

YOUR JUNGLE GUIDE TO ROOK ENDINGS

by
Efstratios Grivas



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TABLE OF CONTENTS

KEY TO SYMBOLS	5
FOREWORD	7
DEDICATION TO DR. NIKOLAY MINEV	9
THE TECHNICAL POINT OF VIEW	11
THE ENDGAME	13
Computer Evolution	14
Endgame Thinking	15
THE GOLDEN RULES OF THE ENDGAME	17
ROOK ENDGAME PRINCIPLES	19
EVALUATION – PLAN – EXECUTION	21
CHAPTER 1. BASIC KNOWLEDGE	23
The Lucena Position	23
The Philidor Position	32
The Vancura Position	47
CHAPTER 2. EXTRAORDINARY ENDINGS	61
Rook & a+h Pawns vs Rook	61
Rook vs Three Pawns	74
Two Rooks vs Rook & Three Pawns	80
CHAPTER 3. SAME SIDE	93
Same Side Pawns 4:3 — Part 1	93
Same Side Pawns 4:3 — Part 2	133
CHAPTER 4. EXTRA PASSED PAWN	145
Active Rook & 3 Pawns & a-pawn vs Rook & 3 Pawns	145
Passive Rook — Part 1: Rook & 3 Pawns & a-pawn vs Rook & 3 Pawns	158
Plans	159

Introduction	159
Passive Rook — Part 2: Rook & 2 Pawns vs Rook & 1 Pawn	214
Rook & 3 Pawns & b-pawn vs Rook & 3 Pawns	219
Rook & 3 Pawns & c-pawn vs Rook & 3 Pawns	244
Rook & 3 Pawns & d-pawn vs Rook & 3 Pawns	255
CHAPTER 5. SHATTERING	275
Shattered Pawns — Part 1	275
Shattered Pawns — Part 2	298
CHAPTER 6. ISOLANI	311
The Isolani in the Endgame	311
CHAPTER 7. DRAWN ENDINGS	325
Drawn Endings	325
CHAPTER 8. FOUR ROOKS	341
Double Rook Endgame	341
CHAPTER 9. VARIOUS CONCEPTS	373
The Lasker's Steps	373
A Trapped Rook	384
The Loman Move	391

KEY TO SYMBOLS

!	a good move
?	a weak move
!!	an excellent move
??	a blunder
!?	an interesting move
?!	a dubious move
□	only move
=	equality
∞	unclear position
∞	with compensation for the sacrificed material
±	White stands slightly better
∓	Black stands slightly better
±	White has a serious advantage
∓	Black has a serious advantage
+ -	White has a decisive advantage
- +	Black has a decisive advantage
→	with an attack
↑	with initiative
↔	with counterplay
Δ	with the idea of
▷	better is
≤	worse is
N	novelty
+	check
#	mate

FOREWORD

Dear Reader,

In my younger chess years, in the early 80's, I was lucky enough to have as my main coach the legendary Dr. Nikolay Minev. He had been an Athens resident for approximately two years before immigrating to the United States. He mainly worked with Greece's National Men's Team, but also with a group of promising youngsters, including myself.

Dr. Nikolay Minev was a prominent coach, quite educated both in life and chess and he acted as my second father helping me to develop into a Grandmaster. He was quite fond of the great Akiba Rubinstein and of rook endings. It is no coincidence that he wrote several books on those two subjects!

It was natural that I was inspired by his work and I also tended to fall in love with Akiba and rooks! In my chess career I have played many rook endings, quite brilliantly in most of them. I studied them with one of the best and I became quite proficient at them!

Having completed my playing career and become a top-level coach it is my turn to author a book on rook endings dedicated to my wonderful coach. I chose to write a book on advanced rook endings as I simply did not wish to write another book that would be like the many already available.

I have done my best to present analysis and articles I have written over the past 10-15 years. This work has been presented in my daily coaching sessions, seminars, workshops, etc. The material has helped a lot of trainees to develop into quite strong players gaining international titles and championships.

Now, it is your turn to taste and enjoy it!

