

Csaba Balogh
Adrian Mikhalchishin

Mastering Pawn and Queen endgames



Cover designer
Piotr Pielach

Typesetting
Piotr Pielach <www.i-press.pl>

First edition 2016 by Chess Evolution

Mastering Queen and Pawn endgames
Copyright © 2016 Chess Evolution

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

ISBN 978-83-945362-0-6

All sales or enquiries should be directed to Chess Evolution
ul. Smutna 5a, 32-005 Niepolomice, Poland

e-mail: info@chess-evolution.com
website: www.chess-evolution.com

Printed in Poland

TABLE OF CONTENTS

Key to symbols.....	5
Introduction.....	7
Editorial preface.....	9

PAWN ENDGAMES

Chapter 1. Theoretical positions with 1 vs 0 pawn	13
1.1. Opposition.....	13
1.2. Square of the pawns	20
Chapter 2. Theoretical positions with 1 vs 1 pawns.....	23
2.1. Outflanking.....	23
2.2. Zugzwang and Mutual Zugzwang	25
2.3. Promotional squares.....	27
2.4. Shouldering.....	28
2.5. Tricks for catching a passed pawn	35
2.6. Transposition into drawn endgame	37
2.7. Square of the pawns.....	39
Chapter 3. Theoretical positions with 2 vs 1 pawns	43
3.1. h+g pawns vs. h- or g-pawn	43
3.2. Blockaded pawns/Triangulation	53
3.3. h+f pawns vs. g-, h- or f- pawn	55
3.4. h+a pawns vs a-pawn	60
3.5. Protected passed pawn	64
3.6. Undermining.....	65
3.7. Connected passed pawns.....	66
3.8. Capture in the right moment.....	67
Chapter 4. Complex (4+ pawns) theoretical positions.....	69
4.1. Distant passed pawns.....	69
4.2. Connected passed pawns vs separated passed pawns.....	73
4.3. Connected passed pawns vs Connected passed pawns.....	77
4.4. Protected passed pawns	78
4.5. Theoretical positions	82
4.6. Breakthrough.....	85

4.7. Preventing the breakthrough	91
4.8. Zugzwang — Method for calculating the reserve tempi.....	93
4.9. Going behind the pawns.....	98
4.10. Widening the space	99
4.11. Stalemate	103
4.12. Fortress	105
4.13. Breaking the fortress / Tempo	106
Chapter 5. Practical games.....	109
5.1. Active king.....	109
5.2. Stalemate	134
5.3. Breakthrough.....	136
5.4. Passed pawn.....	142
5.5. Complex.....	160

QUEEN ENDGAMES

Chapter 6. Theoretical positions with Queen vs pawn.....	187
6.1. Queen vs one pawn.....	187
6.2. Queen vs more pawns.....	192
Chapter 7. Theoretical positions with Queen + pawn vs Queen.....	197
7.1. h-pawn.....	198
7.2. g-pawn	201
7.3. f-e pawns	208
7.4. h+g pawns.....	210
Chapter 8. Complex positions — Practical games.....	213
8.1. Stalemate.....	213
8.2. Mating ideas.....	214
8.3. Simplification into pawn endgames.....	219
8.4. One flank queen endgames.....	221
8.5. Passed pawn.....	234
8.6. Quality vs quantity.....	246
8.7. Perpetual check.....	258
8.8. Active queen.....	263
8.9. Active king.....	265

KEY TO SYMBOLS

=	Equality or equal chances
±	White has a slight advantage
∓	Black has a slight advantage
±	White is better
∓	Black is better
+ -	White has a decisive advantage
- +	Black has a decisive advantage
∞	unclear
∞̄	with compensation
↔	with counterplay
↑	with initiative
→	with an attack
Δ	with the idea
□	only move
N	novelty
!	a good move
!!	an excellent move
?	a weak move
??	a blunder
!?	an interesting move
?!	a dubious move
+	check
#	mate

INTRODUCTION

The first book of the series “The modern endgame manual” is a combination of king & pawn endgames and queen & pawn endgames. The pawn endgames consist of 5 main chapters with a graduation to 35 different topics. The queen endgames consist of 3 main chapters with a graduation to 15 different topics.

