



THE PUZZLING SIDE OF CHESS

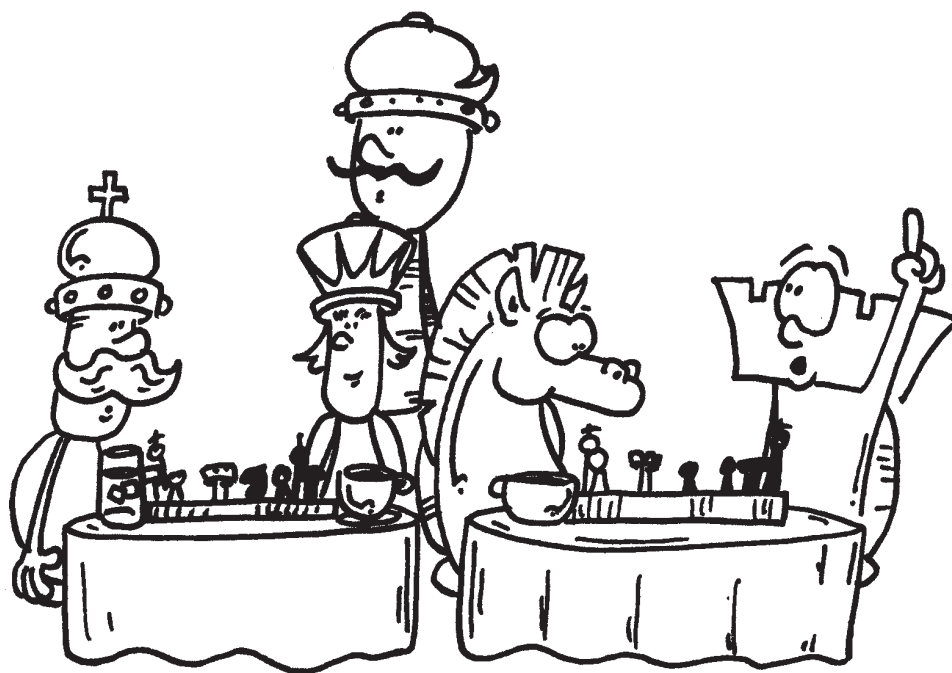
Jeff Coakley

CHESSBOARD SMORGASBORD II Puzzlers Cup 2014

number 62

July 19, 2014

This week's special menu features another selection of six tasty problems. The happy occasion is the announcement of the *2014 Chess Cafe Puzzlers Cup*.



Once again, **Chesscafe.com** is the proud sponsor of our annual puzzle composing contest, with prizes worth over \$400. Anyone can enter. Anyone can win!

So get out your board, and put on your thinking cap. The deadline for entries is Halloween. All the details for the competition are given at the end of this column. [Puzzlers Cup](#)

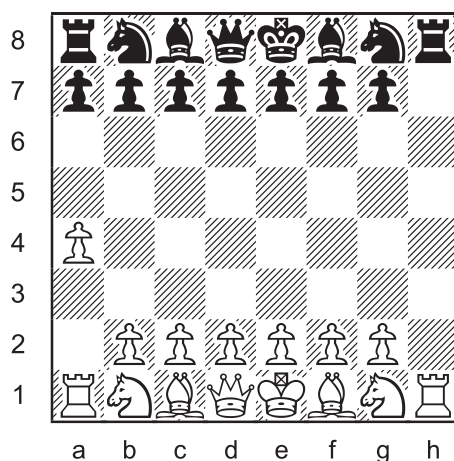
The puzzle-types presented here have appeared previously on *The Puzzling Side of Chess*. If you are unfamiliar with any of them, examples with more detailed explanations are available in the archives.

The first item on our smorgasbord is an entry from last year's *Puzzlers Cup* by Ohio composer Ron Fenton. It was not among the prizewinners, but it was one of my favourites.

The task in a *proof game* is to show how a given position can be reached in a legal game. See column 52.

In this problem, there is a *move stipulation*. The position must be reached after exactly 4.5 moves, that is, after White has just played their fifth turn. No sooner, no later.

