



THE PUZZLING SIDE OF CHESS

Jeff Coakley

RETRACTORS: Back to the Future

number 217

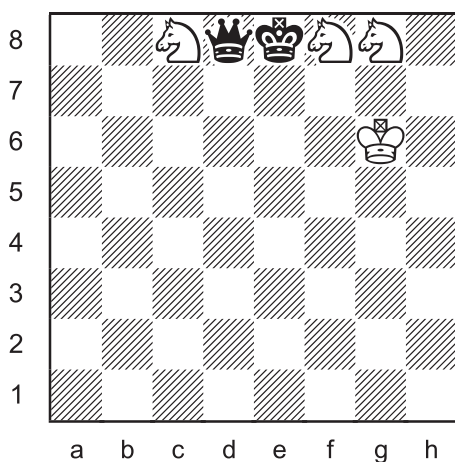
November 24, 2022

Missed a great opportunity? No problem. Just rewind a moment of time and find your way to a different future. It's a very practical skill, in life and chess. These seven problems may provide some useful practice.

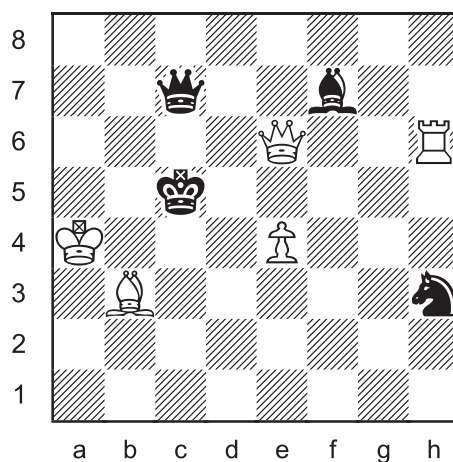
In a basic *retractor* problem, White takes back their last move, and then checkmates Black with a different move. If the retracted move is a capture, White decides which type of piece was taken.



Retractor 47



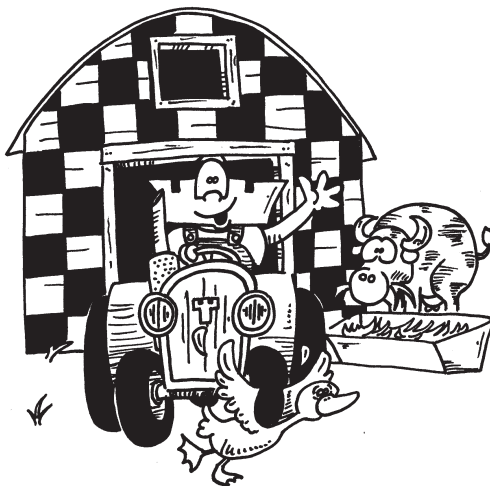
Retractor 48



White takes back their last move, then mates in one.

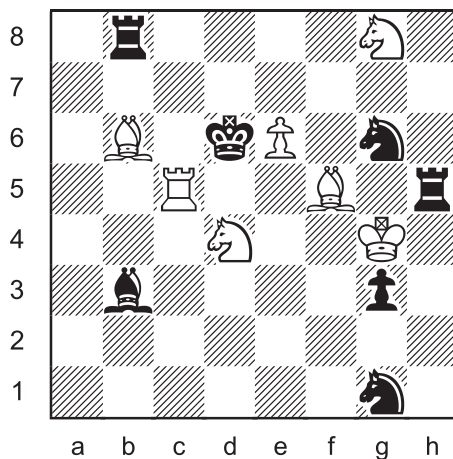
RETRACTORS Here are the special rules for this type of puzzle.

- a) White may retract any move of their choice.
- b) The position after the retraction must be legal. A position is legal if it can be reached in a normal game following the standard rules.
- c) If the retracted move is a capture, White decides which type of piece was taken.
- d) An *en passant* capture is allowed as the backward (retracted) move unless it can be proven illegal.
- e) An *en passant* capture is not allowed as the forward (mating) move unless it can be proven that Black moved their pawn two squares on the previous turn.
- f) Castling is allowed as a backward or forward move unless it can be proven illegal.



We travel back in time 150 years to the state of Iowa for this gem by the great William Shinkman.

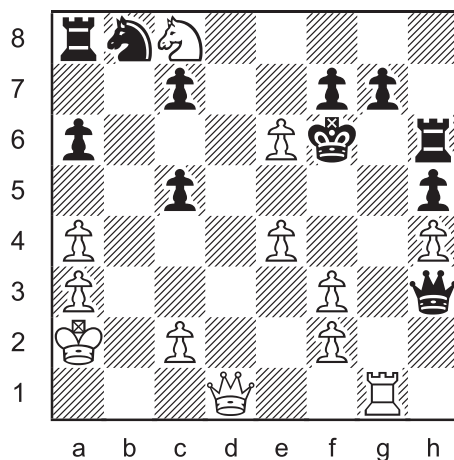
Retractor 49



White takes back their last move,
then mates in one.