King and pawn endgames, compared with others, are relatively direct and can often be calculated to the end, and that’s why the value of each move is much higher than in other endgames with multiple pieces on the board.

Every single move can change the evaluation of the position and “perfect” play is quite possible in most of them. In the majority of pawn endgames knowledge plays the most important role and, of course, the ability to accurately calculate long lines where both sides are aiming to promote their respective pawns. Throughout the book you will find many theoretical positions, many practical ones and also how the games developed in practical play.

Queen endgames are different because they revolve around a much smaller number of theoretical positions and typical manoeuvres. Therefore the real knowledge here is the ability to use — and evaluate correctly — the roles of the most important elements, such as passed pawns, centralized queens and king marches into the opponent’s camp.

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

EDITORIAL PREFACE

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

The authors aim for very understandable explanations of every endgame positions in the book.

The specification:

- ◆ 1st book — Queen and pawn endgames.
- ◆ 2nd book — Minor piece endgames (Bishop and knight endgames).
- ◆ 3–5 — These books are going to focus on the most common endgames, which are of course the rook endgames.
- ◆ 6–7 — These books will be a fight between different material constellations.
- ◆ 8th — This book will focus on the exchanges and simplifications.
- ◆ And the last six books will be a collection of practical examples for self-learning, with a lot of exercises covering all the different endgame topics.

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

That's why you will see first the theoretical part, and then the practical examples of how games actually continued in a particular endgame.

Yes, you're right, you will be not able to find too many very complicated studies, stunning manouevres or rarely-appearing positions — and there is a simple reason why!

How often do we see positions, for example two knights vs pawn where one knight is blocking the pawn and the other one tries to get the king to the corner before releasing the second knight for the mate — or constellations with crazy material on the board? This might happen once in a lifetime. You could

spend hundreds of hours working on something that might bring you “only” a single point more out of 100 games!

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

In our modern chess world, with faster time-controls, we often have to play complex endgames surviving on 30 second increments after each move, therefore the importance of theoretical knowledge is now greater than ever.

“The modern endgame manual” series makes an expert out of you in most of the endgames which are going to appear in your long career as a chess player!

PAWN ENDGAMES

Pawn endgames are the closing part of the game. Despite the fact that there are no other pieces on the board beside the kings and pawns, they can be extremely complex and hard to play. Usually pawn endgames arise after several hours of play when we are already exhausted and lacking some energy to be in complete focus. Additionally, at this stage of the game, most often we are already short of time and of course all these things together make our task even harder to play this part of the game perfectly.

What can we do to improve our skills? In general, pawn endgames are about two things: Calculation and knowing theoretical positions.

The importance of knowing as many theoretical positions as possible is irreplaceable. First of all, we save a huge amount of time and energy, because we don't need to calculate the outcome of some concrete positions if we know from memory that

it is winning or a draw. We can much easier put the right evaluation at the end of a long line that we have calculated if we know many positions. So, throughout the book we will learn the most important theoretical positions. We would like to draw your attention to the two most important elements of pawn endgames, which are "passed pawns" and "king activity".

About the calculation part: We often recommend for students who want to improve their calculation and visualisation to practice on calculating pawn endgames. There can be many different problems. For example, long and forced lines or short lines but with many variations. Just as in the middlegame, but here the options are more limited. However one mistake in calculation, missing a tempo or a hidden idea, can be decisive and might turn the game 360 degrees. Therefore calculation should be as precise as possible.

CHAPTER 1

THEORETICAL POSITIONS WITH 1 VS 0 PAWN

1.1. OPPOSITION

Opposition is one of the most important elements of the pawn endgames, therefore it is very important to study them in details and to learn and understand some basic theoretical positions.

