

No. 881,591.

PATENTED MAR. 10, 1908.

C. E. JOHNSON.

PADLOCK.

APPLICATION FILED AUG. 23, 1907.

Fig. 1.

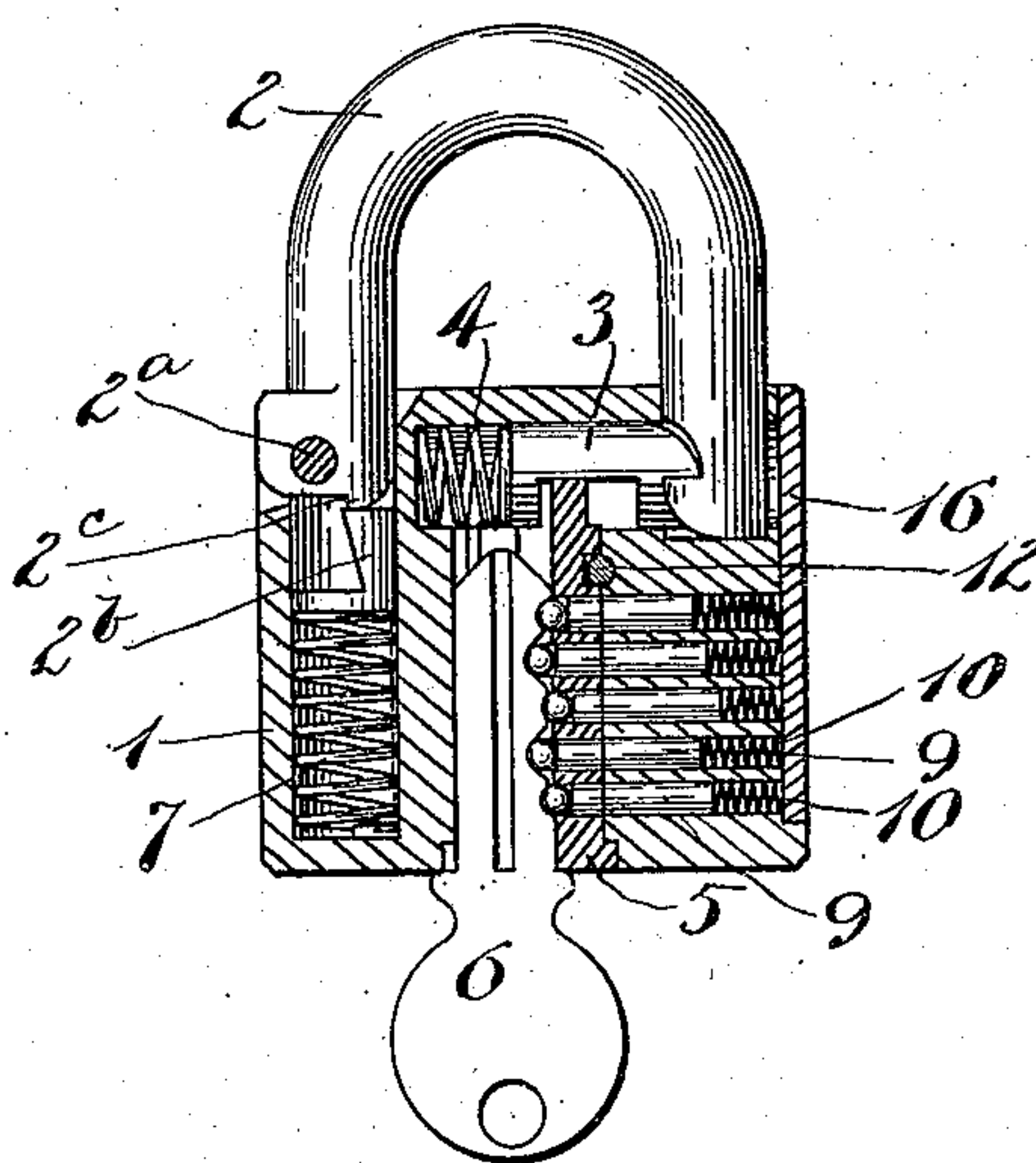


Fig. 2.

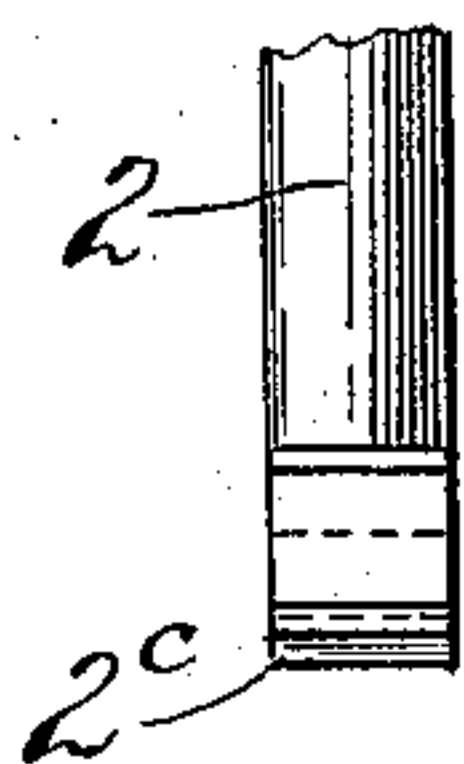


Fig. 3.

