

*To the memory of David Hooper and Ken Whyld,
in the belief that this is something they would have liked to see*

The Chess Endgame Studies of Richard Réti : Introduction

John Beasley, 14 January 2012, latest revision 12 November

Richard Réti (1889-1929) has always been one of my chess heroes, and ever since I first saw the stunning pawn study with which his name is indissolubly linked I have taken a particular delight in his endgame studies. I first met them in Golombek's 1954 book of his best games, where fifteen of them appear, and I have always looked out for them since. Nearly all are in Sutherland and Lommer's *1234 modern endgame studies* and rather more than all are in Harold van der Heijden's "Endgame study database IV" (more about this later), but the standard collection has always been Artur Mandler's *Richard Réti : Sämtliche Studien* of 1931. There was a Spanish edition of this in 1983 and I used to have a copy, but while I was looking after the library of the British Chess Problem Society I lodged it there on loan, and it was the one book I could not find when I came to reclaim my loans before the library moved elsewhere. Fortunately Jan Kalendovský had included all the studies in his 1989 book *Richard Réti, šachový myslitel*, and on looking at this again recently it occurred to me that a complete presentation of Réti's studies in English would be a job well worth doing. According to Kalendovský, Mandler's book was translated into a range of languages including English, but I have never seen an English edition and the British Library appears not to possess one.

Let me stress the word "presentation". This is not a definitive "edition" of Réti's studies in any normal academic sense. It isn't a translation of Mandler's 1931 book, for the excellent reason that I don't read German; it isn't even a translation of the relevant part of Kalendovský's book, because Kalendovský does not include all Mandler's detailed analysis. It is rather a presentation of each study in turn, with Réti's analysis as given by Mandler, further analyses taken from Harold van der Heijden's "Endgame study database IV" and from other sources, and a few computer-aided probings of my own, all tied together with text either quoted from Mandler or created by myself. I am sure that many readers will think some of my additional text unnecessarily detailed, particularly when I am spelling out background strategical considerations which they can see at a glance, but I am unrepentant. Reading Golombek's book as a schoolboy, I am afraid I found some of the studies bewildering rather than enthralling, and while most of the blame can be placed on my limited endgame knowledge at the time I still think a few extra notes in the presentation would have helped. So to readers who may think I am sometimes spelling out the obvious, well, perhaps I am, but my intention is that any young or modest enthusiast who comes across this presentation will peruse the studies in it with pleasure and enlightenment rather than the bewilderment which I sometimes felt in the 1950s.

The man

Réti was born in Pezinok, a small town (18,000 inhabitants in 1989) lying just below the modest hills of the Malé Karpaty some twenty kilometres north-east of what is now Bratislava. His father Samuel was a doctor, and his mother Anna, born Mayer, was from a Jewish mercantile family prominent in the town. He grew up in what would appear to have been comfortable circumstances, and from childhood he displayed a gift for mathematics. In 1904, he moved to Vienna with his mother and elder brother Rudolf, who later became a well known concert pianist. (The British Library has three books on music, published in America or Britain between 1951 and 1967, by one Rudolph Richard Réti, who was presumably a connection of some sort though I know no details.) He graduated from higher school in mathematics, and then studied it at the university. Vienna was a rich intellectual and cultural centre, in which chess existed cheek by jowl with music and the other arts (the *Wiener Schachzeitung* of 1906 recorded two games won by the music composer Richard Strauss), and Kalendovský paints a brief but vivid picture of the chess scene at the Central Café.

Réti also appears to have been at least a competent linguist, as were and are so many educated Europeans. His chess books were written in German, but I understand that he also spoke Hungarian, French (thanks to a French governess), and presumably Yiddish though I don't know if any evidence of this remains. But though he became a citizen of the newly formed Czechoslovakia after the First World War and played on its top board in the 1927 International Team Tournament, he appears never to have spoken Czech or Slovak.

In due course, Réti moved from mathematics to chess. As a player, he became one of the best of his time, with a tournament victory over a reigning World Champion (Capablanca, New York, 1924) to his credit; but he is also remembered for his books, his chess theories, and his endgame studies. But those whom the gods love... He died from an attack of scarlet fever, less than a fortnight after his fortieth birthday.

The composer

Réti's activities as chess player, writer, and theorist have been well chronicled elsewhere, and our concern here is solely with him as a composer. In his teens, he composed problems (his first was published in 1908, and at least seven problems by him are extant), but according to Mandler (*Mährisches Tagblatt*, 10 February 1927, quoted in translation by Kalendovský) he became so disillusioned when a problem of which he was particularly proud proved to have been completely anticipated some twenty years before that he swore to give them up, a vow which he almost completely kept. However, he found compensation in the less widely explored field of the endgame study. All seven problems are quoted by Kalendovský (on his pages 10, 12/13, and 351-353), but I am not including them here. Even the best of them does not seem to me to be more than good work in the style of the day, and I would not expect them to be of great interest to those who are not problem specialists.

His endgame studies are a very different matter. His first study does not seem to have appeared in print until 1921, but they rapidly reached the very highest standard, and they came thick and fast until his sadly early death. I read long ago – alas, I cannot remember where – that he once blew a tournament first prize by staying up all night to perfect an endgame study and being so tired as a result that he lost his next two games. Perhaps the story is a myth (I don't have convenient access to the round-by-round results which might enable the tournament to be identified), but everything one reads about him suggests that it *ought* to be true.

All this produced the 56 studies which are in Mandler's 1931 book. As regards their completeness, Kalendovský quotes Mandler as stating in his foreword that at Réti's express wish this collection contained all the studies authorized by him, and the chess world was asked, in his name, to regard his other studies as non-existent. This was of course an unrealistic request; they did exist, they had been published, and when Harold van der Heijden trawled the various sources in which they had appeared he inevitably picked them up and included them in his database. However, at Réti's express wish we are now asked to discount these other studies of his, and I am quite sure that we should do so. Indeed, I hope anyone trawling Harold's database for the "complete" works of other composers will adopt a similar discretion, even in the absence of a specific request. Nearly all of us have published work well short of the quality which we like to think we are able to attain, and our reputations are not well served by presenting these lesser efforts in company with our best work.

Presentation of the studies : general

Réti himself divided his studies into chapters as follows:

- Pawn endings (1-4 in Mandler's book, including 1a and 1b)
- Knights with or against pawns (Mandler 5-9)
- Bishops with or against pawns (M 10-17)
- Rook endings (M 18-27)
- Duels between two different men (M 28-34)
- Bishops and knights with or against passed pawns (M 35-44)
- "Unzeitgemäßes" (see below, M 45-48)
- Magic with a knight (M 49-53 including 50a).

However, for dissemination via the Internet it is convenient to present the studies in separate files grouped solely by material. I have therefore presented them in eight files as follows:

- Pawn endings
- Knights and pawns
- Bishops and pawns
- Rooks and pawns
- Knights and bishops
- Rooks and minor pieces
- Queens
- Casualties

but the order of studies within each file remains Mandler's except where the correction of a casualty has caused a new study to be added at the end of a file.

As regards "Unzeitgemäßes", Réti had this to say (my thanks to Thomas Brand for the translation). "There are two ways of composing endgame studies. A) You examine interesting, simple positions, look for the valuable

ones, and present them in an artistic and economical form, pure in aim. B) You start with a climax, a mate, a stalemate, or a zugzwang, and construct a foreplay. The second way doesn't suit me, but I've perpetrated some crimes..." The studies of the second kind were collected in the section "Unzeitgemäßes" (here, they are 6.2 and 6.3 in the "Rooks and minor pieces" file, and 7.1 and 7.2 in the "Queens" file). Since Réti thought he was not suited to this method of composition, he feared that the quality of this chapter would be below that of the rest, but then he recognized that his concern was unfounded and that this chapter had the same value as the others. We would surely agree.

And the presence of a "casualties" file will be noted. Réti composed long before computers were available to help with the analysis, some oversights have inevitably come to light, and not all the studies affected have proved amenable to rescue. Also to be noted is the presence of a file of updates and post-publication notes, which contains pertinent comments made by readers and lists of files which have been updated as a result. This is one of the benefits of Internet dissemination. If anything is found to be wrong, a corrected version can be posted, and anyone who has been keeping an eye on the relevant web site is immediately in touch.

Presentation of the studies : minor points

In the body of the text, and in accordance with my normal practice, I have followed the style of the scientific research literature, and have omitted all academic and other titles however honorific and well deserved they might be. Dedications, however, are quoted as Réti made them. I have taken them from Mandler's 1931 book rather than from Kalendovský's, since in Czech the names appear in an inflected form from which the root form cannot always be unambiguously recovered.

For sources, I have normally followed Kalendovský, who did some additional research and found some sources not known to Mandler, but I have checked the entries in *Kagan's Neueste Schachnachrichten* personally. (And yes, there is an apostrophe. On the evidence of my copies, this magazine, published by Bernhard Kagan, called itself "Kagan's" on its cover for its first three years, 1921-23, though the headings inside omitted the apostrophe from July 1922. The apostrophe was dropped altogether from the start of 1924.)

Mandler did not normally put main lines in bold, and all bold type in what follows is editorial. Sometimes it is obvious what is the main line and what is a subsidiary variation; sometimes I have had to take a view, particularly when a solution branches into two or three lines which Réti or Mandler may or may not have thought of equal importance. But I hope any misjudgement of mine in this matter will not affect the reader's pleasure.

Réti was in the highest class as an endgame study composer, but while we all know his classics there are also some deeper studies whose very difficulty has precluded popular appreciation. I hope this presentation will do something to repair the omission. To an extent which few if any other composers have done, he combined the imagination of the creative artist with the practical master's capacity for quick and accurate analysis. Indeed, it is perhaps only those of my own generation and the next generation to follow, who can remember what it was like to try and compose endgame studies *without* the massive analytical help now available from the computer, who can now properly appreciate the depth of skill and talent to which some of what follows bears witness.

Acknowledgements

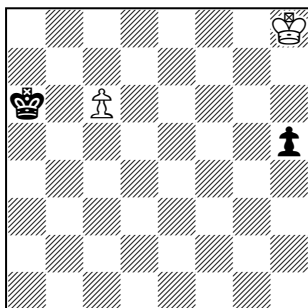
I have done little more than a hack edit job on the available material, and any credit for its quality lies elsewhere. In particular, I have relied heavily on three books already published (Mandler's 1931 book of Réti's studies, his 1970 book *Studie*, and Kalendovský's 1989 book on Réti), and I am grateful to the British Library for access to the first of these (it holds a copy of the 1983 Olms reprint, in which this book is bound in with the original German edition of Réti's *Masters of the Chess Board*). I am also grateful to Yakov Konoval for checking some positions with $K + R + 2P \text{ v } K + R + P$ against the preliminary results for this material generated by himself and Marc Bourzutschky, and to all those who have generated the definitive results for positions with up to six men and have made them publicly available on Eiko Bleicher's web site <www.k4it.de>. With analytic support like this available on demand, the task of the presenter is made very much easier; indeed, in the case of some of the harder and deeper studies, this presentation would not have been possible without it.

And my thanks to all those (they are acknowledged by name in "Updates and post-publication notes") who have written to draw my attention to alternative settings of some of the studies, and to point out errors and infelicities in my original text. It has all helped to improve the quality of what follows.

The Chess Endgame Studies of Richard Réti : Pawn studies

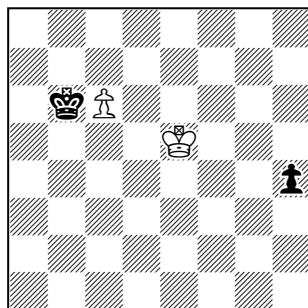
John Beasley, 14 January 2012, minor correction 2 March

1.1 (M 1)



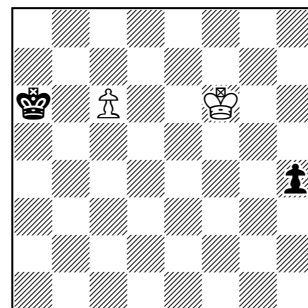
White to play and hold the draw

1.1a



1...Kb6, after 3 Ke5

1.1b



1...h4, after 2 Kf6

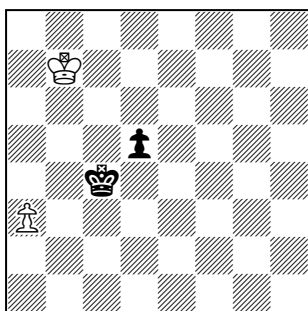
1.1 (*Deutschösterreichische Tages-Zeitung*, 11 September 1921) is Réti's most famous study. White's pawn is clearly dead, Black's is far out of reach, White must surely resign. But after **1 Kg7 Kb6 2 Kf6** Black's pawn must run, **2...h4**, and **3 Ke5** gives **1.1a**. Black can only run again, **3...h3**, and now **4 Kd6** rescues White's own pawn and ushers it through: **4...h2 5 c7 Kb7 6 Kd7** and both sides will promote. Alternatively, Black can play **1...h4**, when **2 Kf6** gives **1.1b**. If now **2...Kb6** then **3 Ke5** gives **1.1a** again; if instead **2...h3** then **3 Ke5** fails (**3...h2 4 c7 Kb7 5 Kd6 h1Q**), but **3 Ke6/Ke7** will see White's pawn safely home.

This study has been variously presented. I have always regarded 1...Kb6 as Black's most natural move (Mandler presents it as the main line, as does Golombek), but when Timothy Whitworth and I were writing *Endgame Magic* Timothy pointed out that the composer himself had given precedence to 1...h4, and he felt we should follow suit. Perhaps the best answer is to give them equal weight.

As regards the source, I cannot do better than repeat what Timothy and I wrote in *Endgame Magic*: "We owe this attribution, which we believe definitive, to Ken Whyld in the *British Chess Magazine* for February and June 1990, the latter issue quoting research in Vienna by Michael Ehn. The position was originally published anonymously, but Réti laid claim to it on page 171 of *Kagan's Neueste Schachnachrichten* 1922 (where it was shown with the Black pawn on h6 and with Black to move). He said that he had not published it himself at the time, although he had shown it in Viennese chess circles, because it was not enough that a study should have an interesting combination, it should also be difficult to solve. [...] It was inspired by a position in a game, Schlechter–Marco 1893 [see **1.1c** below], when White drew by **57 a4 Kb4 58 Kb6**." Kalendovský reports the Schlechter–Marco game as having appeared in *Deutsches Wochenschach* in 1893 (page 344), and credits the first modern researcher to dig it up as H. Staudte in *Schach-Echo*, number 2 of 1968.

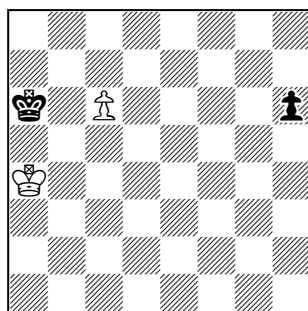
In respect of difficulty, I personally don't mind a study's being easy to solve provided that it is piquant, and this certainly qualifies.

1.1c



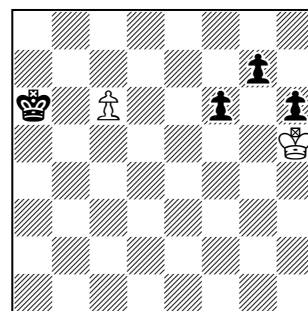
White to play move 57

1.2 (M 1a)



Black to play, White to draw

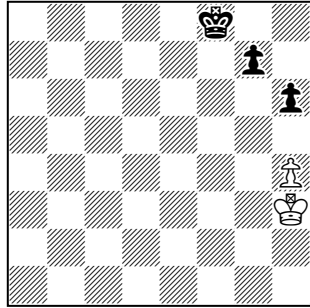
1.3 (M 1b)



White to play and hold the draw

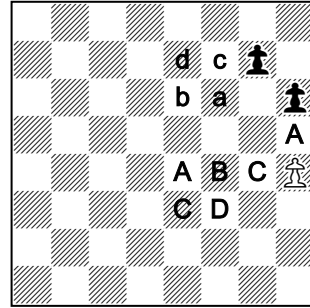
Réti returned to the idea several times. In **1.2** (*Kagan's Neueste Schachnachrichten*, 1922, seventeen pages on from **1.1**), **1...h5** (or **1...Kb6 2 Kb4 h5 3 Kc4** etc) **2 Kb4 Kb6** (**2...h4 3 Kc5 h3 4 Kd6**) **3 Kc4 h4 4 Kd5** with **4...h3 5 Kd6** or **4...Kc7 5 Ke4**. **1.3** (composed in 1928, and first published in Mandler's 1931 book), with its three united passed pawns, is perhaps even more striking than **1.1**: **1 Kg6**, with **1...Kb6 2 Kxg7 h5** (**2...f5 3 Kf6 f4 4 Ke5 f3 5 Kd6**) **3 Kxf6 h4 4 Ke5 h3 5 Kd6**, or **1...h5 2 Kxg7 h4 3 Kxf6** etc, or **1...f5 2 Kxg7 f4 3 Kf6 f3** (**3...Kb6 4 Ke5**) **4 Ke7/Ke6**. The positions with $Q \vee Q + P$ can be quickly proved to be drawn.

1.4 (M 2, with Artur Mandler)



White to play and hold the draw

1.4a



Where the White king must go

1.4 (*Tijdschrift v. d. NSB*, 1921) was a joint composition with Artur Mandler. Mandler gave a detailed exposition both in his 1931 book and in his 1970 book *Studie*, and I repeat the latter as I translated it in *Depth and Beauty*. He looks first at what is going to happen later in the solution, then works out 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. [Black will have to reply...g6 to defend the pawn on h5, his king being presumed to be already on f7 or perhaps h7, and now White will play Kf4 and Black cannot make progress even by taking the opposition.]

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. [Suppose the White pawn advanced to h5, but the kings only on f4 and f6. If White is to play, Ke4 lets Black in at once, and Kg4 allows ...Ke5 turning White's position in the usual way; but Black to play cannot make progress.]

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; if the Black king has reached the fifth rank, ...g6 is always a winning move. [Suppose Black's pawns on g6/h6. If Black has the opposition, close or distant, he will eventually be able to advance and turn White's position. If White has it, Black can take it by playing ...h5, but if the kings are on say e4 and e6 this will not help him. If they are on e3 and e5, it will.]

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 (Aa in diagram 1.4a, ignoring h5 for the moment) and likewise f4/e6 (Bb in 1.4a) 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.

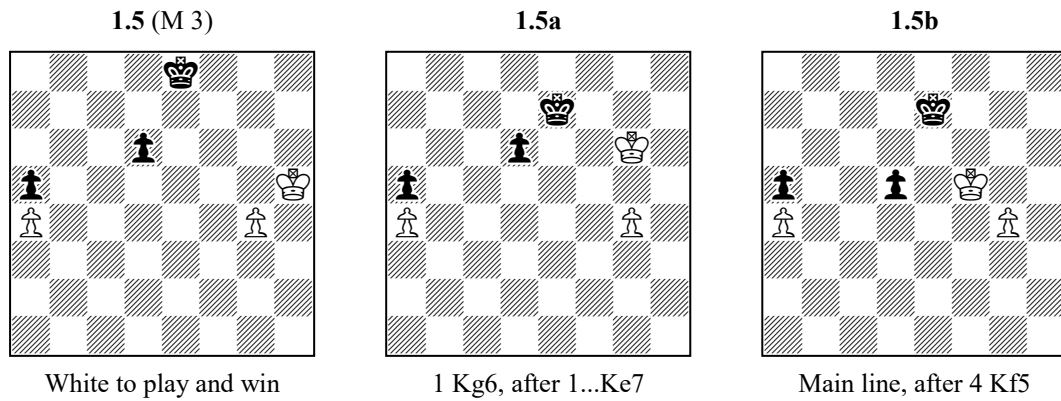
6) f7 and g4 (Cc in 1.4a, ignoring e3 for the moment) form a further pair of corresponding squares. If the kings are on these squares and White is to move, 1 h5 is met by 1...Ke6 2 Kf4 Kf6 (see point 2 above), 1 Kf5 and 1 Kf3 by 1...g6 (point 3), 1 Kf4 by 1...Ke6 (point 4), and 1...Kg3 by 1...Kf6, since 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), nor 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 Ke4 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 (if 1...Kf7 then 2 Kg4 Kf6 3 Kh5 etc) 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.

The computer had only a trifling comment to make on this impressive piece of analysis: at the end of the main line, with the kings on e3/e7, White needn't persist with the distant non-opposition, he can play h5 at once.

