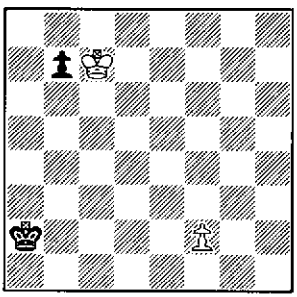
1. Pawn studies

[The pawn study was one of Mandler's favourite fields, and his achievements compare with the best. It is generally accepted that the leading composer of pawn studies to date has been Grigoriev, and in terms of numbers this is certainly true. Grigoriev's collected works include over a hundred pawn studies, Mandler's *Studie* fewer than thirty; Grigoriev took half the prizes in the 1936 pawn ending tourney of *La Stratégie*, Mandler did not. But numbers are only half the story, and Mandler's best pawn studies are in no way inferior to the best of Grigoriev's. Several of his favourites are to be found in this chapter, and they range from full-blooded masterpieces to the most delicate of lightweight classics.]

Pawn against pawn

***1.1** (S309)
Národní Osvobození 1938



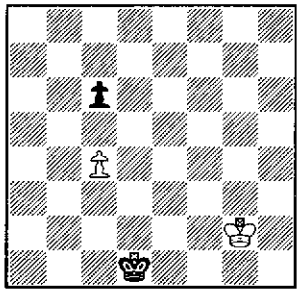
White to move and win

Four-man positions are very popular among the chess public, because they tempt the solver to have a go, and this is particularly true of pawn endings. The solver is surprised when he discovers the solution not to be quite as easy as the simplicity of the position had led him to believe. Here, the solver, if he is solving honestly and not just trying to guess the composer's intention, will start by trying 1 Kxb7. But this does not work; Black's reply 1...Kb3 brings his king within the square of White's pawn, and White's king is too far away to defend it. Neither is 1 Kb6 correct, on account of 1...Kb3 2 Kc5 Kc3 3 f4 b5 etc. Correct is **1 Kd6 Ka3** (not 1...Kb3, the king must not block his own pawn) **2 Kc5 Ka4 3 f4 b5 4 f5 b4 5 Kc4** (a difficult move to find, because the White king loses two tempi while Black only loses one) **b3 6 Kc3 Ka3 7 f6 b2 8 f7 b1Q 9 f8Q+** and wins. If 1...b5 then 2 Kc5 Kb3 3 Kxb5 (3 f4? Kc3 and draws) Kc3 4 Kc5 Kd3 5 Kd5 and wins.

[This study illustrates how an idea can pass through several hands, gaining something each time. Duras (*Národní listy* 1905) showed how White can sometimes win a pawn race by decoying the Black king so that White's promotion gives check: White Kb4, Pb2 (2), Black Kh6, Pg7 (2), play 1 Kc5 and either 1...g5 2 b4 g4 3 Kd4 Kg5 4 b5 g3 5 Ke3 Kg4 6 b6 Kh3 7 b7 g2 8 Kf2 Kh2 9 b8Q+ or 1...Kg6 2 b4 Kf7 3 b5 Ke7 4 Kc6 Kd8 5 Kb7 g5 6 Ka7 g4 7 b6 g3 8 b7 g2 9 b8Q+. Grigoriev (*Izvestia* 1928) sharpened this by letting Black promote first: White Kd3, Pf2 (2), Black Ka4, Pb6 (2), play 1 Kd4 and either 1...b5 2 f4 b4 3 f5 b3 4 Kc3 Ka3 5 f6 etc or 1...Kb5 2 Kd5 Ka6 3 f4 Kb7 4 f5 Kc7 5 Ke6 Kd8 6 Kf7. Mandler sharpened the play still further by starting with a refusal to capture. There is now only one main line and there are minor alternatives at moves 4 and 5 (White can play 5 Kd4 instead of Kc4, or 4 Kd4 and 5 f5), but the opening move and the climax are both so striking that the study has become one of the all-time classics.]

A study particularly useful to beginners

***1.2** (S310, RP47)
Šachové umění 1949



White to move and draw

It is easy to see that White cannot prevent Black from capturing the White pawn. If Black can achieve this while the pawns are still in their present positions, he will always win, because the capture will put his king on c4, and this is one of the three critical squares b4, c4, d4, two ranks in front of the pawn, whose occupation guarantees the win. To avoid this, White must advance his pawn to c5 in the course of the play, unless Black prevents him by advancing his own pawn first.

If White advances his pawn to c5, he must meet its capture by playing Kc3, thus stopping Black from occupying one of the critical squares. If however Black plays his pawn to c5, the critical squares become b3, c3, d3, and White must reply to the capture by playing Kc2.

If White plays 1 c5? Black replies 1...Ke2, and this ensures the win; White must play to g1 or g3, and he will be left too far away from c3. But 1...Kd2 and 1...Kc2 will not be good enough for Black, because White can reply 2 Kf2 or Kf1 (but not 2 Kf3 on account of 2...Kd3) and he will reach c3 in time.

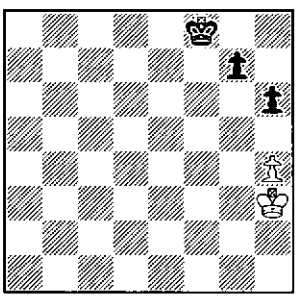
So the first move will be a king move to f1, f2, or f3. Let us start by trying 1 Kf3. After 1...Kd2 (1...c5 is wholly bad and even loses, while 1...Kc2 allows the draw) 2 Kf2 (2 c5 Kd3 and 2 Ke4 Kc3 3 c5 Kc4 both lose, though Black must not meet 2 c5 by 2...Kc3 on account of 3 Ke2) Kd3 (or 2...Kc3 or 2...c5) 3 c5 Kd4/Kc4 and the White king has only two moves to cover the three files which separate him from c3. However, had he played 1 Kf2 or 1 Kf1, he could have met 1...Kd2 by 2 c5 Kd3 3 Ke1, arriving at c3 just in time.

We are now reduced to Kf1 and Kf2. But after 1 Kf1? c5 2 Kf2 Kd2 White again finds himself three files away from the critical square with only two moves to get there. The correct move is **1 Kf2**. Now White can meet **1...c5** by **2 Ke3**. But after **2...Kc2** he must not play 3 Ke4 Kc3 4 Kd5, because 4...Kb4 would win; instead, he must play **3 Ke2 Kc3 4 Kd1 Kxc4 5 Kc2** with a draw. And **1...Kd2** is met, as we have already seen, by **2 c5 Kd3 3 Ke1 Kd4 4 Kd2 Kxc5 5 Kc3**.

We have gone into this simple study in some detail, because although it will give no trouble to experienced players it is very useful to beginners.

Close and distant opposition

1.3 (S311, RP48)
Tijdschrift 1921
(with R. Réti)



White to move and draw

We analyse this study and the next from

the inside out, looking first at what is going to happen later in the solution, then seeing what the early moves have to be in order to create favourable conditions for it.

1) Black's move ...h5 comes into consideration only when the White king cannot reply by moving to g5.

2) The White pawn can make the first pawn move if the White king is already on e5 or f5, or if its advance will leave White with the opposition. So as long as the pawns are in their present positions, Black cannot put the kings into opposition (either close or distant) because White will then draw by h5.

3) If Black plays ...g6 while his king is on the seventh rank, White must take up the distant opposition; if the Black king is on the sixth rank, White must take up the close opposition (the vertical opposition is always implied); if the Black king has reached the fifth rank, ...g6 is always a winning move.

4) As long as the Black king has not reached the fifth rank, the opposition is harmful. If Black has it, White draws by h5; if White has it, Black wins by ...g6. If the Black king has reached f6, the pawns still being where they are, White must prevent its advance to the fifth rank. Which move is correct, Ke4 or Kg4? Only Ke4. If White plays Kg4, giving the king configuration g4/f6, Black wins by 1...Ke5 2 Kh5 Kf4 3 Kg6 Kg4 4 Kxg7 h5. But if the White king is on e4, White can meet ...g6 or ...Ke6 by Kf4. The squares **e4/f6**, and likewise **f4/e6**, mutually correspond, and the side which has to move while the kings are in this position is in zugzwang: White to move loses, Black to move can only draw.

5) After 1 Kg3 (Kg4) Kf7, the White king cannot move to the f-file. 2 Kf3 and 2 Kf5 would allow Black to win by 2...g6, and 2 Kf4 by 2...Ke6. So, from the diagram position, the Black king can play to f6 without White's being able to play to e4 in reply. However, there is another square which corresponds to **f6**, and this is **h5**. If Black has to move in the position h5/f6, gaining the fifth rank does not help him: 1...Ke5 2 Kg6 Kf4 3 Kxg7 h5 4 Kf6! Kg4 5 Ke5 and draws. White to move in this position loses. So f6 and h5 are also corresponding squares.

6) **f7** and **g4** form a further pair of corresponding squares. If the kings are on these squares and White is to move, 1 h5 is met by 1...Ke6 2 Kf4 Kf6 (see point 2 above), 1 Kf5 and 1 Kf3 by 1...g6 (point 3), 1 Kf4 by 1...Ke6 (point 4), and 1...Kg3 by 1...Kf6, since the White king has access neither to e4 nor to h5 (points 4 and 5). If Black is to move, 1...g6 does not come into consideration (2 Kf3), and neither does 1...Ke6 (2 Kf4). 1...Kg6 fails against 2 Kf4 Kh5 3 Kg3 g6 4 Kh3, and 1...Kf6 against 2 Kh5 (point 5).

