



THE PUZZLING SIDE OF CHESS

Jeff Coakley

CHESS CAFE PUZZLERS CUP 2013 AWARDS CEREMONY

number 54

November 30, 2013

Welcome, friends. In this column, we present the five winning problems from our first annual puzzle composing competition.

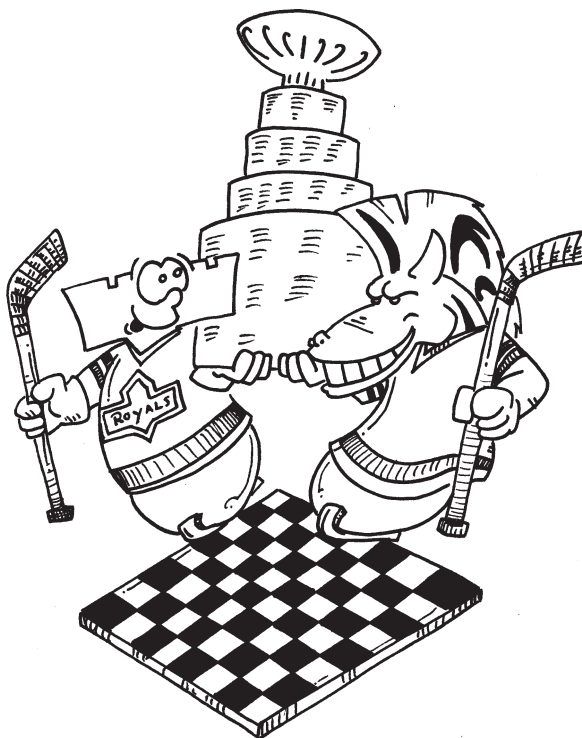
Special thanks to **ChessCafe.com** for their generous sponsorship of this event. Each winner will receive a “shop coupon” from *Shop.ChessCafe.com*, which can be applied to any purchase from their extensive selection of chess products. The value of the coupons is as follows:

First prize \$150

Second prize \$100

Third prize \$75

Honourable Mentions 2 x \$50



Lots of interesting problems were submitted. Selecting the top five was not an easy task. We were very fortunate to have three outstanding judges: Steven Dowd, Dan Heisman, and Elizabeth Spiegel. Their experience with chess puzzles and expertise in various areas of chess made them the perfect panel.

The criteria for evaluating the entries were *creativity*, *cleverness*, and *popular appeal*. The judges viewed the problems without knowing the names of the composers and assigned each one a numerical score. The scores were then combined to determine the final ranking. In general, the evaluations of the three judges were similar.

Thanks to everyone who entered the contest. I enjoyed all the puzzles. Many of them will be featured in future columns.

I suppose that's enough introduction. Now it's time for the awards. The winning problems will be presented in reverse order. Let's begin the countdown with a "takeback".

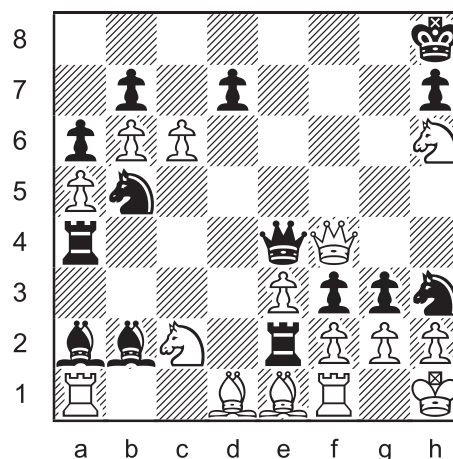
Second honourable mention goes to **Patrick McCartney** from North Carolina. His *retractor mate in one* requires a bit of retrograde analysis.

For more information on retractors, see column 33. As noted there, the position after the retraction must be legal.

5

Retractor

Second Honourable Mention
Patrick McCartney



White takes back one move
and then mates in one.

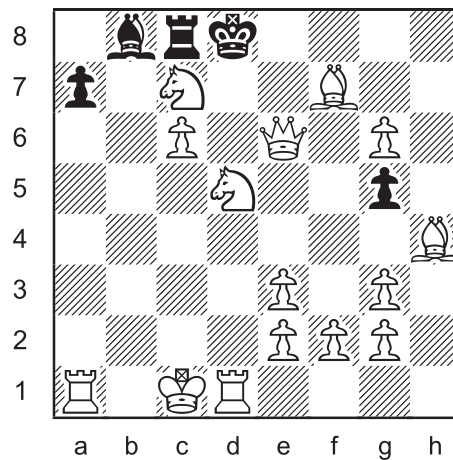
First Honourable Mention is a fun series of three problems by **Noel Junio** of the Philippines.

