

H. G. VOIGHT.
PANIC BOLT LOCK.
APPLICATION FILED FEB. 3, 1909.

917,685.

Patented Apr. 6, 1909.
2 SHEETS—SHEET 1.

Fig. 1.

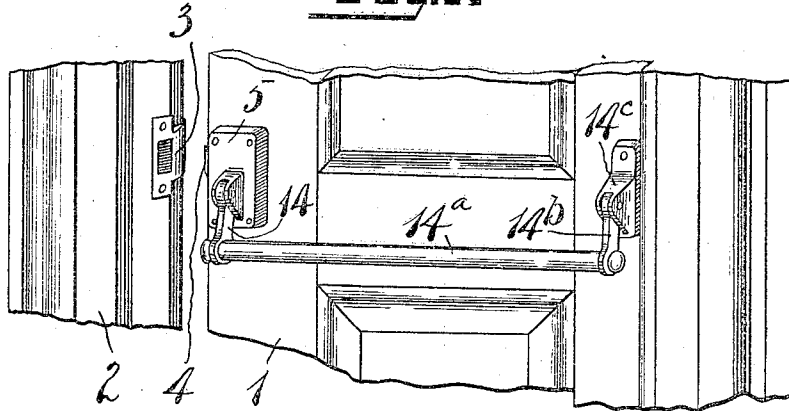
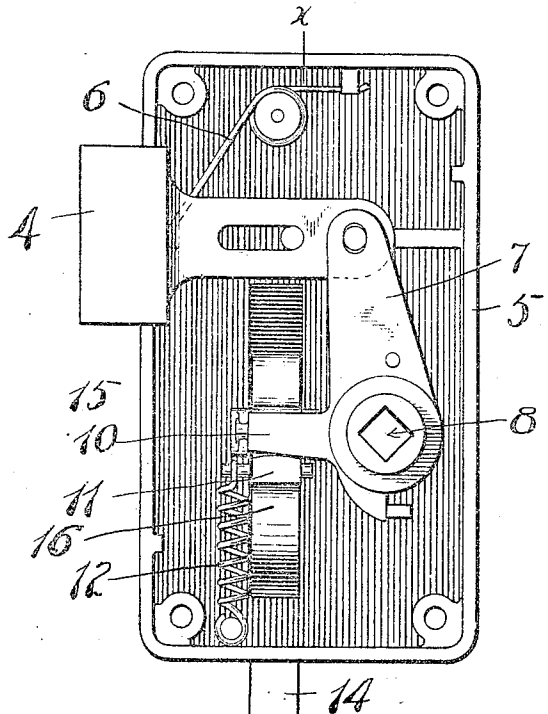


Fig. 2.



Witnesses:
Chas. A. Reid
Fred M. Hamerfelser

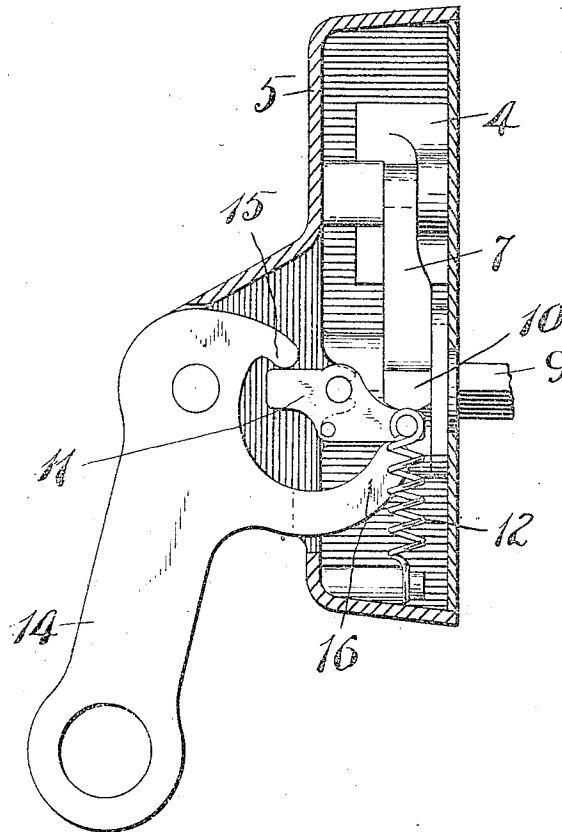
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Fig. 3.



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UNITED STATES PATENT OFFICE.

HENRY G. VOIGHT, OF NEW BRITAIN, CONNECTICUT.

PANIC BOLT-LOCK.

No. 917,685.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed February 3, 1909. Serial No. 475,754.

To all whom it may concern:

Be it known that I, HENRY G. VOIGHT, a citizen of the United States, residing at New Britain, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Panic Bolt-Locks, of which the following is a full, clear, and exact description.

My invention relates to improvements in locks, and particularly to that type known as "panic bolt locks."

The object of the invention is to provide means whereby, in the event of a panic and a heavy pressure applied against the inner side of an outwardly opening door, the lock mechanism will be released by said pressure instead of by the usual turning movement practiced in the case of the usual knob lock.