7) This has led us to the opening move. 1 Kg4 is met by 1...Kf7, but White must bring his king close enough to meet ...Kf6 by Kh5, and this leaves him no choice but 1 Kg3. Now White will meet 1...Kf7 by 2 Kg4.

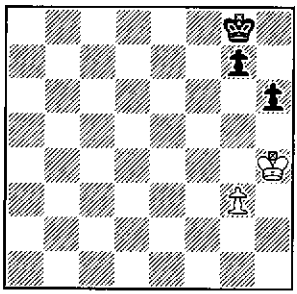
8) After 1 Kg3 Ke7 2 Kf3 Kf6 3 Ke4 Kf7 the White king is out of range of g4. However, there is another square which corresponds to **f7**, and that is **e3**. From here, White preserves the options of playing Kc4 or Kf4 if the Black king returns to the sixth rank, and of taking the distant opposition if Black plays ...g6. On 4...Ke7, White keeps the distant non-opposition.

9) The solution therefore unfolds **1 Kg3 Ke7** (for 1...Kf7 see below) **2 Kf3 Kf6** (2...Ke6 3 Kf4 Kf6 4 h5, 2...g6 3 Ke3) **3 Ke4 Kf7** (3...Ke6 4 Kf4, 3...Kg6 4 Kf4) **4 Ke3** and either **4...Ke7 5 Kf3** or **4...g6 5 Kf3**. If **1...Kf7** then **2 Kg4 Kf6 3 Kh5** etc.

[The computer has only a trifling comment to make on this impressive piece of logical analysis: with the kings on e3/e7, White needn't persist with the distant non-opposition, he can play h5 straight away.]

Beneficial and harmful opposition

1.4 (S312, RP61)
La Stratégie 1936



White to move and draw

We give the analysis of this study in the same fashion, dealing in turn with various configurations which arise in the course of the solution.

1) If we have wKf5, Pg4, bKf7, Pg7/h6 with Black to move, 1...g6+ 2 Kf4 is only drawn (2...Kf6 3 g5+, 2...Ke6 3 Ke4 g5 4 Kd4). 1...g5 2 Ke4 Kg6 3 Kf3 is clearly no better. White to move also draws: 1 g5 g6+ 2 Kf4 h5 3 Kf3 Ke6 4 Ke4 Kd6 5 Kd4 Kc6 6 Ke4! This position is therefore always drawn.

2) If we move the position down a rank, giving wKf4, Pg3, bKf6, Pg6/h5, the result with Black to move is unchanged. However, White to move now loses. After 1 g4 g5+ 2 Kf3 h4 3 Kf2 Ke5 4 Ke3 Kd5 White cannot prevent the loss of his pawn, and any other starting move allows the Black king to reach g5. This position is therefore disadvantageous for the side which is to move. The opposition is beneficial.

3) In the position wKf5, Pg3, bKf7, Pg7/h6, with the White pawn on its original square, White to move draws by 1 g4 (see point 1). Black to move plays 1...g6+, and after 2 Ke5 h5 3 Kf4 Kf6 White loses (point 2). The same position arises after 2 Ke4 Kf6 3 Kf4 (3 g4 Kg5 4 Kf3 h5) h5 and after 2 Kf4 Ke6! (2...Kf6? 3 g4 g5+ 4 Ke4 and either 4...Ke6 5 Kd4 or 4...Kg6 5 Kf3) 3 Ke4 Kf6 4 Kf4 h5. Admittedly, after 1...g6+ 2 Kf4 Ke6 White can try 3 g4 in the hope of 3...Kf6? 4 g5+, but Black has a better move in 3...Kd5. White's try 2 Kg4 is met by 2...Kf6 3 Kh4 (3 Kf4 h5) Kf5 4 g4+ Kf4. So Black to move wins, and in the position f5/f7, the pawns being on their original squares, the opposition is harmful.

4) If the White king is on h5 and the Black on f7, the pawns not having moved, White to move loses, because the only move that does not leave g6 open to the Black king is 1 g4 and the reply 1...Kf6 leaves him with no adequate defence. However, with Black to move White can draw: 1...Kf6 2 g4 Kf7 3 g5. There is hence a fundamental difference between the positions f5/f7 and h5/f7. In the first case the opposition is harmful to its possessor, in the second case beneficial.

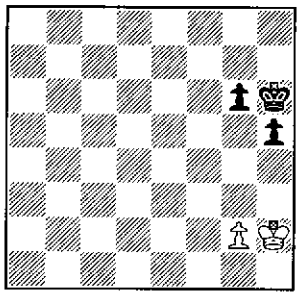
5) In the opening position, White cannot play 1 Kh5, because 1...Kf7 would leave him a lost position (point 4), and likewise not 1 g4 on account of 1...Kf7 2 Kh5 Kf6. There remains only **1 Kg4**, and if **1...Kf7** then **2 Kh5** (not 2 Kf5, point 3). If Black plays **1...Kf8**, keeping open the possibility of meeting Kh5 by ...Kf7, White secures the draw by **2 Kf5 Kf7 3 g4** (point 1); but not 2 Kf4 (2...Kf7 3 Kf5 g6+ and Black wins, point 3) nor 2 Kh4 (2...Ke7 or 2...g6).

6) The reply 1...g6 is not dangerous, for example 2 Kf4 Kf7 3 g4 Kf6 4 g5+.

The solution in brief unfolds **1 Kg4 Kf7 2 Kh5, 1...Kf8 2 Kf5 Kf7 3 g4.**

A simple stalemate

1.5 (S313, RP62)
La Stratégie 1936



White to move and draw

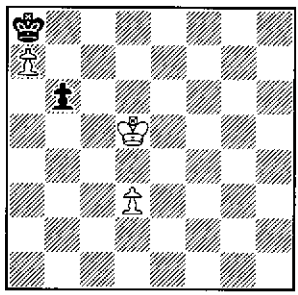
Black threatens to play 1...Kg5. Let us start by trying 1 g3. After 1...Kg5 2 Kh3 Black avoids 2...Kf5 in favour of 2...Kf6, and now he can meet 3 Kh4 with 3...Kf5 4 Kh3 Kg5 5 Kh2 Kg4 6 Kg2 h4 winning. If instead 3 g4 then 3...Kg5. If 3 Kg2 Black again succeeds in gaining the square g4: 3...Kf5 4 Kf3/Kh3 Kg5 etc.

Neither is 1 Kh3 good. Black replies 1...Kg5 and 2 g3 loses as we have just seen, while 2 Kg3 leads to a Black win as follows: 2...h4+ 3 Kh3 (3 Kf3 Kf5) Kh5 4 g3 hxg3 etc.

Correct is **1 Kg3 Kg5 2 Kh3** (2 Kf3? h4), and now White need not fear 2...h4 because 3 g3 hxg3 4 Kxg3 leads to a draw. Black can still play **2...Kf5** and meet **3 Kh4** by **3...Kf4** in the hope of 4 Kh3? Kg5 gaining square g4 as above. However, White saves himself by **4 g4**, because the capture **4...hxg4** gives stalemate.

Moving the pawn also moves the critical squares

1.6 (RP54)
Národní Osvobození 1938



White to move and win

[This study is not given a diagram in *Studie*, though it is referred to in the exposition of the study which follows. In an ending with K + P v K, the "critical" squares are the three squares directly in front of the pawn and two ranks ahead of it, which the king must attain if he is to win. We have already met them in study **1.2**.]

This study is not difficult. The try 1 Kc6 fails against 1...Kxa7. White has nothing better than 2 d4 (after 2 Kc7 Black will promote first), and this harms him by moving the critical squares from the fifth rank to the sixth. There follows 2...b5 3 Kxb5 Kb7, and Black draws.

To gain a decisive tempo, White interpolates 1 Kd6, and only after 1...Kxa7 does he play 2 Kc6. Now the ending after 2...b5 3 Kxb5 Kb7 4 d4 is won. Black therefore tries 2...Ka6, but 3 d4 wins.

Black can try to shift the tempo back by playing 1...Kb7, because 2 a8Q+ Kxa8 3 Kc6 leads to the drawn position already seen. However, White has a better alternative in 3 Kc7 b5 4 d4 b4 5 d5 b3 6 d6 b2 7 d7 b1Q 8 d8Q+ Ka7 9 Qd4+ Ka6 10 Qa4 mate. In this line,

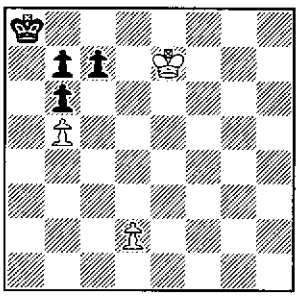
White can hold back a8Q+ until his other pawn has reached d4 or d5.

So the solution is **1 Kd6 Kxa7 2 Kc6** etc, or 1...Kb7 2 a8Q+ Kxa8 3 Kc7 etc.

[Mandler does indeed write "gain" a tempo at the start of the second paragraph, both in *Studie* and in *64 studií z oboru věžových a pěšcových koncovek.* On the face of it, we have a manoeuvre to lose a move and not to gain one, but the effect is to leave White with a tempo in hand later on, and the impression which remains at the end is that he has gained something rather than losing it.]

