

THE PUZZLING SIDE OF CHESS

Jeff Coakley

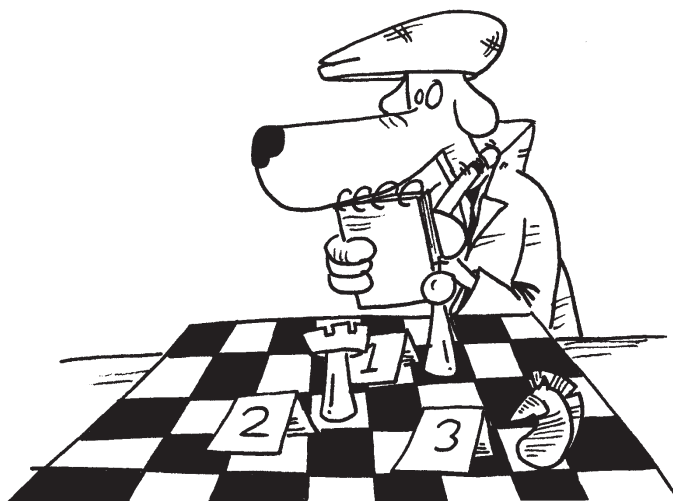
RETRO WORLD V: Momentary Lapse In Time

number 191

June 30, 2020

Retrograde analysis is a form of logical reasoning in which past events are deduced from details in the present situation. In chess, its common use is to determine the move or moves that led to a given position.

This column presents eight *last move problems*, six of the usual type plus two disguised as rebuses. Four retros by Werner Keym are featured, including one from his new book *Anything But Average*.



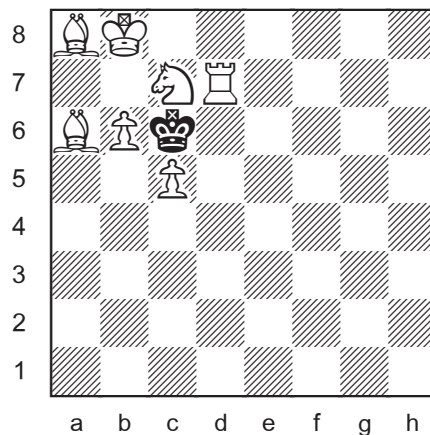
Before starting our investigations, here are a few notes from *The Chess Detective's Handbook*, the classic work by renowned sleuth Harmonius Hound.

- When answering the question “What was the last move?”, be as precise as possible. A complete description of a move includes the square a piece moved from, whether a capture was made, and if so, what type of piece was taken.
- Moves are counted separately for White and Black. “Last two moves” means one turn by each side (W-B or B-W).

- Assume that the positions are legal, no matter how strange they may appear. A position is legal if it could be reached in a game following the standard rules. Rational strategy is not a requirement.
- If the scent is strong, the trail is not too long. See where it leads.

We begin with a relatively easy problem by our guest artist, Werner Keym, a leading authority on retro chess from Meisenheim, Germany. The stipulation is to determine the last move played. However, it is possible to figure out the preceding move as well, although it is partially ambiguous with regard to the departure square or capturing. Given that provision, we could ask, “What were the last two moves?”

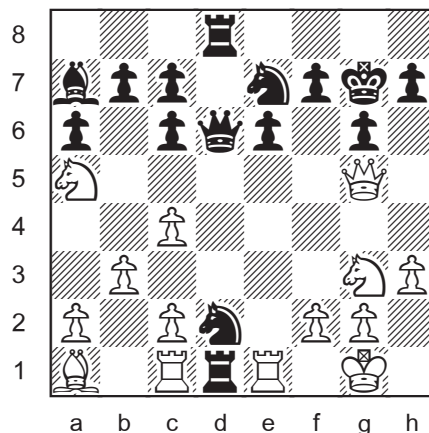
Retro 45



What was the last move?

The next retro is a game-like position from the land of Canucks. Happy Canada Day! (July 1)

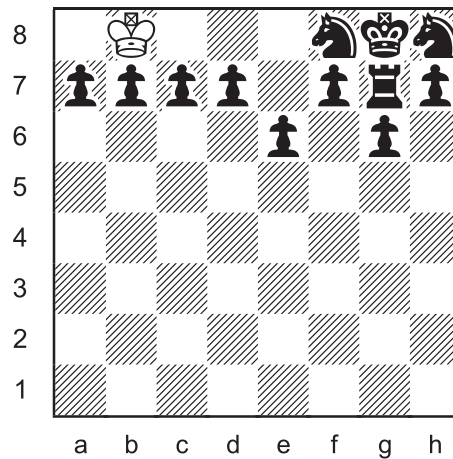
Retro 46



What were the last two moves?

Things get much trickier now. In the following three problems, all by Werner Keym, neither king is in check. Figuring out which side just moved is part of the task. But that's only a small part of the challenge.

Retro 47



What was the last move?

(The second-to-last move can also be partially deduced.)

ANYTHING BUT AVERAGE

Werner Keym

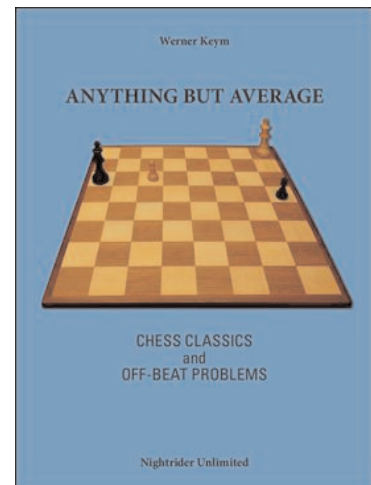
CHESS CLASSICS and OFF-BEAT PROBLEMS

A marvelous anthology of 375 games, endgame studies, problems, and puzzles. Immortal games, famous studies, and classical problems of all kinds are presented and explained with additional diagrams.

