



THE PUZZLING SIDE OF CHESS

Jeff Coakley

ROTATING QUADRUPLEXES

number 9

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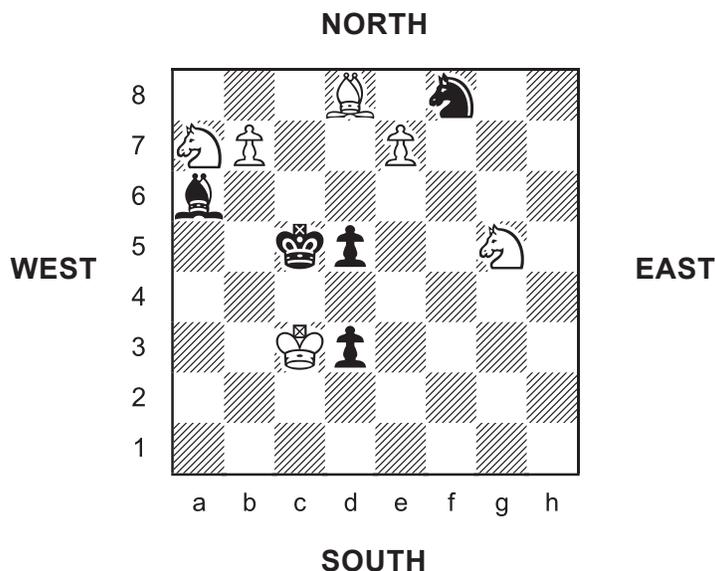
Only pawns have a “direction”. All of the other pieces can move forward or backward, left or right. If there are no pawns in a chess position, it doesn’t matter which side of the board we sit on. The pieces will move exactly the same.

The puzzles in this column all include some pawns, but you can still sit wherever you like. Each position can be solved from any side of the board. There’s always a forced mate.

Once you have found the mate from one side, then turn the board and find another. North, south, east, and west! The direction of the pawns will make a difference.

As a warm-up exercise, here’s a simple mate in one.

Rotating Quadruplex 1a



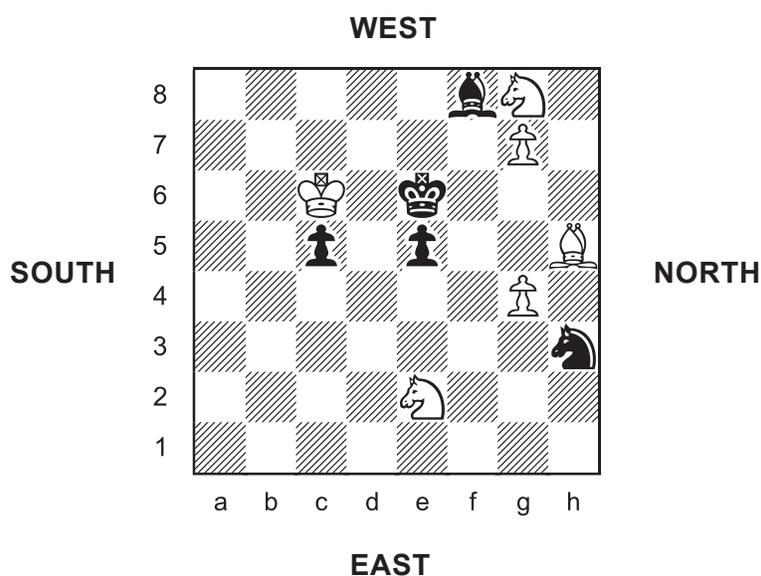
WHITE (south) TO MATE IN 1

This kind of problem is called a “quadruplex”. It is actually four puzzles in one.

A *duplex* is a chess problem which can be solved with either Black or White to play. In a *quadruplex*, it is always White to play, regardless of how the board is situated.

The next diagram is the same arrangement of pieces as before, but the board has been rotated ninety degrees clockwise. It’s East to move and mate in one.

