

H. L. AAGAARD.
LATCH.
APPLICATION FILED OCT. 5, 1916.

1,229,564.

Patented June 12, 1917.

Fig. 1.

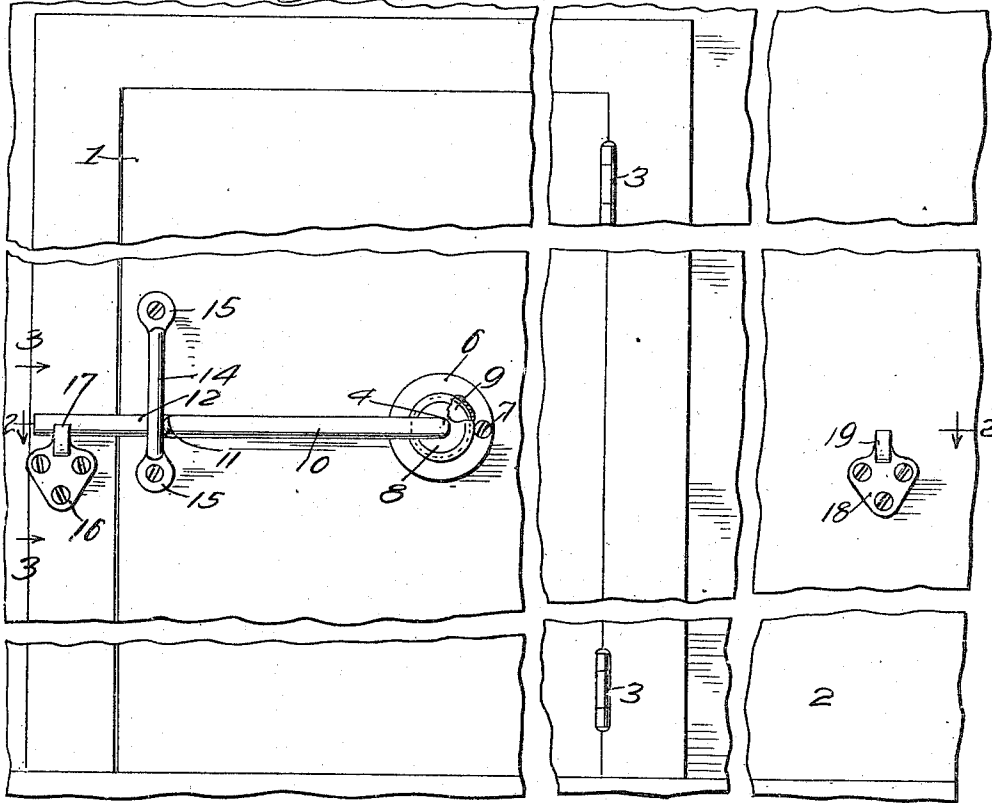


Fig. 2.

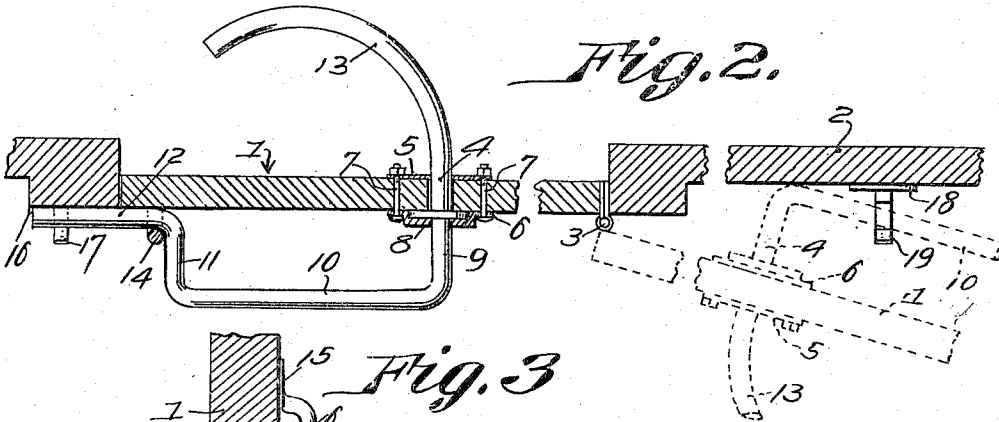
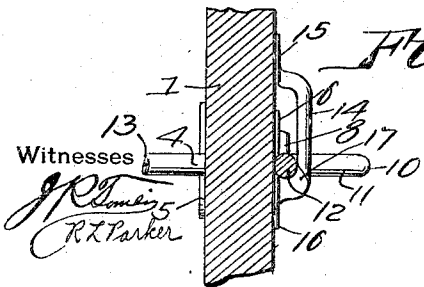


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

HANS L. AAGAARD, OF HAMLIN, IOWA.

LATCH.

1,229,564.

