آخر بازی پیشرفته

دیاگرام های نمونه جهت امتحان پایان ترم

(برگرفته از کتاب آخر بازی Mark Dvoretsky)
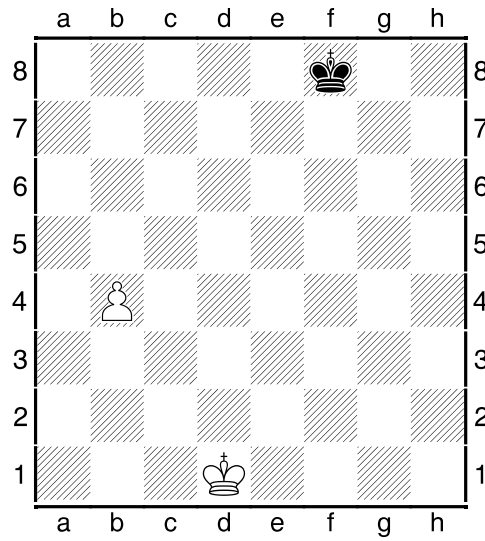
استاد: خانم شادی پریدر

زمستان ۹۲

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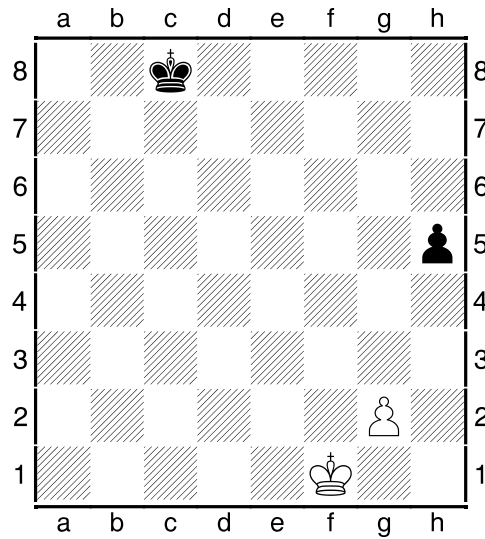
رشته کاردان حرفه ای مربیگری پایه شطرنج

Diagram 8

(8) Illustrative Example 1-3

The key squares are a6, b6 and c6. The sensible thing here is to head for the square furthest from the enemy king, since that will be the one hardest to defend. **1.Kc2! Ke7 2.Kb3 Kd6 3.Ka4** [3.Kc4? Kc6=] **3...Kc6 4.Ka5** Threatening 5.Ka6. **4...Kb7 5.Kb5⊙+− +−**

Diagram 9

## (9) Moravec,Josef

1952

1.Kf2! [On 1.Kg1? Kd7 Black's king successfully defends the pawn, whereas now, he's too late.] **1...h4!** [1...Kd7 2.Kg3 Ke6 3.Kh4+−] **2.Kg1!!** [The natural 2.Kf3? is refuted by 2...h3! If the pawn is taken, Black's king heads for h8. And if 3.g4 White cannot gain control of the key squares on the 6th rank: 3...Kd7 4.Kg3 Ke6 5.Kxh3 Kf6 6.Kh4 Kg6] **2...h3 3.g3!** The key squares for a pawn on g3 are on the 5th rank − closer to White's king. **3...Kd7 4.Kh2 Ke6 5.Kxh3 Kf5 6.Kh4 Kg6 7.Kg4⊙+− +−**

Diagram 13
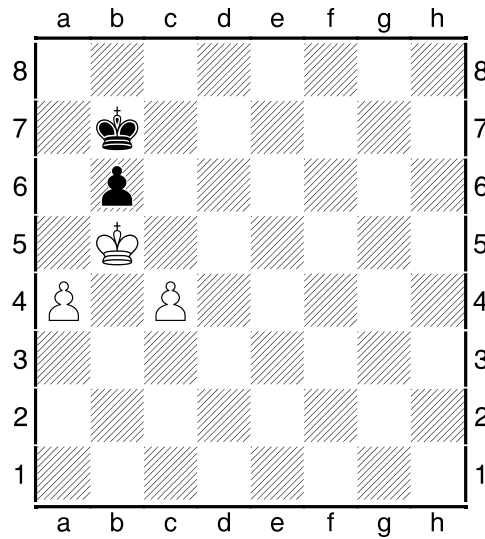
(13) Illustrative Example 1-7

White has the opposition, but it's not enough to win. **1...Kc7!** [1...Ka7? is a mistake, in view of 2.a5 bxa5 3.Kxa5 (here, getting the opposition decides) 3...Kb7 4.Kb5 Kc7 5.Kc5☉+−] **2.Ka6** Since 2 c5 would be useless, the king starts an outflanking maneuver. Black replies by getting the horizontal opposition. **2...Kc6 3.Ka7 Kc7! 4.Ka8 Kc8!=** [But not 4...Kc6? 5.Kb8 Kc5 6.Kb7+− If we moved the position one file to the right, White would win: 1...Kd7 is met by 2 d5!.White would also win if he had a reserve tempo at his disposal. Let's move the a−pawn back to a3. Then, after 1...Kc7 2 Ka6 Kc6, he first recaptures the opposition by 3 a4!, and then performs the outflanking maneuver 3...Kc7 4 Ka7 Kc6 5 Kb8! (outflanking!) 5...Kc5 6 Kb7+−.] **=**
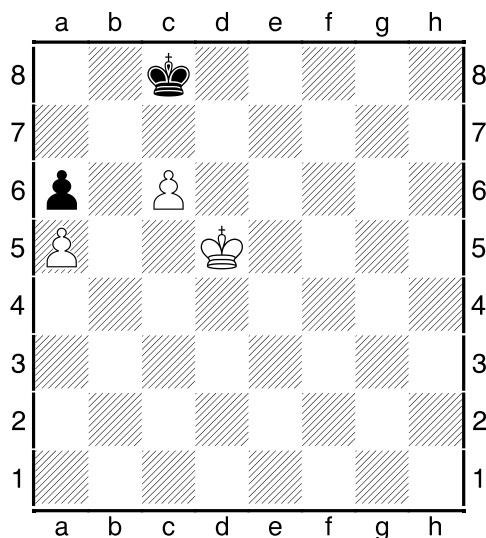
Diagram 40
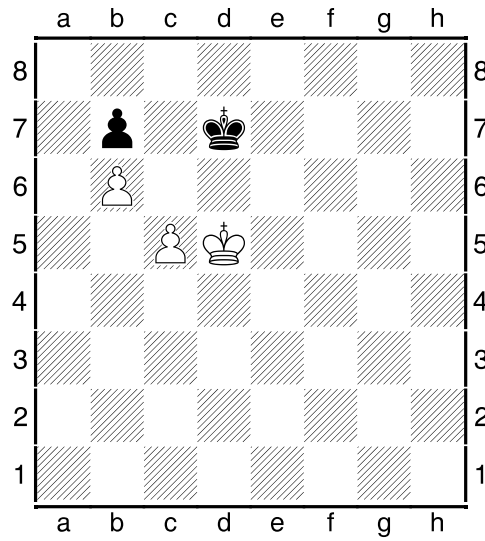
(40) Illustrative Example 1-26

1.Ke5! [1.c6+? is mistaken here, in view of 1...Kc8! *(but not 1...bxc6+ 2.Kc5 Kd8 3.Kd6! Kc8 4.Kxc6 Kb8 5.b7+−)* 2.Kd6 Kb8! 3.Kd7 bxc6=] **1...Kc6** [1...Ke7 2.c6] **2.Kd4 Kd7 3.Kd5** White has achieved his aim, by describing a triangle with his king. The rest is simple. **3...Kc8 4.Ke6!** (diagonal opposition) **4...Kd8 5.Kd6** (and now, vertical) **5...Kc8 6.Ke7 Kb8 7.Kd7 Ka8 8.c6+− +−**

Diagram 41

(41) Fahrni,Hans − Alapin,Simon

1912

This position is very important, both for itself and as an illustration of the characteristic logic of analyzing corresponding squares.Let's deal with the squares of correspondence first.Two pairs of squares of reciprocal zugzwang are obvious right off: d6 − d8 (yellow), and c5 − c7 (green). The squares d6 and c5 border on d5; and for Black, the corresponding squares d8 and c7 border on c8. Thus, a standard means of identifying a new correspondence: that of the d5− and c8−squares (red).Along with d5 and c5, White has two equally important squares: c4 and d4; while Black has, adjoining the corresponding squares c7 and c8, only one square: d8 (or b8). With Black's king on d8, White makes a waiting move with his king, from c4 to d4 (or the reverse). Black's king will be forced onto c7 or c8, when White occupies the corresponding square and wins. **1.Kc4!** [1.Kd6 Kd8☉; 1.Kc5 Kc7☉; 1.Kd4! Kd8 2.Kc4☉] **1...Kd8 2.Kd4☉ Kc8** [2...Kc7 3.Kc5☉] **3.Kd5! Kd8** [3...Kc7 4.Kc5☉ and 5 Kb6.] **4.Kd6 Kc8 5.c7☉ 1-0**

Diagram 48

Other Cases of Correspondence

Situations with corresponding squares come in all shapes and sizes - from the most elementary to cases so complex that most of the unoccupied squares on the board turn out to be squares of reciprocal zugzwang. How is the correspondence between squares determined? There is no special formula. The sensible way is to find key squares, examine the possible plans for both sides, and calculate the simplest variation. This preliminary analysis may uncover some reciprocal zugzwang situations; from there, you may go on to define an entire network of corresponding squares.
The following examples demonstrate how to make a logical analysis of a position.

