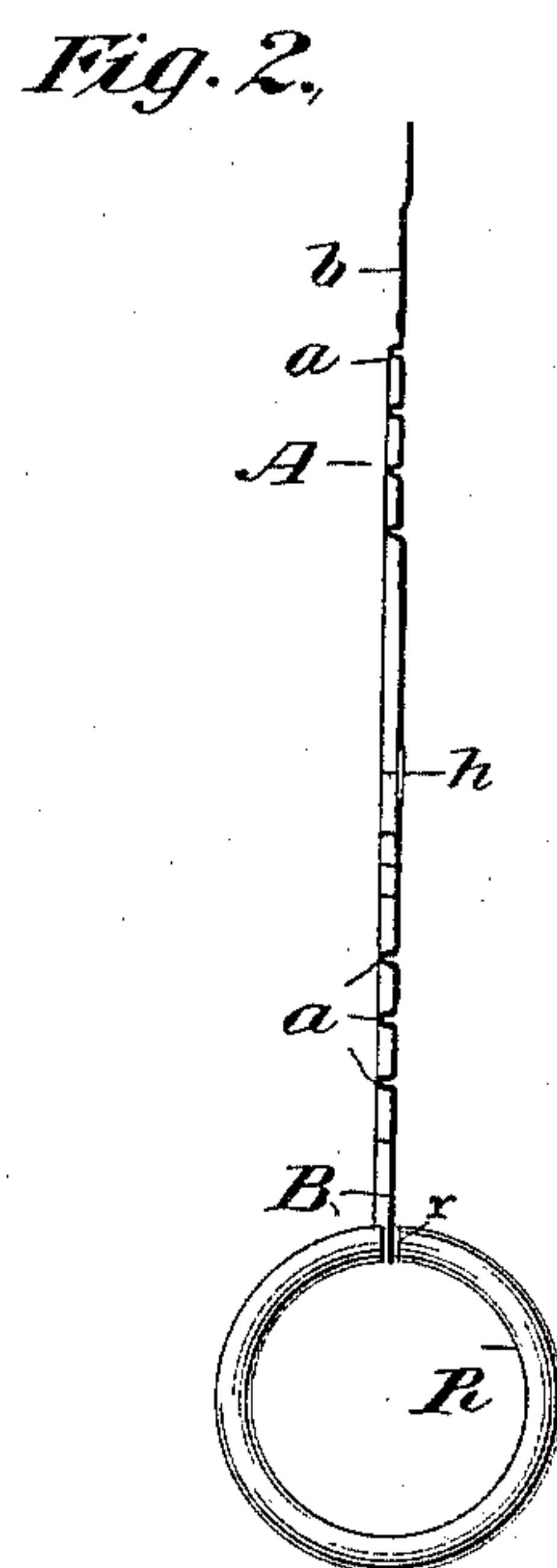
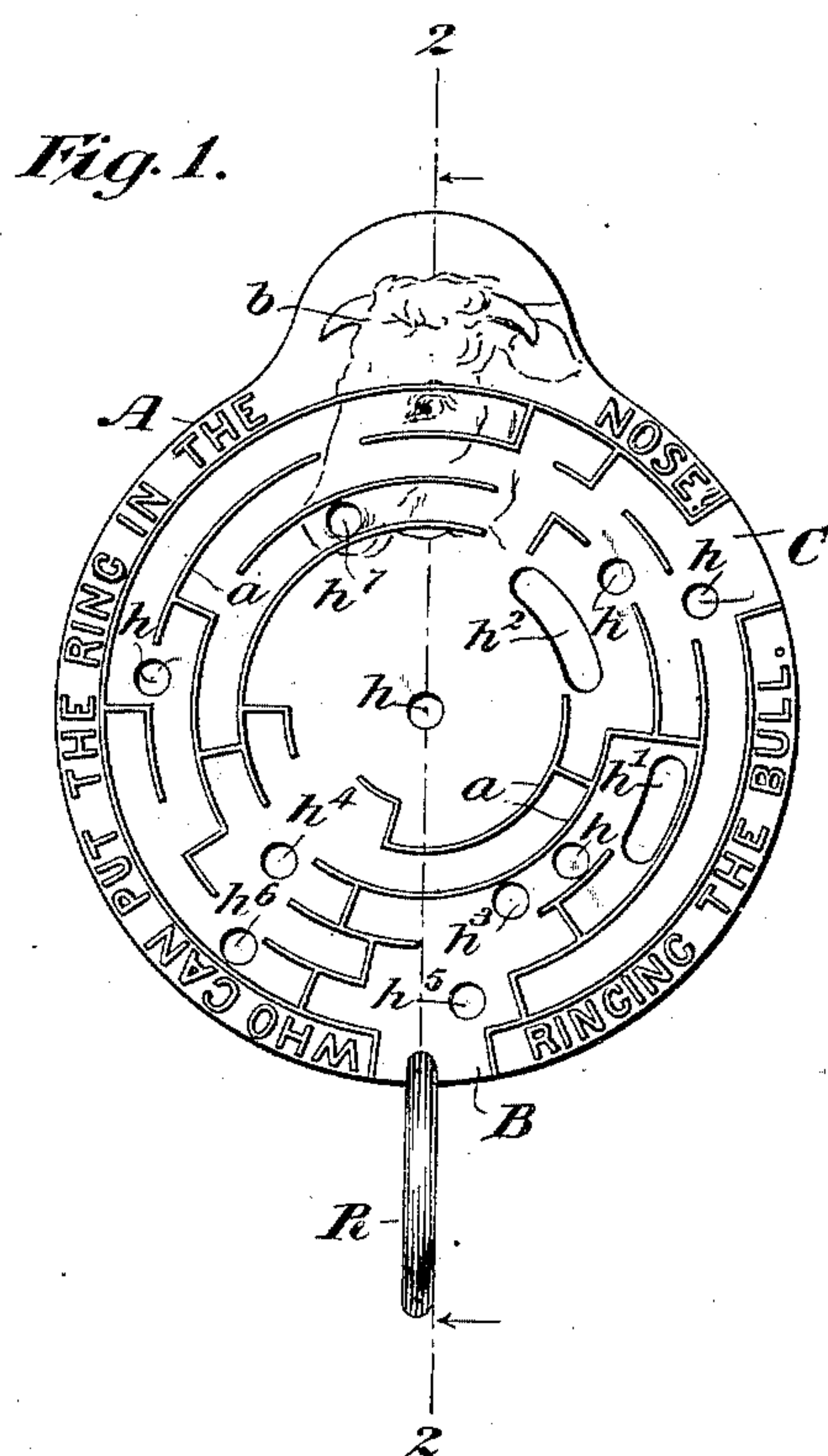


