

(Model.)

3 Sheets—Sheet 1.

G. B. UNDERWOOD.
COMBINED LATCH AND LOCK.

No. 367,562.

Patented Aug. 2, 1887.

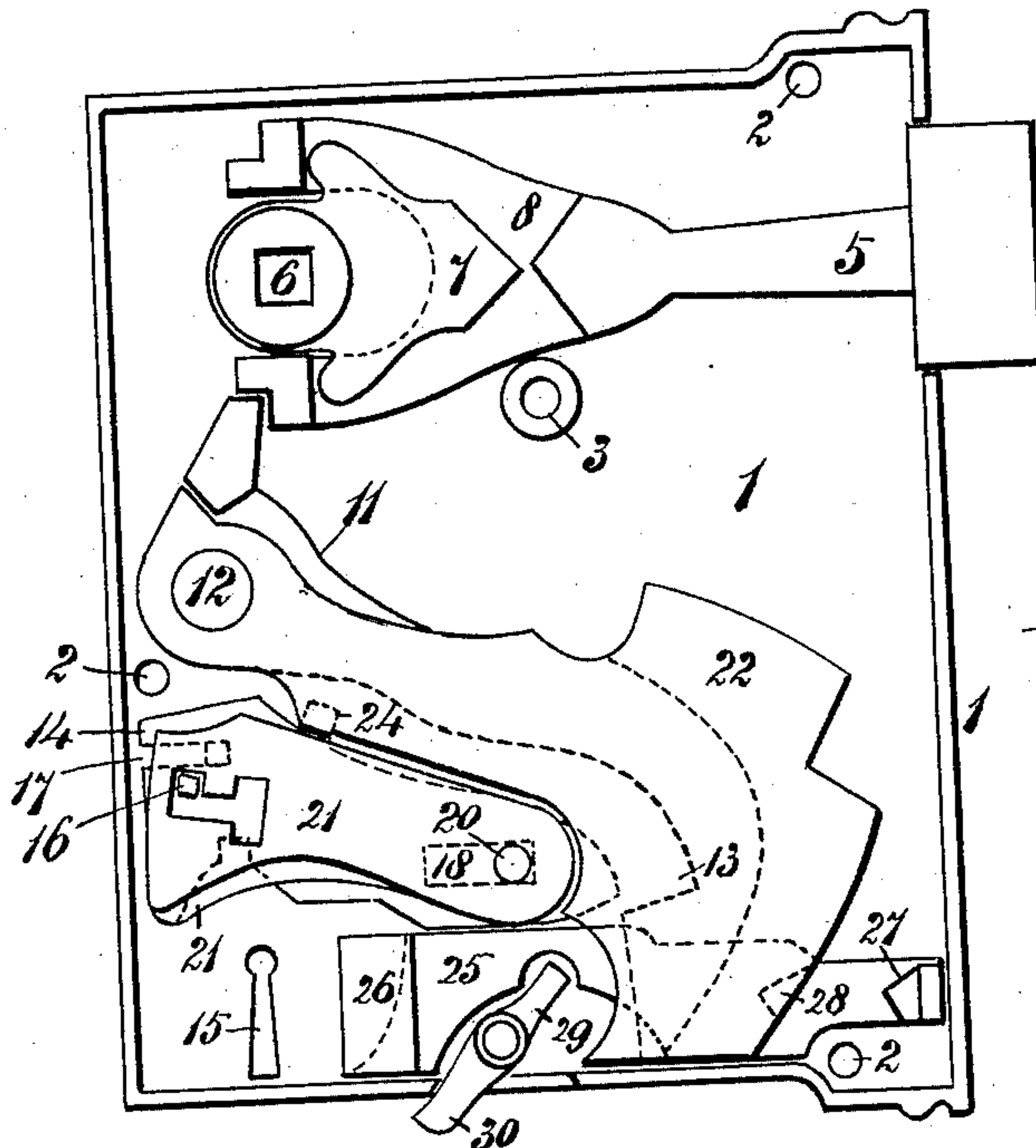


Fig. 1.