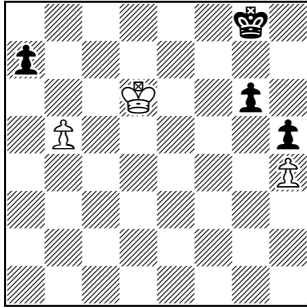


1.5 (*Berliner Tagblatt*, 1923) was dedicated to the memory of Gyula Breyer. Try the obvious 1 Kg6, crowding Black as far as possible: no, 1...Ke7 (see **1.5a**) 2 Kf5 Kf7 3 Ke4 (or 3 g5 d5 4 Ke5 Kg6 5 Kxd5 Kxg5) Kg6 4 Kd5 Kg5 5 Kxd6 Kxg4, and Black will just have time to get back to the drawing square c8. White needs to gain a tempo, and paradoxically the way to do so is by losing one: **1 Kg5 Kf7** (if 1...Ke7 then 2 Kg6 at once) **2 Kf5 Ke7 3 Kg6**, giving **1.5a** with Black to play. If now 3...Ke6 then 4 g5 followed by 5 Kh7, and White will promote with check; if 3...Kf8 then 4 Kh7, and White will give check on g7 and then promote while the Black pawn is still at d3. Hence **3...d5**, and the natural move is **4 Kf5** (see **1.5b**). If now 4...Kf7 then 5 Ke5 Kg6 6 Kxd5, and White is a crucial tempo ahead of the drawing line 1 Kg6 Ke7 2 Kf5 Kf7 3 Ke4 Kg6 4 Kd5 Kg5 5 Kxd6 (Black has had to spend a tempo playing ...d5, and this has enabled White to capture the pawn by Ke5 and Kxd5 instead of having to go round via e4); if instead **4...Kd6** then **5 g5**, after which **5...Ke7 6 Ke5 Kf7 7 Kxd5** again leaves White a crucial tempo ahead of the previous drawing lines and 5...d4 6 Ke4 Ke6 7 Kxd4 is no better. By playing to reach **1.5a** with Black to move, White has sacrificed one tempo; but in the subsequent manoeuvrings, Black becomes two tempi worse off.

Breyer (1893-1921) was closely associated with Réti. Not only were they among the leaders of the so-called “hypermodern” school, but they were the producers of the short-lived Bratislava games-and-puzzles journal *Szellemi Sport*. In the English edition of *Modern Ideas in Chess*, where this journal is curiously mistitled, Réti names Breyer as its sole editor, but if I have interpreted the translations in my daughter’s Hungarian dictionary correctly its masthead listed Breyer as “responsible editor” and Réti as “principal colleague”. Many years ago, Bedrich Formánek sent me copies of the first five issues (1 April 1921, 15 April, 1 May, 1 June, 1 July), apparently all that there were, courtesy of the library of Bratislava University, but unfortunately 90 per cent of the text is in Hungarian, and the rest is in German which for me is little better. Any detailed account of it in English will therefore have to be left to somebody else.

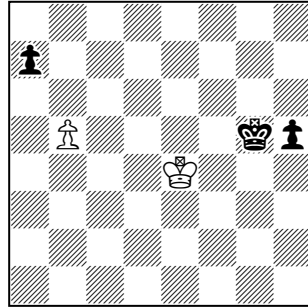
Szellemi Sport devoted a significant proportion of its space to chess, and in *Modern Ideas in Chess* Réti describes it as having contained the famous Breyer position in which White draws not by normal means but by playing a non-capturing piece move and then proving that fifty moves must have passed since the last capture or pawn move. However, I cannot find this in the five issues I have seen (I can understand the chess diagrams even if I cannot read the text), and in fact it seems first to have appeared after Breyer’s death in T. R. Dawson’s “Fairy Chess” column in the February 1922 issue of the *Chess Amateur*. Dawson, who described it as “the most glorious retro I have had the privilege of yet printing”, said that it had been sent to him by “the Budapest circle” having been composed during the war. It was shown many years later that the position was slightly unsound, in that with a different approach in the play up to the diagram only 49 moves need have been played, but a simple change to the position allowed the crucial fiftieth move to be reinstated (*EG* 28, April 1972, quoting *Problem* 124-126, March 1969). Extreme retro tasks like this are often slightly unsound as originally published, and the generous and proper custom is to continue to credit the achievement to the first person to realise the essentials of the task even if his realisation is subsequently found to be faulty in minor detail.

1.6 (M 4)



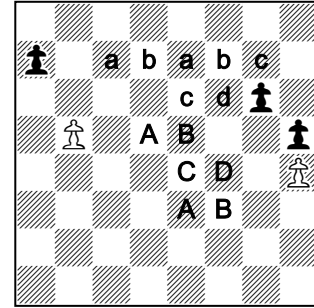
White to play and hold the draw

1.6a



1 Ke5, after 4/5...Kxg5

1.6b



Where the White king must go

1.6, composed in 1929, is another study that was first published in Mandler's 1931 book. When I was writing the endgame study column in the French composition magazine *diagrammes*, one of my solvers said that he preferred solving win studies to draws because he could look forward to a clear-cut climax; the play in a draw study (unless something like a snap stalemate was involved) often seemed to finish rather inconclusively. Réti's draw studies, in contrast, normally end in positions where the stronger side's inability to make further progress has become obvious.

Here, Black to play would win offhand by 1...g5. The threatened follow-up move 2...g4 would give him a protected passed pawn, so White must capture, 2 hxg5, and after 2...h4 the h-pawn is out of range. Can White ignore this and play 1 Kc6? No, there would follow 1...g5 2 Kb7 g4 3 Kxa7 g3, and Black will promote with check while White's pawn is still at b7. However, if Black's king were at f6 instead of g8, this line would work, because after 1 Kc6 g5 White could play 2 hxg5+, Black would have to spend a move getting his king out of check, and his eventual promotion would be on h1 instead of g1 (2...K~ 3-4 Kxa7 h3 5-6 b7 h1Q 7 b8Q). So as long as White's king is within reach of c6, the square f6 is unavailable to Black's king.

At present, however, Black's king is not on f6, and so White must play 1 Kd5 or 1 Ke5 to deal with the threat of ...g5. Without the pawns on b5 and a7, the position would now be a dead draw; White would simply mark time on e4 and f4, and Black could not make progress even by taking the opposition. With them, however, Black can hope to create an outside passed pawn on the h-file, and to gain sufficient time by diverting White's king to deal with it to be able to force the win on the other wing. If White plays 1 Ke5, he can indeed do this: 1...Kf7 2 Ke4 (if 2 Kf4 then 2...Kf6 at once, while if 2 Kd5 then 2...g5 3 hxg5 Kg6 4 Ke4 Kxg5 and we have 1.6a as below) Ke6 3 Kf4 Kf6 4 Ke4 (if White retreats to the third rank, Black takes the opposition and turns White's position at once) g5 5 hxg5+ Kxg5 (see 1.6a) 6 Kf3 Kf5 7 Kg3 Ke5 8-9 Kxh5 Kc5 10 Kg4 Kxb5, and if White plays 11-13 Kd1 to try and reach the drawing square c1 Black can play to b2 and hold him off.

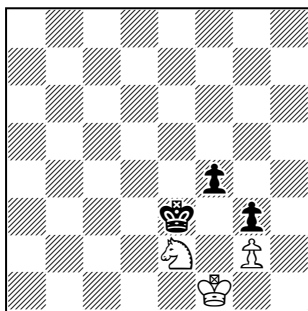
So the move must be 1 Kd5, when there might follow 1...Kg7 2 Ke4 Kf6 3 Kf4 Ke7 4 Ke3 or 1...Kf7 2 Ke5 Ke7 3 Kd5 Kd7 (if instead 3...Kf6 then 4 Kc6 etc as in our opening discussion) 4 Ke5 Kc7 5 Kd5 etc. All this is summarized in diagram 1.6b, and we see that if the Black king is on e6 or f6 White must take the close opposition on the fourth rank, whereas if Black is on e7 or f7 White must take either the *non*-opposition on the fifth rank or the distant opposition on the third. But once White has played to one of the squares marked in diagram 1.6b he can continue to do so indefinitely (unless Black moves to f6 when White is on d5, in which case Kc6 forces the draw at once), while typical consequences of failing to do so have been seen in the various lines which followed 1 Ke5.

And we may notice the curiously two-edged nature of the pawns on b5 and a7. Without them, the position would be hopelessly drawn. Their presence gives Black reason to hope for a win, but by poisoning the square f6 against the Black king they enable White to hold out after all.

The Chess Endgame Studies of Richard Réti : Knights and pawns

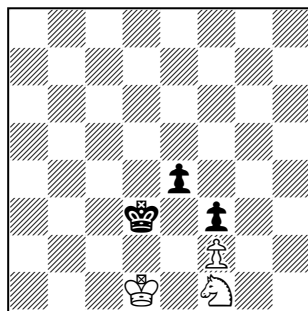
John Beasley, 14 January 2012

2.1 (M 5, with Artur Mandler)



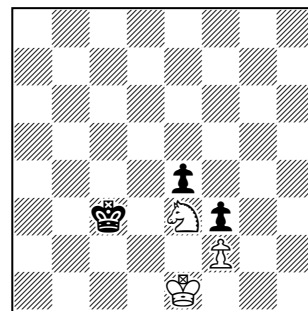
White to play and win

2.1a (Trinks)



White to play and win

2.1b



After 2...Kc3

2.1 and **2.2**, composed with Artur Mandler, appeared as a twin study in *L'Eclaireur de Nice* in 1924. In fact they are difficult alternative solutions to a study by O. Trinks which had appeared shortly before in *Oesterreichische Schachrundschau*. By modifying Trinks's position slightly and shifting it one file each way in turn, Mandler and Réti created two much deeper studies each with a unique solution.

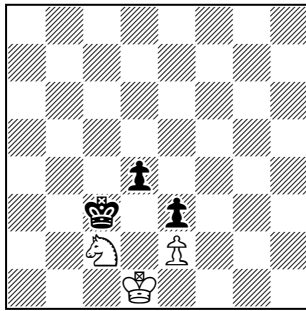
Let us therefore first look at Trinks's study, which is **2.1a**. The strategic objectives are simple enough. White wants to advance his king to d2, after which the win will be easy; Black wants to play ...e3 and exchange off White's last pawn. Trinks therefore played 1 Ne3 Kc3 2 Ke1 (see **2.1b**) Kd3 3 Nd1 Kc2 4 Nb2 (a startling but safe move, since 4...Kxb2 will allow 5 Kd2 and White will mop up) Kc1 (4...Kc3 5 Kd1 with Kd2 to follow) 5 Na4 Kc2 6 Nc5 and the e-pawn goes, and 1 Ke1 was supposed to be defeated by 1...Kc2 2 Ne3+ Kc3 (again giving **2.1b** but this time with White to play) 3 Nd1+ Kd3 4 Nb2+ Kc2 and 5 Na4 no longer wins the e-pawn.

However, Mandler and Réti showed that even after reaching **2.1b** with White to play, it was possible to manoeuvre back to it with Black to play. This is quite remarkable, because neither of White's pieces can lose a move; the knight is intrinsically unable to do so, and the king, being constrained to the first rank, is here equally inflexible. The normal triangulation manoeuvre is therefore unavailable, but though White cannot himself triangulate he can force Black to do so. Suppose 1 Ke1 Kc2 2 Ne3+ Kc3 has got us to **2.1b**; then we can continue 3 Kd1 Kd3 4 Nd5 Kd4 (4...Kc4 5 Nf4 Kc3 6 Kc1 with either 6...e3 7 Nd5+ or 6...Kc4/Kd4 7 Kd2) 5 Nb4 Kc3 (5...Kc4 6 Kd2, 5...e3 6 Nc2+) 6 Nc2 Kd3 7 Ne3 Kc3 8 Ke1 and mission accomplished.

This gives us the solution to **2.1**: 1 Ng1 (we now have the position after 1 Ke1 in the Trinks study, shifted one file to the right) Kd2 2 Nf3+ Kd3 (**2.1b** shifted one file to the right but with White to play) 3 Ke1 Ke3 4 Ne5 Ke4 (4...Kd4 5 Ng4 Kd3 6 Kd1 with 6...f3 7 Ne5+ or 6...Kd4/Ke4 7 Ke2) 5 Nc4 Kd3 (5...Kd4 6 Ke2, 5...f3 6 Nd2+) 6 Nd2 Ke3 7 Nf3 Kd3 8 Kf1 (back to the shifted **2.1b** but with Black to play, after which we can play Trinks's finish) Ke3 9 Ne1 Kd2 10 Nc2 Kd1 11 Nb4 Kd2 12 Nd5.

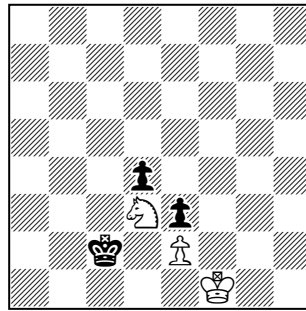
(In *Depth and Beauty*, I pointed out that the computer gave 2 Nh3 and 4 Ng5/Nh4 as alternative winning moves but that they wasted time, and the definitive results for K + N + P v K + 2P now available have indicated further alternatives of this kind. However, valid but time-wasting alternatives for the winning side are almost inevitable in positions where the defender is wholly passive, and the question that matters is whether any of them allows White to bypass any feature which is a reason for the study's existence (here, the lose-a-move manoeuvre which gets back to the shifted **2.1b** with White to play). Some exploratory analysis here suggests that none of them would, but to give a definitive answer would require the recalculation of the table of results for K + N + P v K + 2P with the shifted **2.1b** artificially declared to be only a draw with White to play, and computing facilities capable of doing this are not currently available to me. Similar comments apply to **2.2**, where again there are many valid but time-wasting alternatives along the way. There, the key position would appear to be **2.2b**; the detailed analysis which follows on the next page would seem to preclude any significant variation in the later play.)

2.2 (M 6, with Artur Mandler)



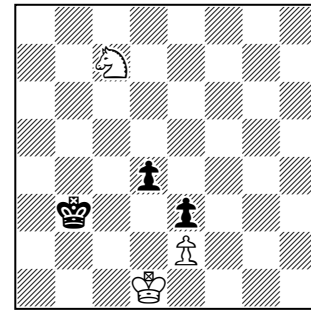
White to play and win

2.2a



After 3 Ke1 Kc2 4 Kf1

2.2b



Main line, after 7 Nc7

The reason that 2.1 was shifted one file to the right is that the Trinks study can also be solved by bringing the White king into play via g1/h2/g3. In 2.2, the solution to 2.1 no longer works because the move corresponding to 11 Nb4 would take the knight off the board, and it is this alternative mechanism that must be used.

Not at once however. After 1 Ne1 Kb2 2 Nd3+ Kb3/Kc3, try 3 Ke1 Kc2 4 Kf1 (see 2.2a). 4...Kd2 gives no trouble (5 Nf4 Kd1 6 Kg2 with Kf3 etc to follow), but if White tries to do the same after 4...Kd1, playing 5 Nf4 Kd2 6 Kg2, Black can reply 6...d3, and after 7 exd3 e2 White's pawn is lost. However, 4...Kd1 is only possible because the Black king is on c2. If in 2.2a the Black king were on c3, White would win.

So let us put the White king back on d1, and try moving the knight away from d3 and only then taking the White king towards the east. In the position Kd1/Nf4 v Kb2, after White's Ke1, ...Kc2 fails against Nd3 (Black, being already on c2, must move away from it, and after say ...Kc3 White wins by Kf1 as we have just seen), and ...Kc1 is met by Ne6 and Nxd4. So the only correct move is ...Kc3, ready to meet Nd3 by ...Kc2. The same is true if the knight is on any other square which covers d3 and is within two moves of d4, namely b4, c5, or e5.

So if the White knight is covering d3 from b4, c5, e5, or f4, Black must reply to White's Ke1 by playing ...Kc3. We shall try to prevent this defence by reaching the position Kd1/N~ (Nb4, Nc5, Ne5, Nf4) with the Black king already on c3 and White to play.

From which of these squares, b4, c5, e5, and f4, can the knight force the Black king to play to c3? We can only do this by putting Black in zugzwang, so the knight must be guarding b3 at the instant when the Black king is on b2. So we discard b4/e5/f4, and concentrate on c5. This has taken us a further step backward (our analysis is essentially retrograde, starting from the position we want to achieve and seeing how we can force Black to let us get there): White must reach the position Kd1/Nc5 v Kb2 with Black to move.

From where could the knight have come to c5? If it is to force the king to move to b2, it must be on a square from which it controls the one important square in the Black king's field, namely c3, and on a4 it would have been controlling b2 rather than forcing the Black king to move there. So it must be on e4. The position Kd1/Ne4 v Kb3, Black to play, is won for White because Black has no reasonable move other than ...Kb2, and White's reply Nc5 gives the position of the previous paragraph.

The position Kd1/Ne4 v Kb3 is however also won if White is to play, because Kc1 forces Black to retreat and grant access to c2. So if the White knight can get to e4, he wins whether the Black king is on b2, b3, or c3.

To reach e4 from c5 is most improbable, since our whole purpose in getting to e4 is to use it as a stepping stone to c5. The square g5 is likewise not a practical choice. The knight can reach this square only from f3 or e6, and while it is doing this White will be unable to stop Black from playing ...Kc3 and ...d3.

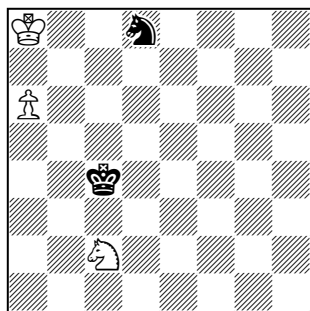
So the practical options are d6 and f6, and the easier square to reach is f6. 1 Ne1 Kb2 2 Nd3+ Kb3 3 Nf4 Kb2 (3...Kc3 4 Ke1 Kc2 5 Nd3 Kc3 6 Kf1 etc, see 2.2a) 4 Nd5 Kb3 5 Nf6: no, 5...Kc4! This allows 6 Kc2, but after 6... d3+ 7 exd3+ Kd4 White is powerless against the threat of ...e2. 6 Ne4 likewise is met by 6...d3.

Only d6 is left. It is easy to see that the knight must reach this square from b5, since only from here can it keep a sufficient watch on the Black king. The final question, namely how to arrive at b5, can be answered only by a detailed move-by-move analysis, which Mandler does not give, but if we work forward from the opening position we find that any play for White other than 1 Ne1 Kb2 2 Nd3+ Kc3 3 Ne1 Kb2 4 Na2 Kb1 5 Nb4 Kb2 6 Nd5 Kb3 7 Nc7 allows Black either to draw at once by ...Kc3 and ...d3 or to threaten to do so and so force White to backtrack. And from c7, the knight has access to b5.

The solution thus unfolds 1 Ne1 Kb2 (1...Kb3 2 Nd3 Kc3 transposes) 2 Nd3+ Kc3 (2...Kb1 3 Ne1 Kb2 transposes, as does 2...Kb3 3 Nf4 Kb2 4 Nd5 Kb3 5 Nc7) 3 Ne1 Kb2 4 Na2 Kb1 5 Nb4 Kb2 6 Nd5 Kb3 7 Nc7 (see 2.2b) Kc3 (7...Kb2 8 Nb5 and wins a pawn at once) 8 Nb5+ Kc4 9 Nd6+ Kb3/Kc3 (9...Kc5/Kd5 10 Nf7) 10 Ne4(+) Kb2 11 Nc5 Kc3 12 Ke1 Kc2/Kc4 13 Nd3 Kc3 14 Kf1 Kd2 and given is 15 Nf4 Kd1 16 Kg2 as long planned though 15 Ne5 also wins (15...Kd1 16 Nf3 and a pawn goes).

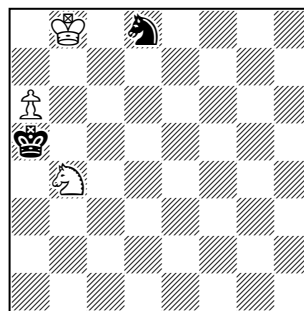
I don't know which is the more remarkable: the incredible knight journey c2-e1-d3-c1-a2-b4-d5-c7-b5-d6-e4-c5-d3 in itself, or the fact that it is required in a study with such a simple and natural starting position.

2.3 (M 8)



White to play and win

2.3a



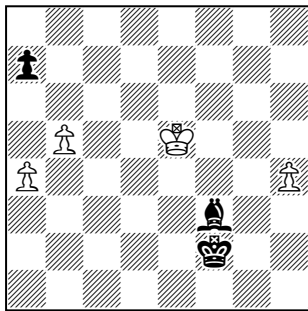
After 3 Kb8

The most difficult pawn for the defender to handle in endings with knight and pawn against knight is the rook's pawn. The natural move in **2.3** (composed in 1929, and first published in Mandler's 1931 book) is 1 Kb8 getting out of the pawn's way, but 1...Kb5 refutes it (2 Nb4 Nc6+ with 3 Kb7 Na5+ 4 Ka7 Kxb4 5 Kb6 Nc4+ etc or 3 Kc7 Nxb4 4 a7 Nd5+ and 5...Nb6). Correct is **1 Ka7** (blocking the pawn but threatening Kb6) **Kb5** (1...Kc5 2 Nd4 and Black has no good move) **2 Nb4 Ka5** (2...Kxb4 3 Kb6 etc) **3 Kb8** (see **2.3a**) **Nc6+** (3...Kxb4 4 Kc7 Ne6+ 5 Kb6) **4 Kb7** (4 Kc7 Nxb4 5 a7 Nd5+ and 6...Nb6) **Nd8+** **5 Kc7** (5 Kb8 Nc6+ repeats immediately, and if 5 Kc8 then 5...Nc6 forces 6 Kb7 and 6...Nd8+ again repeats) **Ne6+** **6 Kb8** (simplest though 6 Kc6 also wins, the first point at which White has had a choice) **Nc5** (6...Kb6 7 a7 Nc7 8 Nd5+) **7 a7 Nd7+** **8 Kc7** (simplest) **Nb6** **9 Kb7 Kb5** **10 Nd5**.

