THE PUZZLING SIDE OF CHESS
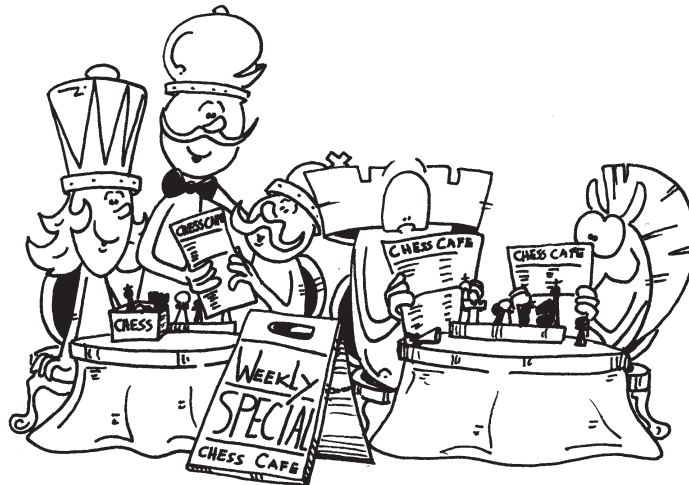
Jeff Coakley

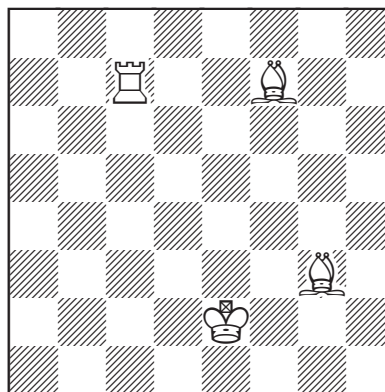## SMORGASBORD XXXV: Two-two-two

number 222   April 24, 2023

Column 222. Some kind of weird milestone. To mark the insignificant occasion, this month's menu features a five puzzle smorgasbord.
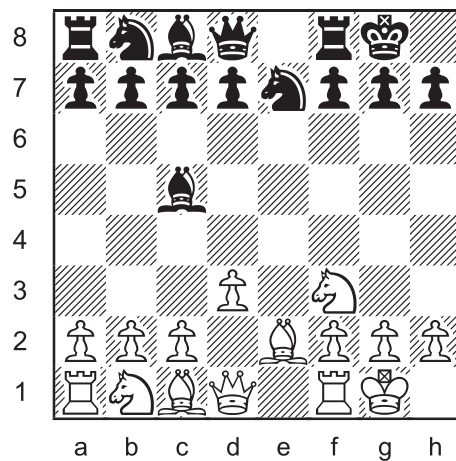

Triple Loyd 89

Place the black king on the board so that:
- A. Black is in checkmate.
- B. Black is in stalemate.
- C. White has mate in 1.

Longer Proof Game 108   (6.0 moves)

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

Numerology is the study of the mystical significance of numbers. For those who believe in such things, numbers with repeating digits, such as 222, have special meaning. They are known as *angel numbers*.

The number 222 has positive connotations. Like a good horoscope, it promises love, peace, and spiritual growth.

Two R - Two B - Two N - One K
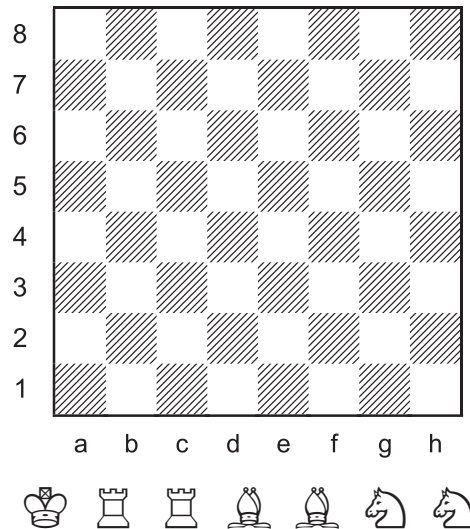
Bishops must be placed on opposite-colour squares.

A. Place 1 king, 2 rooks, 2 bishops, and 2 knights on the board so that they have the most total moves.

B. Place 1 king, 2 rooks, 2 bishops, and 2 knights on the board so that they only have 8 total moves.

C. Construct a position with a white king, 2 rooks, 2 bishops, and 2 knights against a lone black king on a8 so that White has the most mates in 1 move. The position must be legal (reachable in an actual game). Discovered checks are allowed.

