

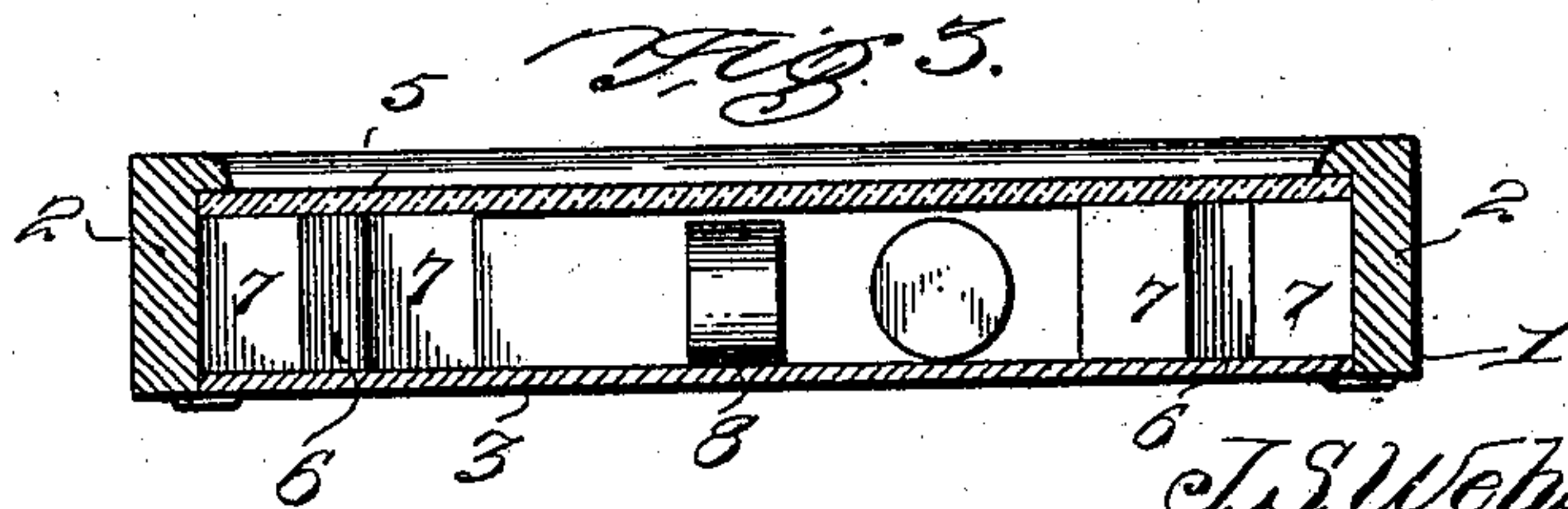
