

No. 781,564.

PATENTED JAN. 31, 1905.

E. L. SMITH.
TOY OR PUZZLE.
APPLICATION FILED JUNE 24, 1904.

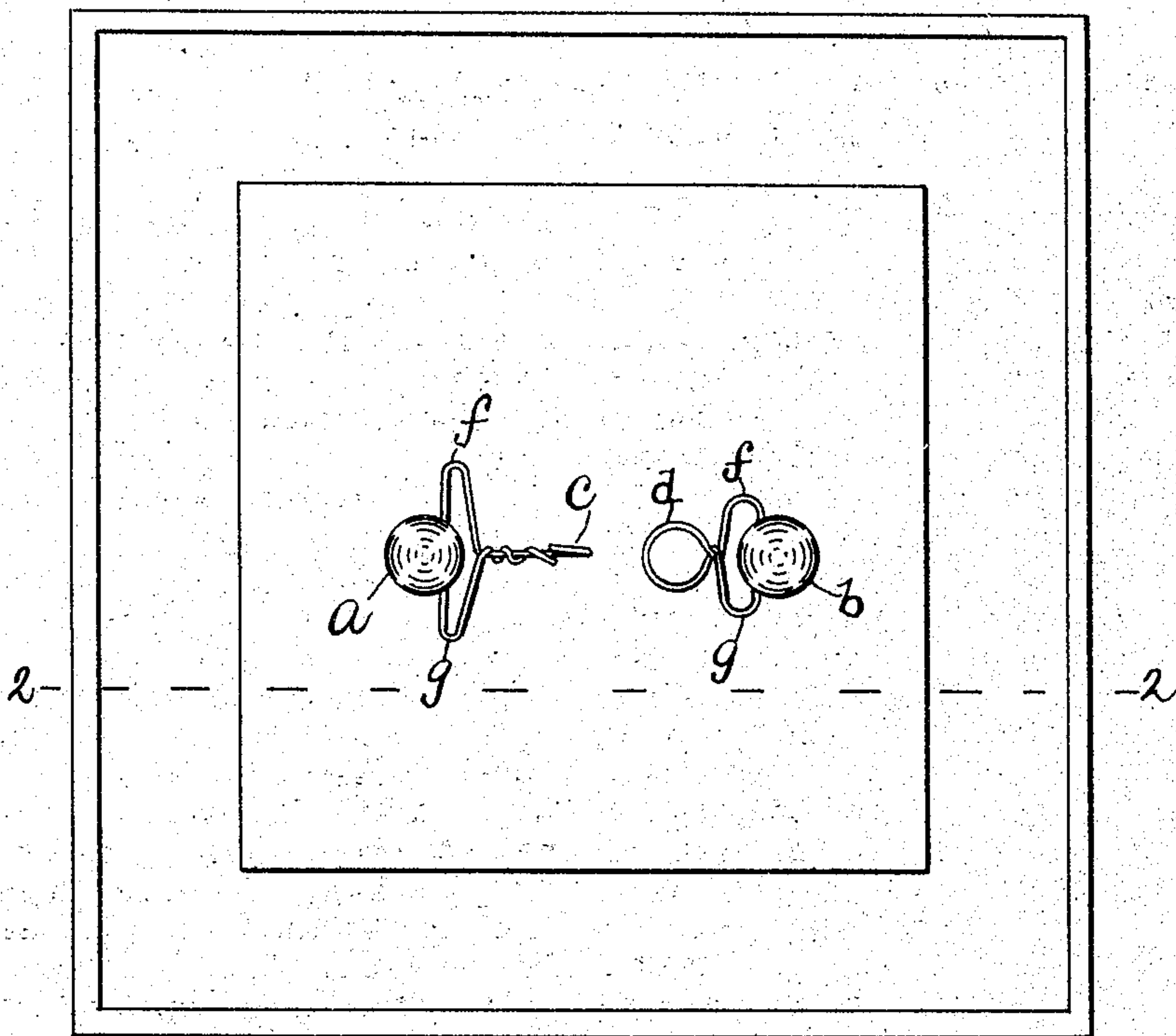


Fig. 1.