White must lose two tempi in order to win

1.7 (S314)
Práce 1969



White to move and win

This study was developed from the previous one. 1 Kd7 is bad on account of 1...Kb8! (but not 1...c6? which loses to both 2 Kc7 and 2 bxc6) 2 d3 c6 3 bxc6 bxc6 4 Kxc6 Ka7, giving a position which we have already seen to be drawn. 1 d4 also leads nowhere, this time on account of 1...c6 2 Kd6/Kd7 Kb8 with a draw (but not 1...Kb8 at once, when 2 d5 wins).

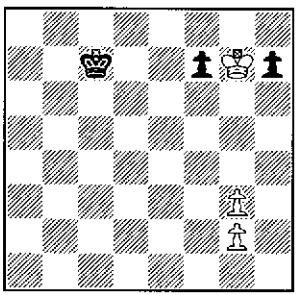
Nor does White win by 1 d3 (a loss of a tempo, but at the wrong moment). Black refutes this by 1...c6 or 1...Kb8.

Correct is **1 Kd8!** (first loss of a tempo) **Kb8 2 Kd7 c6 3 bxc6 bxc6 4 Kxc6 Ka7 5 d3** (second loss of a tempo) and we have reached the position in the previous study after 1 Kd6 Kxa7 2 Kc6.

If Black plays 1...c6, there follows 2 Kc7 (2 bxc6? bxc6 and Black wins) and either 2...cxb5 3 d4 b4 4 d5 b3 5 d6 b2 6 d7 b1Q 7 d8Q+ and wins, or 2...Ka7 3 bxc6 bxc6 4 Kxc6 b5 5 Kxb5 etc. If 2...c5, White replies 3 Kxb6 c4 4 Kc5 Ka7 5 Kxc4 and wins.

The Black king rushes down the board in alarm, only to go back up again

1.8 (S315)
Šachové umění 1949



White to move and win

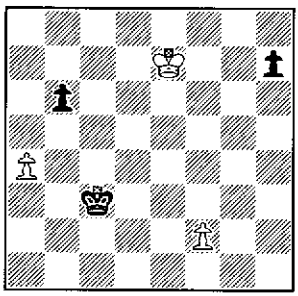
White must obviously eliminate one of the Black pawns, but which? That on f7 appears the more dangerous, but 1 Kxf7 is not good enough: for example, 1...Kd6 2 Kf6 Kd5 3 Kf5 Kd4 and the Black king will keep watch on the White pawns from below, or 2 Kg7 Ke5 3 Kh6 Ke4.

If Black adopts the same tactics in the true solution, he makes the win more difficult but does not prevent it. **1 Kxh7 Kd6 2 Kh6** (2 Kg7 Ke5) **Kd5** (this gives White more trouble than 2...Ke5 3 Kg5, when 3...Ke4 4 Kf6 leaves Black with no good move and other choices lead back into the main line) **3 Kg5** (3 Kh5 Ke4/Kd4 and 4...Ke3 will draw) **Ke5** (again 3...Ke4 is met by 4 Kf6, while

3...Kd4 4 Kf6 Ke4 5 g4 Ke3 6 Ke5 transposes into the main line) **4 g4 Ke4** (if Black plays 4...f6+, the answer is not 5 Kg6 Kf4 6 Kh5 Kg3 with a draw but 5 Kh5 Kf4 6 g5 fxg5 7 g4) **5 Kf6 Ke3** (5...Kf4 6 g5 Kg4 7 g3) **6 Ke5 Kf2** (or 6...Ke2 7 g5 Ke3 8 Kf5 etc) **7 g5 Kg3 8 Kf5** (of course not 8 Kf6 on account of 8...Kf4) **Kh4 9 Kf4 Kh5 10 g3 Kg6 11 Kg4 Kh7 12 Kf5 Kg7 13 g4 Kh7 14 Kf6** and White wins.

There is more than one way to catch a queen

1.9 (S316)
Československý šach 1954



White to move and win

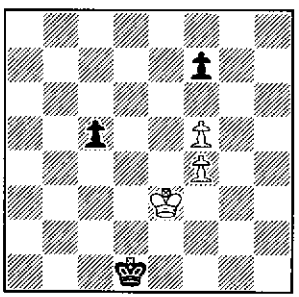
After 1 f4? both the passed pawns will promote, with an obvious draw. If White is to win, he must stop the h-pawn, and hence the king must move at once to the sixth rank. 1 Kd6 does not come into consideration on account of 1...Kd4, after which the h-pawn is already beyond recall: 2 Ke6 Ke4 3 Kf6 Kf4. White would like to play 1 Ke6 and keep his options open, ready to intervene on either wing as necessary, but this also fails to win: 1...h5 2 Kf5 Kb4 3 f4 Kxa4 4 Ke4 Kb5 and Black draws.

So whether he likes it or not, White must block his own passed pawn with his first move and play **1 Kf6**. If Black now tries 1...h5, there follows 2 Kg5 Kd4 3 Kxh5 and he has lost his pawn without compensation. He therefore plays **1...Kd4 2 f4 h5** (2...Ke4 3 f5 h5 4 Kg5 transposes) **3 Kg5 Ke4** (Black has no alternative but to put his king on the diagonal a8-h1, but it will soon prove fateful to him) **4 f5 h4 5 f6 h3 6 f7 h2 7 f8Q h1Q 8 Qa8+** etc.

There remains **1...Kb4**, and now we have a reworking of the theme of study **1.1**: **2 f4** (not 2 Ke5 on account of 2...h5 3 f4 h4 4 Ke4 Kc5, when 5 f5 Kd6 will lose and White must play 5 Kf3 even to draw) **Kxa4 3 f5 b5 4 Ke5** (4 Kg5 leads nowhere - it is remarkable that the march of the White king to c3 has a greater effect than the advance of the pawn on f5) **b4 5 Kd4 b3 6 Kc3 Ka3 7 f6 b2 8 f7 b1Q 9 f8Q+** and either **9...Ka2 10 Qa8 mate** or **9...Ka4 10 Qa8+ Kb5 11 Qb7+**.

Just what is going on here?

***1.10** (S317, RP58)
Československý šach 1951



White to move and draw

The chief difficulty for the solver here lies in finding out precisely what is going on. The principal enemy is clearly the Black pawn on c5. The White king can capture this in three moves. It appears to make no difference whether he approaches it via d3 or e4, but the more probable route seems to be via d3. However, Black replies 1...f6, and after 2 Kc4 Kd2 3 Kxc5 Ke3 both 4 Kd5 Kxf4 5 Ke6 Kg5

and 4 Kc4 Kxf4 5 Kd3 Kxf5 leave him with a win.

The route via e4 brings no advantage, on the contrary it allows Black to get after the White pawns without the preliminary move ...f6: 1 Ke4? Kd2 2 Kd5 Ke3 3 Kxc5 Kxf4 and wins.

The next try will lie in the move 1 f6. This of course means giving up the capture of the pawn on c5. After 1 f6 Kc2 2 Ke4 c4 3 Kd5 c3 4 Kd6 Kd2 5 Ke7 c2 6 Kxf7 c1Q 7 Ke7 Qc5+ 8 Kc8 Qc3+ 9 Kf8 Kd3 10 f7 Ke4 11 Kg8 White certainly draws; the Black king is too far away. But we have been too hasty in playing 4...Kd2 for Black. After the better move 4...Kd3 Black wins, for example 5 Ke7 c2 6 Kxf7 c1Q 7 Ke7 (7 Kg7 Qb2) Qe3+ 8 Kf8 Ke4 9 f7 Kf5 10 Kg7 Qe7 11 Kg8 Qe6 12 Kg7 Qf6+ 13 Kg8 Kg6 14 f5+ Qxf5 15 f8Q Qe6+ etc.

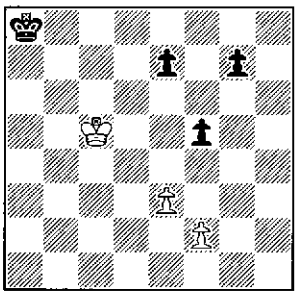
By playing the faulty move 1 f6, White forfeits the possibility of taking the pawn on c5, yet in spite of this he nearly draws. It would be sufficient if the Black king could not play to the third rank at move 4. Slowly, we realize what is truly going on. It has nothing to do with the capture of the pawn on c5, but rather in the setting up of an ending with two pawns against the queen such that the Black king has been unable to reach the third rank before the promotion to queen. We deliberately let the pawn on c5 be.

The requirement of keeping the Black king from the third rank is met by the following solution: **1 Kd3 f6 2 Kc4** (2 Ke4? c4!) **Ke2 3 Kd5! c4 4 Ke6 c3 5 Kxf6 c2 6 Ke7! c1Q 7 f6** and draws. White must not play 6 Kg7? on account of 6...c1Q 7 f6 Qc3 8 Kg6 Ke3 and Black wins.

Can the same result not be reached after 1 Ke4? Black now does not play 1...Ke2 (because 2 f6 Kf2 3 Kd5 Ke3 4 Kxc5 Kxf4 5 Kd4 Kf5 6 Ke3 Kxf6 7 Kf4 draws) nor 1...f6, but 1...Kd2 2 Ke5 (2 f6 c4, 2 Kd5 Ke3) Kc3 (2...c4? 3 Kf6 c3 4 Kxf7 c2 5 f6 and draws) 3 f6 c4 4 Kd6 c3 5 Ke7 c2 6 Kxf7 c1Q and wins.

