

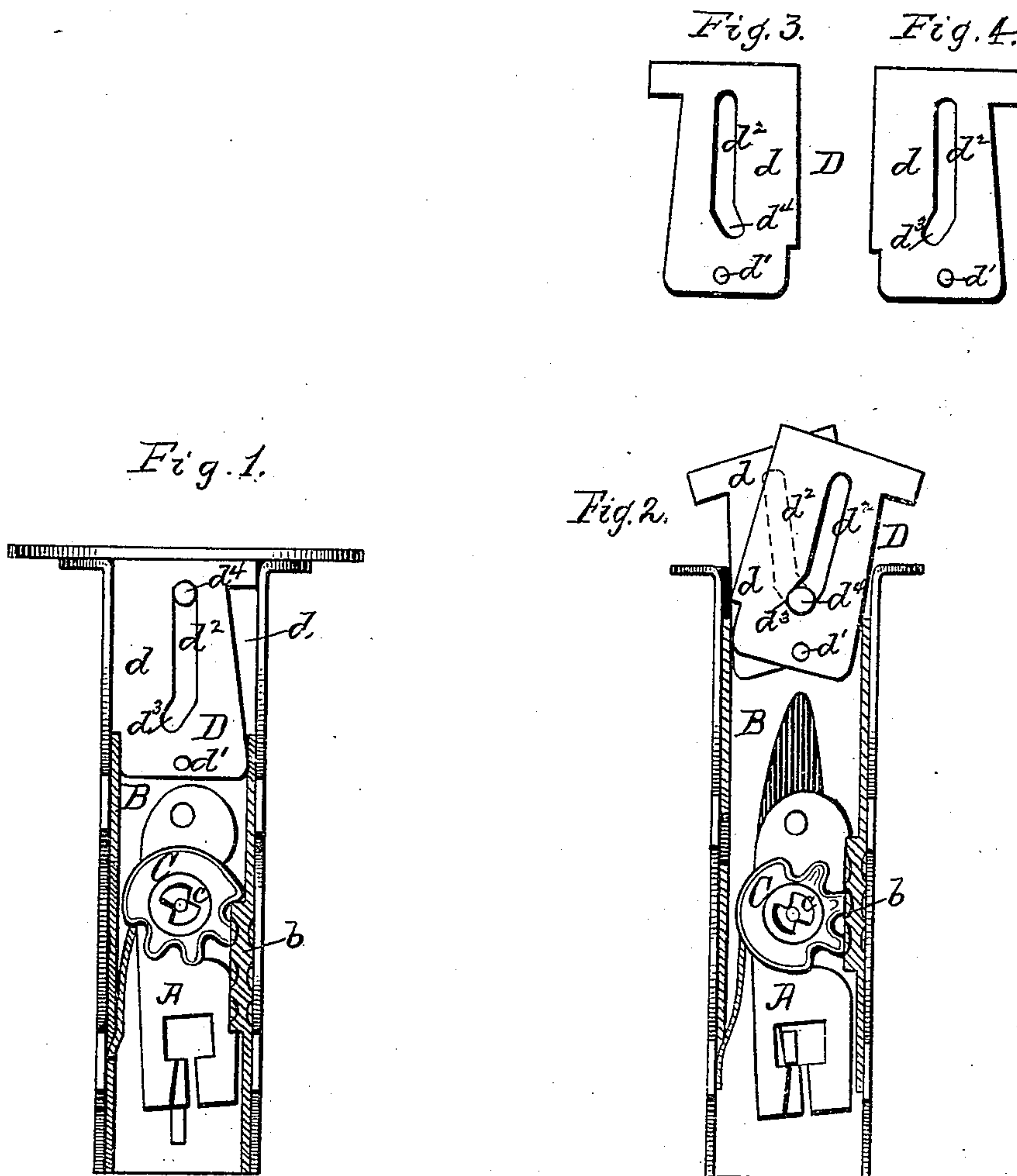
(Model.)

S. P. STODDARD.

LOCK.

No. 271,662.

Patented Feb. 6, 1883.



WITNESSES:

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SOLOMON P. STODDARD, OF NEW YORK, N. Y.

LOCK.

SPECIFICATION forming part of Letters Patent No. 271,662, dated February 6, 1883.

Application filed March 23, 1882. Renewed November 23, 1882. (Model.)