D. Same as part C but with the black king on e8.

Multi-Wham 70
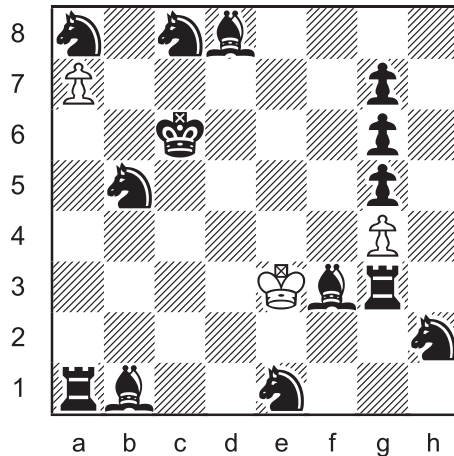
series-mate in 35

White plays thirty-five 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.

Zombie 222   *Electric 1968 Mustang*

The Zombie 222 is a record-setting muscle car designed by Bloodshed Motors of Austin, Texas. The classic 1968 Mustang fastback, converted to all-electric power, can accelerate to 60 miles per hour in 2.4 seconds. That's 97 km/h if you live outside the US. The number 222 refers to "two electric motors, two battery controllers, and too damn fast".
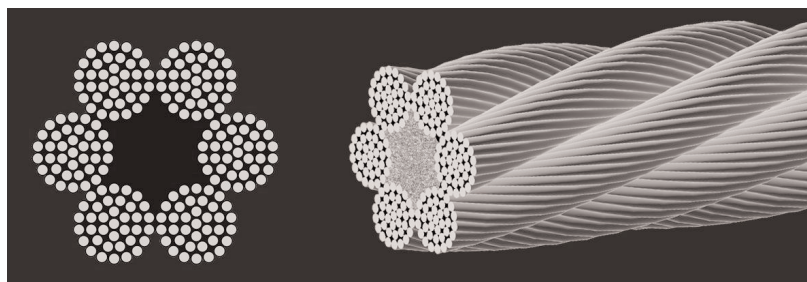
Rebus 94

"Stream Master"

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

$$222 = 6 \times 37$$

Wire rope used in heavy duty engineering is often constructed in a 6 x 37 pattern. Six large strands are wound together spirally. Each strand is made of 37 smaller steel wires, also arranged in a helix.

SOLUTIONS

All problems by J. Coakley, *Puzzling Side of Chess* (2023). Rebus 94 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.

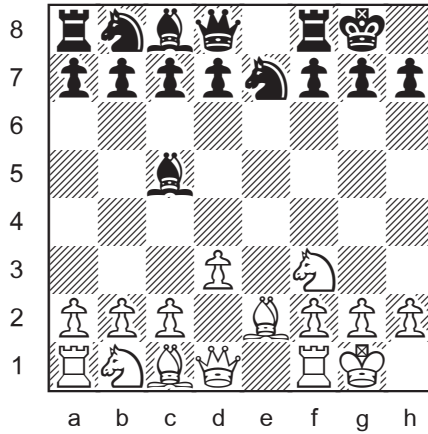*Archives.* Past columns are available in the *Puzzling Side* archives.

Triple Loyd 89
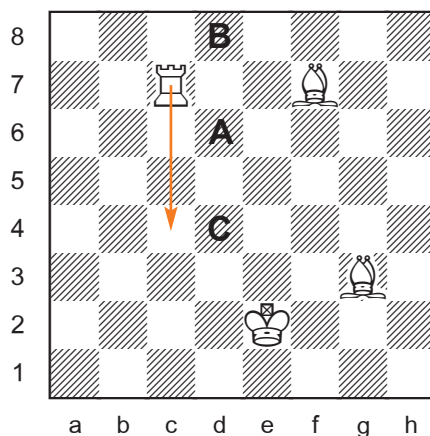
A. Kd6#
B. Kd8=
C. Kd4 (Rc4#)

Up and down the d-file.
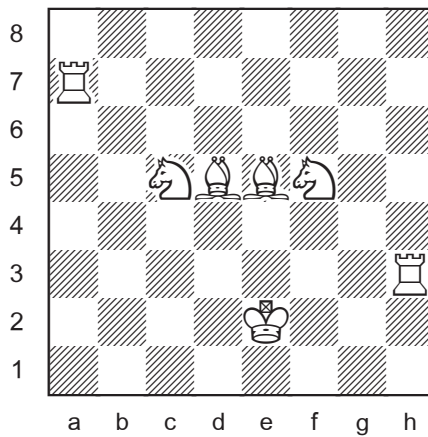
Longer Proof Game 108 (6.0 moves)