N. Grigoriev, 1921
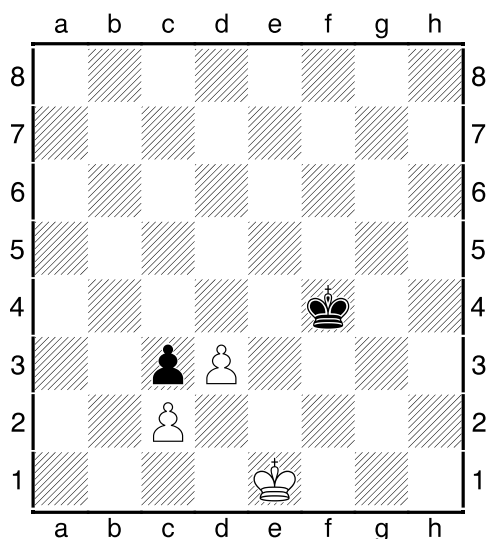
Black is obliged to defend the key squares e2 and f2, which he can do either by 1...Ke3 or 1...Kf3. The first appears more natural (the opposition!); but let's not be too hasty about drawing our conclusion.
White's king will attempt to break through on the queenside, by occupying the key square b3 - this too must be prevented. With White's king at a2, Black's king is obliged to occupy the b4-square (a4 would be too far from the kingside). Immediately, we have the whole packet of corresponding squares: a2 - b4, b1 - c5, c1 - d4, d1 - e3 and e1 - f3. As it turns out, the routine 1... Ke3? loses - after 2 Kd1, Black would be in zugzwang. But 1...Kf3! 2 Kd1 Ke3 draws easily.
I gave this example, not because it was especially important, but in order to underscore that a system of corresponding squares certainly does not have to always be "straightline", as with the opposition. Each case demands concrete analysis. You may only take the opposition after having ensured that this will place your opponent in zugzwang, not yourself.
And if, as in the present example, you must instead cede the opposition to your opponent, I call such cases of corresponding squares the "anti-opposition". This term seems more exact than the term, "knight's-move opposition" I have seen used (after all, the entire idea of "opposition" is for the kings to be standing on the same line, not on adjoining lines).
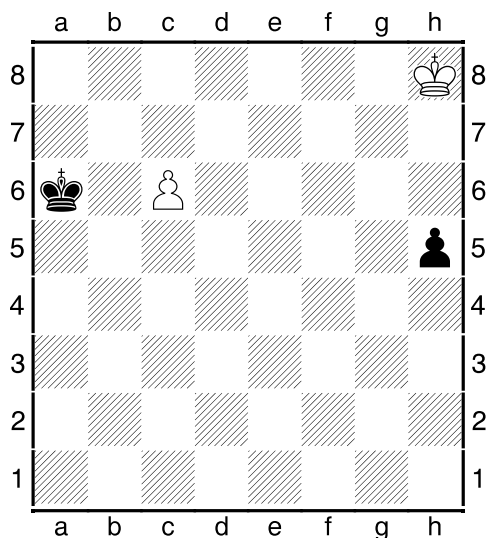
Diagram 56
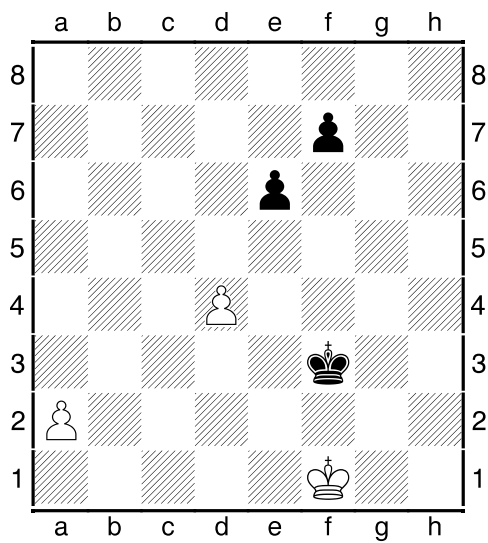
(56) Bianchetti,Rinaldo
1925
1.d5! [1.a4? Ke4 2.a5 Kd5] **1...exd5 2.a4 Ke4** [2...d4 3.a5 d3 4.Ke1] **3.a5+−** as Black cannot play 3...Kd5. **1-0**

Diagram 61

(61) Reti,Richard

1921

Black's king lies within the square of the c6−pawn, while White is short two tempi needed to catch the h5−pawn. Nevertheless, he can save himself − the trick is "to chase two birds at once". The king's advance is dual−purpose: he chases after the h−pawn, while simultaneously approaching the queen's wing. **1.Kg7! h4** [1...Kb6 2.Kf6 h4 3.Ke5! h3 4.Kd6 h2 5.c7 h1Q 6.c8Q=] **2.Kf6! Kb6** [If 2...h3 then 3.Ke7 *(Or 3.Ke6)* and the pawns queen together. 3...Kb6 4.Kd6 h2 5.c7 h1Q 6.c8Q=] **3.Ke5 Kxc6** [3...h3 4.Kd6 h2 5.c7=] **4.Kf4=** A miracle has come to pass: the king, even though two tempi behind, nevertheless has caught the pawn!In 1928, Réti offered a different version of this study: move the White king to h5, and instead of the pawn at h5, put three (!) Black pawns at f6, g7 and h6. The solution is similar: 1 Kg6!, and after any Black reply (1...f5, 2...h5, or 1...Kb6) − 2 Kxg7!, followed by the well−known "chasing two birds at once." **½-½**
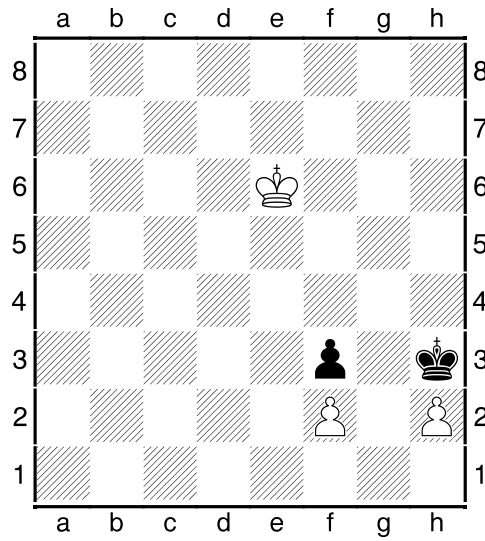
Diagram 98
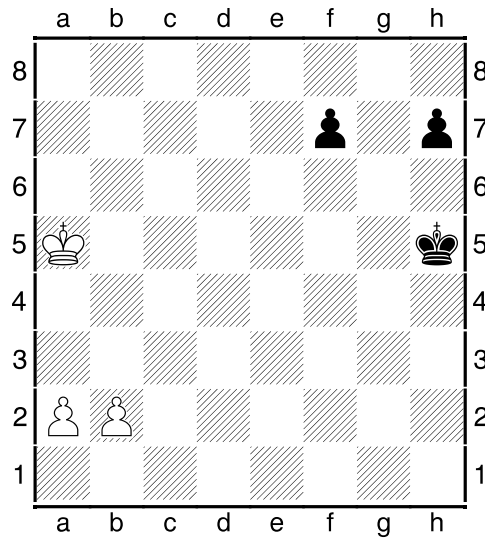
(98) Walker,George
1841
1.b4 f5 2.b5 f4 3.b6 f3 4.b7 f2 5.b8Q f1Q 6.Qb5+! Qxb5+ 7.Kxb5 Kg4 8.a4+− and the h−pawn will never become a queen.This simple example illustrates Points 1 and 6 of the above list; the following example is for Points 2 and 4 (perhaps the most important ones). **1-0**
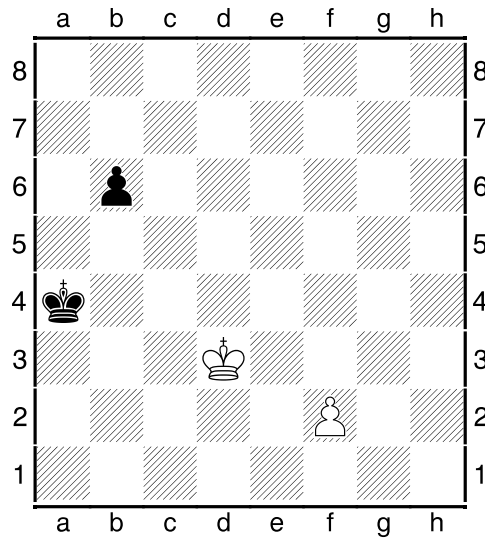
Diagram 99

(99) Moravec,Josef

1925

The only move to draw is **1.Kd5!** [On 1.Kf5? Kg2! the Black pawn queens with check. 2.h4 Kxf2 3.h5 Kg3 4.h6 f2 5.h7 f1Q+; While on 1.Ke5? Kg2! White's queen will be lost after ...Qa1+. 2.h4 Kxf2 3.h5 Ke3 4.h6 f2 5.h7 f1Q 6.h8Q Qa1+] **1...Kg2!** [1...Kxh2? 2.Ke4 Kg2 3.Ke3⊙+−] **2.h4** and White's pawn queens immediately after Black's. **2...Kxf2 3.h5= ½-½**

Diagram 100

(100) Grigoriev,Nikolay
1928

Black's king is in the square of the f−pawn, so the hasty 1 f4? Kb5! leads only to a draw. White has to block the king's path to the kingside ("shouldering"!). **1.Kd4!** [1.f4? Kb5=] **1...b5** [The other defensive plan gets instructively refuted: 1...Kb5 2.Kd5! Ka6 3.f4 Kb7 4.f5 Kc7 5.Ke6 Kd8 6.Kf7! b5 7.f6 b4 8.Kg7 b3 9.f7 b2 10.f8Q+ In a practical game, nearly every pawn for some reason ends up queening with check; there are times, however, when you have to work a little bit for it!Interestingly, if we place the pawn on b7 in the starting position, Black saves himself by 1...Kb5! 2 Kd5 Kb6! 3 Kd6 Ka7 4 f4 b5.] **2.f4 b4 3.f5 b3** Now the enemy king must be drawn to a checkable square. **4.Kc3! Ka3 5.f6 b2 6.f7 b1Q 7.f8Q+** mating or winning the queen. **1-0**

Diagram 101
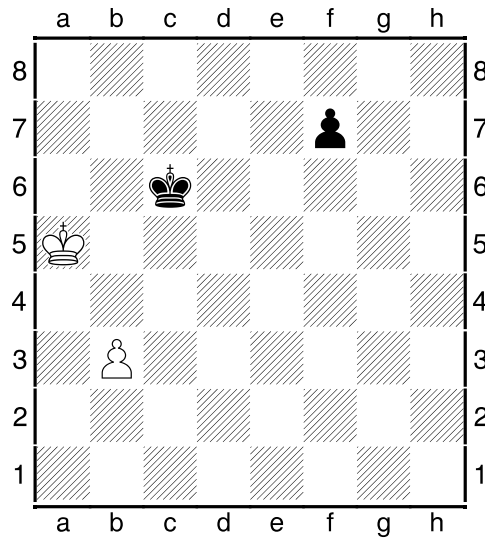
(101) Ljubojevic,Ljubomir − Browne,Walter

Amsterdam, 1972

Recognize this position? Yes, it's the Grigoriev study we just examined, except with colors reversed and the Black king positioned differently (which has no meaning here). 1...Kd5! would have won; instead, GM Browne played: **1...f5??** [1...Kd5! 2.b4 *(2.Kb4 Kd4! 3.Ka3 f5 4.Kb2 f4 5.Kc2 Ke3! 6.Kd1 Kf2 7.b4 f3 8.b5 Kg2 9.b6 f2 10.b7 f1Q+)* 2...f5 3.b5 f4 4.b6 Kc6! 5.Ka6 f3 6.b7 f2 7.b8Q f1Q+-+] and after **2.Kb4!** a draw was agreed. ½-½

Diagram 119 *
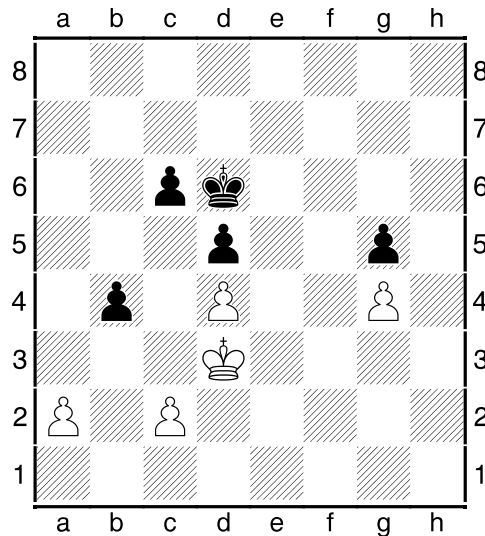
(119) Hansen − Nimzovitch,Aaron