Rotating Quadruplex 1b



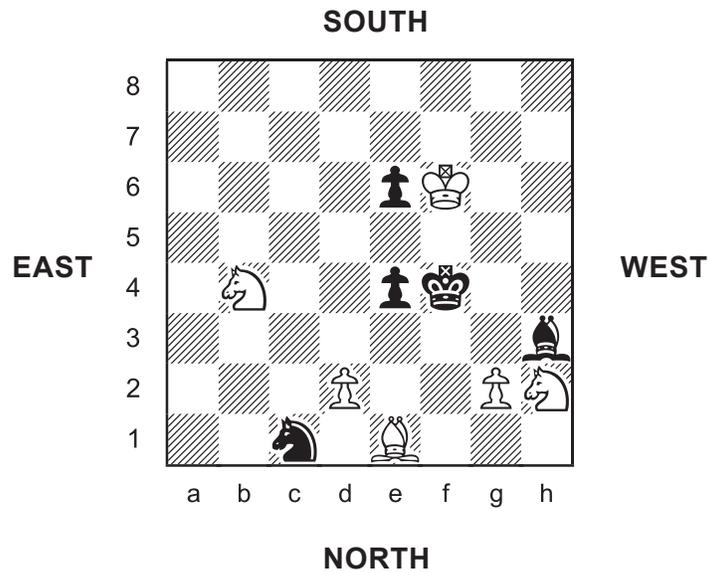
WHITE (east) TO MATE IN 1

If you set the position up on a real board and physically turned it, you may have noticed that the colours of the squares are different. From the north and south perspective, a1 will be a dark square. From east and west, a1 will be a light square. In the diagrams given here, the a1 square will always be dark.

Unlike the direction of pawns, the colour of squares does not affect the play.

Now we turn the board another ninety degrees, with North to play. Or you can switch chairs if that is easier!?

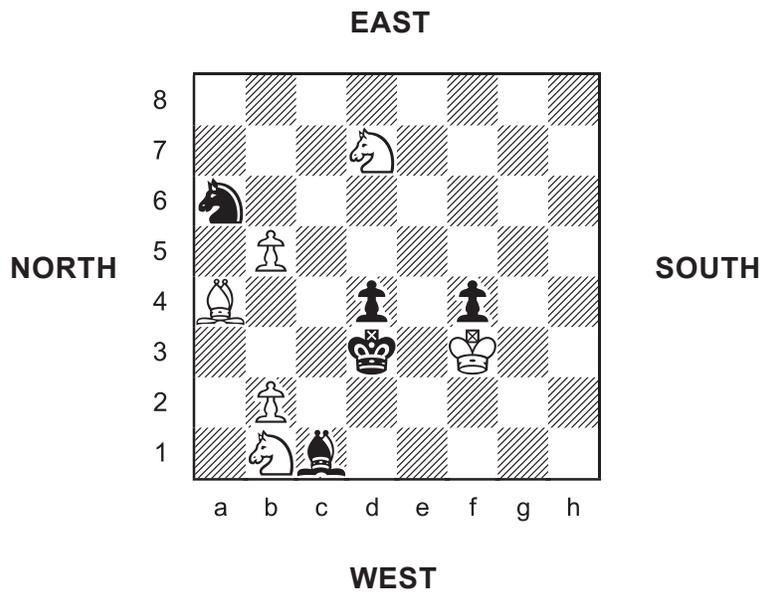
Rotating Quadruplex 1c



WHITE (north) TO MATE IN 1

One final turn and it's West to play. This is starting to sound like a game of bridge.