1.d3 e5 2.d4 exd4 3.Nf3 d3 4.exd3 Bc5 5.Be2 Ne7 6.0-0 0-0

Queen Pawn Tempo Gambit.
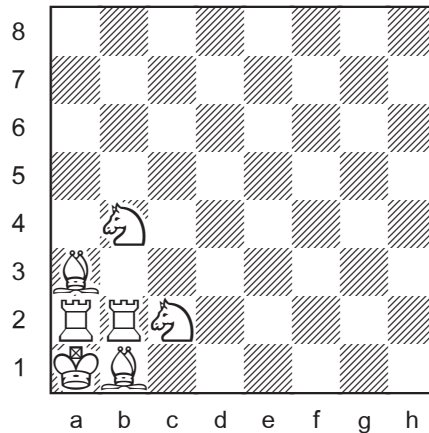

Two R - Two B - Two N - One K

A. Move Maximizer

78 moves (28R 26B 16N 8K)

Theoretical maximum.
The king and rooks could also be on other squares.
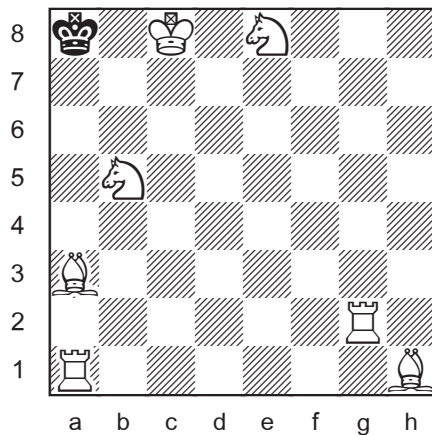The position can be reflected and/or rotated.

Two R - Two B - Two N - One K

B. Move Minimizer

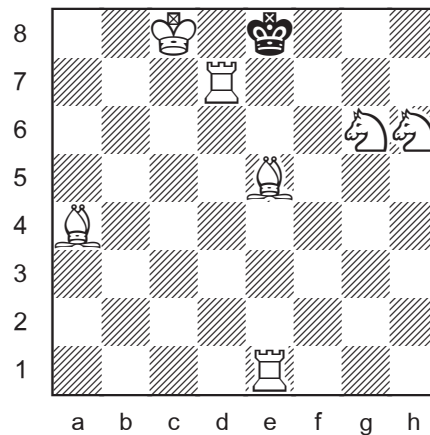8 moves (0K 1R 0B 7N)

C. Mate Maximizer

22 mates
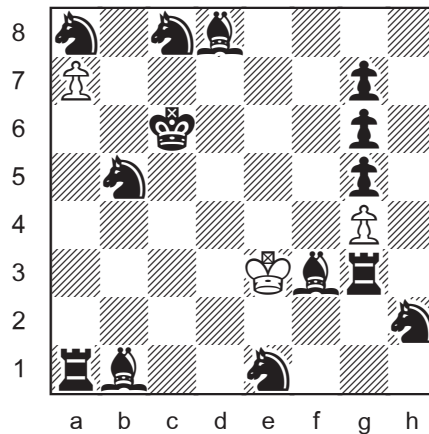(14/Rg2 + 7/Ba3 +1/Ne8)

D. Mate Maximizer

27 mates
(14/Rd7 + 13/Be5)

Computers have not verified that these are the maximum number of mates. Can you set a new record? For a black king on any square, see column 147.

Multi-Wham 70

series-mate in 35

In order to free either pawn, White must first take the bishop on d8. The white king can only reach d8 by going through e4 and e5. The e4 square is guarded by the bishops on b1 and f3. Those bishops are defended by the other black pieces on the first 3 ranks. So they will all have to be captured.
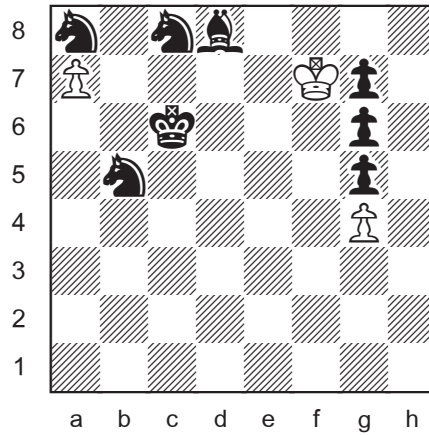
1.Kd2   Starting with the rook on a1 is fastest. *1.Kf2? 2.Kxg3 3.Kxh2* and *1.Kf2? 2.Kxe1 3.Kf2* are both two moves slower.