This present-day position is a bit unruly. But hopefully you will enjoy the exceptional solution.

Retractor 50

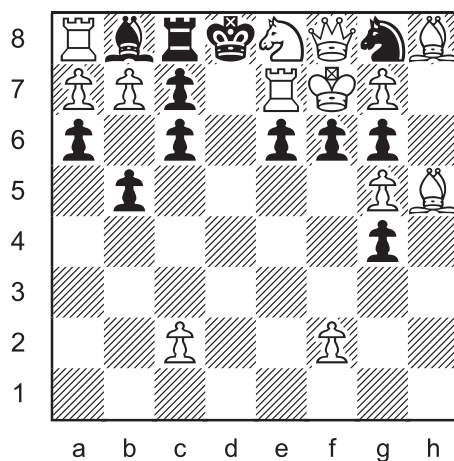


White takes back their last move, then mates in one.



Twenty years of future have passed since the following problem by Ukrainian composers Leonid Borodatov and Andrey Frolkin was first published.

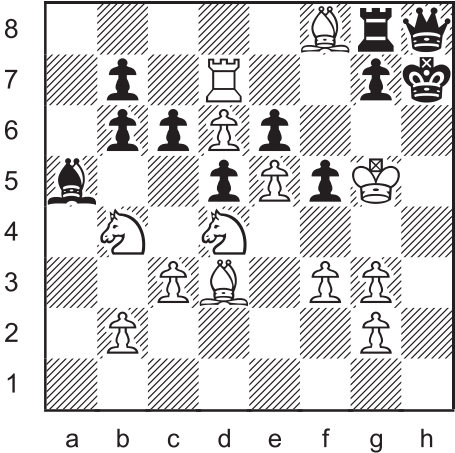
Retractor 51



White takes back their last move, then mates in one.

Perhaps time is an illusion. When did it begin? Will it come to an end? You won't find the answers to those questions on the solution pages. But there are two pages unravelling the mysteries of the next position.

Retractor 52



White takes back their last move,
then mates in one.

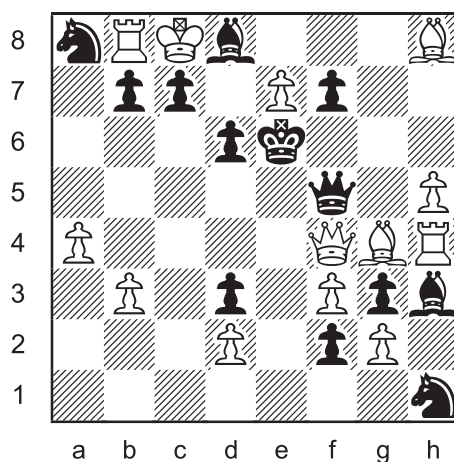


Blue Tractor Time Machine.

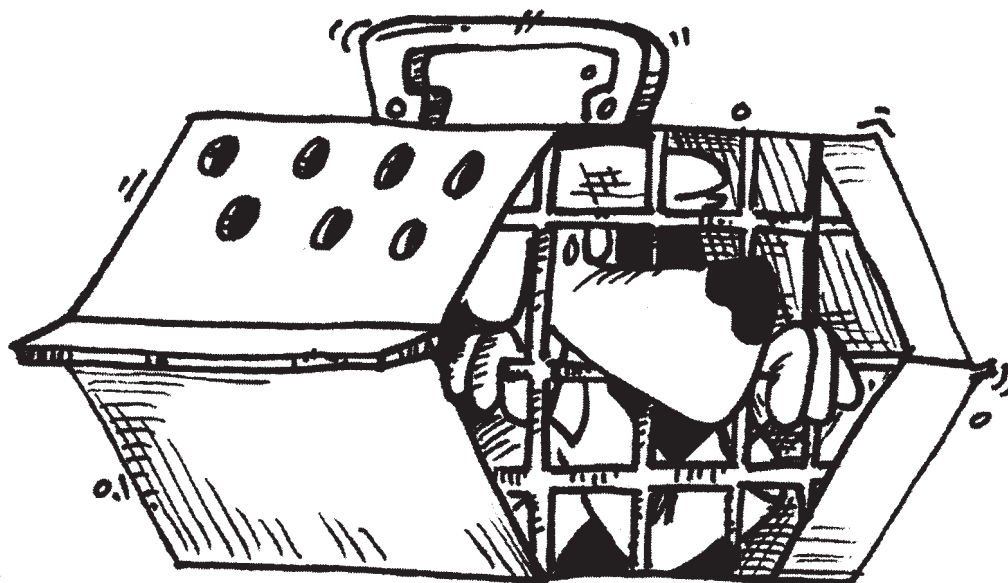
Our final problem, by Valerian Onitiu (1872-1948) of Romania, takes us back 98 years ago. It is one of the most complicated retractors ever. The underlying theme is well ahead of its time. Could it be that Valerian had mastered the art of time travel?

Congratulations if you solve this masterpiece of retroanalysis!

