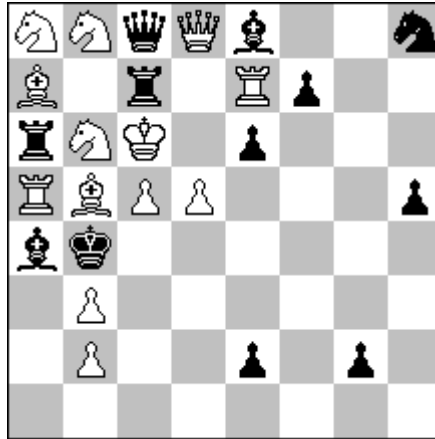


#1 Dmitrij Baibikov
 R485, Problemblad, Nr. 4, 2018

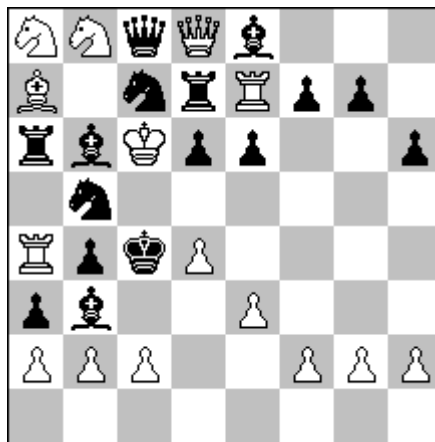


(13+12)

What was the position 68 single moves ago?

Solution.

Retract 1...Rd7×Qc7+ 2.d4-d5 Sg6-h8 3.c4-c5 Sf4-g6 4.c2-c4 Sd5-f4
 5.Qg3-c7 Sc7-d5+ 6.Qg8-g3 h6-h5 7.g7-g8=Q g3-g2 8.g6-g7 g4-g3 9.h5×Sg6
 Sf4-g6 10.h4-h5 Sd5-f4 11.h3-h4 Sc3-d5 12.Bd3-b5 Sb5-c3+ 13.Bh7-d3 g5-g4
 14.Bg8-h7 g6-g5 15.g7-g8=B e3-e2 16.f6×Bg7 Bh8-g7 17.f5-f6 Be5-h8 18.h2-h3
 Bd6-e5 19.f4-f5 Bc5-d6 20.Sc4-b6 Bb6-c5+ 21.Se5-c4 g7-g6 22.Sg6-e5 e4-e3
 23.Sh8-g6 e5-e4 24.h7-h8=S d6×Pe5 25.g6×Qh7 Qh8-h7 26.g5-g6 Qh7-h8
 27.g4-g5 Qd3-h7 28.g3-g4 Qd1-d3 29.g2-g3 Qa1-d1 30.f3-f4 a2-a1=Q 31.f2-f3
 a3-a2 32.a2×Pb3 Kc4-b4 33.e4-e5 b4-b3 34.e3-e4 Bb3-a4 35.Ra4-a5 and we see
 next compelled position that must occur at this exact moment after 68 single moves.



(15+16)

New (after 76 years) record for “The longest deferred exact position”.

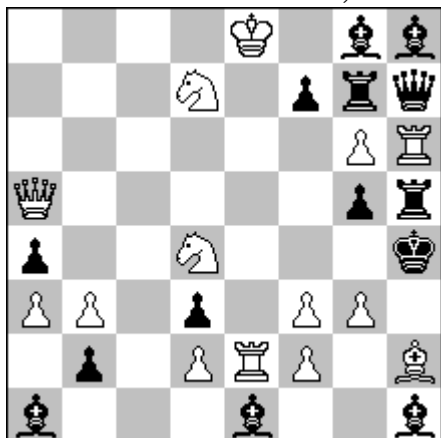
Notes.

Problems **A**, **B** and **C** are 3 previous record steps.

A (PDB/P0006689)

Julio Sunyer

The Chess Amateur, 1928



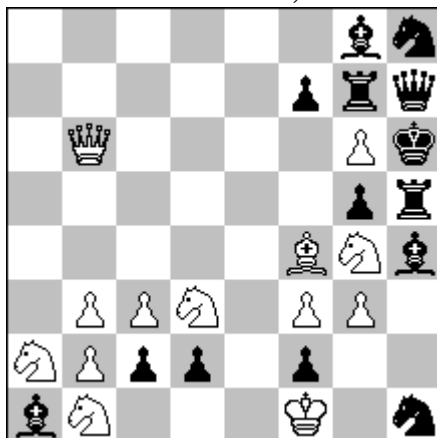
(14+14)

What was the position 53
single moves ago?