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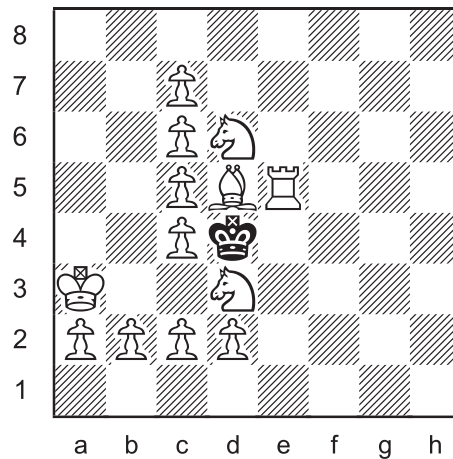


If you like chess, you will like this book. It's nothing but brilliant. Werner Keym has selected his favourite games and compositions from every aspect of our royal pastime. Problems include mates, helpmates, selfmates, proof games, retractors, retros, and plenty of curiosities.

The book is well-produced, reasonably priced, and waiting for you.

Next up is a “Rex solus”. A solitary black king, alone without solace.

Retro 48

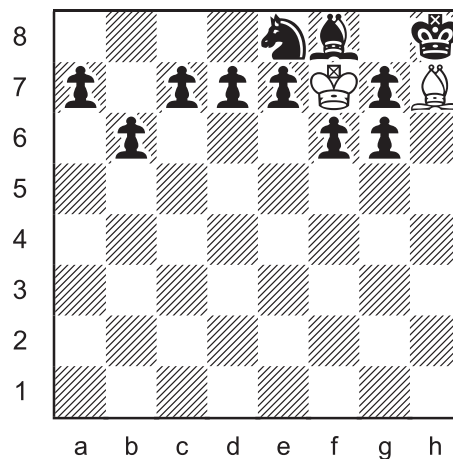


What were the last two moves?



In his book, Werner Keym refers to the following masterpiece as his “best last-mover”. That says a lot from someone who has composed so many outstanding problems. As is often the case, to determine the last move, one must actually look several moves into the past.

Retro 49

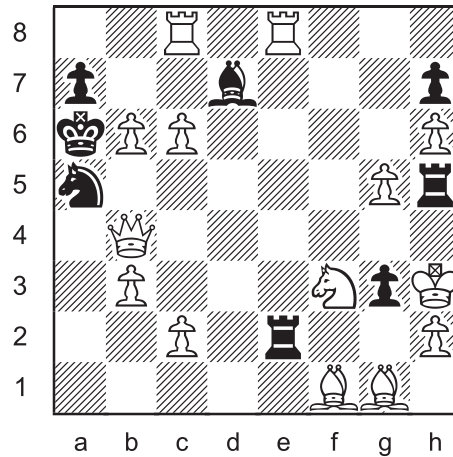


What was the last move?

(The last 3 moves can be deduced, with the second partially ambiguous.)

Of all the problems in my *Winning Chess Puzzles For Kids* books, this is probably the hardest. Something near the end of Volume 2 to stump and/or inspire the keenest of the keen.

Retro 50



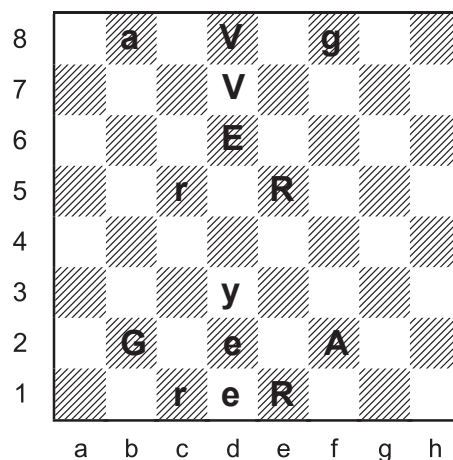
What were the last ten moves?

This column concludes with a pair of rebuses. Like most puzzles of this type, part of the stipulation is to determine the last moves. Usually, once a rebus position is decoded, the last move is obvious. But often the move must be determined first in order to assign pieces and colours correctly.

The first rebus is the basic variety, definitely something average.

Rebus 36

“very average”



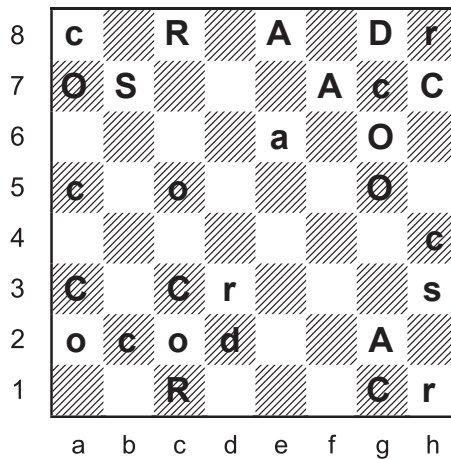
Each letter represents a different type of piece. Uppercase is one colour, lowercase is the other. Determine the position and the last move.

Rather than give away our goal in composing the next rebus, which might provide an unwanted hint to solvers, we'll introduce it with a quote from the great Delta bluesman, Robert Johnson.

*I went down to the crossroads,
Tried to flag a ride.
Nobody seemed to know me.
Everybody passed me by.*

Rebus 37

"Crossroads"



Each letter represents a different type of piece. Uppercase is one colour, lowercase is the other. Determine the position and the last six moves.

Thanks to my good friend and partner in *Rebusland Productions*, Andrey Frolkin from Kiev. Three of his problems were selected for *Anything But Average*.



Ain't No Cure for the Summertime Blues

SOLUTIONS

Solutions are written in long algebraic notation, giving departure and destination squares. If there is a capture, the type of piece taken is indicated in parentheses. For more information about retrograde analysis, see *Chess Mysteries in a Retro World* (column 30).