Sharjah 2019
Efstratios Grivas

ANALYSIS OF THE PROJECT

Chapter 1 deals with basic knowledge: the Lucena, the Philidor and the Van-cura positions. As nearly all rook endings will result in one of these three positions it is necessary that we go over the basics before advancing to more complex material.

Chapter 2 deals with some extraordinary endings with rook pawns and rook(s) vs a fair number of pawns! This is a difficult subject where concrete knowledge is demanded.

Chapter 3 will teach us how to deal with pawns on the same side and if and how we can take advantage of our extra material.

Chapter 4 is probably the most complicated of endings with 3 vs 3 pawns with an extra a, b, c or d pawn. In both cases the active or passive rook is examined.

Chapter 5 deals with shattered pawns on one or both sides and how the healthy side can prevail.

Chapter 6 teaches us how to benefit from a useless isolani in the endgame.

Chapter 7 instructs us on how to hold drawn endings. Many such endings have been lost by high rated players due to a lack of accuracy.

Chapter 8 is full of rooks! We will examine endings with four rooks on the board. This is not an easy situation as many new elements are presented.

Chapter 9 concludes the book and the subjects are Lasker's Steps, the Trapped Rook and the Loman Move.

DEDICATION TO DR. NIKOLAY MINEV

This book is dedicated to my great Coach Dr. Nikolay Minev. Back in 1981 & 1982 he coached me from being an ordinary kid in the neighborhood to an adult chess player. He made me understand what chess is and how to deal with it both as a player and as a coach. May he rest in peace.

Nikolay Minev (8 November 1931 – 10 March 2017) was a Bulgarian International Master (IM) and noted chess author. N.Minev was awarded the IM title by FIDE in 1960 and he was the champion of Bulgaria in 1953, 1965, and 1966. He played for Bulgaria in the Chess Olympiad six times (1954, 1956, 1958, 1960, 1962, and 1966). N.Minev's best international results were 3rd at Varna in 1960, 2nd at Warsaw in 1961, tie for 1st at Sombor in 1966, and 2nd at Albena in 1975. He contributed to early editions of the 'Encyclopaedia of Chess Openings' and the 'Encyclopaedia of Chess Endings'. N.Minev and his wife immigrated to the United States in 1982 and settled in Seattle, Washington. He was associated with GM Yasser Seirawan and his magazine 'Inside Chess' in the 1980s and 1990s.

THE TECHNICAL POINT OF VIEW

It is a testimony to the accuracy of the author's original analysis that only twenty or so substantive changes have been made in the 206 relevant games and studies contained herein.

It is interesting to see how the author's original work benchmarks against the definitive knowledge of the databases. Of course, some deep wins are 'over the horizon' but even shallow tactical shots can be missed by an over-enthusiastic pruning of the search tree.

Zugzwang situations can confuse the computer if the 'null-move heuristic' is not switched off and fortresses can be rendered magically invisible.

Guy Haworth is an Honorary Fellow in computer science at the University of Reading.

Over the years he has championed the creation and use of chess endgame databases, mainly in the pages of the ICGA Journal.

Guy's specific contribution was to extend the author's sub-7-piecer database checking of the positions. He has used Ronald de Man's DTZ50 endgame tables rather than the 'Lomonosov DTM(ate)' ones. Thanks should go to Ronald de Man, Bojun Guo (for the tables) and Niklas Feikas (for the site, <https://syzygy-tables.info>) which deserves more publicity.

Guy Haworth
London, September 2019

THE ENDGAME

150 years ago, the quality of played endings was quite low as chess players rarely reached the endgame!

As strategy and maneuvering were starting to overcome tactics more and more endgames were suddenly seen. As a result, a need for endgame material became essential.

‘Basic Chess Endings’ (abbreviated BCE) is a book on endgames which was written by Grandmaster Reuben Fine and originally published on October 27, 1941.

It is considered the first systematic book in English on the endgame phase of the game of chess. It is the best-known endgame book in English and is a classic piece of chess endgame literature.