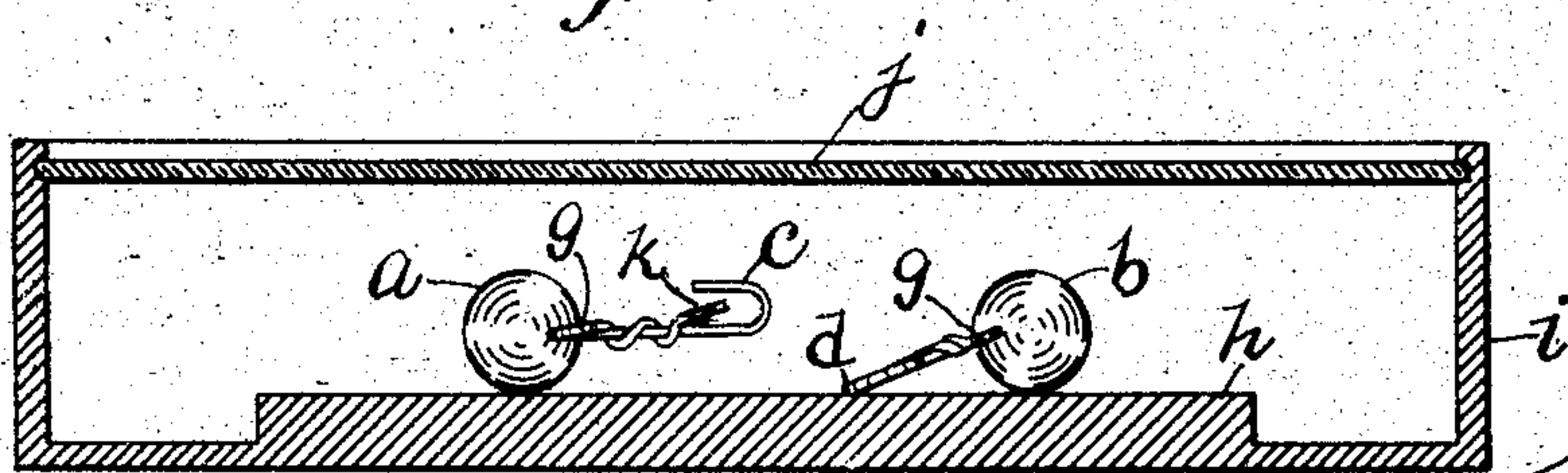


Fig. 2.