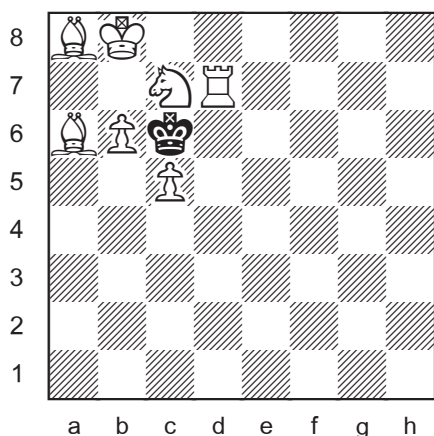
PDF hyperlinks. You can advance to the solution of any puzzle by clicking on the underlined title above the diagram. To return to the puzzle, click on the title above the solution diagram.

Archives. Past columns are available in the *Puzzling Side* archives.

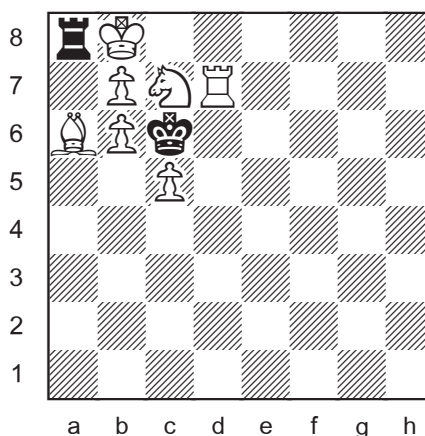
Retro 45

Werner Keym 1995

Die Schwalbe



Last move: 1.b7xa8(R)=B+



position before last move

Black is in check by the bishop on a8. No discovered check was possible so the last move was either a7-a8=B+ or b7xa8=B+.

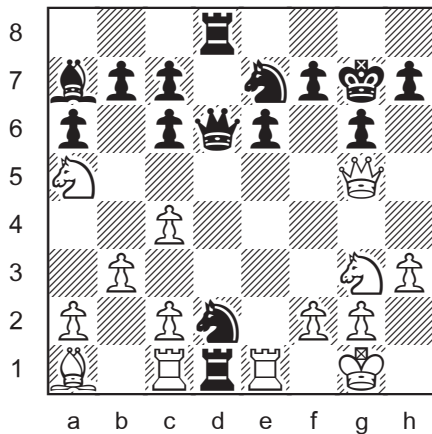
The last move was not a7-a8=B+ because Black would have no legal move on the previous turn. The black king would be in an impossible double check on b5, d5, or d6.

So the last move was b7xa8=B+. The piece captured had to move to a8 on the previous turn, otherwise Black had no legal move. It was not a bishop or knight because they had no square to move from. It was not a queen because she would already be checking the white king if she came from a7. Therefore, a rook was captured. Black's previous move was ...Ra7>a8+ which may or may not have been a capture.

Retro 46

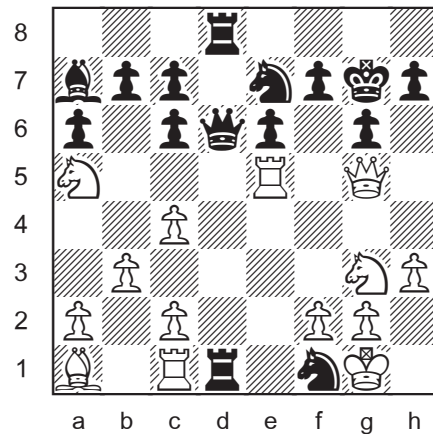
J. Coakley 2004

Winning Chess Puzzles For Kids



Last two moves:

1...Nf1-d2+ 2.Re5-e1+



position two moves ago

Black is in check from the bishop on a1. The last move had to be a discovered check because the bishop could not have moved to a1 to give check. It would already be checking along the same diagonal.

The last move was not a discovered check by 2.b2-b3+ because with a white pawn on b2, there could not be a white bishop on a1.

The last move was not 2.c3-c4+. The only piece Black is missing is a light-square bishop. That means the doubled white c-pawn captured the black bishop on c4 (light square), and the pawn could not have been on c3.

The only other possibility is Re5-e1+. This move was not a capture because the only missing black piece was taken on c4. That means that White was in check from the rook on d1 on the previous turn.

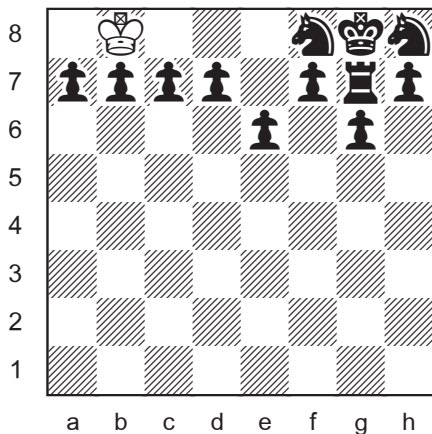
The black move had to be a discovered check because the rook could not have moved to d1 to give check. It would already be giving check along the first rank. It was not a promotion by 1...e2xd1=R+ because black still has all eight pawns.

The discovered check 1...Nf1-d2+ could not be a capture. There was no pawn on d2 because the white d-pawn captured on c4. White is missing two pieces, the light-square bishop and the e-pawn. The bishop was taken on c6. The white e-pawn was captured by Black at some point on the e-file. The only missing black piece was captured on c4, so there is no way the white e-pawn could have promoted on d8, because it could not get to the d-file without a capture.

