

THE PUZZLING SIDE OF CHESS

Jeff Coakley

CYCLOTRONIC MINDWARP: Dizzy Miss Lizzy

number 128

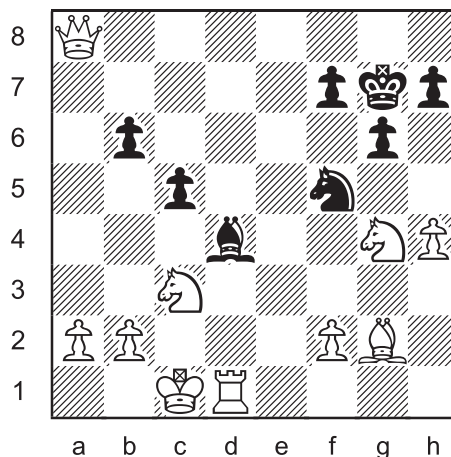
December 3, 2016

This column continues from our last mindwarping experience with five more rock 'n' rolling cyclotrons. The way we do the stroll.



A *cyclotron* is a three-way switcheroo. Instead of switching two pieces, we switch three. If you're new to this type of puzzle, the rules are given below.

Cyclotron 48



Cycle three pieces so that
Black is in checkmate.

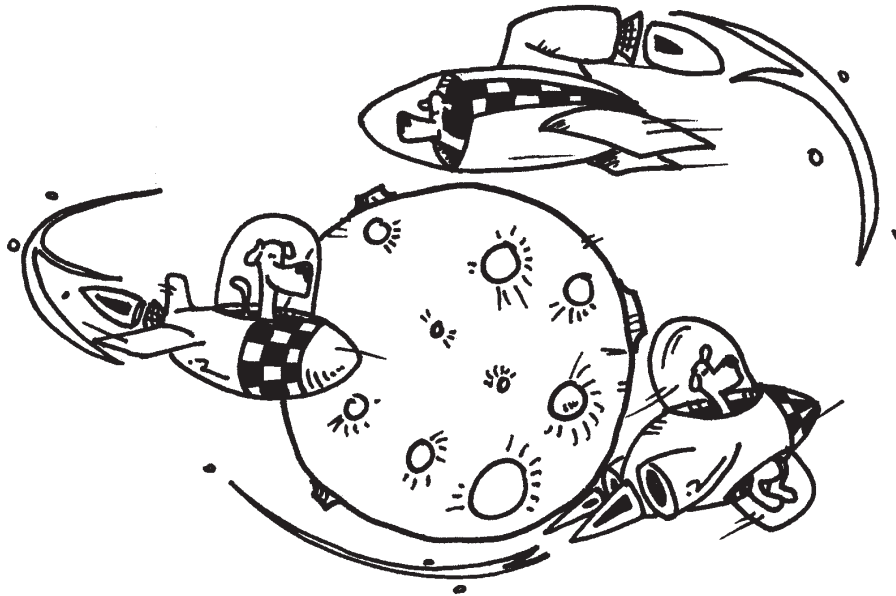
CYCLOTRONS

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.

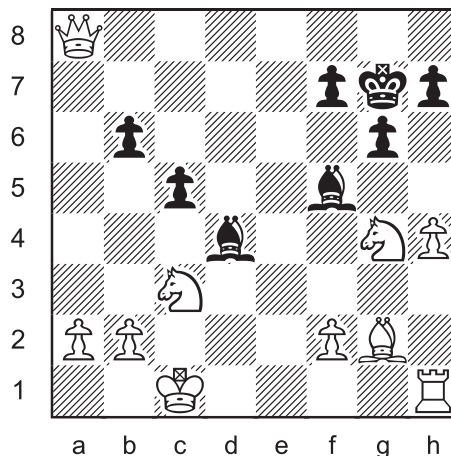
Any three pieces can trade places. Colours do not matter. The cycled pieces can be all white, all black, or a mix of both. Cycling the black king is a common trick.

The position after the cycle must be legal. This rule implies several things.

- A pawn cannot be on the 1st or 8th rank.
- Both kings cannot be in check.
- There must be a way to reach the position with a legal white move.
Impossible checks, especially double checks, are a frequent "violation".
- In some cases, retrograde analysis is required to decide if the position after a cycle is legal.

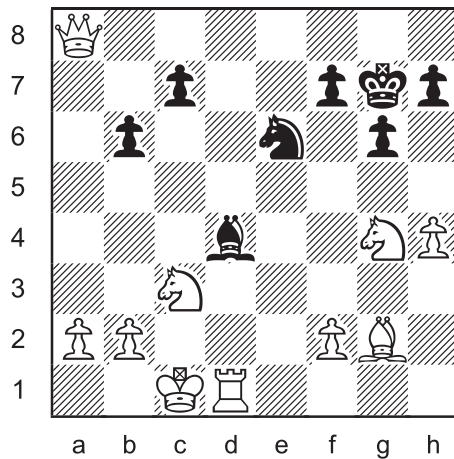


Cyclotron 49



Cycle three pieces so that
Black is in checkmate.