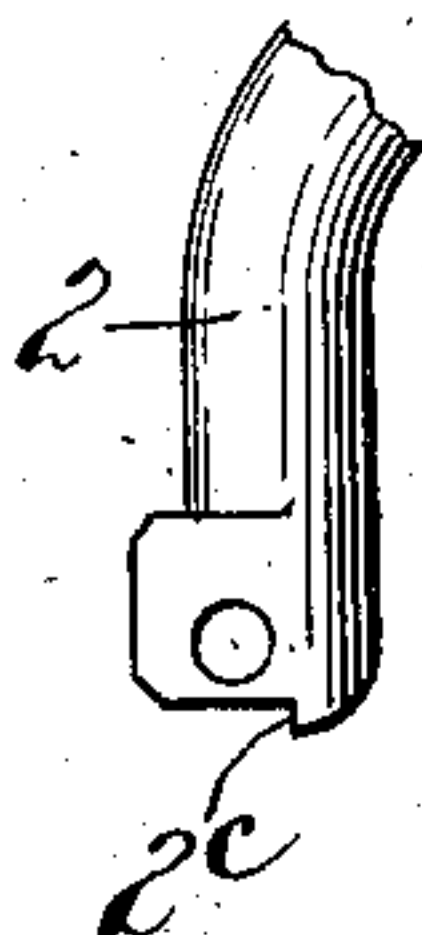
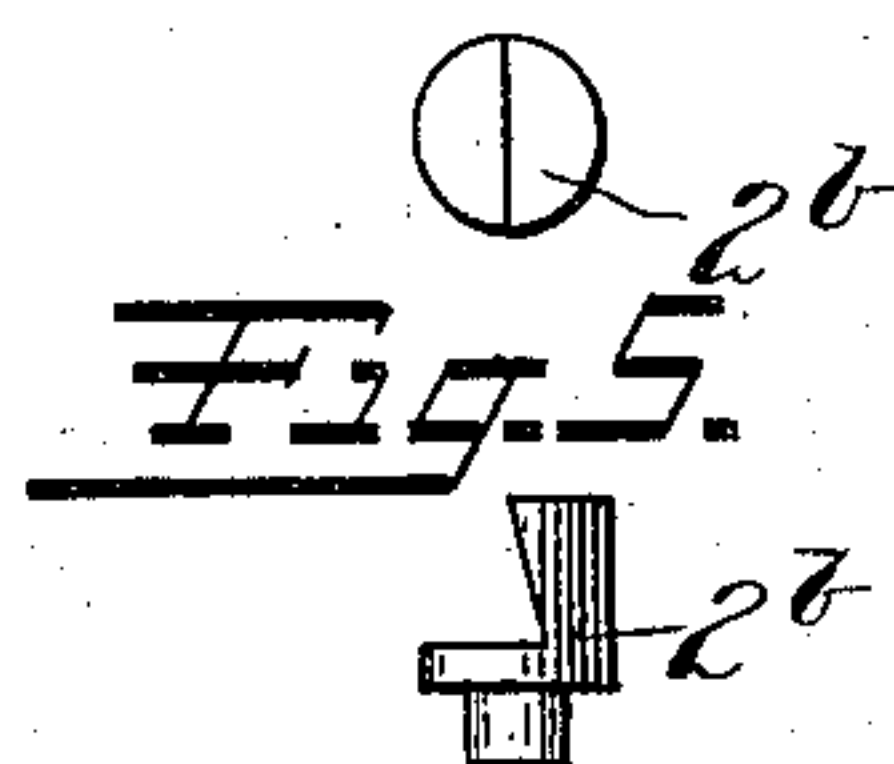


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

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PADLOCK.

No. 881,591.

Specification of Letters Patent.

Patented March 10, 1908.

Application filed August 23, 1907. Serial No. 389,805.

To all whom it may concern:

Be it known that I, CHARLES E. JOHNSON, a citizen of the United States, residing at New Britain, Hartford county, Connecticut, have invented certain new and useful Improvements in Padlocks, of which the following is a full, clear, and exact description.

My invention relates to improvements in pad-locks. While the pad-lock herein, in general construction, is similar to that shown in my pending application Ser. No. 370,133, filed April 25, 1907, the object of the present invention is to improve certain features of construction so as to provide, in place of a sliding shackle, a construction which admits of the use of a swinging or hinged shackle. While broadly the invention set forth herein is dominated by the claims of my aforesaid application, it is the purpose of the present application to cover the invention as applied to this particular species.

In the accompanying drawings—Figure 1 is a vertical section through the case, certain parts being shown in elevation; Fig. 2 is a rear elevation of the hinged end of the shackle; Fig. 3 is a side elevation of the same portion; Fig. 4 is a plan view of the shackle operator, and Fig. 5 is a side elevation thereof.

