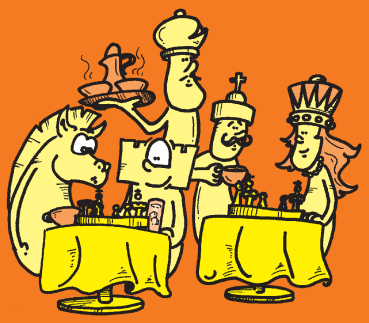


THE PUZZLING SIDE OF CHESS

Jeff Coakley

DEAD LETTER OFFICE

number 176 March 28, 2019

As might be guessed from the title, our topic is dead reckoning. The rest of this page repeats the introduction of previous DR columns. For anyone who wants to skip ahead, the new stuff begins on page 2.

In the retrograde analysis of chess problems, *dead reckoning* is a method used to determine previous moves based on “dead positions”.

A position is dead if there is no possibility of checkmate for either side, even if one side is playing the worst moves imaginable.

The basis of dead reckoning, DR for short, is FIDE rule 5.2.2.
“*The game is drawn when a position has arisen in which neither player can checkmate the opponent’s king with any series of legal moves. This immediately ends the game.*”

The fundamental principle of dead reckoning is:

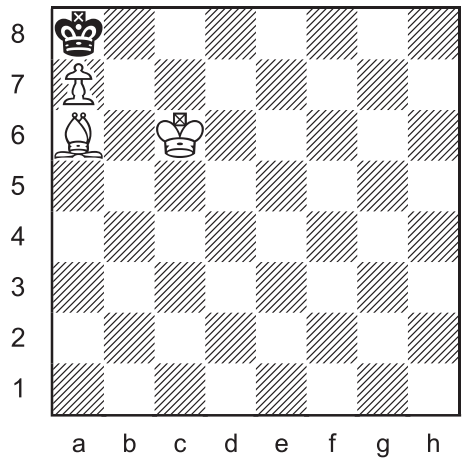
The last move was not made from a dead position.

In other words, the position before the last move has to be alive. There must still be the possibility of checkmate.

This column presents four puzzles involving DR: two last move retros, a rebus, and a construction task. For an introduction to dead reckoning, see column 127.

Both retro problems are by British composer Andrew Buchanan. Most of the good ones are.

Retro 43



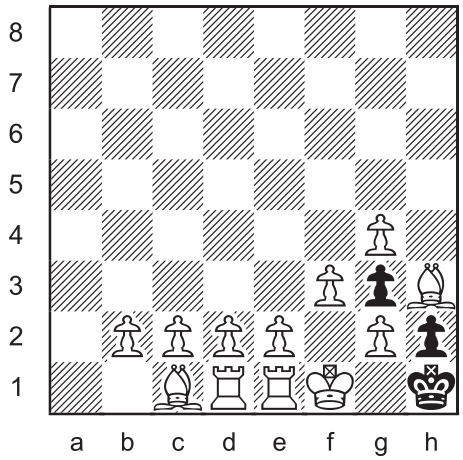
White to play.
What was the last move?

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.

Dark Rendering.

The first problem may have been too easy for some solvers. The following position should offer a bigger challenge. For one thing, we are not told whose turn it is.

Retro 44



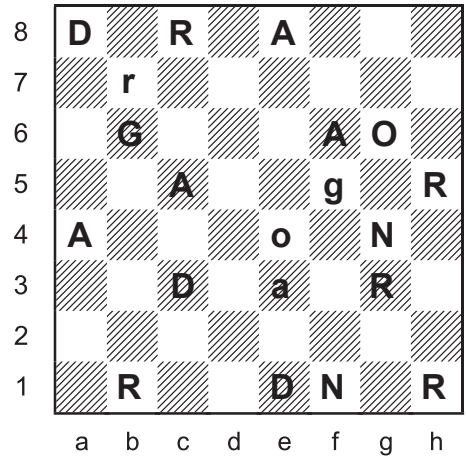
What was the last move?

Dead Letters *Lively Reading*

Have you experienced chess rebuses before? They can be fun or they can befuddle. If you are new to this kind of logical puzzle, it is probably better to start with the simpler problems in column 133.

For those who feel prepared, it's time to tackle the "DRagon".

