



THE PUZZLING SIDE OF CHESS

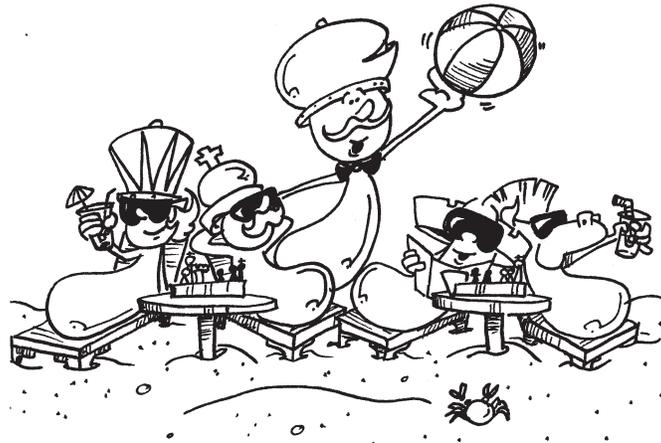
Jeff Coakley

SEASON 4 PREMIERE

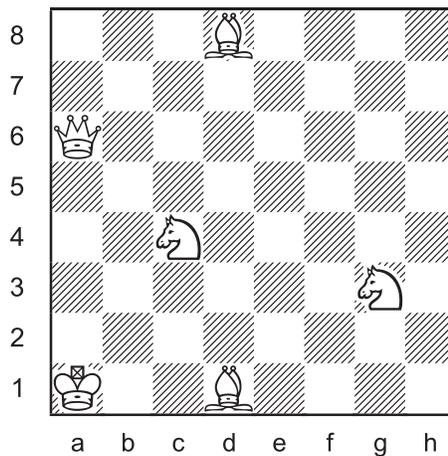
number 138

September 30, 2017

Summer break is over. Let's kick off the new season with a seven puzzle smorgasbord. Number XX if you're counting.



Triple Loyd 66

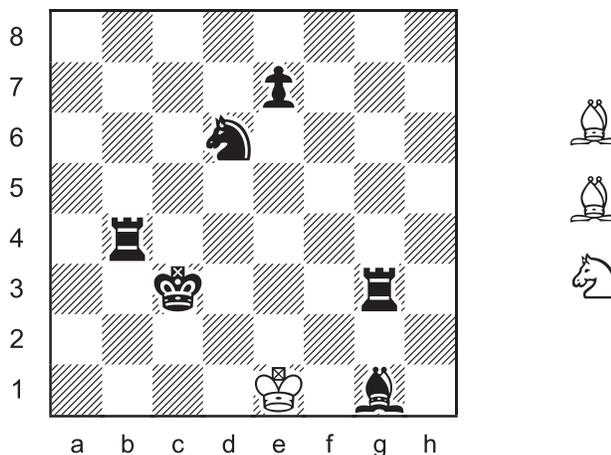


Place the black king on the board so that:

- Black is in checkmate.
- Black is in stalemate.
- White has a mate in 1.

For detailed instructions and more problems of the type featured in this column, see the *Puzzling Side* archives, still under reconstruction and now 85% complete.

Inverted Loyd 41



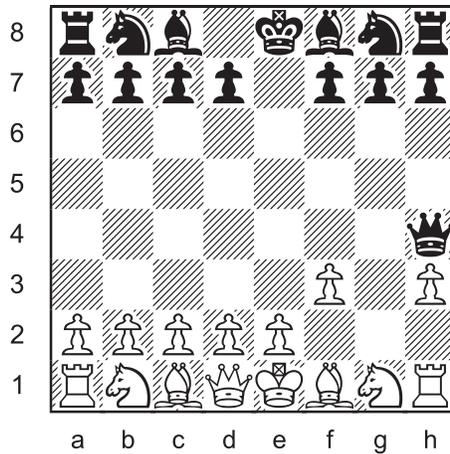
Place a white knight and two bishops on the board so that White has a mate in 1.