The stipulation is to mate in a “half move”. Figuring out what that might mean is part of the puzzle!?

4a

Mate in a Half Move

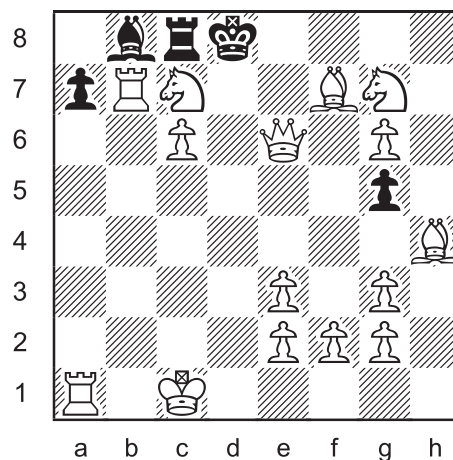
First Honourable Mention
Noel Junio



White mates Black by completing the second half of a move.

4b

Mate in a Half Move



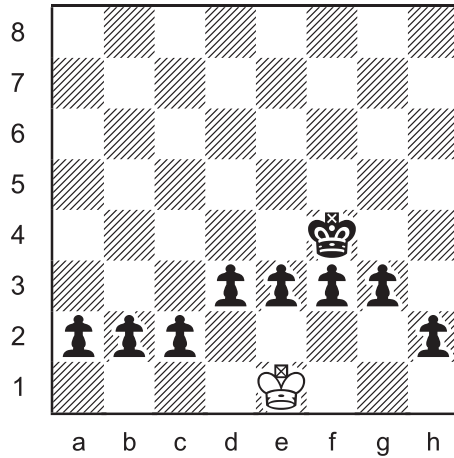
White mates Black by completing the second half of a move.

3

Help-Stalemate in 8

Third Prize
Ron Fenton

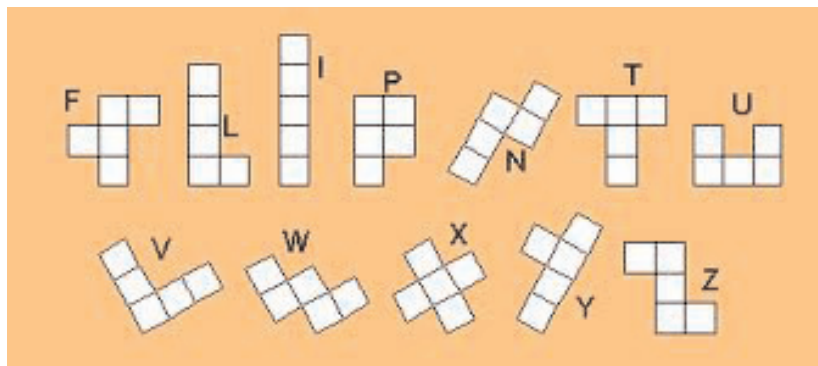
Can a lone white king stalemate the black king and eight black pawns with a little 'help'?



Black to play and help White stalemate the black king in eight moves.

Our second place problem is a complicated three-part extravaganza. It involves dissecting a chessboard into *domino-like jigsaw puzzle pieces*, then reassembling them into a normal chess position, and finally finding a *proof game* which leads to that position. The *stump potential* is very high but I think you will be impressed with this masterpiece by noted French composer **Thierry Le Gleuher**.

Dominoes come in various shapes. The basic form, familiar from the popular game, is two connected squares sharing a common side. Larger “polyominoes” have their own special names. A *pentomino* is a domino made from five squares, with each square sharing at least one side with another. There are twelve different shapes for pentominoes. Each one is designated by the letter that they most closely resemble.



The name *pentomino* and the shape designations were established in 1953 by American mathematician Solomon W. Golomb.

