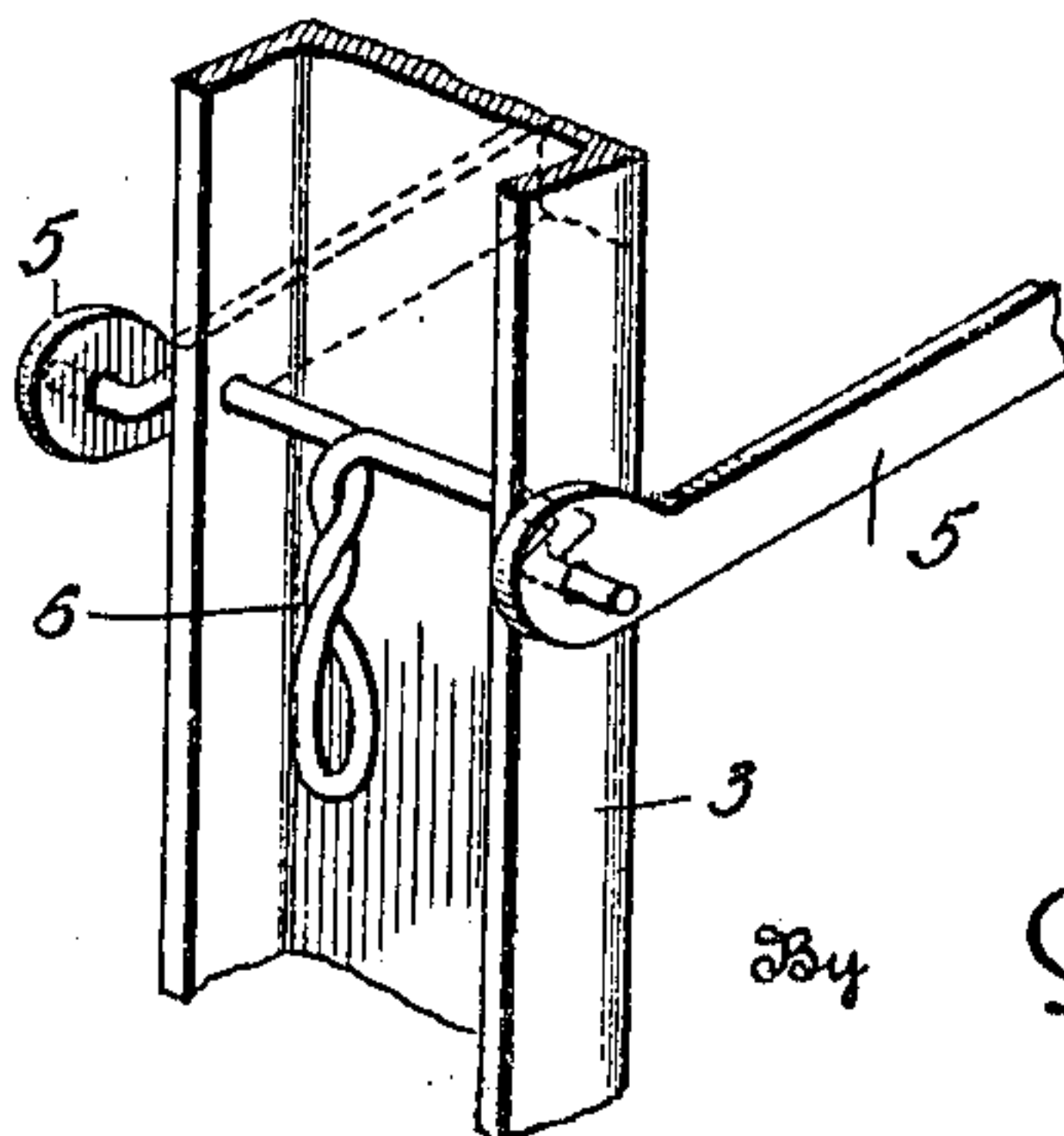
