O. DeW. WHITE.

Lock.

No. 209,595. Patented Nov. 5, 1878.

Fig. 1.

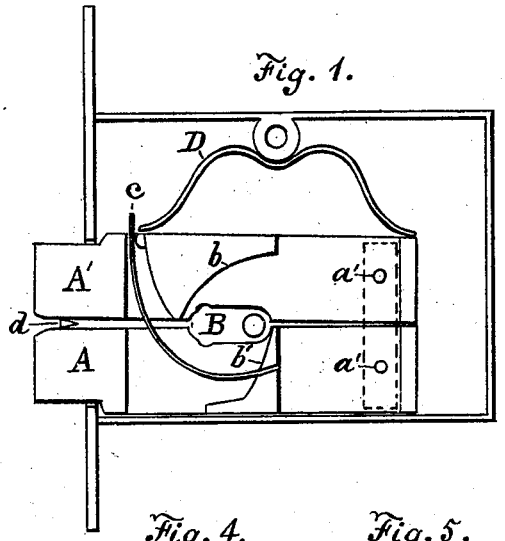


Fig. 2.

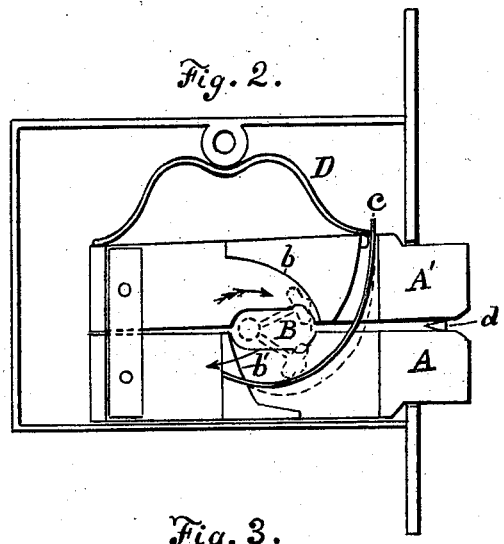


Fig. 4.

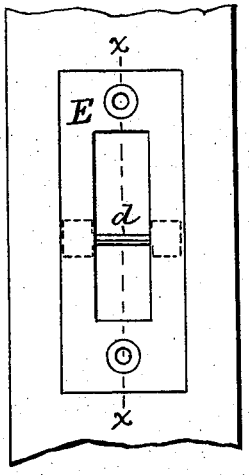


Fig. 5.

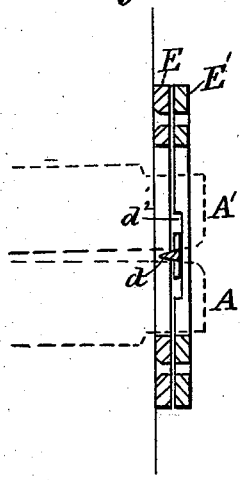


Fig. 3.

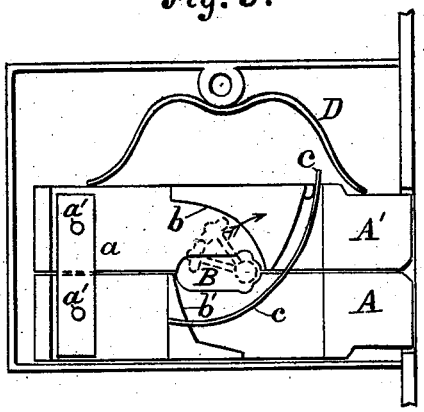


Fig. 7.

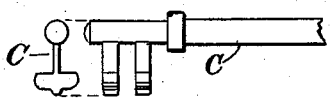
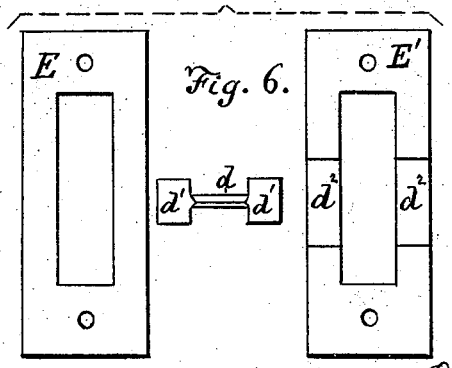


Fig. 6.



Witnesses:

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Inventor:

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by W. Burris

Attorney.

UNITED STATES PATENT OFFICE.

ORRIN DE WITT WHITE, OF CLINTON, IOWA.

IMPROVEMENT IN LOCKS.

Specification forming part of Letters Patent No. **209,595,** dated November 5, 1878; application filed June 7, 1878.

