

H. M. WHITCOMB.
LATCH.

No. 582,565.

Patented May 11, 1897.

Fig. 1.

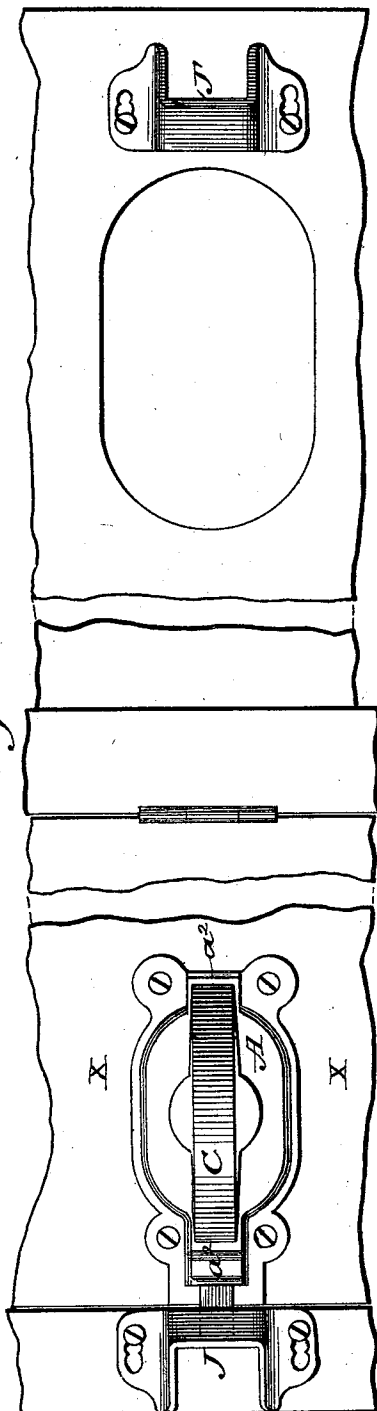


Fig. 2.

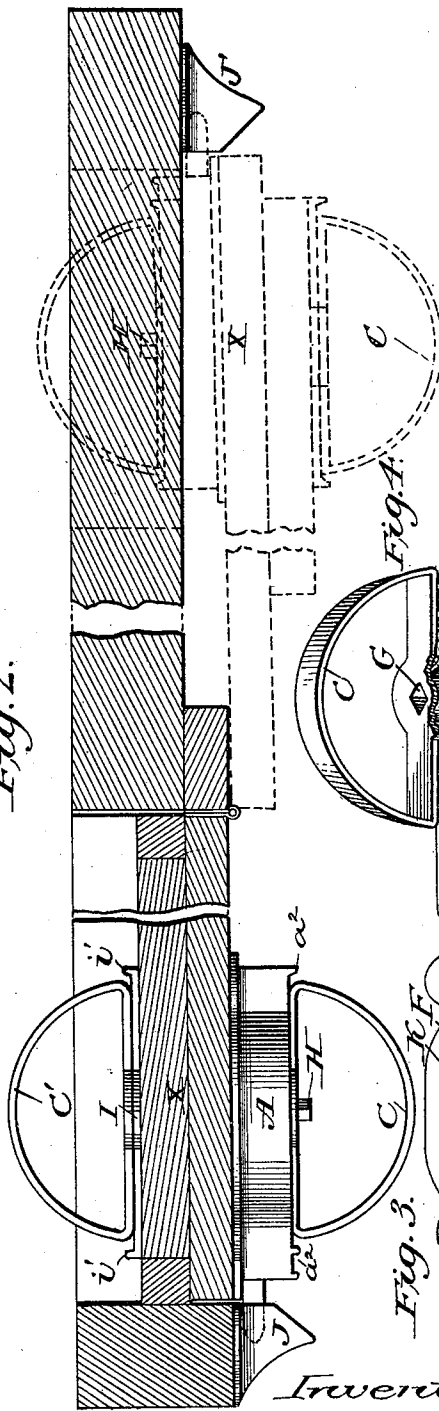


Fig. 4.

