

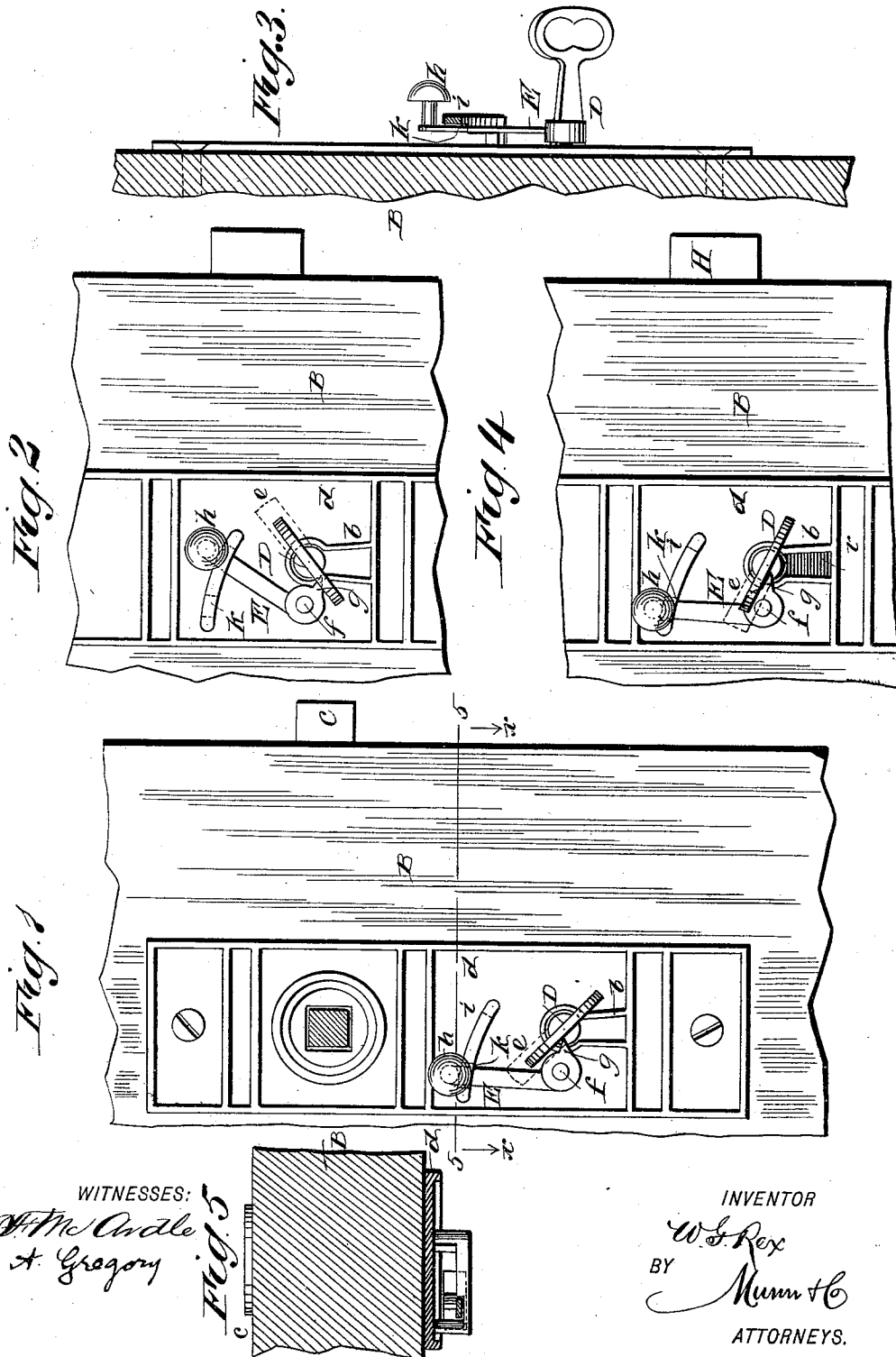
(No Model.)

2 Sheets—Sheet 1.

W. G. REX.
LOCK ATTACHMENT.

No. 532,703.

Patented Jan. 15, 1895.



WITNESSES:
A. Mc Ardle
A. Gregory

INVENTOR
W. G. Rex
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ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 7.

