



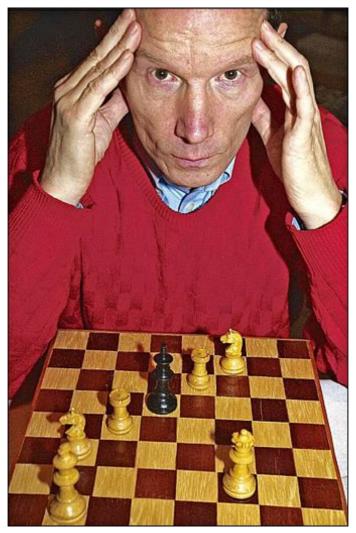


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Chess

is an international language.

(Edward Lasker)



Chess thinking is good. Chess lateral thinking is better.

Photo: Gabi Novak-Oster

In 2002 this chess problem (= no. 271) and this photo were published in the German daily newspaper *Rhein-Zeitung Koblenz*. That was a great success: most of the 'solvers' were wrong! Werner Keym



Out of the Box

Nightrider Unlimited

The content of this book differs in some ways from the German edition *Eigenartige Schachprobleme* (Curious Chess Problems) which was published in 2010 and meanwhile is out of print.

The complete text of *Eigenartige Schachprobleme* (errata included) is freely available for download from the publisher's site, see http://www.nightrider-unlimited.de/angebot/keym 1st ed.pdf.

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All genres are good, except the boring. *Voltaire* 

## Preface

This is a very personal book about exotic regions of the fascinating world of chess composition. They are not about fairy pieces and conditions, but rather about castlings, en-passant captures, pawn promotions, tasks, unconventional first moves, retro puzzles, text problems (with mathematical aspects), retractors, proof games, records, special stipulations and more. Such problems are entertaining, exciting, stimulating, witty, funny – and often even computer-defying. Ideally, they are 'beautiful', that is perfect in idea and form (such as no. 9 and 345).

'Chess problems demand from the composer the same virtues that characterize all worthwhile art: originality, invention, conciseness, harmony, complexity and splendid insincerity'. (Excerpt from *Poems and problems* by *Vladimir Nabokov*).

It was not easy for me to make a final selection from thousands of problems. In so doing, the beneficial *Problem Database* provided valuable support (see p. 171). On the one hand, I found suitable examples in the *PDB*. On the other hand, I could point out relevant problems in the *PDB* and thus give additional information whilst saving space. Of course, the early classics including *Sam Loyd*, *Niels Høeg*, *Thomas R. Dawson*, *Luigi Ceriani* and *Karl Fabel* are represented as well as today's *Andrey Frolkin* and *Michel Caillaud*.

From my earlier book *Eigenartige Schachprobleme* (see p. iv for the online version), I have taken on 375 chess problems and added 125 new ones. In about half of the 500 problems, retrograde analysis plays a minor or major role. There are two reasons for this approach. For one thing, I prefer to solve and compose retros. On the other hand, my proposal led to a change in rules on the mutual dependency of castlings and en-passant captures, thus ending a decades-long controversy. Such problems (as no. 360) are a very interesting specialty of chess composition and an enrichment compared to the chess game in which only one of these possibilities can be realized.

In order to enable enjoyable reading and solving, both the diagram and the solution are on the same page. Comments that are not mine are in quotation marks. References to predecessors, cooks etc. are welcome. – I would like to thank all those who supported me and made *Chess Problems Out of the Box* possible, especially *Ralf Binnewirtz, Godehard Murkisch, Alfred Pfeiffer* and *Günther Weeth*.

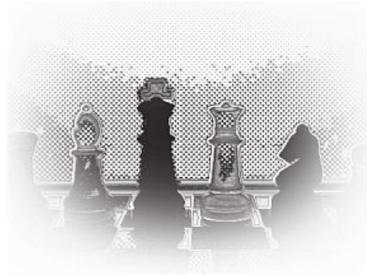
Werner Keym

'Inspiration of a quasi-musical, quasi-poetical or to be quite exact poetico-mathematical type, attends the process of thinking up a chess composition'. (Vladimir Nabokov)

# **Chess composition**



of chess

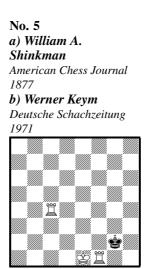


## **Castling gala**

No. 1 W. E. Candy Author and Source uncertain 1911



Mate in 2



Mate in 3 a) diagram b)  $Rf1 \rightarrow a1$  No. 6 Werner Speckmann Diagramme und Figuren 1971



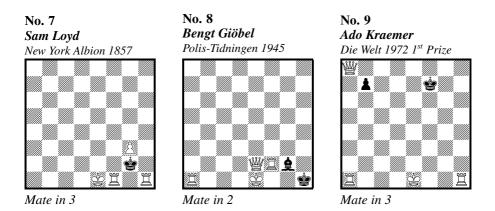
Mate in 2 b) all 1 file to left

I selected some out of countless castling problems, you will find other ones (with retro content) in other chapters. Very easy is the symmetrical **no.** 1: 1.0-0! zugzwang. A symmetrical pendant (1.0-0.0) with five pieces is P1146398.

Here are three further examples with two white rooks only. No. 2: Hanspeter Suwe, Nürnberger Zeitung 1969, wKe1 Ra1 Re4 bKc3, #3; 1.0-0-0!. – No. 3: Hilmar Ebert, feenschach Sonderdruck 1979, wKe1 Rh1 Rh3 bKg5, #4; 1.0-0!. – No. 4: Werner Keym, Allgemeine Zeitung Mainz 1987, wKe1 Ra1 Rd6 bKc5, #4; 1.0-0-0!.

**No. 5** contains two problems, which are here shown as a twin. **No. 5a** is rich in substance: 1.Rh1! (active sacrifice of the rook) Kxh1/Kg3/Kf3 2.Kf2/Kf1/Rg1 Kh2/Kf3/Ke3 3.Rh4/Rh3/Rg3#. No. 5a is a mirrored position of the original version wKh4 Re6 Rh3 sKg2. In **no. 5b** the solution is 1.Rc3! Kg1/Kh1 2.Rc2  $\sim$  3.0-0-0# (castling in the 3<sup>rd</sup> move) or 1...Kh2 2.Kf1 Kh1 3.Rh3#. Tries are 1.Ra3? Kg1!, 1.Rg4+? Kh3!, 1.Ke2? Kg3!. In a) the rook moves to its starting square h1, in b) it is put on the starting square for castling a1. Both versions are attractive.

No. 6: a) 1.Kf2+! Kh2 2.Rh1#, b) 1.Rb2! Kh1 2.0-0-0#. Nice!

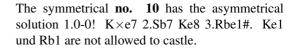


In **no. 7** there is a passive sacrifice of the rook: 1.Rf4!  $K \times h1$  2.Kf2 Kh2 3.Rh4# or with castling in the 2<sup>nd</sup> move: 1... $K \times g3$  2.0-0 Kh3 3.R1f3#. Immortal!

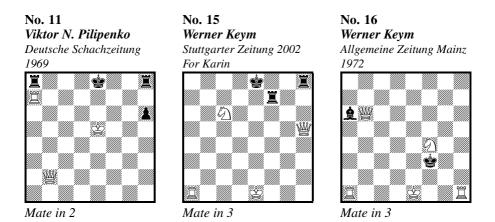
In **no. 8** White even sacrifices its strongest officer, but not 1.Qf3?  $B \times f3!$  and castling is not permitted, yet just so with 1.Qe4!  $B \times e4$  and now 2.0-0-0 works alright; after 1...Bf3? simply follows 2.Kd2#. The rook is allowed to jump over a guarded square, but not the king – how 'unjust'!

In **no. 9** you may admire perfect economy and use of space: 1.0-0-0! Ke7 2.Rhf1 b6/Ke6 3.Qe4/Qe8#, 1...Kg7 2.Rdf1 b6/Kg6 3.Qg2/Qg8#, 1...Ke6/Kg6 2.Qf8  $\sim$  3.Rhe1/Rdg1#, 1...Kf6 2.Qf8+ Ke5/Kg5 3.Rhe1/Rdg1#. Letztform à la *Kraemer*! This problem with the key 1.0-0-0 was published as the 1000<sup>th</sup> problem in the daily newspaper *Die Welt*.





Mate in 3



**No. 11** is one of the very rare miniatures showing two real black castlings. Therefore you must accept the coarse key: 1.Ke6! [thr.  $2.R \times a8/Q \times h8\#$ ] 0-0-0/0-0 2.Qb7/ Qg7#. You will find similar problems with Partial Retrograde Analysis on page 106.

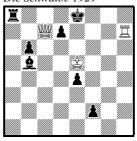
Miniatures with real white-black castlings are rare, too. Here three early examples: **No. 12:** *Boris Pustowoj, Molodojsibirjak 1962, wKe1 Qg7 Rh1 Bh2 bKe8 Ra8 Sa1,* #2; 1.0-0!. – **No. 13:** *Boris Pustowoj, Omskaja Prawda 1969, wKe1 Qd6 Rh1 a6 bKe8 Ra8 Bd7, #3*; 1.0-0!. This author composed about 250 castling miniatures. – **No. 14:** *Werner Keym, Die Schwalbe 1969, wKe1 Qc7 Ra1 bKe8 Rh8 a6 h7, #3*; 1.0-0-0!. – An aristocratic miniature is **no. 15**: 1.0-0-0! 0-0 2.Rg1+ Rg7 3.Se7#. All men move except the queen. Pin model mate – dedicated to my wife Karin.

**No. 16** shows both real white castlings. After 1.Se2! [thr. 2.Rh4  $\sim$  3.Qf2#] three dualfree variations follow: 1...Bc8 2.Ra4 [thr. 3.Qf2#] Kg2 3.Qc6#, 1...Kg4 2.Qg6+ Kf3 3.Rh3#, 1...Ke4 2.Qe6+ Kd3/Kf3 3.0-0-0/0-0#. Strongest try is 1.Sd3? Ke4! 2.Rh4+ Kf5!. 'The thematic play consists of both long and short castling as an echo and is rich in tries – for a pawnless miniature certainly a rarity.' – A predecessor in two moves is **no. 17:** *Emanuel Lasker*, *Schweizerische Schachzeitung 1900*, *wKe1 Qc8 Ra1 Rh1 Se2 bKe4*, #2; 1.Qe6+!.

*Gino von Moellwitz* once compared the chess problem with a tree: 'the root is the riddle, the trunk the idea, the flower the art'. No. 18 Wolfgang Pauly Deutsches Wochenschach 1910



No. 19 Erich Zepler Die Schwalbe 1929



**No. 20** *Nenad Petrovic problem 1959 1<sup>st</sup> Prize* 



Mate in 8

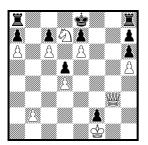
Mate in 4

Mate in 4

In no. 18-21 Black is allowed to castle. He seems to defend himself successfully by moving his king or his rook from and to the starting square. So the initial position is reached, it is true, but the right to castle is lost. **No. 18** shows this idea in a miniature: 1.Qe5? 0-0!; 1.Qb5+! Kf8 2.Qf5+ Ke8 3.Qe5! Bg3/Bc3 4.Qxh8/Qb8#. *Pauly!* 

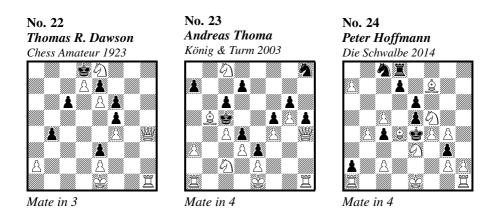
In **no. 19** the white king even provokes a check of the black rook. 1.Qd6? 0-0-0!; 1.Kd4! [thr. 2.Qe5+ Kd8/Kf8 3.Rh8/Qh8#] Ra4+ 2.Ke5 Ra8 3.Qd6! ~/Kd8 4.Qe7/Rh8#; 2...Rc4 3.Qb8+; 2...d6+ 3.Qxd6; 1...Kf8 2.Qf4+,Qd6+; 1...f1Q 2.Qe5+. Zepler!

In **no. 20** the two rooks move and return to their original squares. 1.Qc3? 0-0! and 1.Bd3? Rh1+ 2.Bb1 0-0-0!. Therefore 1.Qb7! Rd8 2.Qb3 Ra8 3.Bd3 [thr. 4.Qf7+ Kd8 5.Qf6+ Kc8 6.Bxa6+ Kb8 7.Qxh8#] Rh1+ 4.Bb1 Rh8 5.Qc3 Rh7 6.Qf6 [thr. 7.Sxh7 8.Qf8#] Rf7 7.Qxf7+ Kd8 8.Qf8,Qg8#. Three times the 'same' position, yet this results in forfeit of one castling right. *Petrovic!* 



No. 21 Zdravko Maslar & Nenad Petrovic Politika 1961 Mate in 6

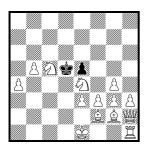
The same idea as in no. 20, but in six moves only! 1.Qg7? 0-0-0!. 1.Sf6+!?  $e7 \times f6$  2.Qxc7 0-0!. 1.Se5! (zugzwang) Rf8 2.Sd7 (zugzwang) Rh8 3.Sf6+ Kf8 ( $3...e7 \times f6$  4.Q×c7!) 4.Sd7+ Ke8 5.Qg7 R~  $6.Q \times R#$ . With no good reason at all this superb problem has for a long time stood in the shadow of no. 20.



In **no. 22** two squares (e1 and h1) are simultaneously vacated for the white queen by the key move 1.0-0!. Therefore after 1...b3/c5 follows  $2.Qe1/Qh1 \sim 3.Qa5/Qa8#$ . Such a manoeuvre can work out just only by castling.

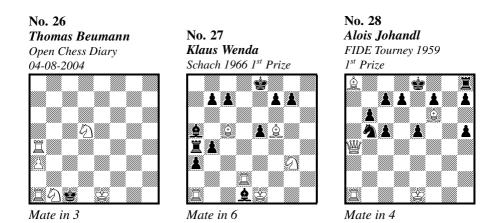
**No. 23** was the sample to show the double rendering of the clearance of two squares by two castlings. 1.Ba4! d5 2.0-0 d5×c4/a5 3.Qh1/Qe1  $\sim$  4.Q×c6/Q×a5#, 1...a5 2.0-0 d5/Sf7 3.Qe1/Sa1  $\sim$  4.Q×a5/Sb3#. A great construction.

**No. 24:**  $1.B \times e5$ ? d6!. 1.Sd5! [thr.  $2.Sf6+ K \times f4 \ 3.Be3\#$ ]  $e6 \times d5 \ 2.0-0 \ g3 \times h2+$  $3.Kh1 \sim 4.Rae1\#$ .  $1...e6 \times f5 \ 2.0-0-0 \ a1Q,R+ \ 3.B \times a1 \ f5 \times g4/c3 \ 4.Bg6/Rhe1\#$ ,  $2...f5 \times g4 \ 3.Rhe1+ Kf5 \ 4.R \times e5\#$ . Here the vacated squares a1 and e1 are occupied by B and Rh as well as the squares e1 and h1 by Ra and K. So the free square e1 is used differently according to either long or short castling. In this respect no. 24 surpasses no. 23.



No. 25 Thomas R. Dawson Chess Amateur 1923 Mate in 4

**No. 25** shows double vacation in an entirely different manner: 1.0-0! Kc4 2.Be1 Kd5 3.Bh1 Kc4 and now 4.Qa2#! King and rook vacate their squares for the bishops, then the bishops vacate their squares for the queen. TRD was the one to do the impossible.



In the miniature **no. 26** wSb1 and bKc1 prove to be an obstacle for executing 0-0-0. Here the job is done by zugzwang: 1.Rb4! Kc2 2.Sbc3 Kd3 3.0-0-0#.

The same aim is reached by a complex logical procedure in **no. 27** (FIDE-Album). 1.Ra×d1? b3! and 1.Bd7+? Kd8 2.Bg4+ Ke8 3.Sh5 f5!, therefore 1.Sh5! B×h5 2.Bd7+ Kd8 3.Bg4+ Ke8 4.0-0-0! c6 5.Rd8+ B×d8 6.Bd7#.

**No. 28** (FIDE-Album) has got the bishop's complete retreat from a8 to h1 for a key, a queen sacrifice and castling by both sides. 1.Bh1! Sa7 (1...0-0? Qa8 Sa7 3.Qg2#) 2.Qc6  $d7 \times c6$  3.0-0-0 0-0 4.Rg1#.

No. 29 Wolfgang Pauly Deutsches Wochenschach 1911



*Mate in 3 b) mirrored* ( $a1 \leftrightarrow h1$ )

Again castling by both sides in no. 29:

a) 1.0-0-0! Sa2+ 2.R×a2 0-0 3.Rg1#; 1...Sd3+ 2.R×d3 c4×d3/0-0 3.Rc8/Rg3#; 1...Sd5 2.R×d5 0-0 3.Rg5#; 1...Sc6 2.b5×c6 0-0 3.Rg1#.

b) (mirrored): not 1.Re1?  $S \times f2+!$ , but 1.R $\times$ h6!  $S \times f2+/Se3+$  2.Kc2/Kc1  $\sim$  3.Rh8#; 1...S $\times$ h6 2.Re2  $\sim$  3.Re8#. Subtle modification by mirroring. Cp. no. 38 and 217.

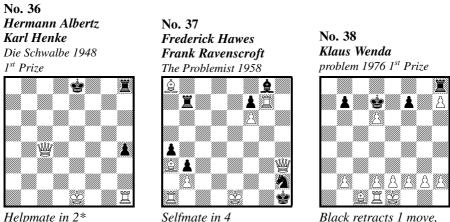
No. 32 No. 31 No. 30 Vladimir Savchenko Hilmar Ebert Gerald F. Anderson Shakmatny Moscow 1970 Deutsche Schachblätter 1987 4th HM Westminster Gazette 1917 1<sup>st</sup> Prize È 1 Å Ø 8 🎬 ģ £ Å ģ Ŷ 4 4 8 Å I U <u>ê</u> ê (\* w 🖄 Ŷ Mate in 4 Mate in 8 Mate in 9

Castling is the only non-capturing move by an officer that cannot be retracted in one move. At least three moves are necessary to reach the initial position. With perfect elegance this is shown in the most famous switchback of castling (**no. 30**): 1.0-0! Kh4 2.Kf2 g3+ 3.Ke1 g4 4.Rh1#.

In **no. 31** (FIDE-Album) we admire a very brave white king. Not 1.Rd1? Sd2!, but 1.0-0-0! a3xb2+ (1...Sd2? 2.Re1+ Se4 3.Sd7#) 2.Kc2 (2.K×b2? Qb8! 3.B×b8 g6×h5) b1Q+ (2...Se3+? 3.Kd3 b1Q+ 4.R×b1 Bf1+ 5.R×f1 and 6.Bd4/Sd7#) 3.Kc3!! and 7 possible checks, but none is successful (3...Qc2+/ Qd3+/Qa1+,Qc1+/Qb4+ 4.B×Q/K,R×Q/R×Q/Kd3) 3...Qb2+ 4.Kd3!! now 8 possible checks 4...Qe2+! 5.K×e2 f3+ 6.Ke1 (this seems to be the position after 1.Rd1? Sd2!) 6...Sd2 7.Sd7+ Ke4 8.Bc2# since the square f3 is now blocked (which makes the difference). A monument in the problem chess history. The provoking key reminds us of famous problems composed by *Sam Loyd* (P1031114), *Ado Kraemer* (P1032516) and *Lev Loshinsky* (P1026036).

There are numerous skittles problems. No. 32 (FIDE-Album) is one of the best showing castling as a key move in a white homebase position. 1.Rh2/Rf1/Qb1?  $f_2+/d_2+/f_2+!$ ; 1.0-0! e2! 2.Qd2 f2+! 3.R×f2 f3! 4.Rh2! f4 5.Rh5! f2+ 6.K×f2 f3 7.Rg5! e1Q+ 8.Q×e1+ Kf4 9.Q×e5#; 4...f2+ 5.K×f2 f4! 6.Rh5! f3 7.Rg5! etc.; 4...e1Q 5.Q×e1 Kf4 6.Qd2+! Ke4! (6...Kg4 7.Qh6 f2+ 8.K×f2 f4 9.Qg6#) 7.Rh5! f2+ 8.K×f2 f4 9.Qe1#. *Hilmar Ebert* also composed a pendant with wQf1 and wRa1 (no. 33), *Schach-Report 1987*, #9; 1.0-0-0!.

Even longer, but much easier to solve are **no.** 34 Jan Mortensen, Thema Danicum 1983, wKe1 Rh1 sKg6, #11; 1.0-0! and **no.** 35 wKe1 Ra1 bKc5/6, #13; 1.0-0-0!. These are the length records for castling problems with three pieces (duals included).

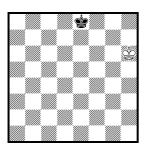


Black retracts 1 move, then helpmate in 1 b) mirrored  $(a1 \leftrightarrow h1)$ 

In **No. 36** (FIDE-Album) the two castlings take a major role in the play. In the solution it is white castling 1.Rh7! 0-0 2.Re7 2.Qc8#, in the set play (with White to play) black castling  $1...Q \times h4$  2.0-0 Qh7#. A little jewel.

**No. 37** (FIDE-Album): 1.Qh8! Bh7 2.0-0-0+ Sf1 3.Bd6 a3 4.b2×a3 b2#. Selfmate problems with castling are rare (except in Valladao problems).

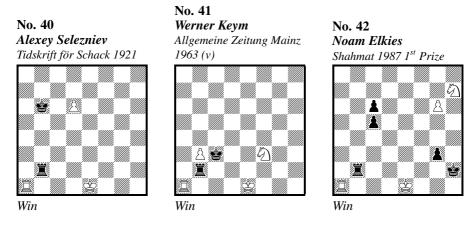
**No. 38:** a) Backward Re8×Qh8, forward Kc8 Q×e8#; White must have castled. b) Backward Ke8-e7, forward 0-0-0 a8Q#; White must have castled as well, but his queen was captured before; backward Rd8×Qa8? is illegal because of 8 wPs. Cp. no. 217.



No. 39

a) Frederick Baird Morning Post 1910 b) Julio Sunyer Chess Amateur 1923 White and Black retract 1 move each, then helpmate in 1. b)  $wK \rightarrow h5$ 

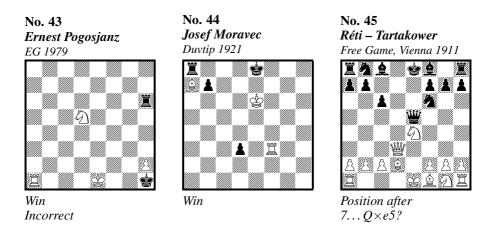
*Hilmar Ebert* presented this classic as a twin 1983 for the first time: a) backward Kg7×Rh6 Rd6×Qh6, forward Rd6-d8 Qh6-e6# (original position: Kf5/Kh2), b) backward Kg6×Rh5 Rh8×Qh5, forward 0-0 Qh5-h7#. The super classic!!



No. 40: This peppy study presents a typical double effect of castling. After 0-0-0 the white king attacks the rook and the white rook guards the pawn or attacks the king. Not 1.0-0-0? Ra2 2.d7/Kb1 Ra1+/Ra8! =, but 1.d7! Kc7 2.d8Q+/R K×d8 3.0-0-0+! K~  $4.K \times b2$  1:0. Later on this was called the Selezniev motif. Many later studies show this motive with bRb2 or bRh2 or wRb7 or wRh7. According to the endgame tablebases the position of no. 40 is a draw, as they do not take into account the castling rule (cp. no. 43).

In no. 41 the Selezniev motif is supplemented by sacrifices of knight and rook. 1.Sd4!  $K \times d4$  (2...Rh2? 3.Ra4 and mate in 48 moves) 2.0-0-0+ Kc3 3.Rd3+!  $K \times d3$  4. $K \times b2$  Kd4 5.Ka3 Kc5 6.Ka4 Kb6 7.Kb4 opposition and win. The version of 1963 (*wKe1 Ra1 Sc1 b3 bKe4 Rb2 d3*) had the coarse key move 1.S×d3.

**No.** 42 (FIDE-Album) is a marvellous study: self blocks of bR, forks of S, Selezniev motive on g2 and h2, mate by castling. 1.g7! (1.Sg5? g2 2.Sf3+ Kg3 3.g7 Rb8 4.Sg1 Rg8 5.Ra7 Kg4 and wPg7 will be conquered.) 1...g2 2.g8Q (2.g8R/0-0-0? Rb8 =) 2...Rc2! (2...g1Q+?  $3.Q \times g1 + K \times g1$  4.0-0-0! 1:0) 3.Sf6 (3.Ra2 R×a2 4.Q×a2 Kh1 =) g1Q+ 4.Q×g1+ K×g1 5.Sg4! with an unexpected reciprocal zugzwang: all moves of bR, bK and bPc4 result in the loss of the R or in mate. 5...Rb2 6.0-0-0+; 5...Rc3 6.Kd2+; 5...Rc4 6.Kd2+/Ke2+ Kg2 7.Se3+; 5...Rg2 6.0-0-0#; 5...Kg2 6.Se3+; 5...Kh1 6.Se3 Rh2 7.0-0-0#, 5...c4 6.Se3 Rf2/Rh2 7.0-0-0+ Kh2/Kf2 8.Sg4+.



**No. 43:** The author's solution is short: **1.Se3!**  $\mathbf{R} \times \mathbf{h2}$  (1...Re6 2.Kf2+ Kxh2 3.Sg4+ Kh3 4.Kf3 Kh4 5.Kf4 Kh5 6.Kf5) **2.0-0-0#!** But now the endgame tablebases become involved with a surprising double aspect. On the one hand they judge the position after 1.Se3  $\mathbf{R} \times \mathbf{h2}$  (with subsequent mate by 2.0-0-0#) as a draw since they do not account for the castling rule. On the other hand they present a win by 1.h4! with mate in 33 moves. *Tim Krabbé* gave this comment: 'So this is a study with two solutions. A human solution that is beyond the grasp of the tablebase, and a tablebase solution that is beyond the grasp of humans.' *Stephen Rothwell* points out that the 'cook' 1.h4 is eliminated by putting the knight on d1 or g2. After 1.Se3! Re6 the dual 2.Kf2+ or 2.h4 however remains.

**No. 44: 1.Lb8!** (1.Rh3? 0-0-0 =) **d2** (1...Rxb8/Ra6+ 2.Rh3/Bd6 1:0) **2.Bd6! 0-0-0 3.Rc3#**. Cunningly designed.

'Réti's Mate' – under this name the following combination (no. 45) entered into the history of chess: 1.e4 c6 2.d4 d5 (Caro-Kann) 3.Sc3 d5×e4 4.S×e4 Sf6 5.Qd3 e5? Mistakes may stimulate the game of chess, yet they will kill the chess problem!  $6.d4 \times e5$  Qa5+ 7.Bd2 Qxe5!? (pins and threatens the wS) 8.0-0-0! (thereby the wK gets away from the pinning and seems to give up the S) S×e4?? Now not 9.Re1? Be7 10.R×e4 Qc7, but a mate in 3 moves: 9.Qd8+!! (sacrifice of the Q) K×d8 10.Bg5+ Kc7 (Ke8? 11.Rd8#) 11.Bd8#! 'An ordinary move in a problem will never be fascinating, a problem move in the game will do so anyway.'

#### Four real castlings in directmate problems and endgame studies

In a chess game two castlings at most can be executed, four, however, in a chess composition.



Mate in 4

No. 47 Juan Rosetti Chess Correspondent 1947



Mate in 4

As to directmate problems the classic **no. 46** (FIDE-Album) is the first rendering of four real castlings as to be seen with the combinations b0-0-0/w0-0-0 und b0-0/w0-0. Black castles for the sake of defending and checking, White castles to avoid checking. After 1.Qd5! [thr.  $2.Q \times d7 + /Q \times f7 + 3.Q \times f7/Q \times d7\#$ ] there are four variants: two are thematic (1...0-0-0 and 1...0-0), two are side lines (1...Rh7 and 1...f7×g6). 1.Qd5! 0-0-0 2.0-0-0 (2.0-0? R×h4 3.~ Rh1+) b7×a6 3.Be5 ~ 4.Qa8#, 2...f5 3.Bf3 Rd~ 4.Q×d7#; 1...0-0 2.0-0 (2.0-0.0? Rac8 3.~ R×c5+) R×a6 3.Qh5; 1...Rh7 2.g6×h7 0-0-0 3.Q×d7+ R×d7 4.h8Q,R# (dual); 1...f7×g6 2.Sc7+,Q×d7+,Qe5+ (dual).

No. 47 (FIDE-Album), the second classic, has got a similar structure. It is all about Black's threatening of check. 1.Qc3! [thr.  $2.Q \times f6$  3.Qe7,Q $\times h8#$ ] 0-0-0 2.0-0-0 [thr. 3.Qa5 4.Qc7#] (2.0-0? Rhg8 3.Qa5 R $\times$ g3+) Kb8 3.Qa5,Qb2+ (dual); 1...0-0 2.0-0 [thr. 3.Qxf6 4.Qg7#] (2.0-0-0? Rb8 3.Q $\times$ f6 Rb1+) Rfb8 3.Q $\times$ f6 Kf8 4.Qh8#; 1...Rb8 2.Q $\times$ f6 Rb1+ 3.R $\times$ b1 0-0 4.Qg7#; 1...Kf8 2.B $\times$ a8 [thr. 3.Q $\times$ f6 4.Qd8,Q $\times$ h8#] Rg8 3.Q $\times$ f6,Qb2,Rb1 (dual). With a supplementary bBa2 all duals will disappear (*Werner Keym, Die Schwalbe 2006*).



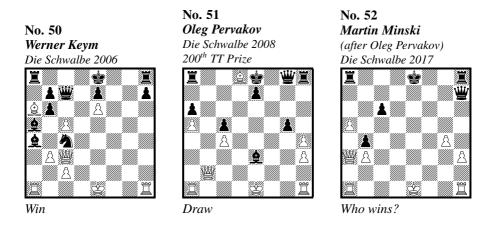
No. 49 Werner Keym Hannoversche Allgemeine Zeitung 2007



Mate in 5

No. 48 (FIDE-Album) is the first dual-free directmate problem with four real castlings. 1.Bb5+! Kd8 2.0-0-0+ Kc8  $3.Q \times h8\#$ ; 1...Kf8 2.0-0+ Kg8 3.Qg3#; 1...B×b5  $2.R \times a5$  [threatens  $3.R \times a8,Q \times h8\#$ ] Kd8/0-0-0/Kf8/0-0  $3.R \times a8/Ra8/Q \times h8/Rg1\#$ . The thematic try 1.Bh5+? (1...Kd8? 2.0-0-0+ Bd3  $3.Q \times h8\#$ ) Kf8! only fails because the white king is not allowed to jump across the square f1 guarded by bBa6. [*Werner Keym, Die Schwalbe 2006, wBb5 (instead of wBe2), #2*; thus a correct two-mover (with Black on the move) is obtained (= no. 48a)]. There is no combination of two castlings as in no. 150 and 151, but one castling in each of the four variants. However, a stronger difference between the mating moves  $3.R \times a8\#$  and 3.Ra8# would be desirable.

This desire led to the question of whether a chess problem can be realized whose thematic variants (with castling) are of full length and whose non thematic variants (without castling) are of short length in such way that Black's best and longest defense requires castling? After more than 400 tries of construction (motto: '10% inspiration, 90% transpiration') I succeeded in composing such a problem, the dual-free five-mover **no. 49** (FIDE-Album): 1.Bb5+! Kd8 2.0-0-0+ Kc8  $3.Q \times h8+$  Sg8  $4.Q \times g8+$  Kb7 5.Rd7#; 1... Kf8 2.0-0+ Kg8 3.Qg3+ Sg4  $4.Q \times g4+$  Kh7 5.Qg6#; 1... S×b5  $2.R \times a5$  [thr.  $3.R \times a8#$  and  $3.Q \times h8+$  Sg8  $4.Q \times g8#$ ] 0-0-0 3.Ra8+ Kb7 4.Qf3+ Rd5  $5.Q \times d5#$ ; 2... 0-0 3.Rg1+ Sg4  $4.R \times g4+$  Kh7 5.Qg7#. If after  $2.R \times a5$  Black does neither play 2... 0-0 on or 2... 0-0, then there will be a short mate in 3 or 4 moves. Therefore all four castlings are necessary and real – this has been unique up to now. No. 48 and 49 are my best chess problems without any retrograde aspect.



No. 50 seems to be the first endgame study with four real castlings: 1.Bb5+ Kd8 2.0-0-0+ Kc8 3.Qxh8+ and mate or 1...Kf8 2.0-0+ Kg8 3.Qf3 (3.b4/Qh3?  $Q \times c5+ =$ ) Se5 (3... $Q \times c5+ 4$ .Kh1 Sd6/Se5 5.Rg1+; 3...Kg7 4.Qg4+ Kh6 5.Rf3) 4.Qg3+ Sg6 5.Q×c7 1:0, e.g. 5...B×b5 6.Q×b7 B×f1/Rd,e8 7.Q×a8+/c4. After 1...B×b5 follows 2.R×a5 0-0 (2...Qg3+ 3.Q×g3 1:0, e.g. 3...S×a5 4.R×h7 Rf8 5.Qc7) 3.Rg1+ and mate or 2...0-0-0 3.Ra8+ Qb8 4.R×b8+ 1:0, e.g. 4...K×b8 5.b3×c4 Ba6 6.c5×b6 Ka8/Rc8/h5 7.Qg7/c5/Qg7. White captures the black queen on d8, c7, b8 and g3.

No. 51 (FIDE-Album):  $1.B \times e7!$  Qh7!  $2.B \times g5$  (2.Bd6? Bd4 3.Qg2 Bc3+ 4.Kf1 Qf5+ 5.Qf2 Qe4 6.Qe2 Q×e2+ 7.K×e2 B×a1 8.R×a1 R×h4 9.B×c5 0-0-0! 0:1) 2...B×g5 3.h4×g5 0-0 (3...0-0-0 4.0-0! Q×h3 5.Qg2! Qe3+ 6.Rf2! =) 4.0-0-0! Rab8 5.Qc2! Qg7 6.Rd6! Qa1+ 7.Kd2 Q×a5+ 8.Kd1! Qa1+ 9.Kd2 Qa5+ 10.Kd1 Rbd8 (otherwise positional draw) 11.Qg6+ with perpetual check. In an ideal draw study, however, white castling is necessary to avoid losing and black castling to avoid losing, too. A slight flaw: in no. 51 (after 3.h4×g5) there is a draw by 3...0-0 as well as by 3...Qh4+.

In no. 52 this challenge is mastered. 1.Qa2? 0-0-0! 2.0-0! Rd3! 3.Qg2 Qa7+ 4.Rf2 Qc5 5.a6 Qc3 6.Raf1 Rg3 0:1;  $1.Q \times b4$ ? 0-0-0 2.0-0 Q×h3,Qd3 0:1. 1.Qb2! 0-0-0! 2.0-0! Rd3 (2...Q×h3 3.Qg2 Qe3+ 4.Rf2 Rh3 5.Q×c6+ =) 3.Qf6 Q×h3 (3...Rg3+ 4.Kf2 Rg2+ 5.K×g2 Q×h3+ 6.Kf2 =) 4.Q×c6+ =; 1...0-0! 2.0-0-0! R×a5 3.Qd4! = (e.g. 3...Qh6+ 4.Kb1 Rfa8 5.Qc4+ Kh8 6.Qd4+ Kg8 7.Qc4+ with perpetual check). Conclusion: In this study all four castlings are necessary – and nobody wins!

#### Four real castlings in helpmate two-movers

No. 53 is probably the first problem with two solutions, no. 54 perhaps the second? In no. 53-55 there are the combinations 0-0/0-0 and 0-0-0/0-0-0, in no. 57 0-0/0-0-0 and 0-0-0/0-0. In no. 57 w. castling unpins the Rc3. In no. 58 the same piece is put on three different squares of a diagonal.





Helpmate in 2 2 solutions

1.0-0-0 0-0-0 2.Qc3 B×a6# 1.0-0 0-0 2.Q×g3 g6×h7#

**No. 56** *Hanspeter Suwe* '0-0' 1981 TT 3<sup>rd</sup> HM



Helpmate in 2 2 solutions b) mirrored  $(a1 \leftrightarrow h1)$ 

- a) 1.0-0-0+ Bd6 2.Rd7 Ra8# a) 1.0-0 Bb2 2.Rf7 Rh8#
- b) 1.Rc8 0-0-0 2.Re8 R×d7#
- b) 1.Ke8 0-0 2.Rd8 Rae1#

No. 54 Werner Keym Die Schwalbe 2006



Helpmate in 2 2 solutions

1.0-0-0 0-0-0 2.Sf5 Qc2# 1.0-0 0-0 2.Sfe8 Q×f8#

No. 57 Werner Keym Die Schwalbe 2006



Helpmate in 2 b) Ra1→h1

a) 1.0-0 0-0-0 2.e2 R×g3# b) 1.0-0-0 0-0 2.Sa3 R×c5#

No. 55 Iwan I. Soroka Schach-Echo 1981



Helpmate in 2 b)  $Sf7 \rightarrow d7$ 

a) 1.0-0 0-0 2.Bg7 h7# b) 1.0-0-0 0-0-0 2.Bc7 Ba6#

#### No. 58 Werner Keym Die Schwalbe 2006



Helpmate in 2 b)–d) Bh3→a2/c4/f7

a) 1.Rf8 0-0-0 2.Sb1 Rhe1# b) 1.Sb3 0-0 2.Rd8 Rae1# c) 1.Bb5 a4×b5 2.0-0-0 Ra8# d) 1.0-0 g×f7+ 2.Kh8 R×h5#

**No. 59** *Werner Keym Die Schwalbe 2006 (c)* 



Helpmate in 2 1.0-0 0-0 2.Se8 Q×f8# or 1.0-0-0 0-0 2.d3×c2 Qc5#

No. 60 Werner Keym Die Schwalbe 2006



*Helpmate in 2* 1.Qc5 0-0-0 2.0-0 Rdg1# or 1.0-0-0 0-0 2.c4×b3 Q×c6#

**No. 61** *Werner Keym* (after A. Hazebrouck) Die Schwalbe 2006



Helpmate in 2 Duplex

1.b0-0-0 Qa2 2.Kb8 Qa8# or 1.b0-0 S×g6 2.Rf7 Rh8# or 1.wQa2 R×a2 2.0-0-0 Ra1# or 1.w0-0 S×h4 2.Kh2 S×f3#

In no. 59 and 60 for the first time a realization of four real castlings in a helpmate two-mover is achieved without the condition of two solutions (no. 53-54) or a twin version (no. 55-58) – by means of Partial Retrograde Analysis (see p. 106). In **no. 59** the bPs captured 10 pieces, among them the promoted officer(s) X. Genesis of the position: either a) wPh×Qg→g8X, wPa2→a8X (b0-0-0 not permitted) or b) wPa×Qb, wPh2→h8X (b0-0 not permitted). Solution: a) 1.0-0!, b) 1.0-0-0!.

In **no. 60** the bPP captured 6 times; besides bOfficer×Pd and wPe/g×Sf. Genesis: either wPa2 $\rightarrow$ a8X (then 1.Qc5!) or wPh2 $\rightarrow$ h8X (then 1.0-0-0!).

As to **no. 61** you should give the matter considerable thought. Let us begin with the initial array of the game and try to reach the position of the diagram. Whichever way you will go, only one of the four castlings will be permitted (Partial Retrograde Analysis): a four-part problem for indefatigable retro fans. The related problem by *A. Hazebrouck* is P0001291.

No. 64 is an extraordinary helpmate two-mover presenting 1 or 2 or 3 or 4 solutions and castlings.

Four real castlings in helpmate three-movers (cp. P0525390 and P0004532) turn out to be easier for the composer than in two-movers.

#### **Curious castling tasks**

No. 62 Ralf Krätschmer Die Schwalbe 2010 (v)



Mate in how many moves? a) 0-0-0 & 0-0 permitted b) only 0-0-0 permitted c) only 0-0 permitted d) 0-0-0 & 0-0 not permitted

**No. 63** *Werner Keym König & Turm 2007 (v)* 3<sup>rd</sup> Prize



Mate in how many moves, if a) w0-0 is executed, if b) w0-0-0 is executed, if c) b0-0-0 is executed, if d) b0-0 is executed?

**No. 64** *Werner Keym* Die Schwalbe 2006



Helpmate in 2 How many solutions? b)  $Pe4 \rightarrow f4$ c)  $Pe4 \rightarrow g4$ d)  $Pe4 \rightarrow h4$ 

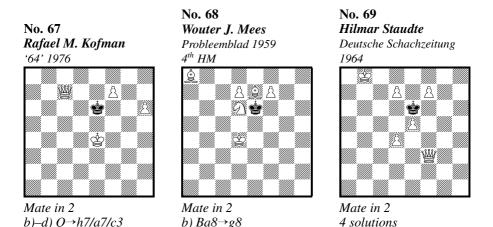
No. 62: The number of the castling rights decreases, the length of the solutions increases. a) #2 1.Qe5+! Kd3/Kf3 2.0-0-0/0-0#; b) #3 1...Kf3 (Kd3? 0-0-0#) 2.Qe2+ K×f4 3.Rf1# (3.0-0#?); c) #4 1...Kd3 (Kf3? 2.0-0#) 2.Ra3 Kc2 3.Qe2+ Kb1 4.0-0#; d) #5 1...Kd3 2.Qe2+ Kxd4 3.Qe5+ Kd3 4.Rd1+ Kc2 5.Q×c3#. A pendant with black castlings is P1256196 by *Ralf Krätschmer*, too.

**No. 63:** With w0-0 the solution works in 3 moves, with w0-0-0 in 4, with b0-0-0 in 5, with b0-0 in 6. a) 1.Bb5+! Kf8 2.0-0+ Kg8  $3.Q \times g3\#$ ; b) 1...Kd8 2.0-0+ Kc8  $3.Q \times h8+$  Kb7 4.Rd7#; c) 1...S×b5 2.R×a5 [thr. R×a8#/Q×h8+#] 0-0-0 3.Ra8+ Kb7 4.Qf3+ Rd5 5.Qxd5#; d) 2...0-0  $3.Q \times g3+$  Kh8 4.Qe5+ Rf6 5.R×a8+ Kg7 6.Rg1#. 'An incredible curiosity.' [The original stipulation 'Mate in 6 moves' proved to be unsuitable.]

**No. 64:** The more steps the pawn takes to the right, the more solutions and castlings arise. a) 1.0-0-0 B×b5 2.Sc1 R×c1# (= 1 solution with 1 castling); b) 1.Sa5 0-0-0 2.Rf8 Rhe1# plus a) (= 2 s. with 2 c.); c) 1.Bd7 0-0 2.Td8 Rae1# plus a) plus b) (= 3 s. with 3 c.); d) 1.0-0 B×b3+ 2.Kh8 R×h4# plus a) plus b) plus c) (= 4 s. with 4 c.). Magic.

### From the Allumwandlung to the Babson Task

Composers and solvers of chess problems are always fascinated by pawn promotion, especially by the four promotions to queen, rook, bishop and knight in the same problem, the so-called Allumwandlung (AUW). This is a small collection out of hundreds of AUW problems.

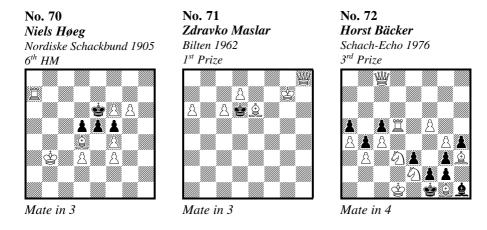


One underpromotion is possible with three pieces only (**no. 65**): *Charles Tomlinson*, *Amusements in Chess 1845*, *wKc6 c7 bKa7*, #2. Not 1.c8Q? stalemate, but 1.c8R! Ka6 2.Ra8#. – A hundred years later two underpromotions are shown with four pieces (**no. 66**): *Allan Th. Werle*, *Tidskrift för Schack 1945*, *wKf2 e7 bKh1 d2*, #4. Not 1.e8Q? d1S+ 2.Kg3 Se3 3.Q×e3 stalemate, but 1.e8R! d1S+ 2.Kg3 Se3  $3.R \times e3$  Kg1 4.Re1#

In **no. 67** the queen is transferred three times. Thereby four different promotions (S, B, R, Q) become possible: a) 1.f8S+! Kf6 2.Qg7#, b) 1.f8B! Kf6 2.Qf5#, c) 1.f8R! Kd6 2.Rf6#, d) 1.f8Q! Kd7 2.Qcc8#. Four different mate squares. Unsurpassed.

In **no. 68** the promotions are equally distributed to version a) 1.d8B! Kd7 2.f8S# and to version b)  $1.d8R! \text{ K} \times \text{e7 } 2.f8Q\#$ .

The multiple solution problem **no. 69** starts with promotions: I 1.d8R! Ke7 2.Qf6#; II 1.d8B! Kd7 2.Qd5#; III 1.f8Q! K×d7 2.Qd5#; IV 1.f8S+! Ke7 2.Qf6#.



For the first time **no.** 70 shows the (alternative) AUW of a white pawn on the same promotion square in the same move with a non capturing key – dual-free with 12 pieces only: 1.f7! [thr. 2.f8Q ~ 3.Qe7#] Kd6 2.f8Q+ Kc6 3.Qc5#; 1...e5×f4 2.f8R Kd6 3.Rf6#; 1...e5×d4 2.f8B Kf6 3.Ra6#; 1...Kf6 2.f8S e5×d4 3.Rf7#. The classical AUW! According to his own words *Niels Høeg* needed twelve years to find this pattern of construction. Later on it was often used in the same or modified form.

The AUW was achieved even in the form of a miniature (**no. 71**): 1.Qh5! Kc7 2.Qc5 Kb8/Kd8 3.d8Q/c7#; 1...Ke7 2.Qc5+ K×e6/Kd8 3.d8S/c7#; 1...K×c6 2.d8B Kd6 3.Qd5#; 1...K×e6 2.d8R Ke7 3.Qe8#. Laid down by the hand of a magician!

As far as I know the powerful problem **no. 72** was the first to render a completely dual-free AUW with a black pawn: 1.Qxc5!