Luring a Black pawn to an apparently more favourable square

1.11 (S318, RP53)
Šachové umění 1949



White to move and win

The main line of this study has a very sharp point. After **1 Kd5 Kb7** the move 2 Ke6 fails against 2...f4! 3 exf4 Kc6, because the apparently strong 4 f5 does not lead to a win. Who would have said that this move would force victory if the Black pawn now on g7 stood instead on g6, ready to capture the White pawn after its advance? Yet this is the only way to win. So White improves by inserting **2 Ke5**, which temporarily prevents the advance of the Black f-pawn (2...f4 3 Kxf4 Kc6 4 Kg5 Kd5 5 Kg6 Ke4 6 Kxg7 Kf3 7 Kf7 e5 8 Ke6), and only after **2...g6** does he play **3 Ke6**. If Black now tries the same defence as before, **3...f4 4 exf4 Kc6**, there follows **5 f5 gxf5 6 f4 Kc5 7 Kxe7 Kd5 8 Kf6 Ke4 9 Kg5** and White wins. If 3...Kc6 then 4 f4 etc.

The difficulty of this study is increased by a large number of tries, of which we give only the main ones. The move 1 Kc6? has only one refutation: 1...Ka7! and either 2 Kd7 f4! or 2 f4 Ka6! Nothing else works. 1...g5 fails against 2 Kd7

(2...e5 3 Kc6 f4 4 exf4 exf4 5 Kf5 or 2...f4 3 exf4 gxf4 4 Kxe7), 1...f4 against 2 exf4 (2...Ka7 3 f5 Ka6 4 f4 or 2...Kb8 3 Kd7 Kb7 4 f5), and 1...Kb8 against 2 Kd7 (2...e5 3 Ke6 f4 4 e4 Kc7 5 Kxe5 f3 6 Kf4 Kd6 7 Kxf3 Kc5 8 Ke3 g5 9 Kd3 Kf4 10 Kd4 g4 11 e5 Kf3 12 e6 etc, or 2...f4 3 exf4 Kb7 4 f5).

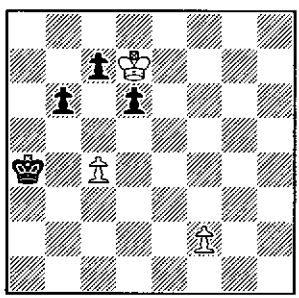
After the correct move 1 Kd5 Kb7, it would appear that 2 f4? fails against 2...Kc7 3 Ke6 Kd8 4 Kxf5 Kc8 5 Kg6 Kf8 6 f5 Kg8 7 e4 Kf8 8 e5 e6! 9 f6 Kg8 and either 10 Kg5 Kf7 or 10 Kh5 gxf6, but White can win by playing 5 Ke6! with the continuation 5...K-- 6 f5 Ke8 7 e4 Kf8 (7...Kd8 8 Kf7 etc) 8 Kd7 Kf7 9 e5 Kf8 10 e6 or 5...g6 6 e4 Kf8 7 Kd7 Kf7 8 e5 etc. The true refutation of 2 f4 proceeds 2...Kc7/Kb6 3 Ke6 Kc6/Kc5 4 Kxf5 Kd6! 5 e4 e5 with a draw.

After 1 Kd5 Kb7 2 Kc5 g6, the move 3 f4 fails against 3...Kc7 4 Ke6 Kd8 5 Kf7 Kd7 6 Kxg6 e6 7 Kf7 Kd6 8 Ke8 e5! 9 Kf7 exf4 10 exf4 Kd7.

[In the line 1 Kc6 Ka7 2 Kd7, the computer gives 2...Kb6 as an alternative drawing move for Black, but this is merely a transposition of moves; after 3 Ke6, Black finds he has to play 3...f4 after all.]

White puts off the capture of an advancing Black pawn

1.12 (S319)
Národní Osvobození 1939



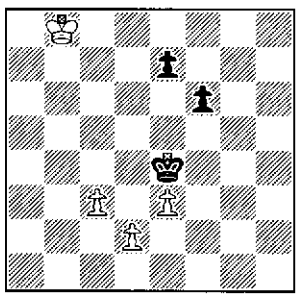
White to move and win

The solver must calculate the main line right through to the end before he can decide on the correct way to start. A knowledge of our opening study **1.1** will help him.

1 Kxc7 fails against 1...Kb4 and 2...Kxc4, 1 f4 against 1...b5 2 cxb5 d5 3 Kxc7 Kxb5 etc. Hence **1 Kc6**. Now 1...d5 2 cxd5 b5 is hopeless on account of 3 Kxc7. Black plays **1...b5 2 cxd5 d5**, and after 3 Kxd5 Kxb5 4 f4 c5 he will promote as quickly as White. But White plays **3 Kc5** and postpones the capture, for he wants to get his king to the fourth rank without loss of time. **3...d4** (3...Ka5 leads to a quick win after 4 f4 d4 5 b6 cxb6+ 6 Kxd4 Kb5 7 Kd5 Ka4 8 f5, or 5...Ka6 6 bxc7) **4 b6 cxb6+ 5 Kxd4** (we know the finish from study **1.1**) **b5 6 f4 b4 7 f5 b3 8 Kc3 Ka3 9 f6 b2 10 f7 b1Q 11 f8Q+** and White wins. If Black tries to rescue himself by 5...Kb5, White wins by 6 Kd5 Ka6 (6...Ka4 7 f4 b5 8 f5 b4 9 Kc4 etc) 7 f4 Kb7 8 f5 Kc7 9 Ke6 Kd8 10 Kf7/Kf6 etc.

Impromptu

1.13 (S320, RP60)
Práce 1955



White to move and win

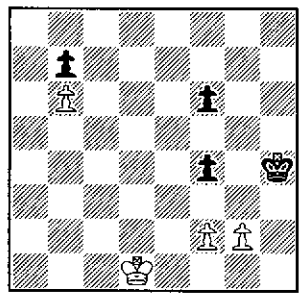
1 c4 f5 2 Ka7! e5 3 c5 f4 4 c6 f3 5 c7 f2 5 c8Q f1Q 7 Qb7+ and wins.

[Before the advent of the computer, endings with Q+Pd4 v Q were assumed to be drawn, so Mandler did not worry

about 2 c5 Kd5 3 d4 c5 4 Kb7 f4 5 exf4 exf4 6 c6 f3 7 c7 f2 8 c8Q f1Q, but computer analysis has shown that this also wins: 9 Qd7+ and mate on move 58 at the latest. Computers of the future may also have something to say about 2 Kb7 e5 3 c5 f4 4 c6 f3 5 c7 f2 6 c8Q, when White gets Q+2P v Q+P. But wins like these are impossible to demonstrate without artificial aid, whereas the elegant crispness of the author's 2 Ka7 retains its charm. Studies such as **1.13** deserve to remain in the literature, even if we have to change the stipulation to something like "White to play and establish a simply won position within 9 moves".]

Just when the solver thinks he has finished, he has to start all over again

1.14 (S321, RP55)
Národní Osvobození 1936



White to move and win

The average solver will perhaps start by playing 1 Ke2? Kg4?. Both moves are bad. White's 1 Ke2 lets slip the win, but Black's 1...Kg4 hands it back again. But now 2 f3+? forfeits the win once more: 2...Kg3 3 Kf1 Kh2 4 Kf2 f5 with a drawn position. Correct is 2 Kd3, with for example 2...Kf5 3 Kd4 and either 3...f3 4 gxf3 Kf4 5 Kd5 Kxf3 6 Ke6 Kxf2 7 Kxf6 etc or 3...Ke6 4 Ke4 Kd6 5 Kxf4 Kc6 6 Kf5 Kxb6 7 Kxf6 Kc5 8 Ke5 b5 9 f4 b4 10 f5 b3 11 f6 b2 12 f7 b1Q 13 f8Q+ Kc4 14 Qc8+.

We can strengthen the defence by playing 2...f3 instead of 2...Kf5. Now 3 gxf3 fails against 3...Kxf3 4 Kd4 Kxf2, and if 5 Ke4 then 5...Ke2 6 Kf5 Ke3 7 Kxf6 Kd4 and White even loses. However, White can still win by 3 g3 Kh3 4 Kc3 and either 4...Kg2 5 g4 or 4...Kg4 5 Ke4 f5+ 6 Ke3 etc.

After 1 Ke2, let us try 1...Kg5 instead of 1...Kg4. Wherein lies the difference? After 2 Kd3 f3 3 g3 (clearly 3 gxf3 is still not good) Black can play 3...f5. This is a position of reciprocal zugzwang: Black to move loses, White to move cannot win. 4 Ke3 is met by 4...Kg4, 4 Kd4 by 4...f4 5 gxf4+ Kxf4 6 Kd5 Kf5! 7 Kd6 Ke4 8 Kc7 Kd3 9 Kxb7 Ke2 10 Kc6 Kxf2 11 b7 Kg2 12 b8Q f2.

The move 4 Kd4 fails to win because it is now Black's move and after 4...f4 5 gxf4 Kxf4 he gains the opposition. If however it were White's move in the position after 4 Kd4, he would win. So in the position White Kd3, Pb6/f2/g3, Black Kg5, Pb7/f3/f5, White must delay playing Kd4 until Black has played ...Kh5, or has advanced ...f4 and allowed White to exchange pawns. In reply to ...Kg4, White must play Ke3. It is now clear that the White king must play to d3 in order to set up this position, and so White must not play this move prematurely.