B (PDB/P1012939)

Hugo August

Die Schwalbe, 1940



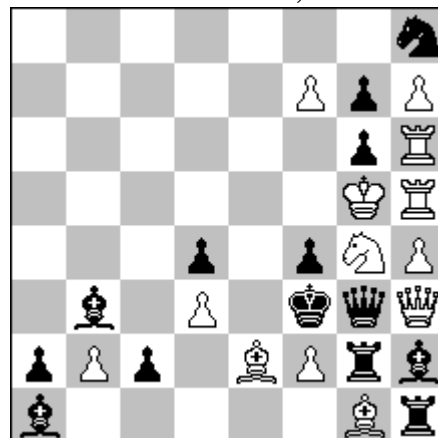
(13+14)

What was the position 54
single moves ago?

C (PDB/P0001712)

Hugo August

Die Schwalbe, 1942



(13+14)

What was the position 65
single moves ago?

Problem **A** was mentioned in book: Thomas Rayner Dawson «Ultimate Themes», 1938, page 21

(available on <http://www.kotesovec.cz/>):

http://problem64.beda.cz/silo/dawson_ultimatethemes1938.pdf)

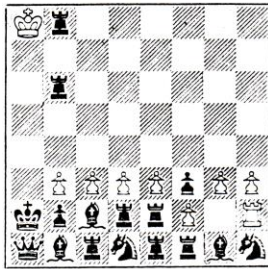
Problem **B** was mentioned, for example, in «Fairy Chess Review», № 1, August 1942, page 8. (available on <http://www.theproblemist.org/>):

<http://www.theproblemist.org/newsite/mags.pl?type=fcr>)

Problem **C** was mentioned, for example, in booklet: Karl Fabel

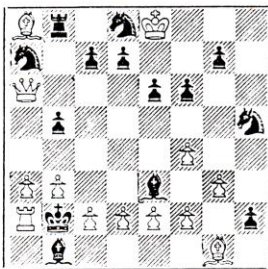
«Introduction to Retrograde Analysis», 1973, problem №46. (on the next page)

41. Dr. L. Ceriani and
Dr. K. Fabel



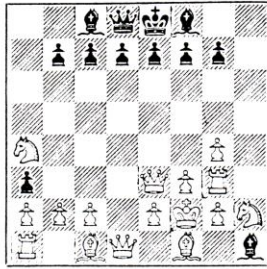
*Am Rande des
Schachbretts* 1947 Version
9+16
Shortest proof game: 183
moves.

43. Dr. K. Fabel



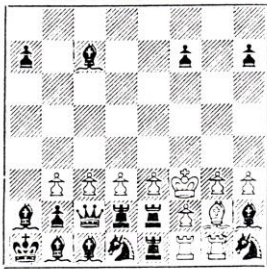
*Am Rande des
Schachbretts* 1947
13+14
Position after White's
42nd move. How did the
game go?

42. H. August and
Dr. K. Fabel



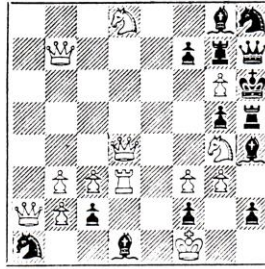
Fairy Chess Review 1949
16+12
Shortest proof game?

44. Dr. K. Fabel and
Dr. L. Ceriani



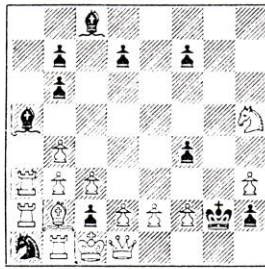
*Am Rande des
Schachbretts* 1947
11+16
111 consecutive moves
without capture or Pawn
move.

45. H. August



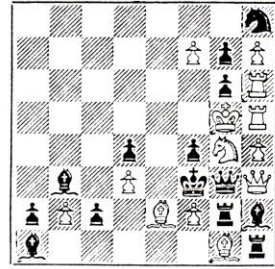
Die Schwalbe 1941
13+14
What were the last 54
single moves?

47. Dr. J. Sunyer and
G. C. Alvey



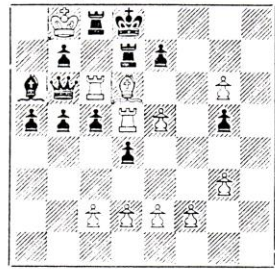
The Chess Amateur 1929
14+11
96 Black King moves.

46. H. August



Die Schwalbe 1942
13+14
What was the position 65
single moves ago?

48. J. Haas and
Dr. K. Fabel



The Problemist 1972
11+12
Black and White each
retract 35 moves, then
White mates in 1.

