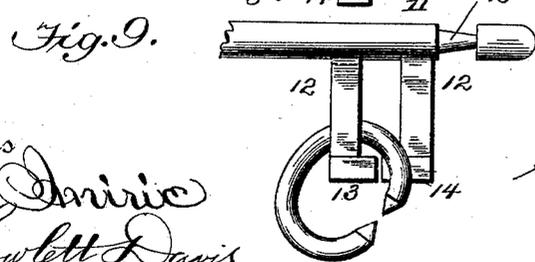
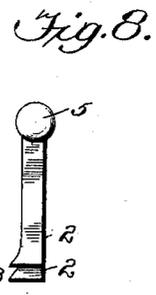
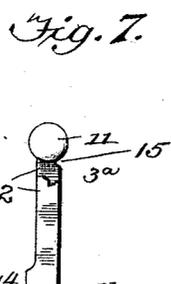
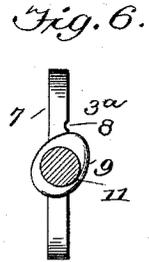
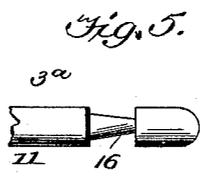
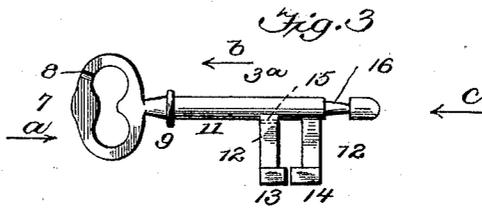
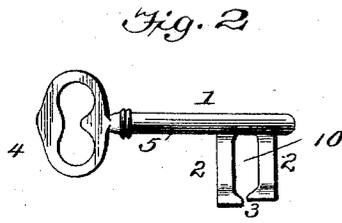
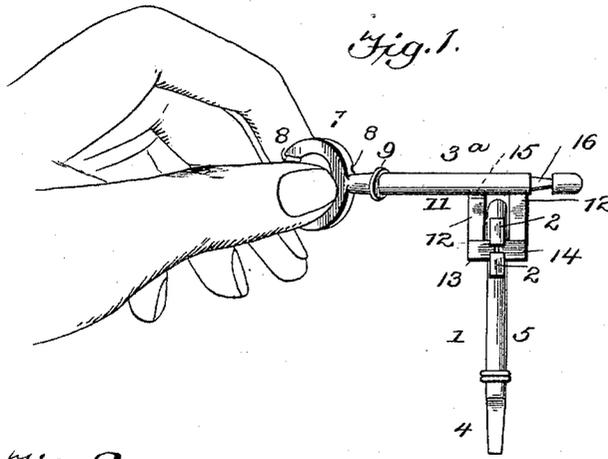


(No Model.)

H. L. DAVIS.
PUZZLE.

No. 488,974.

Patented Dec. 27, 1892.



Witnesses
John Davison
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UNITED STATES PATENT OFFICE.

HERBERT L. DAVIS, OF WASHINGTON, DISTRICT OF COLUMBIA.

PUZZLE.

SPECIFICATION forming part of Letters Patent No. 488,974, dated December 27, 1892.

Application filed September 10, 1892. Serial No. 445,527. (No model.)

To all whom it may concern:

Be it known that I, HERBERT L. DAVIS, a citizen of the United States, and a resident of Washington, in the District of Columbia, have invented a new Puzzle, of which the following is a description.

This invention relates to a puzzle, and more particularly to that class in which two parts are interlocked by manipulation which cause them to have the appearance of being permanently linked together.

The object of the invention is to produce a puzzle embodying the above features which may be constructed in a ready and efficient manner, and which will afford both pleasure and surprise to those attempting its solution.

My invention consists in the construction hereinafter described and claimed.

In the accompanying drawings forming a part of this specification, and in which like numerals of reference indicate corresponding parts: Figure 1, is a perspective view, showing the two keys interlocked. Fig. 2, is a side elevation of one of the keys. Fig. 3, is a like view of the second key. Fig. 4, is an end view looking in the direction of the arrow *a* in Fig. 3. Fig. 5, is a detail plan view of the end of the key shown in Fig. 3. Fig. 6, is a transverse sectional view looking in the direction of the arrow *b*, Fig. 3. Fig. 7, is an end view looking in the direction of the arrow *c*, Fig. 3. Fig. 8, is an end view, looking in the direction of the arrow in Fig. 2. Fig. 9, is a perspective view showing a key and open ring interlocked.

Referring to the drawings: 1, designates the key-proper, which in this instance is provided with two wards 2, one longer than the other, having each at its lower end an inward turned toe or lug 3, which is by preference of greater width than the width of the ward proper; but if desired, the wards may both be made of the same length. As the head 4, and shank 5, may be of any approved construction, a detailed description of them is deemed unnecessary. The second key 3^a, which I term a "blind key," is constructed with a head 7, having two grooves 8. At a point near the head 7, is formed a collar or shoulder 9, two sides of which are beveled or cut away at an angle to the head so as to render it oval shaped, as clearly shown in Fig. 6, the dis-

tance between the surfaces thus formed being slightly less than the recess 10, bounded by the inner walls of the wards of the key 2. At a point on the shank 11, removed from the collar 9, are two wards 12, which are also provided with inward projecting toes 13, 14, one of which wards is provided with a groove or recess 15, the function of which is to permit the lugs 3, of the key 2, to pass over the ward 12, which requires no force whatever, as will presently appear. The shank 11, is also provided near the wards 12, with a neck 16, (Fig. 5,) forming a passage for the lugs 3, of the key 1, the neck being of a thickness slightly less than the distance between the inner faces of the said lugs 3.

The opening of the ring shown in Fig. 9, is slightly larger than the diameter of the neck 16.

Having thus described the different parts of my invention, I will explain the manipulation necessary to interlock the parts. Take the blind key 3^a, in one hand, holding it rigidly therein, in a horizontal position with the wards downward, then pass the wards 2, of the key 1, over the outer side of the head 7, by slipping the lugs 3, through the grooves 8. Then pass the wards 2, around the base of the head on the side diagonally opposite the groove 8, without turning the key, in which position the key may be passed to the shank of key 3^a, immediately back of shoulder 9. A slight turn is now given to key 2, in order to allow its wards to pass over shoulder 9, and be slipped down the shank 11, through the groove 15, of ward 12. This brings the wards 2, within the space between the wards 12, and in order to cause the parts to assume the position shown in Fig. 1, a half turn upward is given to key 1, to bring the lugs 3, to a position to pass over the neck 16, and a final half turn to the right will cause the lugs 3, to pass over the neck, and completes the interlocking of the parts. To disengage the keys, the operation just described is reversed.

The open ring shown in Fig. 9, is interlocked and disengaged with the blind key in substantially the same manner as key 2.

Instead of using an open ring as a substitute for key 2, I may employ a small square with a suitable opening, or other similar substitute.

Having thus fully described my invention

what I claim as new and desire to secure by Letters Patent is:—

In a puzzle, a blind key having its head provided with grooves, and the shank near
5 the head with a shoulder having its opposite faces beveled at an angle to the head, wards on the shank, one of which is provided with a recess in one side at its base and a groove in the shank near its outer end, in combination
10 with a key proper provided with wards too short to reach from the front the groove at

the base of the ward of the other key, but adapted by manipulation to pass over the head, around the shoulder, and into engagement with the wards of the other key. 15

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

HERBERT L. DAVIS.

Witnesses:

W. E. AUGHINBAUGH,
JNO. S. MORAN.