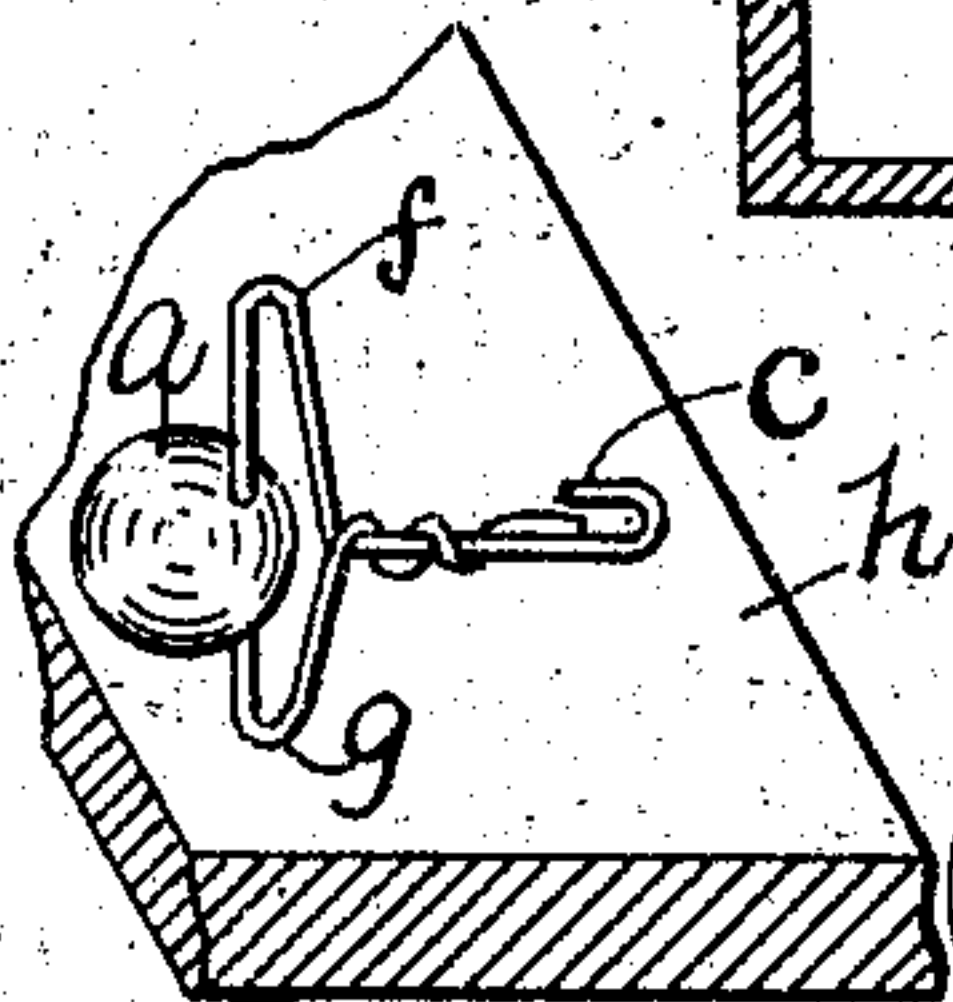


Fig. 7.

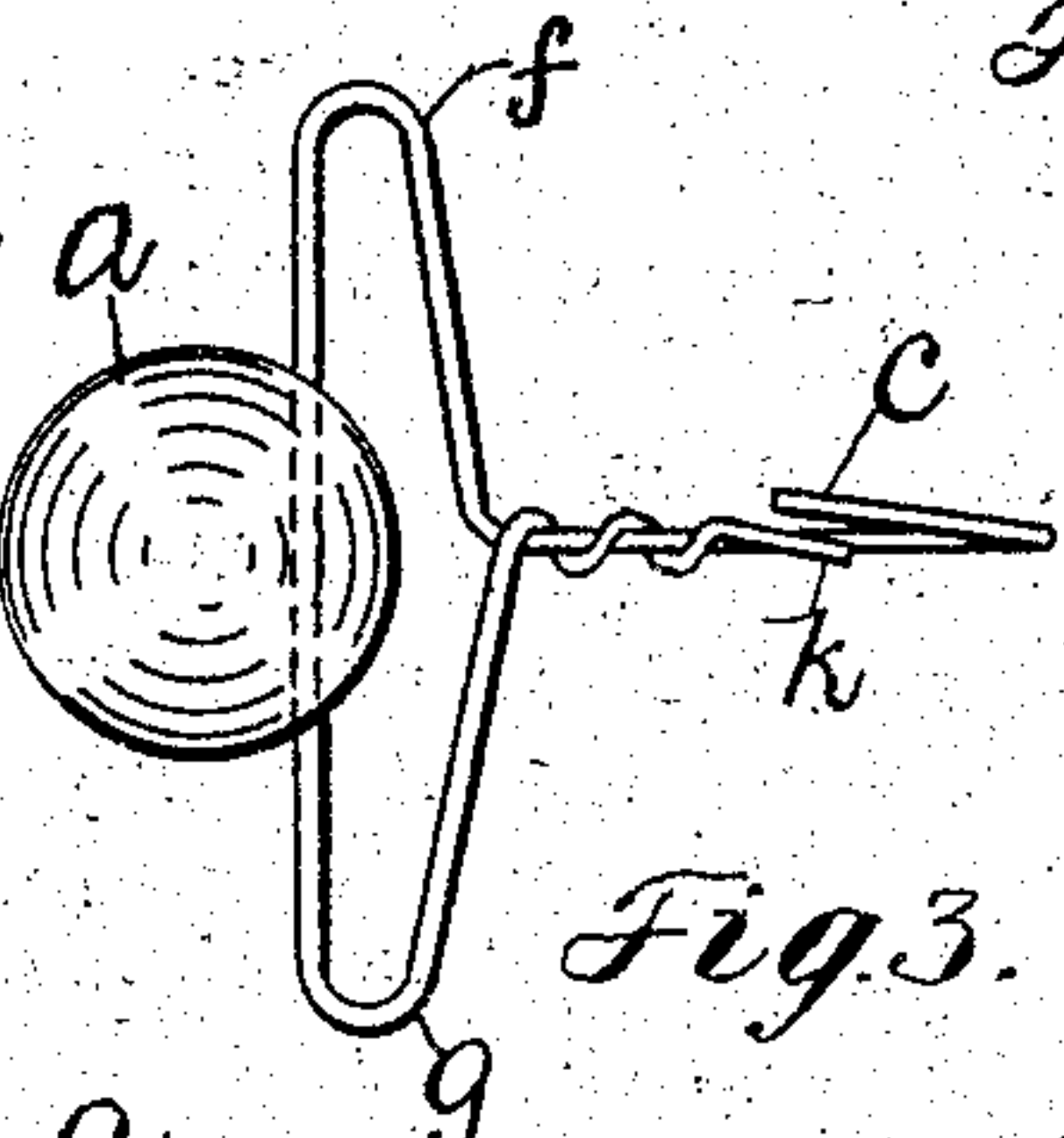


Fig. 3.