To all whom it may concern:

Be it known that I, SOLOMON P. STODDARD, of the city, county, and State of New York, have invented an Improvement in Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a lock in which the bolt-piece is constituted and arranged in two or more sections or parts, which, when the bolt is shot, are protracted sidewise, thus causing the bolt end to become spread; and my invention consists in the devices hereinafter specified, and combined to operate as and for the purpose described.

Figure 1 is a side view of a lock containing my invention, the bolt being shown retracted and the side plate removed. Fig. 2 is a similar view of the same, the bolt being shown shot and its sections protracted sidewise. Figs. 3 and 4 are side views, in detail, of the sections constituting the bolt-piece detached from the bolt-plate.

In the drawings I have shown a lock the actuating mechanism of which is fully described and claimed by me in Letters Patent of the United States No. 254,402, dated February 28, 1882, consisting substantially in the tumblers A, the bolt-plate B, carrying the rack *b*, and the operating-pinion C, with its peculiar key-slot *c*, the several parts being combined or arranged relatively to each other in the manner therein recited. It is not necessary, therefore, in this specification to do more than name the parts of this actuating mechanism, and to refer to the aforesaid patent for a more full description thereof. Moreover, I do not intend to limit myself herein to the specific actuating mechanism shown, as my improvement is capable of use in connection with other kinds of lock mechanism.

My improvement consists in the bolt-piece D, which I form in two or more sections, *d d*, co-incident in general form and outline, and imposed one upon another, as shown. When thus arranged they are of substantially equal width with the width of the bolt-plate B, and in thickness they are adapted to enter and traverse freely through the bolt-slot in the face-plate of the lock-case. The several sections of the

bolt-piece are pivoted by a pin, *d'*, which is common to all the sections, to the forward end of the bolt-plate, so that the sections are capable of swinging edgewise on said pivot. In each of the sections of the bolt-piece is cut the longitudinal slot *d*², which extends in a right line from a point adjacent to the forward end of the section to near the rearward end of the section, where the slot is inclined or carried at an angle to one side of said line, forming a curved or oblique heel portion, *d*³, to the slot, as seen plainly in Fig. 3. These portions *d*³ of the slots *d*² are carried or turned alternately to one side and the other of the median line of the slots in the several sections of the bolt-piece—that is to say, the portion *d*³ of the slot of the upper section of the bolt-piece being inclined to the right, the portion *d*³ of the slot of the section underneath is inclined in the opposite direction, or to the left, and so on throughout the sections. These slots *d*² throughout their extent are adapted to receive a pin, *d*⁴, which is fixed in the interior face of the lock-case, and which projects therefrom through the several sections of the bolt-piece. This pin *d*⁴ is set in the lock-case so that the position of its projecting end relatively to the slots *d*² will be such that when the bolt is retracted the pin will lie in the forward end of the slots, as seen in Fig. 1, and when the bolt is shot the pin will rest snugly against the inclining-edges of the slots in the portion *d*³ thereof.

In the drawings I have shown a bolt-piece composed of two sections; but it is evident that more than two sections may be employed to make up the bolt-piece without materially altering the essential features of my invention. Now, it is evident that when the bolt is retracted the sections of the bolt-piece will rest coincidently one upon the other within the case, the pin *d*⁴ lying in the forward end of the slots *d*², and that when the bolt is shot the pin *d*⁴ will traverse in the slots *d*² in the forwardly-moving bolt-piece until the rearward end of the straight part of said slots is reached, when the further forward movement of the bolt-piece will cause the pin *d*⁴ to enter the inclined heel portions *d*³ of the slots *d*², and thus throw or protract the several sections of the bolt-piece in alternately opposite directions

edgewise, and so that they project sidewise beyond the lines of the bolt-plate, as shown plainly in Fig. 2, and that, the pin d^4 fitting snugly within the portion d^3 of the slot, the strain upon the bolt-piece will be wholly or almost wholly borne by said pin, and the pivot d' will be relieved of all or nearly all strain.

The lock which I have shown and described is peculiarly adapted for use in securing the lids of boxes and in similar structures.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a lock, the combination, with the actuating mechanism, including a bolt-plate, B, of

the bolt-piece D, composed of sections d , imposed upon each other, and pivoted by pin d' , common to all the sections, to the bolt-plate, and having the longitudinal slots d^2 , with the alternately reversely-inclined portions thereof, d^3 , together with the pin d^4 , fixed on the interior of the lock-case and arranged to be traversed by said slots, substantially as described, and for the purpose specified.

SOLOMON P. STODDARD.

Witnesses:

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A. S. FITCH.