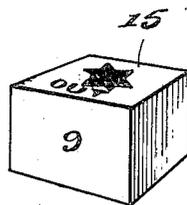
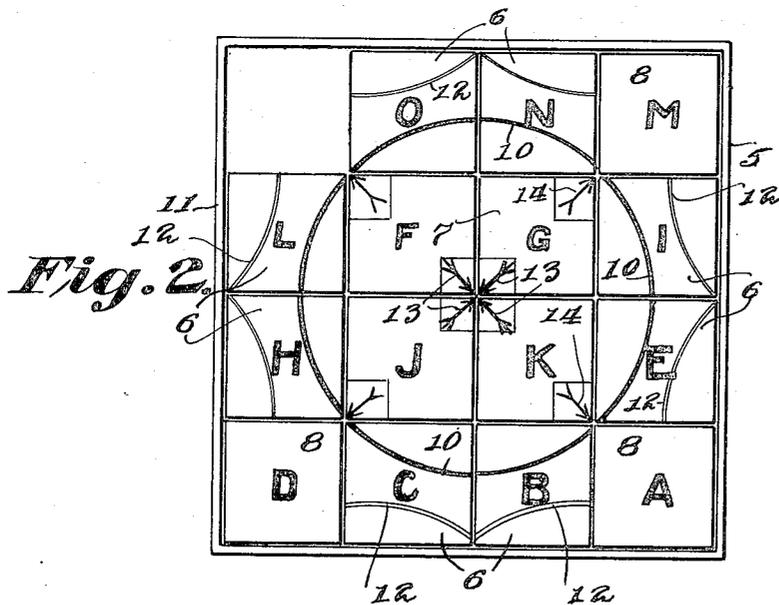
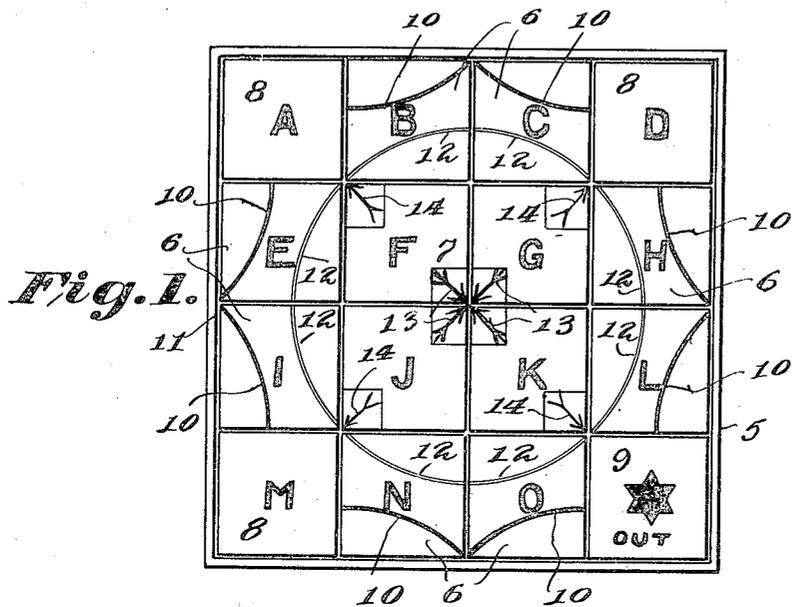


J. J. TIERNAN.
 PUZZLE.
 APPLICATION FILED OCT. 16, 1914.

1,144,799.

Patented June 29, 1915.



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PUZZLE.

1,144,799.

Specification of Letters Patent. Patented June 29, 1915.

Application filed October 16, 1914. Serial No. 866,889.

To all whom it may concern:

Be it known that I, JOSEPH J. TIERNAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Puzzles, of which the following is a specification.

This invention relates to puzzles of that type embodying a holding receptacle or box member having a plurality of shiftable blocks or devices of interfitting contour and bearing characters, letters, words and designs arranged and positioned to effect, by predetermined moves, the solution sought through interchange of the blocks or devices without displacement from the receptacle and to produce in the present instance a reversal of certain surface geometrical configurations relatively to an initial disposition of the puzzle components, thereby affording amusement and entertainment as well as mental advantages by necessary concentration of thought and study to solve the puzzle.

The improved puzzle in addition to the foregoing advantages may be used efficiently as a medium of advertisement or for the purpose of pertinently exploiting different articles of merchandise.

In the drawings:—Figure 1 is a plan view of the improved puzzle showing all the blocks or components in normal position. Fig. 2 is a similar view of the improved puzzle showing the majority of the blocks or components in interchanged position and the designs or geometrical configurations and the characters thereon reversed.