12. RECORDS

As in all other domains of the chess problem, there exist not only disputed questions for the theorist, but also record performances for the practitioner. We will present a few of these in the hope that some of our readers will attempt to better them. To economise on space, we will not give complete solutions (these are to be found in the author's book *Rund um das Schachbrett*, pages 68-79, except for No. 48, whose solution will be found in *The Problemist*, Sept. 1972 F182). Besides, the reader will be able, with a little effort, to find them himself.

No. 41, a true co-operative effort of the two composers, requires the longest proof game known to this day: 183 double moves! (A double move consists of a single White move and a single Black move; retro records are generally counted in single moves. Nos. 41, 44 and 48 in this section use double moves).

The theme of No. 42 is a little different. In such positions, the proof game must be as short as possible, but the number of "last moves" that can be determined exactly and in sequence by Retroanalysis must be as large as possible. In No. 42 we find the best ratio between length of the shortest proof game (33 single moves) and the number of so-called "last moves" (16). Ratio is $33/16=2.06$.

The theme of No. 43 is again a little different. Given that the position was obtained after White's 42nd move, the 83 single moves can be determined exactly!

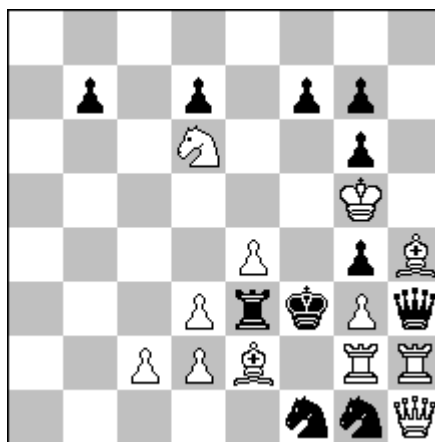
The 50-move draw rule is well known. In the position of No. 44, another true co-operative effort with a friend who regrettably died too soon, the minimum number of "last moves" containing neither capture nor pawn move is 111 (double moves).

The RA master Hugo August, also lost too soon, holds the record for a position (No. 45) in which the number of "last moves" that can be exactly determined by RA is the maximum, 54 single moves. The idea of No. 46 is similar. Here the order of the last moves is not fixed, but if one plays back 65 single moves one is compelled to reach a certain position.

The theme of No. 47 is quite different. This problem is also the result of a close collaboration. The idea is as follows: construct a position in which the proof game shows a maximum number of Black King moves. The author remembers having spent over 1000 hours on this theme. He found numerous interesting positions with 3, 4 or 5 White Rooks but did not succeed in beating the record. In the French magazine "Europe Echecs" he has offered a prize of DM 100 for the first position of this kind (orthodox, no conditions) in which the proof game needs at least 97 Black King moves. He is still trying to get the prize himself.

Finally, we give No. 48, in which Black and White each retract 35 moves chosen by White in an exact sequence, after which White mates in one. It may be added that, to find the solution, it is necessary to uncapture a White Pawn on a4 which makes two waiting moves. This is not the only record that can be beaten Retro problem lovers, to work!

#2 Dmitrij Baibikov
 JT «Sergej Volobujev-60», 2018
 1st-2nd Prize



(12+11)

First move of wPa2?

Solution.

Sides' balances:

– White: 12 (on diagram) + 3 (were captured by black Pawns: e×f×g, h7×Xg6) = 15

– Black: 11 (on diagram) + 4 (2 were captured by white Pawns: e2×d3, f×e;

1 was captured on last move 1.Bd1×Xe2+; bBc8 was captured on its own square) = 15

There are 1 white and 1 black units left in reserve. Such minimum of captures is necessary for absent white Pawns (a2 and b2) and for black Pawns (a7 and c7) in order to leave Queen's side.

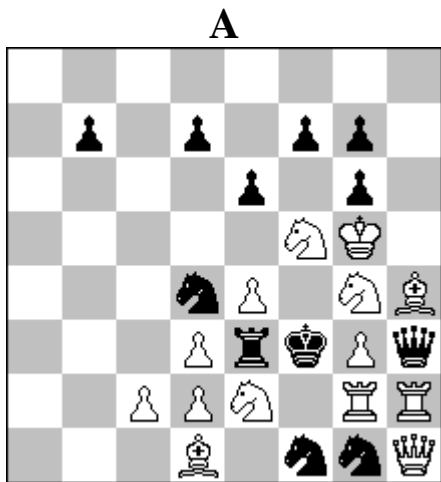
Thus, balances are closed:

– White: 12 (on diagram) + 4 (were captured) = 16

– Black: 11 (on diagram) + 5 (were captured) = 16

After retract 1.Bd1×Xe2+ retroknot on squares c2, d1, d2, d3, e2, e3, e4, f1, f3, f7, g1, g2, g3, g5, g6, g7, h1, h2, h3, h4 can be released only after retromove by Black h7×Xg6. But this must be preceded by unpromotion of white piece on the square h8 with retract of white Pawn at least on the square h6: h7-h8=X and h6-h7.

