be associated with this phase of the game.

I think as you play through the following examples you too will understand why pawn endings are special!

Example 1: Thinking about the rules

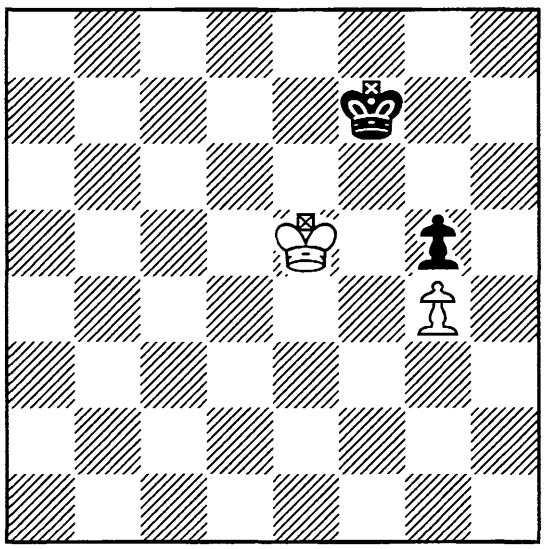


Diagram 1 (B)
Thinking about rules

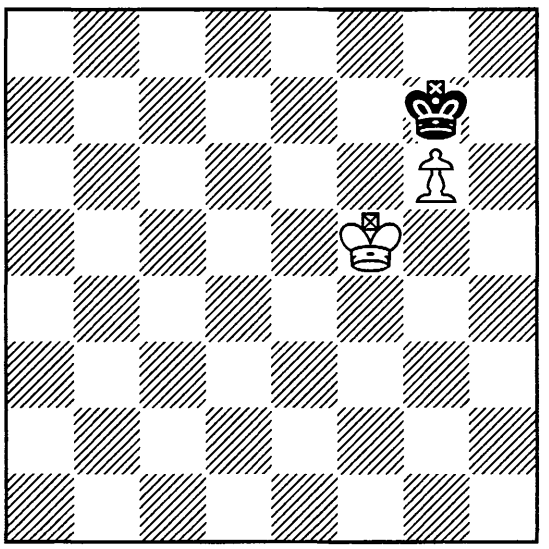


Diagram 2 (B)
Black draws

When we learn how to play chess we first learn how the pieces move individually, and then how they interact. This involves special rules such as pawn captures, en passant, promotions and castling. Then once we've learnt them we take them for granted.

To start with I'm going to look at how certain rules influence play in pawn endings. One rule that is accepted by club players but isn't obvious to beginners is the rule whereby *kings aren't allowed to move to squares that are adjacent to their counterparts.*

Let's play through the following example to see how this and other rules fundamentally affect play in pawn endgames.

(Diagram 1) 1...Ke7

Black isn't allowed to go to the f6-square, so he shadows his adversary.

He could also try to defend with 1...Kg6. After 2 Ke6, Black's king would be happy to sit where he is all day but it's his turn and in chess *we are obliged to move if we can.* 2...Kg7 3 Kf5 Kh6 4 Kf6 (Black now has to move his king away from his g-pawn) 4...Kh7 5 Kxg5 Kg7 and we are back in the main game

after Black's third move.

2 Kf5 Kf7 3 Kxg5

Winning a pawn, but not the game against correct play.

3...Kg7!

White would like to advance to the sixth rank but the presence of Black's king on g7 means that an advance to any of f6, g6 or h6 is illegal.

4 Kf5 Kf7

Again White is denied access to the sixth rank, so there is only one try left.

5 g5 Kg7 6 g6 (Diagram 2)

6 Ke6 looks silly after 6...Kg6.

6...Kg8!

Black does well to retreat as 6...Kh6?? allows White a free road to the queening square with 7 Kf6 Kh5 8 g7.

Otherwise 6...Kf8?? 7 Kf6 is bad news for Black as it's his turn to move: 7...Kg8 8 g7 (now Black has no choice and has to give up his control of the f7-square) 8...Kh7 9 Kf7 (the king makes it to the seventh and prepares the pawn's advance) 9...Kh6 10 g8Q Kh5 11 Qg3 Kh6 12 Qg6 mate.

This theme will be developed throughout the book, but here we are seeing the first stage in the thinking behind an idea called *the opposition*. This will be explained shortly.

7 Kf6 Kf8

White's king achieves a posting on the sixth rank and supports his pawn, but White is unable to advance his king to the seventh.

8 g7+ Kg8 9 Kg6

An example of stalemate, which means the game is drawn! Another rule that we have to learn about early on!

Example 2: Stalemate

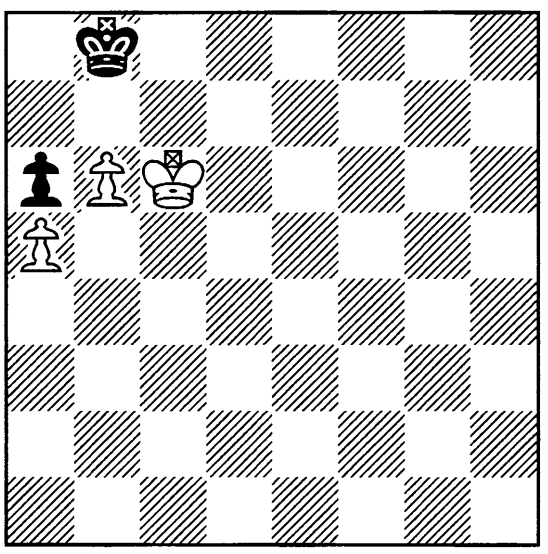


Diagram 3 (W)
White cannot win

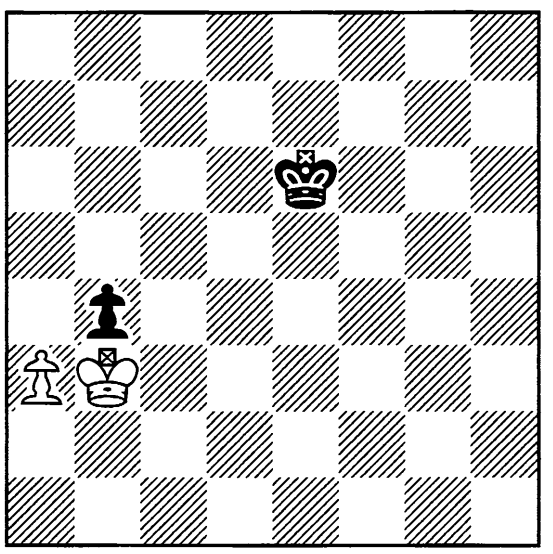


Diagram 4 (W)
White wins

(Diagram 3) Stalemate is a common theme. Here White has an advanced

passed pawn but cannot win because of the edge of the board.

1 b7 Ka7 2 Kc7 stalemate

With Black to move in the initial position the result isn't changed but the stalemate is different.

Example 2a: Another stalemate

NOTE: Throughout the book, if an example has an 'a' after its number then it means that it's the same initial position as the previous example *but with the other player to move*.

(Diagram 3) 1...Kc8

Or 1..Ka8 2 Kc7.

2 b7+ Kb8 3 Kb6 and yet again it's a draw due to stalemate.

Example 3: The rook's pawn

(Diagram 4) In many pawn endings a passed rook's pawn (meaning either an a- or h-pawn, i.e. those pawns on the files where rooks start the game) is less dangerous for the defender. Here is an example.

1 axb4!

Following 1 Kxb4? (erroneously eschewing the chance to convert his a-pawn into a b-pawn) 1...Kd6 2 Kb5 Kc7 3 Ka6 Kb8 4 a4 Ka8 5 a5 Kb8 6 Kb6 Ka8 White cannot win.

1...Kd6 2 Ka4 Kc6 3 Ka5 Kb7 4 Kb5 Kc7 5 Ka6 Kb8 6 Kb6

and White wins as will be explained in Chapter 2.

Example 4: The square of a pawn

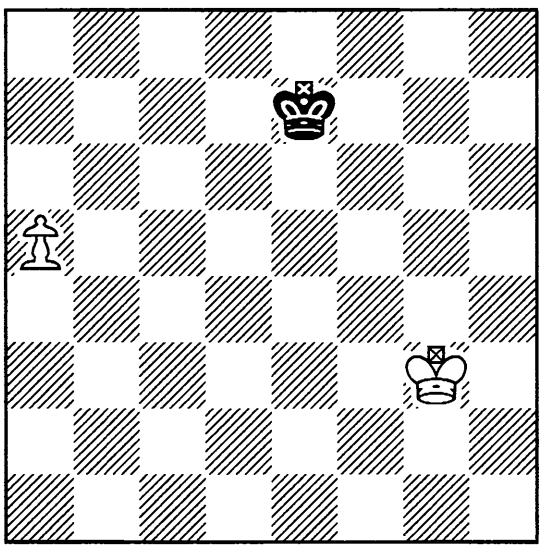


Diagram 5 (B)
Reaching the square

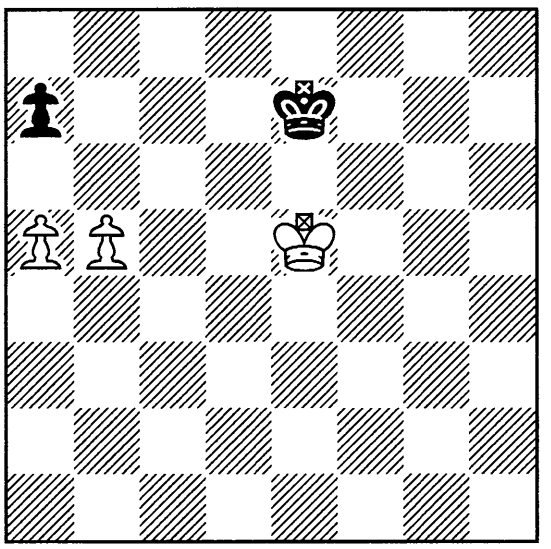


Diagram 6 (W)
Breakthrough

(Diagram 5) White's king is too far away to influence matters. The question is can Black stop the pawn: 1) With White to play? 2) With Black to play?

In pawn endings there aren't any other pieces to help out so a king has to stop and round up opposing passed pawns on his own.

1...Kd7 2 a6 Kc7 3 a7 Kb7 4 a8Q+ Kxa8

Just in time! Instead of calculating move-by-move, there is another way of seeing if a king can stop passed pawns.

From the diagram, draw an imaginary line diagonally from a5-d8 and then consider this as the diagonal of a square consisting of d8-a8-a5-d5-d8. This is called *the square of the pawn* or *the square* for short. If the defending king, to move, can enter the square he can cut off the pawn in time. The move 1...Kd7 enters the square so, yes he holds.

With White to move in **Diagram 6 (4a)**, Black's king never enters *the square* and the pawn is able to promote unscathed.

1 a6 Kd7 2 a7 Kc7 3 a8Q etc.

Example 5: Breakthroughs!

White wins with what is known as a *breakthrough*.

1 b6! axb6 2 a6! and the pawn queens as Black cannot enter the square of the a-pawn.

Zugzwang

This is one of the most important themes of pawn endings.

Example 6: Zugzwang

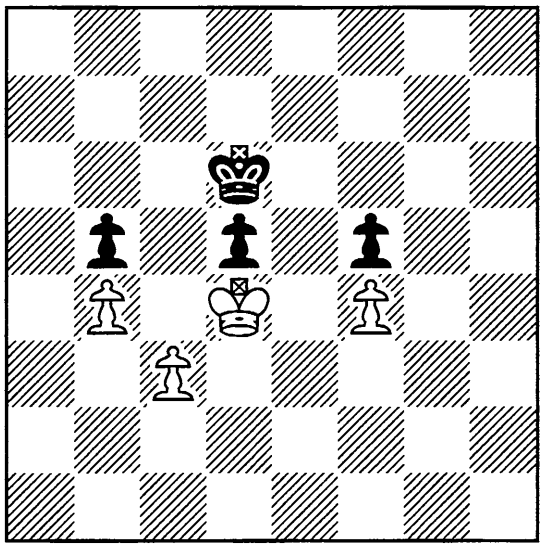


Diagram 7 (B)
Zugzwang

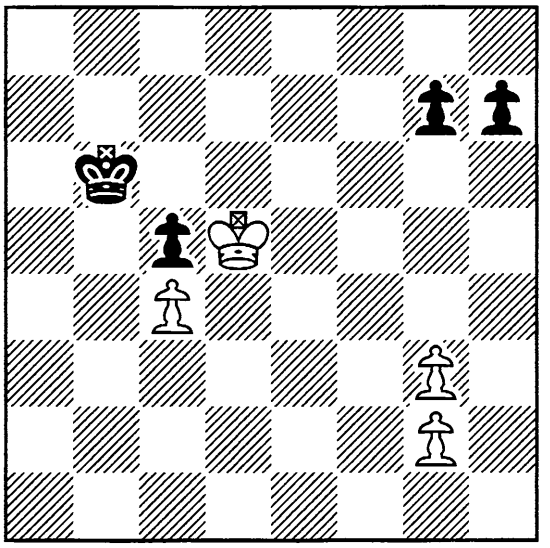


Diagram 8 (W)
Black runs out of moves

(Diagram 7) Zugzwang is commonplace. Here, for instance, Black is obliged to move and must allow White to enter into c5 or e5.

1...Kc6 2 Ke5 and White wins.

NOTE: Zugzwang is a German word meaning 'obliged to move' even though it's definitely not in one's interest!

There are a couple of specific zugzwangs that follow, but although the name is commonplace it's interpreted differently by other authors. In some books the term *reciprocal zugzwang* is used for positions such as this one where

'White to play draws; Black to play loses', i.e. a position where having the move is unsolicited and affects the result of the game decisively.

Positions where one side runs out of tempi and loses sooner or later from zugzwang is sometimes called a *squeeze* or simply *zugzwang*.

I don't consider it necessary for our purposes to rigorously distinguish between the two, as the term *zugzwang* is adequate.

With White to move **(6a)** he must retreat his king and Black is out of danger. However, each time White brings his king to d4 Black must react with the only move ...Kd6.

(Diagram 7) 1 Ke3 Ke7 2 Kd3 Ke6 3 Kd4 Kd6

The only good move!

4 Kd3 Ke6 5 Ke2 Ke7 6 Kf3 Kf6 7 Kg3 Kf7 8 Kh4 Kg6

and the position is clearly drawn.

Example 7: Squeeze

(Diagram 8) An example of a *squeeze*. On the queenside Black is in zugzwang and it doesn't matter who has the move or how many tempi he has to spare. Ultimately he has to move his king and lose the c-pawn.

1 Kd6 h5 2 Kd5 g6 3 Kd6 g5 4 Kd5 h4 5 g4

and it's time for the inevitable...

5...Kb7 6 Kxc5 Kc7 7 Kd5 Kd7 8 **c5** and White wins.

Example 8: The opposition

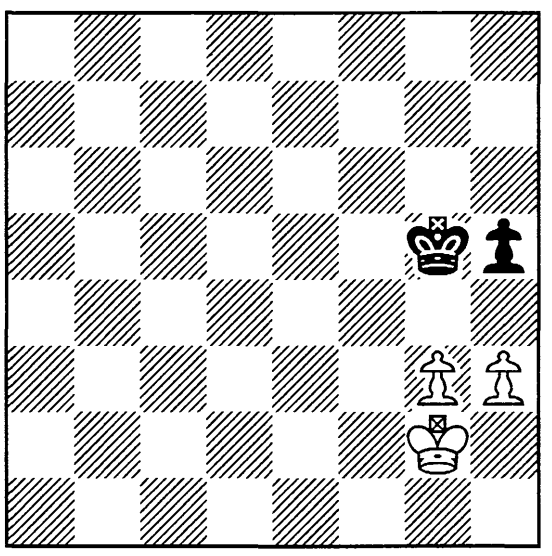


Diagram 9 (B)
Black should draw

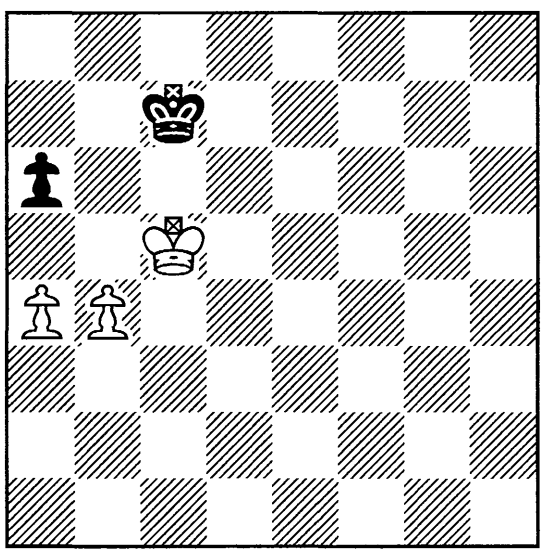


Diagram 10 (W)
Spare tempi

The opposition is a type of zugzwang mainly known from pawn endings. It's as if the kings face each other off, the first to move losing the argument.

(Diagram 9) 1...Kf5?

If 1...Kf6 then 2 Kf2 (the king's are then opposed four files apart – the *distant opposition* which quickly reduces to the 'direct' case) 2...Ke5 3 Ke3 (with the *direct opposition*) 3...Kf5 4 Kd4 (White doesn't maintain the opposition blindly but undertakes a by-passing manoeuvre to outflank his opponent) 4...Kf6 5

Ke4 Ke6 6 Kf4 Kf6 7 h4 (now White retakes the opposition which enables him to take control of some further advanced squares and ultimately he wins the h-pawn) 7...Kg6 8 Ke5 Kg7 9 Kf5 Kh6 10 Kf6 Kh7 11 Kg5 Kg7 12 Kxh5 and White wins.

Correct is 1...Kg6! 2 Kf2 (or if 2 Kf3 then 2...Kf5) 2...Kf6 3 Ke3 Ke5 4 Kf3 Kf5 5 Ke3 Ke5 (Black's king shadows its counterpart stopping any ideas of enemy progress up the board) 6 Kd3 Kd5 7 Ke3 Ke5 8 Kf3 Kf5 9 h4 Ke5 10 Ke3 Kf5 and White cannot win.

2 Kf3

The kings are 'opposed' two ranks apart. Black's king has to move and so White can outflank.

2...Ke5 3 Ke3 Kf5 4 Kd4! Kf6 5 Ke4 Ke6 6 Kf4 Kf6 7 h4! Kg6 8 **Ke5 Kg7 9 Kf5 Kh6 10 Kf6 Kh7 11 Kg5** and White wins.

Example 9: The opposition but...

(Diagram 10) This is analogous to Example 8 but not the same. Opposition is simply an idea, not the 'be all and end all'. Here Black has faced down the white king and it is White to move, but White wins with...

1 a5

...and it is Black that must give way.

So the presence of spare tempi (pawn moves) can reverse the opposition or zugzwangs. Here White's king was more favourably placed (fifth rank) than in the previous example and the pawn move made a difference. There it didn't. So, take the opposition into account but don't forget to bear in mind the individual characteristics of a position.

1...Kb7 2 Kd6 Kb8 3 Kc6 Ka7 4 Kc7 Ka8 5 Kb6 and White wins.

Example 10: Trébuchet

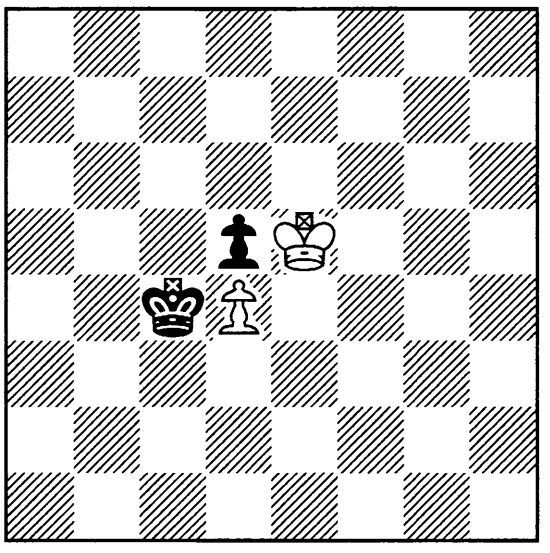


Diagram 11
A trébuchet

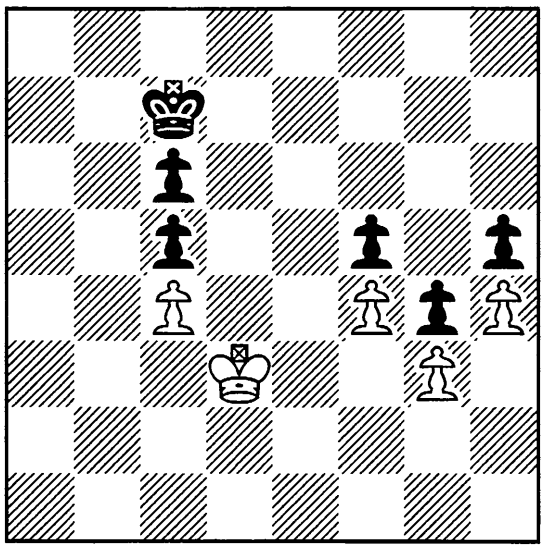


Diagram 12 (B)
A barrier

(Diagram 11) A trébuchet. An extreme type of zugzwang where whoever to play loses.

Example 11: A barrier

(Diagram 12) Black's extra pawn is nigh on useless as he has little chance to invade. After...

1...Kb6 2 Kc3 Ka5 3 Kb3

...White's barricade holds. If you glance across the middle of the board you will note that there is a *barrier* across which Black cannot pass: a4 and b4 are covered by White's king and d5 and e5 by the white pawns. Equally White cannot invade through the centre as d4 and e4 are inaccessible to his king and Black's king stops any entry via a5. So Black also has a *barrier*.

Example 12: A spare tempo

Sometimes a defensive barrier can be breached using zugzwang. A common way of bringing this about is the use of pawn moves held in reserve often for this very purpose.

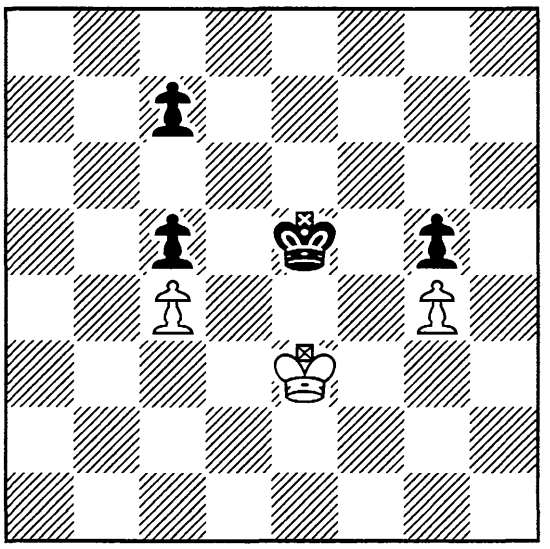


Diagram 13 (B)
A spare pawn move

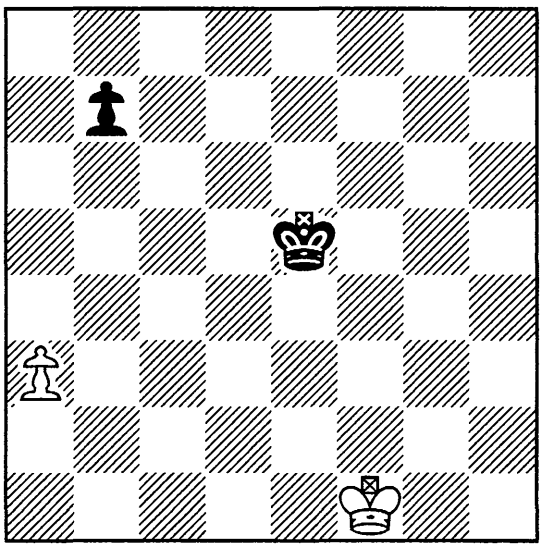


Diagram 14 (B)
Black wins

(Diagram 13) White's king faces off his opponent but Black has a *spare* pawn move or *tempo* that forces invasion.

1...c6 ...and White must allow a decisive invasion to f4 or d4.

King Themes

A number of king manoeuvres are given special names.

Example 13: Holding off

(Diagram 14) In this position from an actual game Black won as follows:

1...Kd4 2 Ke2 Kc3 3 Ke3 b5!

Using the fact that Black's king *holds off* White's approach to the queenside to gain a decisive tempo. 3...Kb3? allows a draw with 4 Kd4 Kxa3 5 Kc5.

After 3...b5 White resigned due to 4 Ke2 Kb3 5 Kd3 Kxa3 6 Kc2 b4 7 Kb1 Kb3 8 Ka1 Kc2 etc.

Example 14: The feint

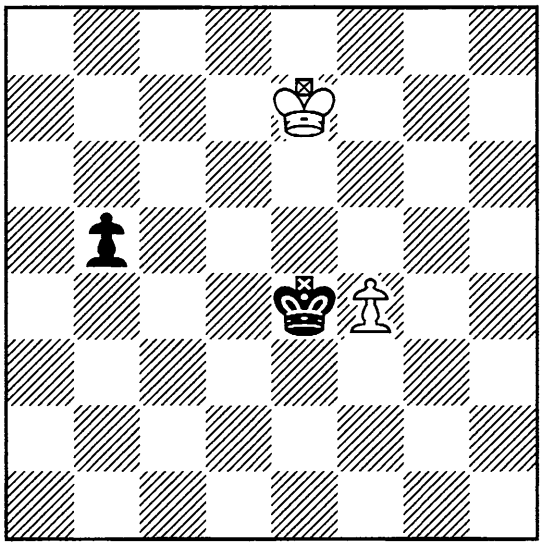


Diagram 15 (W)
White can draw

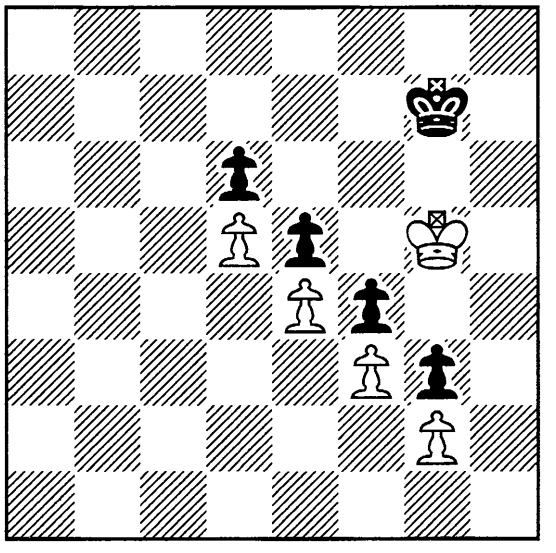


Diagram 16 (B)
White captures all pawns

(Diagram 15) A *feint* really means a double-purpose move.

1 Ke6!

Preparing to support the f-pawn or get into the square of Black's b-pawn.

1...b4

After 1...Kxf4 White wins the b-pawn with 2 Kd5 etc.

2 f5 b3 3 f6 b2 4 f7 b1Q 5 f8Q and draws.

Example 15: Outflanking

(Diagram 16) Black to move loses his pawns one after another. He is *outflanked*.

1...Kf7 2 Kf5 Ke7 3 Kg6 Ke8 4 Kf6 Kd7 5 Kf7 Kd8 6 Ke6 Kc7 7 Ke7 Kc8 8 Kxd6 Kd8 9 Kxe5 Ke7 10 Kxf4

A bit sadistic and not at all necessary, but tempting!

10...Kd6 11 Kxg3 and so on.

Example 16: Triangulation

One of the most famous and elegant manoeuvres is called *triangulation*.

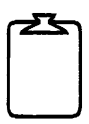
(Diagram 17) White would like to have this position with Black to play so he proceeds as follows.

1 Kd2 Kd6 2 Kc2 Kc5

If 2...Kd5 then 3 Kd3.

3 Kc3 Kd5 4 Kd3

and we are back in the initial position, but this time with Black to move.



NOTE: White's *triangulation* manoeuvre is sometimes called *losing a move*.

The first name is used because of the use of the d3-c2-c3 'triangle' and the second because White has taken an extra move to get back to where he

started. White is now able to outmanoeuvre his opponent but must take care not to get carried away with his success so far!

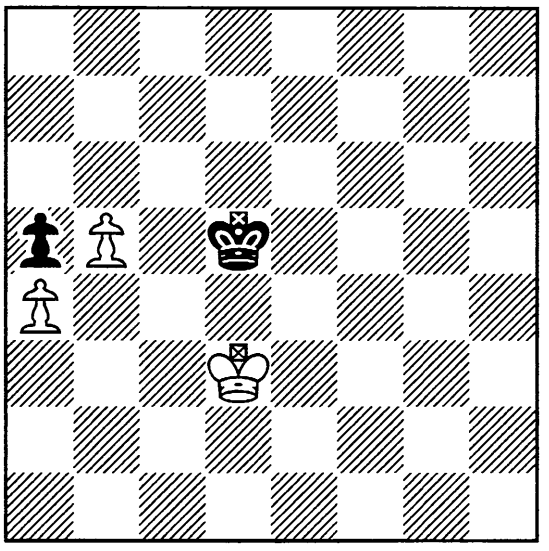


Diagram 17 (W)
White triangulates

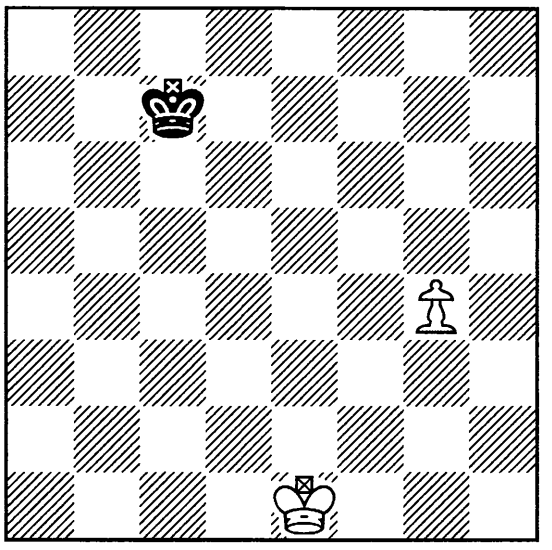


Diagram 18 (W)
White wins

4...Kc5 5 Ke4

Another example of White *outflanking* his opponent.

5...Kd6 6 Kd4 Kc7 7 Kd5

Note that 7 Kc5 Kb7 8 b6? Ka6! leads after 9 Kc6 to stalemate!

7...Kb6 8 **Kd6 Kb7 9 Kc5 Kc7 10 b6+ Kb7 11 Kb5** and White wins.

Example 17: Underpass

(Diagram 18) White wins with an unusual manoeuvre.

1 Kf2 Kd6 2 Kg3 Ke5 3 Kh4 Kf6 4 Kh5 Kg7 5 Kg5 Kf7 6 Kh6 etc.

Going this side of the pawn is called an *underpass*.

Example 18: Skirting manoeuvre

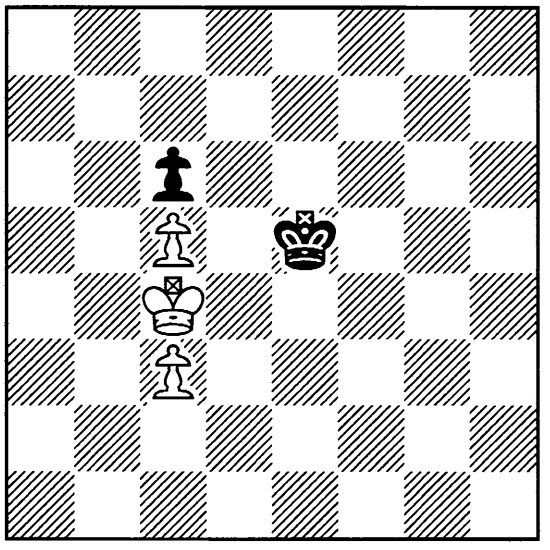


Diagram 19 (W)
White wins

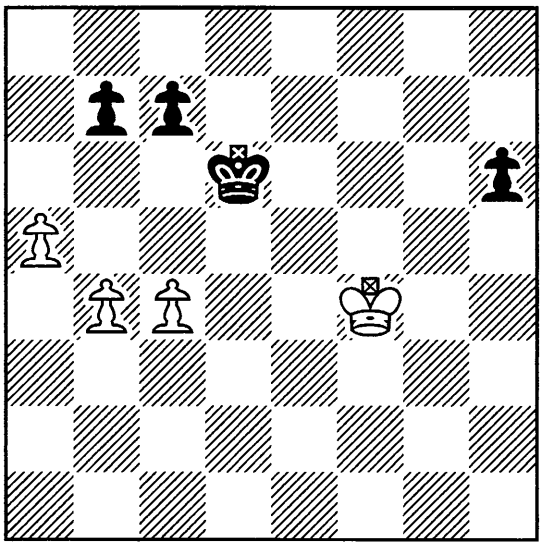


Diagram 20 (W)
Black seeks sanctuary

(Diagram 19) White again goes around his pawn. He can win by invading on the queenside, but only if he avoids going to b4 where he would be zugzwanged.

1 Kb3!

1 Kb4? loses the forward c-pawn to 1...Kd5 2 c4+ Kd4.

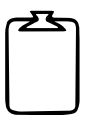
1...Ke4

If 1...Kd5 then 2 Kb4 and it's Black's turn to be zugzwanged.

2 Ka4 Ke5 3 Ka5 Ke6

Now 3...Kd5 can be met by 4 Kb6.

4 Kb6 Kd5 5 c4+ and wins.



NOTE: The king's route can be described as a *skirting manoeuvre* as he circumnavigates the zugzwang square.

Example 19: Sanctuary

(Diagram 20) Black's defensive strategy in this example can be likened to hiding in a rabbit hole! A slightly humiliating way of keeping out of trouble but it can be effective!

1 b5 Kd7 2 Kg4 Kc8 3 Kh5 Kb8 4 Kxh6 Ka7 5 Kg6 c6 6 Kf6

The continuation 6 bxc6 bxc6 7 Kf6 Ka6 8 Ke6 Kxa5 9 Kd6 Kb4 10 Kxc6 Kxc4 also draws.

6...cxb5 7 cxb5 Kb8 8 Ke6 Kc7 9 Ke7 Kc8 10 Kd6 Kd8 11 b6

Or here 11 a6 bxa6 12 bxa6 Kc8.

11...Kc8 12 Ke7 Kb8 13 Kd7 Ka8 14 a6 Kb8!

and White cannot smoke out his opponent!

The word *fortress* is sometimes used to describe a small but impregnable defensive zone. However I tend to associate this mainly with endgames involving pieces. I prefer the term *sanctuary* like in medieval times when the hunted man was immune from capture whilst he stayed inside a holy building.

Other Themes

Example 20: A clear pawn up and decoys

One of the first things we learn about endgames is that pawn endings with an extra pawn are often simple wins. This following type of position is typical.

In a similar ending with pieces on the board the advantage of an extra pawn can be difficult to convert. In pawn endings the standard technique a clear pawn up is to reduce the pawns on one wing to a unique passed pawn and then use it as a *decoy* to get into the remaining pawns on the other wing.

(Diagram 21) 1 b5+ axb5+ 2 axb5+ Kb6 3 Kb4 Kb7 4 Kc5 Kc7 5 Kd5!

White makes a beeline for the kingside.

5...Kb6 6 Ke5 Kxb5 7 Kf6 Kc6 8 Kxf7 Kd7 9 Kxg6

and Black of course has no defence.

A typical plan in various endings a clear pawn up is to exchange off all the pieces. The win is easier without interference from defending pieces and the above technique can often be applied.

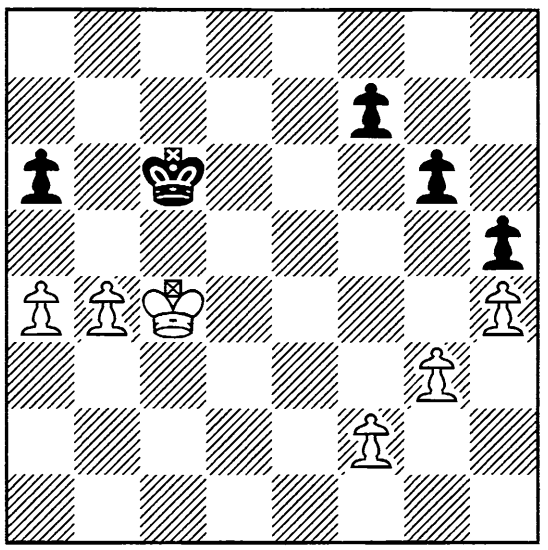


Diagram 21 (W)
Using the extra pawn

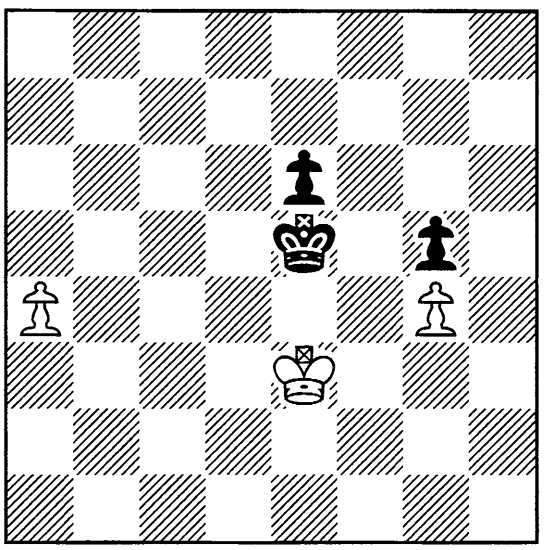


Diagram 22 (W)
White has an outside passed pawn

Example 21: Outside passed pawn

In the next case material is equal but the win is rather similar. **(Diagram 22)** White's a-pawn is an example of an *outside passed pawn*. It's the passed pawn furthest from the main body of pawns. Black's king will have to go over to the a-file to neutralise it and this takes him far away from his kingside.

1 a5 Kd5 2 a6 Kc6 3 Ke4 Kb6 4 Ke5 Kxa6 5 Kxe6 Kb6 6 Kf6 Kc6 7 Kxg5 Kd7 8 Kf6 Ke8 9 Kg7 and wins.

Example 22: Queening squares, races and skewers

There are a few terms associated with *races* and queen endgames.

(Diagram 23) The *queening square* of the h-pawn is h1 i.e. the square where the pawn reaches the eighth rank and is promoted (generally to a queen). White's a-pawn will head towards a8, its *queening square*.

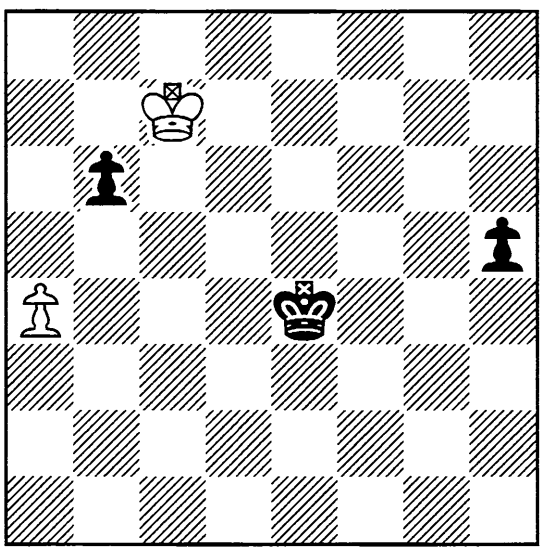


Diagram 23 (W)
It's a race

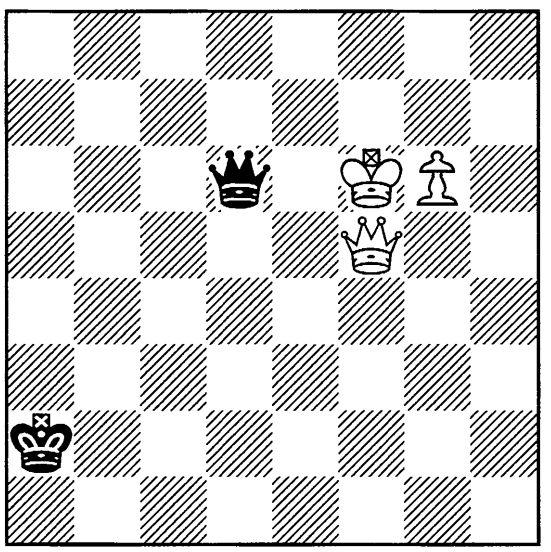
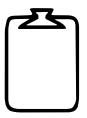


Diagram 24 (W)
White wins

1 Kxb6

Now it's a *race*, i.e. the opposing passed pawns rush forward to try and promote, normally as quickly as possible. Arriving first is an important aim.



NOTE: In races a typical technique is co*unting*, i.e. the players anticipate the result by counting the number of moves it takes for each side to promote its pawn (here it's four moves in each case).

1...h4 2 a5 h3 3 a6 h2 4 a7 h1Q

Black arrives first but...

5 a8Q+ ...White queens with check and wins due to a *skewer*.

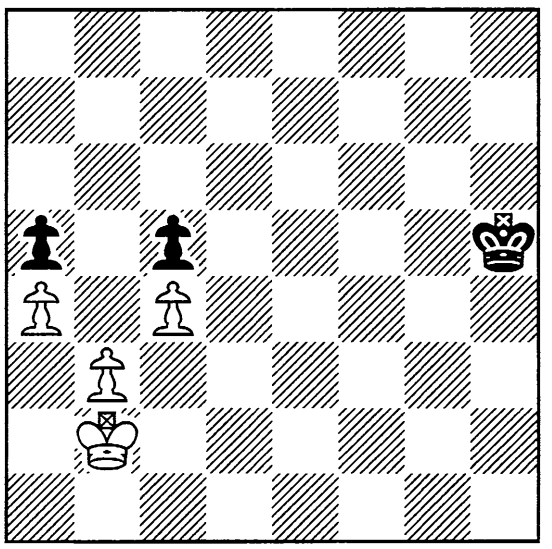
Example 23: The Cross-check

This feature is important in queen endings.

(Diagram 24) 1 Qe6+!

Meeting a check with a check and effectively finishing the game in his favour.

Example 24: Try it yourself!



Exercise 0 (White to play)

Exercise 0: Any ideas as to what White should play?

At the end of the other chapters, there are a few exercises to test if you have understood and can apply the lessons. For instance, something like this one:

I suggest that you really try and solve the positions to the best of your ability before turning to the answers in Chapter 13. Some of them are easier than others!

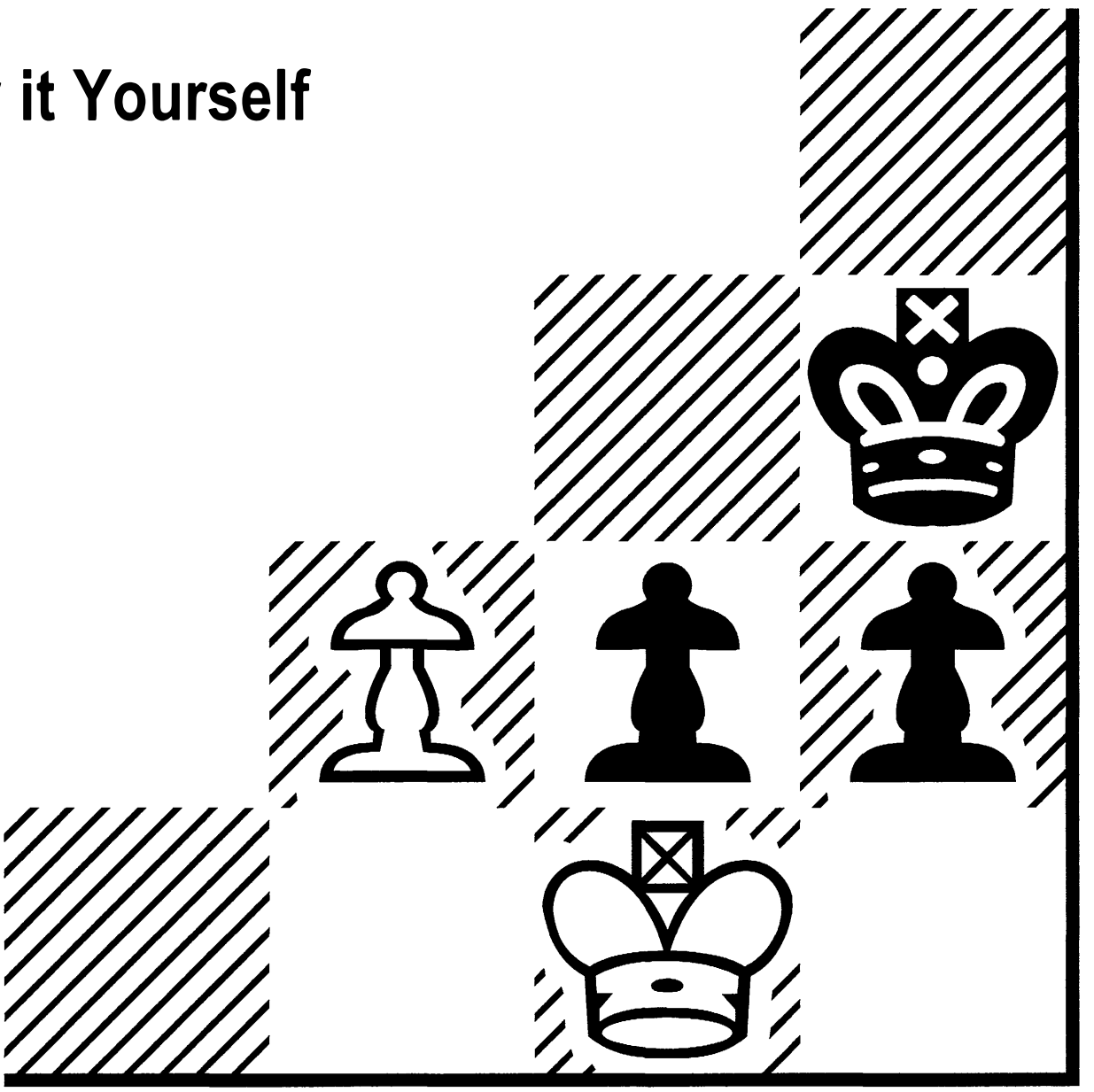
The penultimate chapter consists of eight more-involved positions for those who want some challenging examples to test themselves on. These would be best undertaken after having read the other chapters and done the other exercises first of all.

Oh yes... the solution to the demo exercise is **1 b4!** and however Black replies White obtains a passed pawn that can't be stopped. Black's king is outside of the square of the pawn.

Chapter Two

The Last Pawn

- King and Pawn versus King
- The Opposition
- With More Pawns
- Try it Yourself



King and Pawn versus King

Here we shall be looking at king and pawn versus king, and those positions that are likely to simplify to this. Correct play in more involved practical examples often relies on knowing if a particular version of king and pawn versus king is winning or drawn. So clearly before studying more complicated examples it's important to grasp the basic techniques to be found here.

Example 25: King and pawn versus king

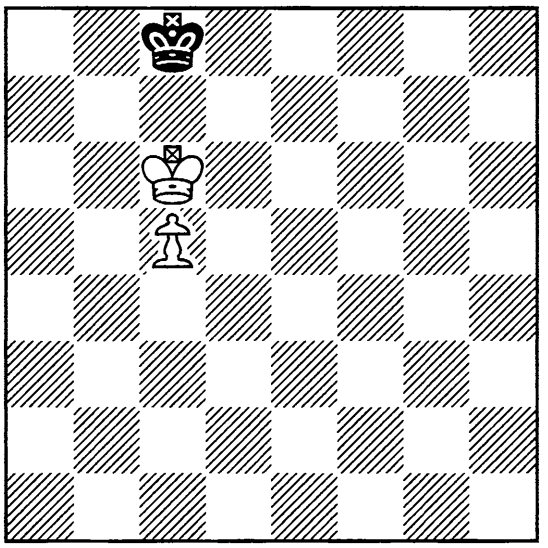


Diagram 1 (W)
White wins, whoever moves first

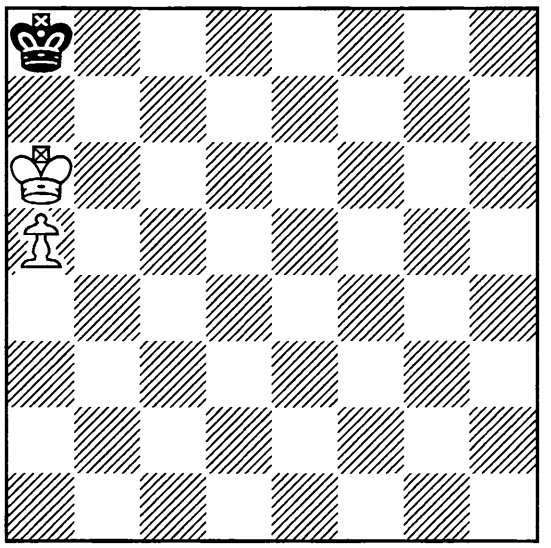


Diagram 2 (W)
An easy draw

(Diagram 1) White has the only pawn and wins whether or not he has the move.

1 Kd6 Kd8 2 c6 Kc8 3 c7 Kb7 4 Kd7 etc.

With Black to move in Diagram 1 **(25a)**, after 1...Kd8 2 Kb7 White is ready to push the c-pawn.

TIP: When trying to win, one of the basic aims is to get one's king to the *sixth rank ahead of the pawn*.

Example 26: With a rook's pawn

(Diagram 2) With a rook's pawn, however, the ending is totally drawn.

1 Kb6 Kb8 2 a6 Ka8 3 a7

and, unlike in the previous example, due to the edge of the board Black no longer has a square to move to. Therefore he claims a draw by stalemate.

One can see why the presence of a rook's pawn gives extra drawing chances for the defender in many pawn endings.

Example 27: Stuck on the edge

(Diagram 3) Rook's pawns are a drawish factor for another reason. Here White's king is in front of his pawn and has control of all the squares between the pawn and the queening square, but it's still a draw as he can't move over

to let the pawn through. Going to the left is impossible and trying to move to the right allows the black king into the corner.

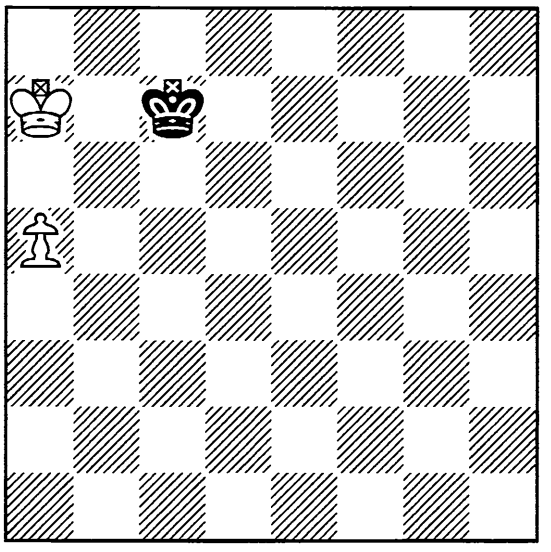


Diagram 3 (W)
Another easy draw

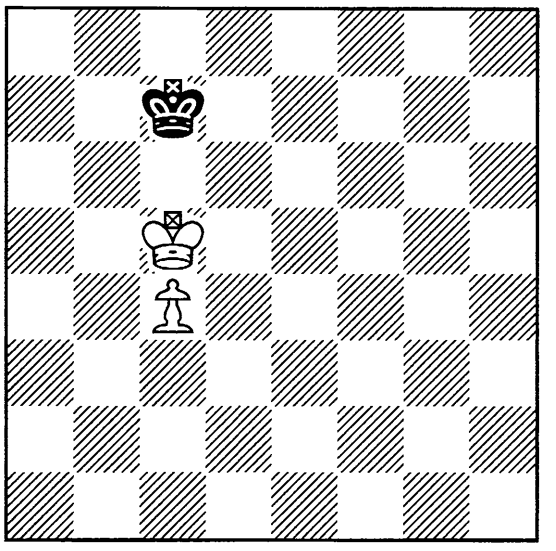


Diagram 4 (W)
Reciprocal zugzwang

1 a6 Kc8 2 Ka8

Or if 2 Kb6 then 2...Kb8 3 a7+ Ka8 4 Ka6 as in Example 26.

2...Kc7 3 a7 and it's stalemate again.

The Opposition

This has been mentioned before, but now we'll take a deeper look at the opposition and its consequences.

Example 28: The opposition decides

If White has any pawn other than a rook's pawn, he has much better winning chances.

(Diagram 4) This position also features White in front of his pawn, but the result depends on who is to play.

1 Kd5 Kd7 2 c5 Kc7 3 c6 Kc8! 4 Kd6 Kd8!

and Black has the opposition and draws as 5 c7+ Kc8 6 Kc6 is stalemate.

With Black to play **(28a)** White has the opposition: 1...Kd7 (ceding ground) 2 Kb6 (making progress) 2...Kc8 3 Kc6 (now White is on the sixth ahead of the pawn) 3...Kd8 and White wins with 4 c5 or 4 Kb7 as in Example 25.

Example 29: Careful!

(Diagram 5) As in Example 25, White's king is on the sixth rank and ahead of his pawn so he should be winning. However he shouldn't get over-confident. Even a book win doesn't win by itself!

1...Kg8 2 Kg6!

But not 2 g6? Kh8 3 g7+ Kg8, when 4 Kg6 yields the unwanted result!

2...Kh8 3 Kf7 Kh7 4 g6+

and White wins.

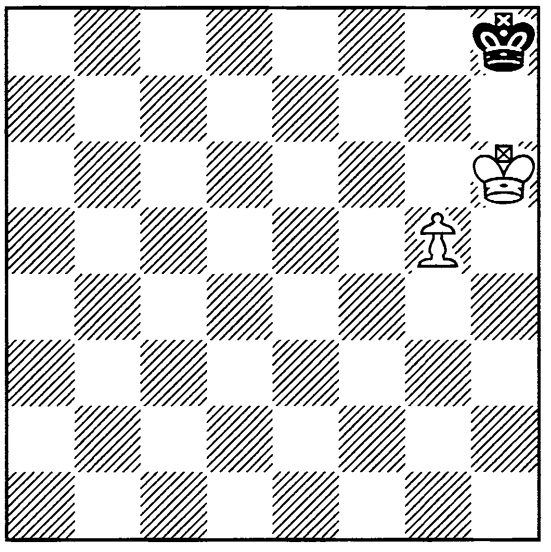


Diagram 5 (B)
White wins with care

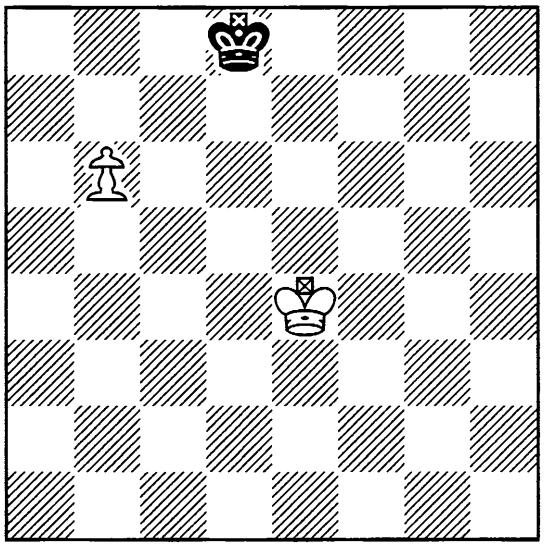


Diagram 6 (W)
Taking the opposition

Example 30: Taking the opposition

(Diagram 6) White can win this as follows:

1 Kd5 Kd7

1...Kc8 2 Kc6 Kb8 3 b7 Ka7 4 Kc7 and White will promote the pawn.

2 Kc5!

A waiting move. Black cannot play his king to c7 and must give ground.

2...Kd8 3 Kd6!

Note how White's king chooses the square which 'faces off' with his counterpart. He 'takes' the opposition.

3...Kc8 4 Kc6 Kb8 5 b7 and wins. Black lost because White can force Black into zugzwang. This type of zugzwang is called *the opposition*.

Example 31: Which route for the king?

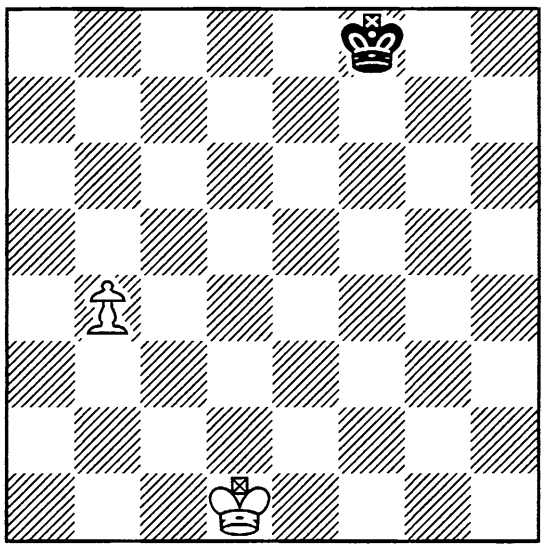


Diagram 7 (W)
White can win

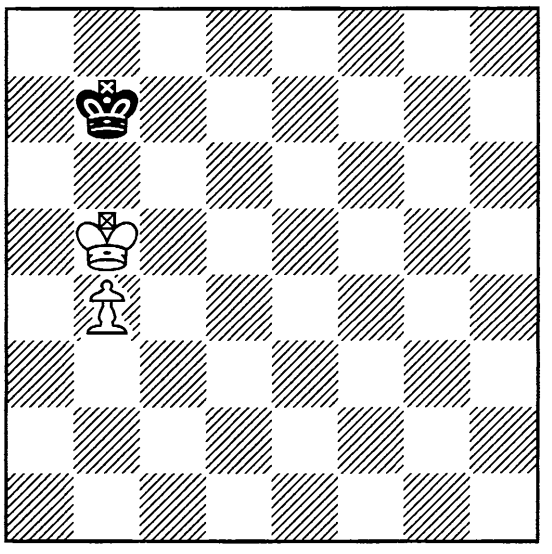


Diagram 8 (B)
The opposition

(Diagram 7) There was an example similar to this in Chapter 1. Can you remember how White should win? White can win, but it's not that obvious. There are two ideas; let's start with the one that doesn't work:

1 Kd2? Ke7 2 Kd3 Kd6 3 Kd4 (here 'taking the opposition' is not relevant as White is not in front of his pawn and thus cannot gain control of the crunch squares to make a decisive entry; let's see what happens...) 3...Kc6 4 Kc4 Kb6 and this is drawn. A typical finish would be 5 b5 Kb7! 6 Kc5 Kc7 7 b6+ Kb7 8 Kb5 Kb8 9 Kc6 Kc8 10 b7+ Kb8 11 Kb6 with stalemate.

The correct approach is as follows:

1 Kc2! Ke7 2 Kb3 Kd6 3 Ka4 Kc6 4 Ka5 Kb7 5 Kb5! (Diagram 8)

Now White does have the opposition in front of the pawn. Black defends the a6, b6 and c6 squares but has the move and must give one of them up. The *underpass* has been successful.

5...Kc7

Or 5...Ka7 6 Kc6 Ka8 (see Example 29 to remind oneself of any technical problems due to the risk of stalemate; now simplest is...) 7 Kb6 Kb8 8 b5 Ka8 9 Kc7 and there is no stalemate.

6 Ka6 (invading) **6...Kb8**

Now by calculating, we see that there is no further need for subtlety...

7 b5 Ka8 8 b6 Kb8 9 b7 etc.

NOTE: The squares in front of the pawn are sometimes known as the *key squares*.

With More Pawns

We can use the knowledge we've just gained to look at endings with additional pawns, where there is a good chance that it will simplify down to the last pawn.

Example 32: Hurrying back against a rook's pawn

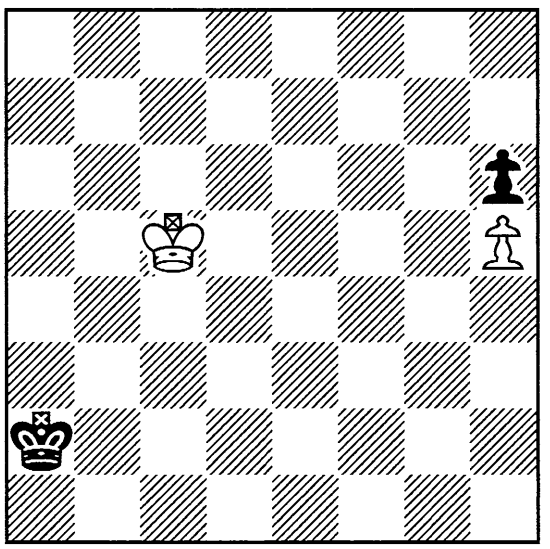


Diagram 9 (W)
Draw!

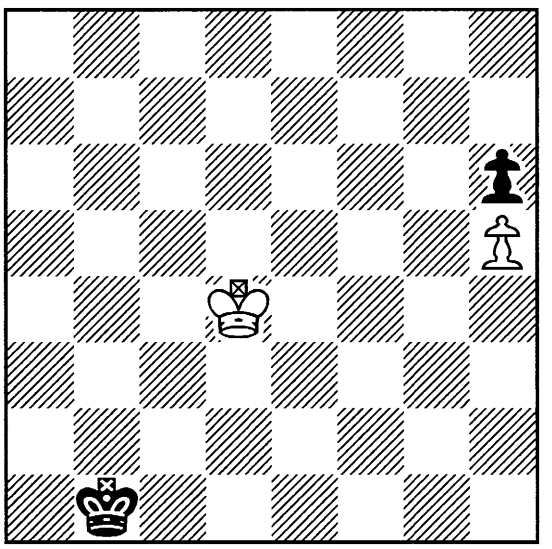


Diagram 10 (W)
White wins

(Diagram 9) Black's king seems to be so far away, yet with a rook's pawn (see Examples 26 and 27) he has extra drawing chances. Surprisingly this is drawn even with White to play!

1 Kd5 Kb3 2 Ke5 Kc4 3 Kf6 Kd5 4 Kg6 Ke6 5 Kxh6 Kf7 with a draw.

Compare this with the next position.

Example 33: A square too far

(Diagram 10) Here Black is too far away:

1 Ke5 Kc2 2 Kf6 Kd3 3 Kg6 Ke4 4 Kxh6 Kf5 5 Kg7 Kg5 6 h6

Black's king needs to stop White getting in Kh6-g7, as once White has achieved Kg7 there's no stopping the h-pawn.

Bearing this in mind, what is the solution to the next problem?

Example 34: A choice of routes

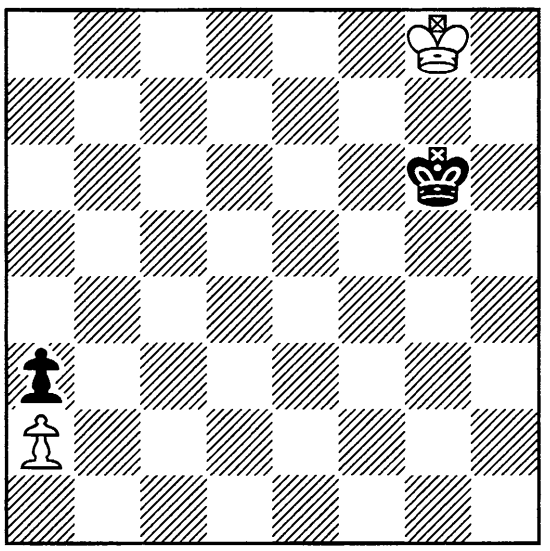


Diagram 11 (W)
A paradoxical first move

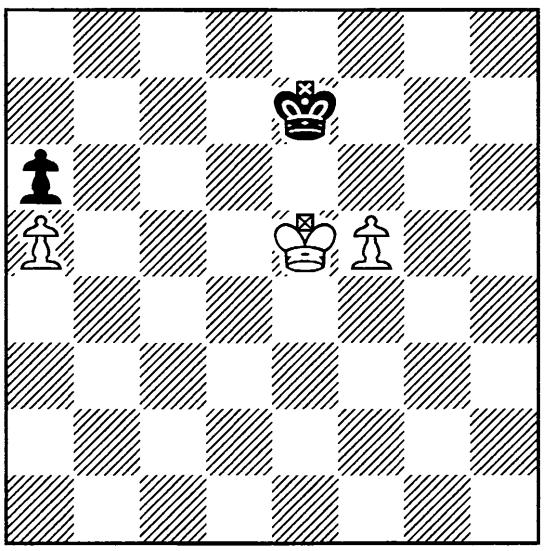


Diagram 12 (W)
White wins

(Diagram 11) Here with the pawns on a2 and a3, to stop Black capturing on a2 and following up with ...Kb2, White must answer ...Kxa2 with Kc2 (or Kc1). So White has to play a paradoxical first move.

1 Kh8!

1 Kf8? constitutes the wrong route home, e.g. 1...Kf6 2 Ke8 Ke5 3 Kd7 Kd4 4 Kd6 Kc3 5 Kd5 Kb2 6 Kd4 Kxa2 7 Kc3 and Black wins with 7...Kb1.

1...Kf6 2 Kh7 Ke5 3 Kg6 Kd4 4 Kf5 Kc3 5 Ke4 Kb2 6 Kd3 Kxa2 7 Kc2

and White saves the game.

So with a rook's pawn the attacking king needs to be able to support the pawn's advance. The key squares are b2 and b1.

Example 35: Decoy (1)

With an extra passed pawn, White can try and use it as a *decoy* if he can't queen it directly. **(Diagram 12)** With blocked a-pawns and with White's a-pawn passed the centre of the board, White wins by simply going for the a-pawn and leaving his f-pawn to its fate.

1 Kd5

The other try 1 f6+ Kf7 2 Kf5 should be met by 2...Kf8! (the best move; check and learn this standard technique as it's important and will crop up frequently in your games) 3 Ke6 Ke8 4 f7+? (it's not too late for 4 Kd6, which wins as in the main line) 4...Kf8 and now 5 Kf6 is stalemate.

1...Kf6 2 Kc6 Kxf5 3 Kb6 Ke6 4 Kxa6 Kd7 5 Kb7 Kd6 6 a6 Kd7 7 a7 and queens next move. So White cannot queen the f-pawn directly in Example 35. Instead he wins by using the passed pawn as a decoy.

Example 36: Decoy (2)

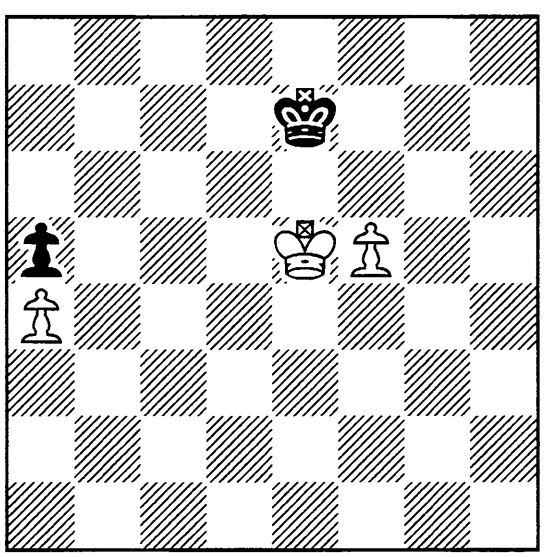


Diagram 13 (W)
Draw!

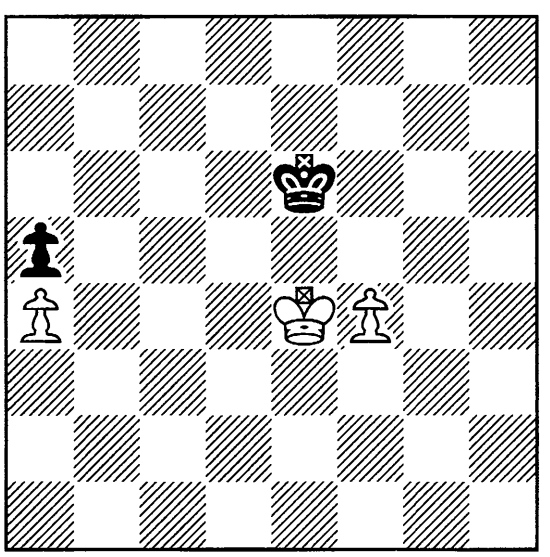


Diagram 14 (W)
Bahr's rule

(Diagram 13) With the a-pawns at the halfway mark the result is in doubt.

1 Kd5

Again White can't win using only the f-pawn, e.g. 1 f6+ Kf7 2 Kf5 Kf8! (always the right idea; here it's the only move to draw, noting that 2...Ke8? loses to 3 Ke6) 3 Ke6 Ke8 (the king's are facing each other with White to move; it is he who has to commit himself: 4 f7+ Kf8 5 Kf6 is stalemate and 4 Kd6 Kf7 5 Kc6 Kxf6 6 Kb6 Ke7 7 Kxa5 Kd7 8 Kb6 Kc8 draws as in Examples 26 or 27.

1...Kf6 2 Kc5 Kxf5 3 Kb5 Ke6 4 Kxa5 Kd7 5 Kb6 Kc8

and as White cannot get his king to b7, the game is drawn.

6 Ka7

Or 6 a5 Kb8 7 a6 Ka8 as in Example 26.

6...Kc7 7 a5 Kc8 8 a6 Kc7 and Black holds as in Example 27.

Example 37: Bahr's rule (1)

(Diagram 14) In this position the a-pawns are still on the central squares but the kings and f-pawn are one file further back. Now the result is different.

1 Kd4! Kf5 2 Kc5 Kxf4 3 Kb5 Ke5 4 Kxa5 Kd6 5 Kb6 Kd7 6 Kb7

and wins. Black didn't have time to get to the saving c8-square.

With pawns on a4 and a5, Black holds if, when he captures the decoy pawn, he can go to c8 with no loss of time. If the pawn is too far advanced then the

game is drawn, so in the initial position the obvious 1 f4-f5+ (see Example 36) would be an error that would only draw!

Imagine a line from c8 to h3. In an analogous position where any decoy pawn is on, or further advanced than, this imaginary line then Black is able to capture the pawn and come back in time to defend. This is known as Bahr's Rule.

So a pawn on h3 is in the drawing zone, whereas a pawn on g3 is not.

Example 38: Bahr's Rule (2)

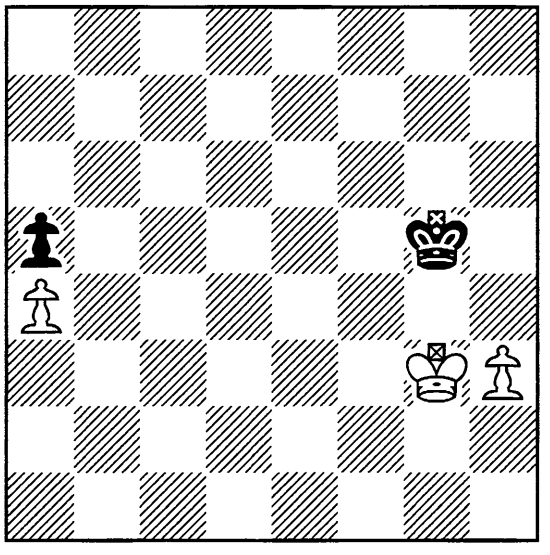


Diagram 15 (W)
Draw

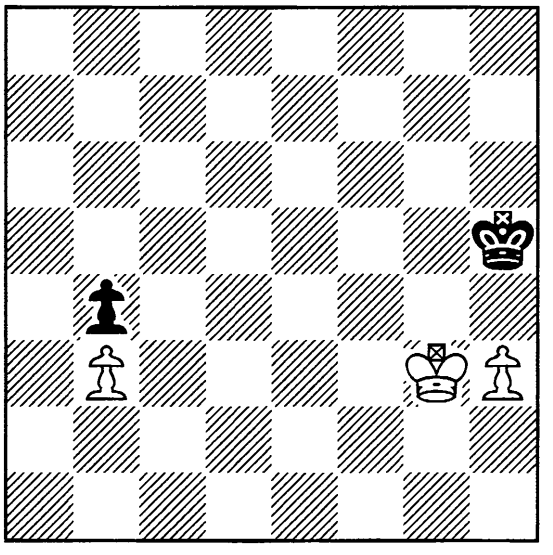


Diagram 16 (W)
White wins

(Diagram 15) Another example to help you get a better idea of what I mean. The pawn on h3 and the c8-square are on the same diagonal and Black holds by grabbing the pawn and going directly for c8.

1 Kf3

1 h4+ Kh5 2 Kh3 Kg6 3 Kg4 Kh6 4 Kf4 doesn't change anything: 4...Kh5 5 Ke4 Kxh4 6 Kd4 Kg5 7 Kc5 Kf6 8 Kb5 Ke7 9 Kxa5 Kd8 10 Kb6 Kc8.

1...Kh4 2 Ke4 Kxh3 3 Kd4 Kg4 4 Kc4 Kf5 5 Kb5 Ke6 6 Kxa5 Kd7 7 Kb6 Kc8 and draws.

Example 39: With b-pawns

(Diagram 16) With a pair of b-pawns the win is easy, as Black only has special drawing resources when the blocked pawns are rook's pawns.

1 Kf4 Kh4 2 Ke4 Kxh3 3 Kd4 Kg4 4 Kc4 Kf5 5 Kxb4 Ke6 6 Kc5 Kd7 7 Kb6 Kc8 8 b4 Kb8 9 b5 Ka8 10 Kc7 etc.

Example 40: One blocked pawn apiece (1)

(Diagram 17) We can use our knowledge of king and pawn against king to solve this one.

1 Ke6 Kc7 2 Ke7 Kc8 3 Kd6 Kb7 4 Kd7 Kb8 5 Kxc6 Kc8

Black forlornly takes the opposition, but White's king is ahead of the pawn on the sixth. This, as we learnt in Example 25, is a decisive advantage...

6 Kb6 Kb8 7 c6 Kc8 8 c7 and the pawn will queen.

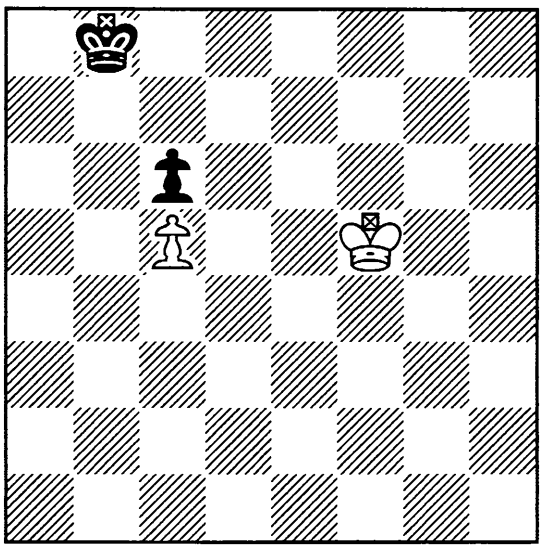


Diagram 17 (W)
White wins

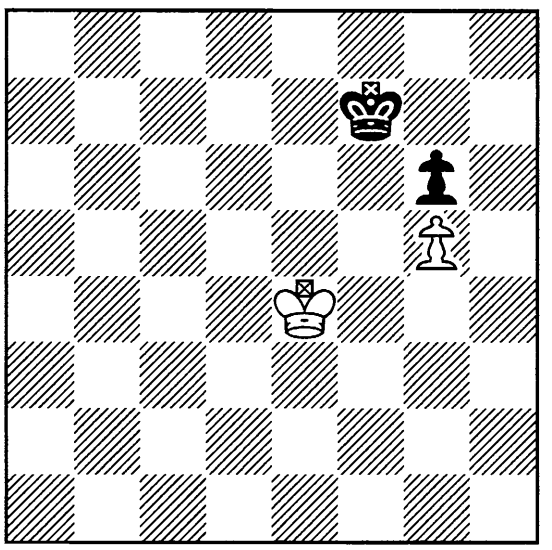


Diagram 18 (W)
White wins

Example 41: One blocked pawn apiece (2)

Yusupov-Bönsch, Bundesliga 2000

(Diagram 18) White wins the g-pawn and, with a little care, the game.

1 Kd5!

The diagonal opposition.

1...Ke7 2 Ke5

The direct opposition.

2...Kf7 3 Kd6

Outflanking.

3...Kf8 4 Ke6 Kg7 5 Ke7 Kg8 6 Kf6 Kh7 7 Kf7

Winning the pawn.

7...Kh8 8 Kxg6 Kg8 9 Kh6 Kf7 10 g6+ Kg8 11 g7 Kf7 12 Kh7 1-0

Example 42: A drawing resource (1)

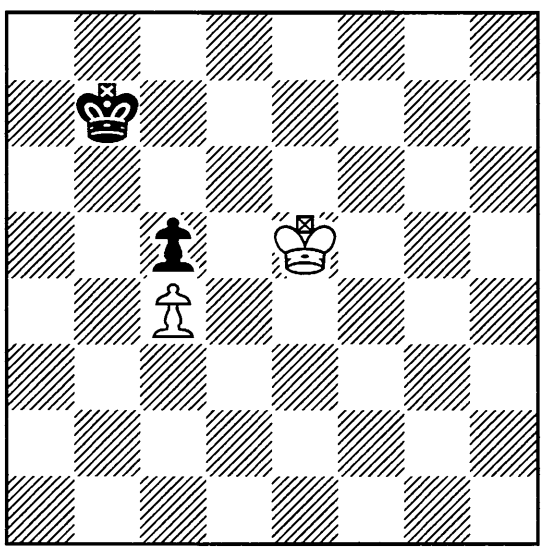


Diagram 19 (W)
Black can draw

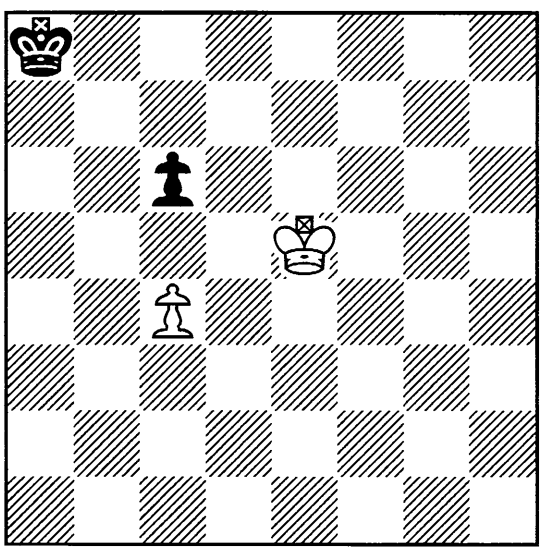


Diagram 20 (B)
Black has a drawing move

(Diagram 19) White again wins the pawn but not the game this time.

1 Kd6 Kb6 2 Kd5 Kb7! 3 Kxc5 Kc7!

As we have seen in Example 28, this particular opposition holds the game for Black.

4 Kb5 Kb7 5 c5 Kc7 6 c6 Kc8!

and as Black seems to know what he is doing, the game is drawn.

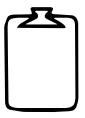
Example 43: A drawing resource (2)

(Diagram 20) Black to play. What is the best way to handle the position?

1...c5!

If 1...Kb7 then with 2 c5! White wins with precise play, e.g. 2...Ka6 3 Ke6! Ka5 (or 3...Kb5 4 Kd6) 4 Kd7! Kb5 5 Kd6 – a *trébuchet*!

2 Kd5 Kb7 3 Kxc5 Kc7! and draws without any fuss.



NOTE: In the case where the blocked pawns are on the central ranks there is a useful rule. If the defender is going to lose his blocked pawn, to draw he needs to be able to meet the capture by taking the direct opposition.

Example 44: The trébuchet again

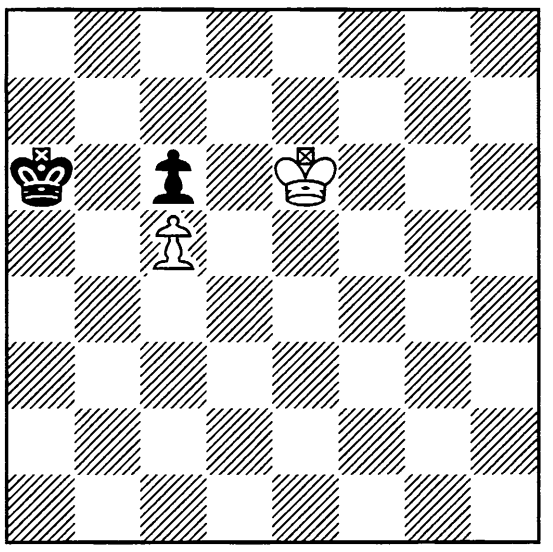


Diagram 21 (W)
White wins

(Diagram 21) 1 Kd7!

1 Kd6?? even loses to 1...Kb5.

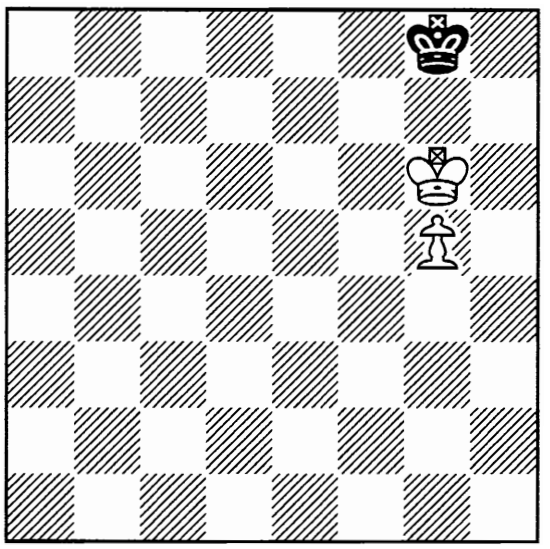
1...Kb5

If 1...Kb7 then 2 Kd6 wins as in Example 40.

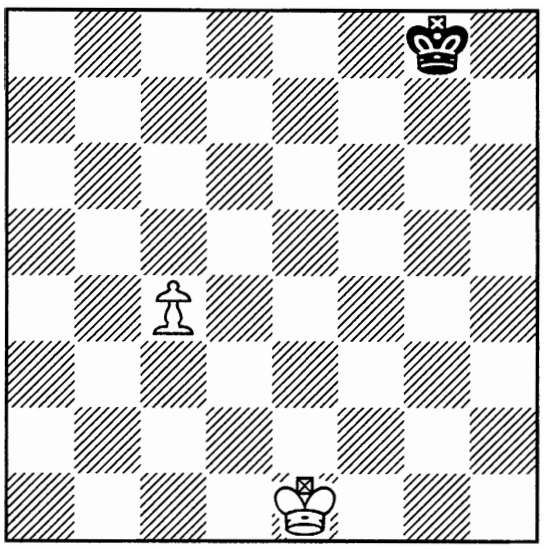
2 Kd6 and Black is in zugzwang and loses. Hooper calls this particular type of double zugzwang (whoever is to play loses) a *trébuchet*.

Try it Yourself

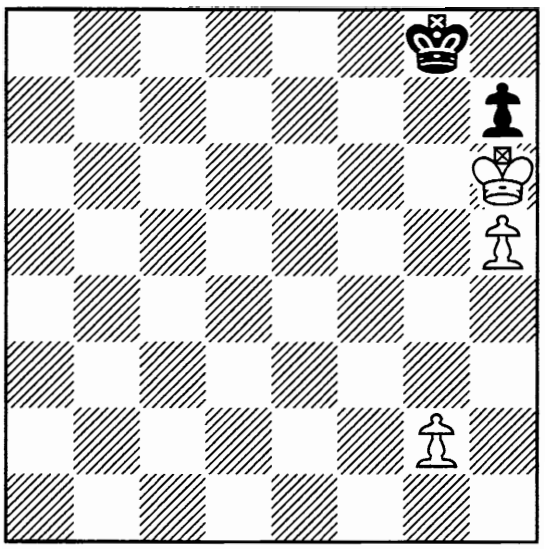
If you are still a little confused, then play through the chapter again and then test yourself with the following exercises.



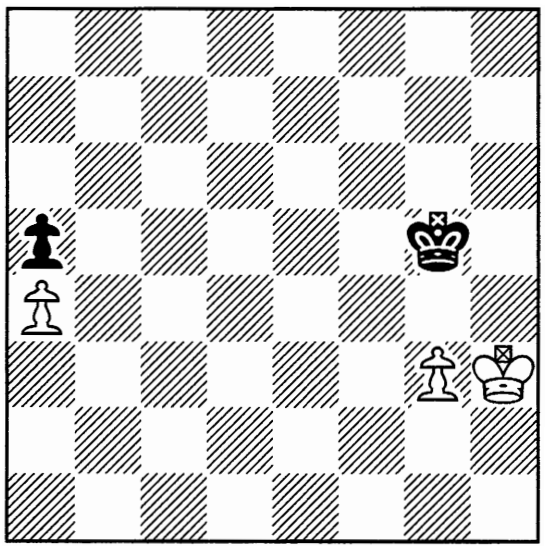
Exercise 1 (White to play)



Exercise 2 (White to play)



Exercise 3 (White to play)



Exercise 4 (White to play)

Exercise 1: Try and see if you can avoid the stalemate traps and win.

Exercise 2: Black is in the square of the c-pawn, so can White win?