Retractor 53



White takes back their last move,
then mates in one.



Unlock the cage. Free your mind of space and time.

SOLUTIONS

Retractors 47,48,50,52 by J. Coakley, *Puzzling Side of Chess* (2022).
Others as indicated above solution diagrams.

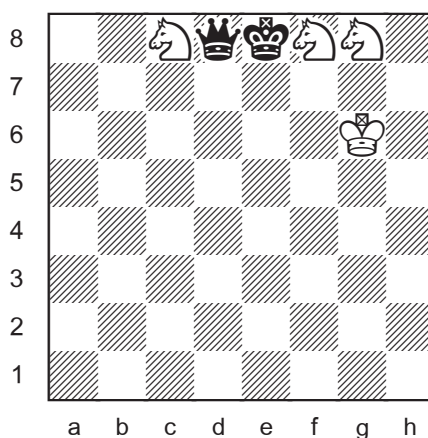
PDF hyperlinks. You can advance to the solution of any puzzle by clicking on the underlined title above the diagram. To return to the puzzle, click on the title above the solution diagram.

Archives. Past columns and an index of problem-types, composers, and side themes are available in the *Puzzling Side of Chess* archives.

Retractor 47

J. Coakley 2022

Puzzling Side of Chess



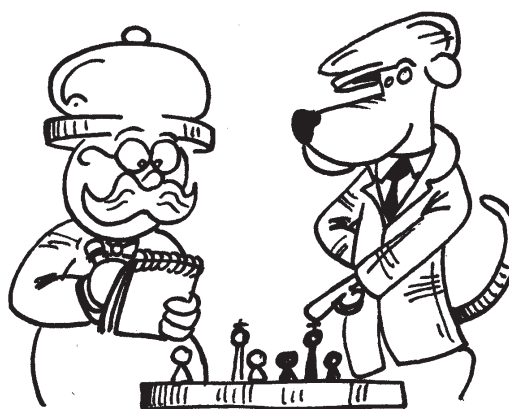
-1.e7xBf8=N
+1.Ng8-f6#

White unpromotes, uncapturing a bishop on f8. The white pawn on e7 then blocks the black queen's defence of f6.

Note on Notation

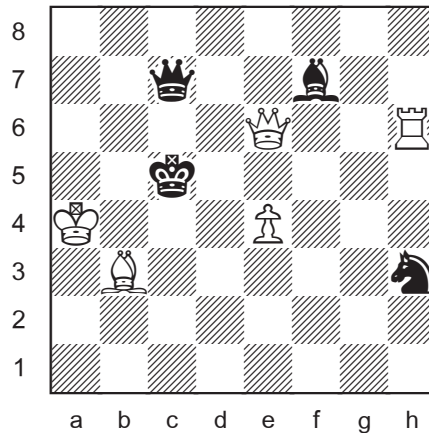
Solutions are written in long algebraic notation (departure and destination squares). In the case of captures, the type of piece taken is given after the 'x' prior to the destination square.

A minus sign precedes the retracted move. A plus sign is shown before the forward move.



Retractor 48

J. Coakley 2022
Puzzling Side of Chess

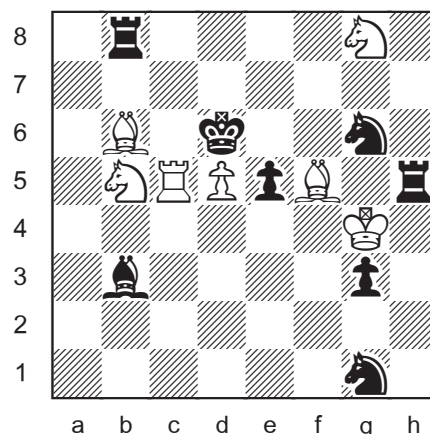
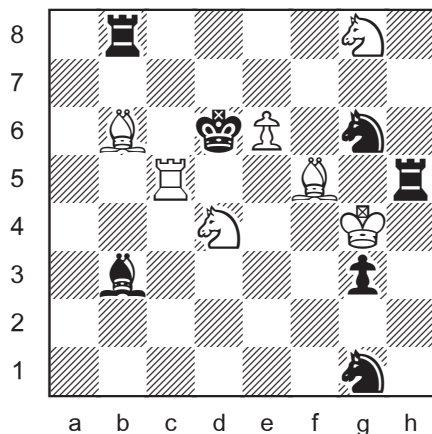


-1.e2-e4
+1.Qe6-e3#

The white pawn unadvances to clear the queen's path to e3.

