(No Model.) 2 Sheets—Sheet 1.

G. W. ROBERTS.

LOCK.

No. 310,084. Patented Dec. 30, 1884.

FIG. 1

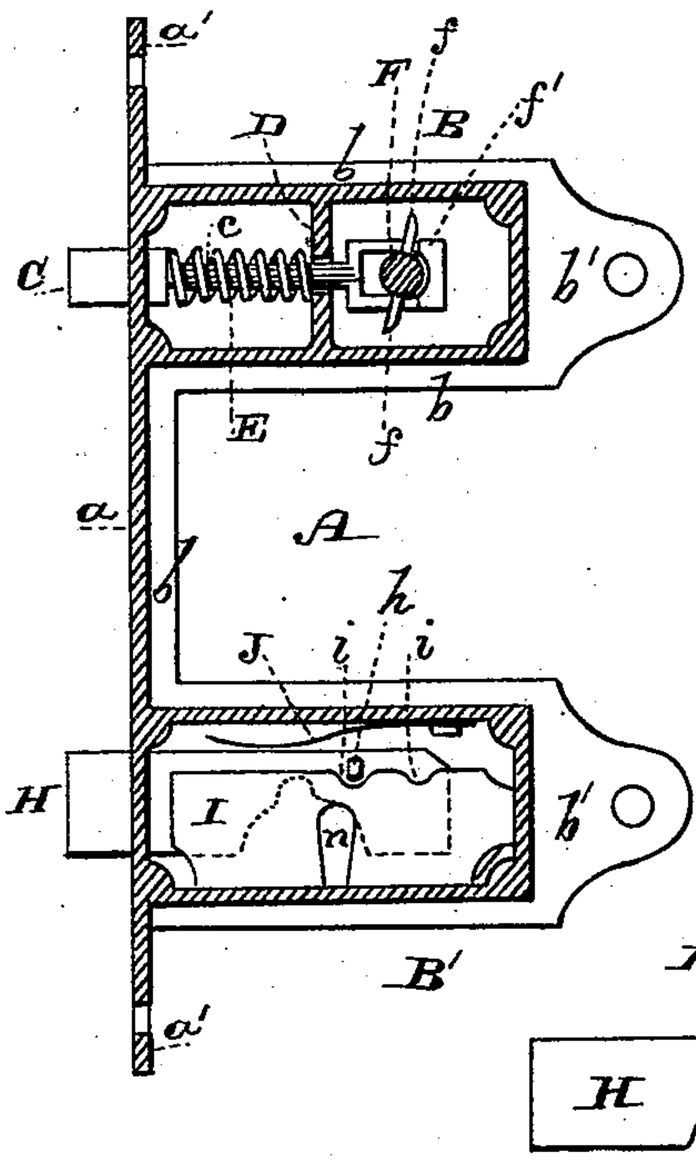


FIG. 2.

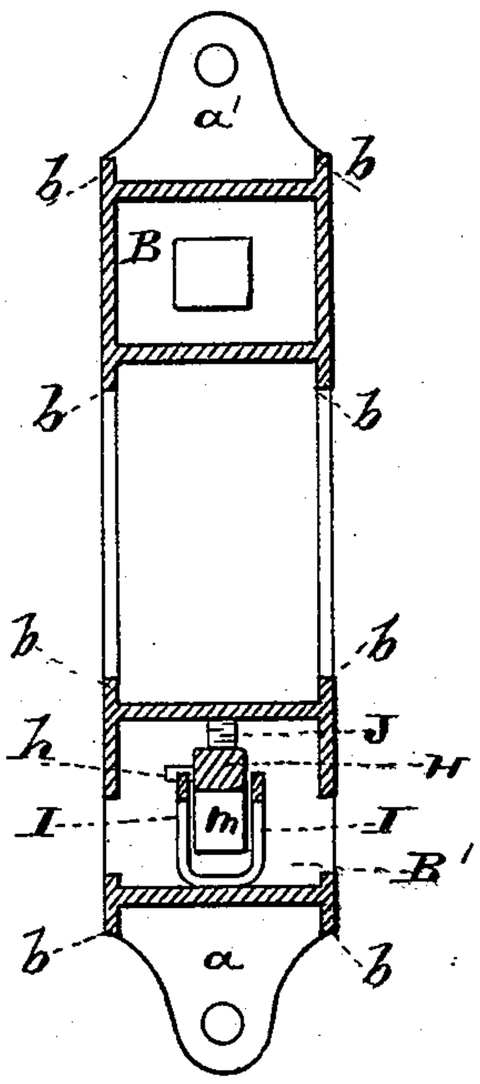


FIG. 4.

