

No. 636,576.

Patented Nov. 7, 1899.

**A. L. SMITH.
PUZZLE.**

(Application filed Jan. 21, 1899. Renewed Sept. 21, 1899.)

(No Model.)

Fig-1-

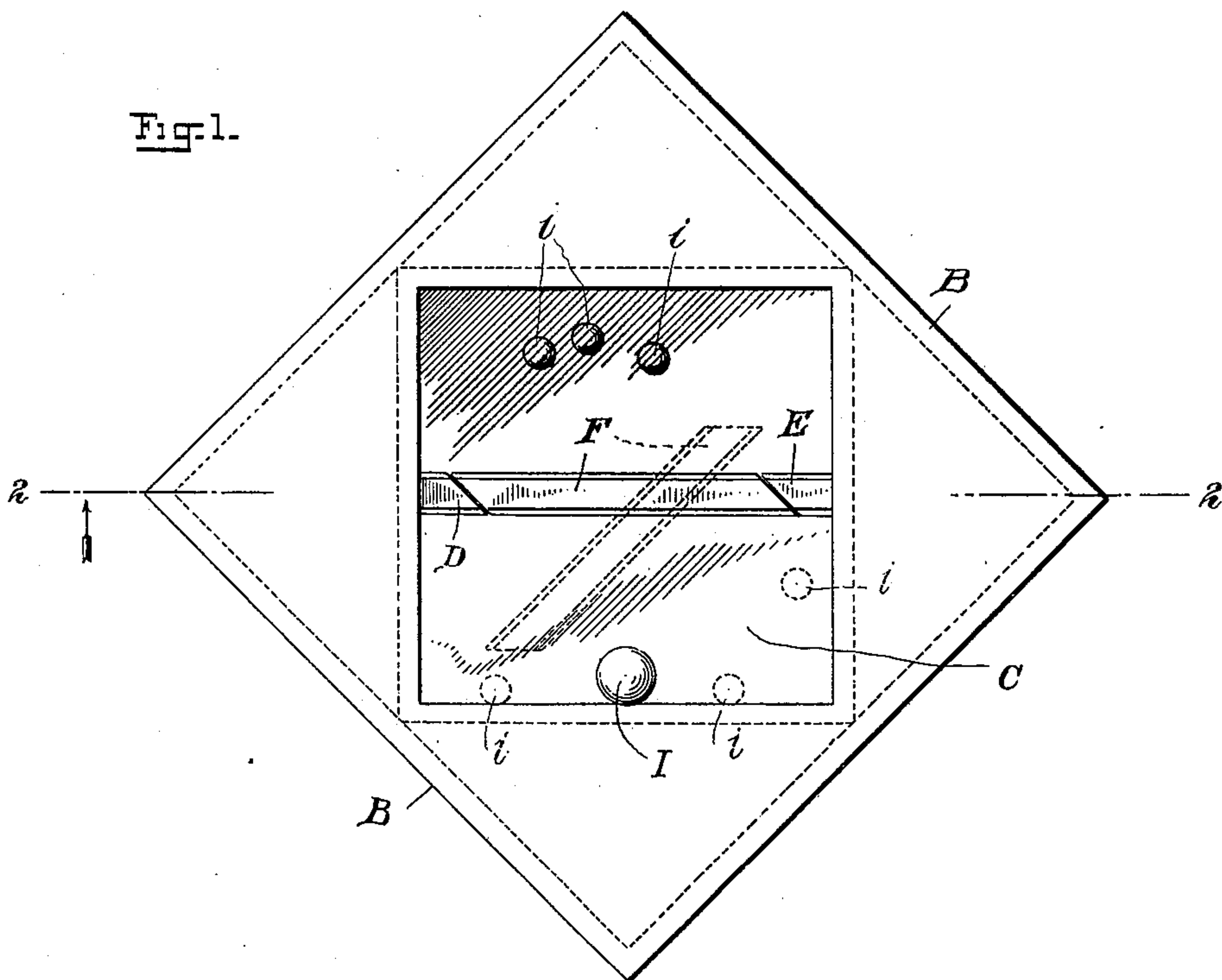
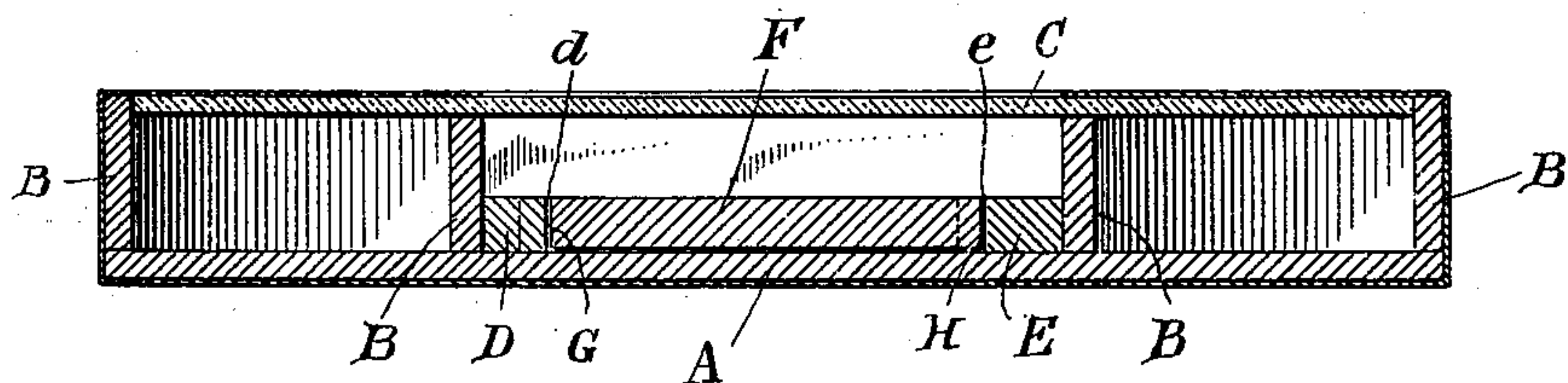