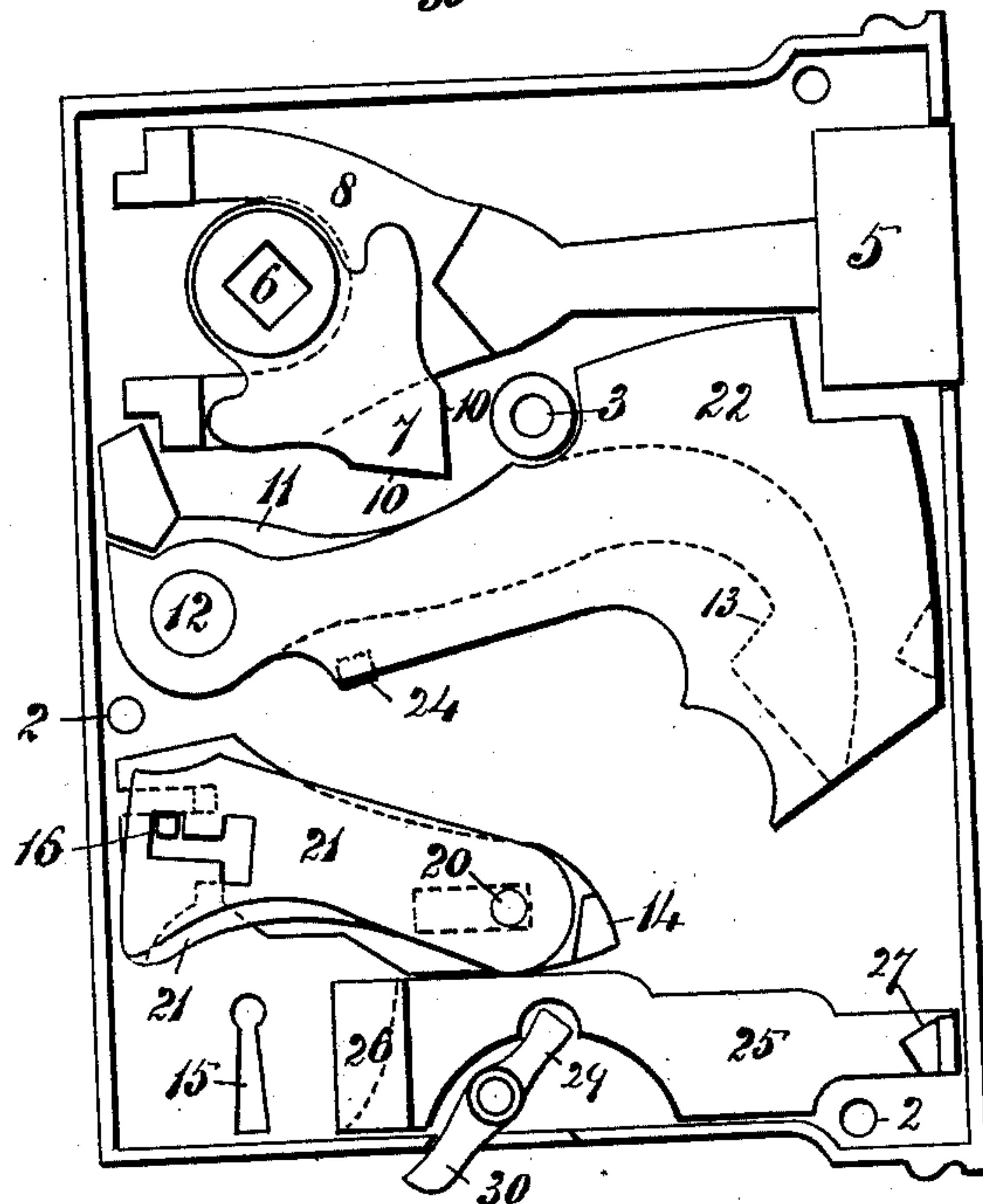


Fig. 2.

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By Henry Grist
Attorney.