Rebus 23

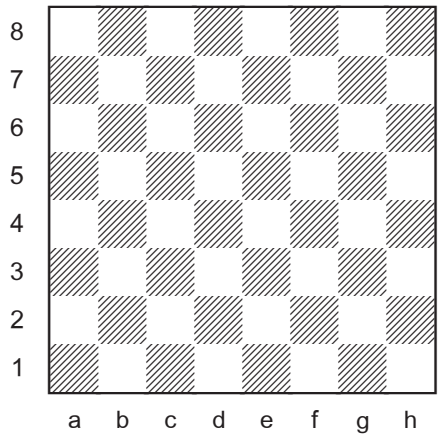


Each letter represents a different type of piece.
Uppercase is one colour, lowercase is the other.
Determine the position.

Our final problem is a *DR construction task* in which the goal is a dead position with the most possible moves. Or to be more accurate, the most legal but unplayable moves. After all, the position is dead!

Can you break the record? Good luck!

Dead Position Move Maximizer



Construct a dead position in which the
number of possible moves is maximized.
Stipulating White to move is permitted.

The position must be legal, which means *reachable in an actual game*. In a dead position, a *possible move* is “legal but unplayable”.

Red Wreckoning

SOLUTIONS

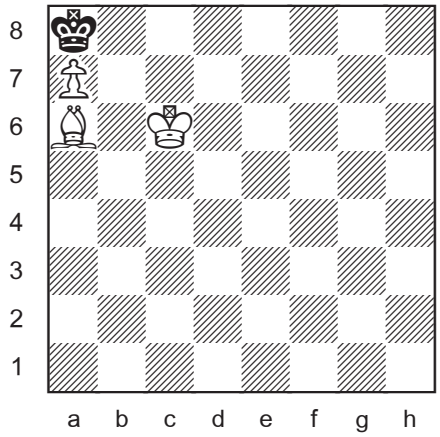
PDF hyperlinks. You can advance to the solution of any puzzle by clicking on the underlined title above the diagram. To return to the puzzle, click on the title above the solution diagram.

Archives. Past columns and a detailed index of problem-types and composers are available in the *Puzzling Side of Chess* archives.

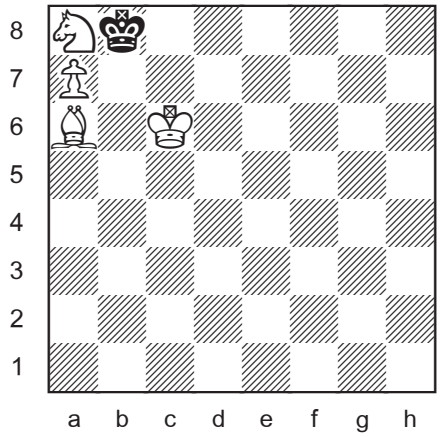
Retro 43

Andrew Buchanan 2001

Retro Mailing List



last move: 1...Kb8xa8(N)



previous position

We are told that it is White to play, so we know that the last move was by the black king from b8 to a8. He did not come from b7 because that is next to the white king.

The position is dead. If White guards the pawn by *Kb6*, it's *stalemate*. Against any other move, Black's only reply is *...Kxa7*, when the game is drawn because of *insufficient mating material*. K+B vs K.

The position had to be alive before the last move. Therefore Black's move was a capture. Otherwise the position was already dead.

Black did not capture a queen or rook on a8 because there would have been an impossible double check from Pa7 and Q/Ra8.

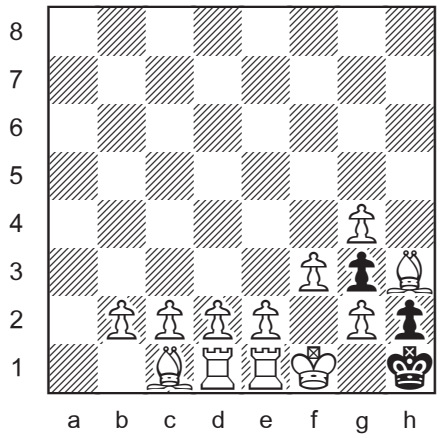
Black did not capture a bishop on a8 because the only alternative to taking on a8 would be *...Kxa7*, when the game is drawn because of *insufficient mating material*. Mate is impossible with K+2B vs. K when both bishops are on the same colour squares.

Therefore, the black king captured a knight on a8. The previous position was still alive because mate is possible if Black plays *...Kxa7*, leaving K+B+N vs. K.