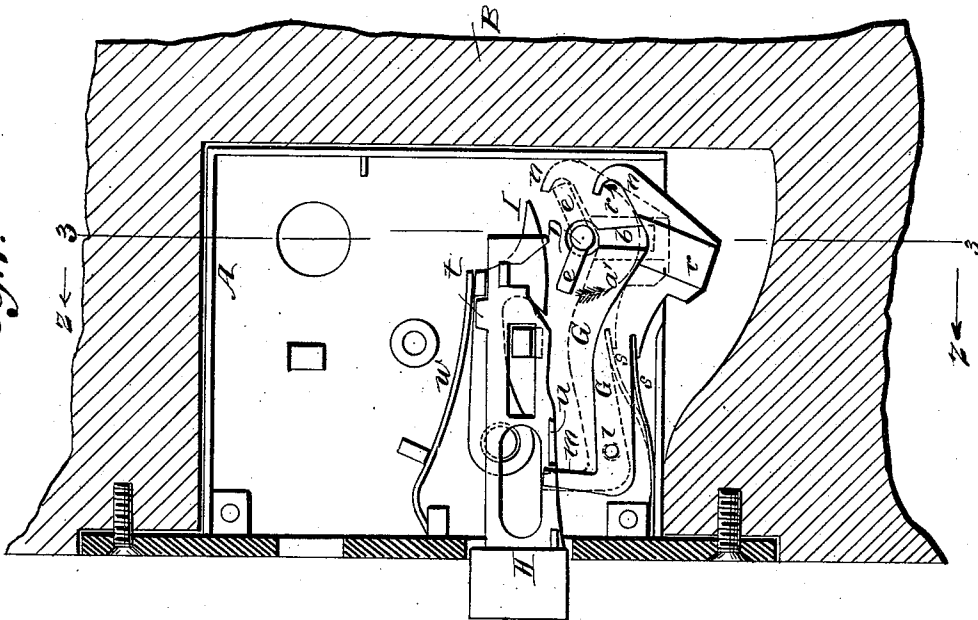
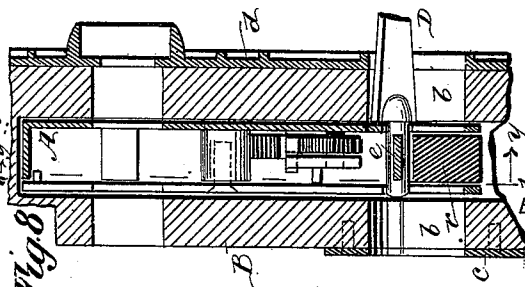
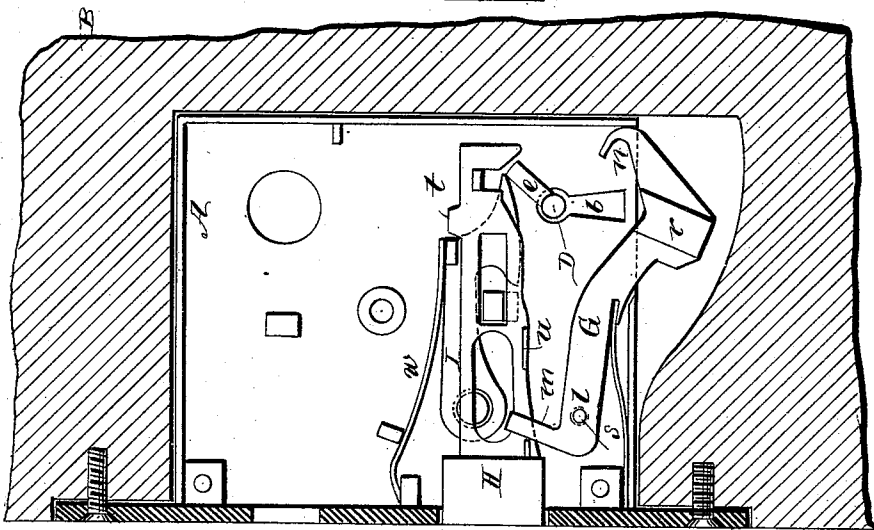


Fig. 6.



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Fig. 8.

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UNITED STATES PATENT OFFICE,

WALDO G. REX, OF SHELTON, WASHINGTON.

LOCK ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 532,703, dated January 15, 1895.

Application filed May 16, 1894. Serial No. 511,434. (No model.)

To all whom it may concern:

Be it known that I, WALDO G. REX, of Shelton, in the county of Mason and State of Washington, have invented a new and useful Improvement in Lock Attachments, of which the following is a full, clear, and exact description.

This invention is mainly designed for door locks, and has for its object or objects increased protection against interference from the outside of the door, as for instance, against the key falling out from the inside of the door, being taken out by children and lost, or being forced out by a burglar, which would facilitate the picking of the lock; and further to afford protection against picking, by automatically closing the key-hole through the operation of the key in locking the door, and also protection against outsiders listening or peeping through the key-hole of the locked door.

The invention consists in certain devices applied to the inner key-hole face plate of the door and to the interior of the lock, whereby the ends, as above specified, are very perfectly secured, substantially as hereinafter described and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of the specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents an inner face view of a door, in part, with the key retaining device in position to hold the key from falling out before or after the door has been locked. Fig. 2 is a similar view to Fig. 1, but showing the key retaining device out of locking position on the key. Fig. 3 is a partially sectional vertical side view, in part, with the key and its retaining device applied. Fig. 4 is an inner face view of the door, in part, with the key retaining device in position for holding the key from falling out and with the key-hole closing device as raised to close the key-hole. Fig. 5 is a transverse section upon the line 5—5 in Fig. 1, looking in direction of the arrows *x x*. Fig. 6 is a sectional face view from the opposite side of the door, in part, showing the interior of the lock with its bolt thrown back and the key in position for shooting the bolt, also showing the key-hole closing device or guard in position when not closing

the key hole, said view being mainly on the line 1—1 in Fig. 8, looking in direction of the arrows *y y*, but Fig. 8 shows the key-hole closing device as raised. Fig. 7 is a similar view to Fig. 6, showing by full and dotted lines the key-hole closing device in its two different positions and by full lines the bolt of the lock as shot; and Fig. 8 is a vertical section upon the line 3—3 in Fig. 7, looking in direction of the arrows *z z*.