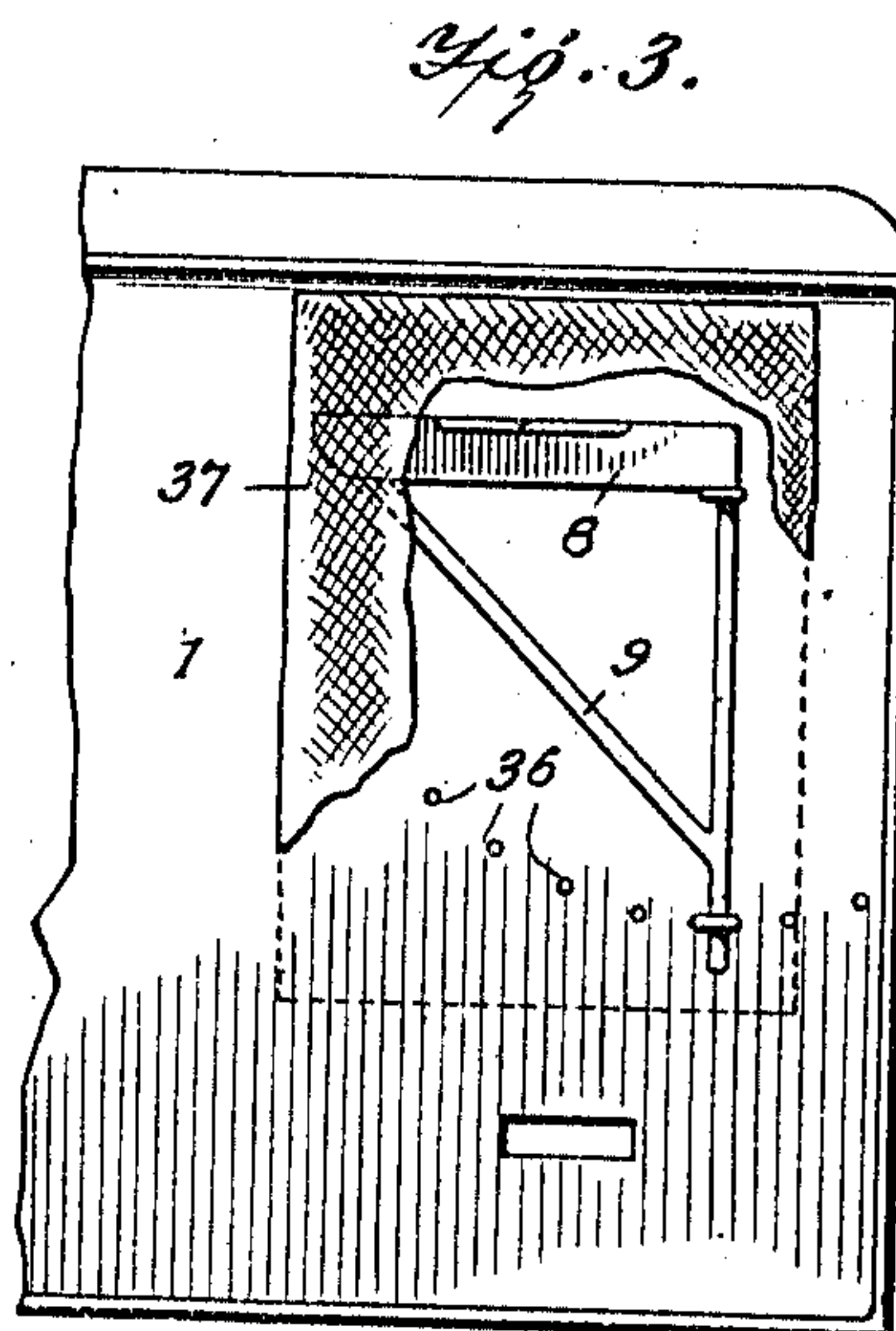