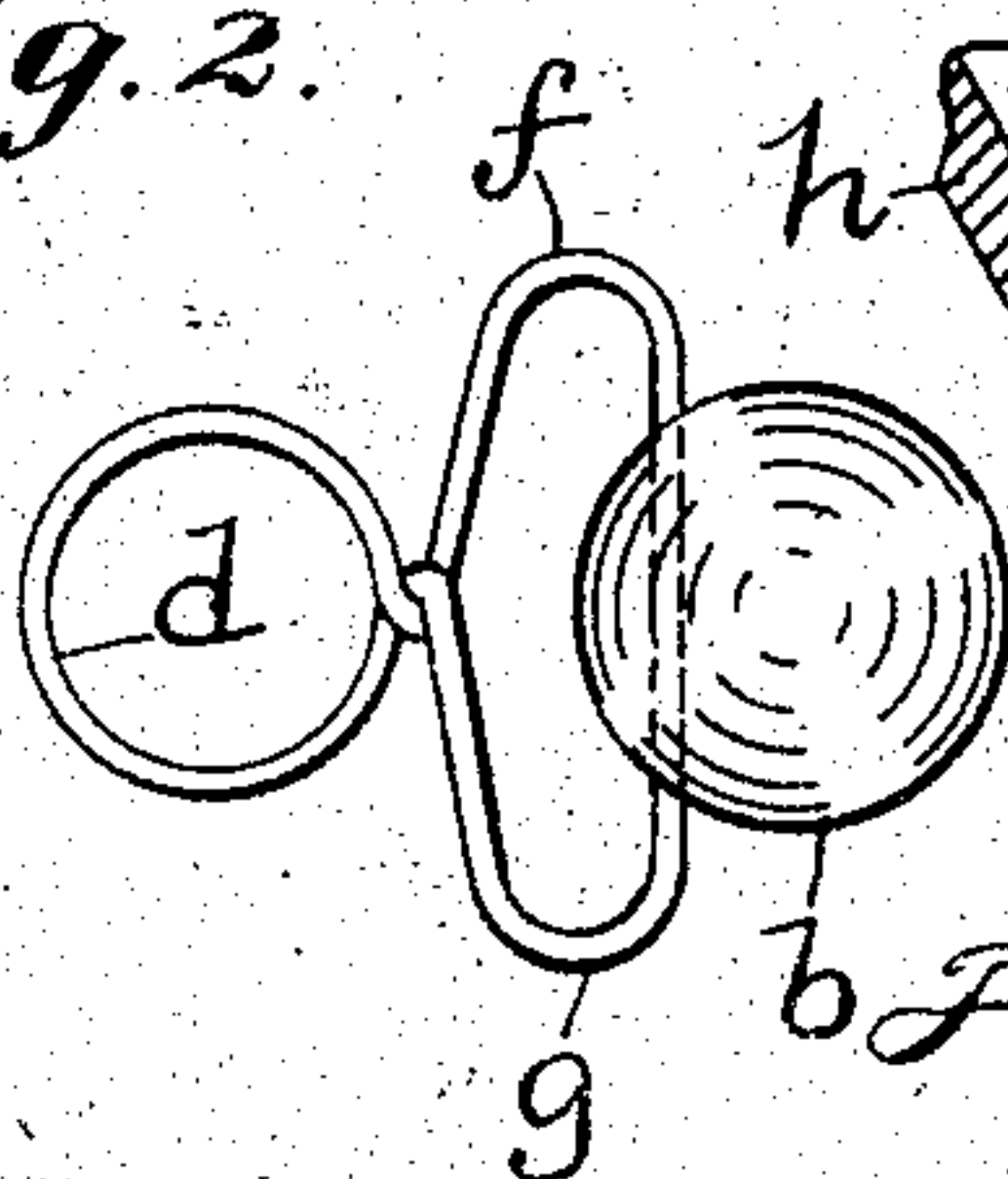


Fig. 4.

