

UNITED STATES PATENT OFFICE.

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PUZZLE.

SPECIFICATION forming part of Letters Patent No. 509,934, dated December 5, 1893.

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To all whom it may concern:

Be it known that I, CORNELIUS A. MCFADDEN, JR., a citizen of the United States, residing at Wheeling, in the county of Ohio, State of West Virginia, have invented certain new and useful Improvements in Puzzles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain improvements in that class of puzzles wherein a number of blocks are placed in a box provided for the purpose, such blocks being shiftable about the box in order that they may be made to assume certain positions, and the object of my invention is to provide a puzzle of this character which shall be of an inexpensive construction and which shall provide an interesting and novel pastime, all as will be hereinafter more fully set forth.

The novel features of my invention will be carefully defined in the claim.

In order that my invention may be better understood I have illustrated in the accompanying drawings the preferred embodiment of my invention, of which drawings—

Figure 1 is a plan view showing the puzzle ready for use, and Fig. 2 is a side view of the box. Fig. 3 is a detail showing the preferred form of the puzzle blocks.

In the views A represents the box as a whole, having an oblong rectangular form, the side walls *a*, and end walls *a'* being of such height as to permit the ready shifting of the blocks B about the interior of the box. As shown these blocks B are of a general octagonal form, but it is evident they may be round, rectangular or other preferred form.

As seen in Fig. 1, the interior of the box A has a length equal substantially to five times, and a width of two times that of one of the blocks B, and at one end of said box is arranged a partition C extending half way across the same whereby a partial inclosure D, sufficiently large to contain four of the blocks B is formed at that end of the box. At a distance from the opposite end of the box equal to that of the partition C is pivoted a "gate" E preferably of thin sheet metal as tin plate or brass, said gate having two wings

e each of a length equal to the length of the blocks B, and being pivoted at *e'* in longitudinal center of box and at a distance from end of the partition C equal to the length of one of the wings of the gate E. Thus it will be seen when said gate is turned as seen in Fig. 1 in dotted lines the box will be divided into two compartments or inclosures D and F of equal size and of the form seen; and when said gate is turned as seen in full lines said inclosures will be connected by a passage way M, and the space L between the gate and the partition is entirely closed from the said inclosures.

In solving the puzzle two sets of blocks are employed, distinguished by different colors, numbers or marks. As herein shown three colored blocks (seen at the right) and four white blocks (seen at the left) are employed. Each set is placed in one of the inclosures D. F. and the puzzle is ready for use.

To solve the puzzle, one of the blocks from the inclosure F is moved through way M into inclosure D. The gate E is then opened (shifted to position seen in dotted lines) and the block slipped into the angle, the gate closed (shifted to position seen in full lines) carrying block B into space L, between it and the partition C. Then will there be three blocks in each of the inclosures D and F; the operator then passes one of the blocks from the inclosure D, through space M into inclosure F, opens the gate E and pushes the block therein into inclosure D. The inclosure F now contains four blocks, is enlarged by the addition of space L, so that the blocks contained in it may be shifted so as to get the blocks in the right position, after which the gate is then closed, when the second block of the series from F is passed through way M into inclosure D, as before, the gate opened, and the blocks pushed within the angle, and the gate closed; when one of the differently colored block is pushed to the opposite inclosure. The operation is then repeated until all the blocks have changed position with the exception of the last block of each of the series; pushing the last colored block into space F, the gate is opened and the white block is passed into inclosure D as usual, when the gate is closed, and the

block of the colored series last passed into inclosure F, is pushed back into space M, when the blocks in inclosure F are shifted, when the block in the way M is again brought
5 within inclosure F, the gate opened and the blocks again shifted when the gate is closed, permitting the last block of the white series to be passed directly from inclosure F to inclosure D, and being the last block it is not
10 required that it should be passed behind the gate into inclosure L; the solving of the puzzle may be done in different ways; hence I do not limit myself to this mode of solving the puzzle.

15 In order that the gate may be readily closed and opened I have provided each of its wings e with projections e^x adapted to be engaged by the fingers, these projections taking into shallow notches a^x , formed in the sides a of
20 the box; said notches and projections also serve to hold the gate steady while the puzzle is being used.

It is obvious many changes may be made in the invention as herein set forth without
25 material departure from its principles; for instance, the form of the box may be varied

to receive a greater or other number of blocks and more than one gate or partition may be employed. Therefore I do not wish to be understood as limiting myself to the precise
30 construction and arrangement as herein shown and described.

Having thus fully described my invention, I claim—

A puzzle consisting of a box having a partition partially dividing it into two compartments, in combination with a series of movable blocks arranged within the compartments, of a longitudinally centrally pivoted gate adapted to entirely separate said compartments, said gate having two wings each
35 provided with projections, the walls of said box having notches adapted to be engaged by the said projections, substantially as described and for the purpose set forth.
40 45

In testimony whereof I affix my signature in presence of two witnesses.

CORNELIUS A. MCFADDEN, JR.

Witnesses:

FRANK FARIS,
ROBERT BOURT.