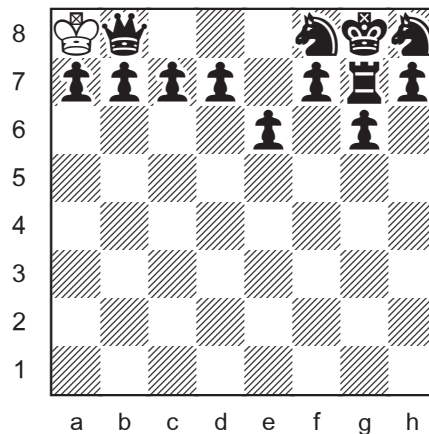
Retro 47

Werner Keym 1980

Die Schwalbe



Last move: 1.Ka8xb8(Q)



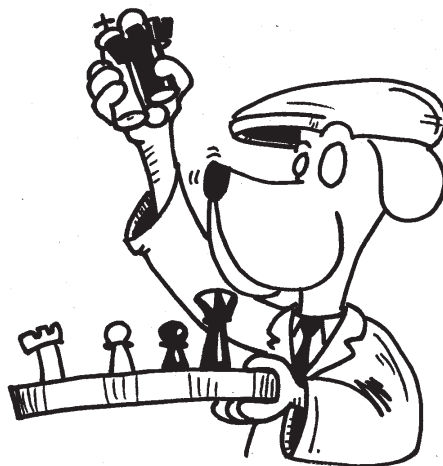
position before last move

The only black piece with any reverse mobility is the e-pawn. The last move was not 1...e7-e6 because then the white king could not be on b8 with a black rook on g7.

If 1...e7-e6 were the last move, the white king entered the 8th rank through g6 and the black knight was on h8 before ...g6 was played. With h8 occupied, there was no way for the white king to bypass a black rook.

So the last move was by the white king. It had to be a capture of a piece that just moved to b8, otherwise Black had no legal move on the previous turn. The piece captured was a queen or rook. Black has both knights on the board and a bishop could not be on b8.

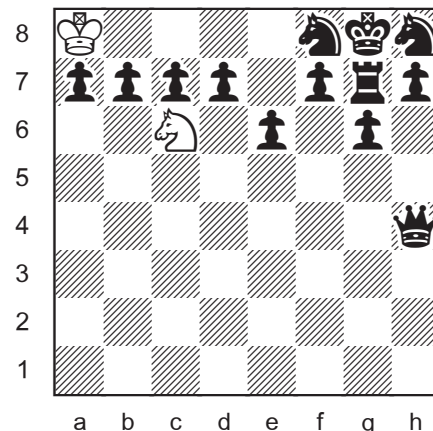
So the two questions are: Was a queen or rook captured? Did the king take from a8 or c8?



In any case, the previous black move had to be a capture on b8. Otherwise the black queen or rook would already be checking the white king before moving to b8. The white piece captured could be a knight or a queen.

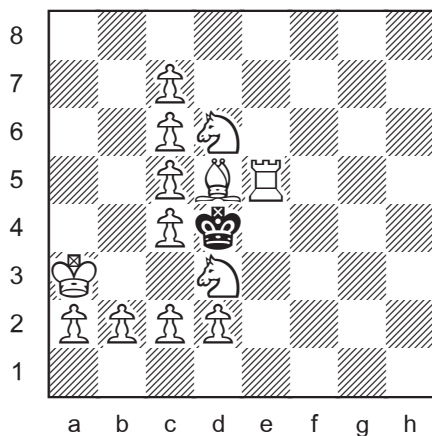
The black piece did not capture on b8 from a8 with the white king on c8 because Black would not have a move on the previous turn. So the last move was 1.Ka8xb8.

The piece captured on b8 could not be a rook because the white king could not reach a8 with two black rooks inside the black wall of pawns. The king could only pass through e7 after ...e6 and ...g6 were played with the black knights already on f8 and h8. The position a few moves ago looked something like this. The game continued 1...Qd8+ 2.Nb8 Qxb8+ 3.Kxb8.

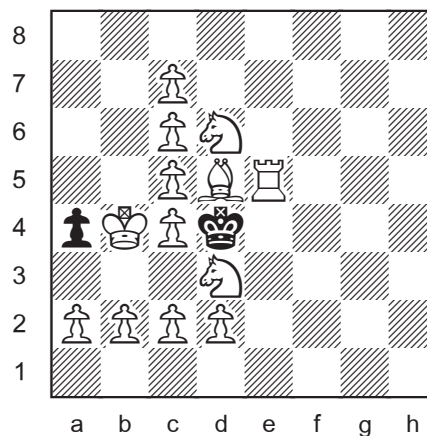


Retro 48

Werner Keym 1977
Allgemeine Zeitung Mainz



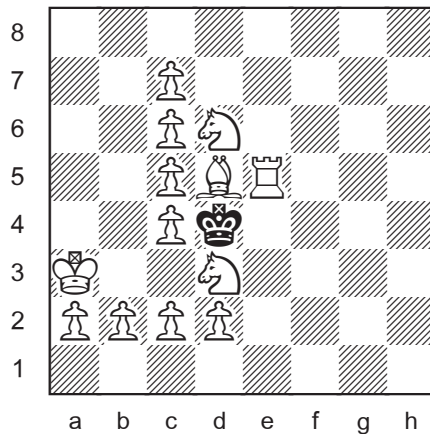
Last two moves:
1...a4-b3 2.Kb4xa3(P)



position two moves ago

The last move was not by Black. The black king would have been in triple check on e4 and in an impossible check on c3 or e3 by a white pawn on the 2nd rank.

The white pawn formation, with quintupled c-pawns, required the capture of 14 black pieces. That leaves one black piece available for capture elsewhere. That black piece is the a-pawn or b-pawn.



One of the black pawns (a or b) captured to reach the c-file where it was then captured by White. The other pawn is available in the retroplay for capture elsewhere. Neither of the pawns could have promoted with white pawns blocking the 2nd rank.

The last move was not by the white rook, bishop, or knights (which would necessarily be non-captures) because Black would not have a legal move on the previous turn.

The only remaining possibility, and therefore the solution, is the capture of a black pawn by the white king. If the white king made a non-capturing move, then Black had no move on the previous turn.

Black's last move had to be playing a pawn to a3. It was not the capture ...b4xa3 because there are not enough missing white pieces.

