



THE PUZZLING SIDE OF CHESS

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DOUBLE ROYAL LOYDS

number 53

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There are many chess puzzles in which the task is to add pieces to a given position so that White has mate. My generic term for this kind of problem is a “loyd”, named for American composer Samuel Loyd. His 1858 *mate in three* is the first and most famous example that I know of. (See problem 6, column 39.)

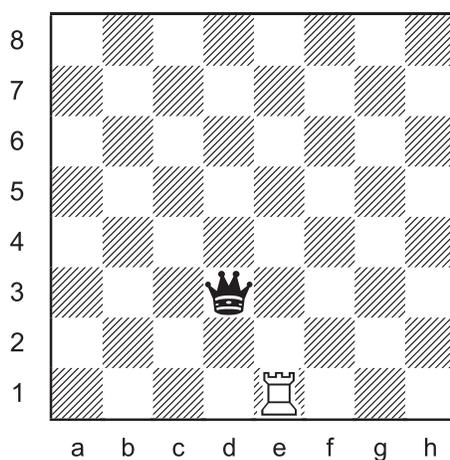
The loyds in this column are called “double royal” because it is the two kings which are added. Here are the special rules.

- a) Place both kings on the board so that White has mate in one move.
- b) The black king may not be placed on a square where he stands in check.
- c) The white king may be placed in check if the mating move eliminates the check.
- d) The position after the king placement must be legal. A position is legal if it can be reached in a normal game following the standard rules.
- e) Castling is allowed unless it can be proven illegal.
- f) An *en passant* capture is not allowed unless it can be proven that Black moved their pawn two squares on the previous turn.



Let's begin with a simple sample.

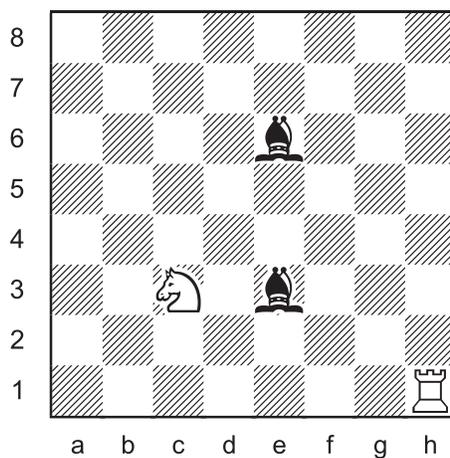
Double Royal Loyd 01



Place the two kings on the board so that White has mate in one.

Things get a little trickier from now on.

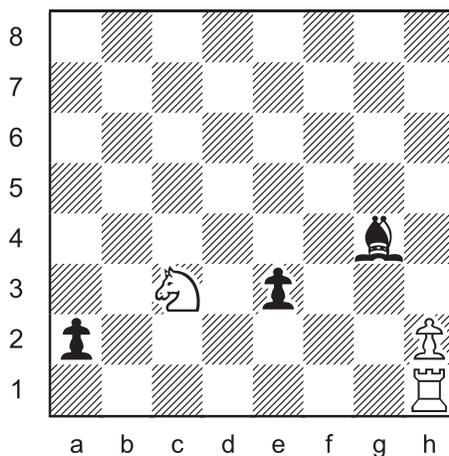
Double Royal Loyd 02



Place the two kings on the board so that White has mate in one.

The earliest *double royal* puzzle that I have found is the following miniature from 1925 by Scottish composer George Hume (1862-1936). He is best known for his work with Alain C. White, collecting problems and editing numerous books.

Double Royal Loyd 03

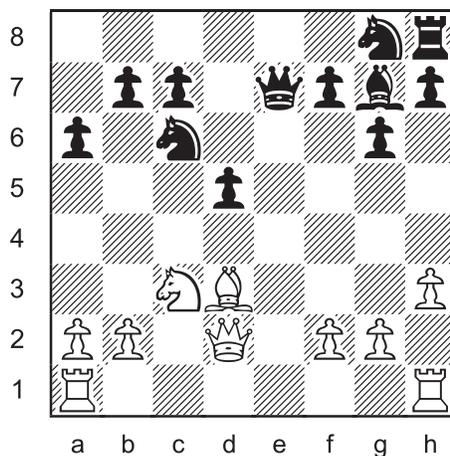


Place the two kings on the board so that White has mate in one.