The Chess Endgame Studies of Richard Réti : Bishops and pawns

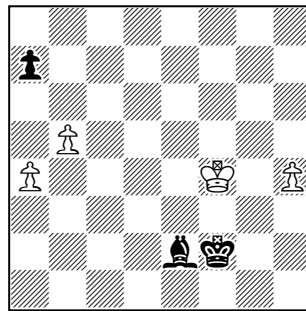
John Beasley, 14 January 2012, latest revision 20 January, minor correction 2 March

3.1 (M 10)



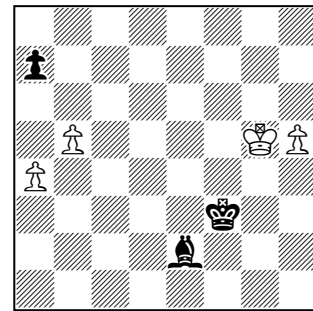
White to play and win

3.1a



1 Kf4, after 1...Be2

3.1b



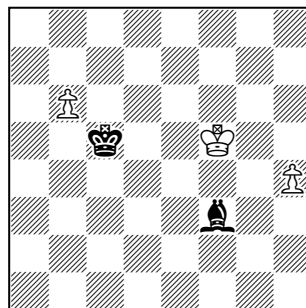
Main line, after 4 h5

Put Black's king on the first rank in **3.1** (3rd Prize, *Kagan's Neueste Schachnachrichten*, 1922) and his bishop will soon be overloaded (1 a5 K~ 2 b6 axb6 3 axb6 K~ 4 h5 etc). However, as it stands he threatens 1...Kg3 and 2...Kxh4, after which the bishop will be stop the queen's side pawns. The obvious move for White is therefore 1 Kf4, but 1...Be2 turns out to put him in zugzwang (see **3.1a**). The pawns are paralysed, if 2 Kg5 then 2...Ke3 ready to take over the defence of the queen's side (3 h5 Bxh5 4 Kxh5 Kd4 etc), if 2 Kf5 then 2...Ke3 3 Ke5 Kd2 4 Kd4 Kc2 5 Kc5 Kd3 6 a5 Ke4 catching the h-pawn, if 2 Ke5 then 2...Kg3 as previously, and if 2 Ke4 then 2...Kg3 3 Ke3 Bg4 4 a5 Kxh4 5 b6 axb6 6 axb6 Be8.

The solution is **1 Kf5**, when 1...Kg3 can be met by 2 Kg5 (2...Be2 3 h5 with 4 h6 and 5 a5), and if again **1...Be2** to paralyse the pawns then **2 Kf4** and we have **3.1a** with Black to play. A bishop move will release one of the pawns, and a king move to the bottom rank will put him too far from the action (2...Ke1 3 Kg5 Kd2 4 h5 Kc3 5 h6 Bd3 6 a5). This leaves **2...Kg2**, met by the natural **3 Kg5**. 3...Kg3 and 3...Kf2 are now too slow (4 h5 Bxh5 5 Kxh5 K~ 6 a5 and wins), and **3...Kf3** blocks the bishop and again allows **4 h5** (see **3.1b**). If 4...Bxh5 were now possible it would draw (5 Kxh5 Ke4 etc), but it isn't, and an immediate 4...Ke4 doesn't work either (5 h6 and the bishop's path to h7 is blocked). Black has nothing better than **4...Ke3**, and **5 h6 Bd3 6 a5** duly wins.

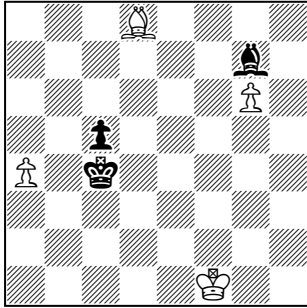
And if Black tries **1...Ke3**, Mandler gives **2 a5 Kd4 3 b6 axb6 4 axb6 Kc5** (see **3.1c** below) and now not 5 h5 (5...Kxb6 6 h6 Bd1) but **5 Kf4**, and if **5...Bd5** then **6 Ke5**.

3.1c



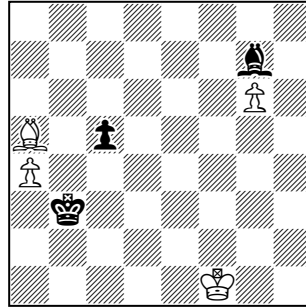
1...Ke3, after 4...Kc5

3.2 (M 12)



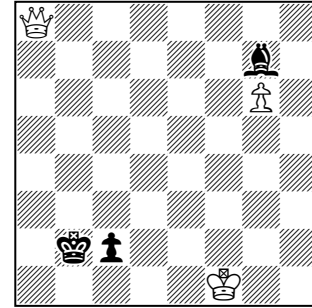
White to play and win

3.2a



After 1...Kb3

3.2b



2...Kxc3, after 6...c2

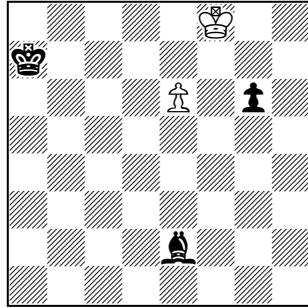
If White's bishop were on say e1 in **3.2** (*Tagesbote*, 6 September 1925, correction), he would have a routine win (pawn to a5 tying Black's king to the top left quadrant, own king to c2, bishop to c3 blocking any advance of Black's pawn and forcing Black's bishop to f8 or h6, king to f7 pushing Black's bishop to h6, and own bishop to d2 finally forcing Black to relinquish his grip of g7). But the bishop is not on e1, and Black threatens 1...Kb4 2 a5 Kb5 tying it to the defence of the a-pawn while it is still on the diagonal d8-a5. An advance of the c-pawn to c3 will now set up a fortress, nor can White play Bd7 and give up his a-pawn for Black's c-pawn because his king is not yet near enough to the top right corner (for example, 1 Ke2 Kb4 2 Bd7 Kxa4 3 Bxc5 Kb5 4 Ba3 Kc6 5 Ke3 Kd7 6 Kf4 Ke8 7 Kf5 Bc3).

So White must play **1 Ba5** to prevent 1...Kb4, and now he threatens 2 Be1 winning as before. But 1 Ba5 blocks White's a-pawn, and does not **1...Kb3** kill it at once (see **3.2a**)?

In fact no: **2 Bc3!** Mandler now gives **2...Kxc3** as the main line, dismissing 2...Bxc3 with a note that after 3 a5 the Black bishop cannot catch both White pawns, but there is a little more to it than this. Let play continue 3...c4 4 a6 Bd4, and now White must sacrifice the correct pawn so that he promotes with check: 5 a7 Bxa7 6 g7 c3 7 g8Q+ is a win, but 5 g7 Bxg7 6 a7 c3 7 a8Q c2 is only drawn. Nor does it help Black to answer 5 a7 by 5...c3 and let the a-pawn promote: 6 a8Q c2 7 Qd5+ etc. I owe these lines to Harold van der Heijden's "Endgame study database IV", where 2...Bxc3 is given as the main line.

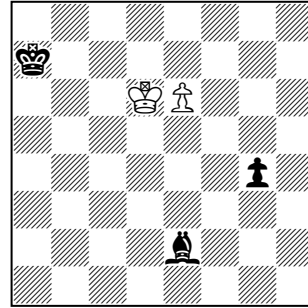
Reverting to 2...Kxc3 as given as the main line by Mandler, we have **3 a5 Kb2** (the definitive results for K + 2P v K + B + P now available show that nothing else is better) **4 a6 c4 5 a7 c3 6 a8Q c2** giving **3.2b**, and the win is not difficult. **7 Qb7+ Ka2 8 Qf7+ Ka3 9 Qc7 Kb3 10 Ke2 Bc3 11 g7** is given, and there are alternatives.

3.3 (M 13)



White to play and hold the draw

3.3a



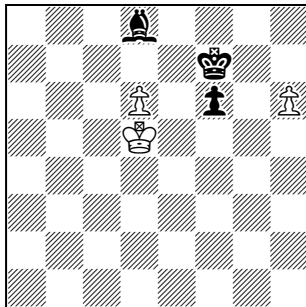
After 2...g4

In **3.3** (*Národní listy*, 10 June 1928), the theme of **1.1-1.3** is spiced by the addition of a Black bishop. Try **1 e7**: no, **1...Bb5 2 Kf7 g5** and White is dead. **1 Kf7** and **1 Kg7** are clearly no better, and the move, remarkably, is **1 Ke7** not attacking the Black pawn at all and even apparently moving away from it. If **1...Bb5** then **2 Kf6 Be8 3 Ke7 B~ 4 Kf6** drawing by attacking the Black pawn and bishop alternately, but of course Black isn't going to do this; he is going to run his pawn, **1...g5**, and after **2 Kd6** he is going to run it again, **2...g4**.

This has brought us to **3.3a**, and now is the moment for **3 e7**. The Black pawn is temporarily blocking the bishop's path to h5, so **3...Bb5** is forced, and **4 Kc5** gains a tempo by attacking it. The White king will now be able to get back and attack the Black pawn, and the bishop will be overloaded: **4...Be8 5 Kd4 Kb7 6 Ke4/Ke3 Kc7 7 Kf4 Bd7/Bh5 8 e8Q**. Nor can Black gain a tempo by playing **4...Bd7**, which I must confess I regard as Black's most natural move even though Mandler gives only ...Be8. There again follows **5 Kd4 Kb7 6 Ke4/Ke3 Kc7 7 Kf4** threatening **8 e8Q** etc, and the bishop is awkwardly preventing ...Kd7.

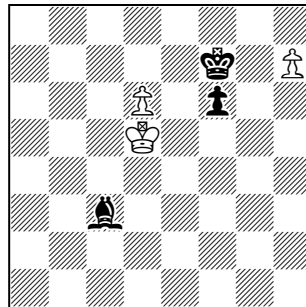
I think this has to be my favourite Réti study: elegant, ingenious, and surprising.

3.4 (M 14)



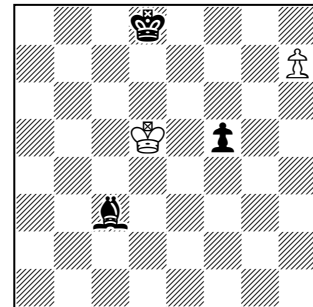
White to play and hold the draw

3.4a



After 3 h7

3.4b



After 5...Kxd8

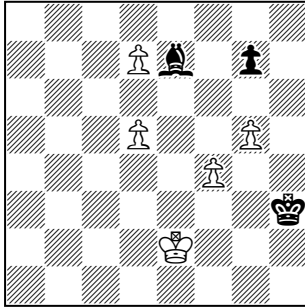
3.4 appeared as a companion piece to **3.3**. **1 h7** fails (**1...Kg7 2 Ke6 Kxh7 3 Kd7 Ba5 4 Ke6 Kg6**) and the correct move is **1 Kc6**. If **1...f5** then **2 Kd5 Bf6** (to prevent **3 Ke5**) **3 d7 Ke7 4 d8Q+ Kxd8 5 Ke6** attacking both bishop and pawn, and if **1...Kf8** then **2 Kd7 Ba5 3 Ke6 Bd8 4 Kd7** with a repetition. Hence **1...Ba5**, and now **2 Kd5** sets Black a bit of a problem. A king move will allow **3 Ke6** attacking the pawn, after which the draw will follow in a few moves, **2...Bd8** will return to the starting position, and **2...Bb6** is soon seen to do nothing useful. The only move to offer a hope of progress is **2...Bc3**, and **3 h7** gives **3.4a**.

Black now has two moves. If **3...Kg7** then **4 Ke6** (**4...Kxh7 5 d7** etc), but not **4 d7** at once (**4...Ba5 5 Ke6 Bd8** and the pawn on d7 prevents its king from attacking the bishop). If however **3...f5** then **4 d7** is playable. Black can only reply **4...Ke7**, and **5 d8Q+ Kxd8** gives **3.4b**.

Now **6 Kc4**, gaining a tempo by an attack on the bishop as in **3.3**? No, Black can play **6...Bh8** and **7-8 Kf6**, and his pawn is safely defended. First must come **6 Ke6** pushing the pawn out of reach of its king, and after **6...f4** we do indeed have a finish like that of **3.3**: **7 Kd5 f3** (nothing better) **8 Kc4 B~ 9 Kd3** etc.

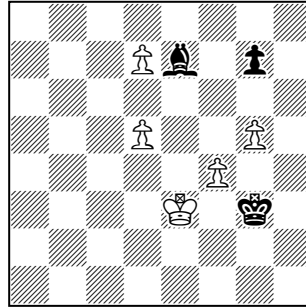
The play here is somewhat richer than that of **3.3**, but the richness has been achieved at some cost in complexity, and while it is a fine study my personal taste is more for the classic simplicity of **3.3**.

3.5 (M 16)



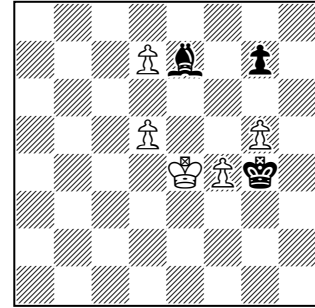
White to play and win

3.5a



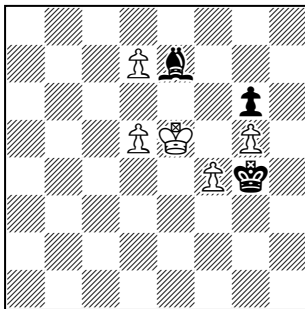
Reciprocal zugzwang

3.5b



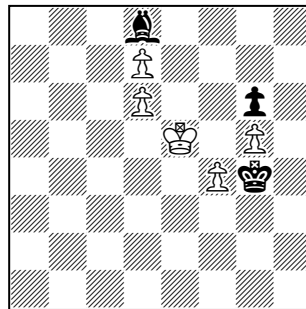
Reciprocal zugzwang

3.5c



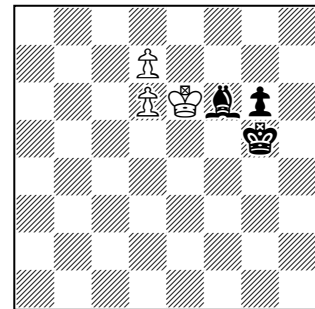
Reciprocal zugzwang

3.5d



Reciprocal zugzwang

3.5e



Reciprocal zugzwang

3.5 (*Basler Nachrichten*, 1929, correction) is Réti's most difficult study on the theme of bishop against pawns. White's basic objective is to reach **3.5e** with Black to play, but there will be several other positions of reciprocal zugzwang along the way. As with **1.4** and **2.2**, therefore, it is simplest to start at the end and work backwards.

From **3.5e**, Black to play, 1...Bd8 2 Kf7 Kf5 3 Ke8 B~ 4 d8Q Bxd8 5 Kxd8 g5 6 Ke7 and White will promote while Black's pawn is still at g3. White to play, however, 1 Kf7 Kf5 2 Ke8 Ke6, and White doesn't just fail to win, he loses.

From **3.5d**, Black to play, 1...Ba5 (1...Kh5 2 Ke6 and wins quickly) 2 f5 Kxg5 (2...gxf5 3 g6 etc) 3 f6 Bxc3+ (if instead 3...Kh6 then 4 Ke6 Bd8 5 Kf7 g5 6 Ke8 Bxf6 7 d8Q Bxd8 8 Kxd8 g4 9 Ke7 g3 10-11 d8Q g1Q 12 Qh8+ K~ 13 Qg8+ and wins Black's queen) 4 Kd5 (not 4 Ke6, when 4...Bxf6 gives **3.5e** with White to play) Bxf6 5 Ke6 and we have **3.5e**. White to play, 1 f5 Kxg5 2 f6 Kh6 3 Ke6, and because Black does not have to spend a move bringing his bishop back to d8 he is a tempo ahead of the line 3...Kh6 4 Ke6 above: 3...Kh7 4 Kf7 g5 5 Ke8 Bxf6 6 d8Q Bxd8 7 Kxd8 g4 8 Ke7 g3 9-10 d8Q g1Q, and Black draws because the check on h8 is not available.

From **3.5c**, Black to play, 1...Bd8 2 d6 and we have **3.5d**, or 1...Kh5 2 Ke6 Bd8 3 Kf7 etc. White to play, 1 Ke6 Bd8 2 Ke5 (else 2...Kxf4) Be7 and we are back at **3.5c**, or 1 d6 Bd8 and we have **3.5d**, or 1 Ke4 Bd8 2 d6 Ba5 3 Ke5 Bd8 and again **3.5d**.

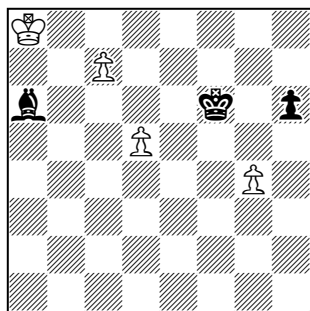
From **3.5b**, Black to play, 1...g6 2 Ke5 and we have **3.5c**, or 1...Bd8 2 Ke5 g6 (if 2...Kf3/Kg3 then 3 g6 Bf6+ 4 Kd6 wins quickly, and if anything else then 3 Ke6 does) 3 d6 and we have **3.5d**. White to play, 1 Ke5 g6 and again **3.5c**.

3.5a is more complicated, because we must take account of ...Bd8 and ...g6 as well as of king moves, but White has hopes of penetrating by Ke5, Ke6, Kf7 and of fixing the pawn on g7 by playing g6, and if Black plays ...g6 himself he speeds White's progress towards **3.5c** and **3.5d**. The given main line, Black to play, is 1...Kh4 2 Kd4 (threatening 3 Ke5 with a winning penetration) Kg4 3 Ke4 and we have **3.5b**, and variations given after 2 Kd4 are 2...Bd8 3 g6 Kh5 4 f5 Bf6+ (or 4...Kg5 5 Ke5 Bf6+ 6 Kd6 winning) 5 Kc5 Kg5 6 Kd6 Bd8 7 Ke6 Bf6 8 Kf7 Kxf5 9 Ke8 Ke5 10 d8Q Bxd8 11 Kxd8 Kxd5 12 Ke7 winning and 2...g6 3 d6 Bd8 4 Kd5 Kg4 5 Ke6 again giving **3.5c**. White to play is easy: 1 Ke4 Kg4 and we have **3.5b**, or 1 d6 Bd8 2 Ke4 Kg4 3 Ke5 g6 and we have **3.5c**.

And from **3.5** itself we can play 1 Kd3 threatening 2 Kd4 etc, with 1...Kg3 2 Ke3 giving **3.5a** and 1...Kg4 2 Ke4 giving **3.5b**.

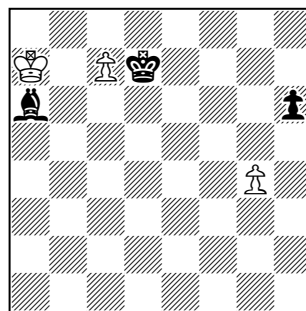
So the main line unfolds **1 Kd3 Kg3 2 Ke3** (see **3.5a**) **Kh4 3 Kd4 Kg4** (for 3...Bd8 and 3...g6 see the variations 2...Bd8 and 2...g6 in the analysis of **3.5a**) **4 Ke4** (see **3.5b**) **Bd8 5 Ke5 g6 6 d6** (see **3.5d**) **Ba5 7 f5 Kxg5 8 f6 Bc3+ 9 Kd5 Bxf6 10 Ke6** (see **3.5e**) **Bd8 11 Kf7 Kf5 12 Ke8** with a win; and what the good burghers of Basel made of it all, I dread to think.

3.6 (M 17)



White to play and hold the draw

3.6a

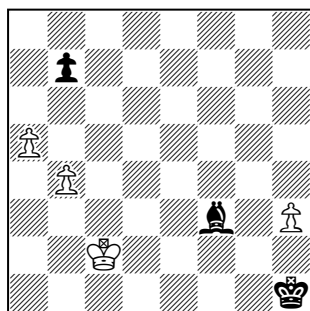


After 3 Ka7

In **3.6** (*Ostrauer Morgenzeitung*, 19 May 1929) an immediate 1 Ka7 is soon seen to fail (1...Bc8 2 Kb8 Bxg4 3 d6 Ke5 4 c8Q Bxc8 5 Kxc8 Kxd6 and Black's pawn will promote), and although 1 Kb8 gains a tempo on this it is not sufficient (1...Ke5 2 c8Q Bxc8 3 Kxc8 Kxd5 and 4-6...Kxg4, after which White's king will have no better seventh move than Kg6 or Ke4 and Black will shepherd his pawn safely home). The drawing line is **1 d6 Ke6** (1...Bc8 loses) **2 d7**, forcing Black's king to play **2...Kxd7** and block the diagonal c8-g4. Now and only now can White play **3 Ka7**, and we have **3.6a**.