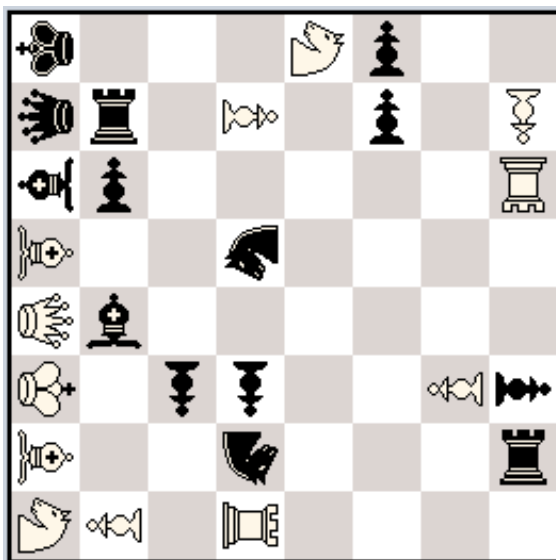
A *tetromino* is a four-square domino. There are five basic shapes, but the only one we need for this chess puzzle is the *square tetromino*, designated 'O'.



As you may have noticed, a chessboard has 64 squares. It can be exactly divided into the twelve pentominoes ($12 \times 5 = 60$) and one tetromino ($1 \times 4 = 4$).

2a Cut the Board

Second Prize
Thierry Le Gleuher



Cut the board into thirteen parts so that the chess pieces on each part are placed in the same direction. The thirteen parts must include each of the twelve pentomino shapes and a square tetromino.

2b Jigsaw Puzzle

Reassemble the thirteen parts to form a normal chess position with all the chess pieces placed in the same direction.

2c Proof Game in 18.5

Construct a proof game which leads to the position (from 2b) in exactly 18.5 moves (after White's 19th move).

For more information on proof games, see column 3.



All right, chess fans. Here's the moment we've been waiting for. May I have the envelope, please?

The winner of the *2013 Chess Cafe Puzzlers Cup* is ...

Arno Tüngler

Congratulations to the well known German composer. His entry sets a new *world record* for a series-self-stalemate with promoted pieces, breaking his old mark by 58 moves.

In a normal *series-mate*, White plays a specified number of moves in a row to checkmate the black king. Only the last move may give check. Black does not get a turn. For more information on *series-movers*, see column 2.

In a normal *self-stalemate*, White's goal is to force Black to stalemate the white king. The players alternate moves in the usual way.

This puzzle combines those two problem types. In a *series-self-stalemate*, White plays a specified number of moves in a row so that Black is forced to stalemate the white king on their next turn. Only the last white move may give check. Are you ready?

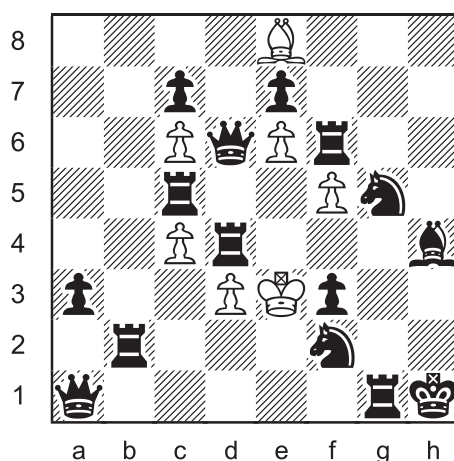
If you like a little story with your chess problems, then you're in luck. Arno Tüngler has written an amusing tale that could be called "The Case of the 200 Moves".

1

Series-Self-Stalemate in 198

First Prize
Arno Tüngler

One evening, at a late hour, Mr. Sherlock Holmes approached some of the best players of the club in London, who were sitting around a table analyzing chess studies. He took a queen and some rooks from the boards around and placed them with other pieces on the table in the following position.



White plays 198 moves in a row so that Black is forced to stalemate the white king on the next turn. White may not move into check. Only the last white move may check the black king.

With a smile he asked, "Well, gentlemen, is it possible for White to avoid losing, if he is permitted to play 200 legal moves in a row? However, as soon as he gives a check it will be Black's turn."

It took the players little time to realize that the only free white unit, the bishop, could capture nothing except the black pawn on f3, giving check and so ending the series of white moves. While the white king could be freed by the bishop, he would be able to capture very few of the black units and none of those blocking the white pawns. So one of the masters soon asserted, "Certainly not, Holmes, not even if he makes a thousand moves!"

Holmes smiled. "We will see; give me 198 moves and the task will be done." He took hold of the white bishop and began moving it around the board, first to d7, then c8, carefully counting the moves as he proceeded. He seemed to make little progress, but on move 65 he managed to capture the black bishop on h4.

However, the observers were not concerned, especially when they saw that Holmes just began marching his two pieces back again. It seemed a futile endeavor, but on move 125 the black knight on f2 was captured and the white king again returned by the same path. Finally, after 198 moves exactly, Holmes ceased counting and loudly announced, "Check! It is your move, gentlemen."

