

No. 822,740.

PATENTED JUNE 5, 1906.

F. W. JACOB.  
PUZZLE.

APPLICATION FILED FEB. 2, 1906.

Fig. 1.

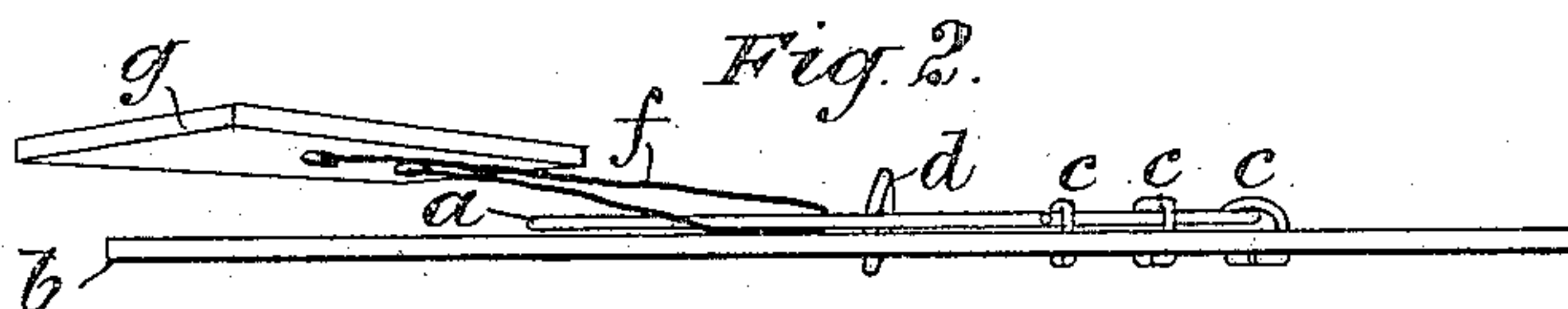
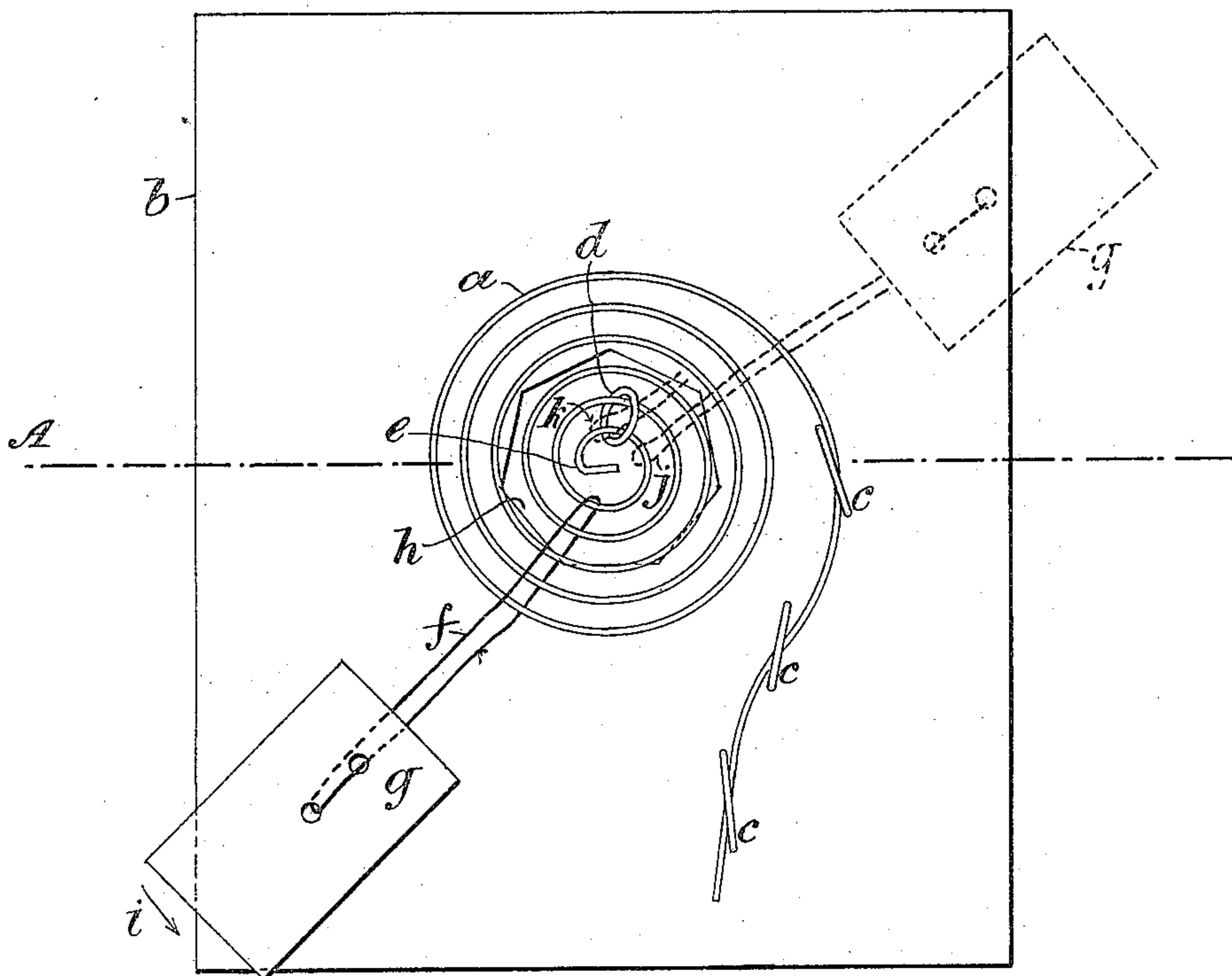