Rotating Quadruplex 1d

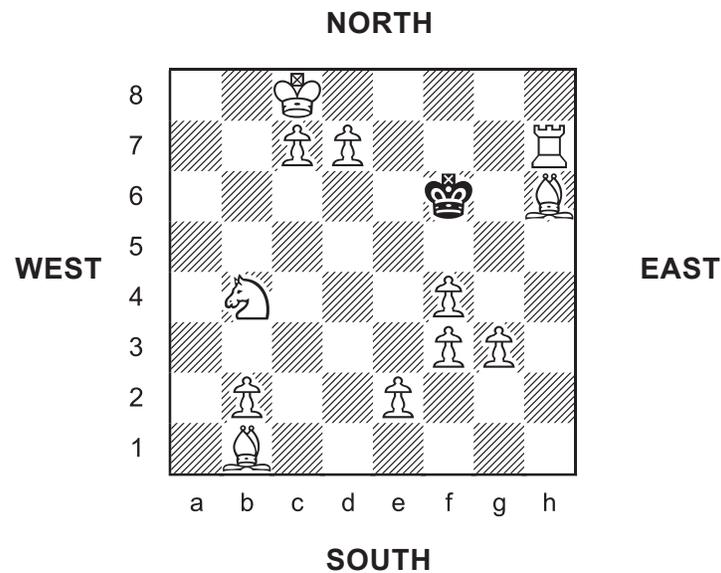


WHITE (west) TO MATE IN 1

As far as I know, the quadruplex idea originated in 1922 with the following problem by Knud Hannemann (1903-1981), a chess composer known as “the Danish Wizard”. This mate in 2 is one of his masterpieces.