Some seconds passed before it dawned on them. Laughter broke out as they saw that all possible moves would stalemate White.



SOLUTIONS

All problems are *ChessCafe.com* originals (2013).

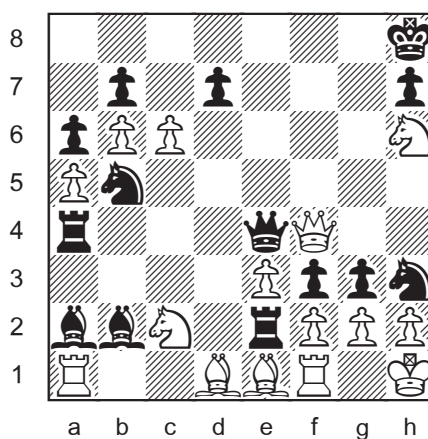
PDF hyperlinks. You can advance to the solution of any puzzle by clicking on the underlined title above the diagram. To return to the puzzle, click on the title above the solution diagram.

5

Retractor

Second Honourable Mention

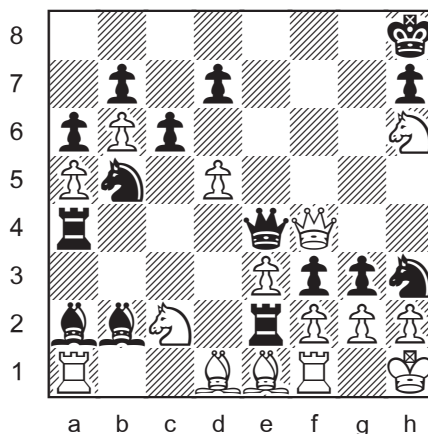
Patrick McCartney



-1.Nd4-c2 +1.Qf6#

White retracts a knight move from d4 to c2. With the knight back on d4, White can mate with queen to f6.

The try -1.d5xc6 +1.Qf8# is not the solution because the position after the retraction -1.d5xc6 is illegal. There are not enough missing pieces to explain the required number of captures. Consider the position with a white pawn on d5 and a black pawn (or promoted piece) on c6.

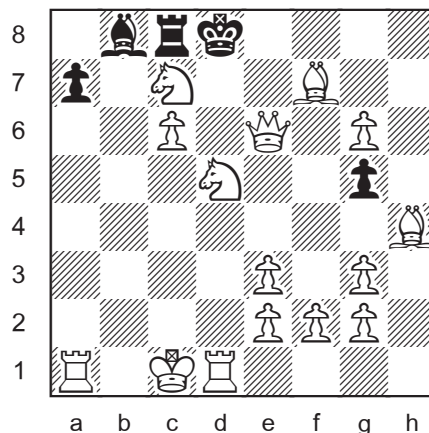


- a) Black has fifteen pieces on the board. Because there are unmoved pawns on b7 and d7, we know that the bishop on a2 is a promoted pawn. So the only missing black piece is the original light-square bishop which was captured earlier on c8. No other captures by White were possible.
- b) White has fifteen pieces on the board. The missing piece is the c-pawn. Since there are no missing black pieces that it could have captured, the white c-pawn could only have been **captured on the c-file**.
- c) In order to promote into a bishop on the light square d1, the black e-pawn (or c-pawn) would require a **capture on the d-file**. Since this is impossible, the position is illegal.
- d) The situation with a promoted black piece on c6 is also illegal. There is no sequence of pawn moves, with only a single capture by Black and no capture by White, that can explain two black promotions.

4a

Mate in a Half Move

First Honourable Mention
Noel Junio

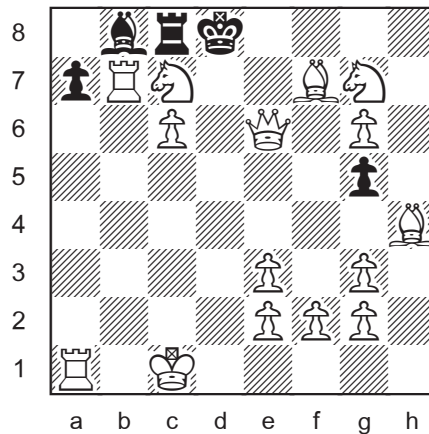


White removes the black pawn on g5, completing the *en passant* capture **1.f5xg6 e.p.#**.

Since White has already played the “first half” of the *en passant* capture, we can assume that Black’s last move was ...g7-g5, in reply to a discovered check by the knight on d5 from e7 or f6.