Cyclotron 50

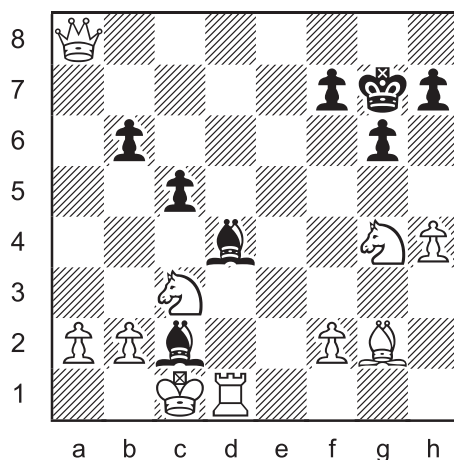


Cycle three pieces so that
Black is in checkmate.

Dizzy, Miss Lizzy is a classic rock 'n' roll number from 1958 written by Larry Williams (1935-1980) of New Orleans. The song, featuring Williams on piano and vocals, in the style of his friend Little Richard, peaked at #69 on the Billboard charts.

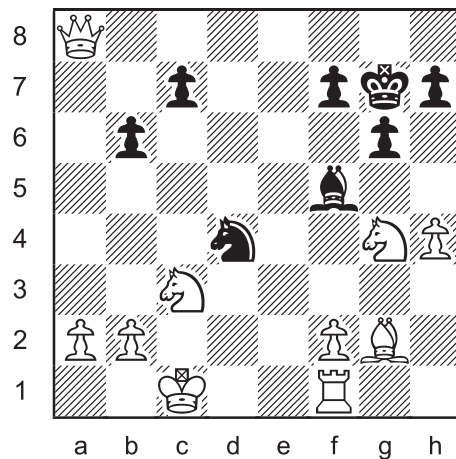
Another well-known hit by Larry Williams is *Bony Moronie* ("skinny as a stick of macaroni"). The Beatles covered three of his songs: *Slow Down*, *Bad Boy*, and *Dizzy Miss Lizzy* which appeared on their 1965 album *Help!*

Cyclotron 51



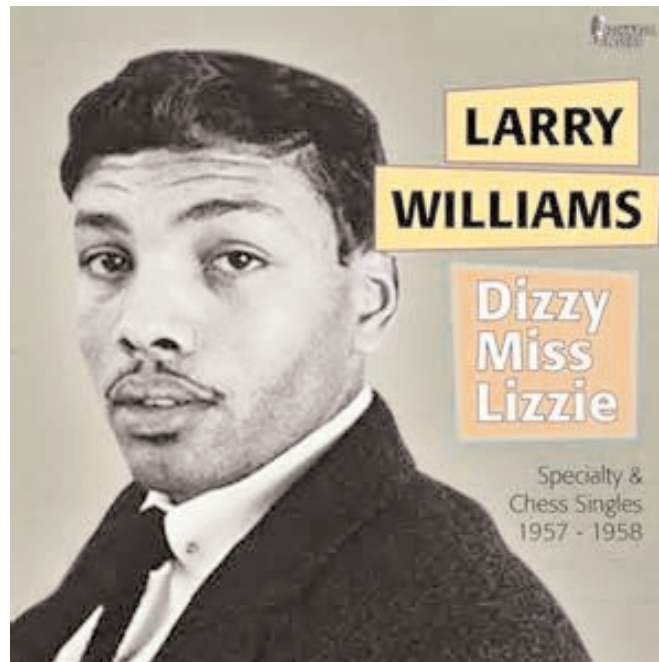
Cycle three pieces so that
Black is in checkmate.

Cyclotron 52



Cycle three pieces so that
Black is in checkmate.

A compilation album called *Dizzy Miss Lizzie* collected 15 Larry Williams singles from two record labels: *Speciality* and *Chess*.



The Plastic Ono Band performed *Dizzy Miss Lizzy* at the *Toronto Rock and Roll Revival* in 1969. Group members were John Lennon, Yoko Ono, Eric Clapton, Alan White, and Klaus Voorman. Still spinnable on their album *Live Peace in Toronto 1969*.

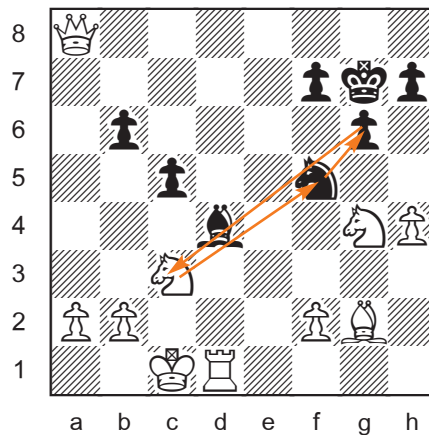
SOLUTIONS

All cyclotrons by J. Coakley. *Puzzling Side of Chess* (2016).