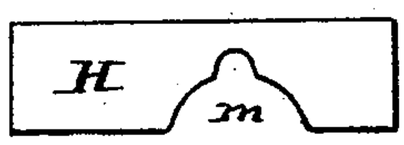
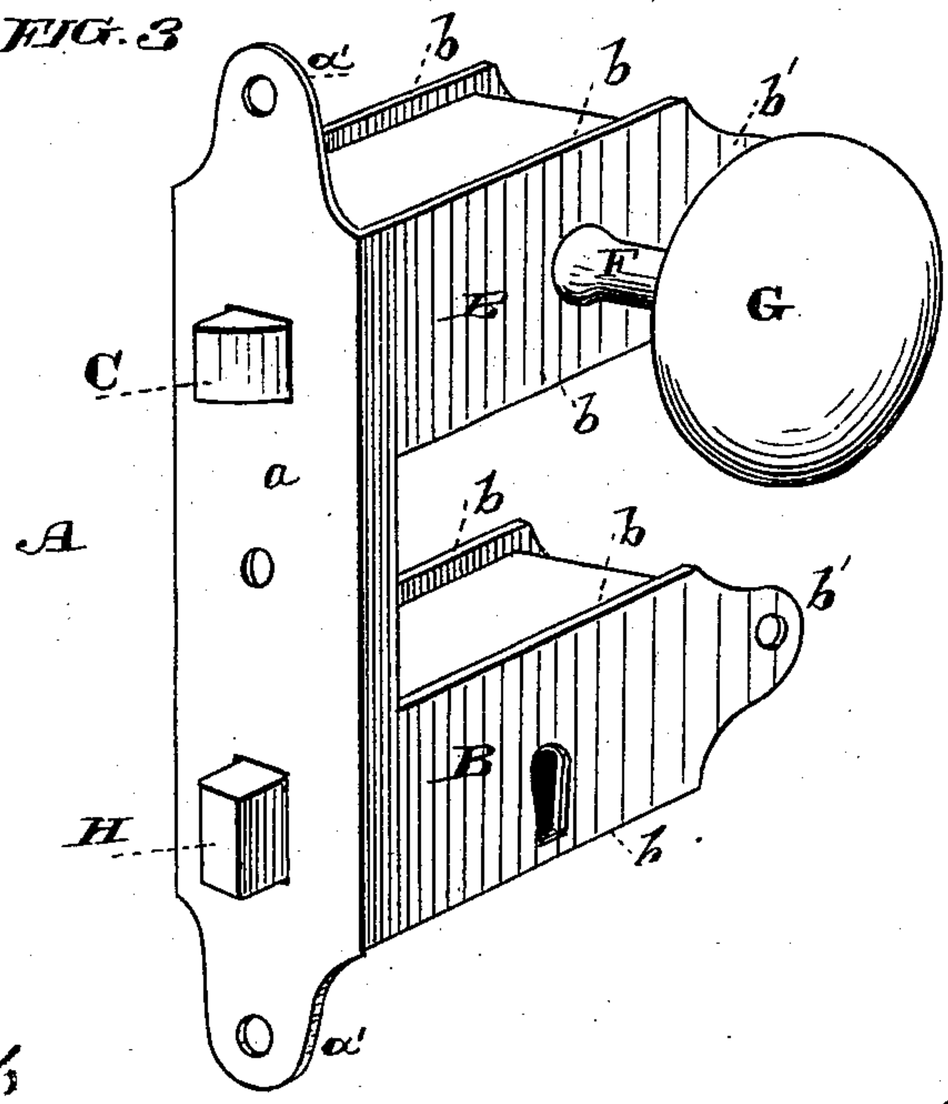


FIG. 3



Witnesses;
Geo. H. Strong.
L. A. Ward

Inventor
Geo W. Roberts
By Dewey & Co.
attorneys

(No Model.)

2 Sheets—Sheet 2.

G. W. ROBERTS.

LOCK.

No. 310,084. Patented Dec. 30, 1884.