 $1\dots f2 \times g1Q \ 2.f6 \ Qf2 \ 3.Rf5 \ Qf3/Qf4/Q \times f5 \ 4.R \times f3/R \times f4/R \times f5\#;$ 

1... f2×g1R 2.S×g3+ h4×g3 3.Qe7 e2+ 4.Q×e2#;

1...  $f2 \times g1B$  2.Q×a5 B~ 3.Q×b4 B~ 4.Q×e1/Qe1#;

 $1\dots f2 \times g1S \ 2.Q \times e3 \ S \times e2/S \times h3 \ 3.Kd2/S \times g3 + \sim/h4 \times g3 \ 4.Qe1 \#.$ 

Besides there are three thematic tries which Black parries by the appropriate promotion: 1.Qc7/Qe6/Qh8? f2xg1Q/B/S!.

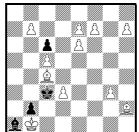
> 'Problem chess unites essentials of the riddle, the art and the science'. (Werner Speckmann)

No. 73 *Matjaz Zigman* Delo-Tovaris 1970 1<sup>st</sup> Prize



Mate in 3

No. 74 Friedrich Köhnlein Münchner Neueste Nachrichten 1903



Mate in 4

No. 75 *Matti Myllyniemi* Suomen Tehtäväniekat 1966 O. Kaila 50 JT 1<sup>st</sup> Prize



a) Mate in 2 b) Selfmate in 2 c) Helpmate in 2 d) Helpstalemate in 2

In a very economical style **no. 73** (FIDE-Album) shows white and black promotions: 1.Sd2! [2.g8Q]

1...a1B 2.g8R Ka2 3.Ra8#;

1...a1S 2.g8Q Sb3 3.Qxb3#.

And there are two thematic tries: 1.g8Q? a1B!; 1.g8R? a1S!.

As early as in 1903 the successive AUW of four white pawns was presented in its Letztform (**no. 74**): 1.f8Q!

1...Kb4 2.h8B! (2.h8Q? Ka4!) Kxc5 3.b8R Kd6 4.e8S#

1...Kd2/Kd4 2.Qf2+ Kc3 3.Qe1+ Kd4 4.Bg1#.

Even in only three moves a successive AUW (with 3 white pawns and 1 black pawn) was achieved without any duals (P1291184).

**No. 75** (FIDE-Album): a) 1.e8S e5  $2.8 \times c7$ #; b) 1.e8B e5 2.Bc2 e4#; c) 1.e5 e8Q 2.e4+ Q×e4#; d) 1.e5 e8R 2.e4+ R×e4 stalemate. The change of the stipulation results in an alternative AUW. Highly original.

**No. 76** *Knud Hannemann Skakbladet 1922* 



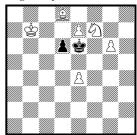
Mate in 2 b)-d) turn 90° (wKh6), 180°, 270° (wKa3)

**No. 77** *Niels Høeg Skakbladet 1907 I<sup>st</sup> Prize* 



White forces the end of the game in 2 moves

**No. 78** *Knud Hannemann Dagens Nyheder 1933* 



Mate in exactly 1, 2, 3 and 4 moves

**No. 76** (FIDE-Album): An astonishing AUW is created by turning the board (clock-wise): a) 1.d8Q+! Ke6 2.Qe7#, b) 1.b8R! Kf4 2.Rf8#, c) 1.d8B! Kd4 2.Bf6#, d) 1.f8S! Kd5 2.Bb7#. The Danish wizard!

In **no.** 77 the stipulation and the solution are even more amazing: 1.Qe1!  $e2 \times f1Q$ 2.K×g3 Q×e1# selfmate, 1...e2xf1R 2.Qxg3# mate, 1...e2×f1B 2.K×g3 stalemate, 1...e2xf1S 2.Qf2+ Kxf2/g3×f2 selfstalemate; 1...g2 2.B×e2#. This time the actor is a black pawn.

The solution of this curious n-mover **no. 78** (FIDE-Album) is: a) 1.e8Q#, b) 1.e8R+! Kd7 2.Re7#, c) 1.e8B! d5 2.Kc6  $\sim$  3.Bd7#, d) 1.e8S! Kd7 (1...d5 2. Kc6  $\sim$  3.Sc7/Sg7#) 2.Sc7,Sg7 d5 3.e5 d4 4.e6#. The weaker the promoted officer, the longer the play. – A counterexample is no. 243.

No. 80 Sigurd Clausen No. 79 Nya Dagligt Allehanda Harold Lommer 1927 (c) Alexander Hildebrand Journal de Genève 1933 Tidskrift för Schack 1985 1<sup>st</sup> Prize <u>)</u> 9 Å Å Ŵ *ننذ* Y X ₫ Win Win

No. 81 *Knud Hannemann* (after V. Neidze)

Stella polaris 1968 Special HM



Draw

For a long time the presentation of AUW in an **endgame study** had been considered to be impossible. The famous composer *Henri Rinck* is reported to have said that this Himalaya would stay unconquered, even if a million dollar was offered as a prize. So *Harold Lommer's* famous study was a sensation in 1933 (**no. 79**): **1.g6**×**h7+! Q**×**h7 2.e7**×**f8Q#; 1...Kg7 2.e7**×**f8B+!** 1:0 (2.e7×f8Q+? K×h7 3.g4×h5 Re1+ 4.K×e1 stalemate); **1...Kh8 2.e7**×**f8R+!** 1:0 (2.e7×f8Q+? Kxh7 stalemate); **1...K×h7 2.e7**×**f8S+! Kg8! 3.g4**×**h5 R**×**h5 4.Kc1 Rb5! 5.Sd7 Kf7 6.Bd6 Ke8 7.Sf6+ Kf7 8.Sd5** 1:0.

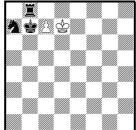
A second sensational event took place 50 years later, when **no. 80** was rediscovered. The original version (with wPg7, bKg8, bPf7) was not sound  $(1.g6 \times f7 + Q \times f7!)$ , but becomes correct without these two single moves (1.f6+!) and surpasses later no. 60 as to the key move, content and economy. *A. Hildebrand's* small correction only concerns the first two single moves. **1.g7+!** K×g7 **2.f6+** K×f6 **3.f8Q+** 1:0 (3.f8R+? Ke7 4.B×h5 R×a6+ 5.Kb1 K×f8); **2...Kh8 3.f8R+!** (3.f8Q+? Kh7 4.B×h5 R×a6+ 5.Kb1 Ra1+ 6.K×a1 stalemate) Kg7 3.B×h5 1:0; **2...Kh6 3.f8B+!** (3.f8Q+? Kh7 etc. stalemate) Kg5 4.B×h5 K×h5 5.B×b4! R×a6+ 6.Kb1 R×e6 7.f7 Rg6 8.Kc1 1:0; **2...Kh7 3.f8S+! Kg8** (3...Kh6 4.B×h5 R×a6+ 5.Kb1 Ra5/K×h5 6.Bd1/e7 1:0) 4.B×h5 R×a6+ 5.Kb1 Ra5 6.Sd7 R×h5 7.f7+ Kh7 8.Sf6+ 1:0. Fantastic!

No. 81: 1.Rd1+ Sf1+ 2.R×f1+ g2×f1B! (2...g2×f1Q 3.Rh2+ Kg1 4.Rh1+ =; 2...g2×f1R 3.Rh2+ Kg1 4.Rg2+ =; 2...g2×f1S+ 3.K×f4 1:0) 3.Rh2+! (3.Rb2? Kg1! zugzwang 0:1) 3...Kg1 4.Rb2 (zugzwang) Sd3/Sd5/Rc4/Rd4/Re4 5.Rg2+ Kh1 5.Rh2+ Kg1 6.Rg2+ Bxg2 stalemate. Simply clever!

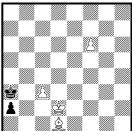
No. 82 Theodor Steudel Deutsche Schachzeitung 1964



No. 83 Harald Haverkorn Dirk Borst Die Schwalbe 1988 3<sup>rd</sup> HM



**No. 84** *Helmer Ternblad Feenschach 1954 1<sup>st</sup> Prize* 



Helpmate in 3\*

*Helpmate in 2* b)  $Pb2 \rightarrow g2$ 

Helpmate in 2.5 4 solutions

There are heaps of **helpmate problems** with AUW. Here are four beautiful miniatures. – **No. 82:** The solution of a) is 1.b1B! d8Q 2.Bbg6 Qd2# and b) 1.g1R! d8S 2.Rg6 Sf7#.

A special AUW helpmate is realized by an extraordinary stipulation (P0508180). Besides there is a helpstalemate problem showing AUW with only four pieces (P0501791).

**No. 83** is the only AUW with five pieces and four solutions. I  $1...c8S! 2.Ka8 Kc7 3.Rb6 S \times b6#$ , II  $1...c8B+! 2.Ka8 Kc7 3.Rb7+ B \times b7#$ , III 1...c8R! 2.Ra8 Rc6 3.Kb8 Rb6#, IV  $1...c7 \times b8Q+! 2.Ka6 Kc7 3.Sc6 Qb6#$ .

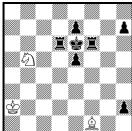
**No. 84:** The set play is 1...f7 2.a1B f8R 3.Bb2 Ra8#, the solution is 1.a1S f7 2.Sc2 f8Q+ 3.Ka4 Qb4#.



No. 85 *Rolf Trautner* (after J. Bebesi) Die Schwalbe 1960 Helpmate in 7

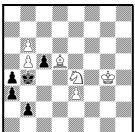
**No. 85** shows a successive AUW (1 wP and 3 bPs): 1.c1S! Kg8 2.Sb3  $a2 \times b3$  3.g1B b4 4.Bc5  $b4 \times c5$  5.a2 c6 6.a1R c7 7.Ra7 c8Q#.

No. 86 György Páros FIDE Review 1958 Special Prize



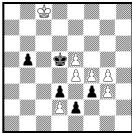
Helpmate in 3 b)-d)  $S \rightarrow d3/f3/h5$ 

**No. 87** *Aurél M. Kárpáti Die Schwalbe 1954 3<sup>nd</sup> Prize* 



Helpmate in 3 b)-d)  $sK \rightarrow e5/e7/h8$ 

**No. 88** *Christer Jonsson Springaren 1993* 4<sup>th</sup> Prize



*Helpmate in 4 4 solutions* 

**No. 86** (FIDE-Album): 1.h1B! Bd3 2.Bc6 Bg6 3.Bd7 Sc7#, b) 1.h1Q Bg2 2.Qh5 Be4 3.Qf7 Sc5#, c) 1.h1S Bb5 2.Sg3 Bc6 3.Sf5 Sg5#, d) 1.h1R Bb5 2.Rhd1 Be8 3.R1d5 Sg7#. Most elegant.

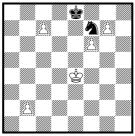
**No. 87** (FIDE-Album): a) 1.b1S b7 2.Sc3 b8S  $3.S \times b5$  Sc6#, b) 1.b1R b7 2.Rd1 b8R  $3.R \times d5$  Re8#, c) 1.b1Q b7 2.Q×b5 b8Q 3.Qe8 Qd6#, d) 1.b1B b7 2.B×e4 b8B 3.Bh7 Be5#. Perhaps the first helpmate to show four echo promotions, the so-called Babson task (cp. p. 18), by means of a quadruplet.

**No. 88** (FIDE-Album): I  $1.K \times e4 e6 2.e1Q e7 3.Qa1 e8Q+ 4.Qe5 Q \times e5#$ , II  $1.K \times e4 e6 2.e1B e7 3.Bf2 e8B 4.Bd4 Bc6#, III <math>1.K \times e4 e6 2.e1S e7 3.Sc2 e8S 4.Sd4 Sf6#$ , IV 1.Kc6 e6 2.e1R e7 3.Rc1 e8R 4.Rc5 Re6# Probably the first Babson in a helpmate without a change of the diagram position? A flaw, however, is the same key  $1.K \times e4$  in three cases. – Why is this task (often achieved in directmate and selfmate problems) so difficult for the helpmate genre? Who composes such a problem with four different keys?

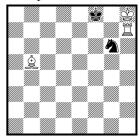
**No. 89** *Knud Hannemann Tijdschrift N.I.S.B. 1931* 



**No. 90** Andreas Thoma Die Schwalbe 2009 1<sup>st</sup> Prize



To no. 90 Final position



Selfmate in 4

Selfmate in 25

**Selfmate problems** are suitable for AUW. **No. 89** is a classic successive AUW (Q-R-B-S): 1.h8Q+! Kg6 2.g8R+ K×f7 3.e8B+ Ke6 4.d8S+ R×d8#.

**No. 90** (FIDE-Album) is the first selfmate miniature with successive AUW. 1.c8Q+!Sd8 2.g8B Kf8 3.Bc4! Ke8 4.b4 Kf8 5.b5 Ke8 6.b6 Kf8 7.b7 Ke8  $8.\underline{b8R}$  Kf8 9.Qc5+ Ke8 10.f7+ Kd7  $11.\underline{f8S}+$  Ke8 12.Sg6 Kd7 13.Se5+ Ke8 14.Qc7 Kf8 15.Kf5Ke8 16.Kf6 Kf8 17.Qc8 Ke8 18.Rb7 Kf8 19.Rh7 Ke8 20.Kg7 Ke7 21.Qc7+ Ke8 22.Bb5+ Sc6 23.Kh8 Kf8 24.Qe7+ S×e7 25.Sg6+ S×g6# (final position). Hard work for composer and solver.



No. 91

Alexander Hildebrand Stella Polaris 1968 Special Prize Selfmate in 2 4 solutions

No. 91-94 are alternative AUW. **No. 91** is a lucky finding: I 1.d8Q b3 2.Qh4 b2#. II 1.d8R b3 2.Rd4 b2#, III 1.d8B b3 2.Ba5 b2#, IV 1.d8S b3 2.Sc6 b2#.

No. 92 Alain C. White Pittsburgh Gazette Times 1912



Selfmate in 2

No. 93 William A. Shinkman The Theory of Pawn Promotion 1912



Selfmate in 3

**No. 94** *Henry W. Bettmann Funkschach 1926 I<sup>st</sup> Prize* 



Selfmate in 3

In **no. 92** the white pawn on h7 plays a major role: 1.Bf5+!  $K \times f5/Kf7/Kg7/K \times h5$  2.h7×g8Q/R/B/S B×g3#.

In **no. 93** the black pawn on f2 is the actor: 1.Bd6! 1...f1Q 2.Qc4+ Q×c4 3.Bb4+ Q×b4#. 1...f1R 2.Qh8+ Rf6 3.Bc5 Bb2#. 1...f1B 2.Qg3+ Bd3 3.Bc5 Bb2#. 1...f1S 2.Qh3+ Se3,Sg3 3.Bc5 Bb2#. Furthermore 1...c5 2.Bg3 [3.Qb4+] c4 3.B×f2 Bb2#.

It was *Joseph Babson* who initiated a long series of construction of problems with an AUW of Black and an AUW of White in the form of an echo, if possible by one black pawn and one white pawn. **No. 94** (FIDE-Album) shows the first rendering of this task, the perfect echo AUW, which later on was called the *Babson task*: 1.a8B! f2×g1Q/R/B/S 2.f8Q/R/B/S Q/R/B/S  $\sim 3.X \times Q/R/B/S R \times a6#$ , 2...Q×f1/Q×c5+ 3.b5+ B×b5#; flaws are the duals 1...f2×g1Q 2.f8Q Qf2/Qg7 3.Q×f2,R×f2/Q×g7,h6×g7. Who composes such a problem with dual-free full length variants?

> 'The rigidity of the material with which we have to compose is a more formidable opponent than Lasker or Capablanca. Because these lifeless opponents do not have any moments of human weakness'. (Henri Weenink)



Mate in 4

**No. 96** *Peter Hoffmann Die Schwalbe 1986* 



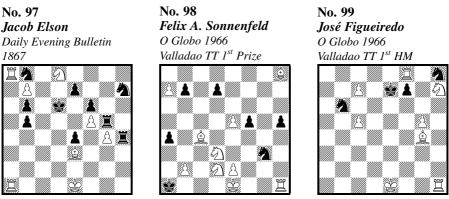
Mate in 4

For a very long time the correct rendering of the Babson task in a directmate problem had been considered to be impossible – until 1983, when *Leonid Yarosh* composed his famous masterpiece **no. 95** (FIDE-Album): 1.a7! [thr. 2.a7×b8Q,R,B,S ... 4.#] 1...a2×b1Q 2.a7×b8Q! [thr. 3.R×f4+,Q×f4+,Qd6+,Q×b3] Qe4 3.R×f4,Q×f4Q×f4 4.Q×f4/R×f4#; 2...Qe1/Q×f5 3.R×f4+,Q×f4+ etc.; 2...Q×b2 3.Q×b3[thr. 4.R×f4, Q×b2#] Qc3 4.Qa×c3,Qb×c3#. 1...a2×b1R 2.a7×b8R! [thr. 3.R×f4#] (2.a7×b8Q? R×b2 3.Q×b3 stalemate) R×b2 3.R×b3 K×c4 4.Qa4#; 2...Re1 3.R×f4+,R×b3 etc. 1...a2×b1B 2.a7×b8B! [thr. 3.R×f4+,Sd6,B×f4] (2.a7×b8Q? Be4 3.Q×f4 stalemate) Be4  $3.B×f4 \sim 4.Be3,Be5\#$ . 1...a2×b1S2.a7×b8S! [thr. 3.R×f4#; 3.B×e7] S×d2 3.Qc1  $Se4/S\sim 4.Sc6/R×f4\#$ . Interesting sidelines: 1...Qe5 2.B×e7 Qd6 3.S×d6; 2.Qc7 3.B×f6+. 1...Q×d8+2.Kg7!a2×b1Q 3.R×f4+; 2...Qf,g,h8+3.K×Q a2×b1Q 4.d8Q,R#. 1...Qd6 2.Re1 Qc6 3.R×f4+. 1...Q×a8 2.R×f4+ Qe4 3.a8Q. A strong try: 1.Re1!? Q×d8+! 2.Kg7Qf,g,h8+ 3.K×Q stalemate.

Up to now about 20 direct Babson problems have come to be achieved. You will find them in *PDB* (K='Babson task'). No. 96 is the first with four dual-free main lines: 1.d6xe7! e1Q 2.e7×f8Q! (2.e7×f8R? Qxe4+ 3.d4 Qf5) Q×e4+ 3.d4 Qf5 4.B×f5#. 1...e1R 2.e7×f8R! (2.e7×f8Q? R×e4+ 3.d4 stalemate; 2.e7×f8S+? Kg8 3.Ka5 R×e4) R×e4+ 3.d4 Kg7 4.R4f7#. 1...e1B 2.e7×f8B! (2.e7×f8Q/R? stalemate; 2.e7×f8S+? Kg8 3.Qa6,Ka3,Ka5 stalemate) Kg8 3.Qa6 Kh7 4.Qg6#. 1...e1S 2.e7×f8S+! (2.e7×f8Q/R? S×d3+!) Kg8 3.Ka5 S~ 4.Qc4#. The full length variants with other promotions contain duals, e.g. 1...e2×f1Q 2.e7×f8Q,R,S. There are two settings with a better key move (P1328423 and P1328425). – Who composes such a problem with dual-free full length variants? And who fulfils my dream of a Babson endgame study?

## From the Valladao Task to the Keym Task

Since the beginning of problem chess history the three special moves promotion, castling and en-passant capture have always fascinated composers and solvers, especially the combination of these moves, even if there is no thematic interdependence of such moves. When they are all found in a problem, the special term for such a task is Valladao task referring to *Joaquim Valladao Monteiro*, who organized a relevant theme tourney in 1966.



Mate in 5

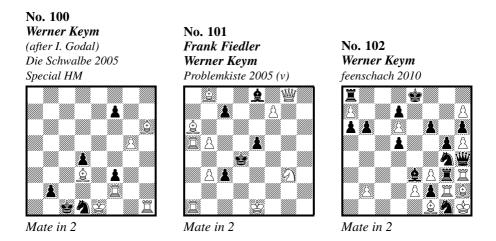
Mate in 2

Mate in 2

**No. 97** is probably the first problem to present the Valladao task (in a successive form): 1.0-0-0+! Kc7 2.Bf4+ e5  $3.f5 \times e6$  e.p.+ Re5  $4.e7 \sim 5.e8S#$ .

The winner **no. 98** shows three double pawns' steps and two en-passant captures. 1.a8Q,R? b5!. 1.b4! [thr. 2.e6#]  $S \times e2/Se4$  2.K $\times e2/0-0$ #; 1...d5/a4 $\times$ b3 e.p. 2.e5 $\times$ d6 e.p./a8Q,R#. Flaw: the (unavoidable) dual of the promotion.

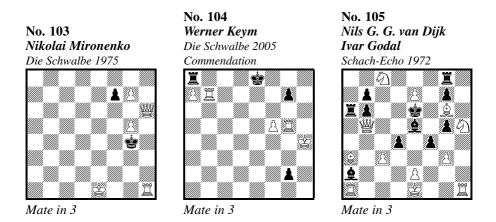
**No. 99** has several tries and fine refutations. 1.Kd1?/Rh2? Sg6!; 1.Rf1? Sc8!. 1.0-0! [thr. 2.Re1#] Sc4/Sd5/Sd7 2.c8S#; 1...f5  $2.g5 \times f6$  e.p.#; 1...Sg6  $2.R1 \times f7$ #. This two-mover is a *perfect Valladao* (as no. 97, 100-102): 1) there is no dual of the promotion, 2) there is only the double step of the pawn with the subsequent enpassant capture by the adversary pawn and not the simple step of the pawn with a normal capture by the adversary pawn. In the theme tourney in 1966 both flaws were tolerated.



**No. 100:** 1.0-0! [thr. 2.g6#] b1S/f5 2.Rc2/g5×f6 e.p.#. The try 1.g6+? Se3 2.0-0#? only fails because the white king is not allowed to jump across the square f1 guarded by bSe3. This is quite rare in Valladao problems. In the related problem (P1288319) there is the typical flaw: the captures  $P \times P$  and  $P \times P$  e.p. side by side.

**No. 101:** 1.Ba7+! Kd3/Kd5/c5 2.0-0-0/f7 $\times$ e8S/b5 $\times$ c6 e.p.# A Valladao with a particular feature: the three special moves are the mating moves.

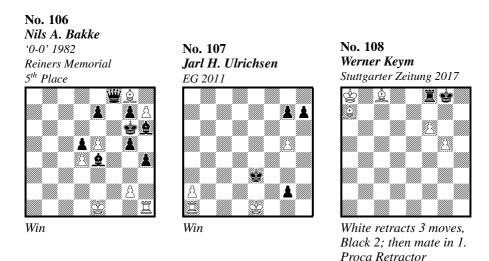
**No. 102:** It is easier to find the solution than the reasons for the solution.  $1.h5 \times g6$  e.p.! [thr. 2.h8Q#] 0-0-0 2.a8Q#. The last moves were g7-g5 g6×Bh7 (e.g. Bd4-e3 g5-g6 e3×Bf2) since the light-squared bishop is the only missing black piece. There is no other black move which allows a previous white one: Pb7-b6? would exclude the bB from c8; Pc6×Xd5? would prevent the promotion of the wPc on c8. The 4 black captures were Pb7×Xa6, Pa7×Xb6, Pc6×Xd5, Pe3×Xf2. Here the retroanalytical aspect is no end in itself, but an aid to present a successive Valladao in a two-mover.



**No. 103:** 1.0-0! zugzwang f6/f5  $2.g5 \times f6/g5 \times f6$  e.p. Kg3 3.g8Q,R#; 1...Kg3 2.Qh5 ~ 3.Rf3#. This is the first Valladao miniature, but it is not perfect, since it has the two typical flaws: a dual of the promotion and the captures P×P and P×P e.p. side by side (cp. the miniatures P1038497 and P1146356).

In no. 104 the three special moves succeed one another (successive Valladao): 1.Rh5! [thr. 2.Rh8#] g5+  $2.f5 \times g6$  e.p. 0-0-0 3.a8Q#.  $1.R5 \times g7$ ? Kf8!. This is the most economical rendering of the (perfect) Valladao task in a directmate problem. The study needs 8 pieces (no. 107), the selfmate genre 7 (no. 113).

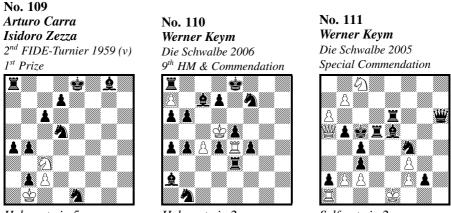
No. 105 shows a perfect Valladao in a double setting: 1.e4! [thr. 2.e8Q+ R×e8  $3.Q\timese8\#$ ] d4×e3 e.p. 2.0-0-0 [thr. 3.Qd7#] Rd8  $3.e7\timesd8S\#$ , 2...Bd4 3.Qf5#; 1...f4×e3 e.p. 2.0-0 [thr. 3.Bf7#] Rf8  $3.e7\timesf8S\#$ , 2...Bf4 3.Qf5#. Great!



**No. 106** is the first correct **endgame study** to show the (perfect) Valladao task. **1.g4!** (1.h8Q? Qf4!)  $h4 \times g3$  e.p. **2.h8S+!** (2.h8Q? Qf2+!) **Kf5 3.0-0+** (3.Rf1+? Kg4! 4.R×f8 g2 5.Kf2 Kh3 6.Kg1 g4! 0:1) **Kg4 4.R**×**f8** 1:0. As far as I know all earlier Valladao studies include a cook or a major dual.

No. 107: 1.0-0-0! h5 (1... h6? 2.a4! 1:0) 2.g5×h6 e.p. (2.a4? h4 0:1) g7×h6 3.a4 h5 4.a5 h4 5.a6 h3 6.a7 h2 7.a8Q g1Q/h1Q 8.Qa7+/R×h1 1:0. Letztform!

**No. 108:** This is a defensive **retractor** of the type Proca: He who is on the move, decides whether and what he captures (cp. p. 137). It is a perfect Valladao miniature: backward  $1.e5 \times f6$  e.p.! (1.e5xf6? K/R $\sim$ ) forces f7-f5, 2.c7-c8B forces 0-0+, finally  $3.Bc5 \times Ba7$ ! (Black has a previous move by the B) and 1.c8Q#. Not 3.Bc5-a7/×Pa7? since Black has no previous move. Not  $3.Bc5 \times Q/R/Sa7$ ? since there is no mate in 1. Got you?



Helpmate in 5

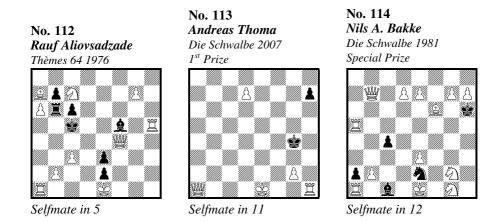
Helpmate in 2

Selfmate in 2

Probably the earliest Valladao **helpmate problem** is *J. Keeble's* 'A posteriori' problem from 1936 (no. 384). **No. 109** is an excellent long helpmate: 1.0-0-0! Ka2 2.b1R Se4 3.Sc7+ c4 4.b4×c3 e.p.+ Ka3 5.Rb8 Sd6#.

**No. 110:** This is a successive Valladao in a helpmate two-mover:  $1.d4\times c3$  e.p.+! Rc4 2.0-0-0 a8Q#. The last moves were not Kc5-d5 b7-b6+ (excluding Ba2 from c8), but c2-c4 Rb3-e3+. The bPs captured 11 pieces; bPa4/6 came from a7. There are 15 black pieces, so the wPb captured the bQ on the a-file. Here (as in no. 102) retrograde analysis is a necessary evil. No. 110 obtained an HM in the section helpmate and a commendation in the section retro. What does that result in?

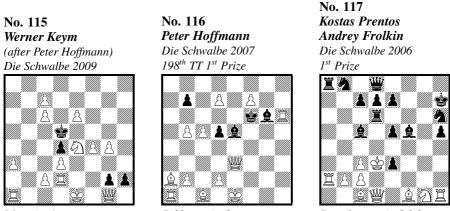
**Selfmate problems** are very suitable for promotions. **No. 111:** This is an alternative Valladao in a selfmate two-mover. 1.b4+!  $c4 \times b3$  e.p.  $2.Q \times c3+B \times c3\#$ , 1...Kc6 2.b8S+  $B \times b8\#$ , 1...Kd4 2.0-0+ Sd3#. – There is even a successive Valladao in a selfmate two-mover (P1092162).



**No. 112** is one of the first Valladao selfmate problems:  $1.g8B! b7 \times a6 2.Bc4 a5 3.B \times e2 a4 4.b4+ a4 \times b3 e.p. 5.0-0-0 b2#. The special moves follow each other (successive form). The underpromotion deserves attention.$ 

**No. 113** is the first (perfect) Valladao in a selfmate miniature. 1.0-0! h5! 2.Kh1 h4  $3.Qg7+ Kh5 4.g4+ h4 \times g3$  e.p. 5.Rf5+ Kh4  $6.d8B+! Kh3 7.Qc3 Kg4 8.Qf3+ Kh3 9.Bb6 Kh4 10.Qf4+ Kh3 11.Bg1 g2#. The (dualistic) variants after <math>1...h6/K \sim$  need less than 11 moves according to *Olaf Jenkner's* computer program. Whoever does not believe that, should disembark to a lonely island with much paper and patience!

**No. 114** is probably the first rendering of Valladao going along with Allumwandlung (AUW). 1.h8Q+! Kg6 2.g8R+ Kf7 3.e8B+ Ke6 4.d8S+ Kd6 5.Ra6+ Kc5 6.b4+  $c4 \times b3$  e.p. 7.Rc6+ Kd5 8.e4+ K×e4 9.B×g6+ Kd5 10.Qh5+ Bg5 11.Sf4+ S×f4 12.0-0-0+ Sd3#. Excellent construction. – An example with Valladao, AUW and a pawn's walk (from g7 to h2) is P1245419.



Mate in 4

Selfmate in 8

Proof game in 26.0

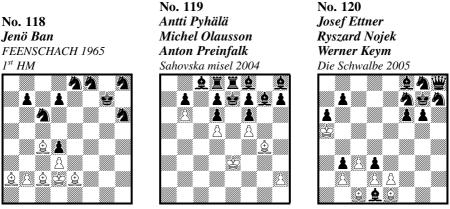
*Peter Hoffmann* has been the only one so far to succeed in composing directmate problems with Valladao and Allumwandlung (P1291058 and P1291059). My setting (**no. 115**) is simpler and dual-free in the main lines. 1.0-0-0 [thr. 2.c8Q 3.Qd7#]  $h2 \times g1S 2.c8Q Se2+ 3.Rxe2 \sim 4.Qd7#$ . 1... $h1B 2.c8R K \times e6 3.Q \times d4 Kf7 4.Qf6#$ . 1... $h1Q/R 2.c8Q Q/Rh7 3.c4 d4 \times c3 e.p. 4.Qc5#$ . Side lines: 1... $h2 \times g1Q/R 2.c8Q Q/R \times d1+ 3.R \times d1$ ; 1... $K \times c6 2.c8Q + Kb5/6 3.Q \times d4$ ; 1... $K \times e6 2.Q \times h2 Kf7 3.Qh7+ Ke6/Ke,f8 4.Qd7/c8Q,R#$  (dual).

*Peter Hoffmann* again has been the only one to compose problems with Valladao, AUW and Excelsior walk (P1092157-P1092159), the so-called 'Keym task'. **No. 116:** 1.f8Q+! Ke6 2.d8R b6 3.R×d5! b6×c5 4.Rd8+!! c4 5.b4 c4×b3 e.p. 6.Ba3! b3×a2 7.0-0-0 a1B/S (7...a1Q/R?) 8.Bb2/Qb3+ B×b2/S×b3#. The promotions to wQ and wR (successive) and to bB or bS (alternative) form the thematic AUW. The promotion to bQ/R?, which occurs in a short length variant, is not thematic, but necessary, since it avoids the dual 6.Bb2? b3×a2 7.0-0-0 a1B/S? 8.b6/Qb3+ B×b2/S×b3# by 7...a1D+/R+! An absolute top achievement!

**No. 117** masters this task for the first time in a proof game: 1.h4 a5 2.h5 a4 3.h6 a3  $4.h6 \times g7$  h5 5.g4 Sh6 6.g8B Bg7 7.g5 Bd4 8.g6 f6 9.Bd5 Bc5 10.Bc6 <u>0-0</u> 11.g7 Kh7 12.g8R b7×c6 13.Rg5 Ba6 14.Re5 f6×e5 15.f4 Rf6 16.f5 Rd6 17.f6 Bc4 18.f7 B×a2 19.f8Q Be6 20.Qf3 a2 21.Qd5 <u>a2×b1S</u> 22.Ra2 Sc3 23.d2×c3 c6×d5 24.Kd2 d4 25.Kd3 Bf5+ 26.e4 d4×e3 e.p.+. The four promoted officers are gone! 'A wonderful presentation of the Keym task.'

## The (lightened) 100 Dollar Theme

There are three famous challenges in problem chess: Babson task (p. 26), Valladao task (p. 28) and 100 Dollar Theme. The tasks were mastered, but not yet the 100 Dollar Theme of the year 1963. Required is a one line, dual-free helpmate problem (**without** promoted officers in the position of the diagram), in which a black pawn and a white pawn start from their original square and after five moves are promoted to knights: the double knight Excelsior.



Helpmate in 5

Helpmate in 5

Helpmate in 5

**No. 118:** 1.b5 b4  $2.b5 \times c4$  b5  $3.c4 \times d3$   $b5 \times c6$   $4.d3 \times e2$   $c6 \times d7$  5.e1S  $d7 \times e8S$ #. The earliest rendering of this Excelsior, but with six promoted officers. (No. 427 shows the Excelsior 'backward' – without promoted officers.)

**No. 119:** 1.h5 h4 2.h5×g4 h5 3.g3 h6 4.g2 h6×g7 5.g1S g8S#. *Antti Pyhälä* created the (dualistic) basic position with three promoted officers in 1970. *Michel Olausson* removed the dual in 1989 and *Anton Preinfalk* saved one promoted officer in 2004.

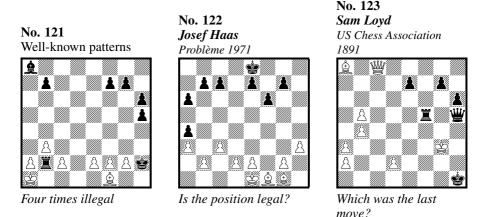
**No. 120:** 1.b5 e4 2.b4 e5  $3.b4 \times c3$  e6  $4.c3 \times d2$  e7  $5.d2 \times e18$  e8S#. *Josef Ettner* created the basic position with two promoted officers in 1994. Two pieces were saved in 2005 by *Ryszard Nojek* and one piece shortly afterwards by myself.

I am offering 100 Euro for a rendering with one promoted officer – and 100 Euro plus 100 Dollar for a rendering without promoted officers at all!

[A rendering without promoted officers is possible, if you modify the chessboard (see no. 343) or apply the 'single box' condition (P1197947-P1197950).]

### How to solve retro problems

The following chapters contain several retro problems. I would like to show the typical ways of solving such problems to chess players and problemists not yet accustomed to playing in this genre, and I would enjoy to open the gate to the incredible variety of retro problems.



For all usual problems, retros included, one characteristic feature is an absolute condition: the diagram position of a problem must be 'legal'. That means that you can play from the initial array of the game to the diagram position according to the laws of chess, even if the moves of this game seem to be improbable or bad in the eyes of a chess player. That is convincing. The contrary feature, illegality, however, often cannot recognized as easily as in the simple examples of **no. 121**. Above left: the bBa8 could never go to a8. Above right: there is one pawn too many. Below left: the wK could never pass by the bR. Below right: the bK could never reach h2; without Pe2 or Pf2 or Pg2 or Bf1 that would be possible (= legal).

The 'Last move records' (no. 124–150) are very suitable for taking the first steps in retro land. **No. 122** is more difficult. Let us begin our way of solving with typical retro questions:

1) How many white and black pieces are there?

2) Are there obvious captures due to the constellation of the pawns and if so how many?

3) Which pieces can be sacrificial pieces, which pieces cannot?

4) Are there promoted officers? If so, on which squares were they born and how many sacrificial pieces were needed for it?

These are the answers: 1) There are 10 white and 8 black pieces. 2) The bPd7 moved to a4 capturing three times. 3) The wBc1 was captured on c1 and the bBf8 on f8. (Hint: wPs on b2 and d2 or on e2 and g2 are revealing those circumstances; analogous bPs on b7 and d7 or on e7 and g7). The wRs could not leave their cages and could not be captured on c6, b5 or a4. 4) The Bg1 does not come from c1 (because of Pb2 and Pd2), but it is a promoted officer. It was born on b8. Therefore the wPf2 captured 6 black pieces on e3, d4, c5, b6, a7 and b8, namely on black squares. That is the *inventory*.

Now the *interim balance*: sacrificial pieces for the wPf2 were Q, R, R, S, S, not the light-squared B, but the promoted officer X born by the promotion of bPh (bPh×Q/Sg and g3×Rh2-h1X had occurred before). In this case there are only two sacrificial pieces for the bPd7, so it cannot reach a4. Exactly one sacrificial piece is lacking either for the bPd or for the bPh.

*Conclusion*: the position is not legal! As in other fields it is easy to work out the inventory, but it is not so easy to draw the right conclusion.

Let us apply the above-mentioned questions to **no. 123**. *Inventory*: 1) There are 8 white and 6 black pieces. 2) The wPs captured 5 times. 3) The bBf8 died on f8. 4) The wBa8 seems to be a promoted officer, but it is not, for the wPf would need 5 captures, but there are only 4 sacrificial pieces. *Interim balance*: The position is either illegal or there is a well-hidden legal retro trick. And here there is such one: the last moves were  $Kf3 \times Pg3 + Pf4 \times g3$  e.p.+ Pg2-g4. *Conclusion*: The position is legal since the last move was definitely  $Kf3 \times Pg3+$ .

As you can see retro moves are noted in the usual way of forward notation.

If you do not succeed in releasing a position, you should begin with the initial array of the game and try to reach the diagram position by playing forward.

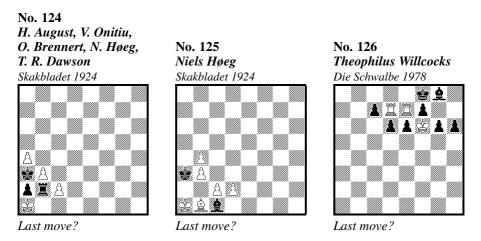
In complicated cases I present an auxiliary diagram or state the genesis of the position, i.e. the important (not constantly unique) moves from the initial game array to the diagram position.

## Economical retro records (type A, B, C, M)

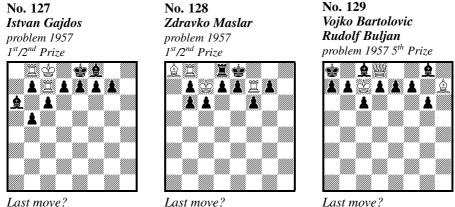
The economical records with the stipulation 'Which was the last move?' are the best known retro themes. In a most economical rendering a unique move (e.g.  $K \times B$ ) is proved to be the last one by retroanalysis. The following criteria apply to the economy: a minimum of 1) pieces, 2) officers (Q, R, B, S), 3) major officers (Q, R), 4) queens. B and S are equal in evaluation.

There are 60 different last moves (records): K, Q, R, B, S, P moves (6 different moves); K, Q, R, B, S, P captures Q, R, B, S, P (30); P moves and promotes to Q, R, B, S (4); P captures Q, R, B, S and promotes to Q, R, B, S (16); P does a double step (1); P captures en-passant (1); long and short castling (2).

Furthermore there are various types. **Type A:** it is not stated who is on the move; neither king is in check (59 different moves, not e.p. capture). **Type B:** it is stated who is on the move; neither king is in check (59 different moves, not e.p. capture, but see no. 439). **Type C:** a king is in check (60 different moves). You will find these records in my book 'Eigenartige Schachprobleme' or *PDB* (K='economy record' and K='type A') or *www.janko.at/Retros* or *www.anselan.com.* – **Type M** (related to type C) is less known: Black is mate (60 different moves).



No. 124 (Kb4×Sa3), the most economical type A record, and no. 125 (FIDE-Album;  $Ba2\times Sb1$ ) are simple. – No. 126 is singular:  $Bh7\times Rg8!$  Rg7-g8+  $Bg8\times Sh7$  Sg5-h7+ Bh7-g8, e.g.  $Sf3\times Rg5 \dots$  bRe8-a8! wRd8-d7! and the cage is open.



Last move?

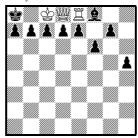
No. 127 ( $Ra8 \times Qb8!$ ) and no. 128 ( $Rc8 \times Qb8!$ ) have got 13 pieces, but no. 127 is the record (B is more economical than R). – No. 129 is tricky:  $Qf8 \times Qd8!$  bQe8-d8+ wQh6-f8... wKh6 $\rightarrow$ c7. The last move was not Qf8 $\times$ Rd8?, for the wK cannot pass by the bR nor (after bPg7-g6) leave the cage.

No. 130 ( $b7 \times Qa8Q!$ ) is the only record to need 15 pieces. - No. 131: backward f7×Qe8R!, before h6-h5 e6/g6×Sf7. - No. 132 (FIDE-ALBUM) is unique: the last move was Bg8×Qh7!, before e.g. Qh1-h7 h7×Rg8B! ... h2→h7 bKh5→h8  $bRh6 \rightarrow g8 wKg8-f7 bSd6-e8 wKa6 \rightarrow g8$ . The bRh is needed as a sacrificial piece, so not backward Bg8×Rh7?. This is my best last-mover.

No. 130 Harold H. Cross Fairy Chess Review 1958 ŴŮ Ð Ċ i i Last move?

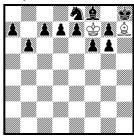
Last move?

No. 131 Jan Mortensen Fairy Chess Review 1958

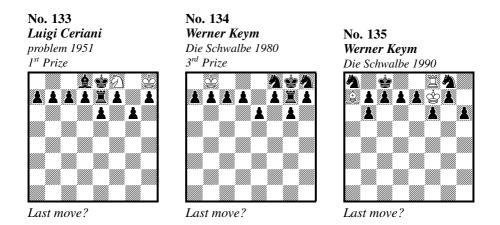


Last move?

No. 132 Werner Keym Die Schwalbe 1979 1<sup>st</sup> Special Mention



Last move?



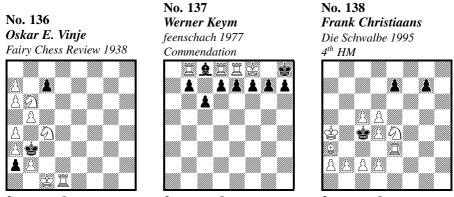
In 16 cases the records of type A and B are the same, among them the classic **no. 133** (K×Q). Here the last move was Kg8×Qh8. Before Kg7×Rh8? or Pg7×Sf8S? a black move would be missing. Pg7-g6? locks up the wK.

No. 134, too, deals with  $K \times Q$ . Here the last move was not  $Kc8 \times Q/Rb8? Q/Ra8 \times Sb8+ Kd8-c8$  since a black move would be missing. Pe7-e6? locks up the wK, for he cannot pass by the bRg which is not able to go to h8. So the last move was  $Ka8 \times Qb8!$ , before e.g.  $Qd8 \times Sb8+ \ldots Qh4-d8 \ldots wKf6 \rightarrow a8$ . No. 92 is the only type A record with a white Rex solus.

In later publications no. 134 was presented as the new type A record for  $K \times Q$  because in the chess game a knight is generally considered to be a little weaker than a bishop. But that depends on the position. Therefore this is not a criterion serving for the economical retro records.

In 2007 retro specialists followed my suggestion and agreed that in type C records a king **must** (before 2007: **can**) be in check.

Therefore the type C record for K×Q is neither no. 133 nor 134, but **no. 135** (Ke8×Qf7#). Genesis of the position: wS×Bc8, wS×Bf8, bKe8-f8, f7-f6, bQd8→d6, bKf8→c8, bSb8→d8, bRa8-b8, bSg8-h6, bRh8→f7, wPg6×Rf7-f8R, bSh6-g8, bPh7-h6, wKe1→e8, bSd8→a8, bPa7×Xb6, wPa2→a7×Rb8B and then bQd6-e6 Bb8-a7 Qe6-f7+ Ke8×Qf7+. No. 135 is the only type C record which needs one piece more than the respective type A record.



Last move?

Last move?

Last move?

The **type A records** are playing in the champions' league of the last move records. In no. 136–138 the number of captures is important. In **no. 136** the white pawns captured the 13 missing black pieces. So there is no sacrificial piece for the wK or wR or wS. Therefore the last move was only 0-0-0!  $\text{Kc2-b3/Kc2} \times \text{Xb3}$ .

In **no. 137** the wPb and the wPd captured Q, S, S and the promoted officer X (= bPa) on squares c7 and d8 and promoted to rooks. The last move was not wPc7 $\times$ Xd8R? without a previous black move, but wPa7 $\times$ Rb8R! with the previous move bRa8-b8.

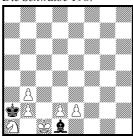
No. 138 is a challenge. The wBc1 was captured on c1, the bBf8 on f8. So the Ba3 is a promoted officer (wPh $\rightarrow$ d7-d8B), the white pawns captured 11 pieces, among them three of the four black pawns of the files a–d. For that purpose either the bPa or the bPb had to move to the d-file. For both pawns there were not enough white pieces to be captured (Q, R, B, S). So one of the two pawns was captured on the file a or b by a white officer. The last move was not wBb4×Pa3? retrostalemate, but wKa5×Pa4! b5×Xa4, and the position can be released.

Many well-known retro composers have created last move records. For the last time one piece was saved in type C ( $P \times Q=R$ ) in 1980 and in type A ( $Q \times P$ ) in 1995. Two pieces were saved in type B for  $P \times Q=Q$  (= no. 144) and  $P \times Q=R$  by myself in 2007 and one piece in type B for Q- (= no. 141) by *Andrew Buchanan* in 2012. Who will be the next one?