In the drawings, 1 represents the padlock case, which is preferably made of a solid block of metal formed, for example, by the so-called "extruding" process, which permits a shape of any desired cross section to be formed. This solid block, is bored or recessed at certain points and at different angles, as hereinafter described, for the purpose of permitting the various parts to be assembled.

2 represents the shackle which is hinged at 2^a to the body 1. The upper end of the case 1 is bored or recessed to receive the ends of the shackle, the recess at one side being considerably deeper than at the other side, the longer one receiving and guiding the shackle-operating device or plunger 2^b. The free end of the shackle 2 is notched to receive the locking end of the locking-bolt 3. This bolt 3 reciprocates in a hole bored into one edge of the case 1 at right-angles to the first-mentioned recesses.

4 is a spring to project the bolt 3.

5 is a bolt-operating device or plug, actuated by a key 6. This plug is located in a bore in the under side of the case, parallel with and between the two recesses in the

upper end of the case. The upper end of this plug 5 makes an operative connection with the bolt 3 in the manner described in my aforesaid application, or in any other suitable manner, so that when said plug is turned it will retract the bolt against the action of spring 4. When this is done, the free end of the shackle 2 is released, whereupon the shackle may be swung by hand, or pushed open by the action of the plunger 2^b, operating under the influence of spring 7. In the particular form shown, it will be observed that the upper end of the plunger 2^b is cut away at one side, so as to clear the hinged part of the shackle as the plunger rises and the shackle swings back. There is also a small shoulder 2^c formed in the shackle to engage with the upper end of the plunger, so that when the shackle is swung toward its closed position it will press back plunger 2^b.

9—9 are pin tumblers located in bores parallel with the bore for the bolt 3.

10—10 are the usual tumbler springs.

12 is a pin located in a suitable cross bore in the lock case 1, a portion of the pin extending slightly into a semi-annular groove in the plug 5, so as to prevent accidental detachment of the plug, at the same time permitting sufficient rotation thereof to retract bolt 3.

16 is a cover-plate which may be suitably attached to the side of the case 1 to close the ends of the bores for the bolt 3 and tumblers 9. These bores may be closed in this, or any equivalent, way, as in my former construction.

The usual pin sections will, of course, be carried by the plug 5 for operating the pin tumblers upon the insertion of a suitable key.

What I claim is:

1. In a pad-lock, a one piece body or case, two recesses in the top of the same, a third recess entering the case from the bottom and between the first two, two or more bores extending into the side edge of the case and including a relatively large bore and a relatively small bore, the former intersecting the recess entering the case from the lower end, a shackle hinged in one of the upper recesses, a bolt in the aforesaid relatively large bore for engaging the free end of the shackle, and a bolt-operating device in the recess in the lower end of the case.

2. In a pad-lock, a solid body or case, two recesses in the top of the same, a third recess

entering the case from the bottom and between the first two, two or more bores extending into the side edge of the case and including a relatively large bore and a relatively small bore, the former intersecting the recess entering the case from the lower end, a shackle hinged in one of the upper recesses, a bolt in the aforesaid relatively large bore for engaging the free end of the shackle, and a bolt-operating device in the recess in the lower end of the case, and a shackle opening device including a spring arranged under the hinged end thereof.

3. In a pad-lock, a solid body or case, two recesses in the top of the same, a third recess entering the case from the bottom and between the first two, two or more bores extending into the side edge of the case and including a relatively large bore and a relatively small bore, the former intersecting the recess entering the case from the lower end, a shackle hinged in one of the upper recesses a bolt in the aforesaid relatively large bore for engaging the free end of the shackle, and a bolt-operating device in the recess in the lower end of the case, a shackle opening device including a spring arranged under the hinged end thereof, and a plunger between said spring and shackle.

4. In a pad-lock, a solid body or case, two recesses in the top of the same, a third recess entering the case from the bottom and between the first two, two or more bores extending into the side edge of the case and including a relatively large bore and a rela-

tively small bore, the former intersecting the recess entering the case from the lower end, a shackle hinged in one of the upper recesses, a bolt in the aforesaid relatively large bore for engaging the free end of the shackle, a bolt-operating device in the recess in the lower end of the case, a shackle opening device including a spring arranged under the hinged end thereof, a plunger between said spring and shackle, and a shoulder on said shackle arranged to engage the end of the plunger when the shackle is open.

5. In a pad-lock, a solid body or case, two recesses in the top of the same, a third recess entering the case from the bottom and between the first two, two or more bores extending into the side edge of the case and including a relatively large bore and a relatively small bore, the former intersecting the recess entering the case from the lower end, a shackle hinged in one of the upper recesses, a bolt in the aforesaid relatively large bore for engaging the free end of the shackle, and a bolt-operating device in the recess in the lower end of the case, a shackle opening device including a spring arranged under the hinged end thereof, and a plunger between said spring and shackle, one side of the plunger being cut away or recessed to provide clearance for the hinged portion of the shackle when the latter is open.

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Witnesses:

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