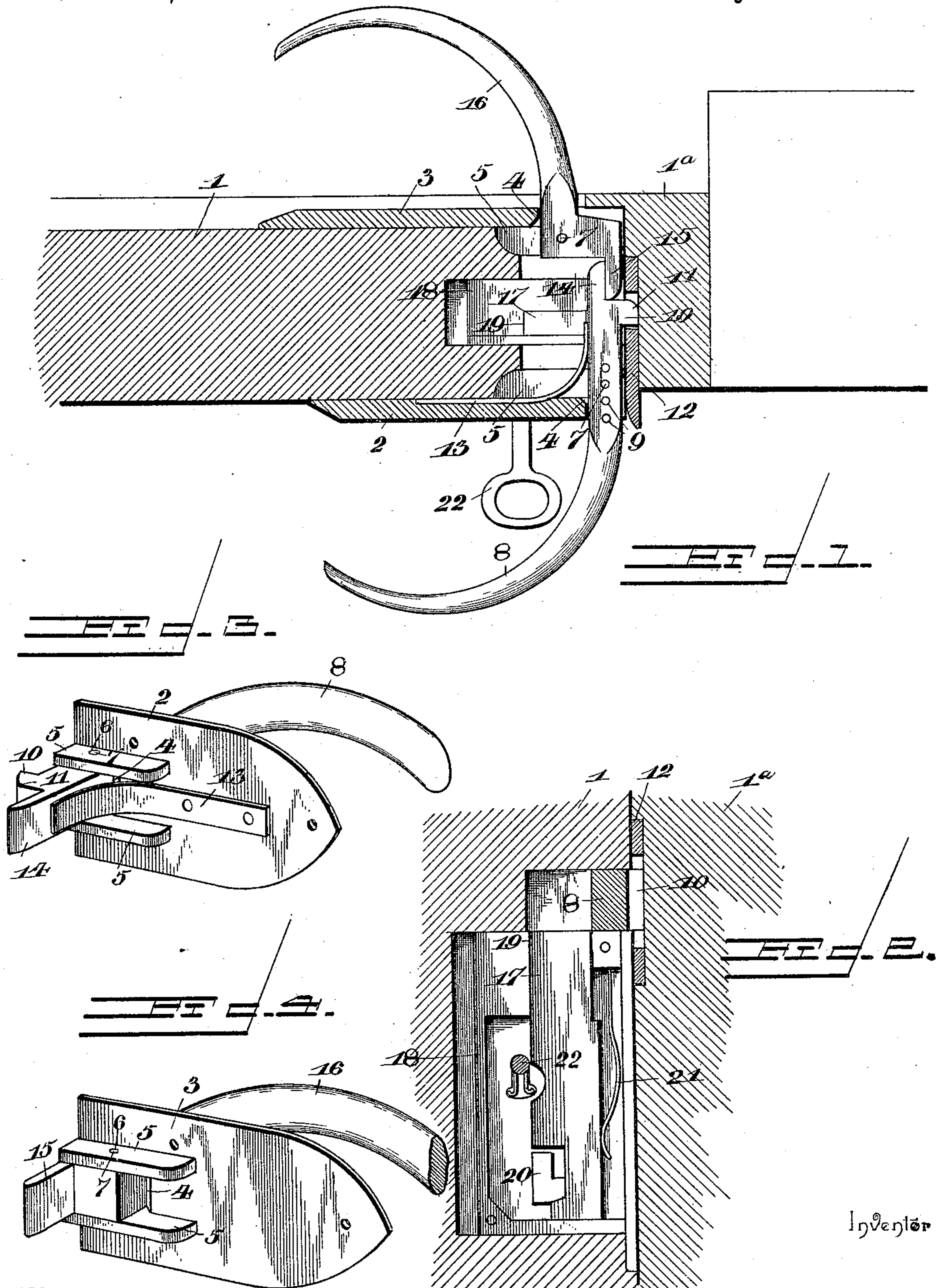


(No Model.)

J. H. PRESTON.
DOOR LOCK AND LATCH.

No. 543,506.

Patented July 30, 1895.



Inventor

Witnesses

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JAMES H. PRESTON, OF FRANCESTOWN, NEW HAMPSHIRE.

DOOR LOCK AND LATCH.

SPECIFICATION forming part of Letters Patent No. 543,506, dated July 30, 1895.

Application filed March 19, 1895. Serial No. 542,367. (No model.)

To all whom it may concern:

Be it known that I, JAMES HARDY PRESTON, a citizen of the United States, residing at Francetown, in the county of Hillsborough and State of New Hampshire, have invented a new and useful Door Lock and Latch, of which the following is a specification.

This invention relates to an improvement in combined lock and latch devices for use in connection with any hinged door.

The object of the present invention is to simplify and improve the construction of latch-locks and to provide a simple and inexpensive device which shall be applicable to a door of any size or thickness, capable of being manipulated from either side of the door by means of convenient handle-levers.

A further object of the invention is to provide a vertically-sliding bolt and means for operating the same, whereby the latch-operating levers may be locked and be prevented from being manipulated for opening the door.

To this end the invention consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a horizontal section through my improved latch and lock mechanism. Fig. 2 is a vertical longitudinal section showing the means for operating the locking-bolt. Fig. 3 is a detail perspective view of one of the handle-levers and the plate in which the same is mounted, showing also the actuating-spring. Fig. 4 is a similar view of the other handle-lever and its supporting-plate.