Fig. 3.



Witnesses:-

Stephen Kineto.  
Samuel Turley.

F. W. Jacob  
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# UNITED STATES PATENT OFFICE.

FREDERICK WILLIAM JACOB, OF AMSTERDAM, NETHERLANDS.

## PUZZLE.

No. 822,740.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed February 2, 1906. Serial No. 299,156.

*To all whom it may concern:*

Be it known that I, FREDERICK WILLIAM JACOB, a subject of the King of Great Britain, residing at No. 11 Wagenaarstraat, (1ste Et.,) Amsterdam, in the Kingdom of the Netherlands, have invented a certain useful, new, or Improved Puzzle, of which the following is a specification.

This invention consists of a new or improved puzzle comprising two parts or elements adapted to be engaged with and disengaged from each other in a special and peculiar manner difficult to perceive or puzzling, one of the said elements consisting, essentially, of a volute of wire or the like having some of its convolutions embraced by a loose embracing member, such as a ring or the like, the inner end of the said volute being so formed or provided with such means as to prevent removal from it of the said ring or the like and the outer end of the said volute being so fixed to a base or connected or coupled to the volute as to prevent removal from it of the said embracing member or of the other of the said parts or elements, which consists, essentially, of an endless loop or ring of flexible cord embracing or adapted to embrace the convolutions of the volute.

The preferred practical embodiment of my said invention is hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a face view of the puzzle; Fig. 2, an edge view thereof; and Fig. 3, a section on the line A A, Fig. 1.

$a$  is the aforesaid volute, formed of wire and secured flatwise at its outer end to a base  $b$ , of cardboard, by means of wire staples  $c\ c\ c$ , passed through the said base, their ends being bent over on the back thereof.  $d$  is the aforesaid embracing means consisting of a ring embracing but loose upon two convolutions of the volute, the inner free end  $e$  of which volute is bent, as shown, to constitute means to prevent removal of the said ring from the volute.  $f$  is the aforesaid endless loop or ring of flexible cord embracing all the convolutions of the volute  $a$ , as shown in full lines in Fig. 1, and threaded through holes in a part  $g$  of cardboard otherwise unconnected to the base  $b$ , the object of which is hereinafter pointed out.