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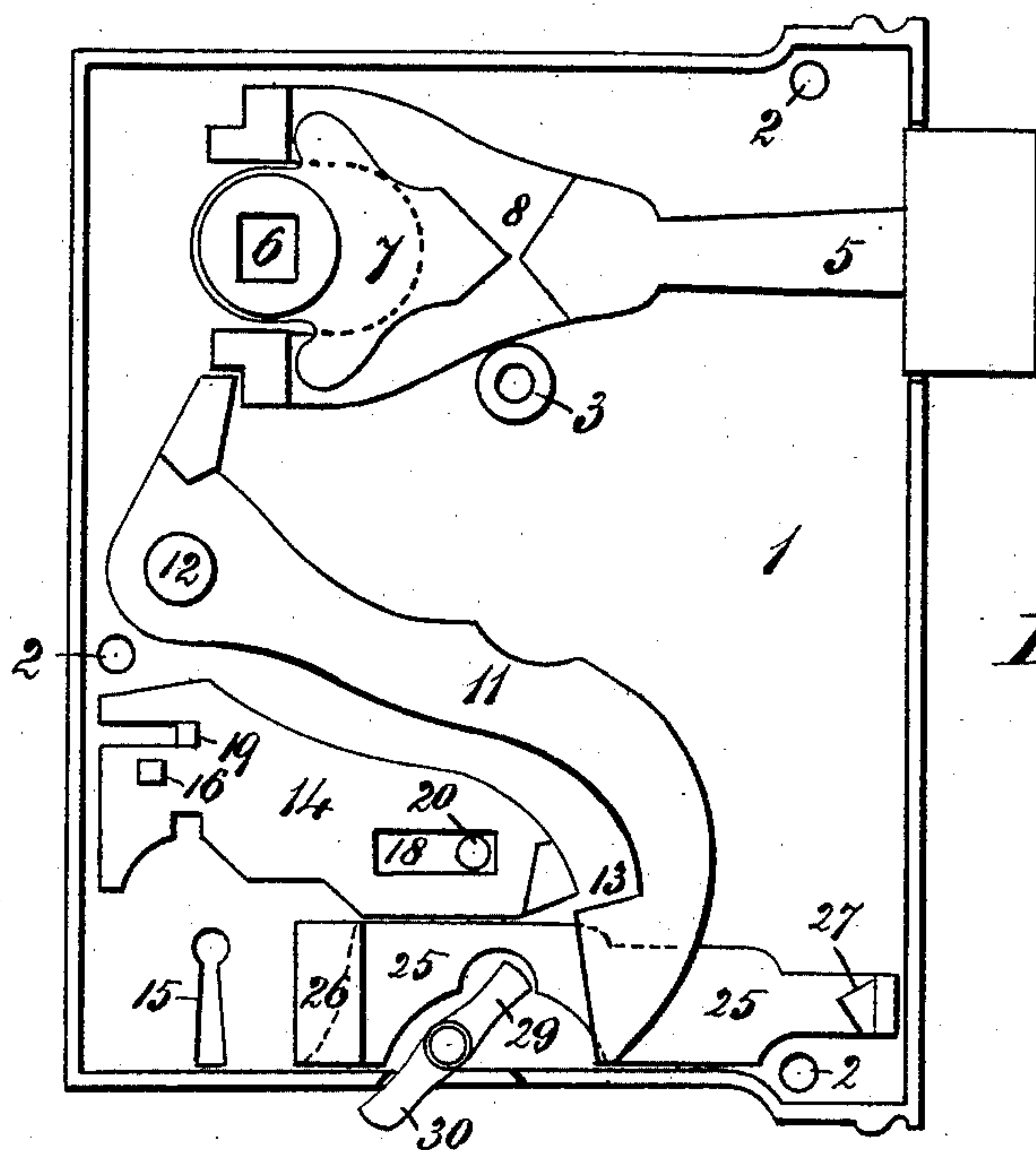


Fig. 3.