FIG. 5

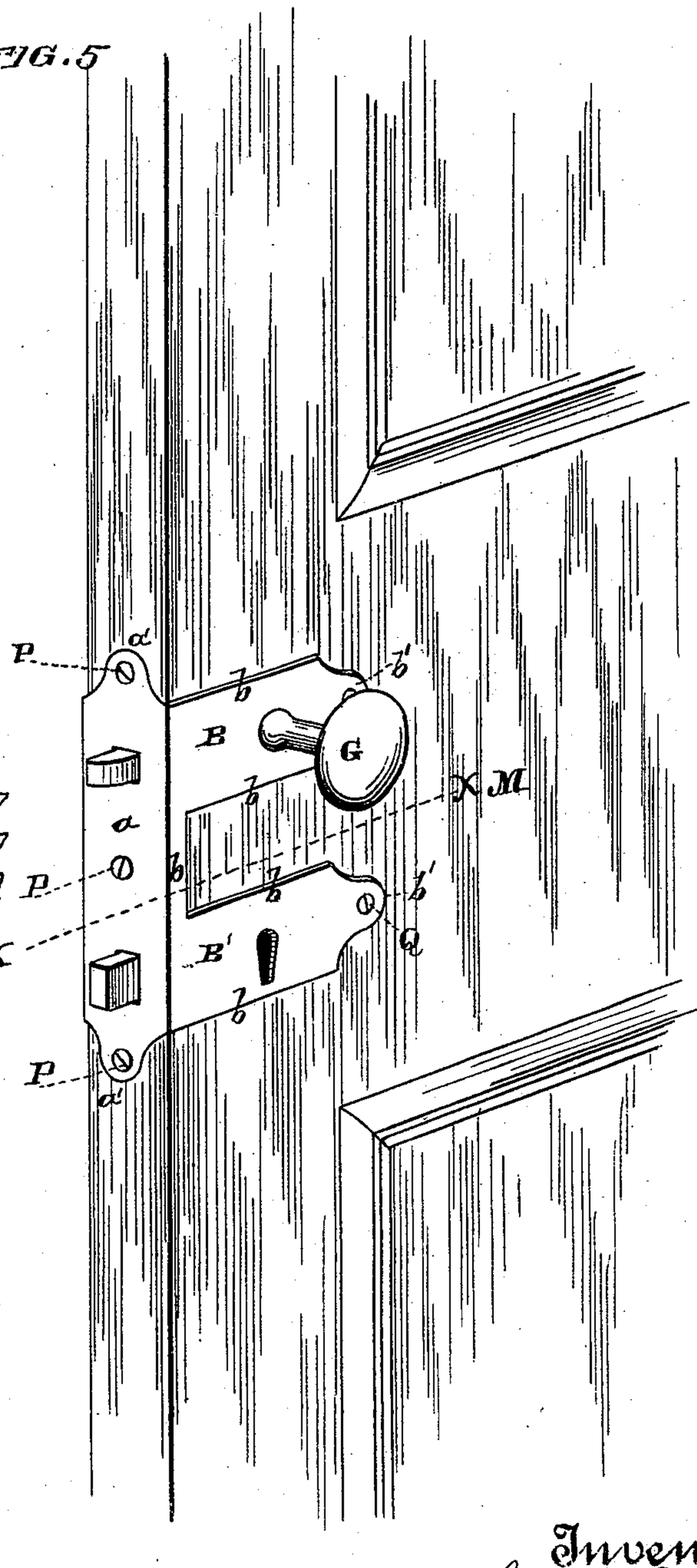
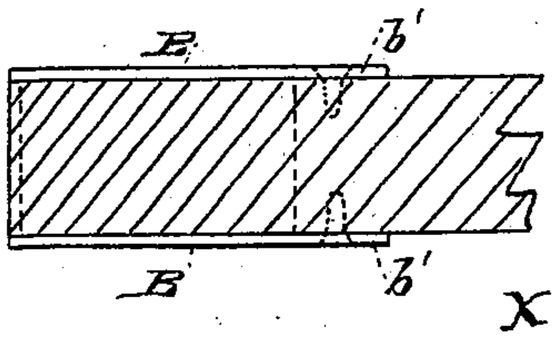


FIG. 6.



Witnesses,
Geo. H. Strong.
J. L. Norris.

Inventor,
Geo W. Roberts
By Dewey & Co.
attorneys

UNITED STATES PATENT OFFICE.

GEORGE W. ROBERTS, OF WALLA WALLA, WASHINGTON TERRITORY.

LOCK.

SPECIFICATION forming part of Letters Patent No. 310,084, dated December 30, 1884.