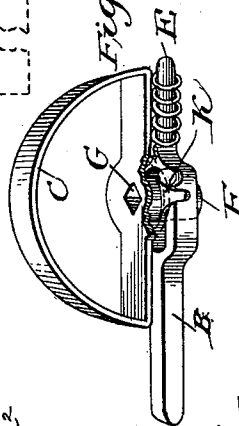
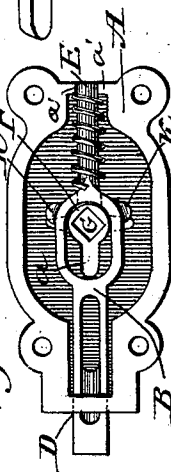


Fig. 3.



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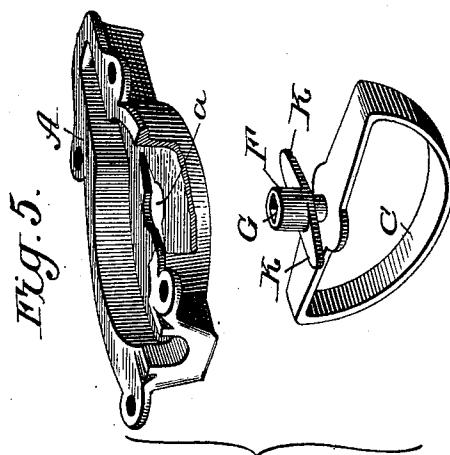
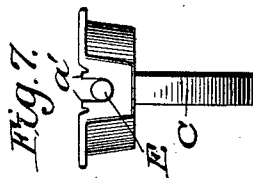
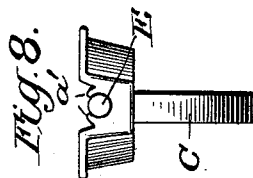
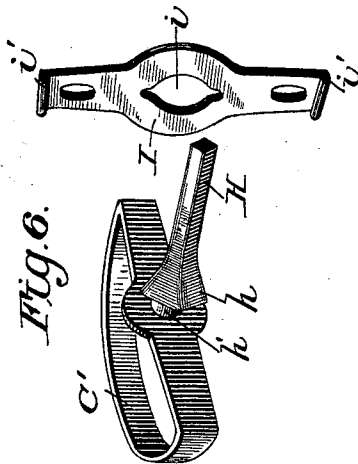
(No Model.)

2 Sheets—Sheet 2.

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HARRIS MORGAN WHITCOMB, OF MONROE, WISCONSIN.

LATCH.

SPECIFICATION forming part of Letters Patent No. 582,565, dated May 11, 1897.

Application filed April 10, 1896. Serial No. 587,239. (No model.)

To all whom it may concern:

Be it known that I, HARRIS MORGAN WHITCOMB, a citizen of the United States, residing at Monroe, in the county of Green and State of Wisconsin, have invented a new and useful Barn-Door Latch, of which the following is a specification.

My invention is particularly adapted for use on heavy and thick doors, such as those of barns and other outbuildings, although capable of a wider application. The construction and arrangement of parts are as hereinafter described.

In the accompanying drawings, two sheets, Figure 1 is a face or side view of a portion of a door and door-casing to which my improvement is shown attached. Fig. 2 is a horizontal section of the same. Fig. 3 is a plan view of the latch, showing the inner side. Fig. 4 is a perspective view of the latch proper and one of the handles for operating it. Fig. 5, Sheet 2, is a perspective view of the latch-case and one of the latch-handles. Fig. 6 is a perspective view of one of the latch-handles and the slotted washer. Figs. 7 and 8 are end views of the latch, showing a detail.

The main parts of the latch are a metal case A, the sliding latch-bolt or latch proper, B E, the spindle H, the bow handles C C', slotted washer I, and catches J J'.