There are several types of opposition:

- ◆ Direct opposition, e.g.: Kings on e4 and e6
- ◆ Distant opposition, e.g.: Kings on e2 and e6
- ◆ Diagonal opposition, e.g.: Kings on e4 and g6
- ◆ Side (Horizontal) opposition, e.g.: Kings on e4 and g4

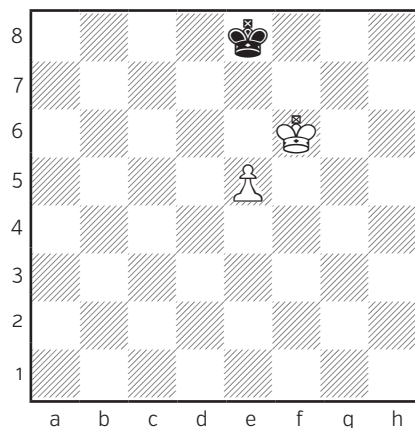
As you can see, there is always an odd number of squares between the two kings.

Taking the opposition basically means that we put our opponent into zugzwang. His king will have to leave its ideal position, which allows us to gain some direct benefits. Opposition and zugzwang are two highly important topics in pawn endgames and we

will discuss them in detail throughout the entire book.

1

THEORETICAL POSITION



It is very important to remember that if the king of the side with the extra pawn has reached the 6th rank then all positions are winning regardless of who takes the opposition. The only exception is when the stronger side has the h-pawn.

1. ♔e6!

The standard winning method is to squeeze the black king out from in front of the pawn by using the method of opposition. An early advance of the pawn would drop the win, as Black could take the opposition. 1.e6? ♚f8 2.e7+ ♚e8 3. ♔e6 with stalemate!

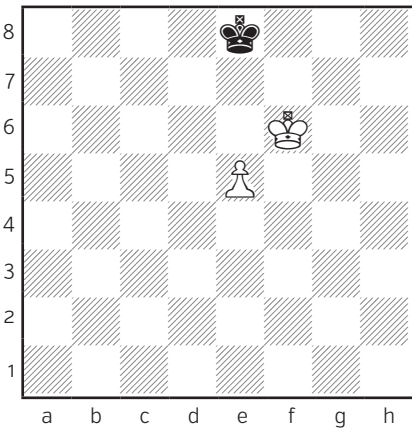
1... ♔d8

1... ♔f8 2. ♔d7!+- is the same.

2. ♔f7! ♔d7 3.e6+ ♔d6 4.e7+-

2

THEORETICAL POSITION



If the White king has reached the 6th rank, taking the opposition does not save the defending side because after

1... ♔f8

White cannot squeeze the king out like we saw in the previous example, but now

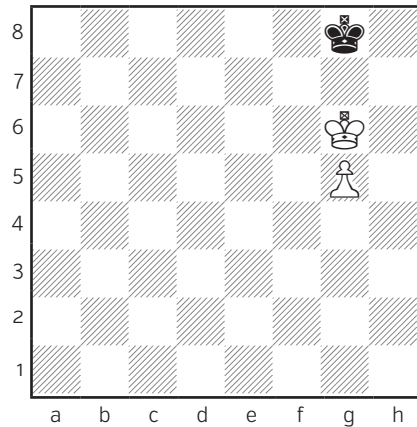
2.e6! ♔e8 3.e7

Black is on move and there is no stalemate motif

3... ♔d7 4. ♔f7+-

3

THEORETICAL POSITION

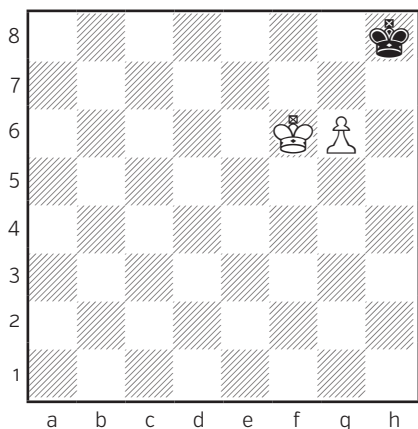


The win with the g-pawn is slightly trickier, but if we know on the winning plan, then it is also elementary.

1. ♔h6!