Retractor 49

William Shinkman 1871
repair J. Coakley 2022
Dubuque Chess Journal



-1.d5xPe6 e.p.
+1.Nd4-b5# (diagram on right)

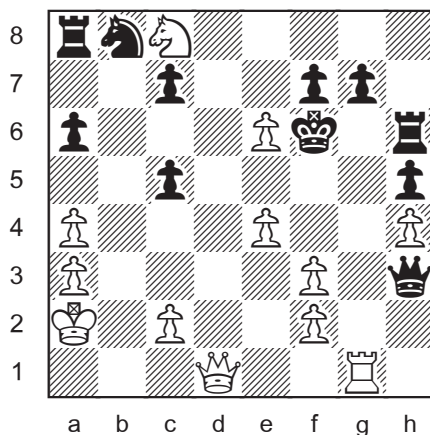
The only retraction that doesn't eliminate the possibility of mate by 1.Nb5# is the "unpassant" capture which keeps d7 under control.

The original problem had a black pawn on b3 instead of a bishop. That allows a dual solution with -1.Be4xNf5 +1.Rc5-d5#.

Retractor 50

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Puzzling Side of Chess

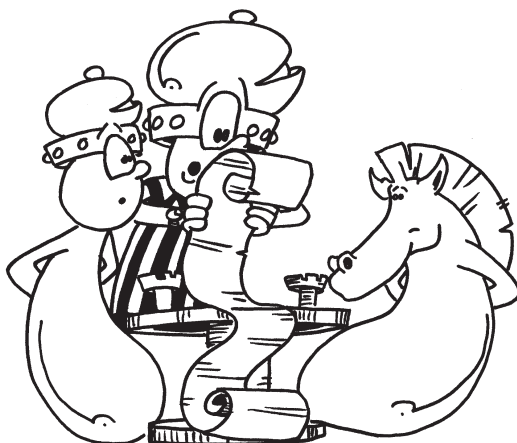


-1.d5xBe6
+1.Qd1-a1#

Queen to the corner, mate! Always a popular finish. Only the uncapture of a bishop on e6 will do.

Apparently the retraction -1.f5xe6 *en passant* also works with mate by +1.Qd1-d8#. However, the position after that retraction is illegal. The white pawn formation (with white pawn f5, black pawn e5) requires four captures. Black is missing four pieces. However, because *en passant* was possible, Black's previous move was ...e7-e5. Before that move, there were black pawns on e7 and g7, which means that Black's missing dark-square bishop was captured on f8 and not by a white pawn. Therefore the position is illegal.

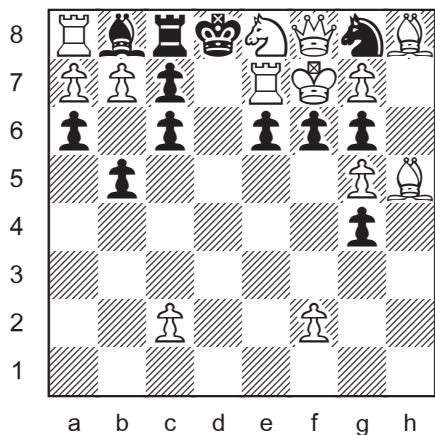
A rare retractor in which an *en passant* capture cannot be taken back because it can be proven that Black's last move was not the necessary two-square pawn advance. See 'rule d' on page 2. In fact, I know of no other examples in which this rule is applicable.



Retractor 51

Leonid Borodatov & Andrey Frolkin 1983

Die Schwalbe



(13+12)

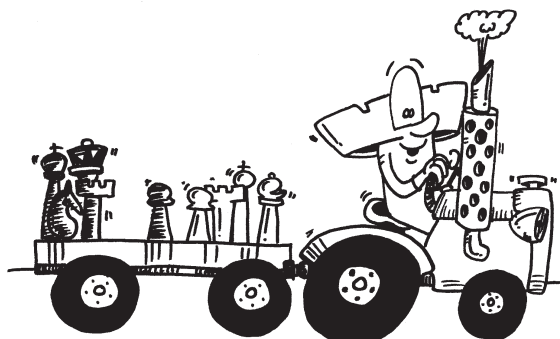
-1.h6xNg7
+1.Ne8xg7#

From the diagram, White could mate by $Nxc7\#$, $Nd6\#$, or $Nxf6\#$. But there is no retraction to make those mates possible. The problem, as so often is the case in these problems, is that Black must have a move on the last turn. Otherwise the position is illegal.

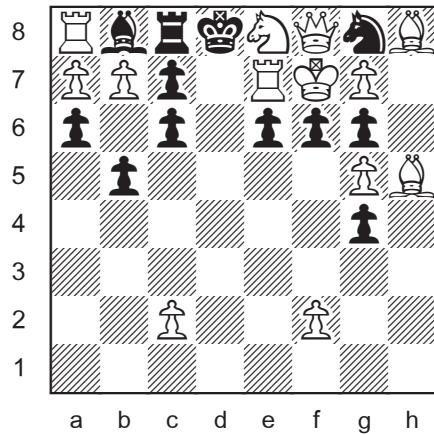
There are eight retractions to consider: $b6xa7$, $b6-b7$, $d7xe8=N$, $Ne6xe8$, $f4xg5$, $h4xg5$, $h6xg7$, $h7-h8=B$.

