

No. 835,425.

PATENTED NOV. 6, 1906.

J. HERZOG.
LOCK.

APPLICATION FILED JAN. 4, 1906.

Fig. 1.

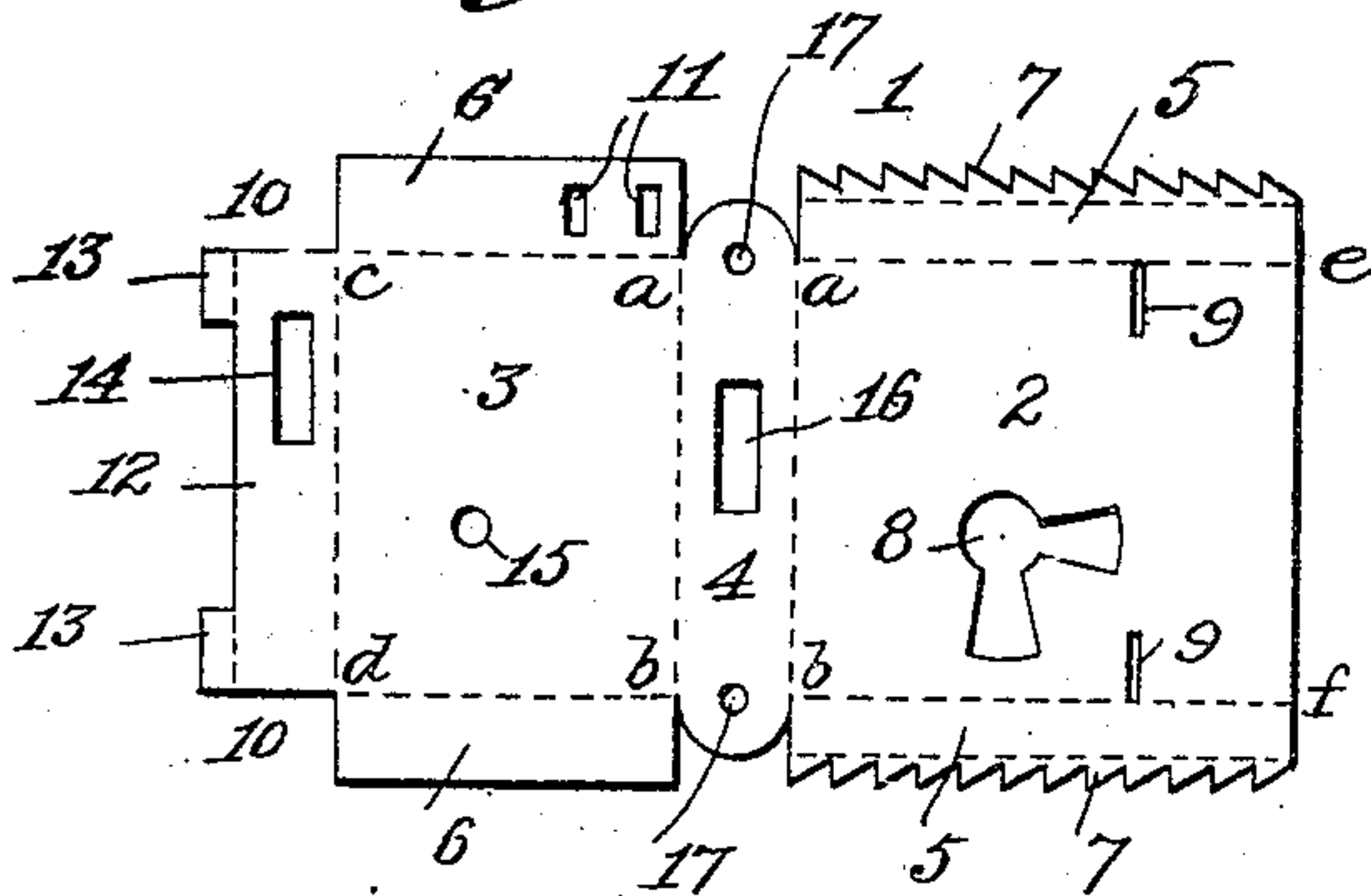


Fig. 2.