Retro: **1.Bd1×Se2+** (only bS during unpinning can go out of retroknot). Black has only retro moves with the bPg4. Tempoplay is starting: **1...f5×Sg4** (in case 1...f5×Qg4? uncapture 2.Qh5×Xg4+ is not provided due to black balance; in case 1...f5×Rg4? white Rook will not be able to leave the square g4) **2.Sb5-d6** (during Black makes tempos, white Knight goes to unpin bSe2) **2...e6×Sf5** (if 2...e6×Q(R)f5? 3.Q(R)~-f5+ and retrostalemate to Black; in case 2...e6×Bf5? wBf5 will not help to release retroknot) **3.Sc3-b5** and further, for example, after **3...Sd4-e2 4.Se2-c3+** appears position A with 3 Knights out of retroknot.



(14+12)

Before move Se2-c3+

White Knights cannot get on square h8. For this purpose only the Queen or Rook are needed. If unpromotion of white Knight and black Knight on squares a8 and b1 and uncapture of white Queen on square b2 are occurred (for example, position B), then the next retroplay leads to retrostalemate: 1.Qb6-b2 a4-a3 2.Qd8-b6 a5-a4 3.Qh8-d8 a6-a5 4.h7-h8=Q a7-a6 5.h6-h7 h7×Sg6 6.Kh5-g5 and retrostalemate to Black. To get the missing Black tempomove, it is necessary unpromotion of the second white Knight on square c8 and uncapture the black Pawn on square c4 (for example, position C). Now the retroplay is possible: 1.Qe5-b2! a4-a3 2.Qb8-e5

a5-a4 3.Qh8-b8 a6-a5 4.h7-h8=Q a7-a6 5.h6-h7 h7×Sg6 6.Kh5-g5 c5-c4 7.Bg5-h4! Qf5-h3+ and retroknot is released. For transition from position A to position C it must be made an odd number of retromoves from both sides, since in position A Black's turn to retract the move and in position C the last retromove belongs to Black, too.

For Black:

- transition of black Knight from square d4 to square b1 – requires an odd number of retromoves;
- black Pawn a3 makes 2 retromoves (b2-b1=S and a3×Qb2) – even.

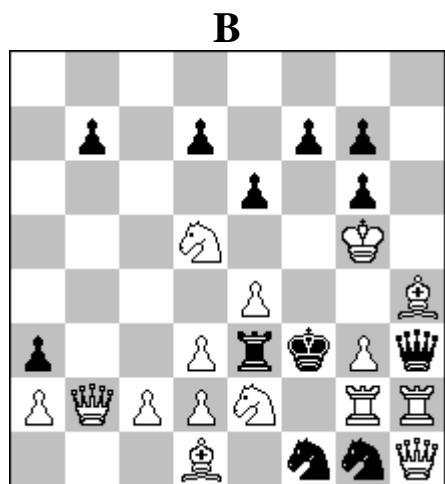
In all, for Black: odd + even = odd

Therefore, White has to make an even number of retromoves:

- transition of white Knight from square f5 to square c8 – even number of retromoves;
- wPb3 makes 5 retromoves (c7-c8=S, c4-c5-c6-c7, b3×Pc4) – odd;
- transition of white Knight from square g4 on square a8 – even.

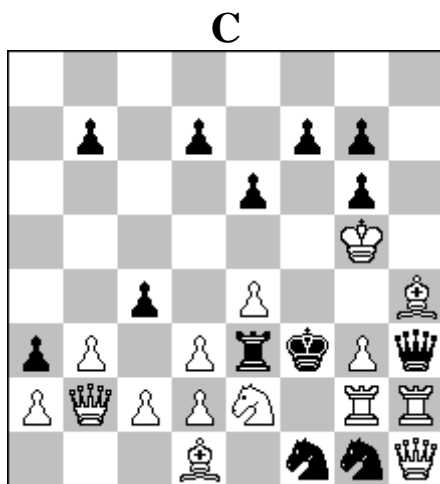
In all, for White without retromoves of wPa2: even + odd + even = odd

Therefore, wPa2 makes an odd number (5) of retromoves: a7-a8=S, a2-a4-a5-a6-a7.