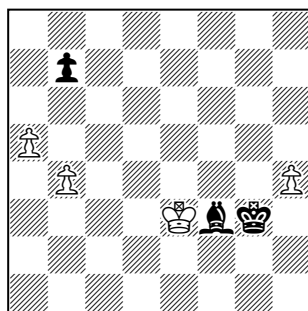
If Black tries 3...Be2 there follows 4 Kb8 Ba6 5 Ka7 repeating the position, and the same happens after 3...Bc8 4 Kb8 Ba6 5 Ka7. This leaves only **3...Kxc7**, but now White can play **4 Kxa6** and get back to the drawing square f1: **4...Kd6 5-7 Kd3 Kxg4 8 Ke2 Kg3 9 Kf1**.

3.7 (M 11 corrected)



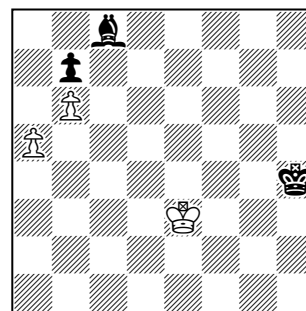
White to play and win

3.7a



After 3 Ke3

3.7b



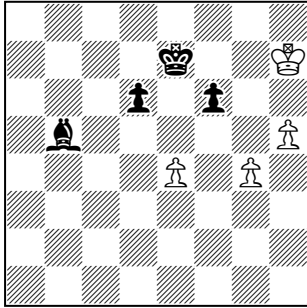
After 5...Bc8

In **3.7** (M 11, Commendation, *Kagan's Neueste Schachnachrichten*, 1922, correction by Benko), try 1 Kd2: no, 1...Bc6 2 h4 Be8, and although Benko's analysis stops there (at least as reported in *EG* 182) my computer agrees that Black can hold the draw. We'll look at 1 Kd3 in a moment, but the move to win is **1 h4**, and only after **1...Kg2** does White play **2 Kd2**. Not 2 Kd3, when Benko gives 2...Kf2 3 b5 Be2+, and this also deals with 1 Kd3 (1...Kg2, and if 2 h4 then 2...Kf2 transposing). Black continues **2...Kg3**, and **3 Ke3** gives **3.7a**.

Black's only hope now is to get his bishop back to c8, hence **3...Bg4**, but after **4 b5 Kxh4 5 b6 Bc8** all is seen to be in vain (see **3.7b**): **6 Kf4**, and all White has to do is to walk his king up to c7.

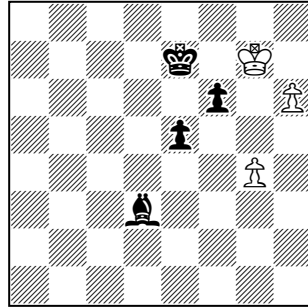
This was a companion piece to **3.1**. Réti had the kings on c5 and e2, intending 1 Kd4 Kf2 2 h4 Kg3 3 Ke3 and again we have **3.7a**, but Chéron and Bondarenko independently showed that Black could hold the draw by 2...Be2. Benko's modification (*Chess Life*, February 2008, quoted in *EG* 182) prevents this and even adds a bit in the need to play h4 before Kd2 and to avoid Kd3, but even so the study seems so far short of the subtlety of **3.1** (in particular, there appears to be nothing corresponding to the reciprocal zugzwang try 1 Kf4? Be2, 1 Kf5! Be2 2 Kf4) that I almost regret that it has not been allowed to remain unrescued among the casualties.

3.8 (M 15 corrected)



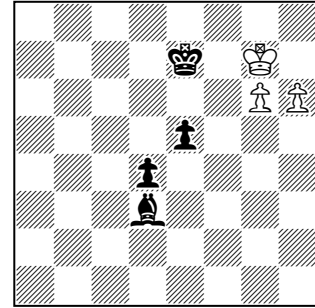
White to play and hold the draw

3.8a



Main line, after 3 h6

3.8b



2...fxe5, after 5 g6

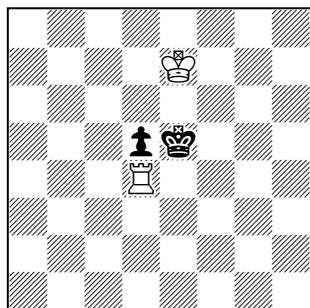
The main line in **3.8** (M 15, 1st Honourable Mention, *Shakhmatny Listok*, 1928/I, correction by Benko) starts **1 Kg7 Bd3 2 e5 dxe5 3 h6** (see **3.8a**), and we have a curious positional draw in which Black cannot advance his pawns without blocking the defensive line of his bishop and letting the h-pawn through (the actual solution plays out a few moves to demonstrate the point). If instead 2...fxe5 then White's two connected passed pawns are comfortably strong enough to draw: 3 h6 d5 4 g5 d4 5 g6 (see **3.8b**) Bxg6 6 Kxg6 d3 7-8 h8Q d1Q 9 Qxe5+.

This was originally published with everything one file to the left (1 Kf7 Bc3 2 d5 cxd5 3 g6 etc) and with no mention of 2...exd5. In 1955, Bondarevsky queried this, citing the line 2...exd5 3 g6 Bh8 4 Kg8 Bb2 5 Kf7 c5 6-7 f6 c3 8-9 g8Q c1Q after which Black is a bishop up and each side still has a pawn on the board. Moving everything one file right kills this by taking away Black's move 3...Bh8, but it also spoils the given reply to an immediate 1 e5. As originally set (**3.8** with everything one file left), 1 d5 is given as being met by 1...Ke7 2 dxc6 Bc7 3 g6 Bxf4 4 Kh7 Be5 5 Kg8 Ke8 6 Kh7 Ba1 followed by 7 Kh6 Bf6 or 7 Kg8 e5 each with a Black win, but with everything one file right as in **3.8** the definitive results now available with K + 2P v K + B + P give the position after 1 e5 Kf7 2 exd6 Bd7 3 h6 Bxg4 as a draw. However, Black can also meet 1 e5 by 1...fxe5, and after 2-5 g8Q e1Q or 2 Kg7 e4 3-5 h8Q e1Q we again have positions in which Black is a bishop up and each side still has a pawn on the board. So the Bondarevsky line which destroyed the original setting appears to also to have knocked out an unwanted dual in the new one. Benko's report of his correction in *EG* 182 makes no mention of 1 e5, but I haven't seen *Chess Life* (February 2008) where it originally appeared.

The Chess Endgame Studies of Richard Réti : Rooks and pawns

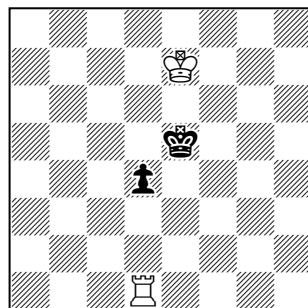
John Beasley, 14 January 2012, latest revision 5 August, minor correction 15 September

4.1 (M 18)



White to play and win

4.1a



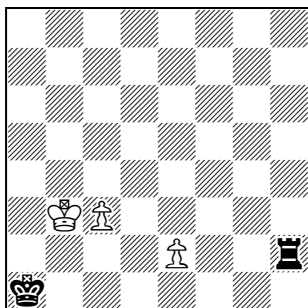
1 Rd1, after 1...d4

4.1 (*Münchner Neueste Nachrichten*, 1928, correcting a setting in *Hastings and St Leonards Post*, 1923) is another of Réti's most famous studies. Try 1 Rd1, getting as far away from the Black king as possible: no, 1...d4 (see **4.1a**), with 2 Kf7 Ke4 3 Ke6 d3 and the Black king will crowd the rook and force the draw, or 2 Kd7 Kd5 2 Kc7 Kc5 and White is no further forward, or 2 Rd2 Ke4 3 Kd6 d3, or 2 Rh1 and again 2...d3.

The solution is **1 Rd2/Rd3** (we'll look at this dual in a moment) **d4 2 Rd1**, reaching **4.1a** with Black to play. If now **2...Kd5** then **3 Kd7**, and whichever file Black moves to White will come down the other (say 3...Ke4 4 Kc6 d3/Ke3 5 Kc5 Ke3/d3 6 Kc4 d2 7 Kc3); if instead 2...Ke4 then 3 Kd6 etc similarly.

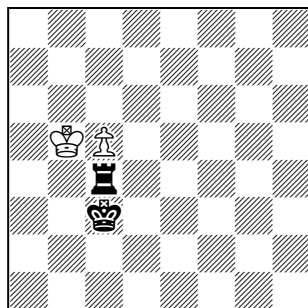
But what about the dual Rd2/Rd3 at move 1? According to Mandler in *Studie*, Réti deliberately chose this setting, even though conventionally sound settings were available, because of its simplicity and charm. He was not worried about the inaccuracy at move 1, because in his opinion White's first and second moves should be treated as a unit, and no other realisation was as cogent as this little four-man position.

4.2 (M 19 corrected)



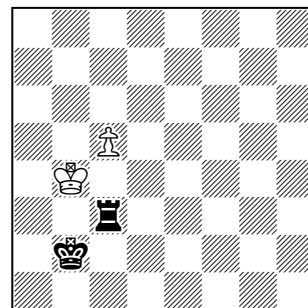
White to play and hold the draw

4.2a



1 e4 Re2 2 c4, after 5...Rc4

4.2b



1 e3, after 4...Rc3

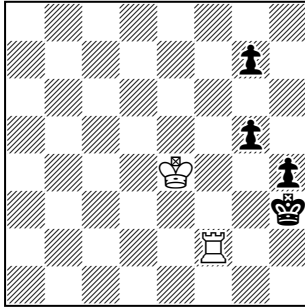
White's e-pawn is under attack in **4.2** (*Shakhmatny Listok*, 1929, correction by Maizelis) and the natural move is 1 e4, but this fails: 1...Re2 with 2 c4 Rxe4 3 Kb4 Kb2 4 Kb5 Kc3 5 c5 Rc4 (see **4.2a**) 6 c6 Kd4 7 Kb6 Kd5 8 c7 Kd6 and the pawn has been hunted down, or 2 Kc4 Rxe4+ 3 Kd5 Re8 (rooks normally belong behind passed pawns, but here 3...Re1 only draws, 4 c4 Rc1 5 c5 Kb2 6 c6 Kb3 7 Kd6 Kb4 8 c7 Kb5 9 Kd7 etc, and the rook must go in front of the pawn where it can gain time by checking) 4 c4 Rd8+ 5 Kc5 (holds out longest) Rc8+ 6 Kb4 Ka2/Kb1 (but not 6...Kb2, when 7 c5 gives a position equivalent to **4.1a** with the rook's side to move) 7 c5 Kb2 (now we have the same position with the pawn's side to move) and wins as in the analysis of **4.1**.

So do we ignore the e-pawn, and play say 1 c4? No, 1...Rxe2, and if 2 c5 then 2...Re4 preventing either king or pawn from advancing further (if the pawn advances to c6, it strays too far from its king, and ...Re6 followed by ...Rc6 picks it up); alternatively, 2 Kb4 Kb2 3 c5 Rc2 4 Kb5 Kc3 5 c6 Kd4 again hunting down the pawn.

This leaves **1 e3**. Can this be possible? Remarkably, it can. **1...Re2 2 c4 Rxe3+ 3 Kb4 Kb2 4 c5 Rc3** (see **4.2b**) **5 Kb5** and the rook is blocking its king's path to d4. To win, Black must play, in some order, ...Re2, ...RxP, ...Rc~, ...Kb2, ...Kc3, and ...Kd4. After 1 e4, his move to the c-file is ...Rc4, and he can do this; after 1 e3, his move to the file is ...Rc3, and he cannot. It is one of the more ingenious ways of forcing a "pawn-one".

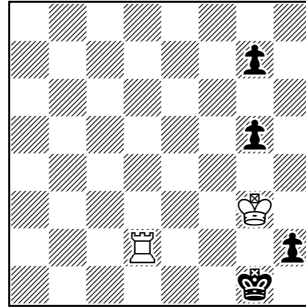
Réti had everything except the Black rook one file to the right, but in 1956 Chéron and Maizelis found a refutation starting 1...Ka2. Maizelis suggested the simple correction above. Chéron preferred to move the Black rook to a2, introducing some additional play, but this turned out to allow a second refutation.

4.3 (M 20)



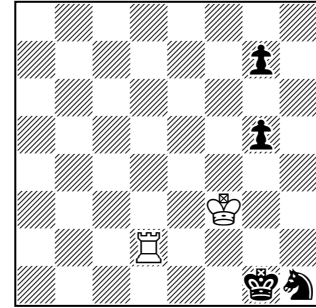
White to play and win

4.3a



After 6 Kg3

4.3b

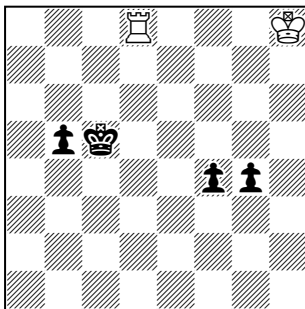


After 7 Kf3

4.3 (*Tijdschrift v. d. NSB*, 1922, correction) is a puzzle. Try 1 Ke3: no, 1...Kg3 2 Rf5 g4 3 Ke2 h3 4 Kf1 Kh2 5 Rg5 g3 6 Rg6 g2+ 7 Kf2 Kh1 with a draw. Try 1 Rf5, when 1...g4 2 Kf4 g3 3 Kf3 Kh2 4 Rg5 wins: yes, but 1...Kg4 2 Rf1 Kg3 3 Rg1+ Kf2 4 Rd1 h3 5 Kf5 Kg3 (but not 5...h2, when 6 Kg4 wins) 6 Rd3+ Kh4 7 Rd4+ Kg3 holds out. The only move to win is **1 Rd2** (the reason for choosing the d-file will appear), and the main line defence is **1...Kg3**. Nothing else is better; if 1...g6 then 2 Kf3 g4+ 3 Kf2 Kh2 4 Kf1+ Kh1 5 Rd4 etc, and Mandler also gives 1...g4 2 Ke3 with 2...g5 3 Rd4 Kg3 4 Ke2 h3 5 Kf1 or 2...Kg3 3 Ke2 Kg2 4 Rd4.

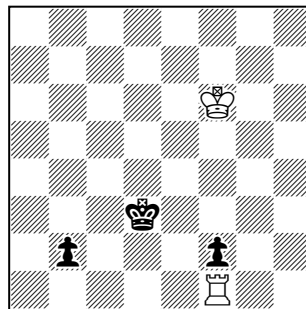
After 1...Kg3, play continues **2 Rd3+ Kg2** (or 2...Kg4 3 Ke3 Kg3 4 Ke2+ Kg2 5 Rd4 Kg3 6 Rd7 etc) **3 Kf5 h3 4 Kg4 h2 5 Rd2+ Kg1 6 Kg3** threatening mate (see 4.3a), and only **6...h1N+** offers hope. Now **7 Kf3** gives 4.3b, and we see why the rook had to go to the d-file at move 1; if it were on any other file, Black could escape by 7...g4+ 8 Kxg4 Nf2+ 9 Kf3 Nd3. As it is, however, the knight will have to go back to h1 (9...Nh3 would be met by 10 Kg3 attacking it and threatening mate), and White will win. The move that holds out longest from 4.3b is in fact 7...g6, after which White repeatedly loses a move to bring the g-pawns forward: 8 Rg2+ (simplest) Kf1 9 Rh2 Kg1 (9...g4+ 10 Kxg4 with 10...Nf2+ 11 Kf3 or 10...Kg1 11 Rd2) 10 Rd2 g4+ 11 Kxg4 Nf2+ 12 Kf3 Nh1 13 Ra2 (say) g5 14 Rd2 etc.

4.4 (M 21)



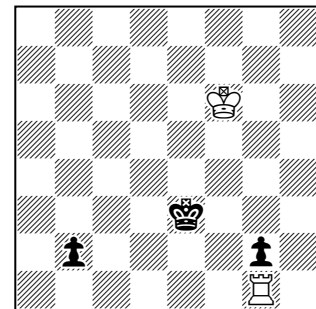
White to play and hold the draw

4.4a



1 Rf8, after 7...Kd3

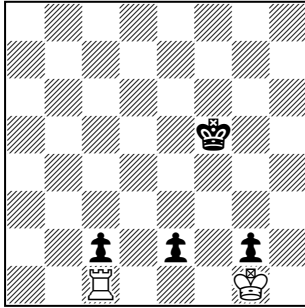
4.4b



1 Rg8, after 7 Ke3

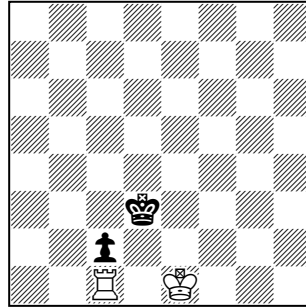
A study like 4.3 has a certain practical value, and the same will be true of 4.4 (composed in 1929, and first published in Mandler's 1931 book). Try 1 Rf8: no, 1...f3 2 Rf4 b4 3 Rxg4 b3 4 Rg1 f2 5 Rf1 b2 6 Kg7 Kd4 7 Kf6 Kd3 threatening 8...Kf2 (see 4.4a), and if White tries 8 Rb1 Black will play 8...Kc2 instead. Correct is **1 Rg8**, after which **1...g3 2 Rg4 b4 3 Rxf4 b3 4 Rf1** (White has unimportant alternatives from here onwards) **g2 5 Rg1 b2 6 Kg7 Kd4 7 Kf6 Ke3** gives 4.4b. Black again threatens to attack the rook and win it for the pawn, but White can counter by playing **8 Rb1** ready for 8...Kf2 9 Rxb2+; and if Black switches his attack to the other side, **8...Kd3**, White plays **9 Rg1** and Black still cannot advance. If the pawns are only four files apart, they and their king can overwhelm the rook; if they are five files apart, they cannot.

4.5 (M 22)



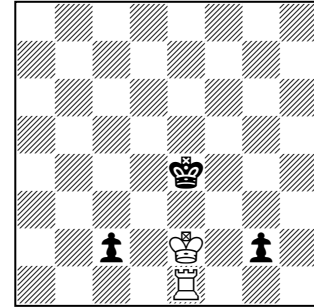
White to play and win

4.5a



1 Kxg2, after 3...Kd3

4.5b

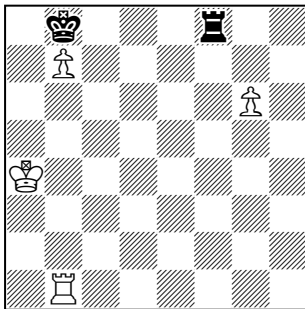


Main line, after 4 Re1

The natural move in 4.5 (*Kölnische Volkszeitung*, 1928) is 1 Kxg2, but it fails: 1...Ke4 2 Kf2 and now not 2...Kd3, when 3 Ke1 would put Black in zugzwang and win easily (we would have 4.5a with an extra Black pawn on e2 but with Black to move), but 2...e1Q+ 3 Kxe1 (3 Rxe1 is no better, 3...Kd3 with ...Kd2 to follow) Kd3 (see 4.5a) and White can make no progress (4 K~ Kd2, 4 Ra1 Kc3 5 Rc1 Kd3 repeating). By sacrificing one of his two pawns, Black has transferred the burden of moving to White.

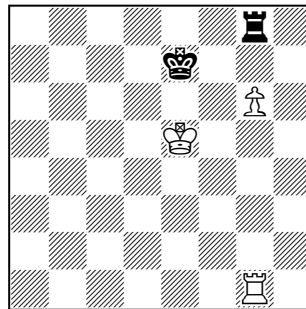
The correct move is 1 Kf2 going for the e-pawn instead, and after 1...Ke4 2 Kxe2 Kd4 3 Rg1/Ra1 (simplest) Ke4 (after 3...Kc3 White wins easily, 4 Rg1 K~ 5 Kd2 etc) 4 Re1 we have 4.5b. (Playing 3 Re1 instead of 3 Ra1/Rg1 doesn't forfeit the win, but it wastes time; after 3...Ke4 we have 4.5b with White to play, which isn't what we want, but White can manoeuvre to lose a move and get back to the same position with Black to play.) From 4.5b, 4...Kd4 can be met by 5 Kd2 since the rook prevents the Black king from doubling back to support the g-pawn, and 4...Kf4 by 5 Kf2 similarly, but what about 4...Ke5? Obviously 5 Ke3, and if 5...Ke6 then 6 Kd2+ Kf5 7 Rg1 and White mops up both pawns.