2.Kc1 3.Kb2 4.Kxa1 5.Kxb1 6.Kc1 7.Kd2 8.Kxe1
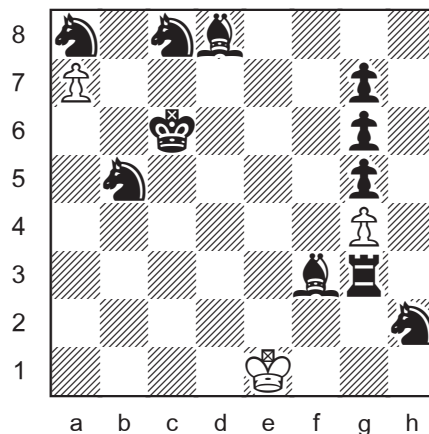
9.Kf2 10.Kxg3 11.Kxh2 12.Kg3 13.Kxf3   All clear!

14.Ke4 15.Ke5 16.Ke6 17.Kf7   Now the choices are many.

18.Kxg6!   This capture is understandable once it is realised that the a-pawn will promote to rook. And that a rook will not be able to capture on g6 because of check.

Promoting the g-pawn first after *18.Ke8? 19.Kxd8 20.Ke8 21.Kf7 22.Kxg7 23.Kxg6 24.Kxg5* takes three extra moves.

19.Kf7!   The pawn on g7 will be captured by the promoted rook. *19.Kxg7? 20.Kf7 21.Ke8 22.Kxd8* is one move longer.

20.Ke8 21.Kxd8
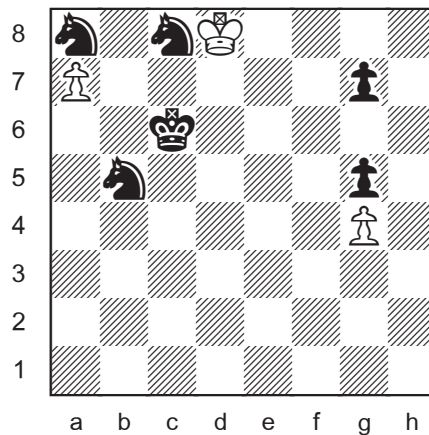
22.Kxc8 23.Kb8 24.Kxa8 25.Kb8

26.a8=R   Promoting to knight would be a series-mate in 38.

27.Ra7 28.Rxg7 29.Rxg5 30.Rxb5

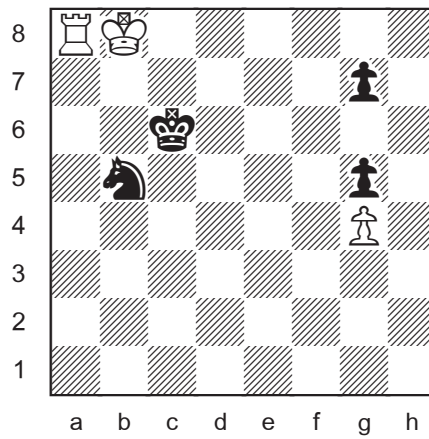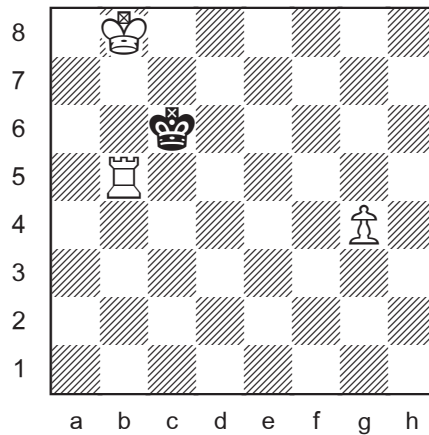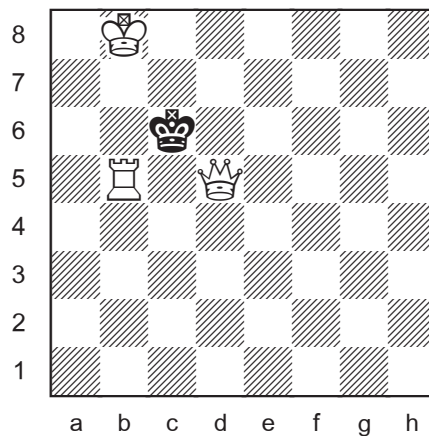The rook takes its place in the mating net. Only capturing the knight allows mate in 5. There are plenty of ways to mate in 6. For example, *30.Rd5? 31.g5 32.g6 33.g7 34.g8=Q 35.Qg7 36.Qb7#*.
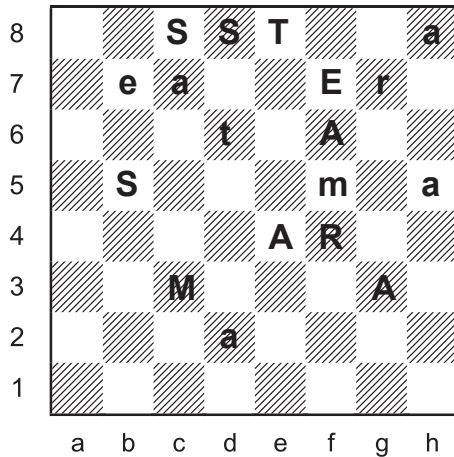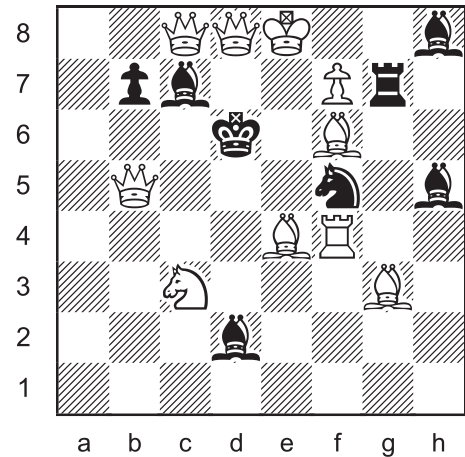

