

No. 877,654.

PATENTED JAN. 28, 1908.

T. M. LANSDEN.
LOCK.

APPLICATION FILED APR. 27, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

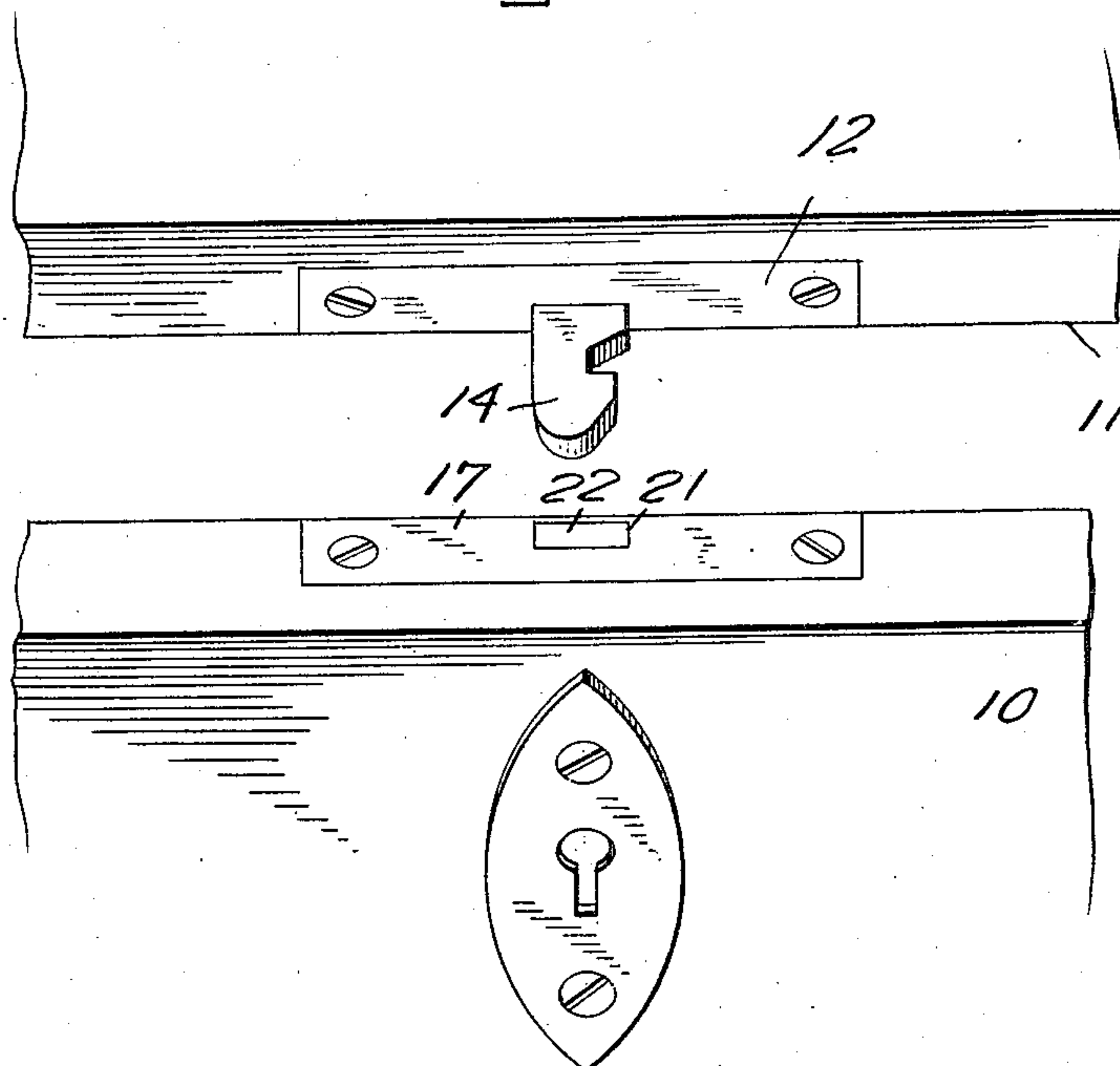


Fig. 3.