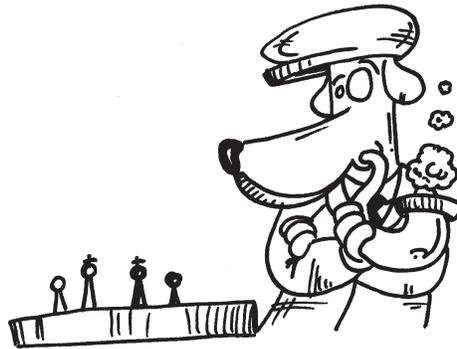
Sunburst

Kicking River, British Columbia

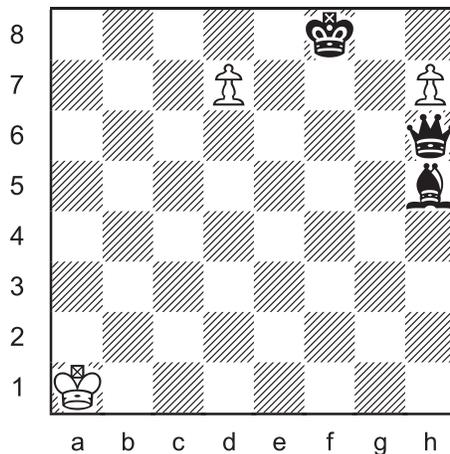
Proof Game 69 (4.0 moves)



This position was reached in a game after each player made exactly four moves. What were the moves?



Multi-Wham 30

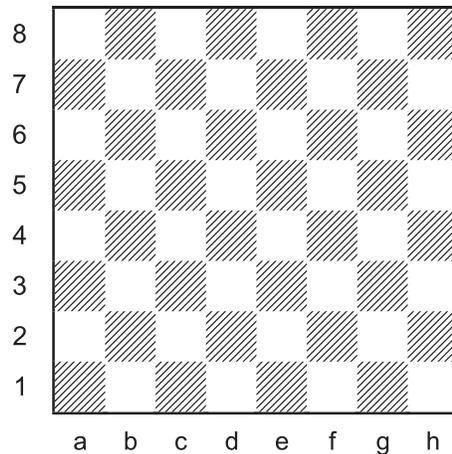


series-mate in 8

White plays eight moves
in a row to mate Black.

Only the last move may give check. Captures are allowed. White may not place their own king in check. Black does not get a turn.

Rook Mate Maximizer



Construct a legal position in which White has the most rook moves that mate in 1.

part a. Discovered checks are not allowed.

part b. Discovered checks are allowed.

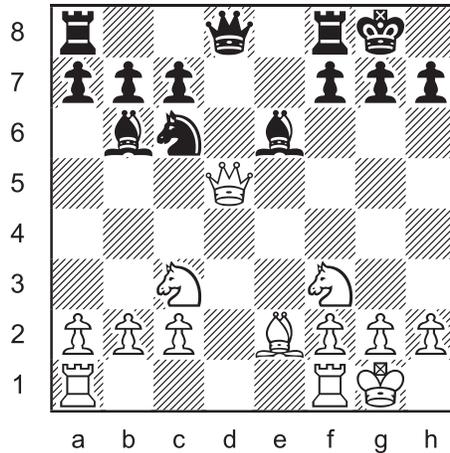
“Legal” means *reachable in an actual game*. In *part b*, each different move by a piece that uncovers mate is counted separately.



Art and Reality

Odessa, Texas

Cyclotron 63



Cycle three pieces so that
Black is in checkmate.

Switch the position of three pieces so that Black is in checkmate. No actual chess moves are made. The pieces simply swap squares. The pieces trade places in a “cycle”. Piece A goes to square B, piece B goes to square C, and piece C goes to square A.

Any three pieces can trade places. Colours do not matter. The cycled pieces can be all white, all black, or a mix of both.

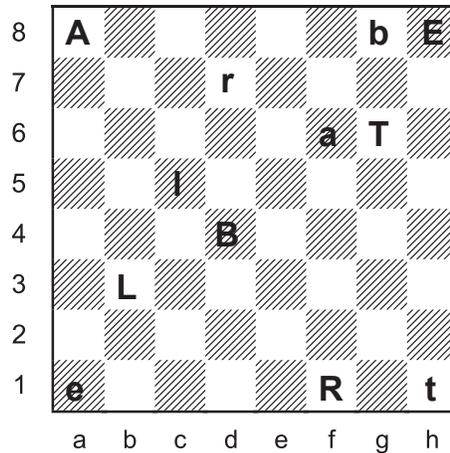
The position after the cycle must be legal. “Don’t get boxed in.”



