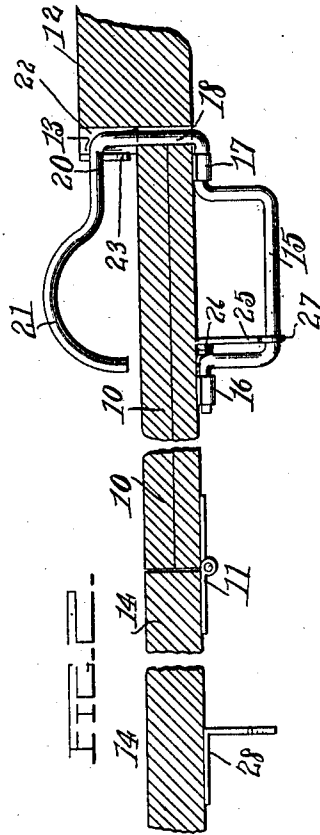
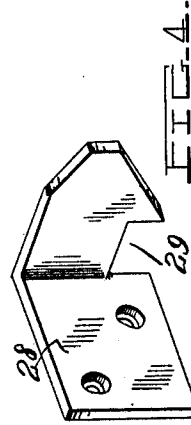
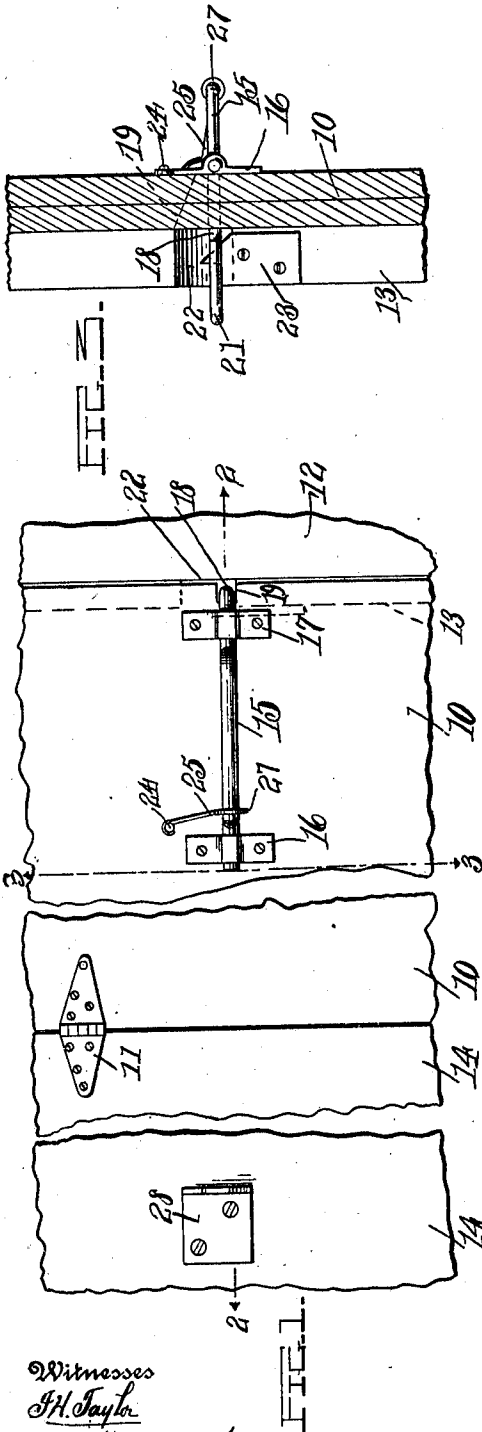


W. SCHUMACHER.
DOOR LATCH.
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970,651.

Patented Sept. 20, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM SCHUMACHER, OF READLYN, IOWA.

DOOR-LATCH.

970,651.

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To all whom it may concern:

Be it known that I, WILLIAM SCHUMACHER, a citizen of the United States, residing at Readlyn, in the county of Bremer, State of Iowa, have invented certain new and useful Improvements in Door-Latches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in door latches, more particularly to latches employed upon the doors of barns, warehouses and like structures, and has for one of its objects to simplify and improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a latch device which may be actuated from either side of the door, and in which provision is made for holding the door open as well as closed.