The book was dedicated to World Champion Emanuel Lasker who died in 1941 (the year the book was published). It was revised in 2003 by Pal Benko.

‘Basic Chess Endings’ was written by Reuben Fine in only four months and was published in 1941 by McKay (a division of Random House) in

hardback. The book used the now obsolete descriptive chess notation and used the old system of using the abbreviation ‘Kt’ to stand for knight instead of the more modern ‘N’.

In a 1984 interview Fine said that it took him three months to write the book. He said that organizing the material gave him no trouble, but it was hard work coming up with exemplar positions therefore he created many of the examples.

There was a Hardback Limited Edition of 500 signed by Ruben Fine and sold by the USCF in the 1940s. The hardback edition was reprinted at least as late as 1960. The copyright was renewed in 1969 as the book went through many paperback impressions. It went through ten printings in paperback by 1981.

The original book contains 573 pages and 607 diagrams of positions. Many other positions were given by listing the location of the pieces rather than showing a diagram. The 2003 revision contains 587 pages with 1330 positions, most with diagrams.

Many other good books followed BCE. They were written by Yuri Averbakh, Vasily Smyslov and Paul Keres. But all of them had some analysis flaws as well — it was rather difficult to be accurate.

COMPUTER EVOLUTION

The computers' evolution changed everything in the way we learn and analyze endgames today, at least to some degree!

Nowadays chess players have access to many good and accurate endgame books, mainly because of the tablebases which changed our endgame vision.

These tablebases contain the game, the theoretical value (win, loss or draw) of each possible move in each possible position and how many moves it would take to achieve that result with perfect play.

The tablebases act as an oracle always providing the optimal moves. Typically, the tablebase records each possible position with certain pieces remaining on the board and the best moves with White to move and with Black to move.

Tablebases are generated by retrograde analysis working backwards

from a checkmate position. By 2005, all chess positions with up to six pieces (including the two kings) had been solved — this is what we call today the Nalimov Tablebases.

The tablebases of all endgames with up to six pieces are available for free download and may also be queried using web interfaces. They require more than one terabyte of storage space.

By August 2012, tablebases had solved every position with up to seven pieces. The positions with a lone king versus a king and five pieces were omitted because they were 'rather obvious'. Today we call this the Lomonosov Tablebases. The size of all tablebases up to seven pieces is about 140 TB.

The solutions have profoundly advanced the chess community's understanding of endgame theory.

Some positions which humans had analyzed as draws were proven to be winnable; the tablebase analysis could find a mate in more than five hundred moves. Clearly this is far beyond the horizon of humans and even beyond the capability of a computer during play.

For this reason, the 50-move rule has been questioned since many

positions are now seen to exist that are a win for one side but would be drawn because of the 50-move rule.

Tablebases have enhanced competitive play and facilitated composition of endgame studies providing a powerful analytical tool.

Of course, we can expect the 8-piece version, but I feel that it will be a bit delayed!

Chess players tend to think that theory only applies to openings. This is a very wrong attitude as logic and practice have proven that theory counts for every part of a game.

ENDGAME THINKING

‘To learn and to play endgames well the chess player must love endgames’ — Lev Psakhis.

Different kinds of endgames have specific characteristics and rules. Every serious player must know many typical positions and main principles of all types of endings.

That knowledge should help us during the game, but it is not yet enough knowledge to make one a good player as there are just too many different endings, some of

them with two or more pieces, some very complex.

To be comfortable and play those complex endings well requires specific knowledge and specific ways of thinking. We will call it ‘endgame thinking’.

First, we will separate endgames into two categories:

SOS Tip 1 – Endgame Categories
1. Tactical – Tactical complex endgames must be treated as a middlegame.
2. Strategic – Pure Endgames.

As in the middlegame our thoughts are busy with calculation based on the specific characteristics of the position.

But more often in our games, as practice proves, we have so-called strategic endgames where even computers have difficulties finding the best moves. These are the endgames that do not rely on calculation.

It is known from the time of Jose Raul Capablanca that in strategic, positional endgames we must think by plans and schemes. Variations and calculation play a secondary role.