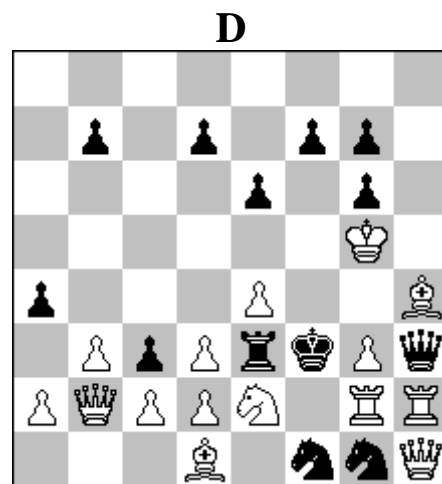
(15+12)

Before move a3×Qb2



(15+13)

Before move a3×Qb2



(15+13)

Before move c3×Qb2

If in position **C** black Pawns from a3 and c4 place to squares a4 and c3 (position **D**), the retroplay is also possible, but with another exact path of white Queen: 1.Qa3-b2 a5-a4 2.Qf8-a3 c4-c3 3.Qh8-f8 c5-c4 4.h7-h8=Q c6-c5 5.h6-h7 h7×Sg6 6.Kh5-g5 c7-c6 7.Bg5-h4 Qf5-h3+ and retroknot is released.

At similar calculations, we get the same result: wPa2 makes an odd number of retromoves.

So, the first move of wPa2 was move **a2-a4!**

For the first time, impossibility of losing tempo by promoted pieces was realized in hidden form – 3 promoted Knights are absent on the board. Bicolor quartex (QSSs). Variation RA.

Note.

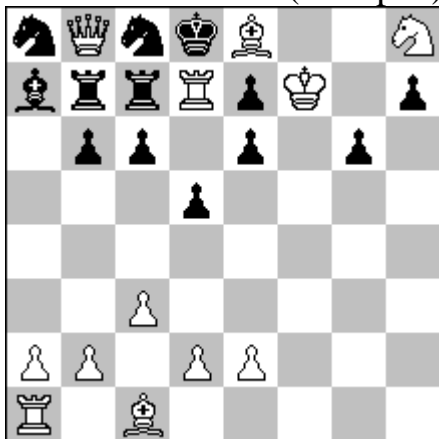
Bicolor quartex QSSs is realized for the first time.

Earlier QQBs, QQss and QQqs (**A-C**) were realized.

A (PDB/P0001913)

Andrey Frolkin

Branko Pavlović MT, 1981
1st Commendation (Group A)



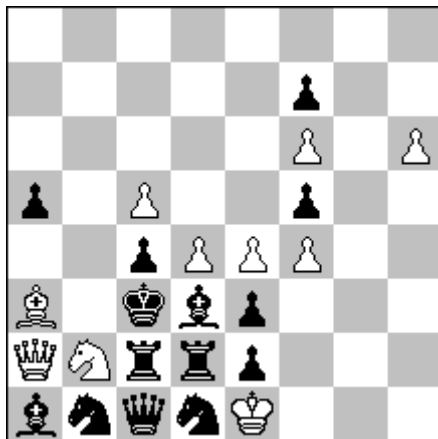
(12+13)

Release the position

B (PDB/P1067431)

Dmitrij Baibikov

Uralsky Problemist, 2003
Ded. to Luigi Ceriani (1894-1969)
1st Prize



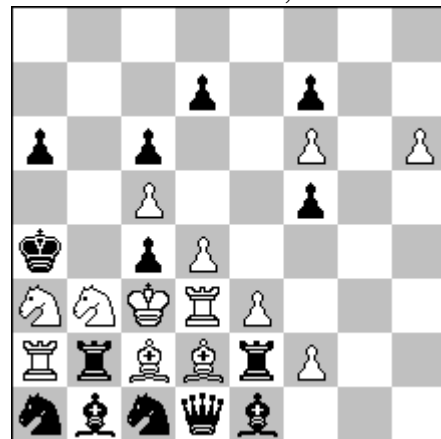
(10+14)

First and last move of
the promoted pieces?

C (PDB/P1067850)

Aleksandr Jarosh

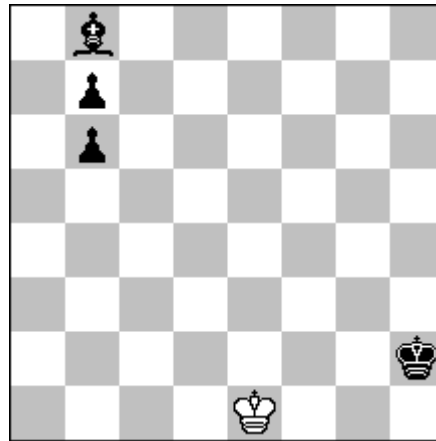
Die Schwalbe, 2005



(13+14)

Release the position

#3 Dmitrij Baibikov
R0279, StrateGems 80, 2017



(1+4)

-38 & #1 (Proca)

Anti-Circe

Solution.