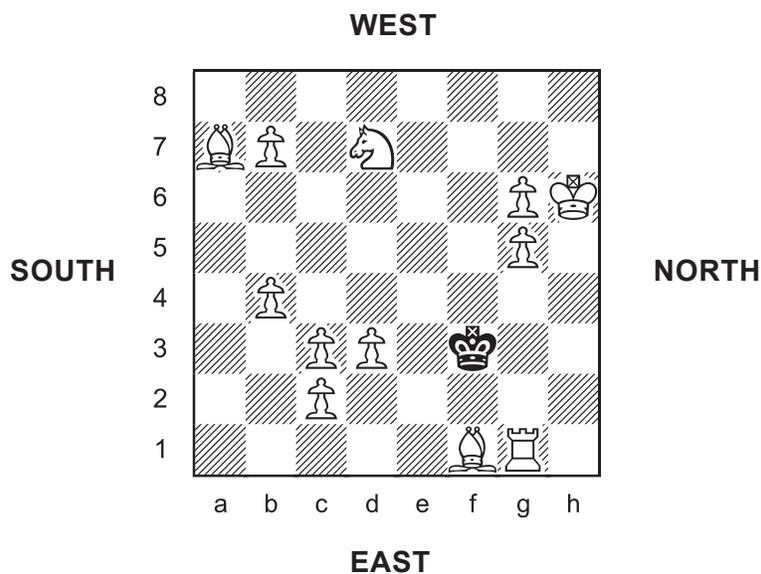
Rotating Quadruplex 2a

Knud Hannemann 1922



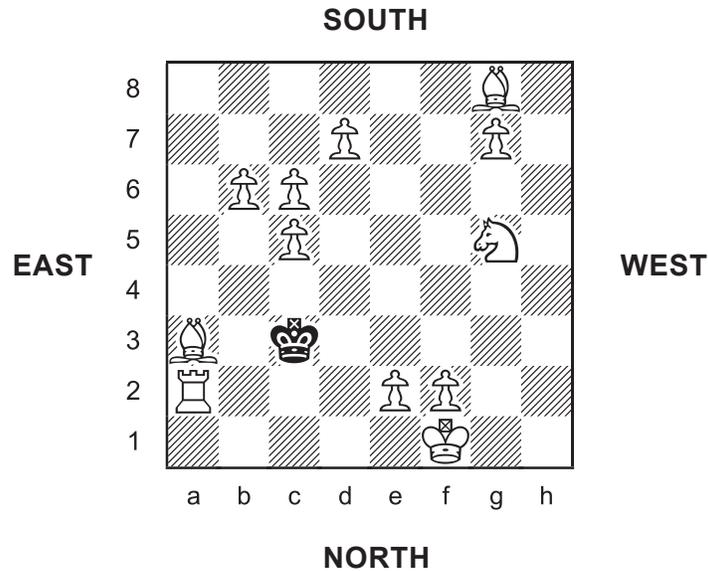
WHITE (south) TO MATE IN 2

Rotating Quadruplex 2b



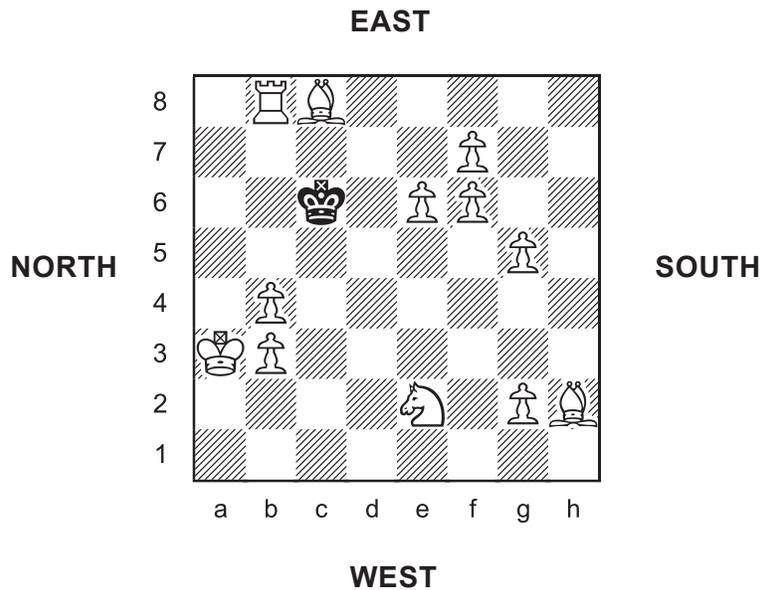
WHITE (east) TO MATE IN 2

Rotating Quadruplex 2c



WHITE (north) TO MATE IN 2

Rotating Quadruplex 2d



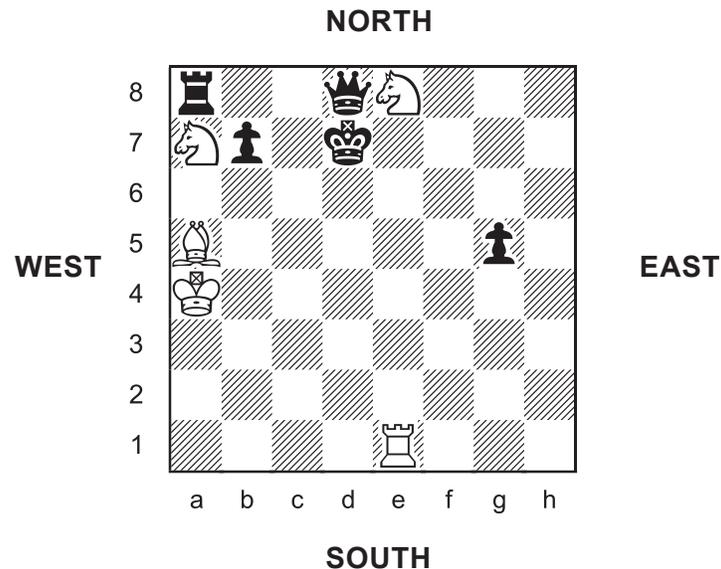
WHITE (west) TO MATE IN 2

That problem was worthy of a wizard, especially the *allumwandlung* theme, which is discussed in the solution.

Except for the rotating board, the first two quadruplexes were standard direct mates. Someone