First, we must understand where to put our pieces in order to improve the position. After we have this understanding, we start to form a plan. This is what we call ‘endgame thinking’.

Thinking correctly, in the right order, will significantly simplify the process of calculation.

SOS Tip 2 – Endgame Thinking
1. Piece placement.
2. Plan forming.
3. Do not rush!

The question is how to approach ‘endgame thinking’, how to switch on the right button in our brain for the task at hand. The Russian master Sergei Belavenets, a great chess thinker, gives the following great advice:

‘After tactical complications, when our brains have been busy with cal-

culatation of beautiful variations the exchange of pieces might follow and some kind of prosaic endgame arises.

Every player has to spend a few minutes, if the clock allows, just to relax, and to calm down your emotions in order to look differently at the position. This investment of time will pay back later in the game.’

I understand this advice was given before World War II when they had very different time controls.

So do not waste your time, just switch on the button in your brain and remember that positional endgames require ‘endgame thinking’ by schemes, by plans.

And do not forget to respect your opponent’s ideas. The art of endgame play is how to achieve your plan and subdue the opponent at the same time. And this book is here to help you understand it!

THE GOLDEN RULES OF THE ENDGAME

The endgame is the moment of truth. It is the phase of the game where we will try to reap the seeds of our effort regardless of whether that is the full point of victory or the half point of the draw.

In significance of errors increases in the endgame as the opportunities for correcting them are few.

The following rules are considered Golden Rules of the Endgame. They were recorded by GMs **Reuben Fine** and **Pal Benko**, two of the world's greatest experts in this field:

1. Start thinking about the endgame in the middlegame.
2. Somebody usually gets the better deal in every exchange.
3. The king is a strong piece: Use it!
4. If you are one or two pawns ahead, exchange pieces but not pawns.
5. If you are one or two pawns behind, exchange pawns but not pieces.
6. If you have an advantage do not leave all the pawns on one side.
7. A distant passed pawn is half the victory.
8. Passed pawns should be advanced as rapidly as possible.
9. Doubled, isolated and blockaded pawns are weak: Avoid them!
10. The easiest endings to win are pure pawn endings.
11. Passed pawns should be blockaded by the king.
12. The only piece that is not harmed by watching a pawn is the knight.
13. Two bishops vs bishop and knight constitute a tangible advantage.
14. Bishops are better than knights in all except blocked pawn positions.
15. Do not place your pawns on the color of your bishop.
16. The easiest endings to draw are those with bishops of opposite colors.
17. Rooks belong behind passed pawns.
18. A rook on the seventh rank is sufficient compensation for a pawn.
19. Not all rook endings are drawn!
20. Perpetual check looms in all queen endings.
21. Every move in the endgame is of the utmost importance because you are closer to the moment of truth.

Of course, there are plenty of other guidelines for dealing with the end-game:

1. Activate you king.
2. If you have more pawns than your opponent then exchange pieces not pawns.
3. If you have fewer pawns than your opponent exchange pawns not pieces.
4. Try to create a passed pawn.
5. Protected passed pawns are very strong.
6. Outside protected passed pawns are usually decisive.
7. Try to promote a passed pawn.
8. If your opponent has a passed pawn, try to blockade that pawn.
9. Bishops are generally stronger than knights.
10. Bishops of opposite color increase the chances of a draw.
11. Be aggressive with your rooks. If your choice is between defense and counterattack, always counterattack.
12. Rooks belong behind passed pawns.
13. Know the basics.

ROOK ENDGAME PRINCIPLES

There are five basic principles that must be followed faithfully in rook endings:

1. **Rook behind the pawn:** The placement of the rooks in relation to the pawns is very significant. The rook must be placed behind the pawn whether the pawn is yours or not. With every move the pawn makes the radius of our rook will increase and that of the opponent's will decrease.

2. **Active rook:** In all rook endings the active handling of the rook is almost always the indicated course of action. The initiative and attacking possibilities must always figure in our plans and moves.