Goldman

Salem, Oregon

Rebus 09



Each letter represents a different type of piece.
Uppercase is one colour, lowercase is the other.
Determine the position and the last move.
The letter on c5 is a lowercase L, not a capital i.



No tourists in sight.

Lake Louise, Alberta

The enchanting Lake Louise is named for Princess Louise (1848-1939), the daughter of Queen Victoria and Prince Albert. Her husband, the Duke of Argyll, was Governor General of Canada from 1878 to 1883. During this time, they lived in Ottawa.

Surprisingly, the province Alberta is also named after the princess, whose full name is Louise Caroline Alberta.

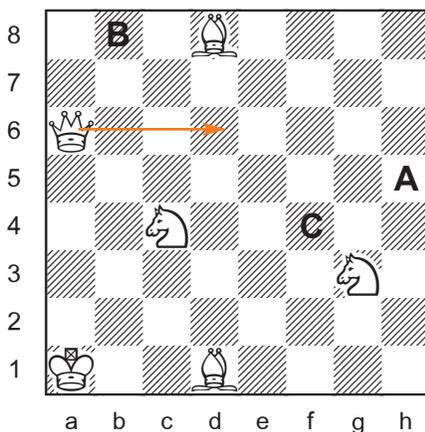
SOLUTIONS

All problems by J. Coakley. *Puzzling Side of Chess* (2017). Rebus 9 is a joint composition with Andrey Frolkin.

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.

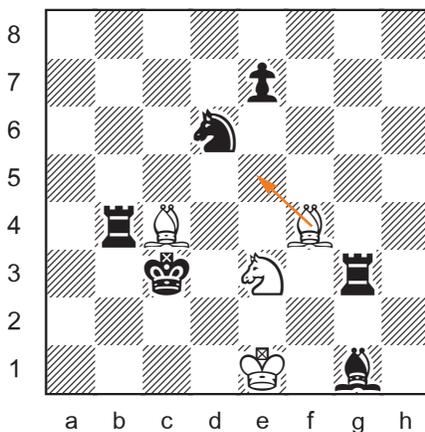
Triple Loyd 66



- A. Kh5#
- B. Kb8=
- C. Kf4 (Qd6#)

A tricky mate to find.

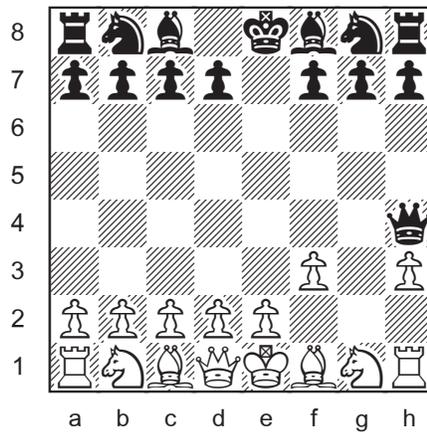
Inverted Loyd 41



- Bc4, Ne3, Bf4 were added.
1. Be5#

“Pure mate”. Each square in the king’s field is attacked once only or blocked by a black piece that is not attacked.

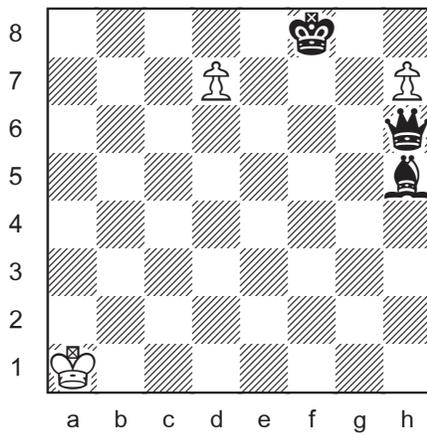
Proof Game 69 (4.0 moves)