No. 139 Jan Mortensen Feenschach 1956

Last move? Black to play

No. 140 *Rolf Uppström Die Schwalbe 1987* 



Last move? Black to play **No. 141** Andrew Buchanan feenschach 2012 Special Prize

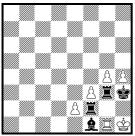


Last move? Black to play

Six **type B** records. No. 139 (Ka $2 \times$ Sa1! Sb3-a1+) is a well-known position by *Jan Mortensen* which completely anticipates *Raymond Smullyan's* mirrored version. – No. 140 (Sc2-a1!) and no. 141 (Qa7-a8) are smart.

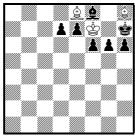
**No. 142** (R×B) shows a clever release: wRg2×Bg1! Bh2-g1 Rg1-g2 Rg2-f2 f2-f3. – **No. 143** (B×R) is partly similar, partly different: wBg7×Rh8! Rg8-h8 Bh8-g7 g7×Xh6. – **No. 144:** a7×Qb8Q!; not a7×Sb8Q? Sc6-b8+ retrostalemate; not a7×Rb8Q? Ka5-a6 a6-a7 a7×Xb6 X-b6 Sb6-a8 illegal.

No. 142 Vojko Bartolovic Rudolf Buljan problem 1957 1<sup>st</sup> Comm.



Last move? Black to play

**No. 143** *Jörg Varnholt Die Schwalbe 1988* 2<sup>nd</sup> Commendation



Last move? Black to play

No. 144 Werner Keym feenschach 2012 Die Schwalbe 2007 2<sup>nd</sup> HM



Last move? Black to play

No. 147 No. 146 No. 145 Branko Pavlovic Sveto Stambuk Niels Høeg Problem 1951 2<sup>nd</sup> Prize Sahovski Vjesnik 1950 Skakbladet 1916 ¢ 2 è Ï ð Ý Ŷ Ě Ŷ

Last move?

#### Last move?

Last move?

Three unsurpassable classical type C records. No. 145 (FIDE-Album) is the oldest record: backward  $d5 \times e6$  e.p.+! e7-e5 d4-d5+. – In no. 146 the last moves were Kg2-f2+! f2-f1B+. – No. 147 shows the well-known double check of rook and bishop: backward Kg3×Pf3! g4×f3 e.p.+ f2-f4. In 1957 *Raymond Smullyan* presented this 'trick' in his famous puzzle (cp. no. 218).

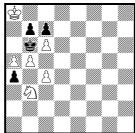
Three **type M** records. **No. 148:** backward g7-g8S#!. – **No. 149:** backward not  $b4 \times Q/R/B/Sa5#$ ? (illegal!), but  $b4 \times Pa5#$ !. – **No. 150:** the white Pawns captured 15 times, so there is no sacrificial piece for the white king. Therefore the last move was not Kc6 $\times$ Xb6#?, but Kc6-b6#!.

#### No. 148 Bernd Schwarzkopf Werner Keym



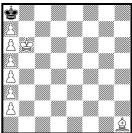
Last move?

No. 149 Ladislav Packa Andrej Frolkin Die Schwalbe 1990



Last move?

No. 150 Werner Keym Die Schwalbe 1990



Last move?

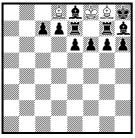
# Economical retro records (type D, ELM, further types)

**Type D** means Duplex (= type B twice): a) If Black is to play, there is a unique last white move; b) If White is to play, there is a unique last black move. This results in  $60 \cdot 59 : 2 = 1770$  combinations of different moves.

*Bernd Schwarzkopf* presented type D in 1981 and published about 35 combinations in 1983 in *feenschach*. In 2007 many records were published in the *Retro Mailing List*. You find about 160 type D records in *www.janko.at/Retros* or *www.anselan.com*. Each of the 59 different moves (e.p. is impossible) was achieved at least once. Unlike the old fashioned types A, B and C, type D offers many chances for composers.

**No. 151** shows the combination B-/B×S; a) backward wBf7-g8 Bg8×Sh7 Sg5-h7 h7×Xg6, b) backward bBf7×Se8. – The corner positions of **no. 152** are different: a) wPc7×Bb8S, b) bPf2×Sg1R. – **No. 153:** a) wPh7×Rg8B, b) bPa2×Rb1B; bPa7→a2, wPa6×Xb7, the cage is open. There we have got the famous duo from Argentina.

No. 151 Wolfgang Dittmann Hans Gruber Günter Büsing Bernd Schwarzkopf feenschach 1983



Last move? a) Black to play b) White to play

**No. 152** Andrew Buchanan Retro Mailing List 2007



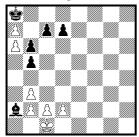
Last move? a) Black to play b) White to play

No. 153 Roberto Osorio Jorge Lois Retro Mailing List 2007



Last move? a) Black to play b) White to play

No. 154 Werner Keym Retro Mailing List 2007



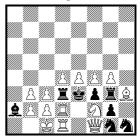
Last move? a) Black to play b) White to play

No. 155 Werner Keym Retro Mailing List 2007



Last move? a) Black to play b) White to play

No. 156 Werner Keym Retro Mailing List 2007



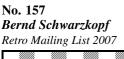
Last move? a) Black to play b) White to play

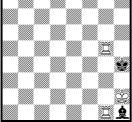
No. 154–156 are all a challenge to advanced solvers. No. 154: a) wKd1-c1, b) bBb1-a2; bOfficer×Bc1; bPg×Ph→h1X, bPh→h1X, wPg→g8X. The wPs captured 10 times; backward bPb6-b7? would lock up the bBc8. The bPa7 (Pa7×Xb6-b5) or the bPe7 (Pe7→a3-a2×Xb1B) captured the promoted officer X, but not the light-squared wB. So backward bBb1×Xa2? is impossible for the lack of a sacrificial piece.

In **no. 155** the bPs captured 7 times, bOfficer×Bf1. The wPb2 captured 5 times on dark squares, wOfficer×Ph. Backward bPd7×Xc6? or bPe7×Xd6? would lock up a bishop, since wPf6×Pg7 is necessary. At first the release below must be performed by wSg1-f3  $\sim$  Kh1-h2 Kg3-f2, then follows wPf3×Be4. Therefore backward in a) wPf6×Pg7, in b) bPb3×Pa2. 'Simple in form, rich in content.'

No. 156: a) w0-0-0, b) bPh2-h1S. Here is the genesis of this complex position for sceptists as to the issue of legality:  $bS \times Bc1$ -, wSg-,  $wPg2 \times Bf3 \times Pe4$ ,  $wBf \rightarrow f5$ ,  $g7 \rightarrow g2$ ,  $h2 \times Qg3$ ,  $h7 \rightarrow h2$ , wBf5-h3, g3-g4,  $f2 \times Be3$ ,  $bR \rightarrow g3$ ,  $bR \rightarrow f2$ ,  $c7 \rightarrow c3$ ,  $f7 \rightarrow f3$ ,  $bK \rightarrow e5$ ,  $e3 \times Sf4$ +, bKe5-d4,  $d2 \times Pc3$ +, bKd4-e3,  $wQ \rightarrow c4$ ,  $d7 \rightarrow d3$ ,  $e2 \times d3$ , bRf2-d2, wRh1-f1,  $bS \rightarrow g1$ ,  $b7 \rightarrow b3$ ,  $a2 \times b3$ ,  $a7 \rightarrow a2 \times Sb1B$ , d3-d4, bRd2-d3,  $wRf1 \rightarrow d1$ , bRd3-d2, wS-f2 and then bBb1-a2, wQc4-f1 bRd2-d3 wRd1-d2 bPh2-h1S w0-0-0 – quod erat demonstrandum.

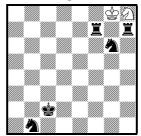
**Equal Last Move** (ELM) is a duplex form created by *Roberto Osorio* in 2007. The stipulation 'Equal last move?' requires the same last move of White, if Black is to play, and of Black, if White is to play, e.g. wQ×S and bQ×S. 57 of the 60 possible last moves exist as economical records (not e.p., 0-0-0, 0-0). You will find them in *www.janko.at/Retros*.





Equal last move?

No. 158 Jorge Lois Roberto Osorio Retro Mailing List 2007



Equal last move?

No. 159 Bernd Schwarzkopf Werner Keym Retro Mailing List 2009



Equal last move?

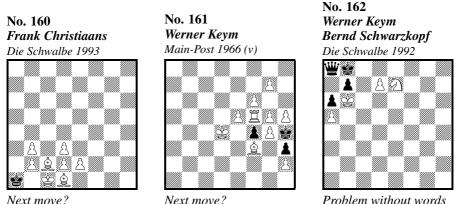
In **no. 157** White's last move was wKg2-h2 h2-h1B+, therefore Black's last move was bKh5-h4 (equal move: K-).

In **no. 158** White's last move was not Kf8/Kg7-g8 (illegal), but g7×Xh8S, therefore Black's equal last move was a2×Xb1S. The intersection set of the moves wPg7×B/Sh8S and bPa2×b1Q/R/Sb1S is the solution: P×S=S.

In **no. 159** Black's last move was not Kh2-h1 (illegal), but Pf2/h2×Xg1R, therefore White's equal last move was Ph7×Xg8R. The intersection set of the moves wPh7×Q/Rg8R and bBh2×Q/Bg1R results in the solution: P×Q=R. The try bPf2×Qg1R? is illegal.

What is typical of ELM records: It is easy to solve them, yet anything but easy to construct them.

In a problem with the stipulation **'Which is the next move?'** it can be proved who did not move last and who must make the next being absolutely unambiguous. There are two types (A: neither king is in check; C: a king is in check), but less than 60 economical records (cp. the classical last move records no. 124–147), since some moves (e.g. promotions) cannot be unique. Most records are quite simple miniatures. You will find the economical records of this type in *Die Schwalbe*, December 2007.



Problem without words

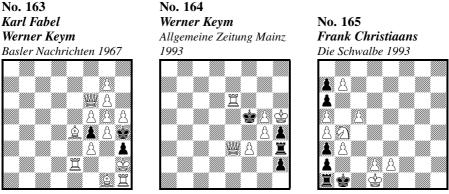
In **no. 160** the last move was not bKa2-a1? nor bKa2 $\times$ Ra1? because of retrostalemate, but wBb1 $\times$ Xc2 or wPa2 $\times$ Xb3. So the next move is 1.Ka2!.

Next move?

In no. 161 the wPs captured 13 times, so there is no sacrificial piece for the white king or bishop. The last moves were wPg2-g4 Kg4-h4 B-f3+. So the next move is bPf4 $\times$ g3 e.p.!. In 1966 no. 161 was published with the stipulation 'Mate in 3 moves'. Solution: 1.bPf4×g3 e.p.! Rf4+ 2.K×g5 g7-g8Q+ 3.K×f4/Kh6 Qg4/Qg6#.

In no. 162 White moved last and the next move is bQa8-a7#. No. 162 is not only the record for the move Q- of the type 'Which is the next move?' (type A), but also (because of the mate Qa7#) the economical record for the type 'Problem without words' (= 'Which is the next and final move?').

In a problem with the stipulation **'Problem without words'** it can be proved a) who moved last, b) who is to play and c) which forced move results in mate or stalemate. You will find the economical records of this type in *Die Schwalbe*, August 1993.



Problem without words

Problem without words

Problem without words

No. 163 is a joined problem by *Karl Fabel* and myself. He composed a one-mover with a forced mate by the en-passant capture, I found a more economical setting and the new stipulation. The white pawns captured 13 times. Black captured 3 pieces: bPh×Sg, bPg×Sh and bPb×Xa→a1X (furthermore bPa→a1X). So for lack of a sacrificial piece the last move was not bPe5xXf4? (with 1.Bf2#), but wPg2-g4 Kg4-h4 f2-f3+. Therefore 1.bPf4×g3 e.p.#! is forced. This first rendering fascinated the solvers. [A more economical setting is possible by replacing Qf6 by Bf6 and Bg1 by Sg1, but then the try 1.Bf2#? would be lost.]

In **no. 164**, too, the next and last move is a forced en-passant capture:  $1.h4 \times g3\#!$ . In type C (king in check) this works out much more easily. The last move was not wPg3-g4#? which would not allow a previous black move, but wPg2-g4+.

No. 165 is more difficult. The black pawns a–d captured 6 times, furthermore  $bPg \times Ph \rightarrow h1X$  and  $bPh \rightarrow h1X$ . The white pawns captured 10 times. So there is no sacrificial piece for bK or bR or wK. Therefore the last move was wKe1-d1 (before bKc1-b1) and Black to play is forced to mate by 1.Kb2#. Well done.

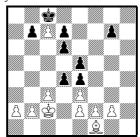
In a problem with the stipulation **'Which was the first move?'** the first and unique move of a definite piece is required. No king is in check and it is not stated who is to play (= type A). This record theme was created by *Bernd Schwarzkopf* in 1981. There are 60 possible moves, but not the same as in the classical last move records since it cannot be proved that moves of knights are the first moves, for a chess game may begin as follows:  $1.\text{Sb1-c3} \sim 2.\text{Ra1-b1} \sim 3.\text{Rb1-a1} \sim 4.\text{Sc3-b1}$ . On the other hand it is easy to show the first move of a promoted knight.

No. 166 Bernd Schwarzkopf Wolfgang Dittmann Godehard Murkisch feenschach 1981



*Which was the 1<sup>st</sup> move of the rook?* 

No. 167 Michel Caillaud feenschach 1984



Which was the 1<sup>st</sup> move of the white queen?

**No. 168** *Gerd Wilts Die Schwalbe 2010* 



Which was the 1<sup>st</sup> move of the white king?

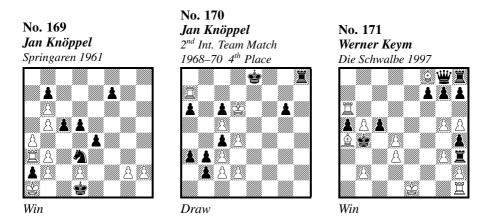
In **no. 166** the white pawns captured the missing 15 black pieces. So the first move of the wRh was not  $Rh1 \times Xg1$ , but Rh1-g1.

**No. 167** is an excellent retro problem. The release of the position depends on wPd2× Be3 (before bBf8→e3 and bPe7×Xd6, before wPd6×Xc7 and bK-c8). So the last moves were 1.Kc1-c2 c5×Rd4 2.Rd1-d4 c6-c5 3.0-00 f5×Qe4 4.Qa4-e4 g6×Sf5 5.Qd1×Pa4 f6×Be5 6.c2-c3 f7-f6 7.Bc3-e5 a5-a4 8.Bd2-c3 a6-a5 9.Bc1-d2 a7-a6  $10.d2\times$ Be3. This is the record (with 18 pieces!) for the first move Q×P.

**No. 168:** The last moves were 1.Qd1-e1 f6-f5 2.<u>Ke1×Sf1</u> Qg1-h2 3.Rh2-h3 Se3× Bf1 and then 4.Rh3-h2 Sc4-e3 5.Rh2-h3 Sd6-c4 6.Rh3-h2 Se4-d6 7.Rh2-h3 Sg5-e4 8.Rh3-h2 f7-f6 9.Rh2-h3 Sh3-g5 10.c4×Pd5 Bf6-h4 10.b3×Pc4 Kh4-h5. This is the record for the first move K×S. Superb!

## Endgame studies with retro aspect

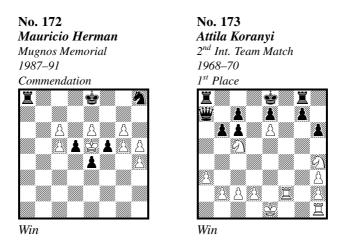
Studies with a satisfactory content of both retro and endgame are rare. That came to be true with most entries of the  $2^{nd}$  International Team Match 1968–70 as well with the theme 'Retrograde analysis in the endgame study'.



**No. 169** (FIDE-Album): The wPs captured the 8 missing black pieces, among them the two promoted officers born on f1 (= bPg and bPh); wBc1 died on c1; the bPa captured twice. So there is no sacrificial piece for bK or bS. The last moves were 1...c7-c5! 2.c5×Qb6 (or 2.c5×Rb6) Qf6-b6 3.d4×Rf5 Qf1-f6 4.e3×Bd4 f2-f1Q 5.c4×Bb5 g3×Rf2. Therefore **1.b5×c6 e.p.! Sb4 2.c7!** 1:0, not 2.c6×b7? Kc1 3.b8Q Sc2+ 4.K×a2 Sb4+ with perpetual check.

No. 170: The bPs captured the 9 missing white pieces. The wPs a, b and e captured four times. There are only 3 sacrificial pieces for the promotions of the wPs f, g and h. So the bK or the bR must have moved. **1.Ke6! Kf8 2.Kf6 Kg8 3.Rg7+ Kf8 4.Ra7 Ke8 5.Ke6 Kd8 6.Kd6 Kc8 7.Ra8+ Kb7 8.R**×h8 a5 (8...b1Q 9.Rh7+ 10.Rh8+ 11.Rh7+ =) **9.Rh7+ Ka6 10.K**×c6 b1Q 11.Rh8 Ka7 12.Rh7+ Ka6 13.Rh8 Qh1+  $14.R \times h1$  15.Rh8/Rh7 etc. =

No. 171: The wPs captured six times, the bPh4 three times. Backward not Kc4-b4? d2-d3+ (then Bc1 $\rightarrow$ f8 impossible) nor c2 $\times$ Pd3X? (then bPd7 $\rightarrow$ d3 illegal), but c7-c5! Rd6-a6+. Therefore 1.b5 $\times$ c6 e.p.! Q $\times$ f8 (1...K $\times$ a4 2.Rb6 Q $\times$ f8) 2.Rb6+ K $\times$ a4 3.0-0! (3.Kf2? R $\times$ h2+ 4.R $\times$ h2 Qd8 0:1) Qb4 4.R $\times$ b4+ a5 $\times$ b4/K $\times$ b4 5.Kg2 conquers the rook and wins, e.g. 5...h4 $\times$ g3 6.K $\times$ h3 g3 $\times$ h2 7.K $\times$ h2 Kb5 8.c7 Kc6 9.R $\times$ f7. First rendering of en-passant key and castling in a study. It is even a Valadao study since the promotion of a pawn is necessary for the win.



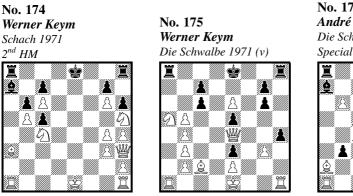
*Partial Retrograde Analysis* (p. 106) is the rare theme of the study **no. 172:** a) If 0-0-0 is permitted and  $g5 \times f6$  e.p. is not permitted, then  $1.c5 \times d6$  e.p.! 1:0 (1.Kf6? 0-0-0 2.e7 Re8 3.g7 e3 4.g7 × h8Q Rxh8 5.g6 Kc7 6.g7 Rc8 7.Kf7 e2 8.g8Q R×g8 9.K×g8 e1Q 10.Kf8 d4 11.e8Q Q×e8+ 12.K×e8 d3 13.h6 d2 14.h7 d1Q

15.h8Q Qd8+ 0:1). b) If 0-0-0 is permitted and c5×d6 e.p. is not permitted, then  $1.g5 \times f6$  e.p.! (1.Kf6? as a)) e3 2.g7 0-0-0 (2...Sf7+ 3.Kd4/Kf4 Sh6 4.f7+ Ke7 5.f8Q+ R×f8 6.g7×f8Q+ Kxf8 7.c7 1:0) 3.e7 Sf7+ 4.Ke6 e2 5.K×f7 e1Q 6.e7×d8Q+ K×d8 7.g8Q+ 1:0. c) If c5×b6 e.p. and g5×f6 e.p. are not permitted, then 0-0-0 is not permitted. In this case 1.Kf6! (1.g7? Ke7 2.h6 e3 3.h7 e2 4.g8Q e1D+ 0:1) Kd8 (1...Kf8 2.g7+ Kg8 3.g6 e3 4.h6 S×g6 5.K×g6 ~ 7.h7# or 1...S×g6 2.h5×g6 Kd8 3.g7/h5 Kc7 4.h5/g7 e3 5.h6 e2 6.h7 e1Q 7.g8Q R×g8 8.h7×g8Q 1:0) 2.g7 Kc7 3.h6 e3 4.h7 e2 5.g8Q e1Q 6.Q×a8 Qc3+ 7.Ke7 Qg7+ (7...Sg6+ 8.Kf7 Se5+ 9.Kg8 S×c6 10.h8Q 1:0) 8.Ke8 Qg6+ 9.Kf8 1:0.

No. 173 deals with *Retro-Strategy* (p. 115). If the wRf2 comes from a1, then w0-0 is not permitted, but b0-0-0; it is all the same, if it comes from b8 (as a promoted R), for in this case a black promoted officer  $(f7 \rightarrow f1X)$  from f1 is needed as a sacrificial piece. If the wRf2, however, comes from d8 or f8, then b0-0-0 is not permitted, but w0-0. Therefore not 1.Rhf1? 0-0-0! nor 1.Sg6? b6×c5! 2.Rhf1 0-0-0 or 2.0-0 c4 3.Kh1 Q×f2, but 1.0-0! b6×c5 (1...b5 2.d4 3.Sg6 or 1...g5 2.Sg6 or 1...Qa5 2.Sd7 Qg5+ 3.Sg2) 2.c4 g6 3.Kh1 1:0, e.g. 3...Qa4 4.S×g6 (or 4.d3) Qd1 5.R×d1 R×g6 6.Rdf1.

## Four castlings in retro problems

In no. 174–176 the question of which castling is permitted can only be answered by retroanalysis.



Mate in 3



**No. 176** *André Hazebrouck Die Schwalbe 1972 Special Prize* 



Who can mate in 5?

**No. 174:** The wPs captured 7 pieces, among them the promoted piece from b1 (earlier bPa4×Bb3→b1X), besides a2→a8X (b0-0-0 not permitted) and d6×Xc5. Therefore 1.0-0! [thr. 2.g5 3.Qd7#] Rf8 2.Rae1+ Kd8  $3.R \times f8#$ , 1...Kd8/Ke7 2.g5 Ke7/Ke8/Rd8 3.Qd7/Qd7/Rae1#. Try: 1.0-0-0?/g5? 0-0!.

No. 175: The wPs (wPh2×Xg3) captured 6 pieces, among them the promoted officer X from a1 (earlier a7 $\rightarrow$ a1X); besides sPb7×Sc6, bPd×Be, bPf7×Pg6. So w0-0-0 is not permitted. Therefore not 1.0-0-0!? ... 3.Q/R# nor 1.Rf1? 0-0-0! 2.Q×c6 Rd1+, but 1.0-0! 0-0-0/Ke7/Kd8 2.Q×c6 Kb8/Rd8/Kc8 3.Qb7/Rf7/Q×a8#, 1...Ra6 2.Qd3 ~ 3.Qd7#.

**No. 176** (FIDE-Album): wPa×Pb, bPa×Pb, wPd2×Se3, wPf×Pg, bPh×Pg, h2→h8X, f7×Xe6. So only b0-0 is not permitted: 1.wQc7! Q×h1+ 2.Kd2 Qc1+/Qd1+/Qe1+  $3.R \times c1/R \times d1/R \times e1, K \times e1$  Kf8  $4.Q \times e7$ + Kg8 5.Qf7#. Not 1.wQg7? Q×h1+ 2.Kd2 Q+  $3.R \times Q$  0-0-0!, not 1.bQc2?/bQg2? Q×h8+ 2.Kd7 Q+  $3.R \times Q$  0-0!/0-0-0!. See *PDB* for further examples by *A. Hazebrouck*. The computer does not solve no. 174 nor 176, but it gives two solutions for no. 175!

'Any chess problem can in principle be solved by trial, error and exhaustion, provided only that the problem is exhausted before the solver'. (John D. Beasley)

# **Text problems**

The following text problems, the authors of which are in some cases unknown, do not require any weary or complicated calculations; instead, they present some spectacular effects. Many of them are computer-defying and what matters most of all, they are unambiguous and unique in the best sense of the term.

**No. 177:** Can eight white pieces (K, Q, R, R, B, B, S, S) guard all empty squares of the chessboard?

No, if the bishops occupy squares of different colours: at least one square will remain unguarded (e.g. Kf5 Qh2 Ra7 Rb8 Bd4 Be4 Se3 Sf3, square c1). Yes, if they occupy squares of the same colour (e.g. Kc3 Qf6 Ra8 Rh1 Bc6 Bf3 Sd5 Se4).

**No. 178:** *Werner Keym, Die Schwalbe 1988. On how many squares can a king be double-checked by two queens?* 

On all 64 squares. The bK can be in double check from two wQs on the  $6^{th}-8^{th}$  ranks as a result of disclosed check following pawn promotion (e.g. wQa8 b7 bKc6 Sc8 and b7×c8Q++) as well as on the  $4^{th}$  and  $6^{th}$  ranks as a result of an e.-p. capture (e.g. wQc8 Qg8 g5 bKg4 f5 and g5×f6 e.p.++). The situation is analogous for the wK on ranks 1-3 and 5. 'An amusing idea.'

**No. 179:** From a large quadrate, which consists of 64 small quadrates, two small quadrates are removed in the bottom left and upper right corners. Can the resulting figure be fully covered with 31 rectangles the area of which amounts to that of two small quadrates?

No. Colour the quadrates of this figure in the way the chessboard squares are coloured. Then it will consist of 32 light and 30 dark squares, while each rectangle covers 1 light and 1 dark square. An elegant proof by means of the chessboard!

**No. 180:** Can a queen run through the 9 squares of the quadrate a1-c1-c3-a3 in four moves?

Yes, if this quadrate is part of the standard  $8 \times 8$  chessboard: Qc3-a1-a4-d1-b1. No, in case of a  $3 \times 3$  board.

**No. 181:** *Henry E. Dudeney, Amusements in Mathematics 1917 (Original or reprint?). The queen starts from e1 and in five moves covers the longest non-crossing path possible. How? [distances are measured between square centers]* 

The nicer path is e1-h1-h8-a1-a8-g8 (33,899 length units), but the longer one is e1-h1-a8-h8-h2-c7 (33,970 length units). 'A brilliant piece.'

**No. 182:** Werner Keym, Die Schwalbe 1991 (v). In which mate position with the kings and a white piece did this piece have to make at least three moves from the initial game array to the mate position?

Only in the mate position wKd3 Qd2 bKd1.

**No. 183:** *Werner Keym,* König & Turm 2004. The centers of the squares occupied by three pieces form the apexes of a triangle. Its area can be decreased through five different moves of the white king to one, two, three, four, or five sixths. What is this (legal) position?

The only position is wKe1 Rh1 bKb5. Its area amounts to 6 area units (AU). The move Kf2 decreases it to 1 AU (1/6); 0-0, to 2 AU (2/6); Ke2, to 3 AU (3/6); Kf1, to 4 AU (4/6), and Kd2, to 5 AU (5/6).

**No. 184:** *Alex Fishbein, The Problemist 2016, Commendation ex aequo. Find an orthodox game that ends with* 7...*Kxb*7#.

1.d4 c5 2.d4xc5 Sa6 3.Q×d7+ K×d7 4.Kd2 Kc7+ 5.Kc3 Be6 6.c6 Rc8 7.c6×b7 K×b7#. 7 moves are the current record (cp. P0008162).

**No. 185:** *Gerd Wilts, Eigenartige Schachprobleme 2010. In a game in 11 single moves, 6 checks were delivered. How did the game go?* 

1.d4 e5 2.Kd2 Qg5+ 3.Kc3 e5×d4+ 4.Q×d4 Qg3+ 5.Qe3+ Qe5+ 6.Q×e5+

**No. 186:** Werner Keym, The Problemist 1990. Construct symmetrical positions with the kings and a third piece (that is, the centers of the three occupied squares lie on a line) which remain symmetrical after a checking move. What can the third piece be?

Pawn through promotion (wKa1 Pa7 bKa5 and a7-a8Q+), rook through castling (wKe1 Ra1 bKh1 and 0-0-0+), and – which is the point – knight on a nightrider line (wKa1 Sc2 bKg4 and Sc2-e3+). [A nightrider is a long-distance knight, which can make moves like Sa1-e3 or Sa1-d7.]

**No. 187:** *Werner Keym, Die Schwalbe 1993, 2nd commendation. What is the maximum number of squares that can become reachable for an unpinned white piece as result of a move by a) another white piece, b) a black piece?* 

a) The maximum number of new moves to be performed is 12; these options become available for the wRh1 following 0-0 (castling is considered to be a king move!) (e1 ... a1 and f2 ... f8). b) The maximum number of new reachable squares is 9, resulting from an e.p. capture, e.g. wQh3 g4 bPh4 and h4×g3 e.p. (g4 ... c8 and h5 ... h8). When first being confronted with the stipulation of this problem who would have thought of the two special moves, castling and en-passant?

**No. 188:** Werner Keym, Die Schwalbe 1987. How many legal positions with the kings and a rook are there in which the ratio of the number of moves that the three pieces can make is 1:2:3 and becomes 2:1:3 after a white and a black move?

Only the position bKa8 wKe1 wRh1 (possible moves 3:6:9 = 1:2:3) and 1.0-0 Kb7 (8:4:12 = 2:1:3); e.g. bKb8×Sa8 was played and 0-0 is legal. The wrong answer is wKa1 bKe8 bRh8 (0-0 is illegal, since the bK/bR made the last move). This is the first ever problem where the ratio of possible moves is involved. Cp. P1204512 and P1347496.

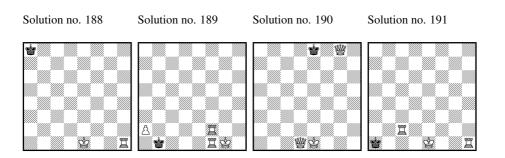
**No. 189:** Werner Keym and Bernd Schwarzkopf, Die Schwalbe 2005 (c). Construct an economical legal mate position (Black is mate). All possible mirror reflections of this position are not legal mate positions.

The only position is wKg1 Rf1 Rf2 (Qf2 is not economical) Pa2 bKb1 (last move: 0-0+). Illegal are the mirror positions wKb1 Rc1 Rc2 Ph2 bKg1 or wKc1 Rd1 Rd2 Pi2 bKh1 or wKg8 Rf8 Rf7 Pa7 bKb8 or wKh2 Rg3 Rh3 Pg8 bKh7. A legal position, but without a mate, is wKg1 Rf2 Rg2 Pf7 bKg6. Two brains, one find.

**No. 190:** *Werner Keym, Eigenartige Schachprobleme 2010. The pieces making up a position have made the smallest possible number of moves. White mates in 1 move. How many pieces are necessary?* 

Only 4 pieces are necessary: wKe1 Qd1 Qg8 bKe8 and 1.Ke7 Qdd8#. If Qg8 is a promoted piece and the last moves were  $h7 \times Xg8Q X$ -g8, not a single piece had to make any moves. This was extremely hard to find even for experienced solvers.

**No. 191:** *Karl Fabel, Die Schwalbe 1937. Construct a position with the kings and two white rooks in which White can mate in four different ways.* wKe1 Rc2 Rh1 bKa1 and 1.Kd2/Ke2/Kf2/0-0#.



**No. 192: Werner Keym,** Die Schwalbe 1994. Is there a chess piece the moves of which can all be forced (without any exception)?

All moves performed by a knight can be forced by zugzwang. On the contrary, certain moves by the kings (0-0), queens (Qd1-a1), rooks (Rh1-h3), bishops (Bc3-h8), and pawns (a2-a4 and c7-c8B) cannot be forced.

**No. 193:** Werner Keym, The Problemist 1991. Construct a legal position with three pieces in which the distance (measured between square centers) between the first and the second piece is half as long as that between the second and the third piece, but after a white move it is four times as long.

First piece bKg1, second wKe1, third wRa1; 1.0-0-0+. 'Quite elusive.'

**No. 194:** Werner Keym, Allgemeine Zeitung Mainz 1994. In a chess game, all pieces on the board occupy light squares. Does such a circumstance make no difference for White in any case?

In almost all cases it makes no difference; but in one case (bKe8 and bRa8 and legal castling) this can be unfavourable for White.

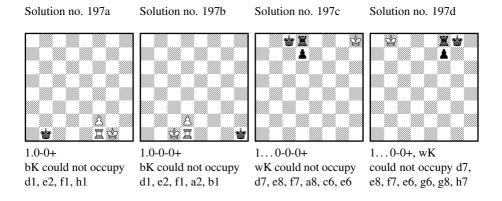
**No. 195:** Werner Keym, Die Schwalbe 1994, 1<sup>st</sup> HM, version. What common feature is shared on a standard chessboard only by a2, g4 and h5 as the starting squares for a particular white piece?

The ratio of the number of light squares to the number of dark squares that can be reached by a white pawn from a2, g4 and h5 is 15:12, 10:8, and 5:4, i.e. 5:4 in each case. This common feature is in fact 'simple'; but nobody found out about it in 1994 – not even with the assistance of the computer.

**No. 196:** *Werner Keym, Die Schwalbe 2014,* 1<sup>st</sup> *HM. Construct a position with the kings and a bishop which has the following features: the wK and the B have made the fewest possible number of moves; there is only one possibility to add a) a white, b) a black piece for a mate position. 3 solutions.* 

Tries: in the positions Ke1 Bd3 Ke3 and Ke1 Bf3 (promotee) Ke3 there are two possibilities in b), namely bQc1/Rc1# and bQg1/Rg1#. Here are the three solutions: 1) Kg1 Bc1 Kf3 (last move bK $\times$ Xf3; only move of wK was w0-0) with +wQg2# and +sQg2#; 2) Kf1 Kh2 Be1 (promotee) with +wQg2# and bQf2#; 3) Kc1 Ka2 Bd1 (promotee) (only move of wK was w0-0-0) and +wQb2# and +bQc2#. – Thus, all four options of move possibilities are presented in the tries and solutions for the wK (not to move; to make an ordinary move; short castling; long castling) and for the B (wB on a light/dark square; bB on a light/dark square; moreover, original Bs and promoted Bs).

**No. 197** (FIDE-Album): *Werner Keym, Die Schwalbe 2006, 2^{nd} Prize. With the two kings (on different coloured squares), one officer and one pawn, construct a position in which it can be proved that a piece, in the course of the retro-play, cannot have occupied precisely 4 light squares. Same question with b) 5, c) 6, d) 7 light squares.* 



**No. 198:** Werner Keym, Die Schwalbe 2013, Prize. Every square on an ordinary  $8 \times 8$  chessboard carries a number, a different one in each case. The sum of the numbers carried by those squares on which white and black pieces are arranged in a legal position remains unchanged at each stage after White's 1<sup>st</sup>, Black's 1<sup>st</sup>, White's 2<sup>nd</sup> and Black's 2<sup>nd</sup> move. On which of these moves is no capture made?

The only moves that fulfil the condition of the unchanged sum are the following: enpassant capture, White's castling, Black's castling, capturing move from the square carrying the number 0. The right order of these moves is 1) en-passant capture (White), castling or capturing move from the square 0 (Black), 2) castling (White), capturing move from the square 0 or castling (Black). So on White's 2<sup>nd</sup> move no capture is made. Surprise: We do not know the number nor the kind of the pieces nor the numbers on the squares, yet the solution is unambiguous. No. 197 and no. 198 are my best text problems.

## Asymmetry

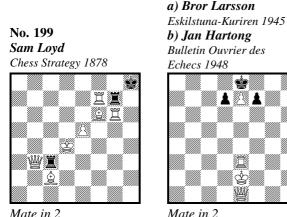
You will find more than three thousand symmetrical problems in PDB (K='symmetrical position'). Many of them have a symmetrical key, i.e. a move which keeps the symmetry of the position. In general they are less interesting than the problems with an asymmetrical key as no. 200-217.

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No. 200



Mate in 2 a) diagram b) all 1 file to right

No. 201 Miroslav Stosic problem 1971 1<sup>st</sup> Prize

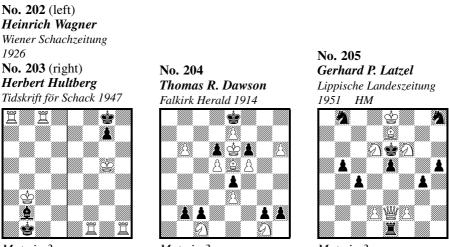


Mate in 2

**No. 199:** On this problem *Loyd* himself gives the following comment: 'It is a little bagatelle I once posed in the shape of an arrow, and sent to a friend, who, from the nature of the solution, christened it Peek-a-Bo. My friend, Capt. Mackenzie, has shown it for years as the funniest problem he ever saw. He used to bet that no one could solve it "without taking back" a move.' Solution: 1.B×g7+Kg8/Kh7 2.Bf6#. This problem is a curious cross between asymmetry (position: wQb3 and wBc2) and symmetry (solution:  $1.B \times g7+$ ).

No. 200a: Thematic try: 1.Ob4? f6.f5!. Solution: 1.Oh4! [thr. 2.Oh8#] d6.d5/f6.f5 2.Qa4/Qh5#. - No. 200b: Try: 1.Q1?. Solution: 1.Qa1! [thr. 2.Qa8#] e5/g5 2.Qa3/Qh8#. (No. 200a/b: FIDE-Album)

No. 201 (FIDE-Album): Six tries by the bishop are refuted by six flights of the king: 1.Ba3/Bb4/B×c7/Bg3/Bf4/B×e7? Kc3/K×c4/Kc5/Ke3/K×e4/Ke5!. Solution: 1.Bh2! Kc3 2.Be5# and 1...Kc5/Ke3 2.Bg1#



Mate in 3

Mate in 3

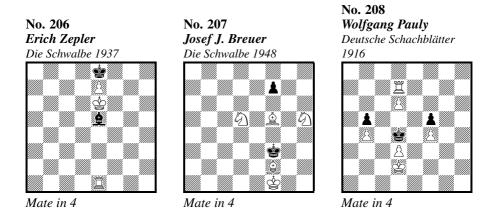
Mate in 3

**No. 202:** Thematic try: 1.Ra3? Bd4/e5... Solution: 1.Rc3! Ba3 2.K×a3 Ka1 3.Rc1#, 1...B×c3 2.K×c3 Kc1 3.Ra1#, 1...Ba1 2.R×a1+ K×a1 3.Rc1#, 1...Bc1 2.Ra1+ K×a1 3.R×c1#. Sacrifices of the rooks with zugzwang, star-flight of the bishop. Cp. P1167955.

**No. 203:** Thematic try: 1.Rf6? g6! 2.R×g6+ Kf7/Kf8 3.Rf1+. Solution: 1.Rh6! g6 2.R×g6+ Kh7/Kh8 3.Rh1#, 1...g7×h6+ 2.K×h6 Kh8 3.Rf8#.

**No. 204:** Thematic try:  $1.B \times b2$ ? h1B! 2.b7 stalemate. Solution:  $1.B \times h2$ ! b1B 2.h7 Ba2 3.h8Q/R#. A paradox: The surplus of space turns out to be a disadvantage for Black.

**No. 205:** Thematic try: 1.d4? [thr. 2.d5#] e4 2.f4 [thr. 3.d5/f5#] g4×f3 e.p. 3.Q2#?. Solution: 1.f4! [thr. 2.f5#] e4 2.d4 [thr. 3.d5/f5#] c4×d3 e.p. 3.Qa2#. This problem shows a remarkable feature: the positions after the second white move both in try and solution seem to be the same, but they do not contain the same move rights as to what happens with the en-passant capture.



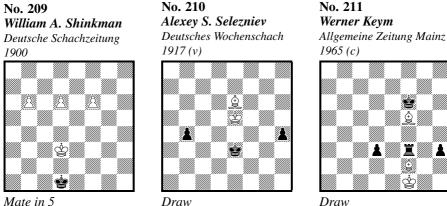
No. 206-208 are outstanding examples of chess composition.

**No. 206:** Thematical try: 1.Rg1? Bg7! 2.Rc1 Bc3 3.Rc2 3.Ba5!. Solution: 1. Rc1! Bc7 (1...Bc3? 2.Rc2) 2.Rg1! Bg3 3.Rg2 B~ 4.Rg8#.

**No. 207** (FIDE-Album): 1.Ba7!! f6 2.Sb6! Ke3 3.Sc4+ Kf3 4.Sd2#. The good old Indian theme in a symmetrical position with a surprising key. This is probably the most famous (a)symmetry problem at all.

No. 208 (FIDE-Album): Solution: 1.Rh7! Kd5 2.d7 Kd6 3.d8S! Kd5 4.Rd7#, 2... Kc6 3.d8R! (3.d8Q? stalemate) 3... Kb6 4.Rd6#, 2... Ke6 3.d8R! (3.d8Q? stalemate) 3... Kf6 4.Rd6#. Three model mates. One of *Pauly's* symmetrical masterpieces.

'Elegance is the restriction to the essentials in its most beautiful form'. (*Ralf Rothmann*)

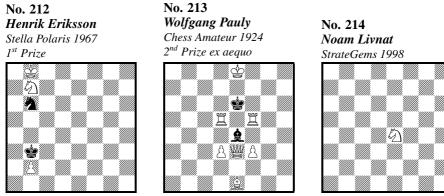


Mate in 5

No. 209: The symmetrical try 1.d7? is only refuted by 1...Ke1!. This is the thematic try: 1.b7? Ke1! 2.f7 Kf2 3.f8O+ Kg3 4.Ke3 Kg2/Kg4 5.Of2+/Of4+ Kh3!. Solution: 1.f7! (first on the 'wrong' side) Kc1 2.b7! (then on the right side) Kb2 3.b8Q+ Ka3 4.Kc3 Ka2/Ka4 5.Qb2/Qb4#.

No. 210: Tries: 1.Kd5?/Kf5? b3!/h3! 0:1; thematic try: 1.Kf6? Kf4! 2.Kg6 Kg3! 3.Kf5 h3 4.Ke4 h2 0:1. Solution: 1.Kd6! Kd4! 2.Kc6 Kc3 4.Kd5! b3 4.Ke4 b2 5.Ba2! h3 6.Kf3 h2 7.Kg2 =. An instructive endgame for the theme 'Bishop against two Pawns'.

No. 211: Tries: 1.Bxh3? d2! 2.Ke2  $R \times f2+$  3.Kd1 Rf3 4.B~ Rd3, analogous with 1.Bxd3? h2. This is the thematic try: 1.Bg4? Rf4 2.B×h3 d2 3.Bg4  $R \times g4$  4.Ke2 Rg2 5.Kd1 R×f2 6.Kc2 0:1. 1.Be4! (foreplan for the purpose of opening the line e4-h1) Rf4 2.B×d3 h2 3.Be4 (3.Kg2? R×f2+!) R×e4 4.Kg2 Re2 5.Kh1 R×f2 stalemate or 5... Kf5 6.Bg3 Kg4 7.B×h2 Kh3 8.Bg1 =. Both bishops are sacrificed for the surprising stalemate.



Selfmate in 9

Add wKQS and bK for an Illegal Cluster

**No. 212** (FIDE-Album): 1.Sd5! (asymmetrical) Ka7 (asymmetrical) 2.Sb4 Kb6 (symmetrical position!) 3.Ka4 (asymmetrical) Sc5#. A successive double setting with an ideal mate!

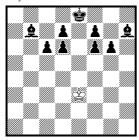
**No. 213:** Thematic try: 1.Rc5? Kd6 2.Bg3+ Ke6 3.B?. Solution: 1.Rg5! Kf6 2.Bc3+ Ke6 3.Ba5! Kf6 4.Bd8+ Ke6 5.Rc5 Kd6 6.Qf4+ Ke6 7.Qf7+ Kd6 8.Qf8+ Ke6 9.Rc6+ Bxc6#. 'Charming and difficult.' 'Elegant echo of idea by Bishop and Queen.'

**No. 214:** Thematic try: add wKh3 Qh1 Sg3 bKg1?, then there is a legal move:  $Qf3 \times Xh1 + h2 - h1X$ . Solution: add wKf1 Qh1 Sf2 and bKh2, then there is no legal last move: neither wQf3-h1+? nor wQf3  $\times Xh1 + ?$ . Cunning. Cp. no. 424.

**No. 215** is a similar IC with only one piece on the board: *Bernd Schwarzkopf*, *Die Schwalbe 1987. Add to the wKg7 five white knights and the black king for an Illegal Cluster*. Thematic try: knights on f6, f8, g6, g8, h7 and bKg5; without Sg8 the position remains illegal. Solution: knights on f6, f7, g8, h6, h7 and bKe7; without Sh7 the position becomes legal since the last move could have been  $h7 \times Xg8S+$ .

Helpmate in 3

No. 216 Bernd Schwarzkopf ASymmetrie 2013



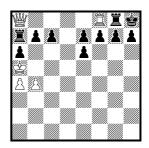
Black retracts 1 move, then helpmate in 1

No. 217a Michel Caillaud diagrammes 1980



Mate in 1

No. 217b



**No. 216:** Tries: backward  $1.e7 \times Qf6?$ ?, then 1.Bh7-g8 and no mate; backward  $1.e7 \times Qd6!$ ?, then 1.Ba8 Qb8#, but this position is illegal since Bh7 cannot leave the NE cage. The same circumstance goes for  $g7 \times Qf6!$ ?, then 1.Kf8 Qd8#. What next? Backward  $c7 \times Qd6!$ , then 1.Kd8 Qf8#. Insidious.

**No. 217:** a) The last move was not  $e_7 \times Xd6$ ? because then the wRc8 would be a promoted piece, which would require three captures (S, S and Q?) by white pawns on g, h7 and g8. The black queen, however, could not have passed by the king and become a sacrificial piece. Hence Black is on the move and plays 1.g6#!. b) Here the last move  $d_7 \times Xe6$ ! was legal, the white pawns captured three times (S, S and Q) and a white pawn promoted to rook on b8. So the solution is 1.R×g8#. Cp. no. 38.

The asymmetrical position of king and queen in the initial game array plays a part in the famous problems no. 238 by *Loyd* and no. 310 by *Dawson* as well as in my text problem no. 182.

An excellent book (in German) on such problems is 'ASymmetrie' by Michael Schlosser & Martin Minski (Potsdam, 2013; 645 p.).

# Adding pieces!

By adding pieces many options may arise, quite some of them turning out to be wrong. Therefore those problems are varied and attractive, often being a challenge as to retroanalysis. Here the aid offered by the computer is rather limited.



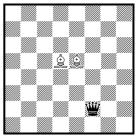
Add the white king.