White is missing 3 pieces. One of them is the dark-square bishop that was captured on c1 (pawns on b2 d2). So two pieces (QR) are available for capture elsewhere. But if the last move was ...b4xa3, then the black ab-pawns made a combined 3 captures (axb, bxc, bxa).

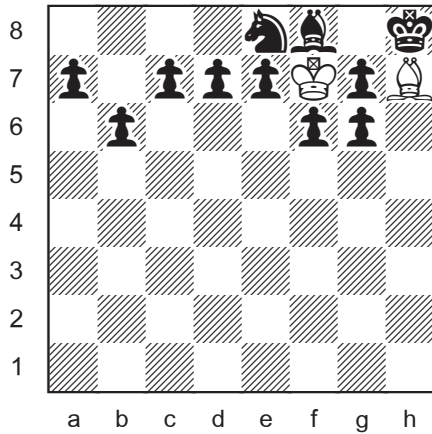
So Black's previous move was ...a4-a3. The white king could not have captured from b3 because he would have been in check on b3 before Black's move. Last two moves: 1...a4-a3 2.Kb4xa3.



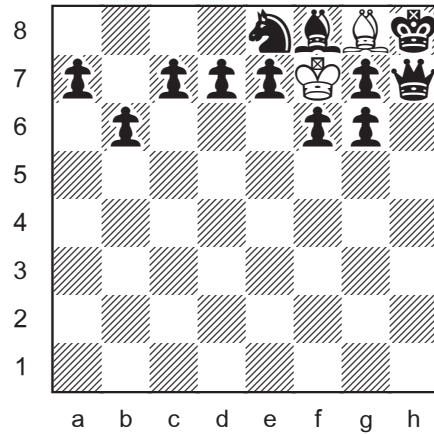
Retro 49

Werner Keym 1979

Die Schwalbe



Last move: 1.Bg8xh7(Q)



Position before last move

The last move was not 1...b6 because that move had to be played earlier to allow the white king inside the black wall of pawns.

The last move was not 1...Nd6-e8. The knight would be checking the white king from d6. *It cannot be Black's turn if White is in check.*

There are no other black moves to consider, so the last move was made by White. The last move was not by the white king. On e6, he would be in an impossible check from an unmoved pawn on d7. On g8, he would be next to the black king.

The last move was 1.Bg8xh7. This move was a capture, otherwise Black would not have a move on the previous turn. But what kind of piece was captured? It had to be a piece that just moved to h7. Otherwise Black had no legal move.

The piece captured was not a pawn because Black has 8 pawns on the board.

The piece captured was not a bishop because it would not have a move on the previous turn.

The piece captured was not a knight because the knight would not have a move on the previous turn. It could not come from g5 since it would be checking the white king.

The piece captured was not a rook, but this is much harder to prove. It is also the main point of composition.

With a bishop on f8 and unmoved pawns on e7 and g7, we know that the rook that started on a8 was captured somewhere inside the black wall of pawns on the queenside. So if a rook was captured on h7, it was the rook that started on h8.

Consider how the black knight reached e8. It could only move there after the white king passed along the 8th rank through e8. Which means ...f6 was already played.

Therefore the knight could only move to e8 from d6. At that time, the white king could not be on f7. He would have to be on g8, h7, or h8. That means the black king was not in the corner.

The additional complication is how the white bishop got to g8. It could not get behind the black pawns through h7 with a black pawn on g6 (or on h7 before ...hxg6).

If the bishop passed through f7, it had to do so before the white king stationed itself on f7 in the final position, perhaps biding its time on h7 before White played Kg8-f7. But if that were the case, there was no way for the black king to reach the h8 corner because h7 would be attacked by the bishop on g8.

The conclusion is that the bishop did not pass through f7. It must be a promoted pawn! The only thing it could have captured on g8 was a rook. When it made that capture, the black king was already on h8.

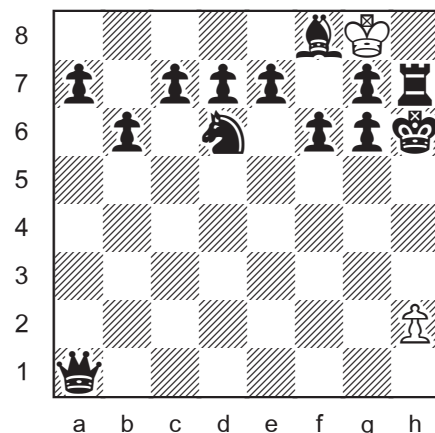
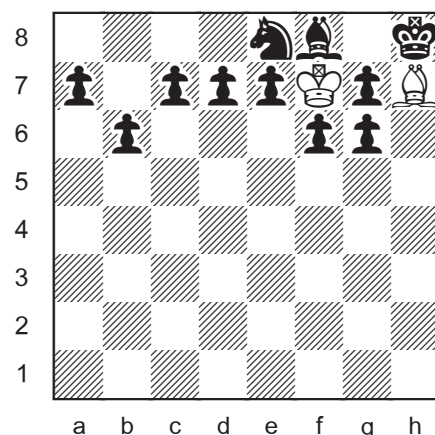
The piece captured on g8 was not a bishop or queen (with black king on h8 and white pawn on h7). The white king on f7 would be in an impossible check.

The piece captured on g8 was not a knight. It could not move there from h6 with the white king on f7.

Since the rook was captured on g8, the piece captured on h7 had to be the queen.

The earlier position was something like this.

The game continued 1...Ne8 2.Kf7 Rh8 3.h4 Rg8 4.h5 Kh7 5.h6 Kh8 6.h7 Qh1 7.hxg8=B Qh7 8.Bxh7.