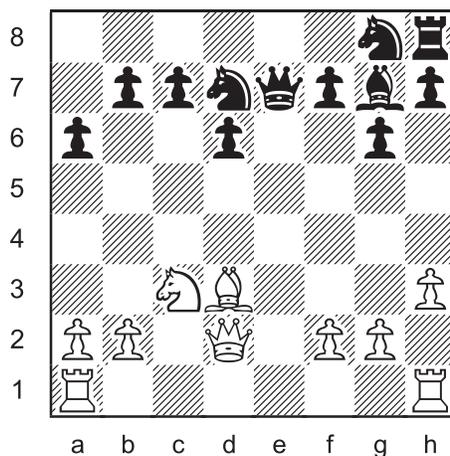
The next eight puzzles all have similar game-like positions.

Double Royal Loyd 04



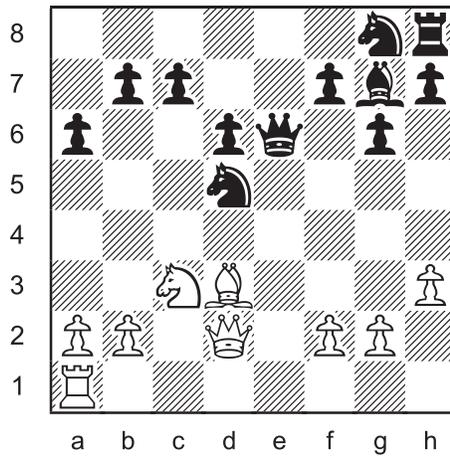
Place the two kings on the board so that White has mate in one.

Double Royal Loyd 05



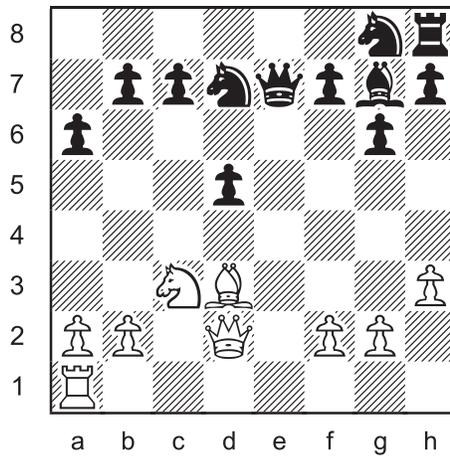
Place the two kings on the board so that White has mate in one.

Double Royal Loyd 06



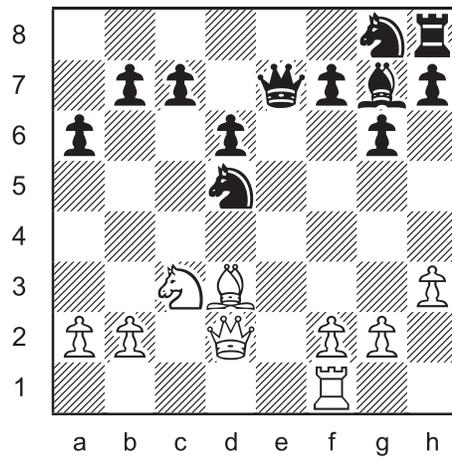
Place the two kings on the board so that White has mate in one.

Double Royal Loyd 07



Place the two kings on the board so that White has mate in one.