The correct solution is therefore **1 Kd2 Kg5** (1...Kg4 2 Kd3) **2 Kc3 f3 3 g3 f5 4 Kd3!** with continuation 4...Kg4 5 Ke3 or 4...f4 5 gxf4+ Kxf4 6 Kd4 or **4...Kh5 5 Kd4**.

In the variation 4...f4 5 gxf4+ Kxf4 6 Kd4 Kf5, 7 Kd5? would fail against 7...Kf4 8 Kd6 Ke4 9 Kc7 Kd3 10 Kxb7 Ke2 11 Kc6 Kxf2 12 b7 Kg2 13 b8Q f2. Correct is 7 Ke3 Ke5 8 Kxf3 Kd6 9 Kg4 etc, but not 9 Ke4 on account of 9...Kc6 10 f4 Kxb6 11 f5 Kc6 12 Ke5 Kd7 13 Kf6 b5 etc.

1 Kc2 would be wrong on account of 1...f3 2 gxf3 (2 g3+ Kh3) Kg5 3 Kd3 Kf4 4 Ke2 f5.

Let us return to the main line (4...Kh5 5 Kd4). After **5...Kg5** 6 Ke5? Kg4 White has no winning continuation, as shown for example by 7 Kd6 Kh3 8 Kc7 Kg2 9 Kxb7 Kxf2 10 Kc6 Kg2. The position after 6...Kg4 is another reciprocal zugzwang, and if it were Black's move he would lose. White therefore plays **6 Kd5! Kg4** and only now **7 Ke5**, ready to meet 7...Kh3 by 8 Kf4 Kg2 9 Ke3. On **7...Kg5** there now follows **8 Kd6 Kg4 9 Kc7 Kh3 10 Kxb7** and it seems that our work is finished.

But this is far from being the case. In order to free a square for the advance of his passed pawn, The White king has a choice of seven moves. It is remarkable that after **10...Kg2** only one of these seven moves is correct, namely **11 Ka6!** Why not 11 Kc7? Because after 11...Kxf2 12 b7 Kxg3 13 b8Q the Black king is not in check, and the Black pawn will be able to advance to the second rank. In the resulting ending, the pawn on f5 does not help White because it controls the squares g4 and e4 which are needed by the White queen.

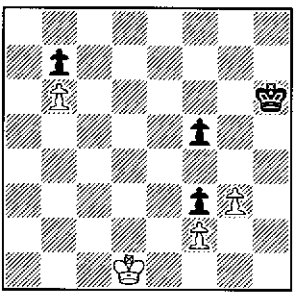
And why not 11 Kc6? Because after 11...Kxf2 12 b7 the diagonal a8-h1 will be blocked by the White king, and the promotion of the Black pawn cannot be prevented. But on a6 the king is out of the way of the new queen, and White wins by **11...Kxf2 12 b7 Kg2** (for 12...Ke2 and 12...Kxg3 see below) **13 b8Q f2 14 Qb7+ Kg1** (14...Kxg3 15 Qh1) **15 Qb6 Kg2 16 Qc6+ Kg1 17 Qc5 Kg2 18 Qd5+ Kg1 19 Qxf5** etc. 12...Ke2 13 b8Q f2 14 Qb5+ Ke1 15 Qxf5 etc; 12...Kxg3 13 b8Q+ Kg2 14 Qb7 Kg3 15 Kb5 etc, or 13...Kf2 (instead of 13...Kg2) 14 Qh2+ (14 Kb5 also wins, but I do not consider this a defect because this variation is merely supporting analysis) Ke1 (14...Ke3 15 Qh5) 15 Qh1+ Ke2 16 Qh5.

After the correct move 11 Ka6, White also wins against the defence 11...Kxf2 12 b7 Kxg3 13 b8Q Kg2 14 Qb7 Kf2: 15 Kb5 (this time the White queen cannot reach h5, but the king arrives on the scene just in time) Ke2 16 Qc7+ Kf1 17 Kc4.

The solution in brief: 1 Kd2 Kg5 2 Kc3 f3 3 g3 f5 4 Kd3 Kh5 5 Kd4 Kg5 6 Kd5 Kg4 7 Ke5 Kg5 8 Kd6 Kg4 9 Kc7 Kh3 10 Kxb7 Kg2 11 Ka6 Kxf2 12 b7 Kg2 13 b8Q f2 14 Qb7+ Kg1 15 Qb6 Kg2 16 Qc6+ Kg1 17 Qc5 Kg2 18 Qd5+ Kg1 19 Qxf5 and wins.

Corresponding squares

***1.15** (S322)
Tidskrift för Schack 1967



White to move and win

We have already spoken about corresponding squares in the analysis of study **1.3**. Here we have another example. In the preceding study, from which the present study arose, we also saw some corresponding squares, but they were present in smaller numbers.

In the present diagram, the simplest pair of such squares are **g2** and **e3**. If we set the kings on these squares (we always name the square of the Black king first), we soon see that we have a position of reciprocal zugzwang; whoever is to move will lose an important pawn.

If we move the Black king to g4, giving the pair of squares **g4** and **e3**, White to play must move his king, and after 1 Kd4 Kh3 2 Kd3 Kh2 3 Kd2 Kg1 he does not merely fail to win, he

actually loses.

Another pair of corresponding squares is given by **h5** and **d2**. Black to move has no way out; ...Kg4 is met by Ke3, ...Kg5 by Kd3, and ...Kg6 again by Ke3. In the diagram position, White therefore plays 1 Kc2, ready to meet 1...Kg5 by 2 Kd3 and 1...Kh5 by 2 Kd2. 1...Kg6 demands continuing concentration since neither 2 Kd3 nor 2 Kd2 comes into consideration (2 Kd3 Kg5, 2 Kd2 Kh5), but it is not difficult to find the correct continuation 2 Kc3. We have here a further pair of corresponding squares, **g6** and **c3**. After 2...Kf6 there follows 3 Kd4.

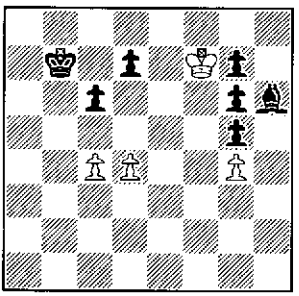
So the solution unfolds **1 Kc2 Kg6 2 Kc3 Kg5 3 Kd3 Kh5 4 Kd4** and as after White's fifth move in the preceding study. This time the solution is one move shorter.

[Mandler thought that 2...Kf6 could be met by either 3 Kd4 or 3 Kc4, but the computer disagrees; after 3 Kc4, Black can go for the b-pawn and hold the draw (3...Ke6 4 Kd4 Kd6 5 Ke3 Kc5 6 Kf4 Kxb6 7 Kxf5 Kc5 8 g4 b5 and 12 g8Q b1Q+). This defence fails after 3 Kd4 because the White king is one tempo nearer to the Black f-pawn. So the play is actually a little more precise than Mandler thought, and we might as well spell it out: 2...Kf6 3 Kd4 Kg5 (3...Ke6 4 Ke3 etc) 4 Kd5 rejoining the main line.

This minor analytical point apart, I find it interesting that this later and simpler version should be the one that Mandler included in his list of favourites, even though the earlier version has a slightly longer solution and offers a wider choice at White's first move. Length and complexity may be virtues, but clarity is a greater one.]

A preliminary examination ...

1.16 (S323, RP56)
64 studií z oboru věžových a pěšcových koncovek 1965



White to move and win

This diagram was not conceived as an independent study, its purpose being solely to simplify the understanding of the next study, so the presence of an immobile Black bishop need not distress us.

White must play so that the move d5 will gain the opposition, and by this we mean the close horizontal opposition. He can gain the distant horizontal opposition straight away, but this is not good enough; after 1 d5 cxd5 2 cxd5 Kb6, both 3 Ke7 Kc5 4 d6 Kc6 and 3 d6 Kc5 4 Ke7 Kc6 leave White with an eventual loss.

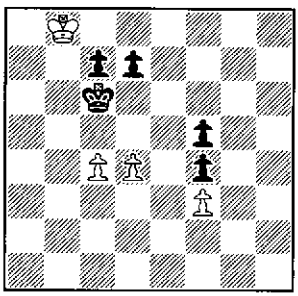
In order to gain the close horizontal opposition by the move d5, White must first obtain the close horizontal "non-opposition". He cannot therefore play 1 Ke8 on account of 1...Kc7! nor 1 Ke7? on account of 1...Kc8! For example, 1 Ke7 Kc8 2 d5 cxd5 3 exd5 Kc7 and again Black wins, or 2 Kd6 Kd8 3 c5 Ke8 4 Kc7 Kc7 etc.

Correct is **1 Kf8**. Black now loses because he must move. On 1...Kc8 there follows 2 Ke7 Kc7 3 d5 cxd5 4 cxd5 and either 4...d6 5 Ke6 or 4...Kc8 5 d6, and if Black tries 3...c5 White replies 4 Ke8 with either 4...Kd6 5 Kd8 or 4...d6

5 Ke7. Further winning lines are 1...Kc7 2 Ke8 Kc8 3 Ke7 (or 3 d5) and 1...Kb6 2 Ke7. White also gets a decisive advantage after 1...Kb8 2 d5 cxd5 3 cxd5, for example 3...Kb7 4 Ke8 and either 4...Kc7 5 Kc7 or 4...Kc8 5 d6, and it might seem to us that this is the result of the opposition, but this is an optical illusion. What is important after 1...Kb8 is that the Black king is on the eighth rank, and so cannot reply to 2 d5 cxd5 3 cxd5 by playing to b6. In contrast, it is immaterial whether the White king stands on f8 or f7.