The white pawn on g6 originated on c2.

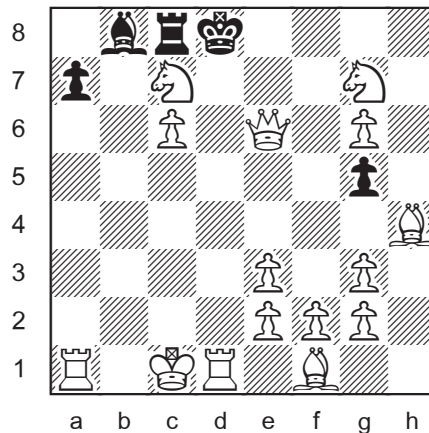
4b
Mate in a Half Move



White moves the rook from a1 to d1, completing queenside castling **1.0-0-0#**.

Black's last move was ...Ke7-d8. Because g7 is occupied, the last black move could not be ...g7-g5, so completing an *en passant* capture by 1.fxg6# is impossible.

4c
Mate in a Half Move



White places a new white knight on e8, completing the promotion (and capture) **1.d7xe8=N#**.

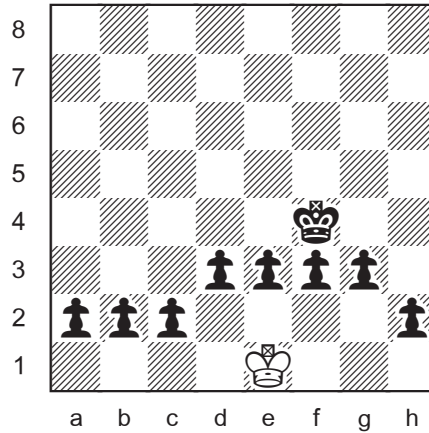
Black's last move was playing a piece to e8. In the diagram, White has captured with a pawn on e8 (from d7) and has removed the pawn from the board, but hasn't yet replaced it with the promoted knight.

These three problems by Noel Junio combine to show the *Valladão theme*, a term applied to compositions that include an *en passant* capture, castling, and pawn promotion. It is named after Brazilian composer Joaquim Valladão Monteiro (1907-1993).

3

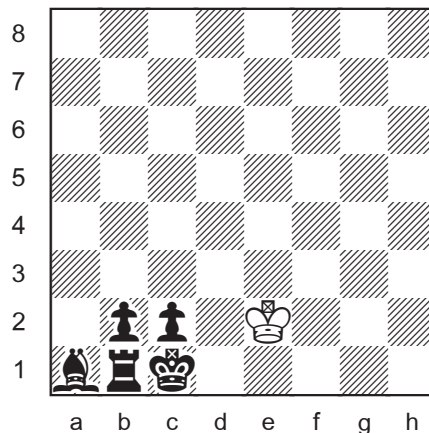
Help-Stalemate in 8

Third Prize
Ron Fenton



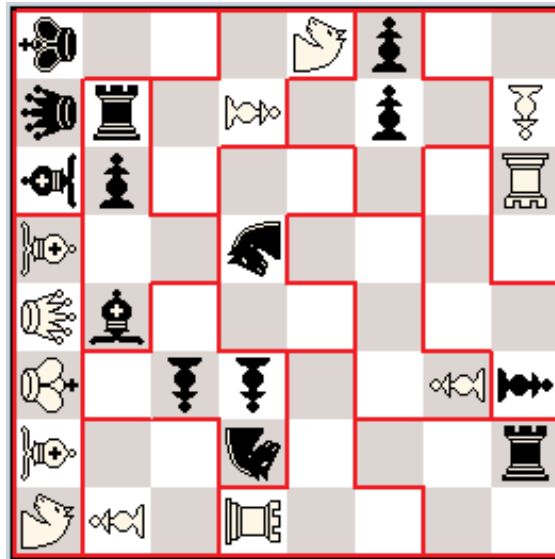
In helpmate notation, the black move is written first, immediately after the move number, followed by the white move.

