

THE PUZZLING SIDE OF CHESS

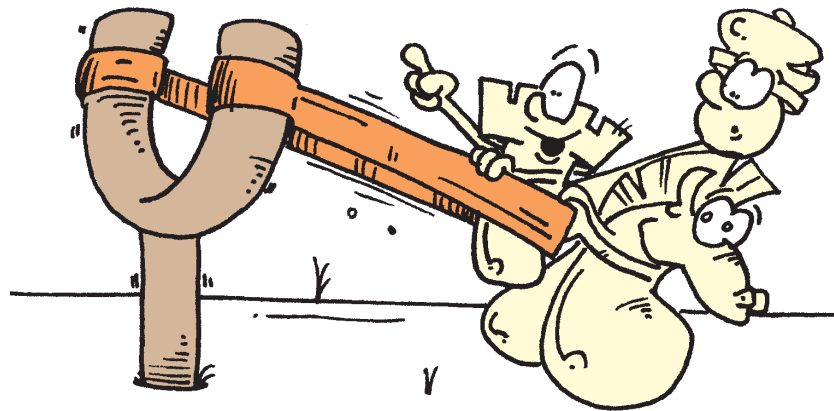
Jeff Coakley

SEASON 5 Glad To Be Alive

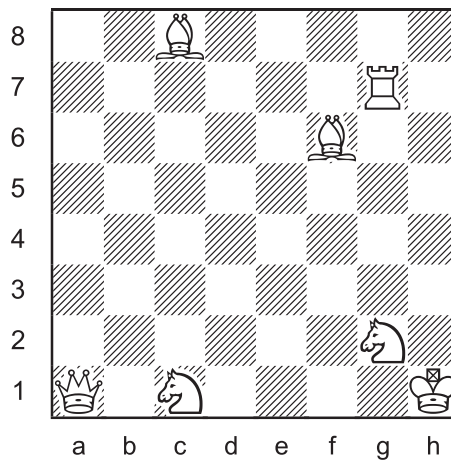
number 174

January 30, 2019

You may not have noticed we were gone, but the *Puzzling Side* is back. Ready to launch the new season with smorgasbord XXV.



Triple Loyd 79

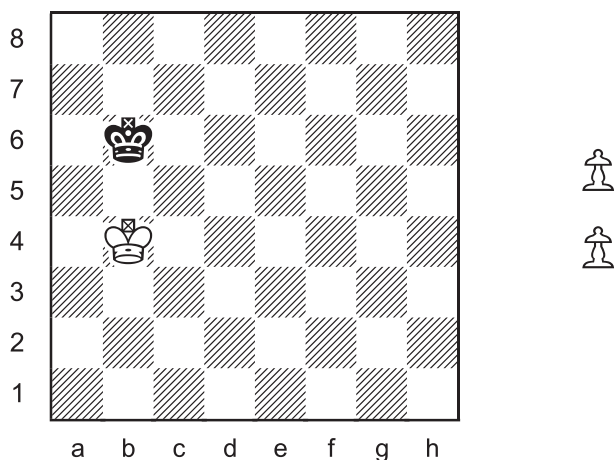


Place the black king on the board so that:

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

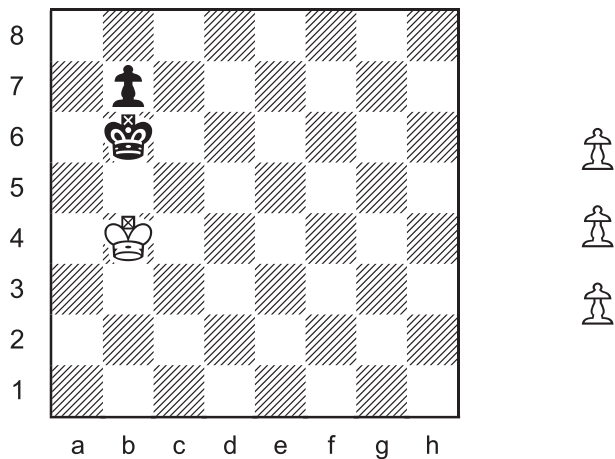
Season 5 schedule. Columns will be posted once per month during 2019, at least until my next book is completed. Slow poke at work.

