

W. LARSEN & L. T. LARSON.

LATCH.

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1,047,091.

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Fig. 1.

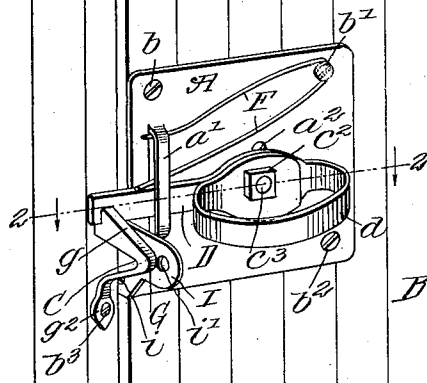


Fig. 2.

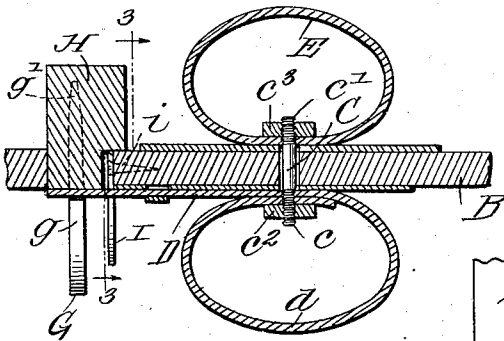


Fig. 4.

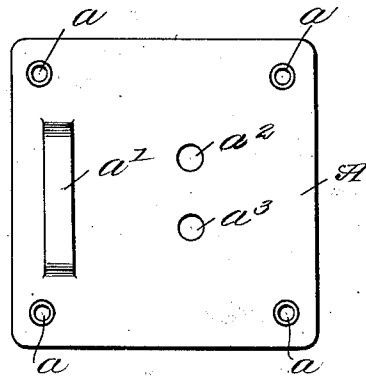


Fig. 5.

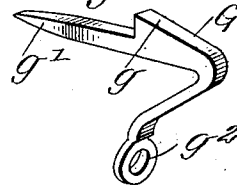
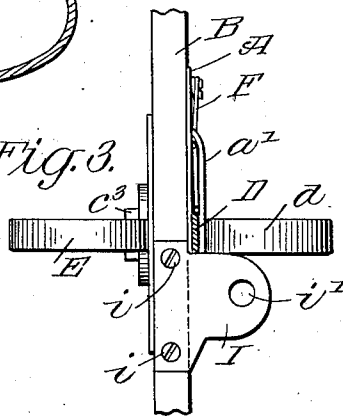


Fig. 3.



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LATCH.

1,047,091.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, WALTER LARSEN and LEWIS T. LARSON, citizens of the United States, and residents of Westbrook, in the county of Cottonwood and State of Minnesota, have invented a new and Improved Latch, of which the following is a specification.

Our present invention relates to latches particularly adapted for use in connection with doors, gates and the like, and our object is to provide a device of this character which may be adapted with equal facility upon gates and doors which swing either toward the right or the left hand.

A further object of our invention is to provide a latch of the above type which will be simple in construction and positive in its action, and which will be singularly free from defects of latches commonly used, particularly with respect to the elimination of all inclosed parts which are likely to entrap moisture and thus tend to cause excessive rusting and hasty deterioration.

With these and other objects in mind, our present invention resides in the construction, arrangement and combination to be hereinafter described in connection with the accompanying drawing, forming a part of the specification, and in which,

Figure 1 is a perspective view of our improved latch, illustrating the same in its practical use upon a door and its casing; Fig. 2 is a horizontal view taken therethrough on the line 2—2 of Fig. 1; Fig. 3 is a vertical section taken therethrough on the line 3—3 of Fig. 2; Fig. 4 is an enlarged face view of the latch plate removed; and Fig. 5 is a perspective view of the keeper removed.

Referring now to these figures, our invention contemplates the provision of a latch plate A, as shown particularly in Fig. 4, this plate being adapted to be secured upon the face of a door or gate B, flush with the free edge thereof, by means of the fastening members b , b' and b^2 adapted to pass through openings a in said plate. The latch plate is further provided with spaced parallel slits, extending parallel with one edge thereof, the strip of material a' between said slits being struck out therefrom for the purpose of forming a guide as will be hereinafter seen. A pair of openings a^2 and a^3 are also provided in the latch plate A, through either of which openings the pivot

bolt C may be passed, this bolt embodying a central smooth portion for substantially the width of the parts through which it passes, and being provided with threaded end portions c and c' adapted to project beyond these parts.