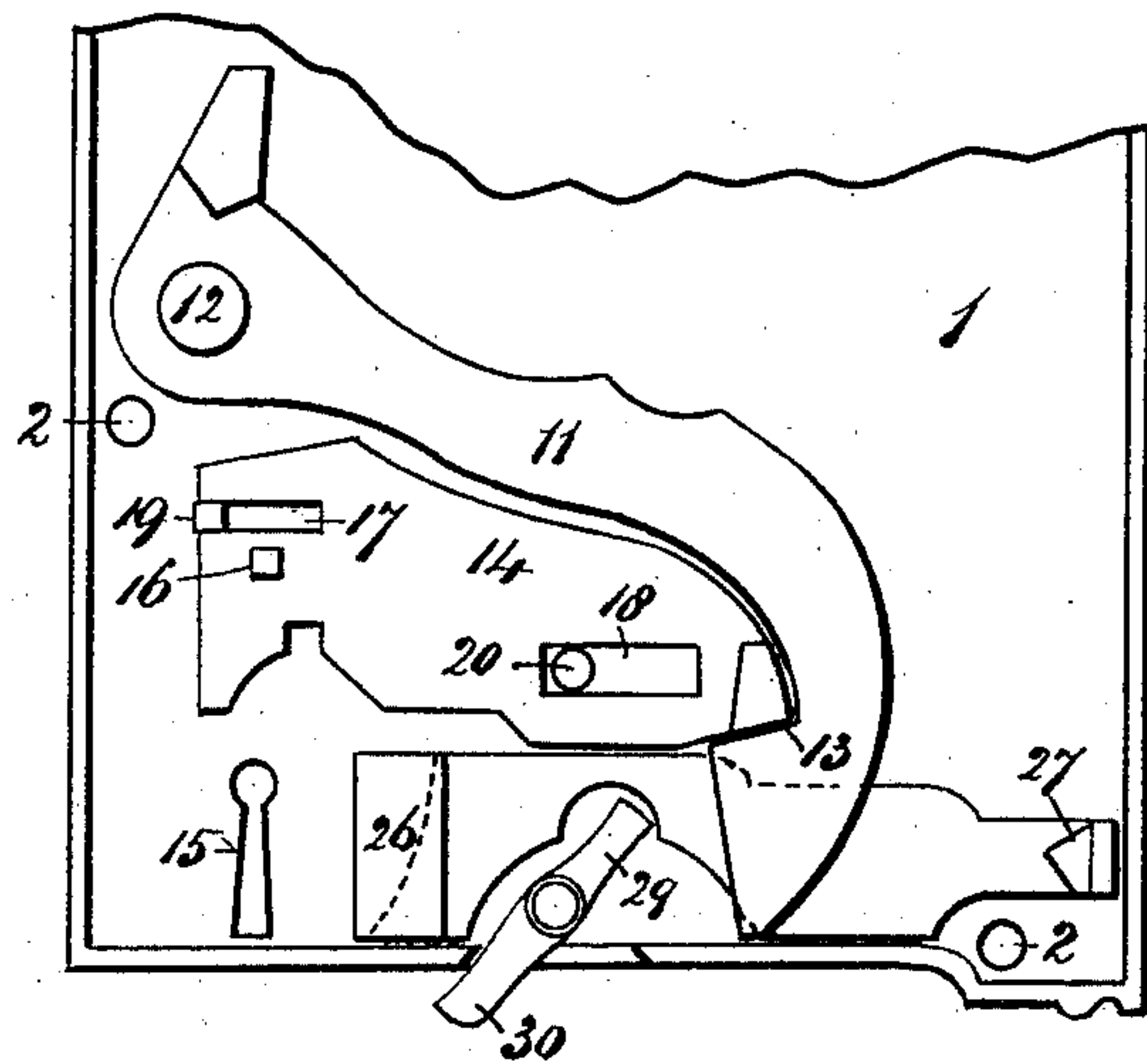


Fig. 4.