In order to allow of easy manipulation of the rings  $d$  and  $f$ , the base  $b$  is provided with an aperture  $h$  opposite the center of the volute  $a$ .

The embodiment of my invention hereinbefore described with reference to the accompanying drawings is shown therein (in full lines) with the aforesaid essential parts or elements engaged together, and the puzzle will usually be issued to the public in that condition, the disengagement of those parts or elements being the task directed to be done. To effect this disengagement, the ring  $f$  of flexible cord, with the part  $g$  connected thereto, is as a whole slid round and round on the volute  $a$  in the direction of the arrow  $i$  until the said ring  $f$  is only engaged with the innermost convolution, as illustrated in broken lines at  $j$ , Fig. 1. The part of the ring  $f$  engaging that convolution is then pushed through the ring  $d$ , as illustrated in broken lines at  $k$ , Fig. 1, and the part thus passed through the ring  $d$  is then passed over and off the end  $e$  of the volute, after doing which the loop or ring  $f$  may be withdrawn from the ring  $d$  and is entirely free from the volute.

To reengage the separated parts, a portion of the loop or ring  $f$  is passed through the ring  $d$ , then over or onto the end  $e$  of the volute, and then slid over the innermost convolution sufficiently to leave the ring  $d$  free, after which the ring  $f$  is revolved or slid round on the volute in the reverse direction to that of the said arrow  $i$  until the said ring  $f$  and part  $g$  are about in the position shown in full lines in Fig. 1, care being taken in this revolving operation to retain the inner part of the ring  $f$  in engagement with the innermost convolution by lifting it over the end  $e$  at every revolution.

The base  $b$  is not essential, but if dispensed with the outer end of the volute must be connected to or coupled with the volute at some suitable part—for instance, the next convolution—in order to prevent simple withdrawal of the rings  $d$  and  $f$  from the volute. Where the base  $b$  is used, it is adapted to receive advertisements. The part  $g$  is also not essential, as it plays no part in the essential manipulation of the parts of the puzzle; but it is desirable as aiding manipulation of the ring of cord  $f$  and also as making the puzzle more difficult than it would be otherwise. It is also useful for advertising purposes.

The inner end  $e$  of the volute instead of being bent to prevent removal of the ring  $d$  may be provided with other means for the same purpose, such as a bead or small sphere or enlargement of itself.



The ring *d* may embrace more than two convolutions of the volute, and in lieu of it an embracing member of loop or oval or other shape permitting of the required passage through it of the ring *f* may be used.

I claim—

1. A puzzle consisting of a volute of wire, a base of substantially rigid material on which said volute is fixed flatwise by its outer end, an embracing member freely embracing a number of the convolutions of said volute and means at the inner end of said volute to prevent removal therefrom of said embracing member and the other of the said elements consisting essentially of a ring of flexible cord adapted to embrace the convolutions of said volute substantially as herein set forth and shown.

2. A puzzle consisting of a base of substantially rigid material, a volute of wire fixed flatwise by its outer end on said base over an aperture therein the inner end of said volute being bent inward and a ring of metal freely embracing two of the convolutions of said volute and incapable of passing over the said bent inner end of said volute and the other of the said elements consisting of a ring of flexible cord embracing the convolutions of said volute and threaded through an other-

wise loose part for the purposes herein set forth substantially as herein set forth and shown.

3. In a device of the character described, the combination with a base portion having an aperture therein, of a volute of wire attached to said base, a member freely embracing a number of the convolutions of said volute, means at the inner and outer ends of said volute to prevent the removal of said embracing member from the volute, and a removable member, substantially as described.

4. In a device of the character described, the combination with a base portion having a polygonal aperture therein, of a volute of wire attached to said base, a member freely embracing a number of the convolutions of said volute, means at the inner and outer ends of the volute to prevent the removal of said embracing member from said volute, and a removable member consisting of a flexible loop and a tag, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FREDERICK WILLIAM JACOB.

Witnesses:

GERARD COENRAAD TEN KATE,

HENDRIK CORNELIS MARINUS VREUGDENHIL.