Inverted Loyd 55

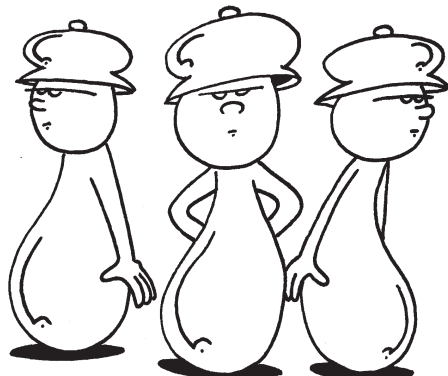


Place two white pawns on the board so that White has mate in 1.

Inverted Loyd 56

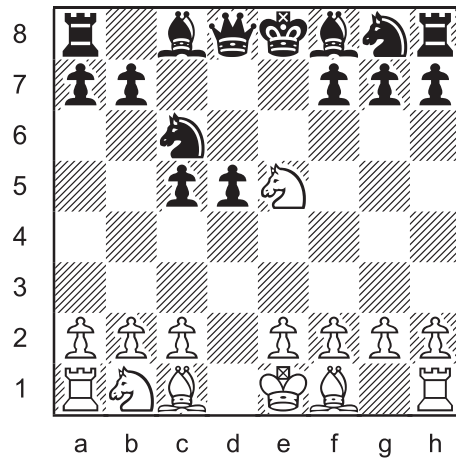


Place three white pawns on the board so that White has mate in 1.

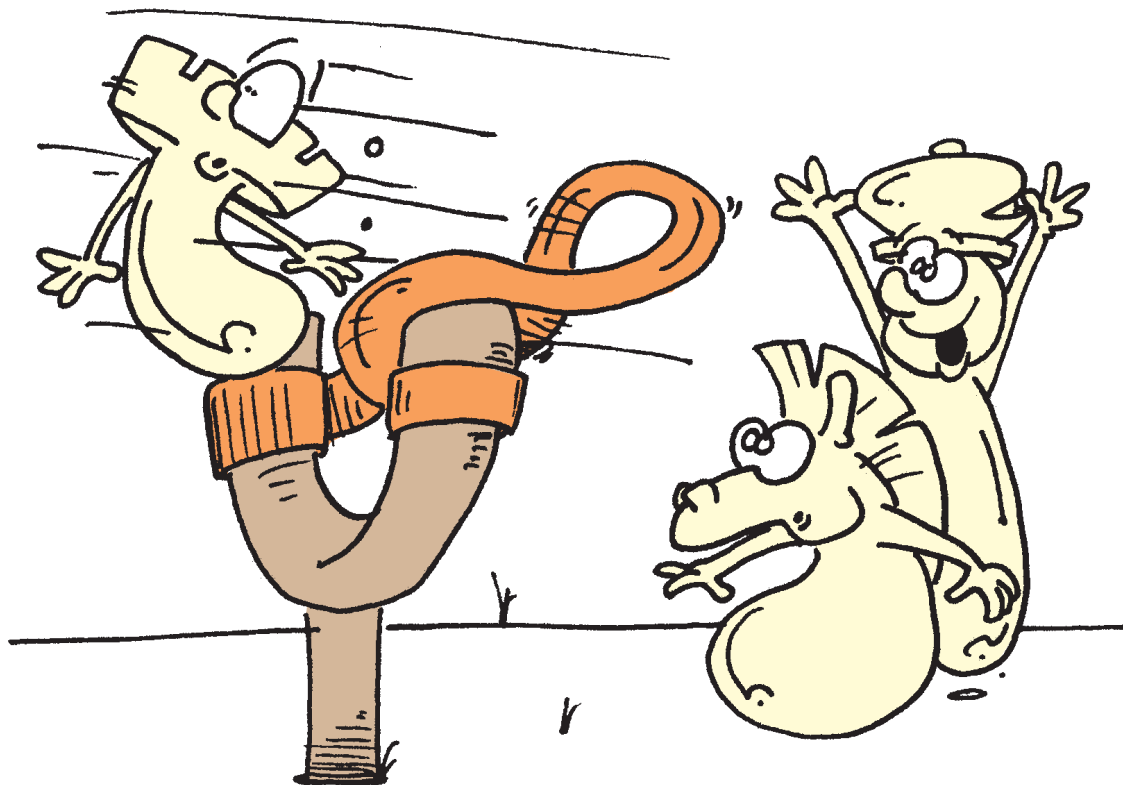


For more problems like those presented here, see the index of past columns in the *Puzzling Side* archives.