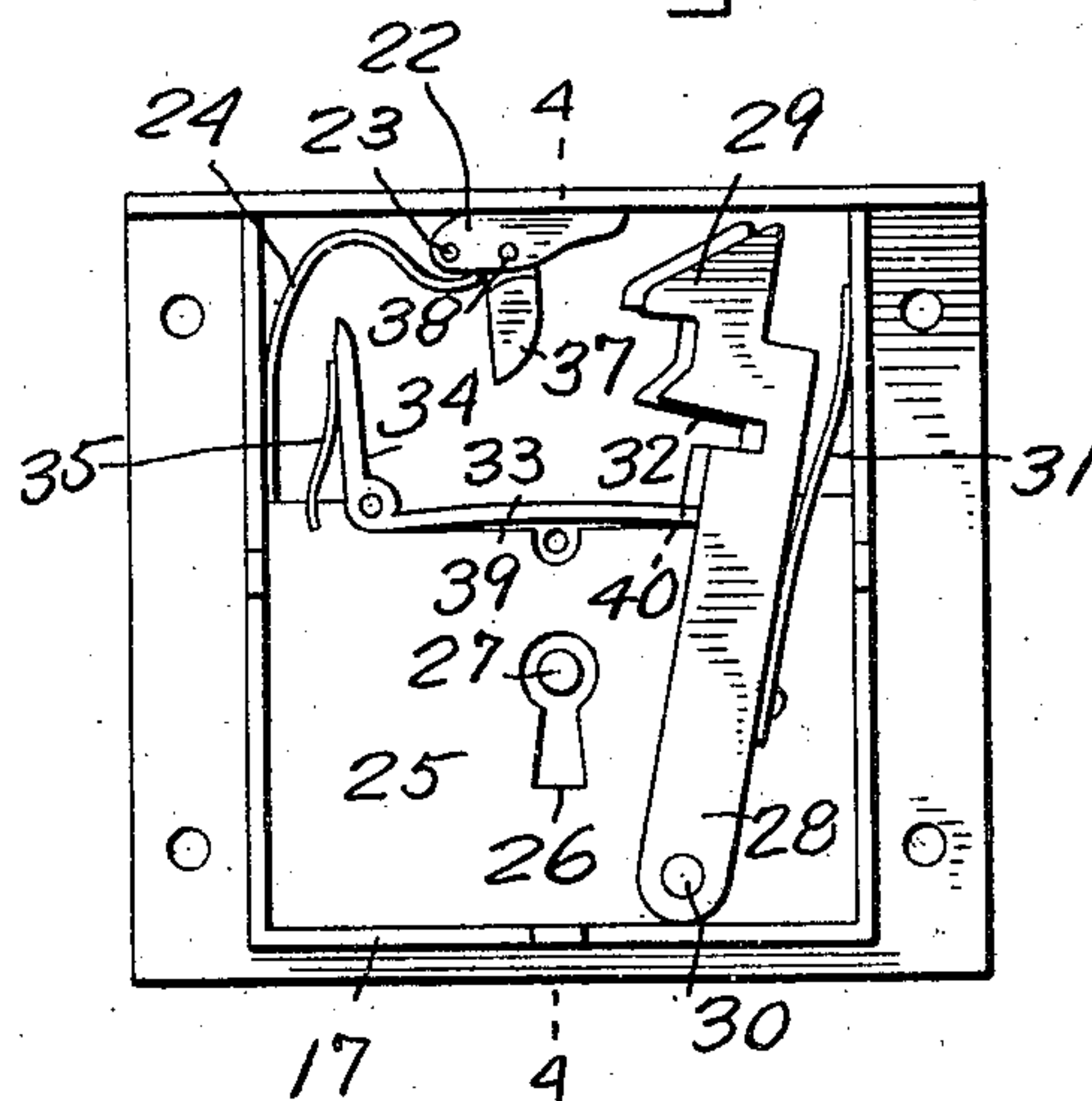
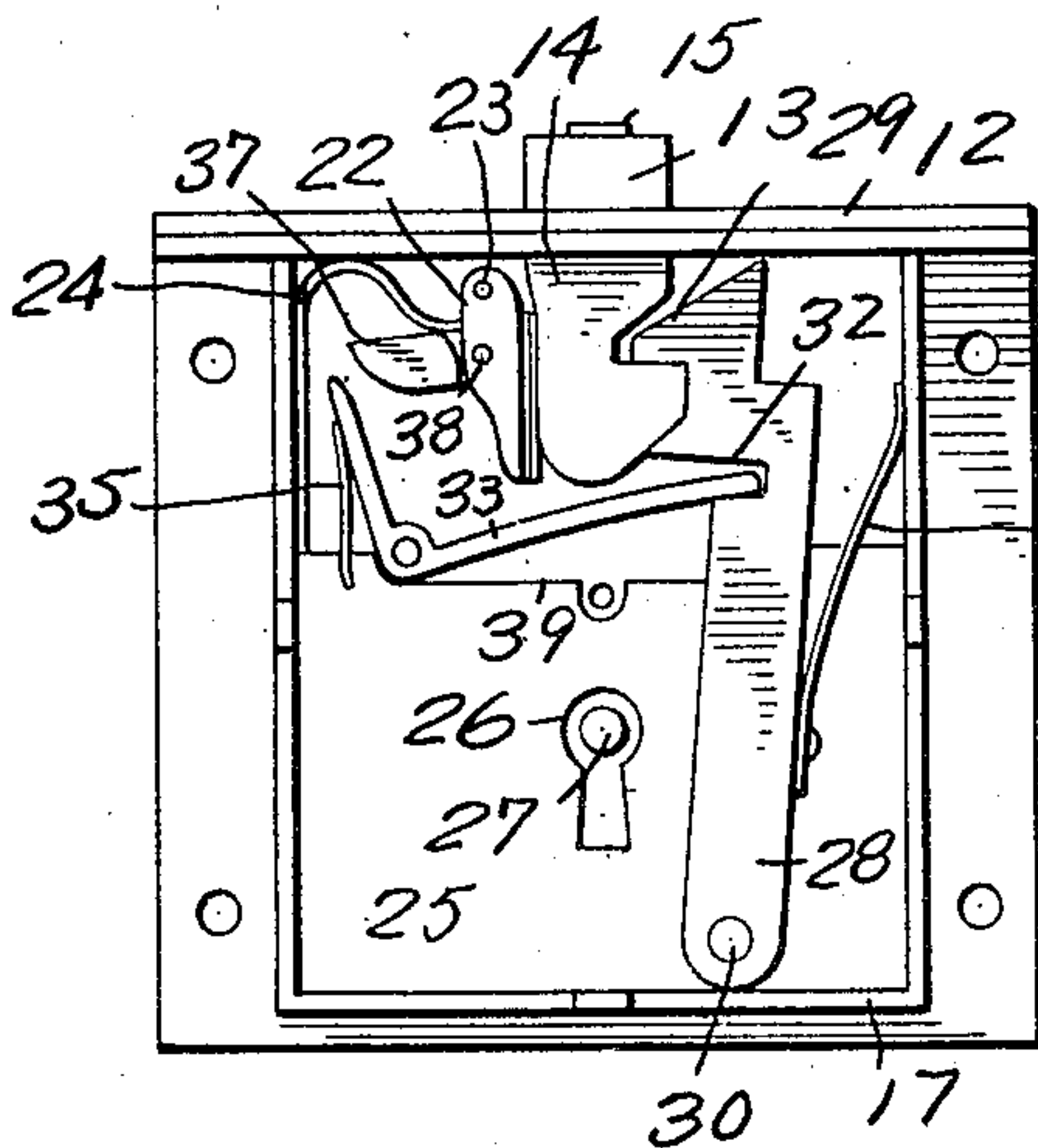