... and a six-fold echo

***1.17** (S324, RP57)
Práce 1949



White to move and win

The theme of the preceding study is here multiplied, and the route to the win made easier. After 1 Ka7 Kd6 2 Kb7 c6 3 Kb8 (3 Kc8? Ke7 4 Kc7 Ke6) Ke6 (3...Ke7 4 Kc8) 4 Kc7 Ke7 5 d5 cxd5 6 cxd5 we have reached a position of opposition which we know from the preceding study. After **6...d6** White wins by **7 Kc6**, and after **6...Ke8 7 d6** we have the same position in echo.

A further pair of echoes arises in the variation 1 Ka7 d6 2 Ka6 Kd7 3 Kb7 Kd8 4 Ka7 Ke7 (4...Kd7 5 Kb8, 4...Ke8 5 c5) 5 Ka8 (White can play his fourth and fifth moves the other way round, 4 Ka8 Ke7 5 Ka7) Ke6 (5...Ke8 6 c5, 5...Kd8 6 Kb7, 5...Kd7 6 Kb8, 5...Kf6 6 Kb7 c5 7 d5 Ke5 8 Kc6 Kd4 9 Kxd6 and either 9...Kxc4 10 Kc6 or 9...Ke3 10 Kxc5 etc) 6 Kb7 Kd7 7 c5 dxc5 8 dxc5 and either **8...c6 9 Kb6** or **8...Kd8 9 c6**. If 5...Kd7 (instead of 5...Ke6) there would follow 6 Kb8 Kc6 (6...Kd8 7 c5 Kd7 8 Kb7 c6 9 Kb6 etc) 7 Kc8 Kb6 8 Kd7 (8 d5? c6 9 Kd7 cxd5 10 cxd5 Kc5 11 Ke6 Kd4 12 Kxd6 Ke3 13 Kc5 Kxf3 14 d6 Kg3 15 d7 f3 16 d8Q f2 and draws) Kb7 9 c5 dxc5 10 dxc5 and either **10...c6 11 Kd6** or **10...Kb8 11 c6**. The echoed climactic positions are in bold type.

After 1 Ka7 d6, 2 Kb8 fails on account of 2...Kb6 3 Kc8 Kc6 4 d5+ Kb6 5 Kd7 Kb7 6 Ke6 Kb6 7 Kxf5 Kc5 8 Kxf4 Kxc4 9 Ke4 Kc5 10 f4 c6. It might seem that 2 Ka8 would be more effective, but this also can be defeated: 2...Kb6 3 Kb8 (in the vertical direction, neither the opposition nor the non-opposition works) c6 4 Kc8 Ka5 5 Kc7 Kb4 6 Kxc6 Kxc4 7 d5 Kd4 8 Kxd6 Ke3 9 Ke5 Kxf3 10 d6 Kg3 11 d7 f3 12 d8Q f2.

An interesting try after 1 Ka7 d6 2 Ka6 Kd7 is 3 Kb5. The Black king cannot retreat to the e-file (3...Ke7/Ke8) on account of 4 Kc6 Kd8 5 Kb7 Kd7 6 c5 etc. 3...Kc8 is met by 4 Kc6 Kb8 5 Kd7 etc. This only leaves 3...Kd8, and what happens after 4 Ka5? 4...Kd7 allows White to win by 5 Ka6 (5...Kd8 6 Kb7, 5...Kc6 6 Ka7 Kd7 7 Kb8, 5...Ke7 6 Ka7, 5...Kc8/Ke8 6 Ka7). The correct reply to 4 Ka5 is 4...Kc8 5 Ka6 Kd7 (or 5...Kb8) etc.

Let us return to the position after 1 Ka7 Kd6 2 Kb7. If 2...c5, White wins by 3 d5: 3...Ke7 4 Kc7, or 3...Ke5 4 Kc7 Kd4 5 Kxd7 and either 5...Kxc4 6 Kc6 Kd4 7 d6 Ke3 8 d7 Kxf3 9 d8Q or 5...Ke3 6 Kc6 Kxf3 7 d6 Ke2 8 d7 f3 9 d8Q f2 10 Qe8+.

If Black replies to 1 Ka7 by 1...d5, there follows 2 c5 Kb5 3 Kb7 Kc4 4 Kxc7 Kxd4 5 Kd6 Ke3 6 c6 and White wins.

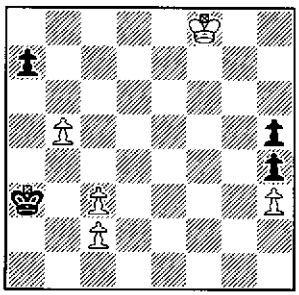
1 Kc8? fails against 1...d6 and either 2 Kd8 Kb7 3 d5 (3 Ke7 Ka6!) Kb6 4 Kd7

Kb7 5 Ke6 Kb6 6 Kxf5 Kc5 7 Kxf4 Kxc4 8 Ke4 Kc5 9 f4 c6 or 2 Kb8 Kb6.

[Mandler indicates an inversion dual in the second main line (4 Ka8 followed by 5 Ka7 or the other way round) and the computer gives a few more alternatives for White at various points, but none seems important. For example, it gives 4 Kb8 as another winning move at this point, but in fact this merely wastes time; after 4...Kd7 5 Ka8 Ke7 White has to play 6 Ka7 and rejoin the main line, and he has taken three moves when he need have taken only two.]

By sacrificing two pawns, White gains a decisive positional advantage

1.18 (S325, version)
Tidskrift för Schack 1962, version



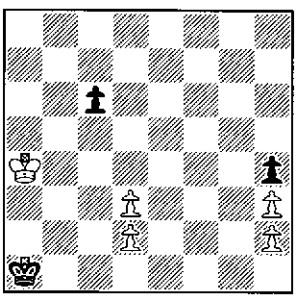
White to move and win

1 Ke7 Ka4 2 b6 axb6 3 Kd6 Ka3. It does not appear that White's pawn sacrifice has achieved a great deal. He has lost a pawn, the pawn on c3 is no longer a passed pawn, and the Black king threatens the c-pawns. But after **4 Kc6 Kb2 5 c4 Kc3 6 Kb5** Black finds himself forced to move, **6...Kd4**, and a second sacrifice now carries White to success: **7 c5!** (7 Kb4? Ke4 8 c5 bxc5+ 9 Kxc5 Kf4 10 Kd4 Kg3 11 Ke3 Kxh3 12 Kf3 Kh2 and draws) **bxc5 8 c4 Ke4 9 Kxc5 Kf4 10 Kd4 Kg3 11 c5 (Ke3)** etc.

[I have added the pawn on h5 to remove an apparent bust by 2 Kd6 Kxb5 3 Kd5, when White can trade his advanced c-pawn for Black's a-pawn and then play out a routine win with two pawns against one: 3...Kb6 (advancing the a-pawn helps White) 4 c4 Kc7 5 c5 Kd7 6 c6+ Kc7 7 Kc5 Kd8 (7...Kc8 8 Kd6 Kd8 9 c7+ Kc8 10 Kc6 is easier for White) 8 Kd6 Kc8 9 c3! (9 c4 forfeits the win) Kd8 10 c7+ Kc8 11 Kc6 a5 12 Kb5 Kxc7 13 Kxa5 Kc6 14 Kb4 Kb6 15-18 Kf4 Kxc3 19-20 Kxh4 Ke5 21 Kg5 and wins. Adding a second Black pawn on the h-file appears to slow White down sufficiently to enable the Black king to get back to f8.]

The White king goes the long way round

1.19 (S326, RP63)
Šachové umění 1949



White to move and win

The White king can reach the pawn on c6 by two routes, via b4-c5 or via a5-b6. After 1 Kb4 Kb2 2 Kc5 Kc2 3 d4 Kd3 he has no winning continuation. But if it were now Black's move, there would be a way to win.

So White must deliberately lose a tempo. How can he do this? His king will go via a5. True, the journey to c6 takes just as long via a5 as via b4, but in the try which we have just looked at the White king is not c6, it is on c5, and the journey to c5 via a5 is one move longer.

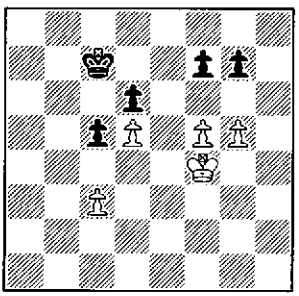
Hence: **1 Ka5 Kb2 2 Kb6 Kc2 3 d4**

Kd3 4 Kc5 Ke4 5 d5 cxd5 6 d4 and White wins, for example 6...Kf3 7 Kxd5 Kg2 8 Ke4 Kxh2 9 d5 Kxh3 10 d6 Kg2 11 d7 h3 12 d8Q etc.

The h-pawns prevent a dual by 5 Kc4.

White keeps or passes the move as required

1.20 (S327, RP64)
Lidová kultura 1949



White to move and draw

The try 1 f6 fails against 1...g6! (not 1...gxf6 on account of 2 gxf6 and a counterattack by the White king via g5 and h6) 2 Ke3 Kb6, with a Black win after either 3 Kd3 Kb5 or 3 Kd2 c4 4 Ke3 Ka5 5 Kd4 Kb5 6 Ke3 Ka4 7 Ke4 Ka3 8 Ke3 Kb2 9 Kd4 Kb3.