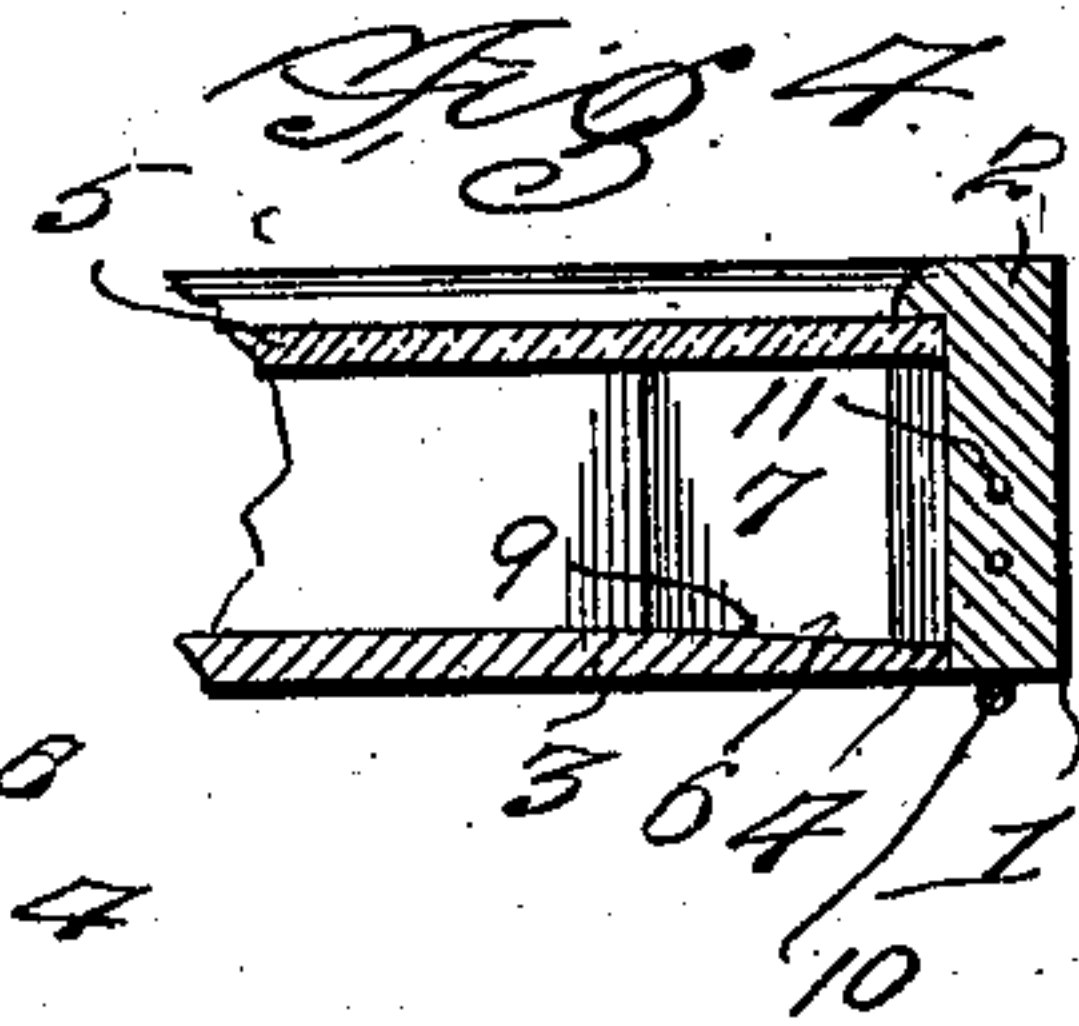
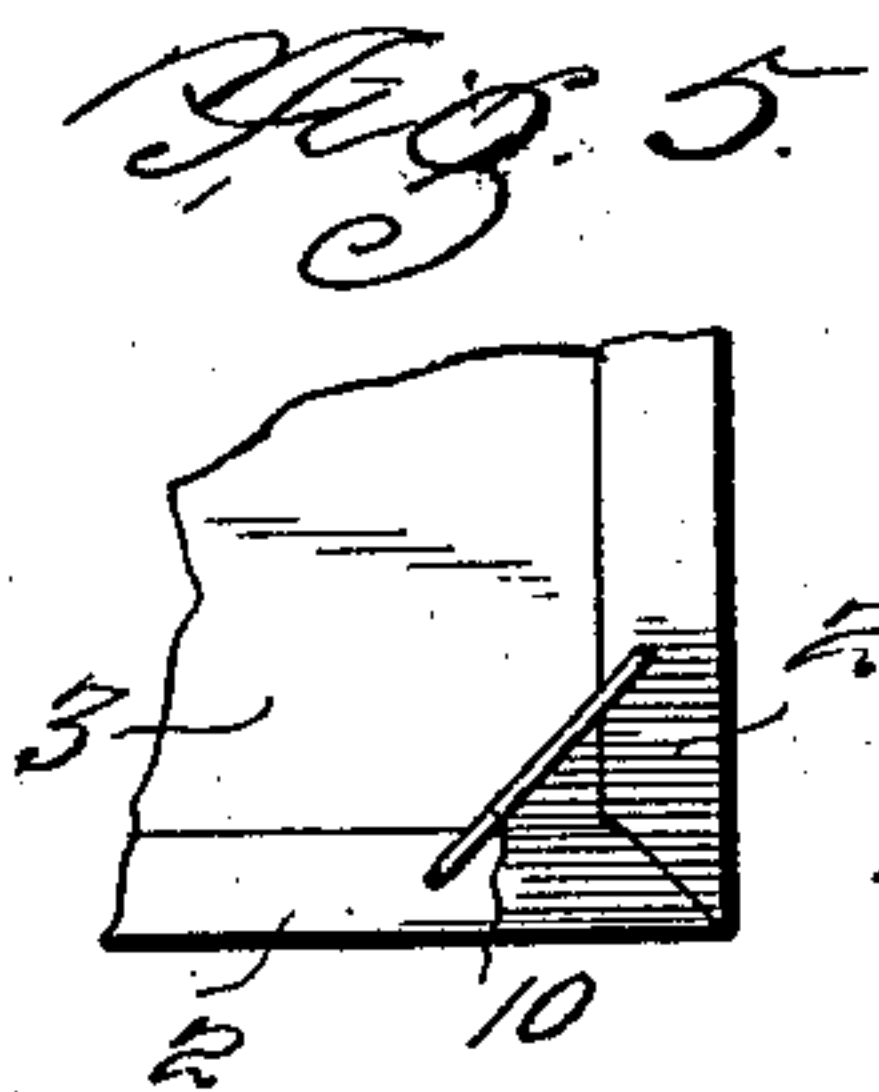