Fig. 2.

Witnesses

G. R. Thomas
H. C. McCartney

Inventor

Thomas M. Lansden

By

Charles H. H. H. H.

Attorneys

No. 877,654.

PATENTED JAN. 28, 1908.

T. M. LANSDEN.

LOCK.

APPLICATION FILED APR. 27, 1907.

2 SHEETS—SHEET 2.

Fig. 4.

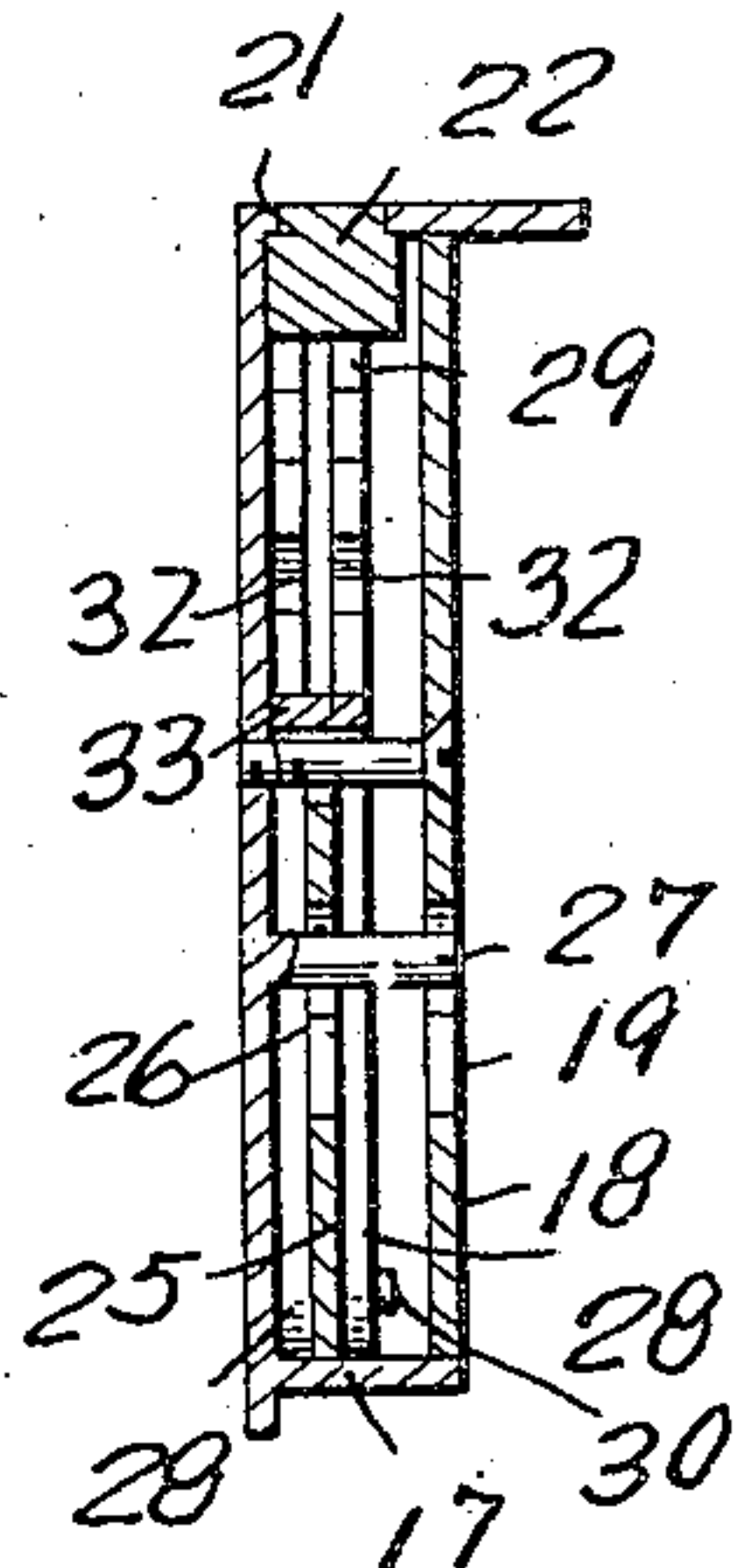


Fig. 5.