The last move by Black was not $\dots Kd7-d8$ (impossible rook check e7) nor $\dots Nh6-g8$ (knight check from h6) nor $\dots f5xg4$ (too many captures by black pawns). That leaves these possibilities: $\dots b6-b5$, $\dots d7xc6$, $\dots h7xg6$, or a move by a piece taken on e8, g5, g7.

White is missing 3 pieces (Npp). Two of them were captured by black pawns ($\dots d7xc6$ and $\dots hxg$). So there was no cross-capture of black pawns on the ab-files. The only sequence of moves that accounts for the white pawns on a7 b7 is first $b6xa7$ with the black b-pawn on b7, and then $a5xb6$ with the black b-pawn on b5. Therefore, Black's last move was not $\dots b6-b5$ and White's last move was not $b6xa7$.



Retractor 51 *continued*



(13+12)

When White played $b6xa7$, the black bishop already had to be on $b8$, and the white rook on $a8$. Since the black b -pawn was on $b7$ at that time, the white rook could only reach $a8$ if the black light-square bishop had exited from $c8$. This required Black to play $\dots d7xc6$ earlier. If the bishop was captured on $c8$ with a black pawn still on $d7$, that would leave three black pieces available for capture elsewhere, which were taken by white pawns on the abg -files. But in that case, neither of the missing white pawns from the de -files could have promoted because that would require another capture. So it is impossible to account for the black captures. If the missing white knight was taken on $g4$, there is no white piece available for capture on $c6$. Therefore, Black's last move was not $\dots d7xc6$.

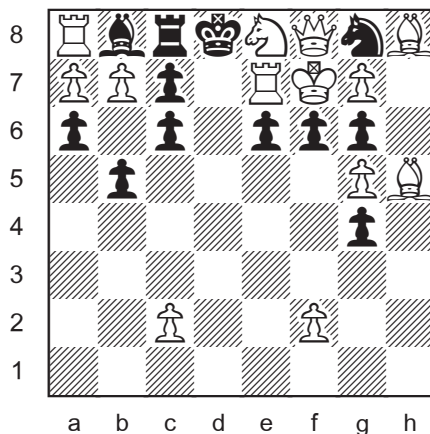
White's last move was not $f4xg5$ because that requires 5 captures by white pawns (axb , bxa , gxf , fxg , hxg). Black is only missing 4 pieces.

White's last move was not $h4xg5$ as that requires either 5 captures by white pawns (axb , bxa , plus 3 on the fgh -files) or 4 captures by black pawns (dxc , plus 3 on the fgh -files). White is only missing 3 pieces.

For the same reasons, the white pawn on $g5$ did not make a capture earlier to reach the g -file. It is necessarily the original g -pawn. Now consider the four pawns on the g -file. The black pawn on $g4$ cannot be the original g -pawn. As before, that requires either 5 captures by white pawns or 4 captures by black pawns. So the black pawn on $g6$ is the original g -pawn. That means that at some point in the game, White played $h6xg7$ and that Black's last move was not $\dots h7xg6$.

Therefore, Black's last move was with a piece that was then captured by White. Captures on $a7$ and $g5$ are already ruled out, so that leaves only $d7xe8=N$, $Nd6xe8$ and $h6xg7$ as possible retractions for White.

Retractor 51 *continued*



After the retractions $-1.d7xe8=N$ or $-1.Ne6xd8$, mate is possible by $+1.Qf8xe8\#$. However, ...

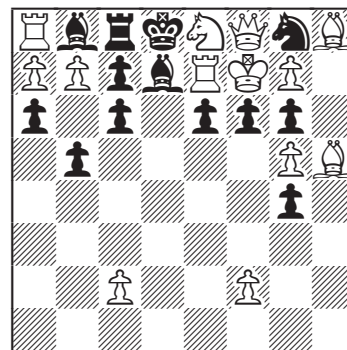
Black is missing 4 pieces: QRN and light B. White made three captures on dark squares ($b6xa7$, $a5xb6$, $h6xg7$) so the only piece that could have been captured on light square e8 is the missing black bishop.

White's last move was not $d7xBe8=N$ as there would be an impossible check by the black bishop on e8. (Also, it would require too many captures by White.)

White's last move was not $Nd6xBe8$. In that case, Black's preceding move would be $\dots Bd7>e8+$.

If that black move is a capture, then Black has no move on the preceding turn.