(No Model.)

J. W. THORNE.  
PUZZLE.

No. 483,820.

Patented Oct. 4, 1892.



Witnesses  
C. E. Ashley  
S. J. Macpeak

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# UNITED STATES PATENT OFFICE.

JOEL W. THORNE, OF NEW YORK, N. Y.

## PUZZLE.

SPECIFICATION forming part of Letters Patent No. 483,820, dated October 4, 1892.

Application filed October 7, 1891. Serial No. 407,989. (No model.)

*To all whom it may concern:*

Be it known that I, JOEL W. THORNE, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Puzzles, of which the following is a specification.

My invention is a puzzle which consists of two parts—viz., a flat piece of metal or other suitable material, preferably in the form of a disk, having raised ribs formed upon it and perforations of different forms arranged at predetermined distances apart and an opening in the slot in which is of sufficient size to allow the unraised portion of the piece of metal to pass through it edgewise.

The nature of the invention will be more fully explained in connection with the accompanying drawings, in which—

Figure 1 is a face view of the disk portion of the puzzle, and Fig. 2 shows the ring in connection with a cross-section taken through Fig. 1 in the line 2 2.

Referring to Fig. 1, which represents a thin piece of metal or other suitable material which may be of any convenient shape, but is here shown of substantially disk shape, A B C show the flat portions, and the lines *a* the ribs or raised portions. *b* represents a figure, preferably a bull's head, which may be stamped or otherwise placed on the metal, but which should be in lower relief than the lines *a*. A suitable inscription—for example, "Ringing the bull. Who can put the ring in the nose?"—may also be embossed in the metal around the periphery of the disk. *h'* and *h*<sup>2</sup> are elongated slots formed in the metal, and *h* *h*<sup>3</sup> *h*<sup>4</sup> *h*<sup>5</sup> *h*<sup>6</sup> *h*<sup>7</sup>, &c., are circular-shaped perforations. The holes marked *h* have really nothing to do in working the puzzle, but merely serve to increase its apparent complexity.

Fig. 2 is a cross-section through the line 2 2 of Fig. 1, showing the elevations and depressions in Fig. 1. R is the open ring, which may be of steel or other suitable wire, the opening *r* being of sufficient breadth to allow the ring to pass freely over the flat portions A B C, but is not wide enough to permit it to pass over the ribs *a*.

The object of the puzzle is to place the ring in the hole in the nose of the bull, which is accomplished by the following series of operations: The edge of the disk at B is passed

through the opening in the ring, and the ring is passed along until it is inserted in the slot *h'*. The ring is then turned around until the opening comes beyond the periphery of the disk, when it is passed over the disk at C and brought into the slot *h*<sup>2</sup>. The ring is then turned around until the opening is at *h'*, when it is passed out of *h'* and on into *h*<sup>3</sup>. The ring is then turned until the opening is at *h*<sup>2</sup>, and is passed from *h*<sup>2</sup> across the center portion of the disk to *h*<sup>4</sup>, then released from *h*<sup>3</sup> and slipped down to *h*<sup>5</sup>, and then released from *h*<sup>4</sup> and slipped down to *h*<sup>6</sup>. It is then released from *h*<sup>5</sup> and the ring remains only in the hole *h*<sup>6</sup>. The ring is then turned until it can be passed from *h*<sup>6</sup> and following between the lines *a* it can be put in *h*<sup>7</sup>, the hole in the bull's nose.

I claim as my invention—

1. A puzzle comprising a flat piece of metal or other suitable material, having perforations formed therein and raised ribs intersecting a direct line between said perforations, in combination with an open ring, substantially as described.

2. A puzzle comprising a flat piece of metal or other suitable material, having circular and elongated perforations formed therein, in combination with an open ring, substantially as described.

3. The hereinbefore-described puzzle, comprising a disk having operative perforations formed therein at determinate distances from each other, raised ribs intersecting a direct line between said perforations, and false perforations formed at irregular distances from the operative perforations, in combination with an open ring, as described.

4. A puzzle consisting of a flat piece of metal or other suitable material, having ribs raised thereon and perforations formed therein at predetermined distances apart, and a ring having a transverse opening of sufficient breadth to pass over the unraised portions of the flat piece, but not over the raised portions, substantially as described.

In testimony whereof I have hereunto subscribed my name this 6th day of October, A. D. 1891.

JOEL W. THORNE.

Witnesses:

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