Randers simul, 1925

Who stands better? White intends to play c2−c3, obtaining an outside passed pawn, which will secure him a decisive advantage.Nimzovitch hits upon the correct plan − he activates his king, even if it means sacrificing a pawn. **1...Kc7!** [1...c5? 2.dxc5+ Kxc5 3.c3+− Outside passed pawn] **2.c3** [2.c4 Kb6-+] **2...Kb6! 3.cxb4** [Let's look at 3.c4 (instead of 3 cb). White will continue by exchanging pawns at d5. It's not hard to see that b5−b3 and a4−b2 are corresponding squares; after that, we can establish a third pair of corresponding squares: a5−c2. Now we understand that Black must inevitably take advantage of this correspondence (since he can wait on either of the equivalent squares b6 and a6, while White cannot). 3...Ka6! 4.cxd5 cxd5 5.Kc2 Ka5☉ 6.Kb2 Ka4☉ 7.Kc2 Ka3 8.Kb1 b3 9.Ka1 Kb4 10.Kb2 bxa2-+ In order to win, Black cleared the path for his king towards the center. This is, in fact, what "widening the beachhead" means − trading off pawns, with the idea of clearing the king's path.] **3...Kb5 4.Kc3 Ka4☉** As Black had foreseen, it's zugzwang. White resigned, since he has to lose all his queenside pawns.[4...Ka4 5.Kc2 Kxb4 (White still has the outside passed pawn, but the activity of Black's king means far more here) 6.Kd3 Ka3 7.Kc3 Kxa2 8.Kb4 Kb2 9.Kc5 Kc3-+] **0-1**
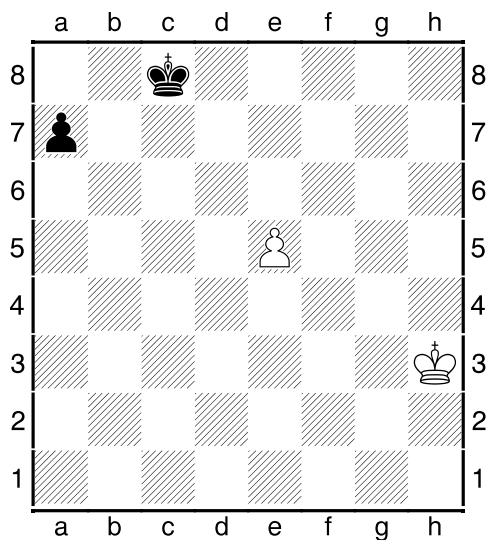
Diagram 127
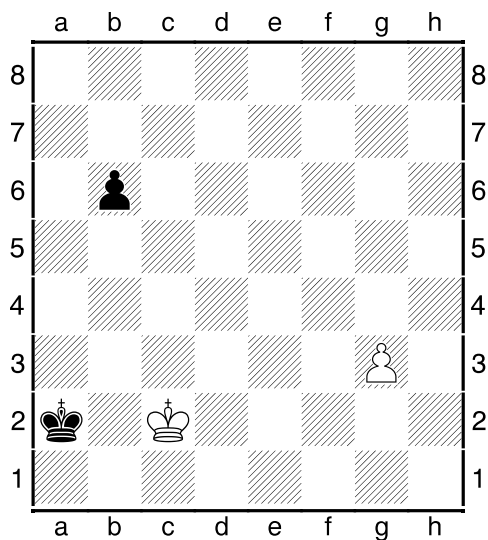
(127) Grigoriev,Nikolay
1928
1.Kc3! [The direct 1.g4? leads only to a draw: 1...b5 2.g5 b4 3.g6 b3+ 4.Kc3 b2 5.g7 b1Q 6.g8Q+ Ka1!=]
1...Ka3 2.Kc4 Ka4 3.g4 b5+ 4.Kd3! Here's the zigzag! The king returns to c2, while avoiding the pawn check. **4...Ka3 5.g5 b4 6.g6 b3 7.g7 b2 8.Kc2!** (drawing the king into check) **8...Ka2 9.g8Q+ 1-0**

Diagram 128

(128) Moravec,Josef

1952

The other form of zigzag occurs when the king has to avoid a check from the newly−promoted queen.White is outside the square of the a−pawn. His only hope is Réti's idea. **1.Kg4 a5 2.Kf5** Δ ♔e4 **2...a4** Otherwise, the king gets into the square. **3.Kg6!** [White would lose with: 3.e6? Kd8 4.Kf6 Ke8-+; And 3.Kf6? a3 4.e6 a2 5.e7 a1Q+ is also bad. The king must avoid the f6−square.] **3...a3 4.e6 a2 5.e7 Kd7 6.Kf7=** ½-½

Diagram 151
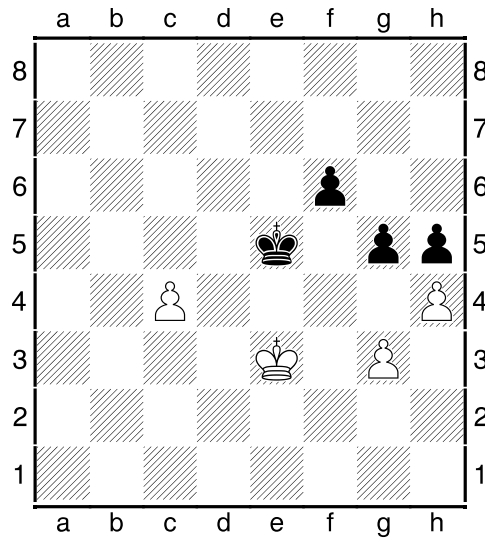
## (151) Kharlov,Andrey − Ernst,Thomas

Haninge, 1992

In the game, Black played **1...g5??** [The position is drawn after 1...Kd6! 2.Kd4 Kc6 3.c5 g5 4.Ke4 gxh4 5.gxh4 Kxc5 6.Kf5 Kd6=] **2.g4!+−** and after a few more unnecessary moves **2...hxg4 3.h5 f5 4.h6 f4+ 5.Kf2 g3+ 6.Kg2 Ke4 7.h7** he resigned. **0-1**

Diagram 174

Two Rook's Pawns with an Extra Pawn on the Opposite Wing

Positions in which two rook's pawns are facing each other, with one side having a distant passed pawn, are fairly common in practice; so it's useful to have a quick and accurate way of evaluating them. The plan to play for a win is obvious: the king will go after the rook's pawn. His opponent, meanwhile, must eliminate the pawn on the other wing, and then rush his king over to the corner where he can stop the rook's pawn. Under what circumstances can he succeed?
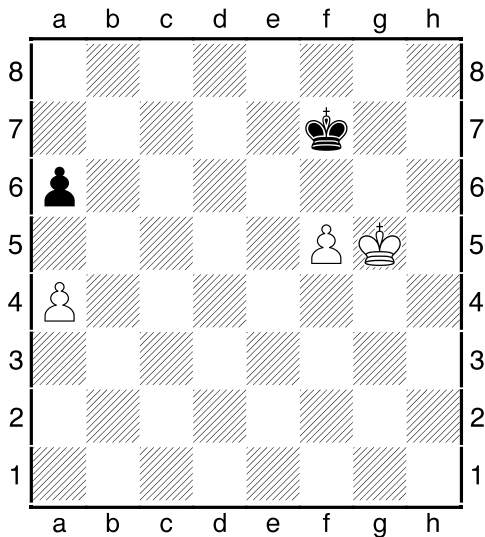
White to move wins: 1 a5! Kg7 2 Kf4 Kf6 3 Ke4 Kf7 4 Kd5 Kf6 6 Kc6 Kxf5 6 Kb6 Ke6 7 Kxa6 Kd7 8 Kb7
If it's Black to move, after 1...a5! the position is drawn, as you may easily determine: Black's king has enough time to get to c8.
But let's say that we move the kings and the f-pawn one rank down, or one file to the left; then, once again, Black loses. But what if we also move the queenside pawns one rank down?
Of course, with the position standing in front of us, any question is easily answered. But in practice, such situations often occur at the end of long calculations, and extending such calculations a few moves further yet could be most difficult. It would be good to have a definite evaluation of this position immediately, as soon as we lay eyes on it.
W. Bʊhr demonstrated such a means of quick appraisal in 1936. I did not find his rule very convenient for us; in addition, it wasn't designed to work when the king would be, not to one side, but ahead of the pawn. So therefore I offer a somewhat different method of quickly evaluating this sort of position.
1) The first rule is similar to Bʊhr's rule: If the rook's pawn of the stronger side has crossed the middle of the board, it's always a win.
2) We shall designate a "normal" position, in which:
        a) the rook's pawns, which block one another, are separated by the middle of the board; and
        b) Black's king, aiming for the c8-square, can reach it without loss of time. This is because the passed pawn has either traversed the key diagonal h3-c8, or stands upon it.
   The "normal" position is drawn.
3) For the kingside passed pawn, every square behind the h3-c8 diagonal is a reserve tempo for White. For example: the pawn at f4 means one reserve tempo; the pawn at e4 - two. And if the king is not beside the passed pawn, but in front of it, that's another reserve tempo.
And every square the queenside pawns are behind the "normal" position is a reserve tempo for the defending side. With pawns at a3/a4, Black has a reserve tempo in his favor; with pawns at a2/a3 - two.
White wins only if the relative number of tempi calculated by the means shown above is in his favor.
The formulation may seem a bit ungainly; but once memorized, it's quite easy to apply. For example:

In the following diagram, White of course is on the move (if it were Black to move, the f-pawn would queen). White wins, because the count is 3:2 in his favor. Black has two tempi, because the queenside pawns are two squares behind the "normal" position; and White's f3-pawn being two squares behind the h3-c8 diagonal (the f5-square), and his king being in front of the pawn, gives him three tempi.
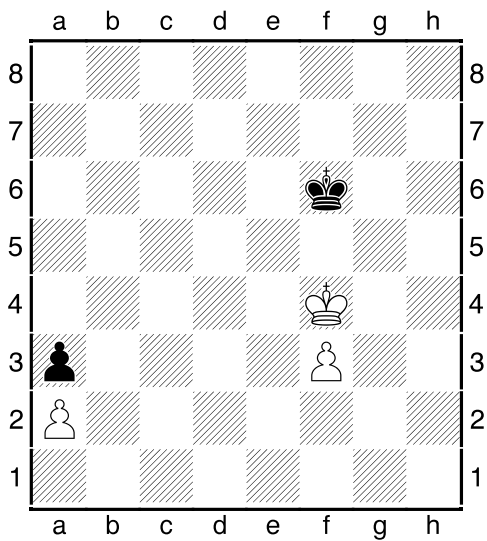
 1 Ke4! Ke6 2 Kd4(d3)+-
 1 Ke3? Ke5(f5)= would be a terrible blunder, because then we would have a position where the tempi are 2:2 (White's king is no longer in front of the f-pawn, but next to it) - which makes it a draw.
One more useful addendum to the rule. Let's suppose that White's passed pawn is a rook's pawn, with the king in front of it, but the enemy king is boxing his opposite number in on the rook file. This situation is the same as the one in which the king is next to his pawn.
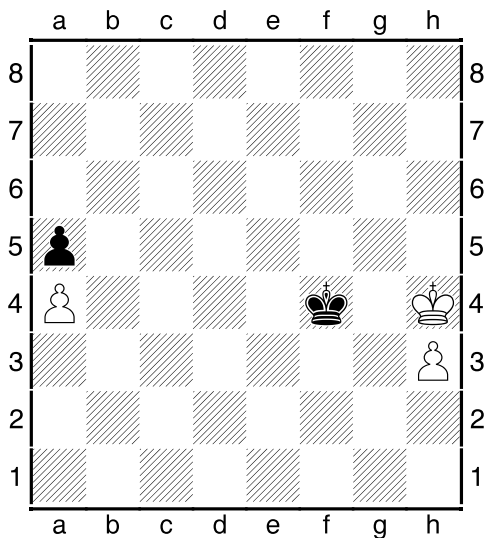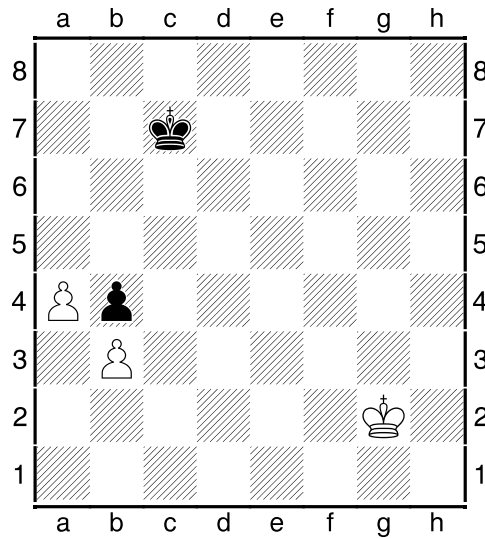