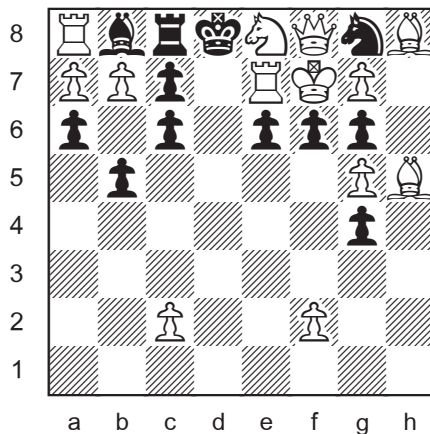
If that black move is not a capture, then Black was in check by the queen on f8 and White's previous move was $Ne8-d6+$. In the position before that check (diagram), Black has no move on the preceding turn.



try: $-1.Nd6xBe8$ $Bd7-e8+$
 $-2.Ne8-d6+$

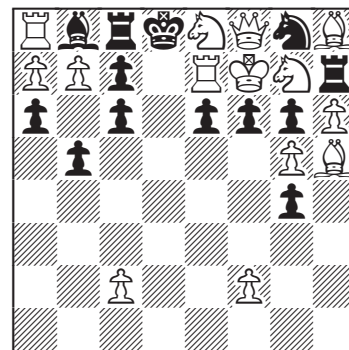


Retractor 51 *continued*



Therefore, White's retraction must be $-1.h6xg7$ and Black's last move was by the piece captured on g7.

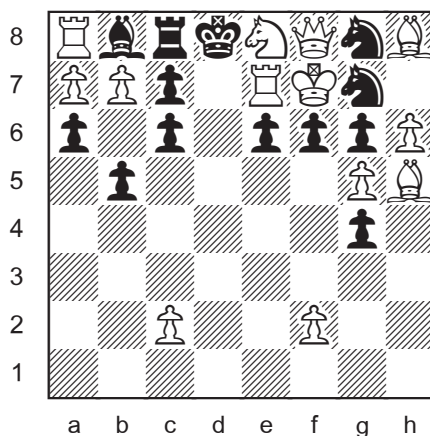
The piece captured could not be the missing light-square bishop. If the piece captured was a rook or queen, White was in check and Black's preceding move was the capture $\dots Q/Rh7xg7+$. Diagram (with $wNg7$ $bRh7$).



try: $-1.h6xRg7$ $Rh7xNg7+$

Once again, White has no retraction that gives Black a move on the previous turn. $-2.Nf5-g7$ $g7-g6+$ fails because with a black pawn on g7, the white bishop on h8 must be a promoted bishop which is impossible. And even if that were possible, it would still be impossible to unlock the caged pieces.

So the piece uncaptured by the retraction $-1.h6xg7$ must be a knight.



solution: $-1.h6xNg7$

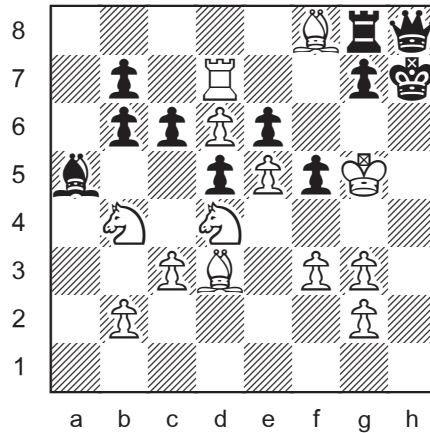
Mate by $+1.Ne8xg7\#$.

Retroplay: The position before $-1.h6xNg7$ is released by $-1\dots Nf5-g7$. For example, $-2.Kg7-f7$ $Ne3-f5+$ $-3.Kh7-g7$.

Retractor 52

J. Coakley 2022

Puzzling Side of Chess

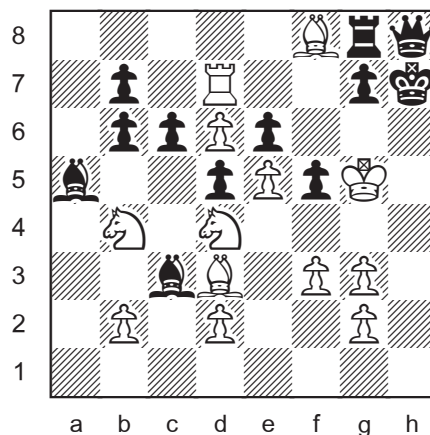


(13+11)

-1.d2xBc3

+1.e5xf6 e.p.#

It probably didn't take long to see that mate will be delivered by the *en passant* capture +1.e5xf6 e.p.#. The trick is to find the retraction that "forces" Black to unplay the double pawn advance -1...f7-f5. That's tricky because Black apparently had several options on their previous turn, including ...a7xb6, ...c7-c6, ...e7-e6, ...f7xe6, ...g6xf5. The only move that works is -1.d2xBc3. Diagram.

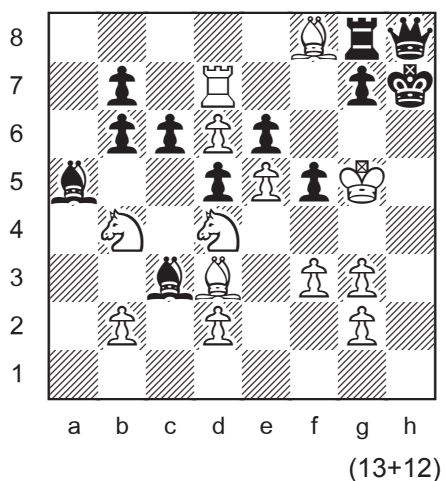


-1.d2xBc3

(13+12)

The main point of this retraction is that now both sides have a promoted dark-square bishop. Since White has unmoved pawns on b2 d2, their original dark bishop was captured on c1. That leaves just two missing white pieces (QR) for capture elsewhere. One was taken on b6.