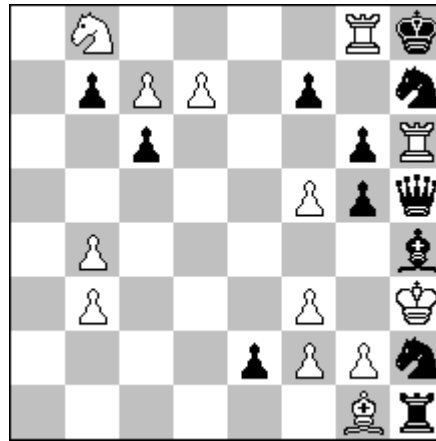
Retract: 1.Ke1×Pf2(+wKe1) f3-f2+ 2.Ke2×Pd2(+wKe1) f4-f3+ 3.Ke1-e2 d3-d2+ 4.Ke1×Rd1(+wKe1) Rd2-d1+ 5.Kf2×Sf1(+wKe1) Rd1-d2+ 6.Ke1-f2 Rd2-d1+ 7.Kf3×Bg2(+wKe1) Bh3-g2+ 8.Kf2-f3 Rd1-d2+ 9.Ke1-f2 Rd2-d1+ 10.Kg4×Sf5(+wKe1) Bg2-h3+ 11.Kf3-g4 Bh3-g2+ 12.Kf2-f3 Rd1-d2+ 13.Ke1-f2 Rd2-d1+ 14.Kh5×Bg6(+wKe1) Bh7-g6+ 15.Kg4-h5 Bg2-h3+ 16.Kf3-g4 Bh3-g2+ 17.Kf2-f3 Rd1-d2+ 18.Ke1-f2 Rd2-d1+ 19.Kg5×Ph6(+wKe1) Sg7-f5+ 20.Kg4-g5 Bg2-h3+ 21.Kf3-g4 Bh3-g2+ 22.Kf2-f3 Rd1-d2+ 23.Ke1-f2 Rd2-d1+ 24.Kg4×Pf5(+wKe1)
[Not 24.Kg4×Rh5(+wKe1)? Bg2-h3+ 25.Kf3-g4 Bh3-g2+ 26.Kf2-f3 Rd1-d2+ 27.Ke1-f2 Rd2-d1+ & forward defense: 1...Re5#]
24...Bg2-h3+ 25.Kf3-g4 Bh3-g2+ 26.Kf2-f3 Rd1-d2+ 27.Ke1-f2 Rd2-d1+ 28.Kg4×Rh5(+wKe1) Bg2-h3+ 29.Kf3-g4 Bh3-g2+ 30.Kf2-f3 Rd1-d2+ 31.Ke1-f2 Rd2-d1+ 32.Kc5×Bc6(+wKe1)
[Not 32.Kc5×Pc6(+wKe1)? c7-c6+!]
32...Bc7-b8+ 33.Kd6-c5 Bd8-c7+ 34.Ke6-d6 Se8-g7+ 35.Kd5-e6 B~-c6+ 36.Ke4-d5 Be7-d8+ 37.Ke3-e4 Sg3-f1+ 38.Kf2-e3 & 1.Kg1#.

Two records are in an Anti-Circe Proca defensive retractor:

- the largest number (11) of uncaptures
- the length record for Rex Solus.

Also, Selfblock (bs), Model mate, Tanagra.

#4 Dmitrij Baibikov
 MT «A.Troitsky-150», 2017
 1st Prize



(13+12)

Last 41 single moves?

Solution.

Sides' balances are closed.

– White: 13 (on diagram) + 3 (were captured by black Pawns: $c \times b(d)$, $d7 \times c6$ and $h \times g$) = 16

– Black: 12 (on diagram) + 4 (were captured by white Pawns: $a \times b$, $e2 \times f3$, $h \times g \times f$) = 16

Therefore, black Pawn $a7$ has promoted on square $a1$, and black Pawn $c7$ either has promoted on $b1$ or $d1$, or was captured by white Pawn on file b .

As balance of Black is closed, the last move of White was without capturing: $1.Rg7-g8+$. And we see high-rise retroknot on squares $f2, f3, f7, g1, g2, g5, g6, g7, h1, h2, h3, h4, h5, h6, h7, h8$, which could be released only after retract retromove $Qf3-h5$. But before this retromove must be the following: one of the pieces has to stand on square $g3$ for screening white King from check by black Queen from square $f3$; white Pawn $f3$ must retract on square $e2$ in order to free the square $f3$ for black Queen, and before that $wBf1$ has to retract on its own square.

Uncapture by white Pawn $g4 \times Xf5$ before releasing retromove $Qf3-h5$ leads to illegality, since diagonal $f3-h5$ will be closed by white Pawn, and further retromove $g3-g4$ leads to illegal position of $wBg1$.