White wins only if he goes with his king to the h-file, otherwise Black can continue resisting by using a stalemate idea. The natural 1. ♔f6 is less accurate. A very funny/ strange story

happened to me once in a blitz game. I played against a 2650+ grandmaster whose name I don't want to mention. We reached this position, which I normally would resign as Black, but I thought I'd wait some moves until my opponent executed the winning plan. We were both down to 10 seconds, however the increment of 2 seconds per move should avoid any difficulties of converting the advantage. 1...♔h7 (1...♔f8 Taking the opposition does not help when the white king is on the 6th rank, White simply wins after 2.g6 ♔g8 3.g7 ♔h7 4.♔f7+-) Shockingly my opponent now played 2.g6+?? after which the game is drawn... (White still wins after reproducing the winning position by playing 2.♔f7! ♔h8 3.♔g6! ♔g8 4.♔h6!+-) 2...♔h8!



And the game is drawn as Black gets stalemated in each case. 3.g7+ (3.♔f7=) 3...♔g8 4.♔g6=

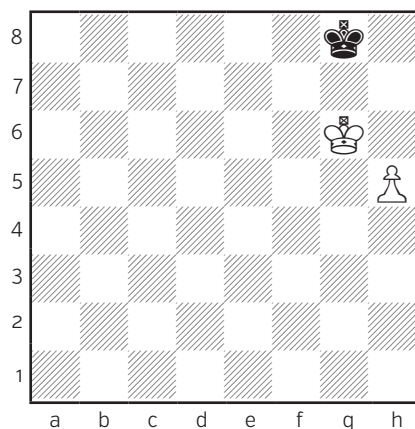
1...♔h8

The same defensive idea that we saw in the 1.♔f6 ♔h7 line is completely useless now as after 1...♔f7 2.g6+ ♔f8 3.♔h7+- there is no stalemate.

2.g6 ♔g8 3.g7 ♔f7 4.♔h7+-

4

THEORETICAL POSITION



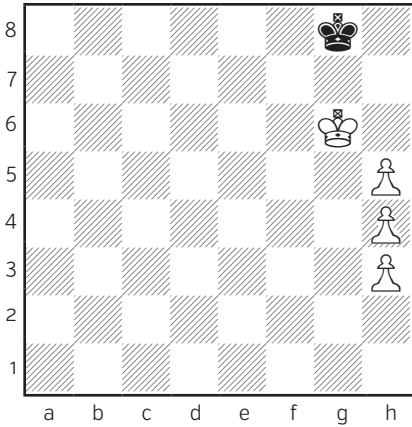
The h-pawn is an exception in many different endgames. The point is always the same, that the pawn endgame is drawn, regardless of who takes the opposition or of how far the pawn is advanced. If the black king has managed to enter into the corner, White cannot promote the pawn as there is always stalemate when the pawn reaches the 7th rank.

1.h6 ♔h8 2.h7

Even if it was White's move the game is drawn.

5

THEORETICAL POSITION



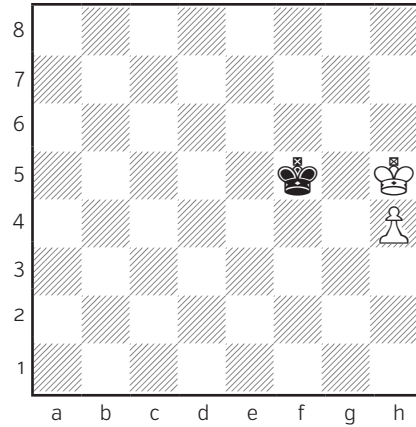
White can have as many h-pawn as he wants — it does not affect the final outcome if Black has reached the corner with his king. It always ends with the same stalemate which we have seen before.

1.h6 ♖h8 2.h5 ♚g8 3.h7+ ♚h8=

Conclusion: If the white king reaches the 6th rank, all pawn endgames are winning regardless of who takes the opposition. The only exception is when White has an h-pawn. With the g-pawn, we must know that the king has to the h-file, otherwise the stalemate idea might save Black.

6

THEORETICAL POSITION



Another very important idea to remember, which is frequently seen in many practical games and only existing in case of an h-pawn, is that despite the black king not having reached the corner, he still holds the draw by squeezing the white one on the h-file.