Longer Proof Game 68 (5.0 moves)

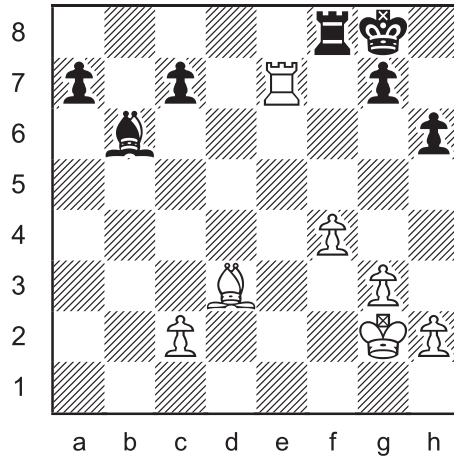


This position was reached in a game after each player made exactly five moves. What were the moves?



"Here goes nothing!"

Cyclotron 64

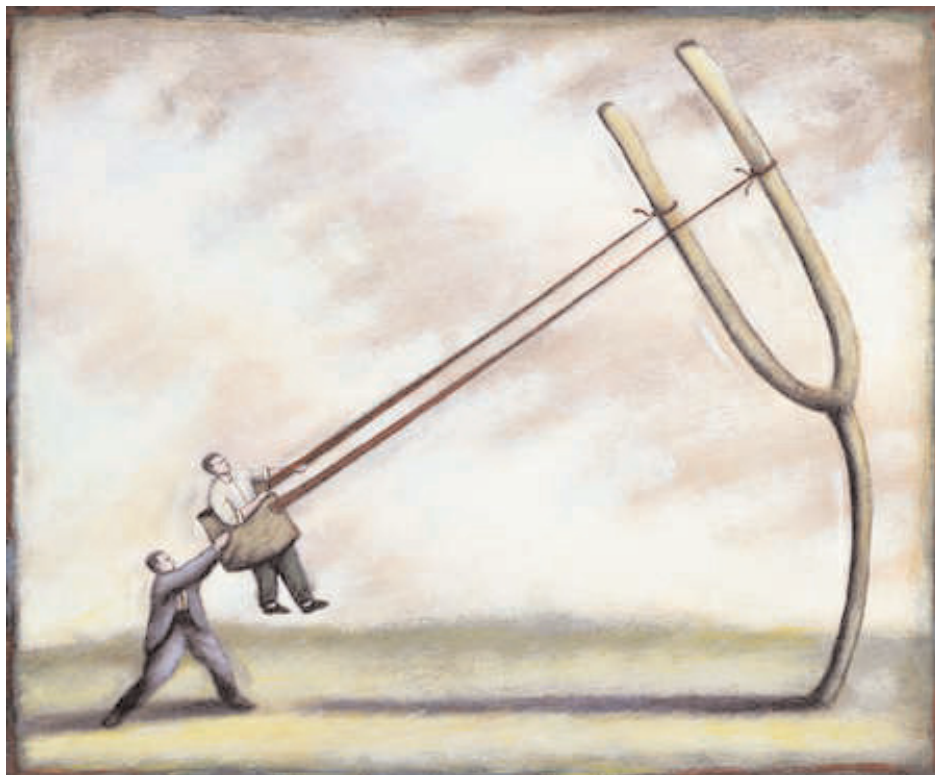


Cycle three pieces so that
Black is in checkmate.

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.

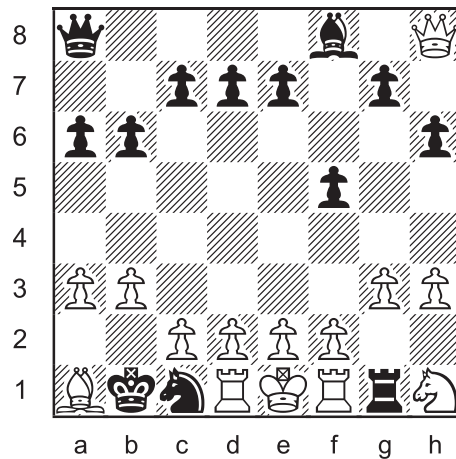
Any three pieces can trade places. Colours do not matter. The cycled pieces can be all white, all black, or a mix of both.

The position after the cycle must be legal.



Where no man has gone before.

Who's the Goof? 36



Why is this position illegal?

“Legal” means *reachable in an actual game*. Don’t worry about the strategic absurdity.