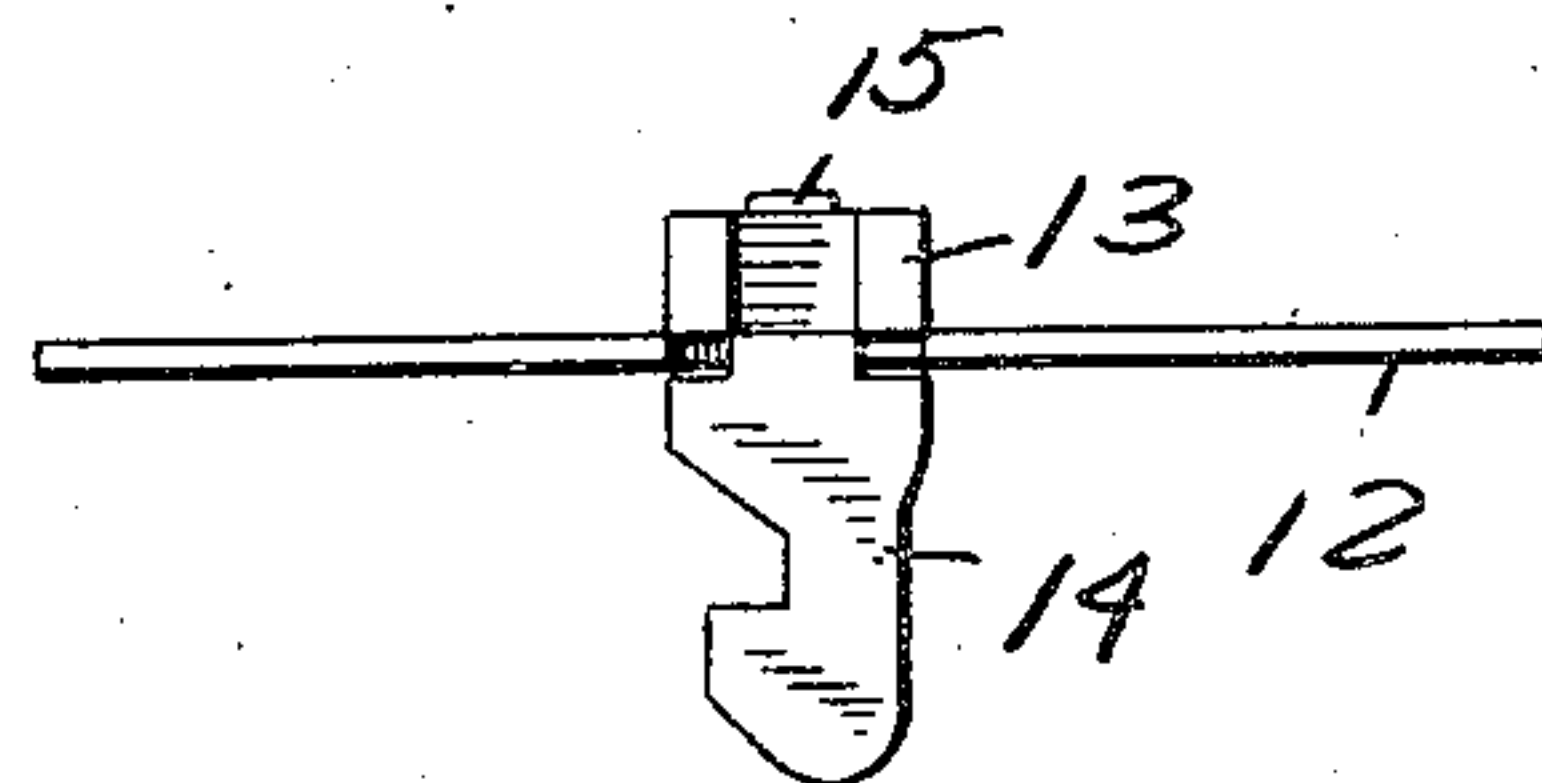


Fig. 6.