1.♚h6 ♚f6 2.♚h7 ♚f7 3.h5

Finally Black gets into zugzwang and he must allow his opponent to leave the h-file, but it still does not help.

3...♚f8

3...♚f6 is actually also draw as 4.♚g8 (4.h6 ♚f7= squeezes again to the h-file.) 4...♚g5= wins the pawn.

4.h6

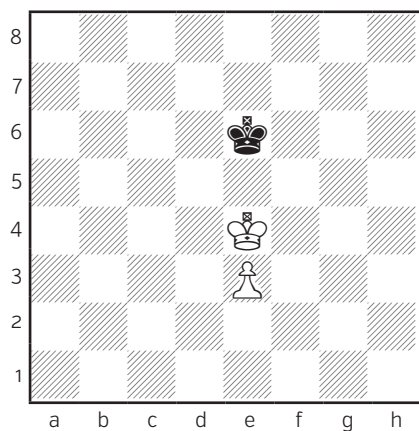
4.♔g6 White could leave the h-file, but it allows Black to occupy the corner 4...♔g8=

4...♔f7 5.♔h8 ♔f8 6.h7 ♔f7

Another stalemate with the h-pawn, this time with the white king squeezed into the corner.

7

THEORETICAL POSITION



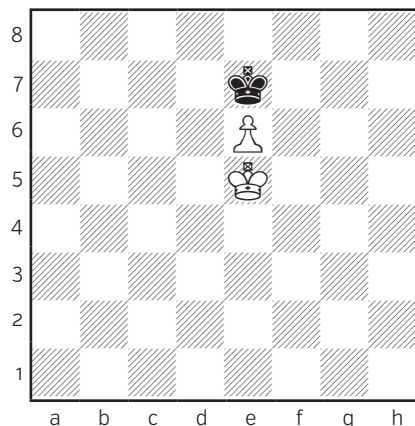
The following theoretical positions demonstrate the basic ideas that one must know about opposition. It is really relevant to understand them before going to more complex examples. In the current position, Black has just played ♔e6, taking the opposition and he holds the draw by keeping it in the entire course of the game.

1.♔f4 ♔f6! Opposition!

2.e4

The only way to make progress, but now the pawn occupies the king's place, which prevents White from taking over the opposition after

2...♔e6 3.e5 ♔e7 4.♔f5 ♔f7 5.e6+ ♔e7 6.♔e5



6...♔e8!

Black must be ready to take the opposition depending on which side the white king tries to make progress from. Of course not 6...♔f8?? allowing White to oppose with 7.♔f6! ♔e8 8.e7+- wins.

7.♔f6

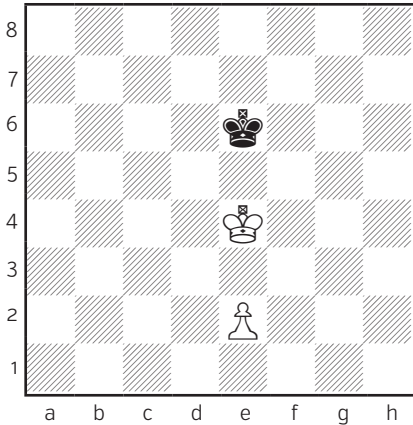
In case of 7.♔d6 ♔d8! 8.e7+ ♔e8 9.♔e6=

7...♔f8 8.e7+ ♔e8 9.♔e6=

Stalemate!

8

THEORETICAL POSITION



This is the logical follow-up to the previous position. Black has just played ...♔e6, and occupied the opposition. However, White is winning now. The huge difference lies in the placement of the e-pawn, which stands now on e2, giving the opportunity to waste a crucial tempo, which means that the opposition will be taken by White!

1.e3!

Here we are! Black to move and he is forced to move with his king.

1...♔f6 2.♔d5! ♔e7 3.♔e5!

Taking the opposition again! But not the premature 3.e4? which allows Black to oppose his king with 3...♔d7= and we reach the theoretical drawn position that we already know.