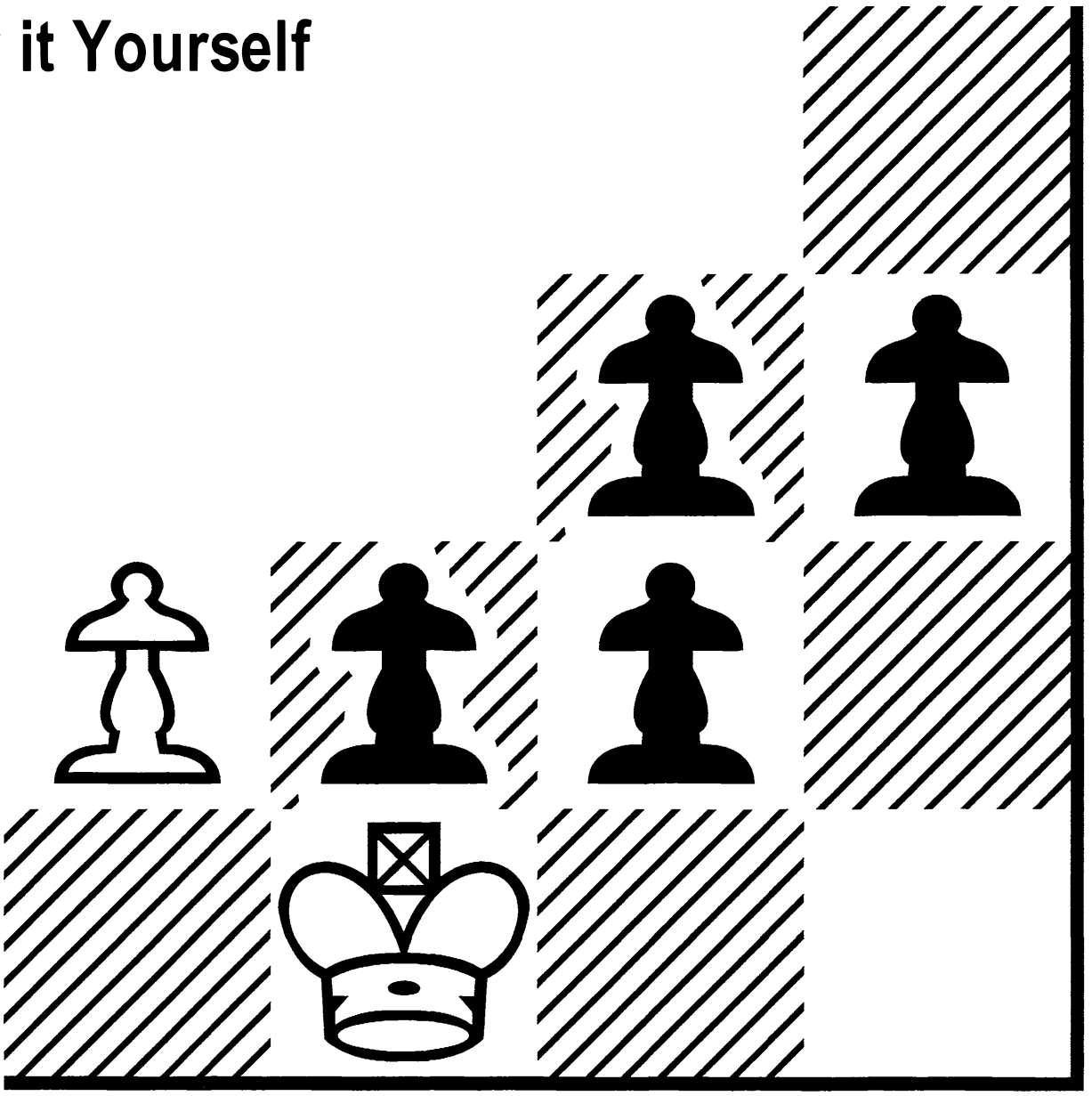
Exercise 3: White has to time the advance of his g-pawn to win. What should he play: 1 g4 or 1 g3?

Exercise 4: What is the logical result?

Chapter Three

Play in a Limited Area

- Extra Pawn on a Limited Front
- Three Pawns Each
- Split Pawns
- Try it Yourself



In this chapter we shall look at positions with more pawns but where the action is only on one side of the board.

Extra Pawn on a Limited Front

In many of these cases there are greater winning chances than if there were additional pieces on the board.

In Example 45, for instance, if each side had a rook (i.e. on normal squares such as say a5 and c1) a draw would be expected. The same would be true in both a bishop or a queen ending with the same pawns. You will see that without pieces such positions are generally lost for the defender.

Example 45: Extra pawn on a limited front

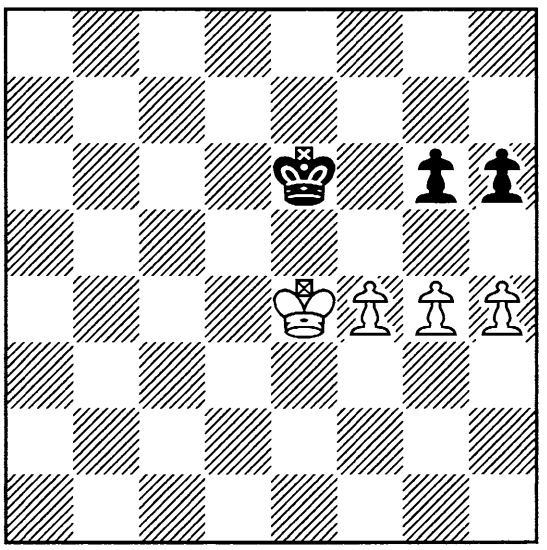


Diagram 1 (W)
White exploits the extra pawn

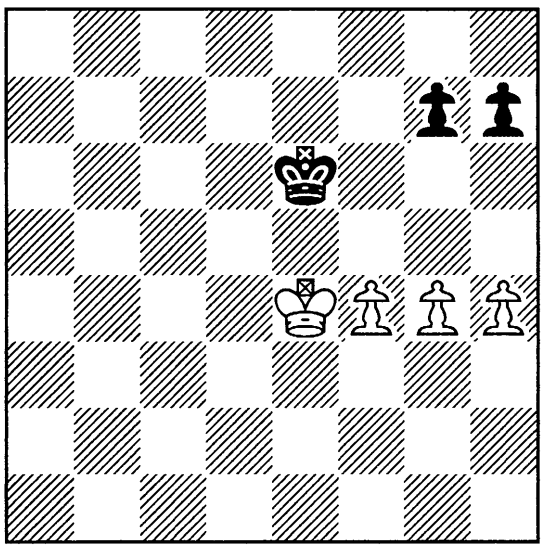


Diagram 2 (W)
White wins again

(Diagram 1) A typical position where White has an extra pawn, but all the pawns are on the same wing.

1 f5+ Kf6

Or alternatively 1...gxf5+ 2 gxf5+ Kf6 3 Kf4 Kf7 4 Ke5 Ke7 5 f6+ Kf7 6 Kf5 Kf8 7 Kg6.

2 Kf4 g5+ 3 hxg5+ hxg5+ 4 Ke4 Kf7 5 Ke5 Ke7 6 f6+ Kf7 7 Kf5

and White wins.

As a general rule, when a pawn up in the endgame, the easiest type of endgames to win are pure pawn endgames. So naturally exchanging off all the pieces is a typical aim of the stronger side, as this is often the clearest route to victory.

Example 46: Black's pawns are further back

(Diagram 2) With the black pawns on starting squares the win takes more time.

1 f5+ Kf6 2 Kf4 h6

2...Kf7 eventually leads to the same thing, e.g. 3 Ke5 Ke7 4 g5 Kf7 5 h5 Ke7 6 g6 hxg6 7 hxg6 as in the main game (see the position after 10 Ke5).

3 Ke4 Kf7

Here again 3...Ke7 4 Ke5 Kf7 5 g5 hxg5 6 hxg5 Ke7 7 g6 transposes to the main line.

4 Ke5 Ke7 5 g5 hxg5 6 hxg5 Kf7 7 g6+ Ke7

It's White to move but he would prefer it to be Black's turn. He is, however, able to *lose a tempo* as follows.

8 Kd5 Kf6

Here 8...Kd7 allows a breakthrough with 9 f6! gxf6 10 g7.

9 Ke4 Ke7 10 Ke5 (Diagram 3)

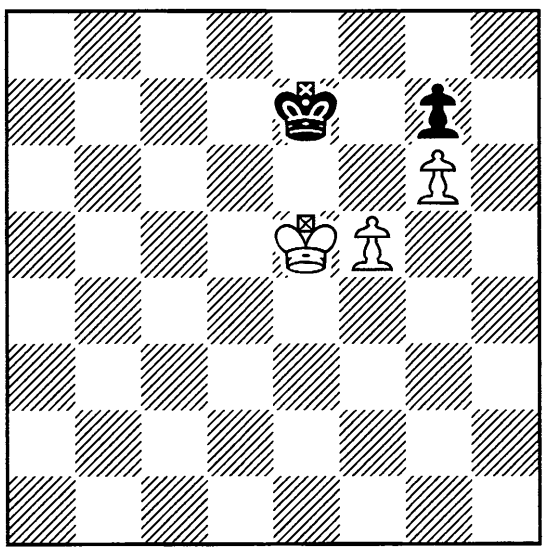


Diagram 3 (B)
Triangulation completed

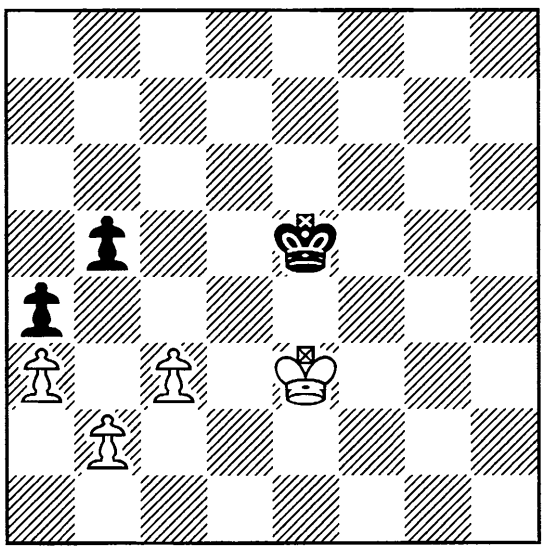


Diagram 4 (W)
White lacks flexibility

White has *triangulated* and now pushes Black back.

10...Kf8

If 10...Kd7 then 11 f6.

11 Kd6!

The diagonal opposition.

11...Ke8 12 Ke6

The direct opposition.

12...Kf8 13 Kd7 Kg8 14 Ke7 Kh8 15 f6! gxf6 16 Kf7!

It's true that 16 Kxf6 Kg8 17 g7 Kh7 18 Kf7 also wins but the text is more elegant.

16...f5 17 g7+ Kh7 18 g8Q+ Kh6 19 Qg6 mate

Example 47: A practical example

R.Ponomariov-Korchnoi, Donetsk 2001

(Diagram 4) Here White's pawns lack flexibility and he can't win.

1 Kd2 Kd6 2 Kc2 Kc6 3 b4 axb3+ 4 Kxb3 Kb7 5 a4 bxa4+ 6 Kxa4 Kc6 7 c4 and a draw was agreed.

Example 48: Two pawns versus one (1)

(Diagram 5) In Example 46, an analogous position was reached (after

White's sixth move) but there everything was one rank further up towards Black's side of the board.

Here Black has the opposition, but White has a spare tempo that turns the game in his favour.

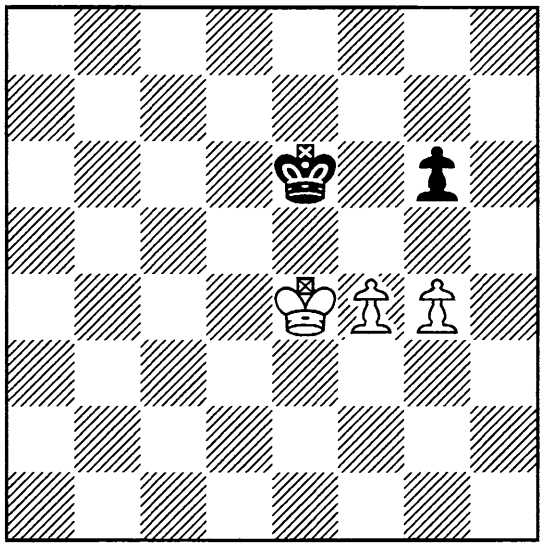


Diagram 5 (W)
White has a spare move

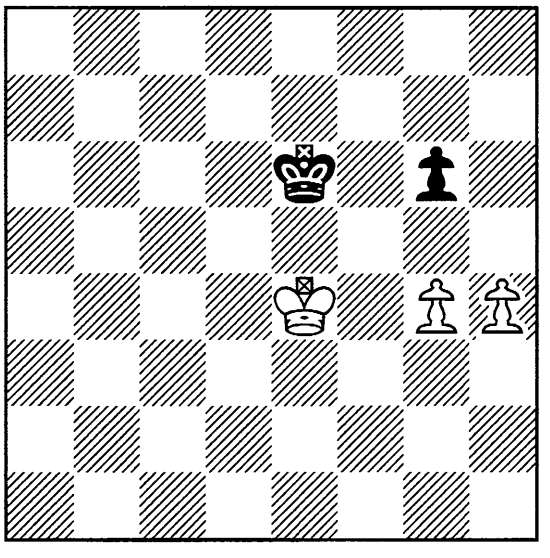


Diagram 6 (W)
Draw

1 g5!

Now Black must give way.

1...Kf7

After 1...Kd6 2 f5 gxf5+ 3 Kxf5 Ke7 4 g6 Ke8 5 Ke6! (carefully taking the opposition) 5...Kf8 6 Kf6 Kg8 7 g7 White wins.

2 Kd5!

Taking the diagonal opposition, rather than 2 f5? gxf5+ 3 Kxf5 Kg7 4 g6 Kg8, which only draws as we saw in Chapter 2.

2 Ke5? allows Black to take the opposition and hold, e.g. 2...Ke7 3 Kd5 Kd7 4 Kc5 Ke6! (but not 4...Kc7? which allows the breakthrough 5 f5 gxf5 6 g6) 5 Kd4 Kd6 6 Ke4 Ke6.

2...Ke7 3 Ke5 Kf7 4 Kd6 Kg7 5 Ke6 Kh7 6 Kf7 Kh8 7 Kxg6

and White wins quickly. For the record even 7 f5 wins: 7...gxf5 8 g6 f4 9 g7+ Kh7 10 g8Q+ Kh6 11 Qg6 mate.

Example 49: Two pawns versus one (2)

(Diagram 6) Here the pawn structure (rook's pawn again!) is less favourable for the attacker. White to play only draws against a correct defence but Black to play loses. So the opposition is crucial.

1 Kd4 Kd6 2 Ke4

Instead 2 Kc4 looks silly after 2...Ke5.

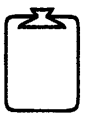
2...Ke6

White needs to get his king to d5 or e5 to win when his reserve tempo can make the difference, Black must stop him.

3 Kf4 Kf6 4 Kf3!?

The sort of move that can confuse the inexperienced. Where to put the king?

4...Kf7!



NOTE: This is known as the *distant opposition*.

Putting the king on the e-file loses the opposition: 4...Ke5? 5 Ke3 and then the win is only a matter of time, e.g. 5...Ke6 6 Ke4 Kf6 7 Kf4 Kf7 8 Ke5 Ke7 9 g5 Kf7 10 Kd6, or similarly 4...Ke6? 5 Ke4. After 4...Ke7? White plays 5 Ke3! (another example of the distant opposition; note that it's the same-coloured square as Black's king) 5...Kf7 6 Kd4 Ke6 (otherwise White invades to the fifth rank) 7 Ke4 etc. as we've already seen.

5 Ke3 Ke7! 6 Kf4

Naturally 6 Ke4 is countered by 6...Ke6.

6...Kf6

and White is getting nowhere.

Let's look at the case when Black has the move in the initial position **(49a)**. Black must cede ground and White invades.

1...Kd6

After 1...Kf6 White goes the other way: 2 Kd5 Kf7 3 Ke5 Ke7 and then generates zugzwang with 4 g5.

2 Kf4 Ke6 3 Kg5 Kf7 4 Kh6 Kf6 5 Kh7 Kf7 6 g5

Zugzwangs of various sorts abound in pawn endings but the opposition is particularly important. If it seems a bit advanced, don't worry! There are plenty of other examples in this book and I'm sure that you'll soon get to grips with it!

Example 50: Two pawns versus one (3)

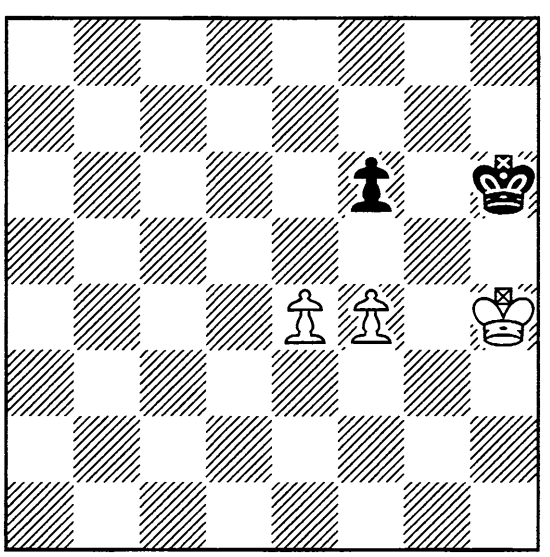


Diagram 7 (W)
White changes wings

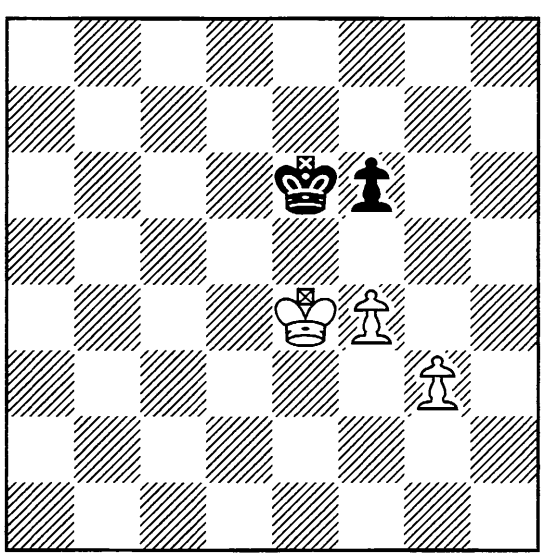


Diagram 8 (B)
Draw

(Diagram 7) Black seems to be able to defend on the kingside but White can win by changing wings.

1 Kg4 Kg6 2 Kf3 Kf7 3 Ke3 Ke7 4 Kd4 Kd6

and only now

5 f5 etc.

TIP: It's usually best to keep the reserve pawn tempo up one's sleeve until the moment where it produces zugzwang.

With Black to play **(50a)** White must avoid a common trap, but otherwise wins in much the same manner:

1...Kg6 2 Kg3!

The naive 2 Kg4? allows 2...f5+! 3 exf5+ Kf6, which simplifies to a draw after 4 Kg3 Kxf5 5 Kf3 Kf6 6 Kg4 Kg6 7 f5+ Kf6 etc.

2...Kf7 3 Kf3 Ke7 4 Ke3 Kd7 5 Kd4 Kc6

Or 5...Kd6 6 f5 as we have already seen.

6 Kc4 Kd6 7 Kb5 and Black is outflanked.

Example 51: Two pawns versus one (4)

(Diagram 8) Here if Black has the move he has a resource that eliminates White's spare pawn tempo.

1...f5+ and then after

2 Kd4 Kd6

Black takes the opposition. As White can no longer 'pass' with a pawn move, no progress is possible.

White to play in the initial position **(51a)** leads to a different result:

1 Kd4!

As we have already seen in a similar position, 1 g4? allows 1...f5+! 2 gxf5+ Kf6.

1...Kf5

Following 1...Kd6 2 g4 White wins after both 2...Ke6 3 Kc5 Ke7 4 Kd5 Kd7 5 f5 and 2...Kc6 3 Ke4 Kd6 4 Kf5 Ke7 5 Kg6 Ke6 6 Kg7 Ke7 7 f5.

2 Kd5 Kg4 3 Ke6 Kxg3 4 f5! and White wins.

The next few examples feature a variety of ideas associated with play on a limited front.

Example 52

G.Flear-Chandler, London 1990

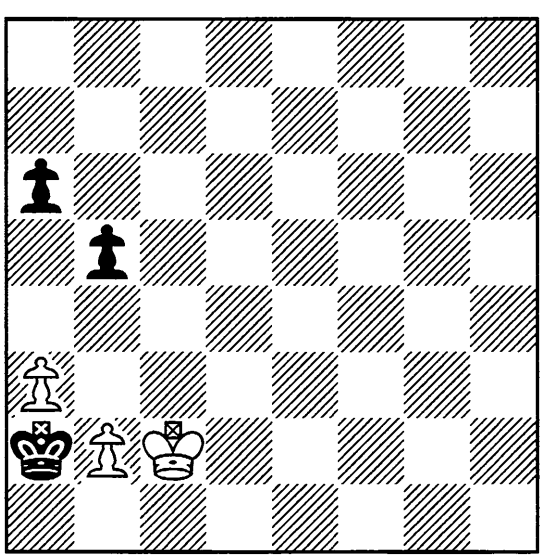


Diagram 9 (W)
White can draw

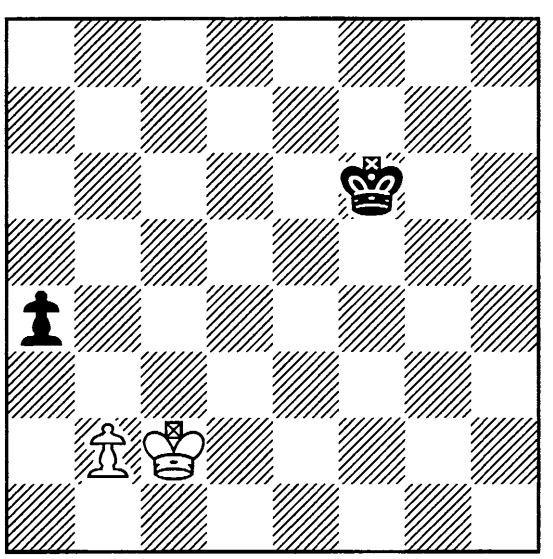


Diagram 10 (W)
White wins

(Diagram 9) Here White is on the defensive as Black's king has invaded his camp. How should he continue? There are three moves worth considering.

1 a4!

1 Kc3 (and 1 Kc1, which comes to the same thing) loses as follows: 1...a5 2 Kc2 b4 3 a4 (if 3 axb4 axb4 4 Kc1 b3 or on 4 b3 then 4...Ka3) 3...Ka1! 4 Kc1 (4 Kb3 Kb1) 4...b3.

1...bxa4

After 1...b4 2 a5 b3+ 3 Kc3 Black is in zugzwang.

2 Kc1

and in the game a draw was agreed. 2...Kb3 3 Kb1 a5 4 Ka1 gets nowhere and 2...a3 3 bxa3 Kxa3 4 Kb1 is also clearly drawn.

White's tactical resource, sacrificing a pawn to give his opponent only rook's pawns, is a well known ploy. The following study is instructive.

Example 53

Dedrle 1921

(Diagram 10) White wins by going around the b-pawn to avoid the sacrifice.

1 Kb1

1 Kc3? fails to 1...a3! when all three possibilities are lacking:

a) 2 bxa3 and Black's king simply heads for a8.

b) 2 b3 Ke6 3 Kc2 Kd5 4 Kb1 Kc5 doesn't even win the pawn.

c) 2 b4 Ke6 3 Kb3 Kd5 4 Kxa3 Kc6 5 Ka4 Kb6 and White cannot advance ahead of his pawn.

1...Ke6

Now if 1...a3 then 2 b3! is the only good move. White needs to retain a b-pawn to win and shouldn't advance too far as he also needs to control the squares in front of the pawn. So for instance 2 b4 Ke6 3 Ka2 Kd5 4 Kxa3 Kc6 5 Ka4 Kb6 leads to a draw. After 2 b3! play can continue 2...Ke6 3 Ka2 Kd6 4 Kxa3 Kc5 5 Ka4 Kb6 6 Kb4 (with a decisive opposition) 6...Kc6 7 Ka5 etc.

2 Ka2 Kd6 3 Ka3 Kc5 4 Kxa4 Kb6 5 Kb4 Kc6 6 Ka5 Kb7 7 Kb5 Kc7 8 Ka6 Kc6 9 b4 and wins.

In a limited area there can be so-called *mined* squares.

Example 54

Vallejo Pons-R.Ponomariov, Linares 2003

(Diagram 11) Black skirts around the g7-square.

1...Kf7!

Inferior is 1...Kg7?! as after 2 Kg5, he has to go back with 2...Kf7 because 2...Kh7? allows 3 Kf6.

2 Kh4 Kg8! 3 Kg4 Kh7 0-1

White resigned because of the following: 4 Kg5 Kg7 5 Kh4 Kh6 6 Kg4 g5 7 Kf5 Kh5 8 Kxe5 g4 9 Kf6 (no better is 9 Kf4 Kh4 10 e5 g3 11 e6 g2 12 e7 g1Q 13 e8Q Qf2+ 14 Ke4 Qe2+, or 9 Kd4 g3 10 Ke3 Kg4 etc.) 9...g3 10 e5 g2 11 e6 g1Q 12 e7 Qg8.

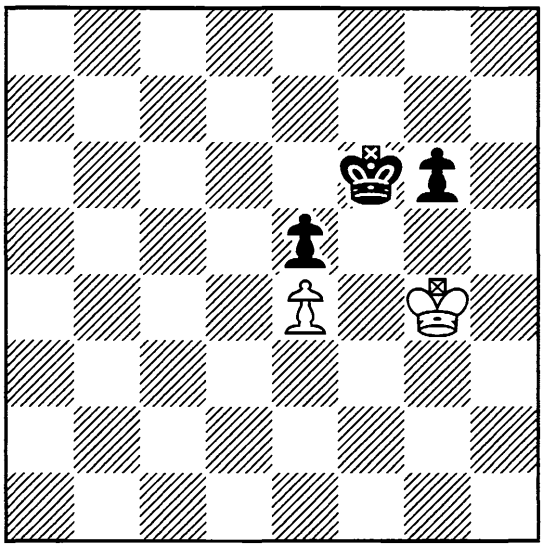


Diagram 11 (B)
Black avoids g7

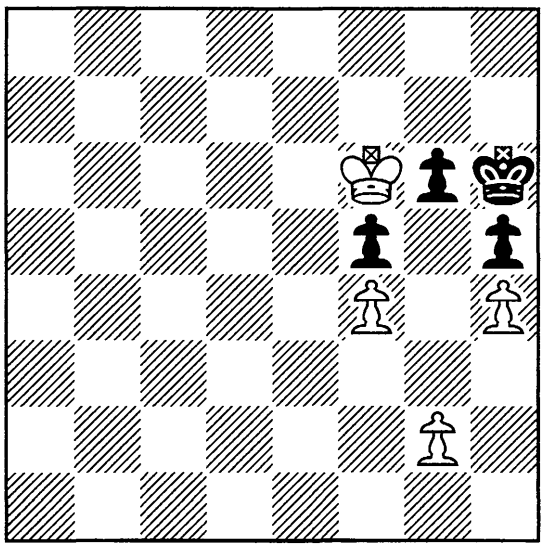


Diagram 12 (W)
White has a spare move

Three Pawns Each

The ending of three pawns each on the same wing occurs frequently in practice. Despite the balanced pawns, if they are blocked and one king is more advanced than the other, there are good winning chances.

Example 55: Three each on the same wing (1)

(Diagram 12) With White having a 'spare' pawn move it's no surprise that he wins.

1 Kf7 Kh7 2 g3 Kh6 3 Kg8 g5 4 hxg5+ Kg6 5 Kh8 etc.

Example 56: Three each on the same wing (2)

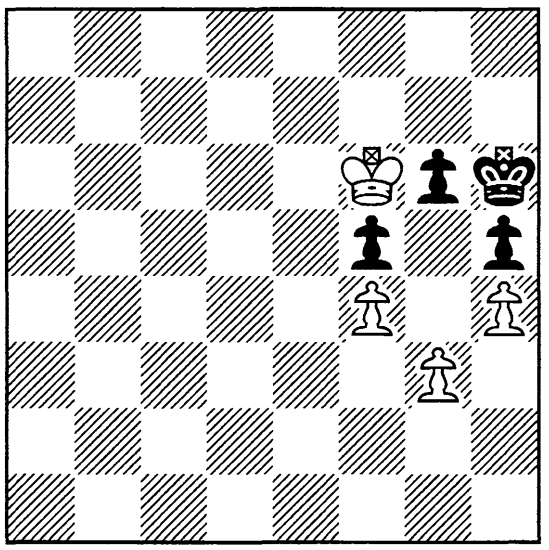


Diagram 13 (W)
White wins

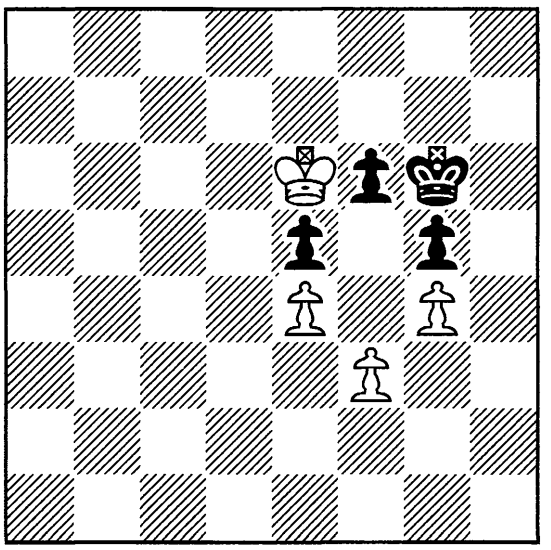


Diagram 14 (W)
Draw

(Diagram 13) Here White still wins, but this time using triangulation. So he

doesn't even need the spare tempo of Example 55.

1 Ke6

1 Kf7 Kh7 2 Kf8 Kh8 3 Kf7 Kh7 4 Kf6 Kh6 doesn't get anywhere but White can still revert to 5 Ke6.

1...Kg7

Or 1...Kh7 2 Kf7.

2 Ke7 Kg8 3 Kf6 Kh7 4 Kf7

and so on as in Example 55.

Example 57: Three each on the same wing (3)

(Diagram 14) In this case Black can hold because he has sufficient manoeuvring space.

1 Kd6 Kh6!

The distant opposition (or even distant lateral opposition!).

2 Kd7 Kh7! 3 Kc8 Kg8 4 Kd8

In the case of 4 Kd7 then Black needs to react with 4...Kh7! rather than 4...Kf7?, which loses to 5 Kd6.

4...Kh8! 5 Ke7 Kg7 6 Ke6 Kg6 etc.

Example 58: Three each on the same wing (4)

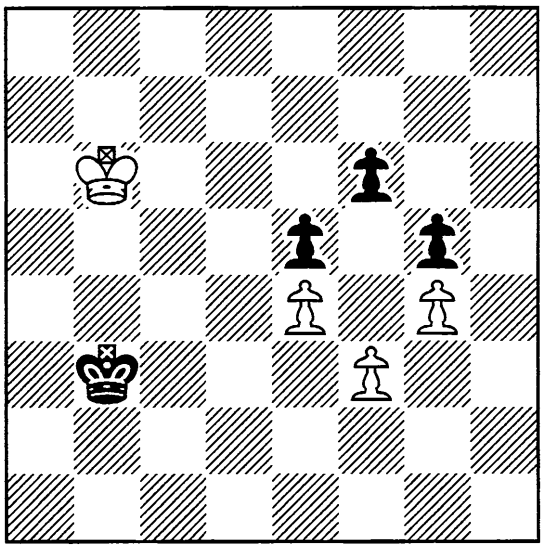


Diagram 15 (W)
White wins

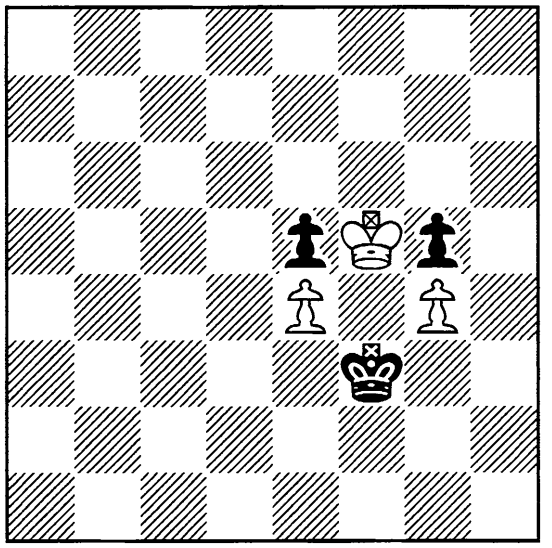


Diagram 16 (B)
Zugzwang

(Diagram 15) Here White has the first move and it's a race to the kingside with a slight twist at the end:

1 Kc6 Kc3 2 Kd5 Kd3 3 Ke6 Ke3 4 Kxf6 Kxf3

and now the key move to produce a decisive zugzwang...

5 Kf5! (Diagram 16)

White can take a pawn free of charge next move as 5...Ke3 is met by 6 Kxe5 while 5...Kg3, by 6 Kxg5.

Example 59

Riga Chess Society-Polytechnic School, Consultation 1892

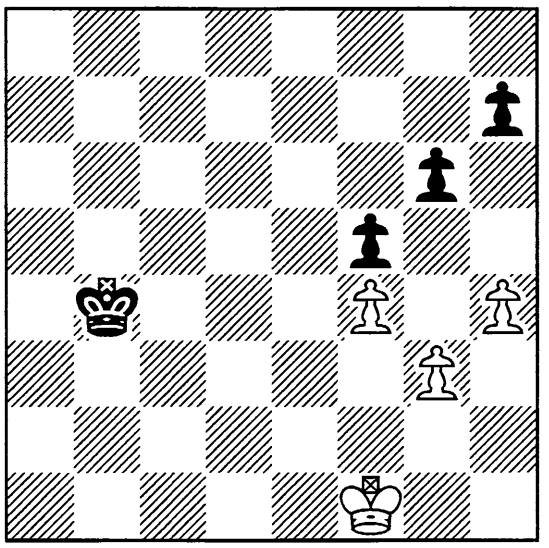


Diagram 17 (W)
White draws with care

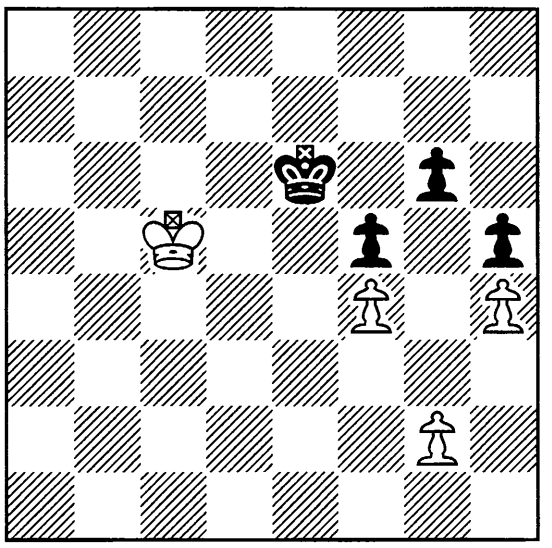


Diagram 18 (W)
Draw

(Diagram 17) Here's an old but instructive position.

1 Kg2!

Behting's move. Instead 1 Ke2? loses to 1...Kc4 2 Ke3 Kc3 3 Ke2 Kc2 4 Ke3 Kd1 5 Kf3 and Black takes the (diagonal) opposition and pre-empts any counterplay with 5...h5!.

For comparative purposes it's worth noting in passing that the immediate 1 h5? gxh5 2 Kg2 fails to 2...h4! 3 gxh4 Kc4 when Black will outflank his opponent to win the f-pawn.

1...Kc4

1...h5 2 Kf2! is interesting. White has an obscure type of 'opposition' although the kings are not 'opposed'. One clue to this is that f2 is the same colour as b4 as in the case of the opposition. This becomes clearer when we investigate Black's next moves: 2...Kc3 (or 2...Kb3 3 Kf3 with the distant opposition and, continuing further with 3...Kc2 4 Ke2, the direct opposition) 3 Ke3 Kc4 4 Ke2 Kd4 5 Kd2 Ke4 6 Ke2 and White can hold as he has enough space and isn't impeded by his own pawns.

With blocked pawns and kings some distance away zugzwangs are common, but they frequently come down to the direct opposition. Picking the right square to anticipate this is the key!

2 h5!

Giving himself some breathing space.

2...gxh5

After 2...Kd3 White arranges to exchange two sets of pawns and prepares to take the opposition in the simplified king plus f-pawn against king ending that follows: 3 hxg6 hxg6 4 g4 Ke4 5 gxf5 gxf5 6 Kg3 Ke3 7 Kg2 Kxf4 8 Kf2! and draws as in Example 28.

3 Kh3

Now White obtains sufficient counterplay.

3...Kd4 4 Kh4 Ke4 5 Kxh5 Kf3 6 Kg5 Kxg3 7 Kxf5 h5 8 Kg5 h4 9 f5

and White draws.

Example 60

Maizelis

(Diagram 18) White's tempo in reserve g2-g3 doesn't necessarily win, as in this example:

1 Kc6 Ke7 2 Kd5 Kd7 3 g3

So far so good – White takes the opposition.

3...Ke7 4 Ke5 Kf7 5 Kd6

Attempting to outflank, but after

5...Kf6

White has given up the opposition and Black has enough room to be able to hold onto it. In fact White now needs another free tempo to win, but there isn't one available.

There is another way to try to bypass Black's king, but this meets surprising counterplay. If 2 Kc7 (instead of 2 Kd5) 2...Ke6 and then 3 Kd8, hoping to outflank, Black doesn't play the docile 3...Kd6? (which loses to 4 Ke8 Ke6 5 g3 Kf6 6 Kf8) but 3...Kd5! 4 Ke7 Ke4 when the counter-attack works, but only because the f-pawn is undefended! For example, 5 Kf6 Kxf4 6 Kxg6 Kg4 7 g3 Kxg3 8 Kxf5 Kxh4 9 Kf4 and draws.

Let's go back to Diagram 18, but this time with Black to move **(60a)**.

1...Ke7

Or if 1...Kd7 then 2 Kd5 Ke7 3 Ke5 Kf7 4 Kd6 Kf6 5 Kd7 Kf7 6 g3 etc.

2 Kc6 Ke6 3 g3 Ke7 4 Kc7 Ke6 5 Kd8 Kf6

Now 5...Kd5 goes down to 6 Ke7 Ke4 7 Kf6 Kf3 8 Kxg6 Kxg3 9 Kg5!, a theme that we saw in Example 58.

6 Ke8 Ke6 7 Kf8 Kf6 8 Kg8 and wins.

So in such blocked positions when the defending king is likely to have limited manoeuvring space, zugzwangs are key. Spare pawn tempi play an important role, but as we have seen a slight difference in the pawn structure can give the defender extra resources.

Here are a couple of similar examples, but with fewer pawns:

Example 61

Collinson-King, British League 2004

(Diagram 19) There are two ways to try and outflank. One works, one doesn't.

1...Ke2!

The alternative 1...Kc1? 'routinely' takes the opposition but fails to win, e.g. 2 Kd3 Kb2 3 Ke4 Kc3 4 Kd5 Kb4 (winning the c-pawn but it's not over yet) 5 Kc6 Kxc4 (or 5...Kxa5 6 Kxc5) 6 Kb6 Kb4 7 Kxa6 c4 8 Kb6 c3 9 a6 c2 10 a7 c1Q 11 a8Q.

2 Kc2 Ke3 3 Kc3 Ke4

Regaining the opposition as White doesn't have access to the c4-square.

4 Kc2 Kd4 5 Kb3 Kd3 0-1

The c-pawn falls.

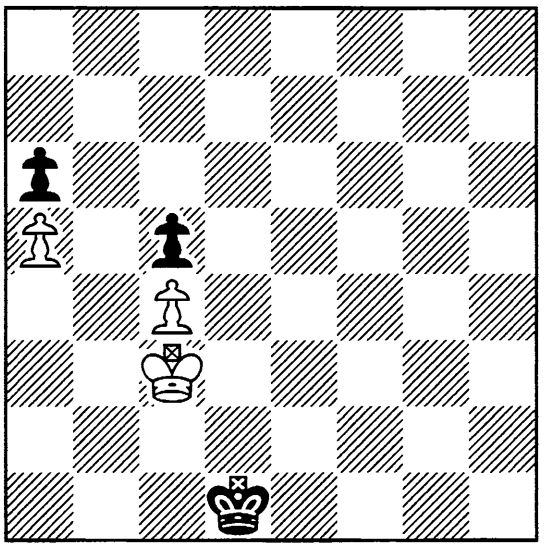


Diagram 19 (B)
Outflanking

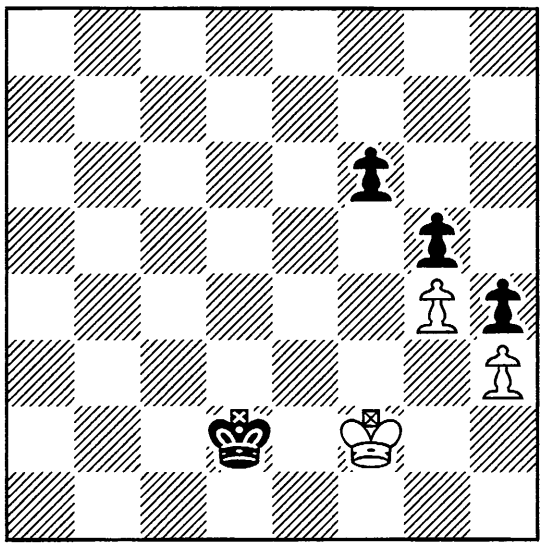


Diagram 20 (B)
White should draw

So when attempting to outflank in a manoeuvring phase, don't forget about the possibility of a counter-attack.

Example 62

Campos Moreno-M.Gurevich, Cap d'Agde 2000

(Diagram 20) Here in this example between two high ranking players, White has the opposition and should draw, but in the actual game he lost! This was almost certainly due to a combination of fatigue and time trouble.

1...Kd3 2 Kf3 Kd4 3 Kf2 Ke4 4 Ke2 Kf4 5 Kf2 Ke5 6 Ke3 Ke6 7 Kf3

There's nothing wrong with 7 Ke4, e.g. 7...Ke7 8 Ke3 Kf7 9 Kf3 Kg6 10 Ke4 f5+ 11 gxf5+ Kf6 12 Ke3 Ke5 13 Kf2 Kxf5 14 Kf3 with a comfortable draw.

7...Kd5 8 Kf2?

A bad mistake. Instead after 8 Ke3 Ke5 9 Kf3 Kd4 White could retake the diagonal opposition with 10 Kf2! and draw.

8...Kd4 9 Kf3 Kd3 10 Kf2 Kd2

Back to the initial position but with White to move.

11 Kf3 Ke1 12 Ke4 Kf2 13 Kf5 Kg3 14 Kxf6 Kxh3 15 Kxg5 Kg3 16 Kf5 h3 17 g5 h2 18 g6 h1Q 19 g7 Qh7+ 20 Kf6 Qg8 and Black wins.

Split Pawns

In positions where one side has an extra pawn but they are split, ownership of the opposition again plays an important role in deciding the game.

Example 63: Two split pawns versus one pawn (1)

(Diagram 21) In this example with Black to play White can simplify whilst retaining the opposition:

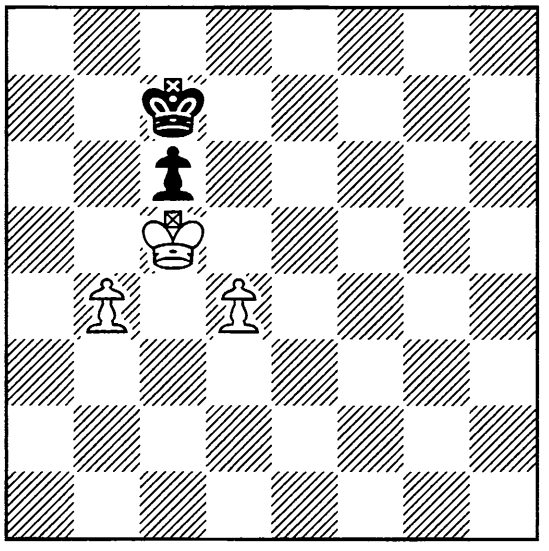


Diagram 21 (B)
White wins

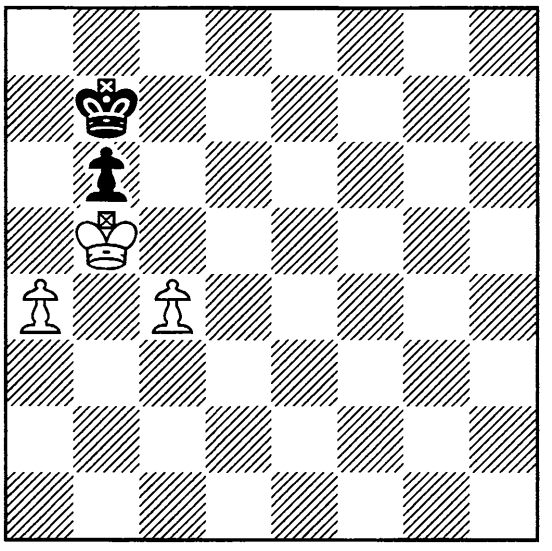


Diagram 22 (B)
Black draws

1...Kd7

Similarly 1...Kb7 2 b5! cxb5 3 Kxb5.

2 d5 cxd5 3 Kxd5 Kc7 4 Kc5 Kb7 5 Kb5 Ka7 6 Kc6 Ka8 7 Kb6 and wins.

In the initial position with White to play **(63a)** it's drawn. 1 b5 (or 1 Kc4 Kb6) 1...cxb5 2 Kxb5 Kd6 3 Kc4 Kc6 etc.

Example 64: Two split pawns versus one pawn (2)

(Diagram 22) Here there is a difference. Black holds despite having the move.

1...Kc7!

Instead 1...Ka7? isn't so wise after 2 a5 bxa5 3 Kxa5.

2 c5 bxc5 3 Kxc5

White has the opposition but the presence of the rook's pawn ensures a draw.

Example 65: Two split pawns versus one pawn (3)

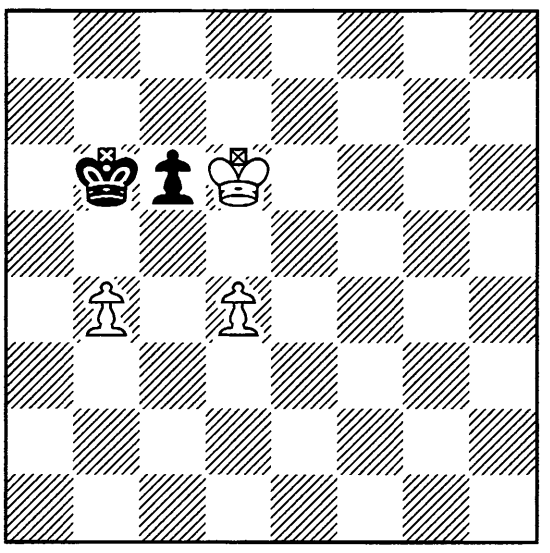


Diagram 23 (B)
Win for White

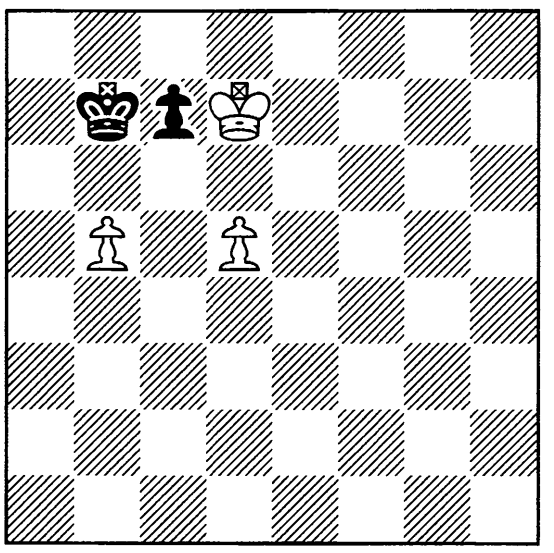


Diagram 24 (W)
White wins

(Diagram 23) Here White has advanced further. Black to play loses.

1...Kb7

Or 1...Kb5 2 Kc7 and so on as below.

2 Kd7!

The correct way, whereas 2 Kc5? Kc7 is a draw (with White to move) as we saw in Example 63.

2...Kb6 3 Kc8! Kb5 4 Kc7 Kxb4 5 Kxc6 Kc4 6 d5 and wins.

White to play **(65a)** doesn't get anywhere: 1 Kd7 Kb7 2 Kd8 Kb8 etc. So it seems that Diagram 23 is another zugzwang position.

Example 66: Two split pawns versus one pawn (4)

(Diagram 24) Moved up one rank, Black can't hold even with White to move.

1 Kd8 Kb8

Also losing is 1...Kb6 2 Kc8 Kxb5 3 Kxc7 Kc5 4 d6.

2 b6! cxb6 3 d6 and White wins the race:

3...b5 4 d7 b4 5 Ke7 b3 6 d8Q+

In all these types of position with two isolated pawns against one (with none of them passed) the opposition is an important weapon to decide the fight, but remember that proximity to the edge of the board leads to exceptions.

Example 67: Two split pawns versus one pawn (5)

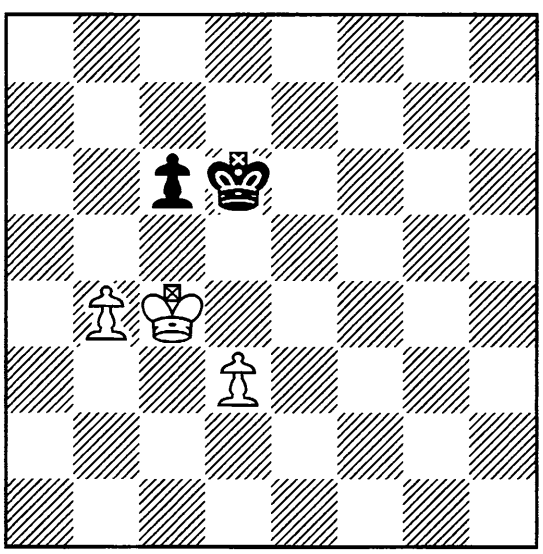


Diagram 25 (W)
White wins

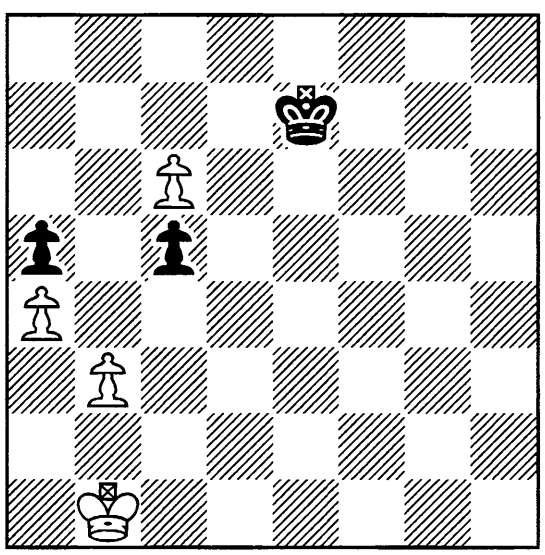


Diagram 26 (W)
Draw

(Diagram 25). Here White has a free tempo so it's no surprise that he gains the opposition under decisive circumstances.

1 Kd4 Kd7

Following 1...Kc7 2 Kc5 Kd7 3 Kb6 Kd6, now is the moment to play the killing move 4 d4! (see Example 65).

2 Kc5 Kc7 3 d4 and it's hopeless for Black as in Example 63, e.g.

3...Kd7

Or 3...Kb7 4 b5.

4 d5 cxd5 5 Kxd5 Kc7 6 Kc5 Kb7 7 Kb5 Kc7 8 Ka6 etc.

Example 68

Marin-Svetushkin, Bucharest 2000

(Diagram 26) Black holds if he navigates correctly the main zugzwang position (White's king on c4, Black's on c6).

1 Kc2 Kd6 2 Kc3 Kc7! 3 Kd3 Kd6!

Bad is 3...Kxc6? in view of 4 Kc4 (when Black is in zugzwang) 4...Kb6 5 Kd5.

In the game a draw was agreed after 3...Kd6. White has no advantage after 4 Kc4 Kxc6, when White to move has no option but to retreat.

Example 69

Grigoriev (avoidance of a sensitive square)

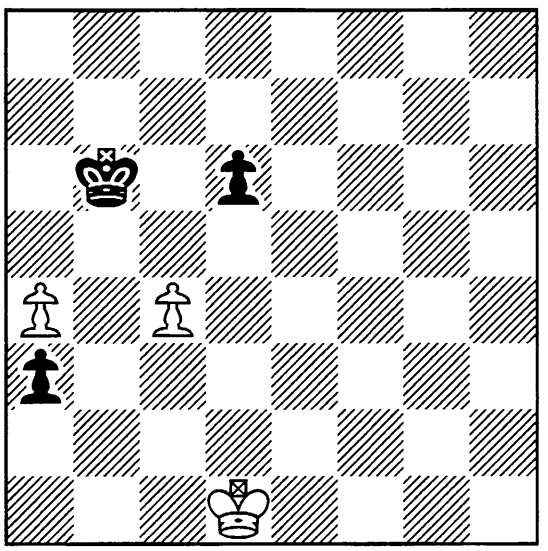


Diagram 27 (W)
White can draw

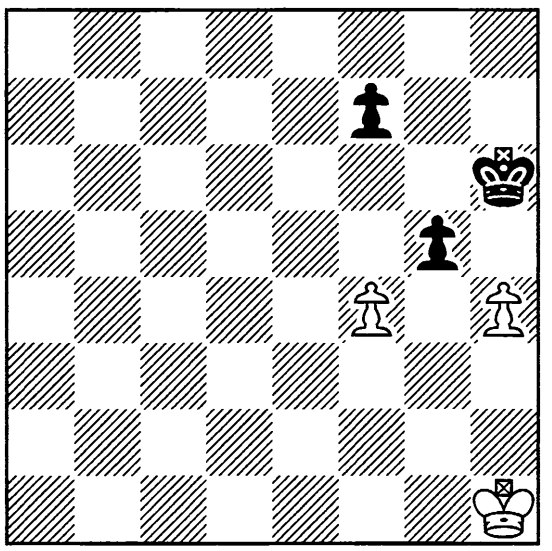


Diagram 28 (W)
White draws

(Diagram 27) Here's another example of play involving the avoidance of a sensitive square. White can draw, but he has to play precisely.

1 Kc2 Ka5 2 Kb3 a2 3 Kb2!

The obvious 3 Kxa2 loses because of 3...Kxa4, and Black picks up the c-pawn whilst *retaining the opposition and staying in front of his pawn*, e.g. 4 Kb2 Kb4 5 Kc2 Kxc4 6 Kd2 Kd4 7 Kc2 Ke3 or 4 c5 dxc5 5 Kb2 Kb4 6 Kc2 Kc4 7 Kd2 Kb3.

3...Kb4

If 3...Kxa4 then 4 c5! dxc5 5 Kxa2 Kb4 6 Kb2 Kc4 7 Kc2 and White holds!

4 Ka1!

Again avoiding the line seen in the note to move White's 3rd move.

4...Kxa4 5 c5! dxc5 6 Kxa2 and White draws!

The idea of ditching a pawn to obtain the opposition is common in studies.

Example 70

Mattison 1918

(Diagram 28) Mattison's study illustrates what I mean:

1 hxg5+ Kh5 2 g6! fxg6 3 f5! gxf5 4 Kg1!

and if Black ventures onto a rank more advanced than his pawn, White replies by taking the opposition.

4...Kg5 5 Kf1! Kf4 6 Kf2 and White draws.

By sacrificing the pawns White is able to get into position to take the opposition when it becomes critical. Black is denied any spare tempi with his pawn!

Example 71

Burmakin-Schmittdiel, Oberwart 2002

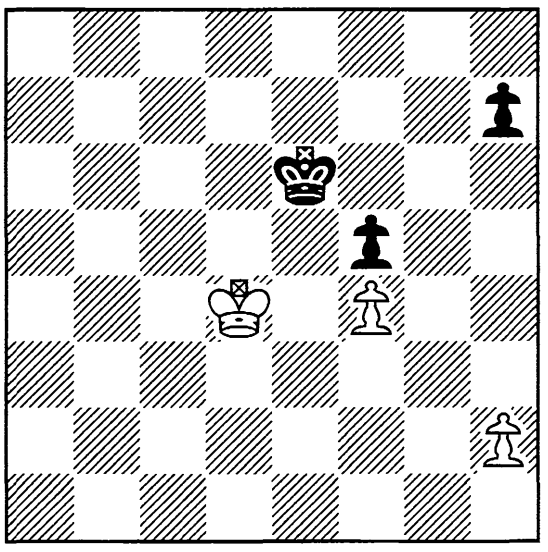


Diagram 29 (W)
White wins

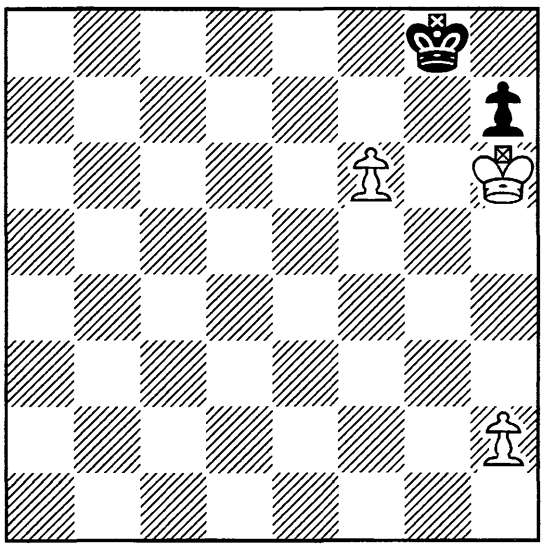


Diagram 30 (B)
Draw

(Diagram 29) White wins this one easily enough.

1 Kc5 Kf6 2 Kd5 Kg6 3 Ke5 Kg7 4 Kxf5 Kf7 5 Ke5 Ke7 6 f5 Kf7 7 f6 Kf8 8 Ke6 Ke8 9 f7+ Kf8 10 Kf6 and Black resigned in view of

10...h5

Or if 10...h6 11 Kg6 h5 12 h4!.

11 Kg6 h4 12 h3!

However, if the white pawn is not on h2 then matters are rather different.

Example 72

Grigoriev 1920

(Diagram 30) After the moves...

1...Kf7 2 Kg5 Ke6

...White is obliged to move his h-pawn to force Black back. Black holds against each possibility:

a) 3 h4 Kf7 4 Kf5 Kf8! 5 Ke6 Ke8 6 f7+ Kf8 7 Kf6 h6! (a question of calculating tempi) 8 Kg6 h5 and White has no good moves.

b) 3 h3 Kf7 4 Kf5 Ke8! 5 Ke6 Kf8 6 f7 h6! 7 Kf6 h5 8 Kg6 h4 and in both cases White is in zugzwang.

So in Example 71 the aspect that made the win sure-fire was the fact that the

h-pawn was on its starting square and has the option of moving either one or two squares in order to deliver zugzwang. Note how there White doesn't touch his h-pawn until Black has committed his.

Example 73

Gyimesi-Ruck, Budapest 2000

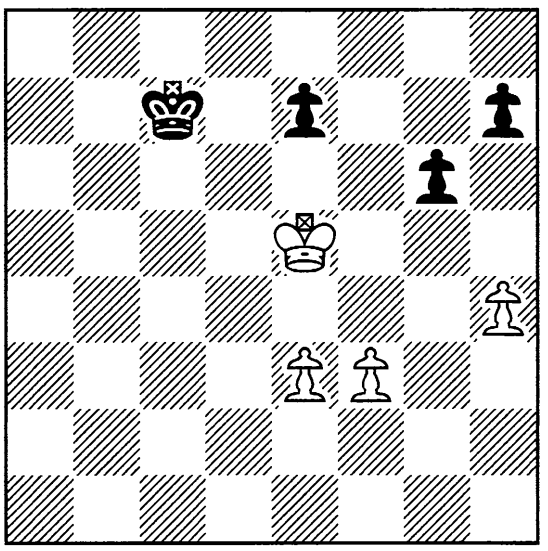


Diagram 31 (B)
White wins

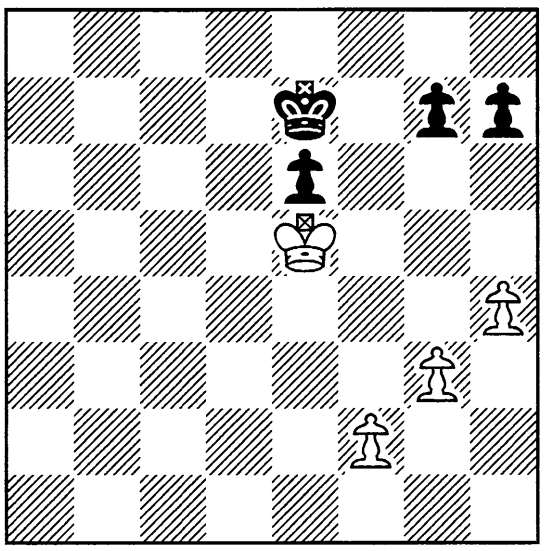


Diagram 32 (W)
Black can hold

(Diagram 31) To finish this chapter it's worth noting that with 3 v 3 on the same side, when the defender has an isolated pawn he has more problems.

1...Kd7 2 e4

If the g-pawn were on g7 then Black could envisage ...e6 followed by ...Ke7, but here 2...e6 loses to 3 Kf6 Kd6 4 f4.

2...Kd8 3 Ke6 Ke8 4 e5 h6 5 f4 Kf8 6 Kd7 Kf7 7 Kd8!

Black is squeezed.

7...Ke6

He can't hold the e-pawn with 7...Kf8 8 e6 h5, as White has 9 Kd7.

8 Ke8 g5 9 hxg5 hxg5 10 fxg5 Kxe5 11 Kf7! Kf5 12 g6 1-0

Example 74

Averbakh-Karpov, Riga 1970

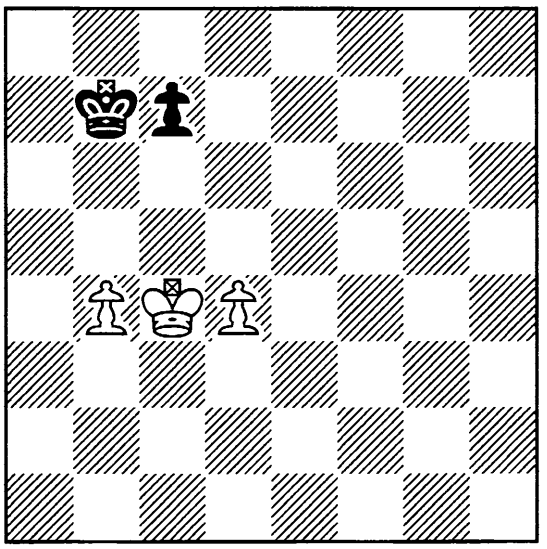
(Diagram 32) Here Black is also under pressure but, with a better defensive set-up, is able to hold out.

1 f3 Kd7 2 Kf4 Ke7 3 Kg5 Kf7! 4 g4 Ke7 5 h5 Kf7 6 h6 g6!

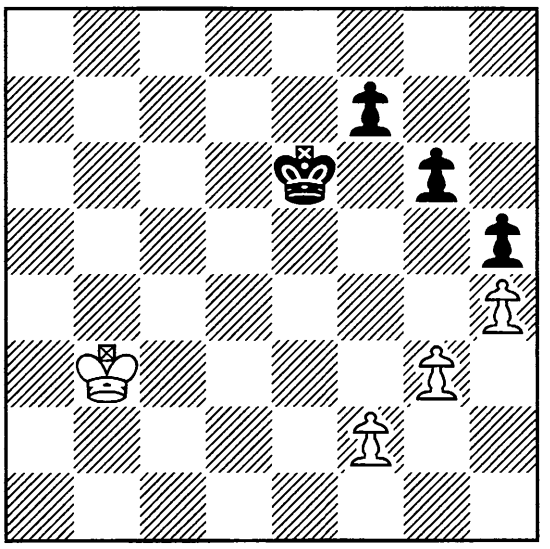
Not, however, 6...gxh6+? 7 Kxh6 Kg8 (or on 7...Kf6 8 f4 e5 then 9 g5+! gaining an important tempo to get his g-pawn safe, and White then wins after 9...Kf5 10 fxe5) 8 f4 Kh8 9 g5 Kg8 10 g6 with a decisive advantage after both 10...hxg6 11 Kxg6 Kf8 12 Kf6 and 10...Kh8 11 gxh7 e5 12 f5.

7 Kf4 Kf6 8 g5+ Kf7 9 Ke5 Ke7 10 f4 Kf7 11 Kd6 Kf8 and a draw was agreed. White wins the isolated pawn but Black locks himself in his *sanctuary* and refuses to come out, e.g. 12 Kxe6 Kg8 13 Ke7 Kh8 14 Kf7.

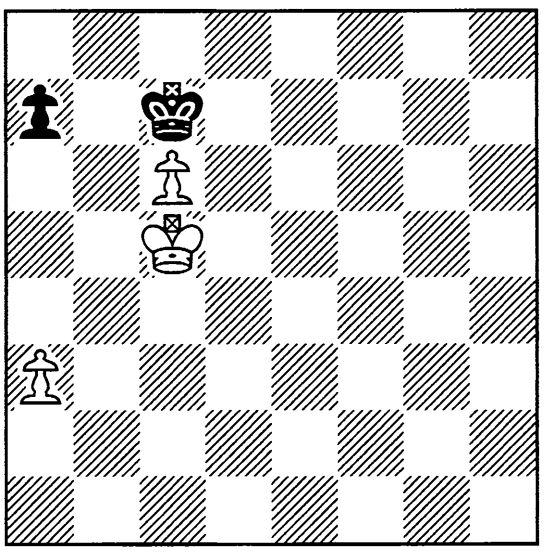
Try it Yourself



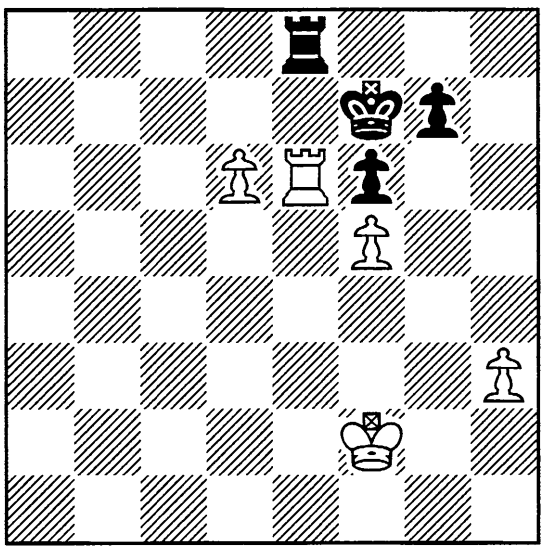
Exercise 1 (White to play)



Exercise 2 (Black to play)



Exercise 3 (Black to play)



Exercise 4 (White to play)

Exercise 1: How should White continue?

Exercise 2: In the game White resigned after **1...Kd5 2 Kc3 Ke4**. If you had had the black pieces, how would you have won?

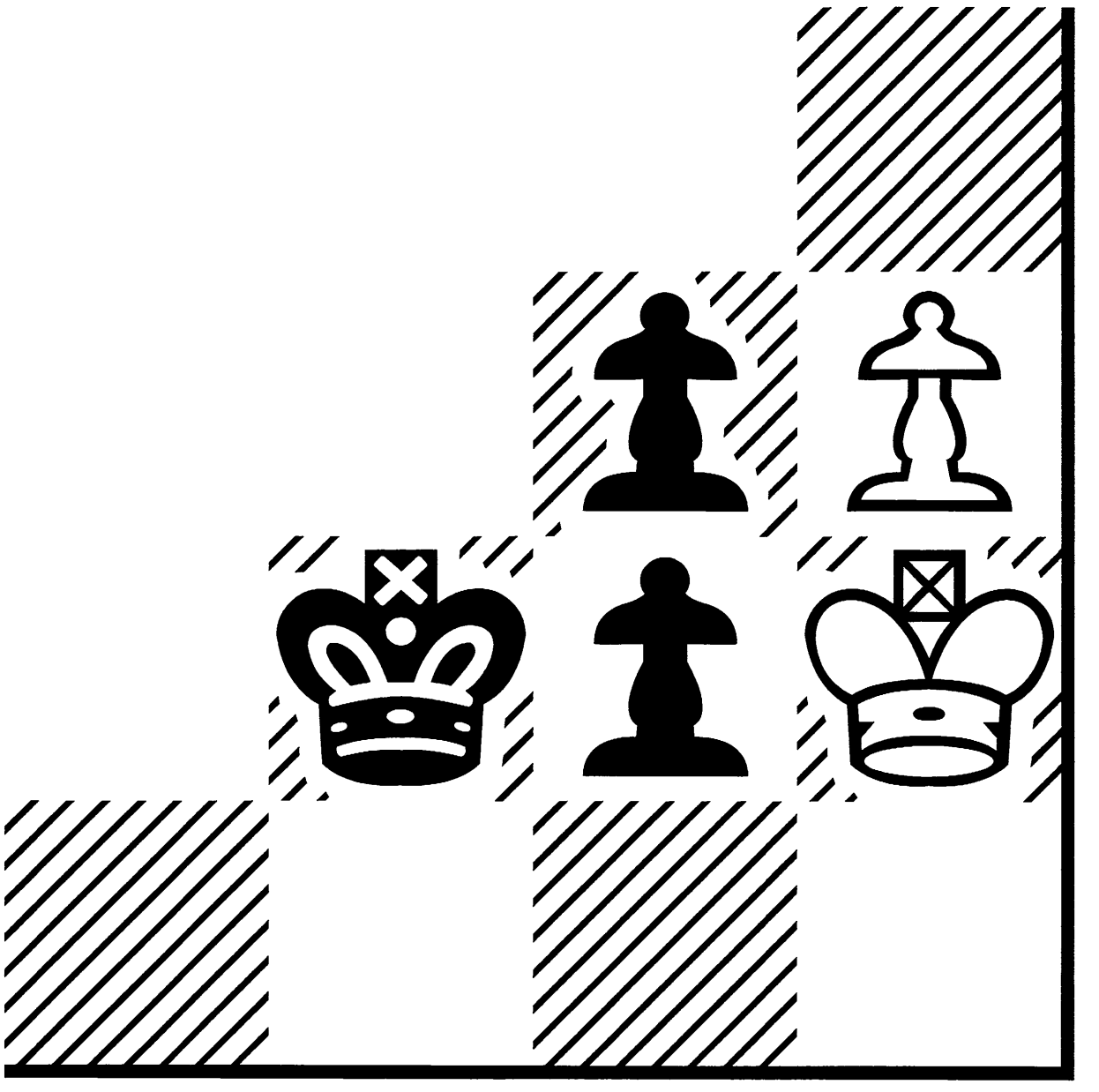
Exercise 3: How should Black defend?

Exercise 4: Black has just played ...Re8. Can White win the pawn ending with 1 Rxe8 or should he keep the tension with 1 Re3?

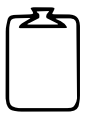
Chapter Four

The Power of the Passed Pawn

- Using the Passed Pawn
- More Complex Struggles
- Try it Yourself



Passed pawns are an important factor in all types of chess position, but their effect is particularly noticeable in pawn endings. They often constitute a decisive advantage if the opponent has no compensating factors. These usually involve the possibility of creating a passed pawn or limiting his opponent's opportunities to invade.



NOTE: Without other pieces on the board, the king has the onerous task of stopping any opposing passed pawns himself. This often leaves the defending side vulnerable elsewhere.

Using the Passed Pawn

We'll begin with some basic examples of how to exploit the passed pawn.

Example 75: The decoy

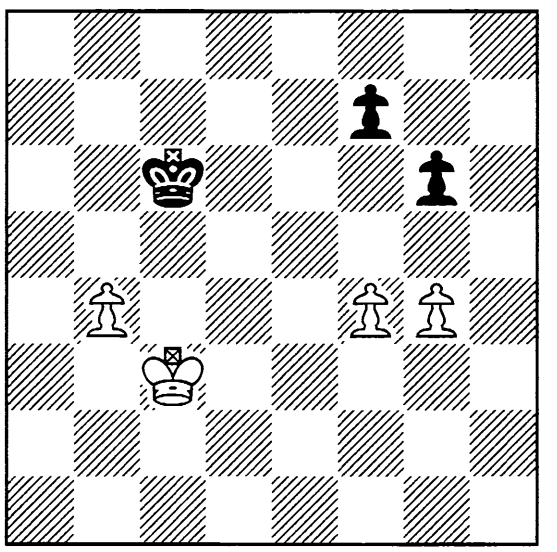


Diagram 1 (W)
White uses a decoy

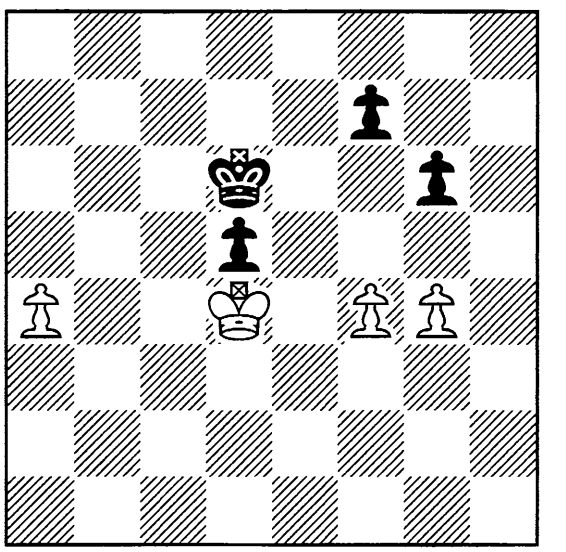


Diagram 2 (W)
The outside passed a-pawn

(Diagram 1) This type of endgame is easily won with only pawns on the board. Black has nothing to compensate for the passed pawn and he loses in an elementary fashion.

1 Kc4 Kb6 2 g5 Kc6 3 Kd4 Kb5

Or 3...Kd6 4 b5 Kc7 5 Ke5 etc.

4 Ke5 Kxb4 5 Kf6 Kc5 6 Kxf7 Kd6 7 Kxg6 etc.

Without the kingside pawns the b-pawn cannot win alone. However, it plays the role of a *decoy*, obliging Black to spend time neutralising it. Meantime the kingside falls to White.

In a more complicated example with material equality, the notion of the *outside passed pawn* is an important idea.

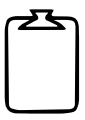
Example 76: Outside passed pawn

(Diagram 2) Material is equal but the a-pawn is further from the kingside and is therefore a more successful decoy than the d-pawn. White wins in more or less the same manner as the previous example.

1 a5 Kc6 2 g5 Kb5

2...Kd6 delays the inevitable but after 3 a6 Kc6 4 Ke5 Kb6 5 Kxd5 Kxa6 6 Ke5 Kb6 7 Kf6 White wins in the same manner.

3 Kxd5 Kxa5 4 Ke5 Kb6 5 Kf6 Kc6 6 Kxf7 etc.



NOTE: The *outside passed pawn* is a powerful weapon in pure pawn endings.

Example 77: Creating an outside passed pawn

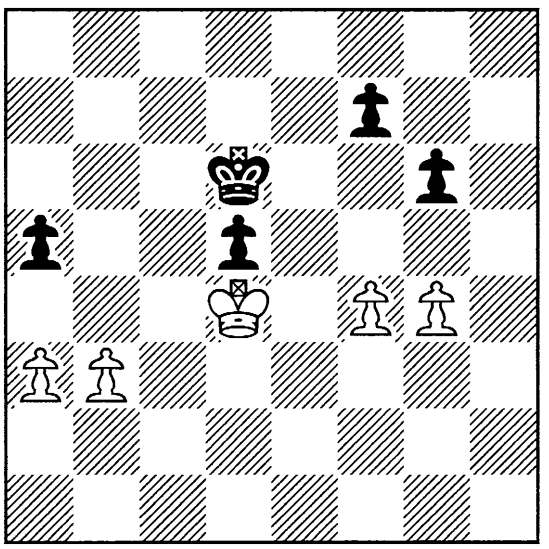


Diagram 3 (W)
White wins

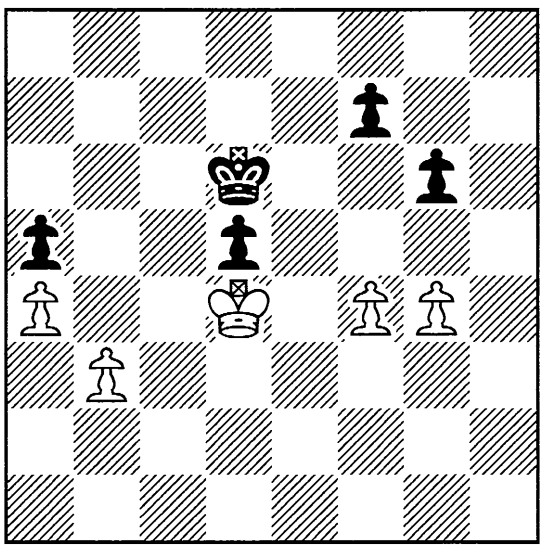


Diagram 4 (W)
A compromised majority

(Diagram 3) Here White doesn't have an outside passed pawn but a 2 v 1 majority. However, he has the possibility to create one as follows:

1 b4 axb4

1...a4 doesn't help matters: 2 g5 Ke6 (if 2...Kc6 then 3 Ke5) 3 Kc5 Kf5 4 Kxd5 Kxf4 5 b5 and White queens first.

2 axb4 Kc6 3 g5 Kb5

Also hopeless is 3...Kd6 4 b5.

4 Kxd5 Kxb4 5 Ke5 Kc5 6 Kf6 Kd5 7 Kxf7 Ke4 8 Kxg6 Kxf4 9 Kf6 etc.

White was able to use his majority to generate an outside passed pawn, which was clearly a more significant trump than Black's blockaded d-pawn. Compare this with the next example.

Example 78: Inferior majority

(Diagram 4) Only a slight difference but with the b-pawn now backward White has problems to use his queenside majority.

1 g5 Kc6 2 Ke5

Best is 2 Kd3, although after 2...Kc5 3 Kc3 d4+ 4 Kd3 (see Example 131 in Chapter 6 for a further discussion of this position) both 4...Kd5 and 4...Kb4 are favourable for Black.

2...Kc5 3 Kf6 d4

and Black wins the race.

White's compromised queenside meant that this time Black's pawn structure was more favourable.

Example 79: Passed pawn versus a majority (1)

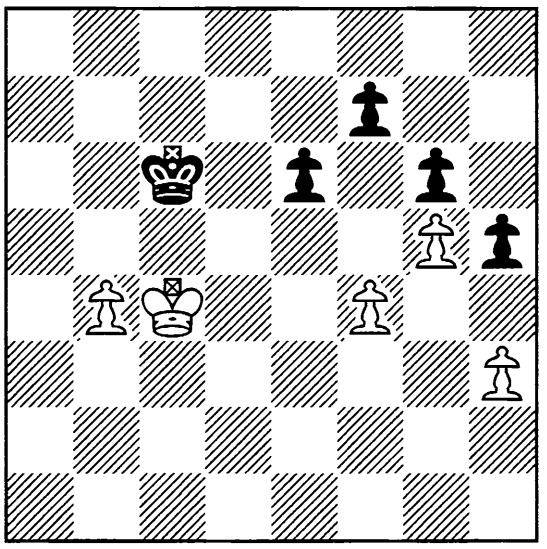


Diagram 5 (W)
The white king enters easily

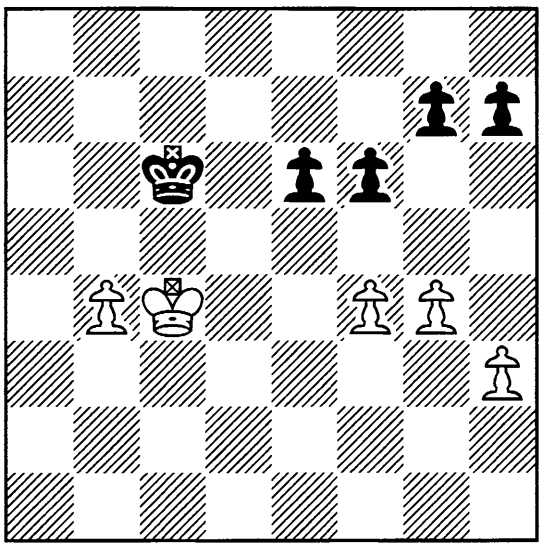


Diagram 6 (W)
White wins

(Diagram 5) Even though material is equal, Black's kingside falls easily.

1 Kd4 Kb5 2 Ke5 Kxb4 3 Kf6 Kc4 4 Kxf7 Kd5 5 Kxg6 Ke4 6 Kf6 Kxf4 7 g6 and wins.

Example 80: Passed pawn versus a majority (2)

(Diagram 6) Here White cannot immediately enter the black pawn mass via e5. He either needs to wait for Black's pawns to move (and expose themselves to attack) or push Black's king back and invade via c5 and d6.

1 b5+ Kb6

If 1...Kd6 then 2 Kd4 h6 (or in the case of 2...e5+ 3 fxe5+ fxe5+ 4 Ke4, the outside passed pawn will seal Black's fate) 3 h4 g6 4 g5! and now White cannot be prevented from invading, e.g. 4...hxg5 5 hxg5 fxg5 6 fxg5 e5+ 7 Ke4 Kc5 8 Kxe5 Kxb5 9 Kf6.

2 Kb4 Kb7 3 Kc5 Kc7 4 b6+ Kb7

Now the conditions are right for the decisive invasion.

5 Kd6 Kxb6 6 Kxe6 Kc5 7 Kf7

and White wins.

Example 81

Kasparov-Leko, Linares 2000

(Diagram 7) White has a protected passed pawn, but Black has a 4 v 3 majority. When defending such positions Black has to avoid permitting White's king an obvious way to penetrate into his camp.

1...f6

1...e6? would be a mistake because of 2 g5 when White would have a ready-made entry route via e5 and f6.

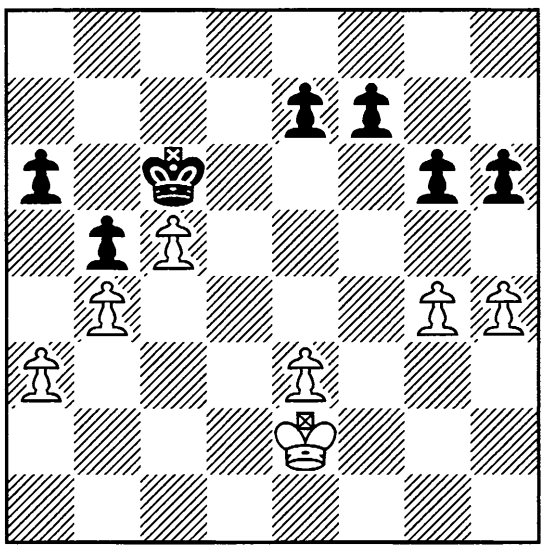


Diagram 7 (B)
Black draws

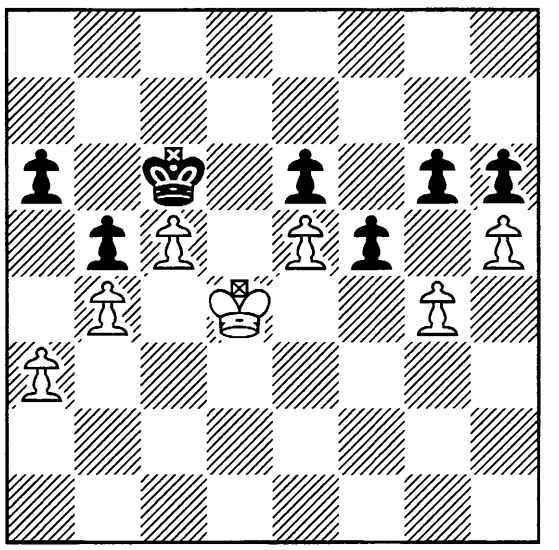


Diagram 8 (B)
Undermining

2 Kd3 e6 3 Kd4 g5!

A strong move. Instead 3...h5 weakens the pawn barrier: 4 gxh5 gxh5 5 Ke4 Kd7 6 Kf4 Kc6 7 e4 Kd7 8 e5 f5 9 Kg5, whereupon White will be able to capture the h-pawn whilst staying inside the square of the f-pawn. Widely separated passed pawns on the c- and h- files will then decide matters.

Temporising with 3...Kd7 is also inaccurate, as after 4 e4! Black can't defend with ...e5+ as that allows White into d5. Then 4...Kc6 5 e5 f5 6 h5! leads to **Diagram 8**.

This is a neat way of undermining Black's kingside (instead 6 gxf5 gxf5 7 Ke3 doesn't lead anywhere as with the h-pawn only on h6 White cannot capture it without allowing Black's f-pawn a free run to the queening square). After 6 h5 play continues 6...gxh5 (if 6...fxg4 then 7 hxg6) 7 gxf5 exf5 8 e6 h4 9 Ke5! (moving forward to support the e-pawn's advance; now it comes down to a race but one where White is fastest) 9...h3 10 e7! Kd7 11 Kf6 h2 12 c6+ and the queen ending doesn't last very long: 12...Kc7 13 e8Q h1Q 14 Qd7+ Kb6 15 Qb7 mate.

WARNING: Moves such as 6 h5 have to be carefully calculated, as allowing the opponent a passed pawn can be dangerous!

4 h5 Kd7 5 e4

The only way to try and find a chink in Black's armour.

5...Kc6 6 e5 f5! 7 gxf5 exf5

White has made some progress on the kingside, but not without cost. Black also has powerful passed pawns.

8 e6 f4!

Rather than 8...g4? 9 Ke5 g3 10 e7 Kd7 11 Kf6 g2 12 c6+.

9 Ke4

This time 9 Ke5? is too slow, as after 9...f3 10 e7 Kd7 11 Kf6 f2 12 c6+ Ke8 13 c7 Black queens with check after 13...f1Q+.

9...Kc7

with a draw as both sets of passed pawns balance each other out. A compli-

cated example but one that shows that if invasion is impossible, or fraught with risk then even a protected passed pawn isn't necessarily a decisive advantage.

Example 82

Riazantsev-P.Smirnov, Russia 2000

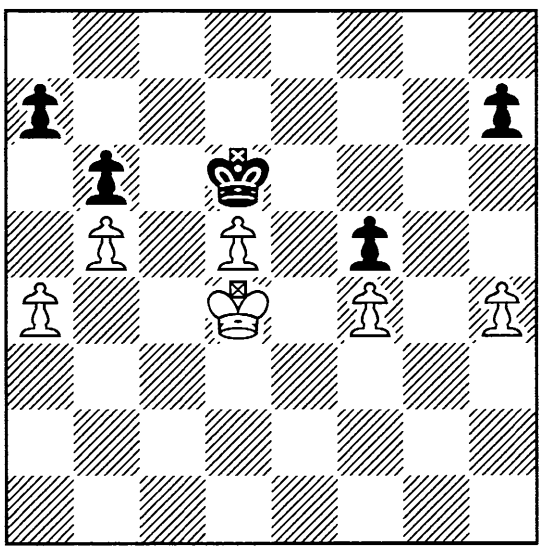


Diagram 9 (W)
Only a draw

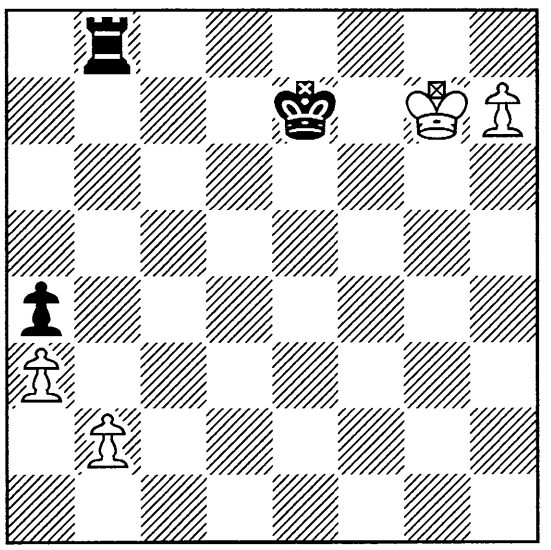


Diagram 10 (B)
Black plays an unlikely move

(Diagram 9) White has an extra pawn and furthermore it's passed. However, he doesn't have the necessary tempo to obtain zugzwang and thus can't invade. Surprisingly enough, Black draws easily.