Longer Proof Game 04 (4.5 moves)



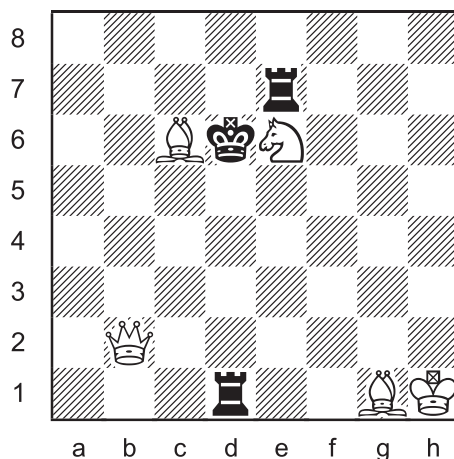
This position was reached after White's fifth turn. What were the moves?

By the way, Ron did receive the third prize last year for his help-stalemate in eight. All the winning puzzles can still be enjoyed at the *2013 Awards Ceremony* (column 54).

In a basic *retractor* problem, White takes back their last move, and then checkmates Black with a different move. See column 45.

One step backward, one step forward.

Retractor 22

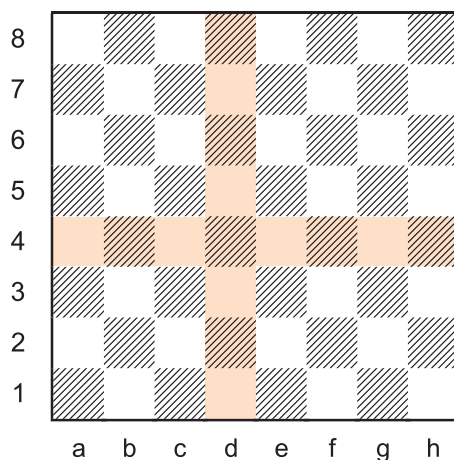


White takes back their last move,
then mates in one.

White may retract any move of their choice. The position after the retraction must be legal. If the retracted move is a capture, White decides which type of piece was taken.

Next up is a two part exercise in *piece placement*. Other columns with similar problems include *Board Domination* (06) and *Queenfest I* (59).

Cross Attack



- A.** Place four bishops on the board so that all fifteen squares on the d-file and the 4th rank are attacked.



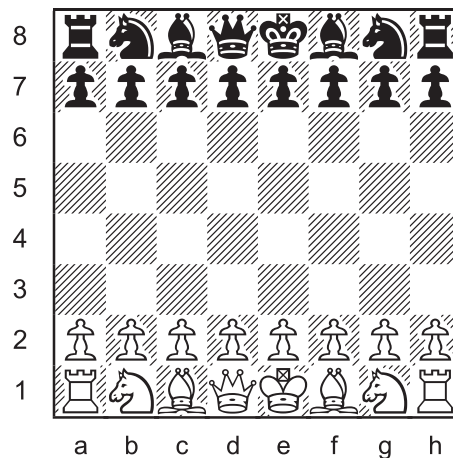
- B.** Place two bishops and two knights on the board so that all fifteen squares on the d-file and the 4th rank are attacked.



In a *series-mate*, White plays a specified number of moves in a row to checkmate Black. See column 50.

This unusual series-mate by Finnish composer Eero Bonsdorff (1921-2004) has an additional stipulation. The last move must be made by White's dark-square bishop. Tricky.

Multi-Wham 14



Series-mate in 8

White plays eight moves
in a row to mate Black.
The final move must be
with the dark-square bishop.

*Only the last move may give check.
Captures are allowed.
Black does not get a turn.*

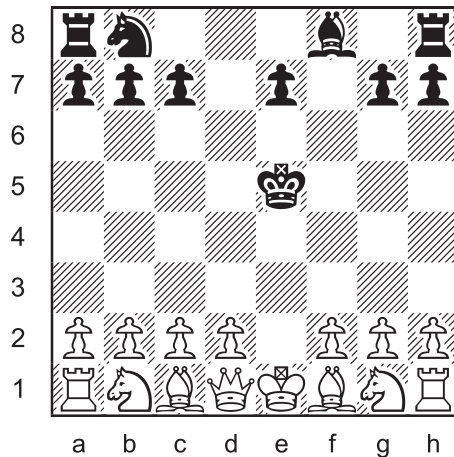
The solution to this puzzle is not unique. However, there is only one *scheme* for arranging the mate. Bonsdorff poses the further question:

How many different solutions are there?

The following proof game by Olli Heimo, also from Finland, is another impressive entry from the 2013 *Puzzlers Cup*. The *move stipulation* is 7.0 which means the position must be reached after each side has made precisely seven moves.

