

# Eight Peg Puzzle



**a.k.a. Panama Canal Map Puzzle**

*W. C. Horn, Bro. & Co. NY. "Manufacturers Since 1846", not dated.*

(cardboard box, wood board, and painted wood pegs, 2 by 7 by 5/8 inches)

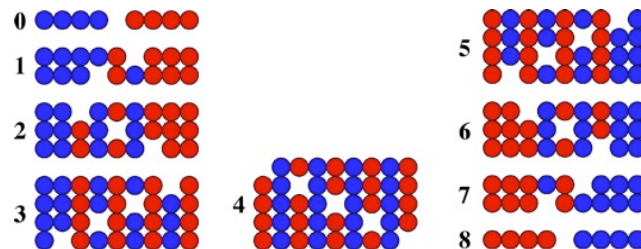
This old design is discussed on the *Elliott Avedon Museum* page. Exchange the two colors by successive moves of either moving a piece forward to an adjacent empty square or jumping forward a single piece of the opposite color:



The 1942 *Filipiak* book presents the following 24 move solution:

Move left.	Jump right.	Jump left.	Move left.
Jump right.	Jump right.	Jump left.	Jump left.
Move right.	Jump right.	Move right.	Jump left.
Jump left.	Move right.	Jump right.	Move right.
Jump left.	Jump left.	Jump right.	Jump right.
Move left.	Jump left.	Jump right.	Move right.

Except for the left and right ends, two adjacent of the same color leaves you stuck. So at any point, you have only one choice that does not quickly create this situation. This reasoning leads to the 24 move solution above, which can be viewed as increasing sequences of alternating colors followed by decreasing sequences, that works in 8 phases:



**Further reading:**

*Elliott Avedon Page (Map Games)*, from: <http://www.gamesmuseum.uwaterloo.ca>

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