With these and other objects in view, the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claim; and, in the drawings illustrative of the preferred embodiment of the invention, Figure 1 is a side elevation of a portion of a door and portions of the jambs from inside the door, Fig. 2 is a section on the line 2—2 of Fig. 1, Fig. 3 is a section on the line 3—3 of Fig. 1, Fig. 4 is a perspective view of the wall catch, detached.

The improved device is designed more particularly for swinging doors, and in the drawings a portion of a conventional door is represented at 10, preferably in two thicknesses, and hingedly united as at 11 and closing against a jamb 12, the latter having a stop 13 of the usual form against which the door closes. A portion of the wall at the opposite side of the doorway opening is represented at 14. The improved device comprises a double latch member preferably formed from a single rod bent into the required shape and formed with a hand grip 15 which is mounted by clips 16—17 upon one side of the door. A portion of the latch member is directed transversely of the loop 15 as shown at 18 and extends through a relatively large opening 19 in the edge of the door 10, and is thence continued along the opposite face of the door, as shown at 20, and curved outwardly to form a hand

grip as shown at 21. By this means the latch member is mounted to oscillate in the clips 16—17, and this movement causes the portion 20 of the latch member to move upwardly and downwardly, as will be obvious.

The portion 20 of the latch member extends through a relatively large opening 22 formed in the stop 13, and connected to the inner face of the stop is a latch plate 23 having a recess with which the portion 20 of the latch member engages when the door is closed. The inner face of the latch plate is inclined as shown in Fig. 3 so that the latch member will automatically engage over the latch plate when the door is closed. By this arrangement the portion 18 of the handle is protected within the recess 19, so that when the door is opened no danger exists of this portion of the combined handle and latch coming in contact with surrounding objects. The recess 22 being located entirely within the door stop portion of the frame 12, forms a guard for the portion 20 of the combined latch and handle, and prevents the latter from being accidentally displaced or actuated when the door is closed. The recess 22 also enables the latch member 23 to be located flatwise against the stop so that the point does not project into the doorway.

Connected to the door 10 at 24 is a spring 25 having an intermediate coil 26 and engaging at its free end and around the loop 15, as shown at 27. By this means the spring exerts its force to maintain the latch member in its horizontal position or with the inwardly directed portion 18 in contact with the bottom of the recess 19 of the door. By this arrangement when the door is opened the latch member is maintained in a horizontal position, and when the door is closed the portion 20 of the latch member rides over the keeper 23 and engages behind its recess as shown in Fig. 3. To release the door it is only necessary to elevate the hand grip portion 21 or depress the hand grip 15 according as to whether the operator is at the outside or the inside of the door. The latch member is thus operative with equal facility either from the inside or the outside of the door.

Connected to the wall 14 and spaced from the hinge side of the doorway opening is another keeper 28 having a recess in its lower end as shown at 29 to receive the hand grip 15 when the door is opened, thus locking the door in open position until released by de-

pressing the member 15. Thus the door may be closed by simply swinging it shut with such force as to cause the portion 20 to engage with the keeper 23, and be automatically locked in open position by swinging the door open with sufficient force to cause the loop 15 to engage the keeper 28.

The improved device is simple in construction, can be inexpensively manufactured and comprises but five parts besides the spring and the holding screws, and is therefore not liable to get out of order, or to become disarranged by rough usage.

What is claimed is:—

15 The combination with a door having a transverse recess in its free edge and a door frame having a stop against which the door bears, said stop having a cavity registering

with the recess of the door when the same is closed, a rod having oppositely extending 20 hand grips and connected at one end, one of said hand grip portions being swingingly coupled to the door at one side and the connecting portion extending through the door recess and likewise extending into the stop 25 recess when the door is closed, and a keeper connected to the frame stop and extending over the recess thereof and into the path of one of the handle portions of the rod.

In testimony whereof, I affix my signature, in presence of two witnesses. 30

WM. SCHUMACHER.

Witnesses:

FRED. SCHUMACHER,
EDWARD HARMS.