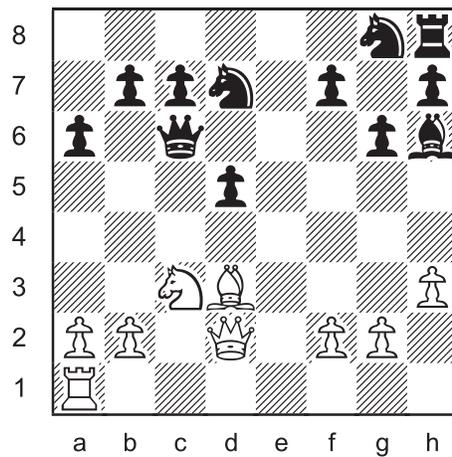
Double Royal Loyd 08



Place the two kings on the board so that White has mate in one.

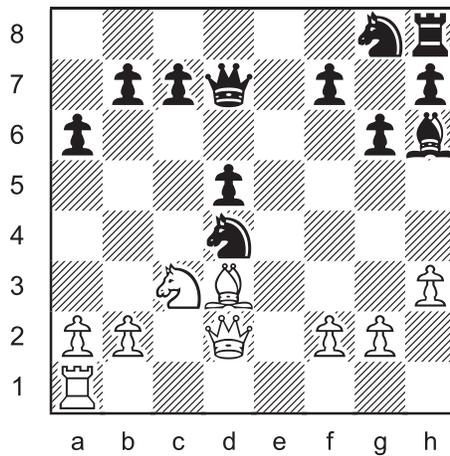
These kings really get around.

Double Royal Loyd 09



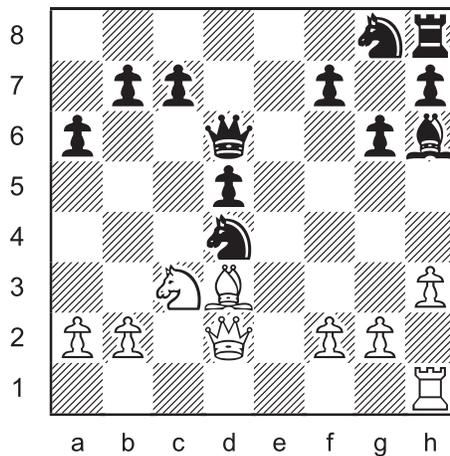
Place the two kings on the board so that White has mate in one.

Double Royal Loyd 10



Place the two kings on the board so that White has mate in one.

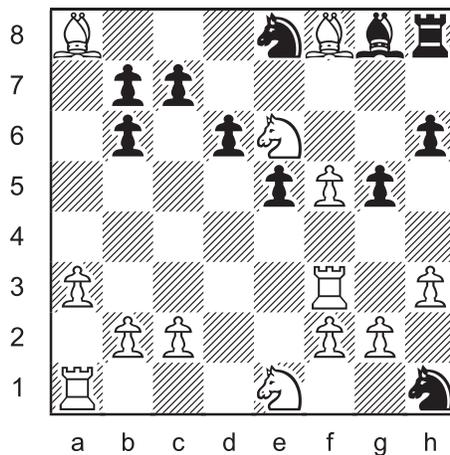
Double Royal Loyd 11



Place the two kings on the board so that White has mate in one.