Add the black king a) for a stalemate b) for a mate c) for a mate in 1 d) on a square where he can never be mated





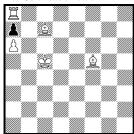
Add the kings. White to play mates in 1

**No. 218:** the solution is wKc3. The last moves were Kb3×Pc3+ b4×c3 e.p. c2-c4 B-d5+ (cp. no. 123). The last move record for K×P by *B. Pavlovic* (no. 147) has the (mirrored) position: wKf3 Bh4 bKe1 Rg5 Be5. An evergreen!

**No. 219:** a) Kh1, b) Ke3, c) Ka8 and Qc8#, d) the bK can never be mated by the queen and a dark-squared bishop on g7 (and – here illegal – on b2). *Loyd* again.

**No. 220:** Add wKf3 and bKh1, then mate by  $1.K \times f2#$ . Seemingly easy. The simpler stipulation 'Add the kings. Mate in 1' would allow two additional solutions: wKc1 and bKa1 with  $1.Qb2+/Qd4 B \times b2/B \times d4#$  as well as wKg6/Kh6 bKh8 with  $1.Qf6+B \times f6#$ .

No. 221 Ernst O. Martin Die Schwalbe 1933



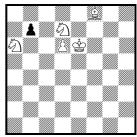
Add the black king. Mate in 1

No. 222 Werner Keym Die Schwalbe 1998



Add a bishop. Mate in 1 How many solutions?

No. 223 Günther Weeth Werner Keym Stuttgarter Zeitung 2005



Add the black king and a black rook. Mate in 1 3 solutions

**No. 221:** If you add the bK on b7, then Black is on the move with three variants:  $1.K \times a6/K \times a8/K \times c7$  Bc8/Be4/Rc8#.

**No. 222** has four solutions: I +wBd5 and 1.Re7#; II +bBg8 and 1.wPf5×g6 e.p.#; III +wBg6 and 1.Kg8 Re8#; IV +bBf3 and 1.K×g5 Rg8#. Devilish – because ever so insidious! In 1998 there was only one solver to find the four solutions.

**No. 223** caused many flops among solvers. At first two harmless solutions: +bKc6 +bRb5 and 1.Sab8#, +bKe8 +bRd8 and 1.Sc7#. Moreover: +bKc8 +bRd8 and 1.Sb6#, since the last black move was 0-0-0. A nice try is +bKa8 +bRa7 and 1.Sc7/Sb6#?, but in this case it was White who moved last.

No. 224 Werner Keym Heidelberger Tagblatt 1967 (v)



Add the black king. Mate in 1 single move How many solutions?

No. 225 Werner Keym Die Schwalbe 1995



Add 1 pawn. Mate in 1 How many solutions?

No. 226 Werner Keym Die Schwalbe 1995



Add 1 piece. Mate in 1 8 solutions

No. 224-226 are real puzzles. They are suitable for solving contests, especially when the number of the solutions is not stated.

**No. 224:** There are two solutions: a) +bKc6 and 1.Qb5#; b) +bKd3, in this case White moved last, therefore not 1.0-0-0#?, but 1.Qg1#!. Not +bKb2? and 1.Ra2# since again White moved last. The term 'single move' is necessary; otherwise there would be the solutions +bKb6/bKc5 and 1.Kc6 Qb5#.

No. 225 has four solutions:

- a) +sPb4 and 1.B×b4#
- b) +wPb4 and 1.c5#
- c) +bPc7 and 1.c7-c5 b5×c6 e.p.#
- d) +bPe5 and 1.Ke6 Qg6#

No. 226: In the diagram position Black is on the move.

- a) +wBd4 (backward Ke4-f3 possible) and 1.Se5#
- b) +wSf5 (backward Ke4-f3 possible) and 1.Se5#
- c) +wSe4 (White moved last) and 1.K×g4 Sg5#
- d) +wBe4 (White moved last) and 1.K×g4 Bg2#
- e) +bRd1 (last move bR-/×Xd1+) and 1.Be1 R×e1#
- f) + bQd1 (last move bQ-/×Xd1+) and 1.Be1 Q×e1#
- g) +bQh3 (White moved last) and 1.Qg2#
- h) +wRh1 (part of 0-0, earlier bKg2-f3) and 1.Rf1#
- Here you see the four theoretical possibilities of White's/Black's turn to move and White's/Black's mate plus half castling.

In 1995 there was only one solver who found the 8 solutions.

No. 227 Werner Keym Die Schwalbe 1968



Add the black king. Mate in 1

No. 228 Rafael M. Kofman Vecherny Leningrad 1968 3<sup>rd</sup> Prize



Add the white king. Mate in 2

No. 229 Andrew Buchanan France-Echecs 2002 1<sup>st</sup> Prize



Helpmate in 2 b) Add 1 piece. c) Add 1 piece again.

No. 227: The black king on d3 or f3 can be mated by 0-0-0 or by 0-0. But with bKf3 there was no previous black move, so it is Black to play. With bKd3 the last move could have been Kc4-d3 a2×Xb3+. So the solution is bKd3 and 1.0-0-0#. It is important to be aware of the fact that Re7 and Be8 are promoted officers. If you put a white queen on e8, the problem will become unsound, for in this case the last moves could have been bKe4×Sf3 Se5-f3+ (S = promoted officer).

In no. 228 (FIDE-Album) everything would be alright without the white king: 1.Rd1 0-0 2.Rg1#. But where to place it? Whichever square you choose it proves to be an obstacle, on square e1 as well. But there is one unexpected method we can have resort to, and this is castling: 1.0-0-0! 0-0 2.Rg1#. Necessity is the mother of invention.

**No. 229:** a) 1.Sa6 R×a6 2.0-0-0 Ra8#; b) (+bRh7) 1.0-0 R×f6 2.Kh8 R×f8#; c) (+bBf5) 1.Kf7 Sf3 2.Kg6 Se5#. Black moved Pe×Xf and Pf×Xg×Rh2, so no white piece may be added. White captured Pa2×Xb3 and the wPd promoted to R somewhere. In a) the wPd captured 4 times and promoted to R on h8 (0-0-0 permitted); the promotion on a8 (0-0 permitted) is possible as well, but not successful since there is no mate because of the flight square h7. In b) with an additional piece the wPd captured only 3 times and promoted on a8 (0-0 permitted) and there is a mate by means of the block (bRh7). In c) with two additional pieces the wPd promoted on c8, d8, e8, f8 or g8 and castling is no longer permitted, but the second block (bBf5) is helpful. A new and surprising idea.

No. 230 Thomas R. Dawson Chess Amateur 1918



Add a white rook. Mate in 1

No. 231 *Karl Fabel Die Welt 1952* 



Add the black king. Mate in 1

No. 232 Hans Klüver Die Welt 1948



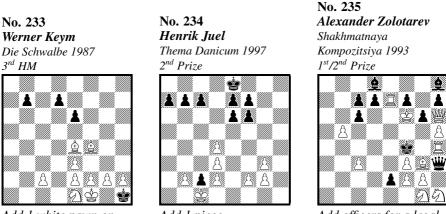
Add a white queen. Mate in 1

No. 230–232 are classical showpieces. In **no. 230** the wBf1 died on f1. The wPs captured 6 pieces, among them the promoted officer from a1 (earlier  $b3 \times Ra2!$ ). Therefore not +wRb1? and 1.b3#, but +wRc3! and 1.b3#. *T. R. Dawson* reports that even the editor of the *Chess Amateur* was taken in by the try +wRb1.

**No. 231:** The try +bKc1? followed by 1.0-0# is striking. The black king, however, did never leave the 8<sup>th</sup> rank. Here the genesis of the position:  $wS \times Bf8$ ,  $bS \times Bc1$ ,  $bS \times Bf1$ , b0-0,  $bPa \times Qb-b3 \times Ra2-a1X$ ,  $wPh2 \times Rg3 \times Sf4 \times Se5 \times Xd6 \times Pc7 \times Qd8R$ . So +bKh8! and  $1.R \times f8$ # is correct.

In **no. 232** the wPs captured the 8 missing black pieces, among them the bBc (therefore not backward b7-b6?). Backward a2-a1S? is illegal, since then there would be too many captures by pawns in view of the 11 white pieces (including the queen), for bPf must pass by wPf. The solution is amazing: +wQf8! and 1.Qf1#. In this case Black moved last, i.e. Ka2-b1 f7-f8Q+! (earlier bPf×Xe→e1X). Tricky.

'The chess problem is poetic mathematics or mathematical poetry'. (*Philipp Klett*)



Add 1 white pawn on the f-file. Mate in 1

Add 1 piece. Last move?

Add officers for a legal position.

In **no. 233** the wBf1 died on f1, the bBc8 on c8. Be4 is a promoted officer. Obviously it is illegal to add +wPf3? or +wPf5?. Genesis of the position with wPf6:  $a2 \times Qb3 \times Xc4(X=bPa) \times Rd5 \times Se6 \times Pf7 \times Se/g8B$ ,  $bPh \times Qg \times Rf \times Re-e3$ ,  $g7 \times Sf6$ ,  $bBf8 \rightarrow e5$ ,  $b2 \times Pc3 \times Rd4 \times Be5 \times Pf6$ ,  $d2 \times Pe3$ . So White moved last (e.g.  $d2 \times Pe3$ ), earlier e7-e6. Therefore Black plays 1.d7-d5 and prevents g2-g4#. Genesis of the position with wPf7:  $b2 \times Pc3 \times Rd4 \times Se5 \times Pf6 \times Pg7$ -g8B,  $d2 \times Be3$ ,  $h7 \times Qg6 \times Rf5 \times Re4 \times Sd3$ -d2-d1Q/R/S,  $a2 \times Qb3 \times Xc4(X=bPa) \times Rd5 \times Se6$ , finally  $e6 \times Q/R/Sf7$  e7-e6. Now the solution is 1.g2-g4#. Deciding on Pf6 or Pf7 makes a great difference. 'It is impressing, how many retroanalytical subtleties can be deduced from such small material.'

In **no. 234** a bBf8 must be added. Critical position: wKc1 Be6 a2 b2 c3 d2 d3 f2 g2 g3 bKe8 Qd8 Ra8 Rb5 Bc8 Bf8 a7 b7 c2 c7 d7 e7 f7 g7. Then  $1...d7 \times Be6$  2.a2-a3 Qd8-d4 3.a3-a4 Bc8-d7 4.a4×Rb5 Bd7-c6 5.b5×Bc6 0-0-0! 6.c3×Qd4 Rd8-d7 7.c6×Rd7+ Kc8-b8 8.d7-d8S! Kb8-c8 9.Sd8-c6 Kc8-d7 10.Sc6-b4 (or Sc6-e5+) Kd7-d8 11.Sb4-d5 Kd8-e8 12.Sd5-f6+ g7×Sf6. The added piece is a total idler and only counts for the fulfilment of the stipulation.

In **no. 235** (FIDE-Album) these pieces must be added: wSg7, bBg4, bSg5. Critical position: wKf6 Qh6 Rg5 Rh4 Bf1 Bh2 Sg1 Sg3 Sg4 b3 c2 e2 f2 g2 h5 bKf4 Qh3 Rf3 Bc8 Bd8 Bh8 Se7 Sg7 b7 c7 d7 e6 f7 g6 h7. Then  $1.e2 \times Rf3$  e6-e5 2.Bf1-b5 e5-e4 3.Bb5-c6 b7 $\times$ Bc6 4.b3-b4 Bc8-a6 5.c2-c3 Ba6-c4 6.b4-b5 Bc4-e6 7.Sg4-e3+ Be6-g4 8.Se3-f5 Sg7-e6+ 9.Sf5-g7 e4-e3 10.Rg5-e5+ Se6-g5 11.Re5-e6 Se7-f5+ 12.Re6-e7 e3-e2 13.Sg3-h1+ Sf5-g3 14.Bh2 $\times$ Sg3+. 5 retro unpins!

No. 236 Jens Guballa Werner Keym Problem-Forum 2006



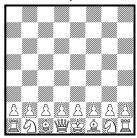
Add a black piece so that Black can never castle. How many solutions?

No. 237 Josef Haas feenschach 1971 1<sup>st</sup> Prize



Add the black king. Mate in 1 single move a) +bPb4, +bPg5 b) +bPb4, +bPe7 c) +bBh5, +bPg7 d) +bPb4, +bPg7

No. 238 Sam Loyd Chess Monthly 1858



Add the black king. Mate in 3 moves

No. 236: There are 5 solutions.

1) +bSd6, then White is mate.

2) +bRh7, then Rh8 must have moved.

3) +bQa8, then Ke8 must have moved (because of wKe1 $\rightarrow$ e8 $\rightarrow$ c8).

4) +bBa6, then Ke8 must have moved (last move was  $b7 \times Xc6+$ ).

5) +bPa2, then Ke8 or Rh8 must have moved. Genesis of the position: wS×Bf8, bS×Bf1, bPb7 und bPf7 ( $\rightarrow$ a2) captured 6 pieces on light squares, among them the promoted officer from f8/h8 (earlier wPh×Xg×Xf/h), wPb2 captured twice. 'It is fantastic that each of the five pieces occurs once. It is funny that the K, the R, the K or the R, neither the K nor the R must have moved.'

**No. 237:** The wPs captured 11 times. a) +bKh5! and 1.Sf6#; not +bKg1? and 1.0-0-0#, since the bPa had to promote on a1; not +bKe4? and  $1.e5 \times d6$  e.p.#, since  $f6 \times Bg5$  was possible as well. b) +bKg1! and 1.0-0-0#; not +bKe4? and  $1.e5 \times d6$  e.p.#, since Black had no previous move before d7-d5 and Rc6-g6+. c) +bKe4! and  $1.e5 \times d6$  e.p.# (before that d7-d5 Rc6-g6+ B-h5); not +bKg1? and 1.0-0-0# because of bPa7-a1X. d) +bKe4! and 1.g1Q# (Black to play!). To me the best of *J. Haas'* sophisticated problems with the theme of 'adding pieces'.

**No. 238:** +bKh4! and 1.d4! Kg4 2.e4+ Kh4 3.g3# or 1...Kh5 2.Qd3  $\sim$  3.Qh3#. According to *S. Loyd* (and to the computer!): unique!

#### Adding pieces: construction records

There are countless record constructions, in the field of retro as well. They are fascinating for quite many problemists. Besides they show one specific characteristic in comparison with other problems: a record can only be measured and there is no subjective judgement.





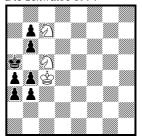
Adding a black pawn on 33 squares raises the number of White's possible moves.

No. 240 Werner Keym Die Schwalbe 1969



Adding a black pawn on 42 squares prevents mate in 1

No. 241 Peter Kahl Die Schwalbe 1974



Adding a white queen on 54 squares changes the turn to move

In **no. 239** the record of 33 squares is achieved by line obstructions and unpinning. The same number of squares and of pieces is obtained in a retro problem (P1068549).

No. 240: White can mate in 1 move by 1.0-0#. Castling is permitted: the white pawns (on the a-file) captured 10 pieces, moreover wPh×Pg-g8X; besides wPg2→g7, bPh×Xg→g1S, bPf×Qg-g1S, wPf2→f8X, bPe7→e2×Xf1S. If you add a black pawn, one sacrificial piece for White will disappear. So one black pawn had to promote on e1 or h1 and castling is not permitted.

**No. 241:** The last black move could be  $bPa7 \times Xb6$  since there were 3+1 white pieces and 12 captures by black pawns. This is changed by adding a white queen (4+1 white pieces). In this case the bPb6 did not come from a7, but from c7 (10 captures by black pawns). So White moved last and Black is to play.

#### Adding pieces: the stronger the slower

In general a stronger piece mates more quickly than a weaker. But the exception proves the rule.

No. 243



Add wBa1, wRa1 or wQa1. Mate in how many moves?

Werner Keym Stern 1998

or wOe5. Mate in how

many moves?

No. 244 Ralf Krätschmer Die Schwalbe 2001



Add wPg7, wSg7, wBg7, wRg7 or wQg7. Mate in how many moves?

No. 242: There is a mate in 1 single move by a bishop (1.Bd4#). The last move could be a4-a3 because the bPs could capture the 9 missing pieces on light squares. With Ra1 or Qa1 the bPd7 captured the dark-squared bishop on c5 or b4 or a3, so the last move could not be a4-a3 and Black is to play. The rook needs one single move more:  $1.bR \times h2 \ 0.0-0$ # and the queen even four moves:  $1.bR \times h2 \ Qg7+2.Kh1 \ R \times h2 + 3.K \times h2 \ Kf2 \ 4.Kh3 \ Qg3$ #.

**No. 243:** There is a mate in 0 moves by wSe5, in 1 move by wBe5 (1.Rd4#), in 2 moves by wRe5 (1.Rc3+ Kd4 2.Sc6#) and – that's the point – in 3 moves by wQe5 since in this position White moved last and Black is to play:  $1.K \times c4 \text{ Kc2!}$  2.Kb4 Sc6+ 3.Ka4/Kc4 Qa5/d3#. 'Chess paradoxical in letztform: the stronger the pieces are the longer the mating will endure. Normally all that works in the opposite direction as was shown by *Knud Hannemann* [no. 78].'

The first problem with five additions (P, S, B, R, Q) was a retro problem (P 1108924). **No. 244** is the first 'normal' problem to master this task. The queen must avoid stalemate, therefore it needs 6 moves.

Pg7 #2: 1.g8S d2 2.Sh6#

Sg7 #3: 1.Se6 d2 2.Sd4 K×f4 3.S×f3#

Bg7 #4: 1.f7 d2 2.Bd4 K×f4 3.Bf6+ Sd4 4.R×d4#

Rg7 #5: 1.Re7 d2 2.Re2 Sd4 3.Re×g2+ K×f4 4.Rd4+ Ke5 5.Re2#

Qg7 #6: 1.Qe7 d2 2.Re4 f5×e4 3.Q×e4 Sf5 4.Q×f3+ Kh4 5.Qf2+ Sg3 6.Q×g3#

# **Colouring pieces**

It is your job to colour the pieces to get a legal position.

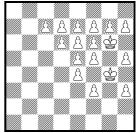
No. 245 Nicolay Burlaiev Shakhmaty v SSSR 1966

Colour the pieces. Last move?

**No. 246** *Gideon Husserl Israel Ring Tourney 1966-71 1<sup>st</sup> Prize* 



No. 247 Andrey Kornilov Thèmes 64 1985



Colour the pieces. Last move?

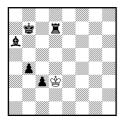
*Colour the pieces. Last move?* 

**No. 245:** The e.p. trick again: bPd4×c3 e.p.+ c2-c4 b5-b4+.

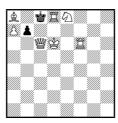
No. 246: A double check was given by wPc7×Sd8R.

**No. 247** is exciting: 9 w. and 8 b. pieces and 8 w. and 7 b. captures. Last move not  $g_2 \times Xh_3+?$  (10 w. captures), but  $h_2-h_3+!$ . You will find further problems in *Die Schwalbe Dec. 1993* and *PDB* (K='Coloring problem').

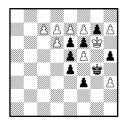
Solution no. 245



Solution no. 246

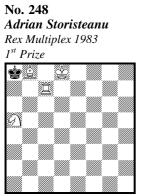


Solution no. 247



# Rotations

Here two kinds of rotations are presented: serious ones and ...



Mate in 2 b) Turn 90° (wKh5)





Mate in 3 b) Turn 180°

**No. 250** *Ralf Krätschmer Die Schwalbe 2010* 



Mate in how many moves? b) Turn 90° (wKf8) c) Turn 180° d) Turn 270° (wKc1)

**No. 248:** a) the last move was bKa7-a8 b7-b8B+, so  $1.Ra7+! K \times b8 2.Sc6#$ . b) White moved last, therefore  $1.K \times h7! Sf6+ 2.Kh8 Rg8#$ . Same white moves in reverse order. Lovely.

**No. 249:** a) 1.Bf6! g7×f6 2.Kf8 f5 3.Sf7#; b) 1.Kc3! b1Q 2.Sc2+ Q×c2+ 3.K×c2#, 1...b1S+ 2.K~ Sc3 3.B×c3#.

**No. 250:** a) #1  $1.d3 \times e4$ #!; b) #2 1.Be5!; c) #3 1.Bb1! Rb7; d) #4 1.Be1! d2+/Sc3 – all variants are dual-free. (cp. the early example with duals P1265405)



# No. 251

#### Zvi Roth

Al-Hamishmar 1970 Commendation White retracts 1 move and mates in 1 b) Turn 180°

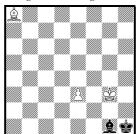
a) Backward 0-0 and 1.Rh3#; b) backward d5×e6 e.p. and 1.Rd8# (FIDE-Album).

No. 252 Werner Keym Allgemeine Zeitung Mainz 2002



White retracts 1 move and mates in 1 b) Turn 90° (wKh4) c) Turn 180° d) Turn 270° (wKa5)

**No. 253** *Werner Keym Stuttgarter Zeitung 2002* 



White retracts the last move and mates by a different move. How many retro moves are there? b) Turn 90° (wKc2) c) Turn 180° d) Turn 270° (wKf7)

No. 254 Nikita Plaksin Vladimir Levshinsky diagrammes 1987

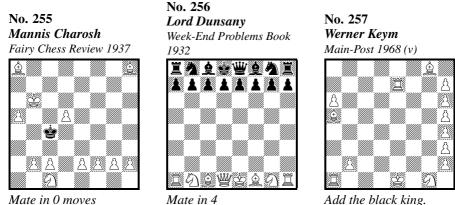


Mate in 1 b) Turn 90° (wKe1) c) Turn 180°

No. 252: a) backward f4-f5+ and 1.Qe5#; b) backward e2-e3+ and 1.Qf3#; c) backward c3-c4 and 1.Qd4#; d) backward e5 $\times$ d6 e.p.! and 1.Qc1#. Pleasant.

**No. 253:** a) there are five possible retro moves: backward wPa7-a8B# (before that e.g. g2-g1B) and 1.a7-a8Q#; backward wPb7×Q/R/B/Sa8B# and 1.b7×Q/R/ B/Sa8Q#. b) there are three possible retro moves: backward wPg7×Q/R/Sh8B# and 1.g7×Q/R/Sh8Q#; backward not wPg7×Bh8B#? nor wPh7-h8B#? (Black had no previous move). c) backward only wPe5×d6 e.p.# (before that d7-d5 e4-e5+) and 1.Bxd5#. d) there is no other mate except by wK-/×f7#. So the right numbers of retro moves are 5-3-1-0. Tricky. (cp. the more complicated example P1004344)

In **no. 254** only the white dark-squared bishop is missing. a) the last moves were d7d5 Rc6-e6+ Kd5-e4, White is to play:  $1.e5 \times d6$  e.p.#; b) Black is to play:  $1.K \times d3$ 0-0-0#; c) Black is to play: 1.Ke6 d7-d8S#. This problem presents the three special moves e.p. capture, castling and promotion. A perfect Valladao problem.

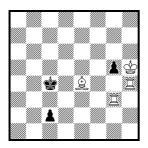


Add the black kin Mate in 1

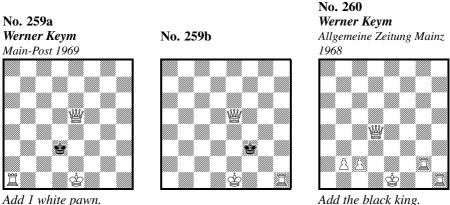
In no. 255–257 the illegal positions must be turned by  $180^{\circ}$ . In **no. 255** the Ba8 cannot come from f1 nor is it a promoted officer. Turn by  $180^{\circ}$ : mate!

In **no. 256** bK and bQ are not on their original squares. After turning the solution is 1.Sc6/Sd7 (cook) Sf3 ... 4.Sd3#. If the white rooks and knights change their places it is all ok: 1.Sg6! ... 4.Sd3# (*Werner Keym, Die Schwalbe 2012*).

**No. 257:** The wPs on the h-file seem to have performed 15 captures, among them two promoted officers (bPa and bPb). But this is impossible since there are only two white sacrificial pieces. So not +bKh8?? (Black has no previous move) and Bc3# nor Kd3!? and 0-0-0#, but after turning the board by  $180^{\circ}$  +bKf7 and g7-g8Q#.



No. 258 Viktor Chepizhny Bohemian Jubilee Tourney 1962  $1^{st}$  Prize Helpmate in 2 b) Turn 90° (wKe1), c) Turn 180°, d) Turn 270° (wKd8) a) 1.c1R R×g5 2.Rc3 Bc2#; b) 1.b5 Bc3+ 2.Kc5 Ba5#; c) 1.b3 Rb4 2.f6 Bf7# ; d) 1.g2 Bf4+ 2.Kf2 Bh2#. A most elegant helpmate problem.





Add the black king. Mate in 1

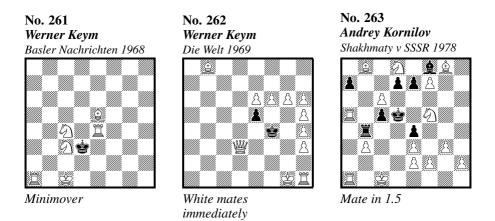
**No. 259:** In diagram position 259a the try is +Pb3? and 0-0-0#, in 259b +Ph3? and 0-0#, but square h1 is dark. So the board must be turned by  $90^{\circ}$  (anticlockwise: wKh5). Then the solution of 259a is +Pf2! and Rh4#, of 259b +Pf7! and f7-f8Q#. 'Very nice joke.'

In **no. 260** there are two different tries: a) +bKc1? and 1.0-0#, but in this case the bK had to move to c1 via d1 or d2 and castling is not permitted; b) +bKf3? and 1.0-0#. This seems to be successful. But square h1 is dark. So the board must be turned by  $90^{\circ}$  (clockwise: wKa4). Then you add the black king on a6 (the square a6 was 'c1' before the rotation!) and mate by 1.b7-b8S#. Twice cant castling and one underpromotion. Many solvers were enthusiastic about this extraordinary problem and composed funny poems added to their solutions. My best retro miniature.

The most famous problem with rotation is no. 76.

## Half moves

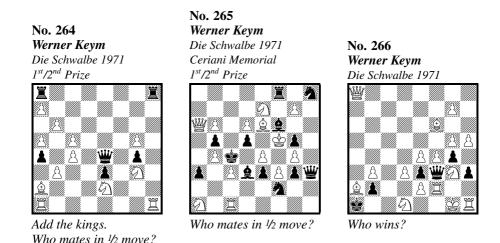
The following half move problems are quite serious.



**No. 261:** Not 1.Sb2#?, since Black did not move last and cannot move next. The stipulation 'Minimover' gives a hint. This problem must be shorter than a one-move problem. So White is just castling, the first part is finished (Ke1-c1, before that bKc2-d3), the second must follow: Ra1-d1#. A more serious stipulation may be 'White mates immediately' or 'Mate in  $\frac{1}{2}$  move'. Castling is very suitable for half move problems since the laws of chess prescribe that the king has moved first, then the rook, each piece touched by one hand!

The position of **no. 262** is illegal, because the wPs captured 15 pieces. Therefore do not play Rh1-f1? (= part of 0-0#), but remove Pe5 (= part of  $d5 \times e6$  e.p.#), then the position is legal. Here, too, the stipulations 'Mate in  $\frac{1}{2}$  move' and 'Mate in less than 1 move' are possible. There is even a problem with a  $\frac{3}{4}$  move (P1066698).

**No. 263:** Tries are three half key moves, namely e.p. capture, castling and promotion (Valladao). a) not 1. removing c5? (= part of  $b5 \times c6$  e.p.+) Rb5 2.R×b5# because the previous move c7-c5 locks up the wBb8 which is no promotee in view of 8 wPs; b) not 1.Ra1-d1? (= part of 0-0-0) Rd4 2.R×d4# because the wRa5 went from h1 to a5 via e1 and castling is not permitted; c) not 1.f7-e8S+? (= part of f7×Xe8S) e6 2.Sf6#, since there is no sacrificial piece X; the wPs captured 6 pieces, but not the bPs g and h, which died on g and h for lack of white sacrificial pieces. The solution elucidates the high originality of this problem:  $1.S \times e7+! B \times e7$  2.f7-f8#! (= part of f7-f8X#). One might put it as follows: pawn remains pawn!



**No. 264:** Not +wKc1/+bKd3 and Ra1-d1#?, not +wKg1/+bKf3 and Rh1-f1#?, not +wKf6/+bKg8 and 1.Rh8-f8#?, but +wKd6/+bKc8 and 1.Ra8-d8#!. The wPs captured 9 pieces, among them 2 promoted officers ( $f7 \rightarrow f1X$ ,  $g7 \times Bf6 \rightarrow f1X$ ), besides  $h5 \times Qg4$ ,  $h2 \rightarrow h8X$ ,  $b5 \times Xa4$ . So only b0-0-0 is permitted. 'An extremely beautiful problem of rare economy, an original task with all four half castlings, complete use of the board and fine concentration of the control by the sole bQ – and moreover perfectly retroanalytical content. This problem is a milestone ...'

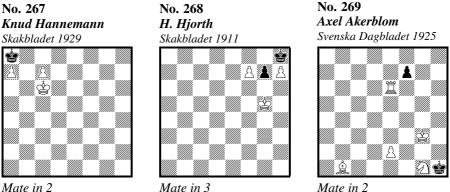
The position of **no. 265** seems to be illegal. It becomes legal if you remote one white or black pawn as part of an e.p. capture. There are 8 (!) possible e.p. captures, but the positions before a)  $1.a5 \times b6$  e.p.#?, b)  $1.c5 \times b6$  e.p.#?, c)  $1.c5 \times d6$  e.p.#?, d)  $1.e5 \times d6$  e.p.#?, and e)  $1.d4 \times e3$  e.p.#?, f)  $1.f4 \times e3$  e.p.#?, g)  $1.h4 \times g3$  e.p.#? are illegal, since sacrificial pieces are missing or promotions impossible. Nothing else but removing the wPg4 (as a part of bPf4×g3 e.p.#!) results in legality. Genesis of the position:  $h6 \times Rg7$ ,  $h7 \rightarrow h1Q$ ,  $a5 \times Qb6$ ,  $a7 \rightarrow a3$ , e2-e4,  $d4 \times Be3$ ,  $d2 \rightarrow d6$ ,  $c6 \times Rd5$ ,  $wS \times Pe7$  and g2-g4 f4×g3 e.p.#. Record: 8 times 'half en-passant capture'. Non plus ultra!

**No. 266:** There are 16 white pieces. The wPs captured 10 pieces, e.g.  $g_3 \times Xh_4-h_5$ . The last move was 0-0, the first part (Ke1-g1, before that bQg2-f3) is already done, the second must follow: Rh1-f1. Solution: 1.Rh1-f1! Qg2+! 2.R×g2 h2+! 3.~ stalemate. 'Therefore: nobody wins! A witty point.'

You will find further examples in PDB (K='Finish or retract an unfinished move').

#### **Unconventional first move**

In the following directmate problems Black is on the move, which can be proved by retroanalysis. However, these are not difficult release problems (numerous such problems can be found in the PDB (K='Whose move')), but mostly easy two-move and three-move problems with positions which disguise the fact of Black's being to play in a clever manner..



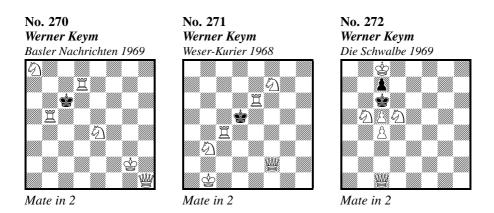
Mate in 2

In the three classical problems no. 267–269 from Scandinavia you will easily see that Black did not move last - but only so if you should come to think at all.

No. 267: The try is 1.c8Q+? K×a7 2.Qb7#, the solution  $1.K \times a7!$  c8R! (c8Q? stalemate) 2.Ka6 Ra8#.

No. 268, too, deals with promotions. The try is 1.f8S? g6 2.Kh6 g5 3.Sg6#, the solution, however, 1.Kxh7! (1.g6? Kh6 2.g5 f8Q.R#) f8Q 2.g6 Kf6 3.g5 Qg7#. As far as I know the author's solution was the sequence with the promotion 1.f8S. After the publication experienced solvers pointed at the obvious fact of Black's being on the move.

No. 269 is a problem with an unexpected variety:  $1.f7 \times e6/f6/f5/K \times g1!$  Sh3/Sf3/ Kf2/Rf6 2.e5/f5/~/Kh1 Be4/Rh6/Rh6/Rf1#. Unfortunately there is no mate in 2 moves with White to play.

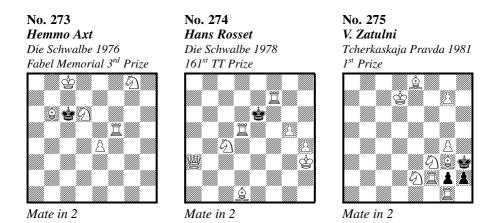


In no. 270–271 six squares around the black king are not occupied, but they are guarded by white rooks and white knights twice. So Black is on the move.

The solution of **no. 270** is  $1.K \times d7!$  Qh7+ 2.Kc8/Kd,e8/Ke6/Kc6 Qc7/Rb8/Sc7/Qb7, Rc5# (mate dual) and  $1.K \times b5!$  with echoes. There is no mate in 2 moves with White to play. The same phenomenon can be seen in the predecessor P1108448 and the successor P0007076.

**No. 271** is one of my favourites. It is supposed to be the most elegant miniature showing the perfect disguise of Black's turn to move with the black king in the middle of the chessboard. Not 1.Rb6!? K×c4 2.Qd4#, but 1.K×e6! Rc7 2.Kd5 2.Qf5# and 1.K×c4! Qd4+ 2.K×b3/Kb5 Re3/Rb6#. In 2002, on the occasion of my 60<sup>th</sup> birthday, this problem (along with my photo see p. ii) was published in the newspaper *Rhein-Zeitung Koblenz*. 223 of 237 entries were incorrect (1.Rb6!?).

In **no. 272** there is an asymmetrical try (White to play) with a symmetrical final position: 1.Qf4? K×c5 2.Q×c7#. Solution: 1.K×c5! Qf4 [thr. 2.Q×c7#] 2.c6 Qd4# asymmetrical.

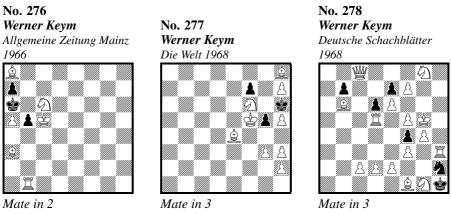


**No. 273** is a miniature containing a remarkable variety of problem moves. There is a try with White to play and four dual-free variants. Not 1.Bd4?  $K \times d6$  2.Rf6#, but  $1.K \times b6!$  Sc4+ 2.Kc6/Ka6,Ka7 Se7/Ra5# and  $1.K \times d6!$  Bc7+ 2.Kc6/Ke6 Se7/Rf6#.

The theme of **no. 274** being a double 'star flight' cannot be achieved in a usual two-move problem with White on the move. The solution  $1.K \times d5!$  Rd7+  $2.K \times c4/Kc6/Ke4/Ke6$  Be2/Ba4/Qf3/Bg4# and  $1.K \times f7!$  Rd7+ 2.Ke6/Ke8/Kg6/Kg8 Bg4/Qe7/Qd3/Qa8# is completely dual-free. Try: 1.Rf4? K×d5 2.Qd6#. – Almost the same theme was achieved in the miniature P1145194 (with a mate dual).

**No. 275** is highly original. Try with White to play: 1.Bh5? ~ 2.Sg5#. Solution:  $1.K \times g4 \ g8Q/R \ 2.Kh3/Kf5 \ Sf4,Qe6/Sd2,Qe6,Qg6#. 1.h2 \times g1Q/R \ Sf \times g1+ 2.K \times g4 \ g8Q,R#; 1.h1S \ Bh5 \ 2.S \times f2/S \times g3 \ Sg5/Sf4#; 1.h1B! \ g8B!! \ 2.K \times g4 \ Be6#. Such an echo underpromotion cannot be achieved in a usual two-move problem with White on the move.$ 

'Plausible impossibilities should be preferred over implausible possibilities'. (Aristotle)



b) – Pe7

**No. 276:** The solution is not  $1.a5 \times b6$  e.p.?  $a7 \times b6+ 2.R \times b6\#$  since bPb7-b5 could not have been the last move because of the wBa8, but 1.b4! Rb3 zugzwang  $2.b4 \times a3$  Bb7#.

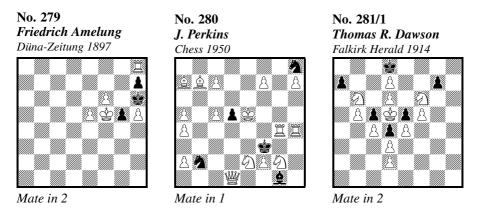
**No. 277:** The last move was not bPg7-g5? because of the wBh8 which then would have to be a promoted officer. This would cause 14 captures altogether (in view of 3 black pieces). Therefore not  $1.h5 \times g6$  e.p.?  $f7 \times g6+ 2.Kg4$  g5 3.Sg8#, but 1.g4! Bg2  $2.g4 \times h3$  g4  $3.h3 \times g2$  g5#. 'Small material, much content.'

**No. 278:** There are 16 white pieces. The wPs captured 10 pieces, among them the bBc8. So the last move in a) was not bPd7-d6, but wPg2-g4 Sg4-h2 Rg3-h3+. Therefore the solution is  $1.64 \times g3$  e.p.! Qc4 2.g2 R×h2+  $3.K \times h2$  Qh4#. In b) there are only five black pieces and the wPs did not need to capture the bBc8. So the last move could be d7-d6. In this case the solution is not 1.e3? K×g1!, but 1.e4!  $f4 \times e3$  e.p.  $2.Se2 e3 \times d2 3.Sg3$ #. Twice e.p. capture, but each time in a different way.

You will find problems with the unconventional first move especially in the chapter 'Nasty tricks in one-move problems'.

#### En-passant key: 'to be or not to be'

The en-passant capture is a curious move. A pawn proceeds to some certain square and captures a pawn on a different square provided that the latter has just made a double step. So the en-passant capture as a key is permitted only if it can be proved that the last move was the double step of the pawn (cp. p. 170). Such problems resisting the computer appeal to solvers.



No. 279 is the most economical dual-free rendering of the e.p. key in a directmate problem (cp. 290). It uses the typical position of wK, bP and wP side by side on the 5<sup>th</sup> rank, which excludes the simple step of the bP (here g6+-g5) as the last black move. The retro play bKg7-h6? is illegal as well. So the last move was g7-g5, therefore  $1.h5 \times g6$  e.p.! Kh5  $2.R \times h7#$ .

**No. 280:** 16 w. pieces are on the chessboard. The moves bBh2+-g1, bS+-b2 or bS+-h8 are illegal. So the last move was d7-d5, therefore  $1.c5 \times d6$  e.p.#.

**No. 281/1** (FIDE-Album) is a famous retro problem (this is the original position, not the one with all the pieces shoved on to one file to the right). The wPs captured the 10 missing black pieces, among them the Bf8. So the last move was not e7-e5, but c7-c5 with the solution  $1.b5 \times c6$  e.p.! ~ 2.c7#. – **No. 281/2:** If you add the stipulation '*Chess 960*' (*Werner Keym*, *Die Schwalbe 2017*), you get a surprising variation. The dark-squared bB never was on h8 (illegal). If it was on b8 originally, then the last move was e7-e5 (with  $1.f5 \times c6$  e.p.!), if on f8, then c7-c5 (with  $1.b5 \times c6$  e.p.!), if on d8, then either c7-c5 (with  $1.b5 \times c6$  e.p.!) or e7-e5 (with  $1.f5 \times e6$  e.p.!), i.e. PRA within PRA (see p. 106).

No. 282 No. 283 To no. 282 Wolfgang Hundsdorfer Sam Loyd Critical position Deutsches Wochenschach New York Chess Next move:  $17.b6 \times a7$ 1909 1<sup>st</sup> Prize Association 1894 χ÷ 2 🌋 **1** 40 4 Ŵ 80 🔹 🖄 Å Å Ŷ 888 Å <u>8</u> Å <u>8</u> Å Ï Ï

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Mate in 4

Mate in 3

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Sam Loyd was a pioneer in so many fields of chess composition. In no. 282 the wK is not on the 5<sup>th</sup> rank, yet it can be proved that f7-f5 was the last move. This is Loyd's own (ambiguous) 'proof game': 1.g4 e6 2.Bg2 Sc6 3.Sc3 Bc5 4.Sb5 Qg5 5.Sf3 Qe3 6.f2×e3 Sge7 7.Sh4 Sd4 8.e3×d4 a5 9.Be4 Ba7 10.Bg6 h7×g6 11.Kf2 Rh5 12.Ke3 Rc5 13.d4×c5 Sd5+ 14.Kd4 Sb6 15.c5×b6 Bb8 16.Kc5 Ra7 (critical position) 17.b6×a7 a4 18.Sd4 b6+ 19.Kb5 Lb7 20.Rf1 Bd5 21.Ka6 Bb3 22.a2×b3 Ke7 23.b4 Kf8 24.Ra3 Kg8 25.Rh3 a3 26.Sb3 a2 27.Kb7 a1R 28.Kc8 Ra5 29.Kd8 Rh5 30.Sa1 Kh7 31.b3 Kh6 32.Bb2 Kh7 33.Be5 g5 34.Sg6 Kh6 35.Rf6 Rh4 36. Bf4 g5×f4 37.Qh1 Kg5 38.Qe4 Rh8+ 39.Ke7 Rc8 40.Rh8 Rd8 41.Re8 Rc8 42.Kf8 Rd8 43.Kg8 Rc8 44.Kh7 Rd8 45.Rh8 Rg8 46.Sf8 Kh4 47.g5 Kg4 48.Qg6 Kh3 49.Qh6+ Kg4 and 50.Rf6-g6 f7-f5!, therefore 1.g5×f6 e.p.+! Kf5 2.Rg5+ Ke4 3.Qg6+ Kd4 4.c3,Qd3#. The retro move 50...f6-f5? would result in stalemate. Loyd considered no. 282 to be one of his best problems.

Many problems with en-passant keys are in the collection *Retrograde Analysis* by T. R. Dawson and W. Hundsdorfer (1915), e.g. no. 283. The Ps captured all missing pieces. The bR must go back to h8 and the bB to f8, earlier  $bPg7 \times Xh6 wXc3$ h6 wKb2-b3 and the knot is resolved. So back 1...c7-c5! 2.g5-g6 Rc6-c2 3.g4g5 Rg6-c6 4.g3-g4 Rg8-g6 5.g2-g3 Bd4-a7 6.h4-h5 Bg7-d4 7.h3-h4 Bf8-g7 8.h2h3 g7×B/Sh6. Therefore 1.b5×c6 e.p.+! b5 (1...Qb5 2.Q/B×b5+) 2.K×b4+ Rc3 3.R×c3#. Profound retroanalysis.

**No. 284** *Harold H. Cross Fairy Chess Review 1939* 



Is Black allowed to capture en-passant?

**No. 285** Andrey Frolkin Shakhmaty v SSSR 1986 2<sup>nd</sup> Prize



Is Black mate?

To no. 285 Critical position Next move: e2×Sf3+



**No. 284** (FIDE-Album): Black is allowed to capture en-passant: backward 1.d2-d4!  $d5 \times Se4$  2.Sg5-e4 Rg2-g1 3.Sf3-g5 Rg1-f1 4.Rf1-e1 d6-d5 5.Se1-f3 h7-h6 6.Bc2-d1 Kd1-c1 7.Bf5-c2+. The retro move 1.d3-d4?  $d5 \times Se4$  2.d2-d3 etc. would cause the loss of a tempo and an insoluble retro opposition between the rooks on f1.

**No. 285** (FIDE-Album): The Bb1 must go to f1, the Bg1 to c1, the wK to e1 and the wQ to d1 in order to retract wPe2×Sf3 and bKg4-h5. This aim is reached by 45 unambiguous single moves in retro help play (!), which prove that the last move was not g3-g4?, but g2-g4!. Here are these moves from the critical position to the diagram position:  $1.e2\times$ Sf3+ Kh5 2.Bb5 a6 3.Kf1 a5 4.Kg1 a4 5.B×a4 b5 6.Kh2 b4 7.Kh3 b3 8.B×b3 c6 9.Ba2 c5 10.b3 c4 11.Bb2 c3 12.B×c3 e6 13.Rb2 e5 14.Bb1 e4 15.Be5 e3 16.Bh2 e2 17.Bg1 e1B 18.Qe2 d6 19.Qe7 d5 20.Qd8 d4 21.Re2 d3 22.Se3 d3×Re2 23.g2-g4+ (miraculous!) and Black can avoid the mate by h4×g3 e.p.!. A climax of modern retro composition.

No. 286 No. 288 No. 287 Werner Keym Werner Keym Deutsche Schachzeitung Werner Kevm Allgemeine Zeitung Mainz 1971 Schach-Echo 1971 1963 Ŵ Ð Ð Ð Ï G 2 8 1 ¢ Å ģ ٩ Å, Ŷ Å Å Å Å ÊÊ ×  $\mathcal{O}$ Ŵ Ð Mate in 2 Mate in 3 Mate in 3

In no. 286–289 'normal' positions disguise the e.p. key. These problems should be published in the 'normal' chess column of a daily newspaper, not in a retro section.

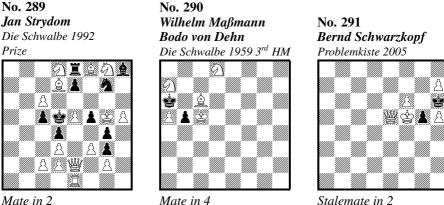
b)  $Pg7 \rightarrow e7$ 

**No. 286:** a) the last move could have been  $a5 \times Xb4$ , therefore no e.p. capture, but 1.b3! ~ 2.Qa1#. b) the last move was c7-c5 Rb6-d6+, therefore  $1.b5 \times c6$  e.p.+!. Genesis of the position: the wPs captured 6 times (wPc×Xb); besides d7×Xe6, d2→d8X, bPa×Xb, a2→a8X. Malicious! (cp. the similar problem P0006283)

**No. 287:** The wPs captured 6 times; a bOfficer captured the Pa on the a-file. The last move was not b7-b6? (because of the bBb1) nor Ke4 $\times$ Xf4? nor Q-f5? R-f6+ (for lack of a sacrificial piece), but bPe7-e5 Rd6-f6+ Q-f5, therefore 1.d5 $\times$ e6 e.p.+! B $\times$ b8 2.Q $\times$ b8+ d6 3.Q $\times$ d6#. 'Sharp-witted.'