1. f2+ Kf1
2. e2+ Kg2
3. Ke3 Kxg3
4. Kd2 Kxf2
5. h1=R Kf3
6. Rb1 Ke4
7. Kc1 Kxd3
8. a1=B Kxe2 stalemate



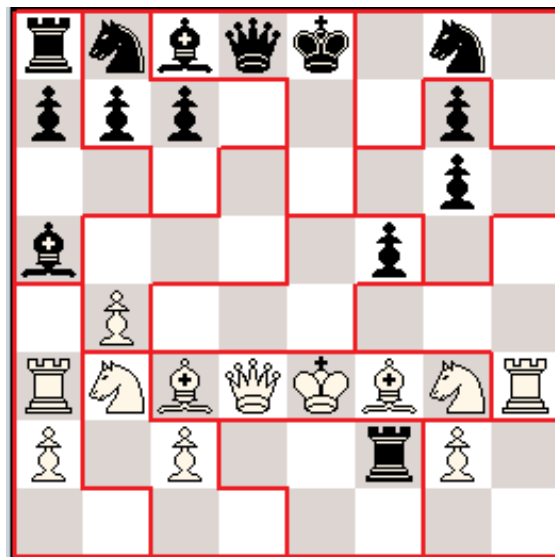
2a
Cut the Board

Second Prize
Thierry Le Gleuher



This way of cutting the board is the only solution, as verified by a computer program.

2b
Jigsaw Puzzle



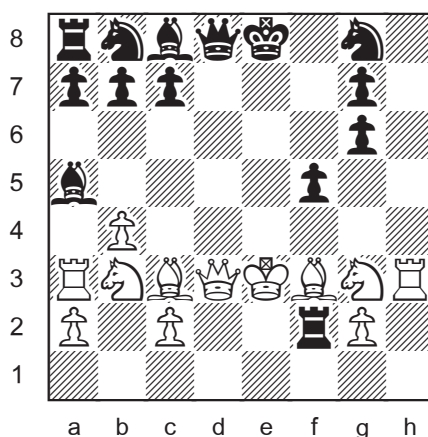
This way of arranging the polyominoes is the only solution, as verified by a computer program.

The following two geometric truths may be of interest, from *Across the Board: The Mathematics of Chessboard Problems* (2004) by John J. Watkins.

No matter where you place a 2 x 2 tetromino on the 8 x 8 chessboard, the rest of the board can be covered with the 12 pentominoes.

There are only ten fundamentally different positions in which the 2 x 2 tetromino can be placed.

2c
Proof Game in 18.5



- | | |
|--------------|--------------|
| 1. h4 e5 | 11. Qd3 e1=N |
| 2. Rh3 Bb4 | 12. Ne2 Nf3 |
| 3. Ra3 Ba5 | 13. Ng3 Ng5 |
| 4. b4 e4 | 14. h×g5 f5 |
| 5. Bb2 e3 | 15. g6 h×g6 |
| 6. Bc3 e×d2+ | 16. Be2 Rh4 |
| 7. N×d2 d5 | 17. Rh1 Rf4 |
| 8. Nb3 d4 | 18. Rh3 R×f2 |
| 9. Kd2 d3 | 19. Bf3 |
| 10. Ke3 d×e2 | |

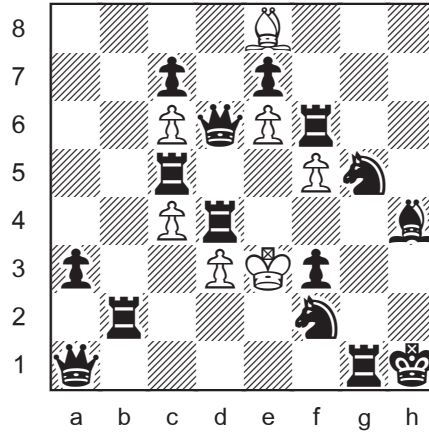
The white officers have all advanced two ranks, with the rooks switching sides. A very pleasant arrangement.

The proof game also features the *Ceriani-Frolkin theme*, in which a promoted piece (black knight) is captured.