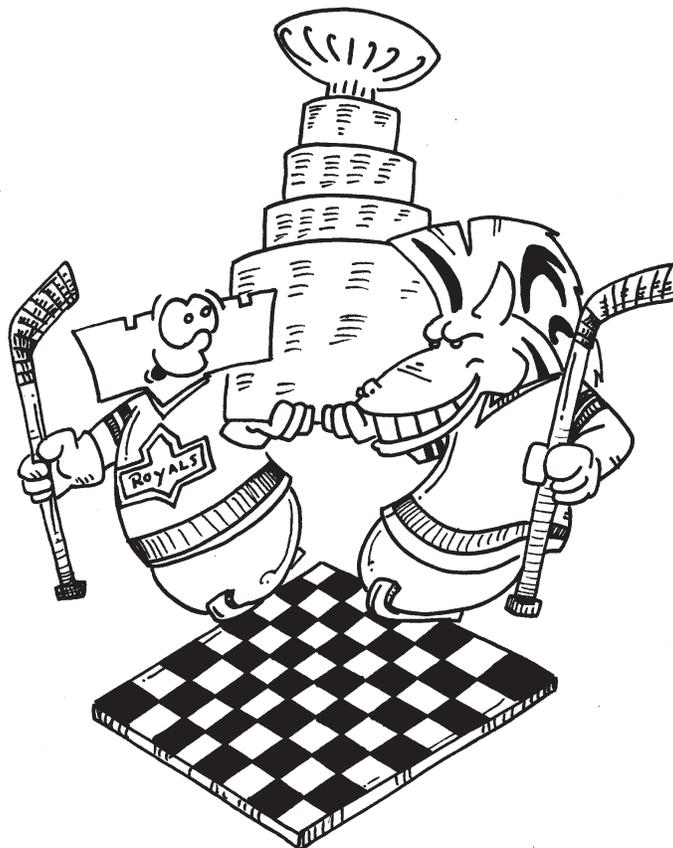
That was the last of the double royal twins. Now for something completely different.

Double Royal Loyd 12



Place the two kings on the board
so that White has mate in one.

The wait is almost over. The five winning problems from the 2013 *Chess Cafe Puzzlers Cup* will be presented here on November 30th. See you then.

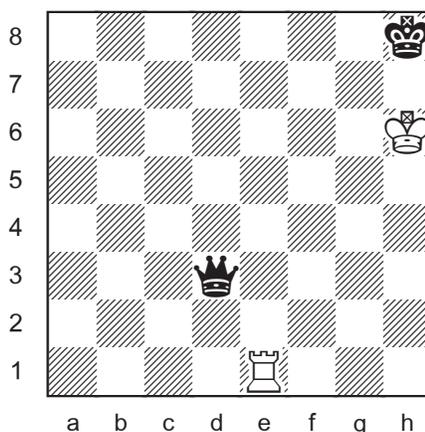


SOLUTIONS

All puzzles except number 3 are by J. Coakley, *ChessCafe.com* (2013).

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.

Double Royal Loyd 01



Add white king on h6, black king on h8.

1.Re8#

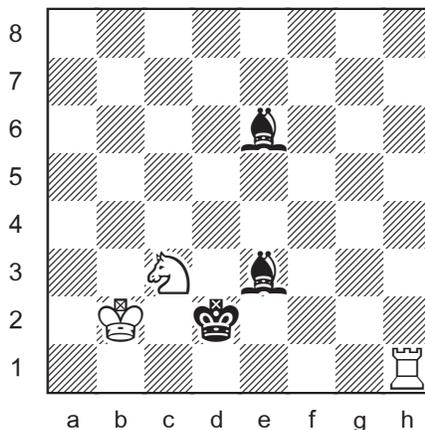
The black queen is a great defender. This is the only placement of kings that allows a mate in one.

Double Royal Loyd 02

J. Coakley 2013

ChessCafe.com

(after George Hume 1925)



Add white king on b2, black king on d2.

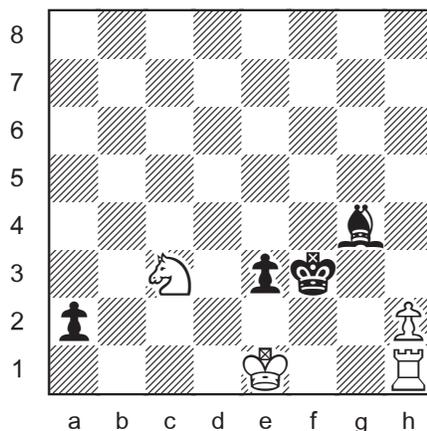
1.Rd1#

The solution is not changed by adding a white pawn on h2 and a black pawn on a2. The position would then more closely resemble George Hume 1925 (problem 03).

Double Royal Loyd 03

George Hume 1925

Fern vom Alltag



Add white king on e1, black king on f3.