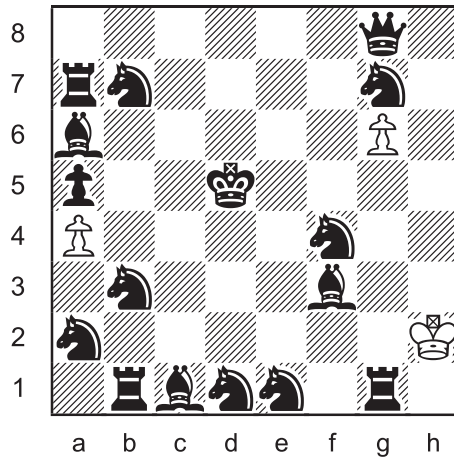
[February 2019. This is a corrected version of the problem posted last month. Thanks to Mario Richter for pointing out that the position was actually legal!]



Home Security

The black king commands a full army in the next puzzle. The white monarch has a mere two pawns, and a free hand to roam the board.

Multi-Wham 45



series-mate in 62

White plays sixty-two 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.



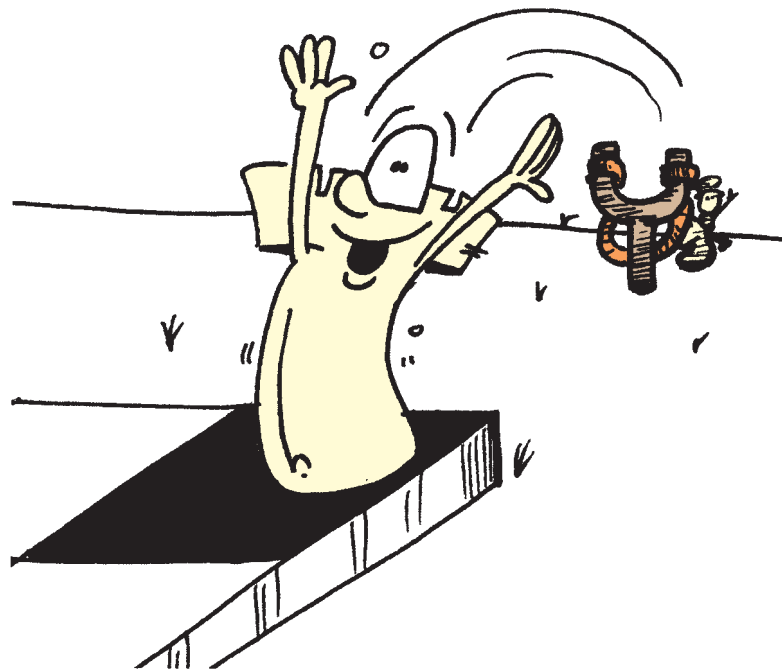
Be careful where you sit.

The final problem is called "March Charms". It may be the dead of winter, but the promise of spring is alive and well.

Rebus 22

8	C		c	h				A
7								
6		R					s	c
5			a					
4								M
3	H	S						
2				c				
1	m				c		C	r
	a	b	c	d	e	f	g	h

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



Perfect 5 Point Landing

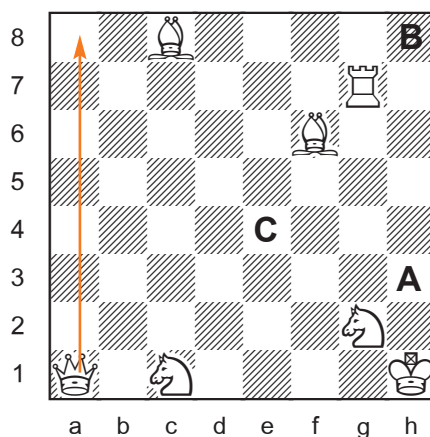
SOLUTIONS

All problems by J. Coakley. *Puzzling Side of Chess* (2019). Rebus 22 is a joint composition with Andrey Frolikin.