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To all whom it may concern:

Be it known that I, HANS L. AAGAARD, a citizen of the United States, residing at Hamlin, in the county of Audubon and State of Iowa, have invented a new and useful Latch, of which the following is a specification.

The present invention appertains to latches for doors, gates, and the like, and aims to provide a novel and improved latch adapted especially for use on barn doors, although it can be used to advantage upon other swinging barriers.

It is the object of the invention to provide a latch embodying a minimum number of parts, the latch member being bent from a single piece of stock, and the structure being exceedingly simple, compact and inexpensive.

The invention also has for its object the provision of a latch of the nature indicated which can be easily applied to doors of various thicknesses, without providing mortises, grooves, or the like, it only being necessary to drill a hole in the door through which the latch member is inserted.

A further object of the invention is the provision of a latch having the characteristics above noted, which will operate easily, which permits of the door being latched in either closed or opened position, and which enables the latch member to be conveniently manipulated from either side of the door.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein:—

Figure 1 is a front view of the latch applied to a door, portions being broken away.

Fig. 2 is a horizontal section taken on the line 2—2 of Fig. 1, portions being broken away, the door being illustrated in open position in dotted lines.

Fig. 3 is a sectional detail taken on the lines 3—3 of Fig. 1.

In the drawing, there is illustrated a door

1 hinged to the wall 2, as at 3, and having the latch applied thereto.

The latch member is bent from a single piece of stock, such as a rod of suitable diameter, and has a portion 4 disposed at right angles or perpendicular with the door 1 and extending through an opening or aperture drilled therein.

The portion 4 of the latch member is journaled for rotation in bearing plates 5 and 6 bearing against the opposite sides of the door and secured thereto by means of bolts 7 or other securing elements. The plate 6

has a central circular outstruck portion 8 receiving a collar 9 secured upon the portion 4 of the latch member whereby to prevent the latch member from sliding inwardly or outwardly through the door, but to permit said latch member to swing about the axis of the portion 4 as a center, said portion 4 providing a journal rotatable in the door.

The latch member has a hand hold 10 projecting at right angles from one end of the portion 4, and the end of the hand hold 10 has a portion 11 projecting therefrom at right angles toward the door. Said portion 11 is in turn provided with a terminal 12 projecting at right angles therefrom beyond the free edge of the door and in a direction away from the portion 4. The terminal 12 is substantially in the same plane as the collar 9, whereby said collar and terminal will be brought simultaneously against the corresponding side of the door. A hand hold 13 opposite the hand hold 10 extends from the other end of the portion 4 and is curved on a relatively large radius toward the terminal 12, the hand hold 13 forming the other terminal of the rod and the hand hold or terminal 13 terminates short of the free edge of the door. In applying the latch member to the door, the terminal or hand hold 13 can be readily inserted through the aperture in the door to bring the portion 4 therein, since there is no abrupt bend between the terminal 13 and portion 4, the plate 6 being inserted upon the rod or latch member before it is applied to the door.

The plate 5 can then be inserted over the hand hold 13, and the two plates 5 and 6 attached to the door.

The terminal 12 is guided for vertical movement by means of a vertical guide member 14 having offset ends 15 secured to

the door above and below the terminal 12 to form stops therefor, and said terminal 12 is slidable in the slot between the member 14 and door, thus holding said terminal 5 against the door.

A keeper plate 16 is secured to the wall 2 at the free edge of the door and has a hook-shaped keeper 17 to receive the latch terminal 12 when the door is closed, the latch 10 dropping into engagement with the keeper when the door is closed. The hand holds 10 and 13 upon the opposite sides of the door permit the latch to be easily raised from either side, for opening the door.

15 The hand hold 10 not only provides means for releasing the latch, but also provides means for engaging a second keeper when the door is opened, to hold the door open. This second keeper embodies a plate 18 secured to the wall 2 at a point suitably spaced 20 from the hinged edge of the door, and having a hook 19 for receiving the hand hold 10 which drops into engagement with the hook 19 when the door is completely swung 25 open. When the hand hold 10 is engaged with the second keeper, it can be released therefrom by means of the hand hold 13 which is exposed.

From the foregoing taken in connection

with the drawing, it is believed that the 30 advantages and attributes of the invention will be obvious without further comment being necessary.

Having thus described the invention, what is claimed as new is:— 35

A latch member bent from a single rod having a journal portion to extend at right angles through an aperture in a door, a hand hold extending at an angle from one end of said journal portion, a latch terminal extending from the free end of said hand hold and offset therefrom, and a hand hold terminal extending from the other end of the journal portion and curved on a relatively large radius toward said latch terminal, a 45 collar secured upon the journal portion to bear against one side of the door, said latch terminal and collar being in substantially the same plane, and a plate attachable to a door for receiving said collar and holding 50 it against the door.

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

HANS L. AAGAARD.

Witnesses:

ROBERT H. GARNETT,
ANDREW LAURITSEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."