1.0-0#

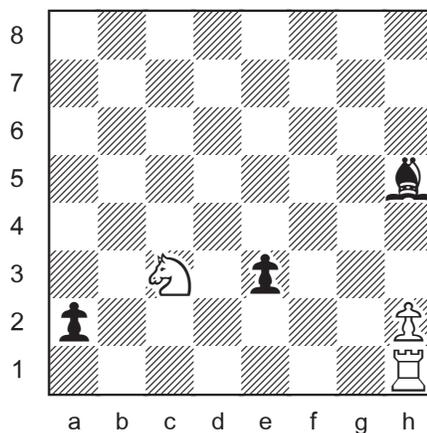
The convention in chess problems is that castling is allowed unless it can be proven illegal. (Such proof would show that the king or rook moved previously.)

Here is a twin problem.

Double Royal Loyd 03b

version J. Coakley 2013

ChessCafe.com



Place the two kings on the board so that White has mate in one.

Samuel Loyd (1841-1911) was born in Philadelphia, but lived most of his life in New York City. His well-deserved nickname was "the Puzzle King".



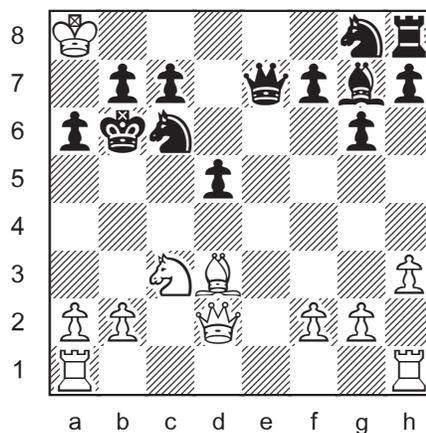
Sam Loyd

Double Royal Loyd 03b solution

Add white king on h3, black king on f3.

1.Rf1#

Double Royal Loyd 04



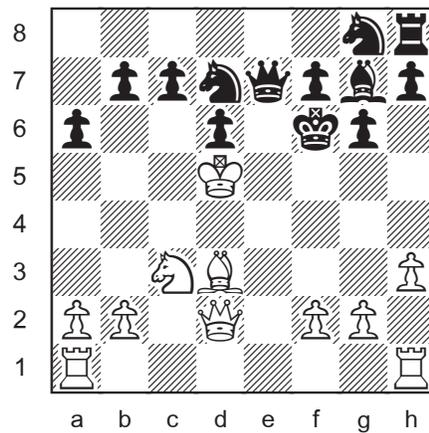
Add white king on a8, black king on b6.

1.Na4#

The white knight gives check, attacks c5, and uncovers an attack on a5 by the white queen.

The white king could have reached a8 earlier through f6 and e7.

Double Royal Loyd 05

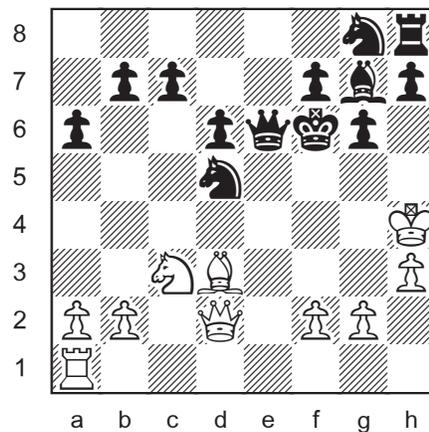


Add white king on d5, black king on f6.

1.Qf4#

A strongly centralized white king covers e6.

Double Royal Loyd 06

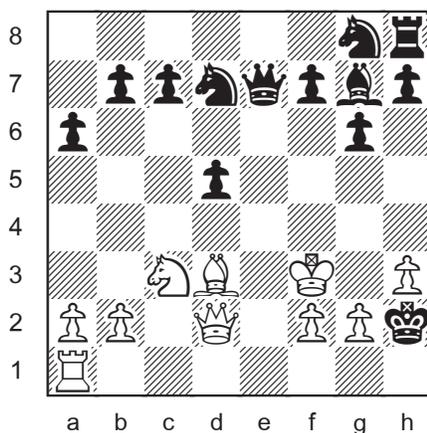


Add white king on h4, black king on f6.