The *stump potential* is high. If you would like a hint before possibly giving up, read the second paragraph after the diagram.

Longer Proof Game 05 (7.0 moves)



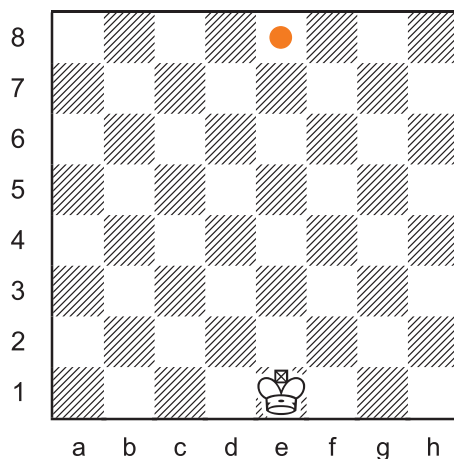
This position was reached after Black's seventh turn. What were the moves?

Spoiler alert. The next paragraph contains clues that may give away the solution.

A quick count shows that five black pieces were captured in seven turns. One heroic white piece must have had a field day.

Our final item on the smorgasbord is a slice of mathematical dessert by renowned composer Karl Fabel (1905-1975). It comes from an entertaining German book titled *Schach und Zahl* (Chess and Numbers) by Eero Bonsdorff, Karl Fabel, and Olavi Riihimaa.

King Paths



How many different paths can a king take from e1 to e8 in seven moves?

Did you know that 'smörgåsbord' is a Swedish word for *buffet*?
'Smörgås' is an *open sandwich*. 'Bord' is *table*.

Stay tuned next week for *Queenfest III* and a solution to *Longest Perp 12e* from column 60.

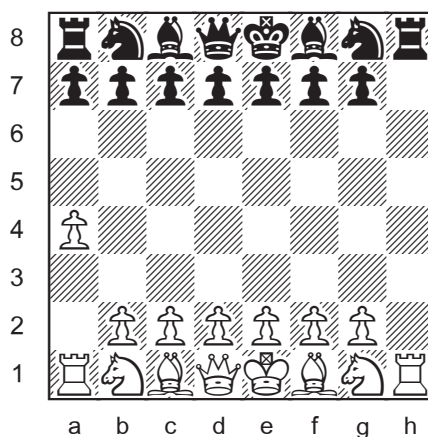


SOLUTIONS

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.

Longer Proof Game 04 (4.5 moves)

Ron Fenton 2014
Chesscafe.com



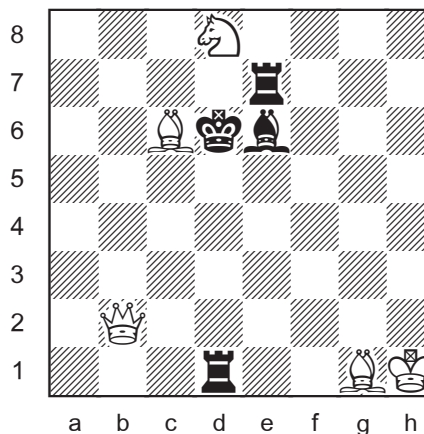
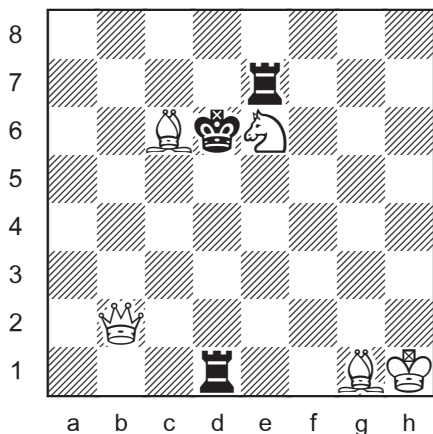
1.h4 Nf6 2.h5 Nxh5 3.a4 Nf6 4.Rxh7 Ng8 5.Rh1

A double *switchback*, by the black knight to g8 and the white rook to h1.