might think that we are on “the normal side of chess”. To counter that notion, I decided to make a quadruplex problem that includes a common puzzle idea: adding a white pawn to the given position so that White has a mate in one.

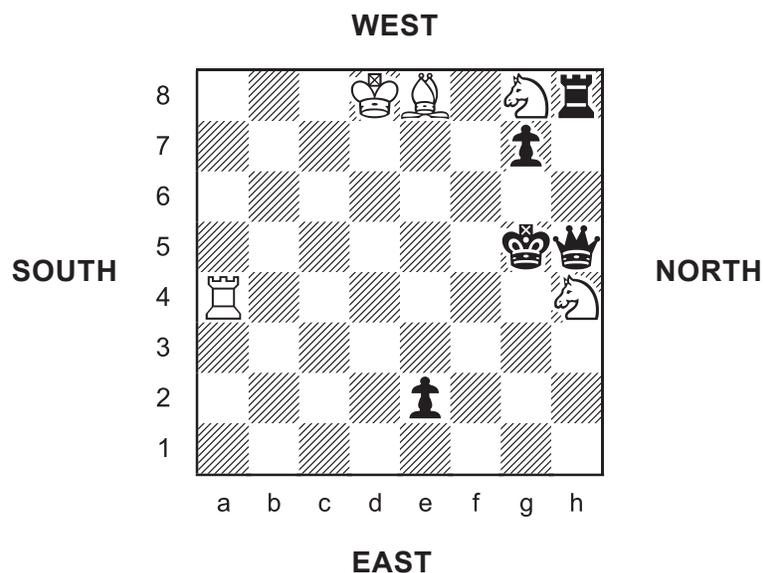
More challenging would be adding a pawn for mate in two, but I'll leave that to others for now. My first attempt at a mate in one took time enough. It's not great, but does show some of the possibilities. I call it a "rotating quadruplex pawn additive mate in one". With a name like that, you know you're on *The Puzzling Side of Chess!*