1 h5 h6 2 Kc4 Kd7 3 Kc3 Kc7 4 Kb4 Kd6 5 Kc4 Kd7 6 Kc3 Kc7 7 Kd4 Kd6

So the old adage that *an extra pawn in a pawn ending is an easy win* requires some thought.

Without control of the squares to the side of the passed pawn, nothing else to attack and no spare tempi, White is short of things to do.

In order to illustrate the following theme I've taken a certain liberty with the term 'pawn ending'.

Example 83: The locked-in king (1)

(Diagram 10) White has a passed pawn, Black has a rook. The position has a strange solution that defies the imagination. There are three tries:

a) Firstly, 1...Rxb2 2 h8Q Rg2+ 3 Kh7 Rh2+ 4 Kg8 Rxh8+ 5 Kxh8 (now we have a pawn ending after all) 5...Ke6 6 Kg7 Kd5 7 Kf6 Kc4 8 Ke5 Kb3 9 Kd4 Kxa3 10 Kc3 and White holds.

b) Similarly, the second try also clearly leads to a drawn ending of king and rook's pawn versus king: 1...Ke6 2 h8Q Rxh8 3 Kxh8 Kd5 4 Kg7 Kc4 5 Kf6 Kb3 6 Ke5 Kxb2 7 Kd4 Kxa3 8 Kc3 and here again the position is drawn.

c) Finally, 1...Rh8!! (an astonishing move!) 2 Kxh8 (2 Kg6 loses easily after 2...Kf8 3 Kh6 Kf7) 2...Kf7 (and now White is forced to press the self-destruct button) 3 b4 axb3 4 a4 b2 5 a5 b1Q 6 a6 Qa1 mate.

Two ways of giving the rook for the pawn don't win, only sacrificing the rook for zugzwang works! This example shows that when a king becomes 'locked in' to a corner, strange things can happen!

Example 84: The locked-in king (2)

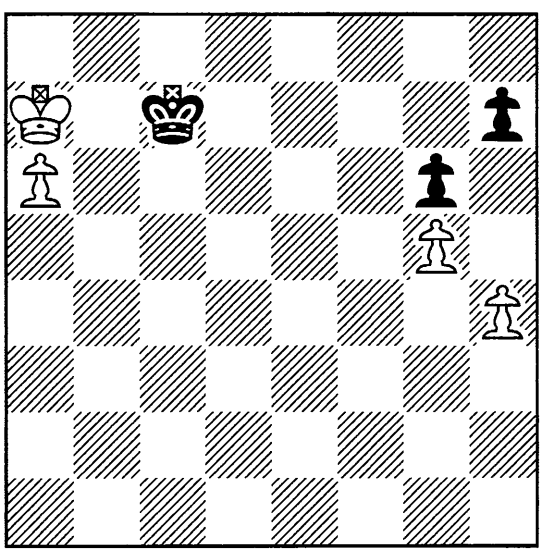


Diagram 11 (W)
White only draws

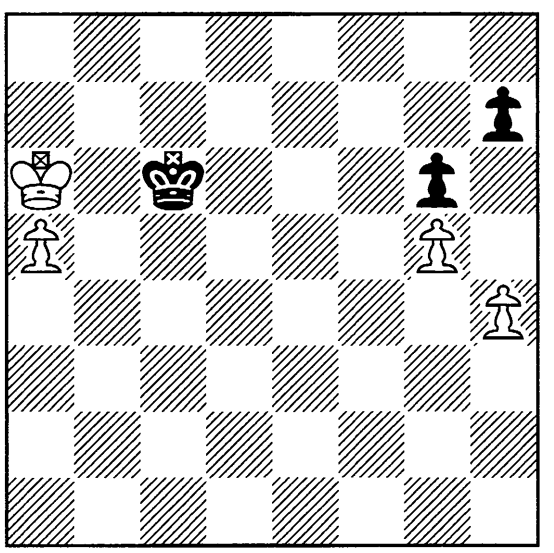


Diagram 12 (W)
White escapes jail

(Diagram 11) In less dramatic fashion we see that with White to move the draw is inevitable.

1 Ka8 Kc8 2 Ka7 Kc7

If Black were to move in the initial position **(84a)** then after 1...Kc8 2 Kb6 White frees the king. He then leaves the a-pawn as a decoy and walks over to capture Black's kingside pawns.

Example 85: The locked-in king (3)

(Diagram 12) Here with an extra rank to play with White wins even when he has the move. He uses his a-pawn to create zugzwang and thus oblige Black to free him from jail.

1 Ka7 Kc7 2 a6 Kc8 3 Kb6 Kb8 4 Kc6 Ka7 5 Kd7 etc.

Example 86: The locked-in king (4)

(Diagram 13) White has won a pawn and it's a question of tempo play on the kingside that will determine if his king sees the light of day or not.

In general with tempo play from a symmetrical structure, he who moves second wins the struggle as he copies his opponent.

1 f4

After 1 g4 g5 2 f3 f6 3 h3 h6 White's king is staying where he is!

1...f5

Also possible is 1...h5, copying but via a 'mirror image': 2 g3 (or 2 f5 h4 3 g3 h3 4 g4 f6) 2...g6 3 h3 f6 4 g4 h4!. Wrong, however, would be 4...hxg4? 5 hxg4 g5 6 f5 and Black is in zugzwang and must therefore free the white king with 6...Kc8 7 Kb6 etc.

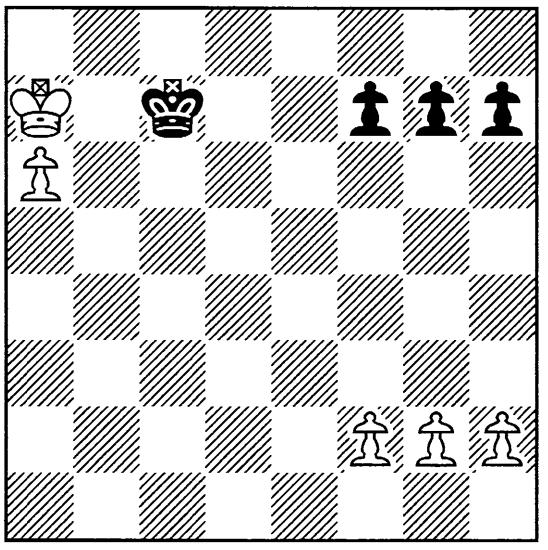


Diagram 13 (W)
Black draws

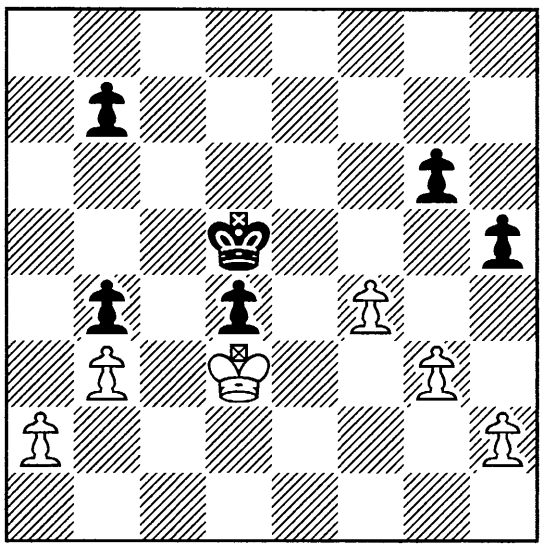


Diagram 14 (W)
A complicated ending

2 h3 h6 3 g4 g6

Black cannot always copy indefinitely, but the text is adequate.

4 Ka8 Kc8 5 gxf5 gxf5 6 h4 h5

and Black holds. So in fact we can conclude that White is in zugzwang in the diagram position.

More Complex Struggles

Now we deal with more complex tussles involving a passed pawn versus a majority. In the first example there are a number of additional points that complicate the struggle but illustrate factors that crop up in practical play.

Example 87: A complex struggle

(Diagram 14) First of all White has to push his majority as he dare not retreat and allow ...Ke4.

1 h3 b6!

Saving a valuable tempo. Instead giving way with 1...Kc5? leads to the loss of the d-pawn after 2 Ke4. Also bad is 1...b5?, squandering a spare tempo, when Black is made to pay by 2 g4 h4 3 g5 Kc5 4 Ke4.

2 g4 (Diagram 15) 2...h4!

An important idea. I call this theme *maintaining a pawn presence on the wing*. It means in practice that White can't just rush to the queenside.

If instead 2...hxg4? 3 hxg4 b5, White has a choice between 4 g5 (zugzwang) or 4 f5 gxf5 5 gxf5 Ke5 6 f6 Kxf6 7 Kxd4 and White can win on the queenside.

3 f5

3 g5 can now be met by 3...b5 **(Diagram 16)** when it is White in zugzwang. This is an example of why reserving pawn tempi can be important in the play running up to a zugzwang position. Here it makes the difference of a whole point as this is in fact an example of a *trébuchet*. Whoever plays in this position loses!

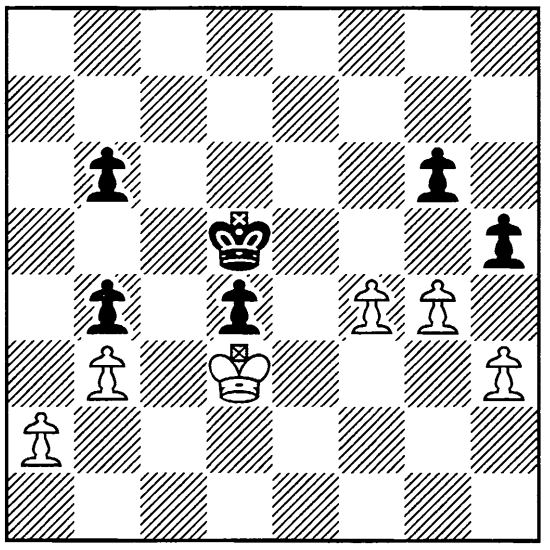


Diagram 15 (B)
White pushes his majority

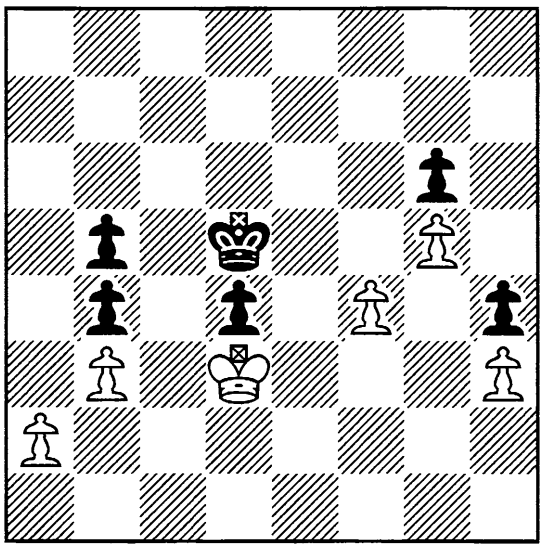


Diagram 16 (B)
Trébuchet

3...gxf5 4 gxf5

Here 4 g5 is refuted by 4...Ke5.

4...Ke5 5 f6 Kxf6 6 Kxd4 Kf5

Without the pawns on the h-file, White could win by just going left to the other flank. As it is he has to stay on the kingside to stop Black invading and a draw results.

7 Ke3 Ke5 8 Kf3 Kf5

with a draw. The move 2...h4 gives Black a potential outside passed pawn sometime in the future and is important for the defence.

Look again at the position where Black had to chose between 2...hxg4 and 2...h4. In fact the choice isn't that tough as the alternative 2...hxg4 gives White all the play on that wing.

TIP: Keeping a pawn presence on a wing where your opponent has the majority makes it more difficult for the standard decoy plan to work successfully.

Example 88

Van der Wiel-Jonkman, Leeuwarden 2002

(Diagram 17) White has an outside passed pawn which Black's king has to try and round up. The question is whether or not he has time.

1...c5

Instead 1...Kd6 2 Kf2 c5 transposes, but 2...Kc5? 3 a5 would be unfortunate for Black, who after being run out of tempi on the kingside would be obliged to move his king, thus allowing the a-pawn to queen.

2 Kf2 Kd6 3 Kf3

Alternatively, 3 Ke3 Kc6 4 Kd3 Kb6 5 Kc3 Ka5 6 Kb3 Kb6 is drawn.

3...h5?

Hoping to construct a barrier but White is able to breach it.

Black should directly go to the a-pawn as pointed out by Hecht: 3...Kc6! 4 Ke4

Kb6 5 Kd5 Ka5 **(Diagram 18)** 6 Kxc5 (after the race 6 Ke6?! Kxa4! – 6...Kb4 loses time to 7 a5 – 7 Kf7 Kb4 8 Kxg7 Kxc4 9 Kxf6 Kb5 10 f5 c4 11 Kg7 c3 12 f6 c2 13 f7 c1Q 14 f8Q Qg5+ 15 Kxh7 Qxg3 Black isn't worse) 6...Kxa4 7 Kc6 Kb4 8 Kxc7 Kxc4 9 Kd6 Kd4 10 Ke6 Ke4 11 Kf7 g5 leading to the elimination of all the remaining pawns.

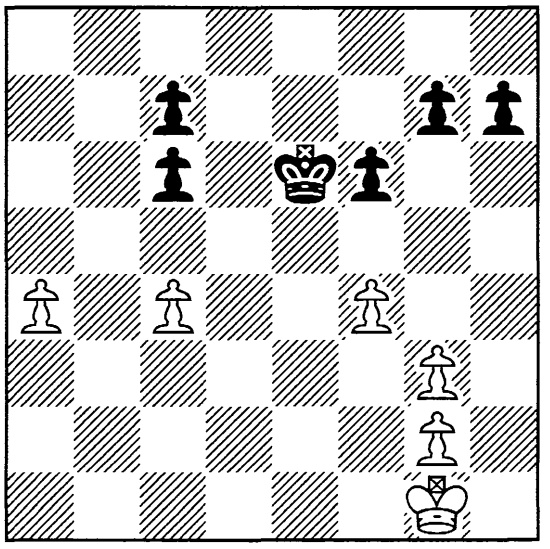


Diagram 17 (B)
A difficult position for Black

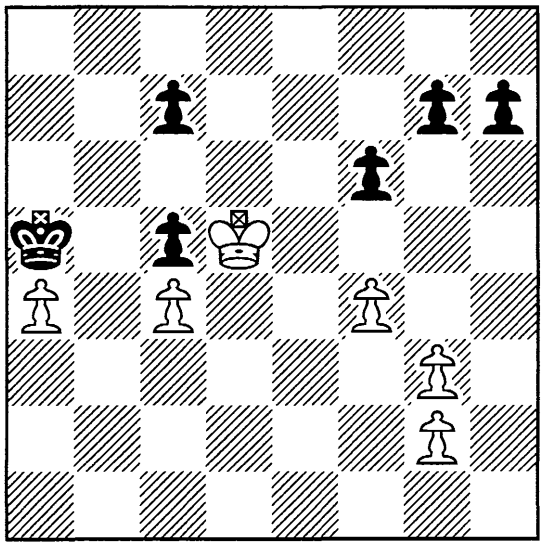


Diagram 18 (W)
Draw!

4 g4!

Giving Black an unpleasant decision.

4...h4

Here 4...hxg4+ 5 Kxg4 g6 6 f5 allows White a rapid entry route towards f6, for instance 6...g5 7 Kh5 Ke5 8 Kg6 g4 9 a5 is easily winning.

5 Ke4 g6 6 a5 c6

If 6...Kc6 then 7 g5 gains access to e5, e.g. 7...fxg5 8 fxg5 Kb7 9 Ke5 Ka6 10 Kf6 and so on.

7 a6 Kc7 8 g5!

The barrier is breached.

8...fxg5 9 fxg5

and Black resigned as the g-pawn soon falls.

So it seems that the defensive idea ...h5 cost a precious tempo and didn't defend the entry squares anyway.

There is no hard and fast rule here but it's worth remembering that unnecessary pawn moves cost time and can create self-inflicted weaknesses.

Example 89

Loncar-Stevic, Zadar 2002

(Diagram 19) Time is a key factor here. Black has a passed pawn, but (as his king cannot support it) not for long! However, picking it up takes time (three tempi) and this is long enough for Black to make inroads into White's camp.

1...Kf7 2 Kg2 g5! 3 Kf3

There is no time for 3 fxg5 hxg5 4 Kf3 as this allows 4...f4, when Black supports the e-pawn and obtains a winning position, e.g. 5 h4 gxh4 6 gxf4 h3.

3...gxf4 4 gxf4 Kg6 5 Kxe3 Kh5 6 Kf3 Kh4
...and White can do nothing...

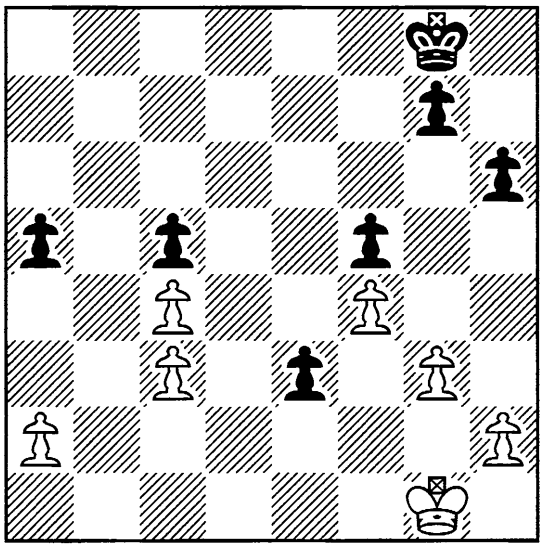


Diagram 19 (B)
Time is important

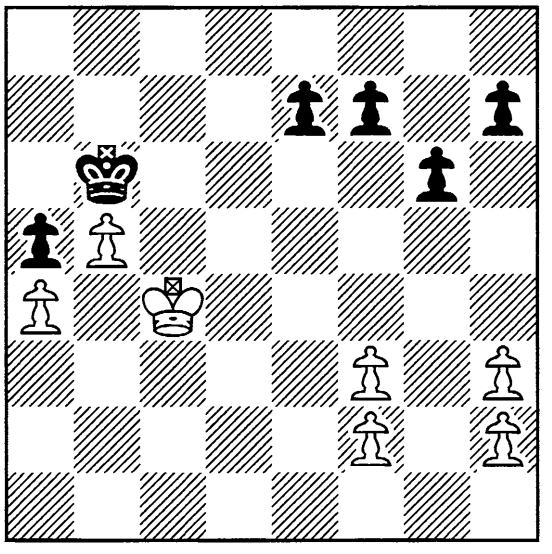


Diagram 20 (W)
Black's spare tempi are of no use

7 Kf2 Kg4 8 Ke3 Kh3 9 Kf3 Kxh2 10 Kf2 Kh3 11 Kf3 a4 0-1
White resigned as after 12 a3 h5 13 Kf2 Kg4 14 Ke3 Kg3 the f-pawn also falls.

Example 90: Protected passed pawn

Alekhine-Yates, Hamburg 1910

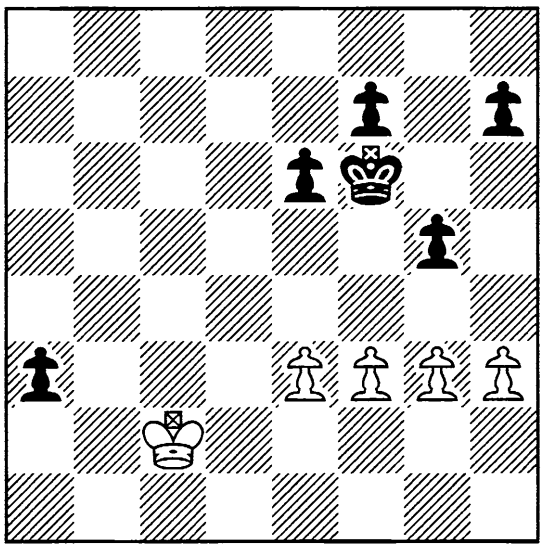


Diagram 21 (W)
Black wins

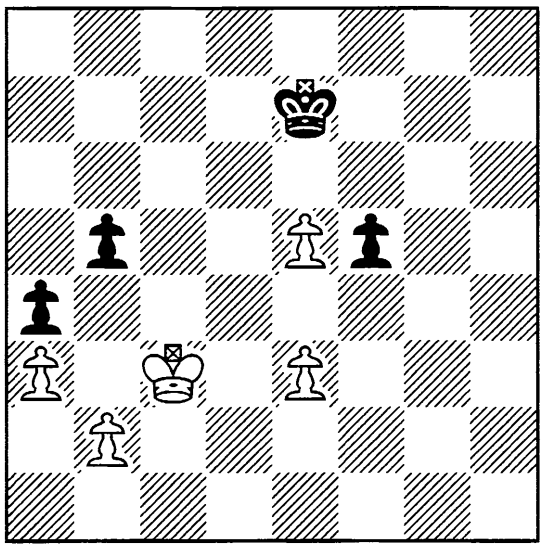


Diagram 22 (W)
A tricky ending

(Diagram 20) Here time is of little importance. White's enduring advantage of the protected passed pawn outweighs the importance of Black's temporary extra spare pawn tempi. Black has many spare tempi but White just temporises and waits for them to run out or for the appearance of a fatal weakness. White's pawns are not pretty but they stop Black creating a passed pawn.

1 Kd5 g5 2 Kc4 h6 3 Kd5 h5 4 Kc4 e6 5 Kd4 f6 6 Kc4 h4 7 Kd4

and now Black is in zugzwang.

7...Kb7

Or 7...e5+ 8 Kd5.

8 Kc5 Kc7 9 b6+ Kb7 10 Kb5

and White wins.

Example 91: Based on Averbakh

(Diagram 21) White is fast enough to both capture the a-pawn and hold off an immediate invasion, so Black must use his free time wisely to maintain an advantage.

1 Kb3 Ke5 2 Kxa3 f5

2...Kd5 doesn't get anywhere after 3 Kb3.

3 Kb4 h5!

After 3...f4 4 gxf4+ gxf4 5 exf4+ Kxf4 6 Kc5 Kxf3 7 Kd6 White holds, and it seems that 3...g4 doesn't win either, e.g. 4 hxg4 fxg4 5 fxg4 Ke4 6 Kc5 Kxe3 7 Kd6 Kf3 8 Kxe6 Kxg4 9 Kf6 Kxg3 10 Kg5.

4 Kc3

Now 4 Kc5 is found to be lacking: 4...g4 5 hxg4 (or 5 fxg4 fxg4 6 hxg4 hxg4) 5...hxg4 6 f4+ Ke4 7 Kd6 Kf3! (an extra tempo in the race is more important than making a meal of the e-pawn) 8 Kxe6 Kxg3 9 Kxf5 Kf3 10 e4 g3 and Black queens first.

4...g4 5 fxg4 fxg4 6 hxg4 hxg4 7 Kd3

Back in time to cover the e4-square, but just when White starts to think that the danger has passed...

7...Kd5 8 e4+

If 8 Kd2 Ke4 9 Ke2 e5! then White is in zugzwang.

8...Kc5! 9 Kc3

Or 9 Ke3 e5 10 Kd3 Kb4 11 Ke3 Kc3 12 Ke2 Kd4.

9...e5!

and White will be outflanked. Black's extra time was invested in a disruptive pawn advance.

Example 92

(Diagram 22) White has an extra passed e-pawn. One idea to try and win is to abandon that to its fate and enter a race with 1 Kb4. This is actually a fine position for practising one's counting (see Chapter 6 for more) as there are no hidden complications:

Black plays ...Ke6xe5-e4xe3 and ...f4-f3-f2-f1Q, a total of eight moves.

White, starting with Kb4, continues with Kxb5xa4 and then b4-b5-b6-b7-b8Q, also eight moves.

So White obtains a queen ending with an extra a-pawn. In Chapter 10 I judge this type of position as offering some practical winning chances, but it should be drawn with best play:

1...Ke6 2 Kxb5 Kxe5 3 Kxa4 Ke4 4 b4 Kxe3 5 b5 f4 6 b6 f3 7 b7 f2 8 b8Q f1Q **(Diagram 23)** and as White can't force the exchange of queens the struggle goes on (and on!).

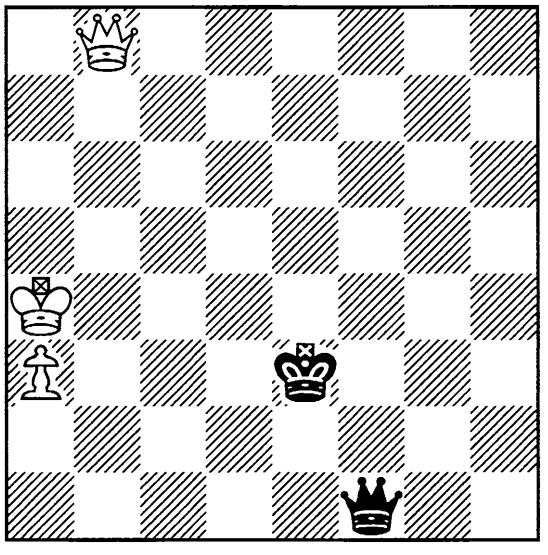


Diagram 23 (W)
The struggle goes on

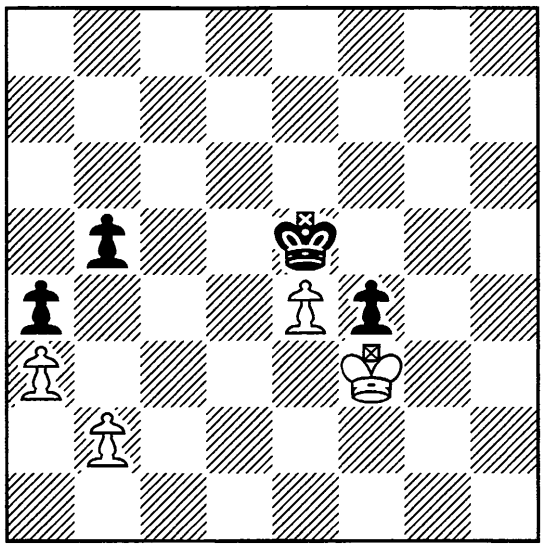


Diagram 24 (B)
zugzwang

White can also try and win by using his e-pawn, but the direct 1 Kd4 Ke6 2 e4 fails because of 2...f4. Therefore, he has to be more subtle starting with...

1 Kd3! ...as Black cannot move to e6 (1...Ke6 leads to immediate zugzwang with 2 Kd4).

1...Kd7 2 e4! f4 3 Ke2

Now White threatens to come to f3.

3...Ke6 4 Kf2! and Black is in trouble after both 4...Ke7 5 Kf3 Ke6 6 Kxf4 and 4...Kxe5 5 Kf3 **(Diagram 24)**.

This zugzwang with two adjacent passed pawns crops up in other chapters. Alekhine's *skirting manoeuvre* (looping around the zugzwang square until the time was right) is notable.

Example 93

Bogoljubow-Fine, Zandvoort 1936

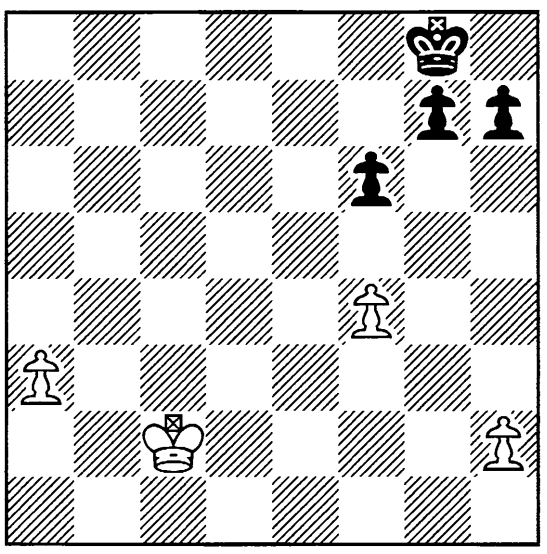


Diagram 25 (B)
Just enough counterplay

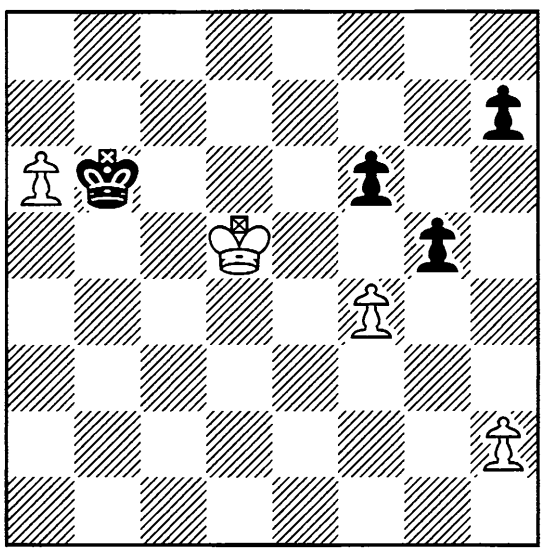


Diagram 26 (W)
distinctly drawish

It's excellent practice to play this next example out a few times (perhaps with a friend) and decide on the most likely result before playing through the variations below.

(Diagram 25) It turns out that Black's majority creates just enough counter-play to balance out White's outside passed pawn.

1...Kf7 2 Kd3 Ke6 3 Ke4 g6! 4 Kd4

Ineffective is 4 f5+ due to 4...Kd6 5 h4 Kc5.

More dangerous is 4 a4 Kd6 5 a5 (the good old decoy sets off on its suicide mission) 5...Kc5 6 a6 Kb6 7 Kd5 g5! **(Diagram 26)** and now:

a) 8 fxg5 fxg5 9 Ke5 Kxa6 10 Kf5 h6 11 Kg6 Kb6 12 Kxh6 g4! (pushing the king further away) 13 Kg5 Kc6 14 Kxg4 (and now Black has time to make it home to f8) 14...Kd6 15 Kg5 Ke7 16 Kg6 Kf8.

b) 8 f5 h5 9 Ke6 h4 (with sufficient counterplay) 10 Kxf6 g4 11 Ke7 g3 12 hxg3 hxg3 13 f6 g2 14 f7 g1Q 15 f8Q Qc5+ is distinctly drawish.

4...Kd6 5 Kc4 h6 6 Kd4 Kc6

Instead 6...g5? is premature: 7 Ke4 Ke6 8 a4 f5+ 9 Kd4 Kd6 10 a5 gxf4 11 Kd3 Kc5 12 Ke2 Kb5 13 Kf3 Kxa5 14 Kxf4 Kb6 15 Kxf5 Kc7 16 Kg6 Kd7 17 Kxh6 Ke7 18 Kg7 and this time White controls the key square.

7 Ke4 Kb5 8 Kd5 g5!

Black's king is more active here compared to when ...g5 is mentioned in the previous note.

9 fxg5

Following 9 f5 h5 10 Ke6 h4 11 Kxf6 g4 12 Ke5 g3 Black also queens.

9...fxg5! 10 Ke5 Ka4 11 Kf5 Kxa3 12 Kg6 Kb4 13 Kxh6 g4!

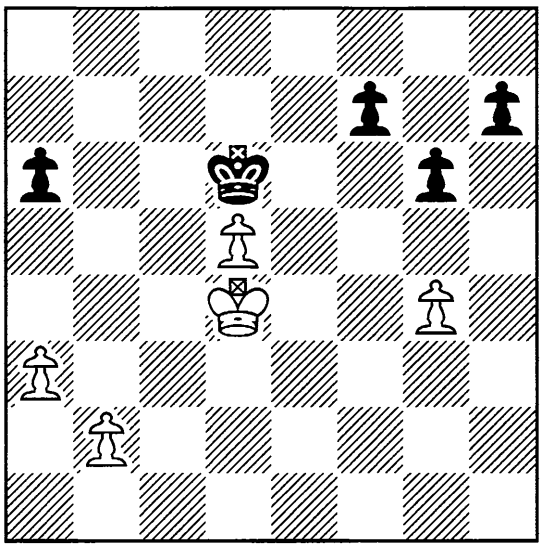
An important nuance.

14 Kg5 Kc5 15 Kxg4 Kd6 16 Kg5 Ke7 17 Kg6 Kf8 ½-½

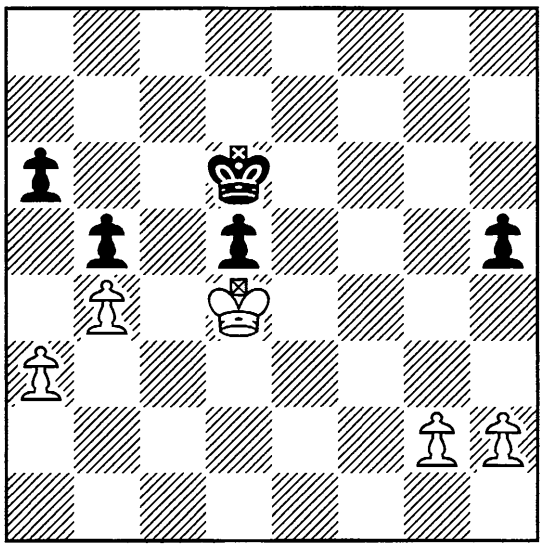
Just in time!

In the next chapter I'll be developing some of the ideas that we've touched on concerning passed pawns. There we'll concentrate on examples where both players have passed pawns.

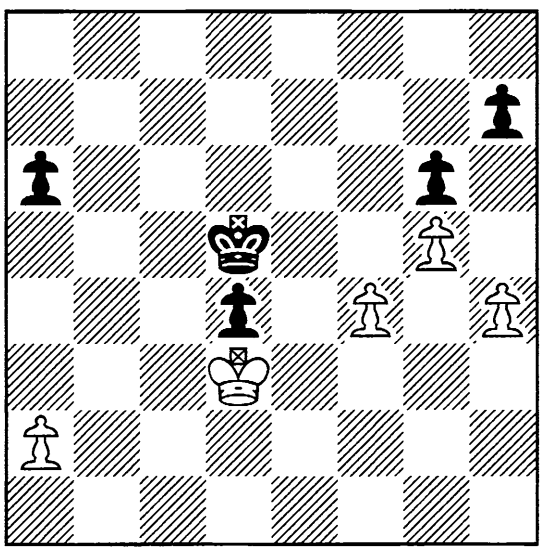
Try it Yourself



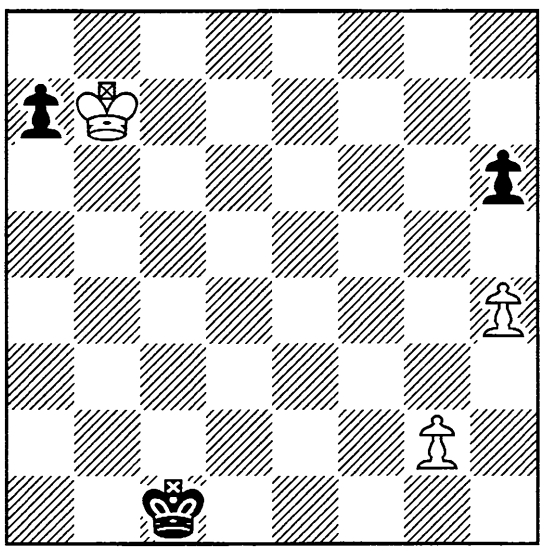
Exercise 1 (White to play)



Exercise 2 (White to play)



Exercise 3 (White to play)



Exercise 4 (White to play)

Exercise 1: What would you play with White?

Exercise 2: How should White continue?

Exercise 3: Black has a passed pawn but his opponent has a majority. It comes down to which is the stronger. The game concluded with **1 f5 gxf5 2 h5 Ke5 3 h6** and Black resigned.

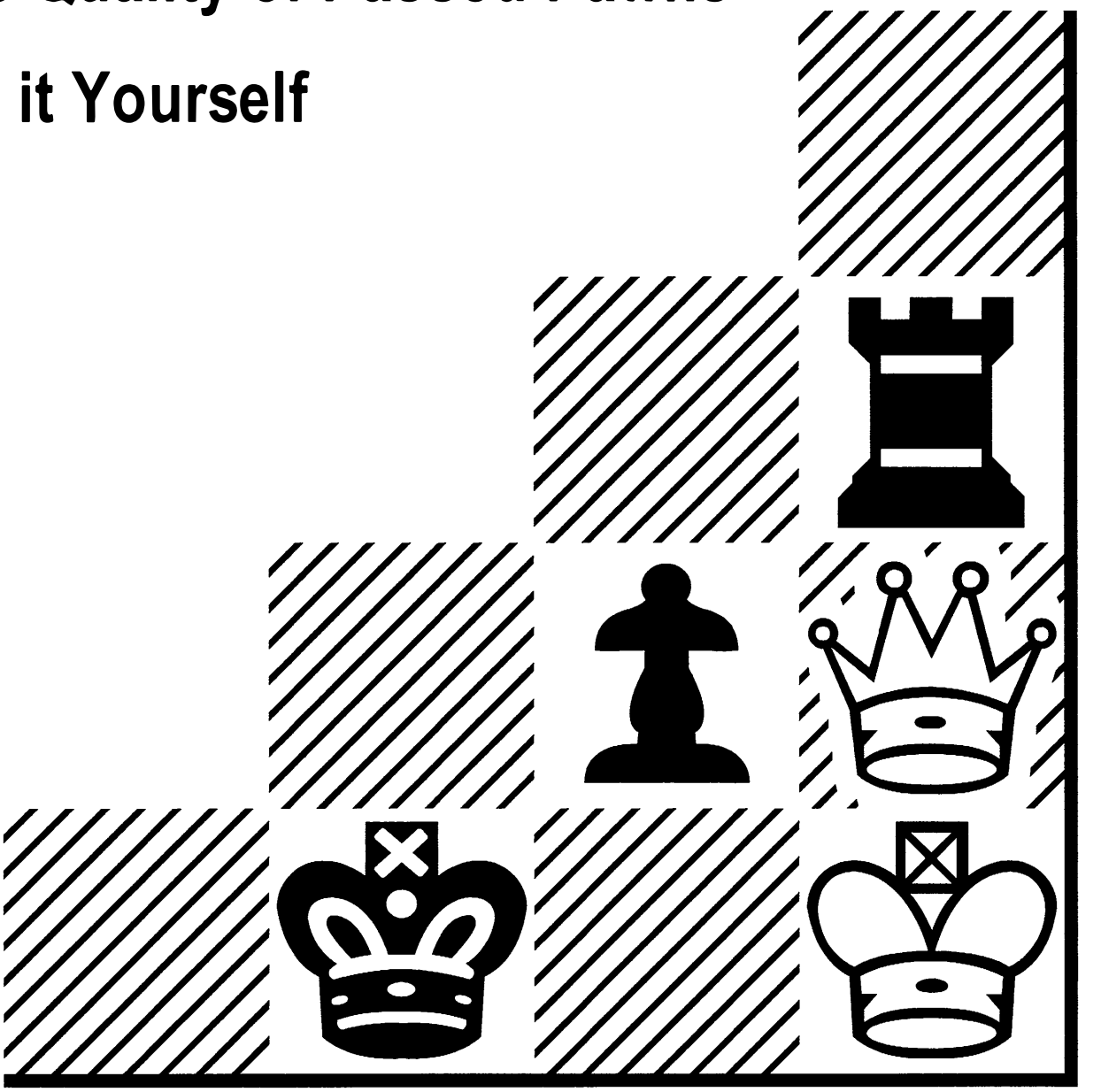
Was this best play by both players or are there any improvements in this?

Exercise 4: What should White play? Can you calculate the final result?

Chapter Five

Passed Pawns Galore

- Two Passed Pawns
- Three Passed Pawns
- The Quality of Passed Pawns
- Try it Yourself



Here we take a closer look at play with passed pawns, especially when there are more than one. If one side has two or more passed pawns they can be connected or split. If they are split then the number of files separating them is significant, as is their closeness to the eighth rank.

We shall spend some time investigating double-edged positions, where both sides have passed pawns, and try and decide who has the better chances.

Connected passed pawns are naturally a great trump to have in many endings, and pawn endings are no exception.

Two Passed Pawns

Let's begin by looking at examples with two connected passed pawns.

Example 94: Two connected passed pawns

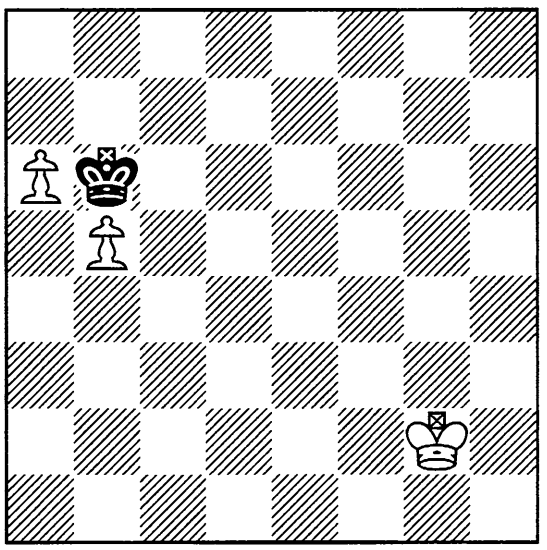


Diagram 1 (W)
Two connected passed pawns

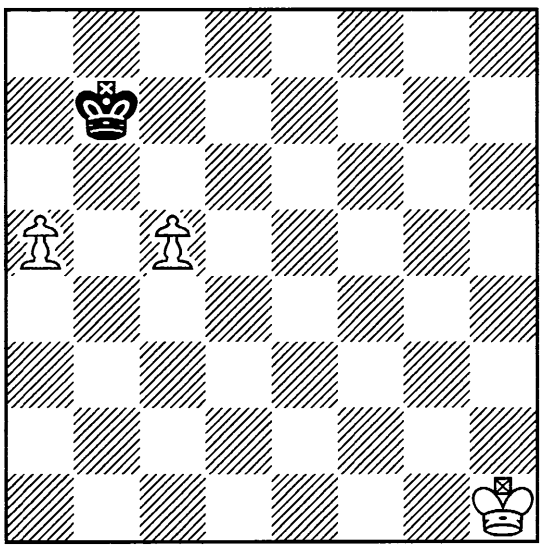


Diagram 2 (W)
Split pawns

(Diagram 1) Here's a typical situation where Black's king stops the advance of the connected passed pawns, but cannot capture them. If White's king is free to join in then they will eventually be able to advance and win the game.

1 Kf3 Ka7

1...Kxb5? 2 a7 and Black is out of the square and loses.

2 Ke4 Kb6 3 Kd5 Ka7 4 Kc6 Kb8 5 b6 Ka8

Now White has to be aware of stalemate.

6 b7+

Indeed 6 a7? is to be avoided! Also possible but slower is 6 Kb5 Kb8 7 a7+ Ka8 (or 7...Kb7 8 a8Q+ Kxa8 9 Ka6 Kb8 10 b7) 8 Ka5! (careful!) 8...Kb7 9 a8Q+ Kxa8 10 Ka6 Kb8 11 b7 and wins.

6...Kb8 7 a7+ Kxa7 8 Kc7 and White wins.

Example 95: Split pawns

(Diagram 2) Another situation where the pawns are untouchable and White's king eventually comes up to lend support.

1 Kg2 Kc6?!

The most precise move is 1...Kb8 as White dare not immediately advance his pawns: 2 Kf3 (2 c6? is premature as 2...Kc7 wins the pawns) 2...Kb7 3 Ke4 Kb8 4 Kd5 Kc7 5 c6 and now that the king helps out the win is easy.

2 a6 Kc7

Or 2...Kxc5? 3 a7 and the pawn queens.

3 Kf3 Kb8 4 c6 Ka7 5 c7 and White wins.

Example 96: Connected versus split pawns

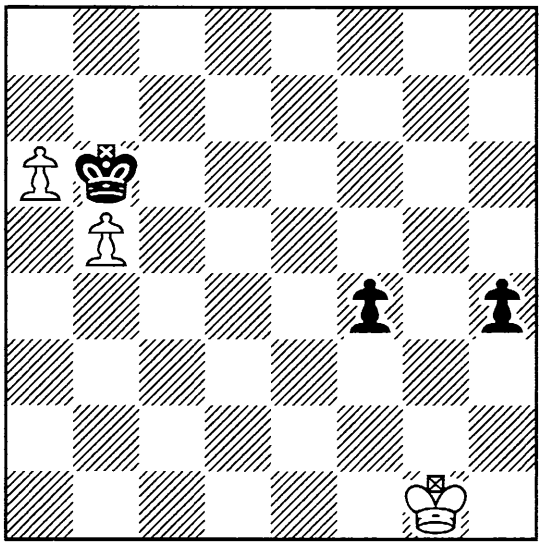


Diagram 3 (W)
Connected versus split pawns

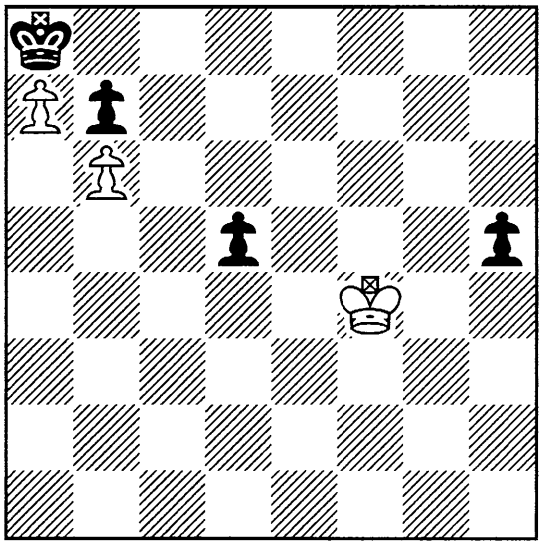


Diagram 4 (W)
Widely split pawns

(Diagram 3) Bearing in mind play in the two previous examples, it becomes clear that a draw is inevitable. Neither side can win pawns, nor can the unsupported pawns advance.

1 Kg2 Ka7 2 Kg1!

But not 2 Kf3?!, which allows 2...h3.

2...Kb6 3 Kg2 with a repetition.

Example 97: Widely split pawns

(Diagram 4) Black's king is really locked out of play! Nevertheless, two passed pawns, three files apart on the fourth rank, win without help.

1 Kf5 h4 2 Kg4 d4 3 Kxh4 d3 4 Kg3 d2 5 Kf2 d1Q etc.

Example 98: Connected versus widely split pawns

(Diagram 5) On the third rank the pawns defend themselves, but against a well-placed king they cannot advance without assistance.

1 Kf4 Kc6 2 Kf5 Kb7 3 Kf6 Kc6 4 Kf5 d5

Being so far back, any unsupported advance of the pawns can lead to their loss. After 4...h5? 5 Kg5 d5 6 Kxh5 d4 7 Kg4 White stops the d-pawn in time and wins the game.

5 Ke5 h5 6 b7 Kxb7 7 Kxd5 h4 8 Ke4 and both remaining pawns are rounded up with an inevitable draw.

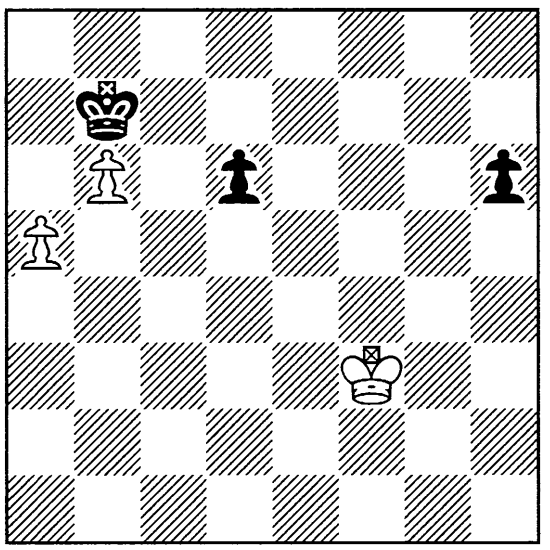


Diagram 5 (W)
Draw

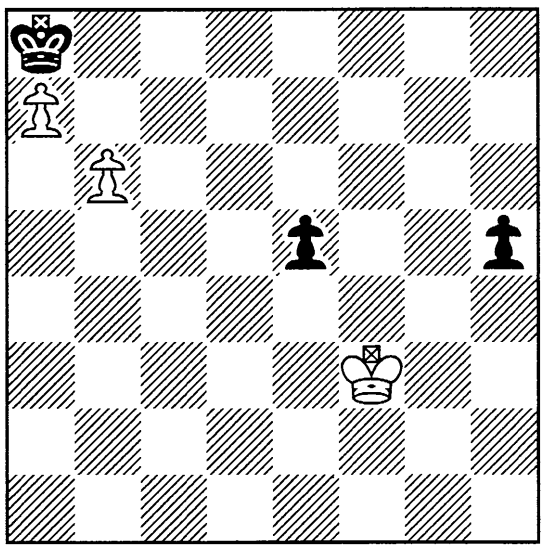


Diagram 6 (W)
White wins

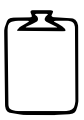
Example 99: The common square

(Diagram 6) The least favourable distance apart for split pawns is two files, as in this case the pawns don't necessarily defend themselves, e.g.

1 Ke4 h4 2 Kf3 Kb7 3 Kg4 e4 4 Kxh4 e3 5 Kg3 e2 6 Kf2

and White wins eventually as in Example 94.

The previous few examples illustrate a number of different cases, but it would be simpler if there were some general rules to help us see at a glance the relative strength of split pawns. In fact there are! However, first of all we need to learn about the *common square*.



NOTE: The *common square* can be defined as a imaginary square drawn from the most backward of the split pawns, across to include the file of the other pawn, then the same distance forwards (creating a second side) and then completed in the natural manner.

So, the common square in Example 99 would be from e5-h5 (four files inclusive) -h2 (same distance forwards) -e2-e5 (back again to complete the square).

Here are some rules for judging split pawns at a glance.

1) Unsupported split pawns one, three or more files apart mutually support themselves if they're on the same rank.

2) If the common square of any split pawns reaches as far as the eighth rank then the pawns can promote unaided (as in Example 97 where the common square is from d5-h5-h1-d1-d5).

3) If the pawns are two files apart and as far back as the fourth rank, they do not support themselves and can be picked off in certain circumstances (as in Example 99 where the common square was e5-h5-h2-d2-e5).

Check through the other examples in this section to see if the strength of the passed pawns tallies with these rules.

Example 100: Split pawns on different ranks

(Diagram 7) In this example the pawns are not on the same rank. The common square concept can be adapted in such circumstances if we imagine the square from the more backward pawn.

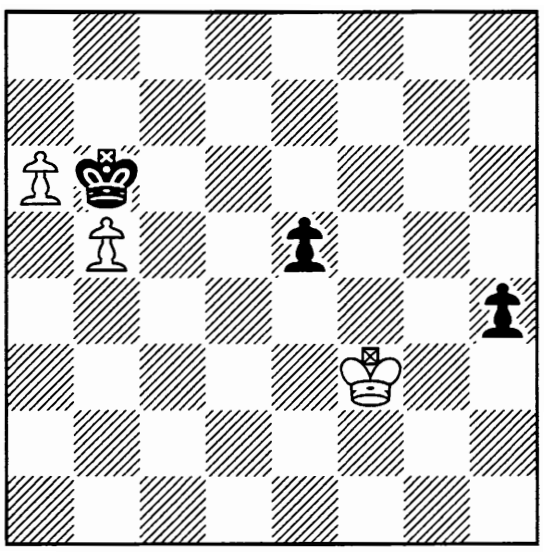


Diagram 7 (W)
Split pawns on different ranks

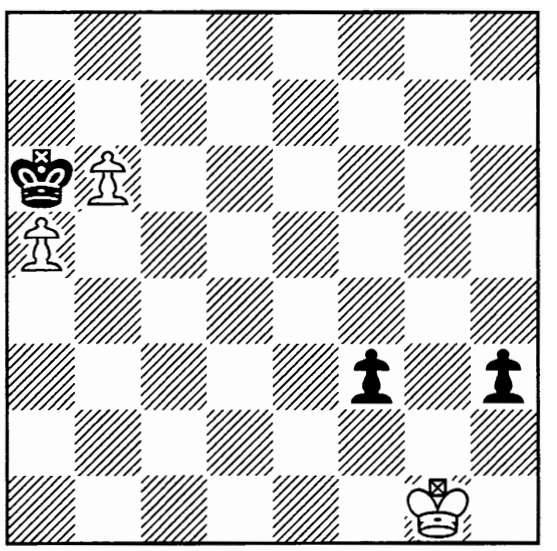


Diagram 8 (W)
Black wins

So the square would be from e5-h5-h2-e2-e5, i.e. from e5, three files to the right (h5) and then three forward (h2) and then three to the left (e2) and back to the starting point.

As the *common square* doesn't reach the eighth rank and the pawns are two files apart, this spells trouble for Black!

1 Kg4 e4 2 Kxh4 e3 3 Kg3 and White wins.

Example 101: One file apart: sufficiently far advanced to win

(Diagram 8) With unsupported split pawns separated by one file, the rule of the common square tells us that they only win if they are as far advanced as the sixth rank. This is only true in this particular case because of zugzwang, as White is obliged to move his king and give way before Black has to touch his pawns.

1 Kh2 f2 etc.

Example 102: One file apart: not far enough advanced to win

(Diagram 9) On the fifth rank the pawns only draw:

1 Kg1! Kb7

Not of course 1...h3? 2 Kh2 f3 3 Kxh3 etc.

2 Kg2 Ka6 3 Kg1

Neither pawn can advance. The common square, f4-h4-h2-f2-f4, doesn't reach the eighth rank.

In the following position use the rule of the common square to predict the result, whoever it is to move, without analysing variations.

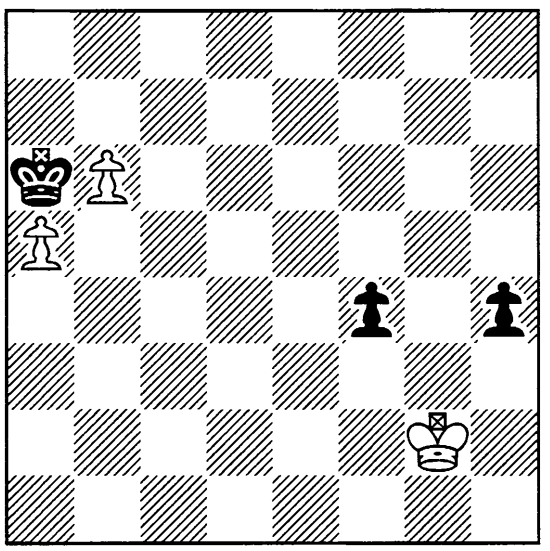


Diagram 9 (W)
Draw

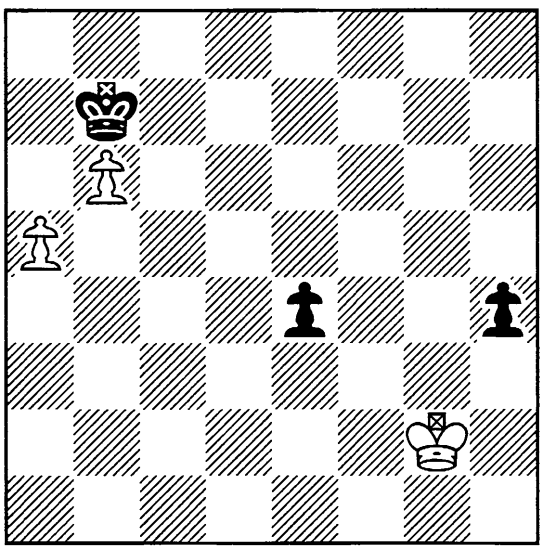


Diagram 10
Using the common square

Example 103: Using the common square

(Diagram 10) The common square is e4-h4-h1-e1-e4, so the rule predicts that Black wins. You can check this by playing out some variations.

Example 104: Are the pawns far enough advanced? (1)

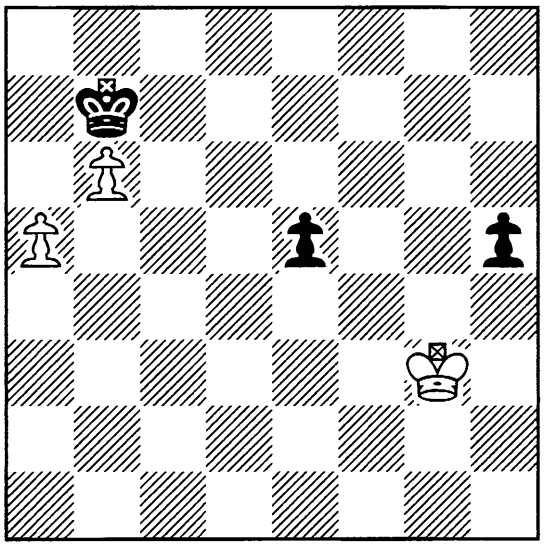


Diagram 11
Far enough advanced?

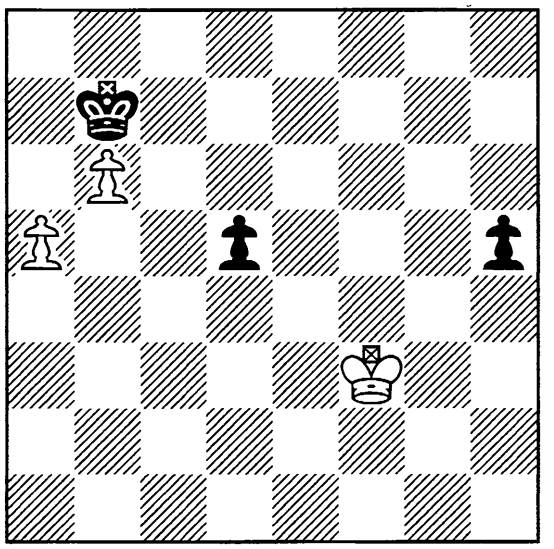


Diagram 12
Far enough advanced?

(Diagram 11) Again use the rule of the common square to predict the result. Here again it doesn't matter who moves first!

As the square doesn't reach the eighth, White wins, but can you remember how?

1 Kh4 e4 2 Kg3!

The only way.

2...Ka6 3 Kf4 h4 4 Kxe4 h3 5 Kf3 etc.

Example 105: Are the pawns far enough advanced? (2)

(Diagram 12) Again use the rule before calculating. It should be familiar by now!

Yes, the square reaches the eighth so Black wins. I'll leave you to check the variations, but if you are stuck have a quick glance at Example 97.

Example 106

Stoltz-Nimzowitsch, Berlin 1928

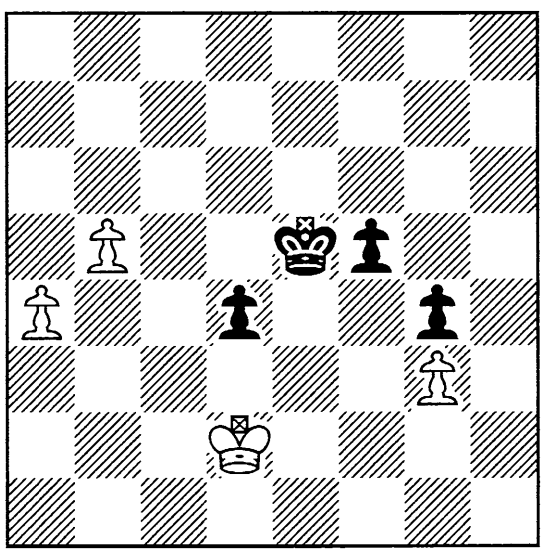


Diagram 13 (B)
Black wins

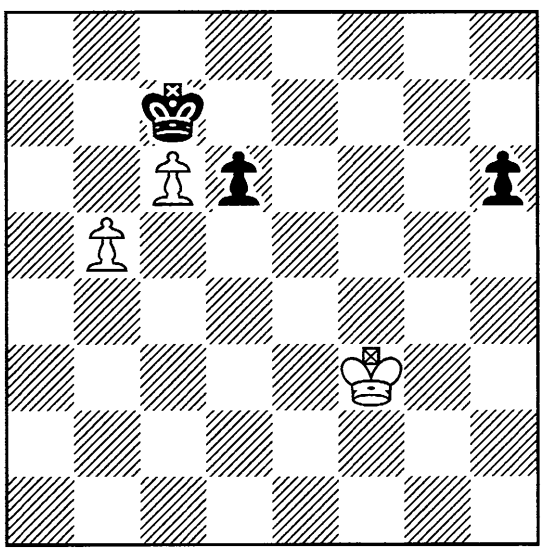


Diagram 14 (W)
White wins

(Diagram 13) In the battle between connected pawns and split pawns, if the split pawns are sufficiently advanced they can make it all the way unaided.

1...f4! 2 gxf4+ Kd6!

A nice touch. The king is used to delay the advance of the opposing pawns whereas his own foot soldiers are big enough to look after themselves. The rule of the common square (d4-g4-g1-d1-d4) tells us that they can make it to their eighth rank without assistance.

3 b6 g3 4 Ke2

Neither 4 b7 Kc7 nor 4 f5 g2 offer any hope.

4...d3+ 5 Kxd3 g2 6 b7 Kc7 and Black wins.

Example 107

Horwitz and Kling

(Diagram 14) In comparison, the black pawns are not so well advanced here. We know from the rule of the common square that neither of the pawns can be captured without freeing the other to advance. However, there's another factor that shouldn't be ignored in actual play: White's king can help to support his own pawns.

1 Kf4!

The direct approach with 1 Ke4? is wrong as Black can advance his h-pawn immediately and thus has an extra tempo in the race: 1...h5 2 Kd5 h4 3 b6+

Kxb6 4 Kxd6 h3 5 c7 h2 6 c8Q h1Q.

1...Kb6

1...h5 now loses both pawns after 2 Kg5 d5 3 Kxh5 d4 4 Kg4.

2 Kf5 Kc7 3 Kf6! Kb6

Again if Black touches one of his pawns then he loses both of them.

4 Ke6!

Now White moves onto the offensive.

4...Kc7

If 4...h5, White arrives first after 5 Kxd6 h4 6 c7.

5 Kd5 h5 6 b6+ Kxb6 7 Kxd6 h4 8 c7 and White wins.

The rule of the common square is useful, but the close proximity of a king to his own pawns generates concrete variations and the possibility of a race.

Three Passed Pawns

Example 108: Three connected passed pawns

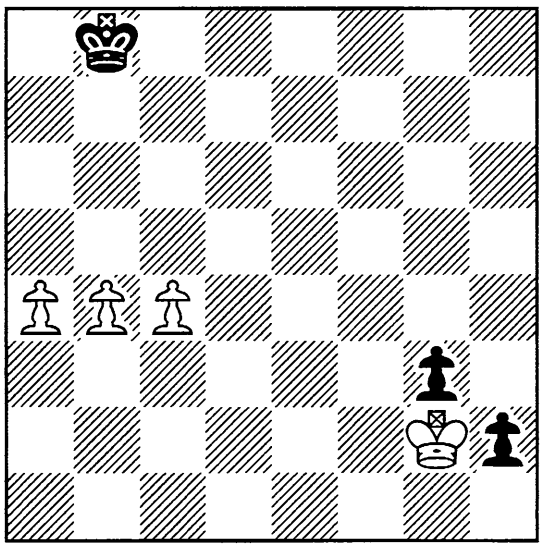


Diagram 15 (B)
Three connected passed pawns

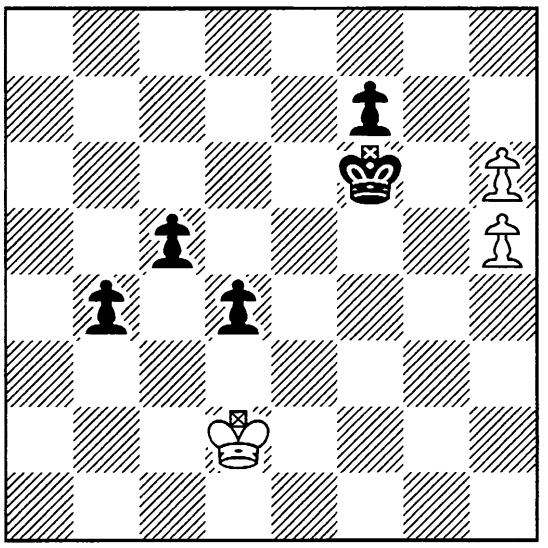


Diagram 16 (W)
White uses zugzwang

(Diagram 15) The position on the queenside is already zugzwang and continues to be so. However White can always temporise with his king thus gaining the upper hand.

1...Kb7 2 b5

Also possible is 2 a5 Ka6 3 c5 Kb5 4 Kh1!.

2...Kb6

Holding everything in check for the moment, but...

3 Kh1!

...and now Black's king must move.

3...Kc7 4 a5 Kb8 5 a6 Ka7 6 c5 Kb8 7 c6 Ka7 8 c7 and the c-pawn queens.

White couldn't have won without the possibility of 'passing' with his king. The next example illustrates this point.

Example 109: Using zugzwang (Kling and Horwitz)

(Diagram 16) In this study by Kling and Horwitz any move by Black's king is immediately fatal as White can advance his forward h-pawn to queen. So to win White must find a way to block the queenside pawns.

1 Kc2! c4 2 Kc1!

is the way. A standard 'waiting to see which pawn advances first' technique. Now, whichever Black pawn advances, White must block it...

2...d3

Or 2...c3 3 Kc2!.

3 Kd2 b3 4 Kc3 and Black is in zugzwang and loses.

Example 110: Who is in zugzwang?

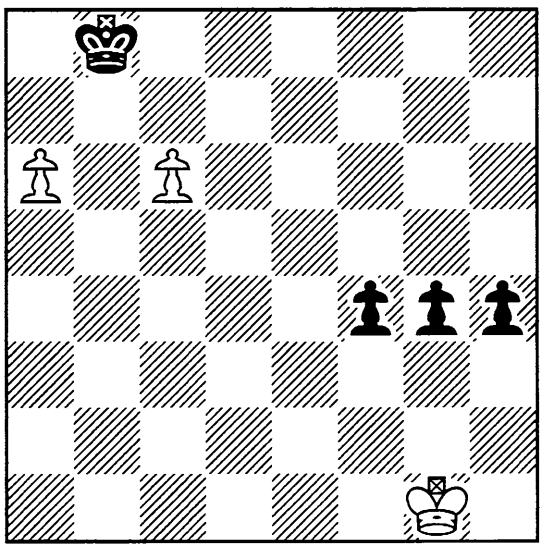


Diagram 17 (W)
zugzwang

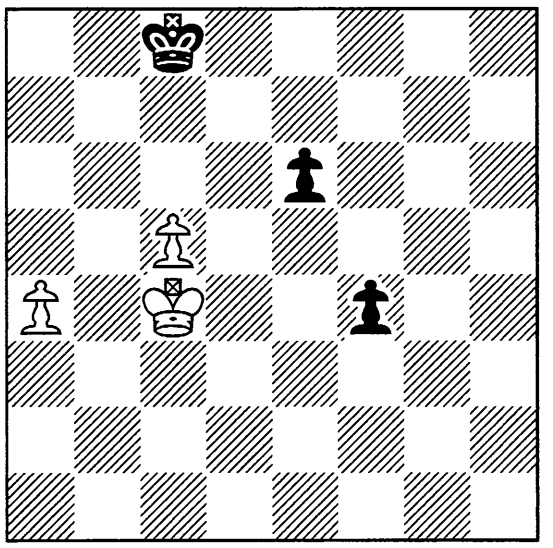


Diagram 18 (W)
self-supporting pawns

(Diagram 17) Decisive zugzwangs on both wings. Whichever side moves first loses!

1 Kg2 g3 2 Kg1

If 2 Kf3 then 2...h3.

2...h3 3 Kh1 h2 4 Kg2 f3+ etc.

With Black to play in the initial position **(110a)**, 1...Ka7 2 c7, 1...g3 2 Kg2, 1...f3 2 Kf2 h3 3 Kg3 and finally 1...h3 2 Kh2 f3 3 Kg3 f2 4 Kxf2 h2 5 Kg2 g3 6 Kh1 all lose.

The Quality of Passed Pawns

Now we'll look at a selection of positions where the respective strengths of the opposing passed pawns have to be taken into account. In order to judge the most likely result, we first of all have to look at the qualities of each majority.

Example 111

Topalov-Van Wely, Monaco (blindfold) 2000

(Diagram 18) Here as we have seen, each side has self-supporting pawns so a draw seems likely. The game continued

1 a5 Kb7 2 Kd4 e5+ 3 Ke4 Kc7 4 a6 Kc6 5 Kf3

and a draw was agreed as the players have no choice but to repeat with 5...Kc7 6 Ke4 Kc6 7 Kf3 etc.

Example 112

Ju.Bellon Lopez-P.Gutierrez Castillo, Malaga 2003

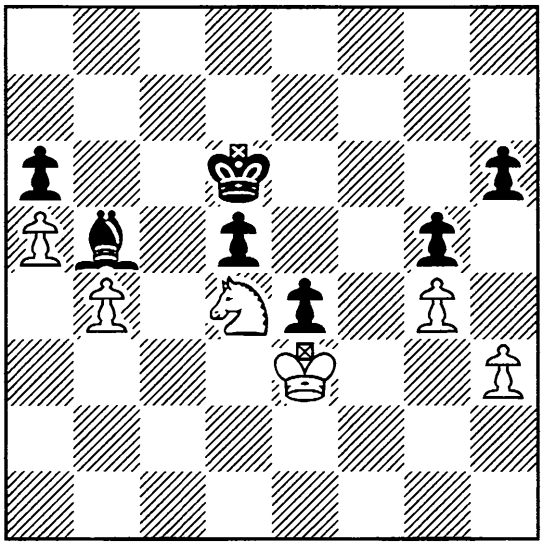


Diagram 19 (W)
White simplifies to a draw

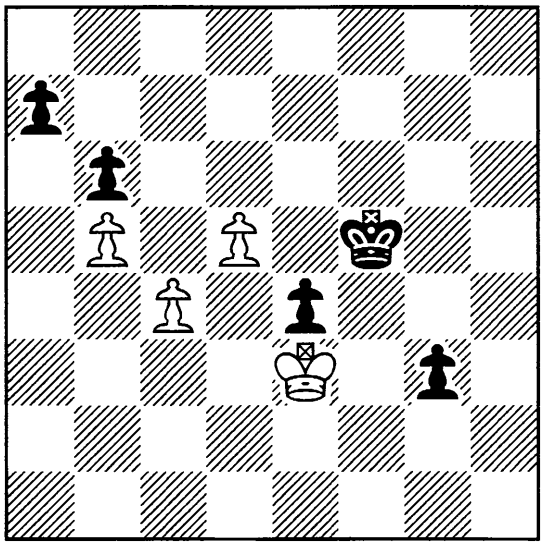


Diagram 20 (B)
Black wins

(Diagram 19) White recognised that neither side could make progress in the pawn ending due to the strength of the passed pawns.

1 Nxb5+! axb5 2 Kd4 Kc6 3 Ke3 Kd6 4 Kd4 Kc6 and a draw was agreed.

Example 113

Keres-Alekhine, Dresden 1936

(Diagram 20) Black's passed pawns are untouchable as we have already seen but White has a protected passed pawn. The following manoeuvre shows how Black can eliminate all the queenside pawns.

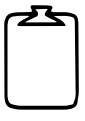
1...Ke5! 2 Ke2 Kd6 3 Ke3 Kc7 4 Ke2 Kb7 5 Ke3

5 d6 loses the d-pawn to 5...Kc8.

5...a5 6 bxa6+ Kxa6 7 Ke2 Kb7 8 Ke3 Kc7 9 Ke2 Kd6 10 Ke3 b5 11 cxb5 Kxd5 12 Ke2 Kc5 13 Ke3 Kxb5

and then Black comes back to the kingside and finishes the job.

In the actual game Black won in a more complicated way by obtaining an excellent queen ending with 1...Kg4.



NOTE: In general a sure-fire technical win is a better option than 'favourable' complications as there we are more likely to miss something!

Example 114

Shirov-Akopian, Merida 2000

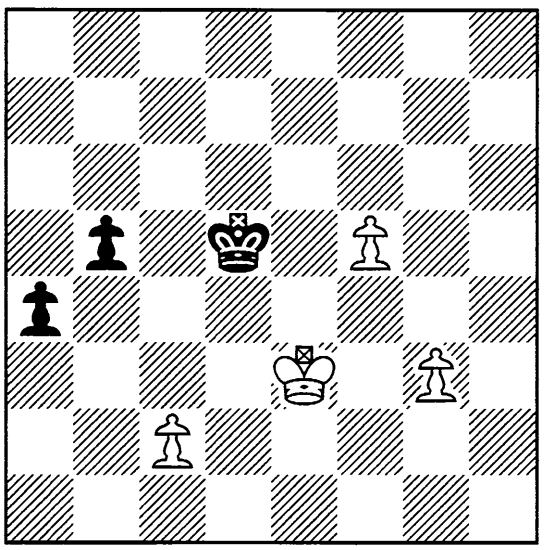


Diagram 21 (W)
The passed pawns win

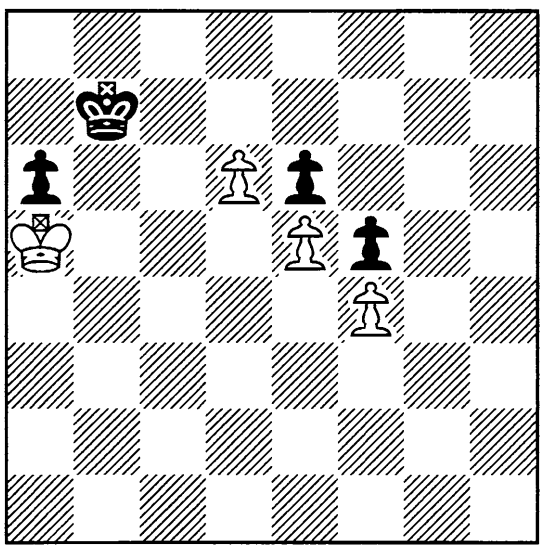


Diagram 22 (W)
White sacrifices the d-pawn

(Diagram 21) White wins. He has connected passed pawns on the kingside whereas he has the time to stop and ultimately undermine Black's queenside, e.g.

1 Kd2

Getting inside the square.

1...b4 2 Kc1

and Black resigned in view of

2...Ke5 3 g4 Kf6 4 Kb2 Ke5

If 4...a3+ then 5 Kb3 Kg5 6 c3 bxc3 7 Kxc3 and Black also loses the a-pawn.

5 c4

In fact 5 c3 is also possible as 5...b3 6 c4 leaves Black overstretched.

After the text move Black has an unenviable choice: 5...Kf6 6 c5 Ke5 7 c6 Kd6 8 f6 or the equally hopeless 5...bxc3+ 6 Kxc3 Kf6 7 Kb4.

So protected passed pawns can sometimes be undermined!

Another thing to look out for in the battle between passed pawns is the possibility of simplification into a more positional struggle.

Example 115

(Diagram 22) If Black were to play then he would lose his a-pawn immediately. With White to play manoeuvring cannot force Black into zugzwang: 1 Kb4 Kb6 2 Ka4 Kc6 3 Ka5 Kb7 and White hasn't improved. However, White can win in a surprising way:

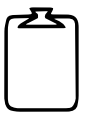
1 d7!

Giving up his prize asset. Then following

1...Kc7 2 Kxa6 Kxd7 3 Kb7

White wins by outflanking...

3...Ke7 4 Kc7 Kf7 5 Kd7 Kg6 6 Kxe6 etc.



NOTE: This was a good example of 'what counts is not what you exchange or sacrifice, but what is left on the board!'

Having a protected passed pawn as opposed to an isolated passed pawn is in general favourable. In the following example, however, White is surprisingly unable to win.

Example 116

Philidor

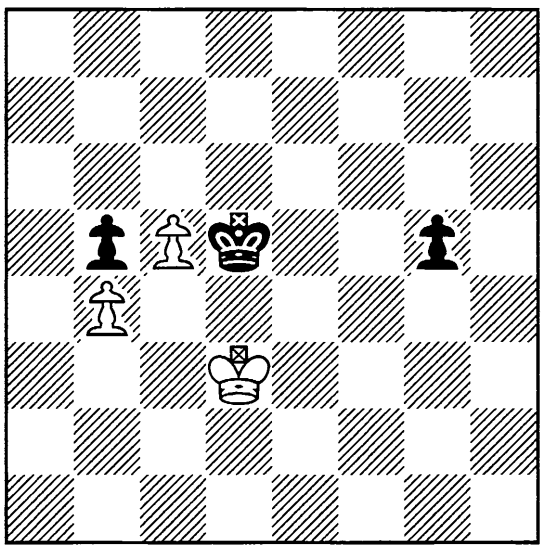


Diagram 23 (B)
Black surprisingly holds

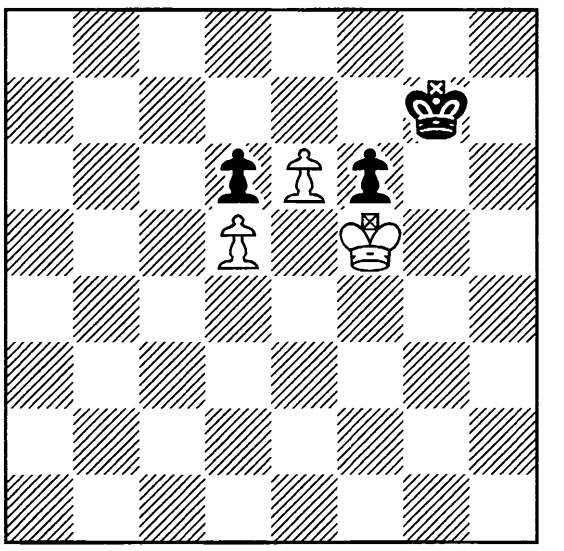


Diagram 24 (W)
White wins

(Diagram 23) 1...Ke5 2 Ke3 Kd5!

In contrast 2...Kf5? loses instructively to 3 Kd4 g4 4 Kd5 g3 5 c6 g2 6 c7 g1Q 7 c8Q+, queening with check. Now Black cannot resist the exchange of queens: 7...Kf4 8 Qf8+ Kg3 (others are worse!) 9 Qg7+ Kh2 10 Qxg1+ Kxg1 11 Kc5.

3 Kf3 Ke5 4 Kg4 Kf6 5 c6 Ke6 6 Kxg5 Kd6 7 Kf5 Kxc6 8 Ke6 Kc7 9 Kd5 Kd7 10 Kc5 Kc7 11 Kxb5 Kb7!

So the two factors that saved Black were his active king and the fact that he was able to meet Kxb5 by ...Kb7.

With White to move **(116a)** the result is the same if Black stays alert.

1 Ke3 Ke5 2 Kf3 Kf5 3 Kg3 Ke5!

But not 3...Kf6? losing tamely to 4 Kg4 Kg6 5 c6.

4 Kg4 Kf6 and Black holds as above.

Example 117: White has a more favourable case

(Diagram 24) Because White's pawns are further up the board he wins with

1 e7! Kf7 2 e8Q+ Kxe8 3 Kxf6

White now outflanks his opponent and after winning the d-pawn even the opposition doesn't save Black.

3...Kd7 4 Kf7 Kc7 5 Ke7 Kc8 6 Kxd6 Kd8 7 Ke6 Ke8 8 d6 Kd8 9 d7

and White queens.

Example 118

Horwitz 1879

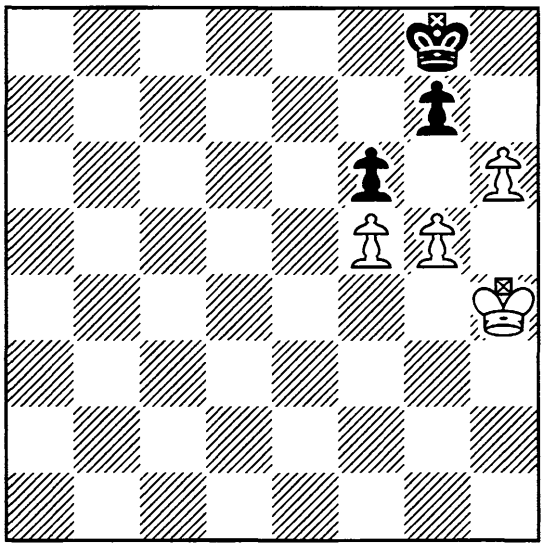


Diagram 25 (W)
White wins

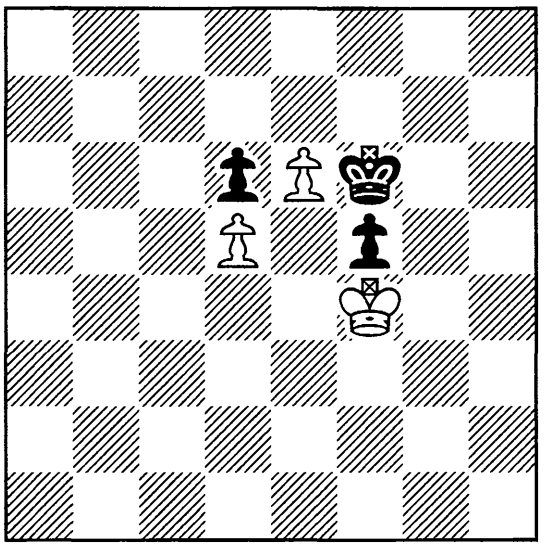


Diagram 26 (W)
Deft manoeuvring

(Diagram 25) Again White obtains a protected passed pawn on the sixth rank, but here he wins in a different manner. Black has to face threats on both sides of the protected passed pawn.

1 g6! gxh6 2 Kg4 Kf8 3 Kf4 Ke8

After 3...h5 4 Kg3 Kg7 5 Kh3! Kh6 6 Kh4 White gets the h-pawn and wins.

4 Ke4 Ke7 5 Kd5 Kf8

If 5...Kd7 then 6 g7 and on 5...Ke8 6 Ke6 h5 there is again 7 g7.

6 Kd6 Kg8

After 6...Kg7 7 Ke6 Black finds himself in zugzwang, as after 7...h5 8 Kd5 White returns to pick off the h-pawn.

7 Ke7! h5

Here 7...Kg7 loses to 8 Ke6 as in the previous note.

8 Kxf6 h4 9 g7 h3 10 Kg6 h2 11 f6 h1Q 12 f7 mate

White's circuitous king walk to deliver mate only worked because the pawn was so well advanced.

In the next example White wins with some deft manoeuvring.

Example 119: How can White win?

(Diagram 26) More complex manoeuvring is necessary here, as if White plays 1 e7 then after 1...Kxe7 2 Kxf5 Black takes the opposition with 2 ..Kf7.

In fact White instead wins with 1 Kf3 Kg6 2 Kg3 Kg7 3 Kg2 Kf6 4 Kh3 Kg7 5 Kg3 Kg6 6 Kh4 Kf6 7 Kh5. Baffling, isn't it? It's true that without any explanation all this can seem very mysterious! So let's go through these moves again, but this time with annotations, and hopefully things should become somewhat clearer.

The manoeuvring that follows takes into account the presence of two zugzwang positions: firstly when the kings are on f4 and f6 and secondly on

h4 and g6. So in the initial position, if it is Black to play then the only move to save the f-pawn is 1...Kg6 but then 2 e7! Kf7 3 Kxf5 Kxe7 4 Kg6 wins by outflanking. In Diagram 26 we have the second zugzwang position where Black would prefer that White were to move!

1 Kf3

Going backwards, aiming for a better moment to come to one of the zugzwang squares.

1...Kg6

Not going to g7 as then White would go to g3 – these squares are linked as they are represent 'bridges' between two zugzwangs. For instance, after 1...Kg7?! 2 Kg3 Black is caught between the devil and the deep blue sea, e.g. 2...Kf6 3 Kf4 or 2...Kg6 3 Kh4 and it's immediately zugzwang in both cases.

2 Kg3 Kg7

Going to the correct square. If White now goes to f4, Black moves to f6, or if White goes to h4 then Black to g6.

3 Kg2!

White has more space in which to wriggle, and this leads to Black having to step on a 'mined' square.

3...Kf6 4 Kh3! Kg7 5 Kg3! Kg6

Or 5...Kf6 6 Kf4 Kg6 7 e7 (now is the right time) 7...Kf7 8 Kxf5 Kxe7 9 Kg6 etc.

6 Kh4 (Diagram 27)

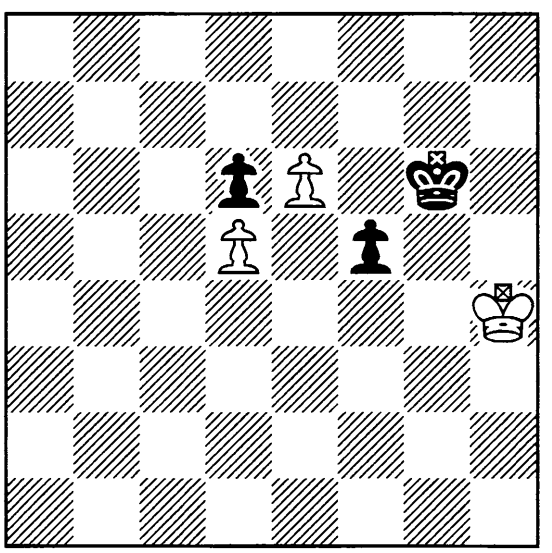


Diagram 27 (B)
Black is in zugzwang

6...Kf6

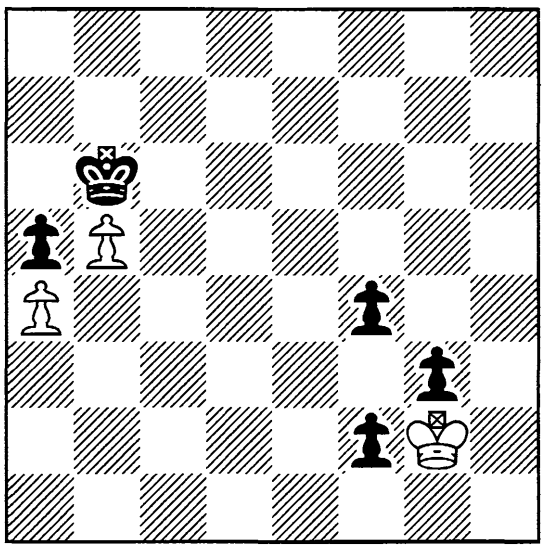
White queens immediately following 6...Kh6 7 e7.