According to the rule formulated above, this is a draw. And in fact, after 1...Kf5 2 Kh5 (2 Kg3 Kg5 is the "normal" position), Black does not play 2...Kf6? 3 Kg4, when White has a reserve tempo, because his king is in front of his pawn, but 2...Kf4! 3 h4 (3 Kg6 Kg3) 3...Kf5 4 Kh6 Kf6 5 Kh7 Kf7(f5) 6 h5 Kf6!, etc.
It must be noted here that this last rule is inoperative with the pawn on its starting square.
In the following diagram, Black has one tempo (since the queenside pawns are one rank back), but if it's his move, he still loses. The problem lies in the fact that the standard 1...Kf3 is impossible, in view of 2 Kg5 Kg2

3 h4; while after 1...Kf5 2 Kg3 Kg5, White has not one, but two tempi (the pawn is below the c8-h3 diagonal, and the king is in front of the pawn).

With White to move, the position is drawn, even if the queenside pawns are placed as in the "normal" position, because the h-pawn will have to go to h3: 1 Kh5 Kf5 2 h3 (2 Kh6 Kg4=) 2...Kf4!=.

Let's look at some more complex examples, in which understanding my proposed rule considerably simplifies the calculation of variations.

Diagram 187

## (187) Dedrle,Frantisek

1921

The key squares are c4, d4, and e4. Black can protect them, if he can control the opposition when the enemy king approaches.Let's determine the corresponding squares. With White's king on d3, f3 or h3, Black's king must occupy d5; the e3− and g3−squares correspond to e5. When the king advances further, Black must keep the lateral opposition, maneuvering along the d− and e−files.When White's king is on the second rank, Black's king must stay next to the d5− and e5−squares − specifically, on d6 or e6. So the first move − as well as all the play that follows − now becomes clear: **1...Kd6!** [But not 1...Kc6? 2.Kg3! Kd6 *(2...Kc5 3.Kg4! Kd4 4.Kf4+−)* 3.Kf4! Kd5 4.Kf5+−] **2.Kh3** [2.Kf2 Ke6! 3.Ke2 Kd6!] **2...Kd5! 3.Kg3 Ke5! 4.Kh4 Kd4! 5.Kh5 Kd5! 6.Kg6 Ke6!=** etc. ½-½

Diagram 196
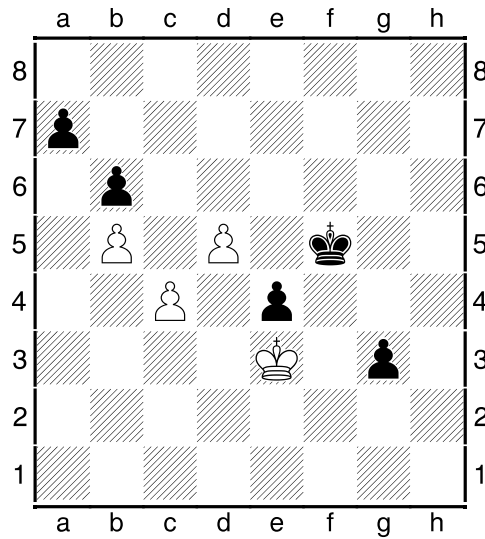
(196) Keres,Paul − Alekhine,Alexander
Dresden, 1936
Alekhine's plan of going into a queen endgame was also quite strong. **67...Kg4!?** [Grigoriev demonstrated the simplest winning method, involving an undermining on the queenside. 67...Ke5! 68.Ke2 Kd6 69.Ke3 Kc7 70.Ke2 Kb7 71.Ke3 a5 *(Or 71...a6)* 72.bxa6+ Kxa6 73.Ke2 Kb7 *(73...b5?? 74.d6 Kb6 75.cxb5=)* 74.Ke3 Kc7 75.Ke2 Kd6 76.Ke3 b5 77.cxb5 Kxd5-+ Grigoriev] **68.d6 g2 69.Kf2 Kh3 70.d7 e3+! 71.Kf3 g1Q 72.d8Q Qf2+ 73.Ke4 e2-+ 74.Qd7+ Kg2 75.Qg4+ Kf1 0-1**

Diagram 197
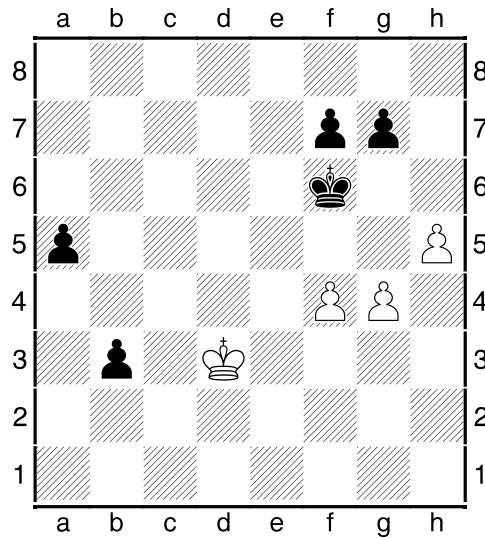
(197) Golberg − Zhuk
USSR, 1934
1...a4 [1...g6?? 2.h6 g5 3.f5+−; 1...g5? 2.f5=] **2.g5+ Kf5??** The only winning plan was undermining with f7−f6. But first, Black had to bring his king to h7. [As Grigoriev pointed out, the right way was 2...Ke7! 3.Kc3 Kf8 4.Kb2 Kg8 5.Ka3 *(5.f5 Kh7 6.Ka3 f6-+)* 5...Kh7 6.Kb2 f6! 7.Ka3 fxg5 8.fxg5 Kg8 9.Kb2 Kf7 10.Ka3 Ke6 11.Kb2 Kf5-+] **3.Kc3 Ke6?** [Having booted the win, Black now lets slip the draw, which he could have had by playing △3...f6 4.g6! Ke6=] **4.h6 gxh6 5.gxh6 Kf6 6.f5**⊙ Black resigned. We have already seen the final position in the section devoted to the rule of the square. **1-0**

Diagram 199

Two Connected Passed Pawns

B. Horwitz, J. Kling, 1851
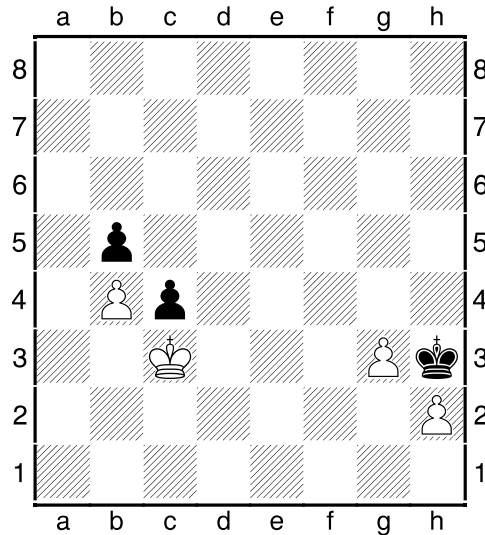
Here we have a typical situation with two connected passed pawns. The draw would appear to be inescapable, since the White king is tied to the square of the protected passed pawn at c4. But in fact, in such cases White can sometimes leave the square to help his pawns queen or checkmate his opponent.

    White's plan usually consists of the following elements:

    The furthest possible advance of the pawns;

    The optimum placement of the pawns - "ready to roll";

    Choosing the best time for the king's decisive advance.

    Let's watch this plan in action. In the first stage the king, without leaving the square of the c4-pawn (which ends at f4), aids in the advance of his pawns.

    1 Kd4 Kg4 2 h4 Kh5 3 Ke3 Kg4 4 Ke4 Kh5 5 Kf4 Kh6 6 g4 Kg6 7 h5+ Kh6 8 Kf3 Kg5 9 Ke4 Kh6 10 Kf4

    Triangulation is White's most important weapon in this ending.

    10...Kh7 11 g5 Kg7 12 g6!

    The ideal pawn array! The erroneous 12 h6+? would throw away the win.
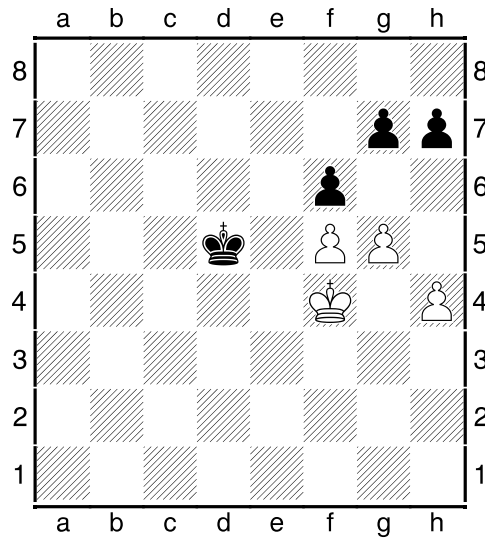
    12...Kf6 13 Ke4 Kg7 14 Kf3 Kf6 15 Kf4 Kg7

    Now that White has strengthened his position to its utmost, it's time for the decisive advance!