Rotating Quadruplex 3a

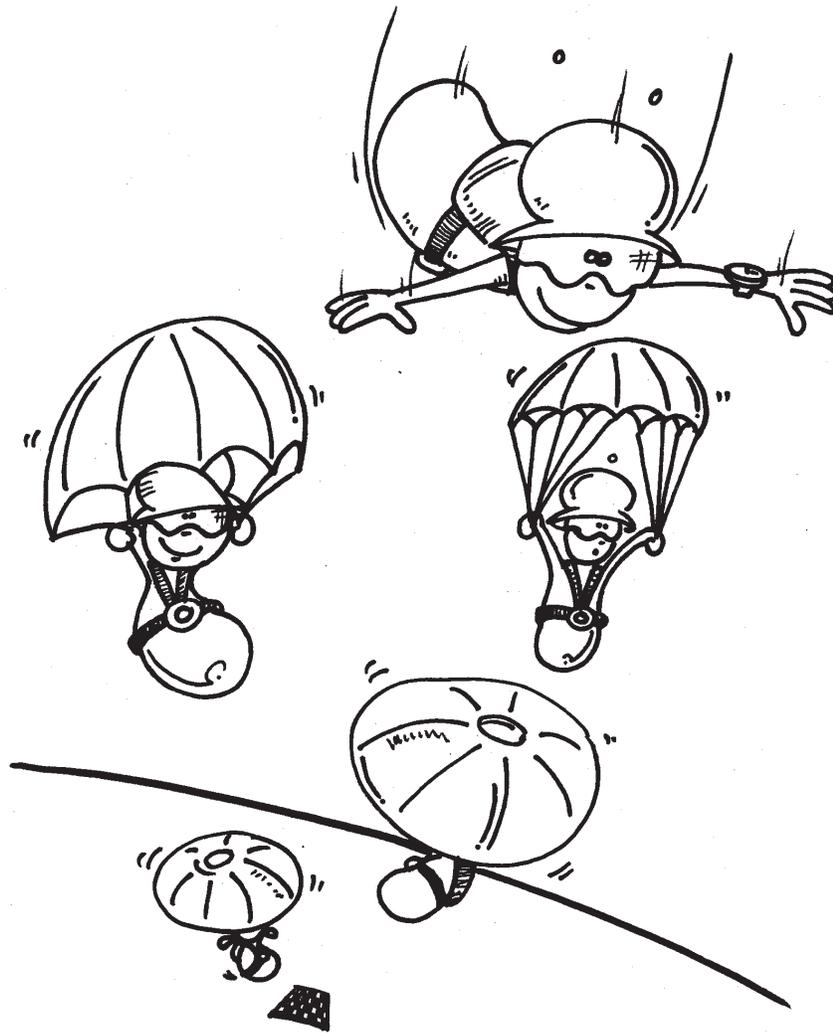


**Add a white pawn to the board so that
White (south) has a mate in 1.**

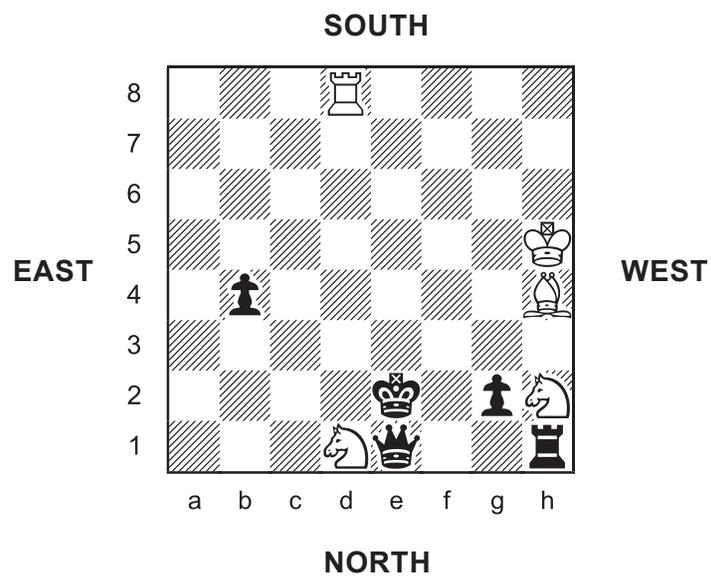
Rotating Quadruplex 3b



**Add a white pawn to the board so that
White (east) has a mate in 1.**

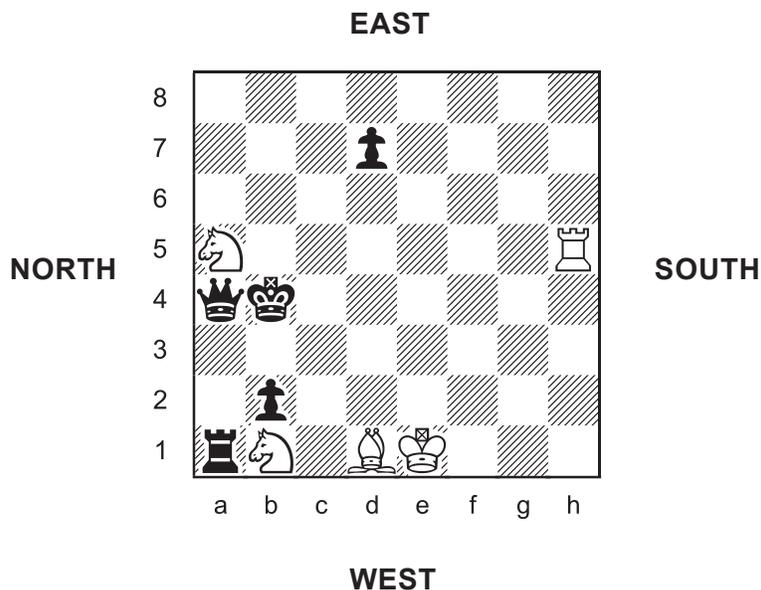


Rotating Quadruplex 3c



Add a white pawn to the board so that White (north) has a mate in 1.

Rotating Quadruplex 3d



**Add a white pawn to the board so that
White (west) has a mate in 1.**

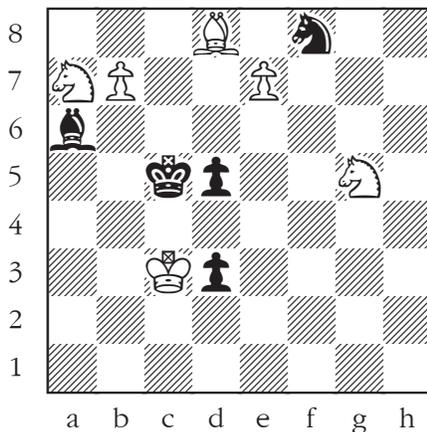
SOLUTIONS

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.