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 79



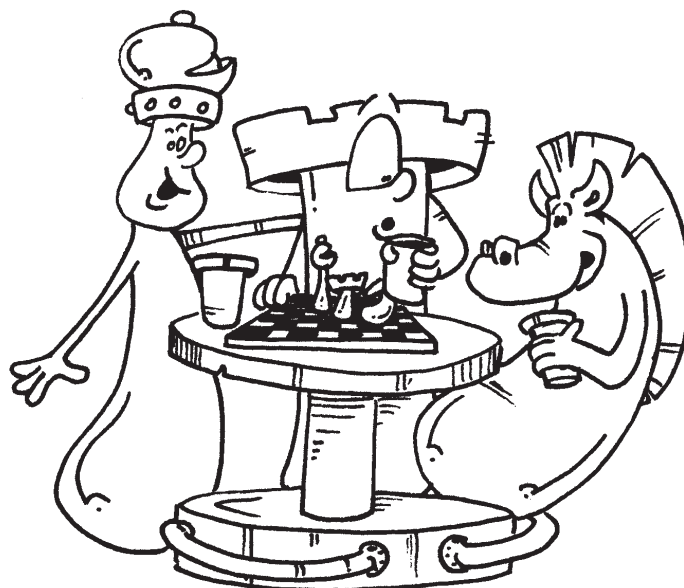
A. Kh3#

B. Kh8 =

C. Ke4 (Qa8#)

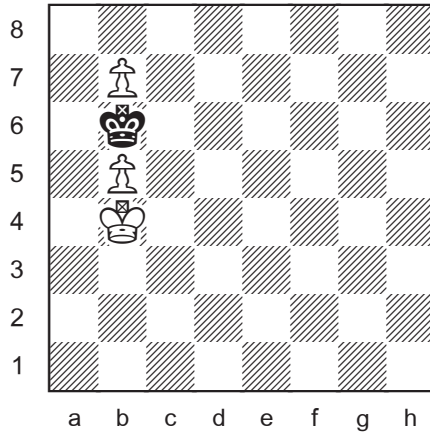
(In part A, Ka2# would be an impossible double check.)

Corner to corner mate.

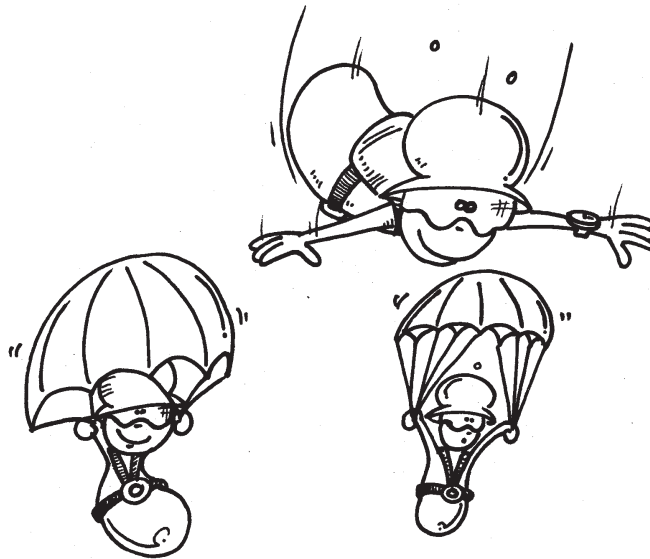


"I thought there were only four seasons."

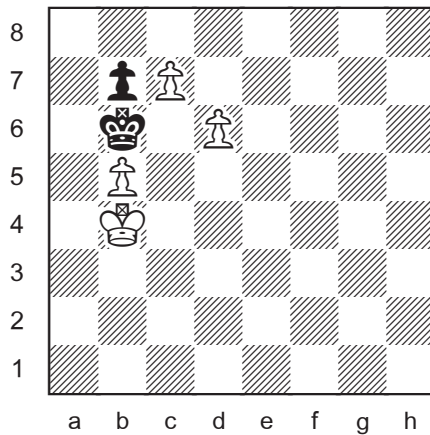
Inverted Loyd 55



b5 b7 were added.
1.b8=Q#

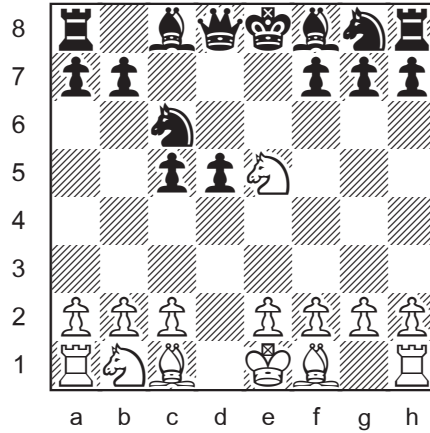


Inverted Loyd 56



b5 c7 d6 were added.
1.c8=N#

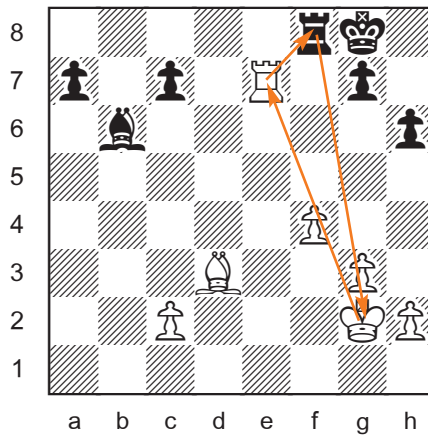
Longer Proof Game 68 (5.0 moves)



1.d4 c5 2.dxc5 Nc6 3.Qd6 exd6 4.Nf3 dxc5 5.Ne5 d5

The c-pawn is the e-pawn.