1.f3 e5 2.f4 exf4 3.h3 f3 4.gxf3 Qh4#

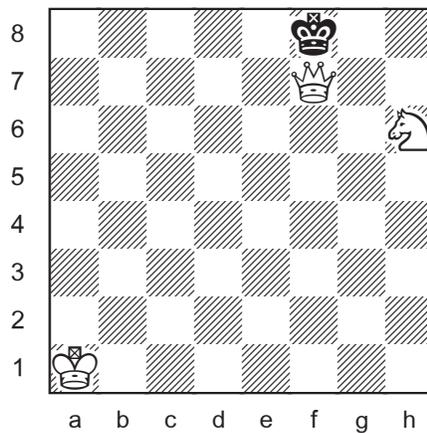
A strange sort of helpmate.

Multi-Wham 30



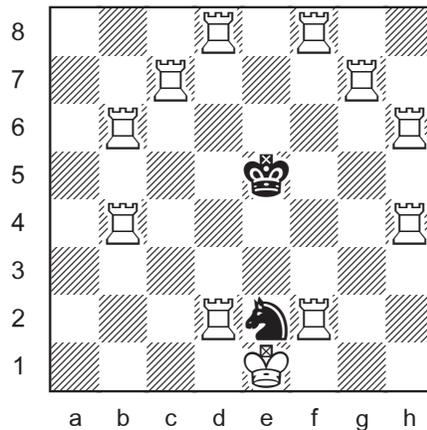
series-mate in 8

1.d8=N 2.Nf7 3.Nxh6 4.Ng8 5.h8=Q 6.Qxh5 7.Nh6 8.Qf7#



Rook Mate Maximizer

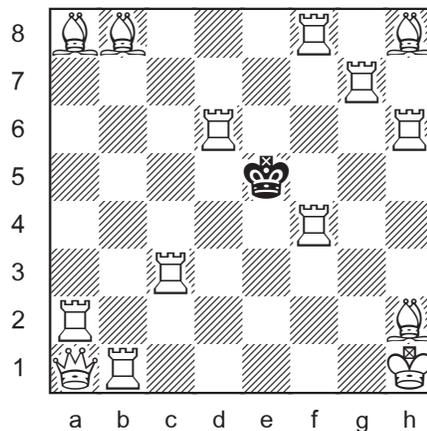
a. no discovered checks



20 mates in one

Twenty is the theoretical maximum, ten rooks with two mates each. The black knight is included to legalize the position, giving Black a move on the last turn.

b. with discovered checks



61 mates in one

$(2 + 2 + 14 + 12 + 13 + 2 + 14 + 2)$

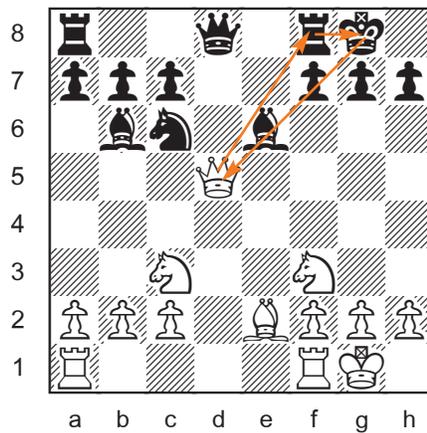
To create four *discovery ambushes*, two promotions to bishop (or queen) are necessary, allowing six promotions to rook.

The move 1.Rd6-c6+ is not mate.

The last moves were 1.Rc6-d6+ Kd5-e5.

The theoretical maximum for this task is 64 mates. $(14 \times 4) + (2 \times 4)$
However this is evidently impossible. Can you break the record of 61?

Cyclotron 63



Qd5→f8 Rf8→g8 Kg8→d5

Strategic centralization of the king.

Any position which cycles the black king to e2 or a1 is illegal because the black king cannot be on the 1st or 2nd rank with unmoved white pawns on a2 b2 c2 f2 g2 h2.