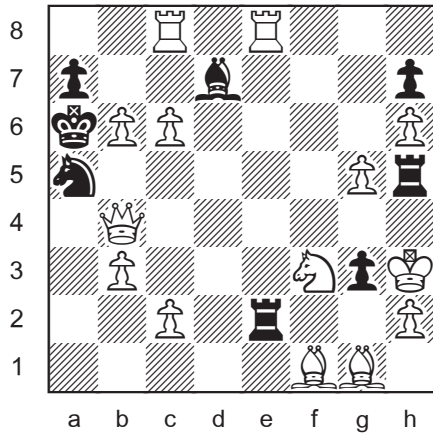


14 moves ago

Retro 50

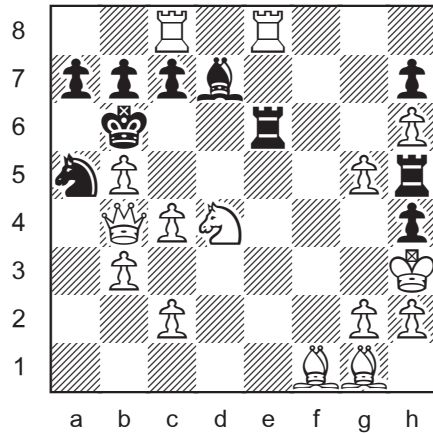
J. Coakley 2010

Winning Chess Puzzles For Kids Volume 2
version *Puzzling Side of Chess* (2020)



Last ten moves:

1. Nd4-f3+ c7-c5
2. b5xc6+ e.p. Kb6-a6
3. c4-c5+ b7-b5
4. c5xb6+ e.p. Re6-e2+
5. g2-g4 h4xg3+ e.p.

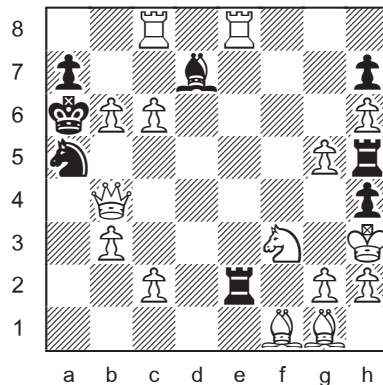


position ten moves ago

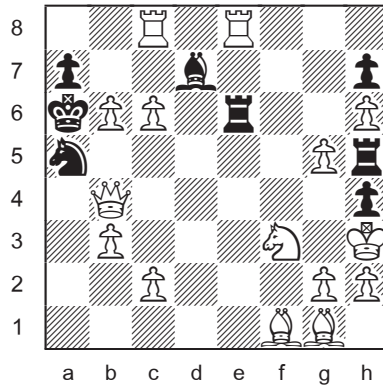
The original problem had a white knight on h6, a black pawn on g7, and no white pawn on c2. 1.Nd4>f3+ was not exactly determined. Thanks to **Andrey Frolikin** for the idea of closing the material balance so that 1.Nd4-f3+ cannot be a capture.

Three *en passant* captures, tying the retro last move record.
Will anyone ever achieve four e.p.'s?

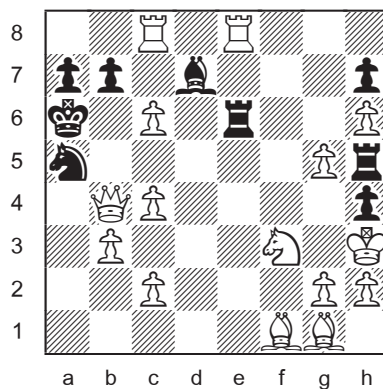
White is in check from the bishop on d7 and rook on h5. This could only happen by means of an *en passant* capture. The last two moves were 5.g2-g4 h4xg3++ e.p. Before those moves, White is in check by the bishop on d7.



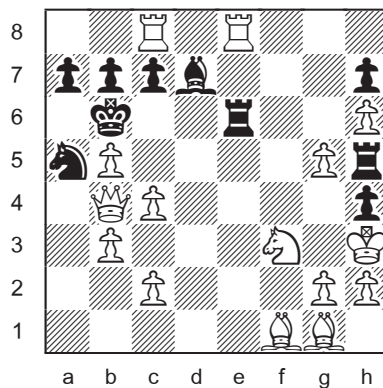
That can only be explained by the discovered check 4...Re6-e2+. This move was not a capture because White is missing just one piece and it was captured by the pawn on h4. Going back another step, Black is in check by the bishop on f1. Seemingly impossible. Except for the magic words: *en passant!*



The previous moves had to be 3...b7-b5 4.c5xb6+ e.p. With a white pawn on c5, and a black pawn on b7, Black is again in check by the bishop at f1. This was only possible by 3.c4-c5+.



So what was Black's previous move? It was not 2...Re6 because the white king would have been in check from the bishop at d7. It was not 2...Rxe6 either, since there is no white piece to capture, as explained above. That only leaves 2...Kb6-a6. On b6, the black king is in double check by the queen at b4 and bishop at g1. Guess how that happened. *En passant!* The previous moves were 1...c7-c5 2.b5xc6+ e.p.



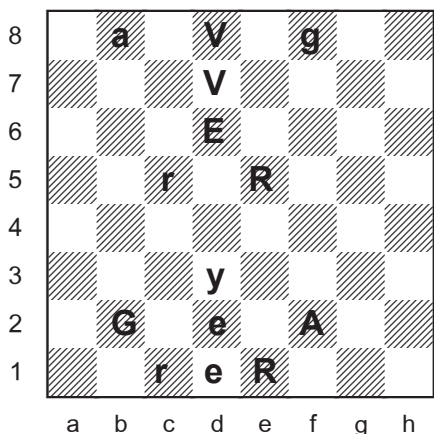
Black is in check by the bishop at g1, which is only possible by the discovery 1.Nd4-f3+. This move was not a capture because the doubled white pawns on the bcgh-files required the capture of Black's six missing pieces.