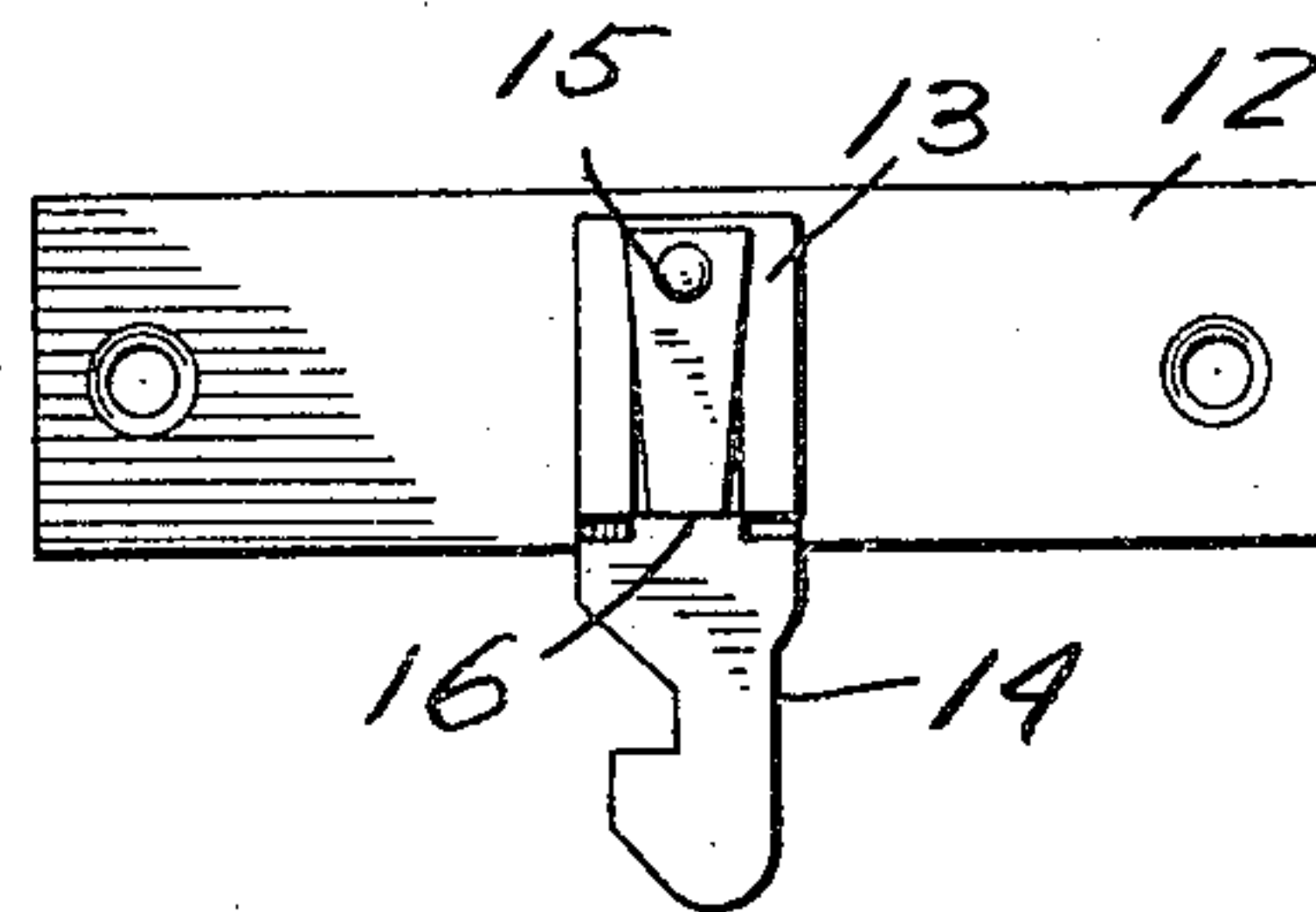


Fig. 7.