Rotating quadruplex #1a (south)

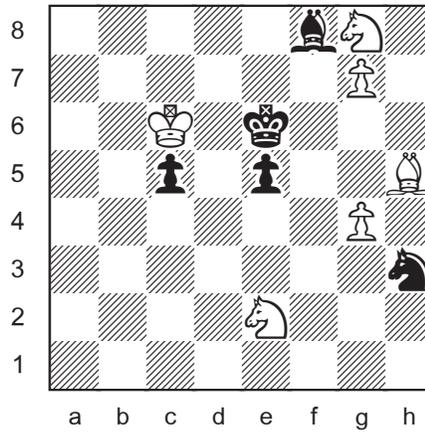
J. Coakley 2010

Winning Chess Puzzles For Kids Volume 2



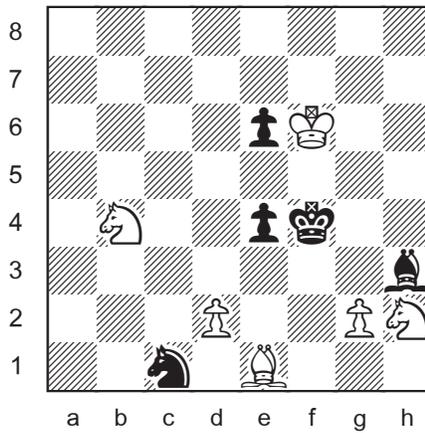
1.exf8=Q#

Rotating quadruplex #1b (east)



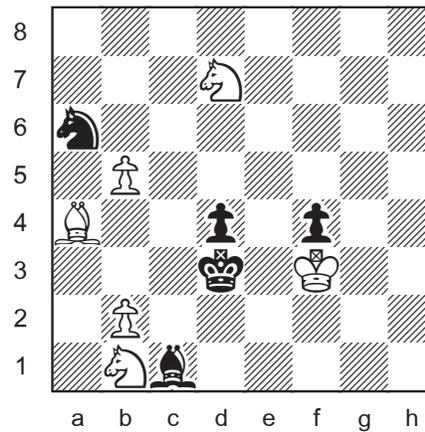
1.gxf8=N#

Rotating quadruplex #1c (north)



1.g3#

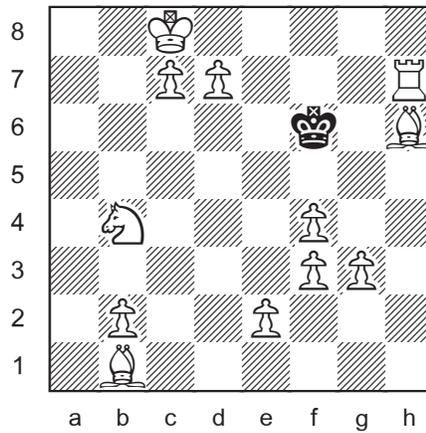
Rotating quadruplex #1d (west)



1.Ne5#

Rotating quadruplex #2a (south)

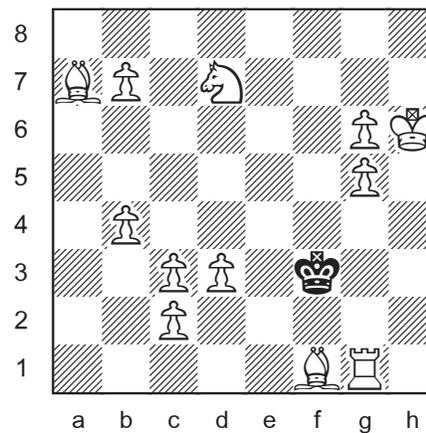
Knud Hannemann 1922
Skakbladet



1.d8=Q+ Ke6
2.Qe7#

The lone black king (Rex Solus) is no match for the new queen.

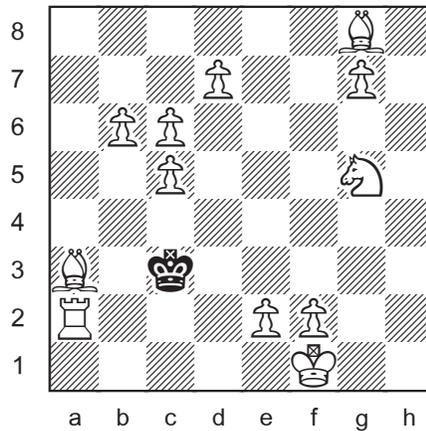
Rotating quadruplex #2b (east)



1.b8=R Kf4
2.Rf8#

Underpromotion to a rook beats stalemate by 1.b8=Q.