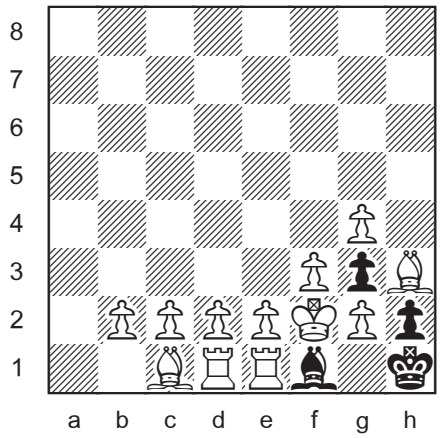
Retro 44

Andrew Buchanan 2019

Puzzling Side of Chess



last move: 1.Kf2xf1(B)



previous position

The position is dead. With Black to play, it's stalemate. With White to play, there is no way to release the stalemate. As usual, in order to be legal, the position had to be alive before the last move.

The last move was not by the black king (from g1 next to the white king). It was not by the black pawn on h2 (which has no "reverse mobility"). And it was not by the black pawn on g3 because a capture there from f4 or h4 would have been Black's only possible move, which means the position was already dead. So the last move was by White.

It's easy to see that the last move was not made by a white rook or bishop, nor by the white pawns on b2 c2 d2 e2 g2 g4.

The last move was not 1.f2-f3 because the black king could not be on h1 if there were white pawns across the 2nd rank from b2 to g2.

The last move was by the white king from f2. It had to be a capture, otherwise the black king would be in check from the rook on e1.

The black piece captured on f1 was not a queen or rook because there would have been an impossible double check by Pg3 and Q/Rf1.

The black piece captured on f1 was not a knight because White's only possible move would be to capture on f1. The black knight guards e3. So the position would already be dead.

Therefore the captured piece was a black bishop. The position was still alive because White had the option of playing *1.Kf2-e3*.

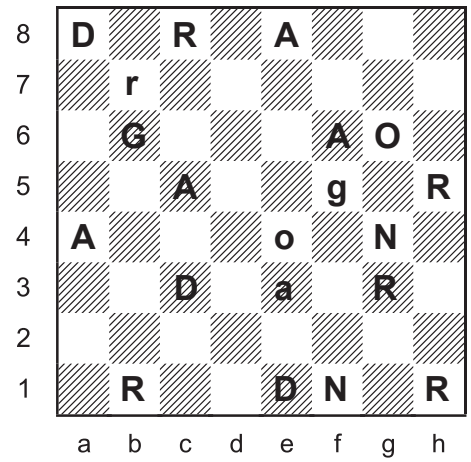
By the way, the bishops on f1 and h3 are promoted pawns.

Rebus 23

Andrey Frolkin & Jeff Coakley 2019

Puzzling Side of Chess

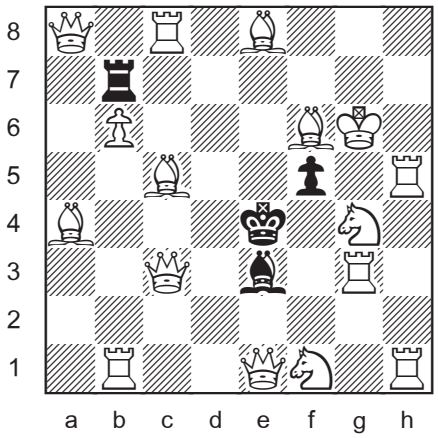
"DRagon"



D = queen
R = rook
A = bishop
G = pawn
O = king
N = knight

caps = white

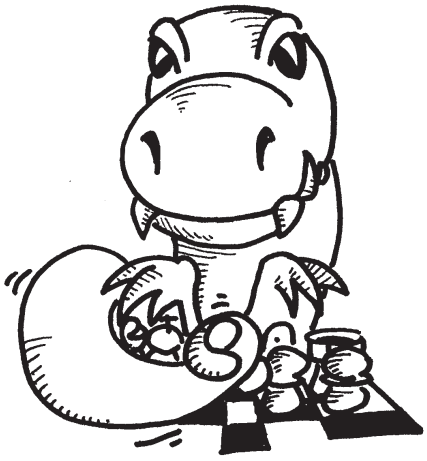
last move ?



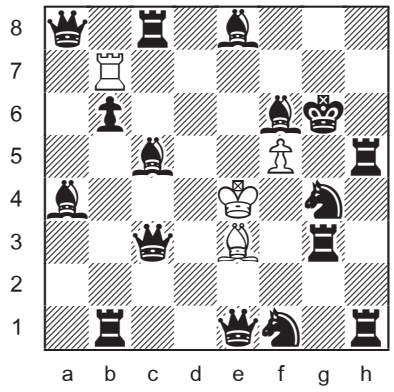
♔ = (GO) The two letters with one uppercase, one lowercase.
♙ = (GO) The other four letters are on the 1st or 8th rank.
G ≠ ♔ If G = ♔
R ≠ ♕♖ (b7+ h5+) Both kings in check.
R = (♗♘)
G is in <u>check</u> by R, either ♗c8+ or ♘g3+.
N ≠ ♕♖ (f1+) Impossible multiple check.
N ≠ ♗ (g4+) Impossible multiple check.
N = ♘
R = ♗ <u>Check</u> (c8+).
A ≠ ♕♖ (c5+ f6+) Triple check.
A = Ø? No piece can be assigned to A.