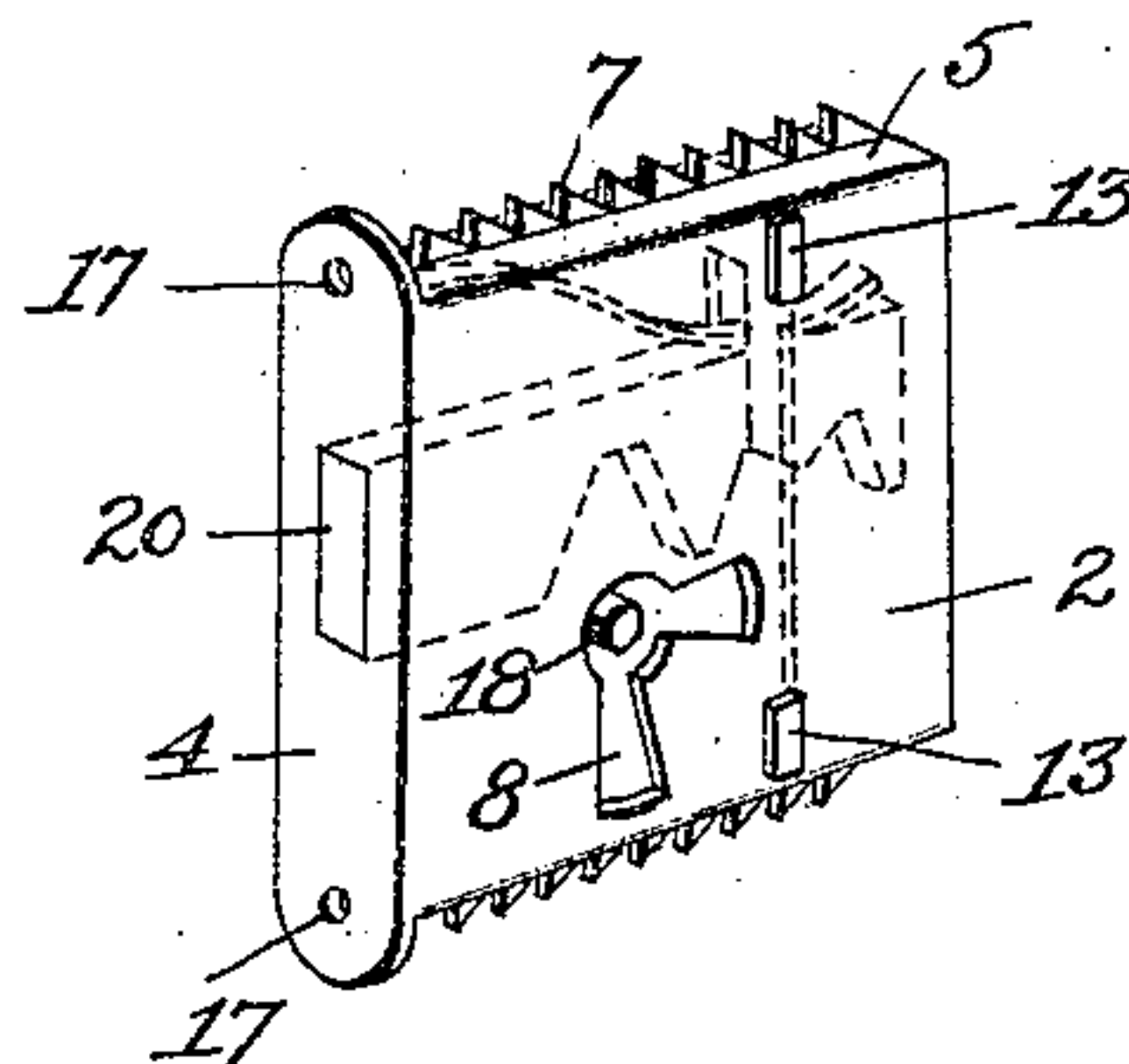


Fig. 3.

