

R. M. SHAFFER.
PUZZLE.

(Application filed Nov. 21, 1899.)

(No Model.)

Fig. 1.

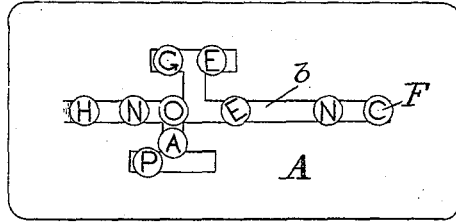


Fig. 2.

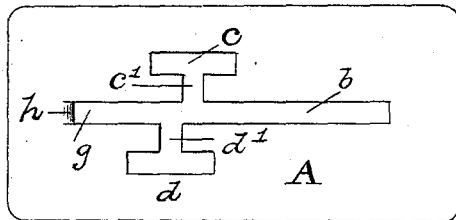


Fig. 3.

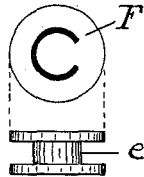


Fig. 4.

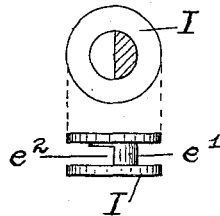


Fig. 5.

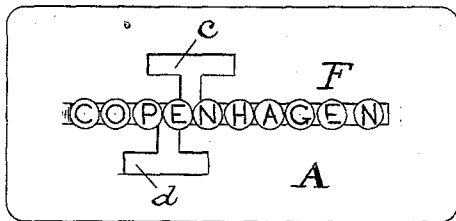


Fig. 6.



Witnesses:-

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UNITED STATES PATENT OFFICE.

RICHARD M. SHAFFER, OF BALTIMORE, MARYLAND, ASSIGNOR TO THE
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PUZZLE.

SPECIFICATION forming part of Letters Patent No. 642,374, dated January 30, 1900.

Application filed November 21, 1899. Serial No. 737,745. (No model.)

To all whom it may concern:

Be it known that I, RICHARD M. SHAFFER, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Puzzles, of which the following is a specification.

This invention relates to a novel form of puzzle or game.

The object is to provide a mechanical contrivance having buttons each representing a letter and of simple and cheap construction, whereby it is possible to arrange or dispose said buttons and letters in the order or sequence necessary to spell a given word.

The puzzle is illustrated in the accompanying drawings, in which—

Figure 1 is a view of the puzzle. Fig. 2 is a view of the slotted plate. Fig. 3 shows two views of one of the buttons. Fig. 4 shows two views of the special button. Fig. 5 is a view of the device in which the buttons are so disposed as to spell a desired word. Fig. 6 is an edge view of the same.

In the present instance this puzzle has the arbitrarily-selected word "Copenhagen" as its objective. Of course any other word may be substituted for this, or figures may be employed instead of letters.

The letter A designates a plate made of metal or any other material of any preferred outline or shape. In the present instance it is rectangular. This plate has a long slot *b* and two short parallel slots *c d*, one above and the other below. The two short slots each connect with the long slot by branch slots *c'* and *d'*, respectively. The left-hand edge of the upper perpendicular connecting branch slot aligns with the right-hand edge of the lower perpendicular connecting branch slot.

The buttons *F* have two circular heads and a shank *e* connecting them. The said shank fits in the slot, and the circular heads overlap the edges of the slot on opposite sides of the plate. The buttons are free to slide or move in either the long slot or the two connecting and two short ones. The two short slots are only long enough to admit three buttons at a time. The plate has its thickness reduced or is thin at one end of the slot, as indicated at *h*. The branch slot *d'*, which connects with

the lower short slot *d*, is such distance from the initial end *g* of the long slot as to allow room in that end of the long slot for only three buttons, and ordinarily if three buttons be placed in said initial end the entrance to said lower branch slot *d'* is thereby partially blocked, and no button can pass either to or from said lower short slot *d*. This is one of the controlling-points of the puzzle. It will be seen that the movement of the buttons is limited to the prescribed slots, and the spaces of said slots are affected by the occupancy of a greater or less number of buttons.

The shanks of all the buttons are alike but one. This button in this instance is designated by the letter I.

All of the buttons except the one referred to have central shanks *e* connecting the two circular heads. This special button I has a different shank. Here the shank *e'* is partly cut away or notched at one side, as at *e²*, so that when viewing the button edgewise (see Fig. 4) it will be seen that there is greater space at the cut-away side of the shank than at the opposite side. This makes part of the shank eccentric. In working the puzzle successfully this particular button I is employed at the extreme initial end *g* of the long slot. With this special button at this position the notched shank will allow more room in the initial end of the slot, because the notch overlaps on the plate at the thin or tapered end of the slot, and consequently when two other buttons are placed in said end there is space enough to pass other buttons into or out of the lower short slot *d*. With this special button I at the extreme end of the long slot the puzzle can be worked, but not otherwise.

It is to be understood that previous to trying the puzzle the lettered buttons are to be disarranged or mixed up.

This puzzle or game may be utilized for purposes of advertising any article by using the name of the article to be advertised instead of the name "Copenhagen." Any number of letters may be employed in the name.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A puzzle comprising a plate, A, having a long slot and two short slots connecting with

said long slot by branch slots; a number of buttons movable in said slots and all the buttons excepting one having central shanks which are alike—said one having an eccentric shank, and each button having any desirable impress thereon.

2. A puzzle comprising a plate, A, having a long slot and two short slots connecting with said long slot by branch slots, one end of said long slot being compressed or tapered; a number of buttons movable in said slots and all

the buttons excepting one having central shanks which are alike—said one having a notched shank to take over the said compressed or tapered end of the said slot.

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

RICHARD M. SHAFFER.

Witnesses:

EDWARD B. AMBLER,
WALTER J. KING.