1.Qg5#

Same square for the black monarch, different squares for the white royalty.

Double Royal Loyd 07

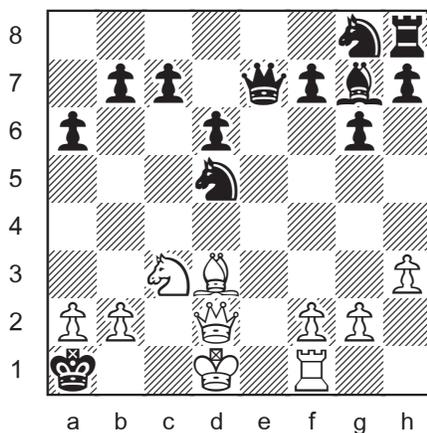


Add white king on f3, black king on h2.

1.Qf4#

The black king could have reached h2 earlier along the path d3-e2-f1-g1-h2.

Double Royal Loyd 08

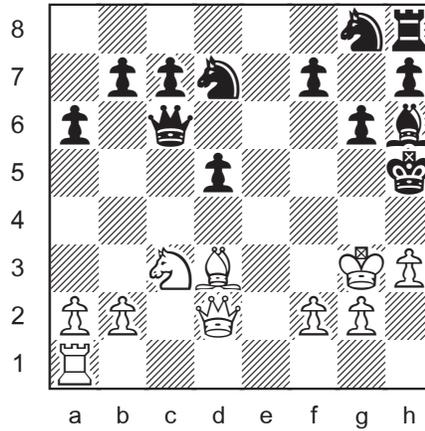


Add white king on d1, black king on a1.

1.Qc1#

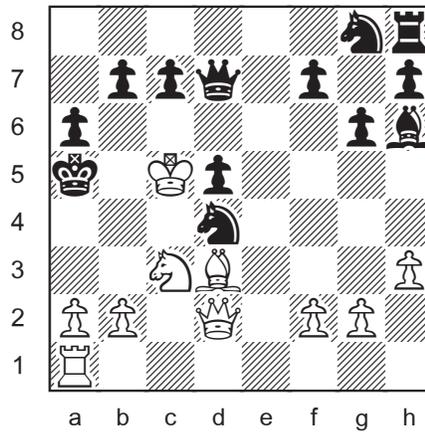
The white king obstructs the first rank so that the black king can be placed on a1. Otherwise he would be in check from the rook on f1.