Cyclotron 64

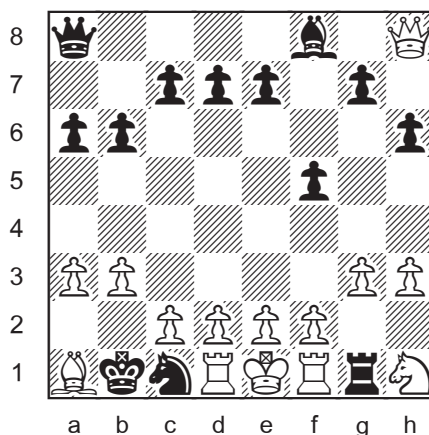


Re7→f8 Rf8→g2 Kg2→e7

The white king joins the attack.



Who's the Goof? 36



As might be guessed, the position is illegal because of the black rook inside the white pawn formation. But the logical argument to prove that conclusion is quite complicated and involves a retro-concept known as the “time loop”.

The black rook is not a promoted piece because all pawns are still on the board. In order for the rook to escape from its prison on the 8th rank, there had to be a cross-capture of black pawns on a6/b6. Reaching the 1st rank required a cross-capture by white pawns on a3/b3 or g3/h3.

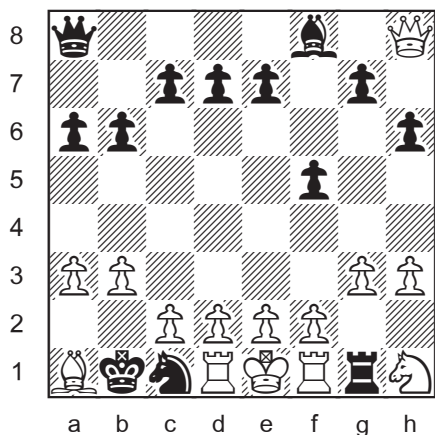
A survey of material shows that each side is missing a knight and a light-square bishop. Enough pieces to explain two cross-captures. Black is also missing a rook, but with an unmoved bishop on f8, the rook from h8 was necessarily captured earlier in its corner cell.

The black king is also inside the white wall of pawns. His royal entrance was either through b2 (after b3 and before a3 were played) or through g2 (after g3 and before h3).

The black king did not enter via the kingside because of the white knight on h1, the white king on e1, and the black rook on g1. If the king came through g2, then the cross-capture of pawns occurred on a3/b3. The white knight had to go to h1 before the advance g3. This reduces the already limited space within the white wall and makes it impossible for the white king to be on the 1st rank to the left of the black rook, as the rook had to come from the queenside (b-file).

Therefore the black king entered through b2 and the cross-capture of white pawns occurred on g3/h3.

Who's the Goof? 36 continued



Here is the impossible situation. Cross-captures were made on a6/b6 and g3/h3. Each side is missing a knight and light-square bishop. Apparently this is sufficient to explain the four captures. But appearances are not always what they seem.

Quoting from analysis of a rebus based on the same idea:

What we are experiencing here is a metaphysical contradiction known as the "time loop". The phenomenon involves the missing light-square bishops. They were necessarily the pieces captured on the light squares a6 and h3. But the white bishop could only escape after the black bishop was captured on h3, and the black bishop could only escape after the white bishop was captured on a6. Neither event could precede or follow the other. It's an amazing universe.

[*Chessproblems.ca Bulletin 8. Frolkin/Coakley 2016, EE-12 "Hollywood"*]

Case solved. However, like many complicated goofs, the culprit of the crime cannot be pinpointed as precisely as the above proof would indicate. There is often more than one way to lay blame.

For example, it could be argued that the knight on h1 is the goof. If the knight were on h2 instead of h1, then the position is legal, with a white cross-capture on a3/b3.

Or we could just indict the black king because he somehow travelled illegally from g2 to b1.