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. Other columns with similar problems can be found in the Puzzling Side archives (55, 89, 92, 95, 119, 126). For more information on ordinary switcheroos, see column 4.

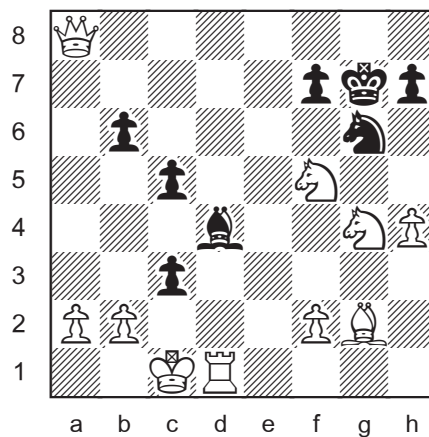
Cyclotron 48



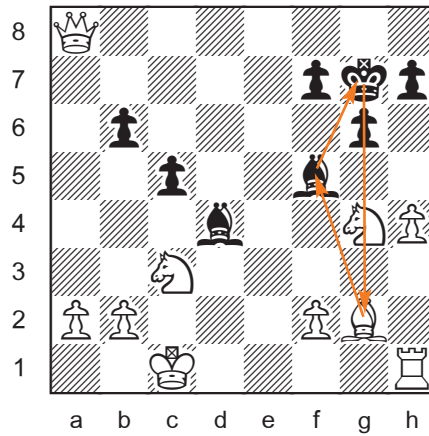
$Nc3 \rightarrow f5 \quad Nf5 \rightarrow g6 \quad Ng6 \rightarrow c3$

The cycle $Qa8 \rightarrow b6 \quad b6 \rightarrow g7 \quad Kg7 \rightarrow a8?$ is illegal because Black has an impossible pawn formation (f7 g6 g7 h7).

The order in which the pieces are cycled is not important. The resulting position will still be the same. See diagram below.



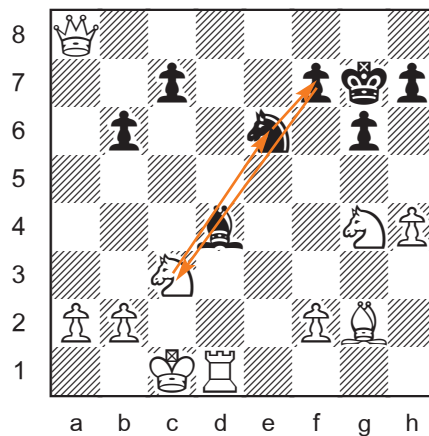
Cyclotron 49



Bg2→f5 Bf5→g7 Kg7→g2

Black king travels, mate unravels.

Cyclotron 50



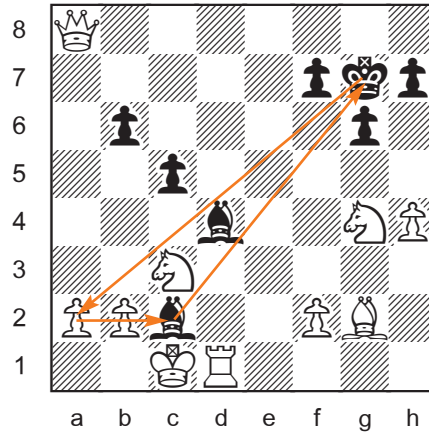
Nc3→e6 Ne6→f7 f7→c3

The cycle Qa8→c7 c7→g7 Kg7→a8? is illegal because Black has an impossible pawn formation (f7 g6 g7 h7).



A famous Liz.

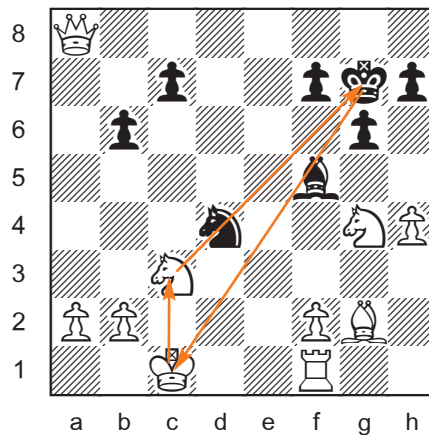
Cyclotron 51



a2→c2 Bc2→g7 Kg7→a2

The last move was the double check Na4-c3+.

Cyclotron 52



Kc1→c3 Nc3→g7 Kg7→Kc1

The inevitable double kinger.

The cycle Kc1→g7 Kg7→f1 Rf1→c1? is an impossible double check.

As in *The Thrill of Neural Acceleration*, the cyclotrons in this column all share the same “zero position”. Check back next month for more problems in the *Cyclotronic Mindwarp* series.

Until next time!

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