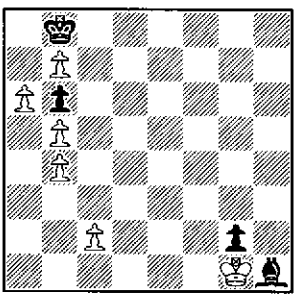
How can White arrange that the move rests with either himself or Black as needed? Simply by playing 1 Kg4. This threatens 2 Kh5 followed by 3 f6, and so forces the reply 1...g6. This is what White wanted. Now the Black pawns cannot move without allowing White to counterattack, and White has to hand a means of controlling the tempo. If he wants to remain on move, he plays fxg6, and if he wants to give the move to Black he plays f6. But this happy situation will not persist indefinitely. The White king cannot wander too far from the K-side, otherwise the pawn on g6 will be able to capture on f5 in safety.

In the position that arises after **1 Kg4 g6 2 Kf4** (or Kf3) **Kb6 3 Ke4** (Ke3), Black cannot play 3...Kb5 on account of 4 fxg6 fxg6 5 Kd3 Ka5 6 Kc2. After **3...Ka5** there follows **4 Kd3 Kb5 5 f6** (now White gives the move to Black) **Ka5** (5...Ka4 6 Kc4) **6 Kc2 c4 7 Kb2 Kb6 8 Ka3 Kb5** (White's position has worsened) **9 Kb2 Kc5 10 Ka3 Kxd5 11 Kb4** (White will gain the pawn on c4 in return for the lost pawn on d5, but his K-side pawns are weak) **Kc6** (or 11...Ke6 12 Kxc4 Kf5 13 Kd5 Kxg5 14 Kxd6) **12 Kxc4 d5+ 13 Kd4 Kd6 14 c4** and White will draw.

[The computer gives 14 Ke3 Ke5 15 Kd3 as an alternative draw at the end, but it is markedly less clear and at so late a stage it can hardly be thought a defect.]

Gently does it!

1.21 (S328)
Die Schwalbe 1960



White to move and win

In my problem collection, there is a chapter entitled "Festina lente!" featuring problems in which a White pawn standing on the second rank is content with a single-step move whereas the solver might expect it to move two squares so as to get to grips with a distant Black king as quickly as possible. This seems to be a theme more suited to "mate in *n* moves" problems than to studies. I have only incorporated it into one study, and that is the present one.

Let us start by trying 1 c4. After 1...Ka7/Kc7 2 c5 Kb8 (2...bxc5 3 bxc5 Kb8 4 c6 and White wins) White cannot take the pawn on b6 because the capture will give stalemate. Hence 3 c6 Ka7 4 b8Q+ (4 c7 again gives stalemate) Kxb8, and now we have a position of reciprocal zugzwang in which White would win were it Black's move.

Correct is therefore **1 c3 K-- 2 c4 Kb8 3 c5 K--** (3...bxc5 4 bxc5 K-- 5 b8Q+ Kxb8 6 b6 etc) **4 b8Q+ Kxb8 5 c6** and now Black finds to his detriment that it is he who has to move.

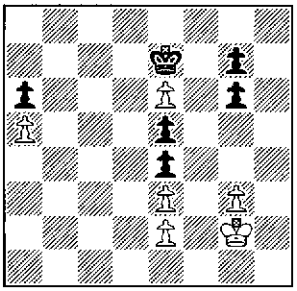
I have put this among the pawn studies even though there is a Black bishop on the board, since this bishop plays a purely passive role.

[Few readers will have Mandler's problem collection - it was published a few months before *Studie* and is now just as hard to obtain - and since this is hardly a typical Mandler study, perhaps a brief background comment is in order. In 1960, Mandler wrote an article on the theme "Festina lente!" for the German problem magazine *Die Schwalbe*. It contained some twenty examples, all but the present one being problems with stipulation "White to play and mate in *n*", and even the present composition is much more like a problem than a study in construction. But Mandler put it in *Studie*, and I have thought it appropriate to follow suit. He points out that both stalemates in the play after 1 c4 are pure (each square surrounding the king is either blocked by a Black man or guarded by a single White man, no square is multiply guarded and none is both guarded and blocked) and that composers of the "Bohemian" school to which he belonged attach just as much importance to pure stalemates as they do to similarly refined mates.

It might be added that the computer has greatly assisted the finding of "festina lente" studies, and if Mandler were writing today I doubt if he would still describe as a theme more suited to problems. A definitive computer analysis of endings with given material automatically produces a list of positions of reciprocal zugzwang, and whenever a position with a pawn on the third rank is reciprocal zugzwang there is a chance that the only good move with the pawn on the second rank will be "pawn one". Some composers have viewed the advent of computers with very mixed feelings; Mandler, I think, would have revelled in the possibilities they have opened up.]

An echo both of a stalemate and of its accompanying play

1.22 (S329, RP52)
Národní Osvobzení 1936



White to move and draw

The pawn on a5 cannot be protected. Its salvation will be a K-side counterattack.

But White must not be too hasty. After 1 Kh3? Kxe6 he is suddenly lost for a move. On 2 Kg4 there will follow 2...Kf6 3 Kh4 Kf5 4 Kh3 g5 5 Kg2 g4 and the counterattack is at an end. 2 Kh4 will be met by 2...Kf5, and 2 g4 by 2...g5.

Correct is **1 Kh2! Kxe6 2 Kh3** and now it is Black who has to find a move. **2...Kf5** fails against **3 Kh4 g5+ 4 Kh5 g4 5 Kh4 g6 stalemate.** If instead 5...g5+ then 6 Kh5 Kf6 7 Kh6 (7 Kxg4? Kg6) and White even wins, if 5...Kf6 then 6 Kh5 (6 Kxg4? g6!) and again ...g5 allows White to win. If Black plays

4...Kf6, there follows 5 g4 and 5...g6+ 6 Kh6 Kf7 7 Kh7 will be another White win, but not 7 Kxg5 Kg7 8 Kh4 Kf6 9 Kg3 g5 and Black wins.

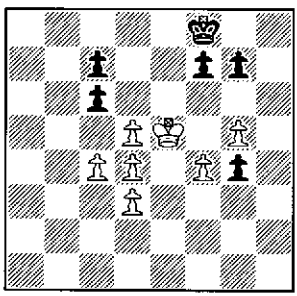
If instead of 3...g5+ Black plays **3...Kf6**, White must avoid 4 g4? on account of 4...Ke6 5 Kg5 Kf7 6 Kh4 Kf6 7 Kg3 g5 with a Black win, but he can save himself by contriving a stalemate one rank higher than in the previous variation: **4 Kg4 g5 5 Kh5 Kf5 6 g4+ Kf6 stalemate**. If instead 5...g4 White must avoid 6 Kxg4 on account of 6...g6 7 Kh4 Kf5 8 Kh3 g5 9 Kg2 g4 etc, but he has 6 Kh4! g5+ 7 Kh5.

The same stalemate occurs after 1 Kh2 Kxe6 2 Kh3 Kf6 3 Kg4 g5 4 Kh5 Kf5 5 g4+ Kf6.

In addition to the echo of the stalemate itself, we have an echo in the course of the associated play.

Sometimes the solver must master some of the tasks which confronted the composer

***1.23** (S330, RP51)
Národní Osvobození 1936
Correction *Šachové umění* 1947



White to move and draw

This study bears the traces of its origin. The difficulties with which a composer struggles while attempting to realize his theme are often reflected in the resulting position, sometimes in its appearance, sometimes in its content, often unattractively, rarely congenially; and sometimes the solver must himself overcome some of the difficulties which confronted the composer.

The theme of the present study is again the echo both of a stalemate position and of the way it is brought about. But the road to this echo is hedged around with obstacles.

Black's hopes of victory lie in his passed pawn. This pawn must be stopped if White is to draw, and so only 1 Ke4 suggests itself as a key. But 1 Ke4 loses.

The solver must realise from the start that his only means of salvation will be stalemate, and hence that he must create the possibility of immobilizing the White pawns. Hence he plays **1 d6**. After **1...cxd6+ 2 Ke4 Ke7** there follows **3 f5** (to prevent the threatening ...f5) **f6 4 Kf4 fxg5+ 5 Kxg4 Kf6 6 c5**, and after **6...d5 7 Kh5 Kxf5** White is stalemated. If instead 6...dxc5, White replies 7 dxc5 g6 8 fxg6 Kxg6 9 d4 Kf6 10 d5 cxd5 11 c6 with a draw.

The same stalemate, one rank lower, arises after **2...g6 3 Ke3 Ke7 4 Kf2 f5** (4...Ke6 5 Kg3 Kf5 6 c5 dxc5 7 dxc5 Ke6 8 Kxg4 Kd5 9 Kf3 Kd4 10 Ke2 Kxc5 11 Ke3 Kd5 12 d4 and draws) **5 gxf6 e.p.+ Kxf6 6 Kg3 Kf5 7 c5 d5** (7...dxc5 8 dxc5 g5 9 fxg5 Kxg5 10 d4 Kf5 11 d5 cxd5 12 c6) **8 Kh4 Kxf4**. White's 6th and 7th moves can be interchanged.