The construction is such that a movement in either direction of the operating device will produce a retracting or unlocking movement of the bolt.

In the accompanying drawings Figure 1 is a perspective view of a portion of a door and casing fitted with my improved lock, and shown on reduced scale. Fig. 2 is a view substantially full sized, of the lock case taken from the inside, the cap plate being removed. Fig. 3 is a section on approximately the line *x-x* of Fig. 2.

1 represents a portion of a door arranged to swing outwardly.

2 represents a portion of the door casing.

3 is the so-called keeper and strike-plate.

4 is a latch bolt arranged to cooperate with said keeper and strike plate 3. The bolt 4 is carried in a casing 5 and is normally pressed outwardly by a suitable spring 6.

7 is a pivoted lever for retracting the bolt 4, said lever being suitably connected to the tail of the bolt.

8 is an opening or recess in the outer side of the hub of the lever 7 adapted to receive a spindle 9, by which means the lever may be swung and the latch bolt retracted from the outside of the door 1 by the usual knob (not shown).

10 is a bell crank on the lever 7.

11 is a lever pivoted in the case 5 in a plane at right angles to the axis of the crank 10. One end of this lever 11 stands under the crank 10, the other end projects outwardly beyond the mounting for said lever 11. 12 is a spring arranged to normally hold said lever 11 in its inactive position.

14 is a lever having a hook 15 arranged to

engage the outer end of the lever 11 and a second hook 16 arranged to engage the inner end of the lever 11. A suitable clearance space is provided between the hooks 15 and 16 to afford proper clearance for the lever 11. The action of the spring 12 on the lever 11 serves to hold the latter in such a position as to normally maintain the lower end of the lever 14 outwardly and away from the door.

From the foregoing, it will be seen that if the lower end of the lever 14 is either pulled out away from its normal position or pushed in relatively thereto, the action will be the same upon the lever 11. In other words, said action will be to tilt the lever 11 in a direction to lift the bell crank 10, swing back the lever 7 and retract bolt 4.

In constructions like the above, it is preferred to have an operating bar 14^a connected with the free end of the lever 14 and extending across the face of the door, as best seen in Fig. 1.

14^b is a swinging arm mounted in a suitable bracket 14^c to carry the adjacent end of the bar 14^a. When such a bar is provided, its movement either toward or away from the door will serve to retract the bolt 4, thus freeing the door and permitting it to be opened by outward pressure. This is a distinct advantage, because if for any reason should the lock fail to operate by movement of the bar 14^a in one direction, it may be operated by moving said bar in an opposite direction; furthermore, the bar 14^a may be employed to close the door from the inside.

What I claim is:

1. In a lock of the character described, a spring actuated latch bolt, an operating device therefor, including a hinged lever arranged to move toward and from the door, and operative means of connection between said lever and said latch bolt for retracting said bolt by either movement of said lever.

2. In a lock of the character described, a spring actuated latch bolt, an operating device therefor, including a hinged lever arranged to move toward and from the door, and operative means of connection between said lever and said latch bolt for retracting said bolt by either movement of said lever, said means of connection including a second tilting lever pivoted intermediate its length.

3. In a lock of the character described, a spring actuated latch bolt, an operating de-

vice therefor, including a hinged lever arranged to move toward and from the door, and operative means of connection between said lever and said latch bolt for retracting
5 said bolt by either movement of said lever, said means of connection including a second tilting lever pivoted intermediate its length, and two hooks carried by said first mentioned lever for engaging said second lever
10 on opposite sides and near each end.

4. In a lock of the character described, a spring-actuated latch bolt, an operating device therefor, including a bar extending across the face of the door and hinged so as
15 to move toward and from the door, and operative means of connection between said bar and said latch bolt for retracting said bolt by either movement of said bar.

5. In a lock of the character described, a
20 spring-actuated latch bolt, an operating device therefor, including a bar extending across the face of the door at the inner side and hinged to move toward and from the door, and operative means of connection between said bar and said latch bolt for re-
25 tracting said bolt by either movement thereof, said means of connection including a tilting lever pivoted intermediate its length.

6. In a lock of the character described, a

spring-actuated latch bolt, an operating de- 30
vice therefor, including a bar extending across the inner face of the door, a hinge for said bar to permit same to move toward and from said door, and operative means of con- 35
nection between said bar and said latch bolt for retracting the latter by either movement of said bar, said means of connection includ- 40
ing a tilting lever pivotally mounted intermediate its length, and two hooks carried by said hinge for engaging said lever on oppo- 45
site sides and near opposite ends.

7. In a lock, the combination of a bolt, means for operating said bolt from one side of a door and including a bar extending across the face of said door and arranged to
45 operate said bolt by a movement either to or from the door.

8. In a lock, the combination of a spring-pressed bolt, means for retracting the same from one side of a door, and including a bar
50 extending across the face of the door and arranged to operate said bolt by a movement either to or from the door.

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Witnesses:

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