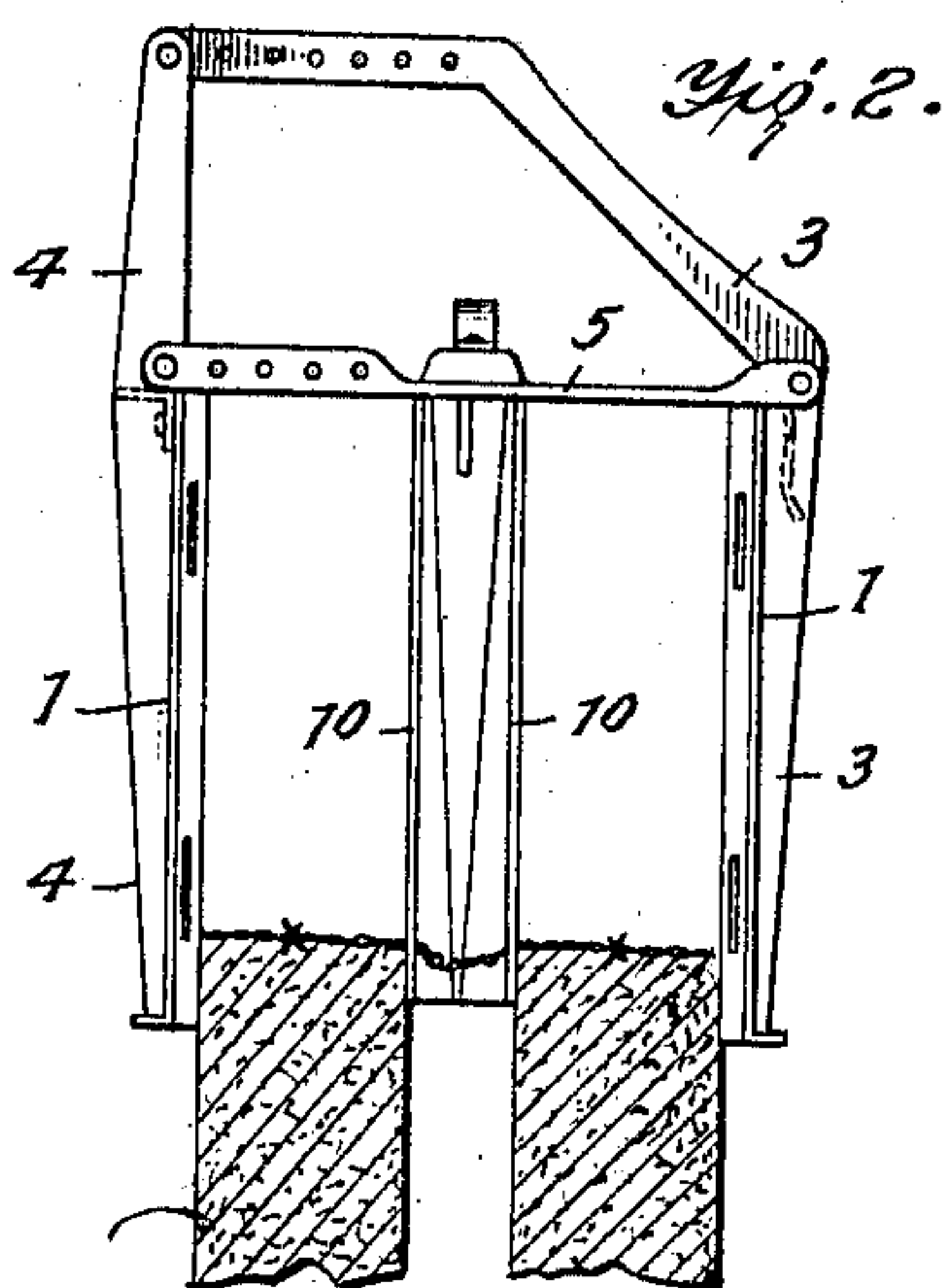