3. **Active king:** As in all endings the active king has the first say as the endgame is its finest hour. This is especially true when the king can cooperate harmoniously with the rook as it can dynamically help us solve the problems posed by the position.

4. **Planning:** Our moves must be part of one or more plans. Active

plans must be directed towards the sector of the board where we are superior and, correspondingly, defensive plans must be directed towards the area where we are inferior.

5. **Combination of all the above:** When we can combine the above-mentioned elements then we will be able to extract the maximum from our position!

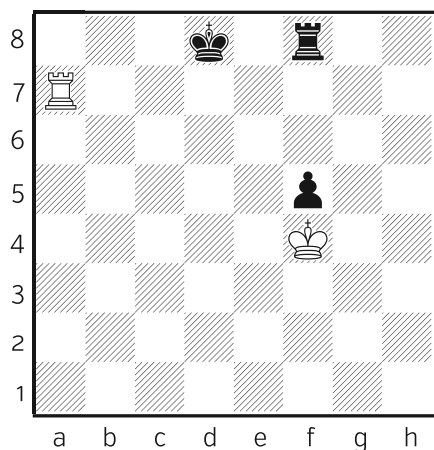
Mark Dvoretsky makes a general quote: Rook activity is the cornerstone in the evaluation and play of rook endgames.

This activity may take diverse forms: from attacking the enemy pawns, to the support of one's own passed pawns, to the interdiction or pursuit of the enemy king.

There are indeed times when the rook must remain passive and implement purely defensive functions. But even then, one must stubbornly seek out any possibility of activating the rook, not even stopping at sacrificing pawns, or making your own king's position worse.'

Study 1

Nikolay Nikolaev Minev
Shakhmatna Misal 1972 ○



This looks like an easy draw for White as the extra black f-pawn is going nowhere. But a closer examination shows that White can get more than a draw.

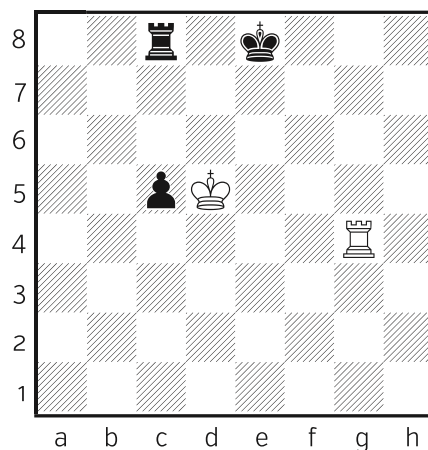
1. ♔e5!

And White wins. For example 1... ♖e8+ 2. ♔d6!+- or 1...f4 2. ♔e6!+- and Black loses the rook. An excellent example of the importance of piece placement and activity.

1-0

Study 2

Studenetsky
Shakmaty v SSSR 1939 ○



1. ♖g8+ ♔d7 2. ♖g7+ ♔e8 3. ♖h7! c4
4. ♔d6 ♖d8+ 5. ♔e6

1-0

EVALUATION – PLAN – EXECUTION

The most important element in modern chess practice is probably correct planning. The plan is associated with evaluation and execution, three valuable concepts that cannot be separated and which most of the time determine the fate of our positions.

During my training sessions my trainees are asked to use the famous EPE procedure shown below.

SOS Tip 1 – EPE
1. Evaluation [strategical & tactical]
2. Plan [ours and our opponent's]
3. Execution [calculation & move]

That's the right order although many trainers/authors do not really follow it as they prefer to teach you to first move and then to think. With this method they have some success, but they will never have a GM or a player near such strength.

Chess is a mind game — it asks you to think to find solutions even if these solutions are obvious.

In every position you must know where you are (evaluation), where you want to go (plan) and how you will get there (execution). So simple but we tend to forget this procedure in the heat of the battle.

Nowadays chess games between decent players are full of small plans of different types and ideas based on purely strategic and tactical motives. The one who will evaluate, plan and execute better than the opponent earns the first option to win the game.