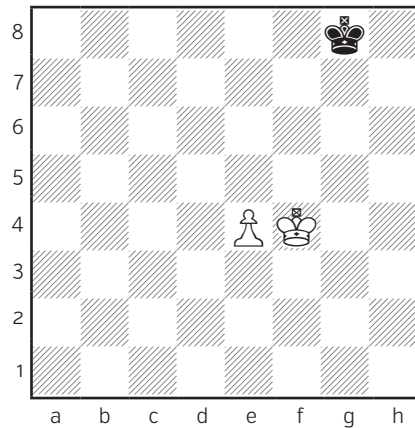
3...♔d7 4.♔f6!

White has reached the 6th rank with his king. We already know, that with the e-pawn it is winning in any case.

4...♔e8 5.♔e6 ♔f8 6.e4 ♔e8 7.e5 ♔f8 8.♔d7 ♔f7 9.e6+-

9

THEORETICAL POSITION



We already know how direct opposition works in practice when there is only one square between the two kings. Now, let's see some examples for the distant opposition, when there are 3 squares between the two kings. The method and the point is exactly the same as before. Both the defensive and the attacking side should aim for the opposition with the king. We already know the right move

1...♔f8!

Black must be able to take direct opposition in case of any progressive attempts by White. Obviously not 1... ♖f7? as it allows White to take the direct opposition with 2. ♖f5! ♜e7 3. ♜e5! ♖f7 4. ♜d6+-

2. ♜e5

On 2. ♖f5 ♖f7! holds.

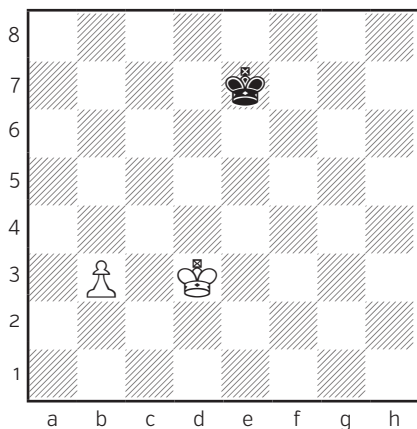
2... ♜e7! 3. ♜d5 ♖d7!

Holding the opposition and the draw.

4.e5 ♜e7 5.e6 ♜e8 6. ♜d6 ♖d8 7.e7+ ♜e8 8. ♜e6=

10

THEORETICAL POSITION



The same example, just in a slightly different version to the previous one is the following. Black holds by taking the distant opposition with his king.

1... ♜d7!

But not 1... ♜d6? which is met by 2. ♜d4! ♜c6 3. ♜c4 ♖b6 4. ♖b4! ♜c6 5. ♜a5+-

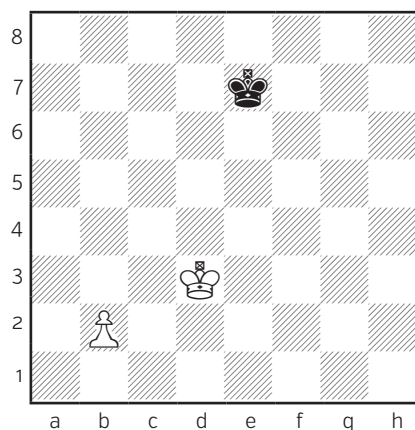
2. ♜c3

On 2. ♜d4 ♜d6! =

2... ♜c7 3. ♖b4 ♖b6 = with an easy draw.

11

THEORETICAL POSITION



A very small difference compared to the previous example is that we move the b3 pawn back to b2. Does it make any difference? Of course, it does. White can waste the crucial tempo to win the fight for the opposition. The distant opposition does not save Black here

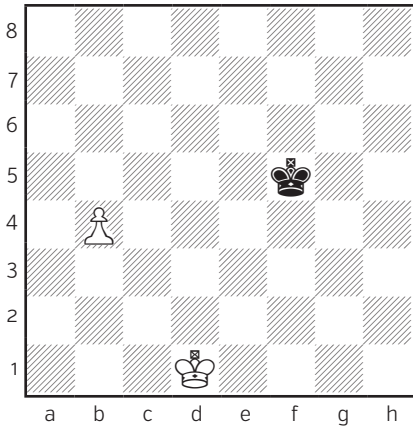
1... ♜d7 2. ♜c4 ♜c6 3. ♖b4 ♖b6 4. b3!

and White wins the fight.