    16 Kg5! c3 17 h6+ Kg8 18 Kf6 c2 19 h7+ Kh8 20 g7+ (or 20 Kf7 c1Q 21 g7+) 20...Kxh7 21 Kf7 c1Q 22 g8Q+ Kh6 23 Qg6#.

Diagram 211

(211) Chigorin,Mikhail − Tarrasch,Siegbert
Ostende, 1905
The game continuation was: **50.gxf6??** [50.g6?? h5!-+; The draw is obtained by constructing a stalemate refuge: 50.Kg4! Ke4 51.g6! h6 *(51...hxg6 52.fxg6 f5+ 53.Kg5 f4 54.h5 f3 55.h6=)* 52.Kh5!= Maroczy]
50...gxf6 51.Kg4 Ke4 52.Kh3 [Also insufficient was 52.Kh5 Kxf5 53.Kh6 when Black's simplest win is 53...Kg4! *(But another possible win is 53...Ke6!? 54.Kxh7 f5 55.Kg6 f4 56.h5 f3 57.h6 f2 58.h7 f1Q 59.h8Q Qf5+ with mate soon to follow.)* 54.Kxh7 Kh5!-+ (shouldering)*(54...f5? 55.Kg6 f4 56.h5=)*] **52...Kf4 0-1**

Diagram 233
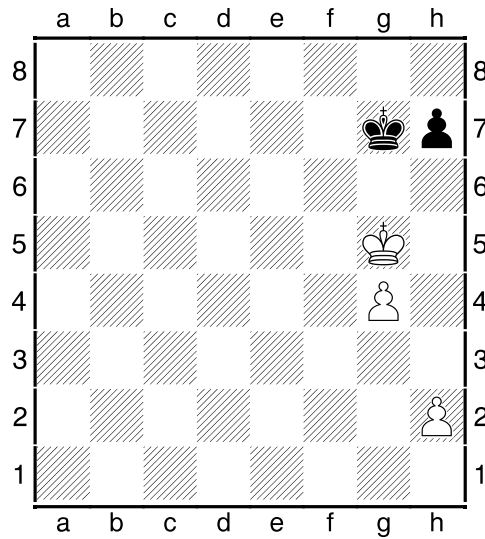
(233) Illustrative Example 1-175 − Black to Move

With Black's pawn on its starting square, the only winning plan becomes a king invasion at h6. Even the conquest of the h6−square, however, only guarantees victory in the event that one of White's pawns remains on the 2nd rank, in order to have the choice between moving one or two squares.Black to move loses: **1...Kg8** [1...h6+ 2.Kf5 Kf7 3.h3 *(3.h4 Kg7 4.Ke6 is possible, too.)* 3...Kg7 4.h4 Kf7 5.h5+−; 1...Kf7 2.Kh6 Kg8 3.g5 Kh8 4.h4! Kg8 5.h5 Kh8 6.g6 hxg6 7.hxg6 Kg8 8.g7+−] **2.Kh6!** [2.Kf6? Kf8=] **2...Kh8 3.g5 Kg8 4.h3 Kh8 5.h4 Kg8 6.h5 Kh8 7.g6 hxg6 8.hxg6 Kg8 9.g7+− +−**

Diagram 234
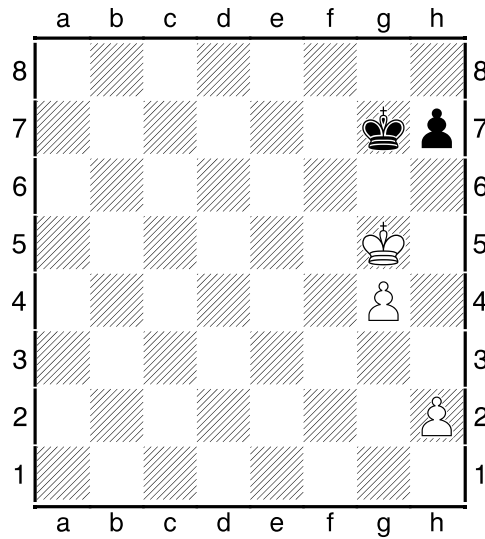
(234) Illustrative Example 1-175 − White to Move

But with White to move, the position is drawn. **1.h3** [1.Kf5 Kf7 is useless.; And on 1.Kh5 h6! draws. After the h−pawn moves, Black only needs to select the right square for his king to retreat to.; Clearly 1.h4 would be met by 1...Kf7! *(Or 1...Kh8!)* 2.Kh6 Kg8 with the same outcome. We can see that the squares g8 and h8 correspond to the position of the pawn (at h3, h4 or h5); and with White's pawn at g4, there's one correspondence, but with the pawn at g5 − it's the opposite.] **1...Kg8! 2.Kh6 Kh8 3.g5 Kg8 4.h4 Kh8 5.h5 Kg8 6.g6 hxg6 7.hxg6 Kh8= =**
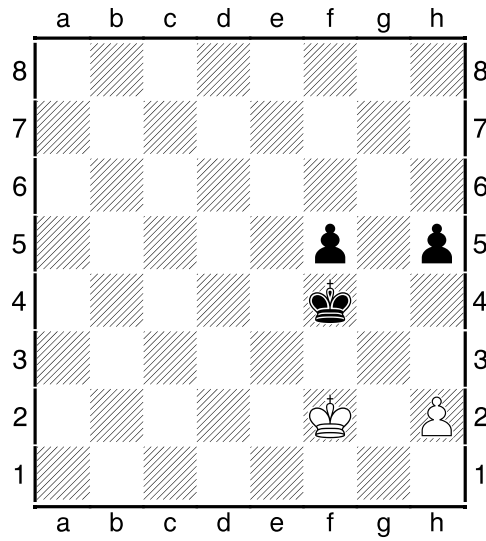
Diagram 240
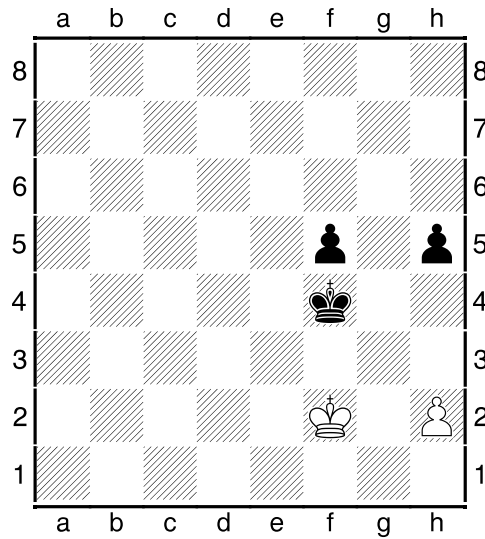
(240) Illustrative Example 1-180 − Black to Move

The stronger side wins only if the rook's pawn is on the starting square. The only exception to this rule was found by Maizelis in 1955 (although it was seen even earlier, in a 1949 study by Valles). Here, everything depends on whose turn it is to move. Black to move wins. **1...Ke4 2.Ke2 h4!** (an exceptionally important position − reciprocal zugzwang!) **3.Kf2 Kd3!!** Control of the opposition is exploited, as usual, by outflanking − although this time, a paradoxical one. **4.Kf3 h3⊙ 5.Kf2** [There is no help in 5.Kf4 Ke2 6.Kxf5 Kf3!; Or 5.Kg3 Ke3 *(Or 5...Ke2)* 6.Kxh3 f4] **5...Kd2! 6.Kf3** [6.Kf1 Ke3 7.Ke1 Kf3 8.Kf1 f4 9.Kg1 Ke2-+] **6...Ke1 7.Ke3 Kf1 8.Kf3 Kg1 9.Kg3 f4+ 10.Kf3** [10.Kxh3 f3] **10...Kxh2 11.Kf2 f3⊙-+ -+**
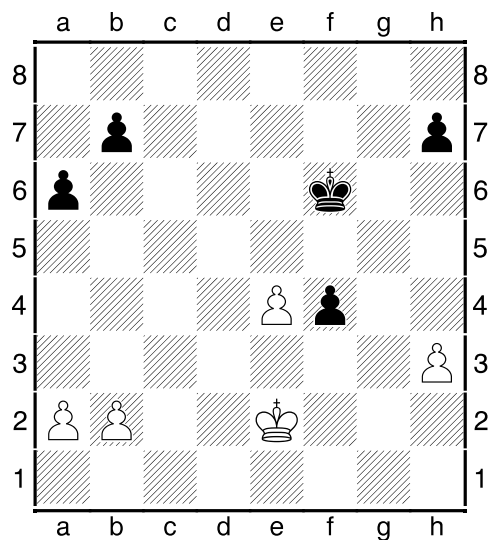
Diagram 241

(241) Illustrative Example 1-180 − White to Move
1.Ke2 Ke4 2.Kf2 h4 [2...Kd3 3.Kf3 h4 4.Kf4 Ke2 5.Kxf5=] **3.Ke2⊙ h3 4.Kf2 Kd3 5.Kf3 Kd2 6.Kf2!= =**
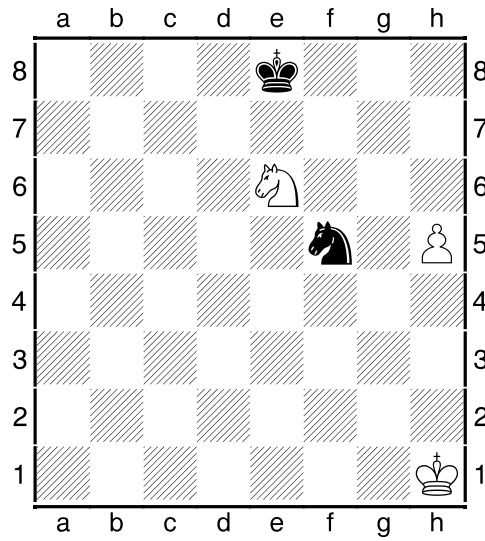
Diagram 247

(247) Sveda − Sika,Tomas
Brno, 1929
[White to move]
Now let's see what happens with White to move. **1.Kf3 Ke5 2.h4!** White improves the situation on his own "bad" flank. [But not 2.b4? h6!] **2...a5 3.h5 a4** [3...h6 4.a4+−] **4.h6! b6** [4...a3 5.bxa3 b5 6.a4 bxa4 7.a3] **5.b4! axb3** [5...b5 6.a3⊙] **6.axb3 b5 7.b4⊙ Ke6** [7...Kf6 8.Kxf4 Kg6 9.Ke5! Kxh6 10.Kf6+−] **8.Kxf4 Kf6 9.e5+ Kg6 10.Ke4 Kxh6 11.Kd5 Kg7 12.Kd6 h5 13.e6 h4 14.e7+−** 1-0
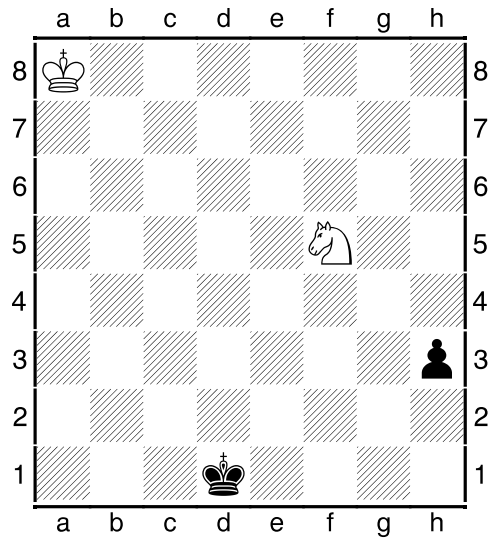
Diagram 260

(260) Cheron,Andre
1952
The closer the passed pawn to the edge of the board, the more difficulty the knight has in dealing with it. The rook pawns are especially dangerous. Here is a simple, yet instructive example. **1.Ng7+! Nxg7 2.h6 Kf7 3.h7+− 1-0**
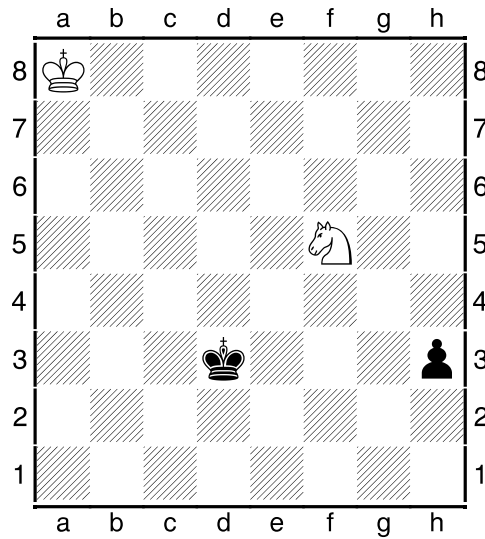
Diagram 261

(261) Illustrative Example 2-10

The knight can hold a rook pawn without the king's help, if it "touches" any square in its path, except the final, corner square. **1.Ne3+!** [1.Ng3? h2 2.Kb7 Ke1 3.Kc6 Kf2 is hopeless. The knight should aim for h2, not h1.] **1...Ke2 2.Ng4 Kf3 3.Nh2+ Kg2 4.Ng4 Kg3 5.Ne3! Kf3** [5...h2 6.Nf1+] **6.Nf1=** etc. **=**

Diagram 262

(262) Illustrative Example 2-11

I should also point out that even with the knight in the corner, the position is certainly not always hopeless. True, the knight can no longer deal with the pawn by itself; but sometimes the king can come to its rescue in time. In the starting position, let's move the Black king to d3. White has to play **1.Ng3** (threatening 2 Nf1) [Now the knight cannot get to h2: 1.Nh6 h2 2.Ng4 h1Q+ the pawn queens with check.] **1...h2 2.Kb7** The knight has set up a barrier against the enemy king, who not only can't cross the e2− and e4−squares, but also e3 and d2 (because of the forking Nf1+). Knight forks are a vital technique in knight endgames. In order to attack the knight, the king will have to lose time with the outflanking Kc2−d1-e1-f2, or Kd4−e5−f4. **2...Kd4** [2...Kc2 3.Kc6 Kd1 4.Kd5 Ke1 5.Ke4 Kf2 6.Kf4= *(6.Nh1+ Kg2 7.Ke3=)*] **3.Kc6 Ke5 4.Kc5 Kf4 5.Nh1 Kf3 6.Kd4 Kg2 7.Ke3 Kxh1 8.Kf2= =**

Diagram 496

ROOK VS. PAWNS

Practically all these endings are "rapid"; the outcome of the fight depends, as a rule, on a single tempo. We shall study   typical techniques; mastering them does not free us from the necessity of deep and precise calculations, but makes this job much easier.