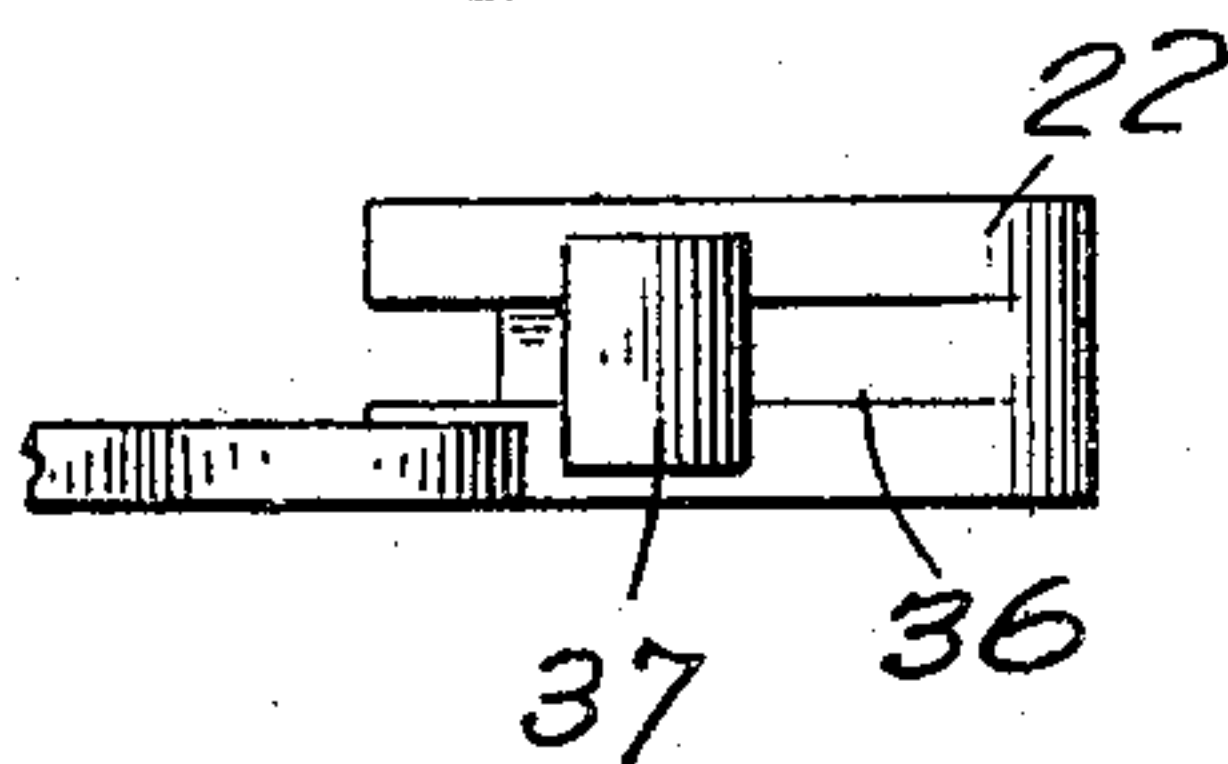
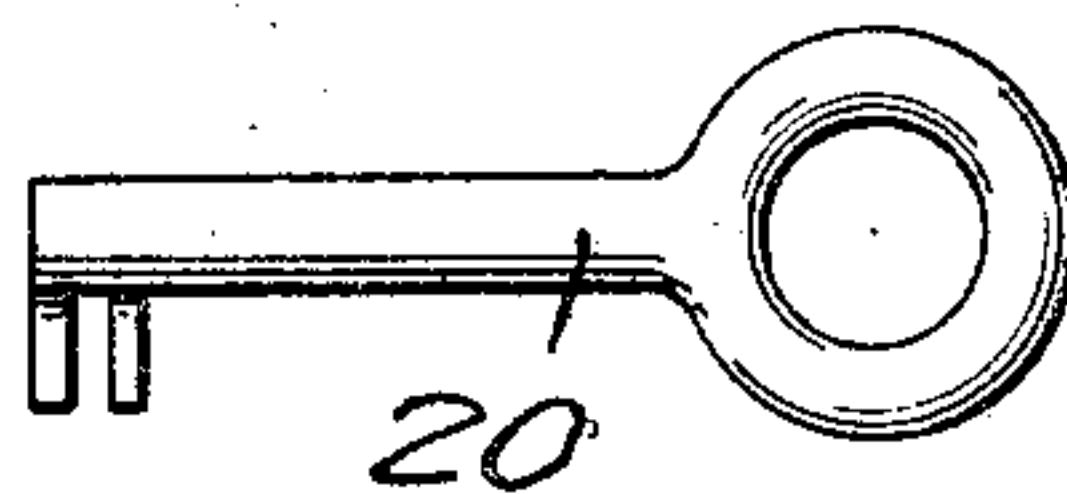


Fig. 8.