7 Kh5 Ke7 8 Kg5 and wins.

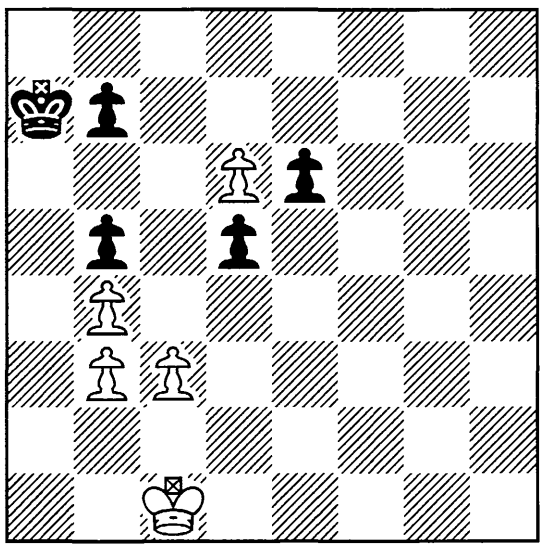
To reiterate: The zugzwangs of the two previous diagrams are Kf4 v Kf6 and Kh4 v Kg6. The only square linking the two zugzwangs for White is g3 and for Black g7, so they are also linked: Kg3 v Kg7 is a supplementary zugzwang.

NOTE: Situations such as this with sets of zugzwangs are known as co*ordinate squares*, a subject out of the depth of this book but covered in some advanced works.

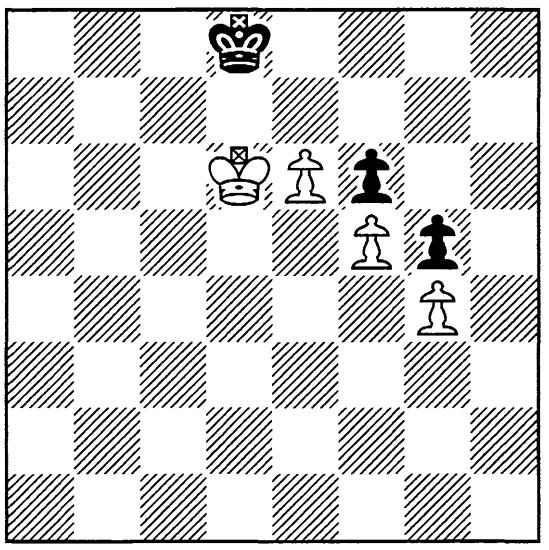
Try it Yourself



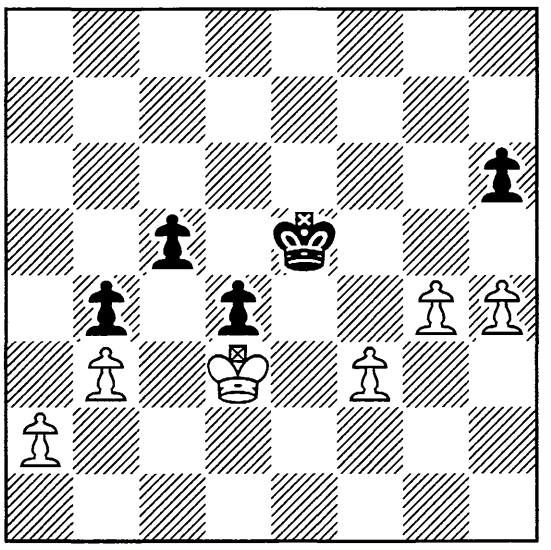
Exercise 1 (Black to play)



Exercise 2 (Black to play)



Exercise 3 (White to play)



Exercise 4 (White to play)

Exercise 1: Can you find a way for Black to win?

Exercise 2: Which is the better out of 1...Kb8 or 1...Kb6, or doesn't it make any difference?

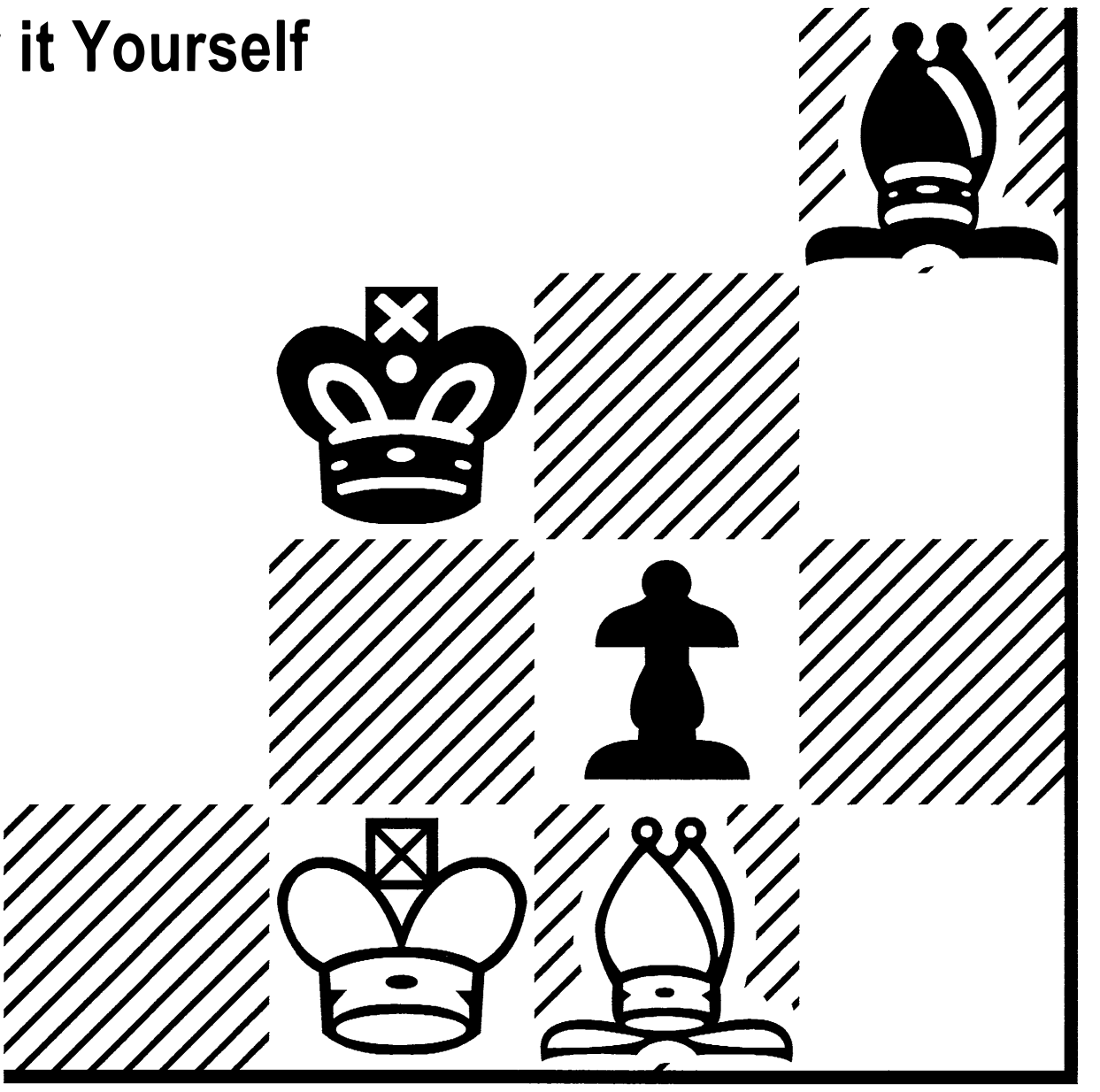
Exercise 3: A draw was agreed at this point. Was that the correct result?

Exercise 4: Can you find a way to win?

Chapter Six

Races!

- Counting
- The Proximity of the King
- More Complex Examples
- Try it Yourself



Here again we will get accustomed to seeing positions where both sides obtain passed pawns. Those cases where both sides' pawns are rushing forwards towards the queening squares are commonly called *races*. Arriving as early as possible is the principal aim, but there are some nuances that need to be taken into account.

In a number of examples the pawn ending leads to promotion(s) and a queen ending. These are discussed as they arise but examined more completely in Chapter 10.

Counting

There are various tactical devices and manoeuvres to win races in the examples that follow but of these the most important technique worth noting is that of *counting*. Instead of just analysing ('I go there, he pushes, I advance my pawn ...' etc.) a player can count the number of moves it takes each side to queen in a plausible. Counting crops up time and time again and is a tool worth developing.

However, let's start with some common sense:

TIP: Before blindly going into a race, check to see if there's anything better. Naturally a winning position with no complications is preferable to a race!

Example 120

Smerdon-J.Humphrey, Penrith 2003

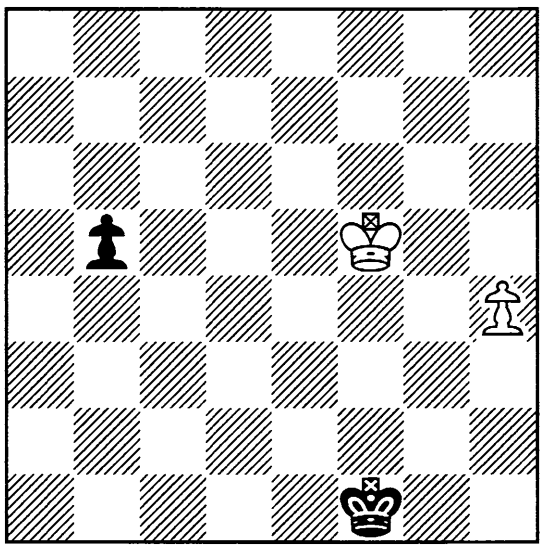


Diagram 1 (W)
White stops Black's pawn

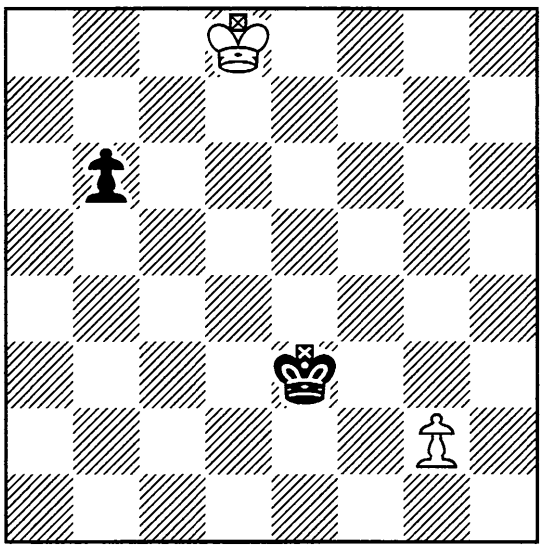


Diagram 2 (W)
White can draw

(Diagram 1) 1 Ke4! Ke2 2 Kd4 1-0

White stops the black pawn, whereas Black's king is outside the square of White's pawn.

Example 121

Leick 1948

(Diagram 2) White has problems as he is not in the square of Black's pawn. Black, on the other hand, can handle White's.

However, White can draw by pursuing a *feint* or a 'double objective' with his king, like in Réti's famous study (see Example 137).

1 g4 Kf4 2 Ke7 b5 3 Kf6!

Threatening to support the g-pawn.

3...b4

Or 3...Kxg4 4 Ke5 b4 5 Kd4 and White holds as he rounds up the last pawn.

4 g5 b3 5 g6 b2 6 g7 b1Q 7 g8Q

with a draw.

Example 122

K.Lahno-D.Shilin, Donetsk 2003

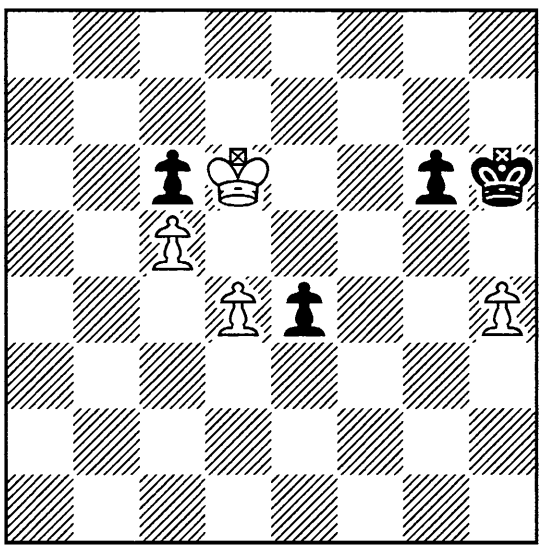


Diagram 3 (W)
How should White proceed?

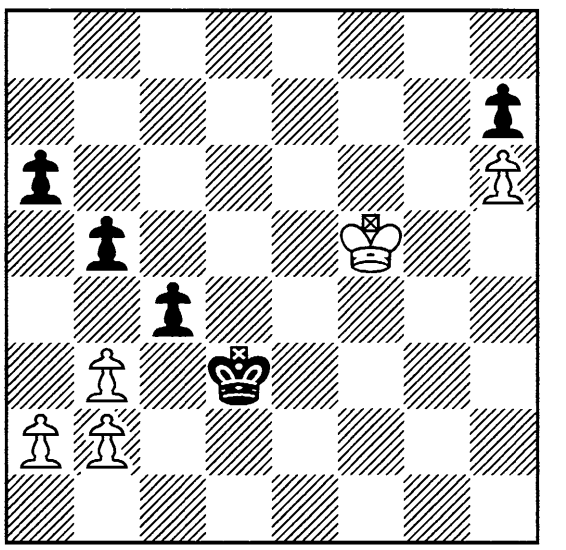


Diagram 4 (W)
A difficult example

(Diagram 3) This one's clearly a race but how should White proceed?

1 d5!

In a race it's important to visualise the fastest way to get a pawn to the eighth rank.

1 d5! is stronger than automatically lopping off the c-pawn, e.g. 1 Kxc6 e3 2 Kd7 (2 d5? e2 3 d6 e1Q 4 d7 Qe7 wins for Black) 2...e2 3 c6 e1Q 4 c7 Qxh4 5 c8Q Qxd4+, when Black has winning chances.

1...e3 2 dxc6 e2 3 c7 e1Q 4 c8Q

Now it's White who has the advantage, but Black is able to draw as White's king cannot find any shelter.

4...Qg3+ 5 Kc6 Qf3+ 6 Kb6 Qb3+ 7 Ka7 Qa3+ 8 Kb6 Qb3+ 9 Kc6 Qf3+ 10 Kd6 Qg3+ 11 Kd5 Qd3+ 12 Kc6 Qf3+ 13 Kb6 Qb3+ 14 Kc6 ½-½

Example 123

Vusatiuk-A.G.Panchenko, Kiev 2003

(Diagram 4) White has to calculate whether or not to chase the h-pawn.

Some players calculate variations; others 'count moves'. I suggest if you have time that you do both! It's a way of checking that you're not missing anything.

First of all let's count how long it takes for White to queen a pawn: Kf6-g7xh7 plus another to move out of the way, followed by h7-h8Q, a total of six moves.

Now for Black: ...Kc2xb2, followed by c3-c2-c1Q, only five moves. Close, but Black arrives first.

When counting, if the number of moves is at least two different then the result is clear. If, as here, it's less than two then the final position will need further evaluation. Note, for instance, that although White takes a move longer to queen, it's him that starts. Another point in his favour is that the b2-square (where Black captures the white b-pawn in this sequence) is on the same diagonal as h8 (where White queens), so in fact White can queen with check! So although White takes an extra move to queen, he catches up in the race.

Judging the resulting queen ending is, however, less encouraging: White's remaining pawns are vulnerable to attack and his king is too far away to help. So the race isn't great for White; he should investigate the alternative.

Here's the race sequence, the key factors being highlighted: 1 Kf6 (White goes for it!) 1...Kc2 2 Kg7 Kxb2 3 Kxh7 c3 4 Kg6 c2 5 h7 c1Q (Black queens first) 6 h8Q+ (White queens with check) 6...Kxa2 (Black has an excellent queen ending a pawn up).

1 Ke5! Kc2

Black can try 1...a5 to bring his a-pawn closer, when 2 Kd5? loses instructively to 2...cxb3 3 axb3 Kc2 4 Kc5 b4 (maintaining the b-pawn) 5 Kb5 Kxb2! 6 Kxa5 Kxb3 and Black wins.

However, White can defend better with 2 bxc4! and now Black has a choice:

a) 2...Kxc4 deserves a diagram **(Diagram 5)**.

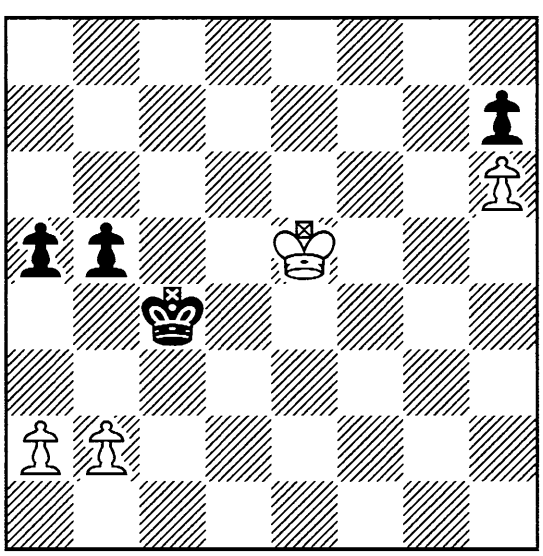


Diagram 5 (W)
Start counting!

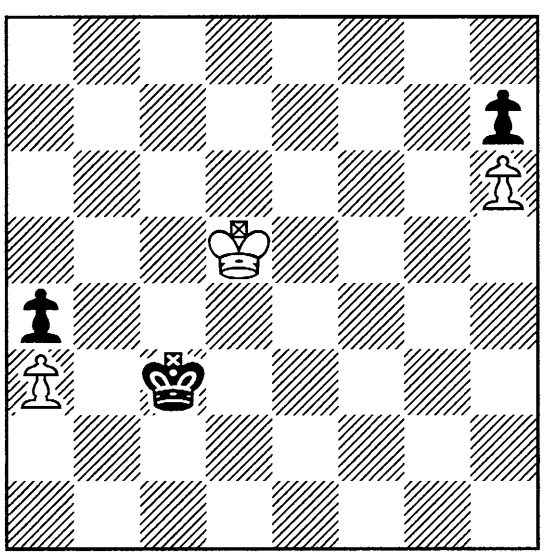


Diagram 6 (W)
two ways to defend

If we now start counting the race we soon notice that Black is too far behind (he no longer has an advanced c-pawn on the fifth), so after 3 Kf6 Black has to abandon hopes of winning and defend with 3...Kd5 4 Kg7 Ke6 5 Kxh7 Kf7.

b) 2...bxc4 3 Kd5 (3 a4!? Kc2 4 Kd4 Kb3 5 Kc5 Kxa4 6 Kxc4 with a pretty

draw by stalemate!) 3...a4 4 a3 c3 5 bxc3 Kxc3 **(Diagram 6)** and in this position there are two ways of defending:

b1) Blocking in Black's king: 6 Ke4 Kb3 7 Kd3 Kxa3 8 Kc3 Ka2 9 Kc2 a3 10 Kc1 Kb3 11 Kb1 Kc3 12 Ka2 drawing easily.

b2) Counting, noting that in the race White arrives second but also queens his pawn: 6 Ke6 Kb3 7 Kf6 Kxa3 8 Kg7 Kb3 9 Kxh7 a3 10 Kg8! a2 11 h7 a1Q 12 h8Q and it's clearly drawn.

2 bxc4 bxc4 3 Kd4 Kxb2 4 Kxc4 Kxa2 5 Kb4 (Diagram 7)

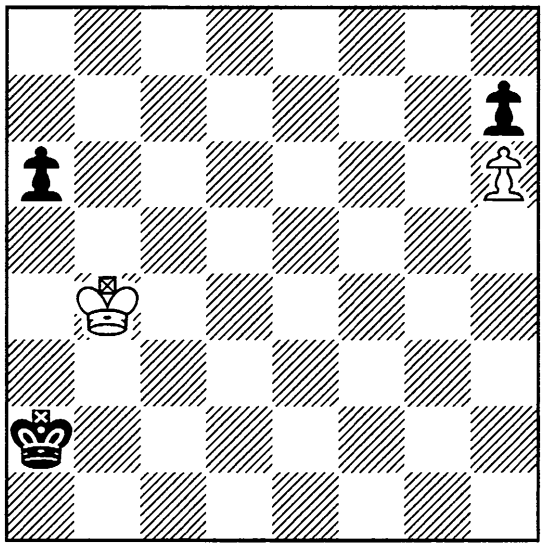


Diagram 7 (B)
White draws

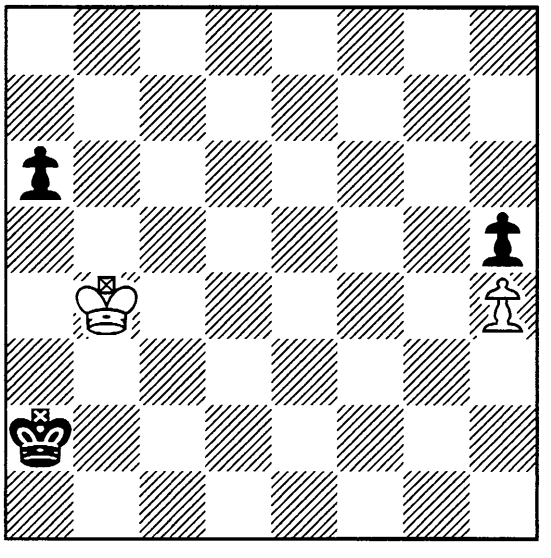


Diagram 8 (B)
Practise counting

White has lost a pawn but is able to pick off the dangerous a-pawn.

5...Kb2 6 Ka5 Kc3 7 Kxa6 Kd4 8 Kb5 Ke5 9 Kc4 Kf6 10 Kd3 Kg6 11 Ke2 Kxh6 12 Kf1 with an easy draw.

However, what if the h-pawns were on h4 and h5? See the next example.

Example 124: Can you remember Bahr's rule?

(Diagram 8) Useful practice to test both counting and a revision of Bahr's rule (see Example 37).

The a6-pawn is on the same diagonal as the f1-square so White can capture on a6 and then come back with no loss of time to defend. Bahr's rule tells us that White should draw.

Let's count. How many moves does it take Black to capture the pawn and free his own passed pawn: ...Kb2-c2-d2-e2-f2-g3xh4-g3, eight moves and, given a ninth move with ...Kg2, Black will control the route of his pawn.

White will meantime play: Ka5xa6-b5-c4-d3-e2-f1 (seven moves), easily coming back in time.

This example illustrates that counting can be adapted to other types of positions.

Example 125

Damljanovic-Ermenkov, Struga 2002

(Diagram 9) Imagine that you are privy to the thoughts of Yugoslav GM

Branko Damljanovic, playing White against Bulgarian GM Evgeny Ermenkov. Here's how his thoughts may come across.

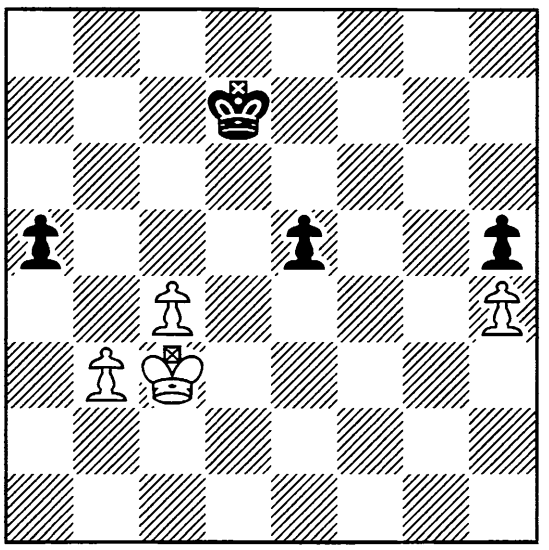


Diagram 9 (W)
What are Branko's thoughts?

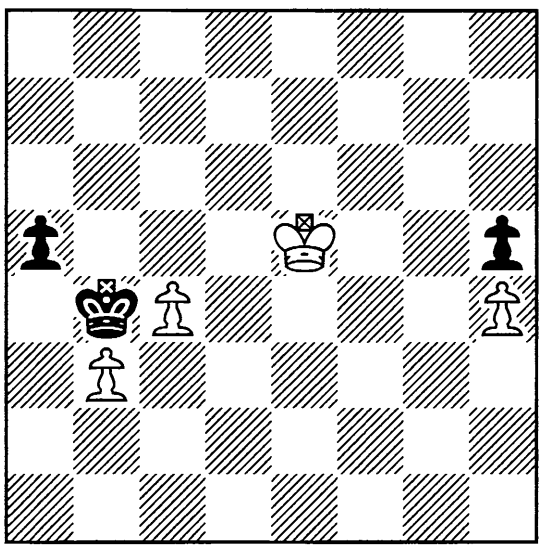


Diagram 10 (W)
Which king move?

1 Kd3

'If first of all we put the king on e4 then Black is tied down to the isolated e-pawn, whereupon either he allows Kf5 or c4-c5 under promising circumstances. On the other hand, it's too early to push the c-pawn as after 1 c5 Kc6 2 Kc4 e4 3 Kd4 e3 4 Kxe3 Kxc5 White has nothing.'

1...Kd6

'1...Ke6 2 Ke4 Kd6 is no improvement because of 3 Kf5.'

2 Ke4 Kc5

'He has to try this race as 2...Ke6 would have been hopeless after 3 c5.'

3 Kxe5

'There's not much point getting involved with the details of counting yet as we have no choice, but it's worth bearing in mind that if ...Kxb3, White then queens in four. Although Black does too, White queens first so there's no risk of losing.'

3...Kb4 (Diagram 10)

'We have to move the king, and at present Black queens his a-pawn with check, so not Kf6 or Kd4 then. If we imagine a situation with a white queen on c8, a black queen on a1 and the black king on b3, where should we place our king so that with the move it's most useful?

Okay, if it were on f5 we could surely win the h5-pawn with a check or two but queen and h-pawn versus queen is pleasant but probably not winning.

It would be great to exchange queens and then his king would be too far away. Let's look... oh yes, on d5 the king enables Qc4+. So let's go!'

4 Kd5! Kxb3 5 c5 a4 6 c6 a3 7 c7 a2 8 c8Q a1Q 9 Qc4+ Ka3 10 Qa6+ Kb2 11 Qxa1+ Kxa1 12 Ke5 Kb2 13 Kf5 Kc3 14 Kg5 Kd4 15 Kxh5 Ke5 16 Kg6

and White wins.

So playing a race is obviously more than a combination of counting and some frantic analysis on the lines of 'if he goes here, me there, he pushes, me too,

and he does so again, oh, where are we... I'll start again'.

The experienced player uses counting to help him get a better picture of what is to come. The GM will anticipate a future key position either during the race or perhaps in the resulting queen ending, create a mental picture and start analysing from there.

Example 126

V.Shishkin-Kislinsky, Kiev 2003

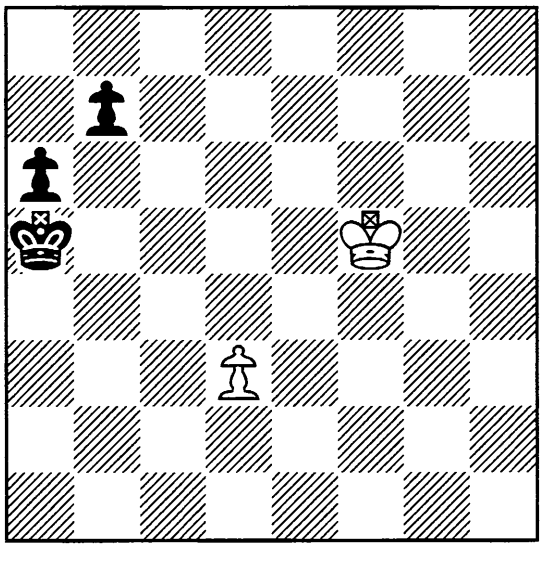


Diagram 11 (W)
Defending against the passed pawn

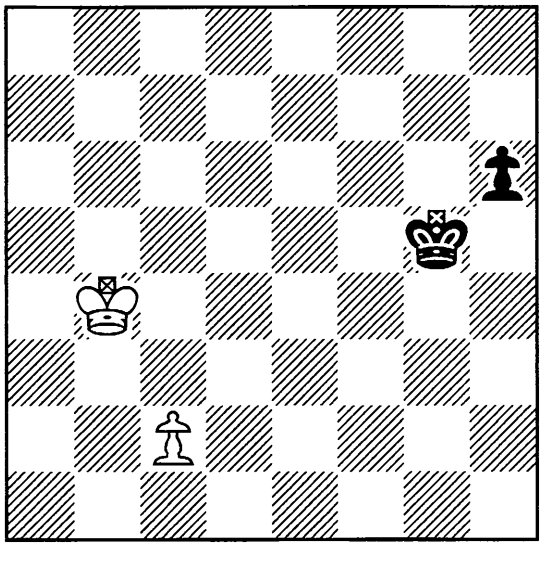


Diagram 12 (B)
Black wins

(Diagram 11) Black has an extra pawn but is behind in the race. There follows a neat way to defend against a passed pawn that sometimes works in such circumstances.

1 d4 Kb6 2 Ke6 Kc7

Threatening ...Kd8, which will kill off any hopes for White of pushing his pawn through.

3 Ke7 Kc6

Threatening ...Kd5.

4 Ke6 Kc7

and neither player can avoid the repetition.

A simple enough technique, but not obvious if one hasn't come across it before. It works if the passed pawn isn't too far advanced as here, on the fourth rank or further back.

The Proximity of the King

In some pure races, pushing pawns and counting are only part of the story. The proximity of the kings to the opposing passed pawns also plays a role.

Example 127

Ljaksa-Domuls, USSR 1974

(Diagram 12) 1...h5 2 c4 Kf6!

Black is inside the square of the c-pawn whereas White isn't going to get near the h-pawn. This factor influences the result in Black's favour.

3 Kb5 Ke7 4 Kb6

Each king move by Black is met by one of White's, because allowing the retreating king onto the c-file would stop the c-pawn in its tracks, e.g. 4 c5 Kd8 5 Kb6 Kc8 6 Kc6 h4 and Black wins.

4...h4!

A precise move. Instead 4...Kd7? 5 Kb7 Kd6 6 Kb6 Kd7 draws, as does 4...Kd8? 5 Kb7 h4 6 c5 h3 7 c6 h2 8 c7+ (the check enables White to win an important tempo).

5 c5 h3 6 c6 h2 7 c7 Kd7!

Now is the moment to come to the d-file. White resigned as after 8 Kb7 h1Q+ Black queens with check.

These king retreats have to be handled with care: Black made three king moves which obliged White to do the same, Black eventually winning a tempo because he queened with check.

The next example features many typical tactical ideas.

Example 128

Van Scheltinga-Cortlever, Beverwijk 1947

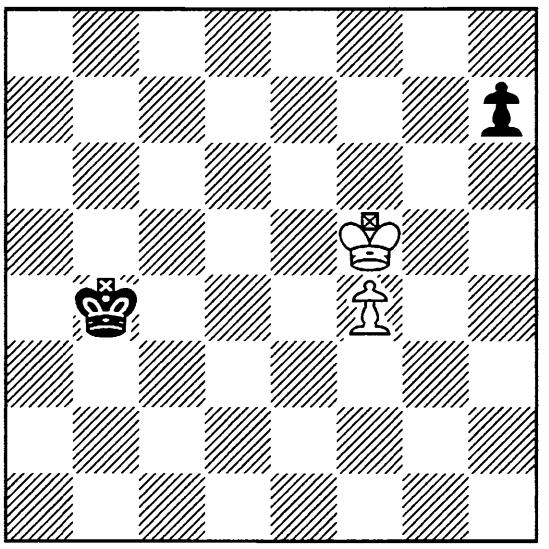


Diagram 13 (B)
White wins

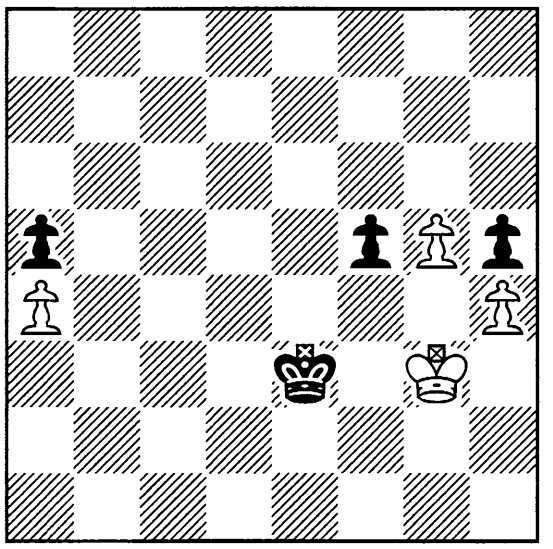


Diagram 14 (W)
Both sides will queen

(Diagram 13) Here again Black has the move, but his king is a long way from the action.

1...Kc4

Both 1...h5 2 Kg5 and 1...Kb5 2 Ke6 h5 3 Kf5 lose the pawn, whereas 1...Kc5 2 Ke6 h5 3 f5 h4 4 f6 h3 5 f7 h2 fails to 6 f8Q+, queening with check.

2 Ke4!

Holding off the black king from returning to the kingside.

2...Kb5

After 2...h5 3 f5 h4 4 f6 h3 5 Kf3 White picks off Black's pawn.

3 Ke5 Kc6 4 Ke6 Kc7

By just pushing pawns with 4...h5 5 f5 h4 6 f6 h3 7 f7 h2 8 f8Q h1Q Black manages to queen, only to go down to 9 Qa8+, skewering.

5 f5 Kd8 6 Kf7!

The only way as otherwise Black makes it to the f-file.

6...h5 7 f6 h4 8 Kg7 h3 9 f7 h2 10 f8Q+

Queening with check, White wins.

Example 129

Colle-Grünfeld, Carlsbad 1929

(Diagram 14) Both sides have passed pawns and will soon be able to promote them. White finds a way to exchange queens and then ultimately obtains a win in the simplified ending.

1 g6 f4+ 2 Kg2! Ke2

To parry the threat of Kf1.

3 g7 f3+ 4 Kg3! f2 5 g8Q f1Q 6 Qc4+

It was necessary to induce the opposing king to e2 earlier so that White is now able to exchange queens.

6...Ke1 7 Qxf1+ Kxf1 8 Kf4 and Black resigned in the actual game due to 8...Ke2 9 Kg5 Ke3 10 Kxh5 Kf4 11 Kg6 etc.

More Complex Examples

We have already seen that in these rather tactical races there are a number of aspects to look out for:

1) Queening with check.
2) Skewers.
3) The immediate exchange of the new-born queens.
4) King retreats.
5) Double objectives and indirect king walks.
6) Holding-off manoeuvres.

In the following example the unfortunate situation of White's pawns leads to his downfall.

Example 130

Nimzowitsch-Tarrasch, San Sebastian 1911

(Diagram 15) 1...a5 2 Ke4 f5+!

White resigned. He is out of the square if he captures the f-pawn. Also, following

3 Kd4 f4!

his kingside pawns are *dislocated*. This means that they are unable to defend each other despite not being isolated. Black then mops up with his king and queens the f-pawn, e.g.

4 Kc4 Kf6 5 Kb5 Kf5 6 Kxa5 Kg4 7 Kb4 Kxh4 8 Kc4 Kg3 9 Kd3 Kxg2

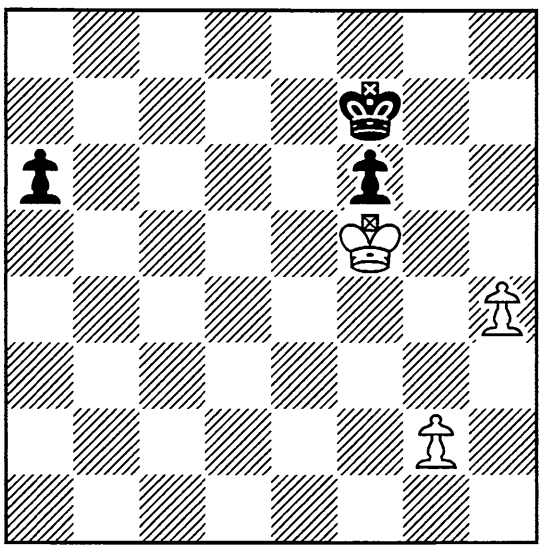


Diagram 15 (B)
Dislocating White's pawns

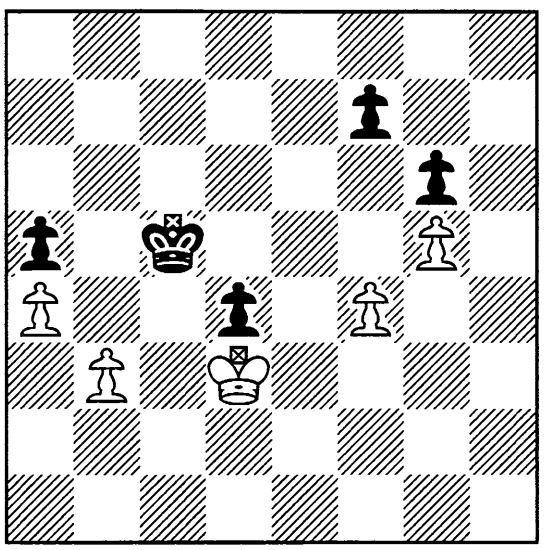


Diagram 16 (B)
Many tactical shots

Example 131

(Diagram 16) Here's a position full of tactical shots and, furthermore, is ideal for testing one's counting technique (for the earlier moves see Example 78).

Black has to decide between going for an out-an-out race or improving his position. If the race isn't totally clear, and it's possible to improve one's position, then the latter course is generally preferable. Black eventually enters a race under superior circumstances.

1...Kd5!

Black may calculate 1...Kb4 2 Kxd4 Kxb3 3 Ke5! (3 Kc5? Kxa4 4 Kc4 trying to lock in the black king doesn't work as Black wins a tempo with his a-pawn, e.g. 4...Ka3 5 Kc3 a4 and White must free the opposing monarch: 6 Kc2 Kb4 7 Kb2 Kc4 8 Ka3 Kd4 and Black wins easily) 3...Kxa4 4 Kf6 Kb5 5 Kxf7 a4 – a key position **(Diagram 17)**.

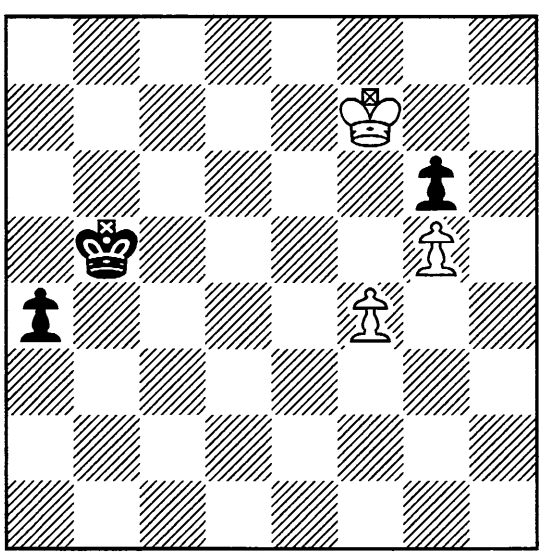


Diagram 17 (W)
A key position

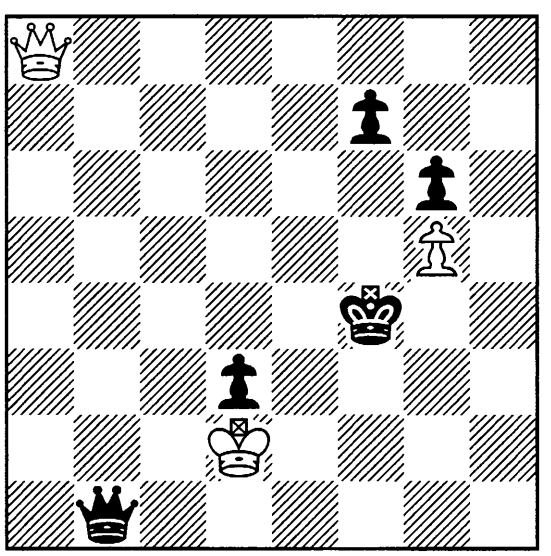


Diagram 18 (12)
A winning advantage for Black

6 Kxg6? is too slow and after 6...a3 7 f5 a2 8 f6 a1Q 9 f7 Qh8! Black wins. However, there is an improvement for White which saves the day: 6 f5! gxf5 7 g6 a3 8 g7 a2 9 g8Q a1Q 10 Qb8+ Kc4 11 Qc8+ and White draws as the f-pawn falls.

So calculating long races that 'probably' win by a tempo are okay if the calculations are precise!

2 Ke2

Worse is 2 Kd2?, as after 2...Ke4 3 Ke2 (3 b4 axb4 4 a5 is refuted by 4...Kd5! 5 a6 Kc6 6 Kd3 b3 when Black's pawns are self supporting whilst the a-pawn is destined for the box) 3...d3+ 4 Kd2 Kd4 5 b4 (or 5 Kd1 Kc3) 5...axb4 6 a5 b3 7 a6 b2 8 a7 b1Q 9 a8Q Qc2+ 10 Ke1 Black mates with 10...Qe2.

2...Ke4 3 Kd2 d3!

Best. 3...Kxf4?! provokes yet another version of a race with 4 b4 axb4 5 a5 b3 6 a6 b2 7 Kc2 d3+ 8 Kxb2 Ke3 9 a7 d2 10 a8Q d1Q 11 Qe8+ Kf4 12 Qxf7+ Kxg5 13 Qe7+, where Black will be bombarded by checks: 13...Kh6 14 Qh4+ Qh5 15 Qf4+ etc.

4 b4 axb4 5 a5 b3 6 a6 b2 7 a7 b1Q 8 a8Q+ Kxf4 (Diagram 18)

with a winning advantage to Black. White has no dangerous checks, Black threatens ...Qc2+ and also ...Kxg5.

TIP: Seek a superior version of any race before leaping headlong down a long tricky line.

Here's a selection of instructive races.

Example 132

Pelling-Miles, Ilford 1974

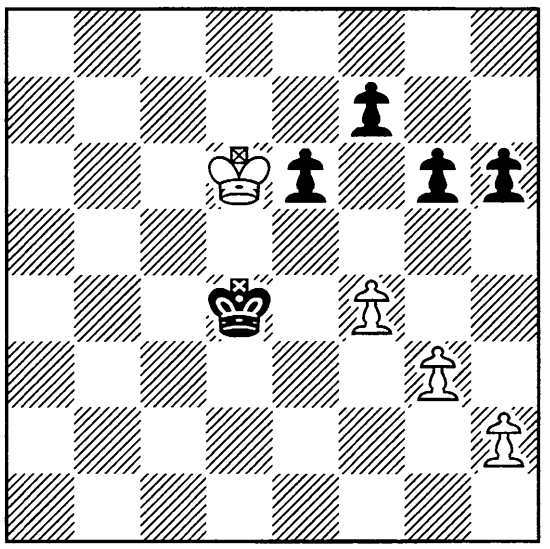


Diagram 19 (B)
Both kings invade

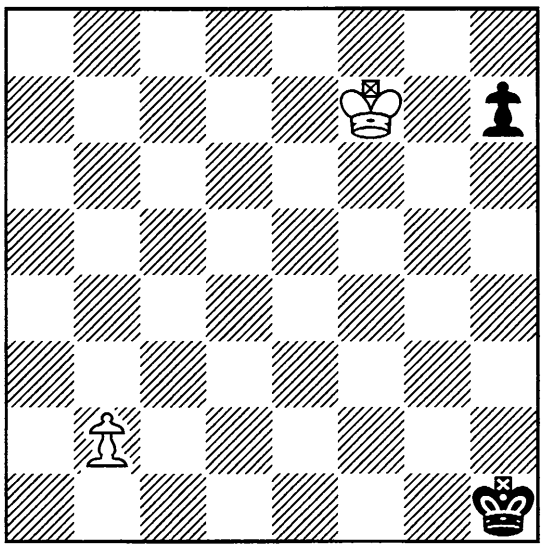


Diagram 20 (W)
White wins

(Diagram 19) Both kings are intent on invading their opponents' pawns. Black's extra pawn tips the balance in his favour as analysed by Miles.

1...g5!

Instead 1...Ke4 2 Ke7 f5 3 Kxe6 g5 4 fxg5 hxg5 5 h4 leads to a draw.

2 fxg5

Black wins comfortably after 2 Ke7 gxf4 3 gxf4 f5! 4 Kxe6 Ke4 as the f4-pawn drops, e.g. 5 Kf6 Kxf4 6 Kg6 Ke5 7 Kxh6 f4 etc.

2...hxg5 3 h4 gxh4 4 gxh4 Ke4

Getting into the square of the h-pawn.

5 Ke7 Kf5 6 Kxf7 e5 7 Kg7

The best chance.

7...e4!

After 7...Kg4? White saves himself with the *feint* 8 Kg6!, which prepares both h4-h5 and entry into the square of the e-pawn.

8 h5 e3 9 h6 e2 10 h7 e1Q 11 h8Q Qe7+ 12 Kg8

If 12 Kh6 then 12...Qg5+ 13 Kh7 Qg6 is mate.

12...Kg6 and there is no good defence against the mate threats.

Example 133

Grigoriev 1933

(Diagram 20) White can win by mating his opponent at the end, a possibility when one king is near a corner and the opposing king can be brought across.

1 Kf6!

The routine 1 b4 h5 2 b5 h4 3 b6 h3 4 b7 h2 5 b8Q Kg2 is of course drawn as it's a rook's pawn and White's king is too far away.

The text brings the king into the square of the h-pawn.

1...Kg2 2 b4

If 2 Kg5 then 2...Kf3 brings the king over to the queenside.

2...h5 3 Kg5 Kg3

With two ideas: supporting the h-pawn, if allowed to, or coming into the square of the b-pawn in the case that White captures on h5.

4 b5 h4 5 b6 h3 6 b7 h2 7 b8Q+

Queening with check. Now White can win as his king is close enough, but the technique is instructive.

7...Kg2 8 Qb2+ Kg1

After 8...Kg3 9 Qb7 the queen comes to h1.

9 Kg4 h1Q 10 Kg3 and Black is powerless.

Example 134

Ljubojevic-W.Browne, Amsterdam 1972

(Diagram 21) The manoeuvres in these endings are not at all easy. Here one of the strongest players in the world at the time went wrong.

1...Kd5!

The game continued as follows: 1...f5? 2 Kb4! (reaching the square) 2...f4 3 Kc4 and a draw was agreed.

2 Kb6

2 Kb4 is now foiled by 2 ..Kd4!, *holding off* White's king, who to compound his problems is stuck in front of the b-pawn. For example, 3 Ka5 f5 4 b4 f4 5 b5 Kc5 6 b6 Kc6! (and now going to a6 with the king allows Black to queen with check, but he has no choice so...) 7 Ka6 f3 8 b7 f2 9 b8Q f1Q+ and White loses

after both 10 Ka5 Qa1+ 11 Kb4 Qb1+ and 10 Ka7 Qa1 mate.

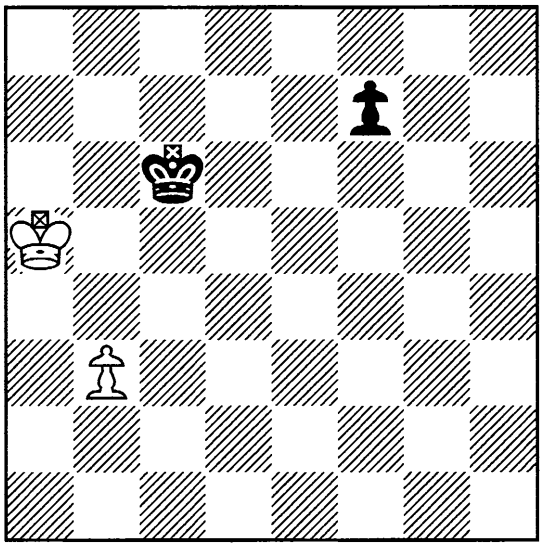


Diagram 21 (B)
Not an easy win for Black

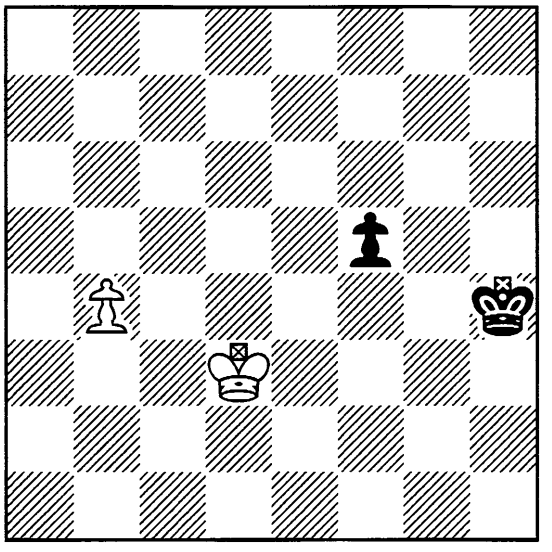


Diagram 22 (B)
Black must support the f-pawn

Otherwise, 2 b4 f5 3 b5 f4 4 b6 Kc6 5 Ka6 f3 is as above.

2...f5 3 b4 f4 4 b5 f3 5 Ka7 f2 6 b6 f1Q 7 b7

and Black wins in several ways against a b-pawn on the seventh. The most elegant way being 7...Kc6!.

Example 135

Najdorf-Vinueza, Mar del Plata 1941

(Diagram 22) Black has to support his f-pawn by controlling some advanced squares, as White threatens Ke2-f1. So Black can't get away with 1...f4? as 2 Ke2 Kg3 3 Kf1 leaves Black helpless.

1...Kh3!

This is just as adequate in supporting the pawn as the obvious 1...Kg3?, but that move allows White to queen with check, e.g. 2 b5 f4 3 b6 f3 4 b7 f2 5 b8Q+ Kg2 6 Qg8+ and Black doesn't last long: 6...Kf3 7 Qf7+ Kg2 8 Ke2 or 6...Kf1 7 Qg4 Ke1 8 Qe2 mate.

2 b5 f4 3 Ke4

Here 3 b6 f3 4 b7 f2 is easier for Black.

3...Kg3!

A paradoxical choice, but this now works with White's king as far away as e4. Instead 3...Kg4 4 b6 f3 5 Ke3! Kg3 (so Black has to go to this square anyway but now White's king is closer) 6 b7 f2 7 b8Q+ leads to a white victory.

4 b6 f3 5 b7 f2 6 b8Q+ Kg2

Here the pawn only makes the seventh, but White's king on e4 is too far away to win (unlike on d3 or e3, where it's a win for White).

7 Qg8+ Kh2 8 Qf7 Kg2 9 Qg6+ Kh2 10 Qf5 Kg2 11 Qg4+ Kh2 12 Qf3 Kg1 13 Qg3+ Kh1 and Black escapes with a draw.

We now finish this chapter with a very complicated example, where races crop up at several moments. However, first of all it's interesting here to see how the players arrived in a pawn ending.

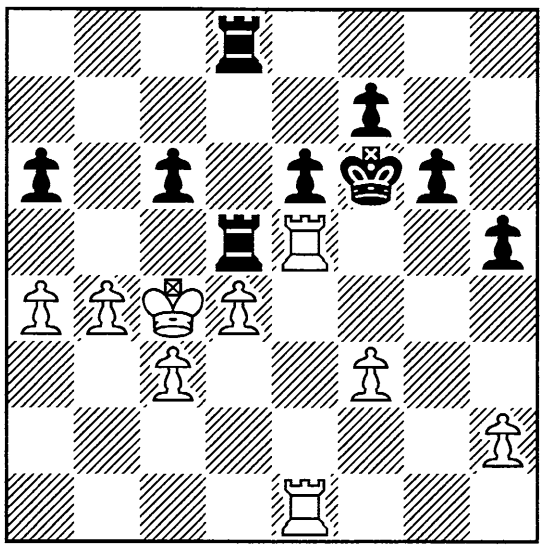


Diagram 23 (W)
A pawn ending is near

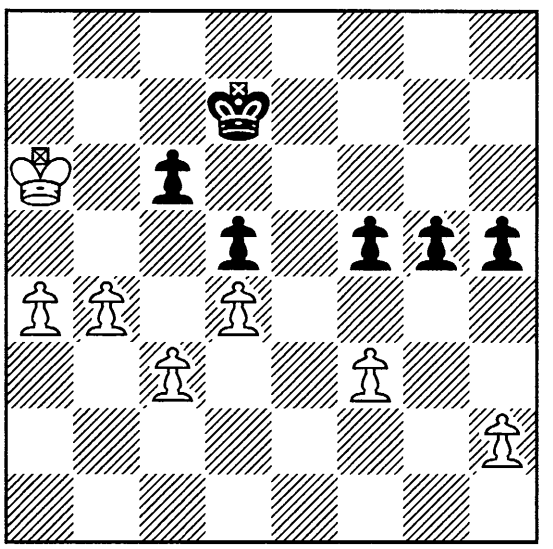


Diagram 24 (W)
White's pawns are faster

Example 136

Ts.Battsetseg-Groberman, Seattle 2003

(Diagram 23) White's superior king gives her the better chances. The best way to try and exploit this is to obtain access to the c5-square.

1 Rxd5 Rxd5

If 1...cxd5+ then 2 Kc5! Rc8+ 3 Kb6 Rxc3 4 Kxa6 Rc4 5 Kb5 Rxd4 6 a5 and although White is a pawn down her two connected passed pawns are too fast.

2 Re5! Ke7

After 2...Rxe5 3 dxe5+ Kxe5 4 Kc5 g5 5 Kxc6 f5 6 b5 White wins.

3 Rxd5 exd5+ 4 Kc5 Kd7 5 Kb6 g5 6 Kxa6 f5 (Diagram 24)

If 6...Kc7 then 7 Ka7! controls the *queening square* and thus prepares the way for the b-pawn, e.g. 7...f5 8 b5 cxb5 9 axb5 g4 10 b6+ etc.

7 Kb7?

Not the best! Instead 7 b5! cxb5 8 axb5 f4 9 b6 g4 10 b7 Kc7 11 Ka7 wins.

7...g4?

Too slow! Black should have tried 7...f4! 8 a5 g4 9 a6 (9 fxg4?? even loses to 9...f3 10 a6 f2 11 a7 f1Q 12 a8Q Qb5+ 13 Ka7 Kc7!) 9...gxf3 10 a7 f2 11 a8Q f1Q 12 Qc8+ Ke7 13 Qc7+ Kf8 when the result isn't totally clear. Black has an advanced passed pawn and White may have nothing more than a perpetual.

8 fxg4 hxg4

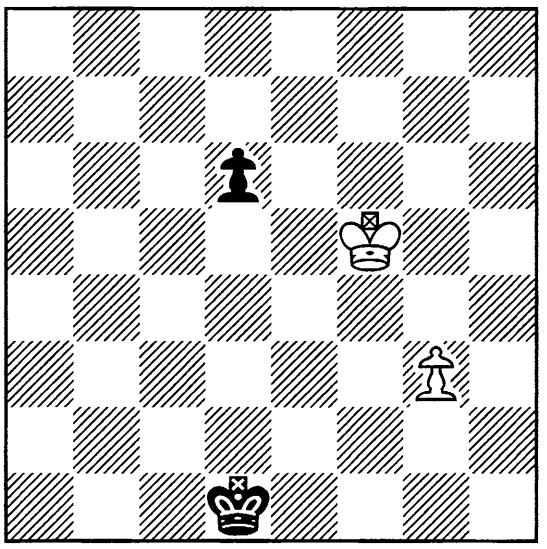
Now after 8...f4 9 gxh5 neither of Black's defences are satisfactory:

a) 9...f3 10 h6 f2 11 h7 f1Q 12 h8Q and White has a winning queen ending.

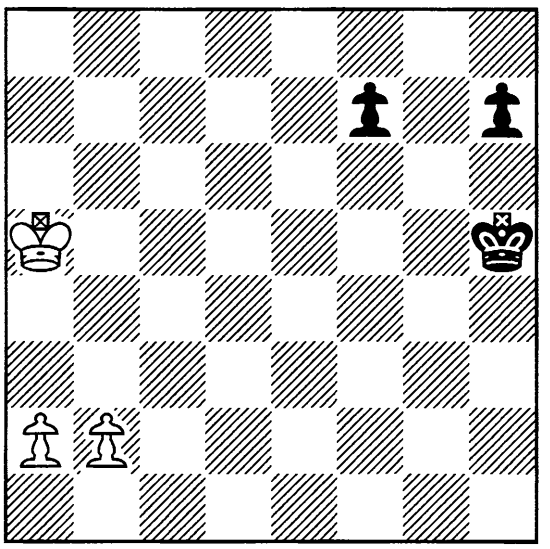
b) 9...Ke7 gets into the square of the h-pawn but White is able to gain an important tempo in the race between her a-pawn and Black's f-pawn. The following moves are instructive: 10 h6! Kf7 11 h7 Kg7 12 h8Q+ (the h-pawn sacrifices itself but forces the opposing king onto the back rank) 12...Kxh8 13 a5 f3 14 a6 f2 15 a7 f1Q 16 a8Q+ (with check!) 16...Kg7 17 Qa6 and White wins.

9 a5 f4 10 a6 f3 11 a7 f2 12 a8Q f1Q 13 Qc8+ Ke7 14 Qxc6 Qe2 15 Qc7+ Kf8 16 Qd6+ 1-0

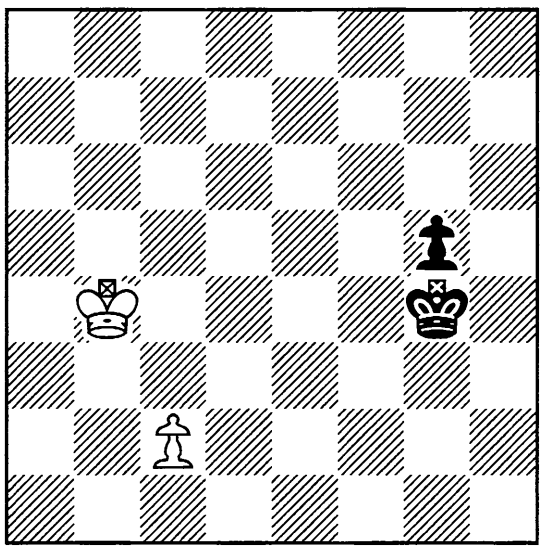
Try it Yourself



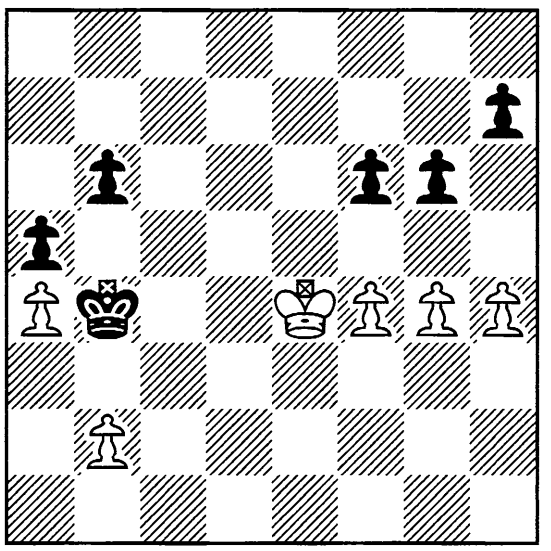
Exercise 1 (Black to play)



Exercise 2 (White to play)



Exercise 3 (Black to play)



Exercise 4 (White to play)

Exercise 1: Black to play and draw.

Exercise 2: What is the result?

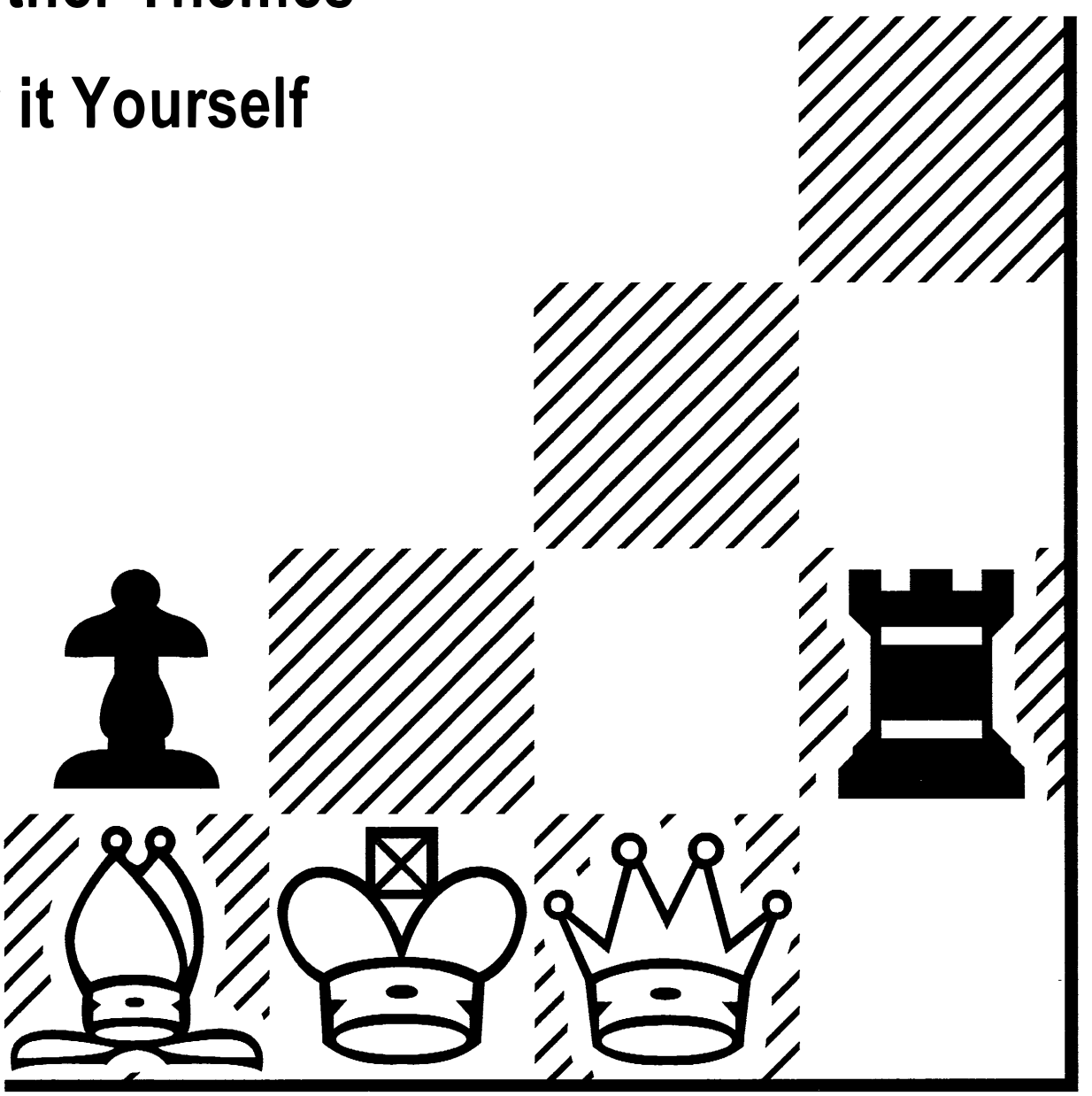
Exercise 3: Which square on the f-file should Black choose? Only one wins!

Exercise 4: Which is best: Kd5 or pawn to f5? Count and calculate the resulting races.

Chapter Seven

Manoeuvring Monarchs

- Dual Aims
- Triangulation
- Further Themes
- Try it Yourself



There are times when to achieve the desired result a player has to resort to a remarkable series of king moves. At first sight the reasoning behind them can seem mysterious to the casual observer.

Some of the better known ones such as triangulation are highlighted here, but they can be found throughout the book entwined with other themes.

As you become accustomed to them they'll be less mystery behind these manoeuvres and you'll start to employ them in your own games!

Dual Aims

This first example amazes those who see it for the first time.

Example 137: Double Objectives

Réti 1921

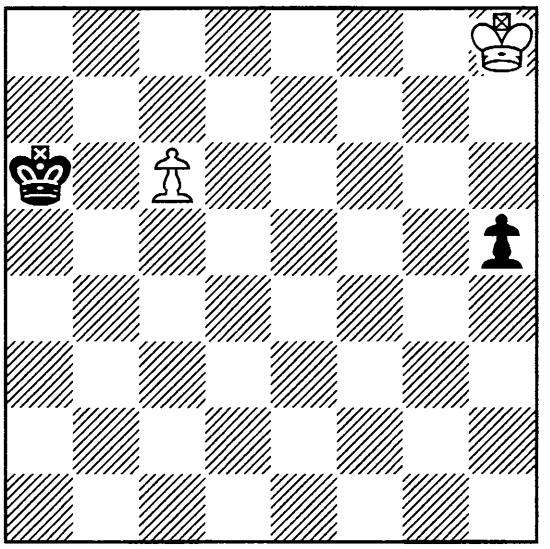


Diagram 1 (W)
Is this really drawn?

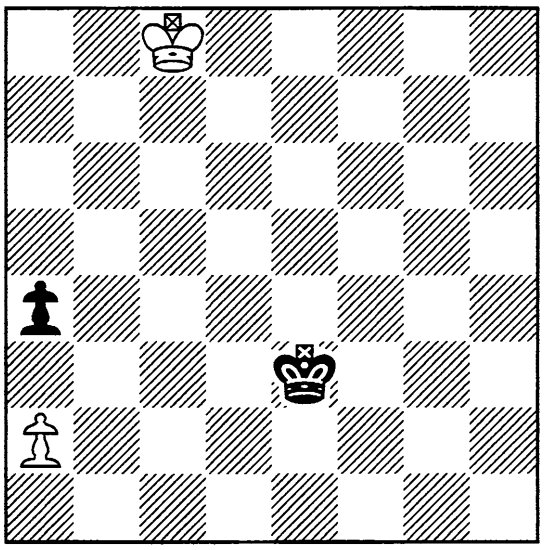


Diagram 2 (W)
Using geometry

(Diagram 1) No book on pawn endings would be complete without this study that is generally attributed to Réti. White is well outside the square of the h-pawn whereas Black is within that of the c-pawn. It's hard to believe it the first time we see it, but nevertheless it's a draw!

The secret is that to get into the square of the h-pawn White gains time by making threats with his own passed pawn:

1 Kg7! h4 2 Kf6!

By moving along this diagonal he chooses a route with a double purpose, i.e. getting close to the c-pawn and chasing the h-pawn at the same time.

2...h3

If Black tries 2...Kb6 then 3 Ke5 h3 (or here 3...Kxc6 4 Kf4 and the black pawn is caught) 4 Kd6 h2 5 c7 h1Q and White queens with 6 c8Q just in time!

3 Ke6 h2 4 c7 h1Q 5 c8Q+

drawing, as White queens with check. The king's choice of route had two objectives in mind.

Example 138: Chess Geometry

Grigoriev's analysis of an actual game

(Diagram 2) In geometry at school we learn that the diagonal of a square is longer than a side. So that a line measured with a ruler from a1 to h8 on a chess board measures further than a line drawn from a1 to a8.

In chess, however, a king can move one square in any direction, and a move along the diagonal is considered equivalent of a move along the horizontal or vertical axis. So when a king is engaged in a cross-board journey, there is no need for him to walk in a straight line. In the above position, a king aiming to go from c8 to c2 can choose a variety of routes depending on circumstances. One such as c8-d7-e6-f5-e4-d3-c2 takes exactly the same number of moves as does c8-c7-c6-c5-c4-c3-c2. The following game continuation contains several errors because the players failed to appreciate the significance of this point.

1 Kc7?

Already an error. Instead 1 Kd7! leads to a draw as can be seen from the following: 1...Kd4 2 Ke6! Kc3 3 Kd5 Kb2 4 Kc4 Kxa2 5 Kc3 a3 (if 5...Kb1 then 6 Kb4) 6 Kc2. White swings right before coming back to the c2-square in order to avoid being slowed by his opponent's cross-board journey.

1...Kd3?

Here 1...Kd4! moves towards the a-pawn whilst holding off White's retreating king, e.g. 2 Kd6 a3 3 Ke6 (a forced loss of time) 3...Kc3 4 Kd5 Kb2 5 Kc4 Kxa2 6 Kc3 Kb1 and Black wins.

2 Kb6?

Another chance bites the dust. Here 2 Kd6! Kd4 3 a3 Kc4 4 Ke5 Kb3 5 Kd4 Kxa3 6 Kc3 would hold.

2...Kc3 3 Kb5 a3 4 Ka4 Kb2 5 Kb4 Kxa2 and wins, as 6 Kc3 Kb1 leads to Black obtaining a queen.

Example 139

G.Flear-Rausis, Gonfreville 1998

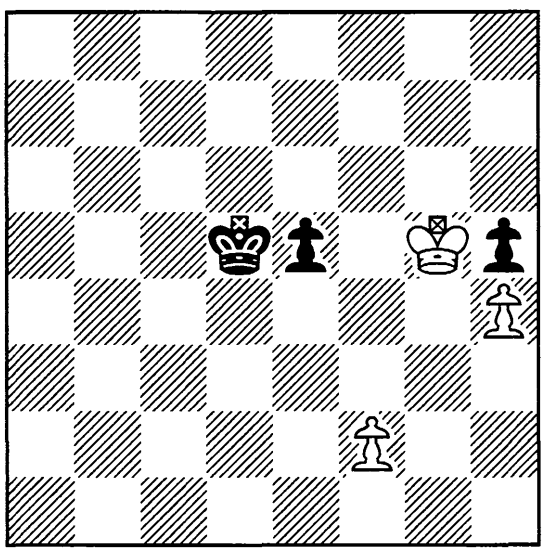


Diagram 3 (B)
Black has a resource

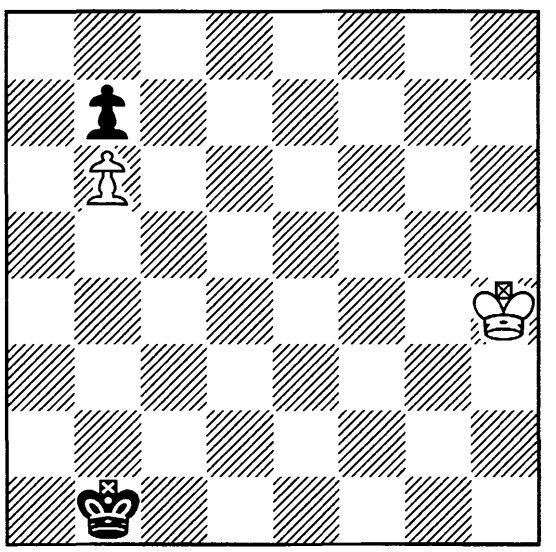


Diagram 4 (W)
What should White do?

(Diagram 3) White seems to be doing well but Black has a counter-attack.

1...Ke4 2 Kxh5 Kf3 3 Kg5 Kxf2 4 Kf5

and now it seems that the h-pawn is free to advance whereas the e-pawn is lost. However, the game is drawn due to...

4...Kf3!

...a dual-purpose move threatening ...e4 and getting sufficiently close to the h-pawn.

5 Kxe5

Alternatively 5 h5 e4 6 h6 e3 7 h7 e2 8 h8Q e1Q is drawn.

5...Kg4 and Black draws.

The move 4...Kf3 is an example of a *feint* but is also just another example of a king with dual aims.

The route chosen by White in this following study shouldn't be that surprising now.

Example 140

Grigoriev 1931

(Diagram 4) 1 Kg5? is too slow to trouble the black b-pawn: 1...Kc2 2 Kf6 Kc3 3 Ke6 Kc4 4 Kd6 Kb5 5 Kc7 Ka6 and the trébuchet leads to the loss of the b-pawn and the game for White.

1 Kg3!

Going the other way! The b-pawn is not long for this world but White aims to meet ...Kxb6 with Kb4. In order to get there he has to avoid any holding-off manoeuvre by his opponent.

1...Kc2 2 Kf2 Kd3 3 Ke1 Kc4 4 Kd2 Kb5 5 Kc3 Kxb6 6 Kb4

with the opposition and a draw.

Note that the white king's route from h4-b4, via e1, avoids any harassment from the opposing king. The chosen way took six moves to complete and is no longer than the direct Kh4-g4-f4-e4-d4-c4-b4 would take on an empty board.

However, if in the above example White were to try 1 Kg4? then clearly after 1...Kc2 2 Kf4 Kd3 he wouldn't have access to the e4-square and is thus unable to get to b4 in time.

Triangulation

The word *triangulation* gets floated about in endgame literature, but what exactly does it imply?

Let's see a relatively straightforward example first.

Example 141

Fine 1941

(Diagram 5) White can win the e-pawn but not by directly attacking it.

1 Kd2!

After 1 Ke3? Ke5 White gets nowhere.

1...Ke5

If 1...Kc6 then 2 Ke3 also wins the pawn.

2 Ke3

and now Black is in zugzwang and has to cede the pawn.

By moving sideways, using a free square, White passes and emphasises that Black is short of manoeuvring space.

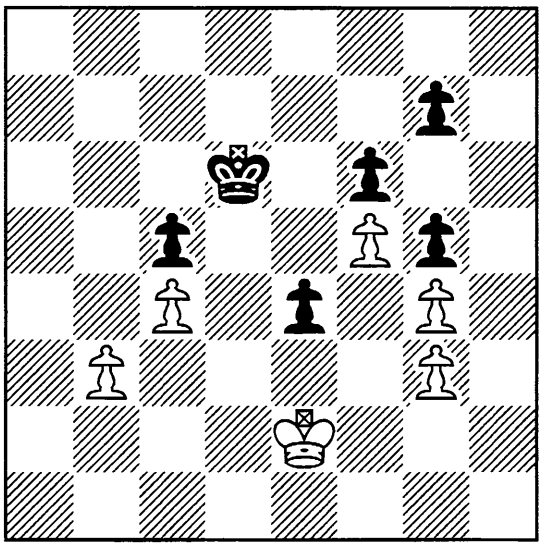


Diagram 5 (W)
White's king triangulates

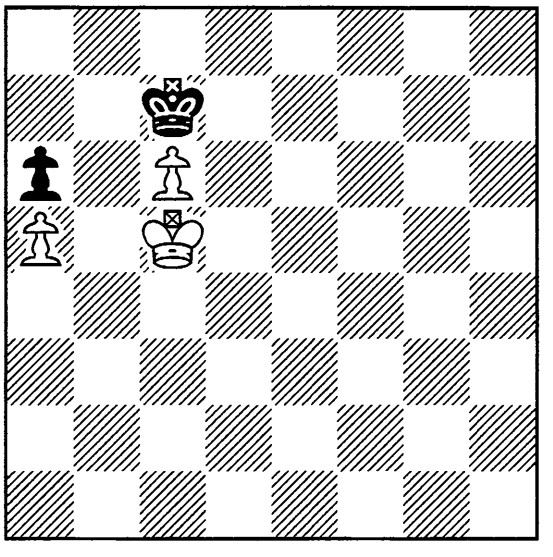


Diagram 6 (W)
A favourite example

NOTE: White's king moved in a triangle e2-d2-e3, hence the use of the word *triangulation*.

Example 142

Fahrni-Alapin

(Diagram 6) This is one of my favourite positions that I use for training purposes. Some players immediately catch on to the idea; others struggle because the idea of triangulation seems strange. Essentially, if one player is restricted the player with extra room can try and time his forays to catch his opponent on the wrong square at the wrong time!

1 Kd5

No choice here, but note that if Black had the move instead of White then he would have to allow the white king into b6 losing the a-pawn.

1...Kc8 (Diagram 7)

1...Kd8?! loses immediately if White pays attention: 2 Kd6 Kc8 3 c7 Kb7 4 Kd7 Ka7 5 Kc6! (5 c8R also avoids stalemate) 5...Ka8 6 c8Q+ Ka7 7 Qb7 mate.

Now if White advances to d6 Black takes the opposition with ...Kd8, or if White returns to c5 Black returns to c7, but...

2 Kd4!

What's this?

2...Kd8

Not 2...Kc7?!, which loses to 3 Kc5.

3 Kc4!

Where's he going now?

3...Kc8 4 Kd5!

Back again, but it's not exactly the same position.

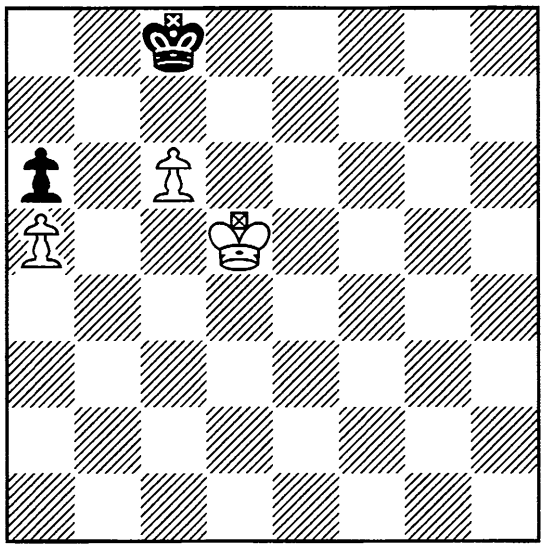


Diagram 7 (W)
White wants it to be Black's move

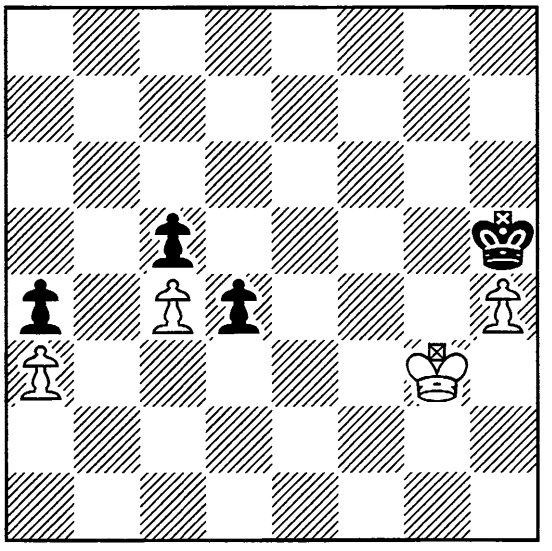


Diagram 8 (B)
Any resemblance to Example 142?

Let me explain: White's last three moves Kd5-d4-c4-d5 constitute a triangulation. Black can only shuffle sideways back and forth, and as White takes three moves to come back to his starting square, we obtain the same position as Diagram 7 but *with Black to move.*

Now the win is straightforward...

4...Kd8

Or again 4...Kc7 5 Kc5 Kc8 6 Kb6 Kb8 7 Kxa6 Kc7 8 Kb5 Kb8 9 Kb6 Ka8 10 Kc7 Ka7 11 Kd7 etc.

5 Kd6 Kc8 6 c7 etc. as in the note to Black's first move.

If you haven't quite grasped this idea yet, here's an example from a high-ranking game.

Example 143

Lautier-Anand, Monaco (blindfold) 2000

(Diagram 8) This position doesn't at first seem that related, but just see what happens...

1...d3 2 Kf3 Kxh4 3 Ke3 Kg3 4 Kxd3 Kf3 5 Kd2 Ke4 6 Kc3 Ke3 7 Kc2 Ke2 8 Kc3 Ke3 9 Kc2 Kd4 10 Kd2 Kxc4 11 Kc2 Kd4 12 Kd2 c4 13 Kc2 c3 14 Kc1

and now

14...Kc5! 15 Kd1 Kd5! 16 Kc1 Kd4! 0-1

White had seen enough.

The next example finishes in a similar fashion.

Example 144

D.Dumitrache-Smetankin, Avoine 2002

(Diagram 9) Black starts by honing in on the f-pawn.

1 Ke2 Kc3 2 Ke3 Kc4 (Diagram 10)

White is starting to be outflanked.

3 g3

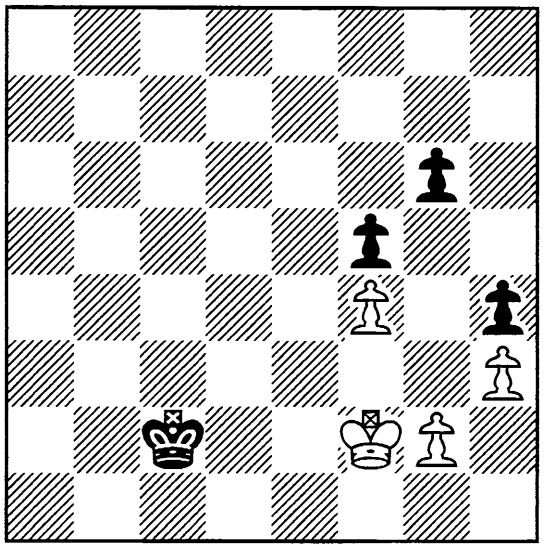


Diagram 9 (W)
Black attacks f4

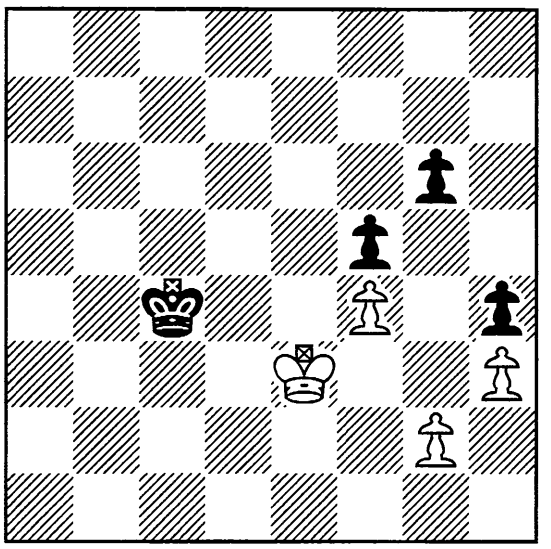


Diagram 10 (B)
White is outflanked

White can also wait a couple of moves: 3 Kf3 Kd3 4 Kf2 Ke4 and only now 5 g3, hoping for 5...hxg3+? 6 Kxg3 Ke3 7 Kh4 Kxf4 with stalemate. However Black has 5...Kd3! (rather than capturing the pawn) 6 Kf3 Kd2 7 Kf2 Kd1 8 Kf1 hxg3 9 Kg2 Ke2 10 Kxg3 Kf1! 11 Kf3 (also inadequate is 11 Kh4 Kg2 12 Kg5 Kxh3 13 Kxg6 Kg4) 11...Kg1 12 Kg3 **(Diagram 11)**

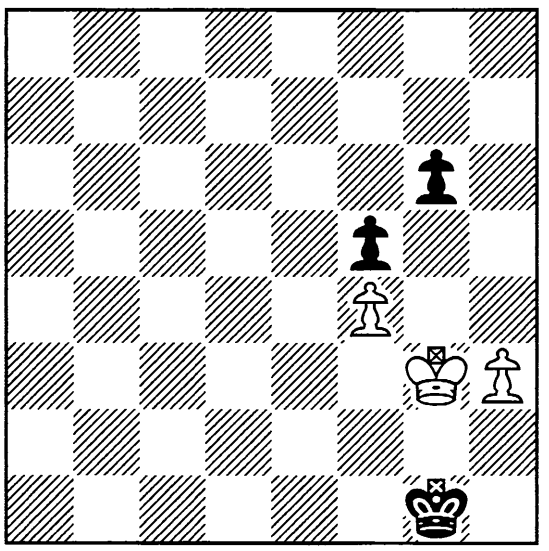


Diagram 11 (B)
Round the back

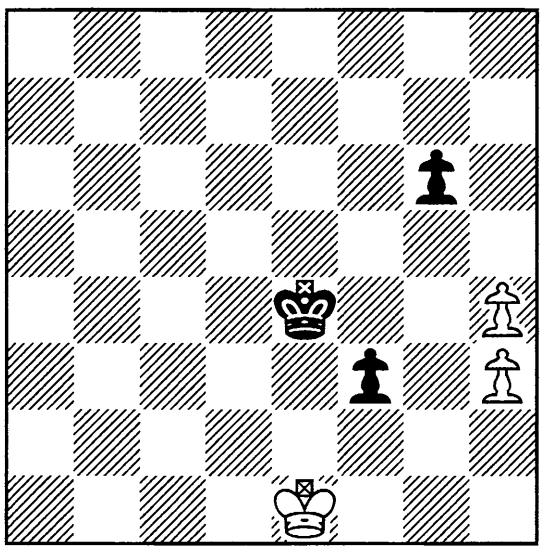


Diagram 12 (B)
Ready for triangulation

12...Kh1! (White doesn't have h3 available) 13 h4 Kg1 14 h5 gxh5 15 Kh4 Kg2 16 Kg5 h4 17 Kxh4 Kf3 18 Kg5 Ke4 and White is in zugzwang.

3...Kc3!

As we saw in the previous note, it's not in Black's interest to capture on g3.

4 gxh4

4 Kf3 Kd3 5 Kf2 Ke4 6 Kg2 Ke3 will come to the same thing.

4...Kc4 5 Ke2 Kd4 6 Kd2 Ke4 7 Ke2 Kxf4 8 Kf2 Ke4 9 Ke2 f4 10 Kf2 f3 11 Ke1 (Diagram 12)

And now for the classic triangulation...

11...Kf5!

At present the direct forward advance fails after 11...Ke3 12 Kf1 f2? 13 h5! gxh5 14 h4 etc. Therefore Black triangulates in order to lose a tempo, whereupon this idea works.

12 Kf1 Ke5! 13 Ke1 Ke4!

and White resigned in view of 14 Kf1 Ke3 15 Ke1 f2+ 16 Kf1 Kf3 17 h5 gxh5 18 h4 Kg3, when White is obliged to allow Black in with 19 Ke2 Kg2 etc.