Rebus 36

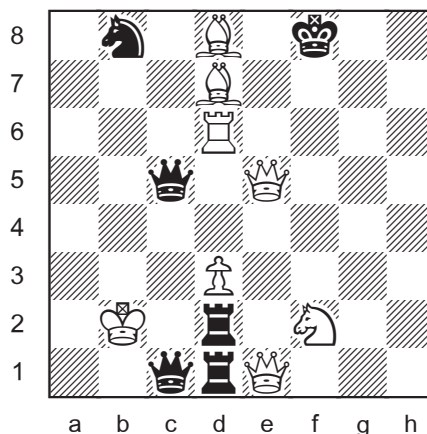
Andrey Frolkin & Jeff Coakley 2020

Puzzling Side of Chess

“very average”



A = knight
 V = bishop
 E = rook
 R = queen
 G = king
 Y = pawn
 caps = white
 last move:
 1...c2-c1=Q++



(8 + 6)

♔ = (AG) Letters with one uppercase, one lowercase.

Y = ♙ Only letter not on 1st or 8th rank.

E ≠ ♔ Both kings in check (d2 d6) regardless of king assignment.

One of the kings is in check by E (♖d2, ♗d6, or ♘d1).

B ≠ ♘ Impossible multiple check (d7)

B ≠ (♔♖) Impossible multiple check (d8)

B = ♗

AG ≠ (♔♖) Three checks regardless of king assignment.

AG = (♔♘)

E = ♖ Check (d2).

R = ♔ Check (c1 or c5).

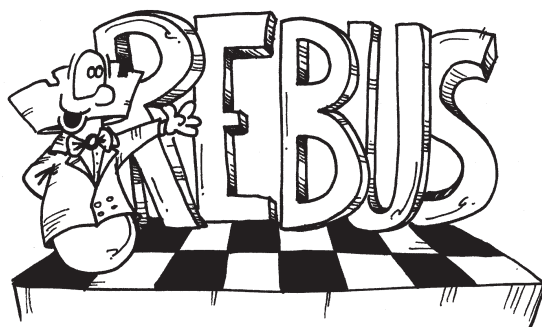
A ≠ ♔ If A = ♔ Impossible double check (c5 d2).

G = ♔

A = ♘

last move 1...c2-c1=Q++ Only way to explain the double check.

caps = white Promotion on 1st rank.

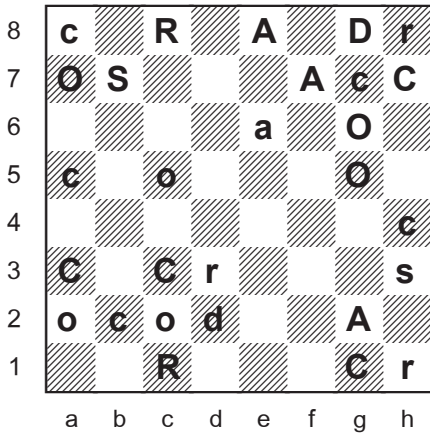


Rebus 37

Andrey Frolkin & Jeff Coakley 2020

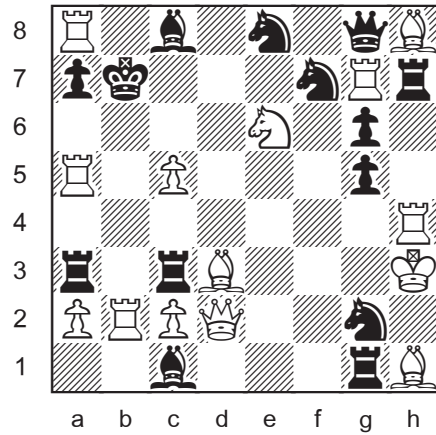
Puzzling Side of Chess

“Crossroads”



C = rook
R = bishop
O = pawn
A = knight
D = queen
S = king
caps = black

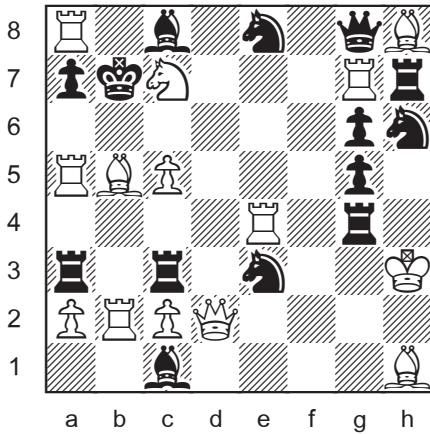
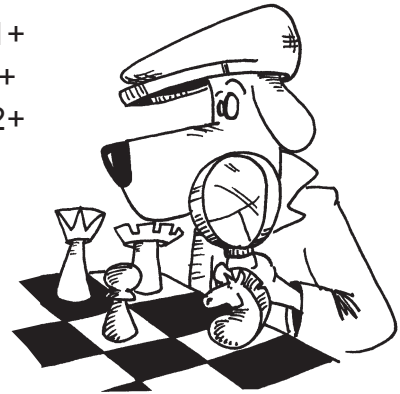
last move:
1. Bb5-d3+



(14 + 14)

last 6 moves:
(from diagram at left)

1. . . . Rg4-g1+
2. Nc7-e6+ Nh6-f7+
3. Rd4-h4+ Ne3-g2+
4. Bb5-d3+



position 6 moves ago

♚ = (SD) Letters with one uppercase and one lowercase.

♞ = (OS) Letters not on 1st or 8th rank.

S = ♠ If D = ♚

R ≠ ♚ ♖ Impossible check (h8).

R ≠ ♗ Impossible check (c1).

R = ♘

C ≠ ♚ Both kings in check (c3 g7).

C ≠ ♖ Impossible check (g7).

C = ♗ Check (c3).

A ≠ ♚ ♖ Impossible double check (g2).

A = ∅? No piece can be assigned to letter A.