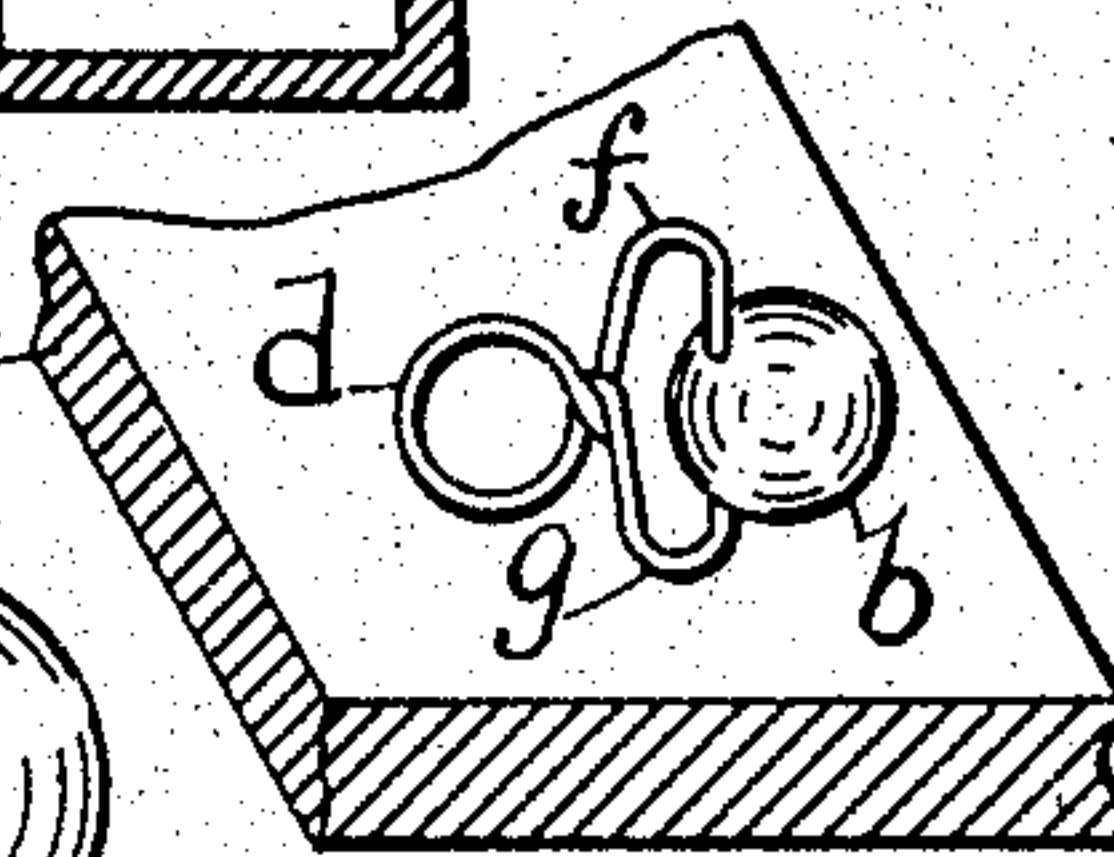


Fig. 8.