Retractor 52 *continued*



The other missing piece was captured on g1 by the black h-pawn in order to promote to a dark bishop. That accounts for all missing white pieces. Therefore, the last move by Black was not ...f7xe6 or ...g6xf5.

Black is missing 4 pieces (RNNB). Two were taken on d6 and g3 by white pawns. That leaves two black pieces unaccounted for. To promote to a dark bishop, the white a-pawn had to capture by a7xb8=B. The alternative, taking axbxc7xd8=B, requires too many captures.

Black had to play ...a7xb6 before White promoted, so that was not the last move. To reach f8 from b8, the white bishop had to travel through c7 and e7, Thus, the last move was not ...c7-c6 or ...e7-e6.

The last move was not ...f6-f5 because the white king would be in check from the pawn on f6.

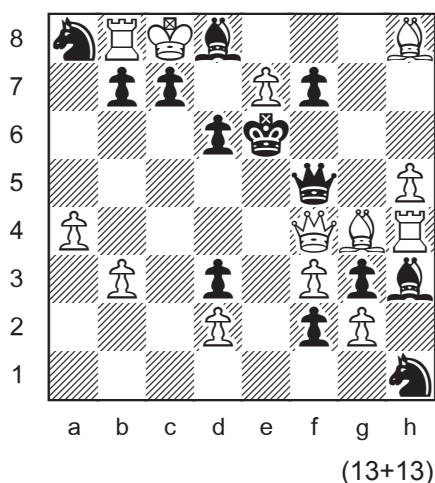
The only remaining option is -1...f7-f5! That allows the *en passant* mate by +1.e5xf6 e.p.#.



Time Traveller Convention

Retractor 53

Valerian Onitiu 1924
Deutsche Schachblätter



-1.Qb4-f4
+1.Qb4-e4#

It's not particularly easy to spot, but the mating move will be Qe4#!

There are tries with mate by Qf4xf5#, but these fail to *retrostalemate*. That is, the positions after the retractions are illegal because they cannot be played back to the initial array. At some point there is a "reverse dead end". This will be explained below.

Several tries with Qf4-e4# also fail because of *retrostalemate*. For example, -1.a2-a4? +1.Qf4-e4#.

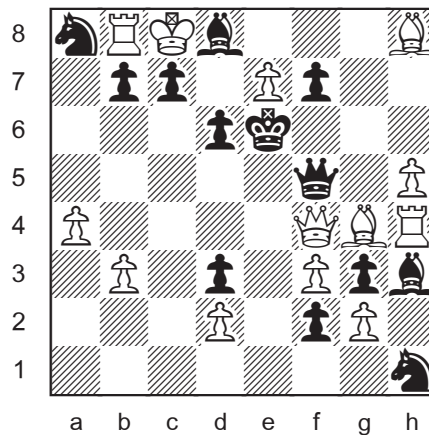
The task is to find the retraction with a line of retroplay that releases the black pieces from the stranglehold along the h3-c8 diagonal.

White is missing three pieces (NNp). These were captured by black pawns on the dfg-files (...hxg, ...gxf, ...exd). No other captures can be made by Black in the retroplay.

Black is missing three pieces (RRp). One rook was captured on the d-file by the white c-pawn because it had to promote in order to be captured later by a black pawn. The missing black a-pawn was necessarily captured on the a-file, because a cross-capture of white pawns on the ab-files is impossible as will be proven below.

Regardless of which move White retracts, the last move by Black could not be ...d7-d6. In that case, the black bishop on h3 would be promoted piece and the black a-pawn would need a capture to promote on the light square b1. But no white pieces are available for capture.

Retractor 53 *continued*



The black queen cannot be retracted from f5 until the black king moves off e6. Otherwise the black king will be in an impossible check by the white bishop on g4.

The black king cannot be retracted from e6 (for example, to d5) until the square d7 is occupied. Otherwise the white king would be in check from the black queen with Black to move. The capture ...Kd5xe6 is impossible because no white pieces are available.

Two conclusions:

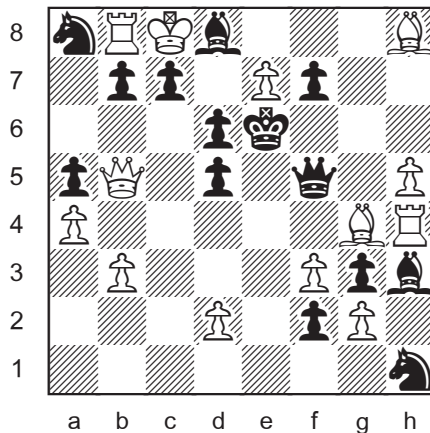
- a) The only black piece with reverse mobility is the pawn on d3. The moves ...d4-d3 and ...d5-d4 can be retracted. After that, it's retrostalemate unless other black moves are generated somehow. Note that the captures ...e4xd3 and ...e5xd4 are impossible because then the white pawn on e7 cannot be retracted back to e2.
- b) To avoid retrostalemate, the square d7 must be occupied by White as soon as possible to free the black king. The blocking piece cannot be the queen as she would give check. The only way to block d7 is to unpromote a pawn from e8. The only piece that can reach e8 to unpromote is the queen.