The latch member D is provided with an intermediate threaded opening through which one end c of the pivot bolt C may be screwed, one end portion of said latch member being adapted to project through the guide strip a' of the latch plate A, as clearly shown, and the other end portion of said latch member being bent to form a substantially oval handle d , the extremity of which is provided with a threaded opening also adapted to receive the threaded end c' of the pivot bolt. This handle member d is substantially similar in both size and shape to the handle member E, the latter of which is in one piece and is provided with a threaded opening to receive therethrough the opposite end c' of the pivot bolt. Thus by means of jam nuts c^2 and c^3 which screw upon the extremities of the pivot bolt C and bear against the handles d and E, the pivot bolt, the handle members and the latch member are all rigidly locked together. Thus by movement of either the handle members d and E, the latch member D may be moved up and down in the guide a' , and in order to normally press the said member in one direction we provide a tension spring F which is in the form of a spring wire intermediately coiled about the latch plate holding screw b' and has its ends extending through the guide a' and between the latch member D and the upper end of said guide. Inasmuch as the ends of the spring wire normally tend to move apart, the lower end will bear upon the latch member, as shown particularly in Fig. 1.

The keeper G which is secured to the gatepost or door frame H is in the form of a bent member having its upper portion provided with a shoulder g behind which the latch member engages, and an extending spike, spur or prong g' adapted to be driven into the material of the gatepost or door frame, as will be seen by reference to Fig. 2. The lower portion of the keeper is provided with a flattened apertured extension g^2 adapted to receive the fastening member b^3 therethrough.

In order that the gate or door may be locked when desired, we also provide a pad-

lock plate I, which is secured to the door or gate edge by fastening members i and which is provided with an aperture i' . In the closed position of the door or gate, as shown in Fig. 2, this padlock plate I extends parallel with the keeper G, so as to adapt the parts to the passage of the shackle of a padlock through the opening i' and through the keeper G in order that the gate or door may be positively locked.

Thus from the foregoing it will be seen that our arrangement is simple and also positive in its action, and includes no inclosed parts which would be likely to retain moisture. It will further be seen by reference to Fig. 1 that with a gate or door opening to the right, the pivot bolt C is passed through the opening a^3 of the latch plate and the spring F is coiled about and supported by the latch plate holding screw b' . Should the latch be desired for use in connection with a door or gate opening to the left, the parts are removed and arranged in slightly different position, the pivot bolt C being extended through the latch plate opening a^2 and the spring F being coiled about and supported by the latch plate holding screw b^2 , with its free ends extending through the guide a' on the opposite side of the latch member D to which they extend in Fig. 1.

We claim:—

1. In a latch of the character described, the combination of a latch plate having a guide, a latch member pivoted at a point intermediate its ends on the said plate and having one end movable through said guide, the opposite end of said member being bent to form a ring constituting a handle and

having its extremity secured at the point of pivot of the latch member.

2. In a latch of the character described, the combination of a latch plate having an integral strip of metal struck up therefrom to form a guide, and provided with a pair of openings, a pivot pin adapted to extend through either of said openings, a latch member secured to said pivot bolt and having its free end projecting through the said guide, a pair of handle members locked upon the ends of said bolt, and a spring member mounted on the plate and extending within the said guide and into engagement with the free end of said latch member.

3. In a latch of the character described, the combination of a latch member having an intermediate threaded opening, a pivot bolt having threaded ends, a handle ring having a threaded opening adapted to be screwed upon one end of said pivot bolt, the opposite end of said pivot bolt being adapted to engage the threaded opening of said latch member, one end of said latch member being bent to form a handle ring and having its extremity provided with a threaded opening into which the adjacent end of the pivot bolt is also adapted to screw, and jam nuts adapted to screw upon the extremities of the bolt and to bear against said handle rings and said latch member whereby to lock the bolt, the handle rings and the latch member together, for the purpose described.

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Witnesses:

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