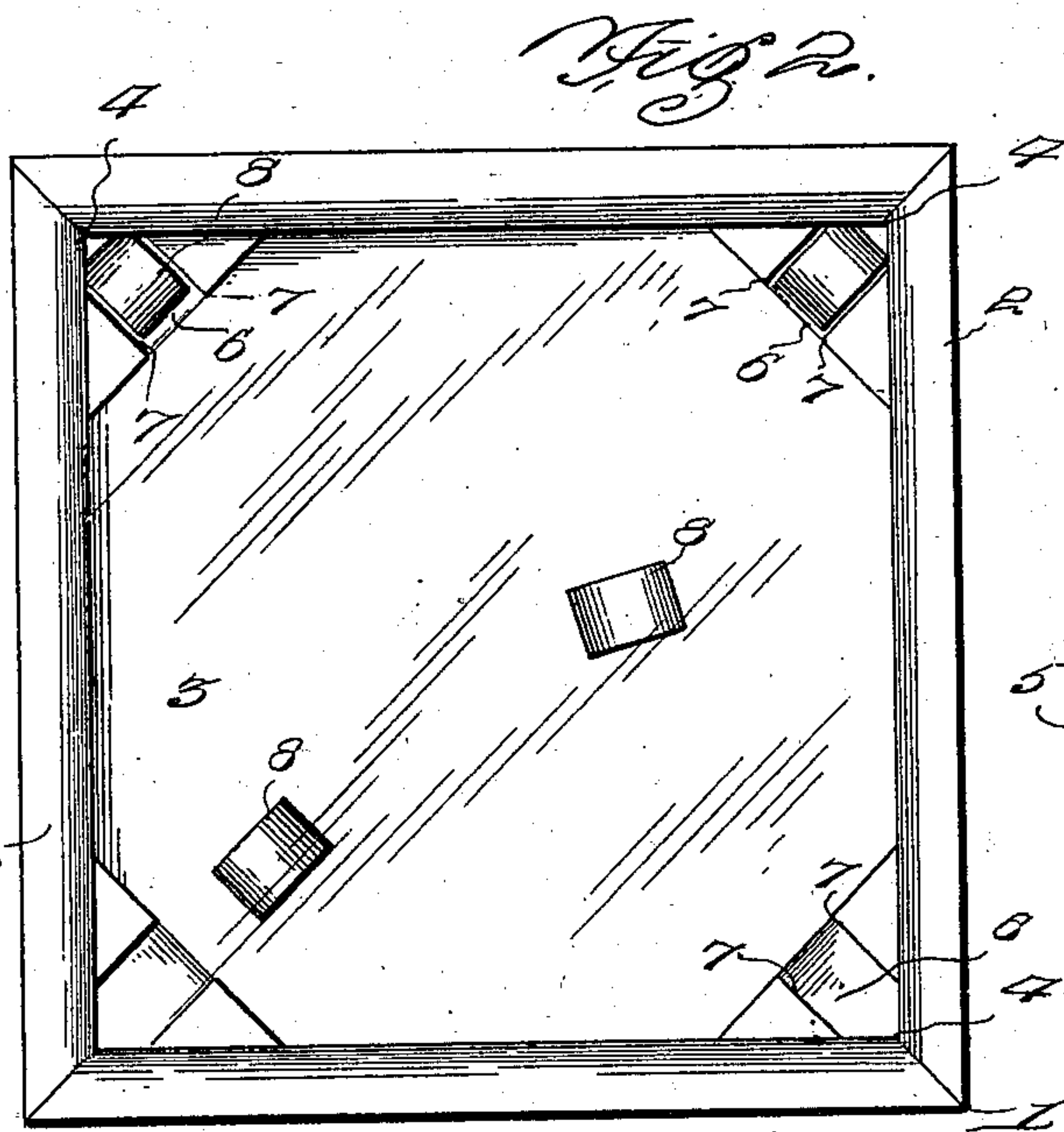