Retractor 22

J. Coakley 2014

ChessCafe.com



-1.Nd8xe6(B)
+1.Qh2#

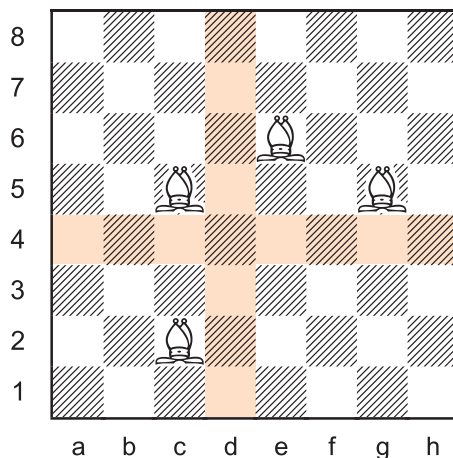
position after -1.Nd8xe6 (B)

The piece captured on e6 must be a bishop.

Cross Attack

J. Coakley 2010

Winning Chess Puzzles For Kids Volume 2



A. There are eight possible solutions. Two arrangements for the dark-square Bs and four for the light-square Bs.

Be3 Be7 Bb3 Bf5

Bc5 Bg5 Bb3 Bf5

Be3 Be7 Bb5 Bf3

Bc5 Bg5 Bb5 Bf3

Be3 Be7 Bc2 Be6

Bc5 Bg5 Bc2 Be6 (shown above)

Be3 Be7 Bc6 Be2

Bc5 Bg5 Bc6 Be2

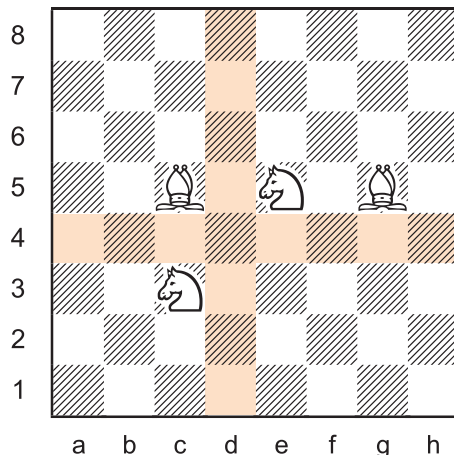
B. There are four possible solutions. Two arrangements for the bishops and two for the knights. The bishops must be on dark squares (to attack the junction square d4).

Be3 Be7 Nb6 Nf2

Bc5 Bg5 Nb6 Nf2

Be3 Be7 Nc3 Ne5

Bc5 Bg5 Nc3 Ne5 (shown below)



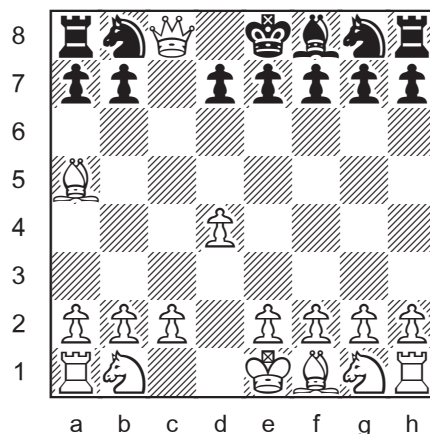
The same puzzle using four knights is impossible. Two knights cannot attack all the dark squares. 3B+N and 3N+B are also impossible.

Multi-wham 14

Eero Bonsdorff 1960

Ilta Sanomat

Schach und Zahl 1966



Series-mate in 8

last move by dark-square bishop

1.d4 2.Bf4 3.Qd3 4.Qc4 5.Bxc7 6.Bxd8 7.Qxc8 8.Ba5#

There are 102 different solutions. To calculate this number, consider the following facts about the mating scheme.

- a) The first move can be 1.d3 or 1.d4.
- b) The white bishop must play Bf4, Bxc7, and Bxd8.
- c) The white queen must play to c3 or c4 (from d2 or d3), and must capture by 7.Qxc8 (after Bxd8).
- d) The discovered mate can be 8.Ba5#, 8.Bb6#, or 8.Bc7#.

There are five possibilities for the first two moves. The number of different lines from that point to 7.Qxc8 is given below.