4.6 (M 24)



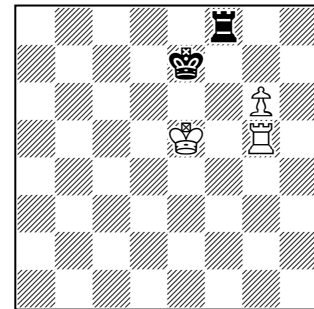
White to play and win

4.6a



1 Ka5, after 7...Ke7

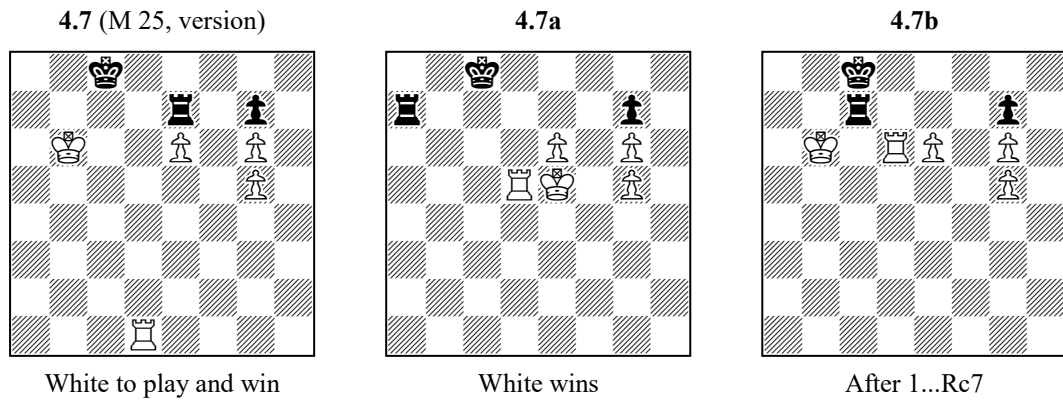
4.6b



Main line, after 6...Ke7

In 4.6 (5th Honourable Mention, Tourney in honour of A. A. Troitzky, *Zadachy i etyudy*, 1929), an immediate king advance to support the b-pawn fails: 1 Ka5 Rf6 2 Rg1 (2 Rb6 Rxb6 3 Kxg6 stalemate) Rf8 3 Ka6 (3 Kb6 Rf1 with a perpetual hounding of the rook) Rg8 4 Kb5 (4 Kb6 Rxc6+ 5 Rxc6 stalemate, 4 g7 Rxc7 5 Rxc7 stalemate) Kxb7 5 Kc5 Kc7 6 Kd5 Kd7 7 Ke5 Ke7 (see 4.6a) 8 Kf5 Rf8+ 9 Kg5 Rf2/Rf3 with ...Kf8 to follow. Nor does 1 Rb6 work: 1...Rf1 (threat 2 Ra1+ K~ 3 Rb1+ K~ 4 Rxb6 Kxb6 stalemate) 2 Ka3 Rc1 3 Kb2 Rc5 4 Kb3 Rc1 and the White king will stay shut in.

To win, White must get his king across to support his g-pawn, and the way to start is 1 Rb5 threatening 2 Kb4. 1...K~ 2 b8Q+ is routine and if 1...Rg8 then 2 Rb6 with 3 Kb5 to follow, leaving 1...Rf1 (for 2 Kb4 Rg1 3 Rb6 Rb1+ 4 K~ Rxb6 5 Kxb6 stalemate) and 1...Rf6 attacking the pawn from the side. But in each case 2 Rg5 forces 2...Rf8, and White's king can advance: 3 Kb5/Kb4 Kxb7 4 Kc5 (now White must keep to the fifth rank) Ke7 5 Kd5 Kd7 6 Ke5 Ke7. This gives 4.6b, which differs from 4.6a in that Black's rook is not yet on g8 and White's rook is on the fifth rank. This allows White to play 7 Rf5, after which the Black rook must quit the file (7...Rxf5 8 Kxf5 is a routine win) and Black's king will be cut off from the pawn: 7...Rg8 8 Rf7+ Ke8 9 Kf6 Kd8 10 g7 Ke8 11 Ke6 Kd8 12 Rf8+, or 7...Ra8 8 Rf7+ Ke8 9 Kf6 Ra6+ 10 Kg7 etc.

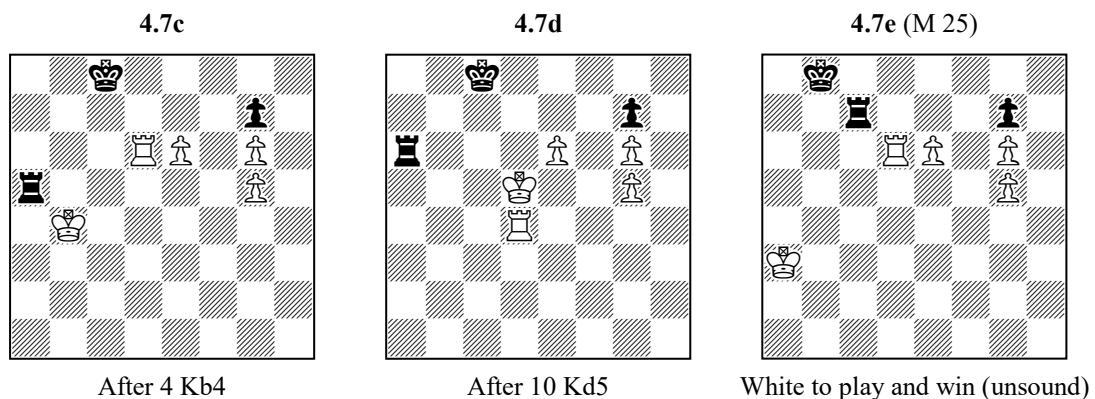


I give 4.7 (*Národní listy*, 5 May 1929, version) in the form quoted by Mandler in *FIDE Revue* 1957.

The first point to note is that as long as the pawns are unremoved and Black's king can reach e8, White cannot exchange rooks. For example, suppose 4.7 without the rooks. Even with the move, White cannot win; he can take the opposition by 1 Kc6, but after 1...Kd8 2 Kd6 Ke8 the normally winning move 3 e7 gives stalemate.

Now consider diagram 4.7a. Suppose first that it is Black to play. 1...Rb7 2 Kd6 (threat 3 e7) Kd8 (2...Rb6+ 3 Ke7 etc) 3 Kc6+, or 1...Rc7 2 Kd6 Kd8 3 Rf5 Rd7+ 4 Ke5 Rd1 5 Rf8+ Ke7 6 Rf7+ and 7 Rxc7, or 1...Re7 2 Kd6 Kd8 3 Rf5 and the same. White to play, 1 Kf4 Ra4+ 2 Kf5 Ra7 3 Ke5 and we have transferred the move to Black, or 1...Re7 2 Rf5 Rxe6 (if 2...Kc7 then 3 Ke5 to stop 3...Kd6) 3 Rf7 Rxc6 4 Kf5 R~ 5 Rxc7.

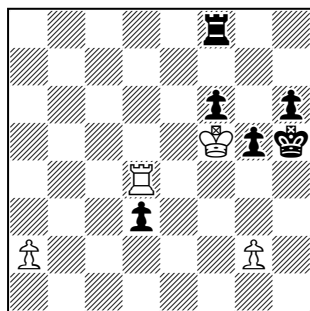
So 4.7a is a win for White with or without the move, which gives us a target. We must get White's king to e5, and cannot clear his path by opposing rooks because Black will exchange with a draw. 1 Re1 can be shown to lead nowhere, and the main line goes 1 **Rd6 Rc7** (see 4.7b) 2 **Kb5 Ra7** (2...Kb6 3 Rd8 Re7 4 Rg8 Rc7 5 Rf8) 3 **Kc5 Ra5+** 4 **Kb4** (see 4.7c) **Ra7** (for 4...Re5 see below) 5 **Kb5 Rc7** 6 **Kb6** (back to 4.7b but with Black to play) **Re7** 7 **Kc5 Ra7** (now...Ra5+ is unavailable) 8 **Rd4 Ra5+** 9 **Kc6 Ra6+** 10 **Kd5** (see 4.7d) **Ra5+** (10...Kd8 11 Ke5+ Ke8 12 Rd7 and once the g-pawn has fallen the win will not be far away) 11 **Ke4 Ra6** 12 **Ke5 Ra5+** 13 **Kf4 Ra7** 14 **Rd5 Ra4+** 15 **Kf5 Ra7** 16 **Ke5**. We have duly reached 4.7a, and the win follows as above.



On the evidence of Harold van der Heijden's "Endgame study database IV", the study originally appeared in *Národní listy* with the g5 pawn on g4. Subsequently, either Réti or Mandler appears to have decided that Black could hold the draw in 4.7c by playing 4...Re5, thus refuting the lose-a-move manoeuvre and with it the intended solution. In Mandler's 1931 book, therefore, the study appeared in the revised form 4.7e in which this supposed refutation was exploited in the play, the intended solution being 1 Ka4 Kc8 2 Kb4 Ra7 3 Kb5 etc and the natural try 1 Kb4 being defeated by 1...Kc8 2 Kb5 Ra7 3 Kc5 Ra5+ 4 Kb4 (else perpetual check on the a-file) Re5.

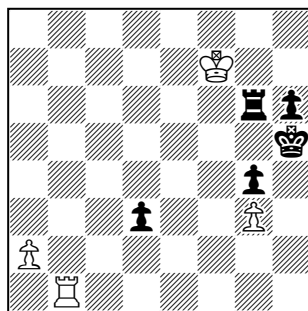
Had this been sound, it would have been a masterpiece, the apparent reciprocal zugzwangs after 1 Kb4? Kc8 2 **Kb5 Ra7** and 1 Ka4! Kc8 2 Kb4 **Ra7** 3 **Kb5** putting the final touch to an already fine composition. Sadly, the definitive results with K + R + 2P v K + R now available refute 4...Re5, the positions after 5 Rd7 Rxe6/Rxc7 6 Rxc7 being won for White (specimen best-play lines are 5...Rxe6 6 Rxc7 Kd8 7 Kc5 Ra6 8 Kd5 Ke8 9 Rg8+ Ke7 10 Ke5 Ra5+ 11 Kf4 Ra4+ 12 Kf5 Ra5+ 13 Kg4 Ra4+ 14 Kh5 Ra1 15 Rb8 Rh1+ 16 Kg4 Rg1+ 17 Kf5 Rf1+ 18 Ke4 with 18...Rf8 19 Rb7+ Ke6 20 g7 or 18...Re1+ 19 Kd3 Rd1+ 20 Kc2 Rg1/Rd5 21 g7, and 5...Rxc7 6 Rxc7 Kd8 7 Kc4 Ke8 8 Kd4 Rg1 9 Rg8+ Ke7 10 Ke5 Re1+ 11 Kf5 Re5+ 12 Kf4 Re1 {12...Rxe6 loses one move more quickly, 13 Kg5 Re1 14 Kh6 Rh1+ 15 Kg7 Rg1 16 Rh8 Ke6 17 Rh2} 13 Kg5 Rh1 14 Ra8 Rg1+ 15 Kh6 Rh1+ 16 Kg7 Rg1 17 Rh8 Kxe6 18 Rh2 Rg3 19 Re2+ Kd6 20 Kf7 Rf3+ 21 Kg8 Rg3 22 g7). So 4.7e collapses, 1 Kb4 becoming an unwanted dual rather than a tempting try, and we have to go back to 4.7. The fact that Mandler quoted 4.7 rather than 4.7e in 1957 suggests that he had worked this out before the computers did.

4.8 (M 26)



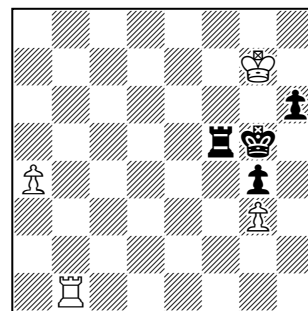
White to play and win

4.8a



After 5 Kf7

4.8b



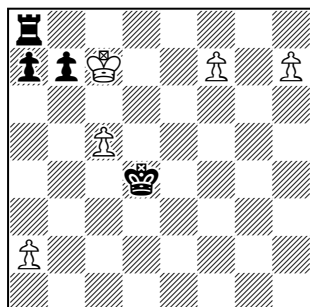
After 9...Kg5

In **4.8** (*Tijdschrift v. d. NSB* 1922, version in *Ostrauer Morgenzeitung*, 6 February 1923, dedicated to Dr A. Mandler), **1 g3** threatens mate by **2 Rh4+ gxh4 3 g4**, and the only realistic defence is **1...Rg8** (if instead **1...g4** then **2 Rxc4** and mate by **3 Rh4**). Now **2 Rb4** threatens mate by **3 Rb1** and **4 Rh1**, and the only defence is **2...g4**. White still continues with **3 Rb1**, but Black can give himself a little air by **3...Rg5+ 4 Kxf6 Rg6+ 5 Kf7**.

This has brought us to **4.8a**, and we see that Black is not wholly out of the wood; a move by his rook along the rank will allow **Rb5+** and mate next move, and **...Kg5** will allow mate at once. There remains **5...d2**, but **6 a4** maintains the pressure (and its guard on b5 will be useful in the later play). Black still has no good rook or king move, but **6...d1Q 7 Rxd1** gets the pawn off the board, and now **7...Rf6+** has become available because **8 Kxf6** will be stalemate. Hence **8 Kg7**, and if **8...Rg6+** then **9 Kh7** leaves Black helpless (he can avoid mate by **9...Kg5 10 Rd5+ Kf6**, but **11 Rd6+** then picks up the rook). But Black can play **8...Rf5** claiming the fifth rank for himself, and after **9 Rb1 Kg5** we have **4.8b**.

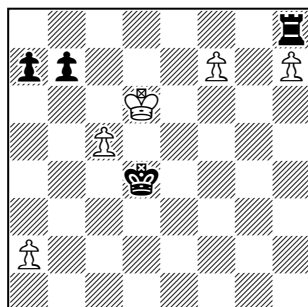
If now **10 Rb5**, which was White's objective in playing **9 Rb1**, Black can reply **10...h5**, and he will draw (**11 Rxf5+ Kxf5 12 a5 h4 13 a6 hxg3** etc). The winning move is **10 Rb6**, and if **10...h5** then **11 Rg6** gives mate. So Black moves his rook, say **10...Re5**, and now White can play **11 Rb5**. The exchange **11...Rxb5 12 axb5** loses, White being a tempo ahead of the previous line, and if he moves his rook back to f5 or defends it by **11...Kf5** White will win by exchanging it off and taking the pawn on h6.

4.9 (M 27)



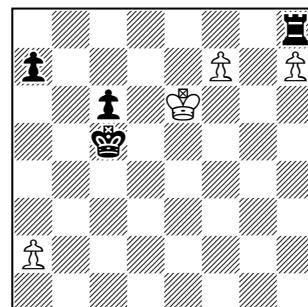
White to play and win

4.9a



1 Kd6, after 1...Rh8

4.9b



4 Ke6, after 4...Kc5

White's first thought in **4.9** (equal 1st/2nd Prize, *Shakhmatny Listok*, 1927/I) might be **1 Kxb7** with **2 c6** to follow, but it is soon seen to be inadequate. **1...Rh8** threatens **2...Rxc7** pinning the f-pawn, if **2 c6** then **2...Rxc7 3 c7 Rxf7** with **...Rxc7** to follow, and if **2 Kc6** to avoid the pin then **2...Ke5** etc.

So White must go the other way, and the natural move is **1 Kd6** guarding the c-pawn and avoiding the pin. But Black still plays **1...Rh8**, and White has a problem (see **4.9a**). Given that **2 Ke7** will be met by **2...Rxc7** again pinning the pawn, his only chance appears to be **2 Ke6** going for the rook, but Black will play **2...Kxc5** and shadow him across: **3 Kf6 Kd6 4 Kg7 Ke7 5 Kxh8 Kxf7**. White is now blocked in, and will be stalemated when his pawn moves have run out. Nor will sacrificing the c-pawn help (**2 c6 bxc6 3 Ke6 Kc5** and exactly the same), and moves by the a-pawn can simply be echoed by Black.

The way forward is **1 Kd7**, and after **1...Rh8** then **2 Kd6** giving **4.9a** with Black to play. **2...Ke4** is clearly hopeless (**3 Ke6 Kd4 4 Kf6 Kd5 5 Kg7 Ke6 6 f8Q**), but does not **2...Kc4 3 Ke6 Kxc5** lead to a draw as before?

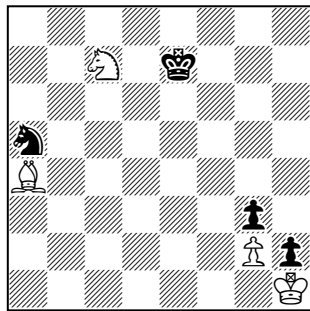
No, White can meet **2...Kc4** by **3 c6** (now sacrificing the c-pawn does help), and after **3...bxc6** not **4 Ke6**, met by **4...Kc5** as before (see **4.9b**), but **4 Ke5**. Black must play **4...Kc5** to keep in touch, and **5 Ke6** gives **4.9b** with Black to play. Moves by the a-pawn can be echoed by White, **5...a6 6 a3 a5 7 a4**, and after **7...K~** we shall have **8 Kf6 Kd5 10 Kg7 Ke6 11 f8Q**.

It is one of Réti's most subtle studies.

The Chess Endgame Studies of Richard Réti : Knights and bishops

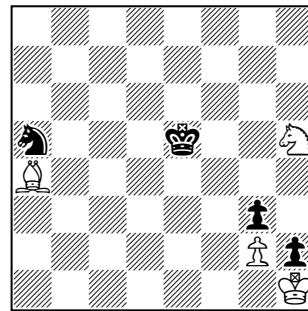
John Beasley, 14 January 2012, minor correction 2 March

5.1 (M 28)



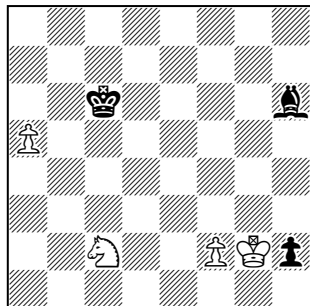
White to play and win

5.1a



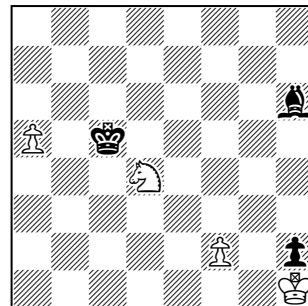
5.1, dedicated to Dr G. C. A Oskam, appeared in *Tijdschrift v. d. NSB* in 1922. White needs to capture the pawn on g3 and the knight can attack it within three moves, but the Black king needs only three moves to get into position to defend it. However, with a little care White can prevent the Black king from making a diagonal move downward on to the f-file, and this is sufficient to keep it away from the pawn: **1 Ne8 Ke6** (...Kf6 not available) **2 Ng7+ Ke5** (...Kf5 not available) **3 Nh5** (see **5.1a**), and the pawn is lost because ...Kf4 is not available. Black can of course try to defend the pawn with his knight instead of with his king, but a timely Bc2 will keep the knight away from the danger square e4, and if the knight plays to any other square defending g3 the bishop will have time to attack it.

5.2 (M 29)



White to play and win

5.2a

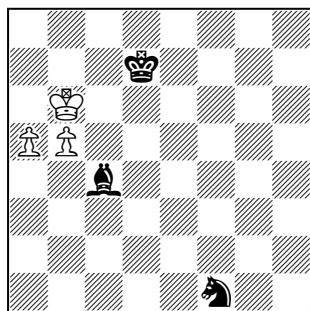


After 2 Kh1

The main line in **5.2** (*Hastings and St Leonards Post*, January 1922, version) is even shorter. Black threatens 1...Kb5 picking up the pawn, so **1 Nd4+** is almost automatic, and can Black play 1...Kb7 and attack the pawn from the front? No, he will be one move too late: 2 Kxh2 Ka6 3 Nb3 Bf4+ 4 Kh3 Kb5 5 Kg4 Bb8 6 f4 Kb4 7 f5 Kxb3 8 f6 Kb4 9 a6 Kb5 10 f7 and the bishop is overloaded. If instead 1...Kd5 then 2 a6 and the pawn promotes at once, hence **1...Kc5**, and now 2 Nb3+ Kb5 will be good for Black because after 3 Kxh2 he will be a tempo ahead of the line 1...Kb7 2 Kxh2 Ka6 3 Nb3.

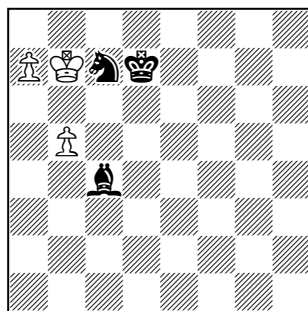
But White needn't save his knight. If he tries 2 Kxh2 then of course he fails (2...Bf4+ 3 K~ Kxd4 4 a6 Bb8), but he can play **2 Kh1** giving **5.2a**. Black is now completely helpless. Any bishop move other than 2...Be3 allows a fork, as does 2...Kd6, and any other king move allows 3 a6 promoting at once.

5.3 (M 35)



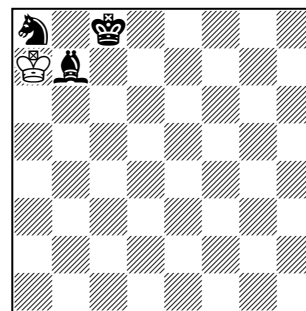
White to play and hold the draw

5.3a



After 3...Nc7

5.3b



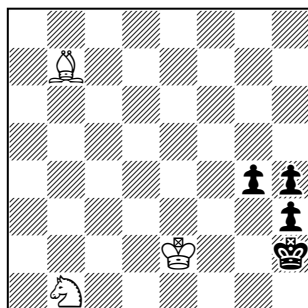
7...Bxb7 stalemate

K + B + N have a routine win against a bare king, so in a position like **5.3** (28. říjen, 26 September 1925) White must do something before Black can mop up the pawns. 1 a6 will allow 1...Kc8 winning without difficulty (2 a7 Bd5 etc) and 1 Ka7 throws away the b-pawn to no useful purpose, and the move is **1 Kb7** keeping Black's king at bay. Taking the b-pawn now would serve no useful purpose (1...Bxb5 2 a6 and White's remaining pawn will cost Black his bishop), nor would a bishop check (1...Bd5+ 2 Ka7 and this time it is the b-pawn that will cost Black his bishop). This leaves only **1...Ne3** hoping to get back to c7.