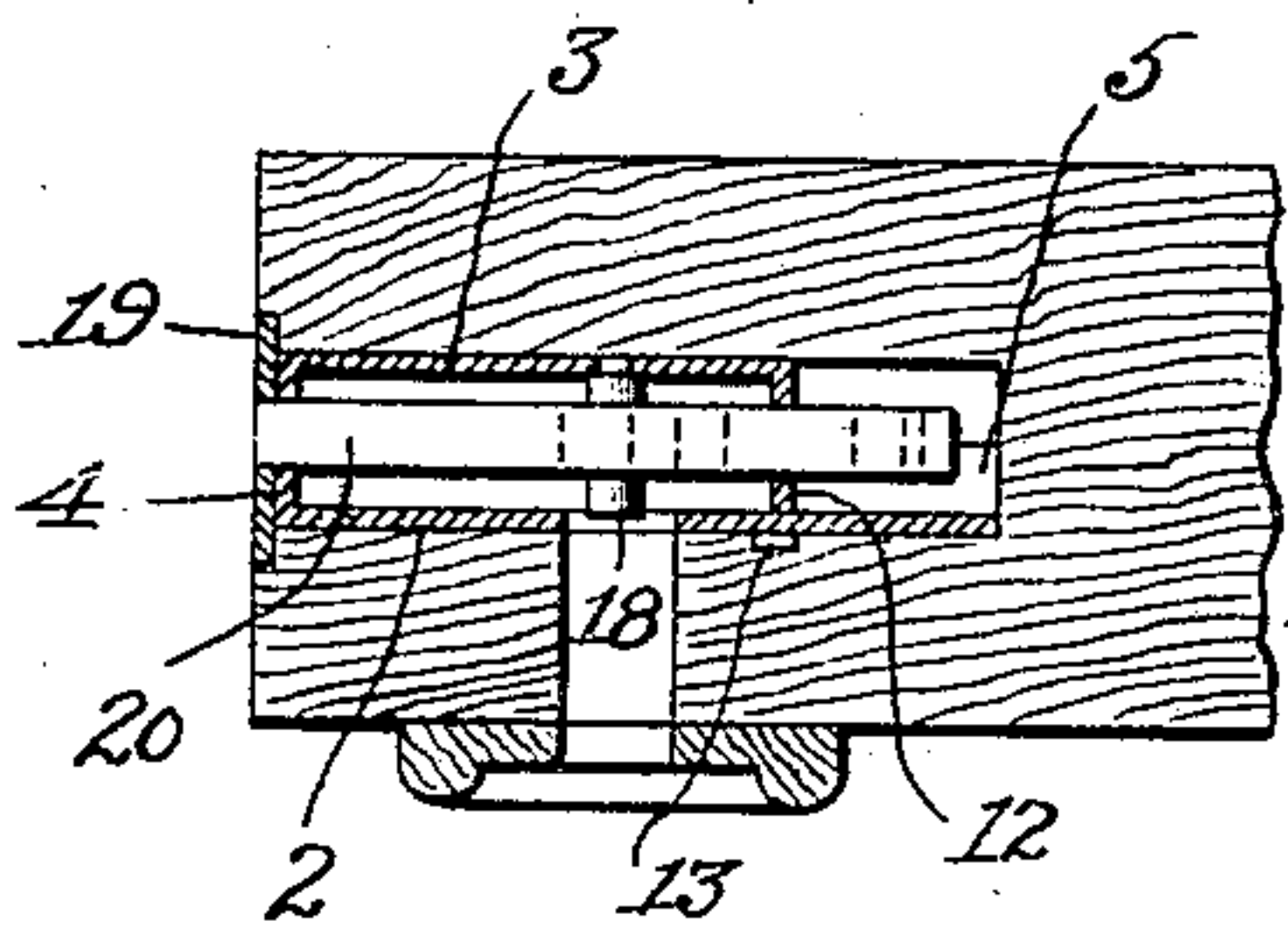


Fig. 5.