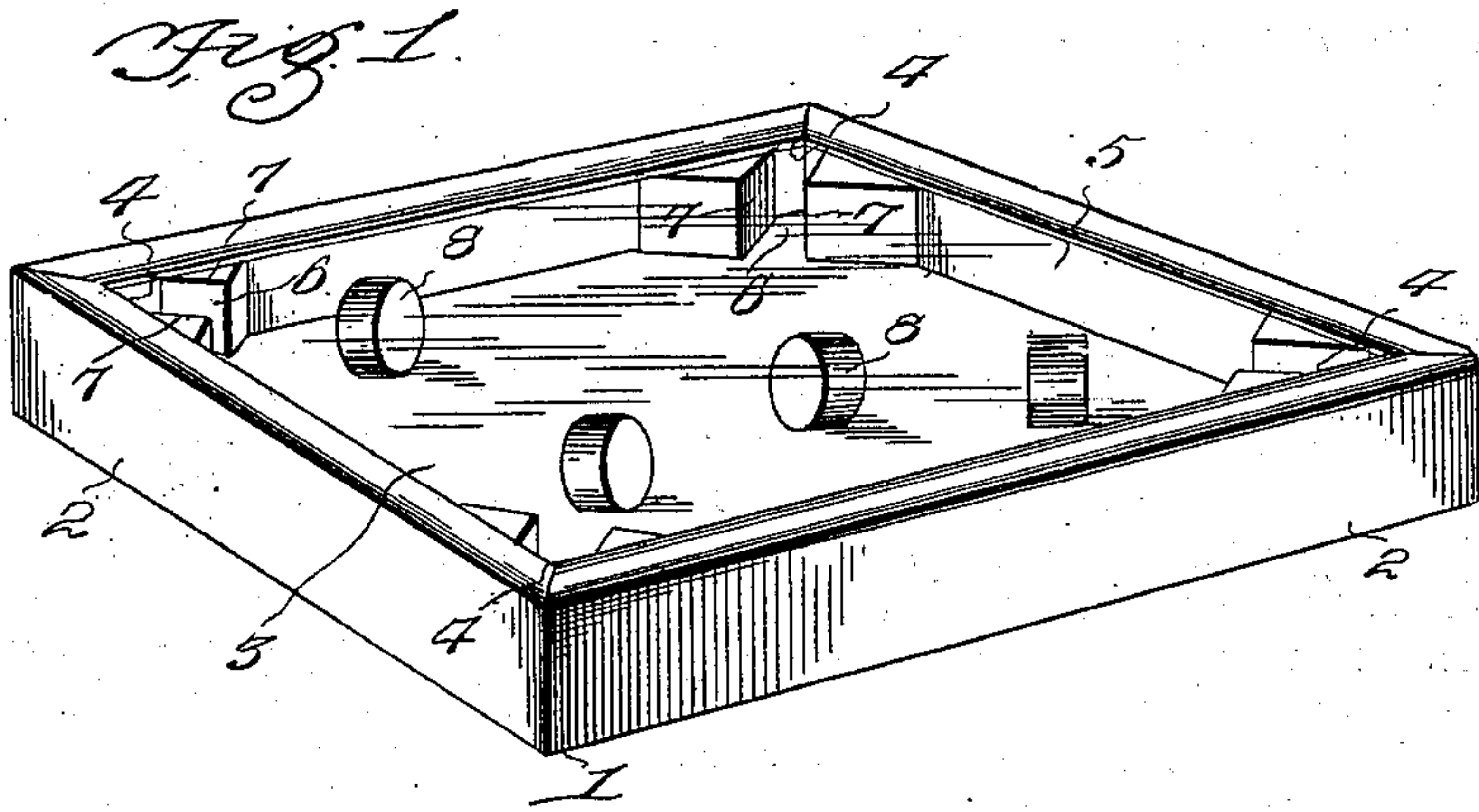
No. 698,088.