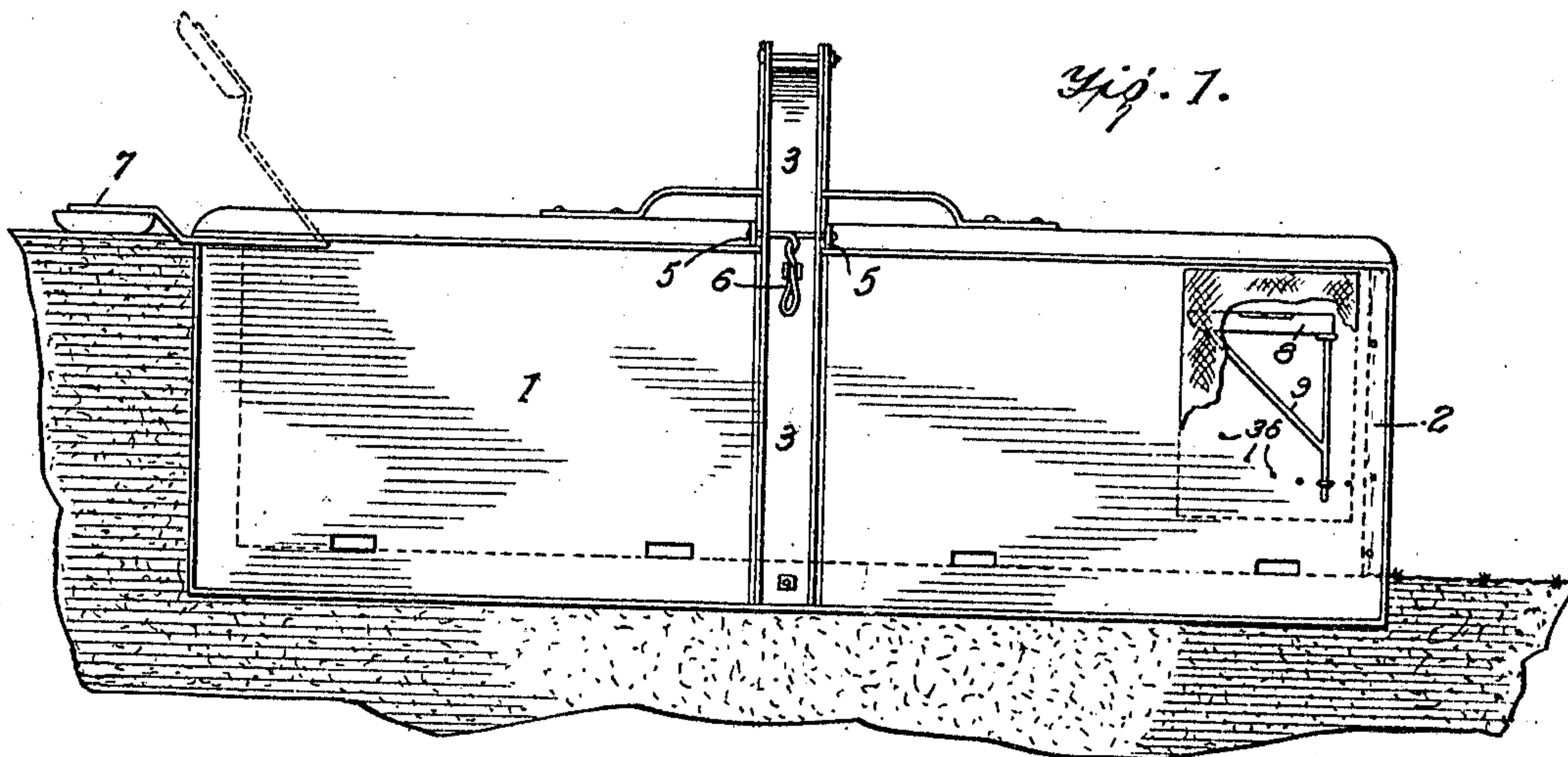