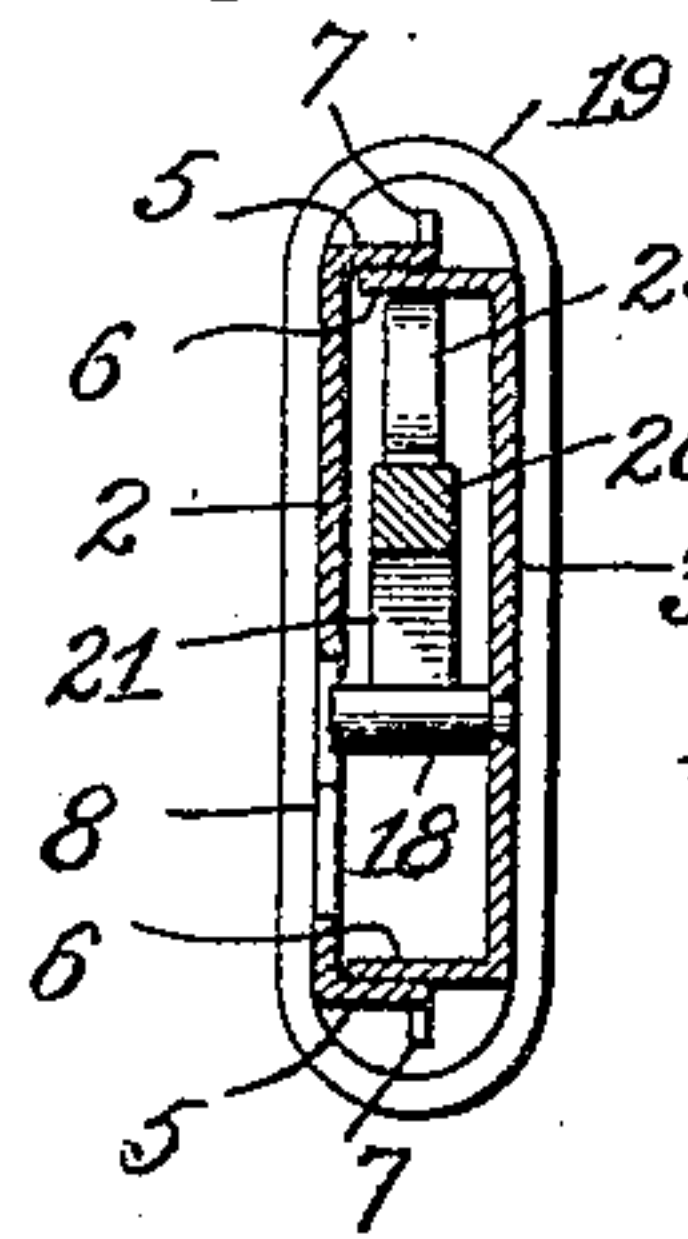
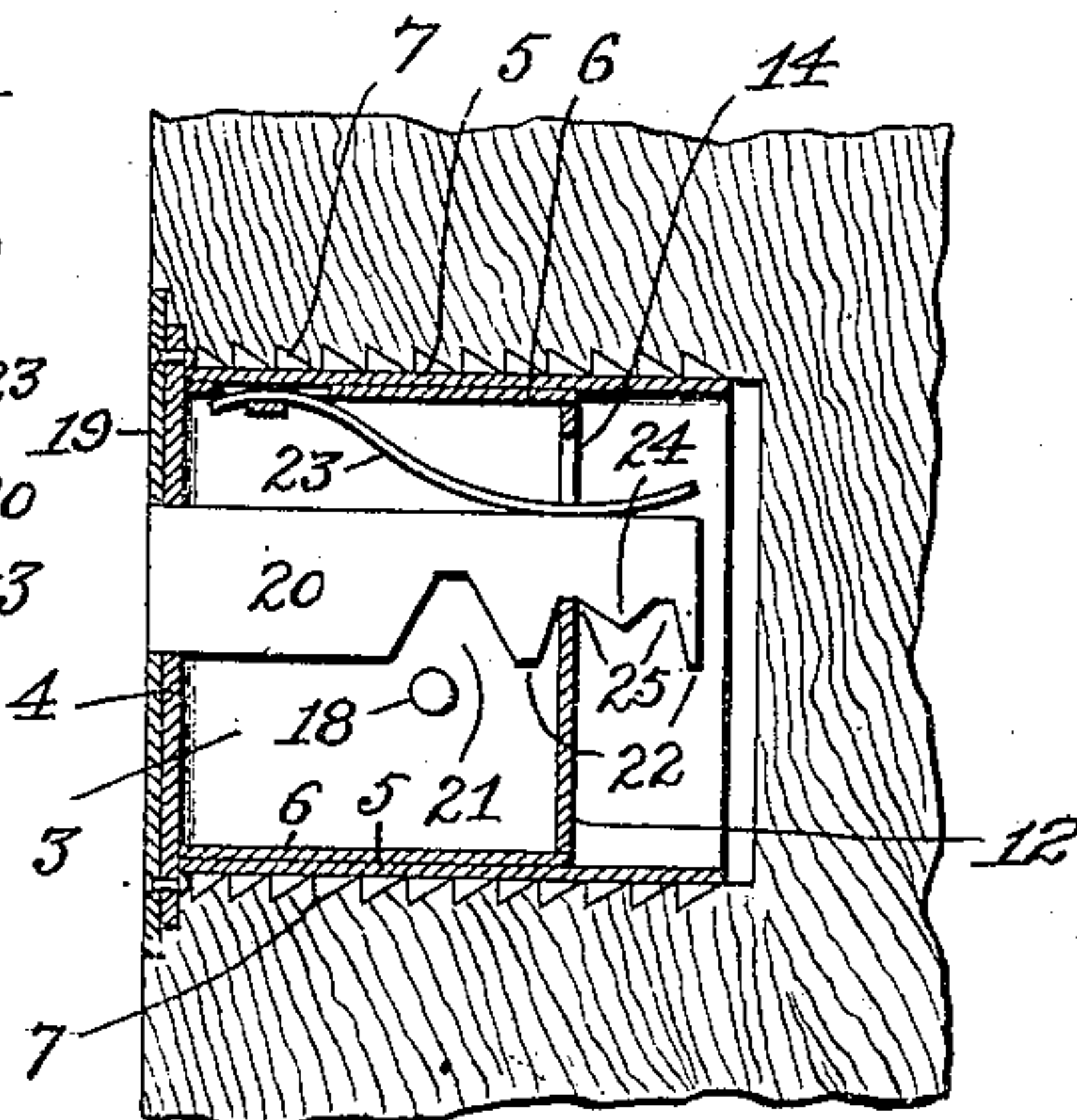