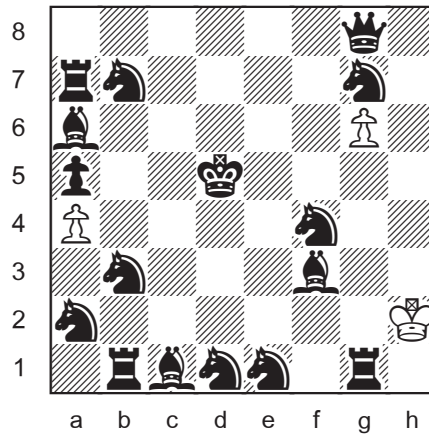
But whoever the goof is, the underlying logic remains the same.

[*February 2019. Thanks again to German solver Mario Richter for spotting the goof in the goof as it was originally posted. The fix put a knight on h1.*]

Multi-Wham 45

Jeff Coakley 2017

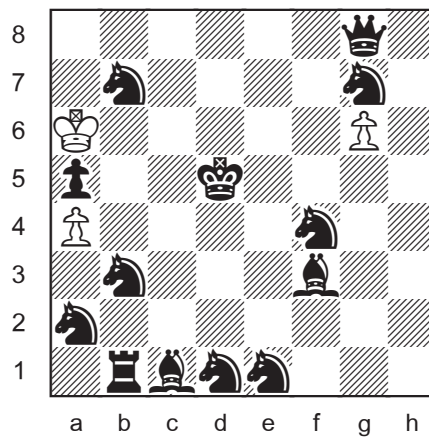
ChessProblems.ca Bulletin 13



series-mate in 62

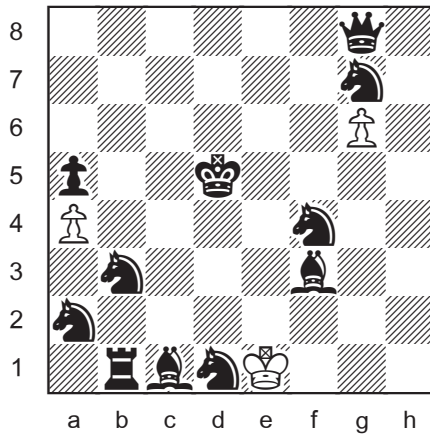
The first twelve moves are forced, eliminating the bishop on a6.

1.Kxg1 2.Kh2 3.Kg3 4.Kh4 5.Kg5 6.Kf6 7.Ke7 8.Kd7 9.Kc7 10.Kb6
11.Kxa7 12.Kxa6



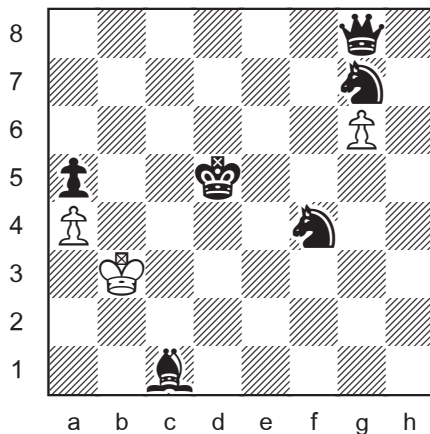
On his way back to the 1st rank, the king captures the knight on b7 which guards a5.

13.Kxb7 14.Kc7 15.Kd7 16.Ke7 17.Kf6 18.Kg5 19.Kh4 20.Kg3 21.Kh2
22.Kg1 23.Kf1 24.Kxe1



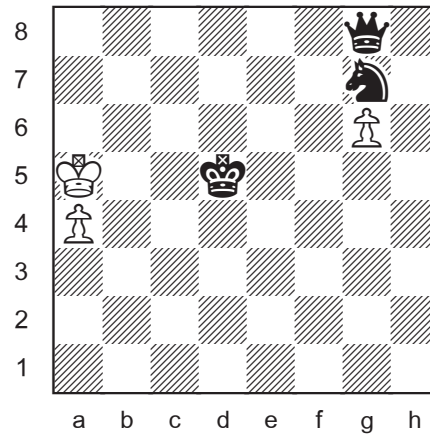
The next roundabout trek removes another defender of a5, the knight on b3.

25.Kf1 26.Kg1 27.Kh2 28.Kg3
29.Kxf3 30.Kg3 31.Kh2 32.Kg1
33.Kf1 34.Ke1 35.Kxd1 36.Kc2
37.Kxb1 38.Kxa2 39.Kxb3



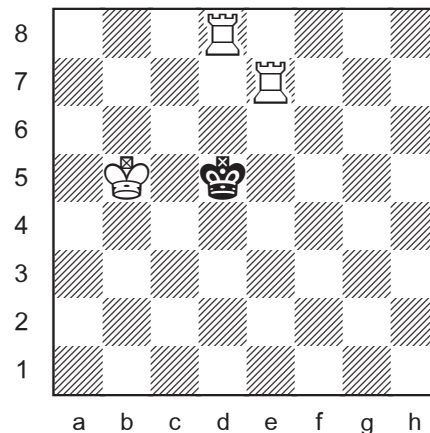
Now White is ready to capture the pawn on a5. The long path there is quicker if the bishop and knight are taken en route.