945,183.

Patented Jan. 4, 1910.



Witnesses

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DANIEL H. MAGDIEL, OF SALT LAKE CITY, UTAH, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO MAGDIEL-MORRIS MANUFACTURING COMPANY, OF SALT LAKE CITY, UTAH, A CORPORATION OF UTAH, AND ONE-HALF TO PATRICK R. O'CONNOR, OF SEATTLE, WASHINGTON.

MOLD FOR CONCRETE WALLS.

945,183.

Specification of Letters Patent.

Patented Jan. 4, 1910.

Original application filed October 20, 1908, Serial No. 458,647. Divided and this application filed May 22, 1909. Serial No. 497,762.

To all whom it may concern:

Be it known that I, DANIEL H. MAGDIEL, a subject of the Crown of Great Britain, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented certain new and useful Improvements in Molds for Concrete Walls, of which the following is a specification, the same being a divisional part of original application filed October 20, 1908, Serial No. 458,647.

In the building of walls of cement concrete by means of molds which are shifted at short intervals along the wall as it progresses, it is very desirable to have some means for quickly and conveniently regulating the position of the mold both with reference to the horizontal run of the wall and the vertical plane of the wall.

My invention provides a mold having attached thereto, as an organized and permanent part thereof, a spirit level with means for adjusting it to the two planes *i. e.* means for adjusting it for the horizontal run of the wall and means for adjusting it to a position at right angles to the other position, to establish the plane of the wall with reference to the vertical.

It also provides means for running inclined walls at any angle to the horizontal and means for protecting the spirit level as hereinafter more fully described with reference to the drawing, in which—

Figure 1 is a side view of my mold with the spirit level forming a permanently organized part thereof. Fig. 2 is an end view showing the means for clamping and holding the mold in place on the wall being built. Fig. 3 is an enlarged front view of the leveling and plumbing attachment and, Fig. 4 is a detail in perspective.

In the drawing I have shown a mold of the type used for building hollow walls with a central air space, but it will be understood that my invention may be applied to molds for building solid walls, or any other kind of mold for building concrete structures which needs to be adjusted with reference to the horizontal line and the vertical plane.

1, 1, are the outside mold boards or plates, and 10, 10, represent the inside plates provided with suitable expanding devices and forming the core which produces the hollow

air space. The mold may be held up on the wall by any means, such as by anchors in the wall or by end gates, or by an end gate 2 at one end and a foot or bearing 7 at the other end adapted to rest on the previously laid layer of wall as shown in Fig. 1. The mold has its side plates or boards connected to a straight arm 4 on one side extending above the mold and a bent arm 3 on the other side extending across the top of the mold and pivoted adjustably to the first named arm. Tension bars 5 connect adjustably the two arms and outer side plates and a lever 6 is connected to the tension bars by cranked ends, as seen in Fig. 4, and brings together and pinches the two sides of the mold onto the top edge of the previously laid wall to hold it steady while the mold is being leveled, filled and rammed.

On the outer side of the mold is permanently attached my leveling and plumbing devices as an organized part which does not have to be removed as the mold is shifted along the wall, it being understood that after the mold is filled and rammed with concrete it is immediately loosened and shifted along horizontally to a new position.

Referring more especially to Fig. 3, 8 is a spirit level arranged on the horizontal member of a bracket 9 fastened with hinges to the working side of the mold. This level makes it possible for the operator to set his mold level for every move and, by turning the bracket out to a right angle with the wall, gives him the plumb of the wall. This bracket has its lower bearing made adjustable in any one of the holes 36 in the plate so that it can be set at any angle up to 45 degrees to give an angular adjustment to the vertical axis of the bracket and thus make it possible to work up along side of a hill or where a sloping wall is wanted. To protect the spirit level from falling concrete, a shield or apron 37 of leather or other suitable material is fastened, above the spirit level, to the mold and overhangs the glass tube.

In defining more clearly the invention covered in this divisional application and the patent thereon, I would state that I do not claim in this application the special construction of mold shown, nor the special

means for clamping the sides of the same shown, nor the special means shown for supporting the mold on the wall; all of said latter features being independently claimed 5 in a separate and prior application for patent filed October 20, 1908, Serial No. 458,647, and being an entirely separate and distinct invention from that claimed herein.

I claim:

10 1. A wall mold having on its side a bracket connected to it by a vertical axis and provided with a spirit level.

2. A wall mold having on its side a bracket connected to it by a vertical axis and 15 provided with a spirit level and means for giving an angular adjustment to the vertical axis of the bracket.

3. A wall mold having on its side a bracket connected to it by a vertical axis and 20 provided with a spirit level and an overhanging shield for protecting the spirit level from falling concrete.

4. In combination with a mold board and means for holding the same against movement, a spirit level on said mold board supported for movement to positions at relatively right angles to one another to indicate 25 the set of said mold board relatively to both the vertical and horizontal while said mold board is secured in position. 30

5. In combination with a mold board, level means thereon supported for movement to horizontal positions at right angles to one another for indicating the set of said mold board relatively to both the vertical 35 and horizontal while said mold board is held in one position.

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL H. MAGDIEL.

Witnesses:

NEPHI L. MORRIS,
LOUIS R. WELLS.