**No. 288:** There are five tries and each has got precisely one refutation:  $1.Ra8/B \times b5 + /Sb6 + /Scd6/Sed6?$   $b5 \times a4/K \times d8/K \times e8/b5 \times a4/K \times d8!$ . Therefore many chess friends were at their wits' end because the high number of officers on the board encouraged them to make an effort at mating in a 'serious' manner. But in fact it is a well disguised retro problem. The last moves were  $b7 - b5 Rc6 \times Xa6 +$ . So the solution is  $1.a5 \times b6 e.p.+! K \times d8 2.b7 g6 3.Rd6# and <math>1...K \times c8 2.Ra8 + Kb7 3.Bc6#$ . 'A brilliant problem, although it conflicts with the established views of composition: capturing key and checking key.' 'After two hours I gave up.' 'I got a headache.' 'A lucky find.' My best retro problem with up to 12 pieces (Meredith).

Retro chic is good. Retro chess is better.



Mate in 4

Stalemate in 2

**No. 289:** Set play:  $1...f4/e6/Se6+/R\sim/g4\times f3$  2.Qe4/Sf6/B×e6/S×e7/Q×f3#, but 1...c4; tries: 1.Ra1/e6?  $g4 \times f3/S \times h5!$ . Solution: 1.e5×f6 e.p.! [thr. 2.Qe5#]  $e5/e7 \times f6 + /Se6 + 2.Qe4/S \times f6/Q \times e6\#$ . Genesis of the position: the wPs captured 6 times; besides bPh×Rg and h2 $\rightarrow$ h5. The last move was not h4×Rg3? (too many captures), but f7-f5. A success as to both forward and retro play.

There is no dual-free miniature with the e.p. capture as a key if we disregard no. 291, 292 and the 'A posteriori' problem no. 385. No. 290 is the only directmate miniature: 1.a5×b6 e.p.! Ka5 2.b7,Bd7,Be8,Sc8 (duals).

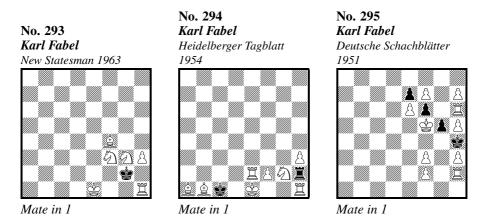
No. 291 is a dual-free stalemate problem:  $1.h5 \times g6$  e.p.! Kh5 2.Qf4.



No. 292 Hans Gruber & Theodor Steudel Süddeutsche Zeitung 1986 White retracts 1 move and mates in 1 Solution: backward Kc5×Pb5 and 1.a5×b6 e.p.#. Is this a miniature, yes or no?

#### 'Nasty tricks' in one-move problems

Castling, en-passant capture and the unconventional first move (Black on the move = Black  $\rightarrow$ ) are in *Karl Fabel's* words the 'three nasty tricks'. Two or three of them occur in the problems of this chapter: as a try (?) or as the solution (!). Here the retroanalytical aspect is no end in itself, but simply helps to present the tricks in one-move problems. In a two or three move problem that is rather easy to implement. (cp. no. 97–105)

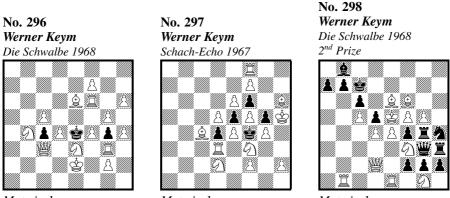


No. 293 is one of the rare miniatures including two of those ominous tricks. Obviously Black did not move last. Therefore not 1.Sh4#?, but  $1.K \times f3!$  0-0#.

In no. 294 Black is to move as well. Therefore not 1.0-0#?, but 1.R×h1#!.

**No. 295:** The wPs captured 12 b. pieces (bBf8 as well). Backward not  $g7 \times Xf6$  nor g7-g5 (with  $1.h5 \times g6$  e.p.#?). Black is to play: 1.g5-g4!  $h3 \times g4#$ .

The *Codex for Chess Composition* (see p. 170) as far as concerning our point runs as follows: 'If the first move does not lie with the conventionally party ..., this should either be indicated in the stipulation or deducible from retroanalysis.' According to that it does not follow that Black is allowed to mate. If that is intended, the stipulation should be 'Who mates in n moves?' or similar. As to **one-move problems**, however, there is an agreement that Black is allowed to mate. So 'Mate in 1 move' comprises four cases: 1) White moves first and mates; 2) White moves first and Black mates; 3) Black moves first (according to retroanalysis) and White mates; 4) Black moves first (according to retroanalysis) and mates.



Mate in 1

Mate in 1

Mate in 1

**No. 296:** The wPs captured 13 times. White's dark-squared white bishop is missing. Black did not move last, therefore not 1.Bd5#?. The last move was not d2-d4? (illegal position of the wPs), but f2-f4! Kf4-e4. The solution is  $1.g4 \times f3$  e.p.+!  $g2 \times f3$ #. *White: #?, #!; Black: →, e.p.?, e.p.!* 

**No. 297** (FIDE-Album): The wPs captured 11 pieces, among them the promoted officer X from g1 (earlier bPh×Qg-g1X). Hence the last move was not g7-g5? Sg5-f3+ (not Sg5×Xf3+ for lack of a sacrificial piece) retro stalemate, but e2-e4! Ke4-f4. Therefore the solution is not  $1.f5 \times g6$  e.p.#?, but  $1.d4 \times e3$  e.p.!  $f2 \times e3$ #. *White: e.p.*#?, #!; Black:  $\rightarrow$ ; e.p.!

**No. 298:** Genesis of the position:  $f7 \rightarrow f4$ , wPg4×Bf5 (hence the last move was not d7-d5? (excluding the bB from c8) with  $1.c5 \times d6$  e.p.#?),  $g7 \rightarrow g2$ , wPh×Sg,  $h7 \rightarrow h2$ , bQ/R/B/S captures wPa and wPb. The last moves were e2-e4 bPe3×Pf2, therefore  $1.f4 \times e3$  e.p.#!. 'Brilliant idea.' *White: e.p.#?; Black:*  $\rightarrow$ , *e.p.#*!



Mate in 1 b) wRd8 (instead of S)

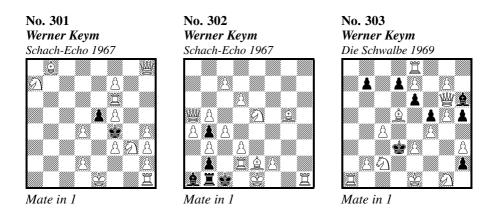
No. 300 Werner Keym Schach-Echo 1967



Mate in 1

No. 299: May White mate by 0-0-0 or  $b5 \times c6$  e.p.? That's the issue. Genesis of the position: the wPs captured the 4 missing black pieces, among them the Bf8 (hence backward not e7-e6?) and the promoted officer X from g1 (earlier bPh×R/Sg $\rightarrow$ g1X), besides bPbxS/Ra. So the last move was c6-c5 or c7-c5. – a) backward c6-c5? Qc7-b6+ b6×S/Ra5 B-f3 K-g1 B-d5/e4+ is illegal, since the necessary retro moves  $a3 \times Bb4$ -b5, bBf8 $\rightarrow$ b4 and e7-e6 lock up both black rooks within their cage; backward c7-c5! Qc6-b6+ b6×S/Ra5 Kd1-e1 (not B-f3 K-g1 since the wQc6, too, guards the squares g2 and h1) Kf1-g1 is possible. Hence not 1.0-0-0#?, but  $1.b5 \times c6 \text{ e.p.}\#!$ . - b) backward c6-c5! Qc7-b6+  $b6 \times Sa5$  B-f3 K-g1 B-d5/e4+ is possible, because the cage is opened by wRh8-d8. Hence not  $1.b5 \times c6$ e.p.#?, but 1.0-0-0#!. a) White:  $\rightarrow$ , 0-0-0#?, e.p.#?; b) White  $\rightarrow$ , e.p.#?, 0-0-0#! – In my opinion this task (white e.p. capture being real, white castling being virtual) can be achieved in a one-move problem only by means of a cage with a wQ. The first rendering was P0004848, after that P1011952 and P0000830. In the twin no. 299 try and solution are changed by a small modification which in a quite unobtrusive manner seems to be deceivingly irrelevant (wSd8/wRd8). None of the 26 pieces may be on a different square. Perhaps my best retro problem.

**No. 300** is a retro problem for beginners. Only White's wQ and wR are missing. Hence the last black move could not be  $bPg2 \times Q/Rh1R$ ? nor Kg2×Q/Rg1?. Black is to play. As White threatens to mate by 1.0-0-0, Black plays 1.d7-d5! but now  $1...c5 \times d6$  e.p.#. *White: 0-0-0#*?, *e.p.#!; Black:*  $\rightarrow$ 



Problems no. 300–306 present the three tricks altogether.

**No. 301:** Here the retroanalysis is not difficult. The wPs captured 14 times. White's light-squared bishop is missing, hence backward bPd6×Be5? was impossible. The retro move e7-e5? Rd6-f6+ (not Rd6×Xf6+? for lack of a sacrificial piece) results in a retro stalemate since the bK has no previous move. So the solution is not  $1.f5 \times e6$  e.p.#?, but Black is to play:  $1.K \times f3!$  0-0#. *White: e.p.#?*, 0-0#!; Black:  $\rightarrow$ 

**No. 302:** The wPs captured 11 pieces on the files b-g, among them the promoted officer from h1 (earlier h7 $\rightarrow$ h1X). So 1.0-0#? is a try. The last moves were wPa2-a4! bPa3×Sb2, which forces Black's e.p. capture. 1.b4×a3 e.p.! Qc3#. *White: 0-0#?*, #!; Black:  $\rightarrow$ , e.p.!

**No. 303:** The wPs captured 7 pieces, among them the promoted officer X from a1 (earlier a7 $\rightarrow$ a1X, hence 0-0-0 not permitted); the bBc8 died on c8. The last move was not bPg3×Xh2? (too many captures) nor f6-f5/f7-f5? Qf7-g6+/Qf6-g6+? (no previous black move). So neither 1.0-0-0#? nor 1.g5×f6 e.p.#? is permitted. Black is to play: 1.h2×Sg1Q#!. *White: e.p.#?*, 0-0-0#?, Black:  $\rightarrow$ , #!

No. 304 No. 306 Karl Fabel No. 305 Werner Keym Nenad Petrovic Werner Keym Die Schwalbe 2007 problem 1953 Comm. Fabel Memorial 2<sup>nd</sup> Prize Die Schwalbe 1968 Ð Å Å Ï Å Å Å 🌋 Ø Ð 8 <u>e</u> //% ⊕ WY A 8 Ŵ Ĭ Mate in 1 Mate in 1

Mate in 1 b) Pd7→e7

**No. 304:** The wPs captured 8 times; besides  $bK \rightarrow d1 \rightarrow a1$  (0-0 not permitted) and wX×Bc8 (the bBa4 is a promoted officer). The last moves were not e6-e5? c3×Xb4+? (too many captures) nor e7-e5? Rf6-b6+ (not Rf6×Xb6+? for lack of a sacrificial piece) retro stalemate. Tries:  $1.B \times e5#$ ?,  $1.d5 \times e6$  e.p.#?, 1.Ke2#?, 1.0-0#?. Black is to play: 1.d7-d6! Ke2# and  $1.B \times b5!$  B×e5#. White: #?, #?, 0-0#?, e.p.#?, #!; Black:  $\rightarrow$ 

In no. 305 and 306b the three nasty tricks occur in the solution. No. 305 uses the same mechanism as no. 302. The wPs captured 11 pieces on the files b-g, among them the promoted officer X from g1 (earlier bPh×Qg-g1X); besides h2→h8X. Try: 1.0-0#?, but Black is to play since the last moves were wPa2-a4! bPa3×Xb2, which forces Black's e.p. capture:  $1.b4\times a3$  e.p.! 0-0#. White: 0-0#?, 0-0#!; Black:  $\rightarrow$ , *e.p.!* The first rendering of the three nasty tricks in a one-move problem is P1011955.

**No. 306:** The wPs captured 9 times. a) one of them captured the promoted officer X from a1 (before that  $a7 \rightarrow a1X$ , hence 0-0-0 is not permitted). The last moves were  $f3 \times Sg2$  Sh4-g2 (earlier  $e3 \times Xf4$  and  $e5 \times Bf4$ ). The simple solution is 1.Ke2#. b) backward  $f3 \times Sg2$ ? and earlier  $e5 \times Bf4$  would cause too many captures. The last moves were f2-f4!  $f3 \times Sg2$ , earlier bPa $3 \times Bb2$ -b1X and castling is permitted. The solution is  $1.g4 \times f3$  e.p.! 0-0-0#. *a) White:*  $\rightarrow$ , 0-0-0#?, #!; Black:  $\neg$ ; b) White: #?, 0-0-0#!; Black:  $\rightarrow$ , e.p.! A small modification of the position results in a great modification of the content. 'Most elegant and with greater retro depth than many other one-movers.'

#### Problems out of the ordinary

The following problems have unusual (supplementary) stipulations, contents, chessboards and/or solutions.

**No. 307** *Werner Keym Stuttgarter Zeitung 2006* 



Mate in 1 (Give reasons)

**No. 308** *Christer Jonsson Springaren 2017* 



Helpmate in 2 b) Shift the pieces  $(a1 \rightarrow b2)$ c) Shift the pieces  $(a1 \rightarrow c3)$ 

**No. 309** *Werner Keym Stuttgarter Zeitung 2008* 



Remove 1 piece. Mate in 2 How many solutions?

A mate in 1 or 2 moves with the board occupied by 7 or 8 pieces only – do those problems appear to be suitable for beginners?

No. 307: Even in a one-move problem psychology may play a part. The supplementary stipulation 'Give reasons' led many chess friends into temptation for a mate by Black: 1.Qc7#?. But that is not correct because the last moves could have been bKd6×Pc6 d5×c6 e.p.+ c7-c5 B-a3+ (the well-known trick, cp. no. 123 and 218). So the solution is very simple: 1.Qb5#!. Anti-paradoxical, as one might put it. (cp. P0007173)

**No. 308:** These are the solutions: a) 1.Kd4 e4 2.Re3 Q×d5#, b) 1.Kg5 Q×e6 2.Kh4 Q×g4#, c) 1.Rh7 Q×f7 2.Kh6 Qf6#. It is interesting to examine the reasons for the solutions being different.

**No. 309:** If you remove the Sg2, there is an asymmetrical solution:  $1.\text{Rgg2!} \sim 2.\text{Qf8#}$ . That is not the whole content, of course. There is a second solution, so if you remove the Pd5; then Black did not move last and is to play.  $1.\text{K} \times \text{e2!}$  Qd8 2.Kf1/Kf3 2.Qd1# or as an echo  $1.\text{K} \times \text{g4!}$  Qa5 2.Kf3/Kh3 Qh5#. No. 309 is related to no. 270.

No. 310 Thomas R. Dawson Asymmetry 1927



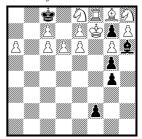
Add the white queen, then stalemate in 1 b) mirrored  $(a1 \leftrightarrow h1)$ 

No. 311 Bedrich Formánek Chess Jokes 2000



Helpstalemate in 2\*

No. 312 Pal Benko Chess Life & Review 1976



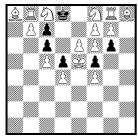
Helpnotmate in 3 White to play

**No. 310:** The queen is always on the left side of the king. Hence a) Qa1! and 1.a2-a4, not Qd1? and 1.c2-c4, b) Qe1! and 1.f2-f4, not Qh1 and 1.h2-h4. Classical asymmetry.

**No. 311:** The solution is not difficult:  $1.d1S! Q \times c5 2.Sf2 Q \times f2$  stalemate. But the little star reminds us of the set play which usually is half a move shorter (here 1.5 moves). Therefore  $1...d1Q! 2.Qc2 Q \times c2$  stalemate. A piquant idea: the white king being stalemated in set play and the black king right so in actual play. But stalemate is considered to be a draw, isn't it.

In no. 312 White and Black collaborate <u>not</u> to checkmate. This following mate is threatening: 1.a7 f1Q/R#, 1...f1S 2.a8B/S  $\sim$  3.Sb6/Bb7#. Therefore 1...f1B! 2.a8B! (echo promotion) Ba6 3.Bb7+ B×b7. A genuine novelty!

No. 313 Wilhelm Kluxen Die Welt 1947



White moves and does not mate

No. 314 *Karl Fabel Rätselstunde 1952* 



White moves and does not mate

No. 315 *Karl Fabel* Die Welt 1951

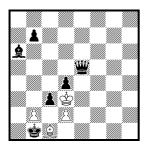


White moves and does not win

**No. 313:** Black's unique capture was bPba7×Qc6. The last move was d7-d5. So White can play  $1.c5 \times d6$  e.p.! and does not mate.

No. 314: There is no mate after 1.Rg6-c6+! Rb7 $\times$ h7; 1 white bishop is a promoted officer. An earlier example is P0005856.

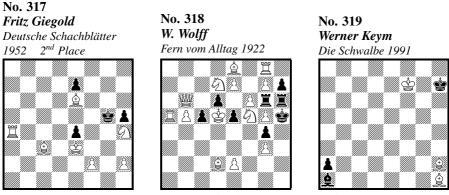
**No. 315:** After 1.c4+!  $R \times c4$  there are two ways: not 2.Sc7+?  $R \times c7$  3.Se7+  $R \times e7$  4.e4+  $R \times e4$  5.f3×e4# win, but 2.e4+!  $R \times e4$  3.Se7+  $R \times e7$  4.Sc7+  $R \times c7$  stalemate.



### No. 316 Werner Keym

Allgemeine Zeitung Mainz 2002 Has White been mated?

Not so at all. The last moves seem to be  $bPb4 \times c3$ e.p.+ (the well-known trick) c2-c4 b5-b4+, but then the position is illegal since the black king is locked up. According to the laws of chess Black has to retract the not allowed en-passant capture (backward bPb4 and wPc4) and to move the Pb4 he has already touched, i.e. Pb4-b3. This position, however, is stalemate. So the result is a draw.



Mate in 3

Mate in 3 by the Ra5 which does not move.

Helpmate in 2\* 1 Bishop does not move

**No. 317:** 1.Bd4! (Pe4 is unpinned in advance)  $K \times h4$  2.f4  $e4 \times f3$  e.p. 3.Bf6# or 1...Kh6 2.Ra5 Kh7 3.R×h5#. *Giegold's* chess problems are famous puzzles. You will find amazing examples in *PDB* (A='Giegold').

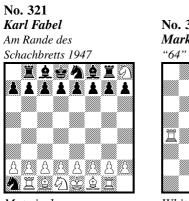
**No. 318:** Conditional problems existed as early as in the Middle Ages (see *PDB* K='conditional problem').  $1.b5 \times c6$  e.p.! e4 2.Se3 K×g5 3.K×d6#. What a stunt. There is even a setting without the condition (P1284567).

**No. 319** shows new effects. In the set play 1...Be4+ 2.Kh8 Be5# the existing bBa1 is immobile. In the solution 1.Bh8! Bf4 2.a1B! Be4# the new bBa1 is immobile, but enables the wBh1 to move. 'Two gags in one problem: stipulation and underpromotion.'



No. 320 Old Chinese Puzzle White to play mates. Each white piece moves exactly once.

The 'normal' solution would not be so bad:  $1.Ra8+ K \times a8$  2.Rc8#, but the king, too, must move. Therefore 1.Rd6! Kc8 2.Ka7 Kc7 3.Rac6#.



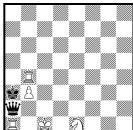
Mate in 1

**No. 322** *Mark I. Adabashev* "64" 1938



White retracts 1 move, then mate in 1 b) all 1 rank up c) all 2 ranks up d) all 3 ranks up

No. 323 Werner Keym a) Hannoversche Allgemeine Zeitung 2003 b) Weser-Kurier 1970



Mate in 1 White to play b) Se1 $\rightarrow$ d2

**No. 321:** In all proof games from the initial array to the diagram position White has got one move more than has got Black. So Black is to play. Therefore the solution is not  $1.S \times f7#$ ?, but  $1.S \times c2#$ !. A classical parity problem (cp. *PDB* K='parity argument').

**No. 322:** a) Backward c2-c4 and 1.d4-d5#; b) backward  $b4 \times Pc5$  and  $1.d5 \times c6$  e.p.# (in this case the previous double step c7-c5 is supposed); c) backward  $b5 \times c6$  e.p. and 1.d6-d7#; d) backward c6-c7 and 1.d7-d8S#. An evergreen!

In **no. 323** the solution of a) is trivial: 1.Sc2#; b) seems to be easy as well: 1.Ra4#?. But it is obvious that Black did not move last. Nevertheless the stipulation runs as follows: 'White to play'. That is possible only if White has just played Ke1-c1 as the first part of 0-0-0 and then plays Ra1-d1 as the second part. After that Black mates by 1...Qb2#!. Mean!

Variatio delectat - even with one-move problems!

No. 324 Werner Keym Die Schwalbe 1968 1<sup>st</sup> HM



Mate in 2 How many solutions?

**No. 325** *Thomas R. Dawson Falkirk Herald 1934 1<sup>st</sup> Prize* 



Mate in 2 b) Black to play

**No. 326** *Edgar Fielder Fairy Chess Review 1941* 



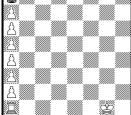
May Black castle?

In no. 324 there are two tries which are intentionally provoked by the question 'How many solutions?':  $1.b5 \times c6$  e.p.+? K×h2 2.Qe5# and 1.0-0-0+? Kf2/K×h2 2.B×c5/Rh1#. These tries, however, fail for retroanalytical reasons. All 16 white pieces are on the board. The wPs captured 9 times, the bBf8 died on f8. If the last move was c7-c5? Rb6-g6+ (not Rb6×Xg6+? for lack of sacrificial pieces), a previous black move would be missing. So Black is to play. White threatens by 1.0-0-0. Therefore Black's only answer is  $1.K \times h2!$  Kf2 2.~ Rh1#. This was the first two-mover to show en-passant capture and castling as the sole tries and Black to play as the sole solution – in a quite simple position.

In **no. 325** the bPs captured 9 times, wBf1 died on f1. If White is to play, castling is permitted, therefore 1.0-0!  $\sim$  2.Re1#. If Black is to play, either the wK or the wR must have moved and castling is not permitted, therefore 1.Ra6!  $\sim$  (not 0-0?) 2.Ra1#.

**No. 326** (FIDE-Album): No, he has already castled! Here are the retro moves: 1...Kd8-e8 2.Q- Kc8-d8 3.Q- Kb7-c8 4.Q- Rb8-h8 5.-9.Q- Kg8 $\rightarrow$ b7 10.Q- Rc8-b8 11.Qb8- Rf8-c8 12.b7-b8Q <u>0-0</u> 13.c6×Qb7 Qa8-b7 14.h5-h6 Qd8-a8 15.d5×Bc6 Bb7-c6 16.h4-h5 Bc8-b7 17.d4-d5 c6-c5 18.e3×Sd4 Se6-d4 19.f2×Re3 b7×Ba6. There is nothing on earth in chess that might be called impossible.

No. 327Bader Al-HajiriN(after W. Shinkman)JaWebsite T. Krabbé 2007P

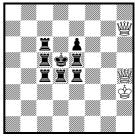


No. 328 Johannes Burbach Problemkiste 1991



White castles in 4

No. 329 Filip S. Bondarenko Feenschach 1960



Win

Mate in 8 Chess 960

**No. 327:** In Chess 960, often called Fischer Random Chess, the white king is located between the two rooks on one of the six squares (b1 ... g1). In case of castling on the left side, the king moves to c1 and the rook to d1 (on the right side K to g1 and R to f1) as usual. So this is the solution: 1.0-0-0! (Kc1 and Rd1) K×a7 2.Rd8 K×a6 3.Rd7 K×a5 4.Rd6 K×a4 5.Rd5 K×a3 6.Rd4 K×a2 7.Rd3 Ka1 8.Ra3#. Thus *Shinkman's* famous problem (with wKe1 and 1.0-0-0!), which unfortunately has got a cook (1.Kd2!), became correct. Amazing.

In **no. 328** the aim is castling, not mating (cp. no. 433). 1.Sd1! zugzwang Bf1 2.Sb2 [thr. 3.0-0-0] Be2 3.Sa4! zugzwang Bd1/Bf1 4.0-0/0-0-0. Try: 1.Sf1? Bd1 2.Sh2 Be2 3.? Asymmetry.

**No. 329:** 1.Qd8+! Rd6 2.Qb7+ Rc4-c5 3.Qa5+ 4.Qb3+ 5.Qd2+ 6.Qf3+ 7.Qg5+ e5 8.Qf7+ 9.Qd8+ 10.Qb7+ 11.Qa5+ 12.Qb3+ 13.Qd2+ 14.Qf3+ e4 15.Qg5+ 16.Qf7+ 17.Qd8+ 18.Qb7+ 19.Qa5+ 20.Qb3+ Rdc4 21.Qd2#. A merry-go-round!

'Who is not able to check, will never be able to mate.' *Teresa from Avila* knew about that as early as in the  $16^{\text{th}}$  century.

No. 330 Werner Keym Die Schwalbe 2009 HM



To how many squares at most could each of the existing pieces move, if it never moved to a square twice?

No. 331 Werner Keym Die Schwalbe 1976 Version Die Schwalbe 1996



Mate in 2 Which piece can you put on a different square without modifying the solution?

No. 332 Dirk Borst Thomas Brand Hans-Peter Reich Ulrich Ring Andernach Meeting 1997 Prize



Does the position remain legal, if any two pieces change their places?

No. 330: The last move was 0-0-0+ (1 square for wK, 1 for wR), earlier e.g.  $bKg1 \times Sh1$ . Genesis of the position:  $wS \times Sb8$ ,  $wS \times Bc8$ ,  $wS \times Qd8$ , b0-0-0 (1 square for bK),  $wS \times Rd8$ ;  $bKc8 \rightarrow h1$  (34 squares);  $bPf7 \rightarrow a2$ , then (with wKe1 Qb1 Ra1 Sd1)  $bPa2 \times Qb1Q$  und bQb1-c1-b1 $\rightarrow g8$ -f7 $\rightarrow a8$  (46 squares); sum: 83 squares. At first the pawn on a2 moves to b1 and promotes to queen. After that this queen moves to c1 and b1 for the first time. Therefore I use the verb 'move' instead of 'occupy' (for German 'betreten'). Two castlings and a queen promotion in an attractive position. The first example is P1346726.

In **no. 331** wBc1 died on c1, bBc8 on c8 and bBf8 on f8. Two promoted officers (one white, one black) were captured on the d- or e-file. Genesis: a) bOfficer×Pa, a7→a1X (w0-0-0 not permitted), wOfficer×Ph, h2→h8X or b) wOfficer×Pa, a2→a8X (b0-0-0 not permitted), bOfficer×Ph, h7→h1X (w0-0 not permitted). Solution: a) 1.0-0! 0-0-0/e7×d6/Rf5 2.Rc1/Sc7/Q×e7#, b) 1.Rf1! e7×d6/Rf5 2.Sc7/Q×e7#. The supplementary question was published in 1996. The answer is singular: whichever piece is put on a different square, the solution is modified, even in the case of Ra1 since then the part b) of the solution (1.Rf1) will be dropped because this will no longer be a problem with Partial Retrograde Analysis! 'Though this be madness, yet there is method in it.' (*Shakespeare*)

**No. 332:** Yes. This is the record with 28 pieces. The annual meetings of the friends of fairy chess at Andernach are always creative.

No. 333 Joachim Sontag Die Welt 1952



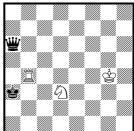
Mate in how many moves? White to play

No. 334 Hans Klüver Funkschach 1926



White moves and wins the queen.

**No. 335** *Henry Forsberg W. Pauly Memorial 1935 I<sup>st</sup> Prize* 



Helpmate in 2 b) bRa6 c) bBa6 d) bSa6 e) bPa6

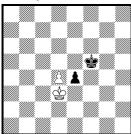
**No. 333:** There is no mate at all. White can neither do away with the stalemate position of the bK nor prevent Black from giving perpetual check or from producing stalemate himself: e.g.  $1.Rb2 Sa2+ 2.Kb1/R \times a2 Sc3+/Rc2+$ ; 1.Rh2 Sa2+ 2.Kb1 Sc3+ 3.Kc1 Sa2+ or  $3.Ka1?? R \times h2$  and now it is even White who will be mated. Crazy.

**No. 334** is one of my favourites. Obviously White quickly conquers the queen by 1.Sc2!?. What will Black do against  $2.S \times b4+$ ? Here is the unexpected answer: 1...Re6! and  $2.S \times b4\#$  does not conquer the queen, but the king!! Solution: 1.e8S! [thr.  $2.Sc7+ \sim 3.S \times a6$ ] Bd6 and only then  $2.Sc2 B \times c5 3.Sc7+$  or  $1...Rc6 2.Sc2 B \times c5 3.d4 \times c5$ . 78 of 103 entries were incorrect.

No. 335 is a perfect quintuplet:

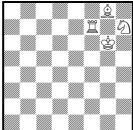
a) 1.Qf6 Sc5 2.Qb2 Ra4#	key move by Q/R/B/S/P,
b) 1.Rb6 Rb1 2.Rb3 Ra1#	5 different mates,
c) 1.Bc4 Se1 2.Ba2 Sc2#	singular position of the wK,
d) 1.Sc5 Sc1 2.Sa4 Rb3#	Problem chess at its best.
e) 1.Pa5 Rb3+ 2.Ka4 Sc5#	(cp. no. 244)

No. 336 Andreas Witt Die Schwalbe 2004 W. Dittmann Jubilee 2<sup>nd</sup> Prize



How many possible moves did Black have before his last move a)  $d5 \times Qe4$ , b)  $d5 \times Re4$ , c)  $d5 \times Bd4$ , d)  $d5 \times Se4$ , e)  $d5 \times Pe4$ , f) e5-e4?

**No. 337** *Werner Keym Die Schwalbe 1993* 2<sup>nd</sup> Prize



The centers of the squares occupied by the four pieces are the corners of a square (f7-g8-h7-g6). How can you form 12 squares varying in size in 36 moves and return to the initial square (f7-g8-h7g6) in the 36<sup>th</sup> move?

**No. 338** Andreas Witt Die Welt 1997



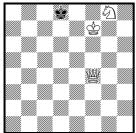
The centers of the squares occupied by the four pieces are the corners of a square (c2-c7-h7-h2). How can you form a square of the same size in 5 moves on different squares of the chessboard? b) wSc2.

**No. 336:** Black had 3 possible moves before  $d5 \times \text{Qe4}$  ( $d5 \times \text{Qe4}$ , Kf5-f6, Kf5-g5), 4 before  $d5 \times \text{Re4}$ , 5 before  $d5 \times \text{Se4}$ , 6 before  $d5 \times \text{Be4}$ , 7 before  $d5 \times \text{Pe4}$  and 8 before e5-e4. A retro sextuplet for the anthology.

**No. 337:** 1) Kg5 Rf8 Be6 (5 area units), 2) Kg4 Re8 Bd5 (10), 3) Kg3 Rd8 Bc4 (17), 4) Kg2 Rc8 Bb3 (26), 5) Kg1 Rb8 Ba2 (37), 6) Kh1 Rb7 Bb1 (36), 7) Kh2 Rc7 Bc2 (25), 8) Kh3 Rd7 Bd3 (16), 9) Kh4 Re7 Be4 (9), 10) Kh5 Rf7 Bf5 (4), 11) Kh6 Rg7 Bg6 (1) 12) Bf7 Kg6 Rg8 (2). New idea with the old *Pythagoras*  $(a^2 + b^2 = c^2; c = \sqrt{a^2 + b^2})$ .

**No. 338:** a) is easy: 1.c3 2.Kc8 3.Bf5 4.Rh8 5.Bh3 (with changes of the moves), b) is insidious: 1.Se1 2.Kd8 3.Rh5 4.Bc2 5.Ba4. *Pythagoras* again!

No. 339 Eric Angelini Europe Echecs 1990



Add 1 square to the board. Mate in 2

No. 340 Alain Brobecker Stephen Emmerson The Problemist 2010



a) White removes 1 square and mates twice as fast. b) White removes 2 squares and mates 8 times as fast. c) Black removes 2 squares and draws.

**No. 341** *Werner Keym Stuttgarter Zeitung 2004* 



Shortest mate on the a)  $8 \times 8$  board b)  $4 \times 8$  board (a1–d8) c)  $3 \times 8$  board (a1–c8)?

No. 339: Add a square e9 and then play 1.Se9! zugzwang  $K \times e9$  2.Qc7#.

**No. 340:** There is a mate in 8 moves: 1.Rb1 2.Ka2 ... 5.Ka5 Ka8 6.Kb6 Kb8 7.Rc1 Ka8 8.Rc8#. a) Without the square c3 White mates in 4 moves: 1.Rh4 Kb3 2.Kb1 Ka3 3.Kc2 Ka2 4.Ra4#. b) Without the squares a4 and b4 White mates in 1 move: 1.Rh3#. c) Without the squares g1 and h2 Black draws.

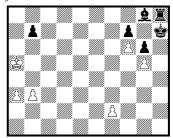
**No. 341:** a) A mate in 2 moves is possible on the  $8 \times 8$  board (1.Bb6! b4 2.Qf1#); b) a mate in 3 moves on the  $4 \times 8$  board (1.Qb1,Qb2,Bb6,Bb8! ...); in both cases the last moves could have been Kb7-a6 d5×Xc6+. In c), however, that was impossible since the d-file is missing. Hence the last move was b7-b5 and the e.p. capture is allowed:  $1.a5 \times b6$  e.p.#! – in 1 move! Cp. P1108931.

No. 342 Werner Keym Die Schwalbe 2005



Shortest mate on the  $4 \times 8$  board (e1-h8) from the initial game on b) mirrored (e1 $\leftrightarrow$ h1)

No. 343 Rolf Wiehagen feenschach 1992



Helpmate in 5

No. 342: Genesis of the position: a) the dark-squared Bf8 is a promoted officer, the wPs captured 3 times, wOfficer×Ph, h2-h8B-g7-f8. Hence the last move was not h7×Xg6 nor g7-g6, but f7-f5 with a mate in 2 moves:  $1.e5 \times f6$  e.p.! e3 2.f7#. A try in 4 moves is  $1.K \times g6$ ? f4  $2.B \times e4$  f3  $3.K \sim f2$  4.Bg6#. In b) this try ( $1.K \times f6$ ? g4 ... 4.Bf6#) exists as well. Here the genesis of the position: the dark-squared Be1 is a promoted officer, hence bPf7-f6, bPg7-g6, wPe→e6xR/Sf7-f8B, e7→e1X, wP×Xg/h, wBf8-h6→e1. So the last move was not g7-g5. Black is to play: 1.h3! Bg3  $2.h2 B \times h2$  3.g4 Kg6,Ke6  $4.g3 B \times g3$  5.f5 Be5#, i.e. a mate in 5 moves. These mirrored twins cannot be achieved on the standard chessboard. 'Original and tricky.'

**No. 343:** 1.b5 g4 2.b4 g5 3.b4xa3 g6 4.a2 g6xh7 5.a1S h8S#. A perfect rendering of the 100 Dollar Theme (cp. p. 35) – on a chessboard out of the ordinary.



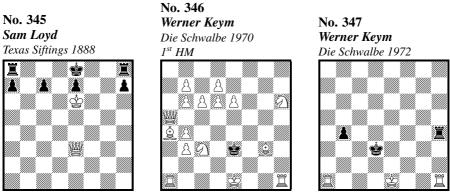
No. 344 Thomas R. Dawson Bolton Football Field 1911 Mate in 21

Move to the free square each time: S R S R B, R S R S B, S R S R K, S K R K, 20.Sf2 Ka3 21.Re $3\times$ c3#. This problem is called 'Revolver Practice'.

# Partial Retrograde Analysis (PRA)

The castling convention and the en-passant convention are clear. '*Castling is permitted unless it can be proved that it is not permissible.*' 'An en-passant capture on the first move is permitted only if it can be proved that the last move was the double step of the pawn which is to be captured.' (Codex for Chess Composition, article 16.1 and 16.2, see p. 170).

For a long time the cases in which several move rights (castlings and/or e.p. captures) are mutually dependent were unclear. In 2008 the Codex was modified (article 16.3): 'Partial Retrograde Analysis (PRA) convention. Where the rights to castle and/or to capture en-passant are mutually dependent, the solution consists of several mutually exclusive parts. All possible combinations of move rights, taking into account the castling convention and the en-passant convention, form these mutually dependent parts.'



No. 345-353 treat castlings, 354-359 e.p. captures, 360-366 both of them.

Mate in 3

Mate in 2



No. 345: According to 16.1 long castling is permitted, as the Rh8 can have moved last; according to 16.1 short castling is permitted, as the Ra8 can have moved last. However, a proof game from the initial position to the diagram position in which neither the Ke8 nor the Ra8 nor the Rh8 has moved is impossible. So Black does not have the right to castle both long *and* short, but either long *or* short. If 0-0-0 is permitted, then the solution is 1.Qd4! Rg8 2.Qd7+ Kf8  $3.Q \times e7#$ ; if 0-0, then 1.Qg5! Kd8 2.Qd5+ K $\sim 3.Q \times a8#$ .

But the question remains: what if the Ke8 moved last? Are there three solutions (1.Qd4 and 1.Qg5 and 1.Qc5) in this case? No, since the assumption that the two castlings are not permitted does not correspond with the PRA convention which demands expressly 'to take into account' the castling convention, i.e. to exclude no (castling) right for no reason. In other words: one can prove that the two castlings exclude each other, but not that both of them are not permitted. So only the two above-mentioned partial problems (with the solution either 1.Qd4 or 1.Qg5) remain. Therefore no. 345 does not have two (independent) solutions, but **one solution** that consists of **two parts** which – and this is decisive – exclude each other. That's why no. 345 is a two-part PRA problem.

#### In short, the **Partial Retrograde Analysis convention** means: **If several legal special move rights are mutually dependent**, *each* of these rights should once be acknowledged; this also applies to the remaining rights.

Traditional problems with two solutions need the supplementary stipulation '2 solutions'. In PRA problems, however, the number of partial problems is deducible from retroanalysis, that means that the solver himself finds out the number of logical multiple possibilities.

The PRA convention does not prescribe the way in which the partial problems are to be determined. However, there is a formal method which functions well (see p. 114). It is highly suitable for complicated cases (e.g. no. 366).

In **no. 346** either 0-0-0 or 0-0 is permitted. The wPs captured 14 pieces, among them a promoted piece from h1 or a1, which eliminates one castling. If 0-0-0 is permitted, then the solution is not 1.Qe5+? because of Kf3! and White cannot mate since 0-0 is not allowed, but 1.Qc5+! Kd3/Kf3 2.0-0-0/Qf2#. If 0-0 is permitted, then not 1.Qe5+? because of Kd3! and White cannot mate since 0-00 is not allowed, but 1.Qg5+! Kf3/Kd3 2.0-0/Qd2#. PRA in try and solution!

This well-known mechanism of the 'promotion of an edge pawn' clearly shows that the PRA convention deals with *special move rights*, not with the *last move*. This move is certainly a possible aid to find out move rights in a position, but in some retro problems (e.g. no. 351–353) it does not play a part.

**No. 347** is probably the most economical PRA problem. If 0-0-0 is permitted, then 1.Kc3! 0-0-0 2.Rc4 Rh3#; if 0-0, then 1.Kc2! Ra2+ 3.Kc1 0-0#.

No. 348 Werner Keym Die Schwalbe 2007 (c)



Helpmate in 2 b)  $Bc3 \rightarrow d3$ c)  $Bc3 \rightarrow b1$ 

No. 349 Valery Liskovets StrateGems 2002



Helpmate in 3 2 solutions

No. 350 Luigi Ceriani The Problemist 1931



Helpmate in 3

**No. 348:** Genesis of the position: the bPs captured 8 times, either  $wPa \times Xb \rightarrow b8X$  and  $h2 \rightarrow h8X$  (0-0 not permitted) or  $a2 \rightarrow a8X$  (0-0-0 not permitted) and  $wPh \times Xg \rightarrow g8X$ , hence 0-0-0 and 0-0 exclude each other (cp. no 346). a) The first single move is different: either 1.0-0-0! Ba5 2.b5 Qc7# or 1.d3! B×e5 2.0-0 Qg7#; b) here it is the second: 1.d5! c4×d5/e4×d5 2.0-0-0/0-0 Ba6/Qh7#; c) here it is the third: 1.B×e4! B×e4 2.0-0-0/0-0 Qb7/Qh7#. Non plus ultra.

**No. 349:** A double rendering of PRA and a star flight of the bK. If 0-0-0 is permitted, then these are the solutions: 1.Kd7! 0-0-0+ 2.Kc8 Rhe1  $3.Rhc7 R \times e8\#$  and 1.Kd5! 0-0-0+ 2.Kc4 Rhe1 3.Bb5 Re4#. If 0-0 is permitted, then 1.Kf7! 0-0+ 2.Kg8 Rae1  $3.Rbg7 R \times e8\#$  and 1.Kf5! 0-0+ 2.Kg4 Kg2 3.Bh5 h3#. Nice (a)symmetry.

**No. 350:** If 0-0-0 is permitted, then the solution is  $1.R \times h2!$  0-0-0  $2.R \times e2$  Rh1 3.Re7 Rh8#; if 0-0, then 1.0-0! a4 2.Kh8 Ra3 3.Rg8 Rh3#. The rendering of the mutually exclusive white/black castlings is achieved in a brilliant simplicity. *Ceriani* again!

No. 351 No. 352 No. 353 Werner Keym Werner Keym Die Schwalbe 2008 Werner Keym Stuttgarter Zeitung 2016 1<sup>st</sup> Prize Die Schwalbe 2006 買 Ż Ż Ï 单 🗒 💄 J.U ŧ U <u>w</u> Å Ð д **i** 🔅 ØŇ ŧ U 14 ₩ Ŵ 2 Å Å Å *118* ØŇ 꽬 ŧ U Å ģ 88 <u>\$</u> 8 Â # 8 Å Å Ľ ŐÉ. Ľ

Mate in 3

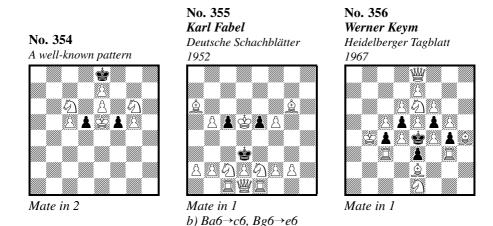
White gives check in 2 moves

Mate in 2

In **no. 351** (FIDE-Album) each of the four castlings is permitted:  $wS \times Bf8$ ,  $bPd3 \times Xc2 \cdot c1B \rightarrow a7$ , the promoted officers Rb7 and Ra5 either came from a8 and h1 (then only b0-0 and w0-0.0 are permitted) or from h8 and a1 (then only b0-0.0 and w0-0.0 are permitted). In the first case the solution is 1.Rf1! Kd8 2.Q×c6 Kc8  $3.Q \times c7\#$ , in the second 1.Rd1! Kf8/R×h6 2.Qg6/Qg6+ Kg8/R×g6  $3.Q \times g7/Rh8\#$ . So no. 351 (with four castling rights) is 'only' a two-part problem. Tries are: 1.0-0? 0-0-0! and 1.0-0-0? 0-0!. After 35 years of efforts without result this is the first realization of a double paradox: if White can castle long, he is only successful when he gives up precisely this right. The same paradox shows off in the case of short castling.

**No. 352:** Two promoted officers, which are needed as sacrificial pieces on the e-file, came a) from a8 and h1 or b) from h8 and a1. In a) only b0-0 and w0-0-0 are permitted, therefore 1.Rf1!  $\sim 2.Rf8+$  (not 1.Sf5? Kf8!). In b) only b0-0-0 and w0-0 are permitted, therefore 1.Rd1!  $\sim 2.Rd8+$  (not 1.Sd5? Kd8!). This classical rendering of the paradox (cp. no. 351) is suitable to baffle chess players lacking the 'retro look'.

No. 353 is quite different: the bPa and the bPh promoted a) on a1 and g1 or b) on b1 and h1 and were captured as sacrificial pieces, moreover two captures by bPs on c and d; the wPs captured 4 pieces (e.g. wPh×Pg→g8Q). Solution: a) 1.0-0-0! 0-0-0/0-0 2.Qa8/Qh7#, b) 1.0-0! 0-0-0/0-0 2.Qa8/Qh7#. 15 times number 0 in the notation!



No. 354: According to the en-passant convention a)  $1.c5 \times d6$  e.p.? is not allowed since the last move is ambiguous (d7-d5 or f7-f5) and it is the same for b)  $1.g5 \times f6$  e.p.?. In these cases, however, the PRA convention works and the solution is a)  $1.g5 \times f6$  e.p.! ~ 2.f7# or b)  $1.c5 \times d6$  e.p.? ~ 2.d7#. Hence there are not two (independent) solutions, but *one* solution which consists of *two* parts which exclude each other.

**No. 355:** The wBc1 died on c1 and one of the bishops is a promoted officer. So there is no sacrificial piece and the last move was not  $b6/d6 \times Xc5$ ? nor  $e6/g6 \times Xf5$ ?. The two e.p. captures exclude each other. The solution is either  $1.b5 \times c6$  e.p.#. or  $1.f5 \times e6$  e.p.# (PRA). In the twin setting b) Black did not move last and is to play: 1.c4 Sb4# or 1.e4 Sf4# (no PRA, but 2 variants)!

**No. 356:** There are 16 white pieces on the board. Hence the last move was not  $bPb5 \times Xc4$ ? nor  $bPh5 \times Xg4$ ?. So the mate by  $1.Rc \times e3#$ ? or  $1.Rg \times e3#$ ? is a try. Black is to play. The wPs captured 10 times. The last move was either d2-d4 (then  $1.c4 \times d3 \text{ e.p.}$ !  $B \times d3#$ ) or f2-f4 (then  $1.g4 \times f3 \text{ e.p.}$ !  $B \times f3#$ ).