40.Kc2 41.Kxc1 42.Kd2 43.Ke3
44.Kxf4 45.Kg5 46.Kf6 47.Ke7
48.Kd7 49.Kc7 50.Kb6 51.Kxa5



The final stage requires two promotions to rook.

52.Kb5 53.a5 54.a6 55.a7
56.a8=R 57.Rxg8 58.Rxg7
59.Re7 60.g7 61.g8=R
62.Rd8#



Grotesque full army massacre with ideal mate.

An exercise in king control.

Abbreviated solution:

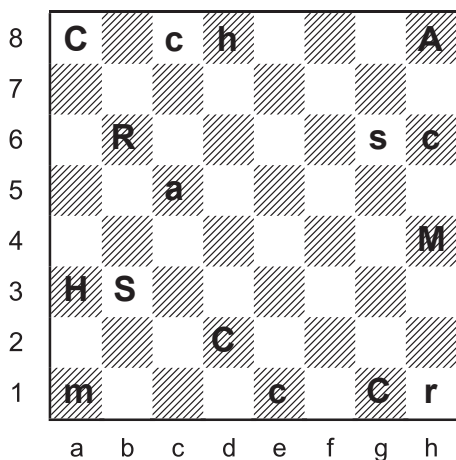
1.Kxg1 ... 11.Kxa7 12.Kxa6
13.Kxb7 ... 24.Kxe1 ... 29.Kxf3
... 35.Kxd1 ... 37.Kxb1 38.Kxa2
39.Kxb3 ... 41.Kxc1 ... 44.Kxf4
... 51.Kxa5 52.Kb5 ... 56.a8=R
57.Rxg8 58.Rxg7 59.Re7
... 61.g8=R 62.Rd8#

Rebus 22

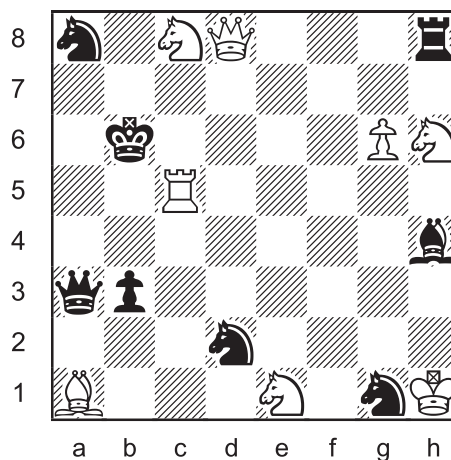
Andrey Frolkin & Jeff Coakley 2019

Puzzling Side of Chess

"March Charms"



C = knight
 H = queen
 A = rook
 R = king
 M = bishop
 S = pawn
 caps = black
 last move:
 1...c7-c8=N+



S = ♖

Only letter not on 1st or 8th rank.

♔ = (HARM)

Each has one uppercase, one lowercase.

H ≠ ♔

If H = ♔

A ≠ ♔ (c5+ h8+) Both kings in check.

M ≠ ♔ (a1+ h4+) Both kings in check.

(CR) = ♔

Check from b6 or d2.

A ≠ ♖ (h8+)

Impossible double check.

A ≠ ♗ (c5+)

Both kings in check.

M ≠ ♖ (a1+)

Both kings in check.

M ≠ ♗ (h5+)

Impossible double check.

(AM) = ∅?

Impossible to assign pieces to both A and M.

Only one can be ♘.

A ≠ ♔

If A = ♔

C ≠ ♔ (g1+ h6+) Both kings in check.

H ≠ ♔ (a3+ d8+) Both kings in check.

(MR) = ♔

Check from a1 or b6.

C ≠ ♖ (h6+)

Impossible multiple check.

C ≠ ♗ (g1+)

Impossible multiple check.

C = ♘

H ≠ ♗ (a3+)

Impossible multiple check.

H = ♖ (d8+)

Second check. Possible by Rd4-d8++ if M = ♔.

R = ♗ (b6+)?

Impossible third check.