Application filed May 5, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. ROBERTS, of Walla Walla, county of Walla Walla, and Territory of Washington, have invented an Improvement in Door-Locks; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a new and useful door-lock; and it consists in a peculiar casing having separated boxes or compartments, in one of which is contained a novel latch mechanism and in the other a novel bolt mechanism, said casing being let into the door, and having flanges which overlap the adjacent edges of the door on both sides, and ears by which it is secured, all of which I shall hereinafter fully describe by reference to the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section of my lock. Fig. 2 is a vertical cross-section of same. Fig. 3 is a perspective view of my lock. Fig. 4 is a view of the bolt H. Fig. 5 is a perspective view showing the application of my lock to a door. Fig. 6 is a horizontal section on line *x x*, Fig. 5.

The object of my invention is to provide a strong and well-secured lock having simple and effective mechanism.

The casing A is preferably cast in two parts, one part of which forms the front plate, *a*, one side plate, and the upper and lower separated boxes or compartments, B B′. The other part forms the other side plate, and is properly joined by rivets or screws. The front plate is provided top and bottom with projecting ears *a′*, while its sides and the sides of the boxes are formed with flanges *b*, which at the inner ends of the boxes terminate in ears *b′*.

In the upper box, B, is the latch mechanism. C is the latch projecting through the face-plate, and *c* is its stem within the box. The forward portion of the stem is turned down, and is guided through a perforated standard, D, in the box, between which standard and the head of the latch is a spring, E, surrounding the stem, and which throws the latch out to position. The rear end of the stem is enlarged, and is slotted horizontally to allow the shank F of the handles G to pass through. This shank also passes through the side walls of the box, and is provided with wings *f*, which operate against a shoulder, *f′*, on the latch-stem, whereby said latch may be withdrawn by the rotation of the handles. This arrangement of the latch mechanism is simple and effective.

In the lower box, B′, is the bolt mechanism. H is the bolt, the end of which shoots through the face-plate.

I is a U-shaped guide-plate fixed in the box, and between the sides of which the bolt plays, Fig. 2.

In the top of the side or sides of the guide-plate I are cut small notches *i*, separated by a curved surface, as shown, Fig. 1. In these notches a pin, *h*, from the bolt H lies and locks the bolt. They are held down to their engagement by a strong spring, J, which presses upon top of the bolt. In the under side of the bolt is cut a notch, *m*, with which the bit of a key engages to first force said bolt upward to free its pin of the notch *i*, and then by the continued rotation of the key to shoot or withdraw the bolt, Fig. 4.

Through the sides of the U-shaped guide-plate I are formed the necessary apertures, *n*, for the insertion of the key, and proper key-holes are made through the sides of the casing for the same purpose.

In Fig. 5 I show the application of my lock to a door. The door M is cut out in two places, and the boxes B B′ are fitted into the notches deep enough to let the face-plate come flush with the edge of the door. The flanges *b* of the casing embrace the door on each side all around the edges of the cut-out portions and face of the door. Screws P are put in through the ears *a′* of the face-plate, and through the center of it into the door, and screws Q are put into the door through the ears *b′* of the sides. These secure the lock to the door most effectively. This lock adapted to be thus inserted has the advantage of strength and security over the common flat side lock, and it is better than the mortise-lock in requiring very much less work to fit it to place, besides obviating the necessity of key and handle holes through the door, and their attendant escutcheons and roses.

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

1. A door-lock having a casing, A, consisting of a face-plate, *a*, and the separated boxes

or compartments B B′, in one of which is contained the latch mechanism and in the other the bolt mechanism, and each provided with flanges *b*, substantially as herein described.

2. A door-lock having a casing, A, consisting of a face-plate, *a*, and the separated boxes or compartments B B′, one of which contains the latch mechanism and the other the bolt mechanism, and a flange, *b*, upon the edges of the face-plate and of the boxes, adapted, when the boxes are let into the door, to overlap the adjacent edges of the door on both sides, substantially as herein described.

3. The casing A of a door-lock, consisting of a face-plate, *a*, having ears *a′*, by which it is secured to the door, the separated boxes B B′ for the latch and bolt mechanism, respectively, having ears *b′*, by which they are secured in the door, and the flanges *b* on the edges of the face-plate and boxes, adapted, when the casing is let into the door, to overlap the adjacent edges of the door on both sides, substantially as herein described.

4. In a door-lock, the casing A, in combination with the bolt H, having a pin, *h*, on its side, and a notch, *m*, on its under side, with which the bit of a key is adapted to engage to raise and shoot or withdraw said bolt, the U-shaped guide-plate I, having top notches, *i*, with which the pin of the bolt engages, and the spring J, for holding the bolt down to its engagement, substantially as herein described.

In witness whereof I have hereunto set my hand.

GEORGE W. ROBERTS.

Witnesses:
C. D. COLE,
J. H. BLOOD.