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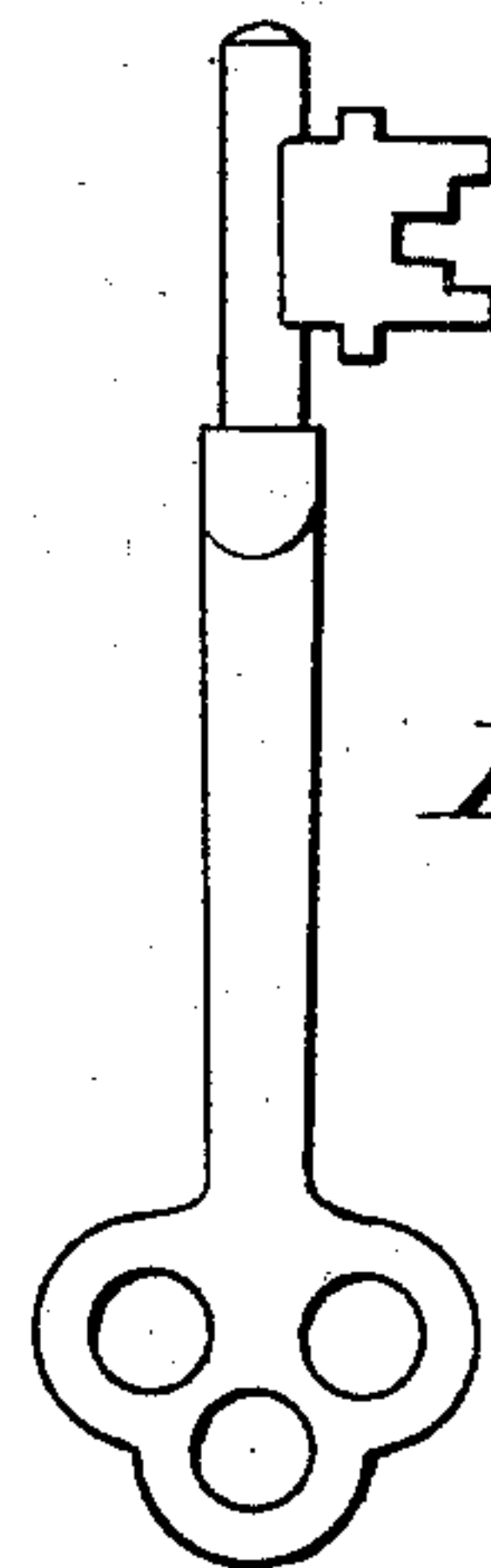