Fig. 4.



Witnesses

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LOCK.

No. 835,425.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Original application filed May 24, 1905, Serial No. 261,941. Divided and this application filed January 4, 1906. Serial No. 294,538.

To all whom it may concern:

Be it known that I, JOHN HERZOG, a citizen of the United States of America, residing at Saginaw, in the county of Saginaw and State of Michigan, have invented certain new and useful Improvements in Locks, of which the following is such a full, clear, and exact description as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to improvements in locks for drawers, cabinets, and other articles of furniture; and it consists in certain novel features of the device illustrated in the accompanying drawings, as will be hereinafter first fully described and then particularly pointed out in the appended claim.

This application is a division of an application filed by me May 24, 1905, Serial No. 261,941.

In the drawings just mentioned, Figure 1 is a plan view of a blank struck from sheet metal and shaped so that when properly manipulated it will form the lock-case. Fig. 2 is a perspective view of the lock-case formed from the blank shown in Fig. 1, the bolt being indicated in dotted lines. Fig. 3 is a longitudinal horizontal section of the lock taken in the plane of the keyhole. Fig. 4 is a longitudinal vertical section, and Fig. 5 is a transverse vertical section taken in the plane of the keyhole.

In carrying out my present invention I employ a blank 1 of sheet metal, having two branches or leaves 2 3, connected by a central transverse web 4. The side edges 5 6 of the branches project beyond the ends of the web 4 and the edges of the branch 2 are formed into teeth 7, the said branch being also formed with keyhole-slots 8 and with slits or narrow slots 9 near its upper and lower side edges and a short distance inward from its end edge, as clearly shown. The outer corners of the branch 3 are cut away, as indicated at 10, and in the upper projecting edge I form small slots or openings 11, close together and near the inner corner of said edge. A tongue 12 is presented on the end edge of the branch 3 between the cut-away corners 10, and the edge of this tongue is cut away, so as to present lugs 13 at the ends of the same. Near the upper end of this tongue a slot 14 is provided. A small

opening or perforation 15 is provided in the branch 3, the said opening occupying the same relative position in the said branch as the circular portion of the keyhole-slot 8 occupies in the branch 2. The central web 4 is provided with an oblong slot 16 near its center and with small holes 17 near its ends; the said ends being preferably given a circular form.