A closer examination of games played between strong players will prove that there is some harmony among their moves and some central idea that guides the movements of their forces. This is what we call a plan. A good chess player refuses to act without any plan even if this plan sometimes turns out to be mistaken in the long run.

First, it is important to identify the most important strategic and tactical elements of each position. According to the needs of the position

we should create our plan and stick to it. Games where only one plan is used are rarely seen these days. We are usually obliged to create several small plans which are just parts of our main goal: winning!

Many weak players are not able to construct an acceptable plan. This has nothing to do with intelligence but just with basic chess education. Today with so many books, electronic help and trainers available anything can be learned and with constant practice it can be understood and assimilated. Without basic chess education and knowledge, we can't go very far. Therefore, the first step is to understand the basic strategic and tactical elements that govern our game.

Plans are necessary and can be found in every phase of a chess game. From the early opening till the late endgame chess players create the necessary plans derived from such varied factors as the occupation of an important square to an aggressive attack.

Most common are the plans we draw right after the end of the opening

phase, but this is not the rule. Nowadays with opening theory having gone very far the choice of a certain opening very much depends on the plan we would like to use!

Some general advice could be presented to the reader as follows:

SOS Tip 2 – Planning
1. Notice and understand the main merits and disadvantages of each side.
2. Notice the immediate threats of both sides but especially of your opponent!
3. Determine what is the most significant target(s) and how the plan should be executed.
4. Examine what will be the opponent's reaction to your plan.
5. Examine what your opponent's possible main plan is (or can be) and how you should react to it.
6. If you can choose among two or more good plans opt for the one that you think can bring the most benefits.
7. Follow your plan. Do not change it without a good reason.

CHAPTER 1. BASIC KNOWLEDGE

THE LUCENA POSITION

The ‘Lucena Position’ is one of the most famous and important positions in endgame theory where one side has a rook and a pawn, and the defender has a rook.

It is fundamental in rook and pawn vs rook endgames that if the side with the pawn can reach this type of position, he can forcibly win the game. Most rook and pawn versus rook endgames reach either the ‘Lucena Position’ or the ‘Philidor Position’ if played accurately.

The side with the pawn will try to reach the ‘Lucena Position’ to win; the other side will try to reach the ‘Philidor Position’ to draw.

The ‘Lucena Position’ is named after the Spaniard Luis Ramírez de Lucena although it is something of a misnomer because the position does not in fact appear in his book on chess: ‘Repetición de Amores e Arte de Axedrez’ (1497).

It does appear, however, in Alessandro Salvio’s ‘Il Puttino’ (1634), a ro-

mance on the career of the chess player Leonardo da Cutri, and it is in that form that it is given here.

Salvio attributes it to Scipione Genovino. It is likely that the error arose from the sixth edition of the ‘Handbuch des Schachspiels’, in which editor Constantin Schwede incorrectly attributed the position to ‘Lucena 96’, possibly as a result of confusion over the references in Antonius van der Linde’s 1874 work ‘Das Schachspiel des XVI. Jahrhunderts’.

The essential characteristics of the ‘Lucena Position’ are:

SOS Tip 1 – Characteristics
1. The pawn is any pawn except a rook pawn.
2. The pawn has advanced to the 7 th rank.
3. The stronger side's king [the one with the pawn] is on the queening square of his pawn.
4. The stronger side's rook cuts-off the opposing king from the pawn by at least one file.
5. The defending rook is on the file on the other side of the pawn.

6. The winning method: building a bridge.

Like in almost all endings, the rook pawns (a and h) are the least desirable for the attacker in rook endings as well.

Even in the favorable case that a 'Lucena Position' has been reached, the defending king must be cut-off for at least three files.

Thus, if White has an a-pawn and the black rook controls the b-file, the black king must not be nearer than the f-file for White to win.

Hence, we can conclude:

SOS Tip 2 – Conclusions

1. If the pawn is on the 7th rank, multiple winning methods exist. The most important ones are building a bridge for protection from checks along files and a rook maneuver for protection from side checks along ranks.