Patented Apr. 22, 1902.

J. S. WEBSTER.
PUZZLE.

(Application filed Aug. 27, 1901.)

(No Model.)



Witnesses

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by

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UNITED STATES PATENT OFFICE.

JOSEPH S. WEBSTER, OF HERNDON, VIRGINIA.

PUZZLE.

SPECIFICATION forming part of Letters Patent No. 698,088, dated April 22, 1902.

Application filed August 27, 1901. Serial No. 73,489. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH S. WEBSTER, a citizen of the United States, residing at Herndon, in the county of Fairfax and State of Virginia, have invented a new and useful Puzzle, of which the following is a specification.

This invention relates to a puzzle adapted to be held in the hand while being manipulated; and the object of the same is to produce an attractive and fascinating means of amusement having the function to train the eye of the operator, so that it will become accurate in defining the angular movement of playing-pieces in relation to objective points or goals having a positive disposition, and also to train the hand and nervous and muscular systems of the same in accuracy of movement in solving the puzzle.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a puzzle embodying the features of the invention. Fig. 2 is a top plan view of the same. Fig. 3 is a transverse vertical section thereof. Fig. 4 is a sectional view taken centrally through a corner portion of the box and showing the inclination of the bottom of the pockets. Fig. 5 is a bottom plan view of one of the corner portions.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a box having vertically-extending sides 2, secured to a flat bottom 3. The form of the present box is that of a square, so as to provide diagonally-opposed corners formed with goals 4; but it is obvious that the edge or marginal contour of the box can be changed at will and be produced in any polygonal shape where the advantage of angles can be obtained to apply the goals. The upper edge portions of the sides of the box are grooved to take over the edges of a transparent top 5, which extends fully across the upper portions of the goals and forms an inclosure for the playing-field. Each goal is formed with a pocket 6, with parallel side walls 7, and on the bottom playing-pieces 8 are arranged, the number of playing-pieces, in accordance with the present show-

ing, being necessarily four to enter the four goals. This number may be increased or decreased, according to the shape of the playing-field and the number of goals used. The form of the playing-piece, as shown, is that of a cylinder of a length sufficient to insure its remaining with its cylindrical surface in contact with the bottom of the box without any auxiliary supporting means and having a diameter slightly less than the distance between the bottom 3 and the transparent top 5, so that the said pieces will always be held in operative position or on their edges. It will be observed that these playing-pieces have single axes of rotation and will thereby be caused to move in straight lines, in contradistinction to the variable axes of a ball and its capability of moving in a curved line. The same result can be obtained by making the periphery of the playing-piece of a contour other than that of a circle and still preserve the desirable operation of the playing-piece on a single axis of rotation, which is always parallel to the bottom 3. The width of the pockets 6 is slightly greater than the length of the axis of each playing-piece, so that the playing-pieces may pass into the pockets when directed in the proper manner. It is imperative that the major diameters of the playing-pieces be less than the vertical distance between the transparent top 5 and the bottom 3 on which the said playing-pieces have movement, in order to maintain the playing-pieces at all times in operative positions and prevent them from tilting and becoming lodged or disposed on their ends.