Witnesses

G. R. Thomas
H. McCarty

Inventor

Thomas M. Lansden

By

Charles C. Candler

Attorneys

UNITED STATES PATENT OFFICE.

THOMAS M. LANSDEN, OF BETHANY, ILLINOIS.

LOCK.

No. 877,654.

Specification of Letters Patent.

Patented Jan. 28, 1908.

Application filed April 27, 1907. Serial No. 370,715.

To all whom it may concern:

Be it known that I, THOMAS M. LANSDEN, a citizen of the United States, residing at Bethany, in the county of Moultrie, State of Illinois, have invented certain new and useful Improvements in Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to improvements in locks, and it aims to provide a device of that class in which the keeper is pivoted to the keeper plate, to permit its movement into and out of position to engage the bolts disposed in the lock box, when the lid of the trunk or chest, to which the lock is applied, is closed upon the body portion thereof.

A further object resides in the provision of a lock in which the lever which trips the bolts is actuated by a dog pivoted to a spring-pressed shutter which normally closes the opening of the lock box.

With the above and other ends in view, the invention consists in the construction, combination, and arrangement of parts, all as hereinafter more fully described specifically claimed, and illustrated in the accompanying drawings, in which like parts are designated by corresponding reference numerals in the several views.

Of the said drawings—Figure 1 is a perspective view of a portion of a chest and its lid, with the improved lock applied thereto. Fig. 2 is an elevation of the lock with the cover plate of the lock box removed, the keeper being shown in engagement with the bolts. Fig. 3 is a similar view of the lock box showing the locking mechanism in inoperative position. Fig. 4 is a vertical section taken on the line 4—4 of Fig. 3. Fig. 5 is a rear elevation of the keeper plate. Fig. 6 is a bottom plan view of the keeper plate, showing the keeper in folded position. Fig. 7 is a bottom plan view of the shutter, showing also a portion of the actuating spring therefor. Fig. 8 is a detail view of the key used with the lock.

Referring more particularly to the drawings, the numeral 10 designates generally the body portion of a chest, whose lid 11 carries a keeper-plate 12 bolted thereto. To the rear face of the keeper-plate is secured a U-shaped bracket 13, between the arms

of which is pivoted the reduced upper end of a notched keeper 14, which is movable in consequence into horizontal or vertical position, being retained in either position by a spring 15, which is likewise secured at one end to the bracket and bears at its free end against the adjacent end of the keeper, whose rear face is provided at such point with a seat 16, in which the spring end fits, when the keeper is in its vertical or operative position.

The body 10 of the chest is provided with a lock-box 17, the front plate 18 of which is provided with a keyhole 19, through which the key 20 is passed. The top of the lock-box is in like manner provided with an opening 21, through which the keeper passes when the lid is shut, such opening being normally closed by a shutter 22 pivoted upon a pin 23 and normally held in operative position by a spring 24, which bears at its free upper end thereagainst, the lower end of said spring being secured to the adjacent side wall of the lock-box in any preferred manner.

The lock-box is further provided with a vertical partition 25, whose height is approximately half that of the lock-box, said partition having a keyhole 26 formed there-through in alinement with the keyhole 19 in the front plate 18, the key-pin 27 projecting through said keyholes in the usual manner.

Disposed upon each side of the partition is a bolt 28, provided at its upper end with a nose 29, adapted for engagement in the notch formed in the keeper. At their lower ends said bolts are secured to a common pivot 30, and are yieldingly pressed forward through the action of springs 31, whose free ends bear against the side walls of the lock-box, the opposite ends of said springs being secured to said bolts. Each bolt is further provided with a horizontal slot 32 adapted to receive the adjacent end of the horizontal arm 33 of an angle-lever when the bolts are in engagement with the keeper, as hereinafter described, the opposite arm 34 of said angle-lever being maintained normally in vertical position by a spring 35, fastened at its lower end to the upper portion of the partition plate 25.

The shutter 22, above referred to, is provided with a deep longitudinal groove 36, formed upon its under face, in which the reduced upper end of a dog 37 fits, the dog

being pivotally connected to the shutter at such point by a bolt 38.

The lower arm 33 of the angle-lever, which, in its normal position, rests in a seat 39 formed in the upper edge of the partition plate, is provided at its free end with a notch 40, formed in the inner corner thereof, into which the inner bolt 28 is pressed under the action of its spring 31, so that said bolt, in its normal position, is disposed slightly to one side of the outer bolt, as shown in Fig. 3.