A is the lock case and B the door in which it is mortised. The key-hole *b* extends alike through both the face and back of the lock case and through the front and inner faces or sides of the door to provide for locking and unlocking the door from opposite sides of the latter. On the outer or front side of the door is an escutcheon or key-hole plate *c* and on the inner face or side of the door is another escutcheon or key-hole plate *d*.

The lock as usual may be provided with a knob latch, but this forms no part of the invention.

D is the key of the lock and *e* its bit.

Upon the inner key-hole plate *d* is pivoted, on one side of the key-hole, as at *f*, a lever catch E provided at or near its lower or pivoted end with a tooth or projection *g* which when said lever E is adjusted by an upper knob *h*, back or inside of a holder *i*, and engages with a notch *k* in said holder, engages, as shown in Figs. 1 and 4, by its tooth *g*, with the shank of the key when on the inner side of the door, to lock or hold it from dropping out, to prevent the key being manipulated from the outside of the door and being forced or dropping out on the inside of the door. When said catch or lever E however is adjusted in the opposite direction or to the right, as shown in Fig. 2, then its tooth *g* is out of locking connection with the key; but this catch E is only a partial protection against the key D from being forced or falling out on the inner side of the door, after the bolt of the lock has been shot, and from the lock being picked and its bolt drawn back from the outside of the door, and also against peeping or listening through the key-hole from the outside. These ends are fully secured, however, by an automatic drop shield or guard G inside the lock and operated by the key in connection with the bolt H of the lock and its tumbler I.

Thus the automatic shield or guard G is in the form of a crooked or bent lever pivoted as at *l* to the lock case, see Figs. 6 and 7, and provided at or near its one end with an upturned arm *m* and at its other end with a hook-shaped upper arm *n* and directly or in position, when raised, to cover on the inside of the lock-case the key-hole *b* with a key-hole covering plate *r*, as shown by dotted lines in Fig. 7, and by full lines in Fig. 4. A spring *s* operates to hold down the lever guard or shield G out of the way of the key when the door is unlocked. It is raised to close the key-hole after the bolt of the lock has been shot, by the action of the bit *e* of the key. For instance, the bolt H, which is controlled by the usual or any suitable tumbler I acted upon by a spring *w*, riding over to opposite sides of a projection *t* as the bolt is shot and withdrawn, (see Figs. 6 and 7,) is provided with a projection *u* on its side which when the bolt H is being shot acts upon the upturned arm *m* to lift the lever guard G, so that the hook shaped arm *n* caught by the bit of the key when farther moved in the same direction, see Fig. 7, will raise the lever guard and move the covering plate *r* over the key-hole *b*, thus closing the key-hole on the outer side of the interior of the lock and preventing picking of the lock and peeping or listening at and through the key-hole. Nor can this lever guard G be removed from its closed position so long as the lever catch E is in locking position with the key D of the lock, and this the key retainer E, when in locked position with the key as described, insures. Thus, the key retainer E having been adjusted to the right to permit of the key D being entered from say, the inner side of the door to lock the door from the inside, as shown in Fig. 2, the inserted key is then turned till its bit *e* strikes the bolt H or its tumbler I as shown in Fig. 6, after which it is farther turned in the same direction to shoot the bolt, as shown in Fig. 7, and subsequently continued to be so turned, as indicated by the arrow *a'* in said Fig. 7, to engage its bit with or un-

der the hook end *n* of the lower guard G, which as the bolt is shot raises said hook end of the guard by the projection *u* on the bolt coming in contact with the upturned arm *m*, of the lever guard, and in thus operating the lever guard G the shield or key-hole covering plate *r* is made to close the key-hole, when the key retainer is adjusted to the left, to lock or hold the key alike to prevent the key from falling out and indirectly to hold the shield piece *r* in its closed position relatively to the key-hole, all as shown by dotted lines in Fig. 7. The attachments in no way interfere with the unlocking of the door or of locking and unlocking it from either side of the door by the key when required.

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

1. A key fastener for mortise locks comprising a plate for attachment to the inner face of the door and provided with a key hole and with a holder *i* thereabove having a notch *k* on its inner side and the pivoted lever catch E working in the holder *i* to engage its notch and provided at its lower end with a key engaging tooth *g* and with an operating knob or handle at its upper end, substantially as described.

2. The combination with a lock having its bolt provided at one side with a projection, of a key hole guard pivoted at its forward end below the bolt and having at its pivoted end an arm projecting up into the path of said projection to be struck thereby when the bolt is shot to raise the rear end of the guard over the key hole, the said rear end normally lying below the path of the key bit and provided with a hook-like extension thrown into the path of the key bit when the said guard is raised, substantially as described.

WALDO G. REX.

Witnesses:

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JAS. H. BAKER.