Retro:

I phase. The purpose of the first phase – transition white Knight b8 on square f6 for possibility to unpin black Knight h7. At this time Black make tempomoves by Pawn. **1.Rg7-g8+ e3-e2 2.Sa6-b8 e4-e3 3.Sc5-a6 e5-e4 4.Se4-c5** (here was possibility en passant) **4...e7-e5! 5.Sf6-e4** and now black Knight h7 is unpinned **5...Sf8-h7 6.Sh7-f6+**

II phase. The purpose of the second phase – transition black Knight f8 on square a1 for unpromotion bP on file a and for possibility uncapture black light-squared Bishop and its transition on square c8. At this time White make tempomoves by Pawns.

6...Se6-f8 7.d6-d7 Sd4-e6 8.d5-d6 Sc2-d4 9.d4-d5 Sa1-c2 10.d3-d4 a2-a1S 11.d2-d3 a3-a2 12.a2×Bb3 Be6-b3 13.b3-b4 Bc8-e6 14.f4-f5 and now white light-squared Bishop is uncapture **14...c6×Bc6+**

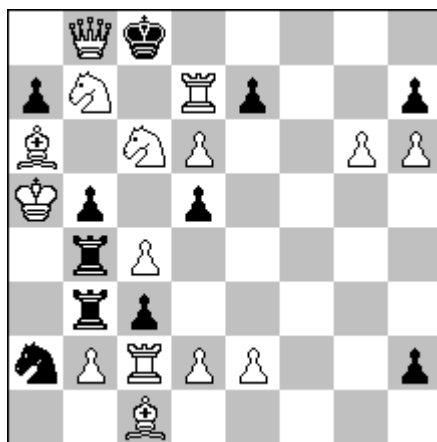
III phase. The purpose of the third phase – transition white Bishop c6 on square f1 for possibility uncaptured black Knight f3 with simultaneous freeing the square f3. At this time Black make tempomoves by Pawn.

15.Bb5-c6 a4-a3 16.Bf1-b5 a5-a4 and now black Knight is promoted **17.e2×Sf3.**

IV phase. The purpose of the fourth phase – transition black Knight f3 on square g3 for retroscreening black Queen. At this time White make tempomoves by Pawn. **17...Sd4-f3 18.c6-c7 Sf5-d4 19.c5-c6 Sg3-f5** (retroscreen) **20.c4-c5** and now retroknot is released **20...Qf3-h5 21.Rh5-h6** etc.

Phases of transformation and possibility of en passant – themes were discovered by Aleksey Troitsky – are realized in record of exact retroplay (41 single moves) for peculiar position: officers stand at the edge of the board, and Pawns are in inner small quadrate b2-b7-g7-g2.

#5 Dmitrij Baibikov
 JT «Sergej Volobujev-60», 2018
 3rd Prize



(14+12)

Release the position

Solution.

Last move 1.Qa8×Xb8+. 1.c7×Xb8Q+ incorrect due to Black's imbalance. Sides' balances are closed.

– White: 15 (on diagram) + 1 (was captured by Pawn: g×h) = 16

– Black: 11 (on diagram) + 5 (3 were captured by white Pawns: a2×b3×c4, c5×d6; 1 was captured on last move 1.Qa8×Xb8+; another capture was on King's side: f×g or black Pawn f was captured on its own file) = 16

After retract 1.Qa8×Xb8+ high-rise retroknot on squares a5, a6, a7, a8, b2, b3, b4, b5, b7, b8, c1, c3, c4, c8, d2, d5, d6, d7, e7 can be released only after retroscreening on square a4 for further Ra3-b3. Only Knight can reach square a4. Attempt to use wSc6 – 1.Qa8×Xb8+ h3-h2 2.Sd4-c6 h4-h3 3.Se6-d4 h5-h4 4.g5-g6 g6×Xh5 5.Sc5-e6 – leads to retrostalemate to Black. Attempt to uncapture black Knight – 1.Qa8×Xb8+ h3-h2 2.f5×Sg6 – is illegal due to Black's imbalance: black Pawn f cannot reach promotion square. It remains only to use black piece, captured on last move, for unpromotion on square f1. It can be only Queen. Therefore, last move was **1.Qa8×Qb8+**. Immediately cannot be 1...Qc7-b8? 2.Sb8-c6+ due to illegal check to white King. So, at first, it is necessary to screen white King from this check. For that it is necessary to uncapture white piece, captured by bPh2. Phase of exact tempoplay is beginning: **1...h3-h2 2.g5-g6 h4-h3 3.g4-g5 g5×Qh4** (incorrect 3...g5×Bh4?) **4.Qf2-h4 g6-g5 5.Qb6-f2!** and now it is possible

5...Qc7-b8 6.Sb8-c6+. Becomes clear that uncapture a key piece (bS) is possible only with move **f6×Sg7**. So, we need to retract **wQb6** on square g8 for unpromotion.