1

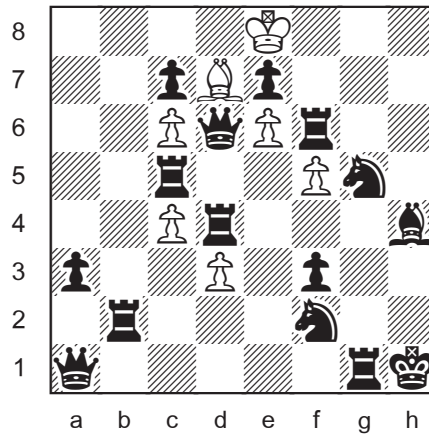
Series-Self-Stalemate in 198

First Prize
Arno Tüngler



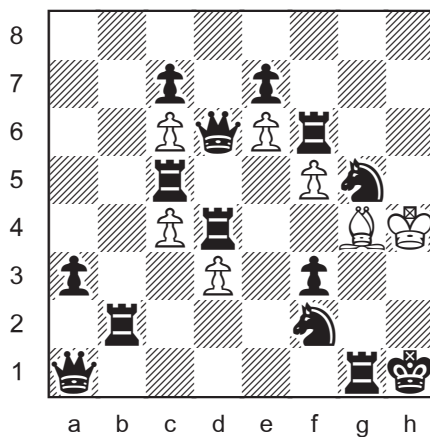
1.Bd7 2.Bc8 3.Ba6 4.Bb5 5.Ba4 6.Bc2 7.Kd2 8.Kc3 9.Bb3
10.Kb4 11.Ka4 12.Bd1 13.Be2 14.Bf1 15.Bh3 16.Bg4 17.Bh5
18.Be8 19.Bd7 20.Bc8 21.Ba6 22.Bb5 23.Ka5 24.Ka6 25.Kb7
26.Kc8 27.Ba4 28.Bd1 29.Be2 30.Bf1 31.Bh3 32.Bg4 33.Bh5
34.Be8 35.Bd7 36.Kd8 37.Ke8

The same position as move 2 but with the white king on e8.



38.Bc8 39.Ba6 40.Bb5 41.Ba4 42.Bd1 43.Be2 44.Bf1 45.Bh3
46.Bg4 47.Bh5 48.Bf7 49.Kf8 50.Kg7 51.Bg6 52.Kh6 53.Kh5
54.Be8 55.Bd7 56.Bc8 57.Ba6 58.Bb5 59.Ba4 60.Bd1 61.Be2
62.Bf1 63.Bh3 64.Bg4 65.Kxh4

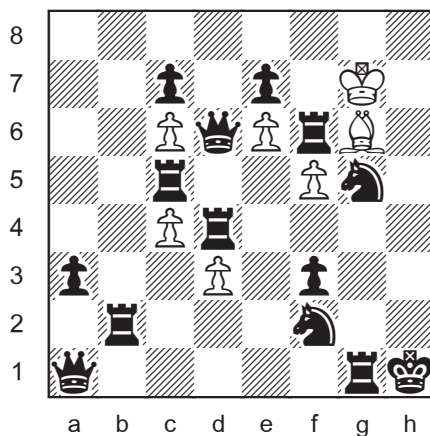
The first capture.



An important juncture in the white king's journey. He wisely refrains from capturing the knight on g5.

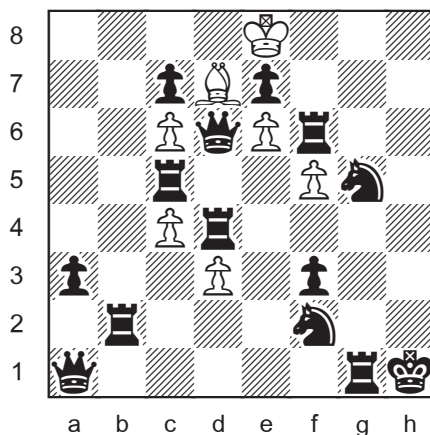
66.Kh5 67.Bh3 68.Bf1 69.Be2 70.Bd1 71.Ba4 72.Bb5 73.Ba6
74.Bc8 75.Bd7 76.Be8 77.Bg6 78.Kh6 79.Kg7

If the black knight were not on g5, the white bishop would now be pinned.



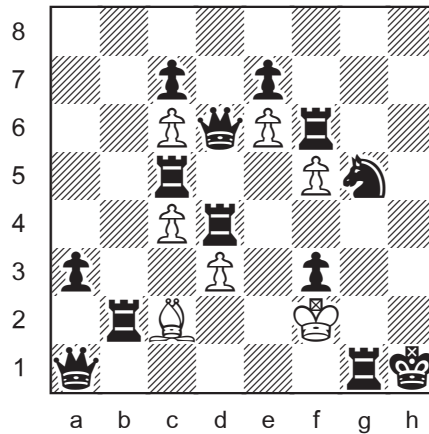
80.Bf7 81.Kf8 82.Ke8 83.Bh5 84.Bg4 85.Bh3 86.Bf1 87.Be2
88.Bd1 89.Ba4 90.Bb5 91.Ba6 92.Bc8 93.Bd7

The same position as move 2 but with the white king on e8, and no black bishop on h4.