The case A is oblong and provided with lateral flanges having countersunk holes to provide for its attachment to a door on the inner side by means of screws. It has a central lengthwise slot *a*, Fig. 5, to adapt it for detachable connection of one of the handles that operate the latch-bolt.

A slotted washer I, Figs. 2 and 6, is secured to the outer side of the door in coincident arrangement with the case. The slot *i* in the same corresponds to the slot *a* in case A.

The bolt or latch proper, Figs. 3 and 4, has an enlarged central slotted portion, and one end E is cylindrical and surrounded by a helical spring L, while the other end, B, is square in cross-section and beveled at its extremity on opposite sides to adapt it to engage a beveled catch J on the door-jamb and a similar catch J' on the casing or wall for the purpose of holding the door open or closed, as required.

As shown in Fig. 6, one of the bow handles (marked C') is rigidly connected with the

rectangular spindle H, which has an enlarged base portion *h* and a circumferential groove *h'* between said shoulder and the handle C'. The other bow handle, C, has a hub F, provided with a square mortise-opening to receive the spindle H and with lateral arms or lugs K, that engage and operate the latch-bolt.

When the parts of the latch are put together and applied to a door, the case A and washer I are secured, respectively, to the inner and outer sides of the door X, as shown in the left-hand portion of Fig. 2. In such case the spindle H passes through the oblong slot *i* of washer I and the passage G in hub F of handle C. It will be seen that the lugs or arms K of handle C will pass through the slot *a* in case A when the handle is turned crosswise of the latter, and that said lugs prevent detachment of the handle from the case when the handle is alined with it, since the said lugs K then extend across the slot *a*, as shown in Fig. 3. The handle C' is attached to the washer I in the same way, since the laterally-extended shoulders *h* at the base of the spindle H project over the side edges of such slot.

As shown in Fig. 2, the handles C and C' are normally alined with the case A and washer I when the bolt B is engaged with the catch J. The bolt may be disengaged from the latter by seizing either handle C or C' and turning it, which causes lugs K to act on the bolt B E and slide it back in case A against the tension of the spring L. The door X may then be swung open, and the latch-bolt will automatically engage the catch J', thereby locking the door open, as shown by dotted lines in the right-hand portion of Fig. 2. It is apparent that the door may be unlatched, closed, and relocked by reversing this operation.

The case A is shown provided with lugs or ears *a'*, Fig. 7, at one end, and by bending these lugs inward, as shown in Fig. 8, they serve to confine the cylindrical end E of the latch-bolt in the case.

The catches J and J' are provided with slots to adapt them for adjustment toward or from the door to compensate for possible shrinkage. The eyes of the slots are notched or jagged to afford secure engagement with the screws.

The case A and washer I are shown provided with transverse ribs a^2 and i' at each end adjacent to the ends of the respective handles C C', which ribs serve as guards to prevent harness, clothing, &c., catching under the handle.

It will be seen the latch is adapted to doors of different thickness, since the spindle II may be adjusted through the mortise G in hub of handle C; also, that the latch may be attached to a door by simply boring the same and applying the screws for securing the case A and washer I.

What I claim is—

1. The improved door-latch composed of the latch-bolt and spring, the casing having a lengthwise slot, a washer I, having a corresponding slot, both casing and washer being adapted to be secured coincidently to opposite sides of a door, and the polygonal spindle II, having a handle C', lateral enlarge-

ments h , and a groove h' adjacent to said handle, and the corresponding handle C, having a hub with lateral arms K, arranged at right angles to the handle, whereby the respective handle portions may be detachably and independently engaged with the casing and washer irrespective of the thickness of the door, as shown and described.

2. The combination of the handle having a flat oblong base, and the exterior curved or bow portion, with the flat part with which such handle-base works in contact, the same having the ribs i' at its ends and said ribs being arranged close to the ends of the handle, when the latter is in normal position, as shown and described for the purpose specified.

HARRIS MORGAN WHITCOMB.

Witnesses:

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