Rook vs. Pawn
"Moving Downstairs"

First let us look at the rarest case, when a pawn is stronger than a rook.
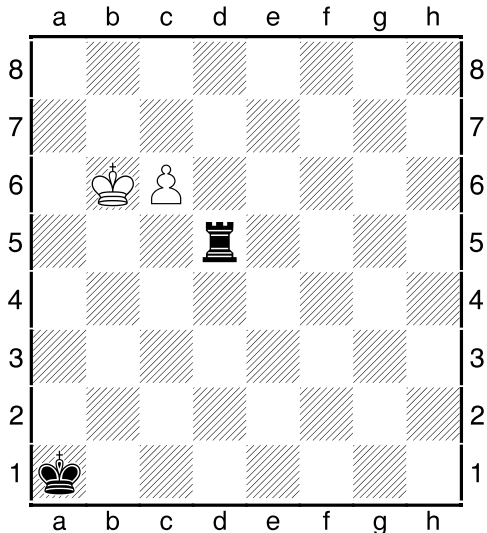
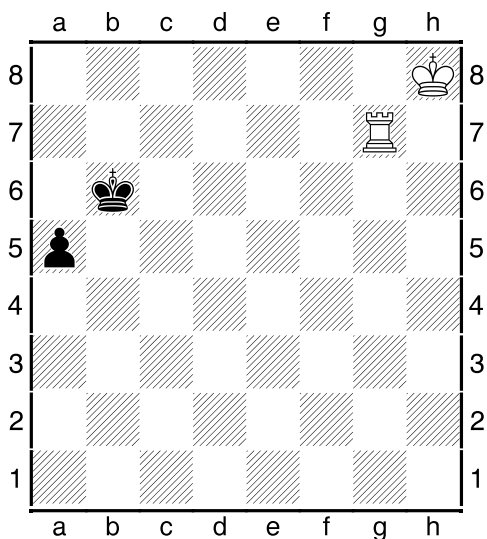1 c7 Rd6+ 2 Kb5! (2 Kc5? Rd1) 2...Rd5+ 3 Kb4 Rd4+ 4 Kb3 Rd3+ 5 Kc2

This maneuver, which helps the king to avoid checks, is what we call "moving downstairs." However the fight is not over for the moment.

5...Rd4!

If 6 c8Q? then 6...Rc4+! 7 Qxc4 Stalemate.

6 c8R!! (... 7 Ra8+) 6...Ra4 7 Kb3!+-

Cutting the King Off

1 Rg5!+-

When the black pawn reaches a3 it will be abolished by means of Rg3 (the pawn may come even to

a2 and then perish after Rg1 followed by Ra1).

With Black on move, after 1...Kb5(c5)! the position is drawn, because cutting the king off along the 4th rank brings nothing.

In the starting position, let us move the black king to c6 and the pawn to b5.
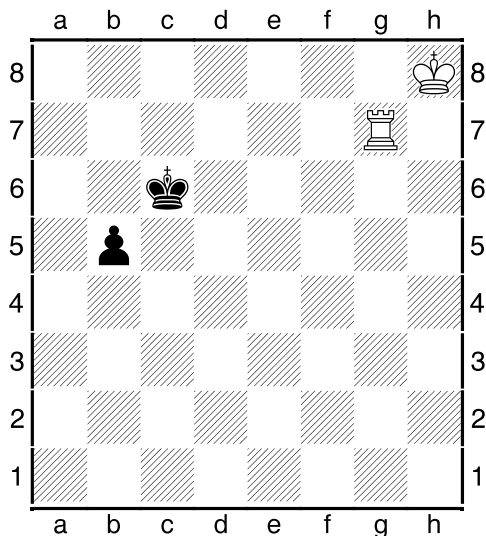
The strongest move is still 1 Rg5!, but Black can respond with 1...Kb6. However the king transfer to the a-file loses time, and its position is less favorable there than on the c-file (where it "gives a shoulder kick" to the rival king). After 2 Kg7 Ka5 3 Kf6 White arrives in proper time to stop the pawn.

Pawn Promotion to a Knight
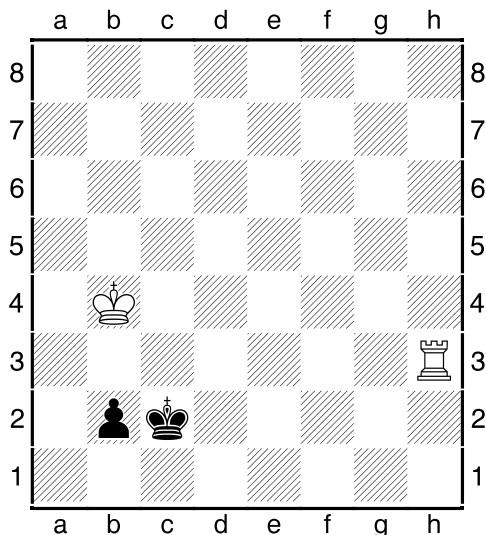
1 Rh2+ Kc1 2 Kc3 b1N+! 3 Kd3 Na3 4 Ra2 Nb1! leads to a draw.

It is worth mentioning that the erroneous 4...Nb5? loses the knight. In rook-versus-knight endings, one should not separate the knight from the king.

Black can also save himself by stalemate: 1...Kb1! 2 Kb3 Ka1! 3 Rxb2. However, with a bishop or a central pawn his only drawing possibility is pawn-to-knight promotion.

If he has a rook pawn instead, this method does not work.

Click here to play over this example: **(498) Illustrative Example 8−3**

1.Rh2+ Kc1 [Black can also save himself by stalemate: 1...Kb1! 2.Kb3 Ka1! 3.Rxb2 However, with a bishop or a central pawn his only drawing possibility is pawn−to−knight promotion. If he has a rook pawn instead, this method does not work.] **2.Kc3 b1N+! 3.Kd3 Na3 4.Ra2 Nb1!=** leads to a draw.[It is worth mentioning

that the erroneous 4...Nb5?-+ loses the knight. In rook−versus−knight endings, one should not separate the knight from the king.] ½-½

___
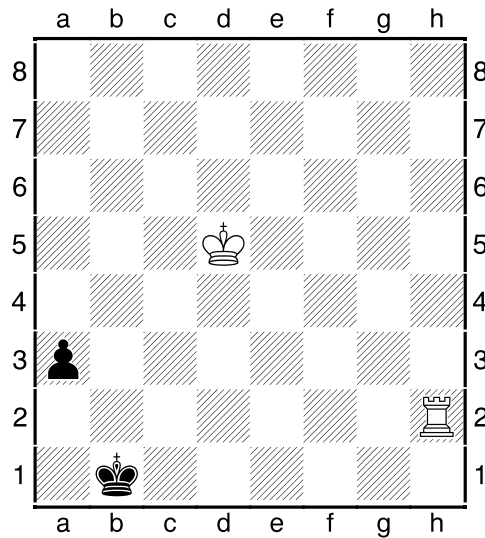
1 Kc4 a2 2 Kb3 a1N+ 3 Kc3‡+-
By the way, an additional pawn at b5 could not have helped Black.

Click here for the next Illustrative Example:
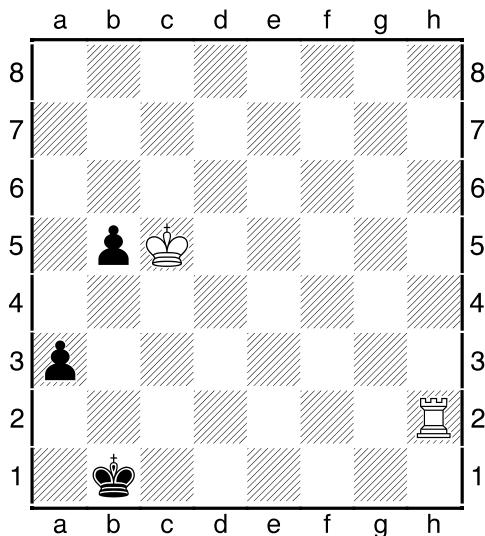
(499) Illustrative Example 8−5
1.Kb4 a2 2.Kb3 a1N+ 3.Kc3⊙ b4+ 4.Kxb4 Nc2+ 5.Kc3 Ne3 6.Rh4! [Another option is 6.Kd3 Nd5 7.Rh4 Kb2 8.Rd4+− and the knight, being separated from the king, will die soon.] **6...Ka2** [6...Nd1+ 7.Kd2 Nb2 8.Rb4 Ka2 9.Kc2 Ka1 10.Rb8+−; 6...Nd5+ 7.Kb3 Kc1 8.Rc4+ Kb1 9.Rd4+−] **7.Ra4+ Kb1 8.Re4 Nf5 9.Re5 Nd6 10.Kb3 Kc1 11.Rc5+ Kb1 12.Rd5+− 1-0**

Diagram 504
Outflanking

Shouldering and outflanking ideas are distinctly represented in the following famous endgame study.

R. Réti, 1928
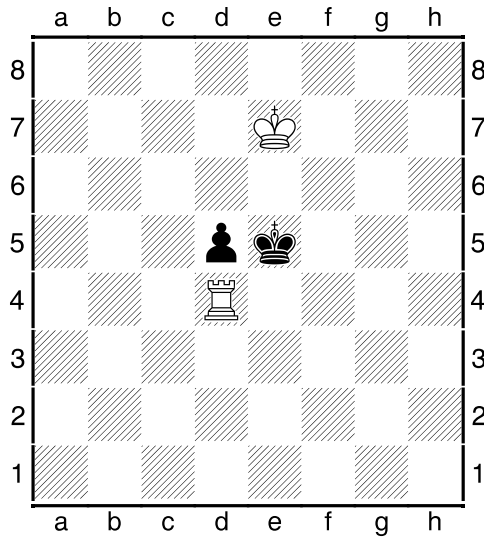
1 Rd2(d3)!! d4 2 Rd1! Kd5 3 Kd7!
Black is in zugzwang: if 3...Kc4, then 4 Ke6 and if 3...Ke4, 4 Kc6.
1 Rd1? is erroneous: 1...d4 2 Kd7 (2 Kf7 Ke4 3 Ke6 d3) 2...Kd5! (Black prevents an outflanking) 3
Kc7 Kc5! (3...Kc4? 4 Kd6! d3 5 Ke5), and it is White who has fallen into zugzwang.