To all whom it may concern:

Be it known that I, ORRIN DE WITT WHITE, of Clinton city, in the county of Clinton and State of Iowa, have invented certain new and useful Improvements in Locks; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side view, with the side plate removed and the bolt thrown out to the left. Fig. 2 shows the reverse side, with the side plate removed and the bolt thrown out to the right. Fig. 3 is the same view as Fig. 2, with the bolt thrown back. Fig. 4 is a face view of the strike-plate. Fig. 5 is a vertical section on line *x x* of Fig. 4. Fig. 6 is a face view of the strike-plates and bar, detached. Fig. 7 is a side and end view of the key.

The object of my invention is to furnish a lock that will retain the key when the door or other article to which it may be attached is unlocked, and from which the key can be withdrawn only when the door is closed and locked, and the possession of the key will be evidence that the door is locked.

To accomplish this the lock and key are constructed as hereinafter fully described.

A A′ represent the bolt of the lock, made in two parts, and connected at the inner ends by a plate, *a*, fastened by rivets *a′*. B is the key-hole through the double bolts, near the center. C is the key, the bit of which is bifurcated, and formed as shown in Fig. 7 of the drawings.

When the key is in position in the lock one of the bifurcated parts of the bit is on one side, and the other bifurcated part is on the other side, of the plate of the bolt. The bit of the key is wider than the key-hole through the bolt when the two parts are together, as shown in Fig. 3 of the drawings, so that the key cannot be withdrawn from the lock until the two parts of the bolt are spread apart, as shown in Figs. 1 and 2 of the drawings. The two parts of the bolt are provided with the wards *b b′*, forming bearing-shoulders for the key to throw the bolt in and out.

D represents a spring, adjusted as shown, to bear against and hold in place the bolt; and *c* is a spring, one end of which is fastened in the ward *b′*, and the other part is extended in a recess across the part A′ of the bolt above the end of the spring D, catching against it, and holding the bolt locked, as shown in Figs. 1 and 2 of the drawings.

E E′ represent the two parts of the strike-plate, provided with a wedge-shape strike-bar, *d*, having lugs d^1 on the ends, adjusted in slots between the plates formed by the recesses d^2 in the plate E′. The lugs d^1 are thicker than the depth of the slots between the plates, so that when the top plate is screwed tightly down the lugs will be clamped between the plates, holding the bar firmly in place; and when the door sags or springs so that the bolt does not strike the bar in the right position, it is readily adjusted up or down, as required, by loosening the screws of the plates, which releases the lugs, allowing the bar to be moved to the required position, where it is secured by again tightening the screws.

To insert the key in the lock, the parts A A′ of the bolt must be opened by some suitable instrument. The bolt is thrown out and back by turning the key always in the same direction, as indicated by the arrows in Figs. 2 and 3 of the drawings. As the bolt is thrown out the end of the spring *c* passes under and springs up beyond the end of the spring D, as shown in Figs. 1 and 2 of the drawings, securely holding the bolt locked until it is thrown back by the key; and in throwing the bolt back the key impinges against the spring *c*, pressing it down till it will pass below the end of the spring D, as shown by dotted lines in Fig. 2 of the drawings, and when the bolt is thrown back the spring *c* resumes its position, as shown in Fig. 3 of the drawings.

In locking the door, the key pressing against the shoulder *b* raises the part A′, so that as the bolt is thrown forward the two parts readily pass astride the bar, which holds them open sufficiently to allow the key to be withdrawn from the lock.

The lock may be made with the spring *c* on one side only; but I prefer it with the spring on each side of the lock for holding the bolt locked more securely; and these locks may be

constructed with tumblers, for greater security; and the bolt may be secured, when locked, by a dog fixed at the lower edge, or in any other ordinary manner.

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

1. A lock provided with a two-part bolt, A A′, connected together at or near their inner ends, and having a key-hole, B, through them, narrower when the two parts of the bolt are close together than the width of the bit of the key, substantially as and for the purposes described.

2. The lock having the two-part bolt A A′, connected together and provided with a key-hole, B, in combination with a strike-plate having a wedge-shape strike-bar, *d*, substantially as and for the purposes described.

3. The two-part strike-plate E E′, having the recesses d^2 d^2, and provided with the wedge-shape strike-bar *d*, having lugs d^1, adjustable in the recesses between the plates, substantially as and for the purposes described.

4. In combination with the two-part bolt A A′, the springs *c* D, adjusted to hold the bolt in place, substantially as described.

In testimony that I claim the foregoing as my own invention I hereby affix my signature in presence of two witnesses.

ORRIN DE WITT WHITE.

Witnesses:
W. W. SANBORN,
FRANK P. LEFFINGWELL.