1.d3	2.Qd2	1 line
1.d3	2.Bf4	6 lines
1.d4	2.Qd2	1 line
1.d4	2.Qd3	8 lines
1.d4	2.Bf4	18 lines
subtotal		34 lines

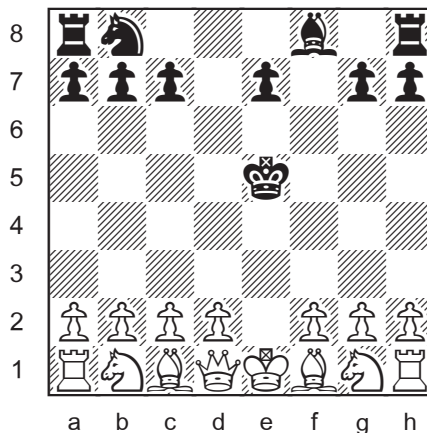
We then multiply for the three possibilities on move 8.

	x 3	

total		102 lines

Longer Proof Game 05 (7.0 moves)

Olli Heimo 2014
ChessCafe.com



1.e4 d5 2.exd5 Be6 3.dxe6 Qd3 4.exf7+ Kd7
5.fxg8=B Kd6 6.Bc4 Qxf1+ 7.Bxf1 Ke5

The white e-pawn captures all five of the missing black pieces, the last one as a promoted bishop.


(continued next page)

The problem demonstrates an idea that cannot be shown in a proof game with less than seven moves. *A piece that appears to be on its starting square is actually a promoted pawn.* In this case, the bishop on f1 is not who he seems to be. Extremely deceptive. This kind of manoeuvre is known as the *Pronkin theme*, named for Ukrainian composer Dmitry Pronkin.

The need for an underpromotion on g8 is especially clever. The composer notes that the try 3...Qd5 4.exf7+ Kd7 5.f7xg8=Q Kd6 6.Qxd5+ Kxd5 does not work because White has no waiting move.

King Paths

Karl Fabel 1966
Schach und Zahl

8				393			
7			126	141	126		
6		30	45	51	45	30	
5	4	10	16	19	16	10	4
4		1	3	6	7	6	3
3			1	2	3	2	1
2				1	1	1	
1							
	a	b	c	d	e	f	g

A king can take **393 different paths** from e1 to e8 in seven moves.

This numerical table (board) makes the calculation clear and easy. On the king's first step forward, he can go to d2, e2, or f2 by only 1 path. But he has more options advancing to the third rank. There are 2 paths to d3 (through d2 or e2). The number 2 on d3 is the sum of the numbers (1 + 1) on the adjoining squares on the second rank (d2 and e2). Similarly, there are 3 paths to e3 (1 + 1 + 1).

We continue up the board, adding this way for all the squares along the king's possible routes to e8. For example, there are 16 paths to f5, which is the sum of 7 + 6 + 3 from the squares e4, f4, g4.

Basic arithmetic, as used here, is the best way to solve this problem. But in his book, Karl Fabel, a mathematician by profession, also discusses how this type of question can be handled in a general algebraic form. I'll let you figure that out for yourselves.

Until next time!

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THE 2014 CHESS CAFE PUZZLERS CUP

sponsored and organized by *ChessCafe.com*

ChessCafe.com is pleased to announce our second annual puzzle composing competition. The contest is part of *The Puzzling Side Of Chess*, the popular column by Canadian master Jeff Coakley.

Make up your own puzzles, send them in, and win prizes. Sounds like fun.

ELIGIBILITY. The *ChessCafe Puzzlers Cup* is an open contest. Anyone may enter. Entries must be original puzzles composed by the person submitting them, and must not have been published previously.

WINNERS. The winning puzzles will be published at the end of November 2014 on *The Puzzling Side of Chess*.

PRIZES. Each winner will receive a “shop coupon” from *Shop.ChessCafe.com*, which can be applied to any purchase from our 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

ENTRIES. Entries should be submitted by e-mail to info@chesscafe.com. A complete solution is required. Please write “Puzzlers Cup” in the subject line. The deadline is October 31, 2014. There is a limit of three entries per person.

RULES.

1. Puzzles must use the standard pieces (king, queen, rook, bishop, knight, pawn) and a standard 8 x 8 board. Unorthodox pieces or irregular boards are not permitted.
2. Direct mates and endgame studies are not allowed. Also excluded are game-like positions where the goal is to find the best move based on normal strategy.
4. There is no other restriction on stipulations. Helpmates and selfmates are allowed.
5. Submission of a puzzle constitutes permission to publish it on Chesscafe.com.

CRITERIA. Puzzles will be judged for creativity, cleverness, and popular appeal.



Perhaps your name will be engraved on the Cup this season. Our operators are standing by for your contest entries. Good luck!