Similar numerals of reference indicate corresponding parts in the several figures of the drawings.

Referring to the drawings, 1 designates a sufficient portion of a door of any size or thickness to show the application of my improved lock and latch, and 1^a indicates the door jamb or frame.

2 and 3 represent a pair of metal plates of any preferred form and ornamentation and provided each essentially with a notch or open slot 4 and a pair of inwardly-extending ears or lugs 5 on either side of said notch or slot, above and below it, said ears or lugs being

provided with vertically-aligned perforations 6 for the reception of a pivotal pin 7, the purpose of which will appear. Each of said plates 2 and 3 is formed in the manner above described, and the plate 2 is provided with a curved handle-lever 8, which is pivotally mounted upon the pin 7 which passes through one of a series of perforations 9 extending vertically through said handle-lever. The plate 2 is secured upon the outer face of the door, and the latter is mortised to receive the lugs or ears 5 and the inwardly-extending end of the handle-lever 8, said mortise being also duplicated upon the inner or other side of the door for the reception of the plate 3 and its handle-lever.

The handle-lever 8 after it passes through the notch 4 in the plate 2 is provided with an outwardly-extending catch-lip or spur 10, which is inclined upon one face or rounded off, as shown at 11, and adapted to engage a slotted keeper 12, secured to the inner face of the door jamb or frame 2. A curved flat spring 13 is secured to the inner face of the plate 2 and bears at its opposite free end behind and against the inwardly-projecting end of the handle-lever 8 for forcing the catch-lip 10 normally into engagement with the slotted keeper. Beyond the catch-lip 10 the handle-lever 8 is provided with an inwardly-extending lip 14, which is adapted to be engaged by a corresponding lip 15 on the inner end of a similar handle-lever 16, pivoted in the notch 4 of the plate 3. The lip 15 lies outside of the lip 14, so that when the handle-lever 16 is manipulated it will simultaneously operate or rock the handle-lever 8, thereby withdrawing the catch 10 from the slotted keeper and allowing the door to open.

For the purpose of locking the door a vertically-sliding bolt 17, mounted in a suitable casing 18, is provided. The case 18 is inserted into a mortise in the door and is provided at its top edge with an aperture 19, through which said bolt 17 may slide. The bolt 17 is notched at its lower end to engage a stationary lug or stop 20, with which it is held in engagement by means of a spring 21, interposed between said bolt and its case, as shown in Fig. 2. The bolt is operated by means of a suitable key 22, the lip or lips of which engage a notch in the adjacent face of the bolt,

and the bolt is held in either its upward or downward adjustment by means of engagement with the fixed stop 20.

From the foregoing description it will be
5 apparent that by means of the peculiar construction of the two handle-levers 8 and 16 the door may be opened from either side and when desired the door may be locked by throwing the bolt 17 up behind the inwardly-projecting end of the lever 8, when it will be impossible to manipulate either one of said levers for withdrawing the catch-lip 10 from the slotted keeper 12. By providing one or
15 both of the handle-levers with a series of vertical perforations 9, above referred to, the position of such levers may be regulated for accommodating the device as a whole to a door of any thickness.

The device described is simple, neat, and
20 cheap in construction, is not liable to get out of order, and is thoroughly efficient both as a latch and lock.

Various changes in the form, proportion, and the minor details of construction may be
25 resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new, and desired to be secured
30 by Letters Patent, is—

1. A latch mechanism comprising a pair of handle levers hung so as to swing in a horizontal plane and provided with inwardly extending overlapping lips or extremities, and
35 a catch lip formed integrally with one of said levers and arranged in proximal relation to the lip or overlapping end of its respective lever, whereby upon the operation of either one of the levers, said catch lip is adapted to
40 be projected outwardly through the casing into engagement with a keeper, or to be withdrawn inside of said casing and out of engagement with the keeper, substantially as specified.

2. In a latch mechanism, a pair of handle
45 levers hung to swing in a horizontal plane, a catch lip on one of said levers, and an inwardly extending lip on the other lever engaging a corresponding lip on the first lever, and a spring located behind the inwardly extending
50 end of the lever which carries the catch lip, whereby said catch lip is held normally in engagement with a slotted keeper and is adapted to be operated by either one of said levers from either side of the door, substantially as
55 described.

3. A combined latch and lock comprising a pair of pivoted handle levers hung to swing in a horizontal plane, a catch lip for engaging a slotted keeper, a lip on the other lever
60 for engaging a corresponding lip on the first lever, an actuating spring for holding said catch lip normally in engagement with its keeper, and a vertically sliding bolt adapted to be moved behind one of said levers for lock-
65 ing the same, all arranged substantially as and for the purpose described.

4. In a latch mechanism, a pair of handle levers arranged upon either side of the door and hung to swing in a horizontal plane, a
70 catch lip on one of said levers for engaging a keeper plate, an inwardly extending lip on the other lever for operating the first lever, the supporting plates in which said levers are pivotally mounted, and a series of perfora-
75 tions in one or both of said levers, whereby the latter may be adjusted relatively to their supporting plates for accommodating the device to a door of any thickness, substantially
80 as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES H. PRESTON.

Witnesses:

M. L. BIXBY,
E. A. PARSONS.