

(No Model.)

J. W. HALE.  
PUZZLE.

No. 481,561.

Patented Aug. 30, 1892.

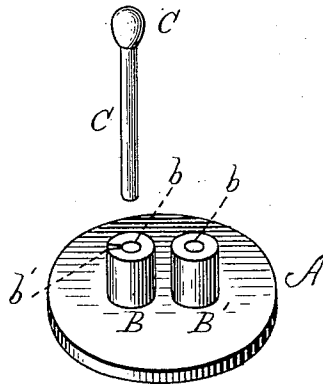


FIG. 1.

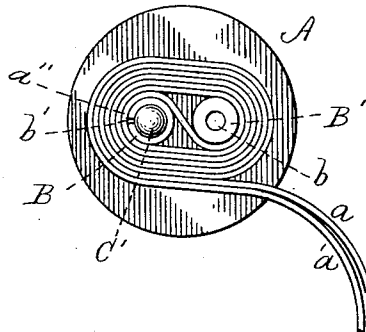


FIG. 2.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

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## PUZZLE.

SPECIFICATION forming part of Letters Patent No. 481,561, dated August 30, 1892.

Application filed May 27, 1892. Serial No. 434,628. (No model.)

### *To all whom it may concern:*

Be it known that I, JAMES WHITE HALE, a citizen of the United States, residing at Newburyport, in the county of Essex and State of Massachusetts, have invented a new and Improved Puzzle Apparatus, of which the following is a specification.

This is an apparatus the object of whose construction is to facilitate the exemplification of a puzzle, which is performed by means of a strap folded upon itself so as to make two thicknesses.

The nature of the invention is fully described below, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my puzzle apparatus, showing the pin separated from the rest of the device. Fig. 2 is a plan view of the apparatus with the strap, by means of which the puzzle is performed, folded around in position.

Similar letters of reference indicate like parts.

A represents a flat base made, preferably, but not necessarily, of metal and of circular or other convenient shape.

B B' are tubular posts extending up from and rigid with said base and with their holes *b* preferably extending entirely through the base A. One of these posts is preferably notched at *b'* for the purpose of distinguishing it from the other.

C is a pin of size and shape to be dropped into the opening in either of the tubular posts, said pin being provided with a head C' of larger diameter than that of either of said openings.

In performing the puzzle a strap—such as is shown in Fig. 2—is folded centrally upon itself, so as to constitute two portions *a* and *a'*. The center *a''* of the strap at which point the fold is made constitutes a loop and is caught by the performer over one of the posts—say the notched post B. The two portions *a a'* are then laid together and wound around the post B' and then around the post B, and so on in an approximately elliptical shape, as shown in Fig. 2. It is to be supposed, of course, that when the double thicknesses of strap are unwound the loop or central portion *a''* will be found to be caught around the post B; but the puzzle consists in unwinding the double

strap in such a manner that when it has been entirely unwound it is found to be caught around either the post B or the post B', at the pleasure of the operator, the onlooker supposing, of course, that it will be found to be caught around the same post which held the loop before the strap was wound. It is evident that should the strap be unwound in precisely the manner in which it is wound its looped portion *a''* will not be found to have changed its position from one post to another; but as the operator unwinds he can easily allow the end of the outer portion *a'* of the strap (which, if the strap is folded in the middle, will be the shorter end) to slip from under his finger and unwind a single turn before grasping the two portions *a a'* for the purpose of unwinding the whole. By this means when the strap has been unwound it will be found to be caught over the post B' instead of the post B.

Another method is, when folding the strap so as to produce the two portions *a a'*, to make the inner portion longer by the length of one turn. If in this case both portions are fully wound, the strap will be found to be looped upon the other post.

A third method is to quietly make an extra turn with one of the portions of the strap during winding. Of course the effect of all these tricks is to cause the device to unwind a half a turn more than it was wound, by which means the strap-loop is transferred from one post to the other.

The pin is useful not only for the purpose of designating a particular post by insertion therein, but after insertion in such post to serve as an axle or pivot by being held between the thumb and finger during the unwinding process.

I desire to be understood as not claiming as new this particular trick of winding a strap around itself; but the above-described appliance or apparatus by means of which this puzzle may be conveniently performed.

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

1. A puzzle apparatus comprising a base, two rigid posts, as B B', extending from said base, and a strap adapted to be wound around said posts, substantially as described.

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2. A puzzle apparatus comprising a base, two rigid posts, as B B', extending from said base, one of said posts being provided with a designating-mark, as b', whereby it may be distinguished from the other, and a strap  
5 adapted to be wound around said posts, substantially as set forth.

3. A puzzle apparatus comprising a base, two rigid tubular posts, as B B', extending

from said base, a pin, as C, of shape to be inserted in the opening of one of said posts, and a strap adapted to be wound around said posts, substantially as described.

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Witnesses:

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