In operation the box is held in the hand and moved at such an angle as to cause the bottom 3 to assume an inclined plane in the direction of the goal toward which one of the playing-pieces may be directed, the movement of the box being varied to cause the bottom to assume different angles to direct the playing-pieces toward the several goals. As the playing-pieces can only move in straight lines, the solution of the puzzle can only be arrived at with patience on the part of the operator, and when one or more of the playing-pieces have been run into the pockets 6 the object is to retain the said playing-pieces in the engaged pockets by a delicate manipulation until the remaining piece or

pieces have been similarly disposed in the unoccupied pockets. After all the goals have been made the puzzle will be solved, and in the operation of directing the playing-pieces toward the goals the box must be skilfully handled and the eye of the operator brought into play to ascertain the angle of movement necessary to arrive at the desired result, and thus both the eye and hand will become trained by practice.

The bottoms 9 of the pockets 6 are inclined outwardly and downwardly, as shown by Fig. 4, so that when a portion of the playing-pieces are located therein they may be more readily held from displacement while endeavoring to similarly locate the remaining pieces. The sides at the corner are connected and reinforced by staples 10, diagonally disposed across the corner portions of the bottom 3, and above the bottom the sides 2 are secured at the corners by nails 11 driven therethrough, as shown by Fig. 4.

In some instances the playing-pieces may be colored or supplied with designating characters, and the goals may be correspondingly colored and supplied with characters similar to those on the individual playing-pieces. Other changes may also be resorted to without departing from the principle of the invention.

Having thus described the invention, what is claimed as new is—

1. A puzzle comprising an inclosed playing-field having goals at opposite points, and cylindrical playing-pieces each having one axis of movement only.

2. A puzzle comprising an inclosed playing-field with sides, a bottom and a transparent top, and having goals at opposite points therein, and cylindrical playing-pieces each having a single axis of rotation and a major diameter slightly greater than the distance between the said bottom and transparent top.

3. A puzzle comprising a playing-field formed by a bottom, surrounding sides and a transparent top, and having goals at opposite points therein provided with pockets, and cylindrical playing-pieces having a single axis of rotation and the axis of each slightly less in length than the width of the said pockets.

4. A puzzle having an inclosed playing-field comprising a bottom, surrounding sides

and a transparent top, and provided with goals at opposite points having pockets, and cylindrical playing-pieces having a single axis of rotation and each having its major diameter and length of axis slightly greater than the distance between the bottom and said top and the width of the pockets of the goals respectively.

5. A puzzle consisting of an angular box comprising a bottom, surrounding sides and a transparent top, goals located in the angles of the box and having pockets therein with opposite parallel walls, and cylindrical playing-pieces, each of the playing-pieces having a single axis of rotation and the length of its axis slightly less than the distance between the walls of the pockets.

6. A puzzle having a playing-field with goals, and cylindrical playing-pieces each having a single axis of rotation and adapted to enter said goals.

7. A puzzle consisting of an inclosed field comprising a bottom, surrounding sides and a transparent top, the playing-field being angular in contour and having goals arranged in the angles thereof, said goals being provided with pockets, and playing-pieces of cylindrical form each having a major diameter slightly greater than the distance between the bottom and top of the field and an axis slightly less in length than the width of the pockets.

8. A puzzle comprising a playing-field having goals with pockets formed with outwardly and downwardly inclined bottoms, and cylindrical playing-pieces each having a single axis of rotation and the axis less in length than the width of the said pockets.

9. A puzzle comprising a playing-field having goals, and cylindrical playing-pieces each having a single axis of rotation and adapted to enter the goals, the axis of the playing-pieces being less in length than the width of the goals.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOSEPH S. WEBSTER.

Witnesses:

C. E. DOYLE,
FRANK S. APPLEMAN.