Example 145

Jacobi 1904

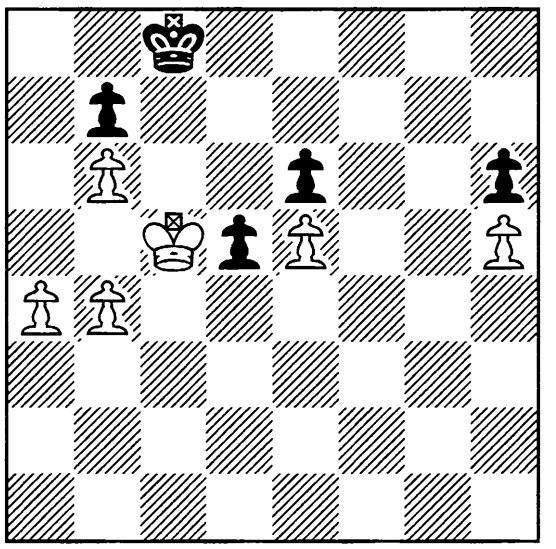


Diagram 13 (W)
White's a pawn ahead

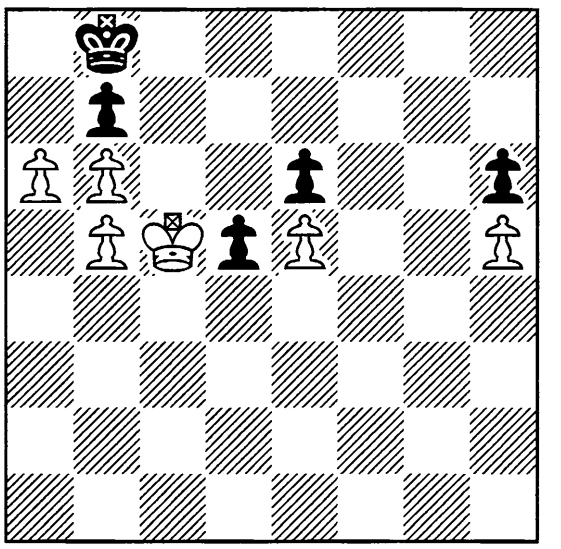


Diagram 14 (W)
Now White triangulates

(Diagram 13) This example also features a triangulation but in a disguised form. White has a 3 v 1 majority but Black has a protected passed pawn, which complicates White's task. First of all he needs to tie Black's king down to the corner:

1 a5 Kd7 2 b5 Kc8 3 a6

Threatening a6-a7.

3...Kb8 (Diagram 14)

Now Black only can play his king between a8 and b8. White would like to invade with Kd6, but at present this is too slow as Black could then push his d-pawn. Therefore White needs to play Kd6 when Black's king is on a8 so that he has the additional threat of Kc7.

In order to achieve this, White must manoeuvre behind his lines and arrive at the present position with Black to move. As c4 is covered by Black he has to go further afield to triangulate. Indeed, he must return to c5 in an odd number of moves (five is the shortest).

4 Kb4

Or alternatively 4 Kd4 Ka8 5 Kd3 Kb8 6 Kc3 Ka8 7 Kd4 Kb8 8 Kc5.

4...Ka8 5 Kc3 Kb8 6 Kb3 Ka8 7 Kb4 Kb8 8 Kc5

and now Black must move to the corner...

8...Ka8

So here goes...

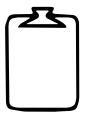
9 Kd6! Kb8

Black has to lose this tempo as 9...d4 loses to 10 Kc7.

10 Kxe6

Now White wins by a tempo.

10...d4 11 Kf7 d3 12 e6 d2 13 e7 d1Q 14 e8Q+ Qd8 15 Qxd8 mate



NOTE: Only certain types of position require triangulation, i.e. when one side is restricted in terms of manoeuvring space.

Further Themes

Example 146: The opposition at a distance

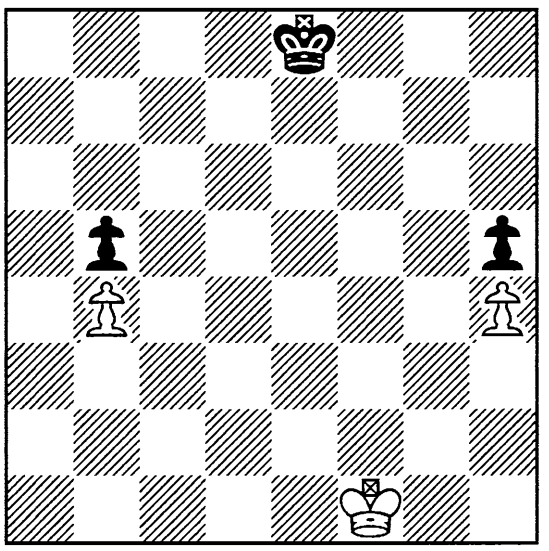


Diagram 15 (W)
The opposition at a distance

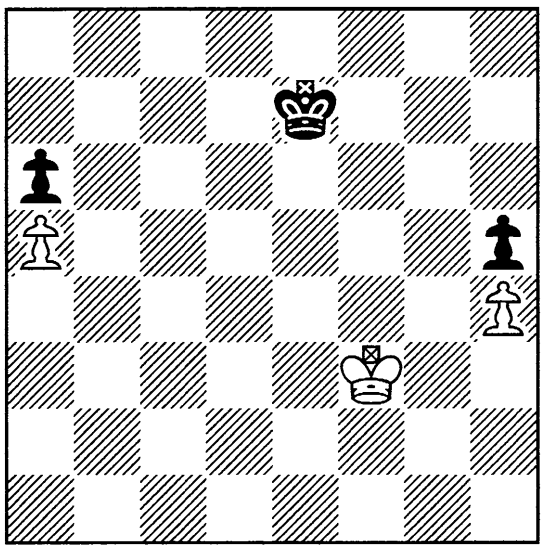


Diagram 16 (W)
The bypass

(Diagram 15) This type of position can be confusing to the less experienced, but it illustrates the power of the opposition even when kings are far apart. The position is not at all drawish. In fact whoever grabs the opposition will win!

1 Ke2!

Taking the aptly named long distance opposition.

1...Kf8

Now White can maintain the opposition with 2 Kf2 but it's most precise to threaten invasion.

2 Kd3

With the threat of Kd4-c5. This move Averbakh calls a *bypass*. White temporarily breaks the opposition to get closer to the invasion square.

2...Ke7

In order to meet Kd4 with ...Kd6, seizing the opposition, but...

3 Ke3!

...takes the distant opposition.

3...Ke6

Here 3...Kf7 allows a decisive invasion with 4 Kd4 Ke6 5 Kc5.

4 Ke4

Now it's the direct opposition.

4...Kd6 5 Kd4!

Forcing Black on the back foot, whereas 5 Kf5? allows counterplay with 5...Kd5.

5...Kc6 6 Ke5 Kb6 7 Kd6 and White wins.

Taking the opposition only has relevance if there is at least one ultimate threat. Note how White didn't maintain the opposition indefinitely, he combined this weapon with threats of invasion as on move 2.

Example 147: The bypass

(Diagram 16) In this position White takes the distant opposition and the advantage with...

1 Ke3

...but Black can ultimately save the day. The fact that all the pawns are rooks pawns and that the kingside pawns are on the middle ranks may remind one of Bahr's rule (Example 37).

1...Kf7

It's important to keep hold of the h-pawn for now.

2 Kd4

A *bypass* with the a-pawn as a goal.

2...Kf6

The slack 2...Ke6? goes down to 3 Ke4!, taking the direct opposition, e.g. 3...Kf6 4 Kf4 Kg6 5 Ke5 Kg7 6 Kf5 Kh6 7 Kf6 Kh7 8 Kg5 Kg7 9 Kxh5 which wins for White (see Example 35).

3 Kc5 Ke6 4 Kb6 Kd6 5 Kxa6 Kc6 6 Ka7 Kc7 7 a6 Kc8 8 Kb6 Kb8 9 Kc6 Ka7 10 Kd6 Kxa6 11 Ke6 Kb6 12 Kf6 Kc7 13 Kg6 Kd7 14 Kxh5 Ke7 15 Kg6 Kf8 drawing.

So Black, when given the choice, had to pick which one of his pawns he could afford to lose.

NOTE: The *bypass* releases the opposition with a threat such as invasion in mind. A successful one will lead to a reformed opposition on a higher rank or outflanking of the opponent.

Example 148: Distant or direct opposition?

(Diagram 17) Here Black has the opposition. He needs to maintain it to draw, but he has to be careful how.

1 Kd2 Kd6!

The tempting 1...Kd4? actually loses. So here the direct opposition loses but the distant version draws, but why is that?

In fact after 2 Kc2 Black has the problem that he can't maintain the opposition as he doesn't have access to the c4-square.

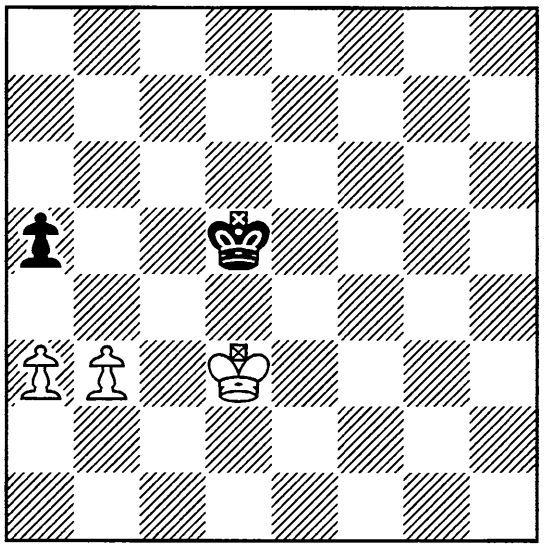


Diagram 17 (W)
Distant or direct opposition?

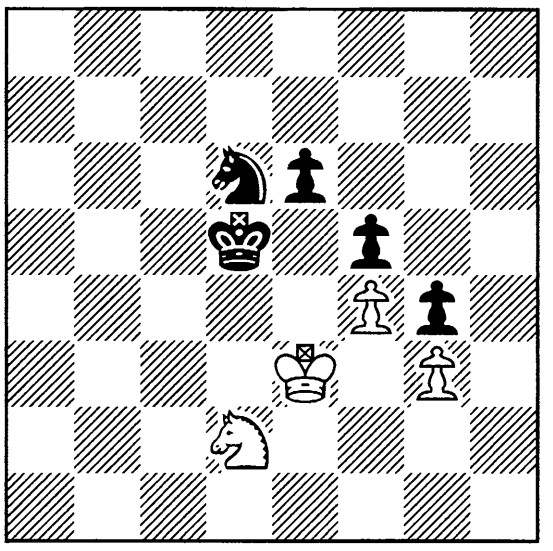


Diagram 18 (B)
It's natural to exchange knights

2 Ke2

Now after 2 Kc2 Black chooses 2...Kc6.

2...Ke6 3 Kd1 Kd5

Or here 3...Kd7 also keeps White at bay.

4 Kc2 Kc6

and so on.

An example that shows that the distant opposition not only needs to be respected but can be better than the direct opposition!

With Black to move **(148a)** he loses.

1...Kc5 2 Ke4 Kc6

The other try 2...a4 is also unsuccessful: 3 b4+ Kc4 4 Ke5 Kb3 (or 4...Kb5 5 Kd5) 5 b5 Kxa3 6 b6 Ka2 7 b7 a3 8 b8Q (in Chapter 10 you'll learn that if the pawn is only on the sixth rank then Black is generally in trouble) 8...Ka1 9 Qc7 Kb2 10 Qb6+ Ka1 11 Qc5 Kb2 12 Qb4+ Ka2 13 Kd4.

3 Kd4 Kb5

Hopes of defending with 3...Kd6 4 Kc4 Kc6 are dashed by 5 a4.

4 Kd5 Kb6 5 Kc4 Kc6 6 a4 Kb6 7 Kd5 etc.

Remember that the opposition is a special type of zugzwang.

Example 149

P.Durao-Jor.Lopez, Lisbon 2003

(Diagram 18) Black has an extra pawn but cannot at present make a passed pawn. It seems natural to exchange knights. Which way is best?

1...Nc4+

The alternative is 1...Ne4 2 Nxe4! (2 Nf1 is passive after 2...Kc4 3 Ke2 Kd4, when White has to yield further ground) 2...fxe4 3 Ke2 Kd4 4 Kd2 e3+ 5 Ke1! (rather than 5 Ke2? which loses to 5...Ke4) **(Diagram 19)**.

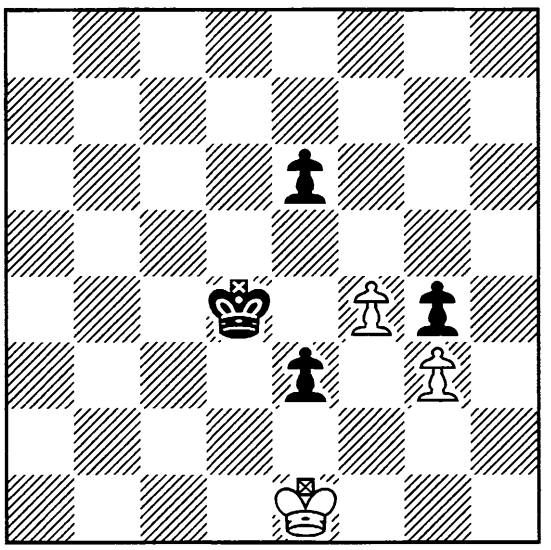


Diagram 19 (B)
Black cannot triangulate

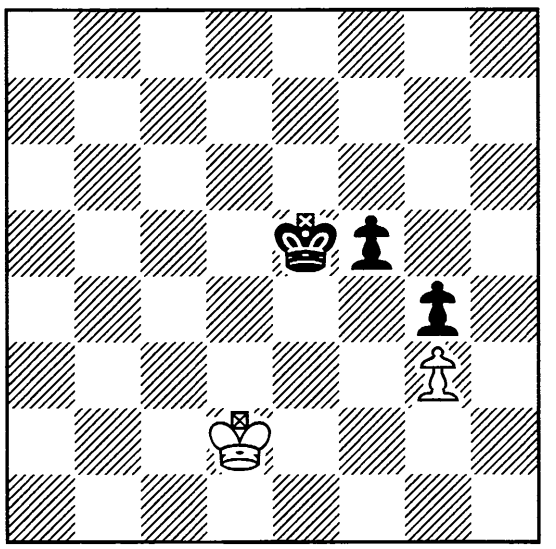


Diagram 20 (W)
Time to take the opposition

In Diagram 19 Black cannot triangulate as he doesn't have access to the e5-square: 5...Kd5 6 Kd1 Kc4 (this is the opportune moment for 6...e5!?, but it's not good enough as 7 f5! e4 8 Ke2 Ke5 9 Kxe3 Kxf5 10 Kd4 draws easily) 7 Ke2 Kd4 8 Ke1 Kd3 9 Kd1 e2+ 10 Ke1 Ke3 11 f5 exf5 and it's stalemate!

2 Nxc4 Kxc4 3 Ke2!

An example of the diagonal opposition.

3...Kd4 4 Kd2 Kd5 5 Kd3 Kc5 6 Ke3 Kc4 7 Ke2 Kd4 8 Kd2 e5 9 fxe5 Kxe5 10 Ke3 Ke6 11 Ke2 Ke5 12 Ke3 Kf6 13 Kf2 Kf7 14 Ke2

Ceding the opposition but it doesn't matter. White can just temporise until Black plays ...Kd5 or ...Ke5, but then he has to remember to retake it.

14...Ke6 15 Kd2 Kd6 16 Ke2 Ke6 17 Kd2 Ke5 (Diagram 20) 18 Ke3!

This time it's important to take the opposition.

18...f4+ 19 gxf4+ Kf5 20 Ke2 Kxf4 21 Kf2 with a draw.

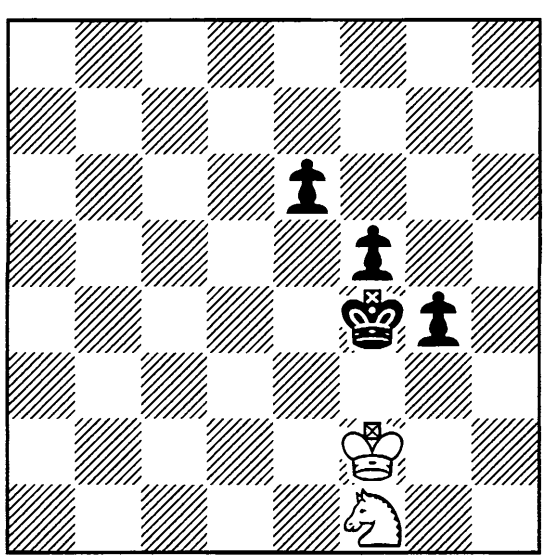


Diagram 21 (W)
Excellent winning chances

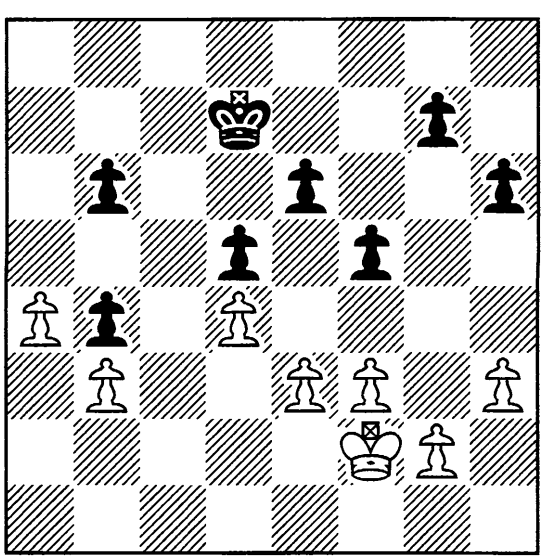


Diagram 22 (W)
White attacks on the kingside

So Black has two ways to exchange knights, but surprisingly neither is good enough to win.

For the record, in fact the best chance to win is to avoid the pawn ending altogether, e.g. 1...Ne8 2 Kd3 Nf6 3 Ke3 Nh5 4 Nf1 Kc4 5 Ke2 Kd4 6 Kf2 Kd3 7 Nh2 Ke4 (7...Nf6 also looks promising but after 8 Nf1 Ne4+ 9 Ke1 White seems to hold) 8 Nf1 Nxf4! 9 gxf4 Kxf4 **(Diagram 21)** with excellent winning chances. In such positions Averbakh and Chekhover state that if all three pawns can make it to the fifth rank then the pawns win. This looks highly feasible, without going any further.

Example 150

H.Banikas-C.Marcelin, French League 2002

(Diagram 22) Here with the centre fairly blocked, White employs an interesting manoeuvre aiming for an initiative on the kingside. Black underestimated the danger of allowing an advanced king position probably because it was 'only' on the side of the board.

1 Kg3 Ke7?

Black shouldn't allow White's king to advance. Correct is 1...g5! 2 f4 Ke7 3 fxg5 hxg5 4 h4 Kf6 and Black's defences hold firm after both 5 hxg5+ Kxg5 6 Kf3 Kg6 7 Kf4 Kf6 8 g3 Kf7 and 5 h5 Kg7 6 Kf3 Kh6 7 g4 Kg7.

2 Kh4 Kf6 3 Kh5! (Diagram 23)

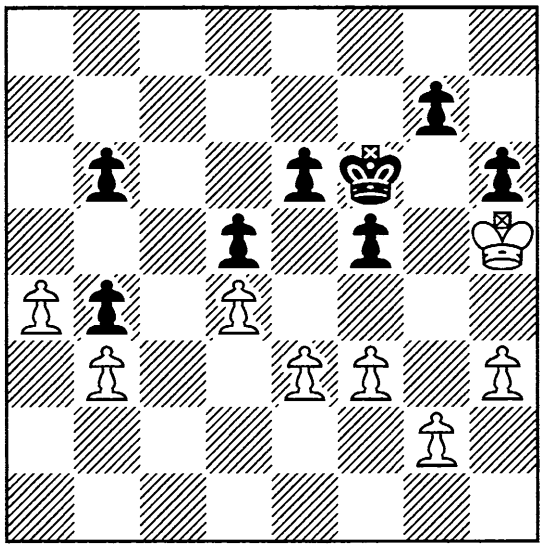


Diagram 23 (B)
An advanced king

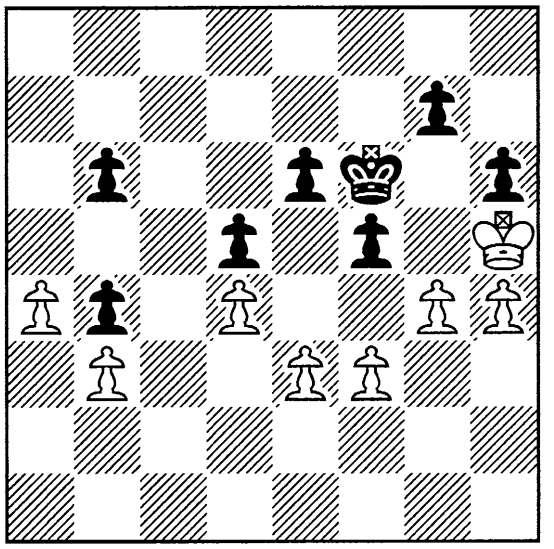


Diagram 24 (B)
A complex position

This square proves to be an extremely effective one in tying down Black's king and preparing to push his kingside pawns.

3...e5?

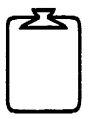
The fatal error. It was necessary to delay this move with 3...Kf7 4 g4 Kf6 5 h4! (a better try than 5 f4?! fxg4 6 hxg4 Kf7 when the blockade remains intact) **(Diagram 24)** and now 5...e5! 6 g5+ hxg5 7 dxe5+ (or 7 hxg5+ Ke6 8 Kg6 f4 9 exf4 exd4 10 f5+ Kd7 11 Kxg7 d3 12 f6 d2 13 f7 d1Q 14 f8Q Qxb3 15 g6 with an edge for White) 7...Kxe5 8 Kxg5 leaves Black in the game after both 8...d4 9 f4+ Kd5 10 exd4 Kxd4 11 Kxf5 Kc3 12 Kg6 Kxb3 13 Kxg7 Kxa4 14 f5 b3 15 f6 b2 16 f7 b1Q 17 f8Q, or 8...f4 9 exf4+ Ke6 10 f5+ Ke5 11 h5 d4 12 h6 gxh6+ 13 Kg6 d3

14 f6 d2 15 f7 d1Q 16 f8Q. White might be able to claim that he's somewhat better but these queen endings look rather complicated.

It's worth noting that Black cannot play passively indefinitely (from the previous diagram), as after 5...Kf7?! 6 g5 hxg5 7 Kxg5 Ke7 (or 7...g6 8 Kh6 Kf6 9 f4) 8 Kg6 Kf8 9 h5 Kg8 10 h6 gxh6 11 Kxh6 Kf7 12 Kh7! e5 13 f4 e4 14 Kh6 he gets outflanked.

4 f4 exd4 5 exd4 Kf7 6 g4 Kf6 7 g5+ hxg5 8 fxg5+ Kf7 9 g6+ Kf6 10 h4 f4 11 Kg4 f3 12 Kxf3 Kf5 13 Kg3 1-0

Black resigned as 13...Kxg6 14 Kg4 Kf6 15 h5 g5 (or 15...Ke7 16 Kg5 Kf7 17 Kf5 Ke7 18 Ke5) 16 h6 Kg6 17 h7 Kxh7 18 Kxg5 Kg7 19 Kf5 Kf7 20 Ke5 is of course hopeless.



NOTE: An advanced king restricts the opponent and can give opportunities to break down the defences, particularly when combined with a pawn advance.

Example 151

Palac-D.Roos, French League 1999

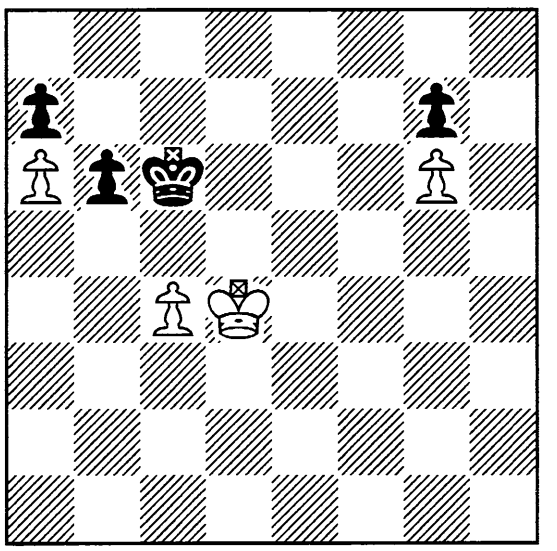


Diagram 25 (W)
Black uses a lock-in

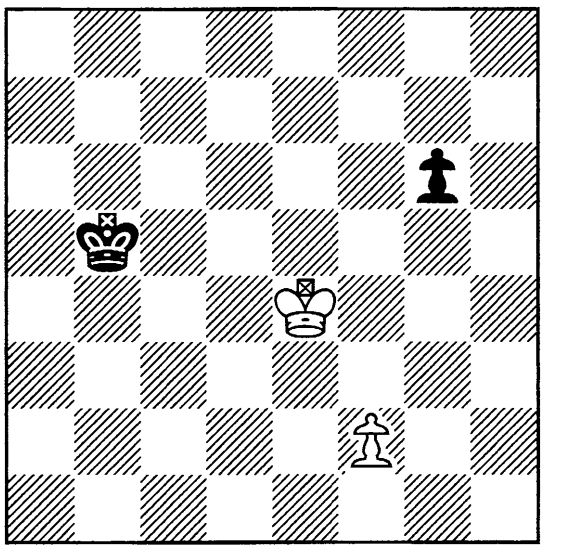


Diagram 26 (W)
White wins

(Diagram 25) Sometimes difficult positions can be saved by *locking in* the attacking king.

1 Ke5 Kd7 2 Kd5 Ke7 3 Kc6

...and White invades, but Black has a resource prepared...

3...Ke6 4 Kc7 Ke7 5 Kb7 Kd7 6 Kb8 Kd8 7 Kxa7 Kc7 8 Ka8 Kc8 9 Ka7 Kc7

White cannot get his king out and so the game is drawn.

From our experience with Examples 84-86 we know that the result is different if White has a spare move (for instance an extra pawn on g4), when he is able to release his king.

Example 152: Holding off

(Dobias 1926)

(Diagram 26) The solution here involves one king obstructing the approach of its counterpart.

1 Kd4!

1 f4? allows Black's king to approach from the rear: 1...Kc4 2 Ke5 Kd3 3 Kf6 Ke4.

Indeed, he also achieves this after 1 Kd5? Kb4! 2 Kd4 Kb3 3 f4 Kc2 4 Ke5 Kd3 5 Kf6 Ke4.

1...Kc6

Now 1...Kb4 is too slow after 2 f4 due to the fact that Black is held up by White's king, e.g. 2...Kb3 3 Ke5 Kc4 4 Kf6 Kd5 5 Kxg6.

2 Ke5 Kc5 3 f4 Kc4 4 Kf6 and White wins.

A good example of a *holding off* manoeuvre.

Example 153

Motwani-J.Shaw, St Andrews 1993

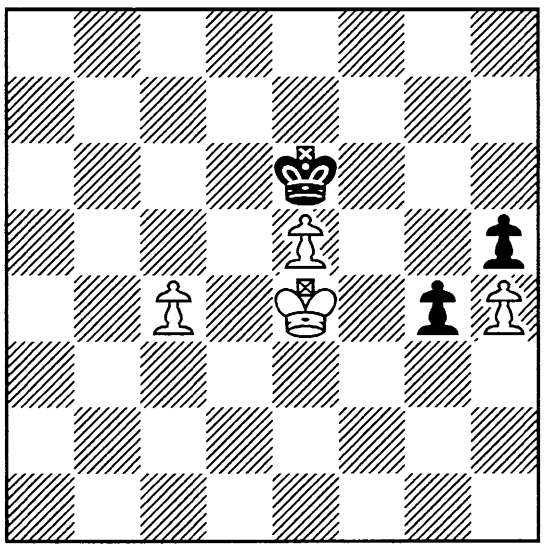


Diagram 27 (B)
Black finds a neat draw

(Diagram 27) Here Black found a neat way to ensure the draw.

1...g3 2 Kf3 Kxe5 3 Kxg3 Ke4!

A surprising move. White is in zugzwang and has the choice between moving the king away or advancing the pawn. If now, for instance, 4 Kh3 then 4...Kd4 5 Kg3 Kxc4 6 Kf4 Kd5 7 Kg5 Ke6 8 Kxh5 Kf7 draws.

4 c5

Now that the pawn is on the a3-f8 diagonal, Black can draw bearing in mind Bahr's rule (Example 37).

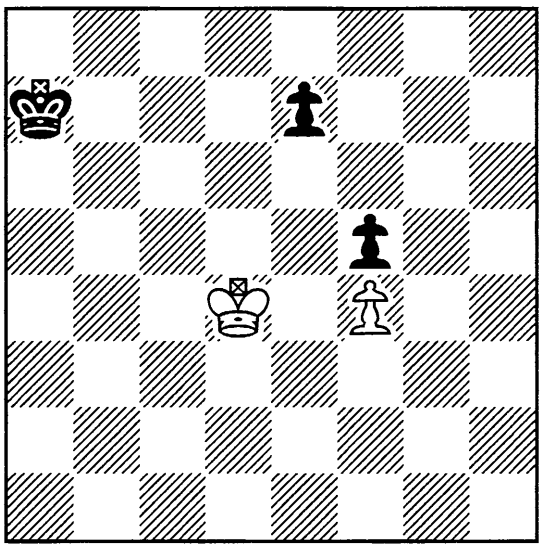
4...Kd5 5 Kf4 Kxc5 6 Kg5 Kd6 7 Kxh5 Ke7 8 Kg6 Kf8

with a draw.

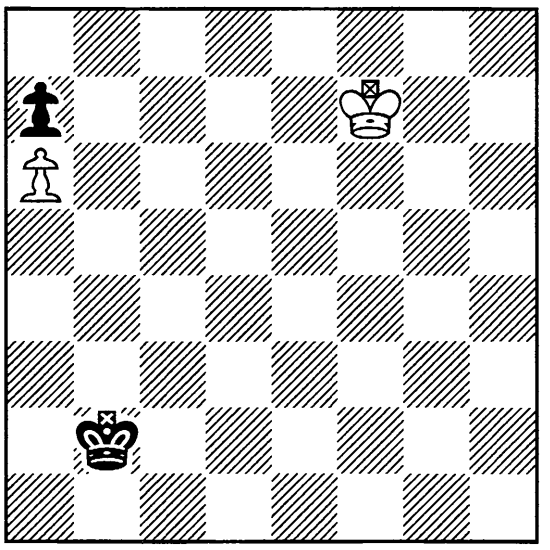
We can compare 3...Ke4 with the routine 3...Kd4?, which loses to 4 Kf4 Kxc4 5 Kg5 Kd5 6 Kxh5 Ke6 7 Kg6 Ke7 8 Kg7.

So Black's *holding-off* idea frustrated the opposing king's efforts to join the fray.

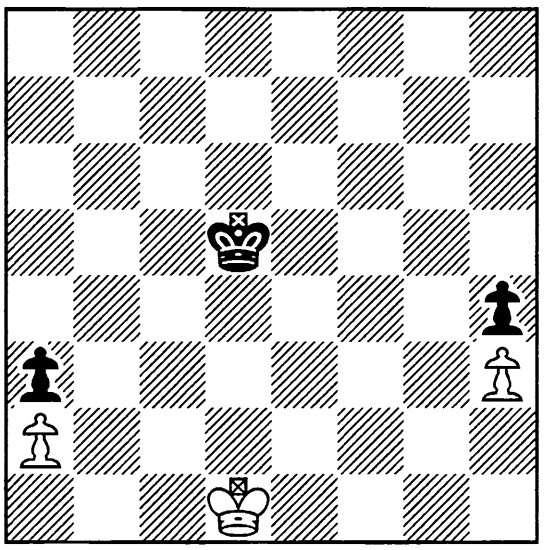
Try it Yourself



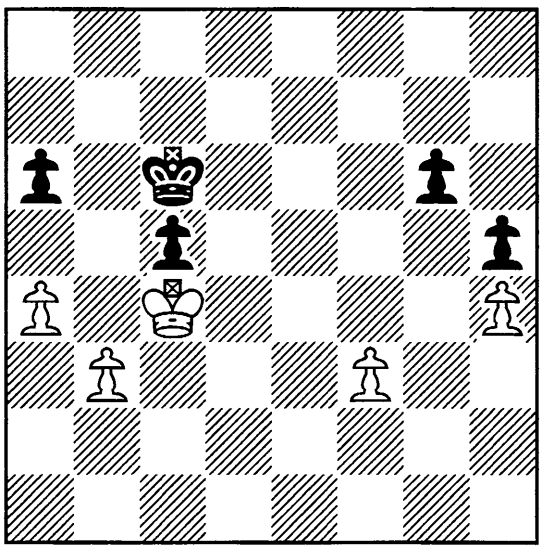
Exercise 1 (White to play)



Exercise 2 (White to play)



Exercise 3 (White to play)



Exercise 4 (Black to play)

Exercise 1: How should the game finish?

Exercise 2: White has hopes of winning. But what should he play: a) 1 Ke7, b) 1 Ke6 or c) either? Why is this so?

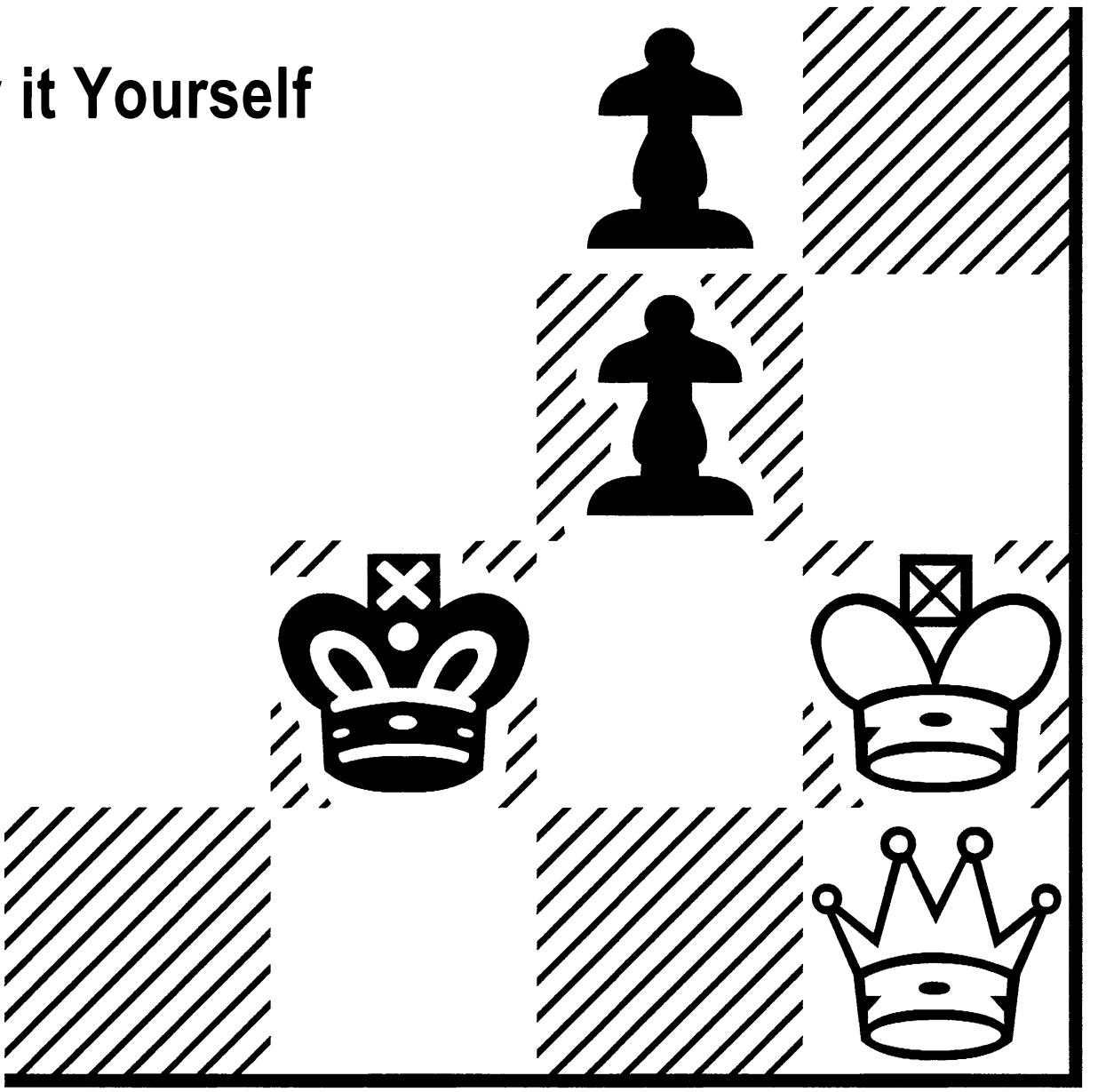
Exercise 3: White is on the defensive, but is he able to draw if he has the move?

Exercise 4: Black is under pressure, but can save the game?

Chapter Eight

Pawn Power

- The Breakthrough
- Exploiting an Extra Doubled Pawn
- Unbalanced Pawn Structures
- Try it Yourself



After looking at some special characteristics of kings, now is the time to consider pawns. Pawns only move forwards and so don't have the same flexibility as kings, but there are certain themes concerning pawns that are particularly noticeable in pawn endings: spare pawn tempi, temporary pawn sacrifices to obtain zugzwang, the relative importance of majorities and others.

The Breakthrough

The most spectacular of all, however, is the *breakthrough*. This is a bold pawn advance to create a passed pawn. It often means one poor foot soldier throwing itself onto the bayonets to let a colleague through the enemy lines!

Example 154: The breakthrough (1)

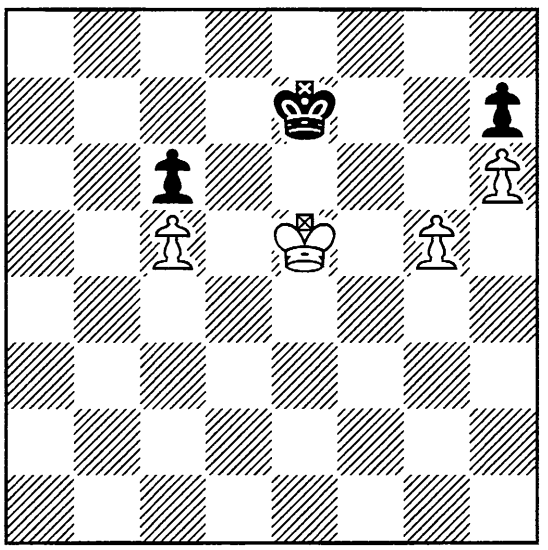


Diagram 1 (W)
White wins

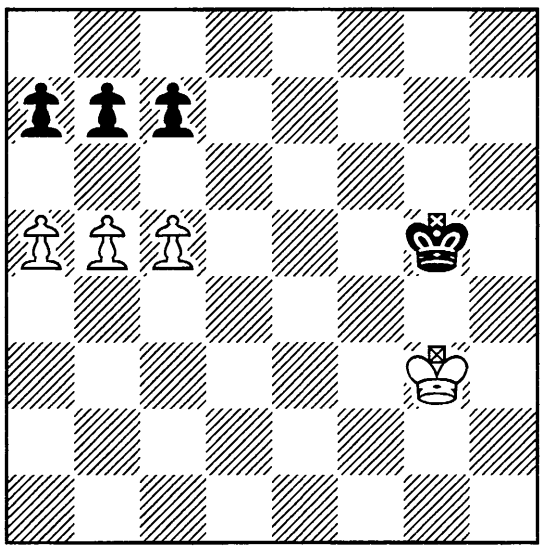


Diagram 2 (W)
White wins

(Diagram 1) Here few players would fail to see White's winning move.

1 g6! hxg6

Or 1...Kf8 2 gxh7.

2 h7 and White queens.

Example 155: The breakthrough (2)

The previous example was very straightforward. However, can you see the breakthrough in this example?

(Diagram 2) This example is certainly less obvious than the previous one and is worth remembering. White's more advanced pawns allow him a nice combination...

1 b6! cxb6

Or 1...axb6 2 c6 bxc6 3 a6.

2 a6 bxa6 3 c6 and White queens.

Note that this is successful only because the defending king is just too far away. If the black king were one file closer (i.e. inside the square of the c-pawn) then it wouldn't work.

Example 156: Passed pawn versus potential breakthrough

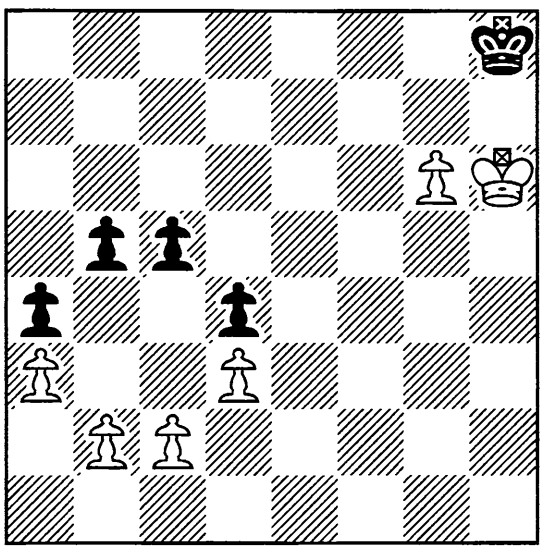


Diagram 3 (B)
Black wins

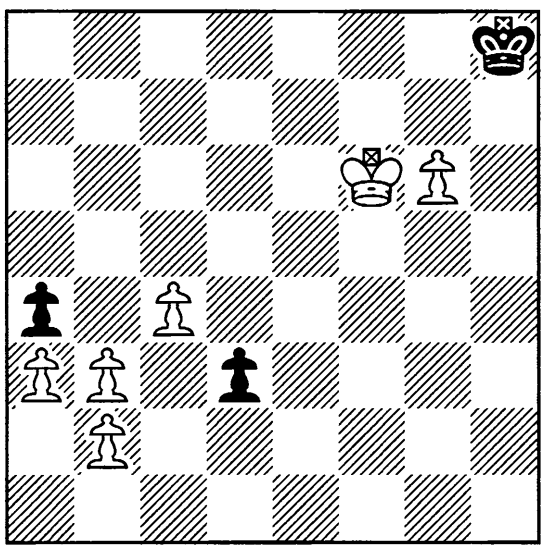


Diagram 4 (B)
The d-pawn is decisive

(Diagram 3) Breakthroughs only usually work if the opposing king is far away. Here White has become carried away on the kingside, not realising that Black's structure enables his opponent to create a passed pawn.

1...b4

It's worth pointing out that 1...c4 2 Kg5 c3?? fails to 3 Kf6! (winning a tempo to avoid Black queening with check), as after 3...Kg8 4 bxc3 dxc3 5 d4 b4 6 d5 b3 7 d6 bxc2 8 d7 c1Q White mates with 9 d8Q.

2 Kg5

Realising the danger, but it's too late!

2...c4 3 dxc4 b3 4 cxb3 d3 5 Kf6 (Diagram 4) 5...Kg8!

It's important to keep your wits about you! If 5...d2? 6 Kf7 d1Q then Black queens first, but more importantly after 7 g7+ Kh7 8 g8Q+ Kh6 9 Qg6 White mates first!

WARNING: Don't get so obsessed with your own plans that you ignore your opponent's!

6 c5 d2 7 c6 d1Q 8 c7 Qd6+ and Black wins.

When preparing and calculating pawn breakthroughs, one needs to take other factors into account:

1) Can the opponent stop the creation of a passed pawn?
2) Does the opponent's king get back in time?
3) Does the breakthrough give the opponent a dangerous passed pawn?
4) What's happening elsewhere on the board?

Example 157

Emanuel Lasker's analysis from Alekhine-Lasker, offhand game 1914

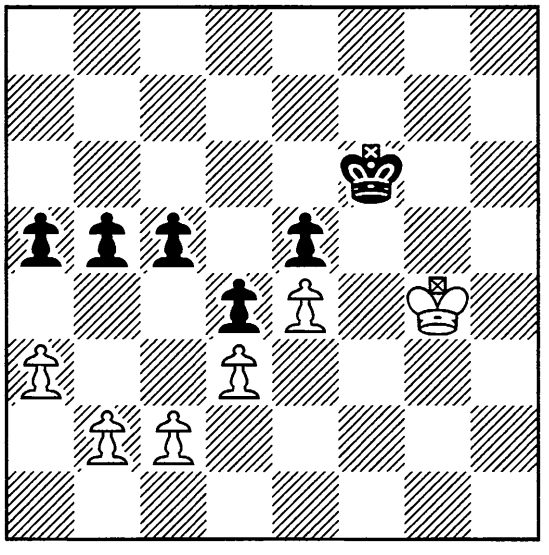


Diagram 5 (B)
Black has potential breakthroughs

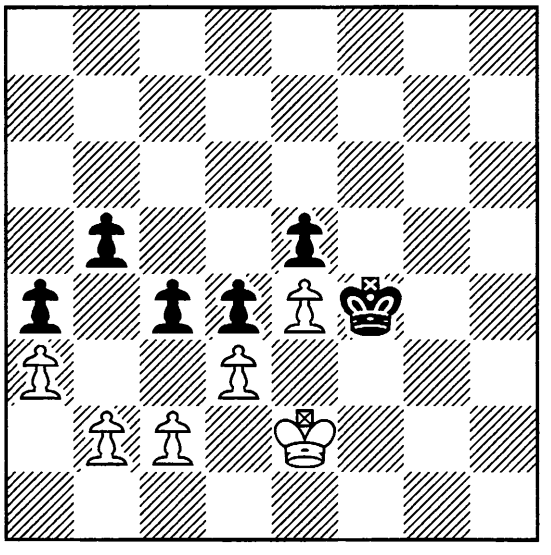


Diagram 6 (B)
Black wins, but how?

(Diagram 5) This is a position that Lasker analyses and it emphasises how a potential breakthrough can influence play. Here Black plays

1...a4!

and then if 2 Kh5 (straying away from the danger zone) 2...c4 3 Kg4 c3 4 bxc3 dxc3 5 Kf3 b4 6 axb4 a3 7 b5 a2 wins for Black. 2 b3 loses to another breakthrough, 2...b4!, to create a passed a-pawn.

If White is aware of this then he could come back immediately with

2 Kf3

but he still has problems:

2...Kg5 3 Ke2

Facing off the opposing king with 3 Kg3 loses on the other wing to 3...c4 4 Kf3 c3 5 bxc3 dxc3 6 Ke2 b4 7 Kd1 bxa3 8 Kc1 a2.

3...c4 4 Kd2 Kf4 5 Ke2 (Diagram 6) 5...cxd3+!

The correct way as pointed out by John Emms.

Instead of this, the alternative 5...c3? fails to 6 b4!, e.g. 6...Kg3 7 Ke1 Kf3 8 Kf1 Ke3 9 Ke1 and Black cannot make any further progress.

6 cxd3 Kg3

and Black wins by outflanking. Imagine the same starting position with White to play **(157a)**. We are now aware that if Black achieves the cramping ...a4 advance unmolested he has dangerous breakthrough threats. Therefore it makes sense to alter the pawn structure in such a way as to take the sting out of Black's queenside initiative. Therefore, White should prudently play...

1 b3!

...cutting out any hopes of a queenside combination. Black should now reply...

1...Kg6!

...avoiding any outflanking on the kingside, and a draw results. However, neither 1...b4? 2 axb4 axb4 3 Kh5, nor 1...a4? 2 bxa4 bxa4 3 Kh5 is any good as White wins in both cases.

The interesting move 1 a4!? (as an alternative to 1 b3 in the starting position)

is mentioned by Averbakh and Maizelis. If Black tries 1...b4? 2 Kh5 c4 then all hope of a breakthrough is foiled by 3 b3!, whereupon White wins the e-pawn (and the game) as Black is constantly in zugzwang, e.g. 3...c3 4 Kh6 Kf7 5 Kg5 Ke6 6 Kg6 Ke7 7 Kf5 Kd6 8 Kf6 etc.

So after 1 a4 Black should try 1...bxa4 2 Kh5 leading to a race. Black is outmanoeuvred on the kingside, but can obtain timely counterplay on the other wing, e.g. 2...Ke6 3 Kg6 Kd6 4 Kf6 c4! 5 dxc4 Kc5 6 Kxe5 Kxc4 7 Kd6 d3 8 cxd3+ **(Diagram 7)**

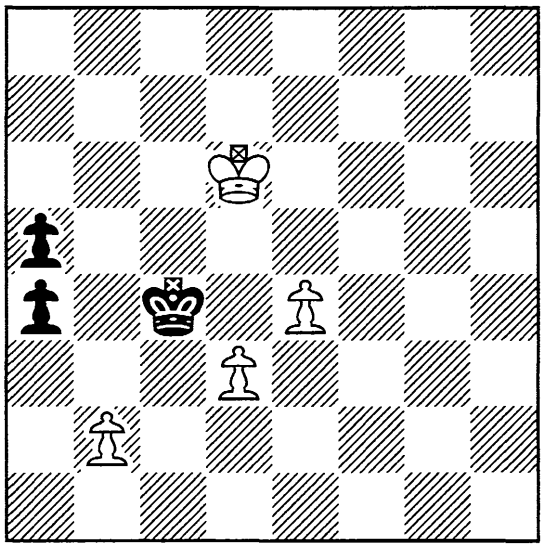


Diagram 7 (B)
Black can draw

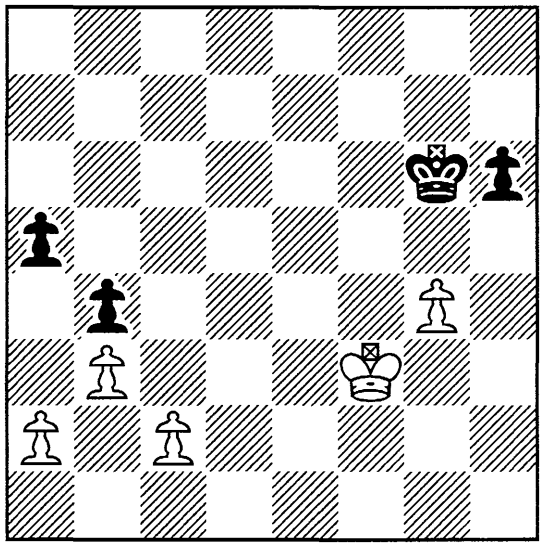


Diagram 8 (W)
A surprising move is coming

8...Kb3 (going directly for the b-pawn saves a tempo but 8...Kxd3 also draws by a miracle as after 9 e5 Kc2 10 e6 Kxb2 11 e7 a3 12 e8Q a2 13 Qe2+ Kb1 14 Qd1+ Kb2 15 Qd2+ Kb1 16 Qd3+ Kb2 17 Qb5+ Kc2 18 Qa4+ Kb2 19 Qd4+ Kb1 20 Qb6+ Kc2 White doesn't have access to the b4-square and can't force Black's king to go prematurely in front of his advanced pawn) 9 e5 Kxb2 10 e6 a3 11 e7 a2 12 e8Q a1Q 13 Qe5+ Kb1 14 Qxa1+ Kxa1 15 Kc5 Kb2 and draws.

Example 158

Berger-Bauer, Correspondence 1889

(Diagram 8) White has a queenside majority but how to make a passed pawn? White's first move is already a surprise...

1 c4!

What's this? Has White forgotten the *en passant* rule?!

1...bxc3 2 Ke3

Getting inside the square of the c-pawn.

2...Kg5 3 a4!

Preparing a second breakthrough!

3...Kxg4 4 b4 axb4 5 Kd3!

Controlling Black's queenside pawns. Now the a-pawn queens first and stops the h-pawn short.

5...h5 6 a5 h4 7 a6 h3 8 a7 h2 9 a8Q 1-0

Covering the opponent's queening square and winning. A beautiful finish by

White, but it was a correspondence game, which gave him plenty of time to calculate matters!

Breakthroughs can occur at surprising moments.

Example 159

Mal.Meyer-Karpatchev, Bad Zwischenahn 2003

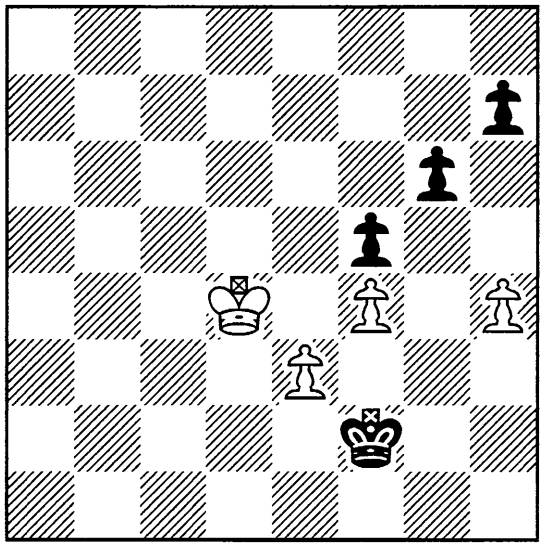


Diagram 9 (B)
White draws

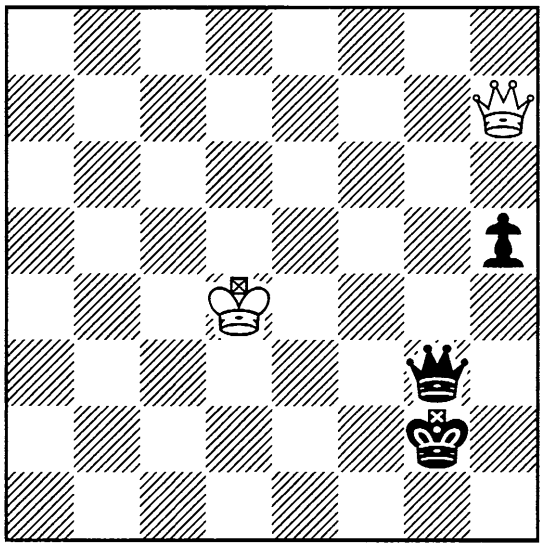


Diagram 10 (B)
Good chances to hold

(Diagram 9) 1...Kf3

If instead 1...h5, White can liquidate most of the pawns with 2 e4 fxe4 3 Kxe4 Kg3 4 f5 gxf5+ 5 Kxf5, so that after 5...Kxh4, 6 Kf4 ensures the draw.

2 h5!

A desperate last try that miraculously holds. Instead 2 Kd3? loses the h-pawn to 2...Kg4.

2...gxh5 3 e4! fxe4

After 3...Kxf4 4 exf5 Kxf5 5 Ke3 the doubled rook's pawns are no better than one. White makes it to the corner and draws.

4 f5 e3 5 f6 e2 6 f7 e1Q 7 f8Q+ Kg2 8 Qg7+ Qg3 9 Qxh7 (Diagram 10)

White has good chances to hold the queen ending against an extra rook's pawn. See Example 206 for the concluding moves.

Exploiting an Extra Doubled Pawn

With an extra doubled pawn, sometimes the way to win is to find the right moment to give it back for a positional advantage.

Example 160: Extra doubled pawn

P.Brochet-Alb.David, Paris 2003

(Diagram 11) Black has an extra pawn, but how can he exploit it?

1...Kd5 2 Kd2 Kd4 3 Ke2 e3! (Diagram 12)

A timely pawn sacrifice. Black exchanges his material advantage into a positional one if White captures.

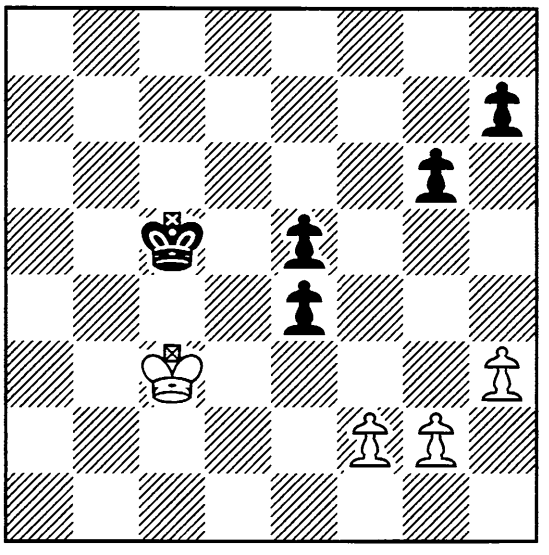


Diagram 11 (B)
An extra doubled pawn

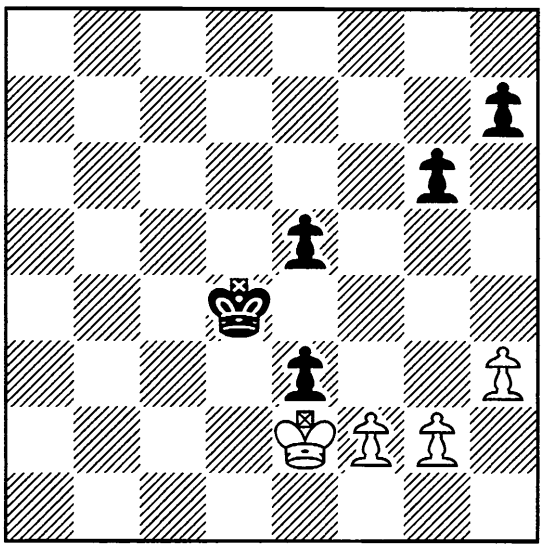


Diagram 12 (W)
A timely sacrifice

4 f3

If instead 4 fxe3+ Kc3 White will be outflanked, e.g. 5 h4 (or 5 Kf3 Kd3 6 e4 Kd4) 5...e4 6 g4 h6 7 g5 h5 8 Kf2 Kd2 and the e-pawn falls.

4...g5!

With two ideas: firstly preparing ...e4 by hindering the reply f3-f4, and secondly to run White out of pawn moves.

5 g3 h6 6 h4

Otherwise 6 g4 allows 6...e4.

6...gxh4 7 gxh4 h5

It's zugzwang.

8 Ke1 Kd3 9 Kd1 e2+ in view of 10 Ke1 Ke3 11 f4 Kxf4!.

Example 161

A.Shevelev-K.Lerner, Israel 2003

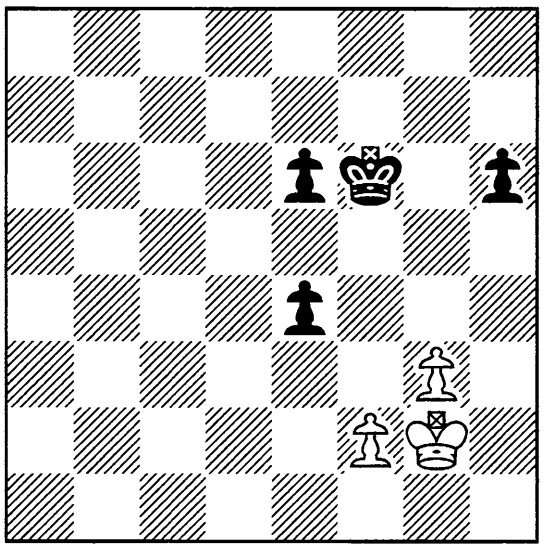


Diagram 13 (W)
Black wins

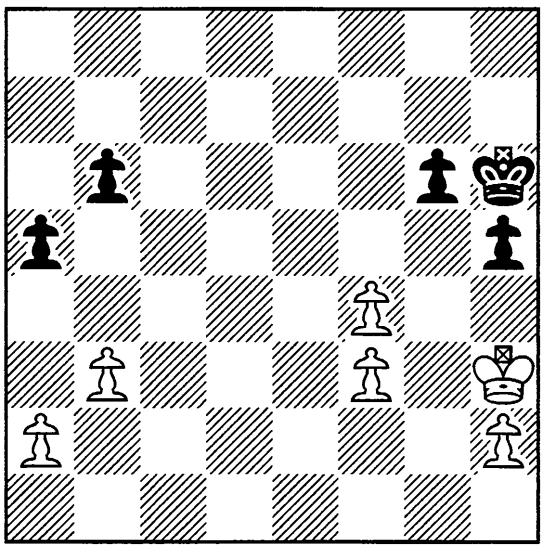


Diagram 14 (B)
Another case of the extra doubled pawn

(Diagram 13) Here again Black has an extra doubled pawn.

1 Kf1 Ke5 2 Ke2 Kd4 3 Kd2

Now a pawn sacrifice to gain control of some key squares.

3...e3+!

Temporarily converting a material advantage into a positional advantage.

Using the previous example as a model, it's worth noting that Black can also win in a slightly different manner: 3...e5 4 Ke2 (or 4 g4 e3+! 5 fxe3+ Kc4!) 4...h5 5 Kd2 e3+! 6 fxe3+ Kc4! 7 Ke2 e4 8 Kd2 Kb3 etc.

4 fxe3+ Ke4

Going the other way with 4...Kc4 isn't so good after 5 Ke2.

5 Ke2 h5

Fixing the g-pawn.

6 Kf2 Kd3 7 Kf3 e5

White is in zugzwang and the e-pawn falls, so Black restores a material advantage.

8 e4

Or 8 Kf2 e4 etc.

8...Kd4 9 Kf2 Kxe4 10 Ke2 Kd4 11 Kd2 e4 12 Ke2 e3 13 Ke1 Kd3 14 Kd1 e2+ 0-1 in view of 15 Ke1 Ke3 16 g4 h4 17 g5 h3 18 g6 h2 19 g7 h1Q mate.

Example 162

Bareev-Rublevsky, Frankfurt 2000

(Diagram 14) Again the attacker has an extra doubled pawn, and again he finds a convenient moment to give it back.

1...Kg7 2 Kg3 Kf6 3 Kf2 Kf5 4 Ke3 b5 5 a3!

This keeps any battle for tempi under control on this wing.

5...h4

If 5...b4 then 6 axb4 axb4 7 h4 forces Black to retreat.

6 h3 b4 7 a4 Kf6 8 Ke4 Ke6 (Diagram 15)

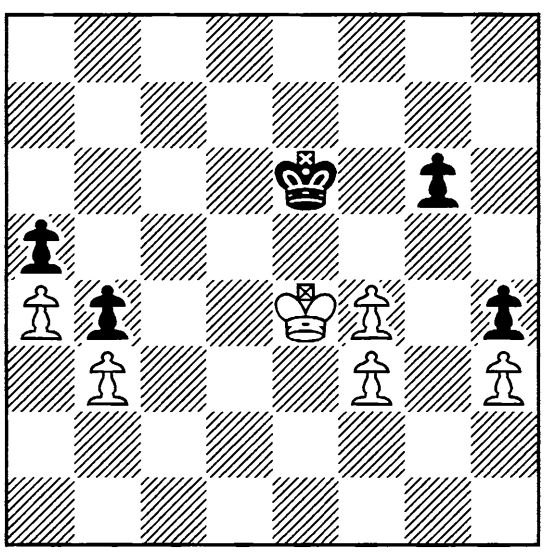


Diagram 15 (W)
An instructive moment

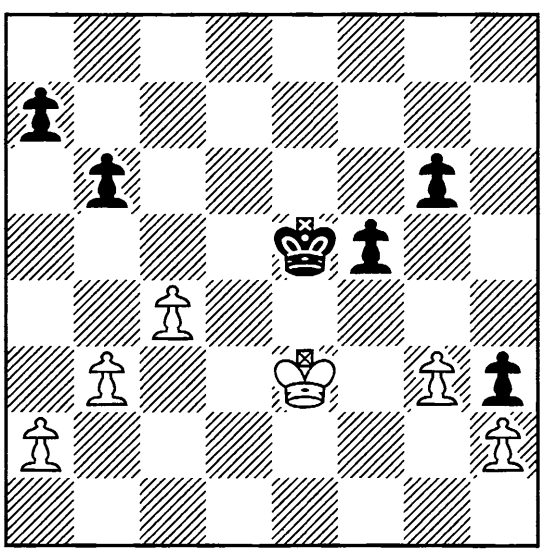


Diagram 16 (W)
A dangerous pawn on h3

Now an instructive moment.

9 f5+! gxf5+ 10 Kd4! f4

If 10...Kd6 11 f4 White obtains the opposition and is thus able to outflank his opponent and win the f-pawn.

11 Ke4 Kd6 12 Kxf4 Kd5 13 Ke3 Ke5 14 f4+ Kd5 15 Kd3 1-0

Black has no hope of counterplay and will soon lose the h-pawn as well: 15...Ke6 16 Ke4 Kf6 17 f5 Kf7 18 Kf4 Kf6 19 Kg4 Kf7 20 Kxh4.

Unbalanced Pawn Structures

Now we examine some positions with unbalanced pawn structures.

Example 163

H.Huisman-D.Lobzhanidze, Agneaux St Lo 2003

(Diagram 16) Each player has a 3 v 2 majority. Black's advanced h-pawn gives him chances to create a breakthrough as it's only two squares from queening. On the other hand White can't easily get his queenside going.

1 Kf3

Pushing the queenside with 1 b4 g5 2 c5 loses trivially to 2...bxc5 3 bxc5 Kd5 4 Kf3 Kxc5 5 g4 f4.

1...g5 2 Ke3 a5!

Gaining influence even where his pawns are a minority.

3 a3 a4! (Diagram 17)

Giving White a difficult choice.

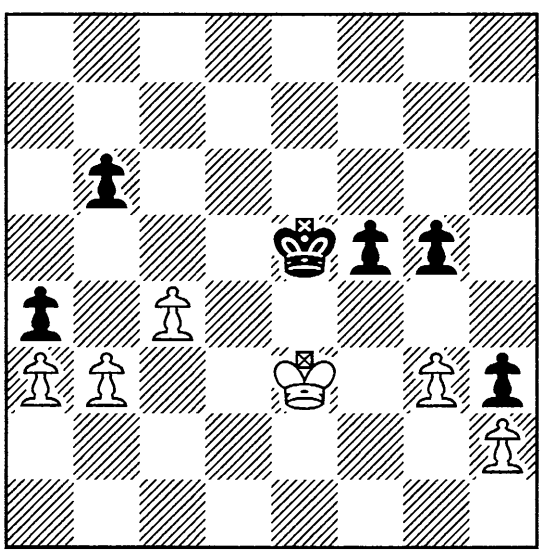


Diagram 17 (W)
How should White react?

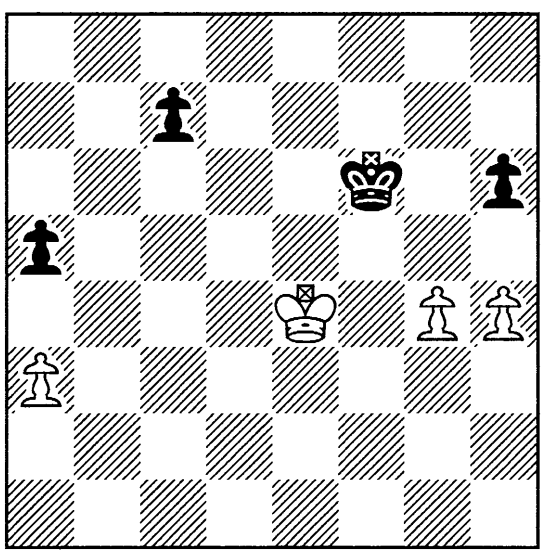


Diagram 18 (B)
White has a better majority

4 bxa4?

If 4 b4 g4!? 5 Kd3 (or 5 Ke2 Kd4 6 c5 bxc5 7 bxc5 Kxc5 8 Ke3 and after 8...Kc4 Black uses the a-pawn to win the race) 5...f4 6 gxf4+ Kxf4 7 c5 bxc5 8 bxc5 (8 b5 Ke5) 8...Ke5 9 Ke3 g3 then it's the advanced h-pawn that wins the day.

However White can do better after 4 b4 g4 by provoking a race with 5 c5! (John Emms), e.g. 5...bxc5 6 bxc5 Kd5 7 Kf4 Kxc5 8 Kxf5 Kc4 9 Kxg4 Kb3 10

Kxh3 Kxa3 11 g4. White then obtains the nominal advantage of an extra h-pawn in the queen ending but it's almost certainly drawn.

4...Kd6 5 Kd4

Otherwise the queenside falls.

5...f4! 6 gxf4 g4! 7 a5

If 7 Ke3 then 7...g3 also queens by force.

7...g3 8 hxg3 bxa5 9 f5 h2 10 c5+ Kc6 11 g4 h1Q 12 Ke5 Qh6 0-1

It was instructive to see how Black created threats on both flanks. The h-pawn being so near to the queening square didn't allow White's king much freedom of movement.

Example 164

Vit.Kochetkov-Azarov, Minsk 2003

(Diagram 18) White's 2 v 1 on the kingside is a better majority than Black's. Black has a passed pawn, but his pawns are split and are thus more difficult to defend.

If Black goes hunting on the kingside, White has the option of g4-g5 at some point, eliminating the whole wing. On the other hand if White goes pawn grabbing on the queenside, then Black is unable to eliminate White's a-pawn, and so White can create a passed pawn over there.

The variations after 1...Ke6 illustrate this well: 2 a4 c5 (following 2...c6 3 Kd4 Kd6 4 g5 hxg5 5 hxg5 White has an outside passed pawn, and after the further 5...Ke6 6 Kc5 Kf5 7 Kxc6 Kxg5 8 Kb5 Kf6 9 Kxa5 Ke7 10 Kb6 Kd7 Black is just too slow due to 11 Kb7) 3 g5 hxg5 4 hxg5 Kf7 5 Kd5 Kg6 6 Kxc5 Kxg5 7 Kb5 Kf6 8 Kxa5 Ke7 9 Kb6 Kd7 and again 10 Kb7.

1...a4

Trying to complicate White's task. Now if White captures on a4 his king is further from the key b7-square.

2 Kd5 Ke7 3 Kc6 Ke6

3...Kd8 goes down tamely to 4 Kb5.

4 Kxc7 Ke5 5 Kb6 Kf4 (Diagram 19)

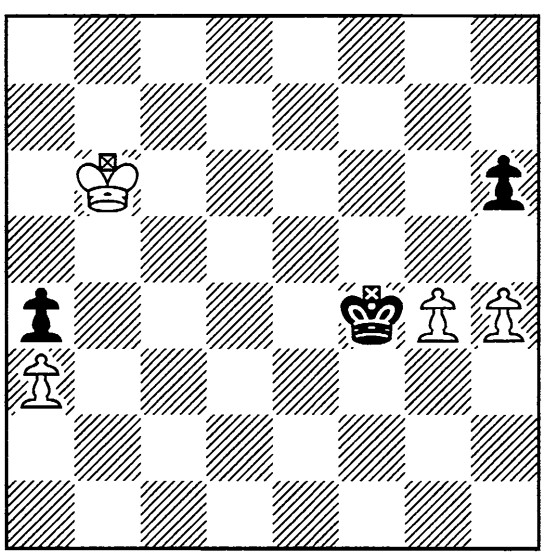


Diagram 19 (W)
A twist

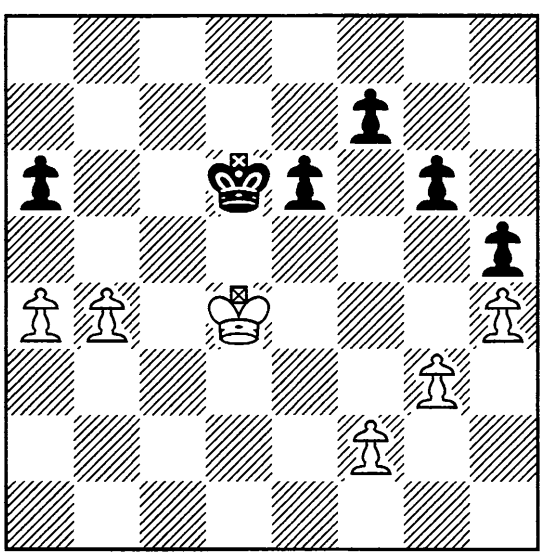


Diagram 20 (W)
Comparing majorities

6 Ka5!

A twist that shows that clear-cut analysis can override sweeping generalisations. Here time is the key and after 6 g5 hxg5 7 hxg5 Kxg5 8 Kb5 Kf6 9 Kxa4 Ke7 10 Kb5 Kd7 11 Kb6 Kc8 Black is back early enough to draw.

6...Kxg4 7 Kxa4 Kxh4 8 Kb3 Kg3 9 a4 h5 10 a5 h4 11 a6 h3 12 a7 h2 13 a8Q 1-0

A recurring theme in races between rook's pawns. The one that arrives first stops the other one in its tracks. After 13...Kf2 White should play 14 Qh1.

Example 165: Comparing majorities

(Diagram 20) I went into some detail about the 'qualities' of majorities in *Mastering the Endgame*. Here is a typical example of White having a 2 v 1 advantage on the queenside and where he is able to clarify the wing to obtain a sole passed pawn. In comparison, Black's 4 v 3 isn't that dangerous and can be easily attacked by White.

1 b5 axb5 2 axb5 e5+

After 2...f6 there could follow 3 f4 Kd7 4 Kc5 Kc7 5 b6+ Kb7 6 Kd6.

3 Kc4 f5 4 b6 Kc6 5 b7 Kxb7 6 Kd5 e4 7 Ke5 Kc6 8 Kf6 Kd5 9 Kxg6 Ke5 10 Kg5! Ke6 11 Kxh5 f4 12 Kg4

and White wins.

Here's another example.

Example 166: Black has the better majority

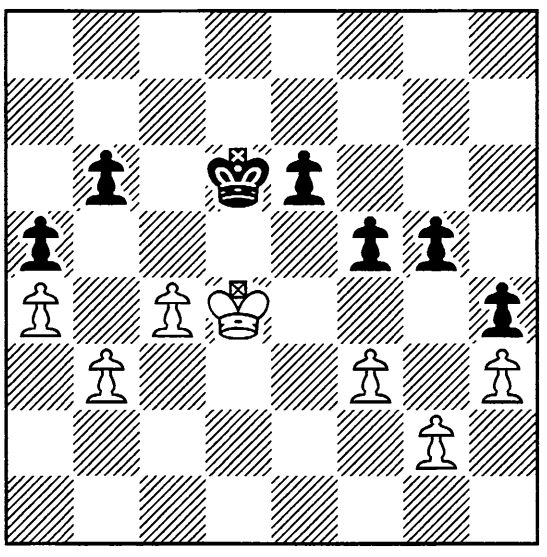


Diagram 21 (B)
Black's majority is stronger

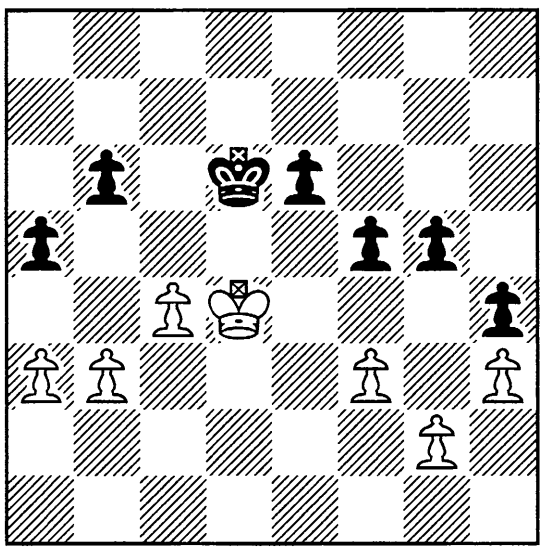


Diagram 22 (B)
Not so clear

(Diagram 21) In this case Black's pawns are healthier than White's. White's majority is clearly difficult to make anything of, so Black has a good if not winning position.

1...e5+ 2 Kd3 Kc5 3 Kc3 e4 etc.

Example 167: Not so clear

(Diagram 22) Only a small difference between this and the previous example

but here White's queenside is not damaged. Both majorities have potential and I would judge the position to be rather unclear, probably equal. Play could continue with

1...e5+ 2 Kc3 Kc5 3 b4+ axb4+ 4 axb4+ Kc6 5 Kd3 Kd6

and neither side can make progress.

TIP: The moral of this is that when it comes to opposing majorities, it's best not to be too dogmatic. Small differences in the structure change everything.

It's sometimes an idea to visualise what a majority can do (and its limitations!) with or without the influence of the kings.

Example 168: Assessing majorities

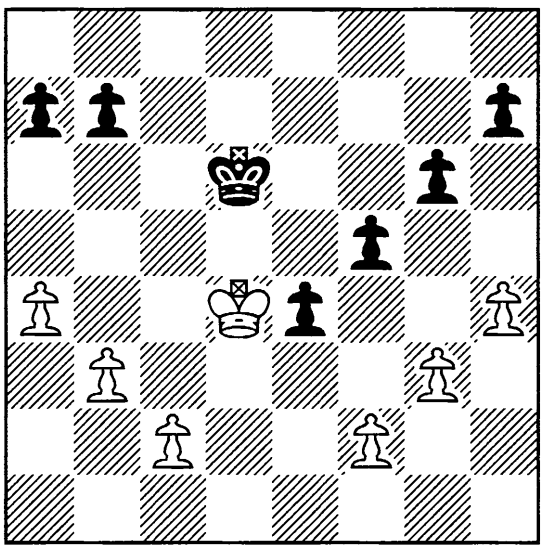


Diagram 23
Not easy to judge

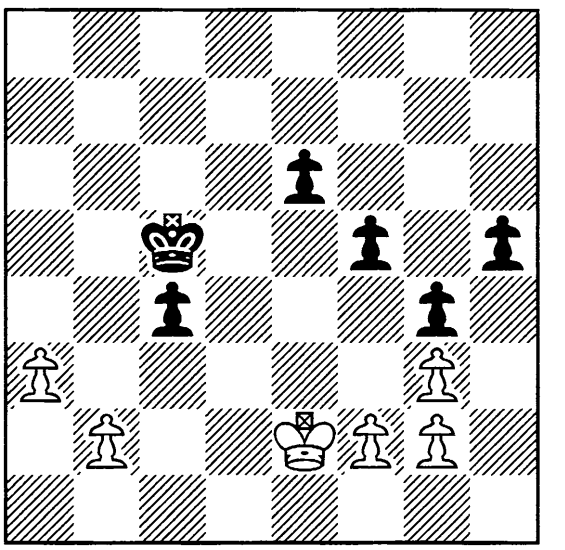


Diagram 24 (B)
A deceptive position

(Diagram 23) This one's not easy to judge, but let's try.

White can't easily eliminate Black's queenside by simplifying down his 3 v 2 majority, and even if he could, the h7-pawn is a long way away and Black's advanced e-pawn may give him counterchances.

However, Black can't easily do much on the kingside with White's king so well placed on d4 (how to advance his majority without weakening it?). So White shouldn't be worse and may even be better as he can at least advance his queenside and hope to create problems for his opponent.

Example 169

V.Gashimov-Anastasian, Dubai 2003

(Diagram 24) This interesting battle of majorities is deceptive. White has a protected passed pawn but Black's king keeps it in check. On the other hand, the 4 v 3 majority is well advanced and has potential.

1...e5 2 Kd2

2 Ke3 temporarily stops ...f4 but after 2...Kb5 White has nothing better than 3 Kd2, when 3...f4 will be played anyway.

2...f4 3 Kc3 Kd5 4 a4

Here 4 Kc2 (i.e. keeping the a-pawn defended) doesn't help matters as after 4...e4 5 Kd2 f3 6 gxf3 exf3 7 Ke3 Kc5 8 Ke4 Kb5 9 Ke3 (9 Kd4 strays too far and is punished by 9...h4! 10 gxh4 g3 11 Ke3 g2) 9...Ka4 10 Kd2 Kb3 11 Ke3 (if 11 Kc1 then again 11...h4) 11...Kxb2 Black wins anyway.

4...e4! (Diagram 25)

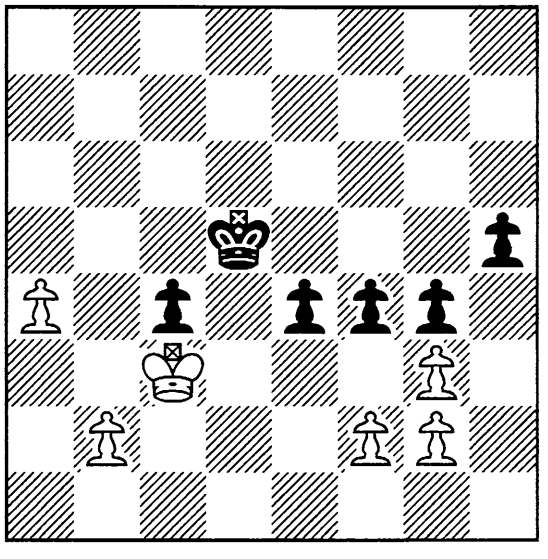


Diagram 25 (W)
A two-phase breakthrough

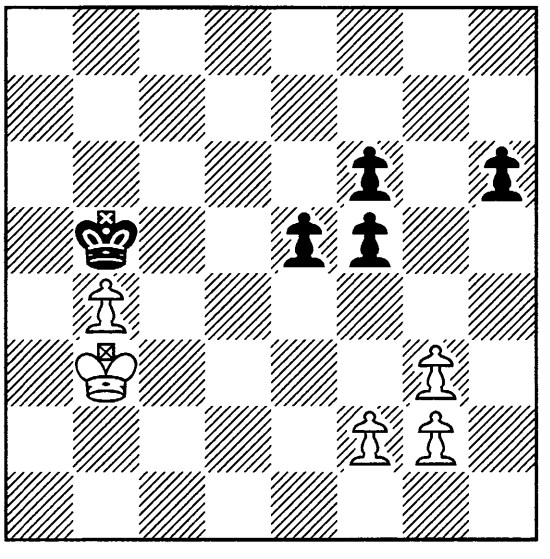


Diagram 26 (W)
White becomes careless

The first of a two-phase breakthrough.

5 Kd2

If 5 gxf4 then 5...h4 and the h-pawn queens.

5...f3 6 gxf3 exf3

The problem for White is that if his king strays then ...h4 produces a queen very quickly.

7 Ke3 Kc5 8 Ke4 Kb4 9 Kd4 Kxa4

Or 9...h4 immediately.

10 Kxc4 h4! 11 b3+ Ka3 12 gxh4 g3 13 Kd4 0-1

Finally a word of warning! Having the 'better majority' is one thing but sometimes a slack handling of one's pawns can reverse the story.

Example 170

Ma.Nikolic-G.Cvetkovic, Belgrade 2003

(Diagram 26) White has an outside passed pawn and Black's majority is unwieldy due largely to the presence of doubled pawns. In fact Black can't easily create a passed pawn on that wing unless White is particularly dozy. Black needs to play ...f5-f4, and then (after gxf4 exf4) ...h6-h5-h4 and then ...f3. Naturally White would cross this by playing f2-f3, but only after Black had committed himself to ...f4. White's next move is thus surprising...

1 f3??

Correct is 1 Kc3!, as Black will soon run out of pawn moves: 1...h5 2 Kb3 Kc6 (2...f4 3 gxf4 exf4 4 f3 h4 5 Kc3 f5 6 Kb3) 3 Kc4 and White will win easily, e.g. 3...Kd6 4 b5 Kc7 5 Kc5 Kb7 6 Kd6 Kb6 7 Ke6 Kxb5 8 Kxf6 Kc5 9 Kxe5 etc.

1...h5!

If White was counting on his opponent playing 1...e4 2 fxe4 fxe4, to which he has 3 g4! (when the e-pawn is indefensible), then 3...e3! 4 Kc3 e2 5 Kd2 Kxb4 6 Kxe2 Kc4 7 Ke3 Kd5 8 Kf4 Ke6 is still drawn.

2 Kc3 e4

Black creates a passed pawn. Note Black's majority is now really dynamic.

3 Kd4

After 3 fxe4? fxe4 4 Kd4 f5 the passed pawn gives Black the advantage.

3...exf3 4 gxf3 f4!

Taking the initiative. Poor is 4...Kxb4?, which loses to 5 f4 as Black's king is held off by White's. Then White wins after 5...Kb3 6 Kd5 Kc3 7 Ke6 Kd3 8 Kxf6! Ke4 9 Kg5 Kf3 10 Kxh5 Kxg3 11 Kg5.

5 gxf4 h4 6 Ke3 Kxb4 (Diagram 27)

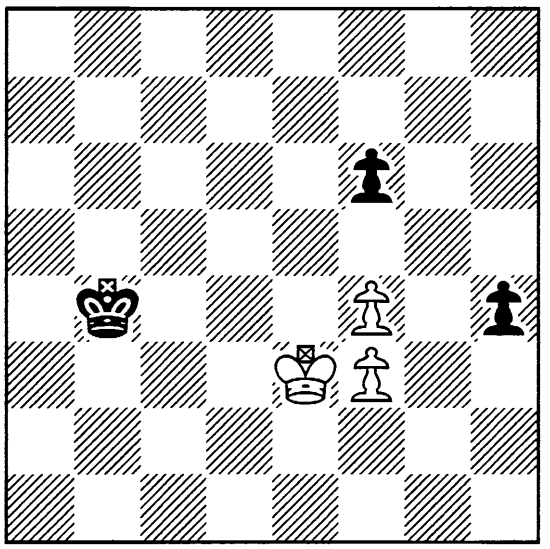


Diagram 27 (W)
White can still draw

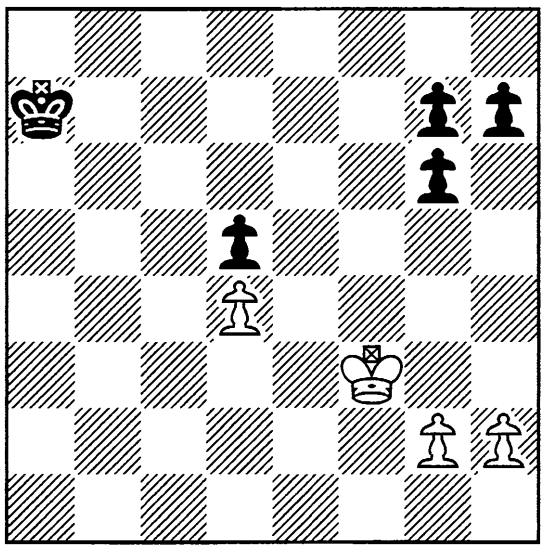


Diagram 28 (W)
The extra pawn is useless

7 Kf2?

Too slow. White can still hold with 7 f5! Kc4 8 Kf4 Kd4 9 Kg4 Ke3 10 Kxh4 Kxf3 11 Kh3 (but not 11 Kh5? which fails to 11...Kf4 12 Kg6 Ke5) 11...Kf4 12 Kg2 Kxf5 13 Kf3. If we compare the king routes, king from e3-f2-g2-h3xh4 takes four moves as does f4-f5, followed by king from e3-f4-g4xh4. However, the difference is that if the white f-pawns are further apart they take longer for Black to capture. In fact White does play f4-f5 anyway in the game which means he is a clear tempo down on the line given above. The consequence of this is that he can't get back to the f3 drawing square in time.

7...Kc3 8 Kg2 Kd4 9 f5

9 Kh3 Ke3 10 Kxh4 Kxf3 11 f5 Kf4 transposes.

9...Ke3 10 Kh3 Kxf3 11 Kxh4 Kf4

Now White's king is unable to get back in time.