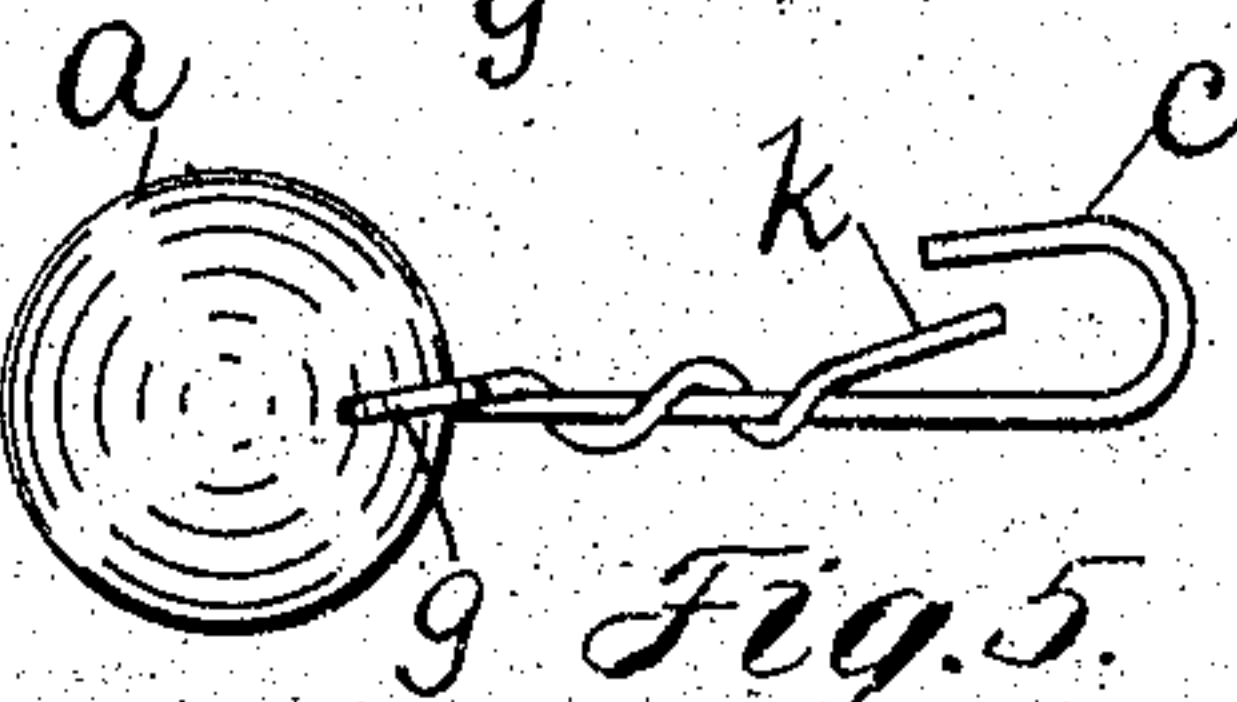


Fig. 5.

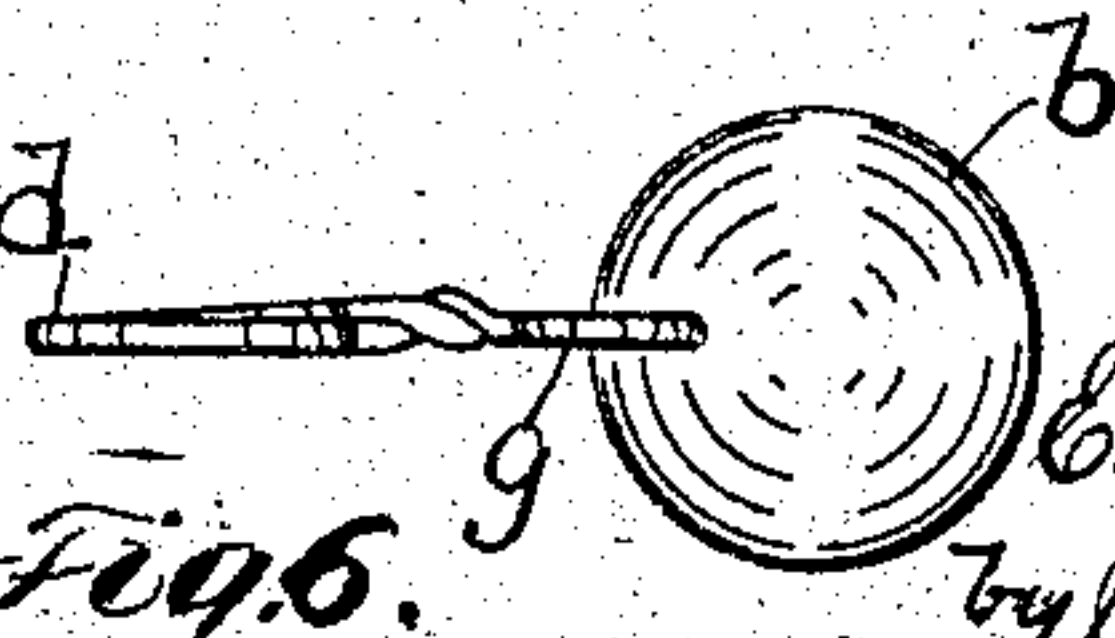


Fig. 6.

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UNITED STATES PATENT OFFICE.

EDGAR L. SMITH, OF CAMBRIDGE, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO GEORGE V. S. MICHAELIS, OF CAMBRIDGE, MASSACHUSETTS.

TOY OR PUZZLE.

SPECIFICATION forming part of Letters Patent No. 781,564, dated January 31, 1905.