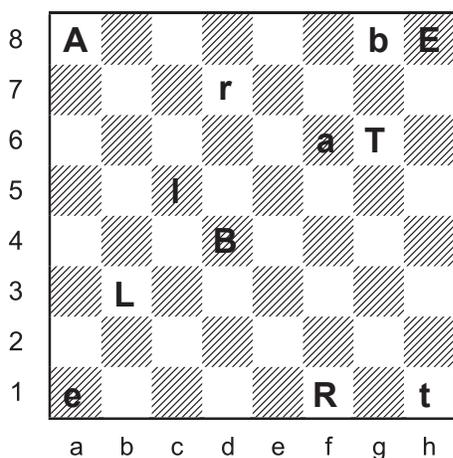
Season 4 of *The Puzzling Side of Chess* is on a variable schedule. New material will be presented once or twice per month. On other weeks, a previously unarchived column will be posted.

Rebus 09

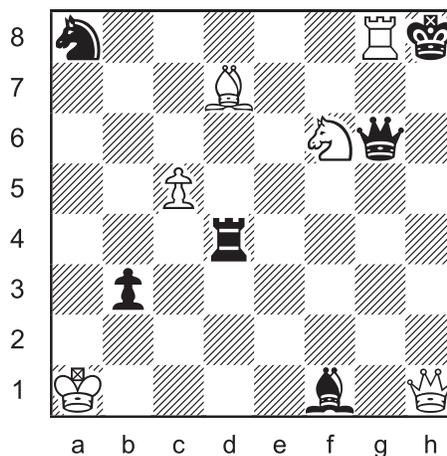
Andrey Frolkin & Jeff Coakley 2017

Puzzling Side of Chess

"Alberta"



A = knight
 L = pawn
 B = rook
 E = king
 R = bishop
 T = queen
 caps = black
 last move:
 1...hxg8=R#



Hound dog theme. Twelve pieces, six letters, six potential king pairs! An extreme example of the *Elvis Effect*. The original hound dog can be found in chessproblems.ca *Bulletin*, issue 8 (EE-3). See the latest issue (12) for more on rebus minimalism.



L = ♙

Only letter not on 1st or 8th rank.

♔ = (ARTBE)

Each has one uppercase, one lowercase.

A ≠ ♔

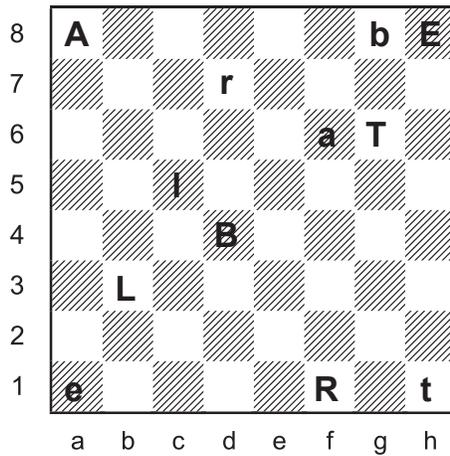
If A = ♔ A is attacked along a rank or file by the other four letters (e/a1, R/f1, T/g6, b/g8). Any assignment of queen and rook results in an impossible multiple check.

R ≠ ♔

If R = ♔ R is attacked along a rank or file by the other four letters (e/a1, B/d4, a/f6, t/h1). Any assignment of queen and rook results in an impossible multiple check.

T ≠ ♔

If T = ♔ T is attacked along a rank or file by the other four letters (R/f1, a/f6, b/g8, E/h8). Any assignment of queen and rook results in an impossible multiple check.



Eliminating B as king is more complicated.

B ≠ ♔

If B = ♔

'b' on g8 is attacked along a rank or file by three letters (A/a8, T/g6, E/h8). One of these three letters must be a queen or rook, giving check.

A ≠ ♔♘ (f6+) Both kings in check.

E ≠ ♔♘ (a1+) Both kings in check.

(AE) = ♖♞ Rook check from a8 or h8.

R ≠ ♔ (d7+) Both kings in check.

T ≠ ♔ (g6+) Impossible double check.

The double check gxh8=R++ with E = ♖ and T = ♔ is illegal because the black pawn on c5 would also give check.

♔ = ∅? No letter can be queen.

E = ♔

B ≠ ♔ (d4+, g8+) Both kings in check.

E is attacked on a rank or file by the other four letters (A/a8, R/f1, b/g8, t/h1). There is only one way to assign queen and rook for a legal double check.