12 Kh3 Kxf5 13 Kg3

Close, but not close enough! White's king has to be able to meet ...Kxf5 with Kf3 to draw.

13...Ke4 14 Kf2 Kf4 15 Kg2 Ke3 16 Kg3 f5 17 Kg2 f4 18 Kf1 Kf3 0-1

Example 171

Armengod Arino-Gutierrez Minguenza, Zaragoza 2003

(Diagram 28) Here is another example where spare pawn tempi are not important as the stronger side can temporise indefinitely to exhaust them. Black has an extra, but nigh on useless pawn. White has the better king which proves to be the most important factor.

1 Kf4 Kb6 2 Ke5 Kc6

White can pass between e6 and e5 with his king, running his opponent out of moves and thus forcing Black to give up the d-pawn.

3 g4 g5

Or if 3...h5 then 4 g5.

4 h3 g6 5 Ke6 h5 6 Ke5 hxg4 7 hxg4

The d-pawn is lost and with it the game.

7...Kc7 8 Kxd5 Kd7 9 Ke5 Ke7 10 d5 Kd7 11 Kf6 Kd6 12 Kxg6 Kxd5 13 Kxg5 Ke6 14 Kh6 Kf7 15 g5 Kg8 16 Kg6 Kh8 17 Kf7 1-0

Example 172

Borovikov-Krivoshey, Sevastopol 2000

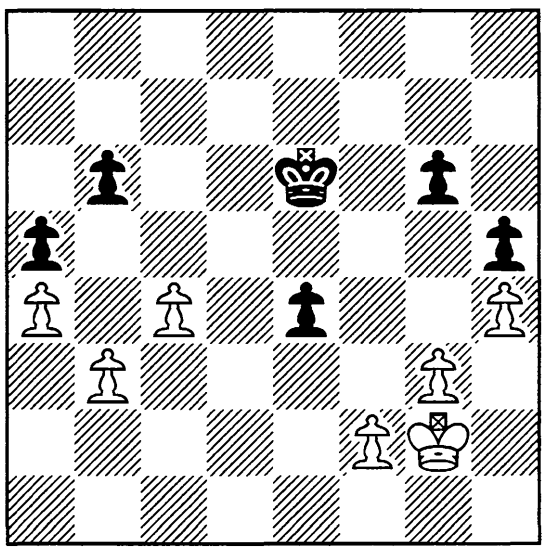


Diagram 29 (W)
Black's e-pawn is weak

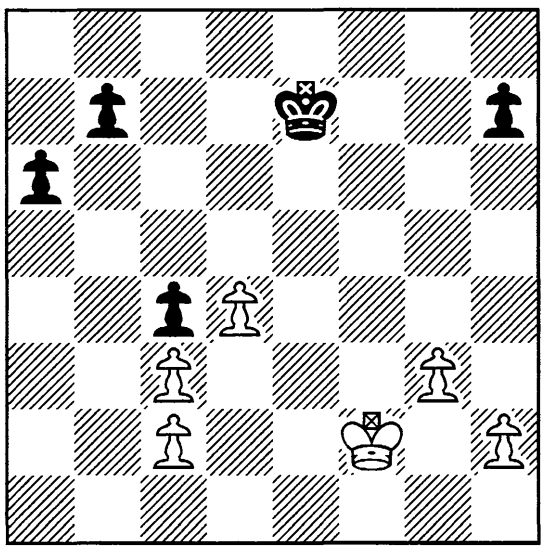


Diagram 30 (W)
White wins

(Diagram 29) Here Black is tied down by his isolated e-pawn and White sets up a breakthrough.

1 Kf1 Kf5 2 Ke2 Ke6 3 Kd2 Kf5

Instead 3...Ke5 loses the e-pawn to 4 Ke3 Kf5 5 Kd4.

Of Black's options, 3...Kd6 is the most resilient, but White wins by using his queenside majority to create an outside passed pawn: 4 Kc3 Kc5 5 b4+! axb4+ 6 Kb3 (using zugzwang to recuperate the pawn) 6...Kd6 7 Kxb4 Kc6 8 c5! (upping the value of the a-pawn which now obtains the status of 'outside passed pawn') 8...bxc5+ 9 Kc4 Kb6 10 a5+ Kxa5 11 Kxc5 and Black loses all his remaining pawns, e.g. 11...Ka6 12 Kd4 Kb6 13 Kxe4 Kc6 14 Ke5 Kd7 15 Kf6.

4 b4! and Black resigned due to 4...axb4 5 c5! Ke6 6 cxb6 Kd6 7 a5 Kc6 8 Kc2.

Example 173

Rowson-Motwani, Scottish Championship 2001

(Diagram 30) In order to win, White needs to stop the a-pawn with his king and create two split pawns wide enough apart. Three files is better than two!

If we remind ourselves of the rule of the common square then a pawn on d4 and another on h5 will lead to a queen without support from White's king. In comparison, if the passed pawns are on d4 and g4 then this isn't the case.

So as White is at present inside the square of the a-pawn, he has time to envisage how to handle his majority. Hence White's next move...

1 g4!

Well played! 1 Ke2? is met by 1...h5! when White's kingside majority isn't as dangerous as discussed above.

1...Kf6 2 h4 h6 3 Ke3 a5 4 Kd2 b5 5 Kc1 Ke6 6 Kb2 Kd5

After 6...Kf6 7 Ka3 Ke6 we reach the following position **(Diagram 31)**.

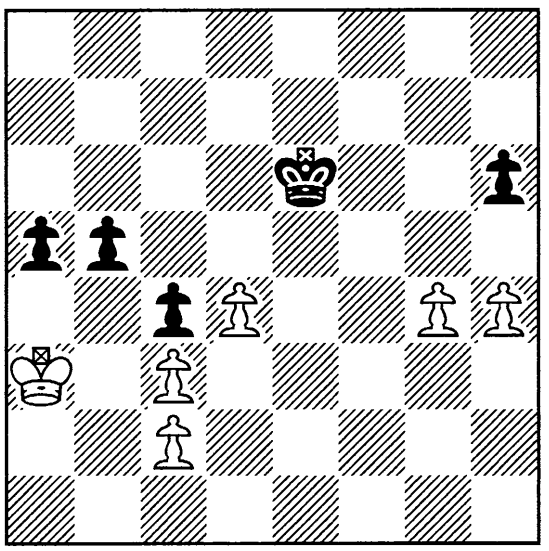


Diagram 31 (W)
Time for action!

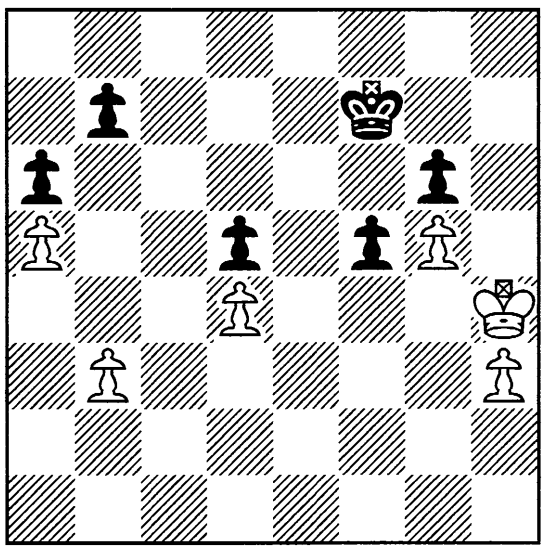


Diagram 32 (W)
b3-b4 is a reserve tempo

It's time for action: 8 h5! Kf6 9 d5! Ke5 10 g5! hxg5 11 h6 wins. Instead 8 g5? isn't good: 8...hxg5 9 h5 (or 9 hxg5 Kf5) 9...g4 10 h6 Kf6 and Black should hold.

7 h5! Ke6 8 g5!

and Black resigned in view of 8...hxg5 9 h6 Kf6 10 d5 g4 11 h7 Kg7 12 d6 g3 13 h8Q+ Kxh8 14 d7 g2 15 d8Q+.

Example 174

Sulava-Mallahi, Bled Olympiad 2002

(Diagram 32) Here there doesn't seem to be much in it, but White has a reserve tempo (b3-b4) which he can use at the right moment to create zugzwang. This small point turns out to be decisive.

1 Kg3 Ke6 2 Kf4 Kd6 3 h4 Ke6 4 b4!

Now Black has to move his king away from the f-pawn.

4...Kd6 5 h5 gxh5 6 Kxf5

Black has the outside passed pawn, but more important is White's king.

6...Ke7 7 g6 h4 8 Kg4 Kf6 9 Kxh4 Kxg6 10 Kg4

and White has the opposition.

10...Kf6 11 Kf4 Ke6 12 Kg5 Kd6 13 Kf5 Kc6 14 Ke5

The d-pawn is lost and with it the game.

TIP: When going into pawn endings, it's a useful idea to take into consideration the presence of spare pawn tempi.

Example 175

S.Kasparov-R.Polzin, Werther 2003

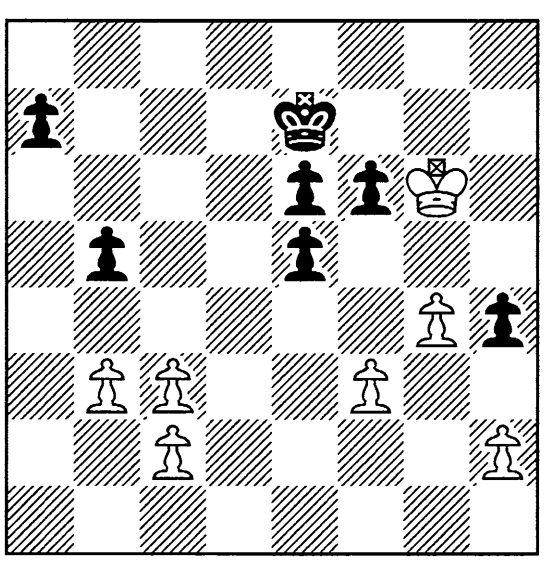


Diagram 33 (B)
A doubled-edged ending

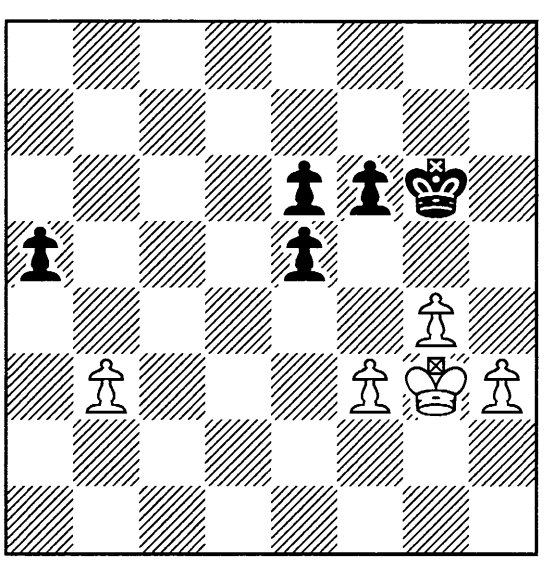


Diagram 34 (B)
Black isn't finished

(Diagram 33) To finish, here's a double-edged position. White's king aims to chop off the loose h-pawn but he has to be aware of ...a5-a4 on the queenside.

1 c4!?

An unusual pawn sacrifice to kill off Black's potential for creating a passed pawn on that wing, with a gain of tempo.

More routine was 1 b4 h3 2 Kh5, when Black can use the same drawing technique as in the game: 2...Kf7 3 Kh4 Kg6 4 Kxh3 f5 5 Kg3 f4+ 6 Kg2 e4! (Black could also consider 6...Kg5!? here) 7 fxe4 e5.

1...bxc4 2 h3 cxb3 3 cxb3 a5 4 Kh5 Kf7 5 Kh6 Kf8 6 Kg6 Ke7 7 Kh5 Kf7 8 Kxh4 Kg6 9 Kg3 (Diagram 34)

White has an outside passed pawn that by advancing will be supported. However, Black isn't finished yet...

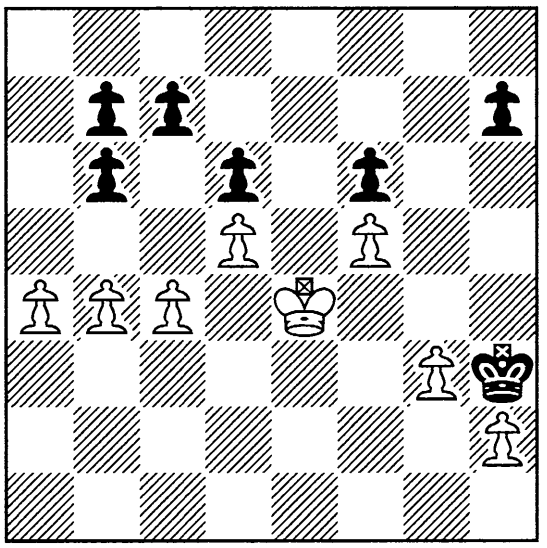
9...f5! 10 h4 f4+ 11 Kf2 e4!

A neat pawn sacrifice to create a protected passed pawn. This stops White's king from doing any damage.

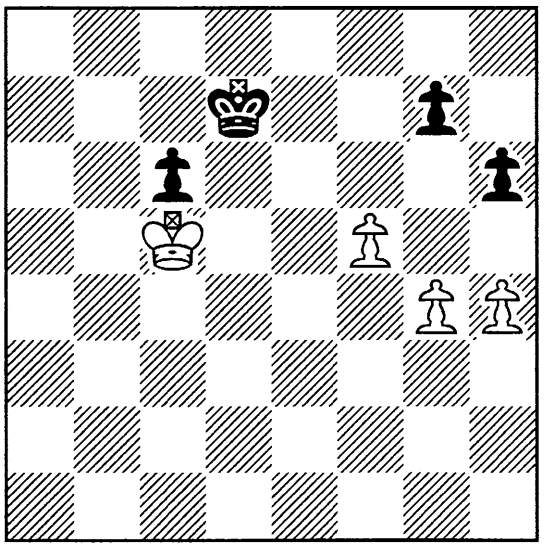
12 fxe4 e5 13 Kf3 Kh6 14 Kg2 Kg6 15 g5 Kh5 16 Kf3 Kg6 17 Kg4 Kh7 18 h5 Kg7 19 g6 ½-½

A draw was agreed as White's king must stay inside the square of the pawn and thus he cannot progress any further, e.g. after 19...Kf6 20 Kh4 Kg7 the reckless 21 Kg5? f3 22 h6+ Kg8 is too slow for White.

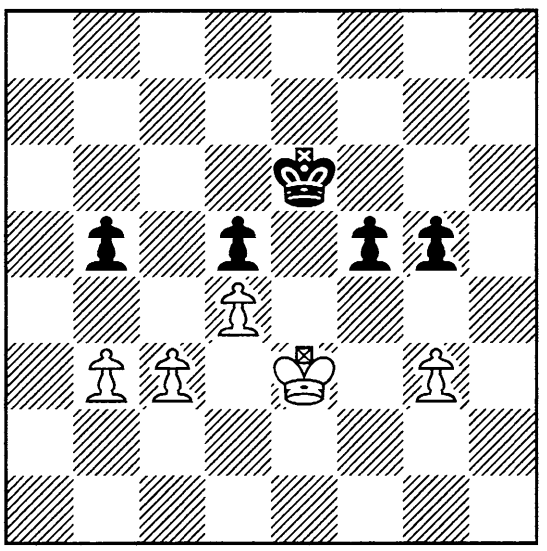
Try it Yourself



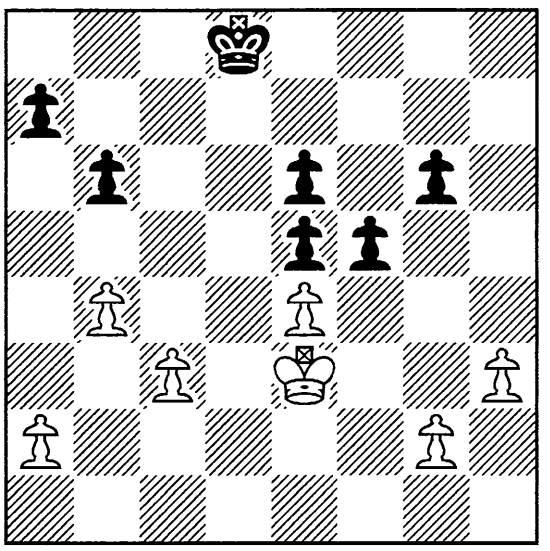
Exercise 1 (White to play)



Exercise 2 (White to play)



Exercise 3 (Black to play)



Exercise 4 (White to play)

Exercise 1: Can White break through on the queenside?

Exercise 2: How should White go about winning?

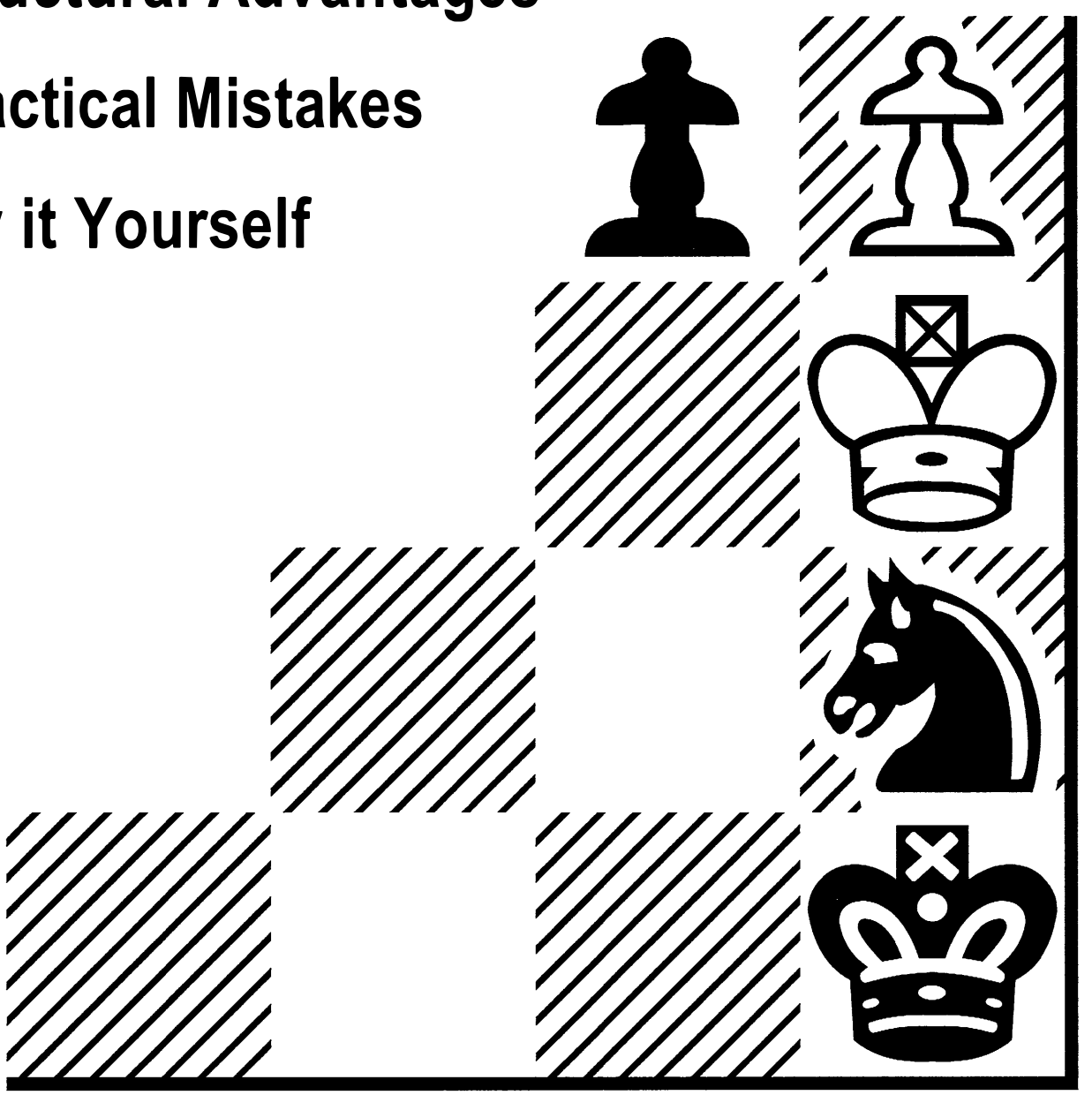
Exercise 3: From this position the following moves occurred: **1...Kf6 2 Kf3 Kg6 3 Ke3 Kf6 4 Kf3 Ke6 5 Ke3**. Is there anything better than a repetition for Black?

Exercise 4: What result seems the most likely and why?

Chapter Nine

Further Positional Themes

- Space Advantage
- King Activity
- Structural Advantages
- Practical Mistakes
- Try it Yourself



Here we look at some other aspects of pawn endings. We start by looking at the importance of a space advantage and then some examples where one king is a shade more active than his counterpart.

In some cases a well placed king more than compensates for a pawn deficit, emphasising that there is more to pawn endings than counting pawns!

We then turn our attention to cases where one side has a structural advantage, and then at the end of the chapter we look at some errors made in practice. These errors are not just tactical errors, but often seem to result from a lack of understanding of pawn endings in general.

Other themes covered in previous chapters such as king manoeuvres and pawn tempi also crop up quite frequently, so there are plenty of examples to reinforce ideas that we learnt about earlier.

Space Advantage

The first example features a space advantage for White with a precious extra pawn tempo that tips the balance decisively in his favour.

Example 176

J.Ivanov-Pereira Figueroa, Seville 2003

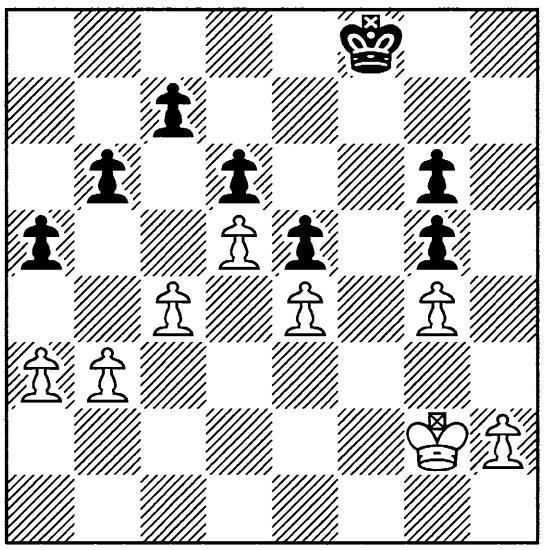


Diagram 1 (W)
White has a space advantage

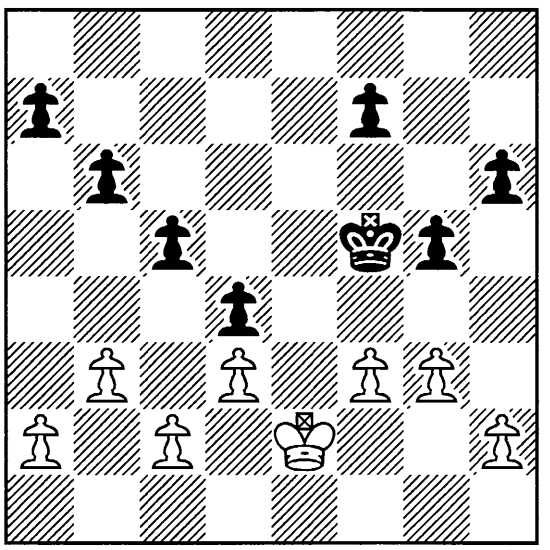


Diagram 2 (W)
White's camp is fortified

(Diagram 1) White has a space advantage. As the kingside is utterly blocked he switches his attention to the other flank.

1 Kf3 Kf7 2 b4 axb4 3 axb4 Kf6 4 Ke3

Note how White keeps his free tempo (h2-h3) in reserve until it comes in useful.

4...Ke7 5 Kd3 Kd7 6 Kc3 c6

If 6...Kc8 7 Kb3 Kb7 8 Ka4 Ka6 then White has 9 h3, using his free tempo to drive Black back a rank. After the further 9...Ka7 10 Kb5 Kb7 11 c5 bxc5 12 bxc5 Black must give up more ground and 12...dxc5 13 Kxc5 Kc8 14 d6 cxd6+ 15 Kxd6 etc. wins for White.

7 dxc6+ Kxc6 8 Kb3 Kb7

After 8...b5 9 cxb5+ Kxb5 White has an outside passed pawn and wins as follows: 10 Kc3 Kb6 11 Kc4 Kc6 12 b5+ Kb6 13 Kd5 Kc7 14 b6+ Kxb6 15 Kxd6 and again the e-pawn falls.

9 Ka4 Kc6 10 h3!

Zugzwang. Without this extra tempo White can't win.

10...Kc7 11 Kb5 Kb7 12 c5 bxc5 13 bxc5 Kc7 14 cxd6+ Kxd6 15 Kb6 1-0

Black is outflanked and loses his e-pawn: 15...Ke7 16 Kc5 Ke6 17 Kc6 Kf7 18 Kd6 Kf6 19 Kd5 etc.

White won because he had

1) A significant space advantage
2) A reserve tempo

Example 177

S.Ahmed-E.Hossain, Dhaka 2003

(Diagram 2) Black has more space but will have to probe away to try and gain entry into White's heavily fortified camp.

1 Kf2 h5 2 Ke2 Ke5 3 Kf2 f5 4 h4!? gxh4 5 f4+

A clever intermezzo that blocks the wing.

5...Kd5 6 gxh4 Kc6

Trying his luck on the other side. Blocking the kingside means that White only has to worry about an invasion from one side, but it does mean that there's no chance of counterplay.

7 Ke2

7 a4 also leads to Black exchanging off several pawns in the quest to invade: 7...b5 8 axb5+ Kxb5 9 Ke2 a5 10 Kd2 a4 11 bxa4+ Kxa4 12 Kc1 Kb4 13 Kb2 c4 14 dxc4 Kxc4 15 Kc1 d3 16 Kd2 dxc2 17 Kxc2 Kd4 18 Kd2 Ke4 and wins.

7...Kb5 8 a3 a5 (Diagram 3)

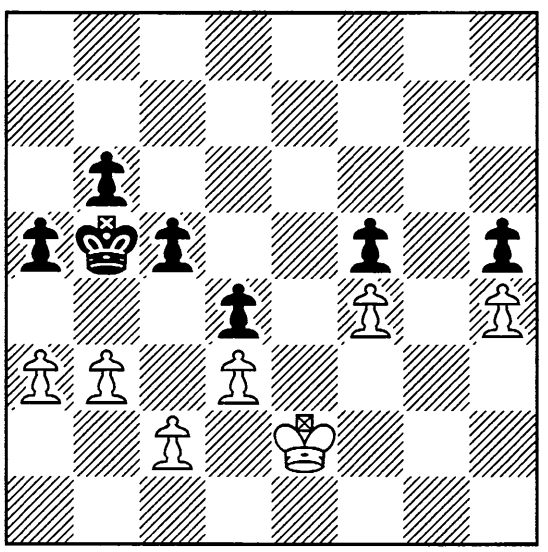


Diagram 3 (W)
White must be precise

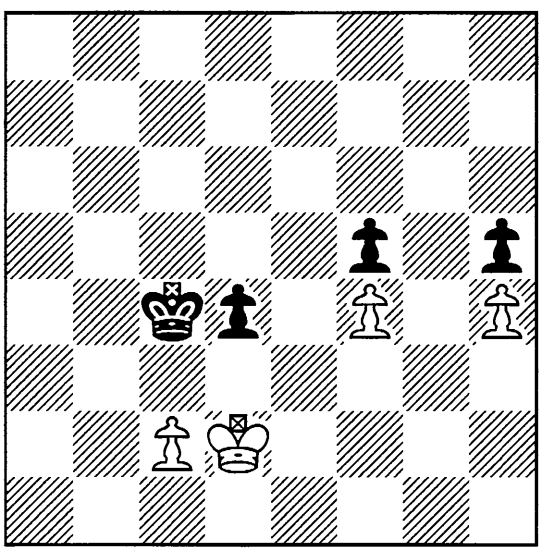


Diagram 4 (B)
Black triangulates

9 a4+?

The decisive error. Instead White has 9 Kd2! a4 10 Kc1 Ka5 11 Kb2 b5 12 Ka2 b4 13 Kb2 Kb5 14 Ka2 axb3+ 15 cxb3! (a surprising defence but voluntarily splitting his own pawns avoids ideas based on ...c4, whereas 15 Kxb3? bxa3 16 Kxa3 c4! leaves White in zugzwang and losing after 17 Kb2 cxd3 18 cxd3 Kb4) 15...bxa3 16 Kxa3 Ka5 17 Ka2 Kb4 18 Kb2 and there's no way through.

9...Kb4 10 Kd2 b5 11 axb5 Kxb5 12 Kd1 Kb4 13 Kd2 a4 14 bxa4 Kxa4 15 Kc1 Kb4 16 Kd1

16 Kd2 is no improvement after 16...c4.

16...Kc3 17 Kc1 c4 18 dxc4 Kxc4 19 Kd2 (Diagram 4)

Now Black wins with a neat triangulation.

19...Kc5 20 Ke2

White has to be ready to meet ...Kd5 with Kd3.

20...Kc6! 21 Kd2 Kd6! 22 c4

22 Ke2 goes down to 22...Kc5 23 Kd2 Kc4 24 Ke2 Kc3 25 Kd1 d3 etc.

22...dxc3+ 23 Kxc3 Kc5 0-1

Decisively taking the opposition (24 Kd3 Kd5 25 Ke3 Kc4 and the f-pawn goes). A fine endgame by Black but one that could have been saved with precise defence.

Example 178

Ekström-Jenni, Switzerland 2003

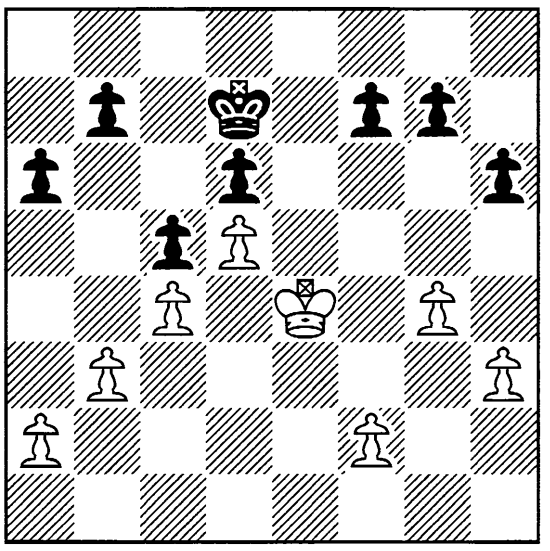


Diagram 5 (W)
How does White break through?

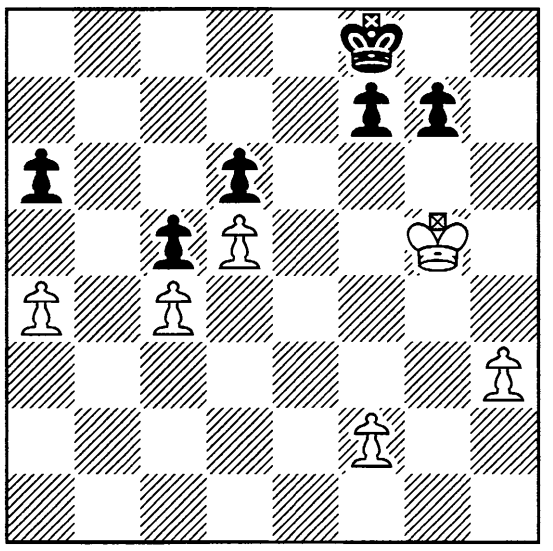


Diagram 6 (W)
An advanced king

(Diagram 5) White has a space advantage, but it doesn't look obvious how he's going to find a hole in Black's Maginot line. The solution found by Ekström is instructive.

1 g5! hxg5

Refusing the pawn sacrifice isn't any better:

a) 1...Ke7 2 gxh6 gxh6 3 Kf5 b5 4 a4 bxc4 5 bxc4 a5 6 h4 and Black runs out of pawn moves and has to allow White's king to invade.

b) 1...h5 2 g6 f6 (or 2...fxg6 3 Kf4 Ke7 4 Kg5 Kf7 5 a4 a5 6 h4 b6 7 f3 and Black is again run out of pawn tempi) 3 Kf5 Ke7 4 Kf4 b5 5 a4 bxc4 6 bxc4 a5 7 f3 with a zugzwang position. White waits for Black to move away from e7 before playing his king to g3. In this way Black is denied any counterplay with ...f5: 7...Kd7 8 Kg3 Ke7 (if 8...f5 then simply 9 Kf4) 9 Kh4 f5 10 f4 Kf6 11 Kxh5 and White wins.

2 Kf5 b5

If 2...f6 then 3 Kg6.

3 a4 bxc4 4 bxc4 Ke7 5 Kxg5 Kf8 (Diagram 6)

White's king is actively placed but, in itself, this may not be enough to tip the balance. The presence of asymmetric pawns eases the task of creating a chink in the opponent's armour.

6 h4 Ke7 7 a5 Kf8 8 h5 Ke7 9 f3 f6+

After the alternative 9...Kf8 10 h6 gxh6+ 11 Kxh6 Kg8 Black is also squeezed, this time by 12 Kg5 Kg7 13 Kf5 Kg8 14 Kf6 Kf8 15 f4 Ke8 16 Kg7 Ke7 17 f5 Ke8 18 f6.

10 Kg6 Kf8 11 f4 1-0

Further resistance with 11...Kg8 is futile after 12 f5 Kf8 13 h6 gxh6 14 Kxh6 Kf7 15 Kh7 etc. An instructive ending.

Example 179

H.Alber-Ri.Holzer, Kaufungen 2003

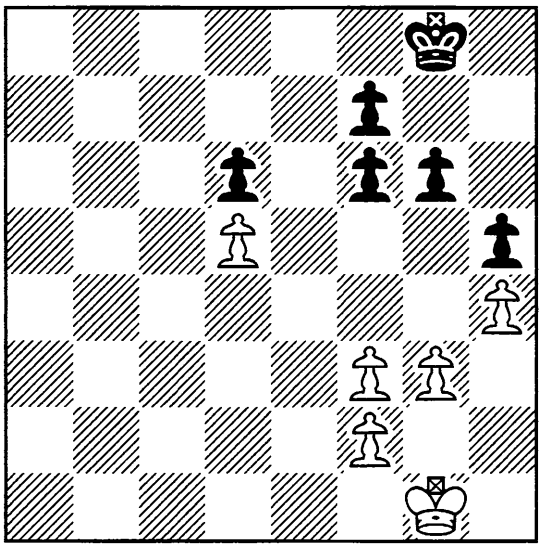


Diagram 7 (W)
Two small pluses

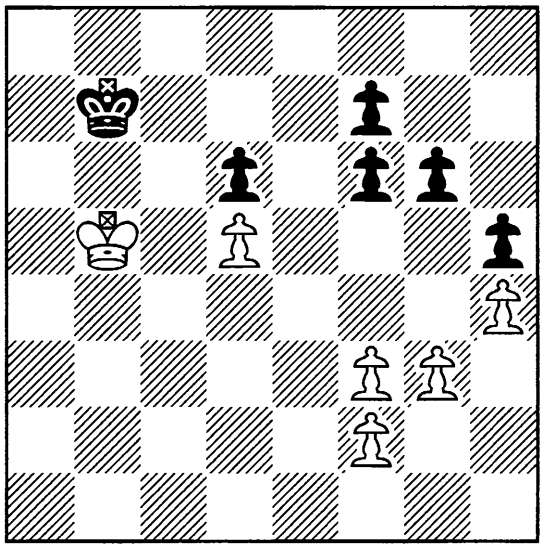


Diagram 8 (W)
Can White invade?

(Diagram 7) It's almost symmetrical but White has two pluses: he has more space and moves first. When combined, they constitute a decisive advantage!

1 Kf1 g5

If 1...Kf8 2 Ke2 Ke7 3 Kd3 Kd7 4 Kc4 Kc7 5 Kb5 Kb7 Black stops the first attempt to invade. **(Diagram 8)**

However White then has 6 g4! and Black has big problems: 6...f5 7 gxh5! gxh5 8 f4 f6 9 f3 and it is already zugzwang.

2 Ke2 Kg7 3 Kd3 Kg6 4 Kc4 gxh4

Or 4...Kf5 5 Kb5 Ke5 (5...g4 is far too slow after 6 fxg4+ Kxg4 7 Kc6 etc.) 6 Kc6 and Black has run out of useful moves.

5 gxh4 Kf5 6 Kb5 Kf4

If 6...Ke5 then 7 Kc6 f5 8 f4+ Kxf4 9 Kxd6 etc.

7 Kc6 Kxf3 8 Kxd6 Kxf2 9 Kc5 f5 10 d6 f4 11 d7 f3 12 d8Q Kg2 13 Qg8+ Kh1 14 Qg3 1-0

NOTE: In pawn endings sometimes only the faintest of edges is enough to gain the whole point.

King Activity

As one would expect, king activity is a very important factor in pawn endings.

Example 180

A.Valle-Ces.Rocha, Brasilia 2003

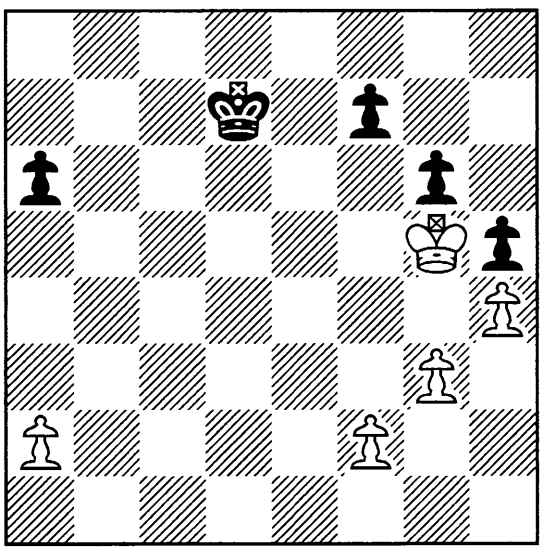


Diagram 9 (W)
A standard technique

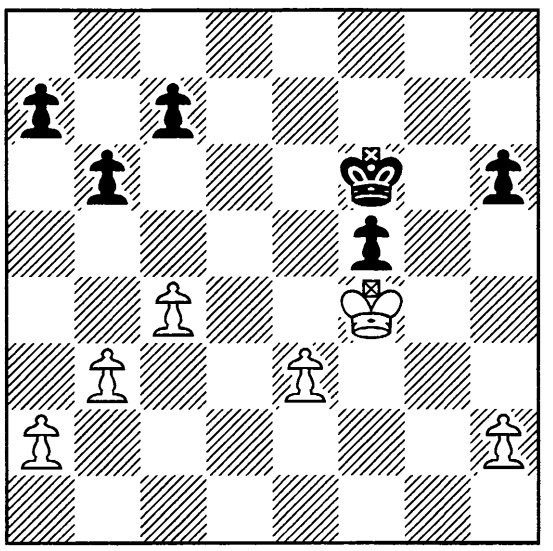


Diagram 10 (W)
Four ranks versus three

(Diagram 9) White has the better king and this enables him to win with the following standard technique.

1 Kf6 Ke8 2 f4! Kf8 3 f5

Breaking up Black's structure.

3...gxf5 4 Kxf5

Black's h-pawn is thus isolated and soon lost.

4...Ke7 5 Kg5 Ke6 6 Kxh5 Kf5 7 a3 a5 8 a4 f6 9 g4+ Ke4

Or 9...Kf4 10 g5 etc.

10 Kg6 1-0

The next example is a case of four ranks versus three.

Example 181

A.Mista-Pakleza, Jarnoltowek 2003

(Diagram 10) White's king is slightly more active. He has made it the fourth

rank whereas Black is on the third (from his point of view). With his next move White is able to confirm his grip on somewhat more than half the board.

1 b4! c6

To keep the d5-square from White's king.

2 a4 Ke6 3 e4

In such positions exchanging restrictive pawns gives the players more room to manoeuvre. This often favours the stronger player, particularly if he wishes to create threats of invasion on both flanks.

3...fxe4 4 Kxe4 a6 5 h3 Kf6 6 Kd4 Ke6 7 Ke4 Kf6 8 Kd4 Ke6 9 h4

After 9 a5?! the weak 9...bxa5? goes down to 10 bxa5 Kd6 11 h4 h5 12 c5+ Ke6 13 Ke4 Kf6 14 Kf4, but Black instead has the neat resource 9...c5+! 10 bxc5 bxa5.

9...Kd6

Following 9...h5 10 Ke4, whichever way Black handles his queenside pawns White keeps him in zugzwang: 10...c5 11 bxc5 bxc5 12 a5, or 10...b5 11 axb5 axb5 12 c5.

10 a5! (Diagram 11)

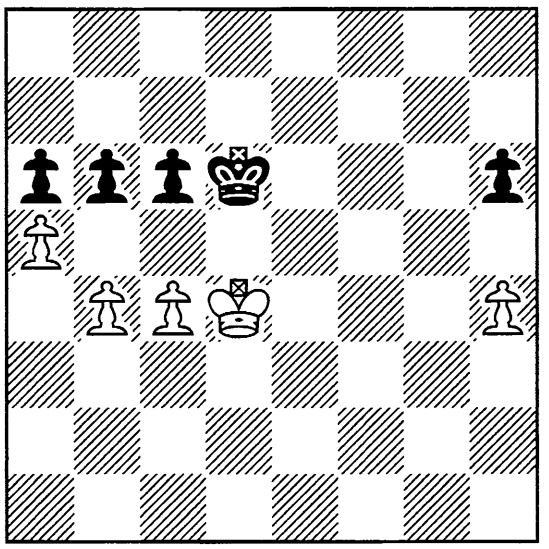


Diagram 11 (B)
White probes

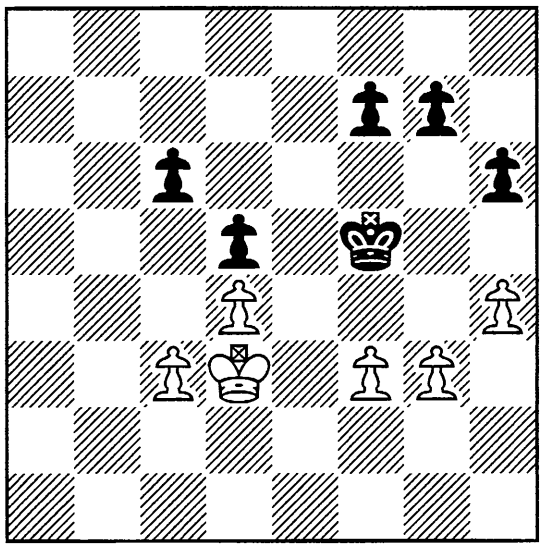


Diagram 12 (W)
Black's king is more active

Now 10...c5+ is met by 11 bxc5+ bxc5+ 12 Ke4 Ke6 13 h5, and 10...b5 by 11 cxb5 cxb5 12 h5.

10...Kc7 11 c5 bxc5+ 12 bxc5 Kd7 13 Ke5 Ke7 14 h5 1-0

Example 182

Ma.Lavrov-S.Bogdanovich, Kharkov 2003

(Diagram 12) It doesn't look much, but Black's slightly more active king enables him to get things going on the kingside.

1 c4?

A waste of time. Instead White needs to counter Black's offensive by surprisingly bringing his king to the h-file! I therefore suggest 1 Ke3!, which threatens g3-g4, so Black has to continue with 1...h5! retaining some pressure. Then play may develop as follows: 2 Kf2 g5 (after 2...f6 White holds with 3 Kg2! g5

4 Kh3!) 3 hxg5 Kxg5 4 Kg2 **(Diagram 13)**

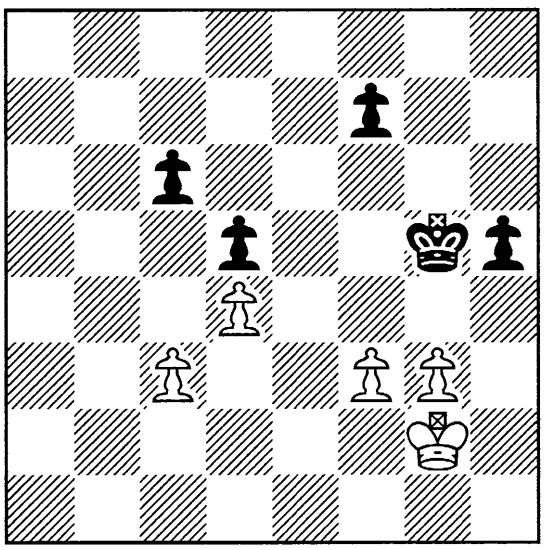


Diagram 13 (B)
White holds

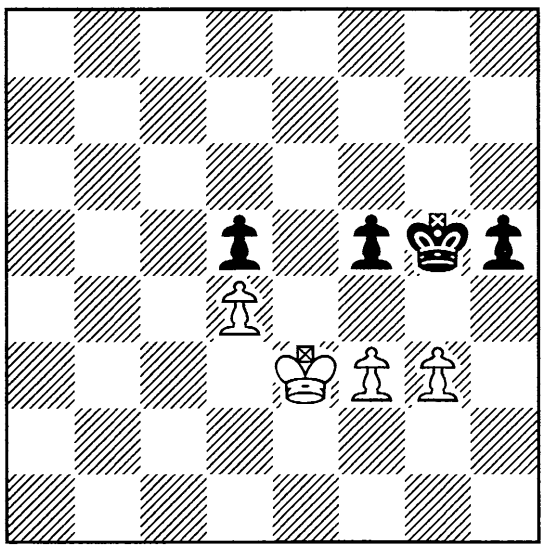


Diagram 14 (W)
Black wins easily

4...h4 (or 4...f5 5 Kh3! and again this square seems to be key, as after 5...f4 White counters with 6 g4 etc.) 5 g4! (but not 5 gxh4+? Kxh4 6 Kf2 Kg5 7 Kg3 Kf5 and Black wins, e.g. 8 Kg2 Kf4 9 Kf2 f6 10 Ke2 Kg3 11 Ke3 f5) 5...f6 (after 5...Kf4?! 6 Kh3 Kxf3 7 Kxh4 Kf4 8 Kh5 White is even better and 5...f5 is again met by 6 Kh3!) 6 Kh2 f5 7 Kh3! f4 8 Kg2 Kh6 with a draw.

So in my opinion White can indeed hold with 1 Ke3.

1...h5 2 cxd5 cxd5 3 Ke2 g5 4 hxg5

If White tries 4 Ke3 gxh4 5 gxh4 Black invades as follows: 5...f6 6 Ke2 Kf4 7 Kf2 f5 (zugzwang).

4...Kxg5 5 Ke3 f5 0-1 (Diagram 14)

In this position Black wins easily after both 6 Ke2 f4 (generating an outside passed pawn) 7 Kf2 fxg3+ 8 Kxg3 h4+ 9 Kh3 Kf4 10 Kxh4 Kxf3 etc., and 6 f4+ Kg4 7 Kf2 h4 8 gxh4 Kxh4 9 Kf3 Kh3 (outflanking) 10 Kf2 Kg4 11 Ke3 Kg3.

In the final position (see Diagram 14), if it were Black to play he could win with a neat combination.

1...f4+!

Creating an outside passed pawn.

2 gxf4+ Kf5

and White must not only give back the pawn, but take time to neutralise the passed h-pawn:

3 Ke2 Kxf4 4 Kf2 h4 5 Kg2 Ke3 6 Kh3 Kxf3 7 Kxh4 Ke4 8 Kg3 Kxd4 9 Kf3 Kc3 and Black wins.

Example 183

H.Filgueira-Mazziotti Irigoyen, Villa Ballester 2003

(Diagram 15) White now surprisingly simplifies into a pawn ending with a pawn less.

1 Qxe6!

The alternative way allows Black counterplay with the kingside majority: 1

Qxd4? Nxd4 2 Kxd4 Kf8 3 Kc5 Ke7 4 Kb6 f5, e.g. 5 gxf6+ Kxf6 6 Kxa6 h5 7 Kxb5 g5 8 hxg5+ Kxg5 9 a4 h4 10 a5 h3 11 a6 h2 12 a7 h1Q 13 a8Q Qb1+ 14 Kc5 Kf4 and it's drawn.

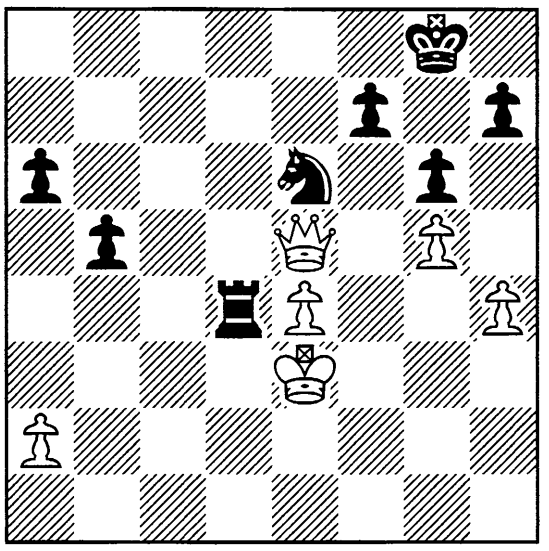


Diagram 15 (W)
White simplifies

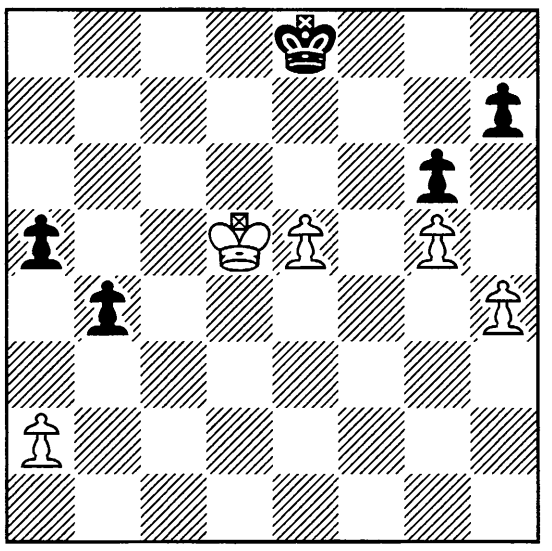


Diagram 16 (B)
White wins

1...fxe6 2 Kxd4

Now Black cannot do much on the kingside as the pawns are symmetrical and his king is hemmed in. White is a pawn down but has by far the more active king.

2...Kf7 3 Kc5 Ke7 4 Kc6 b4 5 e5 Kd8

5...a5 loses both queenside pawns to 6 Kb5.

6 Kd6 Ke8 7 Kxe6 a5 8 Kd5 (Diagram 16) 8...Kd7

Here 8...a4 fails again as White's king rules the day: 9 Kc4 b3 10 axb3 axb3 11 Kxb3 Ke7 12 Kc4 Ke6 13 Kd4.

9 Kc5 Ke6 10 Kb5 Kxe5 11 Kxa5 Kf4 12 Kxb4 Kg4 13 a4 Kxh4 14 a5 Kxg5 15 a6 h5 16 a7 h4 17 a8Q Kf4 18 Qg2 g5 19 Kc4 g4 20 Qf2+ Kg5 21 Kd4 g3 22 Qf3 1-0

It was surprising that Black seemed so helpless despite his extra pawn.

WARNING: Don't fall into the trap of just counting pawns; take into account the positional factors: relative activity of kings, usefulness of majorities, possibility of counterplay on the other wing etc.

Example 184

Alb.David-T.Luther, France 2003

(Diagram 17) Despite being a pawn down, Black is able to bring his king to a fine outpost on d4, frustrating White's attempts to win.

1...Ke5 2 f3 Kd4 3 Ke2 g5!

Limiting White's possibilities on the kingside.

4 g3 b5 5 Kd2 b4 (Diagram 18) 6 Ke2

White can put a stop to Black's next move with 6 h3 h5 7 Ke2, but Black is still able to draw: 7...a3 8 bxa3 bxa3 9 Kd2 h4 10 g4 Kc4 (10...f6? makes it

easier for White to create a passed pawn, e.g. 11 Ke2 Kc3 12 f4!) 11 Ke3 (otherwise 11 Kc2 Kd4 12 Kd2 Kc4 repeats the position, whereas after 12 Kb3?! White queens in seven more moves to Black's eight, but it's Black who then has the better queen ending: 12...Ke3 13 Kxa3 Kxf3 14 Kb3 Kg3 15 a4 Kxh3 16 a5 Kxg4 17 a6 h3 18 a7 h2 19 a8Q h1Q) 11...Kc3 12 e5 Kb2 13 Kd2 Kxa2 14 Kc2 Ka1 15 Kc1 Ka2 16 Kc2 is drawn.

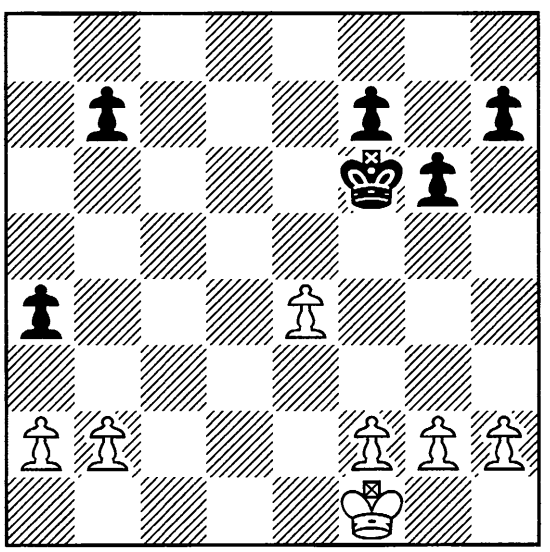


Diagram 17 (B)
Black has compensation

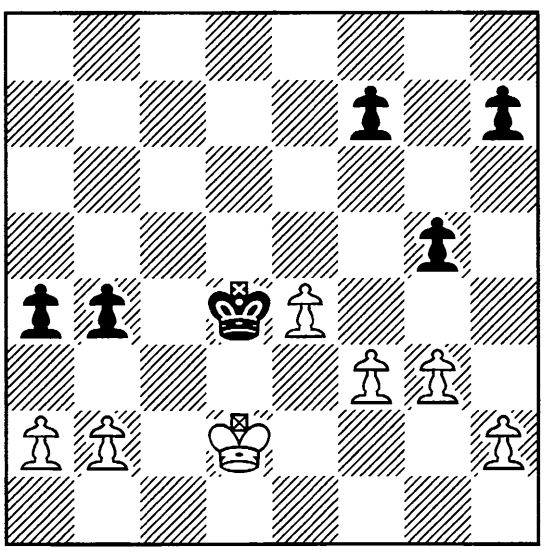


Diagram 18 (W)
A very active king

6...g4 7 fxg4 Kxe4 8 g5 Kd4 9 Kd2 Ke4 10 Ke2 Kd4 11 Kd2
with a draw. Black had compensation for the pawn because:

1) His king was actively placed.
2) Before he ran out of spare tempi he was able to create threats.

Example 185: Zugzwang on both wings (1)

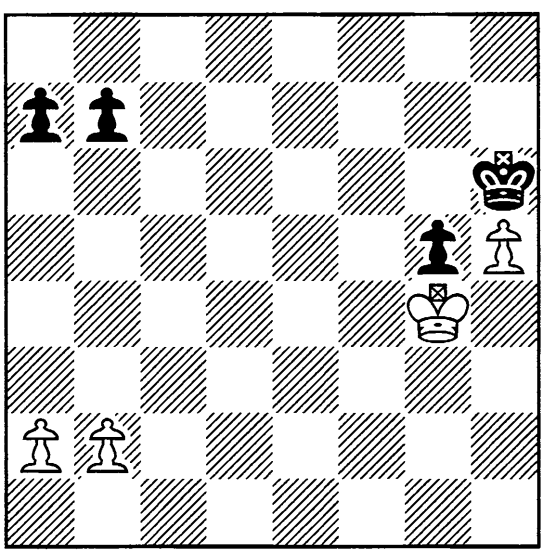


Diagram 19 (W)
Zugzwang on both wings

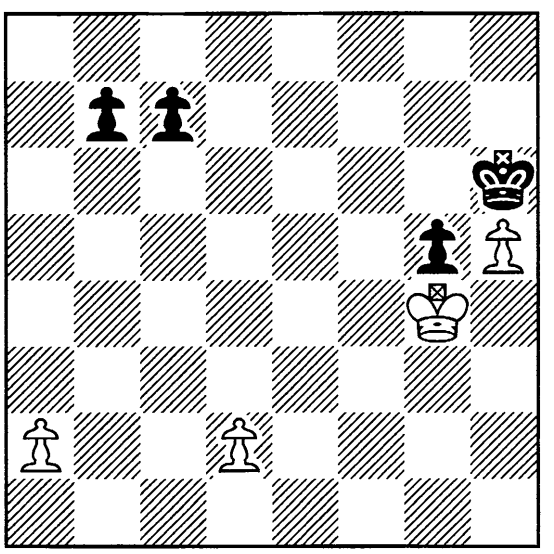


Diagram 20 (W)
White to play loses

(Diagram 19) On the kingside, whoever moves first loses their pawn. On the queenside, whoever has the move runs out of tempi first. The easiest way with symmetrical pawns is to copy the opponent's move!

1 a3 a6! 2 a4 a5! 3 b3 b6

and White loses. So it's actually zugzwang on both wings.

Example 186: Zugzwang on both wings (2)

(Diagram 20) In this position Black wins again if White is to move. Here the simplest way to maintain zugzwang is also a type of copying: if White moves the a-pawn, Black replies moving the c-pawn the same number of squares; moves by White's d-pawn are met by the b-pawn.

Here are some sample sequences:

a) 1 a3 c6 2 d4 b5; b) 1 a4 c5 2 a5 c4; c) 1 d3 b6 2 a3 c6 3 a4 c5

In each case Black wins.

Structural Advantages

Now we'll look at a few positions with some structural advantages for one colour.

In a middlegame, pawn weaknesses such as isolated or doubled pawns can be a problem. As pieces are exchanged, they can in certain cases become worse.

A typical example is the pawn structure occurring from openings such as the Ruy Lopez Exchange Variation. In the opening White captures on c6 (Bxc6) and Black recaptures away from the centre (...dxc6) and Black's queenside majority is thus 'devalued'.

One of White's principal aims is to exchange off as many pieces as possible because simplified endgames are very favourable. The following example shows why.

Example 187

Ja.Turner-D.Miskulin, Marianske Lazne 2003

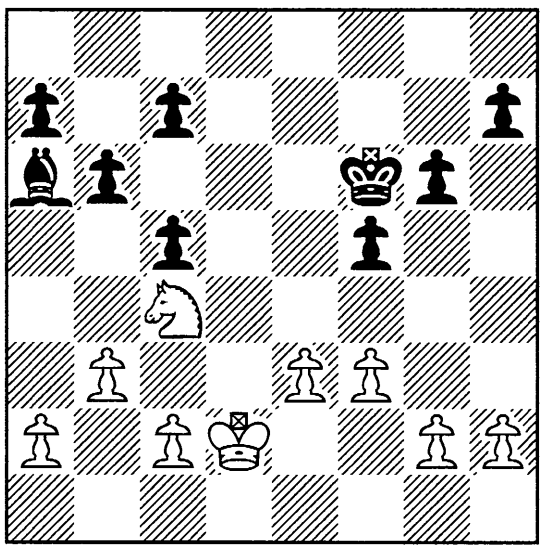


Diagram 21 (B)
Black's majority is devalued

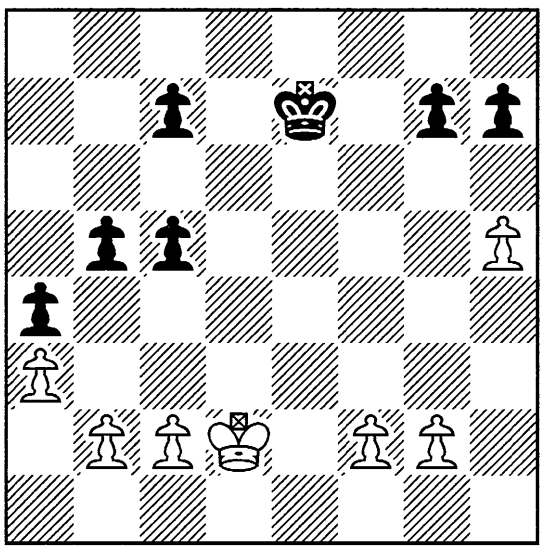


Diagram 22 (W)
Winning for White!

(Diagram 21) White's 4 v 3 kingside majority can be used to create a passed pawn whereas Black has difficulty in making any threats with his own clumsy-looking majority.

In practical terms Black should retain some pieces, when it's less easy for White to make progress.

1...Bxc4?!

White doubled c-pawns aren't really 'weak' as they adequately hold up Black's counterplay.

2 bxc4 Ke5 3 Kd3

The rest is just very easy for White.

3...f4

After 3...g5 4 g3 c6 5 f4+ gxf4 6 gxf4+ Ke6 7 e4 White obtains a passed pawn. If Black prefers 4...f4 (rather than 4...c6) then the simplest is 5 exf4+ gxf4 6 gxf4+ Kxf4 7 Ke2 followed by temporising between f2 and e2, as Black's king will soon have to retreat.

4 exf4+ Kxf4 5 Ke2 g5 6 g3+ Ke5 7 Ke3

White smoothly gets his majority going.

7...h5 8 f4+ Kf5 9 fxg5 Kxg5 10 h3 Kf5 11 Kf3 c6 12 g4+ hxg4+ 13 hxg4+ Kg5 14 Kg3 b5 15 Kf3!

Black's pawn moves won't last long.

15...bxc4 16 c3

The tripled pawns are not a threat.

16...Kg6 17 Kf4 Kf6 18 g5+ Kg6 19 Kg4 1-0

After 19...Kf7 20 Kf5 Kg7 21 a4 a5 22 Ke6 Kg6 23 Kd6 Kxg5 Black's pawns would drop like 'ripe apples': 24 Kxc6 Kf5 25 Kxc5 Ke6 26 Kxc4 Kd6 27 Kb5.

Example 188

Nisipeanu-Sebag, Deizisau 2003

(Diagram 22) White's kingside majority will eventually yield a passed pawn whereas Black cannot do a great deal on the other wing. As Nisipeanu shows us, the position is already winning for White!

1 Ke3 Kf6 2 f4 Kf5 3 Kf3 h6 4 g4+ Kf6 5 Ke4 c6 6 c3

Black has to move her king, and White can then play g5.

6...Ke6 7 g5 c4 8 f5+ Kf7 9 gxh6 gxh6 10 Ke5 c5 11 f6 Kf8

White now triangulates, which is the winning method in this position if there are no queenside pawns.

12 Kf4 Kg8 13 Ke4 Kf8 14 Ke5 Ke8 (Diagram 23)

15 Kd5!

More straightforward than 15 Ke6 Kf8 16 f7?! b4!.

15...Kf7 16 Kxc5 Kxf6 17 Kxb5 Kg5 18 Kxa4 1-0

Black resigned as 18...Kxh5 19 Kb5 Kg4 20 a4 h5 21 a5 h4 22 a6 h3 23 a7 h2 24 a8Q yet again sees a race of opposite rook's pawns, where the 'winner (of the race) takes all'.

As we have seen, this 'Exchange Lopez' pawn structure generally offers a significant advantage, but in the following example White couldn't win.

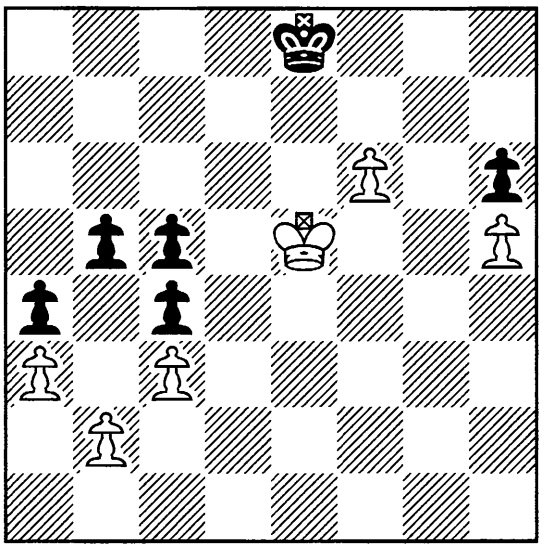


Diagram 23 (W)
Ready to attack the queenside

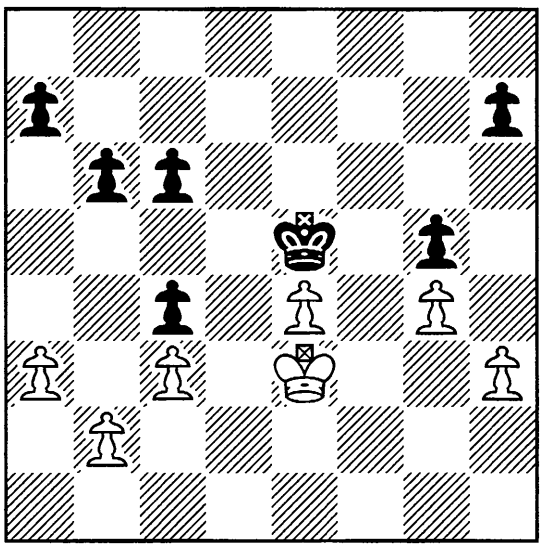


Diagram 24 (W)
The advantage is not enough

Example 189

D.Solak-McShane, Internet 2003

(Diagram 24) Although Black has his 'Exchange Spanish queenside' and White has already generated a passed pawn, things aren't so simple. The kingside is blocked and Black can cover both d4 and f4 with his pawns, so in fact he has little to fear. The game concluded as follows:

1 a4 a5 2 Kf3 b5 3 Ke3 bxa4 4 Kf3 h6 5 Ke3 c5 6 Kf3 Ke6 7 Ke2 Ke5 8 Ke3 Ke6 9 Kf2 Ke5 10 Kf3 Ke6 11 h4?

A pointless blunder resulting from frustration!

11...Ke5?

Adequate to draw. But what happens after 11...gxh4! here? Play continues 12 Kg2 (if 12 Kf4 then 12...Kf6 13 e5+ Ke6 14 Ke4 h3 and White has to go back anyway) 12...Ke5 13 Kh3 Kxe4 14 Kxh4 Kd3! and Black is too fast in the race and wins, e.g. 15 Kh5 Kc2 16 Kxh6 Kxb2 17 g5 a3 18 g6 a2 19 g7 a1Q 20 g8Q Qh1+ 21 Kg7 Qg2+ 22 Kf8 Qxg8+ 23 Kxg8 Kxc3 etc.

Okay, it was a blitz game and both players were probably down to a few seconds, but even so!

12 hxg5 hxg5 13 Ke3 Ke6 14 Kf3 Ke5 15 Ke3 Ke6 and a draw was agreed.

Example 190

Ma.Müller-Hajenius, Bad Wörishofen 2003

(Diagram 25) White's unhealthy queenside majority is not able to give him any play to counterbalance Black's passed pawn.

1 Kg1 Ke7 2 Kf2 Ke6 3 Ke3 Ke5 (Diagram 26) 4 c4?!

A poor move for three reasons:

a) White is first to run out of spare tempi.

b) He weakens the d4-square.

c) After Black's next he cannot make a passed pawn from his majority.

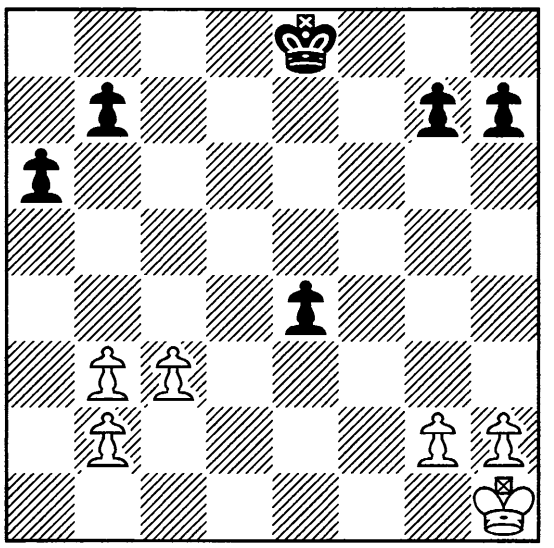


Diagram 25 (W)
White's majority is diminished

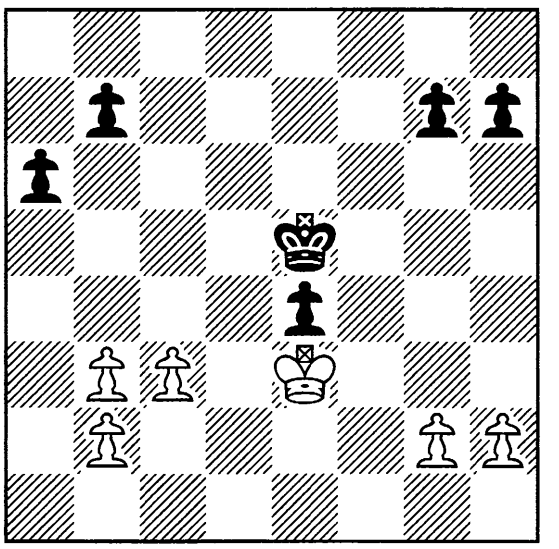


Diagram 26 (W)
Now White errs

Instead 4 b4 is more resistant, but ultimately also losing. If Black then touches his b-pawn, White will be able to make a passed pawn, an important factor if Black hopes to rush his king to the kingside. So Black should leave the queenside alone and continue with 4...h5 5 g3 (following 5 h3? h4 White will run out of tempi and eventually have to allow ...Kf4, and if 5 h4 g6 6 g3 Black invades with 6...Kf5 7 c4 Kg4) 5...Kf5 6 h3 Ke5 7 b3 g6 8 c4 (or 8 g4 h4 9 c4 g5 10 c5 Kd5 and again White loses) 8...Kf5. Now Black creates an entry square and wins after both 9 Kd4 h4 10 gxh4 Kf4 and 9 Kf2 h4! 10 gxh4 Kf4.

4...a5 5 g3 g6

By copying moves Black enforces zugzwang, but such precision isn't necessary here as White loses even with an extra move.

6 h3 h6 7 g4 g5 0-1

Example 191

Volokitin-Gershon, Bermuda 2003

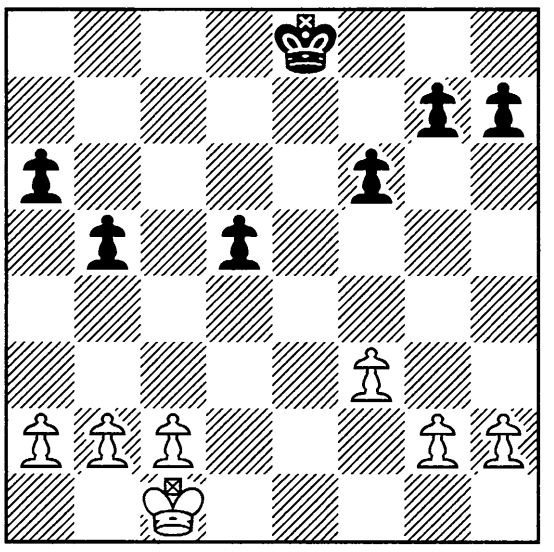


Diagram 27 (W)
An isolated pawn on d5

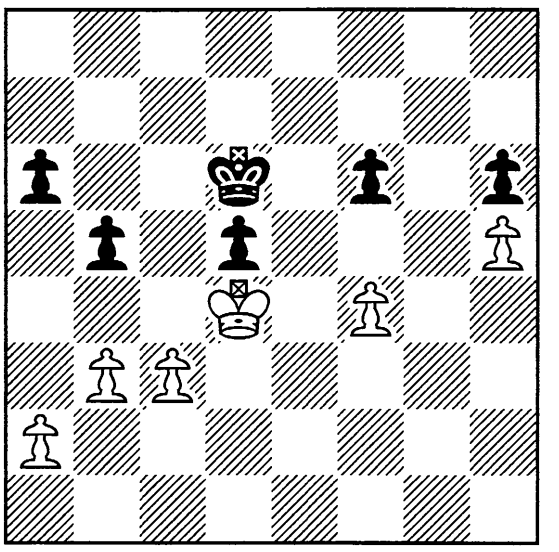


Diagram 28 (W)
A difficult ending

(Diagram 27) Here White has a positional advantage as Black has an isolated pawn on d5 and White is able to install his king on d4.

1 Kd2 Kd7 2 Kc3 Kc6 3 Kd4 Kd6

As Black has control of the e5-square, White will not find it easy to invade.

4 b3 Kc6

In this position 4...b4? would be an error. The exchange of White's c-pawn for Black's b-pawn leads to White obtaining a 2 v 1 queenside majority and a few moves later an outside passed pawn, e.g. 5 c4 bxc3 6 Kxc3 Kc5 7 b4+ Kb5 8 Kb3 h5 9 a4+ Kc6 10 Kc3 h4 11 Kd4 g5 12 b5+ as pointed out by Hecht.

5 c3 Kd6 6 h4 Kc6

Black carefully temporises. By keeping his pawn on f6 (avoiding the threat of entry into e5) he can pass backwards and forwards with his king (between c6 and d6), reducing any prospect of zugzwang. Black could also consider 6...h5!?, which limits any white expansion on that wing.

7 g4

White continues to advance his kingside pawns, hoping to create future points of attack.

7...Kd6 8 h5 Kc6 9 f4 Kd6 10 g5 h6

This represents a better defence than 10...fxg5?. On general considerations this move has two negative sides:

1) It weakens the e5-square.
2) If White has a g-pawn (rather than an f-pawn) then in a race situation it takes longer for Black to create a passed pawn.

Then 11 fxg5 Ke6 (11...Kc6 now allows 12 Ke5 Kc5 13 Ke6) is best met by 12 Kc5!, e.g. 12...Kf5 13 Kxd5 Kxg5 14 c4, or 12...Ke5 13 a4 bxa4 14 bxa4 a5 15 Kb5.

11 gxf6 gxf6 (Diagram 28) 12 a3?! Kc6 13 c4 dxc4 14 bxc4 bxc4 15 Kxc4 f5 16 Kd4 Kd6 17 a4 a5 ½-½

White would generally like to keep this extra tempo in reserve, so instead of the game's 12 a3?!, the immediate **12 c4!** is more testing. It's interesting to examine the possibilities that follow, as a number of typical themes arise.

12...dxc4 13 bxc4 bxc4!

Alternatives can be shown to be lacking:

a) 13...b4? 14 c5+ Kc6 15 Kc4 a5 16 f5 with zugzwang.

b) 13...f5 14 cxb5 axb5 15 a3!. It's noteworthy that the a-pawn's spare move delivers zugzwang.

c) 13...Kc6 14 cxb5+, followed by Ke4.

14 Kxc4 Ke6!

Not so good is 14...Kc6, as following 15 Kd4 Kd6 16 a4 White queens first after both 16...a5 17 f5 Kc6 18 Kc4 Kd6 19 Kb5, or 16...f5 17 a5 Kc6 18 Ke5.

15 Kd4!

If we count the race following 15 Kc5, it takes nine moves for White to queen but only eight for Black)

15...Kf5 16 Ke3 (Diagram 29)

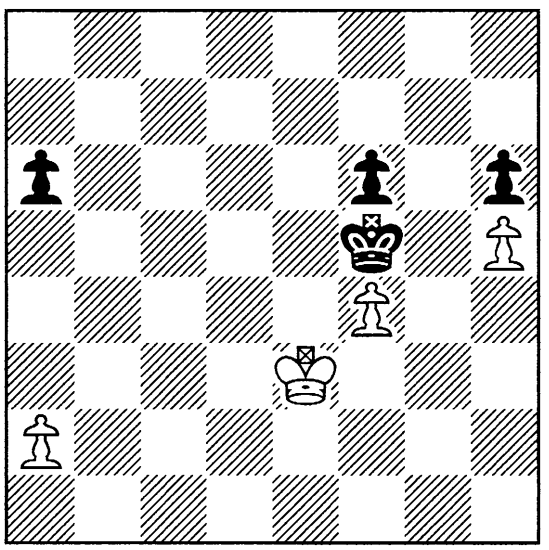


Diagram 29 (B)
Black must play precisely

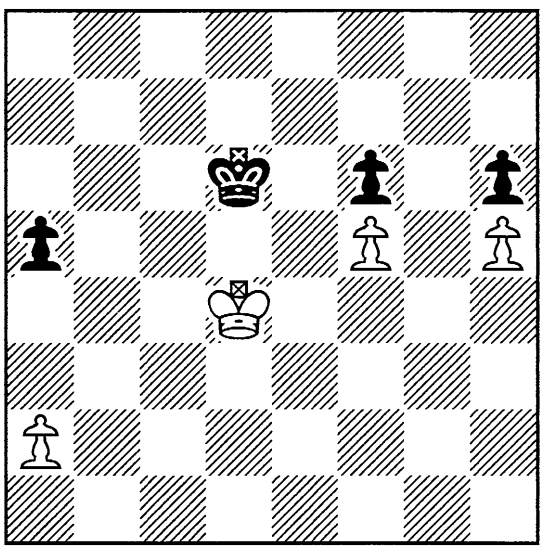


Diagram 30 (B)
Black can hold

16...Ke6!

16...Kg4? gets into trouble after 17 Ke4 Kxh5 18 Kf5, *holding off* Black's king. This spells bad news for Black, e.g. 18...Kh4 19 Kxf6 Kg4 20 f5 h5 21 Ke5 h4 22 f6 h3 23 f7 h2 24 f8Q h1Q 25 Qg7+ and White exchanges queens. He then wins as his king is much closer to the a-pawns: 25...Kh3 26 Qh6+ Kg2 27 Qxh1+ Kxh1 28 Kd6 Kg2 29 Kc6 Kf3 30 Kb6 Ke4 31 Kxa6 Kd5 32 Kb6 Kd6 33 a4 Kd7 34 Kb7 etc.

17 Ke4 a5 18 f5+

White has three other tries:

a) 18 a3 a4! 19 f5+ Kd6 20 Kd4 Kc6 21 Kc4 Kd6 and now by counting we note that both sides take eight moves to queen.

b) 18 a4 f5+ 19 Kd4 Kd6, transposing to the final position of the actual game.

c) 18 Kd4 Kd6 19 a3 Ke6 20 Ke4 a4 21 Kd4 Kd6 22 Kc4 Ke6 23 Kb4 Kf5 24 Kxa4 Kxf4 25 Kb3 Kg4 26 a4 f5 and Black has nothing to fear.

18...Kd6 19 Kd4 (Diagram 30) 19...a4!

This slows down White in the forthcoming race. If White's a-pawn starts on a4 then he has chances to queen first, whereas if this pawn is only on a3 then Black is as fast and can draw.

If for instance we examine 19...Kc6 20 a3 Kd6? 21 a4 Kc6 22 Kc4 Kd6 23 Kb5 Ke5 24 Kxa5 Kxf5 25 Kb4 Kg4 26 a5 f5 27 a6 f4 28 a7 f3 29 a8Q f2 30 Qg2+ White wins the race.

Black can improve on this by going the other way with 20...Kb5?! (by counting we see that it now takes both sides seven moves to queen) 21 Kd5 Ka4 22 Ke6 Kxa3 23 Kxf6 Kb3 24 Kg6 a4 25 f6 a3 26 f7 a2 27 f8Q a1Q 28 Qf3+ with a favourable but not necessarily winning queen ending for White.

However the best move is of course 20...a4!.

20 a3 Kc6 21 Kc4 Kd6 22 Kb4 Ke5 23 Kxa4 Kxf5 24 Kb4 Kg4 25 a4

Or 25 Kc3 Kg3 26 Kd2 f5 27 a4 f4 28 a5 f3 29 a6 f2.

25...f5 26 a5 f4 27 a6 f3 28 a7 f2 29 a8Q f1Q 30 Qe8

and the queen ending should be drawn.

Practical Mistakes

We conclude this chapter with a number of examples where some serious errors were made. These errors come about in practical games for a number of reasons: tiredness, time pressure, as well as a lack of general all-round playing ability. Sometimes players who are competent in the opening or middlegame are significantly weaker in endgames. They have probably not put in the same effort in this domain and as such are weaker endgame players as a result.

I suggest that after finishing this book that you look through any pawn endgames that you have already played and try to see if any errors were made. This is an excellent way of bringing your pawn endgame play up to scratch.

Example 192

Winnig-Bielmeier, Friedrichroda 2003

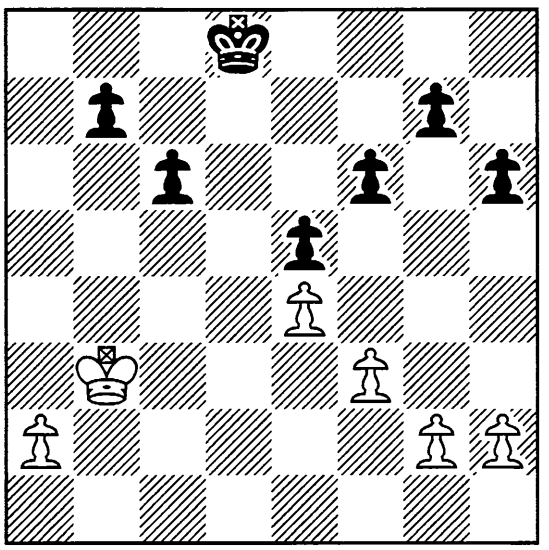


Diagram 31 (W)
Black should win easily

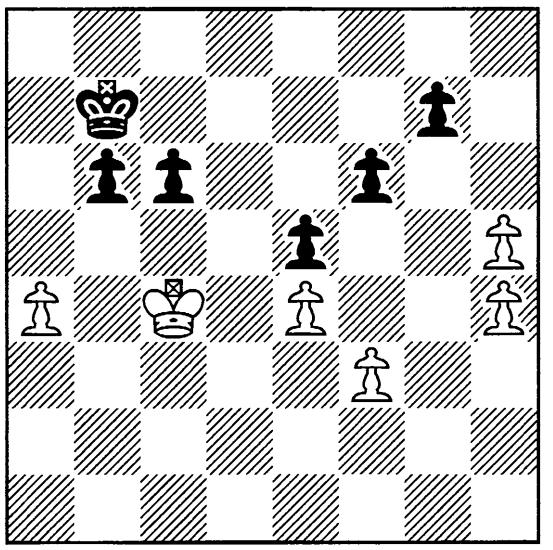


Diagram 32 (B)
It's still a win for Black

(Diagram 31) This a basic technical win. Black has an extra pawn and White has no counterplay.

1 Kc4 Kc7 2 a4 b6 3 Kb4 Kd6?!

The wrong way. The simplest win would follow 3...Kb7 4 Kc4 Ka6 5 Kb4 c5+ 6 Kc4 Ka5 7 Kb3 c4+ 8 Kxc4 Kxa4.

4 Kc4 h5 5 g3 h4?

Black plays as if in a middlegame where such a pawn 'sacrifice' would damage White's kingside and that could be exploited by Black's pieces. But here it simply gifts a pawn and a lifeline for White.

6 gxh4 Kc7 7 h5 Kb7 8 h4 (Diagram 32) 8...Ka6?!

Black can still win without allowing counterplay by 8...Kc7 9 Kb4 c5+, e.g. 10 Kc4 Kc6 11 h6 gxh6 12 h5 b5+! (simplifying the queenside with a typical temporary pawn sacrifice) 13 axb5+ Kb6 etc. Or 10 Kb5 Kb7 11 h6 (a technique to lose a tempo but it doesn't save the game here) 11...gxh6 12 h5 Kc7 13 a5 bxa5 14 Kxc5 a4 15 Kb4 Kc6 16 Kxa4 Kc5 17 Kb3 Kd4 and Black invades.

9 Kb4 c5+ 10 Kc4 Ka5 11 Kd5 Kb4?

There is nothing wrong with 11...Kxa4!, which still wins! 12 Ke6 (no better is 12 h6 gxh6 13 h5 Kb4 14 Ke6 c4 15 Kxf6 c3 etc.) 12...c4 13 Kf7 c3 14 Kxg7 c2 15 h6 c1Q 16 h7 Qc7+ 17 Kg8 Qd8+ 18 Kg7 Qe7+ 19 Kg8 Qe8+ 20 Kg7 b5 21 h8Q Qxh8+ 22 Kxh8 b4 23 h5 b3 24 h6 b2 25 h7 b1Q 26 Kg7 Qg1+ 27 Kxf6 Qh2 28 Kg7 Qg3+ 29 Kh6 Qh4+ 30 Kg7 Qg5+ 31 Kf7 Qh6 32 Kg8 Qg6+ 33 Kh8 Qf7 34 f4 Qf8 mate!

12 Ke6 c4 13 Kf7 c3 14 Kxg7 c2 15 h6 c1Q 16 h7

WARNING: Don't give unnecessary counterplay.

Black had presumably counted the race and seen that he arrived first, but underestimated White's defensive resources. Note that not having ...Qg5+ available makes a big difference.

16...Qc7+ 17 Kg8 Qd8+ 18 Kg7 Qe7+ 19 Kg8 Qe8+ 20 Kg7 ½-½

This goes to show that converting winning positions requires some common sense!

NOTE: Counting is only a tool to help one's analysis and judgement; arriving first doesn't necessarily mean victory.

Example 193

Yarulina-J.Yakovich, Serpukhov 2003

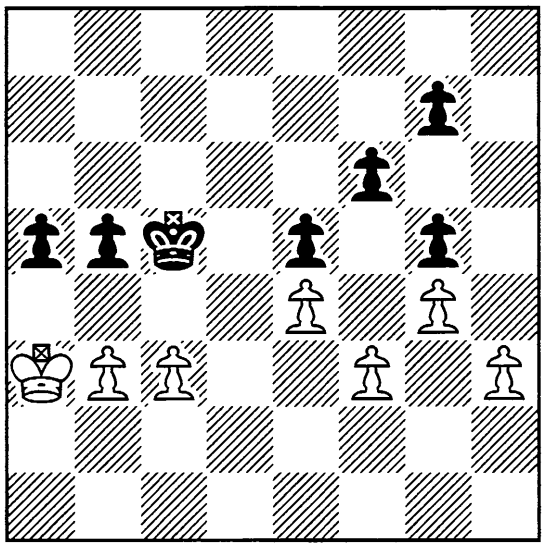


Diagram 33 (B)
Should be a draw

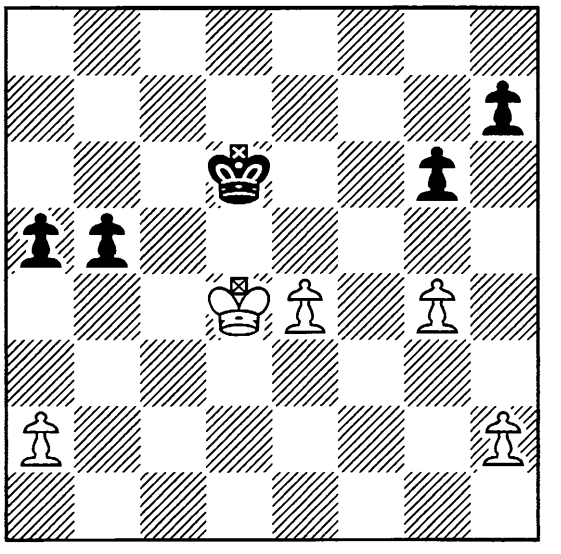


Diagram 34 (W)
Who will have the outside pawn?