31.g5 32.g6 33.g7 34.g8=Q 35.Qd5#

222

Rebus 94

Andrey Frolkin & Jeff Coakley
"Stream Master"

	a	b	c	d	e	f	g	h
8		S	S	T			a	
7	e	a			E	r		
6			t		A			
5		S				m	a	
4				A	R			
3			M			A		
2				a				
1								

S = queen
T = king
R = rook
E = pawn
A = bishop
M = knight

caps = white

(10 + 8)

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

♙ = (MER)   Letters not on 8th rank.

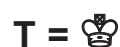M ≠ ♔   If M = ♔   A ≠ ♕♖   Both kings in check (c7 f6).
                        A ≠ ♗   Both kings in check (d2 e4).
                        A = ♘   <u>Check</u> (g3).
                        S ≠ ♕♖   Impossible double check (b5).
                        S ≠ ♗   Impossible double check (c8).
                        S = Ø?   No piece can be assigned to letter S.

E ≠ ♔   If E = ♔   Regardless of piece assignment, the king on b7
                        is in <u>check</u> by letter S (♖b5, ♗c8, or ♘d8) and
                        the king on f7 is in <u>check</u> by letter A (♖c7, ♗h5,
                        or ♘h8). Both kings in check.

R ≠ ♔   If R = ♔   A ≠ ♕♗   Both kings in check (d2 f6).
                        A ≠ ♘   Impossible check (h5). No last move.
                        A = ♖   <u>Check</u> (g3).
                        T ≠ ♕♗   Both kings in check (d6).
                        T ≠ ♘   Impossible double check (e8).
                        T = Ø?   No piece can be assigned to letter T.

T = ♔

8 · S · S · T · · · a
7 · e · a · t · · E · r
6 · · · t · · A · · ·
5 · S · · · · m · a
4 · · · · A · R · · ·
3 · · M · · · · · A
2 · · · a · · · · ·
1 · · · · · · · ·
   a b c d e f g h

T = ♚

A = ♗   A ≠ ♕♖   Both kings in check (f6 h8).

A ≠ ♘   Both kings in check (c7 e4).

S = (♕♖)   S ≠ ♘   Impossible double check (b5 c8).

The king on d6 is in <u>check</u> by a queen or rook on d8. In either case, the last move had to be a promotion by White (d7xc8, d7-d8, or e7xd8).

caps = white

M = ♘   R ≠ ♘   Both kings in check (g7).

E ≠ ♘   Impossible double check (f7).

R = ♖   R ≠ ♕   Impossible double check (f4).

R ≠ ♙   Impossible black bishop h8 with black pawn g7.

E = ♙

S = ♕   The last move was one of three possible queen promotions: 1.d7xc8=Q+, 1.d7-d8=Q+, or 1.e7xd8=Q+.

Until next time!