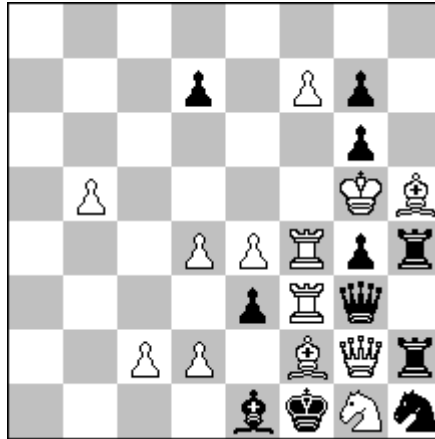
Immediately cannot be **7.-9.Qg8→b6** due to illegal check to black King.

Therefore, at first, it is necessary to screen black King from this check.

6...-8...Qf8→c7! 7.-9.Qg8→b6. Two phases of transformation with exact retroplay are beginning: **9...Qf1-f8! 10.g7-g8=Q+ f2-f1=Q 11.h5-h6 f3-f2 12.h4-h5 f4-f3 13.h3-h4 f5-f4 14.h2-h3 f7-f5 15.f6×Sg7 Se6-g7 16.f5-f6 Sc5-e6 17.f4-f5 Sa4-c5! 18.f3-f4 Ra3-b3** and further **19.b3×Q(B)c4 Q(B)~-c4 20.f2-f3 c4-c3 21.Rc3-c2** etc.

For the first time, reciprocal retroscreens by 2 promoted pieces is realized. In addition, realization was made in hidden form – 2 promoted Queens are absent on the board. Also, there is the 3rd retroscreen by uncaptured Knight.

#6 Dmitrij Baibikov
No.1351, Julia's Fairies, 2018



(13+11)

Last 20 single moves?
Promotion in Grasshopper allowed

Solution.

Retro: (Phase I) **1.Qh3×Gg2+ f5×Gg4 2.d3-d4 Ge2-g2 3.Gg2-g4+ Gg4-e2+ 4.e2×Gd3** (Phase II) **4...Gb1-d3 5.b4-b5 b2-b1=G 6.b3-b4 c3×Gb2** (Phase III) **7.Gf6-b2 c4-c3 8.Gh8-f6 c5-c4 9.h7-h8=G c6-c5! 10.h6-h7 h7×Sg6** and further, for example, **11.Se7-g6 c7-c6 12.g6×Sf7 S~-f7 13.S~-e7 f7-f5** etc.

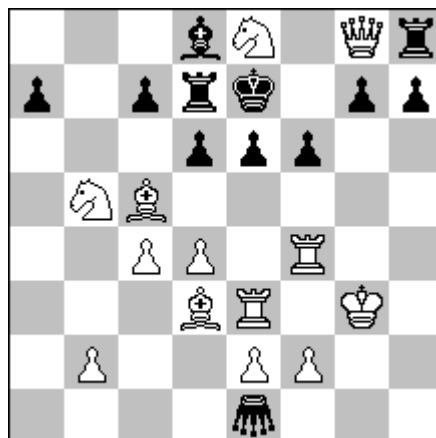
Bicolor grasshopper quartex (GGgg), 2-units tempomaneuver (Gg), phases transformation (3 phases), exact retroplay (20 single moves).

A (PDB/P0002907)

Nikita Plaksin

feenschach, 1981

5th Honorable Mention



(13+12)

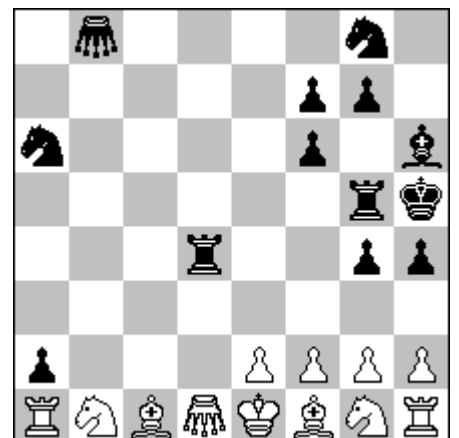
Last 9 single moves?

B (PDB/P1240680)

Michel Caillaud

Nunspeet, 2009

1st Place



(12+13)

PG in 24

Gs instead of Qs
in start position

Note: disappearing of 3
or more Grasshoppers
was realized early twice:
in classical Retro (**A**) and
in Proof Games (**B**).