In order to promote on e8, the white c-pawn captured both missing black rooks. Thus, there was no cross-capture of white pawns on the ab-files and the missing black a-pawn was captured on the a-file.

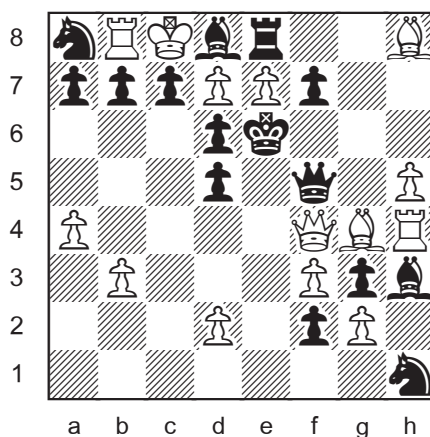
The try -1.Qb4-f4 d4-d3 -2.Qb5-b4? d5-d4 -3.Qe8-b5 is too slow as Black is out of retractable moves.

In order to successfully uncapture on e8, White must revive the black a-pawn to create enough extra tempi for Black. That is accomplished by -1.Qb4-f4 d4-d3 -2.Qa5-b4 d5-d4 -3.Qb5xa5! Diagram next page.

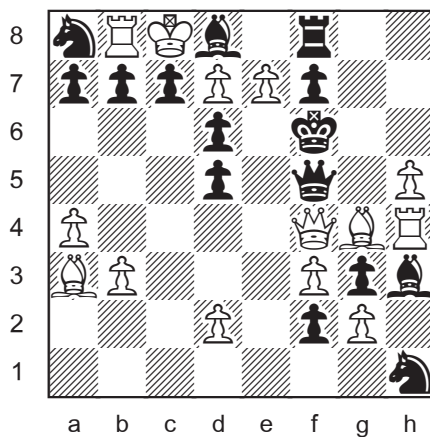
Retractor 53 *continued*



The retroplay continues with -3...a6-a5 -4.Qe8-b5 a7-a6 -5.d7xRe8=Q.



Now that d5 is occupied by a black pawn, the black king will need to retract to f6. But first the white bishop on h8 must exit the long diagonal. In the meantime, the newly uncaptured rook can mark time. For example, -5...Rf8-e8 -6.Bb2-h8 Kf6-e6 -7.Ba3-b2+ and the position is unlocked.

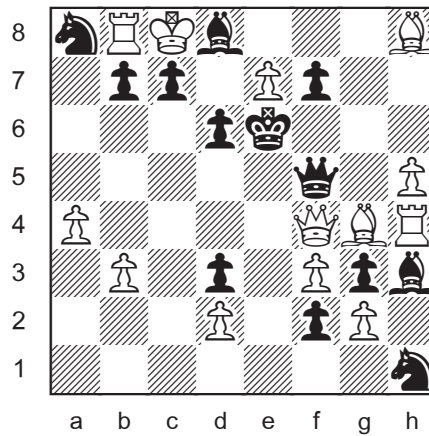


released position

Forward play: 1.Bb2+ Ke6 2.Bh8 Re8 3.dxe8=Q a6 4.Qb5 a5
5.Qxa5 d4 6.Qb4 d3 7.Qf4 (or 7.Qe4#!)

continued next page

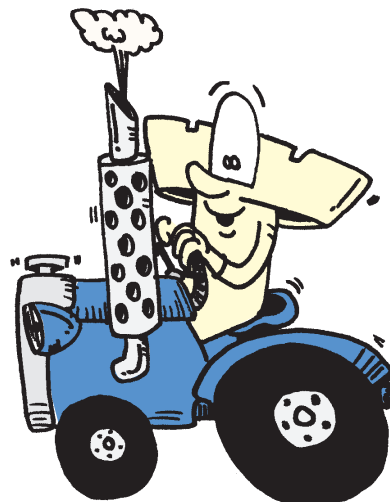
Retractor 53 *continued*



Therefore the solution is -1.Qb4-f4 +1.Qb4-e4#. Spectacular!

For the sake of completeness, the following tries are added:

- 1.Bf6-h8? +1.Qf4xf5# Retrostalemate.
No way to release the position.
- 1.f6xe7? +1.Qf4xf5# Too many captures by White.
One by c-pawn, two by e-pawn.
Black a-pawn captured on a-file.
- 1.Bb2xRh8? +1.Qf4-e4# Retrostalemate.
Not enough missing black pieces to
release the position by unpromoting
on e8. Black a-pawn captured on a-file.



Until another future!

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