O = ♞

Rebus 37 *continued*

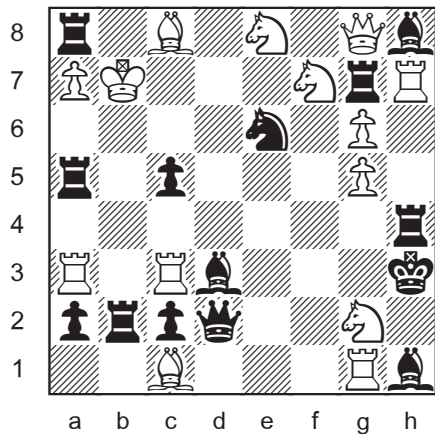
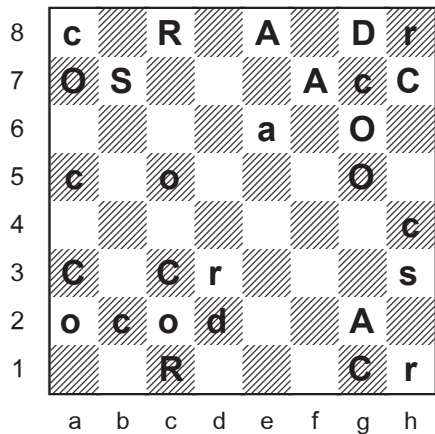
- S = ♔
- O = ♖
- C ≠ ♔ ♕
- C ≠ ♞
- C = ♖
- A ≠ ♔ ♕
- A = ♞
- R ≠ ♔
- R = ♖
- D = ♔

Impossible check (a8).
 Both kings in check (a5 g1).
Check (b2).
 Both kings in check (g2).
 Both kings in check (h1).

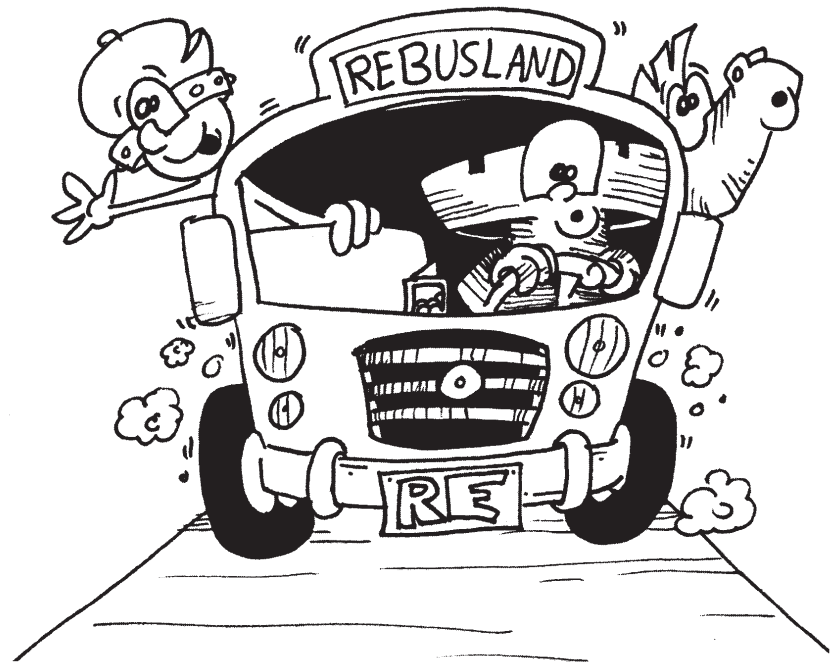
Everything is determined except colours.
 If caps = white See diagram.
 There are 6 passed pawns (3w 3b)
 and 7 promoted pieces (5R + B + N).
 A total of 13 "pro-passers".
 There are 4 missing pieces (3p + N).

The capture of 3 pawns and 1 officer can
 create at most 11 pro-passers. Therefore
 the position is illegal.

caps = black



try caps = white (14 + 14)



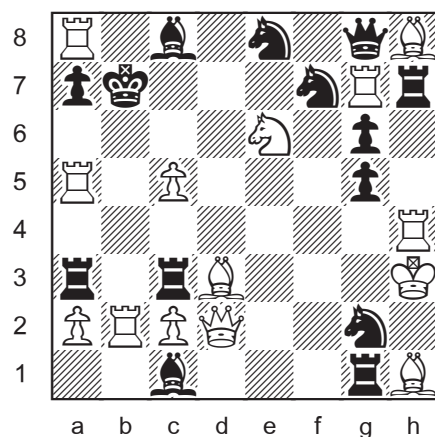
"Don't Pass Me By"

Rebus 37 *continued*

caps = black

The position is legal. There are 4 passed pawns (2w 2b) and 7 promoted pieces for a total of 11 pro-passers.

Their creation required the capture of all 4 missing pieces (3p + N). So no other captures are possible in the retroplay.



The past unravels smoothly now. On each step backwards, the opposing king is in a check that could only have occurred by means of a discovered check.

- 1. Bb5-d3 Not the captures $b4xc5+$ or $Rb1xb2+$.
- 1. ... Ne3-g2+ Not $\dots Rc4-c3+$ because the rook on a3 would already be giving check. Not the capture $\dots Rb3xc3+$.
- 2. Rd4-h4+ Not $Kg2-h3$ because the white king would be in an impossible double check on g2.
- 2. ... Nh6-f7+ Not $\dots h6xg5+$. If this move were the capture of a white pawn on g5, it could apparently be a legitimate part of creating the 11 pro-passers in the position. However, this capture had to occur earlier so that the white h-pawn could promote (without an additional capture).
- 3. Nc7-e6+ Not $Bd7-b5+$ or the black king would already be in check from the rook on b2.
- 3. ... Rg4-g1+ Not $\dots Nf5-e3+$ or $\dots Ng4-h6+$ because the black king would already be in check from the rook (c3 or h7).

Six disco checks in a row! The goal in composing the rebus was to maximise their number. Does anyone know of a last move problem with more consecutive discovered checks? I have seen some with more crosschecks, but not all of the checks were discoveries.

To finish off this trip to Retro World, here's a construction task for the working crew. *What is the maximum number of consecutive discovered checks in a legal chess position?* Seven is possible, but I expect the record to be higher. Stay tuned.

Until next time!

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