If now 2 b6 then 2...Nd5 with ...Nb4 to follow, and Black will soon mop up. But the natural and correct move is **2 a6**, and after **2...Nd5 3 a7** (if instead 3 b6 to cover c7 then again 3...Nb4) **Nc7** we have **5.3a**. If now 4 b6 to chivvy the knight then 4...Bd5+ 5 Kb8 Na6 will be mate, and if 4 Kb8/Kb6 then again 4...Bd5. This leaves only **4 a8Q**, and after **4...Bd5+ 5 Ka7 Nxa8** the new queen has been taken without compensation (but not by 5...Bxa8, when 6 b6 does successfully chivvy the knight). Now the b-pawn takes up the baton, **6 b6**, and if Black plays **6...Kc8 7 b7 Bxb7** to prevent its promotion he finds that he has given an attractive stalemate (see **5.3b**).

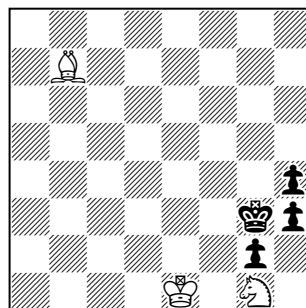
"28. říjen" means "October 28", the anniversary of the founding of the independent Czechoslovak state after the First World War.

5.4 (M 36)



White to play and win

5.4a

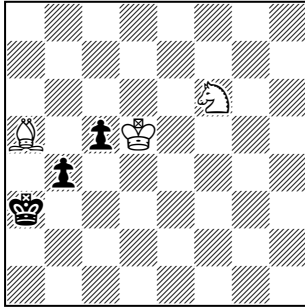


After 4 Ng1

In **5.4** (*Časopis československých šachistů*, 1924), Black threatens to draw either by 1...g3 etc or by 1...Kg1 etc, so we need to bring the knight into play, but 1 Nd2 is met by 1...Kg1 2 Ne4 h2 3 Nf2 h1Q 4 Nxf1 g3 5 Bd5 (White has no more useful move) Kh2 6 Kf1 h3 etc, and 1 Nc3 is soon seen to do nothing useful about 1...g3. A king move to the f-file will allow Black a tempo-gaining check, and the rather surprising answer is **1 Ke1**. This seems a very leisurely move when all the need would appear to be for urgent action, but it vacates e2 for the knight while still remaining poised ready to intervene as necessary, and we shall see that this makes all the difference.

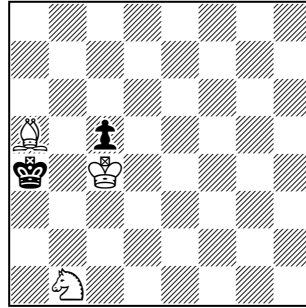
If now **1...g3** then **2 Nd2 g2** (2...Kg1 3 Nf3+ Kg2 4 Bd5 with 4...h2 5 Ng5+ Kg1 6 Nh3 mate or 4...Kh1 5 Kf1 g2+ 6 Kf2 and mate in a few) **3 Nf3+ Kg3 4 Ng1** (see **5.4a**) **h2** (4...Kg4 5 Bc8+ and 6 Bxf3, after which White will mop up) **5 Ne2+** (ah!), and if **5...Kh3** to keep in touch with the g-pawn then **6 Bc8** is elegantly mate. If instead 1...Kg1 then 2 Nc3 g3 3 Ne2+ Kh2 with either 4 Bc8 g2 (4...Kg2 5 Nf4+) 5 Kf2 etc or 4 Nd4 g2 5 Nf3+ transposing back into the main line, while 1...Kg3 allows 2 Kf1, with Nc3 and Ne2+ to follow, and the pawns are soon seen to be doomed.

5.5 (M 37)



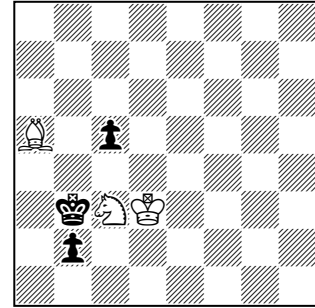
White to play and win

5.5a



1 Kc4, after 4...Ka4

5.5b

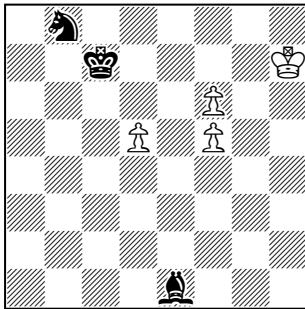


Main line, after 4 Kd3

5.5 appeared in *Teplitz-Schönauer Anzeiger* in 1922. Try the obvious 1 Kc4, homing in on the pawns: no, 1...b3 2 Ne4 b2 3 Nc3 b1Q 4 Nxb1+ Ka4 gives 5.5a, and if the bishop moves to safety it will give stalemate. Nor is 1 Ne4 better, because 1...b3 2 Kc4 transposes into the same line, and if White tries 2 Nc3 instead Black will play 2...Kb2 with ...Kc2 and ...b2 to follow.

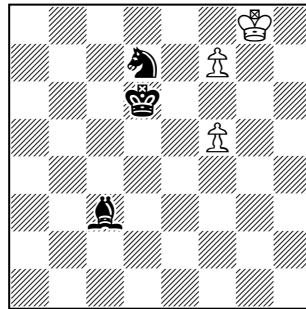
The correct move is 1 Ke4, approaching more circumspectly. Black must still try 1...b3 to promote his pawn (other moves give no trouble), but after 2 Nd5 b2 3 Nc3 he cannot sacrifice because there will be no stalemate. Worse, after 3...Kb3 4 Kd3 (see 5.5b) he will soon be left without a safe move (4...c4+ 5 Kd2 Ka3 6 Kc2, 4...Ka3 5 Kc2 c4 6 Bc7) and White will mop up.

5.6 (M 38)



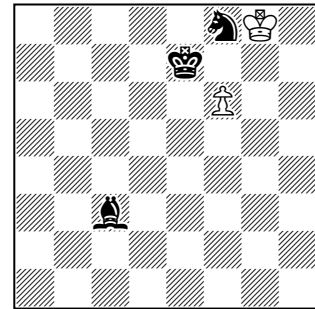
White to play and hold the draw

5.6a



After 4 Kg8

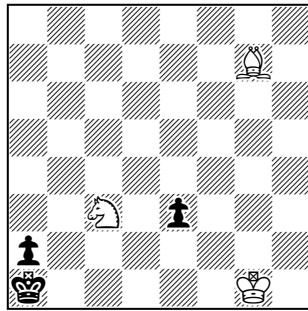
5.6b



After 6 f6+

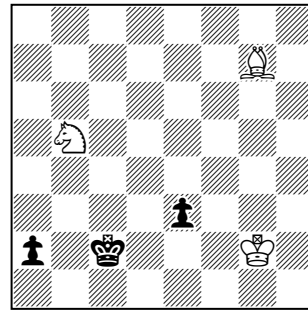
In 5.6 (3rd Prize, *Shakhmatny Listok*, 1927/II), Black threatens to put an iron blockade on White's pawns by 1...Bb4 and 2...Nd7, after which he will mop up at leisure. The only answer to this is to block the diagonal b4-f8, and it must be done at once: 1 d6+. There follows 1...Kxd6 (declining the offer doesn't help) 2 f7 (we'll look at 2 Kg7 and 2 Kg8 in a moment) Nd7 (2...Ke7 3 Kg7 leads to the same finish, 3...Bc3+ 4 Kg8 Ne7 etc) 3 Kg7 (luring the bishop to c3) Bc3+ 4 Kg8 (see 5.6a) Ke7 (if 4...Nf6+ then 5 Kg7, with 5...Ng4+ 6 f6 Bxf6+ 7 Kg6 and 7...Be7 8 Kg7 Bf6+ 9 Kg6 repeating or 7...Ke7 8 f8Q+ Kxf8 9 Kf5 winning a piece, or 5...Nd7+ 6 Kg8 repeating, or 5...N~+ 6 f6 Bxf6+ 7 Kg8 with 8 f8Q to follow) 5 f8Q+ (5 f6+ Nxf6+ is good for Black) Nxf8 6 f6+ (see 5.6b) with 6...Bxf6 stalemate or 6...Ke8 7 f7+ and again stalemate. If 3 Kg8 then 3...Ke7, and with the bishop not yet lured to c3 the sacrificial promotion 4 f8Q+ will not lead to stalemate; if 2 Kg8 then 2...Nd7 3 f7 Ke7 and the same; and if 2 Kg7 then 2...Bc3 pinning the pawn, with a straightforward win to follow.

5.7 (M 40)



White to play and win

5.8 (M 41)

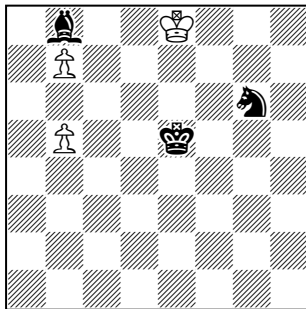


White to play and win

According to Kalendovský, Réti described **5.7** and **5.8** as offshoots from study **5.10** below. In **5.7** (*Münchner Zeitung*, 8 June 1929) **1 Kf1 Kb2 2 Nb5+ Kb1 3 Na3+ Kc1 4 Ke1** (not **4 Ke2 a1Q 5 Bxa1** stalemate) **e2 5 Nc4** (simplest) **Kb1 6 Nd2+** etc. There is claimed to be a further try in **1 Kg2** again refuted by stalemate (**1...Kb2 2 Nb5+ Kb1 3 Na3+ Kc1 4 Kf3 e2 5 Kxe2 a1Q 6 Kxa1**), but **1 Kf1** is so much White's most natural move that I don't think I would have noticed this line (unless I had been probing the position for cooks) had not the commentary explicitly pointed it out to me.

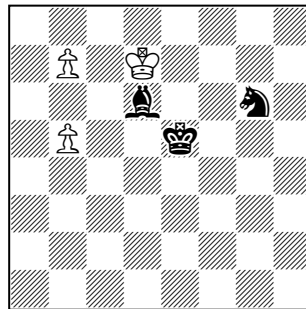
In **5.8**, also published in *Münchner Zeitung* in 1929, **1 Kf3**, and there is a nice point after **1...Kd2**: **2 Nc3**, and a pawn goes. But the main line is **1...Kd3 2 Nd6 e2 3 Kf2 Kd2 4 Ne4+ Kd3**, and now given is **5 Ng5 Kc2 6 Nf3 Kb1 7 Nd2+** although the natural **5 Kg3** wins more quickly.

5.9 (M 42)



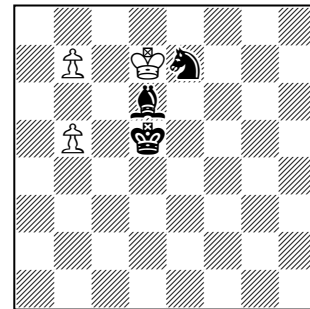
White to play and hold the draw

5.9a



1 Kd7, after 1...Bd6

5.9b



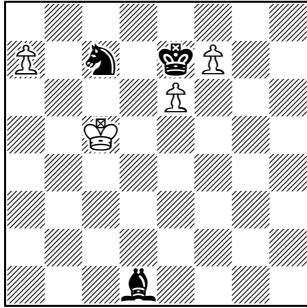
Main line, after 4 Kd7

The natural move in **5.9** (Commendation, *Magyar Sakkvilág*, 1928) is **1 Kd7** threatening **2 Kc8 B~ 3 b8Q** winning the bishop, but Black replies **1...Bd6** and White has a problem (see **5.9a**). If he continues **2 Kc8**, Black will reply **2...Ne7+ 3 Kd7 Nd5**, and any further move **Kc8** will be met by **...Nb6+**. If instead he tries **2 b6** then **2...Kd5**, and **3 Kc8** can be met by **3...Ne7+** and **4...Nc6**.

The solution is **1 Kd8**. This again threatens **2 Kc8** etc, and if **1...Bd6** White now has **2 Kd7**. This gives **5.9a** with Black to play, and what is Black to do? The bishop must continue to guard **b8**, and if **2...Bb8** then **3 Kc8 B~ 4 b8Q** as before. **2...Ne7** overloads the bishop, allowing an immediate draw by **3 b8Q**, and any other knight move takes it out of range of **e7** and allows **3 Kc8** etc. This leaves only **2...Kd5**, and **3 Kc8 Ne7+ 4 Kd7** gives **5.9b**. The bishop being overloaded, White threatens **5 b8Q**, and after a nondescript knight move such as **4...Nf5** there will follow **5 Kc8 Ne7+ 6 Kd7** repeating the position; the move **...Nd5** which previously won the game for Black is now unavailable because his king is occupying that square.

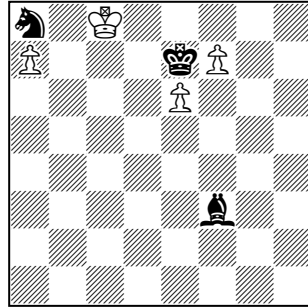
The unexpected damage done to Black's winning chances by the apparently innocent move **...Kd5** makes **5.9a** one of the collection's more amusing examples of reciprocal zugzwang.

5.10 (M 43)



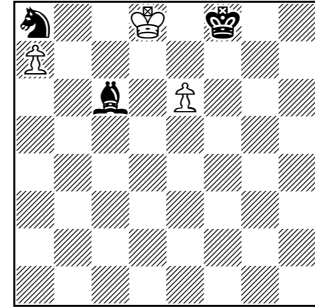
White to play and hold the draw

5.10a



After 3 Kc8

5.10b



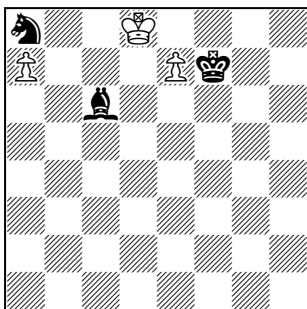
After 5 Kd8

5.10 (*Národní listy*, 24 March 1929, awarded a Special Prize, dedicated to Minister Dr Vavro Šrobar) looks very promising for Black, whose king stops the two connected pawns and whose minor pieces will be able to command a8. Nevertheless, let's see. Try 1 Kc6: no, 1...Nxe6 2 Kb7 (2 a8Q Bf3+) Nc5+ 3 Kc6 (3 Kb6/Kb8 Nd7+ 4 Kc7 Bf3) Nd7 4 f8Q+ Nxf8 5 Kb7 Bf3+ 6 Kb8 Nd7+ 7 Kc7 Bf3. Try 1 f8Q+: again no, 1...Kxf8 2 Kc6 Na8 3 Kd7 (hoping for 3...Bg4 4 Kd8 Bxe6 stalemate) Ba4+ 4 Kc8 Ke7 5 Kb7 Kd6, with 6 Kxa8 Kc7 and White gets mated or 6 e7 Bc6+. Correct is **1 Kb6**, and after **1...Na8+ 2 Kb7 Bf3+** then **3 Kc8** giving **5.10a** (but not 3 Kb8, when 3...Bd5 will wait for 4 Kc8 and then take the e-pawn with check).

White now threatens 4 f8Q+ Kxf8 5 Kd7, and if 5...Bg4 pinning the pawn then again 6 Kd8 Bxe6 stalemate. 3...Nb6+ gets nowhere (4 Kc7, with 4...Na8+ 5 Kc8 repeating or 4...N~ 5 Kb8), 3...Bg2 does nothing about the threat 4 f8Q+ etc, and the only move to apply pressure is **3...Bc6**. Now, after **4 f8Q+ Kxf8**, 5 Kd7 is unavailable, but **5 Kd8** ties Black's bishop to the diagonal a4-e8 (see **5.10b**), and if it moves along this diagonal, say 5...Bb5, White will play 6 Kc8 and the threat of 7 Kb7 will bring it straight back to c6 – no it won't, 6...Ke7 7 Kb7 Kd6 8 Kxa8 Kc7 and again White gets mated. The e-pawn must advance first, 6 e7+ Kf7, and now 7 Kc8 does force 7...Bc6 (7...Kxe7 will remove the e-pawn, and without its presence to give White a move there will be no mate). Now 8 Kd8 gives **5.10c** below, and the draw is clear (8...Be8/Bb5/Ba4 9 Kc8 Bc6 10 Kd8 repeating).

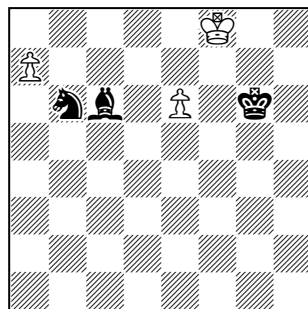
So a bishop move in **5.10b** doesn't work, and a knight move will lose a piece. Only the king remains, and **5...Kg7** is clearly its more promising option. (Réti's endgame studies being what they are, we probably ought to look at 5...Kg8 as well, since an immediate 6 e7 will be met by 6...Kf7 giving **5.10c** with White to move and the e-pawn is lost at once, but it gives no trouble: 6 Kc8, with 6...Kf8 7 Kd8 repeating or 6...Kg7 7 e7 Kf7 8 Kd8 and again **5.10c**.) If (after 5...Kg7) 6 e7 then 6...Kf7 or 6 Kc8 then 6...Kf6, and in either case the e-pawn goes, which leaves only **6 Ke7**. The only reply to break new ground for Black is **6...Kg6** (typical alternatives are 6...Kg8 7 Kd6 Ba4 8 Ke7 and 6...Ba4 7 Kd8 Kf6 8 e7 Kf7 9 Kc8, and although there is some branching they all lead back into known territory). White must meet 6...Kg6 by **7 Kf8** (not 7 Kd6, when 7...Ba4 8 Ke7 Kf5 wins), and if 7...Kf6 then 8 e7 with an amusing simultaneous overload of Black's pieces (8...Nc7 9 a8Q B/NxQ 10 e8Q, or 9 e8Q similarly). 7...Nc7 is met by 8 e7 and much the same (8...Ne6+ doesn't help because 9 Kg8 leaves the bishop overloaded, and 9...Nc7/Ng7 will let the White king back to f8), and the main line move is **7...Nb6**.

5.10c



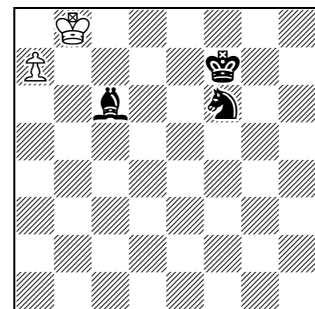
5...B~, after 8 Kd8

5.10d



Main line, after 7...Nb6

5.10e

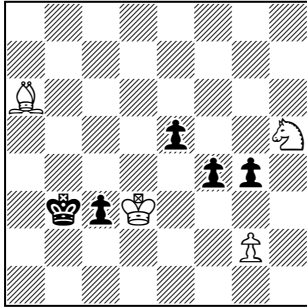


After 13 Kb8

This has brought us to **5.10d**. Not now 8 Ke7, met by 8...Nc8+, but **8 e7 Nd7+ 9 Ke8** (9 Kg8 Bd5+ 10 Kh8 Nf6 and both pawns go) **Nf6+ 10 Kd8** (10 Kf8 Nh7+ 11 Kg8 Bd5+ etc) **Kf7 11 e8Q+** (11 Kc7 Bf3 12 Kb8 Nd7+ etc) **Nxe8 12 Kc8 Nf6 13 Kb8** (see **5.10e**) **Nd7+ 14 Kc7 Ne5 15 Kb8** and a draw by repetition.

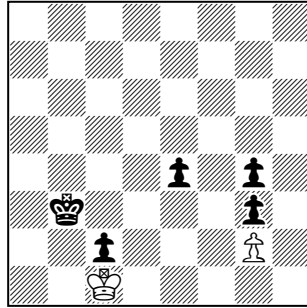
A *tour de force* of analysis, wide-ranging and precise even if it lacks the clarity and shapeliness of most of Réti's studies. According to the definitive results with K + 2P v K + B + N now available, White's play in the main line has had to be completely accurate from 5 Kd8 right through to the end.

5.11 (M 44)



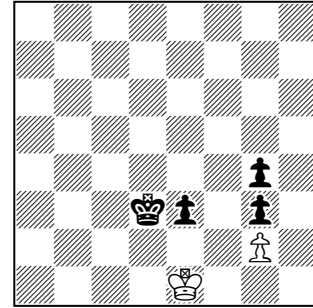
White to play and hold the draw

5.11a



After 6 Kc1

5.11b



After 9 Ke1

There will be no question of a White win in **5.11** (*Shakhmatny Listok*, 1928), despite his having the bishop and knight; he will be well content to escape with a draw, and his first task is to deal with the dangerous c-pawn. Try 1 Bb5, to meet 1...c2 with 2 Ba4+? No, Black will play 1...e4+ first, and after 2 Ke2 f3+ 3 gxf3 c2 4 Ba4+ Kxa4 5 Kd2 Kb3 he wins (6 Kc1 exf3 7 Ng3 f2 8 Nf1 Kc3 9 N~ Kd3 10 Kf1 Ke2 11 Ng3+ Ke1). 1 Nxf4+ exf4 diverts the e-pawn but at too great a cost (2 Bb5 c2 3 Ba4+ Kxa4 4 Kxc2 f3 etc), and surely 1 Ng3 is not going to help?