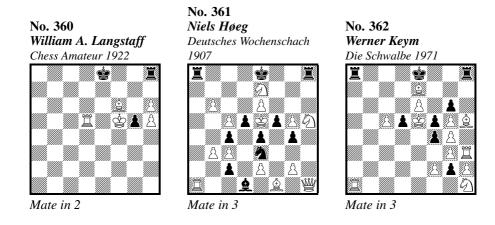
No. 357 No. 358 No. 359 Werner Keym **György** Paros Werner Keym Stuttgarter Zeitung 2010 Festgrüße 1947 Die Schwalbe 2010 Ŷ Ŷ Å Å Ż 冒 ¢ 🛓 Å 🏝 Å 👾 ê 🤶 Å Å Mate in 2 Helpmate in 2

Mate in 2

**No. 357:** Three e.p. captures exclude each other. The bPs captured 3 times, but not  $d6 \times Xc5$ ? nor  $d6 \times Xe5$ ? (too many captures). If  $d5 \times c6$  e.p. and  $d5 \times e6$  e.p. are not permitted, then the last move was g7-g5, therefore  $1.h5 \times g6$  e.p.!  $\sim 2.g7#$ . It is the same for e7-e5 (1.d5×e6 e.p.!  $\sim$  2.e7#) and for c7-c5 Rd6-b6+ (1.d5×c6 e.p.+! Sc5 2.B $\times$ c5#). The first dual-free realization of three possible e.p. captures in a directmate problem. – Thomas R. Dawson's early rendering has several duals (P0002175).

No. 358 is probably the earliest helpmate to show three mutually exclusive e.p. captures. If  $d4 \times e3$  e.p. and  $h4 \times g3$  e.p. are not permitted, the solution is  $1.b4 \times c3$ e.p.+! K×d4 2.c6 Bd6#. Analogous procedure with 1.d4×e3 e.p.! B×b2 2.f5 Be5# and with  $1.h4 \times g3$  e.p.! B×b4 2.Rf1 Bd2#. Masterly designed. There is even a rendering in a one-move helpmate (P0005589).

No. 359: Bf1 died on f1, Be8 is a promoted officer from c8, not e8, since then 8 captures would be necessary, but the bPh could not promote on g1 (having only the wQ as a sacrificial piece) nor be a sacrificial piece. For the same reason the last moves were not c7-c5 Rd6-b6+ with  $1.d5 \times c6$  e.p.+? Sc5  $2.B \times c5$ #. Hence the last move was either e7-e5 or g7-g5. Therefore the solution is either  $1.d5 \times e6! \sim 2.e7\#$ or  $1.h5 \times g6$  e.p.!  $\sim 2.g7$ #. First realization of one virtual and two real e.p. captures.



**No. 360:** If 0-0 is allowed, then the last move was g7-g5 and the e.p. capture is allowed as well. Hence  $1.h5 \times g6$  e.p.! 0-0 2.h7#. If  $h5 \times g6$  e.p. is not permitted, then the bK or the bR must have moved last. In this case the solution is  $1.Ke6! \sim 2.Rd8#$ . A classic two-part problem. There is an earlier, but less economical three-move problem of the same kind (P0002181).

No. 361 is the first four-part problem (with duals). If 0-0-0 permitted, but not 0-0, then 1.Sc6! R×a1 2.Sf6+,Sg7+  $\sim$  3.Q×h8#. If 0-0 permitted, but not 0-0-0, then 1.Sg6! R×a1 2.Sf6+,Sg7+ etc. If 0-0-0 and 0-0 permitted, then either 1.c5×d6 e.p.! Ra5+/R×a1 2.R×a5/Sf6+,Sg7+  $\sim$  3.Ra8/Q×h8# or 1.g5×f6 e.p.! R×h5+/R×a1 2.Q×h5+/Sg7+  $\sim$  3.R×a8,Qh8/Q×h8#. A similar problem with thematic tries (without duals) is P0000891.

**No. 362:** Genesis of the position: bOfficer×Pa,  $a7 \rightarrow a1X$ , the wPs captured 8 pieces (X as well), not bPc6×Xd5? for lack of a sacrificial piece. If 0-0 not permitted, then 1.Bf6! R×a1 2.B×g6+ Kf8 3.R×h8#. If 0-0-0 not permitted, then 1.Bd6! R×a1 2.B×g6+ Kd8 3.R×h8#. If 0-0-0 and 0-0 permitted, then either 1.c5×d6 e.p.! Ra5+ 2.R×a5 g2×h1Q/g6×h5 3.B×g6/Ra8# or 1.g5×f6 e.p.! R×h5+ 2.R×h5 R×a1/g6×h5 3.Rh8/R×a8#. A dual-free economical four-part problem. A four-part problem of a different kind is no. 61.

No. 364 No. 363 No. 365 Luigi Ceriani Werner Keym Karl Fabel Europe Echecs 1960 Die Schwalbe 1972 Die Schwalbe 1970 置 ģ Ý Ś ۱Ô I U 7 8 Å Å Å 13 **L** /2 **L** 8 18 ĝ ģ ٩ Å Å ģ ē WW A Ø **i** 2 6 8 A #8 Å Å Ï WY L Ð Ě

Mate in 3

Mate in 2

Mate in 3

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 $bPa3 \times Qb2 - b1B$ ,  $wPc \times Xd$ ,  $c7 \rightarrow c1R$ ,  $wPd4 \times Xc5$ ,  $wPf \times Pe \times Qd8B$ , No. 363: wPh×Pg. If 0-0-0 not permitted, then 1.Bd6!  $S \times e6 2.R \times a8 + Sd8/Kd7 3.B \times b5#$ . If 0-0 not permitted, then 1.Bf6!  $S \times e6 \ 2.B \times b5+$  Kf8  $3.R \times h8#$ . If 0-0-0 and 0-0 permitted, then (if the last move was b7-b5)  $1.c5 \times b6$  e.p.+! K×e7/R×a4 2.Bc5+/R×h8+ Kd8/K×e7 3.R×a8/Bc5# or (if d7-d5) 1.c5×d6 e.p.! S×e6/R×h6 2.B×b5+ Bc6 3.B×c6# or (if f7-f5) 1.g5×f6 e.p.! B×e6 2.Bb5+ Bd7 3.R×h8#. This is the sole dual-free five-part retro problem. There are predecessors with duals (P000488-0, -1, -3).

No. 364: The wBc1 died on c1, the Sa1 is an original knight. The wRa6 is a promoted officer or it came from a1 via e1. In the first case the bK has moved and s0-0-0 and e.p. capture are not permitted; therefore 1.0-0! (1.Tf1?  $S \times c2+!$ )  $\sim$  2.Rf8#. In the second case w0-0 is not permitted, but s0-0-0 und c5×b6 e.p. are permitted (the last move was b7-b5 Rc6 $\times$ Xa6+); therefore 1.c5 $\times$ b6 e.p.+!  $\sim$ 2.Qf8#. This is the first directmate PRA problem showing mutually exclusive w./b. castlings. Such problems need an e.p. capture (no. 364 and 365) or an additional castling (no. 331 and P0000902).

**No. 365:** The castlings exclude each other. The Ra6 is a promoted officer or it comes from h1 via e1. In the first case w0-0-0 is permitted (b0-0-0 and  $b5 \times c6$  e.p. not permitted), therefore 1.0-0-0! (1.Rd1? prevents 3.Qe1#)  $R \times a6$  2.B  $\times b5+ c6$  3.Qe1#. In the second case b0-0-0 and  $c5 \times b6$  e.p. (before that b7-b5 Rc6-a6+) are permitted (w0-0-0 not permitted), therefore  $1.c5 \times b6$  e.p.+! c6  $2.B \times c6+$  Kd8  $3.R \times a8#$ .

No. 366 Gerd Rinder Die Schwalbe 1972



Helpmate in 2

This is an outstanding retro problem. The wPs captured 3 pieces, among them a promoted officer from h1 or a1. a) If 0-0-0 is permitted, then 0-0 is not permitted and the last move was f2-f4 or d2-d4. So the solution is either  $1.Pg4 \times f3$  e.p.! B×g1 2.Qd3 R×h4# or  $1.Pc4 \times d3$  e.p.! B×g1 2.Pe2 Sd2#; both times the move right 0-0-0 is *acknowledged*, but not executed! b) If 0-0 is permitted, then 0-0-0 is not permitted and the last move could be R-a1, hence no e.p. capture is allowed. Therefore the solution is  $1.R \times g3!$  S×g3+ 2.Kf3 0-0#. So no. 366 is 'only' a three-part problem.

The essential difference between the right to castle and the right to capture en-passant is well-known: the right to castle is defined in positive terms since castling is generally permitted; the opposite right is negative. Contrary to that the right to capture en-passant is defined in negative terms since the e.p. capture is generally not permitted; the opposite right is positive.

In the Codex it is not regulated how to find out the partial problems of a PRA problem. Here I am offering a formal method which is suitable for all cases, particularly for complicated ones as no. 366:

1) There exist four special move rights; the opposite rights are marked with '.

A = 0-0-0 is permitted	A' = 0-0-0 is not permitted
B = 0.0 is permitted	B' = 0.0 is not permitted
$C = Pc4 \times d3$ e.p. is not permitted	C' = $Pc4 \times d3$ e.p. is permitted
$D = Pg4 \times f3$ e.p. is not permitted	D' = $Pg4 \times f3$ e.p. is permitted

2) The calculation results into 2<sup>4</sup> = 16 combinations of special move rights: (ABCD), (ABCD'), (ABC'D), (ABC'D') – (AB'CD), AB'CD', AB'C'D, (AB'C'D') –
A'BCD, <u>A'BCD'</u>, <u>A'BC'D</u>, (A'BC'D') –
<u>A'B'CD</u>, <u>A'B'CD'</u>, <u>A'B'C'D</u>, (A'B'C'D').

3) The combinations that are not legal are eliminated. These are the eight ones in brackets.

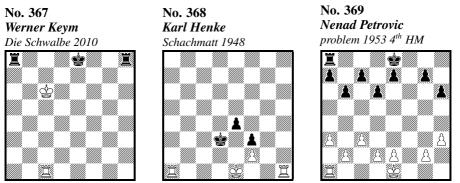
4) The combinations that do not correspond with the castling or en-passant convention are eliminated. These are the five underlined ones.

5) The remaining combinations form the partial problems. They are the three ones put in bold.

6) The first partial problem **AB'CD'** has the solution  $1.Pg4 \times f3$  e.p.!, the second **AB'C'D**  $1.Pc4 \times d3$  e.p.!, the third **A'BCD**  $1.R \times g3!$ . Quod erat demonstrandum.

## **Retro-Strategy (RS)**

'If in the case of mutual dependency of castling rights a solution is not possible according to the Partial Retrograde Analysis (PRA) convention, then the Retro-Strategy (RS) convention should be applied: which ever castling is executed first is deemed to be permissible.' (Codex for Chess Composition p. 170). What does that mean?



Helpmate in 1.5

Helpmate in 2\*

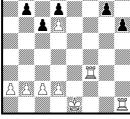
Helpmate in 3

For once we begin with helpmate problems because they are very suitable to show the special feature typical of RS problems. – **No. 367** is a basic example. White is to play, hence 0-0-0 and 0-0 exclude each other. If 0-0-0 is permitted (1<sup>st</sup> partial problem), the solution is 1.Ra1 0-0-0 2.Ra8#. If 0-0 is permitted, there is no mate in 1.5 moves (2<sup>nd</sup> partial problem). So a solution according to the PRA is not possible. That is why no. 367 (with the sole solution 1.Ra1! 0-0-0 2.Ra8#) is a correct RS problem.

**No. 368:** Here the white castlings exclude each other. If 0-0 is permitted, the solution is 1.Kc2! Ra2+ 2.Kc1 0-0#. But there is no mate in 2 moves, if 0-0-0 is permitted. In the set play, however, we see the opposite: 1...0-0-0+ 2.Ke2 Rd2#. Retro-Strategy in the solution and in the set play. – If you add a bPa3 you will get a PRA problem with the keys 1.Kc2! or 1.a2!.

**No. 369** (FIDE-Album): The existing pawns were never able to capture. At some given time a king or a rook captured one of the opposite officers. Hence both castlings exclude each other. The solution is 1.Rd8! 0-0-0 2.Rd7 Rf1 3.Kd8 Rf8#. Try: 1.0-0-0? 0-0-0?? (not permitted) 2.Rd7 Rf1 3.Kd8 Rf8#. Here Black is in the position to castle first, but he lets White go ahead with castling.

No. 370 Herbert Hultberg Tidskrift för Schack 1944



Mate in 2





Mate in 3

**No. 370:** There are two cases. a) The Rf3 is a promoted officer, hence 0-0-0 is not permitted, the solution is 1.0-0! (1.Rf1? 0-0-0!)  $\sim 2.Rf8#$ . b) The Rf3 comes from a1, hence 0-0 is not permitted, there is no mate in 2 moves. A typical RS directmate problem: White castles first and hereby prevents Black's castling.

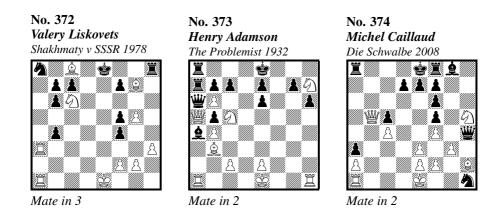
**No. 371** (FIDE-Album): The queen comes from d1 (then 0-0 not permitted) or it is a promoted officer (then 0-0-0 not permitted) – try yourself, please. Therefore  $1.Q \times d6!$  Bb7 2.0-0! (2.Rf1? 0-0-0!) ~ 3.Rf8#. Perfect both in content and form!

**PRA and RS have common and different features:** the same retroanalysis, partially the same solution. If in the diagram position two castlings exclude each other, this leads to two options:

1) Both retro geneses with their actual castling right are taken into account (principle of equality). Each genesis leads to a solution of one of the parts of the problem ('partial solution'), hence the term Partial Retrograde Analysis. The solutions of the two parts as a whole result in the complete solution. In the course of the solution castling is not obligatory. (cp. no. 345 and 351)

2) The one retro genesis whose castling right leads to a solution is taken into account (principle of priority); this genesis determines the game's history more or less, hence the term Retro-Strategy (e.g.: in no. 370 the move 1.0-0 determines the fact that bK or bR must have moved). In the course of the solution the performance of castling is obligatory. The other retro genesis where the castling right does not allow a solution is irrelevant.

The problems no. 372–374 are offers for retro connoisseurs.

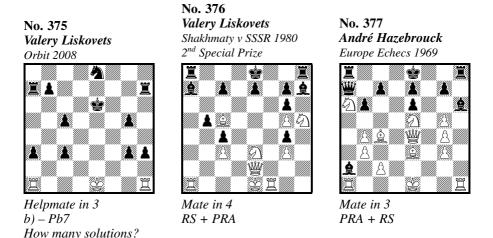


**No. 372:** The wRa3 comes from h1 (then 0-0-0 not permitted) or it is a promotee from b8 to f8 (then 0-0 not permitted). Solution: 1.Bf6! 0-0 2.Se7+ Kh7  $3.B \times f5\#$ ,  $1...b7 \times c6$  2.0-0-0! (2.Rd1? 0-0!) ~ 3.Rd8#, 1...b3 2.B×f5 0-0 3.Se7#,  $1...Kf8/R \times h3$  2.R×a8/R×h3 etc. Tries: 1.0-0-0? f6!;  $1.R \times a8$ ? b7×c6 2.Bf6 0-0!. Singular RS problem with real white and black castlings!

No. 373 is the first RS problem (composed in 1916 according to *T. R. Dawson*). Solution: 1.0-0! (1.Rf1? 0-0-0!) ~ 2.Rf8# because w0-0 and b0-0-0 exclude each other. Genesis of the position: the bBf8 died on f8; the dark-squared wB is missing. Case a): the last move was  $f7 \times Pe6$  (or  $f7 \times S/Q$  (= promotee), before that  $g6 \times h7$ -h8Q/S). If the Ra7 comes from h8 via e8, then b0-0-0 is not permitted; if it is a promotee from d1 or f1 (not g1 for lack of sacrificial pieces), then w0-0 is not permitted. Case b): the last move was  $d7 \times Xe6$ . Then Ba4 is a promotee from f1, earlier f2-f1B (w0-0 not permitted) or  $g2 \times Xf1B$  requiring more sacrificial pieces: the wPg and a promotee from f8 (f7-f8X and b0-0-0 not permitted). An excellent problem with a double RS. Another early RS problem is P0001348.

**No. 374:** Solution: 1.0-0-0! (1.Rd1? 0-0-0!) Rd8/Ra7 2.Sg7/Qb8#; w0-0-0 and b0-0-0 exclude each other. This RS problem is very original: both the queens are promoted officers from b8 and c1, either can serve as a shield against the other one's checking (e.g. wQd1/bQc1 or bQc8/wQb8). Genesis of the position:  $a7 \rightarrow a3$ ,  $b7 \rightarrow b3$ , c7-c5, c2-c4,  $d2 \times Se3$ ,  $h2 \times Qg3$ , wRh $\rightarrow$ f6,  $g7 \times Rf6$ , wBc $\rightarrow$ h4, bBf $\rightarrow$ f4,  $g3 \times Bf4$ , bS $\rightarrow$ h1, wBh $\rightarrow$ h2,  $h7 \times Sg6 \times Qf5$ , bRh-f8, bBc $\rightarrow$ g8, wS $\rightarrow$ h5, g2-g3 (locks up the cage), wBf $\rightarrow$ c2,  $b3 \times Bc2$ ,  $b2 \rightarrow b7$ , bRa-d8 (b0-0-0 not permitted), b7-b8Q, wQ $\rightarrow$ d1, c2-c1Q, bQ $\rightarrow$ h4, wQ $\rightarrow$ b5, bRd-a8 and w0-0-0 is permitted. Deep retroanalysis.

## Partial Retrograde Analysis and Retro-Strategy



**No. 375:** a) If 0-0-0 is permitted, the solution is 1.Kd7! 0-0-0+ 2.Kc8 2.Rhe1  $3.Rc7 R \times e8\#$  or, if 0-0 is permitted, 1.Kf5! 0-0+ 2.Kg4 Rae1 3.Rh5 Re4#: a typical PRA problem with 1 solution which consists of 2 parts (cp. p. 106). The setting b), however, has two solutions, if 0-0 is permitted: 1.Kf7! 0-0+ 2.Kg8 Rae1 Rag7 R×e8# and 1.Kf5! 0-0+ 2.Kg4 Rae1 3.Rh5 Re4#. But there is no mate in 3, if 0-00 is permitted: a RS problem with 2 solutions.

**No. 376:** The Ba7 is a promoted officer. If it comes from a1, b0-0-0 and b0-0 are permitted. Try: 1.Rd1?  $g6 \times h5$  2.Sd5/Sf5 0-0-0!/0-0!. Therefore 1.0-0-0! and the Ba7 comes from c1 which requires more sacrificial pieces (e.g. a promotee from a8 or h8). Hence either b0-0-0 or b0-0 is permitted. Solution: either 1... $g6 \times h5$  2.Sd5 Kd7 3.Q×e7+ or 1...g6xh5 2.Sf5 Kf7 3.Q×e7+.

**No. 377:** Try: if 1.Rd1?/Rf1?, then 0-0!/0-0-0!. The bBf8 died on f8, Bh6 is a promoted officer. The wPs captured 3 pieces, among them a promotee from a1 or h1, hence the white castlings exclude each other. But each prevents the two black castlings (because of wPd7-d8X). So the solution is either 1.0-0-0! Kf8 2.Rhf1+ Kg8  $3.B \times e6\#$  or 1.0-0! Kd8 2.Rad1+ Kc8  $3.B \times e6\#$ , 1... c6  $2.Q \times c6+$  Kd8 3.Sf7#, 1... Qb7  $2.Q \times b7$  Rd8  $3.S \times c7\#$ . (cp. P1080375)

In my opinion the PRA and RS conventions are not sufficient to solve no. 376 and 377. So the stipulations 'RS + PRA' and 'PRA + RS' should be added.

No. 378 Werner Keym Die Schwalbe 2010



*Mate in 3 b*) – *Bb5 c*) + *bSh7*  In **a**) no more than three castlings are compatible as a maximum: w0-0, w0-0-0, b0-0 with the following genesis of the position:  $d7 \times Pc6$ ,  $h3 \times Sg4$ ,  $Pf5 \times Be6$ ,  $d4 \times Qe5$ , f3×Se4, wX×Pa, a2→a8X, the last move was h6×Xg5. Tries: 1.Bxg5? 0-0!; 1.Rd1? 0-0!; 1.Rf1? R×a6!. Solution: 1.0-0! [thr. 2.Qd3] Rf8/Kd8  $2.S \times g7 + /Qd3 + Kd8 / Kc8 3.R \times f8 / Qd7 #.$ However, there is a genesis of the position where b0-0-0 is permitted:  $f3 \times Se4$ ,  $f7 \rightarrow f1X$ ,  $a4 \times Xb5$ ,  $a7 \rightarrow a1X$ ,  $b5 \times Xc6$ ,  $d7 \times Pc6$ ,  $c4 \times Sd5 \times Be6$ ,  $d4 \times Qe5$ ,  $g2 \rightarrow g6$ ,  $h6 \times Qg5$ ,  $h2 \rightarrow h80$  (= Qa3), the last move was R-h8; here w0-0, w0-0-0 and b0-0 are not allowed. Tries: 1.B×g5? 0-0-0!; 1.Rf1? R×a6/0-0-0!. Solution: 1.Rd1! [thr. 2.Qf3] Rd8/Kf8 2.S×c7+/Qf3+ Kf8/Kg8 3.R×d8/Qf7#. So a) is a PRA problem with two parts: either 1.0-0! or 1.Rd1!.

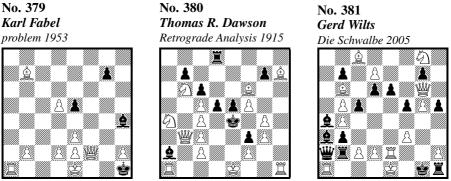
**b)** The maximum of three castlings is compatible with the convention in either case. If w0-0/w0-0-0/b0-0 or w0-0/w0-0-0/b0-0 or w0-0/b0-0/b0-0 are permitted then the solution is 1.0-0! as in version a); in addition to that we see the variant 1...0-0.0 2.Sb4/Sc5  $\sim$  3.Qa8# – all that with b0-0-0 being permitted. If, however, w0-0-0/b0-0/b0-0/b0-0-0 are permitted (last move f6×Pg5, earlier d7×Bc6) then w0-0 is not allowed and there is no mate in 3. In such a case the RS convention works: the castling which is executed first (w0-0) is permitted. By executing 1.0-0 the case of w0-0-0/b0-0/b0-0-0 becomes obsolete and is eliminated. Solution: 1.0-0! Rf8/Kd8/0-0-0. So **b**) is a RS problem: 1.0-0.

In c) no castling whatsoever is permitted and both PRA and RS conventions are irrelevant. Genesis of the position:  $g2\rightarrow g6$ ,  $wX \times Pa$ ,  $a2\rightarrow a8X$ ,  $h6\times Xg5$ ,  $h2\rightarrow h8X$ ,  $d7\times Xc6$ ,  $f3\times Se4$ ,  $f7\rightarrow f1X$ ,  $c4\times Xd5\times Be6$ ,  $d4\times Qe5$ . The try with  $1.B\times g5$ ? in version a) and b) now turns out to be the solution in c):  $1.B\times g5$ ! [thr.  $2.Qe7\times #$ ]  $S\times g5$ , Sf6/K- 2.Sf6+,  $S\times f6/Qxe7+ ~/K\sim 3.R\times h8/Q7#$ . So c) is a 'normal' retro problem without PRA or RS:  $1.B\times g5+$ .

The deceivingly 'simple' positions with their slight modifications demand different tricky retrograde analyses and show a varied mainly dual-free play with virtual or real castling. My best retro problem with four castlings.

## Special Partial Retrograde Analysis (SPRA)

In problems with the supplementary stipulation 'SPRA' the en-passant capture is permitted, unless the opposite can be proved.



Mate in 1 SPRA

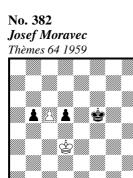
Mate in 2 SPRA

Mate in 1 SPRA

**No. 379:** Solution: either 1.0-0-0#! or  $1.d5 \times e6$  e.p.#!. In the second case the last move was e7-e5 and 0-0-0 is not permitted since the Bh4 is a promotee from g1 or e1. Without 'SPRA' that does not work since it cannot be proved that the double step (e7-e5) was the last move. A two-part SPRA problem.

**No. 380** shows a double setting. The wPs captured 6 pieces, among them a promoted officer from h1 or a1 (earlier h7 $\rightarrow$ h1X or a7 $\rightarrow$ a1X). Therefore either 1.0-0-0! ~ 2.Rde1,Rhe1# or 1.0-0! Bb1 2.Rfe1#. If the last move was d7-d5 or e7-e5, then earlier h7 $\rightarrow$ h1B/X and a7 $\rightarrow$ a1X (0-0 and 0-0-0 not permitted) and the solution is either 1.c5×d6 e.p.! ~ 2.Sc5# or 1.f5×e6 e.p.+! g6 2.B×g6#. A four-part SPRA problem (as no. 381).

To me **no. 381** is the perfect SPRA problem. Castling is permitted according to this retro play: 1...h6-h5 2.Qh5-g6 h7-h6 3.f2-f3 c6-c5 4.Re3-e2 c7-c6 5.Qd1-h5 Rb1-b2 and a bR gets to h8 via f6 and f8; solution: 1.0-0-0#!. If the last move was c7-c5 or f7-f5 or h7-h5, this retro play fails (for lack of one tempo). Instead the move wRc/d1-a1 (0-0 not permitted) makes the previous move bRb1-b2 or bQb1-a2 possible. In this case the solution is  $1.b5 \times c6$  e.p.#! or  $1.g5 \times f6$  e.p.#! or  $1.g5 \times h6$  e.p.#!.



End of the game? White to play SPRA

**No. 383** *Nikita Plaksin Shakhmaty v SSSR 1978* 9<sup>th</sup> TT 1<sup>st</sup> Prize



Mate in 1

**No. 382:** White loses by 1.Kc3? Ke6, draws by  $1.c5 \times d6$  e.p.? and wins by  $1.c5 \times b6$  e.p.!. Small, but nice.

The vague term **Retro Variants** is no longer used in the Codex. Most of the retro problems which were published with the supplementary stipulation 'Retro Variants' or 'RV' before 2008 are PRA problems after the modification of the Codex in 2008 and now need no supplement. In few former problems, however, an en-passant key is intended, although the double step of the pawn cannot be proved according to the Codex (e.g. no. 379–381). Such problems are solvable by means of a special convention as proposed by *G. Rinder* in 1970. I call it the Special Partial Retrograde Analysis (SPRA) convention. That is a PRA convention with the special feature that an en-passant capture is permitted unless it can be proved that it is not permissible. Here the right to capture en-passant is analogous with the right to castle. The SPRA should be expressly stipulated.

Variants which occur in the retro play without exerting any effect on the forward game may be regarded as retro variants in a wider sense. Such problems need no supplement. No. 383 is a fine example. The solution is not  $1.S \times f7#$ ?, but  $1.Rf \times g7#$ !, since White moved last. The retro play implies two variants:

a) 1.Bg1-h2 d2-d1B 2.Rh2-g2 d3-d2 3.Rh4-h2 h2-h1S 4.Ra4-h4 h3-h2 5.Ra8-a4 h4-h3 6.a7-a8R  $\ldots~9\ldots$  d7-d6 10.a2-a4 a3 $\times$ Xb2

b) 1.Rg1-h2 h2-h1S 2.Sd2-f1 h3-h2 3.Sc4-d2 d2-d1B 4.Sb6-c4 d3-d2 5.Sa8-b6 h4-h3 7.a7-a8S . . .

In each variant the promotions are separated according to some retro moves.

# A posteriori (AP)

The en-passant capture as a key is permitted only if it can be proved that the last move was the double step of the pawn which is to be captured (p. 170). In general such a prove is due to the retroanalysis of a position, i.e. the past. However the past can be influenced by the future, i.e. by a castling in the forward play.

**No. 384** John F. Keeble The Problemist FCS 1936



Helpmate in 2.5 AP

No. 385 Werner Keym Tomislav Petrovic Hannoversche Allgemeine Zeitung 1999



Helpmate in 1.5 AP

No. 386 Nenad Petrovic problem 1954 I<sup>st</sup> Prize



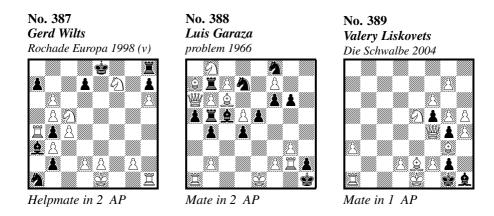
Helpmate in 3\* AP

**No. 384** is the first AP realization:  $1.e5 \times d6$  e.p.! 0-0-0!  $2.d6 \times e7$  Rf8  $3.e7 \times f8Q$ ,R#. After the e.p. key Black castles and hereby 'proves' a posteriori (after the event) that the last move was d7-d5 and the e.p. capture was permitted. Hence the e.p.capture is legalised by the execution of castling. By the way no. 384 is the first helpmate Valladao (p. 28).

**No. 385** is the sole AP miniature: 1.c5×b6 e.p.! 0-0-0 2.b7#.

The prize winner **no. 386** made the AP idea popular. Set play:  $1...Rg1 2.B \times b4$  Rg7 3.Ka5 Ra7#. The solution is  $1.c4 \times b3$  e.p.! 0-0! 2.Sd5 Rb1 3.Sb4  $a2 \times b3$ #; 1...Ke2? would render the e.p. capture illegal.

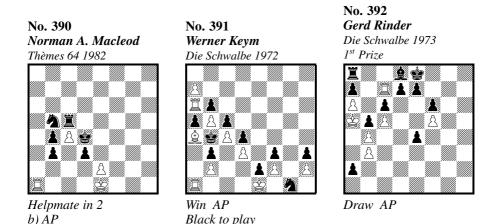
Since 1997 the Codex has recommended to add the supplementary stipulation 'AP'. Some composers note it every time, some in directmate problems only, some never ('in order not to betray anything').



No. 387: Here two castlings are necessary for the legalisation of the e.p. capture. The wPs captured 5 times, the Bf1 died on f1. The last move was not wS×Xc5? nor  $a2/c2\timesXb3$ ? since then a promoted officer from f1 (w0-0 not permitted) would be needed as a sacrificial piece. If Ke1, Rh1, Ke8 and Rh8 have not made any move, the last moves were c2-c4! c3×Xb2. Therefore  $1.b4\timesc3$  e.p.! 0-0! (first prove) 2.0-0! (second prove) Rg4#.

**No. 388** is the first correct realization in a directmate problem. If Ke1 and Ra1 have not made any move, the last moves were e7-e5  $e6 \times Xf7$ . Genesis of the position: bOfficer×Ph, h7→h2, wOfficer×Pd, d2→d5, c5×Sd4, c2→c7, a4×Bb5, finally  $e6 \times Qf7$  and e7-e5. Hence 1.d5×e6 e.p.! d3 2.0-0-0#!. 2.Kd2#? would render the e.p. capture illegal.

**No. 389:** The wPs captured 11 pieces, among them the promoted officer X from b1 (earlier bPa×Rb-b1X). The last move was not  $e6/g6 \times Xf5$ ? nor h2-h1B? nor h3×Sg2? because of too many captures. Hence Black is to play and 1.Bh2#? and 1.0-0-0#? are tries. The last move was either Kd1-e1 Kf1-g1 (then no mate in 1) or h2-h4 h3×Sg2 (then 0-0-0# possible). Therefore White 'proves' by castling that only h2-h4 was the last move and hereby forces  $1.g4 \times h3$  e.p.! 0-0-0#. For further (complex) AP problems see *PDB* (K='A posteriori').

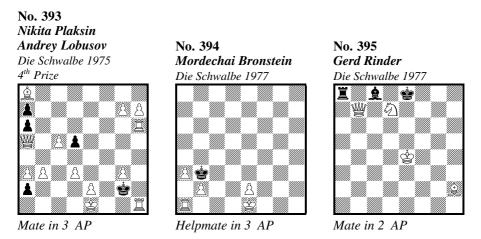


**No. 390** is bizarre. a) The solution is  $1.Kc3! 0-0.02.R \times c4 R \times d3#$ . b) After castling in a) the AP solution is  $1.b4 \times c3$  e.p.! e4  $2.K \times c4$  Ra4#.

No. **391** is even more bizarre. It is not an endgame study, but an AP problem with the stipulation of a study 'Win'. The bPs captured the 5 missing white pieces, among them the Bc1. Hence the last move was not d2-d3? nor c2×Xd3? (too many captures). Therefore White 'proves' by castling that the last move was not K-e1 nor R-a1, but d2-d4 and hereby forces Black's key move:  $1...d4\times c3$  e.p.!  $2.b2\times c3+K\times c3$  3.a8Q b2 (3...Kb2 4.Qh8+Kc2 5.B×b3+) 4.Qh8+Kb4 5.Qh4+! (5.Q×b2#? is too early because the castling has not yet been executed!) 5...Kc3 (5...c4 6.Qe7+Kc3 7.Qa3+Kd4 8.Q×b2+) 6.Qf6+Kb4 7.Qf4+Kc3 8.Qd2+Kd4 9.Q×b2+, and the queen conquers Sg1, Pf3 and Pe2. After that White will castle and win.

**No. 392** is extremely bizarre. Retroanalysis: The bPs captured 9 times. The last move was not  $b7 \times Xc6$ ? (too many captures) nor  $g7 \times Xf6$ ? (locks up Bd8), but K-e8 or R-a8 or b7-b5. Black tries to castle in order to prove a posteriori that the last move was only b7-b5. Hereby White will be forced to capture e.p. with a win for Black. 'Solution':  $1.c5 \times b6$  e.p.  $a7 \times b6+ 2.K \times b6$  a1R 3.Kb7 R1 $\times a6$  4.Rc8! and castling is prevented. That means: no castling, no e.p. capture. Hence the diagram position is a stalemate position. If the solver had known that before, he would not have had any reason for racking his brains for a second!

In the AP problems no. 384–392 an en-passant capture is legalised by subsequent castling. The following AP problems show something different (and controversial).



No. 393: White proves by castling that the Rh1 has never moved so that Black's last move was not Kg1-g2, but d7-d5 (before that  $Rc6 \times Xh6+$ ). Hence the solution is  $1.c5 \times d6$  e.p.+! K×g3 2.0-0! Kg4/a1Q,R 3.g7-g8Q,R/Qg5#. 2.Qg5#? is too early because the castling has not yet been executed! (cp. no. 391). Retroanalysis: The bPs captured the 3 missing white pieces, hence Pc6/e6×Xd5? was not possible. The Ba8 is not a promoted officer since 8 wPs are on the board.

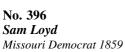
There is also a selfmate problem showing the same idea (P1348653).

**No. 394:** The solution seems to be 1.Kc4? b3+ 2.Kd4 0-0-0+ 3.Kc3 Rd3#, but castling is not permitted since the last move was K-e1 or R-a1. Therefore White proves by castling that he is on the move: 1...0-0.0! 2.Kc4 b3+ 3.Kc3 Rd3#. Such ideas can be realized in cooperative play, but what about adversary play? See next problem.

**No. 395:** This solution is simple: 1.Sf6+! Kd8/Kf8 2.Qc7/Bd6#. But Black, too, claims the right to move first – by subsequent castling:  $1.B \times b7+!$  Ke3! 2.0-0-0! ( $2.B \sim$ ? Bb8, no castling and no first move) Sb6#. Not  $1.B \times d7$ ? because of  $Q \times a8+$  and no castling. Somehow strange, all that!

# Loyd's idea: with/without previous play

*Sam Loyd* was the first to compose a problem, which has got a shorter solution, if the course of the game is taken into account, and a longer solution, if the diagram position is considered to be the initial position.





Mate in how many moves? With/without previous play Incorrect

No. 397 Sam Loyd Missouri Democrat 1859 Version Erich Zepler 1926



Mate in how many moves? With/without previous play

No. 398 Werner Keym Die Schwalbe 1972



Mate in how many moves? With/without previous play

**No. 396** probably is the first problem with Partial Retrograde Analysis (p. 106): either b0-0-0 is permitted (then 1.Qb7!) or b0-0 (then  $1.Q \times g7!$ ). Without previous play both castlings are permitted and three moves are necessary: 1.Rg1 (and cook 1.Sh7) 0-0-0/0-0/Kf8 2.Qc7#/Q×g7+/Q×g7+ *S. Loyd* did not succeed in eliminating the cook.

**No. 397** is correct: a mate in 2 moves by 1.Qa3! (if 0-0-0 is permitted) or by  $1.Q \times g7!$  (if 0-0 is permitted) and in 3 moves (0-0-0 and 0-0 are permitted) by 1.Rg1! 0-0-0/0-0 2.Qa3/Q×g7~/Kxg7 3.Qa8#/Sf7#.

No. 398: The bPs captured 5 pieces, among them a promoted piece from h8 or a8 (earlier wPa×Xb and h2→h8X or wPh×Xg and a2→a8X). In the first case the solution is  $1.d5\timese6!$  0-0-0 2.Ra8#, in the second  $1.f5\timese6!$  0-0 2.Sh6#. Without previous play both castlings are permitted and three moves are necessary:  $1.S\timese5!$  0-0-0/0-0 2.Ra8+/Rg7+ Kb7/Kh8 3.d6/Sg6#. Hence the castlings are actually executed in the two-movers and in the three-mover. This happens to be the first and only realization of *Loyd's* idea showing real castlings in all variants up to now.

No. 399 Werner Keym Weser-Kurier 1970



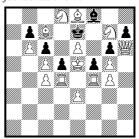
Mate in how many moves? With/without previous play

#### **No. 400** *Werner Keym Die Zeit 2009*



Mate in how many moves? With/without previous play

No. 401 Valery Liscovets feenschach 1986



Mate in how many moves? With/without previous play

It is quite easy to compose problems without real castlings. In **no. 399** the solution is either 1.Qc7! (if 0-0 is permitted) Kf8 2.Qf7# or  $1.Q \times g7!$  (if 0-0 is permitted) Kd8 2.Qd7#. Without previous play three moves are necessary: 1.Qc5! Kd8 2.Qd6+ Kc8/Ke8 3.Rc5/Qe7#. (cp. P0000876)

**No. 400** is a two-mover if 0-0 is permitted:  $1.Q \times g7!$  Kd8 2.Qd7#; it is a threemover if 0-0-0 is permitted: 1.Qg5! Kf8 2.Qe7+ Kg8 3.Qf7#. Without previous play (0-0-0 and 0-0 are permitted) four moves are necessary: 1.Qc5! Kd8 2.Qe7+ Kc8 3.d6 Re8 4.Q×e8#. A really unexpected outcome. – No. 499 is similar.

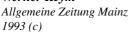
No. 401: Loyd's idea can be realized with the en-passant capture as well. The last move was neither  $d7 \times Xc6$ ? nor  $f7 \times Xg6$ ? (too many captures). If  $1.g5 \times f6$  e.p.? is not permitted, then the solution is  $1.c5 \times d6$  e.p.#!; if  $1.c5 \times d6$  e.p.?, then  $1.g5 \times f6$  e.p.#!. Without previous play two moves are necessary:  $1.B \times c6$ !  $b7 \times c6/d5 \times c4/f5 \times g4/B \times g7$ +  $2.S \times c6/Rd7/Rf7/Q \times g7$ #.

Don't forget: The Partial Retrograde Analysis (PRA) convention deals with mutually dependent special move rights (p. 106), not with the last move. Therefore as to problems no. 396–400, if you take into account the previous play, only one castling is not permitted, not both.

# Twins with/without promoted pieces

Twins with the special stipulation 'Promoted pieces in the diagram position are a) permitted, b) not permitted' have the same positions, yet different geneses and solutions.

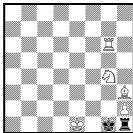
#### No. 402 Werner Keym





Mate in 3 Promoted pieces in the diagram position are a) permitted b) not permitted

No. 403 Werner Keym Die Schwalbe 1993



Mate in 2 Promoted pieces in the diagram position are a) permitted b) not permitted

No. 404 Werner Keym Hannoversche Allgemeine Zeitung 1995



Mate in 2 Promoted pieces in the diagram position are a) permitted b) not permitted

The idea of such a twin occurred to me in 1993. **No. 402** is the first realization. In case a) the last move was a2-a1S; both castlings are permitted, therefore 1.0-0! [thr. 2.Re5+ 3.Rf8#] 0-0-0 2.R×a1 ~ 3.Ra8#. b) The last move was either bK-e8 or bR-a8 (earlier a2×Xb3, bSb3-a1 and wRa1→b5 via e1), 0-0 and 0-0-0 are not permitted. Therefore 1.Rf5!  $S \times c2+ 2.Kf2 \sim 3.Rh8#$ . Theme: castling.

**No. 403** is a rendering in a miniature. [There is even a rendering with five pieces only, if in no. 248 the stipulation is appropriately modified.] In case a) the last move was  $g2 \times B/Sh1R$ , therefore 1.Rf6!  $R \times h2$  2.Rf1#. b) White moved last, therefore 1.R  $\times h2!$  Sf2+ 2.Rg2  $R \times g2$ #. Theme: whose move?

**No. 404:** In case a) the last move was h2-h1S and castling is permitted, therefore 1.0-0-0!  $S \times f2, R \times e6/S \times g3$  2.Re1/Rd4#. b) The following moves occurred:  $h2 \times Xg3$ , bSg3-h1 and wRh1 $\rightarrow$ e6 via e1, hence 0-0-0 is not permitted. The last move was neither Kd/f4-e4? nor Kd/f4 $\times$ Qe4? because of illegal checks by bRe5 or wQe4, nor c6 $\times$ Qd5? for lack of a sacrificial piece, nor e7 $\times$ Qf6? (locking up wBd8), but only d7-d5 (before that Rc6-e6+), therefore  $1.c5 \times d6$  e.p.+! c6 2.B $\times$ c6#. Theme: castling or en-passant capture.

No. 405 Anatoli Vassilenko Die Schwalbe 1996



Mate in 2 Promoted pieces in the diagram position are a) permitted b) not permitted

No. 406 Werner Keym Die Schwalbe 1996 3<sup>rd</sup> Prize



Who mates in 2 moves? 1 promoted piece exists in the diagram position.

No. 407 Andrey Frolkin Evgeny Reitsen Alexander Shvitchenko Die Schwalbe 1996 2<sup>nd</sup> Comm.



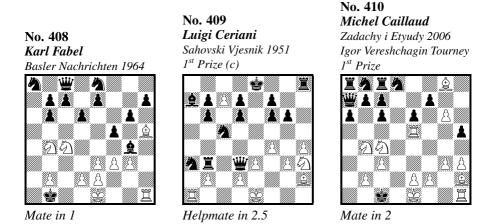
What was the last move? Promoted pieces in the diagram position: a) 1 white b) 1 black c) 1 white and 1 black d) 0

**No. 405:** In case a) the last moves were Ke7-e8 d7-d8B+; the solution is 1.Rc8! K×f8 2.Bf6#. b) White moved last, hence  $1.K \times d8$  Kf7 2.g6 Se6# or  $1.K \times f8$  Re7 2.Kg8 Re8#. Each of the three officers mates once. Elegant rendering of the theme of the (not) permitted promoted pieces.

No. 406 is different. 8 wPs are on the board, so only bS or bB or bQ can be a promoted piece. a) If the knight is a promotee, then the last move can be  $b2 \times Qa1S$  (not e7-e5? because of Bh4), earlier  $a2 \times Xb3$  and 0-0 is permitted; therefore 1.0-0+!  $K \times g3 2.B \times e5\#$ . b) If the bishop is a promotee, then the last moves were e7-e5 Rd6-g6+; therefore  $1.f5 \times e6$  e.p.+! d6  $2.B \times d6\#$ . Try: 1.0-0+?  $K \times g3 2.B \times e5\#$  but 0-0 is not permitted because the Ra1 moved to g6 via e1 for lack of a sacrificial piece (bBf8 died on f8). c) If the queen is a promotee, then White moved last, therefore  $1.B \times g3+!$   $K \sim 2.Q \times h1\#$ . A singular retro triplet with 'four nasty tricks': castling, e.p. capture, promotion, unconventional first move.

**No. 407:** a)  $h7 \times Sg8B+!$ ; wBg8 is a promotee, bSg8 was a promotee ( $e7 \rightarrow e3 \times Xd2$ d1S), hence neither bQ nor bR is a promotee. b) Bh7×Bg8+!; bBg8 cannot be a promotee from d1, so it is bQ or bR. c)  $h7 \times Bg8B+!$ ; wB and bQ or bR are promotees. d) Bh7×Sg8+! and no promotee at all; bSg8 was a promotee; wBa3 can never be a promotee. Very clever.

#### **Narrow corridors**



The problems no. 408–412 show bishop corridors. **No. 408** (FIDE-Album): Genesis of the position: d7-d6, sBc8-g4, f7-f5, g7-g6, sBf8 $\rightarrow$ e3, bRa8 $\rightarrow$ f3, bRh8 $\rightarrow$ g3, f2 $\times$ Bf3, g2 $\times$ Rf3, h2 $\times$ Rg3, the wBf1 and the bBg4 cannot leave the corridor from f1 to h5, one B moves to h1 (evasive move) so that the other can pass by; hence 0-0 is not permitted. The solution is 1.Kf2#.

**No. 409:** Genesis of the position: wBh2 is a promoted officer; wS×Bc8, bS×Bc1, a7×Sb6, c7×Qd6, f2-f4, e2-e3, wBf1-e2, wRh1→f6, e7×Rf6, g7-g6, a2→a7×Sb8B and a) bRh8-g8 (b0-0 not permitted), bBf8→h8! (evasive move), wBb8→g1, g2-g3, wBe2→g2, h3×Bg2, h2-h4, wBg1-h2, g2-g1S→, bBh8→a7 or b) wKe1-d1 (w0-0-0 not permitted), bBf8→e1! (evasive move), wBb8→g1, bBe1→a7, g2-g3 etc. The castlings exclude each other (Partial Retrograde Analysis). If w0-0-0 is permitted, then 1.0-0-0! Q×e3 2.Re1 Qe7 3.c8Q/R#; if b0-0 is permitted, then 1.Sg5 0-0 2.c8Q Kh8 3.Q×f8#. This is one solution which consists of two parts which exclude each other. Grandiose!