G = ♙
O = ♔
A ≠ ♕♖ (a4+ e8+) Impossible double check.
A ≠ ♘ (c5+ f6+) Impossible double check.
A = ♗
R ≠ ♘ If R = ♘ <u>Check</u> (g3+).
N ≠ (♕♖)(g4+) Impossible double check.
D ≠ ♘ If D = ♘ <u>Check</u> (c3+).
N ≠ (♕♖)(g4+) Impossible double check.
N = ♘
R ≠ ♕ (b1+ h1+) Impossible double check.
R = ♖
D = ♕

Everything is solved except for colours. Time to call in the DR.



try: caps = black



caps ≠ black

If caps are black, the position is dead. Black is in check from the pawn on f5 and the only defence is 1...Rxf5 stalemate.

But was the position alive before White's last move? No. The only possible move was 1.f4-f5+, so the position was already dead.

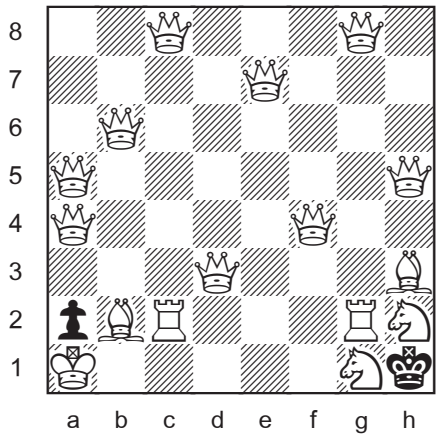
Therefore uppercase is white!

The Unreachable Horizon

Dead Position Move Maximizer

J. Coakley 2019

Puzzling Side of Chess



195 moves

White to play

(K1 + Q11 + Q13 + B8 + Q19 + R9 + Q16 + Q22
+ Q23 + Q23 + N2 + R8 + Q16 + N3 + B4 + Q17)

The position is dead. White cannot release the stalemate.

Last move: 1...a3-a2

Black had the option to keep the position alive with 1...axb2+.

This record has not been confirmed by computer. Can you beat it?

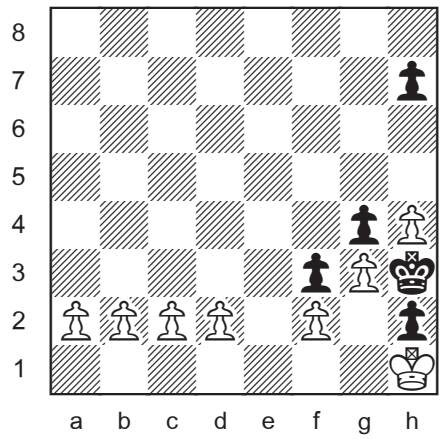
In the terminology of last move retro problems, this is a *type B* position. The side to move is stipulated.

The record is much less for *type A* positions, where the side to move is not stipulated. See next page.

Dead Position Move Maximizer

Andrew Buchanan & Jeff Coakley 2019

Puzzling Side of Chess



9 legal but unplayable moves

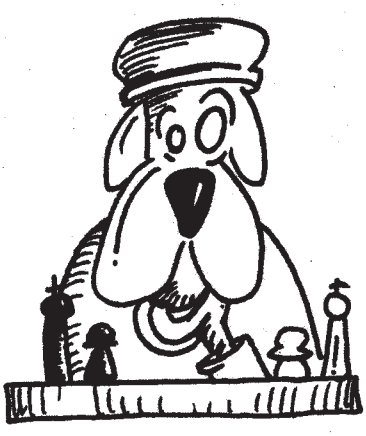
(White p2+p2+p2+p2+p1)

type A position

Retroanalysis proves that it is White to play. The last move was not 1.Kg1>h1 because there would have been an impossible check from the black pawn on h2. The last move was not 1.g2-g3 because the pawn on g2 would have been checking the black king.

The last move in a live position was by a black pawn to f3 or g4.

Afterwards it's death by *inevitable stalemate*.



Until next time!