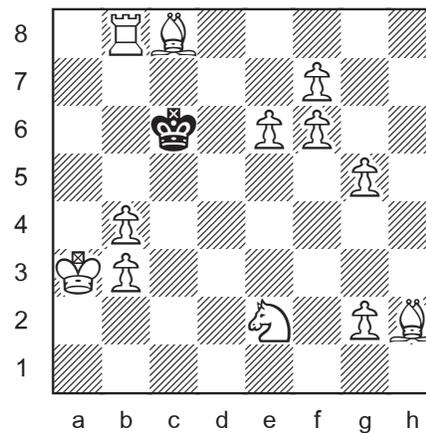
Rotating quadruplex #2c (north)



1.d8=B Kd4
2.Bf6#

A promoted bishop is a real rarity. 1.d8=Q and 1.d8=R are both stalemate.

Rotating quadruplex #2d (west)



1.f8=N Kd5
2.Bb7#

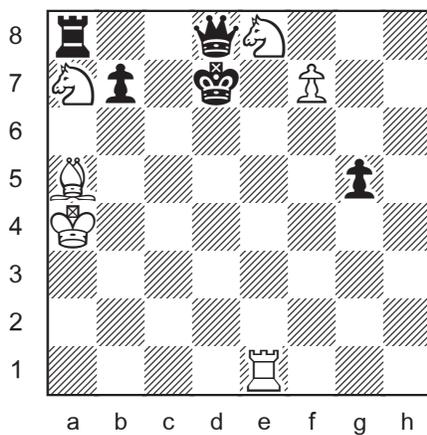
And of course, the grand finale is a knight promotion!

Each rotation of the board required promotion to a different kind of piece. The chess world has a special name for this theme: *allumwandlung*. It's a German word that means "all promotion". It applies to any problem which includes promotions to each of the four types of pieces (queen, rook, bishop, knight). A nifty trick, to say the least.

Rotating quadruplex #3a (south)

J. Coakley 2012

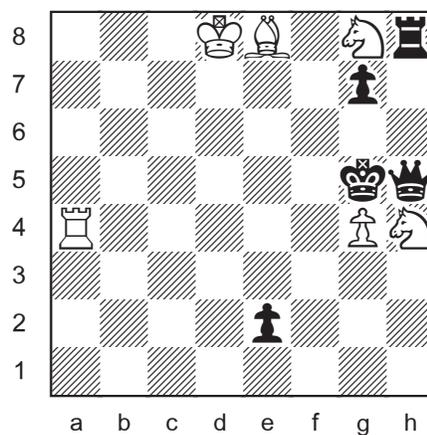
ChessCafe.com



White pawn added on f7

1.f8=N#

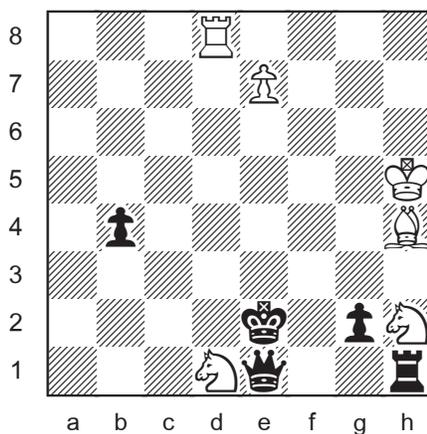
Rotating quadruplex #3b (east)



White pawn added on g4

1.Nf3#

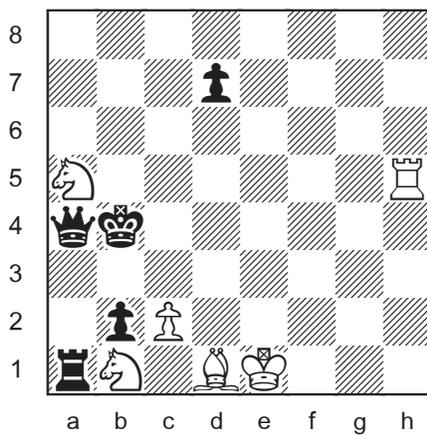
Rotating quadruplex #3c (north)



White pawn added on e7

1. e8=Q#

Rotating quadruplex #3d (west)



White pawn added on c2

1. c3#

Until next time!

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