Diagram 521

Rook vs. Connected Pawns

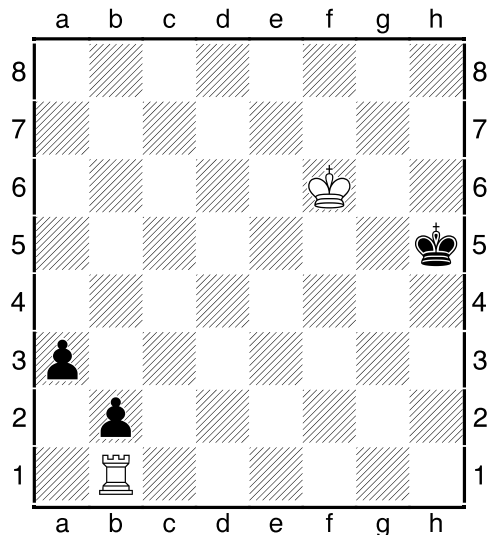If two black pawns are placed on the 3rd rank, or one pawn has reached the 2nd rank while the other is on the 4th rank, a rook cannot stop them. Sometimes, however, White can save himself by creating checkmate threats, when the black king is pressed to an edge of the board.

B. Horwitz, J. Kling, 1851

1 Kf5 Kh4 2 Kf4 Kh3 3 Kf3 Kh2 4 Ke3! Kg2
Or 4...Kg3 5 Rg1+ Kh4 6 Kf4 Kh3 7 Kf3, and here 7...Kh2?? 8 Rb1 even loses for Black in view of zugzwang.
   5 Kd3 Kf3 6 Kc3 a2 7 Kxb2 (or 7 Rf1+) with a draw.

(522) Horwitz, Bernhard,Kling, Josef 1851
If two black pawns are placed on the 3rd rank, or one pawn has reached the 2nd rank while the other is on the 4th rank, a rook cannot stop them. Sometimes, however, White can save himself by creating checkmate threats, when the black king is pressed to an edge of the board. **1.Kf5 Kh4 2.Kf4 Kh3 3.Kf3 Kh2 4.Ke3! Kg2** [Or 4...Kg3 5.Rg1+ Kh4 6.Kf4 Kh3 7.Kf3 Kh4= *(And here 7...Kh2? 8.Rb1⊙+− even loses for Black in view of zugzwang.)*] **5.Kd3 Kf3 6.Kc3** [6.Rxb2] **6...a2 7.Kxb2=** [Or 7.Rf1+= with a draw.] ½-½

In a battle against two connected passed pawns, the best position for the rook is behind the more advanced pawn.
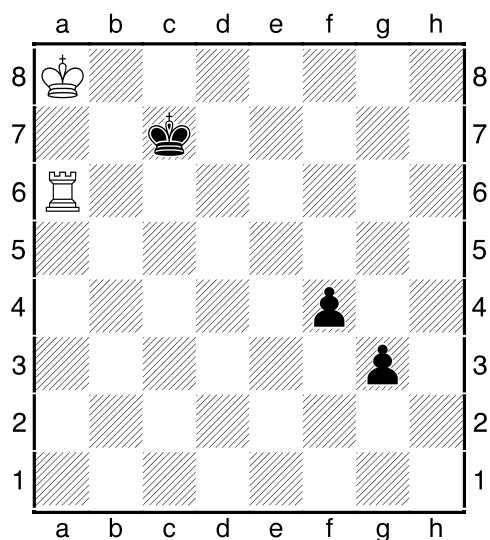
1 Rg6! Kd7 2 Rg4! g2! 3 Rxg2 Ke6 4 Rg5! and White wins because the black king is cut off from the pawn along the 5th rank.

To play over this example click here: **(525) (after V. Sozin 1931)**
1931
1.Rg6! Kd7 2.Rg4! [2.Kb7? Ke7 3.Kc6 Kf7 4.Rg4 Kf6 5.Kd5 Kf5 6.Rg8 f3! 7.Kd4 *(7.Rxg3 Kf4 8.Rg8 f2=; 7.Rf8+ Kg4 8.Ke4 f2 9.Ke3 Kh3=)* 7...f2 8.Ke3 f1N+! with a draw.] **2...g2! 3.Rxg2 Ke6 4.Rg5!** and White wins because the black king is cut off from the pawn along the 5th rank.It should be noticed that the rook should be placed in the rear of the more advanced pawn similarly, even when other forces conduct the fight.   **1-0**

V. Sozin demonstrated a similar position in 1931, with the only difference that the white king stood on a7.
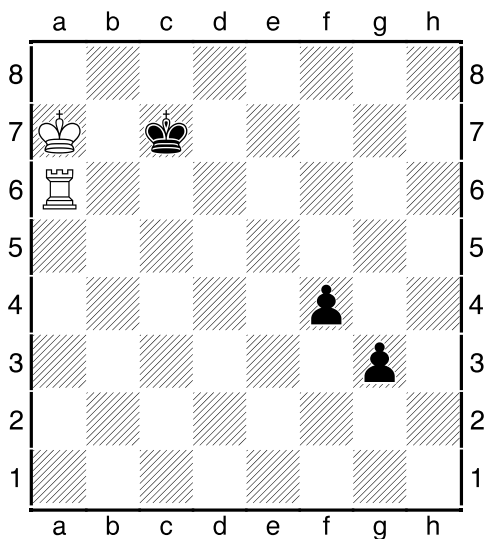
(524) Sozin,Veniamim
1931
1.Rg6! Kd7 2.Rg4! [With the White king on a7, an alternative solution occurs: 2.Kb6!? Ke7 3.Kc5 Kf7 4.Rg4 Kf6 5.Kd4! *(5.Rxf4+? Kg5 6.Rf8 Kg4 7.Kd4 g2=)* 5...Kf5 6.Rg8+− This line does not work when the king is placed on a8. (M.Dvoretsky)] **2...g2! 3.Rxg2 Ke6 4.Rg5!+− 1-0**

Diagram 552
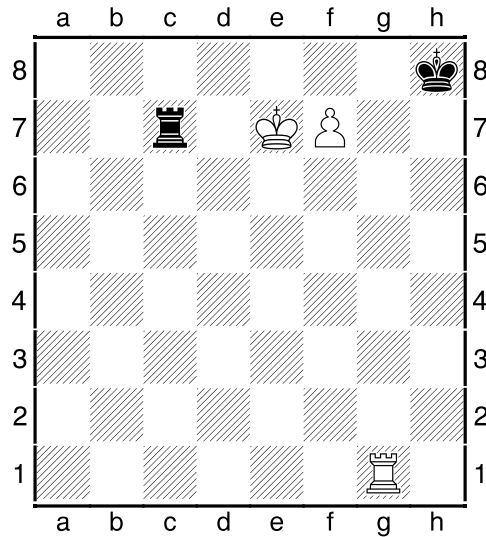
(553) Kopaev,Nikolay
1953
[Solution]
The unlucky placement of the king kills Black (with the king on h7 it would have been a draw); in addition, his rook is too close to the f−pawn. But it is by no means easy for White to exploit these disadvantages. **1.Kf6! Rc6+ 2.Ke5 Rc8** [If 2...Rc5+ then 3.Kd6 Rc8 4.Re1! Kg7 5.Re8+− With a rook on b8, the saving check 5...Rb6+ exists.] **3.Rg6!! Kh7 4.Rc6! Ra8 5.Kf6** The rook protects the king from side checks. Black is helpless against the maneuver Re6−e8. **1-0**

Diagram 565

The Pawn on the 5th Rank
A. Philidor, 1777
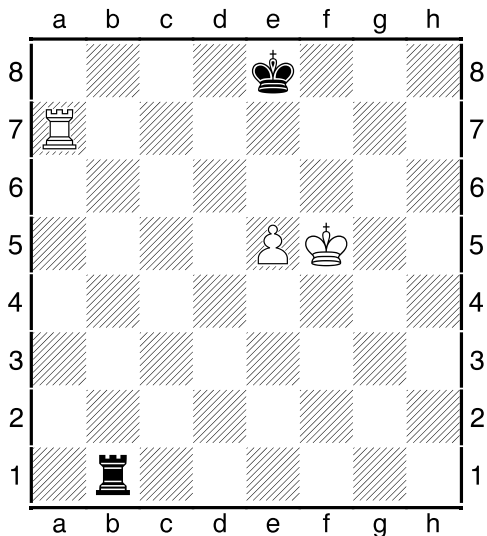
This is the so−called ⊕Philidor position.⊞ The famous French chessplayer was the first to demonstrate, as early as the 18th century, the correct method of defense.

1...Rb6! (preventing a penetration of the white king to the 6th rank) 2 e6 Rb1=

If the pawn stood at e5 the white king would have had a refuge from vertical checks. But, as soon as the pawn has stepped forward, the refuge does not exist anymore.

(566) Philidor,Andre

This is the so−called "Philidor position." The famous French chessplayer was the first to demonstrate, as early as the 18th century, the correct method of defense. **1...Rb6!** (preventing a penetration of the white king to the 6th rank) **2.e6 Rb1=** If the pawn stood at e5 the white king would have had a refuge from vertical checks. But, as soon as the pawn has stepped forward, the refuge does not exist anymore. ½-½

If White is to move in the initial position, then, as Philidor thought, 1 Kf6 wins, and his explanation was 1...Rf1+ 2 Ke6 Kf8 3 Ra8+ Kg7 4 Ke7 Rb1 5 e6 (we know this position already: see Illustrative Example 9−8) 5...Rb7+ 6 Kd6 Rb6+ 7 Kd7 Rb7+ 8 Kc6+−.

Later on, the second defensive method in the Philidor position was discovered: an attack from the rear that helps Black to hold as well. If the rook fails to occupy the 6th rank ⊕a la Philidor,⊞ it must be placed in the rear of the white pawn.

1...Re1! 2 Ke6 Kf8! 3 Ra8+ Kg7

Now we can evaluate the position of the black rook. First, it prevents both 4 Ke7 and 4 Kd7. Secondly, Black can meet 4 Kd6 with 4...Kf7!, and White must retrace his steps: 5 Ra7+ Ke8 6 Ke6 Kf8! etc. If he tries 4 Re8, preparing 5 Kd7, the black rook occupies the long side: 4...Ra1!=.

The move 2...Kf8! is undoubtedly correct (the king goes to the short side, leaving the long side for the rook), but 2...Kd8?! 3 Ra8+ Kc7 does not lose either.

4 Re8 (4 Kf6 Kd7!) 4...Rh1! (rather than 4...Re2? 5 Kf7 Rh2 6 Rg8! Rh7+ 7 Rg7 Rh8 8 Ke7 Kc6 9 e6 Kc7 10 Rg1+−) 5 Rg8 Re1! 6 Rg2 Kd8=.