**No. 410:** Genesis of the position: c2-c3, wQ $\rightarrow$ c6, d7×Qc6, a7-a6, bQ×Pa $\rightarrow$ a7, bBc8 $\rightarrow$ f3, h7-h5, bRh8 $\rightarrow$ c8, bSg8 $\rightarrow$ d8, e7-e6, bBf8 $\rightarrow$ e3, d2×Be3-e4, h2-h3, wBc1 $\rightarrow$ h2, g2-g3, wSg1 $\rightarrow$ , wTh1-g1 (0-0 not permitted), bBf3-h1 (evasive move), wBf1 $\rightarrow$ g8, g7-g6, bBh1 $\rightarrow$ f5, e4×Bf5×g6. Therefore 1.Ra5!. What a masterpiece! (cp. P0007780)

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**No. 411** *Werner Keym Hannoversche Allgemeine Zeitung 2004 (v)* 



b)  $Pd5 \rightarrow c5$ c)  $Pd5 \rightarrow d6$ 

No. 412 Joaquim Crusats Problemas 2015

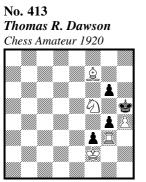


White retracts 7 moves, Black 6, then mate in 1 Proca Retractor

**No. 411:** Genesis of the position: a)  $a7 \times Sb6$ ,  $bRa8 \rightarrow f3$ ,  $g2 \times Rf3$ ,  $wBf1 \rightarrow h5$ ,  $g6 \times Bh5$ ,  $a2 \rightarrow a6$ ,  $b6 \times Ra5$ ,  $c7 \times Sb6$ , d7-d5, bBc8-g4,  $h2 \times R \times B \times S \times S \times Qc7$ , f7-f5; 0-0 is permitted. b) 0-0 is not permitted, since the wQ is needed as a sacrificial piece for a bP. c) first genesis:  $a7 \times Sb6$ ,  $bRa8 \rightarrow f3$ ,  $g2 \times Rf3$ ,  $wBf1 \rightarrow h5$ ,  $g6 \times Bh5$ ,  $a2 \rightarrow a6$ ,  $b6 \times Ra5$ ,  $c7 \times Sb6$ ,  $bS \times Qd1$ ,  $h2 \times R \times B \times S \times S \times Qc7$ , d7-d6, a6-a7, bBc8-g4, wK- or wR- (0-0 not permitted), f7-f5; second genesis:  $bS \times Qd1$ , f7-f5, g7-g6,  $c7 \times Sb6$ ,  $h2 \times R \times B \times S \times S \times Qc7$ , d7-d6,  $bBc8 \rightarrow g4$ ,  $bRa8 \rightarrow f3$ ,  $g2 \times Rf3$  and there is a corridor for the wB or the bB, wRh1- (0-0 not permitted), one B-h1 (evasive move), wB \rightarrow h5,  $g6 \times Bh5$ ,  $bB \rightarrow g4$ , wR-h1. That results in four cases: neither K nor R moved (a), K moved (b), either K or R moved (c), R moved (c). Cp. P1067371.

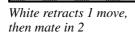
**No. 412:** The bPs captured 4 pieces, among them bPh×Pg-g1B, the wPs captured three times. The aim is backward 1.Sd7-b6?  $\sim 2.Sb6-a8$ , then 1.c8S#, but this fails because of 1...b6-b5!; earlier a7×Bb6 and there is a corridor for the wB and the bB, one B-a1 (evasive move), 0-0-0 not permitted. Solution: backward 1.Kd2-e1! Rb2-a2 2.Rd1-a1 R- 3.Kc1-d2!  $\sim 4.0-0.0! \sim 5.d2-d4 \sim$  and 6.Sd7-b6  $\sim$  (now 6...b6-b5? is illegal since Black's good evasive move (bB-a1) is no longer possible because of 0-0-0!) 7.Sb6-a8, then 1.c8S#. Further retro play: bBb8- (Black's bad evasive move), bPb6-b5, bPa7×Bb6, wBc1→b6, wPb2×Bc3, bBf8→c3, e7×Xd6 etc. An excellent logical Proca retractor (see p. 137) with an amazing use of the bishop corridor, never seen before.

#### Retractors



White retracts 1 move, then mate in 2

No. 414 Nenad Petrovic problem 1972 I<sup>st</sup> Prize



**No. 415** *Werner Keym Stuttgarter Zeitung 2005* 



White retracts 1 move, then mate in 2 b)  $Bh8 \rightarrow f8$ 

Here you will find retractors with only 1 single retro move (no. 413–419), help retractors with more retro moves (no. 420–422), defensive retractors of the type Høeg (no. 423–428), Proca (no. 430–436) and neither of them (no. 429). In the large field of retro problems the defensive retractor has a special feature and charm: there is adversary play as in the chess game. The players retract alternately and oppose one another with the object of mating the opponent after the next retraction (whenever the forward stipulation is 'mate in n moves').

**No. 413:** This is *T. R. Dawson's* most famous retractor: backward h2-h4 and forward 1.h2-h4!  $g4 \times h3$  e.p.  $2.B \times g6\#$ . – There are even two miniatures with this idea: P0000030 and P1108952, moreover a well-known related two-mover (P0005851).

**No. 414** shows a similar idea in a fine setting: backward Kh2-g3! (the previous move was Rf8/g8-h8+, hence 0-0 is not permitted), then  $1.Kg1! \sim 2.Rc8#$ . Tries: backward Kh2×Pg3? (Ph4×Xg3++) or Kf2-g3/Kg2-g3?, then 1.Kg1/Kh1 0-0!.

**No. 415:** a) Backward  $e5 \times f6$  e.p., then 1.Ba2+ d5 2.e5×d6 e.p.# or 1...Ke7 2.Bf6#. b) Backward  $e7 \times Sd8R$ , then 1.e8Q+ K×f6 2.Qe7# or 1...Kd5 2.Qe4#. Two e.p. captures and two promotions in a miniature.

No. 416 Horst Stempel Hamburger Problem-Nachrichten 1950



White retracts 1 move, then mate in 1

**No. 417** *Valerian Onitiu Die Schwalbe 1934 1<sup>st</sup> Prize* 



White retracts 1 move, then mate in 1

No. 418 Josef Haas Die Schwalbe 1986 4<sup>th</sup> HM



White retracts 1 move, then mate in 2

No. 416: Genesis of the position: Bc1 died on c1, b7-b6, bBc8 $\rightarrow$ d1, g7-g5, wPa captured Q, R, R, S and S on light squares and promoted to B on f8, d7×Qe6. The last moves were Bh1-a8! Ke4-f5 Rg2-e2+ Kf3-e4+. So the solution is backward Bh1-a8, then 1.Bh1-e4#. Astonishing! This is one of the rare problems in which the retro move (from a8 to h1) is executed for retroanalytical reasons only. In order to give mate the bishop could move to b7, c6 etc.

**No. 417:** Backward 1.0-0-0! g7-g5 2.Be4-h7 g5-g4  $3.Bc6 \times Pe4$  e5-e4 4.Ba4-c6 e6-e5 5.Bd1×Pa4 a5-a4 6.Be2-d1 a6-a5 7.Bf1-e2 a7-a6/Kg4-h4 8.e2×Xf3; earlier bPc7→c1→Bg1/g3, bPh6×Bg5. So the solution is backward 0-0-0, then  $1.h5 \times g6$  e.p.#!. A well-earned first prize.

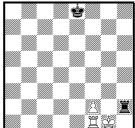
**No. 418** drove many strong solvers to despair. Backward  $b3 \times Xa4$ ? (then 1.Qxa4+ 2.Qd7#) would result in 7 captures (Pg3 comes from g2 and Pe5 from h2), but there are 10 black pieces. Hence backward not e4-e5? nor  $d3 \times c4$ ?. Tries: backward Rc2-b2?/Sd3-c5?/Rf7 × Pf5?, then 1.Kxg8 0-0-0+!; backward c2-c4?, then 1.K × g8 Qa2+! (0-0-0+? 2.Rf8#). Here is the incredible solution: backward Rf7 × Bf5! (before that g6-g5+ which is why the wK moved from e1 to h7 via f7/f8 making 0-0-0 impossible), then 1. K × g8 ~ 2.Rf8#. 'My favourite problem.' (*J. Haas* himself)

**No. 419** Josef Haas Mannheimer Morgen 1973



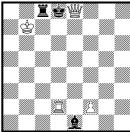
Black retracts 1 move, then helpmate in 1

No. 420 Julius Dorn-Lüttgens Feenschach 1950



White and Black retract 1 move, then helpmate in 1

No. 421 *Kurt Smulders Probleemblad 1972* 



White and Black retract 1 move, then helpmate in 1

The most famous **help retractor** is *J. Sunyer's* problem with only the kings on the board (no. 39b).

**No. 419:** Thematic try: backward Bb7×Qh1?, then 1.0-0-0 Q×b7#, but 0-0-0 is not permitted since the wPs captured 7 times and the wPd promoted to queen on d8/e8/f8. The solution is backward  $e4 \times d3$  e.p.! (which obstructs the way of four (!) long distance pieces), then 1.0-0-0 Qc3#. Typical style of *J. Haas*.

No. 420: Backward 0-0 Rh8×Qh2, then 1.0-0 Qh7#. A little gem.

No. 421: Backward d7×Re8Q+ e2-e1B, then 1.e2-e1R d7×c8S# Allumwandlung!

**No. 422** Janko Furman Feenschach 1971 (c) 2<sup>nd</sup> Prize



Black and White retract 1 move, then helpmate in 2.5 AP

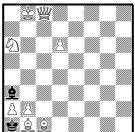
Solution: backward b0-0 w0-0-0, then  $1.c5 \times b6$  e.p.! Qd7 2.0-0 0-0-0 3.a8Q# (Valladao). Retroanalysis: wPa×B (on a light square) and wPb6×Ba7 (on a dark square); Bf1 died on f1; the bPs captured Q, S, S (on light squares) and B (on the dark square d6), hence the last move before b0-0 w0-0-0 cannot be e6×Q/S/Bd5, but only b7-b5 (before that b6×Ba7). So both white castlings, which make Ke1, Ra1 and Rh1 immobile, are necessary for legalising the e.p. capture (AP), both black castlings are necessary for the mate of the bKc8. A great achievement.

No. 423 Henrik Juel Werner Keym Die Schwalbe 2018



White retracts 2 moves, Black 1, then mate in 1 Høeg Retractor b) Kb4 $\rightarrow$ d3

No. 425 Thomas R. Dawson Magyar Sakkvilag 1926



White retracts 2 moves, Black 1, then mate in 1 Høeg Retractor

**No. 426** Jan Knöppel Stella Polaris 1975 I<sup>st</sup> Prize



White retracts 2 moves, Black 1, then mate in 1 Høeg Retractor

In **Defensive Retractors of the type Høeg** (so called after *Niels Høeg* in 1924) the opponent decides whether the retraction made shall be an uncapture, and if so which piece shall be uncaptured.

**No. 423:** a) White retracts Kc3-b4 and Black must add Rb4, Black retracts Rd4b4+ and White adds Qb4, White retracts c7-c8B, then 1.Qb8#. In short: backward 1.Kc3×Rb4! Rd4×Qb4+ 2.c7-c8B, then 1.Qb8#. b) Backward not 1.Kc3×Rd3? (Rd4×Qd3 2.c7-c8B, then 1.Qa6#) because of 1.Kc3×Pd3! (e4×d3 e.p. 2.d2-d4 e5-e4+), but 1.Kd4×Sd3! Se5×Qd3+ 2.c7-c8B, then 1.Qa6#.

**No. 424** is a symmetrical example with only one piece: *Niels Høeg*, *On retrac*tion chess problems 1927, bKh1. Add the wK, Black and White retract 1 move, then mate in 1, Høeg retractor. Solution: add wKf1; backward Kh2×Qh1 Qe4×Bh1 (Qe4×Q/Rh1? illegal), then 1.Qh4#. Try: add wKh3?, backward Kg1×Qh1 Qe4×Q/Rh1+ (last move e.g. h2-h1Q/R+). Cp. no. 214.

**No. 425:** White retracts c7-c8Q!. If Black retracts Bb4-a3, White adds a knight on a3 and retracts Sc5-a6; thereafter Black may add Q/R/B/P (but not a S giving an illegal check) on a6, then 1.Sc5-b3#. If Black retracts Bc5-a3, White adds a knight on a3 again and retracts Sb4-a6; thereafter Black may add Q/R/B/P (but not a S giving an illegal check) on a6, then 1.Sb4-c2#.

**No. 426** (FIDE-Album) shows the typical Høeg retractor being rich in variants. The wPs captured the missing black pieces, hence there is no capture left for the wK on c4 or a wP on e4. Backward 1.Kd3-c4 e5-e4+ 2.Se6-c7, then 1.Sg7#;  $1...d5 \times Qe4$  2.Qe7-e4+, then 1.Qh7#;  $1...d5 \times Re4$  2.Sb5-c7, then 1.Sd6#;  $1...d5 \times Be4$  2.Bf3-e4+, then 1.Bg4#;  $1...d5 \times Se4$  2.Bh2-g3, then 1.Sd6#. Perfect.

No. 427 Per Grevlund feenschach 1974 1<sup>st</sup> HM



White retracts 7 moves, Black 6, then mate in 1 Høeg Retractor

No. 428 Werner Keym Die Schwalbe 2015



White retracts 2 moves, Black 1, then mate in 2 Høeg Retractor

**No. 429** *Werner Keym Die Schwalbe 2006 (c)*  $2^{nd}$  *HM* 



White retracts 3 moves, Black 2, then mate in 1 Defensive Retractor 2 solutions

**No. 427** shows the 100 Dollar Theme (p. 35) 'backward': 1.h7-h8S a2-a1S ... 5.h3-h4 a6-a5 6.h2-h3 b7 $\times$ Sa6 (not 6...b7 $\times$ Qa6? 7.g2 $\times$ Q/Bf3!) 7.g2 $\times$ Xf3 (not 7.f2-f3? retro stalemate), then 1.Sc7#.

**No. 428** (FIDE-Album): the wPs captured 4 times, wOfficer×Q/S. Backward not 1.Qb2-c1? because of +bQc1!, but 1.Rb2-b1! with three cases. a) 1.Rb2-b1??, then the previous move was either b7-b5 (then  $1.a5 \times b6$  e.p.!  $a7 \times b6+ 2.S \times b6\#$ ) or d7-d5 (then  $1.e5 \times d6$  e.p.!  $e7 \times d6$  2.S×d6#), a two-part PRA problem [-1 & #2]. – b) 1.Rb2×Qb1?, then the previous move was either b7-b5 (then no mate in 2) or d7-d5 (then  $1.e5 \times d6$  e.p.! 2.#), hence 1...b7-b5 2.Ba4-c2 (then  $1.c6 \times b7\#$ ) or 1...d7-d5 2.Be4-c2 (then  $1.c6 \times d7\#$ ) [-2 & #1]. – c) 1.Rb2×Sb1! Sa3-b1! 2.Qb1-c1 (no more piece can be added), the previous move was either b7-b5 (then  $1.a5 \times b6$  e.p.!  $a7 \times b6+ 2.S \times b6\#$ ) or d7-d5 (then  $1.e5 \times d6$  e.p.!  $e7 \times d6$  2.S×d6#), a two-part PRA problem [-1 & #2]. Probably the first Høeg Retractor with PRA.

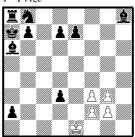
**Nr. 429:** I. backward 1.Ra2-b2! g5-g4 2.Qb5-b1 g6-g5 (g7-g5 illegal) 3.Qg5b5! (before that g7-g6 4.Ra5-a2 S-g3 5.Re5-a5+), then  $1.Q \times g3\#$ ; 2.Qb4/b6-b1? g7-g5!. II. backward 1.Rc2-b2! g5-g4 2.Qb6-b1 g6-g5 (g7-g5 illegal) 3.Qc7-b6! (before that g7-g6 4.Qc8-c7 S-g3 5.c7-c8Q+), then  $1.Q \times g3\#$ ; 2.Qb4/b5-b1? g6-g5 3.Qd6/e5-b4/b5 illegal. 1.Qa2-b1? g5-g4 2.Q-a2 g7-g5!. Genesis of the position: wPa×Xb×Xc-c8X, e3×S/Xf2, e2-e4, d4×X/Se3, the wPs captured two pieces on c and d, wOfficer×Ph; the specification H $\phi$ eg or Proca is not necessary. Mutual decoy by means of threatening retrostalemate, differentiated through either a pawn's single or double step. 'Sophisticated combination of square strategy and retroanalysis. Excellent correspondence of both solutions.'

No. 430 Bruno Sommer Die Schwalbe 1953



White retracts 2 moves, Black 1, then mate in 1 Proca Retractor

No. 431 Wolfgang Dittmann feenschach 1979 I<sup>st</sup> Prize



White retracts 7 moves, Black 6, then mate in 2 Proca Retractor

No. 432 Janko Furman feenschach 1974 1<sup>st</sup>/2<sup>nd</sup> Prize



White retracts 5 moves, Black 4, then mate in 1 Proca Retractor

In **Defensive Retractors of the type Proca** (so called after *Zeno Proca* in 1924) the player making the retraction decides which piece (if any) shall be uncaptured.

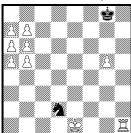
**No. 430:** Genesis of the position: c2-c3, f2×Sf3, bPh7×Bg6×Xf5(= promotee from h8)×Se4×Sd3×Qc2, d2-d3, wBc1 $\rightarrow$ f6, g7×Bf6, bBf8 $\rightarrow$ b4, a3×Bb4, wRa1 $\rightarrow$ e6, d7×Re6, f3×Se4, Bc8-d7, e4×Rd5, Bd7-c6, d5×Bc6, Qd8-d4 and now b4-b5, 0-0-0, 0-0. As you see, White is pressed for time. Solution: backward 1.0-0! 0-0-0 2.b4-b5, then 1.Rh8#.

**No. 431:** Backward 1.Kd2×Be1! e2-e1B+ 2.Kc3-d2 e4×d3 e.p.+ 3.d2-d4 e5-e4+ 4.Kd3×Pc3! b4×c3 e.p.+ 5.c2-c4 b5-b4+ 6.Kc4×Rd3! (genesis of the position: Bc8 died on c8, bBa6 comes from d1 or f1, bPs captured 8 times, bOfficer×Pa, wPb2 remained on the b-file; not 6.Kc4-d3? c6×Rb5+!, earlier b6×Rc7-c8R) 6...c6×Pb5+ 7.Kc5-c4, then 1.b5-b6#. Splendid!

**No. 432:** Backward  $1.e5 \times f6$  e.p.  $f7-f5 2.f5 \times g6$  e.p.  $g7-g5 3.g5 \times h6$  e.p. h7-h5 4.0-0-0! forces  $0-0! 5.b3 \times Bc4$  (then 1.c8Q#!)  $5...Bf1-c4 6.a2 \times Qb3 Bd4-g1 7.b2 \times Sc3 Sg1-h3 8.e4-e5 Bf6-d4 9.e3-e4 Be7-f6 10.e2-e3 Bf8-e7 11.f4-f5 Bh3-f1 12.f3-f4 e7-e6 13.f2-f3 Bc8-h3 14.g4-g5 (precisely suitable) 14...d7 × Q/Sc6 15.Q/S-c6 in a legal position. In case of <math>4...Sh3-f4$ ? (then 1.bBe3#) White has not enough tempo moves to resolve the position. 3 e.p. captures, 2 castlings, 1 promotion. Superb!

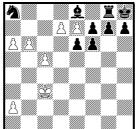
Cp. the Proca miniature no. 108 with 1 e.p. capture, 1 castling, 1 promotion.

No. 433 Günther Lauinger Hanspeter Suwe Wolfgang Dittmann 0-0 1979 1<sup>st</sup>/2<sup>nd</sup> Prize



White retracts 3 moves, Black 2, then White castles Proca Retractor

No. 434 Wolfgang Dittmann The Problemist 1980 2<sup>nd</sup> HM



White retracts 7 moves, Black 6, then mate in 1 Proca Retractor

No. 435 Günther Weeth Werner Keym Die Schwalbe 2017



White retracts 11 moves, Black 10, then mate in 1 Proca Retractor

**No. 433** is probably the first Proca with the stipulation 'Castling'. Backward 1.Rh4×Rh1!  $\sim$  (Rh-/×h1+, Pg2×h1R+, Ph2-h1R+, Sf1-/×d2+) 2.Ra4×Bh4  $\sim$  (R-/x+, Pg3-/x+, Sg3×f1+) 3.Ra1-a4 (not 3.Ra1×Xa4? since the wPs captured 12 times) – and now 1.0-0-0. I would have expected 0-0.

If in a chess game an identical position occurs three times, a player can demand a draw. Identical position means the same kind of pieces on the same squares *with the same move rights*. In problem chess this **'draw by repetition'** works automatically. In general the player who starts the draw pendulum forces the opponent to perform an unfavourable move. For this manoeuvre retractors are very suitable.

**No. 434:** Solution: backward  $1.a5 \times b6$  e.p.! b7-b5 2.Kc4-c3 (= 1<sup>st</sup> time) Sc7-a8 3.Kc3-c4 (prevents Sb5/d5-c7) Sa8-c7 4.Kc4-c3 (= 2<sup>nd</sup> time) Sc7-a8 5.Kc3-c4 and now 5...Sa8-c7 would be the 3<sup>rd</sup> time, which is not permitted; therefore 5...Sa8×Q/R/B/Sc7 6.Kc4-c3 forces Rf8×Sg8/Rf8-g8 7.Sh6-g8/K~, then 1.e7×f8Q,R#. This is the so-called 'draw pendulum' (cp. P1346005). *Difficult*.

**No. 435:** Solution: backward 1.g3-g4 (hence bBh2 is a promotee from g1) Bg1-h2 2.Rc8-a8 B-  $3.Rg8 \times Bc8$  B- 4.Rg7-g8 B-  $5.Rg5 \times Pg7$  (prevents earlier h2×Pg3) B- 6.Ra5-g5 Bh2-g1  $7.Ra4 \times Pa5$  Bg1-h2 starts the pendulum (7...a7/a6-a5? is illegal because it locks up the bR, which is needed as a sacrificial piece on b4 or g3) 8.Ra3-a4 Bh2-g1 9.Ra4-a3 Bg1-h2 10.Ra3-a4 forces h2×Sg1B! (not 10...Bh2-g1? which results in 11.Ra4-a3 = 3<sup>rd</sup> time) 11.Ra4-a3, then 1.Se2#. A shortened or 'amputated' pendulum. *Very difficult*.

No. 436 Joaquim Crusats Roberto Osorio Andrey Frolkin Die Schwalbe 2017 W. Keym JT Prize



White retracts 23 moves, Black 22, then mate in 1 Proca Retractor

The aim is backward f3-f4, then 1.Bg4#. Therefore the bSh6 must be forced to move.

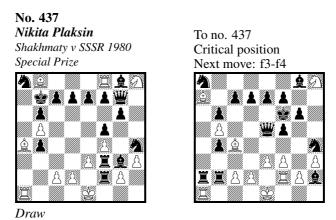
Solution: backward  $1.c5 \times Pd6$  e.p.! (a) d7-d5 2.d5 × Pe6 e.p. e7-e5  $3.e5 \times Pf6$  e.p. f7-f5 4.e4e5! (b) Bg8-h7 5.Bd2-c1 Bh7-g8 6.Ba5-d2 Bg8h7 7.Bc7 × Pa5! Bh7-g8 8.Bb8-c7 Bg8-h7 9.b7b8B Bh7-g8 10.b6-b7 Bg8-h7 11.b5-b6! (1<sup>st</sup> time) (c) Bh7-g8 12.Kg1-h1 Bg8-h7 13.Kh1g1 (2<sup>nd</sup> time) Bh7-g8 14.Kg1-h1 a6-a5! (1<sup>st</sup> time; 14...Bg8-h7? 15.Kh1-g1! forces a7-a5 ... 20.#) 15.Kh1-g1 Bg8-h7 16.Kg1-h1 Bh7-g8 (2<sup>nd</sup> time) 17.Kh1-g1 Bg8-h7 18.Kg1-h1 a7-a6! (avoids 3<sup>rd</sup> time) 19.Kh1-g1 Bh7-g8 20.Kg1-h1 Bg8-h7 (2<sup>nd</sup> time) 21.Kh1-g1 Bh7-g8 22.Kg1-h1 S~h6 (avoids the 3<sup>rd</sup> time) and at last 23.f3-f4, then 1.B-/×g4#.

(a)  $1.g5 \times Pf6$  e.p.? f7-f5  $2.f5 \times Pe6$  e.p. e7-e5  $3.e5 \times Pd6$  e.p. d7-d5 ... fails because 7.Bc7  $\times$  Pa5 is illegal (too many captures).

(b) 4.Kg1-h1? White starts the pendulum and seems to be successful. 4...Bg8-h7 5.Kh1-g1 Bh7-g8 (2<sup>nd</sup> time) 6.Kg1-h1 Bg8-h7 7.Kh1-g1 e4-e3 (avoids 3<sup>rd</sup> time) ... 11.Kh1-g1 S~h6 (avoids 3<sup>rd</sup> time) 12.f3-f4, then  $1.B(\times)g4\#$ . However, Black has a special defense: he retracts 4...e4-e3! If the pendulum is started from this position on, the bB can occupy the same square for a 3<sup>rd</sup> time, reach a position with the same pieces on the same squares, but *without the same move rights* and thereby prove that he has the right to play e4×d3 e.p. In this case White would be forced to retract 5.d2-d4 or f2-f4; then Black would have the advantage to start the (new) pendulum! This defense is parried by 4.e4-e5, it is true, but by playing 4...Bg8-h7 Black can start a pendulum.

(c) White uses the same trick as Black in (b): at the right moment he retracts b5-b6 and thereby claims the right to play  $b5 \times a6$  e.p. which would force Black to retract a7-a5; thus White gets the advantage to start the (new) pendulum – this time with success!

An outstanding, most original chess problem! Extremely difficult.

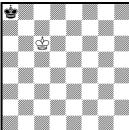


There are three special rules for a draw: repetition rule (see p. 138), dead position rule (see p. 141) and 50 move rule. The latter means: the game may be drawn if each player has made at least the last 50 moves without the move of any pawn and without any capture. In retro problems this **'draw by 50 move rule'** works automatically.

**No. 437:** The shortest proof game from the critical position to the diagram position needs less than 50 moves if wKe1 and wRa1 may make moves; in this case Black will easily win. White, however, castles and thereby proves that wKe1 and wRa1 have not yet moved; in this case the shortest proof game needs exactly 50 moves and White can draw: 1.f3-f4 (move of a pawn)  $\sim 2./7.\text{Rf}2\rightarrow\text{g7}$  Bh7 8./10.R $\rightarrow$ b7 11.Bb8 12./14.R $\rightarrow$ c3 Ra7 15...Rb7 16.Ba7 Rb8 17...Rg8 18.Bb8 Rg7 19...Bg8 20./22...R $\rightarrow$ g5 23...Bh7 24./26...Rb7 27.Ba7 Rb8 28.Rca3 Rg8 29.Bb8 Rg7 30.Ra7 Bg8 31.Rb7 Rh7 32.Ba7 Rh5 33.Rb8 Bh7 34.Rg8 Rg3 35.Rg7 Bg8 36.Rh7 Rf3 37.Rh6 Kg7 38.Bb3 Kf8 39.Ba4 Ke8 40.Rh7 Kd8 41.Rg7 Bh7 42.Bb8 Kc8 43.Rg8+ Kb7 44...Rf2 45./47...Rh $\rightarrow$ f3 48...Bg3 49.Re8 Bg8 50.Rf8 Qg7 (= no. 437) and 51.0-0-0! draw (= 50 moves one after the other without capture/pawn's move). A chess problem out of the box indeed! Genesis of the critical position: b2 $\rightarrow$ b5, a5xSb4, Ra8 $\rightarrow$ b3, Bc1 $\rightarrow$ b8, a2 $\rightarrow$ a8X, Sg8 $\rightarrow$ h4, h7 $\times$ Qg6 $\times$ Xf5, Rh8 $\rightarrow$ a2, wS-h8, bS-a8, b7-b6, Bc8 $\rightarrow$ g8, g7-g6, Bf8 $\rightarrow$ h2, Ke8 $\rightarrow$ f6, e2-e3, Bf1-c4, f2-f3, bRb-b2, Rh $\rightarrow$ f2, Qd8 $\rightarrow$ e5. You will find further examples in *PDB* (K='50 move rule').

## **Dead position rule**

**No. 438** Andrew Buchanan The Problemist 2001



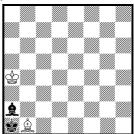
Who moved last?

No. 439 Andrew Buchanan Retro mailing list 2007



Black to move. Last move?

No. 440 Nikita Plaksin feenschach 1993



White retracts 1 move, then stalemate in 1

According to the Laws of Chess (1997) the game is drawn when a position is reached from which a checkmate cannot occur by any possible series of legal moves, even with the most unskilled play. This immediately ends the game (Art. 9.6). The game is said to end in a 'dead position'. This '**dead position rule'** works in retro problems as well (see p. 170). *Andrew Buchanan*, who was the first to see the chance of applying this rule to problems, created the term 'Dead Reckoning'.

**No. 438:** There was a dead position in the case of bKa7×B/Sa8 or bKb8×B/Sa8. There was a dead position as well in the case of bKa7×Q/Ra8 or bKb8×Q/Ra8 because the bK is forced to capture Q/R; hence the position before the capture (i.e. bKa7,bKb8 and wQ/Ra8) was already drawn. Therefore White moved last (i.e. wK×Q/R/Pc6, not wK×B/Sc6 because of dead position!).

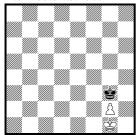
**No. 439:** In ordinary retro problems the last move can only be an e.p. capture if this move is giving check (see no. 145 and p. 38, type A and type B). No. 439 shows a baffling exception in type B by means of the dead position rule. White's last move was f5-f6 or  $g5 \times f6$  or  $g5 \times f6$  e.p. The position with wPf5 was 'dead' because each move (f5-f6 or  $f5 \times g6$ ) must result in a draw. The position with wPg5 and bXf6 (last move X-f6) was 'dead' as well because the move  $g5 \times Xf6$  is forced and results in a draw. The position with wPg5 and bZf6 (last move X-f6) was 'dead' as well because the move f7-f5), however, was not a forced draw because the moves 1.e4xf5 g6xf5 2.g6 f4 etc. (no draw) had been possible. You will find further and more complex examples in *Buchanan's* articles and in *PDB* (K='dead position').

**No. 440** is a fore-runner which I happened to discover. White does not retract Ka3a4? (this position would be 'dead'), but Ka3×Pa4!, then  $1.B \times a2$  stalemate (= draw)!

## **Special Illegal Clusters**

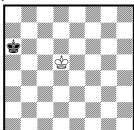
The stipulation 'Illegal Cluster' means that certain pieces have to be added to the incomplete diagram position in such a way that an illegal position arises which becomes legal by the removal of any one of the pieces (except the kings). So the first aim of an IC is to produce illegality. Illegal Clusters do not know any weasels per definitionem.

No. 441 Thomas R. Dawson The Problemist 1933



Add 6 bPs for an Illegal Cluster

No. 442 Hans Gruber feenschach 1979



Add 1 wS and 4 wPs for an Illegal Cluster b) wK $\rightarrow$ d7

No. 443 Hans Heinrich Schmitz feenschach 1981



Add 24 pieces for an Illegal Cluster

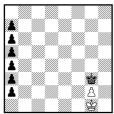
No. 441: The position of the solution (see below) is illegal because the bPs captured 15 times, however, there are 2 white pieces. This position becomes legal if one wP or one bP is removed. – No. 442: In the position of the solution in a) as well as in b) the check by the (promoted) knight is illegal. – In no. 443 (FIDE-Album) 24 pieces have to be added. That is still the current record.

Solution no. 441

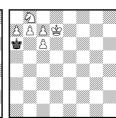
Solution no. 442a

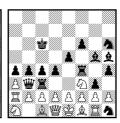
Solution no. 442b

Solution no. 443









You will find many Illegal Clusters in *PDB* (K='Illegal Cluster'), but only few with an empty chessboard as no. 444–446. The first realization was P1108914.

**No. 444:** Werner Keym, Die Schwalbe 2008. Construct an Illegal Cluster with wKRPPPP and bK. If you remove a certain piece, you will obtain a position with the two last single moves being unambiguous.

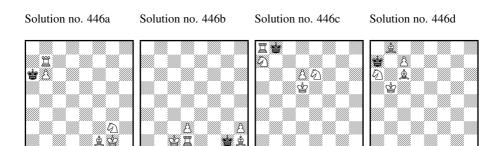
Solution: wKg1 Rf1 a2 b2 e2 f2 bKa1. Last moves without Pe2: 0-0+ Kb1×Sa1.

**No. 445:** *Werner Keym*, *Die Schwalbe 2008. Construct an Illegal Cluster with wKRBSSSSS and bKB. The white pieces stand on light squares.* 

Solution: wKc8 Re2 Bb3 Sa2 Sa4 Sc2 Sf3 Sh3 Sh5 bKd6 Bg4. The position before bKe6×Pd6+  $e5\times d6$  e.p.+ d7-d5 is illegal because of the illegal check by Bb3. Without Re2 the last move was bKe6×S/Rd6+. Quite complicated.

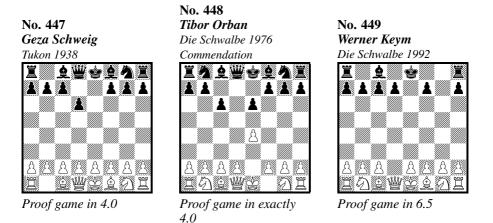
**No. 446** (FIDE-Album): *Werner Keym*, *Die Schwalbe 2014. Construct an Illegal Cluster with wK and bK and a) wRBSP, b) P instead of S, c) S instead of B, d) B instead of R. Each occupied square must have two occupied squares adjacent to it. The black king must stand as far away as possible from its original square e8.* 

Solution below: a) without Rb7 the last moves were wPc5×b6 e.p.+ b7-b5 c4-c5+ (e.p. capture); b) without Bh1 or Ph2 the last move was 0-0-0+ (castling), the mirrored position with wKg1/bKc1 is legal (0-0+ Kc2-c1); c) the position before wPb7×Q/R/B/Sa8R+ is illegal (promotion with capture), the mirrored position with wKd5/bKa7 is legal (wPb7×Xa8R+ Ka6-a7); d) the position before wPb7-b8B is illegal (promotion without capture). This is a complete Valladao. It is extremely difficult to find the solution d) because of its hexagonal form.



## **Shortest Proof Games**

Since 1980 short proof games (SPG) have generally ranked in retro columns. Their seemingly inexhaustible themes and tasks are fascinating for composers and solvers. You will find thousands of them in *PDB* (K='unique proof game'). Unique or unambiguous means that the whole sequence of moves is running without any dual.



No. 447 and 448 are two famous puzzles which will attract attention at every chess club. The 'wrong' knight in **No. 447** is amazing: 1.Sc3 d6 2.Sd5 Sd7  $3.S \times e7$  Sdf6  $4.S \times g8 S \times g8$ . – In **no. 448** a solution in 3 moves is simple (1.e4 e6 2.Bb5 c6  $3.B \times c6 \ d7 \times c6$  or 2.Bc4 c6  $3.B \times e6 \ d7 \times e6$ ), but the stipulation is 4 moves. 1.e4 e6 2.Bb5 Ke7!  $3.Bxd7 \ c6 \ 4.Be8! \ K \times e8$ . 'A devilish trap.' – **No. 449** presents the raid of a bishop having the effect of a billiard ball: 1.d4 Sh6  $2.B \times h6 \ g5 \ 3.B \times f8 \ Sc6 \ 4.B \times e7 \ S \times d4 \ 5.B \times d8 \ Sb3 \ 6.B \times g5 \ Sc1 \ 7.B \times c1$ .

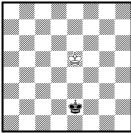


#### No. 450 Gerd Wilts

Probleemblad 2004 Proof game in a) 7.5 b) 12.0

a) 1.f4 Sa6 2.f5 Rb8 3.f6  $S \times f6$  4.e4  $S \times e4$  5.Bc4  $S \times d2$  6.Se2 Se4 7.Qd4 f6 8.Sd2; b) 1....5.d4 f6 6.Bd3 Kf7 7.Se2 Ke6 8.d5+  $K \times d5$  9.Bb5+ Ke5 10.Qd4+ Ke6 11.Sd2 Kf7 12.Bc4+ Ke8. Both times the play is unambiguous, although in b) it is much longer than in a).

No. 451 François Labelle StrateGems 2012



Proof game in 19.5

No. 452 Dmitri Pronkin Die Schwalbe 1985 1<sup>st</sup> Prize



Proof game in 12.5 2 solutions

No. 453 Andrey Frolkin Die Schwalbe 1987



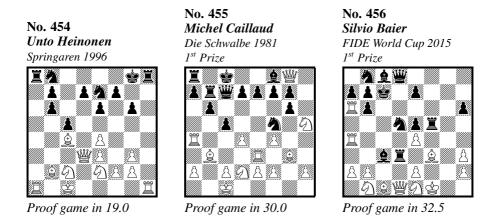
Proof game in 18.5

**No. 451** (FIDE-Album) is the first unambiguous SPG with the two kings only. 1.c4 e5 2.Qb3 Qh4  $3.Q \times b7 Q \times h2 4.Q \times b8 Q \times g1 5.R \times h7 R \times b8 6.R \times g7 R \times b2 7.R \times f7 R \times a2 8.R \times d7 R \times d2 9.R \times a7 K \times d7 10.R \times c7 + Kd6 11.R \times c8 Q \times g2 12.R \times f8 Kc5 13.R \times g8 R \times g8 14.B \times g2 R \times g2 15.Sc3 R \times f2 16.K \times f2 K \times c4 17.Kf3 K \times c3 18.B \times d2 + K \times d2 19.Ke4 K \times e2 20.K \times e5.$ 

**No. 452** (FIDE-Album): I 1.b4 Sf6 2.Bb2 Se4 3.Bf6  $e7 \times f6$  4.b5 Qe7 5.b6 Qa3 6.b6×a7 Bc5 7.a7×b8B Ra6 8.Ba7 Rd6 9.Bb6 Kd8 10.Ba5 b6 11.Bc3 Bb7 12.Bb2 Kc8 13.Bc1; II 1.Sc3 Sf6 2.Sd5 Se4 3.Sf6+  $e7 \times f6$  4.b4 Qe7 5.b5 Qa3 6.b6 Bc5 7.b6×a7 b6 8.a7×b8S Bb7 9.Sa6 0-0-0 10.Sb4 Rde8 11.Sd5 Re6 12.Sc3 Rd6 13.Sb1. A fantastic double setting: the wBc1/wSb1 is captured on f6, the wPb promotes to B/S on b8, B/S moves to c1/b1.

**No. 453:** 1.d4 a5 2.Qd3 Ra6 3.Qg3 Rf6 4.Be3 Rf3  $5.e2 \times f3$  g6 6.Se2 Bh6 7.Sc1 Bg5 8.Be2 Sh6 9.0-0 0-0 10.Rd1 Kg7 11.Rd3 Kf6 12.Ra3 Ke6 13.b3 Kd5 14.c4+ Kc6 15.Sc3 Kb6 16.d5+ c5 17.d5×c6 e.p.+ Ka6 18.c5+ b5 19.c5×b6 e.p.#. Here we admire two castlings and two e.p. captures. Such a task has not yet been achieved in a classical retro problem (release problem).

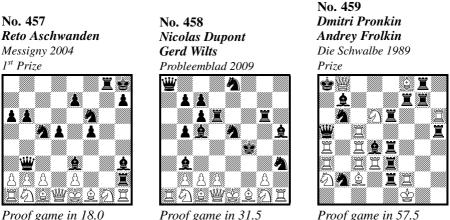
Shortest proof games behave in relation to classical retro problems in the same way as moremovers in relation to studies. Some themes and tasks can only be realized by means of the stipulation requiring a definite number of moves (e.g. no. 453 and 454 or Babson task).



In **no. 454** (FIDE-Album) the white rooks change their places as well as do the black rooks.1.b4 c5 2.b5 Qc7 3.b6 Qg3  $4.h2 \times g3$  h6  $5.R \times h6$  a7 $\times b6$  6.Rc6 R $\times a2$  7.Sa3 R $\times c2$  8.Bb2 Rc4 9.Sc2 Rch4 10.e4 g6 11.Bc4 Bh6 12.Se2 Be3 13.d2 $\times e3$  e6 14.Qd3 Se7 15.0-0-0 0-0 16.R $\times c8$  Sbc6! 17.Ra8 Rh8 18.Ra1 Ra8 19.Rh1 Sb8. This double change of places has not yet been achieved in a classical retro problem (release problem).

**No. 455** (FIDE-Album): 1.b4 c5 2.b5 Sc6 3.b5×c6 b6 4.c7 Bb7 5.c8R Bf3 6.g2×f3 Rb8 7.Bh3 Rb7 8.Be6 Rc7 9.Sh3 Rc6 10.Rg1 Rd6 11.Rg4 Rd3 12.Ra4 Rd5 13.d4 Sh6 14.Qd2 Sf5 15.Qh6 Rd6 16.Bf4 Rc6 17.Sd2 Rc7 18.0-0-0 Rb7 19.Rg1 Rb8 20.Rg6 h7×g6 21.Qh7 Ra8 22.Qg8 Rh4 23.Bg3 Re4 24.Bb3 Re6 25.Sf4 Rc6 26.Sh5 Rc7 27.f4 Rb7 28.Rc6 Qc7 29.Re6 Kd8 30.Re3 Kc8. 13 moves of the bRa8 for 1 tempo!

**No. 456** (FIDE-Album): 1.Sf3 d5 2.Rg1 Bh3  $3.g2 \times h3$  d4 4.Rg6 d3 5.Ra6 g5 6.c4 g4 7.c5 g3 8.c6 g2 9.Qa4 g1=B 10.Bg2 Bg7 11.Kf1 Bc3 12.Se1 Sf6 13.f4 Be3 14.d2×e3 d2 15.e4 d1=B 16.Be3 Bb3 17.Bb6 c7×b6 18.c7+ Sc6 19.c8=B Qc7 20.Be6 f7×e6 21.Sa3 0-0-0 22.Rd1 e5 23.Rd4 Be6 24.Qd1 Sb8 25.Rda4 Rd3 26.f5 Sd5 27.f6 Qd8 28.f7 Kc7 29.f8=B Bc8 30.Bh6 Rf8+ 31.Bf3 Rf5 32.Bc1 h6 33.Sb1. There are fine echoes: 1 promoted wB and 1 promoted bB were captured, Bc1 and Bc8 are promoted officers, Qd1, Qd8, Sb1, Sb8 go and return to their original squares.



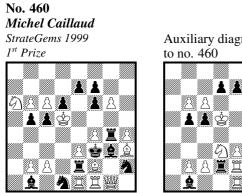
Proof game in 57.5

**No. 457:** 1.d4 Sa6 2.d5 Sc5 3.d6 a6 4.d6×c7 d5 5.f4 Bh3 6.c8B Qb6 7.f5 Qb3 8.f6 b6 9.f6×g7 f5 10.Bb7 Sf6 11.g8B Bh6 12.Be6 Be3 13.Bec8 0-0 14.Be6+ Kh8 15.Bg8 R×g8 16.Bc8 R×g2 17.Be6 Rxh2 18.Bg8 R×g8. Amazing moves of the promoted bishops: Bc8-b7-c8-e6-g8, Bg8-e6-c8-e6-g8. White homebase position.

**No. 458** (FIDE-Album: 12 points): 1.e4 a6 2.Bb5 a6×b5 3.h4 Ra6 4.h5 Rg6 5.h6 Sf6 6.h6×g7 h5 7.a4 h4 8.a5 h3 9.a6 h2 10.a7 h2×g1S 11.Ra6 Sh3 12.Rc6 d7×c6 13.e5 Kd7 14.e6+ Kd6 15.e6×f7 e5 16.f4 e4 17.f5 Ke5 18.g8B Bc5 19.f8S e3 20.Bc4 Be6 21.a8R Sbd7 22.Ra1 Qa8 23.Sh7 Rd8 24.Bf1 Se8 25.f6 e2 26.f7 e2×d1B 27.f8Q Bh5 28.Qf3 Bb3 29.Qd1 Kf4 30.Sg5 Se5 31.Sf3 Rdd6 32.Sg1. Incredible: Ra1, Qd1, Bf1 and Sg1 are promoted pieces. First realization.

**No. 459** (FIDE-Album): 1.a4 h5 2.a5 h4 3.a6 h3 4.a6×b7 h3×g2 5.h4 d5 6.h5 d4 7.h6 d3 8.h7 d3×c2 9.d4 a5 10.Bh6 c1R 11.e4 Rc5 12.Se2 Rh5 13.e5 c5 14.e6 Sc6 15.b8R a4 16.Rb4 a3 17.Ra4 c4 18.b4 c3 19.b5 c2 20.b6 c1R 21.b7 Rc4 22.b8R Qa5+ 23.Rbb4 Bb7 24.Sc3 0-0-0 25.e6×f7 e5 26.Rc1 Bc5 27.f8R a2 28.Rf3 a1R 29.Sa2 g1R 30.Rfa3 Rg6 31.f4 Re6 32.f5 g5 33.f6 g4 34.f7 g3 35.f8R g2 36.Rf5 g1R 37.Bf8 Rg7 38.Sg3 e4 39.Bd3 e3 40.0-0 e2 41.Rcc3 e1R 42.Bc2 R1e3 43.d5 Rdd7 44.d6 Rdf7 45.d7+ Kb8 46.Qd6+ Ka8 47.Qc7 Sge7 48.d8R+ Sc8 49.Rdd3 Rhg8 50.h8R Rae1 51.Rh6 R1e2 52.R1f2 Rce4 53.Kf1 Bd4 54.Rfc5 Se5 55.Sf5 Sc4 56.Sd6 Sb2 57.Rbc4 Sb6 58.Qb8+. The length record for an unambiguous SPG improved from 15 moves (Dawson 1913) to 41.5 (Fabel 1954) and 47.0 (Caillaud 1982) and (finally?) to 57.5. End of the story?