B = ♖

T = ♔

last move: 1.hxg8=R#

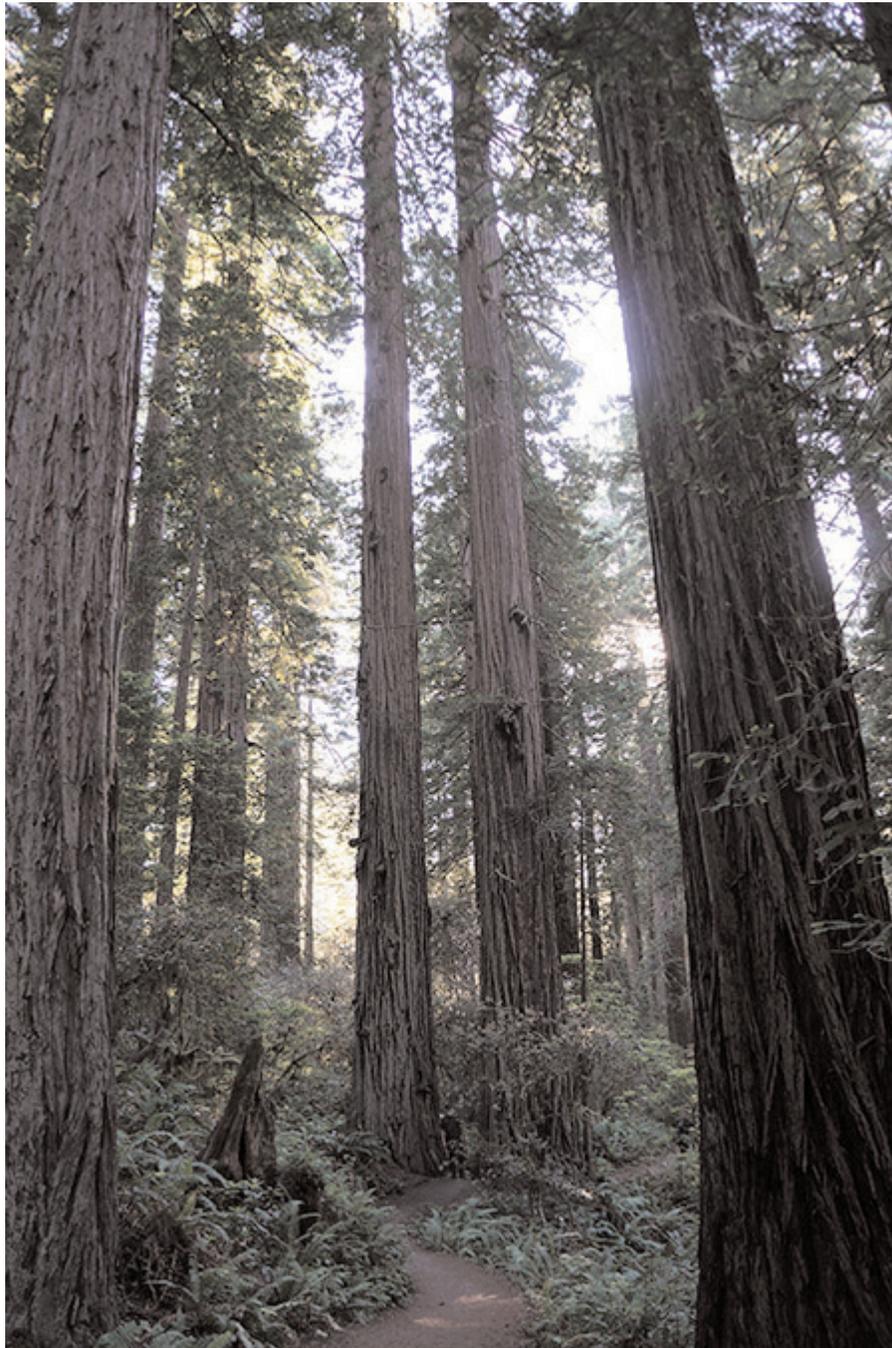
uppercase = black

A ≠ ♘ (f6+) Triple check.

A = ♞

R = ♖





Trees of Analysis

Redwood Park, California

Until next time!

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Photos by the road warrior.