The puzzle comprises a receptacle or box 5 which in the present instance is preferably of square form and in practice will be provided with a suitable cover or closure. The movable components or pieces are in the form of cubical blocks arranged in design and character groups 6 and 7, single filling blocks 8 having characters thereon, and what may be termed a key block 9 also bearing a distinct character as well as the word "Out" and a further character that regularly coördinates with characters on the groups 6 and 7. The characters of similar kind on all the blocks are letters of the alphabet, and as there are sixteen blocks in the complete set, the letters included are from "A" to "P." The groups 6 are in pairs and each pair respectively bears the letters "B and C," "E and I," "H and L" and

"N and O." In addition the pairs of blocks comprised in the groups 6 bear geometrical designs or elements which in the present instance are in the form of two different sets of arcs of a circle, one arc 10 of each block of this group being normally out of registration with relation to the adjacent alined block next to the receptacle or box rim 11, and the remaining arcs 12 of the same blocks terminally coinciding or registering to form a chord, and all of the chords of the groups 6 normally form a complete circle traversing the several pairs of the blocks of these groups as clearly shown. The groups 7 are centrally located and consist of four blocks constituting what may be termed an inclosed field or guiding center which remains in central position when solving the puzzle. Each of the blocks of the group 7 is free to be removed, but for the purposes of solution of the puzzle this group remains in a practically fixed position. The blocks of the group 7 are each provided with arrows 13 and 14 at diagonally opposite corners and pointing reversely, the inner arrows 13 pointing inwardly and the arrows 14 having an outward pointing direction.

The puzzle is rendered more interesting and certain of accurate solution by differently coloring the arcs or elements 10 and 12 and the arrows 13 and 14. Consequently the arcs or elements 10 in the present instance are blue and the arcs or elements 12 are red, and the arrows 13 are blue and the arrows 14 are red. These colors may be modified or varied at will.

The key block 9 controls the movements of the blocks of the groups 6 and the blocks 8, and is removed from the box when desired to solve the puzzle, the latter essentially involving fifteen blocks. On this key block in addition to the word "Out" as heretofore explained is the letter "P" and a star 15 which serves as an accentuating symbol in regard to the control of this block as to the movement of the shiftable groups 6.

The several blocks may also be provided with suitable advertising matter—characters or devices, such as the names of certain classes of groups or articles of merchandise or any other matter.

As shown by Fig. 1, the red arcs or elements 12 complete the circle around the inclosed field or guiding center comprising the

group of blocks 7, and the letters of the alphabet read in regular sequence. The object of the puzzle or the solution thereof consisting in reversing or changing the arcs or elements 10 and 12 so that the arcs or elements 12 will form the circle in red and vice versa. The key block 9 is first removed from the receptacle 5 so as to provide space for movement of the groups 6 and block 8. The group 6 and "D" block 8 at the right is then drawn downwardly, the top group 6 and "A" block 8 is moved to the right, the left group 6 and "M" block 8 is next moved inwardly and then the bottom group 6 including the "L" block of the adjacent group 6 is then moved to the left and so on until the red circle is completely dismembered and the arcs 12 or components thereof are worked to the outside and all the blue arcs 10 are innermost and form the circle when the letters of the alphabet will be reversed as shown by Fig. 2. If desired the blocks of the group 7 may then be turned to bring the blue arrows 13 outermost and the red arrows 14 innermost or all grouped at the center, or in positions reverse to their respective positions when the red circle was formed as shown by Fig. 1. The red circle may again be formed by shifting the groups 6 and blocks 8 in reverse directions.

The improved puzzle as above explained will be found both amusing and instructive, as well as a profitable advertising medium, and changes in the proportions and dimensions may be adopted at will.

What is claimed is:—

1. A puzzle comprising a receptacle, a plurality of cubical blocks all bearing let-

ters and embodying shiftable groups of letters and blocks, the individual blocks of the groups having differently colored separated dual geometrical elements thereon, and single lettered blocks devoid of the geometrical elements of the other blocks, a central group of blocks that remain in one position and constituting a guiding center around which the other blocks are moved, and a key block which is withdrawn from the receptacle to permit movement of the said shiftable groups.

2. A puzzle comprising a receptacle, a plurality of cubical blocks all bearing letters and embodying shiftable groups, individual blocks of one group having differently colored dual geometrical elements at the outer and inner portions thereof in reverse positions and single lettered blocks, the group of blocks carrying the dual geometrical elements being movable to alternately bring the elements thereof inwardly toward the center of the blocks, a central group of blocks that remain in one position and constituting a guiding center around which the other blocks are moved, the said central group of blocks having differently colored arrows in diagonally reverse positions and capable of being changed as to their relative positions, and a key block having a designating character and distinctive word thereon.

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

JOSEPH J. TIERNAN.

Witnesses:

LEO F. GRAHAM,
EDWARD J. SCHAUER.