In the first variation, after 1 d6 cxd6 2 Ke4 Ke7 3 f5 f6, the move 4 g6 must not lead to a draw. This was one of the chief obstacles in the course of the construction, and it is a difficult task for the solver to recognize that this is only a try and to find its refutation. It actually fails against 4...d5+ 5 Kf4 c5! and either 6 Kxg4 cxd4 7 Kf3 Kd6 8 cxd4 Kxd5 9 Kf4 Kc6! 10 Kf3 Kb5 or 6 dxc5 dxc4 7 dxc4 (at first sight, this position does not look like a Black win) Kd7 8 Kxg4 Kc6 followed by 9...Kxc5.

In the second variation (2...g6 3 Ke3 Ke7 4 Kf2 f5) White must capture the

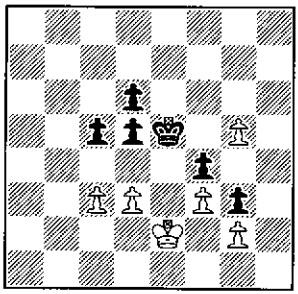
pawn on f5, otherwise Black, having guarded his passed pawn, will penetrate with his king via a5 and b4.

2...f5+ 3 gxf6 g6 4 Ke3 (c5) leads into now familiar territory.

1 Ke4? is met by 1...cxd5+ 2 Ke3 Ke7 3 f5 f6 4 g6 c5! with a Black win.

Haven't we seen this before?

1.24 (S331)
Original to *Studie* 1970



White to move and win

This position occurs after the moves 1 d6 cxd6 2 Ke4 Ke7 3 f5 f6 4 g6 in the preceding study. I have inverted the colours, turned the board through 180 degrees, and changed the stipulation to "White to move and win". But why should I do this? Turning the board round and inverting the colours appears to change nothing. Yet there is a difference between merely refuting a try and analysing the same position as if it were a self-standing study. For a position to be entitled to exist as a study in its own right, not only must it be difficult to solve, it must also be correct, its main line must be free from cooks and duals. However, only in the main line do we need to examine and refute alternative lines of attack; in the case of sidelines, usually (there are exceptions) we take no notice.

It would of course be a different matter if a fragment of an existing study were to be sent to a tourney as a new and independent creation, or if it were to have been taken from somebody else's work. But such considerations are not relevant here.

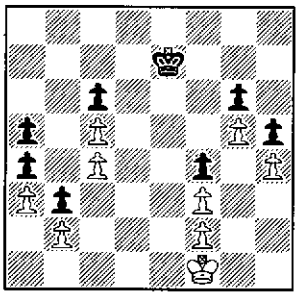
1 c4? does not succeed. But not because of 1...dxc4. This is met by 2 dxc4 and either 2...d5 3 cxd5 Kxd5 4 Kd3 Ke5 5 Kc4 and White wins, or 2...Kf5 3 Kd3 Kxg5 4 Kc4 etc. Black defeats 1 c4 by playing 1...d4: 2 Kd2 Kf5 3 Kc2 Kxg5 and now it is White who is fighting to hold the draw.

Correct is **1 d4+**. But what of the defence 1...cxd4? The tempting 2 cxd4+ leads only to a draw: 2...Kf5 3 Kd3 Kxg5 4 Kc3 Kg6 and Black will draw by gaining the distant horizontal opposition. Correct is 2 Kd3 dxc3 3 Kxc3 Kf5 4 Kd4 and White wins. Black still has two pawns on the d-file, but the White king has plenty of time to deal with them. Even more improbable is White's win in the main line, when Black is left with two pawns on the c-file: **1...Kf5 2 c4**. If now 2...Kxg5, the reply 3 dxc5 would be a mistake on account of 3...dxc5 4 cxd5 Kf5 5 Kd3 Ke5 (if 6 Kc4 then 6...Kd6 and Black wins). A winning line after 2...Kxg5 is 3 cxd5 Kf6 4 Kd3 cxd4 (4...Ke7 5 Kc4) 5 Kxd4 Kf5 6 Kc3 Kf6 7 Kb4 Ke5 8 Kc4 Kf6 9 Kb5 Kf5 10 Kb6 Kf6 11 Kc7 Ke5 12 Kc6.

The most hopeful continuation for Black appears to be **2...dxc4 3 dxc5 dxc5**. In fact White's win is now straightforward, even though at first sight it seemed most unlikely: **4 Kd2 Kxg5 5 Kc3 Kf5 6 Kxc4 Ke6 7 Kxc5 Ke5 8 Kc4** and so on.

An ending with almost a full complement of pawns

1.25 (S332)
Lidová kultura 1946



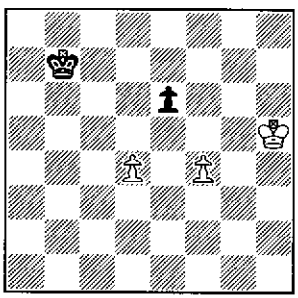
White to move and win

Here there are five pairs of corresponding squares: **f5/d4**, **e5/d3**, **e6/c3**, **f5/d2**, and **e6/e2**. The Black square is listed first in each case.

Solution: **1 Ke1 Ke6** (1...Kd7 2 Kd2) **2 Ke2 Kf5 3 Kd2 Ke6 4 Kc3 Ke5 5 Kd3 Kf5 6 Kd4** and so on.

A novelty with theoretical value

***1.26** (S333, RP49)
Prager Presse 1929



White to move and win

This position makes a contribution to endgame theory. The simpler a position, the greater the probability that it is already known to theoreticians. Study composers, as distinct from analysts, do not usually set out to extend the boundaries of theoretical knowledge, but rather to find interesting positions and beautiful manoeuvres. But it sometimes happens, usually unintentionally, that such a composition also turns out to enrich endgame theory.

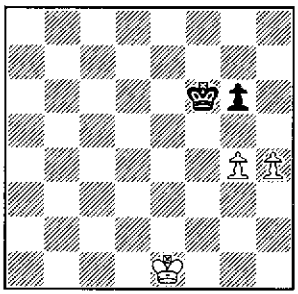
In a position with the pawns arranged as shown here, White will normally win only if he can manoeuvre his king to one of the squares e8, e7, and e6. Fr. Dedrle seems to have been the first to have established the significance of these squares. But in the present position, it does not appear possible for his king to get there. In fact the breakthtrough manoeuvre is possible only because the pawns are on the fourth and sixth ranks; if they were any lower down on the board, Black could defend all the weak points.

The White king cannot advance to the sixth rank without allowing Black to take the opposition. Conversely, Black cannot allow White to gain the opposition on the sixth or eighth rank, because this will allow him to reach one of the critical squares; for example, 1 Kh6 Kc6? 2 Kg6 Kd6 3 Kf6 Kd7 4 Kf7 Kd6 5 Ke8 and wins, or 2...Kc7 3 Kg7 and either 3...Kd8 4 Kf6 Kd7 5 Kf7 or 3...Kc6 4 Kf8 etc.

The Black king is well placed on b7. White wins only by luring him to the eighth rank: **1 Kh6 Kb6 2 Kh7 Kb7 3 Kh8 Kb8 4 d5 exd5 5 f5** etc. Bad would be 1 Kg6? Kc6 2 Kg7 Kc7 3 Kg8 Kc8 4 d5 on account of 4...Kd7 with a draw.

White saws away at the Black position

***1.27** (S334, RP50)
La Stratégie 1936



White to move and win

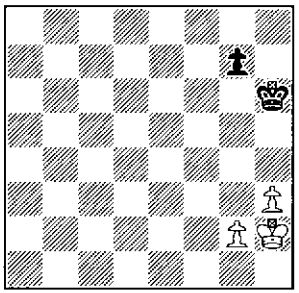
Taking the opposition on the f-file by 1 Kf2 does not help White. The Black king stays on the file, and Black need not fear the White king's advance to f4: 1...Kf7 2 Kf3 Kf6 3 Kf4 g5+ and Black draws. And if the White king leaves the file, Black can take the opposition, thus (1 Kf2 Kf7) 2 Ke3 Ke7 3 Ke4 Ke6 and either 4 Kd4 Kd6 or 4 Kf4 Kf6.

The solution is **1 Kd2! Ke6 2 Ke2 Kf6 3 Kd3 Ke5 4 Ke3 Kf6 5 Kd4 Ke6 6 Ke4 Kf6 7 Kd5 Ke7 8 Ke5 Kf7 9 Kd6** and White wins. On 2...Kd6 there follows 3 Kf3.

The White king's path resembles the teeth of a saw.

Freeing a crucial square for the king

1.28 (S335)
La Stratégie 1936



White to move and win

1 g3? g5!; 1 g4? g5!; **1 h4! Kg6 2 Kg3 Kh5 3 Kh3 g6 4 g3 g5 5 g4+** and **6 h5**. Why not 1 Kg3? Because it would allow the Black king to come to g5? Not at all, after 1 Kg3 Kg5 2 h4+ White will win in the same way as in the solution. Nor do we play 1 h4 in order to keep the Black pawn from g5, because 1 Kg3 g5 also leads to a White win: 2 Kg4 Kg6 3 h4 etc.

The true purpose of 1 h4 is to free the square h3 for the White king. The try 1 Kg3 is defeated by 1...Kh5 2 h4 g5.

After 1 h4 Kg6 2 Kg3 Kh5 3 Kh3 g6 White wins because he has at his disposal the waiting move g3. 4 g4+ would lead to a similar drawn position to that which originates after 1 g3 g5, but one rank higher.