Double Royal Loyd 09

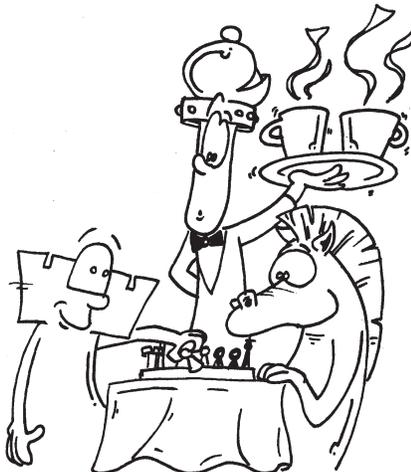


Add white king on g3, black king on h5.
1.Be2#

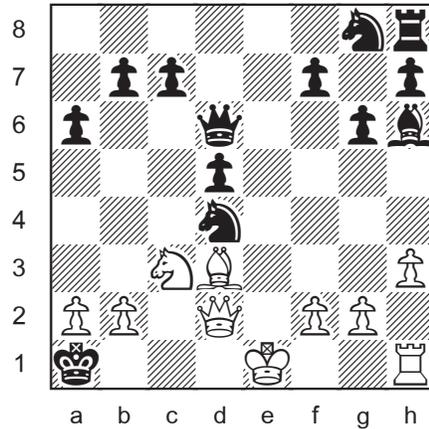
Double Royal Loyd 10



Add white king on c5, black king on a5.
1.b4#



Double Royal Loyd 11

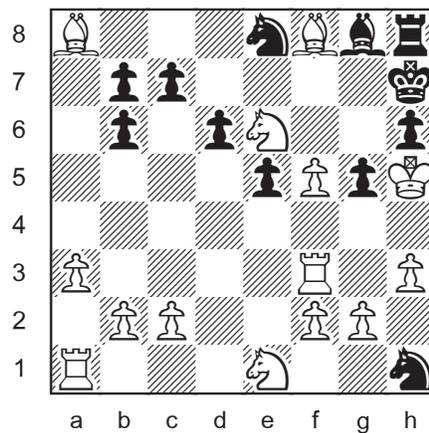


Add white king on e1, black king on a1.

1.0-0#

Castling is allowed in chess problems unless it can be proven illegal.

Double Royal Loyd 12



Add white king on h5, black king on h7.

1.fxg6 e.p. #

An *en passant* capture is not allowed in chess problems unless it can be proven that the captured pawn moved two squares on the previous turn.

The following argument proves that **Black's last move was ...g7-g5**. Consider the possibilities on the previous turn.

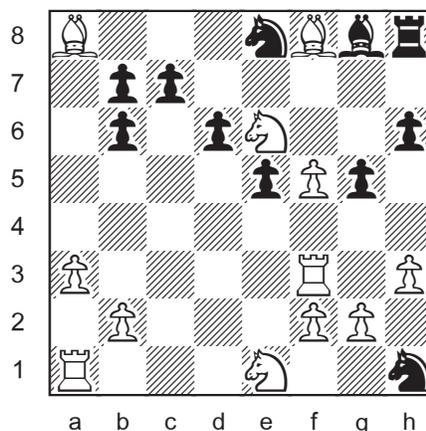
- The black rook had nowhere to move from.
- The black bishop could only have moved from f7, but it would be checking the white king from that square. *It cannot be Black's turn if White is in check.*

- c. The black knights could only have moved from f6, g7, or g3, where they would be checking the white king.
- d. The black king did not just move from g7 because he would have been in an impossible double check. He did not move from g6 because he would have stood next to the white king.
- e. So the last black move had to be by a pawn.
 - e1. White has fourteen pieces on the board. Because the bishop on a8 must be a promoted pawn, the two missing white pieces are the queen and the original light-square bishop.
 - e2. We know that the white queen was captured on b6 because it is a dark square. This capture (...axb6) happened earlier so that a white pawn could reach a8. The only white piece to be captured elsewhere was the light-square bishop.
 - e3. The pawn on b7 has never moved. All of the other black pawns are on dark squares so none of them could have captured on the previous turn.
 - e4. The last move was not ...d7-d6 because that pawn moved earlier to let the bishop get from c8 to g8. The bishop on g8 is not a promoted pawn because it would require two additional captures for the f-pawn to promote on d1 or f1.
 - e5. The last move was not ...h2-h1=N because that would require two additional captures.
 - e6. The last move was not ...g6-g5 because the pawn would be checking the white king from g6.
 - e7. That only leaves one other move: ...g7-g5.

The solution with **white king f1 and black king d2** followed by **1.Rd3#** is not legal. With unmoved pawns on b2, c2, f2, g2, the black king could never reach d2.

Double Royal Loyd 12b

Remove the white pawn from c2 in the puzzle diagram.



With an additional white piece missing, the *en passant* capture with white king h5, black king h7, is not allowed. Black did not necessarily play ...g7-g5 on their last turn. For example, they might have played ...f6xe5.

Double Royal Loyd 12b solution

Add white king on f1, black king on d2.

1.Rd3#

Until next time!

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