(Diagram 33) 1...a4!?

A nice temporary pawn sacrifice to try and break into the white camp.

2 bxa4?

Opening the door for her opponent!

White can hold everything together as follows: 2 Kb2! axb3 (2...Kb6 3 b4 creates an impenetrable barrier) 3 Kxb3 g6 4 Kb2 Kc4 (if 4...b4 then 5 Kb3! bxc3 6 Kxc3) 5 Kc2 b4 6 cxb4 Kxb4 7 Kb2 with the opposition and a draw.

2...bxa4 3 Kxa4 Kc4 4 Ka5 Kxc3 5 Kb5 Kd3 6 Kc5 Ke3 7 Kd6 Kxf3 8 Ke6 Kxe4 9 Kf7 Kf4 10 Kxg7 f5 11 h4 Kxg4 12 hxg5 Kxg5 0-1

In pawn endings in particular it's important that zugzwang is taken into consideration, but in the previous example in the case of 2 Kb2 Black's one reserve pawn tempo (...g6) isn't enough. White cannot be thwarted in the intention to pass between b2, a2 and a3 with the king.

When defending such endgames it's a sensible idea to ask oneself the question: can I hope to successfully defend by passing?

Example 194

Fernandez Diez-Martin Fernandez, Oviedo 2003

(Diagram 34) The preservation of 'spare' tempi can be important. Here White has a passed e-pawn, but Black has a 2 v 1 majority. If Black can reduce the majority to 1 v 0 then the *outside passed pawn* will win. However, if White can win both queenside pawns then he will have the outside passed pawn!

1 h3?

A move typical of an inexperienced player. Instead passing with 1 g5! is much stronger, as on the kingside White then has two free tempi (h2-h3 and h3-h4) to enable him to zugzwang his opponent. Black then is already stuck for a good move: 1...Kc6 (otherwise if 1...a4 then 2 a3, or 1...b4 2 Kc4) 2 e5 b4 3 Kc4 Kb6 4 e6 Kc6 5 e7 Kd7 6 Kb5 Kxe7 7 Kxa5 and White wins.

1...b4??

Turning a win into a loss. If instead 1...g5! then Black has a free tempo on the kingside (...h7-h6). Play can continue with:

a) 2 e5+ Kc6! (but not 2...Ke6 3 Kc5 as White wins the race) 3 Ke4 b4 4 Kd4 a4 5 Kc4 b3 6 axb3 axb3 7 Kxb3 Kd5 8 Kc3 Kxe5 9 Kd3 Kf4 etc.

b) 2 a3 is met by 2...b4!, e.g. 3 axb4 axb4 4 Kc4 Ke5, or 3 a4 Ke6 4 e5 h6 and White is in zugzwang because of the spare tempo! **(Diagram 35)**

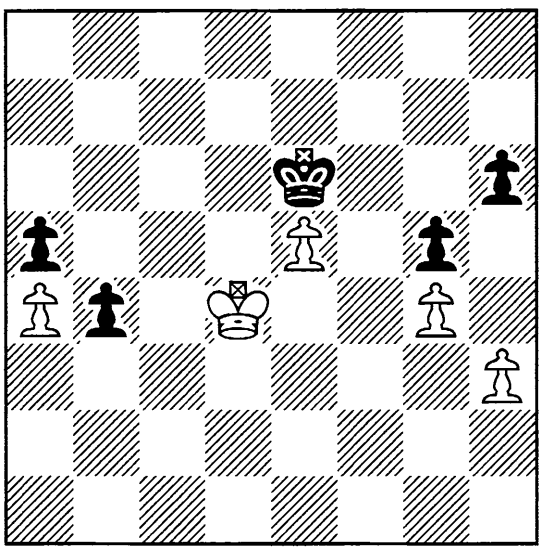


Diagram 35 (W)
White is in zugzwang

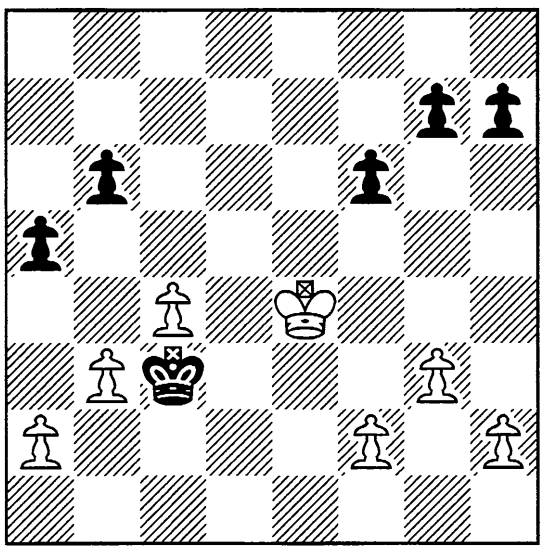


Diagram 36 (B)
Black has compensation

5 Ke4 b3 6 Kd3 Kxe5 7 Kc3 Kf4 8 Kxb3 Kg3 9 Kc4 Kxh3 10 Kb5 Kxg4 11 Kxa5 h5 12 Kb4 h4 13 a5 h3 14 a6 h2 15 a7 h1Q just wins for Black.

2 Kc4 Ke5

After 2...Kc6 3 g5 Black is in zugzwang: 3...Kb6 4 e5 Kc6 5 h4 Kd7 6 Kb5 Ke6

7 Kxa5 Kxe5 8 Kxb4 etc.

3 Kb5 Kxe4 4 Kxa5 Kd5 5 Kxb4 Kc6 6 g5 Kb6 7 Kc4 1-0

White comes across to pick off Black's pawns.

Example 195

A.Savurko-Elgin, Parsippany 2003

(Diagram 36) White has an extra pawn but Black has the more active king. It isn't immediately evident which side will prevail.

1...Kb2!

Black can draw with 1...a4?, as after 2 Kd5 a3 (2...axb3 3 axb3 Kxb3 4 c5 also yields equal chances) 3 c5 bxc5 4 Kxc5 Kb2 5 b4 and 2 bxa4 Kxc4 3 Kf5 Kb4 4 Ke6 Kxa4 neither side can claim an advantage. The text rightly plays for more!

2 Kd3 Kxa2 3 Kc2

Material is now equal. Black's king has advanced into White's position but is also to some extent locked out of play.

3...Ka3 4 Kc3 (Diagram 37)

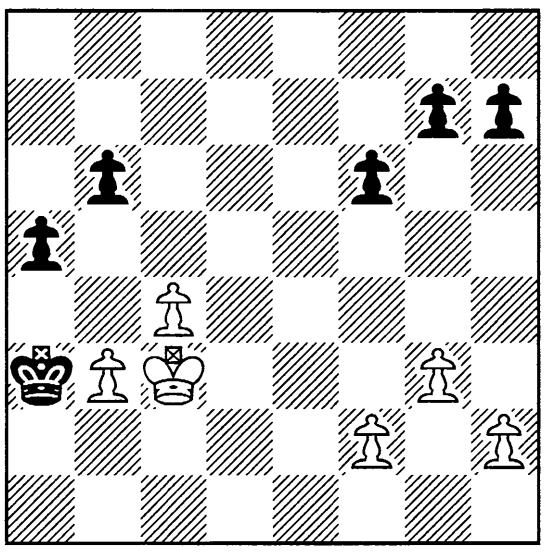


Diagram 37 (B)
A crucial moment

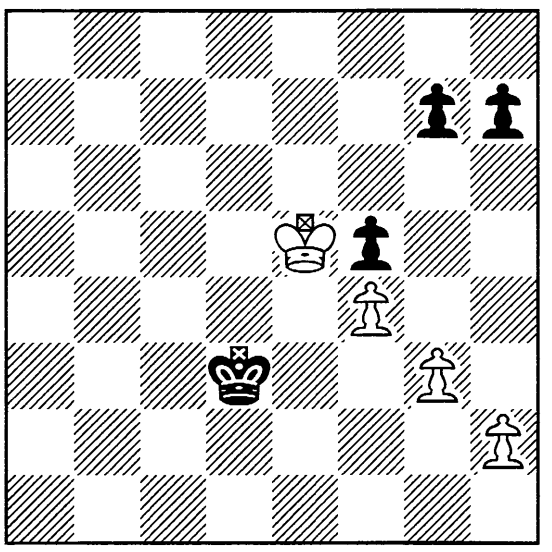


Diagram 38 (B)
One more chance for Black

4...Ka2??

Black should play 4...f5! and he wins the battle of the tempi on the kingside:

a) 5 f4 h6! 6 h3 h5 7 h4 g6.

b) 5 h4 g6 6 f3 h6 7 g4 f4 8 g5 h5.

c) 5 f3 g5 6 g4 f4 7 h3 h6.

d) 5 h3 g5 6 f3 f4 7 gxf4 gxf4 8 h4 h5 and then it's clear that his king is a positive factor: 9 Kc2 Kb4 10 Kb2 a4 11 bxa4 Kxc4 12 Ka3 Kc3 and Black wins.

5 f4! f5

After 5...Ka3 White has 6 f5!, preparing to liquidate the queenside and then obtaining a favourable 3 v 3 on the kingside, e.g. 6...Ka2 (6...g6 is met by 7 g4) 7 b4 axb4+ (7...a4 loses to 8 Kc2 when the king is still locked out of play on the a-file; White then creates a decisive passed pawn with c4-c5) 8 Kxb4 Kb2

9 c5 bxc5+ 10 Kxc5 (White's king now gets to the kingside slightly ahead) 10...Kc3 11 Kd5 Kd3 12 Ke6 Ke4 13 h4 h5 14 Kf7 Kxf5 15 Kxg7 Kg4 16 Kxf6 Kxg3 17 Kg5 and the last pawn will be sufficient to win.

6 b4 axb4+ 7 Kxb4 Kb2 8 c5 bxc5+ 9 Kxc5 Kc3 10 Kd5 Kd3 11 Ke5 (Diagram 38) 11...g6?

A better chance was 11...Ke3! 12 Kxf5 Kf3 13 Ke6 Kg2 14 Kf7 g6 (better than 14...Kxh2 15 Kxg7 Kxg3 16 f5 h5 17 f6 h4 18 f7 h3 19 f8Q h2 20 Qa8 Kf2 21 Qh1, as queen against a pawn always wins if the queen can occupy the queening square) 15 Kg7 Kxh2 16 g4 h5 17 g5 h4 18 Kxg6 h3 19 f5 Kg2 20 f6 h2 21 f7 h1Q 22 f8Q and the extra g-pawn would give White winning chances, but Black would have realistic hopes of drawing.

12 Kf6 Ke4 13 Kg7 g5 14 fxg5 f4 15 gxf4 Kxf4 16 h4 1-0

Example 196

Kerski-Ju.Jordan, Bad Zwischenahn 2003

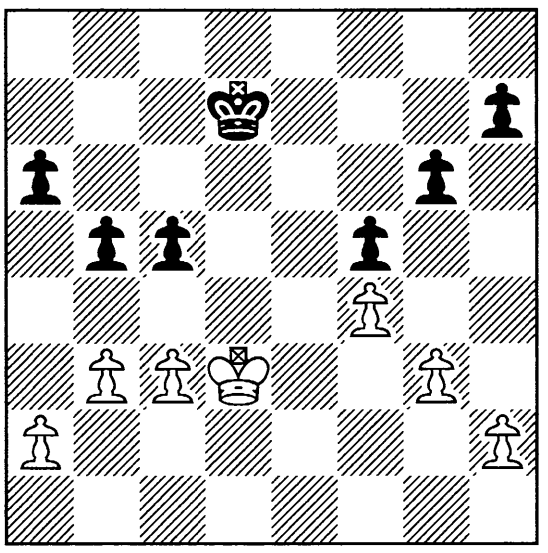


Diagram 39 (W)
Surely a draw?

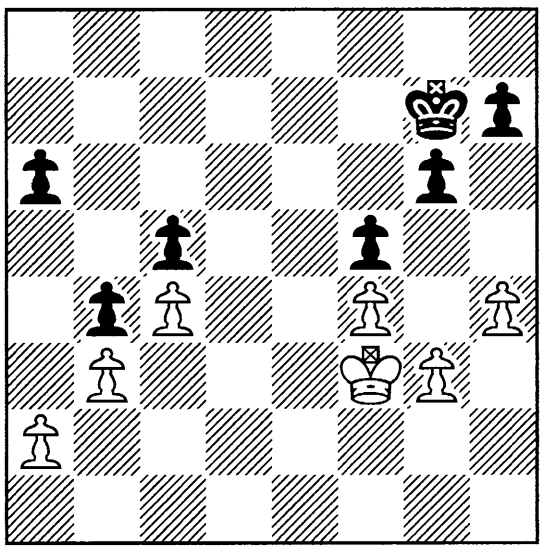


Diagram 40 (W)
Black prepares an invasion

(Diagram 39) It's hard to imagine that anyone could win such a position!

1 c4 b4 2 Ke3 Ke6 3 Kf3 Kf6

The centre and queenside lack any conceivable invasion point and the kingside is symmetrical.

4 h4?

Why this? It doesn't seem at first sight that weakening the g4-square can be that significant, but this move might already be a fatal error!

4 h3 is okay as after 4...h6 (or 4...h5 5 h4, which is clearly drawn) then 5 h4 doesn't expose the g4-square to invasion, or White could of course temporise with 4 Kg2.

4...Kg7! (Diagram 40)

Now Black has ...Kh6-h5-g4 in mind.

5 h5

After the continuation 5 Kg2 Kh6 6 Kh2 Kh5 7 Kh3 h6 8 Kh2 Kg4 9 Kg2 h5 10 Kf2 Kh3 11 Kf3 Kh2 12 Kf2 a5! we see that the queenside structure is fa-

vourable for Black, who has this free tempo enabling him to put White in zugzwang. White then loses his g-pawn after 13 Kf3 Kg1 14 Ke3 Kg2 etc.

The alternative 15 g4 fxg4+ 16 Kxg4 Kf6 doesn't help either. White is either quickly zugzwanged or must allow Black a decisive outside passed pawn.

5...Kh6 6 hxg6 Kxg6! (Diagram 41)

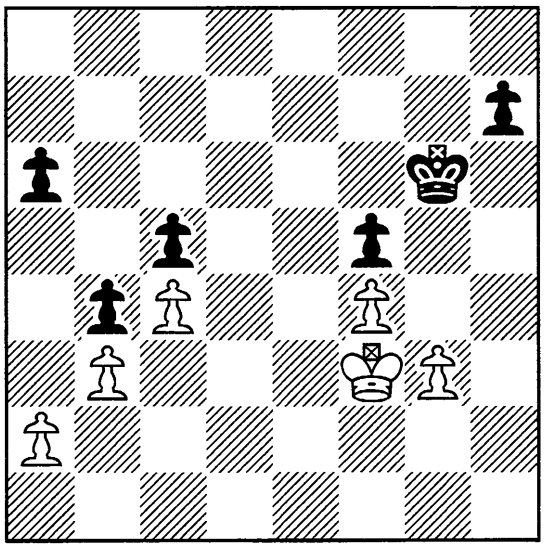


Diagram 41 (W)
The correct recapture on g6

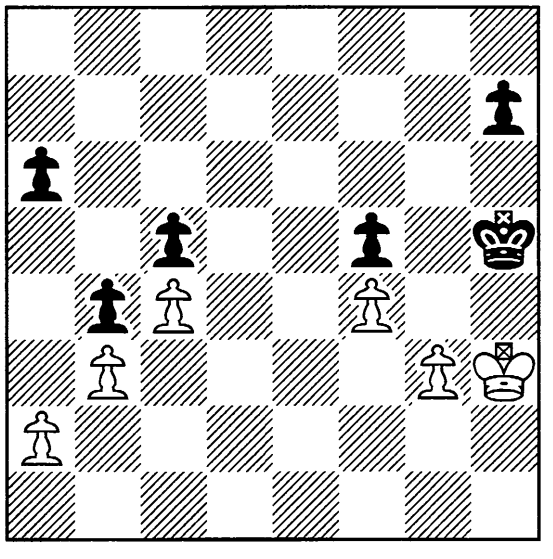


Diagram 42 (W)
Black has a reserve tempo

Instead 6...hxg6 gives nothing after 7 g4. By capturing with the king Black retains some free tempi.

7 Kg2

Too passive!. Instead 7 g4!? fxg4+ 8 Kxg4 gives Black an outside passed pawn but White doesn't go down without a fight: 8...a5! (better than 8...Kf6?! 9 Kh5 Kf5 10 Kh6 Kxf4 11 Kxh7 Ke3 12 Kg6 Kd3 13 Kf5 Kc3 14 Ke4 Kb2 15 Kd5 Kxa2 16 Kxc5 Kxb3 17 Kd5 Ka4 18 c5 b3 19 c6 b2 20 c7 b1Q 21 c8Q as with an extra a-pawn the queen ending is drawish) 9 f5+ Kf6 10 Kf4 h5 11 Ke4 h4 12 Kf4 h3 13 Kg3 Kxf5 14 Kxh3 Ke4 15 Kg4 Kd3 16 Kf5 Kc3 17 Ke5 Kb2 18 Kd5 Kxa2 19 Kxc5 Kxb3 20 Kb5 a4 21 c5 a3 22 c6 a2 23 c7 a1Q 24 c8Q Qe5+ 25 Kb6 Kb2 with excellent chances to win in the queen ending.

7...Kh5 8 Kh3 (Diagram 42) 8...h6!

Having reserve tempi helps matters along!

9 Kh2 Kg4 10 Kg2 h5 11 Kh2 h4 12 gxh4 Kxh4 0-1

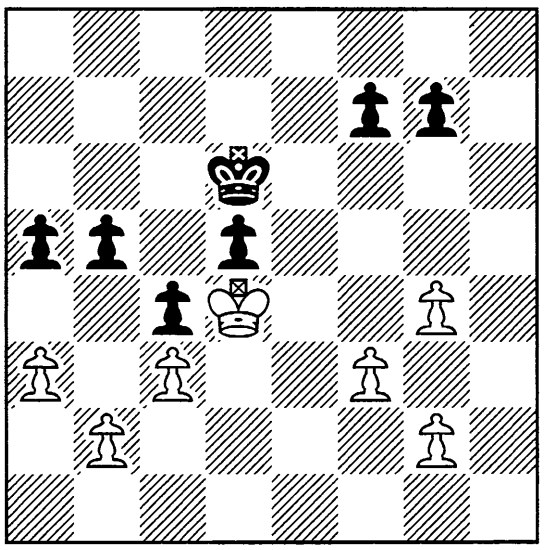
WARNING: Beware of meaningless pawn moves that weaken squares unnecessarily!

The position in Diagram 40 after Black's fourth move is in fact a zugzwang position. If Black is to play then the result isn't the same. Let's see how White can defend if it is Black to move.

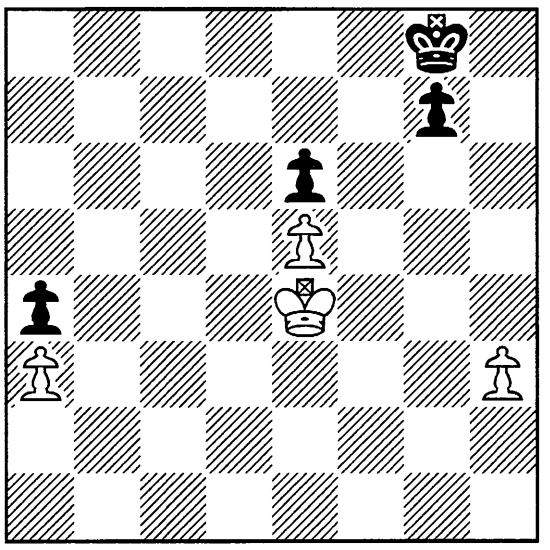
The immediate kingside advance 1...Kh6 fails to 2 g4! fxg4+ 3 Kxg4 a5 (if instead 3...Kg7 then 4 f5) 4 Kg3 Kh5 5 Kh3 and White holds.

However, if Black passes with 1...a5, although White's king must then retreat, Black will lack the necessary reserve tempi to win, e.g. 2 Kg2 Kh6 3 Kh2 Kh5 4 Kh3 h6 5 Kh2 Kg4 6 Kg2 h5 7 Kf2 Kh3 8 Kf3 Kh2 9 Kf2 and Black cannot progress any further.

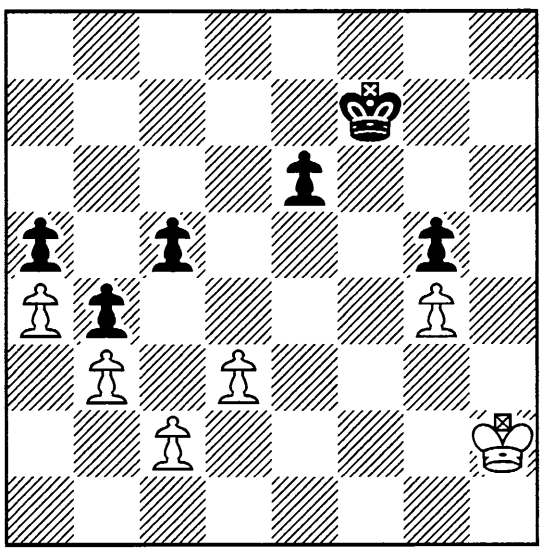
Try it Yourself



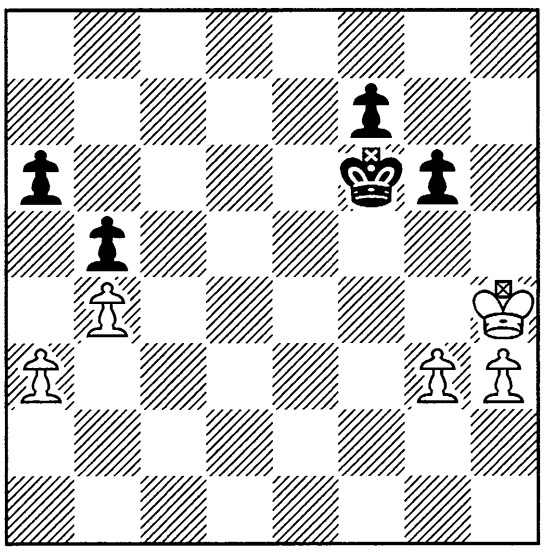
Exercise 1 (Black to play)



Exercise 2 (Black to play)



Exercise 3 (Black to play)



Exercise 4 (White to play)

Exercise 1: Formulate a plan of action for Black

Exercise 2: What is the correct result with best play?

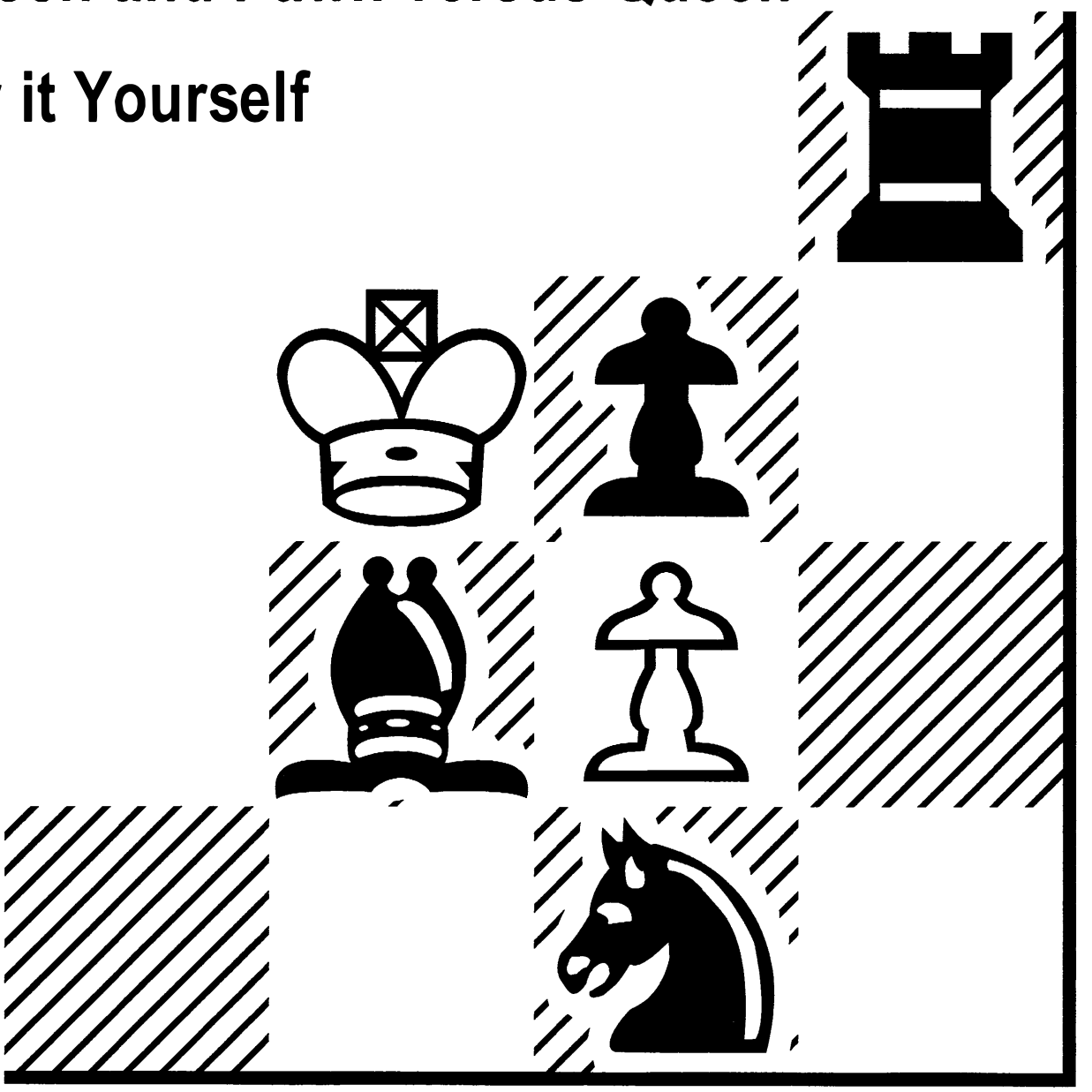
Exercise 3: How did Black win?

Exercise 4: What is your assessment of this position? Analyse.

Chapter Ten

When Pawns Become Queens

- Introduction
- Queen versus Pawn Endings
- Queen and Pawn versus Queen
- Try it Yourself



Introduction

In earlier chapters we have already seen many races where there is the serious possibility of a queen ending arising.

If one side queens and his opponent is not quite able to, then it's useful to know if the side with the queen can win. We will deal with the most common examples of this below.

If both players promote simultaneously then there are a number of things to look out for:

1) Sometimes one of the kings finds itself restricted to the point where there is the possibility of mate.

2) There may be a chance to win the opponents queen with a skewer.

3) The possibility of an immediate exchange of queens, again reverting to a pawn ending.

4) Perpetual check is a serious possibility if the stronger side's king cannot find shelter.

5) If none of these situations arise then play continues. In queen endings the number of pawns for each player is worth noting, but passed pawns are very strong assets, particularly if they are supported by either king or queen. An advanced passed pawn often outweighs a material disadvantage.

6) Sometimes pawns are fairly balanced but one king is ready to attack the opposing pawns whereas his counterpart is distant.

As this isn't a book on queen endings we can't go into too much detail, but there is one type of queen ending that seems to occur time and time again: queen and one pawn versus queen.

It's difficult to give a precise result to many of these, so throughout the book I've dealt with each case as it comes. Some powerful endgame modules can calculate these positions to a forced result but in practical terms it's sufficient to know some important ideas to help you reach your own judgement.

Queen versus Pawn Endings

Example 197: An extra queen

(Diagram 1) It's all very well winning the pawn race; you then need to know how to exploit your advantage! First of all we shall be dealing with positions where only one side manages to promote.

Even for virtual beginners, this type of position becomes familiar after we've had it a few times. White cannot mate with only a bare queen unless he uses his king.

1 Qe2 Kh1 2 Kc5

The thing to avoid is 2 Qf2, which is stalemate.

2...Kg1 3 Kd4 Kh1 4 Ke3 Kg1 5 Kf3 Kh1 6 Qg2 mate

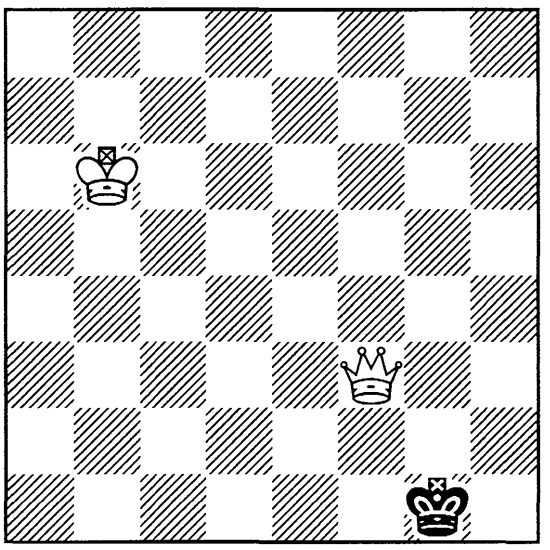


Diagram 1 (W)
It will soon be mate

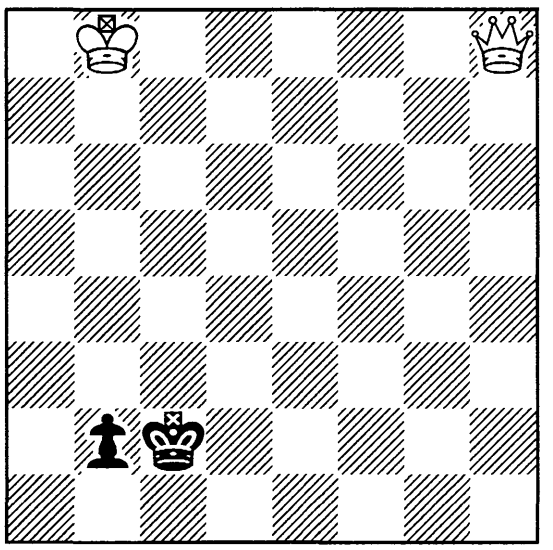


Diagram 2 (W)
White wins

When the defender has an advanced pawn as partial compensation for a queen, White also needs to bring up his king. In the next example this leads to victory.

Example 198: Queen versus pawn

(Diagram 2) White has queened first but Black has managed to get his pawn close to its queening square. With Black having a b-pawn (it's the same with a g-pawn) on the seventh rank, the position is still a win. The winning technique involves two aspects:

1) Forcing the black king to block its own pawn whilst
2) Bringing one's king close to form a mating net.

1 Qh7+ Kc1

1...Kc3 loses trivially to 2 Kc7 Kd2 3 Qb1, as once White's queen occupies this square the king can be brought up without delay.

2 Qc7+

Firstly the queen needs to approach the black pawn. This can be achieved with a gain of tempo each time.

2...Kd2 3 Qb6 Kc2 4 Qc5+ Kd2 5 Qb4+ Kc2 6 Qc4+ Kd2 7 Qb3 Kc1 8 Qc3+ Kb1

With Black's king on the queening square, Black has no immediate threats so finally the white king can approach the scene of action. It will continue to do so when at all possible.

9 Kc7 Ka2 10 Qc4+ Ka3 11 Qb5 Ka2 12 Qa4+ Kb1 13 Kc6 Kc1 14 Qc4+ Kd2 15 Qb3 Kc1 16 Qc3+ Kb1 17 Kb5 Ka2 18 Qc2 Ka1 19 Qa4+ Kb1 20 Kc4 Kc1 21 Qa3 Kc2 22 Qc3+ Kb1 23 Kb3 Ka1 24 Qxb2 mate

Despite the length of the solution, the winning technique is very logical.

Example 199: Queen versus c-pawn

(Diagram 3) Here again the pawn is on the seventh rank, but this time on the c-file. The defender can sometimes use stalemate to engineer a draw. In-

deed, if the attacker's king is far away the technique seen in the previous diagram doesn't guarantee success.

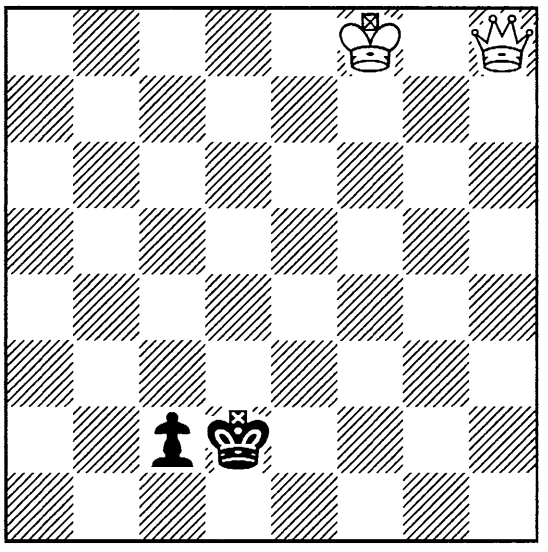


Diagram 3 (W)
Draw!

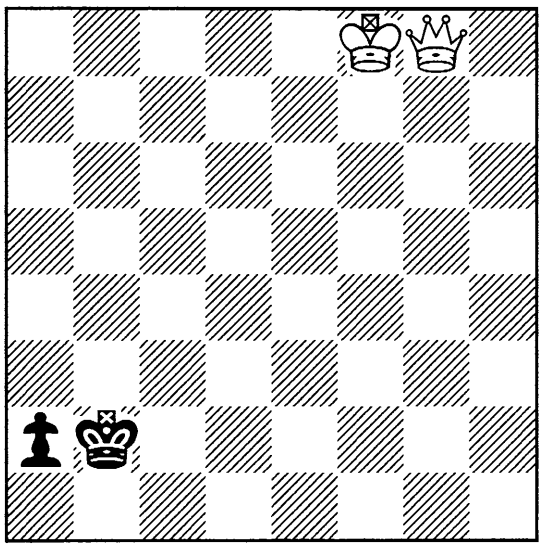


Diagram 4 (W)
An a-pawn also gives hopes of a draw

1 Qd4+ Ke2 2 Qc3 Kd1 3 Qd3+ Kc1 4 Ke7

So far so good, but read on...

4...Kb2 5 Qd2 Kb1 6 Qb4+ Ka2 7 Qc3 Kb1 8 Qb3+

and now if Black had to go to the c-file then White would be happy but...

8...Ka1!

By threatening to queen Black ensures a draw as...

9 Qxc2 ...is stalemate! Black was perhaps fortunate; he loses the pawn race and gets away with it!

The next example shows that with an a-pawn on the seventh rank the defender can also scrape a draw. Before playing through the moves can you visualise how Black saves the game?

Example 200: Queen versus a-pawn

(Diagram 4) 1 Qg2+ Kb1 2 Qe4+ Kb2 3 Qb4+ Kc2 4 Qa3 Kb1 5 Qb3+

and now of course...

5...Ka1! and White hasn't time to bring up his king as Black would then be stalemated.

Example 201: The attacking king is close by

(Diagram 5) One of the ways the attacker can win against the a- and c-pawns is by having his king reasonably close at the start. Here White can mate just in time.

1 Qd4+ Ke2 2 Qc3 Kd1 3 Qd3+ Kc1 4 Kc4 Kb2 5 Qd2

5 Qb3+? only helps Black play the desired 5...Ka1.

5...Kb1 6 Kb3 c1Q

6...c1N+ only survives two extra moves: 7 Ka3 Nd3 8 Qc3 Nc1 9 Qb2 mate.

7 Qa2 mate

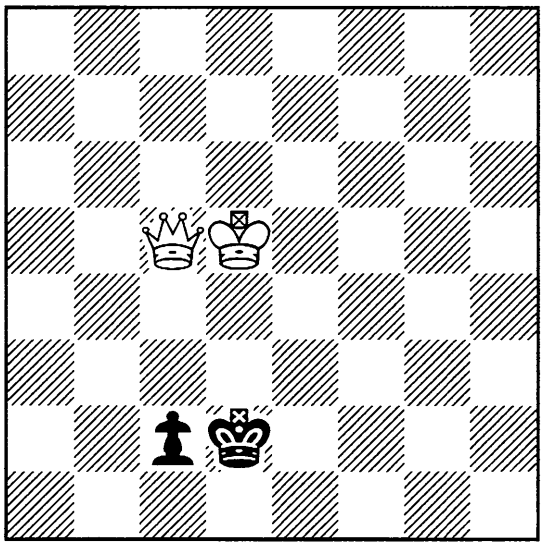


Diagram 5 (W)
White wins

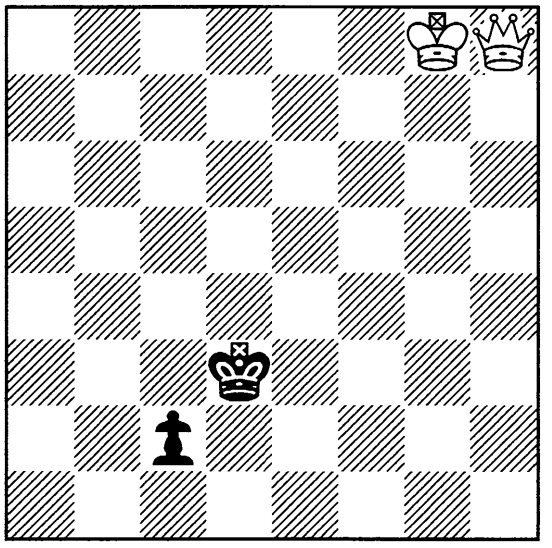


Diagram 6 (W)
White wins

Another way that the attacker can sometimes win is to seize control of the queening square.

Example 202: Controlling the queening square

(Diagram 6) 1 Qh6! Kc3 2 Qc1 Kb3 3 Kf7

and as there is no stalemate, White brings his king close without further ado.

Sometimes even the ending of queen versus queen is winning if the attacker's king is very close to his adversary and the defending queen is badly placed.

Example 203: Queen versus Queen

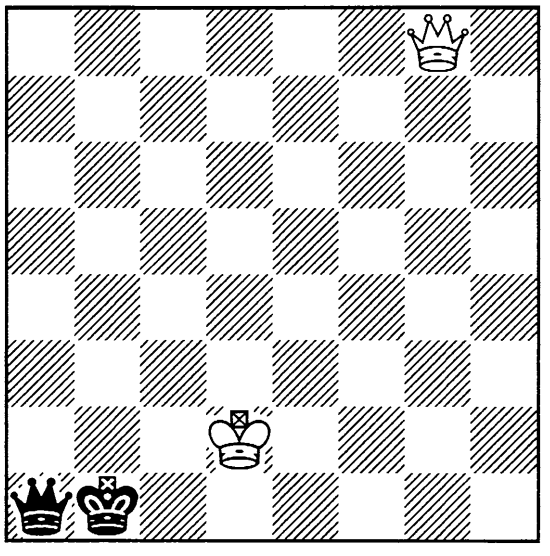


Diagram 7 (W)
White wins

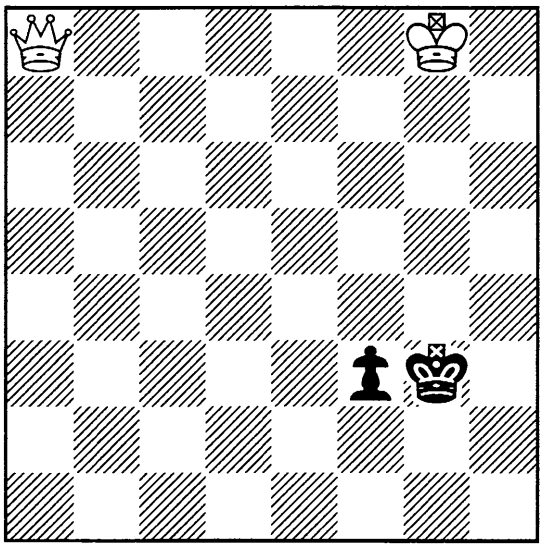


Diagram 8 (B)
There is no defence

(Diagram 7) Here White has queened first, but Black has also had time to promote. How can White use the advantage of having the move? Try and see how White wins before playing through the following moves.

1 Qg6+

Not of course 1 Qb3+? due to 1...Qb2+.

1...Ka2 2 Qe6+ Ka3

Similarly 2...Kb1 3 Qe4+ Ka2 4 Qa4+ Kb2 5 Qb4+ Ka2 6 Kc2!.

3 Qa6+ Kb2 4 Qb5+ Ka3 5 Qa5+ Kb2 6 Qb4+ Ka2 7 Kc2!

Black is left without any satisfactory moves. All queen checks lose the queen.

7...Qe5 8 **Qa4 mate**

Example 204: Pawn on the sixth rank

(Diagram 8) Black can play his pawn to the seventh at once, but this loses.

1...f2

Struggling on with the pawn on the sixth rank isn't that great either, for instance 1...Kf4 2 Kf7 Ke3 3 Kf6 Ke2 4 Qe4+ Kf2 5 Kf5 Kg3 6 Qg4+ Kf2 7 Ke4.

2 Qh1 Kf4 3 Kf7 Ke3 4 Qf1

White simply brings up his king.

4...Kf3 5 Kf6 Ke3 6 Ke5 Kf3 7 Kd4 Kg3 8 Ke3 etc.

In general, with the pawn only on the sixth rank Black loses, but a word of warning about exceptions! See the next example.

Example 205: Queen versus pawns

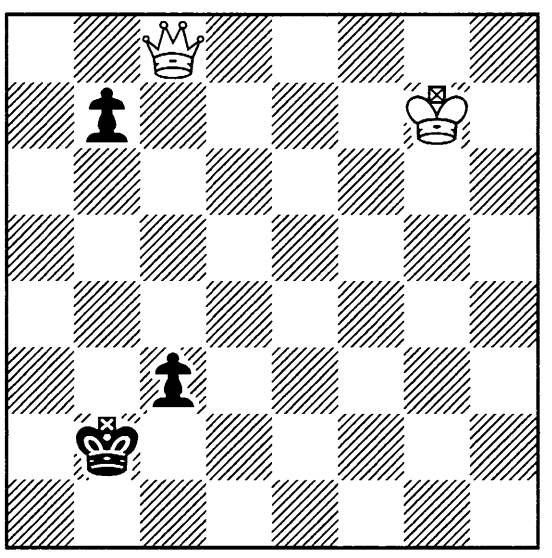


Diagram 9 (W)
White must take care

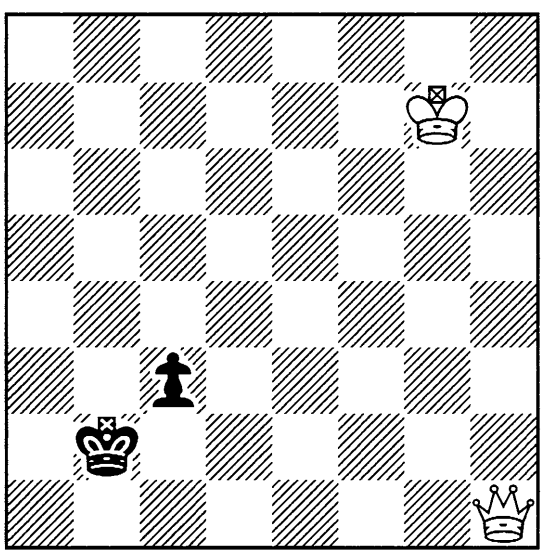


Diagram 10 (W)
A surprising draw

(Diagram 9) This position combines a couple of principles:

1) The stalemate defence is not available if Black has a superfluous pawn elsewhere.

2) There are a few positions that are drawn with a bishop's pawn on the sixth rank. Pay particular attention if White cannot pin on the diagonal.

1 Qc4!

After the obvious 1 Qxb7+? Kc1 2 Qh1+ (White's king is too far away to help

create a mating net with 2 Kf6, e.g. 2...c2 3 Ke5 Kd2 4 Qb4+ Kd1 5 Qd4+ Kc1 6 Ke4 Kb1 7 Qb4+ Ka1 8 Qc3+ Kb1 9 Qb3+ Ka1!) 2...Kb2 **(Diagram 10)**

White surprisingly cannot make progress as Black threatens ...c2 and the check on b7 just repeats the position. In Diagram 10, if White's king were actually on g8 (rather than g7) then the pin with 3 Qh8! would win easily as in Example 204.

1...c2 2 Qb4+ Ka2 3 Qc3 Kb1 4 Qb3+ Kc1 5 Kf6 Kd2

Or 5...b5 6 Ke5 b4 7 Kd4 Kd2 8 Qd3+ Kc1 9 Kc4 etc.

6 Qb2 Kd1 7 Qd4+ Ke2 8 Qc3 Kd1 9 Qd3+ Kc1 10 Ke5 b5 11 Kd4 Kb2 12 Qd2 Kb1 13 Qb4+ Ka1 14 Qc3+ Kb1 15 Qb3+ Kc1 16 Kd3 and it's over.

Queen and Pawn versus Queen

Now we move onto a brief discussion of positions where both players queen their pawns. The following case arose from Example 159.

Example 206

Mal.Meyer-Karpatchev, Bad Zwischenahn 2003

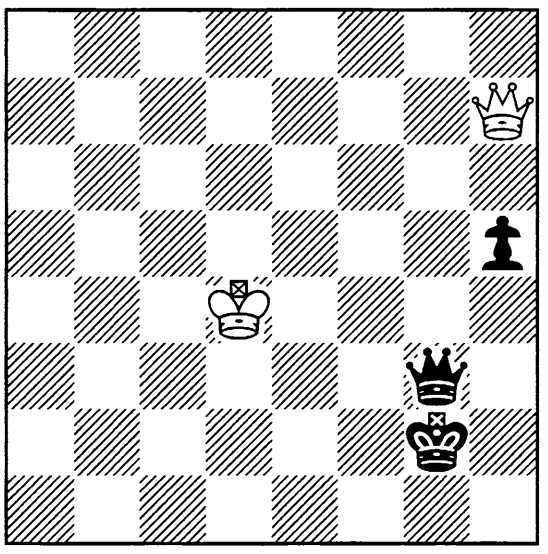


Diagram 11 (B)
White has good drawing chances

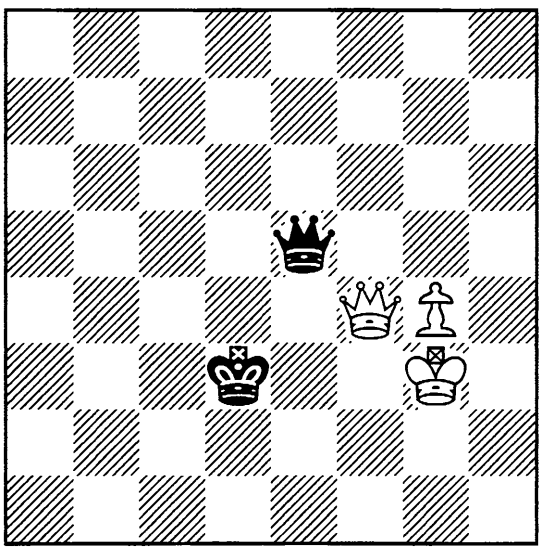


Diagram 12 (B)
A difficult defence

(Diagram 11) Black has an extra rook's pawn and White has two distinct strategies to try and draw:

1) Have the king very close so that exchanges into king and pawn versus king are drawn.

2) Move the king away from the scene of action and play for perpetual check.

Both of these defences are more favourable than in analogous positions with other pawns, as with a rook's pawn the black king has more difficulty in hiding from the barrage of checks. With other pawns the king can dance around the pawn, making a perpetual check more problematic.

1...h4 2 Qe4+ Kh2 3 Kc4!

Opting for the more realistic second defence, as Black's queen stops White's king coming any closer. White moves his king away from cross-checks which are a serious problem for the defender. For example, White soon falls into a cross-check after 3 Qe2+ Qg2 4 Qe5+ Kh1 5 Qe1+? Qg1+.

3...h3 4 Qe2+ Kg1 5 Qd1+ Kg2 6 Qe2+ Qf2 7 Qg4+ Kh2 8 Kb4

Again heading away from trouble.

8...Qe1+ 9 Ka4 Qe5 10 Qf3 Qd4+ 11 Ka5

In queen endings a centralised queen controls many squares and is an important factor in preparing to advance passed pawns, but here Black needs to bring the queen over to the h-pawn to help.

11...Qd2+ 12 Ka4 Qa2+ 13 Kb5 Qg2 14 Qf4+ Kg1 15 Qe3+ Kf1 16 Qc1+ Ke2 17 Qc2+ Kf3 18 Qf5+ Kg3 19 Qg5+ Kf2 20 Qd2+ Kf3 21 Qd5+ Ke3 22 Qc5+ Kd2 23 Qb4+ Kd1 24 Qb3+ Ke1 25 Qc3+ Kf1 26 Qc1+ Ke2 27 Qc2+ Ke3 28 Qc5+ Ke2 29 Qc2+ Kf3 30 Qf5+ Ke3 31 Qc5+ Kf4 32 Qd6+ Kg5 33 Qe5+ Kh4 34 Qh8+ Kg4 35 Qg7+ Kf3 ½-½

There is nowhere to hide.

In the next example White has the more favourable knight's pawn.

Example 207

Macieja-T.Gelashvili, Halkidiki 2003

(Diagram 12) The general rule for the defence is

1) Getting the king in front of the pawn or
2) Getting the king as far away as possible, e.g. with a white g-pawn then somewhere near a1.

In Diagram 12 Black's king is not well placed. If he wants to draw then he should head for the bottom left-hand corner. In the following play he failed to do so and he was unable to keep checking as a result.

1...Qe1+ 2 Kg2 Qe8 3 g5 Qe2+ 4 Kg3 Qe6 5 Qf6 Qe1+ 6 Qf2 Qe6 7 Qf4 Qe8

Here I suggest 7...Kc2! 8 Kh4 Kb1.

8 Kg4 Kc3 9 Qf6+ Kb4

9...Kc2 10 g6 Qe2+ 11 Qf3 Qc4+ 12 Kg5 Qd4.

10 g6 Qe2+ 11 Qf3 Qe6+ 12 Kg5 Qe7+ 13 Qf6 Qc5+ 14 Qf5 Qe7+

Not 14...Qe3+? 15 Qf4+.

15 Kh5 Qe8 16 Kh6 Qh8+ 17 Kg5 Qd8+ 18 Qf6 Qd5+ 19 Kh6 Qh1+ 20 Kg7 Ka4 21 Qa6+ Kb3 22 Kf7 Qh5 23 Qe6+ Ka4

23...Ka3 is preferable.

24 Kg8 Qh6 25 Qe4+ Ka5

Yet again 25...Ka3 is a step in the right direction.

26 g7 Qh3 27 Kf7 Qd7+ 28 Kg6 Qd6+ 29 Kg5 Qg3+ 30 Qg4 Qe3+ 31 Kh5

Here Black's king finds itself on the poor a5-square which doesn't allow Black a sensible check on the fifth rank. If the king were on (say a2) then Black could check more effectively.

31...Qe8+ 32 Kh6 Qg8 33 Qd7 Ka6 34 Qc6+ Ka7 35 Kg6 Qb3 36 Qc7+ Ka6 37 Qc8+ Ka7 38 g8Q Qg3+ 39 Kf7 Qf4+ 40 Ke8 Qe5+ 41 Qce6 1-0

Not wanting to go into great detail, it's important to note that the plan chosen by Black wasn't the best. He had ample time to move his king into the vicinity of the a1-corner when the win is far more difficult to achieve and shouldn't really be possible with precise play.

Checking through these moves with a powerful endgame 'tablebase' reveals several further mistakes (you may like to try this yourself if you have the right software), but this isn't surprising as queen and pawn versus queen is tough to play especially when time is limited!

However if you know where to head with your king, it makes the defence less prone to errors. Compare what happened here with the following example.

Example 208

Fajbisovic's analysis of Murey-Ftacnik, New York 1986

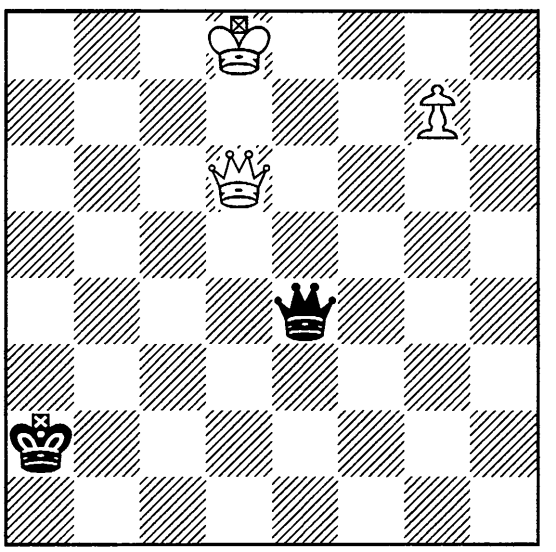


Diagram 13 (B)
Black defends well

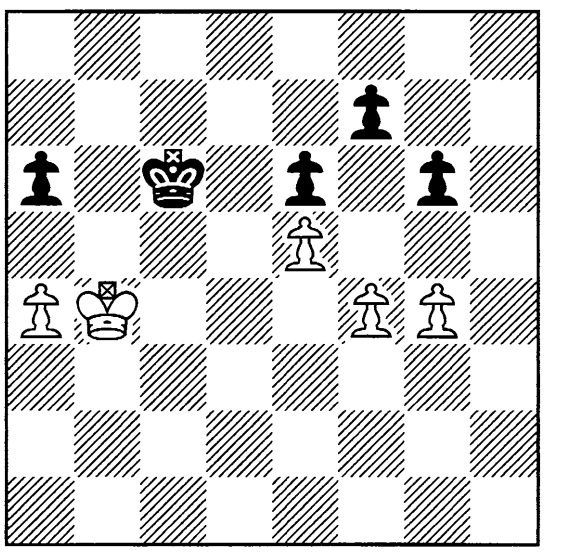


Diagram 14 (B)
A race is looming

(Diagram 13) This is Fajbisovic's analysis of a position that could have arisen in Murey-Ftacnik, New York 1986. Despite White's pawn getting to the seventh and his pieces not being badly placed, Black should hold. Note how Black's king is well placed out of the way of dangerous cross-checks.

1...Qa8+

Or even 1...Qh4+ 2 Qe7 Qd4+ 3 Ke8 Qa4+ 4 Kf8 Qa8+ 5 Qe8 Qa3+ 6 Kg8 Qb3+ 7 Qf7 and now we see another reason why Black's king is well placed near the corner: 7...Ka1! with a cunning stalemate defence.

2 Ke7 Qb7+ 3 Kf6

After 3 Qd7 Black continues with 3...Qb4+ 4 Kf7 Qf4+.

3...Qf3+ 4 Kg6 Qe4+ 5 Kf7 Qb7+ 6 Qe7 Qf3+ 7 Kg8 Qb3+ 8 Kf8 Qb8+ 9 Kf7 Qf4+ 10 Qf6 Qc7+ 11 Kg8 Qb8+ 12 Kh7 Qh2+ 13 Qh6 Qc2+ 14 Kh8 Qc3 and Black shouldn't lose.

Example 209

Deschner-Jo.Hagenauer, Bad Zwesten 2003

(Diagram 14) The play in the pawn ending is instructive in itself, but it

leads eventually to queen plus f-pawn versus queen. This is generally considered to be winning, but as the defender's king is close to getting in front of the pawn then he has chances for a draw. Counting suggests that Black is miles behind in the direct race: (...Kd5-e4xf4 leads to queening in ten, whereas White takes seven). However, Black's next move reduces this to eight.

1...g5!

In counting we need to take into account any forced moves that the opponent has to make. Here for instance White must counter the threat of ...gxf4.

2 fxg5

Now recounting the race: Black queens in eight, White still in seven. However as Black starts, this means that although White queens first, Black queens in reply. The resulting position leaves Black's king better placed in the ending.

2...Kd5 3 Ka5 Kxe5 4 Kxa6 Kf4 5 Kb5 e5 6 a5 e4 7 Kc4?

Missing a chance to draw with 7 a6! e3 8 a7 e2 9 a8Q e1Q 10 Qd5!.

7...e3 8 Kd3

White's idea is to queen with check, which in itself isn't a bad idea. However White's manoeuvre doesn't gain a tempo as it has taken two white king moves to set this up compared with only one black king move in reply.

8...Kf3 9 a6 e2 10 a7 e1Q 11 a8Q+ Kxg4

Now despite the limited material White has a problem to save his g-pawn.

12 Qg8 Qe6 13 Qd8 Qf5+ 14 Ke2 Qxg5 15 Qd4+

15 Qxg5+ loses to 15...Kxg5 16 Kf3 Kf5 17 Ke3 Kg4.

15...Qf4 16 Qg1+ Kh5 17 Qa7 Kg5 18 Qe7+ f6 19 Qg7+ Kh4

Restricting the king to the h-file, but Black threatens to exchange queens so the white queen has to move away.

20 Qf8 Kg3 21 Qf7?

21 Qa3+!, harassing the opposing king, is correct.

21...f5?

21...Qf2+ pushing the king away would avoid the resource in the next note.

22 Ke1?

The last chance was 22 Qb3+! to again check Black's king away.

22...Qe3+ 23 Kd1 f4 24 Qg7+ Kf2 25 Qb2+ Kg1 26 Qg7+ Kf1 27 Qh6 Qd3+ 28 Kc1 Qc3+ 29 Kd1 Qe1+ 30 Kc2 Qe2+ 31 Kc1 Qe1+ 32 Kc2 Qg3 33 Kd1 Kg2 34 Kc1 f3

The actual game finished about here, with Black winning but let's look at some sample variations to highlight the winning technique.

35 Qc6! (Diagram 15)

Black has to use his queen to restrict enemy checks. This generally means using squares that both control key central squares and defend the pawn.

35...Kg1 36 Qc5+ f2 37 Kb1 Qf4 38 Ka2 Qf6 39 Qe3 Kh2 40 Qe2 Qf5 41 Kb2 Kg1 42 Qe3 Kg2 43 Qe2 Qf6+ 44 Ka2 Qd4!

Here the queen dominates the centre, defends the pawn and covers g4.

45 Qc2 Kf3 46 Qc6+ Ke2 47 Qe6+ Kd2 48 Qh6+ Kc3

Black's king manoeuvres in the vicinity of the opposing monarch leading to cross-checking possibilities.

49 Qc1+

49 Qh3+ Qd3 50 Qh8+ Kd2 51 Qh6+ Kd1 52 Qh5+ goes down to 52...Qe2+.

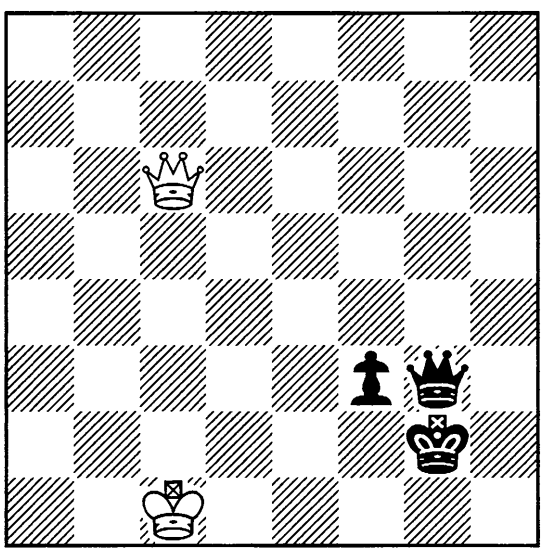


Diagram 15 (B)
Black must use his queen

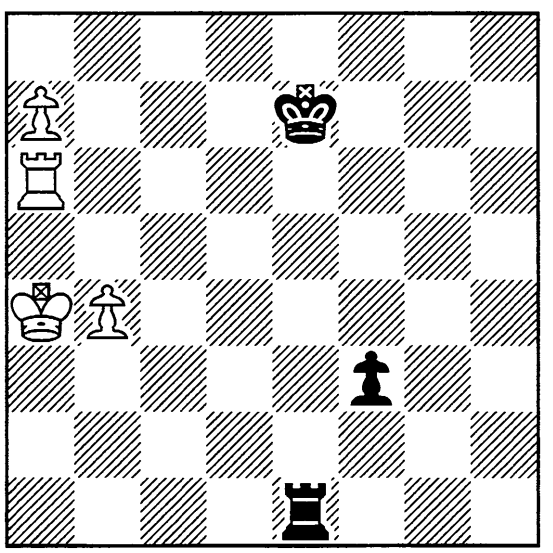


Diagram 16 (B)
Black can draw

49...Kb4 50 Qa3+ Kb5 51 Qb3+ Ka5 52 Qf7 Qd2+ 53 Kb3 Qd3+ 54 Kb2 f1Q 0-1

To summarise what we have learnt about queen and pawn against queen in the previous few examples:

1) Winning chances are greatest with the c-, d-, e- and f-pawns.

2) Drawing chances are greatest against the a- and h-pawns.

3) A defending king in front of the pawn is always an excellent defence.

4) Against flank pawns (a-, b-, g- and h-), placing the defending king as far away as possible constitutes a good defence.

5) Against a- and h-pawns a king near the pawn may draw even after the exchange of queens.

As a rule of thumb I would say that a majority of examples with rook's pawns are drawish, most with knight's pawns are unclear and most with the four central pawns are winning.

A final example to illustrate one more theme.

Example 210

Seirawan-J.Donaldson, Seattle 2003

(Diagram 16) 1...Ra1+ 2 Kb5 Rxa6 3 Kxa6 f2 4 a8Q f1Q+ 5 b5

5 Kb6 Qf2+ 6 Kc7 is met by 6...Qf4+, picking off the b-pawn.

5...Qa1+ 6 Kb7

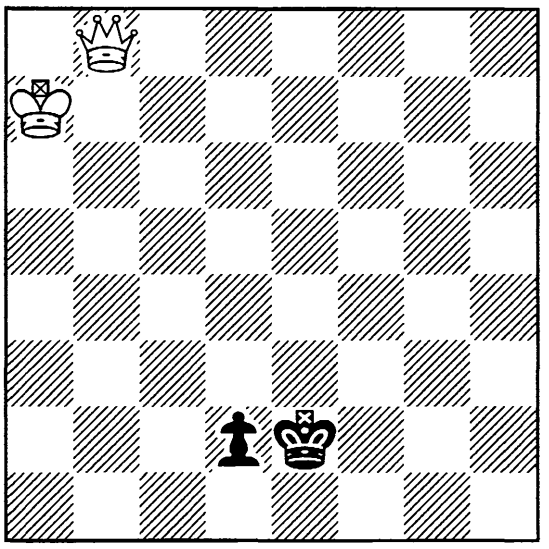
White's king has to defend his queen and Black checks from all directions...

6...Qh1+ 7 Ka7 Qa1+ 8 Kb7 Qh1+ 9 Kb8 Qh8+ 10 Ka7 Qa1+ 11 Kb7 ½-½

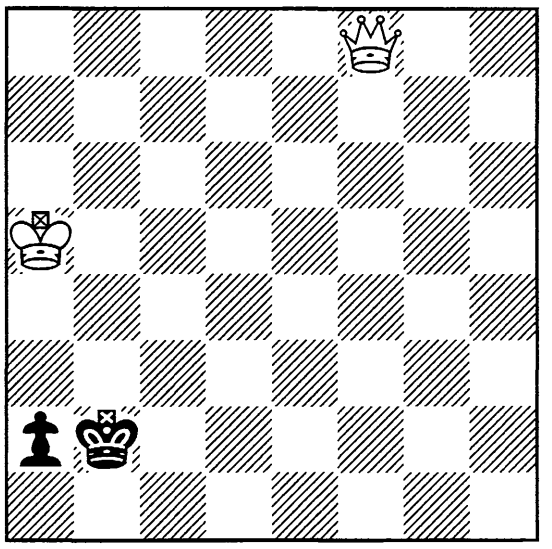
Averbakh calls this type of common perpetual the *star*.

TIP: When heading into a queen ending check to see if there is likely to be an immediate perpetual check.

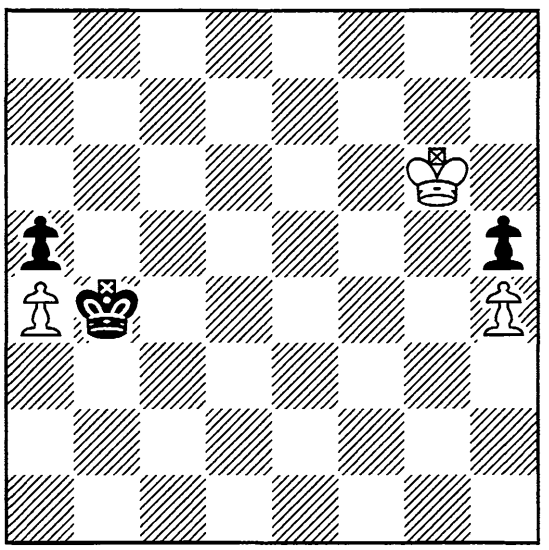
Try it Yourself



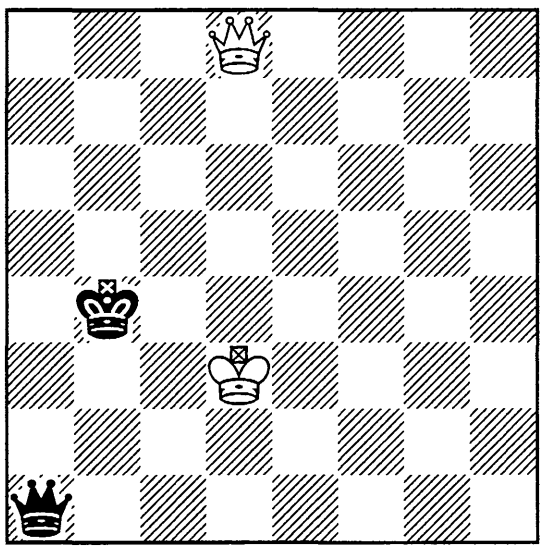
Exercise 1 (White to play)



Exercise 2 (White to play)



Exercise 3 (White to play)



Exercise 4 (White to play)

Exercise 1: Can you show how White wins?

Exercise 2: Is White's king close enough to enable him to win?

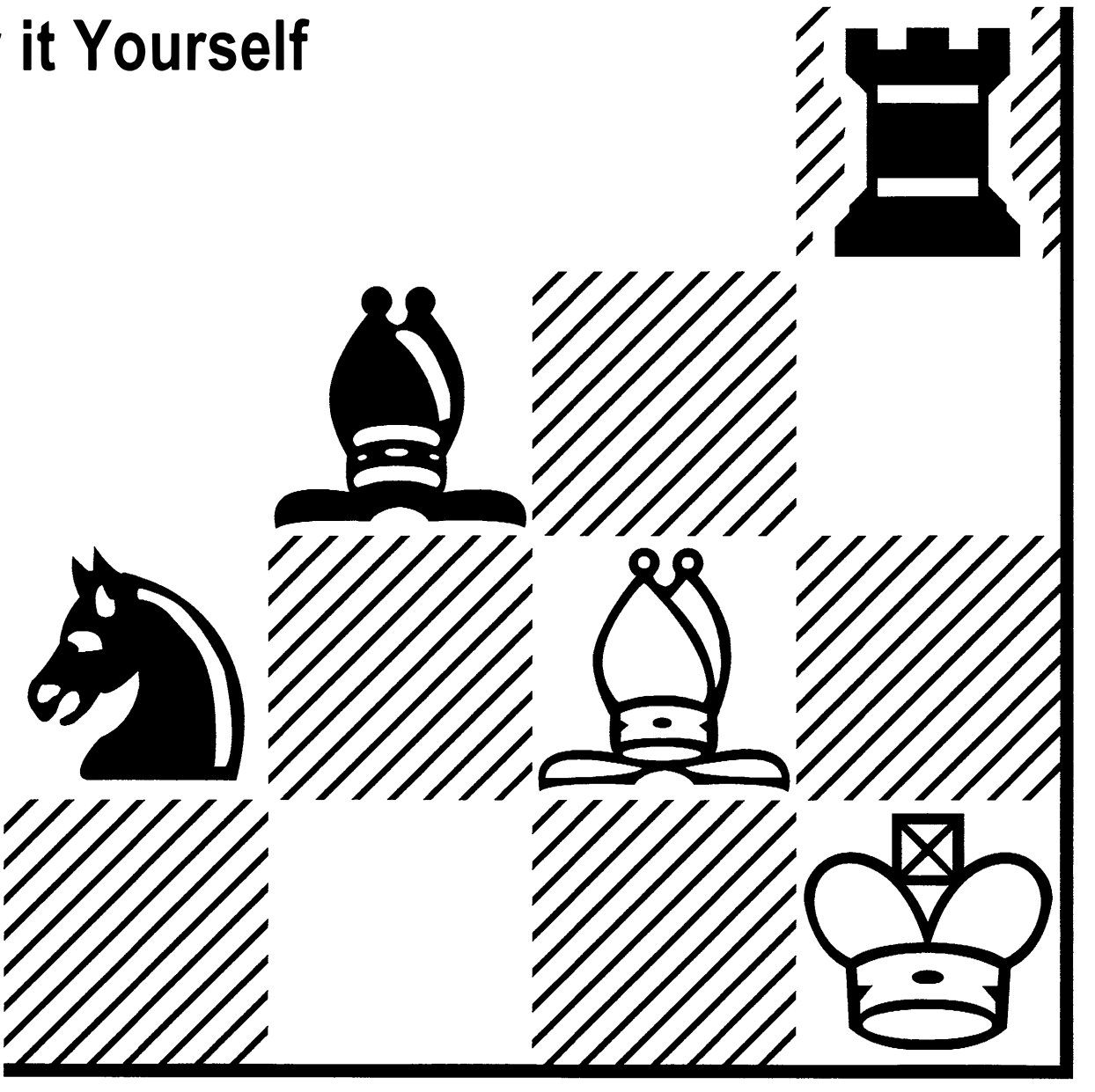
Exercise 3: What's the result?

Exercise 4: Whoever plays in this position wins. If Black has the move I think you'll see why! However the question is how does White to play win?

Chapter Eleven

Exchanging into Pawn Endings

- Simple Exchanges
- Sacrificing to Exchange
- Practical Mistakes
- Try it Yourself



Pawn endings don't just arise out of the blue! Indeed, they inevitably come about as a result of the liquidation of all other pieces apart from the kings and pawns. Deciding whether or not to seek a pawn ending is often a key moment in the game, and here I'll be looking at some examples from this transitional phase.

If given the possibility, a player will compare his chances in the pawn ending with those he could expect to obtain with the remaining pieces staying on the board. As we'll see in the examples that follow, it's not always that easy to make the right choice!

Simple Exchanges

In the following example there is no doubt: with a clear extra pawn it's very much in White's interest to exchange rooks.

Example 211: Exchanging (1)

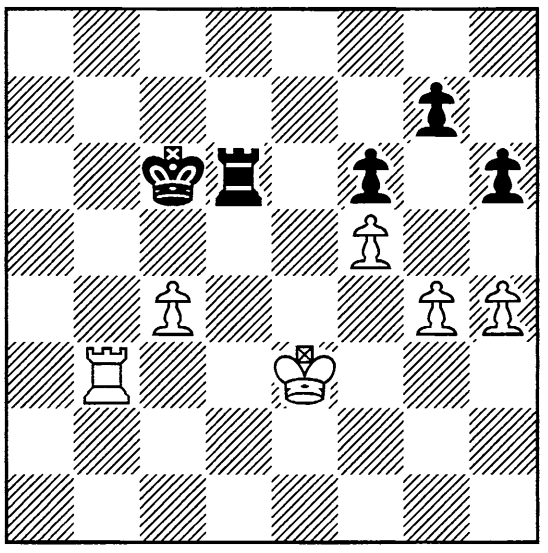


Diagram 1 (W)
White forces an exchange

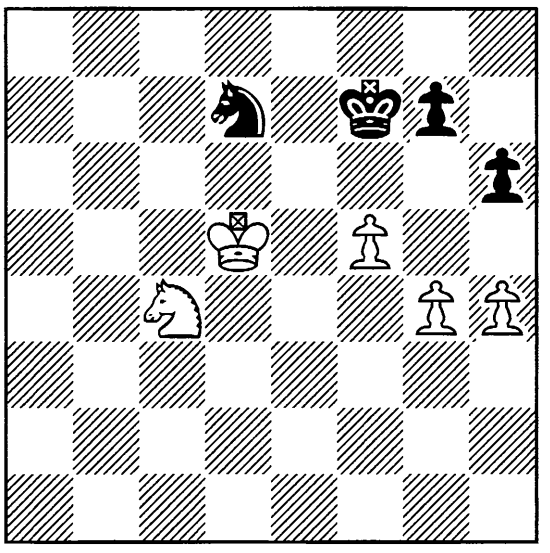


Diagram 2 (W)
Simplification is the easiest way

(Diagram 1) The simplest way for White to win is

1 Rd3 forcing the exchange of rooks and going into a pure pawn ending with an extra pawn.

Example 212: Exchanging (2)

(Diagram 2) Here again forcing the pawn ending is the way to ensure the win.

1 Ne5+ Nxe5 2 Kxe5 etc.

Sacrificing to Exchange

Sometimes the easiest way to win is to sacrifice material in order to simplify to a technically winning pawn ending.

Example 213: Sacrificing to Exchange

(Diagram 3) White can't win by moving his king around as he just gets

checked away and has no shelter. However he can win with

1 Rc8!

exchanging the material advantage into a positional one, i.e. a superior king.

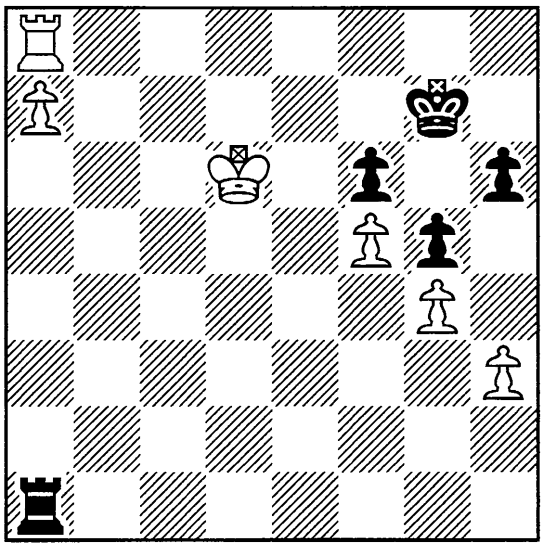


Diagram 3 (W)
White exchanges advantages

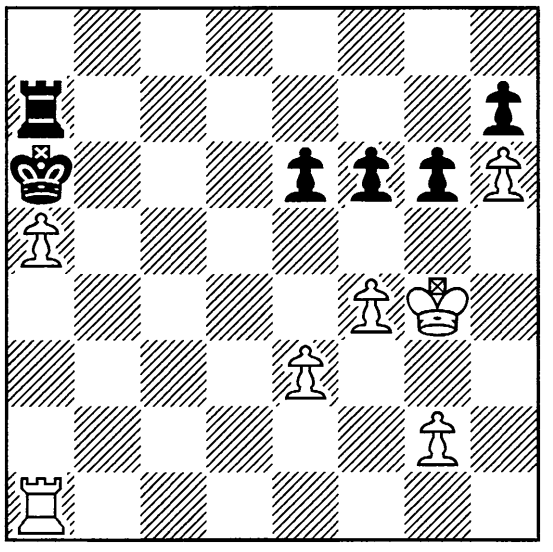


Diagram 4 (W)
White sacrifices the a-pawn

1...Rxa7

If instead 1...Rd1+ then 2 Kc7 Rc1+ 3 Kb7 Rb1+ 4 Ka8 Rb2 5 Rc7+ Kg8 6 Rb7 Re2 7 Kb8 Re8+ 8 Kc7, whereas 1...Ra6+ 2 Rc6 Rxa7 3 Rc7+ is as in the game.

2 Rc7+ Rxc7 3 Kxc7

As we've seen in analogous positions in earlier chapters, Black is outflanked.

3...Kf7

Or 3...h5 4 Kd7 hxg4 5 hxg4 Kf7 6 Kd6 Kf8 7 Ke6 Kg7 8 Ke7.

4 Kd7 Kf8 5 Ke6 Kg7 6 Ke7

and White wins

Example 214

G.Flear-Erdogdu, Plovdiv 2003

(Diagram 4) The simplest way to make progress is to provoke a pawn ending.

1 Rc1 Kxa5 2 Ra1+ Kb6 3 Rxa7 Kxa7

Now White's king needs an invasion route.

4 e4! Kb6 5 e5

Creating a decisive entry point for the king.

5...Kc6

Or 5...fxe5 6 fxe5 Kc6 7 Kg5 Kc5 8 Kf6 Kd5 9 g3.

6 exf6 Kd7 7 Kf3 Ke8 8 Ke4 1-0

Example 215

Karavade-Meenakshi, Mumbai 2003

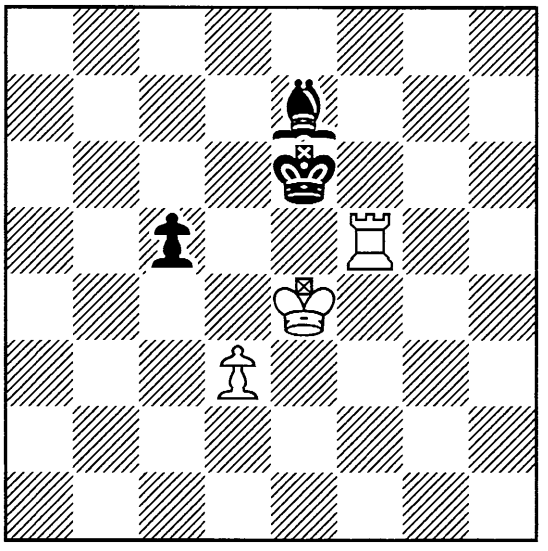


Diagram 5 (W)
Sacrificing to win

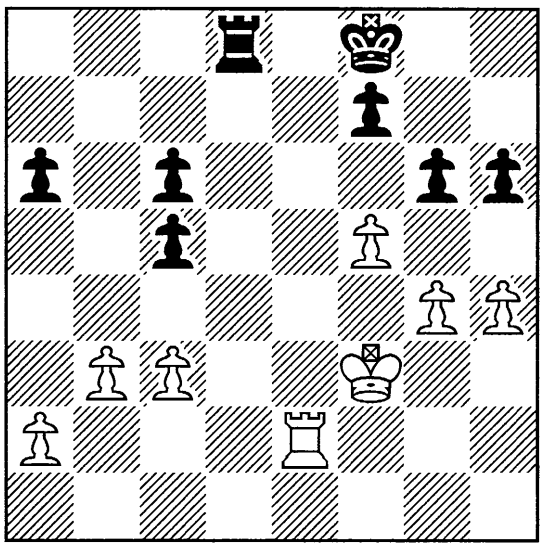
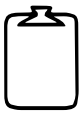


Diagram 6 (W)
Good winning chances

(Diagram 5) This ending looks to be technically difficult, but White found an effective way to stifle resistance.

1 Re5+ Kd6 2 Rxe7!

Giving back the exchange to pick off the c-pawn.



NOTE: Remember it's not what you exchange or sacrifice that matters; it's what's left on the board!

2...Kxe7 3 Kd5 c4

3...Kd7 4 Kxc5 Kc7 5 Kd5 Kd7 6 d4 also wins.

4 Kxc4!

But not 4 dxc4? Kd7, which only draws.

4...Kd8 5 Kd5 Kc8

If 5...Kd7 then 6 d4.

6 Kd6

In Chapter 2 we learnt that if the attacker's king gets to the sixth ahead of the pawn, then it's a win.

6...Kd8 7 d4 Ke8 8 Kc7 1-0

Practical Mistakes

Now there follow a few cases where this phase of the game wasn't handled so well.

Example 216

O.De la Riva-G.Flear, Montpellier 2000

(Diagram 6) Here White has good winning chances with 1 fxg6 fxg6 2 Re6 Kf7 3 Rxc6 Rd3+ 4 Kf4 Rxc3 5 Rc7+ but instead he cautiously protected his c-pawn with **1 c4?!**, whereupon Black took the opportunity to exchange rooks: **1...Rd3+ 2 Re3 Rxe3+! 3 Kxe3 gxf5 4 gxf5 Ke7** and a draw was agreed. Black can put up the shutters, e.g. 5 Kf4 f6 6 Kg4 Kf7 7 Kh5 Kg7 8 a3 a5 9 a4 Kh7 and White cannot make any progress.

Example 217

J.Ivanov-Razmyslov, Seville 2003

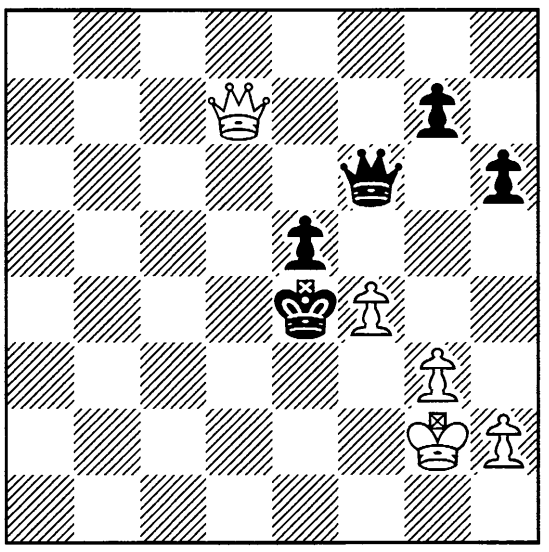


Diagram 7 (W)
Looks drawish

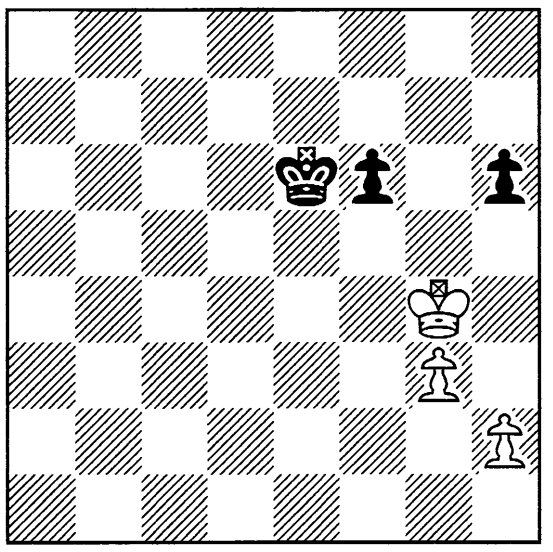


Diagram 8 (B)
Black can still hold

(Diagram 7) Black managed to lose this drawish position. He made things difficult for himself by allowing an inappropriate liquidation into the pawn ending.

1 Qb7+ Kd4?!

Better is 1...Ke3!.

2 Kf3 exf4?

Now 2...Qf5! was advisable, as 3 Qxg7 Qh5+ draws immediately. The text doesn't yet lose but Black now has to be very careful...

3 Qb2+ Kd5 4 Qxf6 gxf6 5 Kxf4

The black king is further away, but another problem is that his pawns are split.

5...Ke6 6 Kg4 (Diagram 8) 6...Kf7?

This proves to be too passive. The alternative 6...f5+! was the only way to hold, with the point that 7 Kh5 f4! 8 gxf4 Kf5 9 h4 Kxf4 10 Kxh6 Kf5 draws by a whisker.

7 h4 Kg6

White cannot be denied access to one of f5 or h5. If instead 7...Kg7 then 8 h5, or on 7...Ke6 then 8 Kh5 is strong.

8 h5+ Kf7

Or on 8...Kg7 9 Kf5 Kf7 the reserve tempo forces zugzwang with 10 g4.

9 Kf5 Ke7 10 Kg6 Ke6 11 Kxh6 Kf7 12 g4 f5 13 gxf5 Kf6 14 Kh7 Kf7 15 h6 1-0

Example 218

Abdelnabbi-Frhat, Cairo 2003

(Diagram 9) Here is a more flagrant example of things going wrong. Simplest for Black is 1...f5 with threats of ...f4 and ...Rxe3.

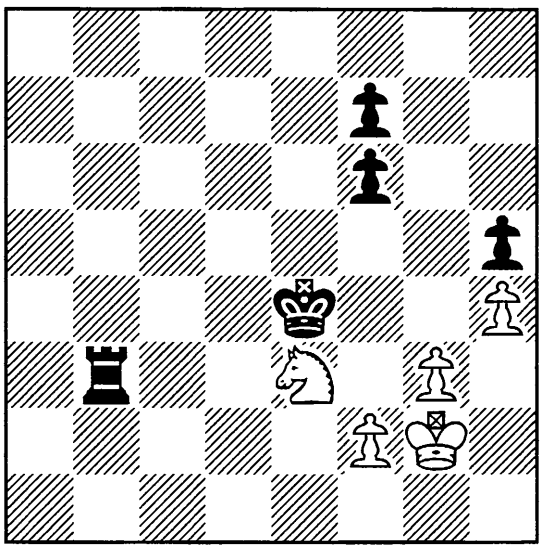


Diagram 9 (B)
A disaster is looming

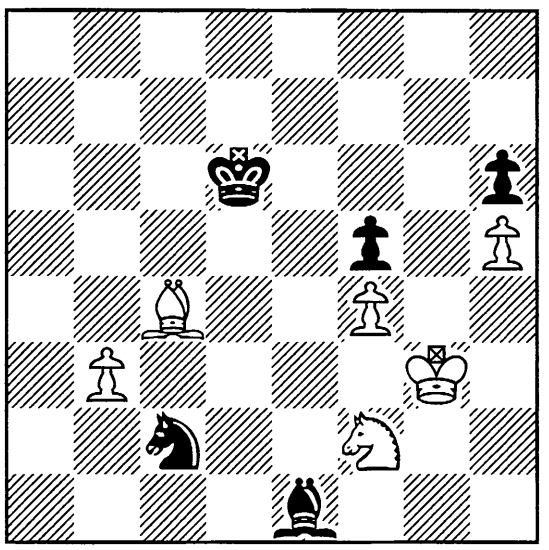


Diagram 10 (W)
How to lose a pawn up

1...Rxe3? 2 fxe3 Kxe3? 3 g4!