Fig. 2.



WITNESSES:

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PUZZLE.

SPECIFICATION forming part of Letters Patent No. 636,576, dated November 7, 1899.

Application filed January 21, 1899. Renewed September 21, 1899. Serial No. 731,233. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM LINCOLN SMITH, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Puzzles, of which the following is a specification.

This invention relates to puzzles of that character requiring expert manipulation to fit a loose piece into a given position in a structure; and the particular object of the invention in a puzzle of this character is to so shape the loose piece and to so arrange its connecting ends and the receiving portions of the fixed structure that considerable skill, with the aid of a moving sphere, is requisite to adjust said loose piece in its desired position.

In the drawings accompanying this application, Figure 1 is a plan view of a box having a flat bottom surface and a glass-covered top inclosing my device, and Fig. 2 is a cross-sectional view taken on the line 2 2 of Fig. 1.

In the figures, A indicates the base of my puzzle-box, which, as seen, has a flat surface. B is the surrounding wall, and C a fixed transparent cover.

Extending from opposite sides of the wall B are abutting portions D E, said portions having each vertical faces *d e* arranged in corresponding parallel inclined planes.

F indicates a strip of suitable material, which is loosely placed within the box and is of a length corresponding exactly with the space existing between the portions D E, the said strip F having at its ends vertical faces G H, inclined in corresponding parallel planes and adapted to lie snugly against the faces *d e* when said strip F is adjusted to fill the linear space existing between the portions *d e*, as seen in dotted lines.

In manipulating the puzzle the box, being held by the hand of the operator, is tilted and shaken to cause the strip F to slide until by the skill of the operator it can be caused to fit into its required position. To aid in such operation, I employ a ball or sphere I within the box, which by expert movement of the

box is caused to knock against the strip F and to tap it gently and assist in causing it to slide into its position, the result being that the strip F when properly placed forms a complete bridge or connection between the portions D E.

In addition to the ball or sphere I, I may employ additional balls or spheres, as *i i i*, which may be smaller, and said plurality of balls or spheres by the independent movement renders it more difficult to place the strip F in position, since one or more of said balls or spheres will operate adversely.

Having now described my invention, I declare that what I claim is—

1. A puzzle comprising a box having opposite rigid projections bearing inclined faces, arranged in parallel planes, and a loose piece or strip having its ends provided with corresponding inclined faces, said piece being adapted by manipulation to fit snugly against the inclined faces of the projecting pieces to bridge their intervening space.

2. A puzzle comprising a box having rigid projections extending from opposite walls thereof, said projections having vertical faces inclined in parallelism, a bridging-piece loose within the box having vertical faces at its ends arranged in parallelism, and adapted when said piece is placed between the aforesaid projections to lie snugly against the inclined faces thereof, and to fill the intervening space, together with a ball or sphere within said box to assist in the movement of said loose piece.

3. A puzzle comprising a box having a bridge across its area, said bridge composed of rigid projections extending from opposite walls and having inclined ends, and a loose bar having its ends coincidently inclined with the projecting portions to fit therebetween.

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

ABRAHAM LINCOLN SMITH.

Witnesses:

L. T. SULLIVAN,
F. W. BARKER.