When the parts are in the position shown in the figure above referred to and the lid of the chest is closed upon the body portion thereof, the keeper 14, which has been moved into operative position, will, in passing through the opening 21, contact with the shutter 22 and swing the same downwardly upon its pivot against the action of the spring 24, until the dog 37 will strike against the vertical arm 34 of the spring-pressed angle-lever and will rock the latter upon its pivot, thus raising the horizontal arm 33, when the bolts 28 will be at once pressed forward by reason of the springs 31, and the noses formed upon the upper ends of the bolts will automatically engage in the notched lower end of the keeper. The keeper will thus be held against removal from the lock-box until the bolts are released from engagement therewith and move backwards into their inoperative position by the key 20, the ward of which is bifurcated, each member of the ward contacting with the adjacent bolt. The keeper may then be withdrawn through the opening 21 in the lock-box, which opening will then be closed automatically by the spring-pressed shutter. The arm 33 of the angle-lever will, at the same time, be moved into its normal position, under the action of the spring 35, and will serve to retain the bolts in their retracted or inoperative position.

The front plate or cover 18 of the lock-box is connected with the latter by a screw or other removable means, and its side edges are preferably notched for the reception of lugs formed upon the sides of the lock-box.

Owing to the pivotal connection between the keeper and the keeper-plate, the former may swing upon its pivot into a horizontal position, in which case the keeper will obviously not pass through the opening in the lock-box when the lid is closed upon the chest, or, in other words, there will be no locking engagement between the keeper and the bolts disposed within the lock-box unless the keeper is in its operative position.

The invention will be readily understood from the foregoing, and further description thereof is therefore deemed unnecessary, it being understood, however, that modifications and changes may obviously be made within the scope of the appended claims.

What is claimed, is—

1. The combination, with a keeper and a keeper-plate, of a lock-box provided with an opening in its upper face through which said keeper is adapted to project; a spring-pressed bolt pivoted within said lock-box; a spring-pressed lever adapted to engage said bolt to hold the same in inoperative position; a spring-pressed shutter pivoted within said lock-box and adapted to normally close said opening; and means carried by said shutter and adapted to engage with and operate said lever when said keeper passes through said opening to release the lever from engagement with said bolt and permit the latter to automatically engage said keeper.

2. The combination, with a keeper and a keeper-plate, of a lock-box provided with an opening in its upper face through which said keeper is adapted to project; a spring-pressed bolt pivoted within said lock-box; a spring-pressed angle-lever having one arm adapted to engage said bolt to hold the same in inoperative position; a spring-pressed shutter pivoted within said lock-box and adapted to normally close said opening; and means carried by said shutter and adapted to engage the opposite arm of said angle-lever when said keeper passes through said opening, to rock said angle-lever upon its pivot and release its first-mentioned arm from engagement with said bolt, to permit the latter to automatically engage said keeper.

3. The combination, with a keeper and a keeper plate, of a lock-box provided with an opening in its upper face through which said keeper is adapted to project; a spring-pressed bolt pivoted within said lock-box; a spring-pressed angle-lever having one arm adapted to engage said bolt, to hold the same in inoperative position; a spring-pressed shutter pivoted within said lock-box and adapted to normally close said opening; and a dog pivoted to said shutter and adapted to engage the opposite arm of said angle-lever, when said keeper passes through said opening, to rock said angle-lever upon its pivot and release its first-mentioned arm from engagement with said bolt to permit the latter to automatically engage said keeper.

4. The combination with a keeper and a keeper-plate, of a lock-box having an opening in its upper face through which said keeper is adapted to pass; a vertical partition disposed within said lock-box intermediate its front and rear walls; a spring-pressed bolt movable upon each side of said partition, said bolts having a common pivot; a spring-pressed angle-lever having one arm adapted to engage said bolts to hold the same in inoperative position; a spring-pressed shutter pivoted within said lock-box and adapted to normally close said opening; and means carried by said shutter and adapt-

ed to engage the opposite arm of said angle-lever when said keeper passes through said opening, to rock said angle-lever upon its pivot and release its first-mentioned arm
5 from engagement with said bolts, to permit the latter to automatically engage said keeper.

10 5. The combination with a keeper and a keeper-plate, of a lock-box having an opening in its upper face through which said keeper is adapted to pass; a vertical partition disposed within said lock-box intermediate the front and rear walls thereof; a spring-pressed bolt movable upon each side
15 of said partition, said bolts having a common pivot; and a spring-pressed angle-lever having one arm adapted to engage said bolts to

hold the same in inoperative position; a spring-pressed shutter pivoted within said lock-box and adapted to normally close said
20 opening; and a dog carried by said shutter and adapted to engage the opposite arm of said angle-lever when said keeper passes through said opening, to rock said angle-lever upon its pivot and release its first-
25 mentioned arm from engagement with said bolts, to permit the latter to automatically engage said keeper.

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

THOMAS M. LANSDEN.

Witnesses:

J. L. McGUIRE,

S. M. McREYNOLDS.