Black must have overlooked this breakthrough, as there is no point in allowing complications when you have a risk-free technical win!

3...f5

Hopeless is 3...Kf4 4 gxh5 Kf5 5 Kh1, as Black is in zugzwang.

4 gxh5 Ke2 5 h6

White can draw with 5 Kg3 Ke3 6 Kg2, but he quite rightly plays for more!

5...f4 6 h7 f3+ 7 Kg3 f2 8 h8Q f1Q 9 Qe5+ Kd2

and Black resigned before White could play 10 Qf4+.

Example 219

J.Sriram-Sundararajan, Mumbai 2003

(Diagram 10) White had been frustrated by stubborn defence and found the extra pawn impossible to exploit. He now let his guard down and overlooked the danger.

1 Kg2??

1 Kf3 Bd2 should almost certainly be drawn. The text even loses, as White failed to realise that the pawn ending could actually be lost!

1...Ne3+ 2 Kf3 Bxf2 3 Kxf2 Nxc4 4 bxc4 Kc5

Black regains the pawn and outflanks White to pick off the f-pawn.

5 Kf3 Kxc4 6 Ke3 Kc3 7 Ke2 Kd4 8 Kf3 Kd3 9 Kf2 Ke4 10 Kg3 Ke3 0-1

A tragedy for White, but possible liquidations into pawn endings have to be handled with care!

Example 220

Gershon-Macieja, Bermuda 2003

(Diagram 11) Here Black, a pawn up, has been trying to win, but failed to realise that it was time to settle for a draw.

1...Kd5??

Black can of course draw easily with 1...Nd6 2 Bxe6 Ne4 2 Kf4 Nxg5.

2 Bxc4+ Kxc4 3 Ke4 1-0

Black can't do anything about losing both pawns.

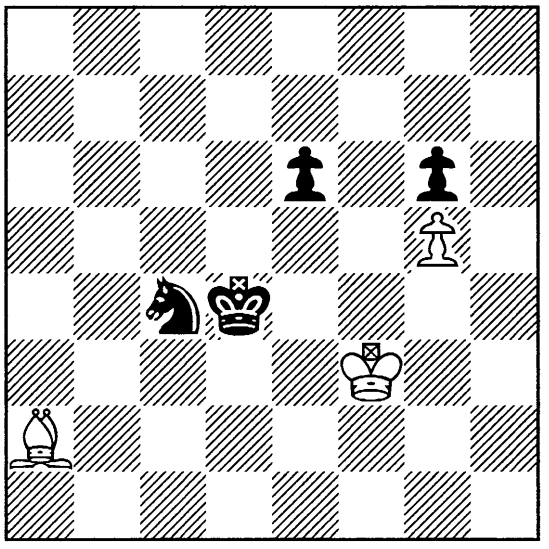


Diagram 11 (B)
Another tragedy

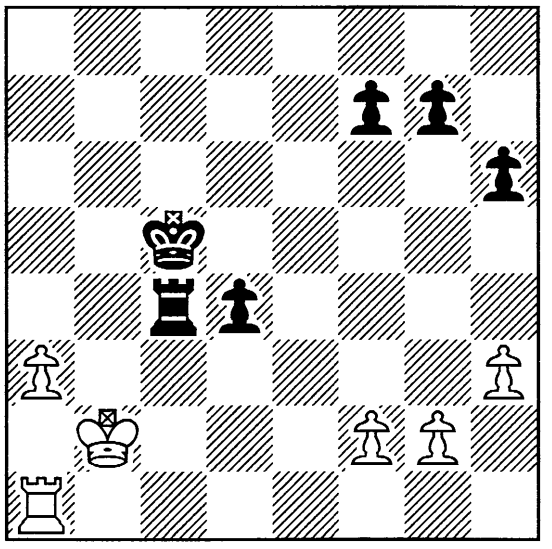


Diagram 12 (B)
Black gets carried away

The player with the advantage in a 'with pieces' endgame isn't necessarily the same as in the pure pawn ending.

Example 221

El Gindy-Adly, Cairo 2003

(Diagram 12) Black has the most advanced passed pawn and became carried away with hopes of an advantage in the rook ending.

1...d3?

After 1...Ra4 2 Rc1+ Kd6 3 Kb3 Ra7 a draw would be the logical result.

2 Rc1!

The exchange of rooks increases the strength of White's passed pawn. In fact the outside passed pawn then constitutes a decisive advantage.

2...Kd4 3 Rxc4+ Kxc4 4 h4 h5 5 f3 g6 6 Kc1 Kc3 7 g4 d2+ 8 Kd1 f6 9 a4 Kb4 10 Kxd2 Kxa4 11 f4! 1-0

White can of course win routinely with 11 gxh5 gxh5 12 Ke3 Kb4 13 Kf4 Kc4 14 Kf5 Kd4 15 Kxf6 Ke3 16 Kg5 Kxf3 17 Kxh5 Kf4 18 Kg6, but the text adds a nice touch. Black resigned as both 11...f5 12 gxh5 gxh5 13 Kd3 Kb5 14 Kd4 Kc6 15 Ke5 and 11...hxg4 12 f5 gxf5 13 h5 g3 14 Ke3 f4+ 15 Kf3 are hopeless.

So when 'pushing' to win, don't forget that it sometimes favours the weaker side to exchange pieces.

Finding fault with other players is one thing, but it's only fair that I include some of my own mistakes! There follows an example where I cost my team dearly.

Example 222

Conquest-G.Flear, Sanxenxo 2003

(Diagram 13) A factor that is relevant here is that reserve pawn tempi may

not be available or relevant in the 'with pieces' endgame, but come to the fore after liquidation.

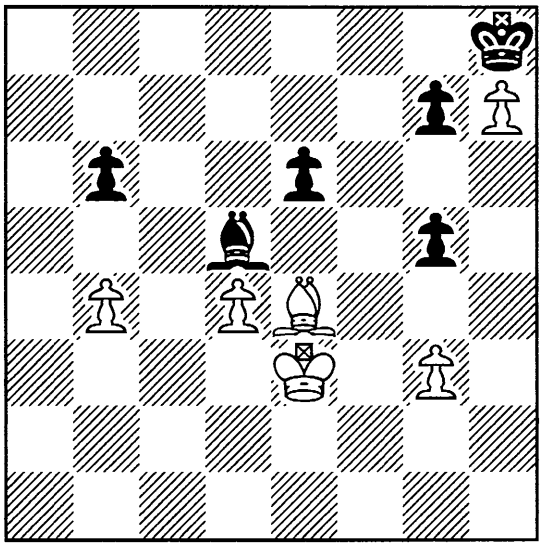


Diagram 13 (B)
Black should draw

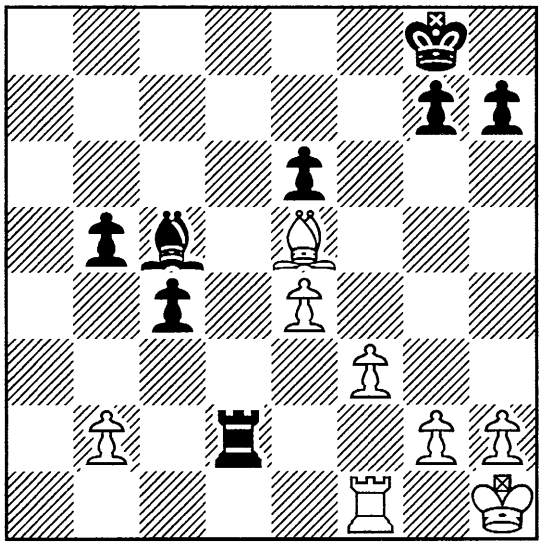


Diagram 14 (B)
Black should win

1...Bb3 2 Kf3 Bd1+ 3 Ke3 Bb3 4 Ke2

Here Black erroneously exchanged into a pawn ending.

4...Bd5?

Correct is 4...Ba4! in order to meet Kf3 with ...Bd1+ and it seems that White can't make progress.

5 Kf3 g6 6 Bxd5 exd5 7 Kg4 Kxh7 8 Kxg5 Kg7

I had calculated that White couldn't break through on the kingside, forgetting that White has a reserve tempo to obtain zugzwang.

9 b5! Kf7 10 Kh6 Kf6 11 g4 1-0

The g-pawn is lost. Do better than I did! Don't forget about reserve tempi.

Example 223

A.Chaumont-G.Flear, Gien 2004

(Diagram 14) Here Black should have sought transposition into a pawn ending. Instead I was tempted by the creation of a advanced passed pawn.

1...b4?

The way to a sure-fire win was 1...Bd4! 2 Bxd4 Rxd4 3 Kg1 (otherwise following 3 h4 Rd2 4 Rb1 Kf7 5 Kh2 Kf6 6 Kg3 Ke5 Black wins by invading with his king on the queenside) 3...Rd2 4 Rf2 Rd1+ 5 Rf1 Rxf1+ 6 Kxf1 e5 7 Ke2 b4!.

(Diagram 15)

Black's pawns create a bind, enabling his king to come up and ultimately invade: 8 Ke3 g5 9 g3 Kf7 10 Ke2 (the queenside majority stops White undertaking anything positive, as if 10 f4 gxf4+ 11 gxf4 exf4+ 12 Kxf4 then 12...c3 13 bxc3 b3 and queens) 10...Ke6 11 Ke3 Kd6 12 Ke2 Kc5 13 Ke3, and now one way to win is 13...b3 14 Kd2 Kd4 15 g4 h6 16 h3 c3+ 17 bxc3+ Kc4.

2 h3 c3 3 bxc3 b3

It was a pleasant feeling to play this pawn sacrifice. However, although the passed pawn is imposing, White can defend!

4 Rb1 b2 5 Kh2 Rc2 6 c4 Ba3

At this point, however, I got lucky!

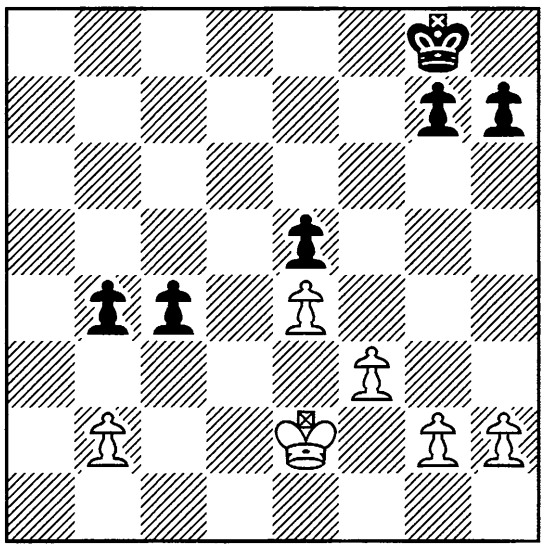


Diagram 15 (W)
A win for Black

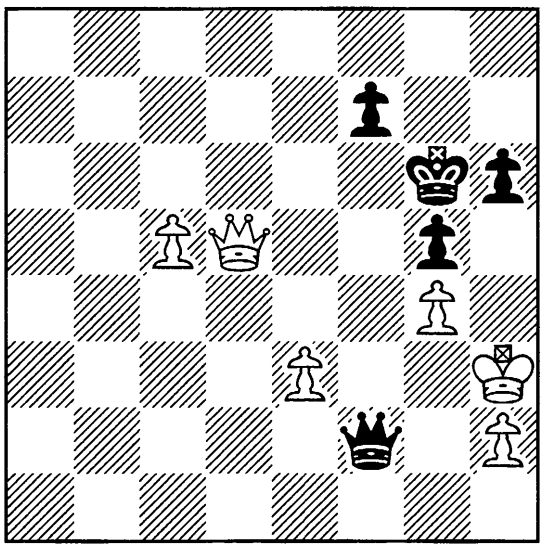


Diagram 16 (W)
The c-pawn should be decisive

7 Rd1?

7 c5! Rxc5 8 Bxb2 Rb5 9 Bxa3 Rxb1 10 Bd6 should draw, as Black will have great difficulty in finding a chink in the white armour.

7...Rc1 8 Bxb2 Bxb2 9 Rxc1 Bxc1

and Black won comfortably enough...

10 Kg3 Kf7 11 Kf2 Kf6 12 Ke2 Ke5 13 Kd3 Ba3 14 g3 g5 15 h4 h6 16 hxg5 hxg5 17 f4+ gxf4 18 gxf4+ Kxf4 19 Kd4 Bb2+ 20 Kd3 Be5 21 c5 Kf3 0-1

In the final example from this section, White correctly aimed for the pawn ending. However, he then lost the thread which cost him the whole point.

Example 224

Argandona Rivero-Almagro Llanas, Villareal 2001

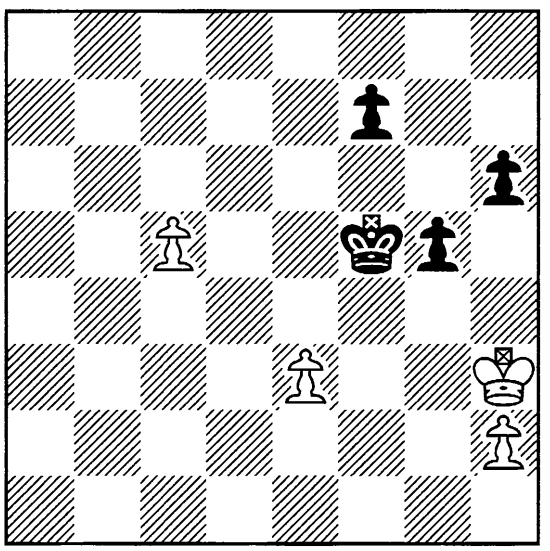


Diagram 17 (W)
White blows it

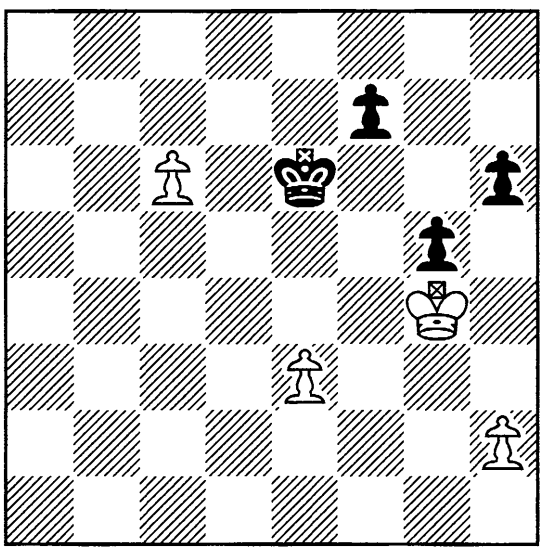


Diagram 18 (W)
Black's pawns become a threat

(Diagram 16) The advantage of the *outside passed pawn* can be more easily exploited in a pawn ending.

1 Qf5+!

Following 1 Qe4+ Kg7 2 c6 Qf1+ 3 Qg2 Qc4 White's open king will give him great technical difficulties.

1...Qxf5 2 gxf5+ Kxf5 (Diagram 17) 3 c6??

Absolutely necessary was 3 e4+! Ke6 4 Kg4 and White's king can penetrate via h5, e.g. 4...Kd7 5 Kh5 Kc6 6 Kxh6 Kxc5 7 Kxg5 with a comfortable win.

Instead White rather slackly sends the opposing king to the other wing without preparing his entry into the black camp!

3...Ke6 4 Kg4?! (Diagram 18)

The belated 4 e4 is now met by 4...h5!, when White's king is faced with a barrier: 5 e5 Ke7 6 Kg3 and going round the long way now proves to be too slow after 6...Kd8 7 Kf3 Kc7 8 Ke4 Kxc6 9 Kf5 Kd5 10 Kxg5 Kxe5 11 Kxh5 f5 12 h4 Kf6!.

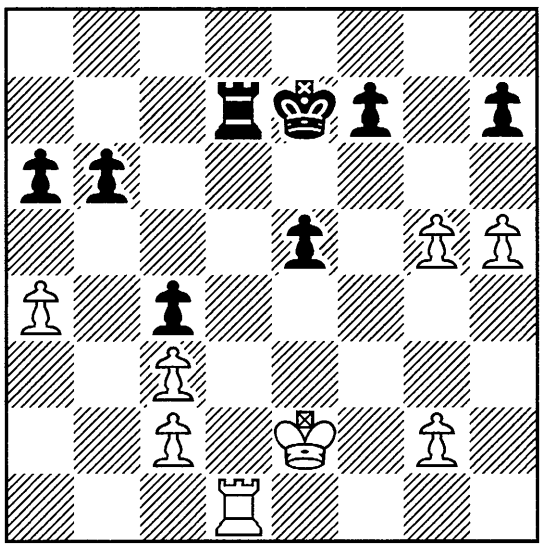
4...f5+!

Now Black's pawns become a serious threat. Instead after 4...Kd6 Black can't count on more than a draw: 5 Kf5 Kxc6 6 Kf6 Kd5 7 Kxf7 Ke4 8 Kg6 Kxe3 9 Kxh6 g4 10 Kg5 Kf3.

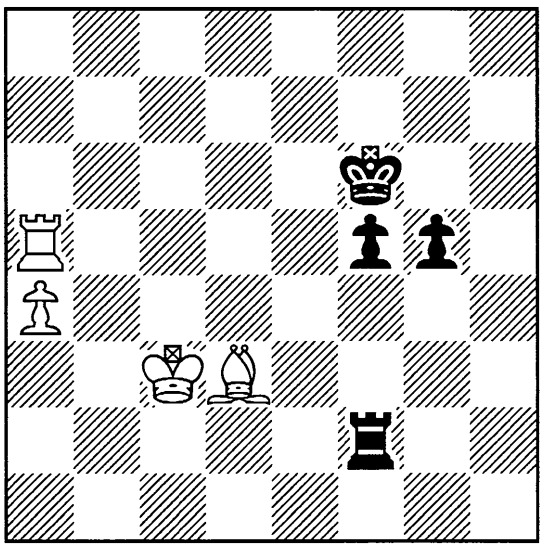
5 Kh5 Kd6 6 Kxh6 f4 7 exf4 gxf4 8 h4 f3 9 h5 f2 10 Kg7 f1Q 11 h6 Qa1+ 12 Kg8 Qa8+ 13 Kg7 Ke7 14 c7 Qf8+ 15 Kh7 Kd7 16 Kg6 0-1

WARNING: Just because there are fewer pieces on the board, doesn't mean that you can reduce your vigilance!

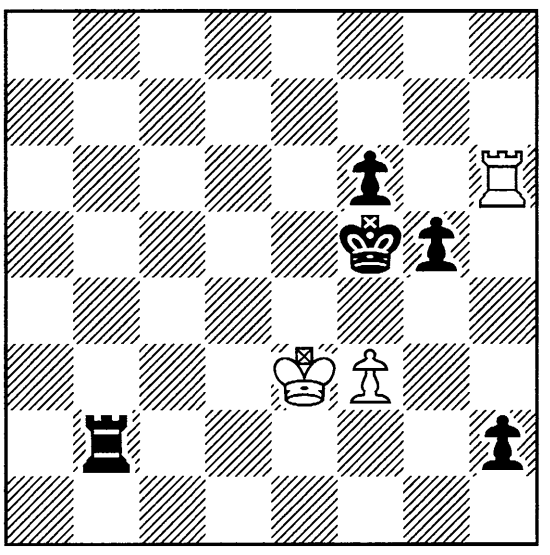
Try it Yourself



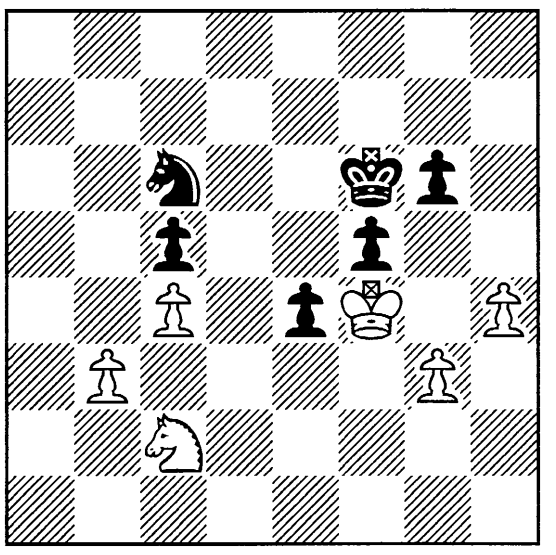
Exercise 1 (White to play)



Exercise 2 (White to play)



Exercise 3 (Black to play)



Exercise 4 (Black to play)

Exercise 1: Should White exchange rooks or not?

Exercise 2: Should White simplify to a pawn ending by capturing on f5?

Exercise 3: How did Black exchange into a winning pawn ending?

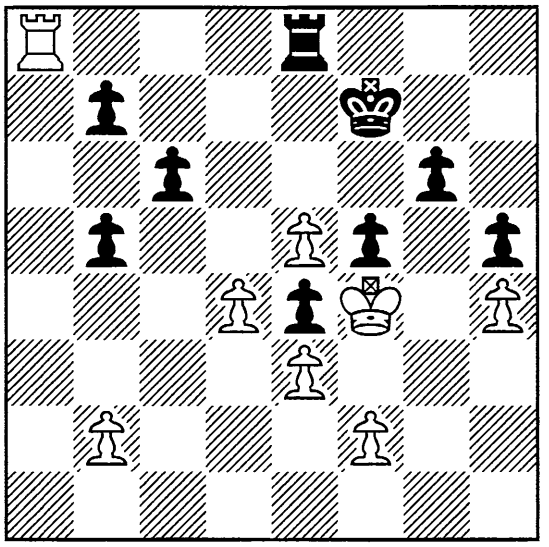
Exercise 4: How should Black continue: 1...Na5, 1...Nd4, or something else?

Additional Exercises

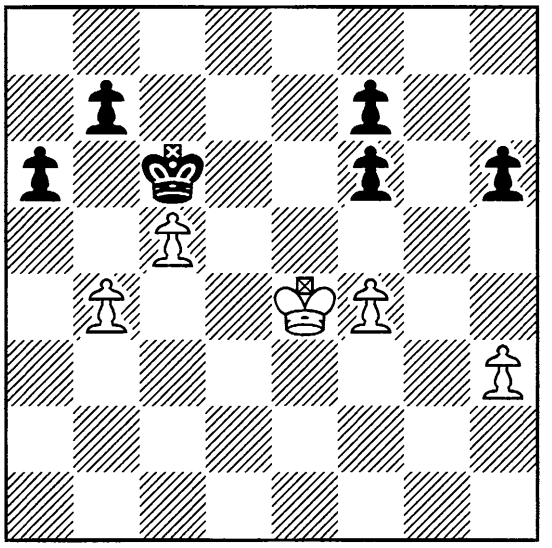
This chapter is for those who are keen to hone their newly learnt skills. The eight exercises here are slightly more challenging than those to be found at the end of the previous chapters for two reasons:

1) The themes are not always immediately apparent
2) You'll perhaps have to delve a little deeper to find the solution

If you find them a little tricky, don't despair! It's all good preparation for your future pawn endgame experiences!

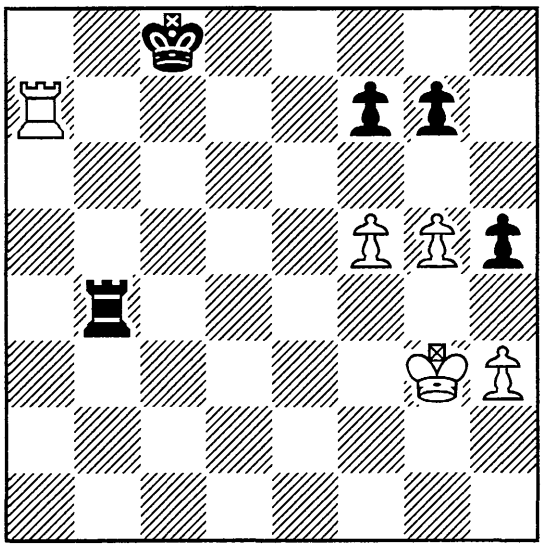


Exercise 1 (White to play)

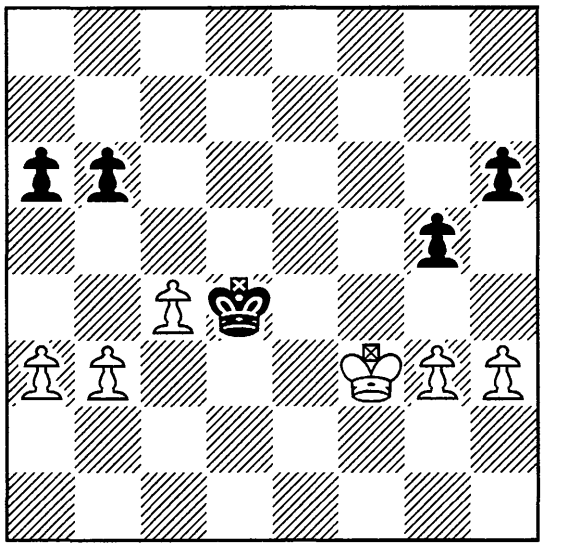


Exercise 2 (White to play)

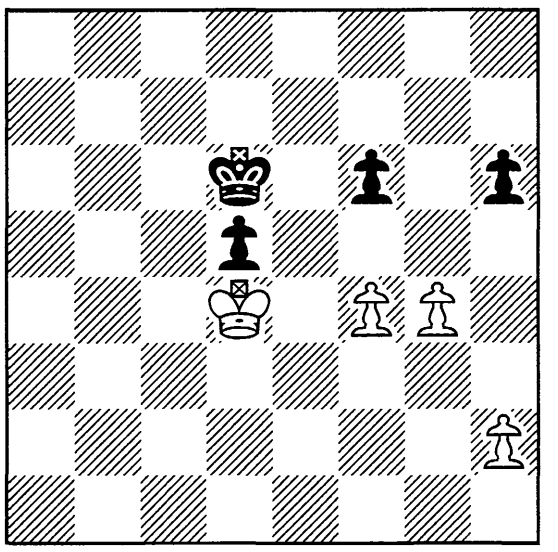
Exercise 1: Calculate the position after 1 Rxe8. Does it win?
Exercise 2: How should White continue and what is the logical result?



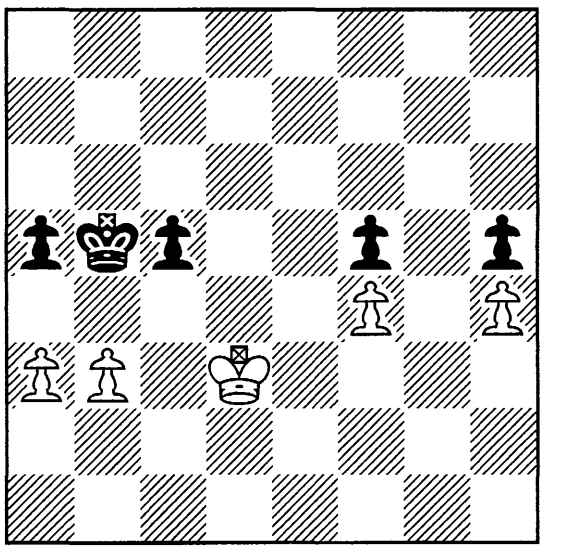
Exercise 3 (Black to play)



Exercise 4 (White to play)



Exercise 5 (Black to play)



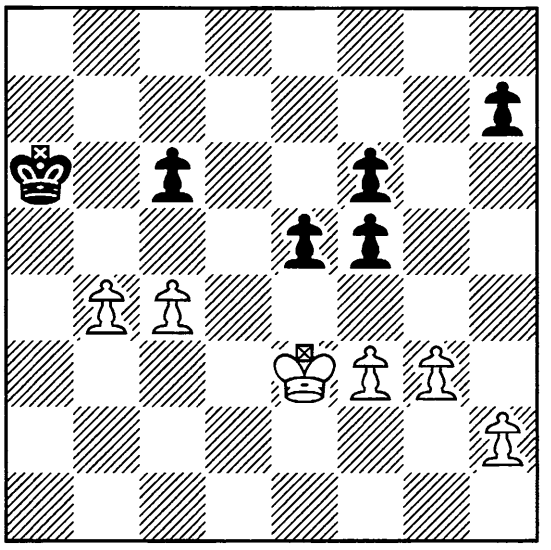
Exercise 6 (Black to play)

Exercise 3: Can Black hold with 1...Rb7?

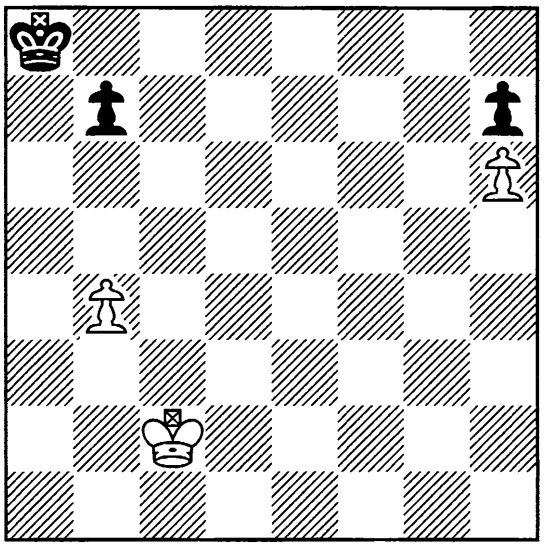
Exercise 4: The remaining moves of this game were as follows: **1 a4 Kc5 2 Ke4 a5 3 Kd3** ½-½. Did this represent correct play or can you find any mistakes in that sequence?

Exercise 5: Can Black draw?

Exercise 6: Black lost on time in this rapid game. How would you assess the position? Analyse and reach a conclusion.



Exercise 7 (White to play)



Exercise 8 (White to play)

Exercise 7: How should White continue? Can you prove a win?

Exercise 8: How does White win?

Solutions to Exercises

Chapter Two

Exercise 1

1 Kh6! is simplest, e.g. **1...Kh8** (if 1...Kf7 then 2 Kh7 followed by advancing the pawn) **2 g6 Kg8 3 g7 Kf7 4 Kh7** and wins.

1 Kf6 is not so good but as yet no damage is done: 1...Kh7 2 Kf7 (2 g6+? is a mistake due to 2...Kh8! when 3 g7+ Kg8 4 Kg6 and 3 Kf7 both finish in stalemate) 2...Kh8 3 Kg6! (trying to get back on track and not falling for 3 g6?) 3...Kg8 4 Kh6 and now White plays as in the main variation of the solution.

Exercise 2

The underpass manoeuvre wins.

1 Kd2! Kf7 2 Kc3! Ke6 3 Kb4! (3 Kd4? Kd6 is only drawn) **3...Kd6 4 Kb5 Kc7 5 Kc5!** (taking the opposition when it counts!) **5...Kd7 6 Kb6 Kc8 7 Kc6** and wins.

Exercise 3

You need to use your knowledge of king and pawn versus king to calculate what happens when the pawn reaches the sixth.

1 g3! (1 g4? doesn't win: 1...Kh8 2 g5 Kg8 3 g6 hxg6 4 hxg6 Kh8 5 g7+ Kg8 6 Kg6, or 5 Kh5 Kg7 6 Kg5 Kg8!) **1...Kh8 2 g4 Kg8 3 g5 Kh8 4 g6 hxg6 5 hxg6 Kg8 6 g7** and wins.

Exercise 4

1 Kg2! (1 g4? only draws: 1...Kg6 2 Kg3 Kg5 3 Kf3 Kf6 4 Ke4 Kg5 5 Kd5 Kxg4 6 Kc5 Kf5 7 Kb5 Ke6 8 Kxa5 Kd7 9 Kb6 Kc8) **1...Kg4 2 Kf2 Kf5 3 Kf3 Kg5 4 Ke3 Kg4 5 Kd4 Kxg3 6 Kc5 Kf4 7 Kb5 Ke5 8 Kxa5 Kd6 9 Kb6 Kd7 10 Kb7** and wins!

If you didn't get this right then go back and revise Bahr's rule in Example 37!

Chapter Three

Exercise1

1 Kc5! (1 Kb5? taking the opposition is a mistake as after 1...c6+ 2 Kc5 [or 2 Kc4 Kb6] 2...Kc7 Black holds!) **1...c6** (if 1...Kb8 then 2 Kc6 wins easily, e.g. 2...Kc8 3 b5 Kb8 4 b6) **2 b5! cxb5 3 Kxb5** and now the opposition is decisive.

TIP: Don't just take the opposition blindly in any position. It's a tool to be used at the right moment!

Exercise 2

Burmakin-Fominyh, St Petersburg 2000

After **1...Kd5 2 Kc3 Ke4** (White resigned here) **3 Kd2 Kf3 4 Ke1** Black has a nice technical win. In this type of position advancing the f-pawn causes problems by breaking up the white structure: **4...f5 5 Kf1 f4 6 gxf4 Kxf4** (and now the h-pawn soon falls...) **7 Kg2 Kg4 8 f3+ Kxh4 9 Kh2 Kg5 10 Kg3 Kf5 11 Kg2 Kf4 12 Kf2 h4** (the h-pawn is then exchanged for the f-pawn) **13 Kg2 Ke3 14 Kh3 Kxf3 15 Kxh4 Kf4 16 Kh3 g5 17 Kg2** (and Black gains the opposition with his king in front of the pawn, a winning advantage) **17...Kg4 18 Kf2 Kh3 19 Kg1 g4 20 Kh1 g3 21 Kg1 g2** etc.

Despite the win taking some time, it's all very logical.

Exercise 3

Short-M.Gurevich, British League 1999

Black must play carefully, but with the a-pawn already on a3 he should draw.

1...Kb8!

Also possible is 1...Kd8!, but not 1...Kc8? 2 Kd6 Kd8 3 a4! Kc8 (after 3...a5 White plays 4 Kc5 Kc7 5 Kb5) 4 a5 Kd8 (following 4...a6 5 c7 Kb7 6 Kd7 Ka7 the simplest is 7 Kc6!) 5 c7+ Kc8 6 Kc6 (and Black loses as he is left with an unwanted spare tempo) 6...a6 7 Kb6 etc.

2 Kd6 Kc8 3 c7 (White doesn't do any better with 3 a4 Kd8 4 a5 Kc8 5 c7 a6) **3...a6! 4 a4 a5 5 Kc6 ½-½**

Exercise 4

Westerinen-Ruiz Jimenez, Malaga 2003

Yes he can play the pawn ending!

1 Rxe8! Kxe8 2 Kf3 Kd7 3 Kg4 Kxd6 4 Kh5 Ke5

Here 4...Ke7 allows a neat win: 5 Kg6 Kf8 6 Kh7! (rather than 6 h4? Kg8 7 h5 Kf8 8 h6 which fails to the stalemate defence 8...Kg8!) 6...Kf7 7 h4 Kf8 8 h5 Kf7 9 h6 gxh6 10 Kxh6 and Black is now outflanked and loses the f-pawn after 10...Kf8 11 Kg6 Ke7 12 Kg7 etc.

Otherwise 4...Kd5 is no improvement: 5 Kg6 Ke5 6 h4 Kf4 7 h5 Kg4 8 Kxg7.

5 Kg6 Kf4 6 h4 Kg4 7 Kxg7 Kxf5 8 h5 Kg4 9 h6 f5 10 h7 and Black is clearly too slow.

If instead 1 Re3?! then the continuation 1...Rd8 2 Rd3 Ke8 3 Kf3 Kd7 4 Kg4 Rh8 yields winning chances for White but isn't that clear.

Chapter Four

Exercise 1

1 g5!

The only move to win, for instance 1 b4? h5! even wins for Black, e.g. 2 gxh5 gxh5 3 Ke4 h4 4 a4 f5+ 5 Kf3 Kxd5 6 Kg2 f4. The point behind the text move is that White needs to fix the black pawns before trying to create a second passed pawn. Black cannot just go down without a fight and therefore has to try

1...f5!? 2 gxf6 h5 3 b4 h4 4 Ke4 g5 5 Kf3 h3 6 Kg3 g4

and Black can't do anything whilst White creates his third passed pawn.

7 a4 Kd7 8 **b5 axb5 9 axb5 Kd6 10 b6 Kd7 11 b7 Kc7 12 f7** etc.

Exercise 2

1 g3! (1 h3?? leads to disaster after 1...h4!, fixing the wing) **1...Ke6 2 h3 Kd6 3 g4 h4** (3...hxg4 4 hxg4 Ke6 5 g5 Kf5 6 Kxd5 Kxg5 7 Kc6 is a trivial win) **4 g5 Ke6 5 g6 Kf6 6 Kxd5 Kxg6 7 Ke6!** (After 7 Kc6 both sides queen in eight moves, White obtaining queen plus a-pawn versus queen, e.g. 7...Kg5 8 Kb6 Kf4 9 Kxa6 Kg3 10 Kxb5 Kxh3 11 Ka4 Kg2 12 b5 h3 13 b6 h2 14 b7 h1Q 15 b8Q etc. However, this isn't necessary because after the text move White just wins the h-pawn by force.) **7...Kg5 8 Ke5 Kg6 9 Kf4 Kh5 10 Kf5 Kh6 11 Kg4 Kg6 12 Kxh4 Kh6 13 Kg4 Kg6 14 Kf4 Kh5 15 Ke5** and the queenside is at White's mercy.

Exercise 3

Capablanca-Ed.Lasker, London 1913

The incorrect

1 f5?

was played in the game. However, the best continuation in this position is 1 a3! a5 2 a4 with zugzwang, e.g. 2...Kc5 3 f5 gxf5 4 h5 forces a quick promotion, or if 2...Ke6 3 Kxd4 Kf5 then 4 Kc5 wins the race.

1...gxf5 2 h5 Ke5?

Natural but losing. Instead 2...Ke6! 3 Kxd4 f4 4 Ke4 f3! 5 Kxf3 Kf5 draws.

3 h6! and Black resigned.

So yes, there were two improvements. Did you find them?

Exercise 4

Louma

White can win but only if he starts with the surprising

1 g4!

Creating his own passed pawn turns out to be more important than capturing his opponent's. Note that 1 Kxa7 leads to a draw after 1...h5!, devaluing White's majority, e.g. 2 Kb6 Kd2 3 Kc5 Ke3 4 Kc4 Kf2 5 Kd4 Kxg2 6 Ke3 Kg3 7 Ke2 Kxh4 8 Kf2 Kh3 9 Kg1.

1...a5 2 g5 hxg5 (2...a4 3 gxh6 a3 4 h7 a2 fails to 5 h8Q, stopping the a-pawn)

3 h5! (another surprise, as capturing on g5 only leads to a draw) **3...a4** (3...g4 leads to Black getting skewered after 4 h6 g3 5 h7 g2 6 h8Q g1Q 7 Qa1+) **4 h6 a3 5 h7 a2 6 h8Q Kb1** (without the g-pawn this would be drawn; however, White now wins easily) **7 Qh1+ Kb2 8 Qg2+ Kb1 9 Qe4+ Kb2 10 Qb4+ Kc1 11 Qa3+ Kb1 12 Qb3+ Ka1 13 Qc2** (no stalemate!) **13...g4 14 Qc1** and mate!

Chapter Five

Exercise 1

Salmann-Junge, Germany 1941

There are in fact two different ways to win:

a) **1...Kb7 2 Kf1 f3** (White has no choice) **3 b6 g2+** (releasing the stalemate) **4 Kxf2 Kxb6** and the two passed pawns win easily.

b) There is also an elegant finish with **1...f3+ 2 Kf1 Kc5 3 b6 Kd4** (3...g2+ 4 Kxf2 Kxb6 wins as in 'a') **4 b7 Ke3 5 b8Q g2 mate**

Exercise 2

Sorin-Piankov, Guingamp 2003

Piankov found out to his cost that it does make a difference!

1...Kb6?

This falls into a trap. Correct is 1...Kb8!, as 2 Kd2 Kc8 3 Kd3 Kd7 wins easily.

2 c4! Kc6

2...bxc4 3 bxc4 dxc4? 4 b5! leaves the black king without moves, and following 4...e5 5 Kc2! e4 6 Kd2! Black is in zugzwang and he even loses!

3 c5

and the protected passed pawns ensure that neither side can win. What a great swindle!

Exercise 3

K.Hofmann-A.Fischer, Karlsruhe 2003

No it wasn't! White should have played on with **1 e7+! Ke8 2 Kc6! Kxe7** (if 2...Kf7 then 3 Kd7) **3 Kc7!** as he then just rounds up the f-pawn: **3...Ke8 4 Kd6 Kf7 5 Kd7 Kf8 6 Ke6 Kg7 7 Ke7 Kg8 8 Kxf6 Kf8 9 Kxg5** etc. So White can win easily by sacrificing his massive passed pawn.

Exercise 4

Van der Sterren-Calle, Tjentiste 1975

There are various attempts to win and I've probably not covered them all! Here are a couple of ideas that work: one involving breaking up Black's structure and the other involving a race.

Line 1) **1 g5 hxg5 2 hxg5 Kf5 3 f4 Kg6 4 Ke4!**

The clearest path to victory. Less convincing is 4 Kd2 Kf5 5 Kc2 Kg6 6 Kb2 Kf5 7 a4?! bxa3+ 8 Kxa3 d3! (8...Kg6 loses tamely to 9 Kb2 Kf5 10 Kc2 Kg6 11 Kd3 Kf5 12 b4 cxb4 13 Kxd4 Kg6 14 Kc4 etc.) 9 Kb2 Kxf4 10 g6 Ke3 11 g7 d2 12 g8Q d1Q 13 Qg5+ Ke4 14 Qxc5, when it's not clear whether White can convert his advantage.

4...Kh5 5 Kf3 Kg6 6 Kg4 Kg7 7 f5 Kf7 8 **Kf4 Kg7 9 Ke4 Kf7 10 Kd3 Kg7 11 Kc2 Kf7 12 Kb2 Kg7 13 a4 bxa3+ 14 Kxa3 Kf7 15 Kb2 Kg7 16 Kc2 Kf7 17 Kd3 Kg7 18 b4 cxb4 19 Kxd4 Kf7 20 Kc4 Kg7 21 Kxb4 Kf7 22 Kc4 Kg7 23 Kd5 Kf7 24 Ke5 Kg7 25 Ke6 Kf8 26 f6 Ke8 27 g6 Kf8 28 f7 Kg7 29 Ke7**

Line 2) In the game White found another way: **1 Ke2 Kf4 2 h5 Kg5 3 Kf1 Kf4 4 Kf2 Kg5 5 Kg3 Kf6 6 Kf4 Ke6 7 Ke4 Kf7** 8 **f4 Kf6 9 Kf3 Ke6 10 g5 Kf5 11 g6 Kf6 12 f5 Kg7 13 Ke4 Kf6** (White can still win as in Line 1 by undermining the queenside by going back to b2 etc.) **14 Kf4 Kg7 15 Ke5 d3 16 f6+** and Black resigned because of something like 16...Kf8 17 Ke6 d2 18 g7+ Kg8 19 f7+ Kxg7 20 Ke7 d1Q 21 f8Q+ Kh7 22 Qf7+ Kh8 23 Qf6+ Kh7 24 Qg6+ Kh8 25 Qxh6+ Kg8 26 Qg6+ Kh8 27 Qf6+ Kh7 28 h6 Qg4 29 Qg7+ Qxg7+ 30 hxg7 Kxg7 31 Kd6.

Chapter Six

Exercise 1

Aleksandria-Levitina, Moscow 1975

1...Ke2 (the alternative move order 1...d5 2 g4 Ke2 3 Ke5 Ke3 also works) **2 g4 d5 3 Ke5 Ke3!** (using the feint is the only way to draw) **4 Kxd5** (or 4 g5 d4) **4...Kf4** and Black draws.

Exercise 2

Walker 1841

White wins the second race!

1 b4 f5 2 b5 f4 3 b6 f3 4 b7 f2 5 b8Q f1Q 6 Qb5+ Qxb5+ 7 Kxb5 Kg4 8 **a4 h5 9 a5 h4 10 a6 h3 11 a7 h2 12 a8Q** and Black is prevented from queening.

Exercise 3

Obuhovski-Grabczewski, Dubna 1971

1...Kf4!

Only the middle ground works! The alternatives are lacking.

a) 1...Kf5 neglects control of key squares in front of the g-pawn, so White can come back and gain time: 2 Kc3 g4 3 Kd2 Kf4 4 Ke2 Kg3 5 c4 Kh2 6 c5 g3 7 c6 g2 8 c7 g1Q 9 c8Q.

b) 1...Kf3 doesn't hold up the c-pawn very well: 2 c4 Ke4 3 c5 Kd5 4 Kb5 g4 5 c6 Kd6 6 Kb6 g3 7 c7 g2 8 c8Q g1Q+.

2 c4

2 Kc3 Ke3 stops White's king in his tracks.

2...g4 3 c5 Ke5 4 Kb5 g3 5 c6 Kd6 6 Kb6 g2 7 c7 g1Q+and Black queens with check and wins.

Exercise 4

Kasparov-Morozevich, Astana 2001

In the game 1 f5?! was played but analysis shows that 1 Kd5 was a better option.

After **1 f5?!** the game continued as follows: **1...gxf5+ 2 Kxf5** (Ftacnik judges the continuation 2 gxf5?! Kxa4 3 Kd5 Kb3 4 Ke6 Kxb2 5 Kxf6 a4 6 Kg7 a3 7 f6 a2 8 f7 a1Q 9 f8Q to be unclear; in any case after 9...h5 Black certainly isn't worse) **2...Kxa4 3 Kxf6 Kb3 4 Kg7 Kxb2 5 Kxh7 a4 6 g5 a3 7 g6 a2 8 g7 a1Q 9 g8Q Qb1+ 10 Qg6 b5 11 h5** and a draw was agreed.

Instead 1 Kd5 was more testing:

a) 1...Kb3 2 f5 gxf5 3 gxf5 Kxa4 4 Ke6 (now 4 Kc4 is refuted by 4...h5, as White must free the opposing king) 4...Kb3 5 Kxf6 Kxb2 6 Kg5 a4 transposes to note 'c'.

b) 1...Kxa4? loses to 2 Kc4, trapping the black king against the ropes: 2...b5+ (if 2...h5?! then 3 f5!) 3 Kc3 h6 and in this position White has the classic breakthrough 4 g5! hxg5 5 f5.

c) 1...f5 2 gxf5 gxf5 3 Ke6 Kxa4 4 Kxf5 Kb3 5 Kg5 a4 6 f5 Kxb2 7 f6 a3 8 f7 a2 9 f8Q a1Q 10 Qg7+ Ka2 (or 10...Kb1 11 Qxh7+ Kc1 12 Qc7+ Kd2 13 Qxb6) 11 Qa7+ Kb2 12 Qxb6+ Kc2 13 Qc7+ with an ending that is unpleasant to defend.

So Kasparov didn't choose the best move.

Chapter Seven

Exercise 1

O.Foisor-Kalod, Balaguer 2001

1 Ke5 Kb7 2 Ke6! (the star move as White goes for the e-pawn first of all; not, however, 2 Kxf5? Kc7 3 Ke6 Kd8 as this only draws) **2...Kc6 3 Kxe7 Kd5 4 Kf6 Ke4** (or if 4...Kd6 5 Kxf5 Ke7 then 6 Kg6 etc.) **5 Kg5!** and wins.

Exercise 2

Schlage-Ahues, Berlin 1921

1 Ke6! (the only one that wins; 1 Ke7? leads to a draw after 1...Kc3! 2 Kd6 Kd4! 3 Kc6 Ke5! 4 Kb7 Kd6 5 Kxa7 Kc7) **1...Kc3 2 Kd5** (Black loses time as he isn't permitted to go to the d4-square) **2...Kb4** (2...Kd3 is equally ineffective: 3 Kc6 Kd4 4 Kb7 Kc5 5 Kxa7 Kc6 6 Kb8 Kb6 7 a7) **3 Kc6 Ka5 4 Kb7 Kb5 5 Kxa7 Kc6 6 Kb8** and wins.

Exercise 3

Bahr 1936

White can draw but only one first move will do.

1 Ke1!

Alternatives all fall short:

a) 1 Kc2? Ke4 2 Kb3 Kf3 3 Kxa3 Kg3 4 Kb4 Kxh3 and Black queens first.

b) 1 Kc1? Ke4.

c) 1 Kd2? loses the opposition to 1...Kd4.

d) 1 Ke2? also loses the opposition to 1...Ke4, when a plausible continuation would be 2 Kf2 Kf4 3 Ke2 Kg3 4 Ke3 Kxh3 5 Kf3 Kh2 6 Kf2 h3 7 Kf1 Kg3 8 Kg1 Kf3 and Black wins.

1...Ke5

If Black wins the a-pawn with 1...Kc4 2 Ke2 Kc3 3 Ke3 Kb2 4 Kd2 Kxa2 then after 5 Kc2 he is locked in for the duration.

2 Kf1! Kd4

White takes the direct opposition after both 2...Kf4 3 Kf2 and 2...Ke4 3 Ke2.

3 Kf2!

Here 3 Ke2? loses to 3...Ke4, as shown above.

3...Kd3 4 Kf3 Kd2 5 Kf2

5 Kg4? is too slow after 5...Kc2 etc., but 5 Kf4 is also possible with the point that 5...Ke1 6 Ke3 Kd1 7 Kf3 Kc2 8 Ke2 Kb2 9 Kd2 Kxa2 10 Kc2 reaches the same draw as in the main line.

5...Kc1 6 Ke1 Kb2 7 Kd2 Kxa2 8 Kc2 and draws.

Exercise 4

Grob-Nimzowitsch, Zürich 1934

1...Kd7!!

An excellent move. Did you find it?

If Black instead plays 1...Kd6 then White makes progress after 2 f4 Kc6 3 b4 cxb4 4 Kxb4 Kb6 5 a5+ Kc6 6 Kc4 Kd6 7 Kd4 Ke6 8 Kc5 Kf5 9 Kb6 Kxf4 10 Kxa6 g5 11 hxg5 h4 12 g6 h3 13 g7 h2 14 g8Q h1Q. Although Black has drawing chances, it's not much fun for the defender.

2 f4

2 Kxc5 provokes 2...g5! 3 Kd4 (3 hxg5? h4 leaves White's king outside the square) 3...gxh4 4 Ke3 a5! (fixing the queenside and ensuring a draw...) 5 Kf2 Ke6 6 Kg2 Kf5 7 Kh3 Kg5 8 f4+ Kxf4 9 Kxh4 Ke4 10 Kxh5 Kd3 11 Kg4 Kc3 12 Kf3 Kxb3 13 Ke2 Kxa4 14 Kd1 Kb3 15 Kc1.

2...Kd6!

In this way Black has lost a move and now draws easily.

3 Kd3

3 b4 cxb4 4 Kxb4 Kc6 5 Ka5 Kb7 6 Kb4 Kc6 is also equal.

3...a5 4 Kc4 Kc6 5 Kc3 Kd6 6 Kc4 Kc6 ½-½

Chapter Eight

Exercise 1

Yes he can!

1 b5! Kxh2 2 c5 Kxg3 (after 2...bxc5 White wins with 3 a5 followed by a5-a6; 2...dxc5 requires 3 a5! bxa5 4 b6 cxb6 5 d6) **3 a5! bxa5** (if 3...h5 then 4 axb6 cxb6 5 cxd6 or simply 4 a6) **4 b6 cxb6 5 cxd6 1-0**

It's good practice to look out for possible ways of generating a passed pawn from all kinds of structures.

Exercise 2

Novak-Kalis, Czechoslovakia 1958

There is an immediate double pawn sacrifice that wins. **1 g5!** (not, however, 1 Kc5 Kd7 2 g5 h5! and White certainly isn't better as he's in zugzwang)

1...hxg5 (1...h5 loses to 2 f6 gxf6 3 g6) **2 f6!** (elegant but necessary, as 2 hxg5 is neutralised by 2...Kd6, and 2 h5? Kd6 3 f6 Ke6 4 fxg7 Kf7 5 h6 g4 6 Kd3 c5 even wins for Black) **2...gxf6 3 h5** (the sort of breakthrough that looks great if it works, but when making flashy sacrifices don't underestimate the opponent's counterplay) **3...g4 4 Kd3** (moving into the square) **4...c5 5 h6 c4+ 6 Ke3!** (the slack 6 Kxc4? would allow Black to also queen with 6...g3) **6...c3 7 h7 c2 8 Kd2 g3 9 h8Q** and Black is too slow.

Exercise 3

M.Mrva-Velicka, Czech League 2001

After the indecision of **1...Kf6 2 Kf3 Kg6 3 Ke3 Kf6 4 Kf3 Ke6 5 Ke3** Black didn't repeat. He instead played **5...b4!** which lead to a win.

6 cxb4

Others are no better:

a) 6 c4 dxc4 7 bxc4 b3 8 Kd3 f4 and the widely split pawns win.

b) 6 Kd3 bxc3 7 Kxc3 Kd6 8 Kd3 (8 Kb4 is well met by 8...f4 9 gxf4 g4) 8...Kc6 9 Kc3 Kb5 10 Kd3 Kb4 11 Kc2 f4 and it's essentially as in the game.

6...Kd6 7 Kd3

7 b5 comes to the same thing after 7...Kc7 8 Kd3 Kb6 etc.

7...Kc6 8 Kd2 Kb5 9 Kc3 f4 10 gxf4 gxf4 11 Kd3 Kxb4 12 Kc2 f3 13 Kd3 Kxb3 14 Ke3 Kc3 15 Kxf3 Kxd4 16 Ke2 Kc3 0-1

Exercise 4

K.Dolzhikova-Gusakovskaya, Dnepropetrovsk 2003

1 c4! (Diagram 1)

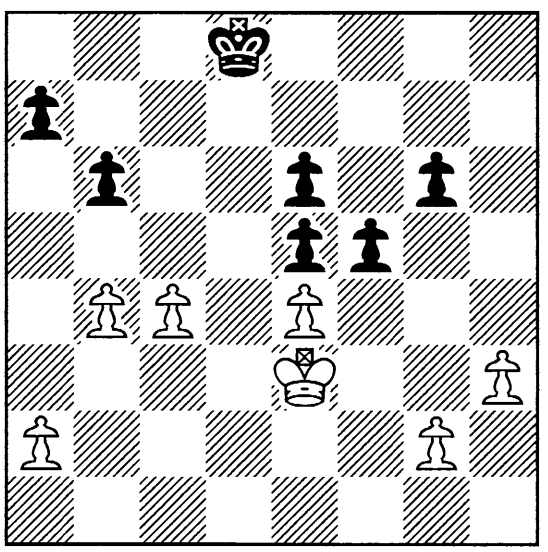


Diagram 1 (B)
Avoiding ...b6-b5

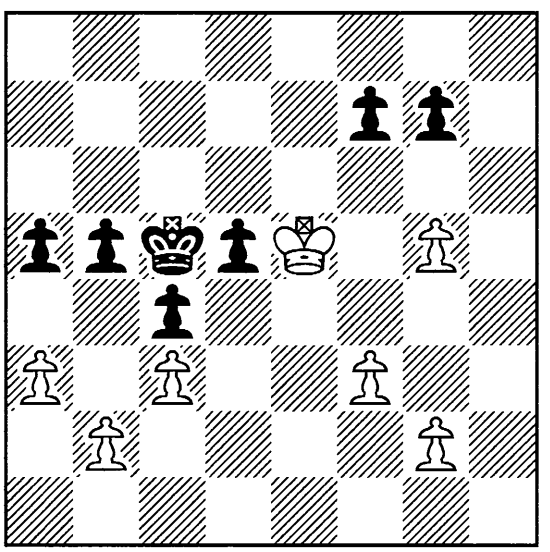


Diagram 2 (B)
Black must be precise

It's advisable to avoid Black fixing the wing with ...b5.

1...Kd7 2 h4 a5 3 a3 axb4 4 axb4 Ke7 5 Kf3 Kf6 6 g4!

White even takes the advantage on the kingside!

6...Ke7

If 6...f4 7 c5 bxc5 8 bxc5 Ke7 9 h5 the two widely separated passed pawns

win, and following 6...fxg4+ 7 Kxg4 Kf7 8 Kg5 Kg7 then 9 c5 bxc5 10 bxc5 wins easily.

7 gxf5 exf5 8 exf5 gxf5 9 h5 1-0

Black lost because her majority was ineffective, the doubled pawns being largely to blame. This is why White did well to avoid a premature exf5.

Chapter Nine

Exercise 1

M.Baranova-Idrisova, Serpukhov 2003

1...Kc6?

A serious mistake. Correct is 1...f6!, to cover the e5-square, followed by temporising with ...Kd6-c6. This should soon run White out of spare tempi, when Black would be favourite, e.g. 2 f4 Kc6 3 Ke3 Kc5 4 g3 Kd6 5 Kd4 Kc6 6 Ke3 Kc5 7 g5 (or 7 f5 d4+ 8 cxd4+ Kd5) 7...fxg5 8 fxg5 g6 9 g4 d4+ 10 cxd4+ Kd5.

2 Ke5 Kc5 3 g5 (Diagram 2) 3...b4?

Losing a pawn for nothing. Instead 3...Kc6 shouldn't lose, e.g. 4 f4 Kc5 5 f5 Kc6 6 g6 fxg6 7 fxg6 Kc5 8 g3 Kc6 9 Ke6 b4 10 axb4 axb4 11 Kf7 d4 12 Kxg7 bxc3 13 bxc3 dxc3 14 Kf6 c2 15 g7 c1Q 16 g8Q c3 with a draw.

4 axb4+ axb4 5 cxb4+ Kxb4 6 Kxd5 Kb5 7 f4 Kb4 8 f5 Kb5 9 f6 g6 10 Kd6 Kb4 11 Kc6 Ka4 12 Kc5 Kb3 13 g3 Kxb2 14 Kxc4 Kc2 15 Kd5 Kd3 16 Kd6 Ke4 17 Ke7 Kf5 18 Kxf7 Kxg5 19 Kg7 Kh5 20 f7 g5 21 f8Q 1-0

Exercise 2

Bagaturov-Kacheishvili, Tbilisi 2000

Black wins and quickly! In fact the e-pawn is isolated and Black cannot be denied access to f5 for long. White's isolated h-pawn doesn't help much in covering key squares.

1...Kf7 2 Kf4

If 2 Kd4 Kg6 3 Kc5 Kf5 4 Kd6 then 4...g5! is zugzwang!

2...Kg6 3 Kg4 Kh6 4 Kh4 g5+

and White resigned due to 5 Kg3 Kh5 6 Kf3 Kh4 7 Kg2 g4 8 hxg4 Kxg4 and the e-pawn falls, or 5 Kg4 Kg6 and again White loses his e-pawn.

The 'space advantage' wasn't much use in the original position as White couldn't protect the advanced pawn by covering all the key squares around it.

Exercise 3

Gikas-Landa, Deizisau 2003

First of all, Black made a beeline for the queenside.

1...Kf6 2 Kg3 Ke5 3 Kf3 Kd4 4 Ke2 Kc3 5 Kd1

He then used his advanced king to liquidate the central pawns.

5...e5! 6 Kc1 e4!

and White resigned as after 7 dxe4 Kd4 8 Kd2 Kxe4 the route was clear to win the g-pawn: 9 Ke2 Kf4 10 Kf2 Kxg4 11 Kg2 Kf4 12 Kf2 Ke4 and the passed g-pawn will play the role of a decoy.

Exercise 4

Eljanov-Sadvakasov, Kharkov 2003

White has potentially an outside passed pawn that tips the balance in his favour.

1 Kg4 Kg7

Or 1...g5 2 Kh5 Kf5 3 Kh6 f6 (3...Kf6 loses the g-pawn immediately after 4 g4) 4 Kg7 Ke5 5 Kg6 Ke6 6 h4 gxh4 7 gxh4 f5 8 Kg5 (dragging Black onto e5 and after...) 8...Ke5 9 h5 f4 10 h6 f3 11 h7 f2 White queens with check with 12 h8Q+.

2 Kf4 f6

After 2...f5 White's more active king causes too many problems, e.g. 3 Kg5 Kf7 4 h4 Kg7 5 h5 gxh5 6 Kxf5 Kh6 7 Kf6.

3 h4 Kf7 4 g4 Kg7

Coming to the centre with 4...Ke6 5 Ke4 Kd6 allows the simple 6 h5, and if instead 5...f5+ 6 gxf5+ gxf5+ 7 Kf4 then the outside passed pawn is a decisive factor, e.g. 7...Kf6 8 h5 Ke6 9 h6 Kf6 10 h7 Kg7 11 Kxf5 Kxh7 12 Ke6.

5 Ke4 Kh6 6 Kd5 g5

The only hope is to generate some counterplay.

7 h5 f5 8 gxf5 g4 9 f6 g3 10 Ke6!

Supporting the advance of the pawn.

10...g2 11 f7

and Black resigned because of 11...g1Q 12 f8Q+ Kh7 (12...Kxh5 allows a skewer with 13 Qh8+ Kg6 14 Qg8+) 13 Qf7+ Kh8 14 Qf6+ Kh7 15 Qg6+ Qxg6+ 16 hxg6+ Kxg6 17 Kd6 etc.

Chapter Ten

Exercise 1

Here is a methodical way of winning.

1 Qe5+ Kf2 2 Qd4+ Ke2 3 Qe4+ Kf2 4 Qd3 Ke1 5 Qe3+ Kd1 6 Kb6 Kc2 7 Qe2 Kc1 8 Qc4+ Kb2 9 Qd3 Kc1 10 Qc3+ Kd1 11 Kc5 Ke2 12 Qc2 Ke1 13 Qe4+ Kf2 14 Qd3 Ke1 15 Qe3+ Kd1 16 Kc4 Kc2 17 Qe2 Kc1 18 Kc3 d1Q 19 Qb2 mate

Exercise 2

It's just close enough and White can win as follows: **1 Qb4+ Kc2 2 Qa3 Kb1 3 Qd3+ Kb2 4 Qd2+ Kb1** (if 4...Kb3 then 5 Qd4) **5 Kb4! a1Q 6 Kb3** with mate to follow.

Exercise 3

A race with opposing rook's pawns is often won by he who arrives first. After **1 Kxh5 Kxa4 2 Kg4 Kb3 3 h5 a4 4 h6 a3 5 h7 a2 6 h8Q** the new queen attacks the queening square, stopping the slower pawn promoting. Then it's easily won after **6...Kc2 7 Qa1**.

Exercise 4

Black to play skewers with 1...Qd1+.

White to play creates a mating net as follows: **1 Qb6+ Ka3** (after 1...Ka4 it's White's turn to skewer with 2 Qa6+) **2 Qa5+ Kb2 3 Qb4+ Ka2** (or 3...Kc1 4 Qd2+ Kb1 5 Qc2 mate) **4 Kc2!** etc.

Chapter Eleven

Exercise 1

A.Lantos-Ed.Szirmai, Budapest 2003

No he shouldn't but he did!

1 Rxd7+?

In the pure pawn ending that follows, White's damaged pawns on both wings take their toll, but keeping the rooks with 1 Rb1! is playable, e.g. 1...Rb7 2 Ke3 Ke6 3 Ke4 and 1...Rd6 2 Ke3 Ke6 (here 2...b5? fails to 3 axb5 Rb6 4 Ke4 Ke6 5 Rf1!) 3 Ke4 both give reasonable drawing chances for White as his pieces are so active.

1...Kxd7 2 Ke3 Kd6 3 Ke4 Ke6 4 g3 Kd6?!

Black had a much simpler win with 4...a5 5 g4 b5 6 axb5 a4 7 b6 Kd6.

5 Kf5 a5 6 Kf6 e4 7 Kxf7 e3 8 g6 hxg6 9 hxg6 e2 10 g7 e1Q 11 g8Q Qe6+ 12 Kg7 Qxg8+ 13 Kxg8 b5! 14 g4 bxa4 15 g5 a3 16 g6 a2 17 g7 a1Q 0-1

Exercise 2

Kantorik-Marian Balogh, Slovakia 2003

Yes it's the simplest way to win: **1 Rxf5+! Rxf5 2 Bxf5 Kxf5 3 a5 g4 4 Kd3!** (getting inside the square) **4...g3 5 Ke2 Kg4 6 Kf1 Kh3 7 Kg1 1-0**

Exercise 3

To.Todorov-J-C.Olivier, France 1999

1...Rb3+! 2 Kf2 (instead 2 Kd4 Rxf3 would have been an easy win) **2...Rb1!** (threatening to promote) **3 Rxh2** (and now Black exchanged into a pawn ending...) **3...Rb2+ 4 Kg3 Rxh2 5 Kxh2 Kf4 6 Kg2 Ke3** and White resigned because of 7 Kg3 f5 8 Kg2 f4.

Exercise 4

Sadvakasov-He.Gretarsson, Bled Olympiad 2002

1...Nd4!

After 1...Na5? White has two defences: 2 Na1 Ke6 3 g4, or 2 Ne3 Nxb3 3 g4. Plausible is 1...Ne5!?, which keeps the advantage in the knight ending. However, transposing into a pawn ending wins.

2 Nxd4

Alternatives aren't any better: 2 Ne3 Ne2 mate or 2 Na1 Ne2+ 3 Ke3 Nxg3.

2...cxd4 3 b4 Ke6 4 b5 Kd6 5 b6 Kc6 6 c5 Kb7

and White has run out of spare tempi and resigned as 7 g4 e3 is clearly hopeless.

Chapter Twelve

Exercise 1

Butnorius-G.Flear, Plovdiv 2003

In the game White played 1 Ra7?!, when the win is problematic. Indeed, in time trouble he was unable to obtain more than half a point.

Instead **1 Rxe8** wins: **1...Kxe8 2 e6 Ke7 3 Ke5 b4 4 b3 b6 5 d5 cxd5 6 Kxd5 g5 7 hxg5 h4 8 g6 Kf6** (this resists longer than 8...h3 9 g7 h2 10 g8Q h1Q 11 Qf7+ Kd8 12 Qd7 mate) **9 Kd6 h3 10 e7 h2 11 e8Q h1Q 12 Qf7+ Kg5 13 g7** and White wins.

Exercise 2

Sasikiran-G.Flear, Hastings 2002/3

1 Kf5 (1 Kd4? Kb5 2 Kc3 a5 3 bxa5 Kxc5 leaves White in trouble) **1...Kb5** and the double race that follows was correctly played by both players: **2 Kxf6 Kxb4 3 Kxf7 a5 4 f5 a4 5 f6 a3 6 Kg6 a2 7 f7 a1Q 8 f8Q Qg1+ 9 Kxh6 Qe3+ 10 Kg6 Qg3+ 11 Kf7 Qf2+ 12 Ke8 Qxf8+ 13 Kxf8 Kxc5 14 h4 b5 15 h5 b4 16 h6 b3 17 h7 b2 18 h8Q b1Q 19 Qe5+ Kc4 20 Qc7+ Kb3 21 Qb7+ Ka2 22 Qxb1+ Kxb1 ½-½**

Exercise 3

S.Brady-C.Flear, St Vincent 2004

Yes it indeed holds. Sometimes Black's king heads for a sanctuary on h8; on other occasions he counter-attacks from the side.

1...Rb7! 2 Ra8+ Rb8 3 Rxb8+ Kxb8 4 g6

Winning a pawn but not the game. Others are not successful either:

a) 4 Kh4 g6 5 Kg3 Kc7 6 Kf4 Kd6 7 Ke4 gxf5+ 8 Kxf5 Ke7 holds for Black.

b) 4 Kf4 Kc7 5 Ke5 Kd7 6 Kd5 Ke7 7 Ke5 (if 7 Kc6 Black burrows himself into a sanctuary 7...f6 8 g6 Kf8 9 Kd7 Kg8 10 Ke7 h4 11 Ke8 Kh8) 7...Kd7 8 f6 gxf6+ 9 Kxf6 (or if 9 gxf6 then 9...Kc6) 9...Ke8.

4...fxg6 5 fxg6 Kc7 6 Kh4

After 6 Kf4 Kd7 7 Kg5 (going nowhere is 7 Ke5 Ke7 8 h4 Kd7) 7...Ke6 8 Kxh5 Kf6 9 h4 Kf5 the game finishes with stalemate!

6...Kd7 7 Kxh5 Ke7 8 Kg5 Ke6 9 h4 Ke7 10 Kf5 Kf8 11 Ke6 Kg8 12 h5 Kh8 13 Ke7 Kg8 14 Ke8 Kh8 15 h6 Kg8! with a clear draw.

Exercise 4

Cimander-Ciglenecki, Karlsruhe 2003

1 a4?

White should have preferred 1 Kg4! Kc3 2 Kh5 Kxb3 3 Kxh6 Kxc4 (3...Kxa3? is worse as 4 Kxg5 a5 5 h4 a4 6 h5 Kb3 7 h6 a3 8 h7 a2 9 h8Q queens first whilst stopping the a-pawn) 4 Kxg5 b5 5 h4 a5 6 h5 b4 7 axb4 axb4 8 h6 b3 9 h7 b2 10 h8Q b1Q 11 Qe5, which offers White reasonable winning chances. In this line 7 h6!? b3 8 h7 b2 9 h8Q b1Q 10 Qc8+ Kd4 11 Qg4+ Ke3 12 Qf4+ is also promising.

1...Kc5??

Black should play 1...a5! (but not 1...Kc3?? 2 a5! bxa5 3 c5) **(Diagram 3)**

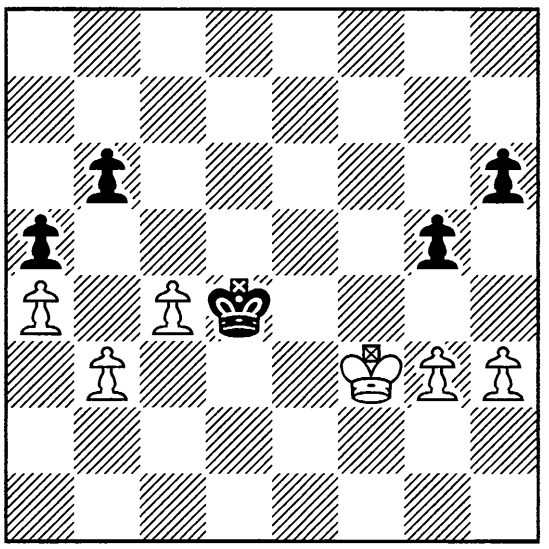


Diagram 3 (W)
Black is better!

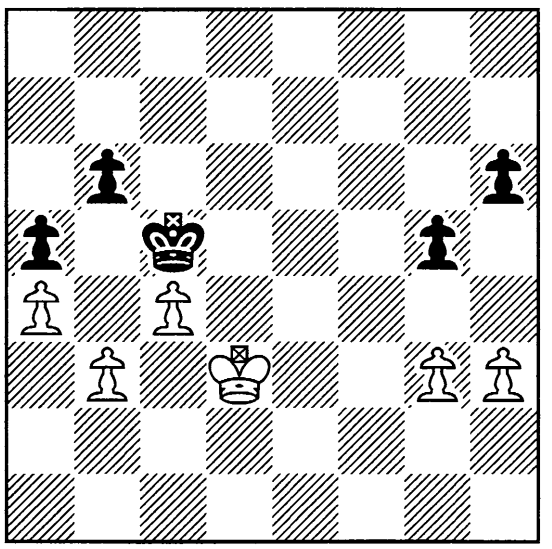


Diagram 4 (B)
An incorrect draw agreement!

2 h4! (here 2 Kg4? is too slow as after 2...Kc3 3 Kh5 Kxb3 4 Kxh6 Kxa4 5 Kxg5 Kb4 6 h4 a4 7 h5 a3 8 h6 a2 9 h7 a1Q; this time it's Black's pawn that arrives first to stop White's from queening!) 2...gxh4 3 gxh4 Kc3 4 Ke4 Kxb3 5 Kd5 Kxa4 (a better chance for an advantage than 5...h5 6 c5 bxc5 7 Kxc5 Kxa4 8 Kc4 Ka3 9 Kc3 a4 10 Kc2 Kb4 11 Kb2 Kc4 12 Ka3 Kd3 13 Kxa4 Ke3 14 Kb3 Kf3 15 Kc2 Kg3 16 Kd2 Kxh4 17 Ke2 Kg3 18 Kf1 and White arrives just in time to draw) 6 Kc6 Kb4 7 Kxb6 a4 8 c5 a3 9 c6 a2 10 c7 a1Q 11 c8Q Qd4+ 12 Kb7 Qxh4 with an advantage to Black, but realistically only nominal winning chances.

2 Ke4!

Now 2 Kg4 is less successful than on the previous move: 2...Kb4 3 Kh5 Kxb3 4 Kxh6 Kxc4 5 Kxg5 b5 6 axb5 axb5 7 h4 b4 8 h5 b3 9 h6 b2 10 h7 b1Q 11 h8Q Qc1+ looks drawish now as White is badly placed to hide from the checks.

2...a5

Tempting the race with 2...Kb4 is hopeless due to 3 Kd5 Kxb3 4 Kc6 Kxa4 (or if 4...Kxc4 5 Kxb6 Kb4 6 a5) 5 Kxb6 Kb4 6 c5 a5 7 c6 a4 8 c7 a3 9 c8Q a2 10 Qc1.

3 Kd3 (Diagram 4)

The draw was agreed here but White is in fact winning in the final position! For example:

3...Kb4

Instead 3...h5 loses to 4 Kc3 Kd6 5 b4 axb4+ (or 5...Ke5 6 b5) 6 Kxb4 Kc6 7 c5! bxc5+ 8 Kc4 h4 9 g4 Kb6 10 a5+ Kxa5 11 Kxc5 etc.

4 Kc2 Ka3

Otherwise 4...Kc5 5 Kc3 Kd6 6 b4 etc. is as the note above.

5 Kc3 h5 6 g4 h4 7 c5! bxc5 8 Kc4 Kb2 9 Kxc5 Kxb3 10 Kb5 and White wins.

So there were several mistakes. Did you find them all?

Exercise 5

Nimzowitsch-Chigorin, Carlsbad 1907

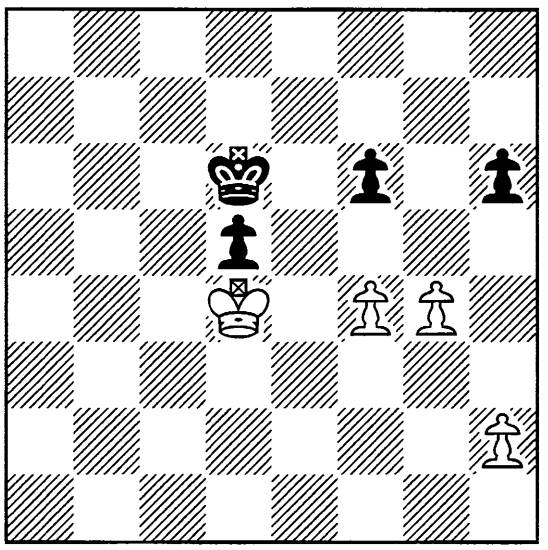


Diagram 5 (B)
Black can draw

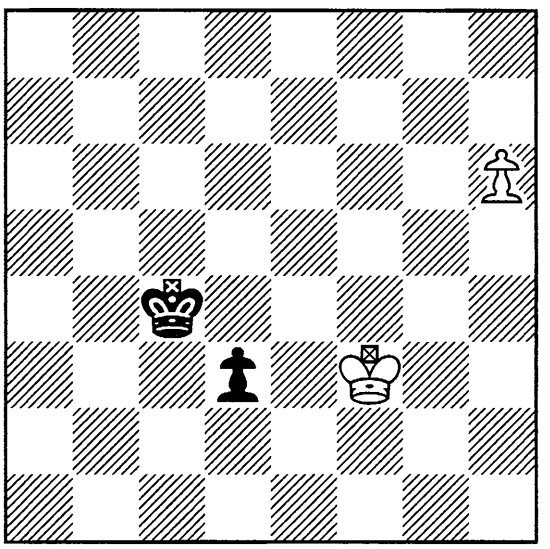


Diagram 6 (B)
One move to draw

(Diagram 5) Yes, Black can indeed save the game.

1...Kc6! (in the game Black lost quickly after 1...Ke6? 2 Kc5 f5 3 h3 fxg4 4 hxg4 d4 5 Kxd4 Kd6 6 f5 1-0) **2 h3** (Schlechter pointed out that after 2 h4 Kd6 3 h5 Ke6 4 Kc5 f5 5 g5 hxg5 6 h6 Kf7 7 fxg5 f4 Black draws) **2...Kd6 3 h4 Kc6** (3...Ke6? loses to 4 Kc5 f5 5 g5) **4 g5** (4 h5 Kd6 5 g5 is tempting but after 5...fxg5 6 fxg5 Ke6 7 g6 Kf6! 8 Kxd5 Ke7 9 Ke5 Kf8 10 Kf6 Kg8 stalemate comes to Black's defence) **4...fxg5 5 fxg5 hxg5 6 h5 g4 7 Ke3** (alternatively 7 h6 g3 8 Ke3 d4+ 9 Kf3 d3 10 h7 d2 11 Ke2 g2 12 h8Q also draws after 12...d1Q+! 13 Kxd1 g1Q+) **7...Kc5 8 Kf4 d4 9 Kxg4 d3 10 Kf3 Kc4 11 h6 (Diagram 6) 11...Kb3!** (Of course! Nimzowitsch erred in his analysis, concluding that White wins after to 11...Kc3? 12 h7) **12 h7 d2** and Black draws!

How well did you get on compared to these classical analysts? Note that even the greats make analytical errors from time to time!

Exercise 6

Kasparov-Bareev, Cannes 2001

Black's has three moves, the most precise of which is 1...Kc6!.

a) **1...Kb6?** is bad because of **2 Kc4 Kc6 3 a4**.

b) Hecht suggests **1...Ka6!? 2 Kc4 Kb6 3 Kd5** (after 3 a4?! Black takes the opposition with 3...Kc6) **3...Kb5 4 Kd6 c4!** (not, however, 4...Kb6? 5 a4, or 4...a4? 5 bxa4+ Kxa4 6 Kxc5 Kxa3 7 Kd5, which is hopelessly lost) **5 bxc4+ Kxc4 6 Ke5 Kb3 7 Kxf5 Kxa3 8 Kg5 a4 9 f5 Kb3 10 f6 a3 11 f7 a2 12 f8Q a1Q 13 Qf3+ Kc2 14 Qe4+ Kb3 15 Kxh5** with practical winning chances for White but a draw seems likely with a rook's pawn.

c) **1...Kc6! 2 Kc4 Kd6!** (2...Kb6 is also reasonable as we saw above, but this seems even better) **3 Kb5 Kd5 4 Kxa5 Ke4 5 Kb6** (5 b4? c4 is even winning for Black, whereas 5 Kb5 Kxf4 6 a4 Kg4 7 a5 f4 8 a6 f3 9 a7 f2 10 a8Q f1Q+ 11 Kxc5 Qf2+ is almost certainly drawn) **5...Kxf4 6 a4 Kg3 7 a5 f4 8 a6 f3 9**

a7 f2 10 a8Q f1Q 11 Qd8 Qf2 12 Kb5 Kh3 with no advantage for White. So Black should in fact draw, but time is an aspect of practical chess!

Exercise 7

Mason-Englisch, London 1883

The first move is the key.

1 h3!

Pavlovichev's improvement on 1 g4?, which was played in the game but shouldn't have won. Black immediately chose the wrong option 1...f4+? and lost. Instead 1...fxg4! 2 fxg4 h6 3 h4 Kb6 4 Ke4 Kc7 5 g5 fxg5 6 hxg5 hxg5 7 Kxe5 g4 8 Kf4 Kd6 9 Kxg4 Ke5, as pointed out by Berger, would have led to a draw. The final moves of the game after 1 g4? f4? were 2 Ke4 h6 3 h4 Kb6 4 g5 fxg5 5 hxg5 hxg5 6 Kxe5 g4 7 Kxf4 gxf3 8 Kxf3 Kc7 9 Ke4 Kd6 10 Kf5 and Black resigned in view of something like 10...Ke7 11 Ke5 Kd7 12 Kf6 Kd6 13 c5+ Kd5 14 Ke7 Kc4 15 Kd6 Kb5 16 Kc7 Kxb4 17 Kxc6 etc.

1...h5

After 1...Kb6 2 g4 fxg4 3 hxg4, one of the points behind 1 h3 is that Black doesn't obtain a protected passed pawn and White wins easily after the further moves 3...Kc7 4 Ke4 Kd6 5 Kf5 Ke7 6 b5.

2 g4

More straightforward is 2 h4! Kb6 3 g4! and White's h-pawn queens.

2...fxg4

Here 2...f4+ 3 Ke4 h4 should be met by 4 Kf5! (but not 4 g5? fxg5 5 Kxe5 due to 5...g4! when Black turns the tables) 4...Kb7 5 g5 fxg5 6 Kxg5 Kc7 7 Kxh4 Kd6 8 Kg5 Ke6 9 h4 Kf7 10 Kf5 etc.

3 fxg4 hxg4

3...h4 goes down to 4 Ke4 Kb7 5 Kf5 Kc7 6 g5 fxg5 7 Kxg5 Kd6 8 Kxh4.

4 h4! f5 5 h5 f4+ 6 Ke4 f3 7 Ke3 and White wins.

Exercise 8

Grigoriev 1938

White wins on one wing or the other, depending on circumstances!

On the kingside: if White plays Kxh7 and Black ...Kf7 then if there are two tempi on the queenside the position is drawn, but if there is only one then White frees his king.

On the queenside: If White can squeeze Black on that wing he may be able to directly win the b-pawn.

1 Kd3 Kb8

Black can try and come the other way round the b-pawn: 1...Ka7 2 Ke4 Kb6 3 Kf5 **(Diagram 7)**

And now:

a) The race with 3...Kb5 is just too slow: 4 Kf6 Kxb4 5 Kg7 b5 6 Kxh7 Ka3 7 Kg6 b4 8 h7 b3 9 h8Q b2 10 Qa8+ Kb3 11 Qe4 Ka2 12 Qc2 Ka1 13 Qa4+ Kb1 14 Kf5 etc.

b) If 3...Kc6 then 4 Ke6! Kc7 (4...b6 5 Kf6 etc.) 5 b5 Kd8 6 Kf7 Kd7 (if 6...b6 then White comes back for the b-pawn with 7 Ke6) 7 Kg7 Ke7 8 Kxh7 Kf7 and

White obtains zugzwang with 9 b6.

c) 3...Kc7 4 Ke5 (4 Kf6? is wrong as there are still two pawn tempi available on the b-file: 4...Kd6 5 Kg7 Ke7 6 Kxh7 Kf7 7 b5 b6 is then clearly drawn) 4...Kd7 5 Kd5 Kc7 (or 5...Ke7 6 Kc5 Kd7 7 Kb6 Kc8 8 Ka7 Kc7 9 b5) 6 Kc5 Kc8 7 Kd6 Kd8 8 b5 Kc8 **(Diagram 8)** 9 Ke7 Kc7 10 Kf7 Kd7 11 Kg7 Ke7 12 Kxh7 Kf7 13 b6 and again Black is in zugzwang.

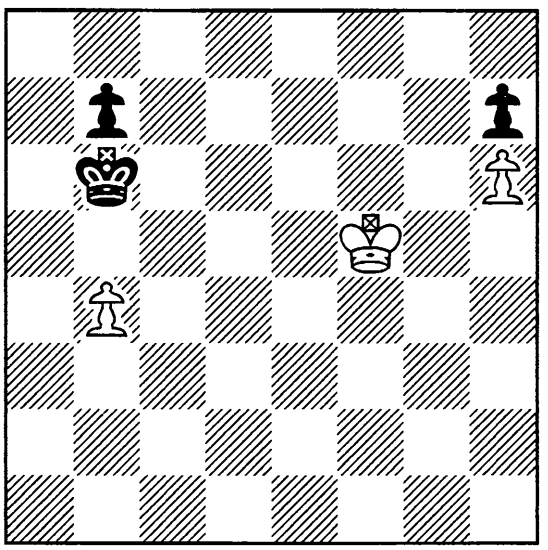


Diagram 7 (B)
Winning for White

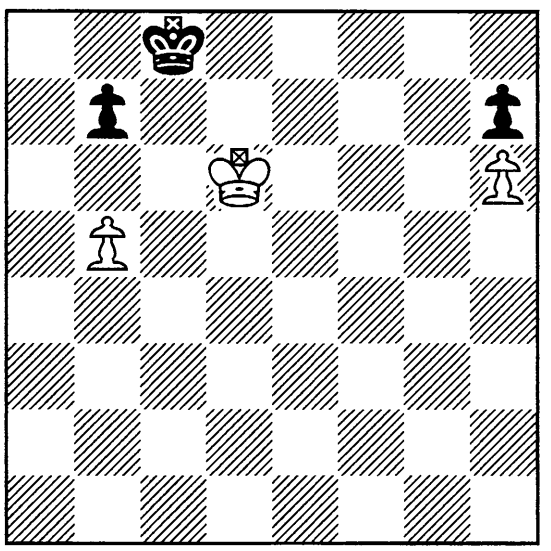


Diagram 8 (W)
White's king marches in

White then picks off the b-pawn after 13...Kf8 14 Kg6 Kg8 15 Kf6 Kh7 16 Ke7 etc.

2 Ke4 Kc8

Or 2...Kc7 3 Ke5 as in note 'c' above.

3 Kd4 Kd8

Or 3...Kd7 4 Kd5, again as in note 'c' above;

3...b6 provokes White to go for the h-pawn! 4 Ke5 Kd7 5 Kf6 Kd6 (after 5...b5 the b-pawn becomes the target: 6 Ke5 Ke7 7 Kd5) 6 Kg7 Ke7 7 Kxh7 Kf7 8 b5 and wins.

4 Kc4 Kc8 5 Kb5 Kc7 6 Kc5 Kb8

We've already seen 6...Kc8 7 Kd6 Kd8 8 b5 Kc8 9 Ke7, whereas if 6...b6+ then 7 Kd5 Kd7 8 b5 forces Black to give way.

7 Kb6 Ka8

Black loses the b-pawn following 7...Kc8 8 Ka7 Kc7 9 b5 Kc8 10 b6.

8 Kc7 Ka7 9 b5 Ka8 10 Kd7 Kb8

Black is much too slow after 10...Ka7 11 Ke7 Kb6 12 Kf7 Kxb5, e.g. 13 Kg7 Kc6 14 Kxh7 b5 15 Kg6 b4 16 h7 b3 17 h8Q.

11 Ke7 Kc7 12 Kf7 Kd7 13 Kg7 Ke7 14 Kxh7 Kf7 15 b6 Kf8 16 Kg6 Kg8 17 Kf6 Kh7 18 Ke7 Kxh6 19 Kd7

and so on.

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ISBN 1-85744-362-4

9 781857 443622

UK £12.99 US $17.95

www.everymanchess.com
published in the UK by Gloucester Publishers plc
distributed in the US by the Globe Pequot Press

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