2. When the king of the weaker side is cut-off from the pawn the only defensive technique consists of side checks.

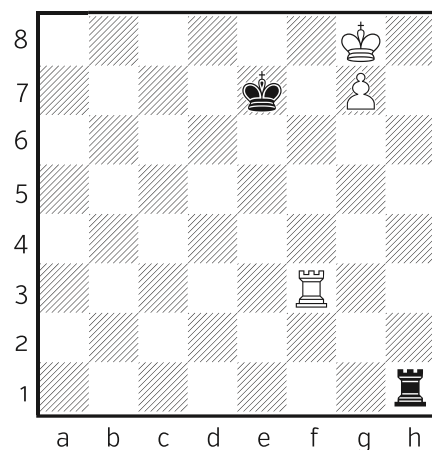
3. A rook pursuit of the enemy king can only be successful when the rook and the pawn are separated by at least three lines.

4. A central or a bishop pawn divides the chessboard into two unequal parts: one is 'long', another is 'short'. The correct positioning of forces for the weaker side is to keep the king on the short side and the rook on the long side.

The 'Lucena Position' is heaven for the side with the extra pawn: it is the desired outcome of every rook ending.

In most cases it an easy concept to play but there are certain cases where knowledge and accuracy are demanded.

Example 1 ○



Our first example is simple but illuminating. White's aim is to either promote his pawn or else compel Black to give up his rook for it — either result will leave White with an overwhelming material advantage

and a straightforward win. White has managed to advance his pawn to the 7th rank, but it is prevented from queening because his own king is in the way. White would like to move his king and then promote his pawn but is prevented from moving to the h-file by the black rook and prevented from moving to the f-file by the black king.

1... ♖h2

The black rook must stay on the h-file. After 1... ♖a1 2. ♖h3! and 3. ♔h7, White wins.

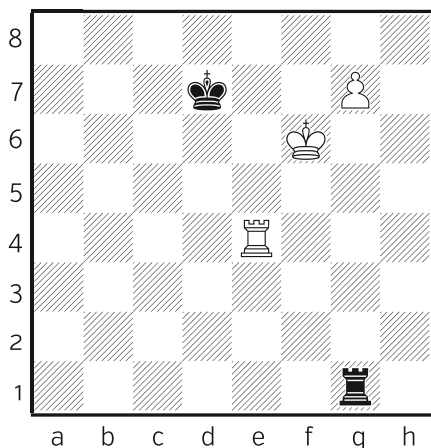
2. ♖f4!

The first step of the basic winning method called the ‘bridge’.

2... ♖h1 3. ♖e4+! ♔d7

Also hopeless is 3... ♔f6 4. ♔f8!.

4. ♔f7 ♖f1+ 5. ♔g6 ♖g1+ 6. ♔f6



6... ♖f1+

There are no defensive resource in waiting.

a) After 6... ♖g2 7. ♖e5! and 8. ♖g5, White completes the ‘bridge’.

b) Likewise, after 6... ♔d6 7. ♖d4+! ♔c6 (7... ♔c7 8. ♖d5! and 9. ♖g5) 8. ♖d8!, White wins.

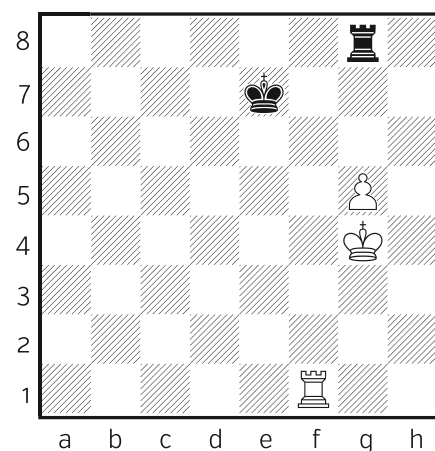
7. ♔g5! ♖g1+ 8. ♖g4!

The ‘bridge’ is complete, and the white pawn will promote.

1-0

The second example shows the building of the ‘Lucena Position’:

Example 2 ○



1. ♔h5!