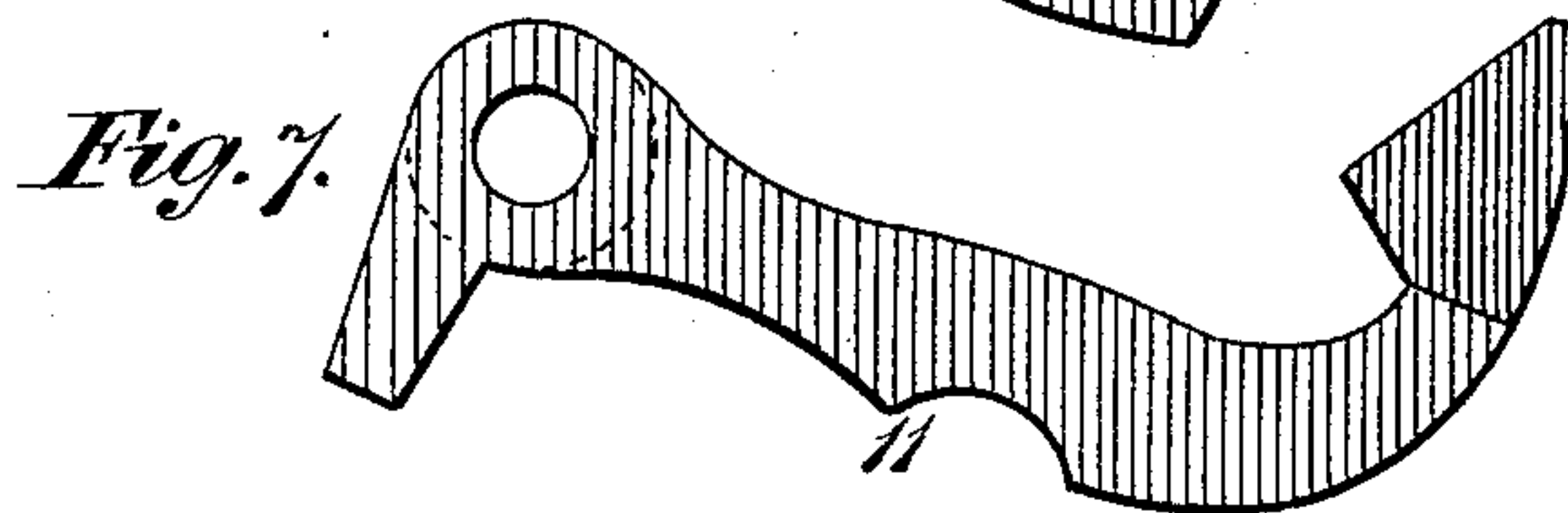
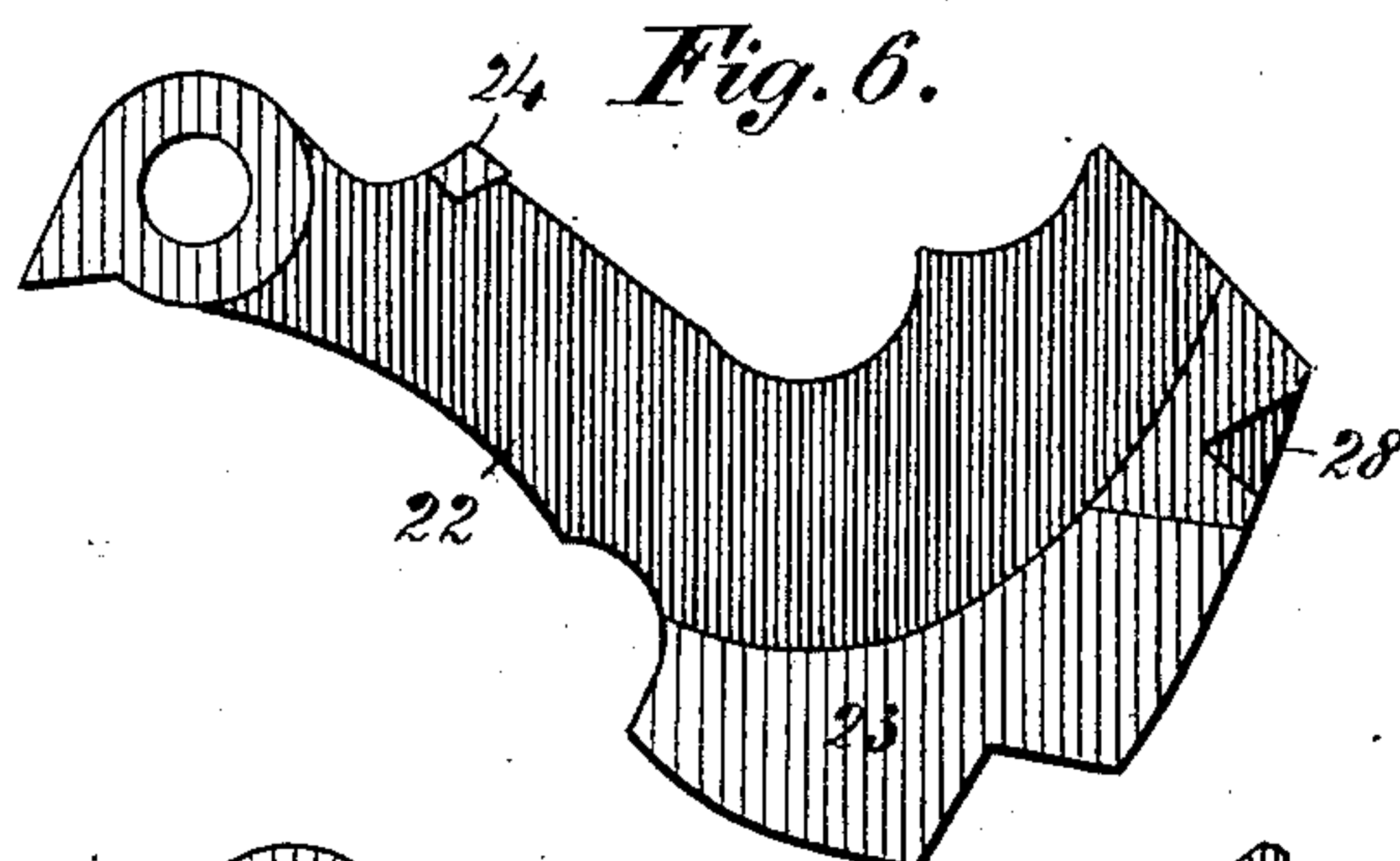
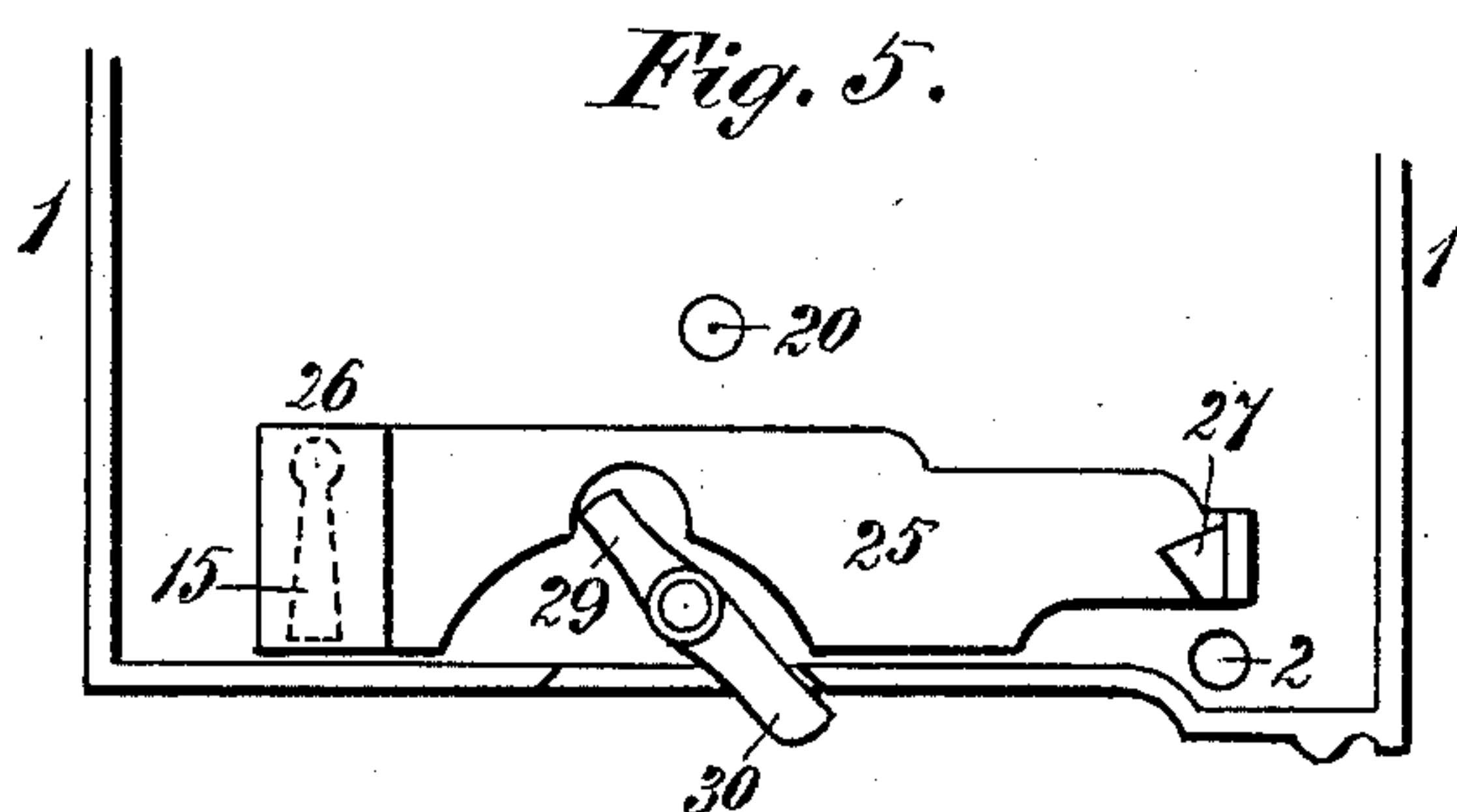
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UNITED STATES PATENT OFFICE.