Application filed June 24, 1904. Serial No. 213,938.

To all whom it may concern:

Be it known that I, EDGAR L. SMITH, a citizen of the United States, residing in Cambridge, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Toys or Puzzles, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to a toy or puzzle which is simple and attractive and the solution of which affords amusement to the operator. For this purpose I employ two rotatable members provided with engaging devices and having their centers of gravity so placed as to impart unstable equilibrium to said members, whereby difficulty is experienced in connecting the engaging devices of said members. The members referred to may and preferably will be metal balls, and the engaging devices may be made of wire, one in the form of an eye and the other in the form of a hook, which is to be engaged with the said eye to solve the puzzle. These and other features of this invention will be pointed out in the claims at the end of this specification.

Figure 1 is a plan view of a box or case containing the members of a toy or puzzle embodying this invention; Fig. 2, a section on the line 2 2, Fig. 1; Figs. 3 and 4, details in plan, on an enlarged scale, of the members shown in Fig. 1; Figs. 5 and 6, side elevations of the members shown in Figs. 3 and 4; Figs. 7 and 8, details showing the members in a different position from that shown in Fig. 1.

Referring to the drawings, *a b* represent two balls or spheres, which may and preferably will be made of metal and which constitute the members of the toy or puzzle. The balls *a b* are provided with engaging devices *c d*, one of which, as *c*, is made in the form of a hook, and the other of which, as *d*, is made in the form of an eye, which is adapted to be engaged by the hook *c*, so as to join, lock, or connect the members *a b* together. The engaging devices *c d* are secured to the members *a b* in such manner as to render said members of unstable equilibrium, and in the present instance the engaging devices are se-

cured to the balls or members *a b* at one side of the center of the same.

The engaging devices *c d* are provided with laterally-extended portions or wings *f g*, which serve to arrest rotation of the balls *a b*. The hook and its wings *f g* may be made in one piece of wire, which is passed through the ball *a* and then bent into substantially the form shown in Figs. 1, 2, and 3 to form the wings *f g* and hook *c*; and the eye *d* and its wings *f g* may be made from a piece of wire in a similar manner.

The members *a b* are designed to be placed on a smooth or substantially smooth surface *h* and agitated so as to effect engagement of the hook with the eye, and thus join or connect the two members together without handling the same. The smooth surface *h* may form part of the surface of the bottom of a box or case *i*, which, if desired, may be provided with a glass top *j*, which may be removable or form part of a removable cover for the box.

As represented in Figs. 1 and 2 the members *a b* are disconnected, and the puzzle is solved when the said members are connected by movement of the box or case or other support for said members. The laterally-extended wings *f g* serve to prevent continuous rotation of the spherical members.

The hooked engaging device may be provided with a tongue *k*, which will not interfere with the engagement of the hook *c* with the eye *d*, but which will prevent accidental disengagement thereof.

The support for the members *a b* may be the bottom of a box, as herein shown; but I do not desire to limit my invention in this respect, as any suitable flat substantially smooth surface may be employed.

In operation the members *a b*, disconnected from each other, are placed upon the support *h*, which is then shaken or agitated to cause the said members to roll or tumble upon the support until the eye *d* is engaged with the hook *c*, which is the solution of the puzzle or game. The tongue *k* permits the eye *d* to pass by it and engage the hook *c*, but prevents the eye *d* from passing back out of engagement

with the hook *c* until said tongue is positively depressed by the operator to effect separation of the members *a b* when it is desired to again play the game. The tongue *k* is of sufficient
5 resiliency to return to its normal position after the pressure is removed.

Access may be had to the members *a b* to disengage the same by removing the cover or top *j*.

10 I claim—

1. A toy or puzzle comprising rotatable members having engaging devices extended from them and adapted to be engaged by agitation of said rotatable members and means
15 to support said members, substantially as described.

2. A toy or puzzle comprising substantially spherical members provided with engaging

devices secured to said members off the center and extended from them, said engaging
20 devices having wings and means to support said members, substantially as described.

3. A toy or puzzle comprising two members of unstable equilibrium and having engaging devices which are normally disconnected but are adapted to be connected together by agitation of said members and means to support said members, substantially
25 as described.

In testimony whereof I have signed my name
30 to this specification in the presence of two subscribing witnesses.

EDGAR L. SMITH.

Witnesses:

JAS. H. CHURCHILL,

J. MURPHY.