The lock case or shell is evolved from the blank in the following manner: The branches 2 3 are first folded into parallel planes by bending the blank on the lines *a b*, which constitute the side edges of the web 4. The upper and lower edges of the branch 3 are then folded or bent on the lines *a c* and *b d*, respectively, until they are at right angles to the main body of the branch, at which time they will touch the branch 2 along the lines *a e* and *b f* and constitute the top and bottom of the case or shell, the branches forming the sides and the web 4 forming the front end of the same. The tongue 12 is then bent on the line *c d* and the lugs 13 inserted through the slits 9 in the branch 2, the extremities of the lugs being bent or clenched against the outer face of the said branch 2, so as to prevent the separation of the branches. The upper and lower edges of the branch 2 are then bent over the top and bottom of the case along the lines *a e* and *b f* and the teeth 7 turned outward at right angles along the central lines of the case, as will be readily understood. A key-centering pin 18 is secured in the perforation 15 and projects across the case to the keyhole 8.

In order to reinforce the front end of the case, a wear-plate 19 may be riveted to the outer face of the web 4, the rivets being inserted through the openings 17. The bolt consists of a small bar 20 playing in the slots 14 and 16 and having smooth sides. The upper edge of the bolt is straight; but the lower edge is provided with a notch 21, adapted to be engaged by the key in the operation of the lock. The lower edge of the bolt is also provided with stops 22 to limit the throw of the bolt, the stops being formed in the present instance by making a second notch in the bolt in rear of the notch 21 and causing the ends of the said notch to impinge against the inner end of the case. The slots 14 and 16 are so relatively arranged that the lower end of the slot 14 is in a higher plane

than the lower end of the slot 16, and consequently it will project upward between the stops 22 to act therewith in limiting the play of the bolt. A spring 23 has one end inserted through the slots 11, whereby it is secured, and has its free end bearing upon the upper side of the bolt through the slot 14 to hold the bolt toward the lower end of the said slot and insure the engagement of the stops and the end of the case. In order to guard more certainly against the slipping of the bolt from the lock or its failure to properly engage with the key, a lug 24 may be formed on the edge of the bolt between the stops 22, thereby presenting supplemental notches 25, which will be thrown into engagement with the end of the slot 14 by the spring, so that in order to move the bolt it will be necessary to lift the same over the end of the slot against the tension of the spring. In order to accommodate the vibration of the bolt, the slot 14 is made somewhat longer than the width of the bolt, but the slot 16 is shorter and is only long enough to permit the bolt to move there-through without avoidable friction. The lock is fitted in place by being driven into a mortise or seat prepared in the edge of the drawer or door and will be firmly held by the teeth 7 taking into the wood, as will be readily understood. Should additional security be deemed advisable, the wear-plate could be extended beyond the ends of the front end of the case and fastening devices driven through the ends of the same into the drawer or door. The shell is provided with two keyhole-slots having a circular end in common, so that the lock may be operated either vertically or horizontally; but in the drawings I have shown it in a horizontal position and have so described it for the sake of

convenience. The edge portions 5 and 6 have a slight spring action or play upon each other, so that should the mortise not be cut to form a perfect fit for the lock the case will yield sufficiently to properly enter the mortise.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination of a closed lock-case having vertical slots in its front and rear ends, the slot in the rear end being longer than the slot in the front end and having its lower end in a higher plane than the lower end of the front slot, a bolt having its front end fitting in the front slot and its rear end projecting through the rear slot, the upper edge of the bolt being straight and its lower edge being formed with a notch to receive a key and at its rear end with a second notch straddling the lower end of the slot in the rear end of the case, the ends of said notch impinging against the rear wall of the case to limit the movement of the bolt in both directions and the base of said notch having a slight projection at its center, said projection being of less depth than the walls of the notch and a spring having one end secured in the top of the case and its opposite end projecting through the rear end of the case and bearing upon the upper edge of the bolt directly over said projection.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN HERZOG.

Witnesses:

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