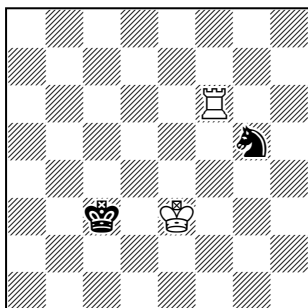
Let's play on. 1...fxg3 (1...c2 2 Ne2 f3 3 gxf3 gxf3 4 Nc1+ Kb2 5 Kd2 e4 6 Bf1 e3+ 7 Kxe3 Kxc1 8 Bd3) 2 Bb5, and if now 2...c2 then 3 Ba4+ Kxa4 4 Kxc4 and White will have a comfortable draw against K + Pe4 (the blocked pawns on the g-file won't help Black). But again Black can interpolate 2...e4+. The natural and correct reply is 3 Ke2, but if 3 Ke3 instead the answer is not the natural 3...c2, met by 4 Ba4+ Kxa4 5 Kd2 as in the solution, but 3...Ka3 (if now 4 Ba4 then 4...Kxa4 takes the bishop without losing the c-pawn, and if anything else then 4...c2 and 5...Kb2 forces the pawn through).

Reverting to the main line 3 Ke2, play continues 3...c2 4 Ba4+ Kxa4 5 Kd2 Kb3 6 Kc1, and we have **5.11a**. Now both 6...Kc3 and 6...e3 will give stalemate, but Black also has 6...Kc4, and in the absence of the g-pawns this would give him a win (7 Kxc2 e3 8 Kd1 Kd3 taking the opposition, or 8 Kc1 Kc3 and the same). Not so in their presence, however: 7 Kxc2 e3 8 Kd1 Kd3 9 Ke1 (see **5.11b**), and the normally winning move 9...e2 gives yet another stalemate.

The Chess Endgame Studies of Richard Réti : Rooks and minor pieces

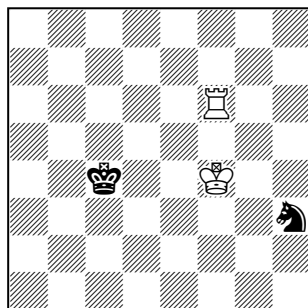
John Beasley, 14 January 2012, latest revision 2 March

6.1 (M 31)



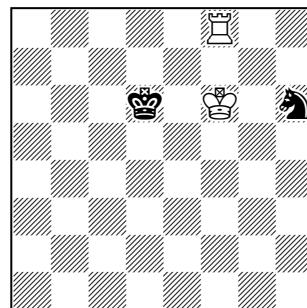
White to play and win

6.1a



6.1 with BK on c4, after 1...Nh3+

6.1b (Mandler "after Réti")



White to play and win

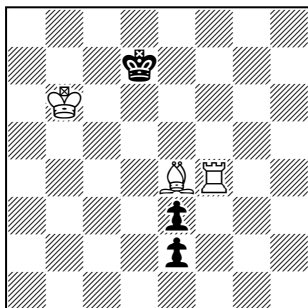
Rook against knight is a win only if the attacker can crowd the defenders into an unfavourable position on the edge, or if the defenders are separated and the knight can be trapped and captured before they can get together. In **6.1** (*Tidskrift för Schack*, 1929, dedicated to L. Collijn), it is the latter tactic which White will use.

The Black king is well placed on c3. If its king were on the b-file, White would have an easy win: 1 Kf4 Nh3+ 2 Kg4 Ng1 3 Rf2 and 4 Rg2. On c2, it would allow 1 Rg6 Nf7 2 Kd4 Nd8 3 Kd5 Nb7 4 Ra6 or 1 Rf5 Ne6 2 Re5. And on c4, it would allow 1 Kf4 Nh3+ (see **6.1a**) 2 Ke4 (if the Black king were on c3, he would have a draw here by 2...Kd2) Ng5+ (2...Kc5 3 Ke3 and 4 Rg6) 3 Ke5 Nh3 (3...Kd3/Kc5 4 Rf5) 4 Rf3 Ng5 (4...Ng1 5 Re3) 5 Rf5.

So all we need to do is to expel the Black king from c3, and the easiest way of doing this is to play **1 Kf4 Nh3+ 2 Kf3** (threat 3 Rg6) **Ng5+ 3 Ke3** getting back to **6.1** with Black to play. Now the knight can move neither to h3 (4 Rg6) nor to h7 (4 Rf5), so it is the king which must give way: **3...Kc4 4 Kf4 Nh3+** (see **6.1a**) **5 Ke4 Ng5+ 6 Ke5 Nh3 7 Rf3 Ng5** and given is 8 Rf4+ K~ 9 Rf5 though **8 Rf5** at once is quicker.

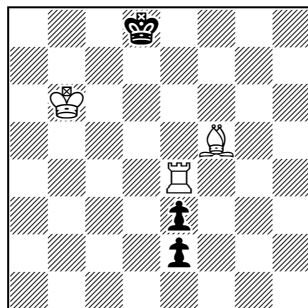
This study was a favourite of Mandler's, who extended it to give **6.1b** (*Československý šach*, 1933): 1 Rd8+ Kc5 2 Rd3 Ng4+ 3 Kf5 Nh6+ 4 Ke6 Ng4 5 Rf3 Kc6 and we have **6.1** reflected top to bottom.

6.2 (M 45, version)



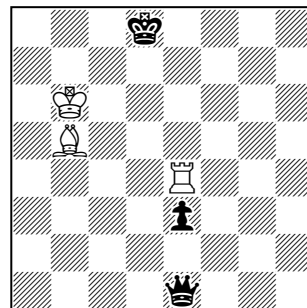
White to play and win

6.2a



After 3...Kd8

6.2b



After 5 Bb5

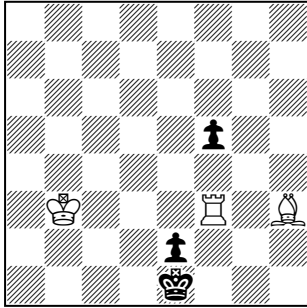
6.2 (*Kölnische Volkszeitung*, 1928, version by Rinck, *Bohemia*, 28 July 1935) is one of Réti's happiest studies, though it owed something to luck (as have many classic studies from Barbier-Saavedra onwards) and the final touch was added by someone else.

Try 1 Bc6+, followed by 1...Kd6 2 Rd4+ Ke~ 3 Re4+: no, 3...Kd6 4 Rxe3 e1Q, and 5 Rxe1 will give stalemate. And after **1 Bf5+ Kd~ 2 Rd4+ Ke~ 3 Re4+ Kd8**, are we not going to have exactly the same thing (see **6.2a**)?

Not so: White can play **4 Bd7**, and after 4...Kxd7 5 Rxe3 etc there will be no stalemate. But why should Black fool around capturing the bishop, when he can promote straight away by **4...e1Q**? Because White can play **5 Bb5** shielding his king and threatening mate (see **6.2b**), and there is nothing other than the suicidal 5 Qa5+ that Black can do about it.

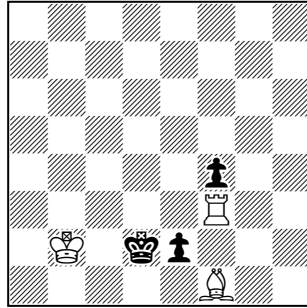
The spectacular move 4 Bd7 was in fact an unintended dual. In Réti's original setting, the rook was on e5, and the intended fourth move was 4 Bd3. According to Mandler, Réti became aware of the dual shortly before the study's publication, but he did not regard it as so serious that its removal would be worth the addition of extra material. Rinck's elegant adjustment took out the original intention, and left just the brilliant dual.

6.3 (M 47, version)



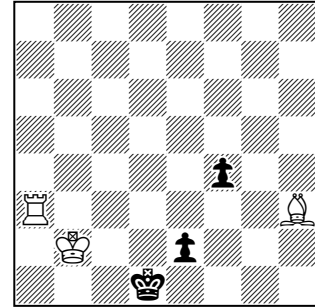
White to play and win

6.3a



After 3 Bf1

6.3b (M 47)

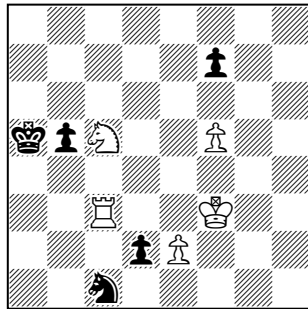


White to play and win (unsound)

6.3 (*Basler Nachrichten*, 1929, version by Benko) was a development of an earlier Réti study (*Bohemia*, 1923): White Ke5, Rc1, Bh6 (3), Black Ka2, Pb3 (2), win by 1 Rc3 b2 2 Bc1 with 2...b1Q 3 Ra3 mate and 2...b1N 3 Rc2+. Here, 1 Kc2 f4 2 Kb2 Kd2 (2...Kd1 3 Bg4 with 3...e1Q 4 Rd3 mate or 3...Kd2 4 Rf2) 3 Bf1 (see 6.3a) with 3...e1Q 4 Rd3 mate or 3...exf1Q 4 Rxf1 Ke3 5 Kc3 f3 6 Re1+ Kf2 7 Kd2 etc.

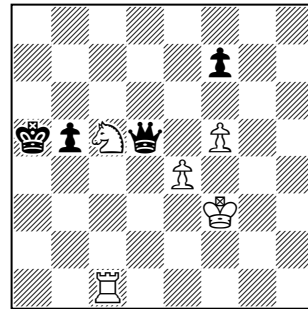
Réti's original setting is shown in 6.3b, the intention being 1 Rd3+ Ke1 2 Rf3 etc but 1 Bg4 K~ 2 Bxe2 Kxe2 3 Kc1 etc being an alternative win. Chéron corrected by moving the rook to g3, setting it *en prise* so that it was forced to move first, but this was frankly crude. Benko's version (*Chess Life*, February 2008, quoted in *EG* 182) is much neater, and even adds something in the shape of the amusing White king manoeuvre.

6.4 (M 49)



White to play and win

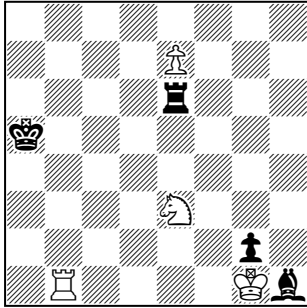
6.4a



After 3 e4

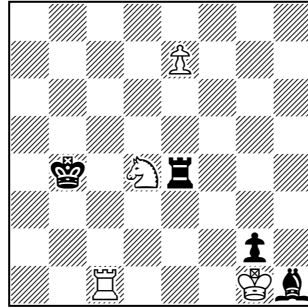
6.4 (*L'Alfieri di Re*, November-December 1922) was one of Réti's earliest studies. 1 Rc2 (not 1 Rxc1, when Black escapes by 1...dxc1N) d1Q 2 Rxc1 Qd5+ 3 e4 (see 6.4a), and where is the Black queen to go? The only temporarily safe moves are 3...Qa2, with 4 Ra1 (pinning) Qxa1 5 Nb3+, and 3...Qe5, with 4 Ra1+ and either 4...K~ 5 N+ and another fork or 4...Qxa1 5 Nb3+ again.

6.5 (M 50)



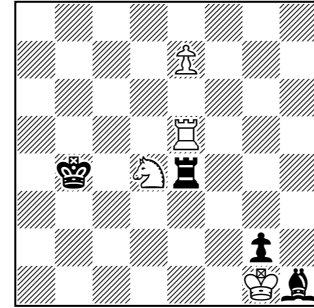
White to play and win

6.5a



After 4 Rc1

6.5b



After 6 Re5

According to Mandler, Réti regarded **6.5** (*Tijdschrift v. d. NSB*, 1924, version) as his best study. White's king is out of play, so his rook, knight, and pawn will have to outwit Black on their own.

Let's look at the main line first. **1 Nf5 Ka4 2 Nd4 Re4 3 Ra1+ Kb4 4 Rc1** (see **6.5a**) **Ka5 5 Rc5+ Kb4** (5...Ka6/Kb6 6 Rc6+ and 7 Re6, 5...Ka4 6 Rc4+ K~ 7 N+ and 8 RxB) **6 Re5** (see **6.5b**) and the rook has been successfully chased off the file. Variations from **6.5a**: 4...Ka3 5 Rc3+ echoing the main line, with 5...Kb4 6 Re3 or 5...Ka2/Kb2 6 Rc2+ and 7 Re2; 4...Ka4 5 Rc4+ etc.

Now let's go back to the start. If 1...Ka6 then 2 Nd6 (or 2 Ra1+ first if desired, but this turns out to be only a mopping-up line and duals in it don't matter) Rxe7 3 Ra1+ Kb6 4 Nc8+.

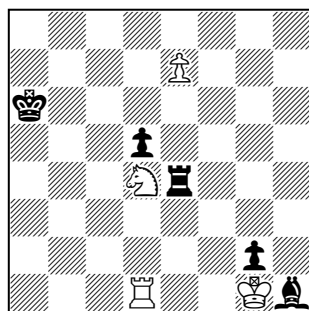
If 1...Re5 then again 2 Nd4, with (a) 2...Ka6 3 Nc2 (threat 4 Re1) Rxe7 4 Nb4+ and 4...Ka~ 5 Nc6+ or 4...Kb~ 5 Nd5+, or (b) 2...Re4 3 Nb3+ with another fork or discovered check, or (c) 2...Re3 3 Rc1 Re4 (3...Ka6/Kb6 4 Rc6+ and 5 Re6, 3...Ka4 4 Ra1+ Kb4 5 Nc2+) 4 Rc5+ transposing back into the main line.

If 1...Re4 then yet again 2 Nd4, with (a) 2...Ka6 3 Nc2 as before, or (b) 2...Ka4 3 Ra1+ Kb4 4 Rc1 giving **6.5a** again, or (c) 2...Re3 3 Rc1 Re4 (3...Ka4 4 Ra1+ and a fork, 3...Ka6/Kb6 4 Rc6+ and 5 Re6) again transposing back into the main line.

And if 1...Re2 then once more 2 Nd4, with 2...Re3 (2...Re4 3 Nb3+ with a fork or discovered check) 3 Ra1+ (simplest) Kb6 3 Nf5 Re~ 4 Nd6, and 4...Rxe7 will be met by a fork.

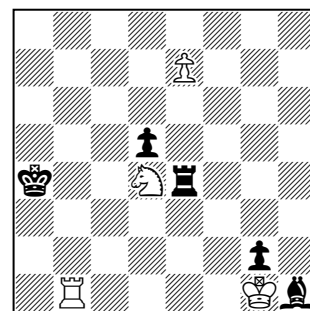
Rook moves to a dark square e3/e5/e7 at move 2 in the main line are met by 3 Ra1+ and a fork, and there is no variation at all at move 3, so we have shown the win in all lines. And if 1 Nd5 instead of Nf5, the answer is not 1...Re5 as given, when 2 e8Q+ Rxe8 3 Ra1+ Kb5 4 Nc7+ wins, but 1...Ka4 with perhaps 2 Rc1 Re5 3 Rd1 Re6 4 Rd4+ Ka5 (a line given in Harold van der Heijden's "Endgame study database IV").

6.6 (M 50a)



White to play and win

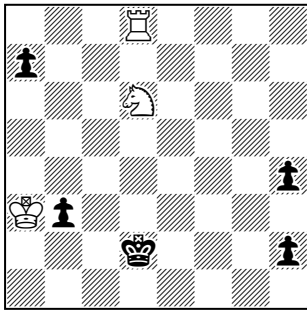
6.6a



2...Ka4, after 3 Nd4

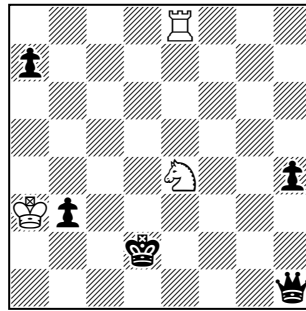
6.6 is a variation on the same theme. The given main line is **1 Nf5 Ka5 2 Rb1 d4 3 Nxd4 Ka4 4 Ra1+ Kb4 5 Rc1**, after which we have **6.5a** in the previous study and everything is known. No mention is made of 2...Ka4, but 3 Nd4 gives **6.6a** and this appears adequate; everything proceeds much as before (3...Ka3 4 Nc2+ and 5 Re1, 3...Ka5 4 Nb3+ with a fork or discovered check, 3...Re3/Re5/Rxe7 4 Ra1+ and a fork), and the extra pawn proves to be of no help to Black.

6.7 (M 52, version)



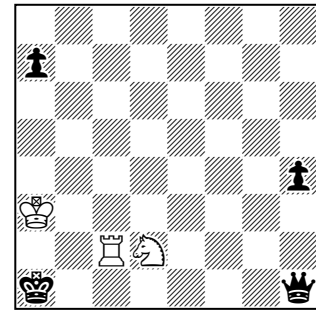
White to play and win

6.7a



After 2 Ne4+

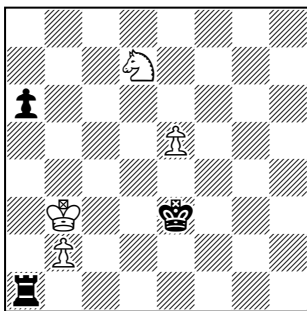
6.7b



After 7 Rc2

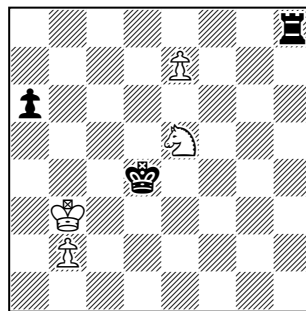
I quote **6.7** (*Wiener Schachzeitung*, 1923, dedicated to Dr Emanuel Lasker, version) in the form in which it appeared in a tribute article to Réti in the July 1929 issue of *Československý šach*. “The author very subtly deceives the solver by the prepared battery position [composers’ jargon for a position allowing a discovered check], of which the solver – vainly, of course – tries to take advantage. Only later, perhaps, does it emerge that in this situation the battery is effective only on the e file.” **1 Re8!** (stopping the Black king from moving eastwards, which is why an immediate **1 Ne4+** fails) **h1Q 2 Ne4+** (see **6.7a**) and the Black king seems to have plenty of freedom, but any move to the d or e file loses the queen to a fork or a discovered check, and after **2...Kc2/Kc1** the king is quickly driven into the corner: **3 Rc8+ Kb1 4 Nd2+ Ka1 5 Nxb3+ Kb1 6 Nd2+ Ka1 7 Rc2** (see **6.7b**) and Black will have to sacrifice his queen to prevent immediate mate.

6.8 (M 33, version)



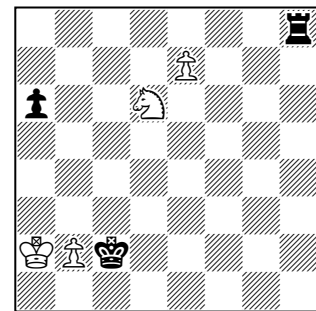
White to play and win

6.8a



1...Kd4, after 3...Kh8

6.8b



Main line, after 6 Nd6

Some of the play in **6.8** (M 33, *Denken und Raten*, 1928, version by Benko after Chéron) is reminiscent of that in **6.5**, though here White has no rook and his king is in play. Obvious and correct is **1 e6**, and let’s look first at **1...Kd4**. The answer to this is **2 Ne5**, so that Black’s threatened **...Re1** can be met by a fork, and if **2...Kxe5** then **3 e7** and promotes (here and later, the wins with queen and pawn against rook and pawn give no trouble). So Black must get back to his first rank: **2...Rh1 3 e7 Rh8** (see **6.8a**). However, it is soon seen to be to no avail: **4 Nf7 Re8** (throwing in a check by **...Rb8+** doesn’t help) **5 Nd6 Rxe7 6 Nf5+** and the pawn has duly cost Black his rook.

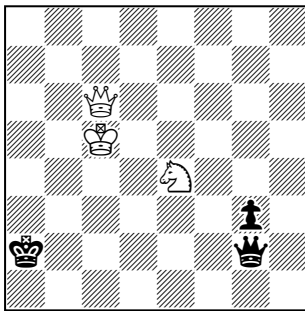
Much the same occurs after other Black moves, but **1...Kd2** introduces some new motifs. **2 Ne5 Rh1 3 e7** is as before, but **3...Rh3+** forces **4 Ka2** (if the king goes to the fourth rank, say **4 Ka4**, he will lose touch with his pawn, and after **4...Rh8 5 Nc4+** Black will have **5...Kc2** attacking it). Now, after **4 Rh8 5 Nc4+ Kc2 6 Nd6** we have **6.8b**, and Black can threaten mate by **6...Rh5**. This potential mate bust one of the previous settings, but here it presents no problem: **7 b4**, and all will be well.