GEORGE B. UNDERWOOD, OF TORONTO, ONTARIO, CANADA.

COMBINED LATCH AND LOCK.

SPECIFICATION forming part of Letters Patent No. 367,562, dated August 2, 1887.

Application filed October 14, 1886. Serial No. 216,280. (Model.)

To all whom it may concern:

Be it known that I, GEORGE BROWN UNDERWOOD, of the city of Toronto, in the Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in Combined Latch and Lock; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation of the interior of my improved latch and lock combined, showing the position of the parts when the bolt is projected. Fig. 2 is a like view showing the position of the parts when the bolt is retracted. Fig. 3 is a like view, the gravitating weight and tumblers being removed to show the parts below. Fig. 4 is a partial elevation of the interior of the lock, showing the dog and gravitating lever engaged to lock the bolt. Fig. 5 is a detail showing the position of the slide when covering the key-holes and engaging the gravitating weight. Fig. 6 is an elevation of the under side of the gravitating weight. Fig. 7 is an elevation of the under side of the gravitating lever, and Fig. 8 is an elevation of the key.

My invention relates to improvements in a combined latch and lock in which the bolt is projected by a gravitating lever or weight; and my invention consists in the combination of a gravitating lever and gravitating weight to project the bolt, and a dog operated by a key to lock the bolt when projected; also, in a slide which simultaneously closes the key-holes and engages the gravitating weight to lock the bolt independently of the key.

1 is the lock-case, the side plate removed. The holes 2 are for screws to fasten the lock to a door, and 3 a post provided with a screw-tapped hole in the end to fasten the side plate upon the case by a screw, in the usual manner.

5 is the latch-bolt sliding within the case through an opening in the front rim, and 6 the spindle-socket, having a triangular-shaped trippet, 7, formed integrally therewith. The bolt 5 has a transverse notch, 8, to receive the trippet flatwise, and is bifurcated at the heel to straddle the spindle-socket and allow of retraction of the bolt when the trippet is rocked by the knob-spindle in the usual manner.

11 is an S-shaped gravitating lever hung on a post, 12, cast with the lock-case. The shorter end of the lever engages with the heel of the bolt, and the free end is provided with a notch, 13, to receive the end of a dog, 14, which is reciprocated by a key, Fig. 8, admitted through the key-hole 15. The dog is provided with a post, 16, and has slots 17 18 to admit posts 19 20, cast integrally with the case, and guide the reciprocation of said dog. Post 20 projects some distance through the slot in the dog, and on said post is hung one or more flat tumblers, 21, which are provided with slots which bear upon post 16 of the dog, so that by turning the key the tumblers will be raised and the dog shot into notch 13 in lever 11 to lock bolt 5.

22 is a gravitating weight hung on post 12, and has a projection, 23, on the under side (see Fig. 6) to bear upon a portion of the edge of the lever 11, and said weight has a teat, 24, to bear against the top of the tumblers, so that by the gravitation of the weight lever 11 will be depressed to throw out bolt 5 and the tumblers 21 will be depressed to offer resistance to the turning of the key.

25 is a slide having faces 26 at opposite sides to cover the key-holes in the sides of the lock-case to prevent the entrance of a key. The opposite end of the slide is provided with a raised step, 27, which enters a notch, 28, in the gravitating weight and prevents the weight rising when the slide is adjusted to cover the key-holes. By locking the weight the gravitating lever 11 is prevented from rising, and bolt 5 becomes locked. The slide is reciprocated by a lever, 29, journaled in the lock-case, and said lever has an arm, 30, projecting through a slot in the rim of the lock-case to reciprocate the slide from the outside of the lock-case.

The gravitating weight 22, if desired, may be in one or more pieces, preferably corresponding in number to the number of tumblers, and the tumblers may be hung to the dog at the end farthest from the gravitating lever 11.

I claim as my invention—

1. The combination, with bolt 5 and spindle-socket 6, having trippet 7, of the gravitating lever 11, adapted to engage the heel of the bolt, gravitating weight 22, engaging said le-

ver and provided with a teat, 24, which bears against the top of the tumblers, dog 14, adapted to engage a notch in the lever, and tumblers 21, substantially as and for the purpose set forth.

5 2. The slide 25, having faces 26 at one end and a raised step, 27, at the opposite end, in combination with the gravitating lever 11 and gravitating weight 22, having notch 28 in the

end thereof adapted to engage the step on the slide to simultaneously lock the bolt and close the key-holes, substantially as and for the purpose set forth.

GEORGE B. UNDERWOOD.

Witnesses:

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THOS. SHORTISS.