(567) Philidor,Andre − White to Move

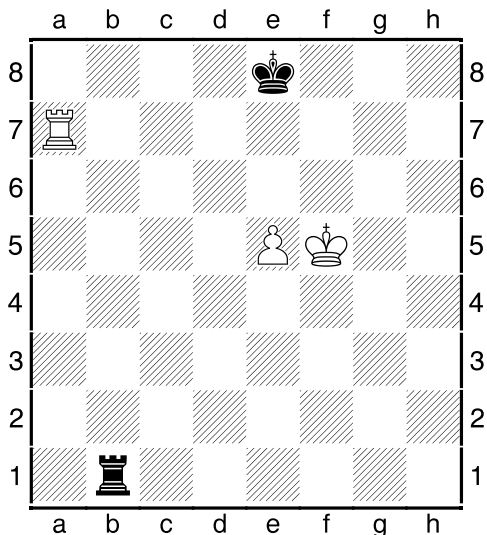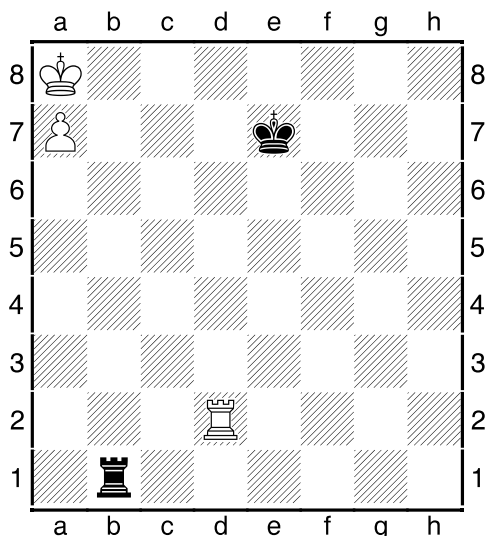If White is to move in the initial position, then, as Philidor thought **1.Kf6** wins. **1...Re1!** Later on, the second defensive method in the Philidor position was discovered: an attack from the rear that helps Black to hold as well. If the rook fails to occupy the 6th rank "a la Philidor," it must be placed in the rear of the white pawn. [And his explanation was 1...Rf1+ 2.Ke6 Kf8 3.Ra8+ Kg7 4.Ke7 Rb1 5.e6 (we know this position already: see Illustrative Example 9−8) 5...Rb7+ 6.Kd6 Rb6+ 7.Kd7 Rb7+ 8.Kc6+−] **2.Ke6 Kf8** [The move 2...Kf8! is undoubtedly correct (the king goes to the short side, leaving the long side for the rook), but 2...Kd8?! 3.Ra8+ Kc7 oes not lose either. 4.Re8 *(4.Kf6 Kd7)* 4...Rh1! *(Rather than 4...Re2? 5.Kf7 Rh2 6.Rg8! Rh7+ 7.Rg7 Rh8 8.Ke7 Kc6 9.e6 Kc7 10.Rg1+−)* 5.Rg8 Re1! 6.Rg2 Kd8=] **3.Ra8+ Kg7** Now we can evaluate the position of the black rook. First, it prevents both 4 Ke7 and 4 Kd7. Secondly, Black can meet **4.Kd6** with [If he tries 4.Re8 preparing 5 Kd7, the black rook occupies the long side: 4...Ra1!=] **4...Kf7!** and White must retrace his steps: **5.Ra7+ Ke8 6.Ke6 Kf8!** etc. **½-½**
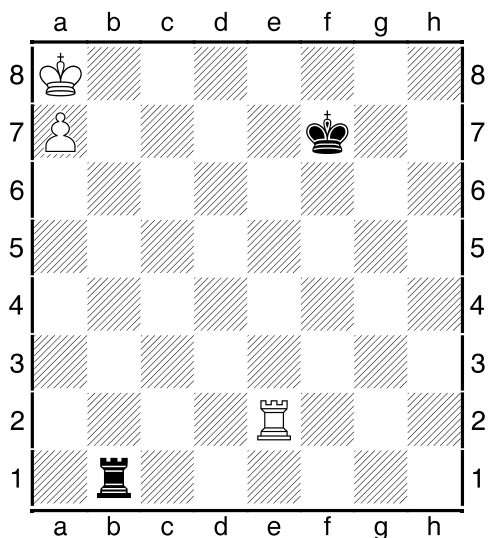
Diagram 589

A Rook and a Rook Pawn vs. a Rook

The King is in Front of his Own Pawn

```
   a   b   c   d   e   f   g   h
8 |♔ |   |   |   |   |   |   |   | 8
7 |♙ |   |   |   |♚ |   |   |   | 7
6 |   |   |   |   |   |   |   |   | 6
5 |   |   |   |   |   |   |   |   | 5
4 |   |   |   |   |   |   |   |   | 4
3 |   |   |   |   |   |   |   |   | 3
2 |   |   |   |♖ |   |   |   |   | 2
1 |   |♜ |   |   |   |   |   |   | 1
   a   b   c   d   e   f   g   h
```

A draw is inevitable. The only possible attempt to free the king from custody is the transfer of the rook to b8, but then Black⬈'s king will stand in for the black rook on guard.

1 Rh2 Kd7 2 Rh8 Kc7 3 Rb8 Rc1 (or 3...Rh1 4 Rb7+ Kc8 5 Rb2 Rc1) 4 Rb2 Rc3, and White cannot progress.

Let us move the black king and the white rook one file away, as in the next diagram.

```
   a   b   c   d   e   f   g   h
8 |♔ |   |   |   |   |   |   |   | 8
7 |♙ |   |   |   |   |♚ |   |   | 7
6 |   |   |   |   |   |   |   |   | 6
5 |   |   |   |   |   |   |   |   | 5
4 |   |   |   |   |   |   |   |   | 4
3 |   |   |   |   |   |   |   |   | 3
2 |   |   |   |   |♖ |   |   |   | 2
1 |   |♜ |   |   |   |   |   |   | 1
   a   b   c   d   e   f   g   h
```

White wins, because the black king fails to reach c7 in time.
1 Rh2 Ke7 2 Rh8 Kd6
If 2...Kd7, then 3 Rb8 Ra1 4 Kb7 Rb1+ 5 Ka6 Ra1+ 6 Kb6 Rb1+ 7 Kc5. With Black⬈'s king on d6, the square c5 is not available for escaping, so White must find another itinerary.
3 Rb8 Ra1 4 Kb7 Rb1+ 5 Kc8 Rc1+ 6 Kd8 Rh1 7 Rb6+ Kc5
Both 8 Re6? Ra1 and 8 Ra6? Rh8 9 Kd7 Rh7+ 10 Ke8 Rh8+ 11 Kf7 Ra8 are useless now.
8 Rc6+! Kb5 (8...Kd5 9 Ra6 Rh8+ 10 Kc7 Rh7+ 11 Kb6) 9 Rc8 Rh8+ 10 Kc7 Rh7+ 11 Kb8+−

(590) Illustrative Example 9−35
White wins, because the black king fails to reach c7 in time. **1.Rc2 Ke7 2.Rc8 Kd6** [If 2...Kd7 then 3.Rb8 Ra1 4.Kb7 Rb1+ 5.Ka6 Ra1+ 6.Kb6 Rb1+ 7.Kc5+− With Black's king on d6, the square c5 is not available for escaping, so White must find another itinerary.] **3.Rb8 Ra1 4.Kb7 Rb1+ 5.Kc8!** [5.Ka6 Ra1+ 6.Kb6 Rb1+]

5...Rc1+ 6.Kd8 Rh1 7.Rb6+ Kc5 8.Rc6+! [Both 8.Re6? Ra1 9.Re7 Kb6=; and 8.Ra6? Rh8+ 9.Ke7 Rh7+ (9...Ra8?! 10.Kd7 Kb5 11.Ra1 Kb6 12.Rb1+ Kc5! *(12...Kxa7? 13.Kc7+−; 12...Ka6? 13.Kc7 Rxa7+ 14.Kc6+−)* 13.Rb7 Rh8!= *(13...Kd5? 14.Rb5+ Kc4 15.Ra5 Kb4 16.Ra1 Kb5 17.Kc7+−)*) 10.Kf8 Rh8+ 11.Kf7 Ra8 12.Ke7 Kb5 13.Ra1 Kb6= are useless now.] **8...Kb5** [8...Kd5 9.Ra6 Rh8+ 10.Kc7 Rh7+ 11.Kb6+−] **9.Rc8! Rh8+ 10.Kc7 Rh7+ 11.Kb8+− 1-0**

Diagram 592
The Rook is in Front of the Pawn and the Pawn is on the 7th Rank

[Chess diagram: White rook a8, White pawn a7, Black king g7, White king c5, Black rook b1]
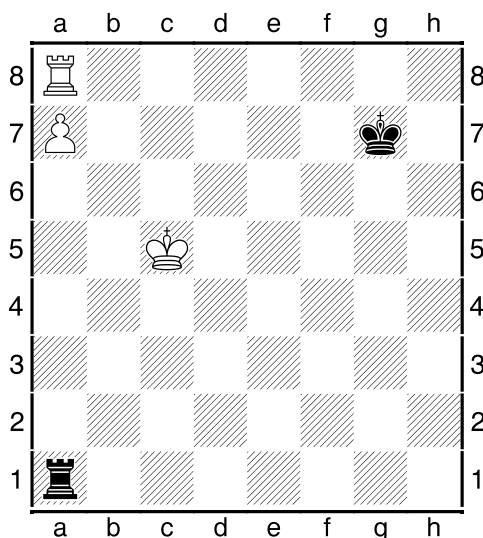
A standard defensive formation: Black⬈s rook is behind the hostile pawn, while the king is placed on g7 or h7. White⬈s rook is riveted to the pawn and cannot leave a8. If 1 Kb6, then 1...Rb1+. The white king cannot escape from vertical checks. Black⬈s rook drives the king away and returns to a1.

Other defensive systems occur much less frequently. The black king can hide in the ⊕shadow⊞ of his opponent, or (with the black rook on the 7th rank) in the ⊕shadow⊞ of his own rook. We just mention these ideas but do not study them here. Sometimes they are sufficient for a draw, and sometimes not. For example, if we move the black king from g7 to c3, the move 1 Rc8! wins. A drawn position is one with the white king on c7 and the black king on c5.

Back to the last diagram, let⬈s add a white pawn on h5. For the outcome, there will be no change: Black simply ignores its existence. The same is valid for a g5−pawn and even for 2 or 3 white pawns on the g−file.
However an f5−pawn wins.

[Chess diagram: White rook a8, White pawn a7, Black king g7, White king c5, White pawn f5, Black rook b1]
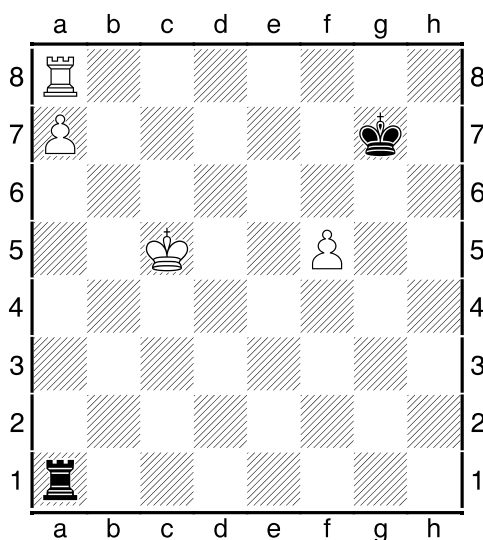
1 f6+ Kf7 (1...Kxf6 2 Rf8+; 1...Kh7 2 f7) 2 Rh8, and Black loses his rook.