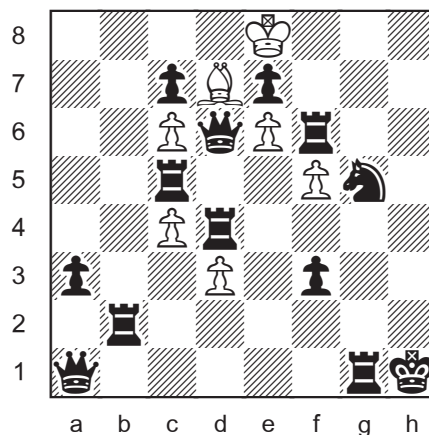
94.Kd8 95.Kc8 96.Be8 97.Bh5 98.Bg4 99.Bh3 100.Bf1 101.Be2
 102.Bd1 103.Ba4 104.Bb5 105.Kb7 106.Ka6 107.Ka5 108.Ka4
 109.Ba6 110.Bc8 111.Bd7 112.Be8 113.Bh5 114.Bg4 115.Bh3
 116.Bf1 117.Be2 118.Bd1 119.Bb3 120.Kb4 121.Kc3 122.Bc2
 123.Kd2 124.Ke3 125.Kxf2

The second capture.



126.Ke3 127.Kd2 128.Kc3 129.Bb3 130.Kb4 131.Ka4 132.Bd1
 133.Be2 134.Bf1 135.Bh3 136.Bg4 137.Bh5 138.Be8 139.Bd7
 140.Bc8 141.Ba6 142.Bb5 143.Ka5 144.Ka6 145.Kb7 146.Kc8
 147.Ba4 148.Bd1 149.Be2 150.Bf1 151.Bh3 152.Bg4 153.Bh5
 154.Be8 155.Bd7 156.Kd8 157.Ke8

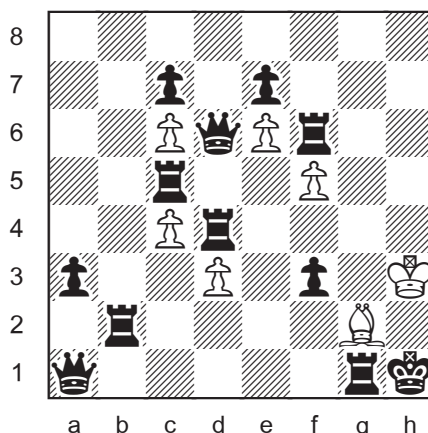
The same position as move 2 but with the white king on e8, no black bishop on h4, and no black knight on f2.



158.Bc8 159.Ba6 160.Bb5 161.Ba4 162.Bd1 163.Be2 164.Bf1
 165.Bh3 166.Bg4 167.Bh5 168.Bf7 169.Kf8 170.Kg7 171.Bg6
 172.Kh6 173.Kh5 174.Be8 175.Bd7 176.Bc8 177.Ba6 178.Bb5
 179.Ba4 180.Bd1 181.Be2 182.Bf1 183.Bh3 184.Bg4 185.Kxg5

The third and final capture. The knight is taken this time so the white king can go to h3.

186.Kh4 187.Kh3 188.Bh5 189.Be8 190.Bd7 191.Bc8 192.Ba6
193.Bb5 194.Ba4 195.Bd1 196.Be2 197.Bf1 198.Bg2+



Now it is Black's turn. There are only three moves to get out of check. And they all give stalemate!

198...Rgxg2 or 198...Rbxg2 or 198...fxg2

$\frac{1}{2}$ - $\frac{1}{2}$

White has avoided defeat.

Here is the solution in an abbreviated form that is often used in long series-movers. This notation highlights the significant moves and transitions.

1.Bd7 6.Bc2 8.Kc3 9.Bb3 11.Ka4 22.Bb5 26.Kc8 35.Bd7 37.Ke8
48.Bf7 50.Kg7 51.Bg6 53.Kh5 64.Bg4 65.Kxh4 66.Kh5 77.Bg6 79.Kg7
80.Bf7 82.Ke8 93.Bd7 95.Kc8 104.Bb5 108.Ka4 119.Bb3 121.Kc3
122.Bc2 125.Kxf2 128.Kc3 129.Bb3 131.Ka4 142.Bb5 146.Kc8
155.Bd7 157.Ke8 168.Bf7 170.Kg7 171.Bg6 173.Kh5 184.Bg4
185.Kxg5 187.Kh3 198.Bg2+ Rgxg2/Rbxg2/fxg2 =

A new world record. You saw it here first, folks, on *The Puzzling Side of Chess*.

Until next time!

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