## Further favourite retro problems of mine



Release the position!

Auxiliary diagram



No. 461 Harry Goldsteen (after A. Frolkin) Probleemblad 1989



Mate in 1

No. 460 and 461 are ideal retro problems. No. 460 (FIDE-Album: 12 points): wPs captured 2 times,  $a7 \rightarrow a1X$ ,  $g7 \times Sf6$ ,  $wX \times Ph$ . Backward 1.Sb4-a6 d7-d6 2.Sd3-b4 Rd2-e2 3.Sc1-d3 Re2-d2+ 4.Sb3-c1 Ba2-b1 5.Sa5-b3 Bb1-a2+ 6.Sc4-a5 Ba2-b1 7.Sd6-c4 Bb1-a2+ 8.Sf5-d6 Rg5-g4 9.Sh6-f5 Rg4-g5+ 10.Sf5×Ph6! Rg5g4 11.Sd6-f5 Rg4-g5+ 12.Sc4-d6 Ba2-b1 13.Sa5-c4 Bb1-a2+ 14.Sb3-a5 Ba2-b1 15.Sc1-b3 Bb1-a2+ 16.Sd3-c1 Rd2-e2 17.Re2-e1 h7-h6! 18.Re1-f1 Sf1-h2 19.g5-g6 Bh2-g3 20.Bg3-f2 Sf2-d1 (= auxiliary diagram for those who prefer to play forward). 8 retro shields for 1 tempo (h7-h6). Cp. P1067419 with 10 retro shields.

1.e7×f8Q,R#. Backward 1...Sh7-f8+ No. 461: 2.Be8×Rf7 Rf8×Sf7 3.Se5-f7 Rf7-f8+ 4.Sc4-e5 Rf8×Sf7 5.Sh6-f7 Rf7-f8+ 6.Sa3-c4 Rf8×Sf7 7.Sg5f7 Rf7-f8+ 8.Sb5-a3 Rf8×Sf7 9.Se5-f7 Rf7-f8+ 10.Sc7-b5 Rf8×Sf7 11.Sb5×Qc7 Qc8-c7 12.Qd8d7 Qc7×Sc8+ 13.Bd7-e8 Re8-f8 14.Sh3-g5 Rf8e8 15.Sg5-f7 Rf7-f8+ 16.Qf8-d8 Qd8-c7 17.Be8d7 Kc7-b8 18.Sa3-b5+ Bb8-a7 19.Sa7-c8 Kc8-c7 20.Sb5-a7+ (= diagram to no. 461).

To no. 461



**No. 462** *Luigi Ceriani Fairy Chess Review 1948* 



Which was the first move of the black queen?

No. 463 Andrey Frolkin Die Schwalbe 1978 163<sup>rd</sup> TT 1<sup>st</sup> Entry Prize



Which queen is not a promoted piece?

To no. 463 Critical Position Next move: d7xQc6



**No. 462:** Genesis of the position: wSb1-a3, wRa1-b1, wSa3 $\rightarrow$ a1, bSg8-h6, bRh8g8, bSh6 $\rightarrow$ h8, g2-g3, wBf1 $\rightarrow$ g6, h7 $\times$ Bg6, f2-f4, wRh1 $\rightarrow$ h7, a7-a5, bRa8 $\rightarrow$ h6, wSg1 $\rightarrow$ e6, wSe6 $\times$ Qd8! (why this?), wSd8 $\rightarrow$ e4, sKe8-d8! (because the bK must occupy the free square d8 to avoid the check of the knight moving to h5 via f6!), wSe4f6-h5, e7 $\times$ Qf6, bBf8 $\rightarrow$ a7, bRg8 $\rightarrow$ b3, bSb8 $\rightarrow$ e8, d7-d6, a2 $\times$ Rb3, a5 $\rightarrow$ a2 $\times$ Rb1Q! and the first move of this 'new' queen was Qb1-a2!. A humorous classic. – An economical rendering is P1346004 and a double setting P0005016.

**No. 463:** The last moves were c7-c8Q+b2-b1Q! (not e7-e6? which would lock up the sacrificial piece bBf8). In the critical position the move  $d7 \times Xc6$  opens the cage on the 8<sup>th</sup> rank and locks up the pieces on the a- and b-files. If the white knights were captured on the b-file, then the original white queen remained as the sole sacrificial piece for sPd7. After  $d7 \times Qc6$  follows bBc8 $\rightarrow$ d5, then e7-e6. Thereafter the 3 white pawns on the f-file and wPe captured 4 times. These 4 pawns and wPd promoted to 5 white queens on d8 and e8. So all 7 queens are promoted pieces! Quite astonishing!

'Retroanalysis is higher mathematics of human logic, abstraction and imagination'. (*Emanuel Lasker*)

**No. 464** *Niels Høeg Retrograde Analysis 1915* 



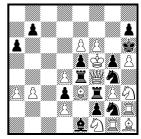
Last moves?

No. 465 Andrey Frolkin Die Schwalbe 1986



*Before at least 71 single moves an e.p. capture was executed* 

To no. 465 Critical Position Next move: h5xg6 e.p.



**No. 464** (FIDE-Album): All 16 white pieces are on the board, the wPs captured 6 times, hence there is no sacrificial piece for any officer. Solution: backward 1.Rd8d7+! forces d7-d6  $2.f5 \times e6$  e.p.+ (the well-known e.p. trick, cp. no. 123, 218 and 307) 2...e7-e5 3.f4-f5+ Kd6-c7 (what else?)  $4.b5 \times c6$  e.p.+ c7-c5 5.b4-b5+ Ke6-d6  $6.g5 \times f6$  e.p.+ f7-f5 7.g4-g5+. No. 464 presents three white en-passant captures which has remained unsurpassed up to now. A classic.

No. 465: This is the shortest game from the critical position (the last moves were bPg7-g5 Sg5-h3+ a7-a6 Rh3-h2 Sh2-g4 Qh4-f4 Sf4-g2+) to the diagram position:  $1.h5 \times g6$  e.p. Kh6-h5 2.g6-g7 a6-a5 3.g7-g8S a5-a4 4.Sg8-e7 b7-b6 5.Se7-g6 b6-b5 6.Sg6-h4 b5-b4 7.Sh3-g5 Kh5-h6 8.Rh2-h3 Kh6-h5 9.Sg5-f7 Sg4-h2 10.a3 × Pb4 Sh2-g4 11.b4-b5 ~ 12.b5-b6 ~ 13.b6-b7 ~ 14.b7-b8B ~ 15.Bb8-d6 ~ 16.Bd6-f8 ~ 17.Bf8-g7 ~ 18.Bg7-h8 ~ 19.b3-b4 ~ 20.b4-b5 ~ 21.b5-b6 ~ 22.b6-b7 ~ 23.b7-b8B ~ 24.Sf7-d6 ~ 25.Sd6-b5 ~ 26.Sb5-c3 ~ 27.Sc3-e2 ~ 28.Bb8-d6 ~ 29.Bd6-f8 Sg4-h2 30.Bf8-g7! Sh2-g4 31.Bg7-h6 Sg4-h2 32.Bh6-g5 Sh2-g4 33.Sf1-h2 a4-a3 34.Rg1-f1 a3-a2 35.Se2-g1 h7-h6 36.Sh4-g6+ Sg2-h4+. So the e.p. capture was executed at least 71 single moves before. That is the record for an ambiguous sequence of moves.

**No. 466** *Nenad Petrovic Die Schwalbe 1986 173<sup>rd</sup> TT 2<sup>nd</sup> Entry Prize* 



Before at least 159 single moves castling was executed

To no. 466 Critical Position Next move: 1.0-0



**No. 467** *Thomas Volet Die Schwalbe 1980 1<sup>st</sup> Prize* 



On how many squares were captures made?

**No. 466:** This is the shortest game from the critical position to the diagram position: 1.0-0 ~ 2.Sh1 Qg3 3.h2×g3 6.Kg4 h3 7.Kf4 Rf6+ 8.Ke4 Re5+ 9.Kd4 Re4+ 10.Kc5 Rf5+ 11.Kb6 Rhh5 12.Ka7 b6! 13.K~ Ba6 14.~ Bc4 15.Rg1 Ba2 16.b3+! Kb4 17.Bb2 h2 18.Bf6 h2×Rg1R! (therefore w0-0) 19.Bh4 f6 20.~ g5 21.~ g5×Bh4 22.~ h3 23.Qc1 h2 24.Qb2 Rb1 25.Qe5 Rb2 26.~ Bb1 27.~ Ra2 28.Qb2 Ra8 29.Qc1 Ba2 30.Qg1 h2×Qg1R 32.~ Rb2 33.~ Bb1 35.~ Rba6 36.~ Rfa5 40.~ Kd1 41.Rd3 Ke1 42.Rd4 Kf1 43.Ra4 Kg1 44.Ra2 Rea4 45.Rb2 Ba2 46.Rb1+ Kh2 47.Rg1 Bb1 49.~ Rb2 50.~ Ba2 52.~ Rf1 53.~ Bb1 55.~ Rb2 56.~ Ba2 58.~ Rbe1 59.~ Bb1 62.~ Rhb2 63.~ Ba2 65.~ Rbd1 66.~ Bb1 68.~ Rb2 69.~ Ba2 71.~ Rbc1 72.~ Bb1 74.~ Rb2 75.~ Ba2 76.~ Rcb1 77.~ Rdc1 78.~ Red1 79.Kb8 Rfe1 80.Rf1. We admire some subtle reasons for castling: wKg1→a7, b7-b6 (the cage is closed for wK and opened for bB), bBc8→a2, b2-b3, wBc1→h4, wQd1→e5→c1→g1. So castling was executed at least 159 single moves before. That is the record for an ambiguous sequence of moves.

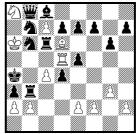
**No. 467:** Backward 1...Kg4×Ph3 2.h2-h3+ Kf3×Pg4 3.g3-g4 Ke4×Pf3 2.f2f3+ Kd5×Pe4 5.e3-e4+ Kc4×Pd5 6.d4-d5 Kc5-c4 7.d3-d4+ Kb6×Pc5 8.c4-c5+ Ka5×Pb6 9.b5-b6 Kb6×Pa5 10.a4-a5+ S-e2,Bh3-g2 11.b4-b5 Sb5-a7 12.e2-e3,g2g3 Ka7-b6 13.d2-d3 Kb8-a7 14.c3-c4 Kc8-b8 15.c2-c3 Kd8-c8 16.a3-a4 Qc8-d7 17.a2-a3 Rd7-e7 18.Re7-f7. The black king captured pawns on 8 squares. An epochmaking task.

No. 468 Dmitri Baibikov Phénix 2015



Last 60 single moves?

To no. 468 Critical position Next move: c4-c5



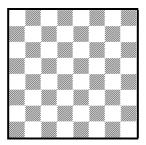
**No. 468** (FIDE-Album: 12 points): Backward 1... Qb8×Sb7# 2.Qh4-f2 (a)(b) g3-g2 3.Qh8-h4 g4-g3 4.h7-h8Q g5-g4 5.h6-h7 g6-g5 6.g5×Sh6 Sf5-h6 (c) 7.g4-g5 Se3-f5 8.g3-g4 Sc4-e3 9.Sa4-b6 Sb6-c4+ 10.Sc3-a4 h3-h2 11.Se4-c3 h4-h3 12.Sf6-e4 h5-h4 13.Sg8-f6 h6-h5 14.g7-g8S h7-h6 15.h6×Sg7 Sf5-g7 16.h5-h6 Se3-f5 17.h4-h5 Sc4-e3 (d) 18.h3-h4 Sa5-c4 19.Sd8-b7 Sb7-a5+ 20.Sf7-d8 f4-f3 21.Sh6-f7 f5-f4 22.Sg8-h6 f6-f5 23.g7-g8S f7-f6 24.f6×Sg7 Sf5-g7 25.h2-h3 Se3-f5 26.f5-f6 Sc2-e3 27.f4-f5 Sa1-c2 28.f3-f4 a2-a1S 29.f2-f3 a3-a2 30.a2×Rb3 Ka4-b4 (e) 31.c4-c5 (diagram to no. 468) etc.

Here are the amazing tries: (a) 2.Qg3-f2? f4-f3 3.Qg8-g3 f5-f4 4.g7-g8Q f7-f5 5.f6×Sg7 Se6-g7 6.f5-f6 Sd8-e6 7.Sa5-b7 Sb7-d8+ 8.Sc4-a5 h3-h2 9.Se3-c4 h4-h3 10.Sg4-e3 h5-h4 11.Sf6-g4 h6-h5 12.Sg8-f6 g3-g2 3.g7-g8S g4-g3 14.g6-g7 g5-g4 15.h5×Sg6 Sf4-g6 16.h4-h5 Sd3-f4 17.f4-f5 Se1-d3 18.f3-f4 Sc2-e1 19.f2-f3 Sa1c2 20.h3-h4 a2-a1S 21.h2-h3 a3-a2 22.a2×R/Sb3 Ka/c4-b4 23.Sc/a4-b6+ and illegal check by bRc6. - (b) 2.Qe3-f2? h3-h2 3.Qf4-e3 h4-h3 4.Qg5-f4 h5-h4 5.Qg8-g5 h6-h5 6.g7-g8Q h7-h6 7.h6×Sg7 Sf5-g7 8.h5-h6 Se3-f5 9.h4-h5 Sc4-e3 10.Sa4-b6 Sb6-c4+ 11.Sc3-a4 f4-f3 12.Se4-c3 f5-f4 13.Sf6-e4 g3-g2 14.Sg8-f6 f6-f5 15.g7g8S g4-g3 16.g6-g7 g5-g4 17.f5×Sg6 Sf4-g6 18.h3-h4 Sd3-f4 19.h2-h3 Se1-d3 20.f4-f5 Sc2-e1 21.f4-f3 Sa1-c2 22.f2-f3 a2-a1S retro stalemate. - (c) 6... Sf7-h6? 7.g4-g5 Sd8-f7 8.Sa5-b7 Sb7-d8+ 9.Sc4-a5 h3-h2 10.Se3-c4 h4-h3 11.Sf5-e3 h5-h4 12.Sh6-f5 f4-f3 13.Sg8-h6 h6-h5 14.g7-g8S h7-h6 15.h6×Sg7 Sf5-g7 16.g3-g4 Se3f5 17.h5-h6 Sc2-e3 18.h4-h5 Sa1-c2 19.h3-h4 a2-a1S 20.h2-h3 a3-a2 21.a2×R/Sb3 Ka/c4-b4 22.Sa/a4-b6+ and illegal check by bRc6. - (d) 17...Sc2-e3? 18.h3-h4 Sa1-c2 19.h2-h3 a2-a1S retro stalemate. - (e) 30...Kc4-b4? 31.Ka5-a6 Sd8-b7+ 32.Ka6-a5 Sb7-d8+ 33.Ka5-a6 with forced repetition of moves.

No. 468 surpasses the previous record (P0006113) by 5 single moves. Clear position without obviously promoted pieces, wonderful play on the whole board, unpromotion of knights, retro unpin. To me this problem is one of the top ten of classical retro problems.

There are two other **great retro records** set up as late as in the 21<sup>st</sup> century:

- 33 successive checks during the last 66 single moves (=P1185294)
- 185 moves in a dualistic shortest proof game (=P1345778)



If in this book you miss your favourite retro problem, you may use this diagram for it.

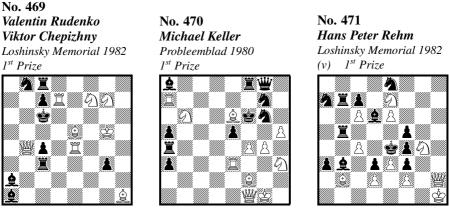
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The classical dual-free length records without retro aspect are:

- 226 moves in a directmate problem (=P1298048) set up in 1982
- 28 moves in a helpmate problem (=P0559197) set up in 1934
- 223 moves in a selfmate problem (=P1176536) set up in 2006

## My favourite 12 points problems

The following six problems obtained the maximum number of 12 points in the **FIDE**-**Albums** which shows a very rare achievement. The albums are official collections of excellent chess problems. The first albums comprise the problems published in 1914–44 and 1945–55, then in a period of three years (1956–58, 1959–62... 2010–12). Three judges per section select the best problems for the album.



Mate in 2

Mate in 3

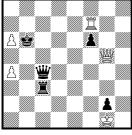
Mate in 6

**No. 469:** Set play:  $1...K \times d7/S \times d7$  2.Rd4/R×c4#. Thematic try: 1.Bd4? K×d7?/ S×d7? 2.R×e7/Re6#, 1...Re8!. Solution: 1.Rd5! K×d5/Rb3 2.Rd4/R×c4#. Perfectly changed and transferred mates.

**No. 470** presents reciprocally changed mates. Set play:  $1...Q \times e6 2.Bh4+ S \times h4$  $3.f4 \times e5\#$  or  $1...S \times e6 2.f4 \times e5+ S \times e5 3.Bh4\#$ . Solution: 1.Qa6! [thr.  $2.Sd5+ B \times d5 3.g5\#$ ]  $Q \times e6 2.f4 \times e5+ Q \times e5/S \times e5 3.Sd5/Bh4\#$  or  $1...S \times e6 2.Bh4+ Sg5/S \times h4 3.Sd5/f4 \times e5\#$ . Problem chess at its best.

**No. 471:** 1.Qh8! Re5 2.Qh6 Reb5 3.Be5  $B \times e5 4.Qg5$  Bd6 5.Se5  $B \times e5/R \times e5 6.Q \times f5/Q \times f4\#$  or 1... Be5 2.Qh5 Bd6 3.Se5  $R \times e5 4.Qg5$  Reb5 5.Be5  $B \times e5/R \times e5 6.Q \times f5/Q \times f4\#$ . Logically successive foreplans, interferences of rook and bishop. Logic pure.

No. 472 Yehuda Hoch Mandil Memorial 1980 I<sup>st</sup> Prize



Win

No. 473 Zivko Janewski Fadil Abdurahmanovic Mat 1987 1<sup>st</sup> Prize



Helpmate in 2 4 solutions

No. 474 Andrey Selivanov Uralski Problemist 2000 I<sup>st</sup>/2<sup>nd</sup> Prize



Selfmate in 5

No. 472: Try:  $1.R \times f6+$ ? Ka7 2.Qg7+Qc7 3.Rf7 Rc1+  $4.K \times g2$  Rc2+ 5.Kf3 Rc3+ 6.Ke4 Rc4+ 7.Kd5 Rc5+ 8.Ke6 Rc6+ 9.Kf5 Rc5+ 10.Kg6 Rc6+ 11.Kh7 K × a6  $12.R \times c7$  R × c7  $13.Q \times c7$  stalemate. Solution: 1.a5+! K × a6  $2.R \times f6+$  Ka7 3.Qg7+ Qc7 4.Rf7 Rc1+  $5.K \times g2$  Rc2+ 6.Kf3 Rc3+ 7.Ke4 Rc4+ 8.Kd5 Rc5+ 9.Ke6 Rc6+ 10.Kf5 Rc5+ 11.Kg6 Rc6+ 12.Kh7 Ka8  $13.Qg8+(13.R \times c7?$  R × c7  $14.Q \times c7$  stalemate) Qc8 14.Rf8 Rc7+ 15.Kh8 Ka7  $16.Qg1+(16.R \times c8?$  R × c8  $17.Q \times c8$  stalemate) 1:0 Thematic try, systematic manoeuvre, avoidance of stalemate, chameleon echo.

**No. 473:** I 1.Qd5 Bc2 2.S×d6 Bd3#; II 1.Bd7 c7 2.Bb5 d7#; III 1.b5 Kf2  $2.R\times d6$  K×f3#; IV 1.Bd5 B×d5  $2.Q\times d6$  B×f3#. Direct white battery, direct self-pin and black unpin, mate with pinning of three black pieces. Impressive!

No. 474: 1.Ke1? f5? 2.Qd5+ Ke3 3.Bc4 f4 4.Bf1 f3 5.Qd1 f2#, 1...f6! 1.Be6! (zugzwang) 1...f7×e6 2.Qg5 e5 3.Bg3 e4 4.Be1 e3 5.Qg1 e2# 1...f6 2.Bh3 f5 3.Bg4+ f5×g4 4.Qe1 g3 5.Bg1 g2# 1...f5 2.Qd1+ Ke3 3.Ke1 f4 4.Bh3 f3 5.Bf1 f2# Three echo model mates in a miniature. Wonderful!

> 'In a good chess problem, correctness is essential, beauty necessary, and difficulty desirable'. (Konrad Erlin)

# 1 position – 1000 problems

In 1932 nobody would have foreseen that an extremely simple position with only two kings and two pawns would stimulate so many problemists to compose more than 1000 problems with new kinds of stipulations (see *PDB* K='Vielväterstellung').



Helpmate in 2

Solution: 1.a6 b7+ 2.Ka7 b8Q#

**No. 476:** Julius Dohrn-Lüttgens & Erich Gleisberg, Schachmatt 1949. Black makes 8 moves in a row and helps White to mate in 1. 1.a5... 5.a1B 6.Be5 7.Bb8 8.Ba7 b7#.

**No. 477:** *Robert J. Darvall*, *Fairy Chess Review 1949. Who wins?* White moved last. So Black wins by  $1.a7 \times b6$ .

**No. 478:** *Bror Larsson*, *Feenschach 1954. White retracts 1 move, then mate in 1.* Backward Kc7×Sc8, then 1.b7#; not Kc7-c8? (Black had no previous move)

**No. 479:** *Werner Keym*, *The Problemist 1976. How many last moves are there?* 26 moves! 10 by Pa5/Pc5×Q,R,B,S,Pb6; 2 by Pa5/Pc5×Pb6 e.p.; 12 by Kc7/Kd7/Kd8×Q,R,B,Sc8; 2 by Kd7/Kd8-c8. Neither Pb5-b6? nor Kc7-c8?, since there would be no previous move for Black.

**No. 480:** *Frank Müller & Werner Keym*, *Die Schwalbe 2018. Add 5 equal a) white, b) black pieces for an Illegal Cluster.* 

a) White rooks on a6, b8, c6, c7, d7. Without Ra6 or Rc6 or Rd7 the last move was Rb7×Sb8+. Without Pa7 the last move could be Rb7×Bb8+. b) Black pawns on a2, a3, a4, a5, a6. The black pawns captured 15 times, however, there are 2 white pieces.

## **Chess jokes**

No. 481 Werner Keym Allgemeine Zeitung Mainz 1997



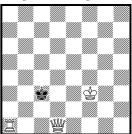
Add a piece on h1 so that every chess player can mate in 2





Add the black king, then mate in ½ move 2 solutions

**No. 483** *Werner Keym Stuttgarter Zeitung 2018* 



Mate in 2 Equal rights for the queen

**No. 481:** There will be a mate in 3 moves with wQh1 (not  $1.Q \times b7$ ? stalemate, but 1.Ra2+ etc.) and in 2 moves with wRh1 ( $1.Ra2+K \times b1 2.0-0\#$ ) or with wBh1 ( $1.B \times b7 K \times b1 2.Rd1\#$ ). Not every chess player, however, does know the castling convention in problem chess (castling is permitted unless the opposite can be proved). So wBh1 is the sole solution!

**No. 482:** The queen is partly a rook, partly a bishop. Solution I: +bKd5, +wRd1 (the rook remains on d1) and +Bf3#, the bishop moves from d1 to f3 (=  $\frac{1}{2}$  move!). Solution II: +bKh5, +wBd1 (the bishop remains on d1) and +Rh1#, the rook moves from d1 to h1 (=  $\frac{1}{2}$  move!). Quite convincing, isn't it?

**No. 483:** In ultra-modern chess equal rights mean that not only the king has got the right to castle, but the queen as well! So the solution is 1.'0-0'+ (= Qb1 and Rc1) Kd2/Kd4 2.Qc2/Qe4#. Politically correct!?

No. 484 Valery Dubrovski Redkie shanry plyus 1996



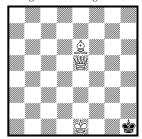
Mate in 2 Retro castling

No. 485 Bedrich Formánek Chess Jokes 2000



Helpmate in 1.5 b)  $Rh8 \rightarrow a8$ 

**No. 486** *Werner Keym Stuttgarter Zeitung 2018* 



Black retracts 1 move, then helpmate in 1 a) First solution? b) Second solution?

**No. 484:** Solution: 1.0-0-0! [thr. 2.Qa5#] Bb4 2.Qb2# or  $1...B \times b3$  2.'0-0-0'# by retro castling (Rd1 $\rightarrow$ a1 and Kc1 $\rightarrow$ e1). White knows how to use his head.

**No. 485:** a) Castling is permitted since the last move could have been  $Ph5 \times Xg4+$ . Therefore the solution is 1.Rh3! 0-0 2.R×g4#. b) The bRa8 has been 'moved' from h8 to a8, hence castling is not permitted. That is why the solution is not 1.Rb3? 0-0-0 2.Rc4#, but only 1.Rd7! Kf8 2.R×a8#. Quite logical or what?

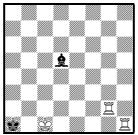
**No. 486:** a) The first solution is backward Kg2×Rh1, then 1.Kf3 0-0#. b) The second solution is Kg1×Rh1 (before that e.g. Rh-h1+), then 1.Kg2 Bd5#. If you begin with solution b), then the rook must have moved (Rh-h1+) and castling and solution a) are no more permitted. Orthodox – beyond any doubt?

No. 487 Werner Keym Die Schwalbe 1969



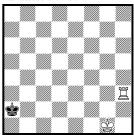
Add a white rook and mate immediately

No. 488 *Rudolf L'hermet* 150 Exzentrische Schachaufgaben 1910



White retracts 1 move, then mate in 1

No. 489 Karl Fabel Parallèle 50 1950



White retracts 1 move, then mate in 2

**No. 487:** Here it is Black to play unless a white rook is added on h1. In this case the last move was 0-0 (before that Kg2/3-f3) and the first part Ke1-g1 has already been done. So the second part must follow: Rh1-f1#.

**No. 488:** That was a game at odds. White started the game without wRa1; Rg2 is a promoted piece. Therefore White retracts the move '0-0-0' (without wRa1) and puts the king on e1. Then follows 1.0-0#.

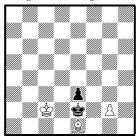
**No. 489:** That was a game at odds as well. White started the game without wRa1 nor wRh1; Rh3 is a promoted piece. Therefore White retracts the move '0-0' (without wRh1) and puts the king on e1. Then he plays 1.'0-0-0' (without wRa1) and puts the king on c1 followed by 1...Ka1 2.Ra3#.

No. 490 Hieronymus Fischer Vossische Zeitung 1921



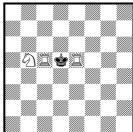
Mate in 1

**No. 491** *Werner Keym Stuttgarter Zeitung 2012* 



*Add 1 piece, then mate in 1* 

**No. 492** *Sam Loyd American Chess Journal* 1876



A mate in the middle of the board, with only 1 knight and 2 rooks

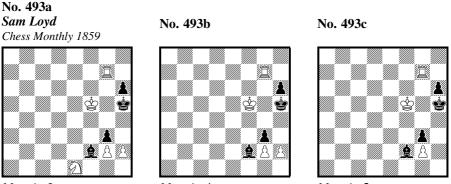
**No. 490:** Since there are 8 black pawns, neither Rf4 nor Rh4 can be a promoted piece. However, the original Rh8 could never leave the NE cage. Hence the position is illegal. So either of the rooks must be put on h8. In the case of Rf4 the solution is 1.Be6#, in the case of Rh4 it is 1.Sh6#.

**No. 491:** This problem was part of the following story: On New Year's Eve a problemist presents his latest composition on a great magnetic board at the chess club, but nobody finds the solution. At midnight the chess players go outside to watch the fireworks. In the meantime the problemist puts the position with the five pieces on several boards on the tables and removes the pieces from the magnetic board. After the chess players have returned to their boards, some of them quickly find the solution. How come? – Unlike the magnetic board the ordinary boards do not have numbers nor letters on the border. So what is meant by the 'right' position of the board is ambiguous. By adding a white bishop on 'd1' (in no. 491) it can be proved that the board must be turned by  $180^{\circ}$ . Then the solution will be easy:  $1.K \times d8$  b7-b8Q#. A similar idea is shown in problem P1347825 with only four pieces.

**No. 492:** It is clear that this is a mate in the middle of the board, but it is clear as well that this is an illegal position which can never occur in an actual game. For such a joke *Loyd* did not care about convention.

### Strange chess stories

#### Charles XII at Bender



Mate in 3

Mate in 4

Mate in 5

The story introduces an imaginary incident during the siege of Charles the Twelfth of Sweden by the Turks at Bender in 1713. Charles beguiled this period by means of drill and chess, and used frequently to play with his minister, Christian Albert Grothusen. One day while so engaged, the game had advanced to the stage represented in No. 493a and Charles (White) had just announced a mate in three. Scarcely had he uttered the words, when a Turkish bullet, shattering the window, dashed the white Knight off the board in fragments. Grothusen started violently, but Charles, with the utmost coolness, begged him to put back the other Knight and work out the mate, observing that it was pretty enough. But another glance at the board mad Charles smile: 'We do not need the Knight. I can give it to you, and still mate in four!' (No. 493b). Who would believe it, he had barely spoken when a second bullet flew across the room, and the Pawn at h2 shared the fate of the Knight. Grothusen turned pale. 'You have our good friends the Turks with you,' said the King, unconcerned, 'it can scarcely be expected that I should contend against such odds; but let me see if I cannot dispense with that unlucky Pawn. I have it!' he shouted, with a tremendous laugh, 'I feel great pleasure in informing you that there is undoubtedly a mate in five' (No. 493c). (from: Sam Loyd and his chess problems).

No. 493a:  $1.R \times g3 B \times g3/B \times e1 2.Sf3/Rh3+ B \sim /Bh4 3.g4#$ No. 493b:  $1.h2 \times g3 Be3 2.Rg4 Bg5 3.Rh4+ B \times h4 4.g4#$ No. 493c:  $1.Rb7 Be3 2.Rb1 Bg5 3.Rh1+ Bh4 4.Rh2 g3 \times h2 5.g4# or <math>1...Bg1 2.Rb1$ Bh2 3.Re1 Kh4 4.Kg6  $\sim 5.Re4#$  Specialities for New Year's Eve



Mate in 3 with the rook that stands on h8

It's New Year's Eve, and Mr White and Mr Black are enjoying a quiet game of chess. There's a rather nice aroma coming from their grog. Black, who's a problemist, is as usual in a poor position, but he always keeps his hopes up right to the end. Then White announces, 'Mate in 3 moves' and immediately shows how:  $1.R \times h7 +$  $K \times h7$  2.Rg8 Kh6 3.Rh8#. 'Humph,' growls Black, 'why do you have to use force? – it could be done differently.' He sets the position up again. 'Mate in 3 moves, but with the Rook that's on h8! That's surely not too much to ask.' White can't find the solution, but maybe the crafty reader can?

Solution: Black's 'creative' solution is:  $1.Rhg8 B \times g8 2.f \times g8R!$  (the pawn promotes to the rook that had previously been on h8) Kh7 3.Rh8#, and this rook is back on h8. Let's drink to a Happy New Year!

[This idea was already presented in 1914 (P1182118) and in a miniature in 2018 (P1346725).]

A New Year's Eve wager

No. 495 Werner Keym Stuttgarter Zeitung 31-12-2005

Mate in 3 without moving the queen

A New Year's Eve game down at the chess club is just coming to an end. Suddenly White wagers a bottle of cognac that he can mate in 3 without moving the Queen. The only mating sequence Black can see is  $1.e8Q+Kd5 2.Qb7+c6 3.Qb \times c6$ #, so he accepts the wager. White proudly shows what he has thought up: 1.e8Q+Kd5 2.c4+ $d4 \times c3$  e.p. 3.Qe8-e4#. But Black objects, because he can plainly see that Qe8-e4 is a Q-move. White replies that he said 'without moving the Queen', meaning the Q already on b4. Opinions are divided on the matter. At this point a spectator intervenes and wagers that White can indeed mate in 3 without any Queen-move at all. Who wins the cognac, White, Black, or the spectator?

Solution: The spectator. White can mate himself in 3! 1.e8Q+ Kd5 2.c4+ d4xc3 e.p. 3.0-0-0+ Sd3#. Hey presto, a Valladao for New Year's Eve!

A 'compromise' on New Year's Eve

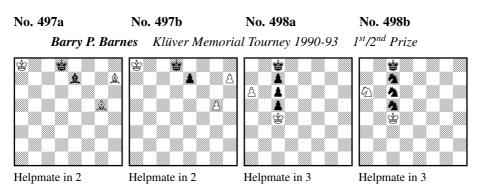


Snapshot of a typical New Year's Eve game. Quite a few glasses have been emptied, and Black is just about to give mate when he brushes a pawn off the board with his sleeve. Now the argument starts up: was it a white pawn or a black pawn, and which square was it on? Eventually White suggests a compromise: 'First of all you decide on the colour, and then I'll decide on the square.' Black is happy with this. Was he right to be?

Solution: No, he wasn't. With a white pawn on c7 White can achieve stalemate:  $1.c7 \times d8Q+ Kb7$  (K×d8? stalemate) 2.Qc7+ Ka6/Ka8 3.Qb6+/Qb8+ K×Q. With a black pawn on d7 he can prove that Black's last move (0-0-0#) was illegal. This is because the white king can only have got into the corner via d8, so the black king must have moved. According to the 'touch-move' rule Black must take back 0-0-0 and play a king-move instead. Stalemate again! A fine way to start the third millennium!

Sherlock Holmes and Dr Watson were travelling by train from Basel to Rotterdam for the problemists' congress. They had not been in Germany long when Watson spied a slip of paper on the floor. Written on it was: Ka8 Bg5 Bh7 Kd8 Be7, helpmate in 2, 1st move 1.Ke8. Watson took out his pocket set and soon said, 'There's something amiss here. 1.Ke8 is wrong; the correct solution is 1.Kc8! Bf4 2.Bd8 Bf5 mate.' Holmes said nothing.

A few hours later, when they were already in Holland, they came back from the restaurant-car and Watson found another slip of paper with a chess problem on it: Kc4 Pa6 Kc8 Pc5 Pc6 Pc7, helpmate in 3, 1st move 1.Kb7. 'Again there's something wrong,' said Watson immediately. '1.Kb7 is a move into check and so impossible. Maybe it's another mistake?' And before long he said: 'Yes indeed, you can mate by 1.Kb8! a7+ 2.Kb7 K×c5 3.Ka6 a8Q. Curious. What is your view, Holmes?'



'It's not curious to me,' replied the latter. 'The first slip of paper comes from Germany. B is Bauer (pawn) in German, and it works with three pawns: 1.Ke8 g6 2.Kf8 h8Q mate. The second is from Holland. P means Paard (knight) in Dutch, and the key is correct: 1.Kb7 K×c5 2.Ka8 Kb6 3.Sb8 S×c7 mate.' 'But what's it all about?' asked a perplexed Watson. 'I think I know,' answered Holmes. 'A chess problemist gave the slips of paper to the guard as a way of testing us. B is for Bishop and Bauer, P is for Pawn and Paard. So this may well be Barry P. Barnes, whom we shall meet in Rotterdam. He has composed two 'international twins' for us. Rather nice.' And as usual the famous detective was right.

(Abridged version of B. P. Barnes' original English text)

Calculation and thought

No. 499 Werner Keym Stuttgarter Zeitung 2009

Mate in twice 2 moves

Down at the chess club they are holding a solving contest with a rather special problem. The first person to solve it will win a magnum of champagne. An old fox, who's a keen solver, and a young whippersnapper, who uses his mobile phone even for playing chess, simultaneously hand in different but not incorrect solutions. Eventually the contest controller gives the judgment of Solomon: 'The bottle goes to everyone present!' Great rejoicing at the club: they're all happy. How come?

Solution: The decision is a wise one, since both solvers are right, even if only partially. The mobile spits out the moves 1.Qc5! Kd8 2.Qe7+ Kc8 3.d6 Re8 4.Q×e8#, i.e. mate in 4 (= twice 2) moves (cf. no. 400). The problemist, however, sees that Black may castle either long or short. If 0-0-0 is permitted, then 1.Qc7! Kf8 2.Qf7#; and if 0-0, then  $1.Q \times g7!$  Kd8 2.Qd7#. Both of these are twice 2 moves! A Problem for Musicians?



Mate in 2 moves Why would an inversion or a reflection of this position be musicologically unsound?

At the conclusion of a chess evening a lover of both problems and music shows an easy twomover. The mating sequence is quickly found: 1.Rg8 Kh4 2.Rh6#. 'That's simple,' says the problem-lover, 'but there is another puzzle. If you invert or reflect this position, you can certainly still mate in two, but the musicological significance is lost. Is that simple as well?'

Solution: The four men stand on B1, A6, C8, H5, which gives B-A-C-H and the year of his birth 1-6-8-5. If you invert the position you get BACH and 8314, and if you reflect it you get GHFA and 1685. Both of these are musicologically unsound.

'Chess, like love, like music, has the power to make men happy'. (Siegbert Tarrasch)

## Ten 100 Euro tasks

As far as I know the following tasks have not yet been achieved. I am offering 100 Euro for the first realization of each of these ten tasks.

#### a) without retro aspect

1) 100 Dollar theme with only one promoted piece (p. 35)

2) Babson task in helpmate with 4 solutions and 4 different keys (cp. no. 88)

3) Babson task without duals in all full length variants (mainline and sidelines) (cp. no. 94–96)

4) Valladao task and AUW in helpmate and endgame study (cp. no. 114–116)

5) Keym task: Valladao task and AUW and Excelsior walk in directmate and helpmate (cp. no. 116 and 117)

6) Oudot task: dual-free one-line helpmate with promotions of three black pawns to queens

### b) with retro aspect

7) Illegal Cluster without any piece on the chessboard nor any additional condition (cp. 444–446)

8) four castlings or en-passant captures (2+2 or 1+3 or 0+4) in a classical release problem (not in a proof game as no. 453)

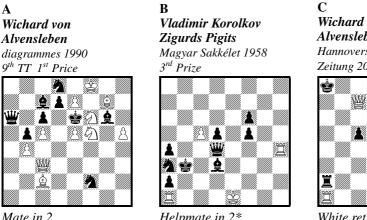
9) interchange of white rooks and interchange of black rooks in a classical release problem (not in a proof game as no. 454)

10) dual-free walk of a king to the four corners in a proof game

Do you remember the song of The Everly Brothers?

'Problems, problems, problems, all day long. Will my problems work out right or wrong?'

# The editor's choice



Mate in 2 b) All men 1 rank down

Helpmate in 2\*

Wichard von Alvensleben Hannoversche Allgemeine Zeitung 2008



White retracts 1 move and then does not mate b)  $Kfl \rightarrow gl$ 

A: a) Try: 1.Qg3? (thr. 2.Sd4#) Qa1!; solution: 1.Bh8! (thr. 2.Sg7#) B×e5/B×f5 2.e×d8S/e8Q,R#. b) Try: 1.Bh7 (thr. 2.Sg6#) Sf8!; solution 1.Qg2! (thr. 2.Sd3#)  $B \times e4/B \times f4$  2.Ob2/Bb2#. Mate change between the twin positions effected by different setting, not by the key move, to be sure. A task brilliantly performed. One ought to study the changes carefully as they are effected by shifting the position in a subtle way with pawns d7 and e7: the black pawn loses its option of the double step, whereas the white pawn is deprived of its option of promotion.

**B** (FIDE-Album): Set play: 1...0-0-0 2.Qf2 R×d3#. Solution:  $1.Q \times a1+!$  Kd2 2.Kb2 Rb4#. The black piece on the first move of the solution captures the white piece which mates in set play.

C: a) If the last move was Kg2-f1# there would be a forced mate by 1.Kg2-f1/g1#. Therefore White retracts  $Kg2 \times Bf1!$  (previous move: Be2-f1+ or Pf2-f1B+) and then 1.Kg2-g1+! does not result in a mate. b) If the last move was Kg2-g1# there would be a forced mate by 1.Kg2-f1/g1#. Therefore White retracts  $Kg2 \times Sg1!$  (previous move:  $Se_2-g_1+$  or  $Pf_2\times Xg_1S_+$ ) and then  $1.Kg_2-f_1+!$  does not result in a mate. Reciprocal change of both the mating move and the non-mating move connected with black underpromotions.

Finally a special 'cluster problem' by myself (P1348873).

Godehard Murkisch

## **Codex for Chess Composition**

This codex deals with general principles of chess composition activities such as composition, solving and publication. The codex is intended to be descriptive, rather than prescriptive ...

Article 15 – First move

If the first move does not lie with the conventional party ..., this should either be indicated in the stipulation or deducible from retroanalysis.

Article 16 – Castling and En-passant capture

(1) Castling convention. Castling is permitted unless it can be proved that it is not permissible.

(2) En-passant convention. An en-passant capture on the first move is permitted only if it can be proved that the last move was the double step of the pawn which is to be captured.

(3) Partial Retrograde Analysis (PRA) convention. Where the rights to castle and/or to capture en-passant are mutually dependent, the solution consists of several mutually exclusive parts. All possible combinations of move rights, taking into account the castling convention and the en-passant convention, form these mutually dependent parts. If in the case of mutual dependency of castling rights a solution is not possible according to the PRA convention, then the Retro-Strategy (RS) convention should be applied: whichever castling is executed first is deemed to be permissible.
(4) Other conventions should be expressly stipulated, for example if in the course of the solution an en-passant capture has to be legalised by subsequent castling (a posteriori (AP) convention).

Article 17A – Dead Position Rule

Unless expressly stipulated, the rule of dead position does not apply to the solution of chess compositions except for retro-problems.

Annotation: Article 15 was resolved in 1974 at Wiesbaden, article 16 (except for the sentence 'If in the case ... permissible.') in 2008 at Jurmala, this sentence in 2009 in Rio de Janeiro, article 17A in 2015 at Ostroda.

## Glossary

(v): later version of a problem

(c): later correction of a problem

**PDB** (Chess Problem Database Server): a free easy-to-use source of about 400,000 problems. See <u>http://pdb.dieschwalbe.de</u> and enter <u>PROBID = 'P1012377'</u> for a single problem (= no. 1 by W. E. Candy) or K = 'symmetrical position' for a theme.

**Pieces:** king (K), queen (Q), rook (R), bishop (B), knight (S), pawn (P). **Officers:** Q, R, B, S.

Allumwandlung: promotion to Q and R and B and S. Letztform: best and unsurpassable realization Miniature: problem with at most 7 pieces Zugzwang: compulsion to move (with a negative result)

**Directmate problem:** White moves first and gives mate in n moves against any defense. A mate in 2 moves comprises 3 single moves.

**Selfmate problem:** White moves first and forces Black to give mate in n moves. A selfmate in 2 moves comprises 4 single moves.

**Helpmate problem:** Black moves first and helps White to give mate in n moves; a helpmate in 2 or 2.0 moves comprises 4 single moves. A helpmate in 2.5 moves comprises 5 single moves; in this case White moves first.

**Unconventional first move:** if the first move does not lie with the conventional party, this should either be indicated in the stipulation or deducible from retroanalysis.

The **real play** comprises the moves executed in the course of the solution. The **virtual play** comprises possible moves, especially in (thematical) tries and in set play. In the **set play** Black moves first in a directmate or selfmate problem, White in a helpmate problem. A star \* points to the set play.

**Retrograde analysis** or **retroanalysis:** process of proving what the 'history' (i.e. the last one or more moves) of a given position must have been.

The **genesis of the position** states the important moves from the initial position to the diagram position; these moves need not be unique.

A virtual retro move results in a **retro stalemate**, if this move leads to an illegal position where one party has got no previous move so that the initial game array cannot be reached.

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### The funny side of chess!

Patient: Will I live to be eighty, Doctor?
Doctor: How old are you now?
Patient: Sixty-two.
Doctor: Do you drink?
Patient: Not very much.
Doctor: Do you smoke?
Patient: Not at all.
Doctor: Do you do any womanizing?
Patient: Certainly not, doctor.
Doctor: Do you like playing chess, by any chance?
Patient: No, doctor, I don't.
Doctor: Then why do you want to live till eighty?





analyst

### Chess World Championship: a proposal out of the box

The Chess World Championship match should be decided neither by rapid chess nor by blitz chess nor by Armageddon, but instead by classic chess.

#### Proposal

The competition consists of two parts: prologue and match.

- 1. Prologue
- 1.1 Who plays White in the first game is decided by lot.
- 1.2 There are then 4 rapid chess games. If one player gets 2.5 points, the prologue is over.
- 1.3 Otherwise, the result is 2:2, and now 2 blitz chess games will follow. If one player gets 1.5 points, the prologue is over.
- 1.4 Otherwise, the result is 1:1, and now further blitz chess games will follow. The first win of a game will end the prologue.
- 1.5 We now have a prologue winner and a prologue loser.
- 2. Match
- 2.1 There is an odd number of classic chess games (e.g. 13).
- 2.2 The prologue loser plays White in the odd-numbered games  $(1, 3, 5, \dots 13)$ .
- 2.3 If the prologue loser gets 7 points, he will be the champion.
- 2.4 If the prologue winner gets 6.5 points, he will be the champion.

### Comment

- The conditions for the champion and the challenger are equal.
- The prologue will take 2-4 days.
- The advantage for the prologue loser is that he has White in the first and the last game.
- The advantage for the prologue winner is that he wins the championship in case of tie.
- The championship match is decided by at most 13 classic chess games and there may be much excitement towards the end: in the 13<sup>th</sup> game the prologue loser has White and must win, whereas the prologue winner has Black and must draw.
- The match will end by a fixed day. This is important for organizers, sponsors, media, and audience.

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A simple problem? However, most of the 'solvers' were wrong. How about you?

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> 'Logic will get you from A to B. Imagination will take you everywhere'. (Albert Einstein)

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### Errata

- p. 42, no. 139: not 'Feenschach 1956', but 'Fairy Chess Review 1956'
- p. 42, no. 144: only 'Die Schwalbe 2007, 2<sup>nd</sup> HM'

p. 45, no. 155: not 'Retro Mailing List 2007', but 'Die Schwalbe 2007,  $2^{nd}$  commendation'

p. 53, no. 181, line 2 and 4: not 'e1', but 'd1'

p. 137, no. 431, stipulation: '... then mate in 1 Proca Retractor'