Réti had the White king and pawn on b4/b3, the Black rook on b1, and the Black pawn on b7. Chéron bust this with a line starting (1 e6) Kf2, and moved the White king and pawn to b3/b2 to defeat it. Unfortunately this let in the mate on the a-file in one line, but Benko’s correction (*Chess Life*, February 2008, quoted in EG 182) appears to have made all sound.

The Chess Endgame Studies of Richard Réti : Queens

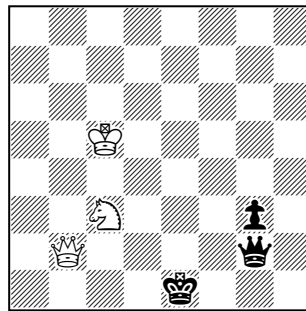
John Beasley, 14 January 2012, minor corrections 2 March

7.1 (M 46)



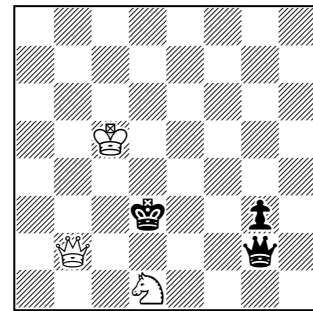
White to play and win

7.1a



After 5 Ke1

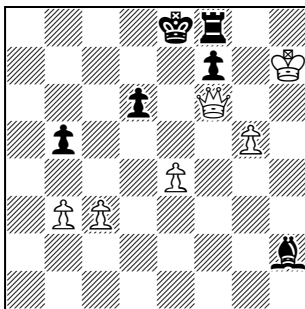
7.1b



After 9...Kd3

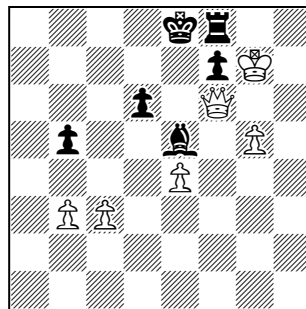
7.1 (*Wiener Tagblatt*, 1925) looks trivial, **1 Nc3+** for **2 QxQ**, but **1...Ka1** sets a stalemate trap and it will be the first of many. **2 Qa4+/Qa6+ Kb2** **3 Qa2+ Kc1** (second stalemate trap) **4 Qb1+ Kd2** **5 Qb2+ Ke1** (third stalemate trap, see 7.1a) **6 Qc1+ Kf2** **7 Nd1+ Kf3** (7...Ke2 8 Qb2+ and as after move 9 below) **8 Qc3+ Ke2** (8...Ke4 9 Qd4+ with 9...Kf3 10 Qd5+ or 9...Kf5 10 Ne3+, 8...Kf4 9 Qf6+ Ke4 and again 10 Qd4+) **9 Qb2+ Kd3** (fourth stalemate trap and the most elegant of the four, see 7.1b) **10 Qb3+ Kd2/Ke2** (10...Ke4 11 Qd5+) **11 Qa2+ Kd3** **12 Nb2+** (the queen can do no more, but the knight takes up the baton) **Ke3/Ke2** (12...Kc3 13 Na4+) **13 Nc4+ Kf3** **14 Ne5+** and at last the capture of the queen will be possible. Stalemate defences like this had been explored before, but nothing like as intensively.

7.2 (M 48)



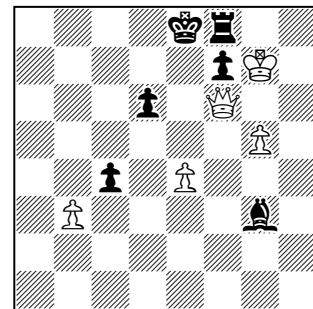
White to play and win

7.2a



After 2 Kg7

7.2b



2...Bg3, after 3...bxc4

If White can disentangle himself in 7.2 (1st Prize, *Shakhmaty*, 1928/I) he can expect to have a routine win. Even counting Black's rook and bishop as approximately equivalent to White's queen, which in truth they aren't, White is already a pawn up, and Black will not find it easy to defend his b-pawn. However, the natural attack **1 Qf1** can be met by **1...Be5**, and after **2 Qxb5+ Ke7** the threat of mate on h8 will force White to settle for perpetual check. Better is **1 Kh6** threatening to extricate the king by **Kh5** and **Kg4**, but is not **1...Be5** still a nuisance? It is, and it compels White to backtrack and play **2 Kg7** (see 7.2a).

If now **2...Bxf6+** then **3 gxf6**, after which the rook will fall and White will win the pawn ending. This leaves **2...Bh2/Bg3** as the only moves to avoid immediate material loss, and White advances by **3 c4**. If **3...b4** then **4 c5** undermining Black's support for e5, hence **3...bxc4** and we have 7.2b.

4 bxc4, perhaps? No, **4...Be5**, and White has no good move (**5 c5 Bxf6+ 6 gxf6 dxc5** and it will be Black who wins). White must throw his e-pawn to use up a tempo, **4 e5**, and now **4...Bxe5 5 bxc4** gives the burden of moving to Black. He has only **5...Bxf6+ 6 gxf6 Rh8 7 Kxh8 Kd7** hoping for **8 Kg7 Ke6** winning, but of course White has seen this one before: **8 Kg8 Ke6 9 Kg7**.

And because 7.2a is a position of reciprocal zugzwang, there is a note that **1 Kg7** can be met by **1...Be5** after which we have 7.2a with White to play, though I would expect the move **1 Kg7** to be tried only by a cook-hunter because it does nothing to further White's strategic aims.

The Chess Endgame Studies of Richard Réti : Casualties

John Beasley, 14 January 2012, latest revision 2 March

A couple of these demolitions are due to my own computer-assisted analysis while preparing this presentation, but I imagine that they have been reported before and I make no claim in respect of priority.

Pawn studies

No casualties, but one important reinstatement. It was widely reported some years ago that the famous pawn study which is **1.1** in this collection had been anticipated a few months previously by H. A. Adamson. This is quite false. The Adamson version did not appear until early in 1922 (in the January issue of the *Chess Amateur*, page 119), and the accompanying text made clear that it was derived from the Réti and was in no sense a forerunner of it.

Knights and pawns

C.1 (M 7, 6th Honourable Mention, *Shakhmaty*, 1929/I, dedicated to Dr Siegbert Tarrasch): White Kb7, Ne4, Pa6 (3), Black Ka5, Nb5 (2), White to play and win. Intention 1 Nc5 Kb4 2 Kb6 Nd6 3 Ne4 Nc8+ 4 Kc7 Kb5 5 Kb7 Ka5 6 Nc5 Nd6+ 7 Kc7 Nb5+ 8 Kc6 Na7+ 9 Kb7 Nb5 10 Ne4 (now we are back at the starting position but with Black to play) Kb4 11 Kb6 Kc4 12 Nc3 Nd6 13 Kc7 Kc5 14 a7 etc, but the definitive results for K + N + P v K + N now available show that the game can be won without the lengthy lose-a-move manoeuvre; indeed, 2 Nd7 forces the eventual mate two moves sooner. It has long been a wry joke among composers that to dedicate a composition to somebody is the best possible way of ensuring that it will eventually be proved to be unsound.

C.2 (M 9, composed 1929 and first published in Mandler's 1931 book): White Kg5, Ne3 (2), Black Kh2, Nf2, Ph3 (3), White to play and hold the draw. Intention 1 Kh4 Kg1 2 Ng4 Kg2 3 Ne3+ Kh2 4 Nc2 Nd3 (4...Kg1/Kh1 5 Ne1, 4...Kg2 5 Ne3+) 5 Kg4 (5 Ne3 Nf4 6 Ng4+ Kg2 and we have an equivalent position to that in **C.1** after 1 Nc5) Ne5+ 6 Kh4 Nf3+ 7 Kg4 Ng5 8 Ne1 (8 Kxg5 Kg1 9 Nd4 Kf2 leads to a Black win) Kg1 9 Nf3+ Kg2 10 Nh4+ Kf2 11 Nf3, the point being that the attacking side's knight is worse placed than in **C.1** and gets in the way of its own king. However, the definitive results for K + N + P v K + N show an elegant alternative by 5 Nd4 Kg2 6 Nf3 Ne5 7 Ne1+ Kh2 8 Nc2, returning to the position after 4 Nc2 with the unimportant difference that the Black knight is now on e5 instead of f2. Am I being harsh in relegating the study to the casualties on account of such an alternative? Perhaps, but to include it would invite comparison with the magnificently accurate **5.10** where White has to play exactly the correct move right through to the end.

Bishops and pawns

C.3 and **C.4** have been corrected (see **3.7** and **3.8**).

Rooks and pawns

C.5 (M 23, 28. *řijen*, 1 August 1925): White Kb4, Rh8, Ph7/c3 (4), Black Ke3, Re7, Pb6/f5 (4), White to play and win. Intention 1 Kb5 f4 2 Kc6 (2 Kxb6 f3 3 Kc6 f2 4 Rf8 Rxh7) Kf2 3 Kxb6 f3 4 Kc6 Rf7 5 Kd6 Rf6+ 6 Kd5 Rf5+ 7 Ke6 Rh5 8 Kd6 Rh6+ 9 Kc5 Rh5+ 10 Kb4, with a note that 6 Ke5 is met by 6...Rf7 7 Ke6 Rc7 8 Kd6 Rf7 9 c4 Rf6+ 10 Ke5 Rf7 11 Ke6 Rc7 12 Kd6 Rxc4. However, 12 Kd6 in this line merely throws away a pawn to no purpose, and my computer wants to play 12 Kd5 instead with a quick win (its best-play line starts 12...Rd7+ 13 Kc6 Rf7 14 c5 Kf1 15 Kb6 f2 16 c6 Ke2 17 Re8+ Kd3 18 Rd8+ Kc2 19 c7). Yakov Konoval, having checked the position in his and Marc Bourzutschky's preliminary results for K + R + 2P v K + R + P for me, confirms this with a note that 18 h8Q also wins, and draws attention to many further alternative winning moves for White along the intended main line, most of them winning as quickly as or even more quickly than the intended solution (having played to 10 Kb4, White still has to clinch the win with K + R + P v K + R after 10...Kf1 11 Rf8 Rxh7 12 Rxf3+, though it won't be difficult because the rook will cut the Black king off from the pawn). Yakov and Marc's preliminary results for K + R + 2P v K + R + P were calculated under the simplifying assumption that promotion was possible only to queen or knight, but this isn't a situation in which the defender will be able to save himself by underpromoting to a rook or bishop.

Knights and bishops

C.6 (M 30, composed in 1929 and first published in Mandler's 1931 book): White Kh7, Bd7, Pg6/g2 (4), Black Kf8, Bg7, Nc4 (3), White to play and hold the draw. Intention 1 g3 Ne5 2 Bg4 and 2...Nxc4 will be stalemate, but Harold van der Heijden's "Endgame study database IV" reports busts by 1...Nd6 and mate by move 7 at the latest (attributed to AF) and by 2...Nc6 and mate by move 11 at the latest (attributed to RK). The latter, at least, seems irreparable, assuming that the stalemate by 2...Ng4 is a primary objective of the study; if the knight is placed on any other square giving access to g4, Black has a much quicker mate.

C.7 (M 39, *Shakhmaty*, 1927, correction): White Ke5, Bf8, Pc7/e6 (4), Black Kc8, Bh5, Nh4 (3), Black to play but White to hold the draw. Intention 1...Ng6+ and not 2 Kf6 Nxf8, when White is in zugzwang, but 2 Kf5 Nxf8 3 Kf6 and now it is Black who is in zugzwang: 3...Kxc7 4 Ke7 Nh7 stalemate. However, while this is sound enough, it is rather static and clumsy, and the finale had been anticipated by Kubbel a few years earlier (*Shakhmaty* 1923): White Kd7, Pb5/d5 (3), Black Kf7, Bc7, Na8 (3), draw by 1 d6 Ba5 2 b6 Nxb6 3 Kc6 Nc8 4 Kd7 Na7 stalemate. So only the reciprocal zugzwang after 3 Kf6 was Réti's, and given the rather crude way in which this is achieved (the capture of an unmoved White bishop to force the knight to f8, and the use of the pawn on c7, also captured unmoved, to prevent a Black waiting move by ...Kb7 or ...Kb8) I don't think he would have wanted the study to stand in the collection. According to Kalendovský, the anticipation was first noted by Vladimirov and Fokin. Réti's original setting, much richer in content, had White Ke8, Be7, Pc7/f7/e6 (5), Black Kc8, Bg4, Ng6/e5, Pf6 (5), draw intended by 1 f8N Nxf8 2 Bxf8 Bh5+ 3 Ke7 Ng6+ etc, but 1...f5 and 3...Ng4 both led to Black wins.

Rooks and minor pieces

C.8 (M 32, *Tagesbote*, 1928): White Kf6, Nf8, Pe6/d3 (4), Black Kc8, Rd6 (2), White to play and win. Intention 1 d4 Rxd4 2 e7 Rd6+ and not 3 Kf7 Rd8 drawing but 3 Kg7 Rd8 4 Kf7 winning. However, the position after 1...Rxd4 had been previously shown by M. F. Palmer, *Iowa News*, 1917 (Kalendovský reports this anticipation as first having been reported by Walter Korn), and the move 1...Rxd4 is unexpectedly but greatly inferior to 1...Kc7. Harold van der Heijden's "Endgame study database IV" even gives 1...Kc7 2 d5 Ra6, which it credits to "Z", as a cook; it isn't quite that, but it makes the win very much more difficult than the main line move 1...Rxd4 does, and a subsidiary Black move requiring a disproportionately difficult refutation destroys a study's aesthetic effect. So the first move must come off, and everything thereafter is anticipated.

C.9 has been corrected (see **6.8**).

C.10 (M 34, *Shakhmaty*, 1929): White Kg5, Nf4/b2, Ph7 (4), Black Kc3, Rd8, Pc7 (3), White to play and win. Intention 1 Na4+ Kb4 2 Ng6 Kxa4 (2...c5 3 Kf6 c4 4 Ke7 Rc8 5 Nb6) 3 Kf6 c5 4 Ke7 followed by 4...Ra8/Rc8 5 Nf8 Ra7+/Rc7+ 6 Nd7 Ra8/Rc8 7 Nb6+ or 4...Rb8 5 Nf8 Rb7+ 6 Nd7. But my computer plays 3...Rb8 in the line 2...c5, and after 4 Nb2 Kc3 5 Nd1+ (5 Na4+ Kb4 repeating) Kd4 it appears impossible for White to make progress. 6 Kf7 makes no immediate threat (7 Nf8 will be met by 7...Rb7+ etc), and allows Black to push forward with his c-pawn; 6 Ke7 and 6 Kg7 allow 7 Rb7+ etc at once; and 6 Ne7 (for 7 Ng8) allows 6...Rh8. In most cases, White can answer Black's eventual ...Rxb7 by taking the rook, but it doesn't help; K + 2N win against K + cP only if the knights can securely blockade the pawn on a square no further forward than c4, and here the pawn will quickly advance to c3.

C.11 (M 51, *Tijdschrift v. d. NSB*, 1924, version): White Kg2, Rf1, Nd4, Pe6 (4), Black Ka5, Re4, Bh2, Pa7/h7/g4/g3 (7), White to play and win. A more complicated essay on the theme of **6.5** and **6.6**, with intention 1 e7 h5 (1...Re3 2 Ra1+ Kb6 3 Nf5 Re2+ 4 Kf1 Re6 5 Nd6 etc, 1...Kb4 2 Re1 Rxe1 3 Nc2+) 2 Rf5+ Kb6 (2...Ka4 3 Rf4 with 3...Rxf4 4 e8Q+ or 3...R~ 4 N+, 2...Kb4 3 Nc6+ with 3...Kc4 4 Re5 Rf4 5 Re1 h4 6 Ne5+ and 7 Nxc4 or 3...K~3 4 Re5 Rf4 5 Re3+ K~ 6 Rxc3 Ke4 7 Kxh2 etc) 3 Rf6+ Kc7 4 Ne6+ with 4...Kb6/Kd6 5 Ng5+ or 4...Kb7/Kd7 5 Nc5+. However, the given answer to 1...Re3 can be met by 5...g2+ and 6...Bxd6, and nothing better is apparent. I have no idea whether this can be rescued, but its clumsy setting seems so much inferior to that of its fellows that I see little reason to regret its loss.

Queens

C.12 (M 53, Commendation, *Magyar Sakkvilág*, 1929): White Kc7, Rg1, Na3, Pe6/a5 (5), Black Kc3, Qb2, Ph6 (3), White to play and win. Intention 1 e7 Qh2+ 2 Kc6 with 2...Qe2 3 Nb5+ or 2...Qe5 3 Rg3+ Kb4 4 Nc2+ Kc4 5 Ne3+ followed by 6 Nd5+ or Nf5+ and 7 Re3. However, Harold van der Heijden's "Endgame study database IV" gives a bust, credited to MG, in which Black plays 5...Kd4 in the 2...Qe5 line, with sequel 6 Nf5+ Qxf5 7 e8Q Qd5+ 8 Kb6 Qd6+ 9 Qc6 Qb8+ 10 Ka6/Qb7 Qxg3. No further details are given, but the point would appear to be that Black can either force a perpetual check or pick up the unguarded rook and come down to a drawn ending with a queen and a pawn on each side.

The Chess Endgame Studies of Richard Réti : Updates and post-publication notes

John Beasley, 14 January 2012, latest revision 12 November

2012

- 14 January Initial posting on web site <www.jsbeasley.co.uk>.
- 17 January **3.7** (corrected version replacing **C.3**) and **6.8** (corrected version replacing **C.9**) added, and new versions of Introduction, **4.2** (note regarding Chéron setting), **4.7** (note in last sentence), **6.3** (new correction), and **C.4** (additional note). My thanks to Jaroslav Polášek for alerting me to the flaw in Chéron's attempted correction of **4.2**, and to Timothy Whitworth for reminding me of Benko's corrections now embodied in **3.7**, **3.8** (see 20 January below), **6.3**, and **6.8**.
- 20 January **3.8** added (corrected version replacing **C.4**), and typos corrected in **4.2** and **6.2**.
- 20 January According to C. N. 7468 in Edward Winter's Chess Notes (www.chesshistory.com/winter), posted on 17 January, study **4.3** appeared on the front cover of the December 1924 issue of *Bulletin de la Fédération Belge des Echecs* with the White rook on e1, and no appearance of this study in *Tijdschrift v. d. NSB* can be traced. My conjecture is that the version with the rook on f2 first appeared in Mandler's 1931 book, and that Réti misremembered where the original had appeared (which may sound implausible, but I have certainly misremembered where my own compositions first appeared, and so I am not unwilling to conjecture that other composers may have done the same).
- 1 March Timothy Whitworth sends me some extracts from *Shakhmatny Listok* 1929 which relate to **6.2**. Réti's original study was reprinted there on 10 April as from "*Kölnische Volkszeitung* 1929" ("*Kölnischer*" was my typo, now corrected), with solution on 10 June giving 2 Bd3 only. On 10 July appeared an original study by F. J. Prokop, White Kh7, Re6, Ba3, Pd6/d2 (5), Black Kc6, Be8, Ne4, Pc3/d3 (5), win, with solution (10 October) 1 d7+ Kxd7 2 Rxe4 Bg6+ 3 Kxg6 cxd2 4 Rd4+ Ke8 5 Be7 (5 Rxd3 d1Q 6 Rxd1 stalemate) d1Q 6 Bg5 and mate on d8. In the meantime (10 September), there was a note by Mattison that 2 Bd7 dualized the Réti, and that though the study could easily be corrected by adding a White pawn on d3 this rather spoilt the position. Mandler explicitly states that Réti was aware of the dual *before* the study's publication (Kalendovský's translation, subsequently confirmed by Thomas Brand), but it would appear not to have been mentioned when the solution appeared in *Kölnische Volkszeitung*, and if only what was published at the time is taken into account the credit for the splendid move Bd7 would seem really to belong to Prokop though Rinck found the elegant way of forcing it without adding extra material.
- 2 March Timothy Whitworth draws my attention to a very attractive version of **6.7** which appeared in a tribute article in the July 1929 issue of *Československý šach* and which I have inserted in place of the Chéron version originally used, and to the original setting of **C.7**. He also draws my attention, on the evidence of photocopies of the original issues, to some tourney honours which I had omitted and to the correct date of **5.11**, and reminds me that "*Tijdschrift v. d. KNSB*" was "*Tijdschrift v. d. NSB*" at the relevant period and that "*Shakhmatny Listok*" always presented itself with a capital L. I have adjusted accordingly. There are also some minor typos which won't have led anyone astray but which I have taken the opportunity of correcting.
- 5 August Presentation of **4.7** improved.
- 15 September Introduction updated (final paragraph added) and caption of **4.6b** corrected, and copies run off for the major international chess collections and the British Library.
- 12 November In the Introduction, the meaning of "Unzeitgemäßes" clarified, and other improvements made, following a communication from Thomas Brand, who sends translations of various passages in Mandler's 1931 book. He remarks that this can be downloaded from Václav Kotěšovec's site (http://problem64.beda.cz/silo/mandler_samtliche_studien_von_reti_1931.pdf).