4...♔c6 5.♔a5+-

12

THEORETICAL POSITION



An unusual example, when White has to fight against Black's attempt to have the opposition. He can only do it by going around his pawn with

1.♔c2!

After some natural move like 1.♔d2 ♔e4 2.♔c3 ♔d5! White should play ♔b4 now, but it is not possible, while after any other moves the black king gets in front of the pawn 3.♔d3 (3.♔b3 is already too late 3...♔c6 4.♔a4 ♔b6=) 3...♔c6 4.♔c4 ♔b6=

1...♔e4 2.♔b3 ♔d5 3.♔a4 ♔c6
4.♔a5! ♔b7 5.♔b5!+-

and White has won the fight for the opposition!

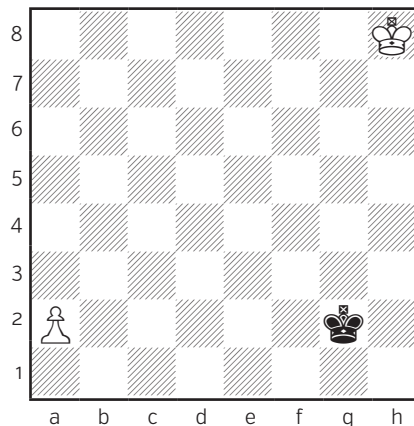
1.2. SQUARE OF THE PAWNS

Another very important topic in pawn endgames is the square of a passed pawn.

In pawn endgames, each passed pawn must be counted as a potential queen, therefore it is very important to know at which moment the king can catch it and at which it is already promoting. An easy rule to draw the square of a passed pawn correctly is to count the number of squares until promotion and draw this number in the lines, or files, to the side. For example: an a5 pawn has 3 squares until the promotion, therefore the king can be 3 files to the side to still catch it. The square is between a5-a8-d8-d5.

1

THEORETICAL POSITION



In this case the square between the a2 pawn and the g2 king can be drawn between the squares a2-a8-g8-g2. Black's king stands inside the square, but of course in this particular example he cannot catch the pawn, as it can move directly to

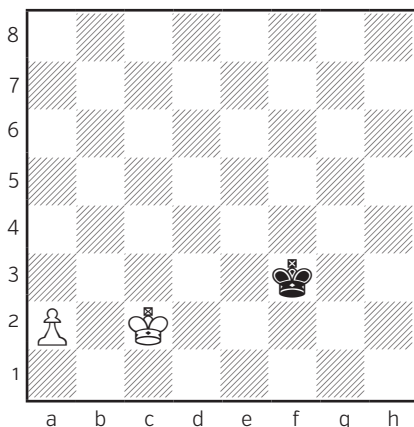
1.a4!

If in the initial position the pawn was on a3 and the king on f3. The square would be on a3-a8-f8-f3, and therefore Black catches the pawn.

1...♔f3 2.a5 ♔e4 3.a6 ♔d5 4.a7 ♔c6 5.a8 ♚+++

2

THEORETICAL POSITION



The black king is now in the square of the pawn, so it cannot be promoted by simply pushing it. However the white king can use his 'shoulder' to

avoid the Black king closing in on the pawn. This is another very important motif to keep in mind and we discuss it in detail in the upcoming chapters.

1.♔d3!

But not 1.a4? after which Black is in time with 1...♔e4=

1...♔f4

Black wants to go ♔e5, therefore White block its way again with

2.♔d4!

and so on until the end of the board...

2...♔f5 3.♔d5! ♔f6 4.♔d6! ♔f7 5.♔d7 ♔f6

And now it is already too late to turn back...

6.a4 ♔e5 7.a5 ♔d5 8.a6+-

The king again uses his shoulder to avoid ♔c6.