

(No Model.)

M. P. PIRTLE.
DOOR FASTENER.

No. 545,533.

Patented Sept. 3, 1895.

Fig. 1.

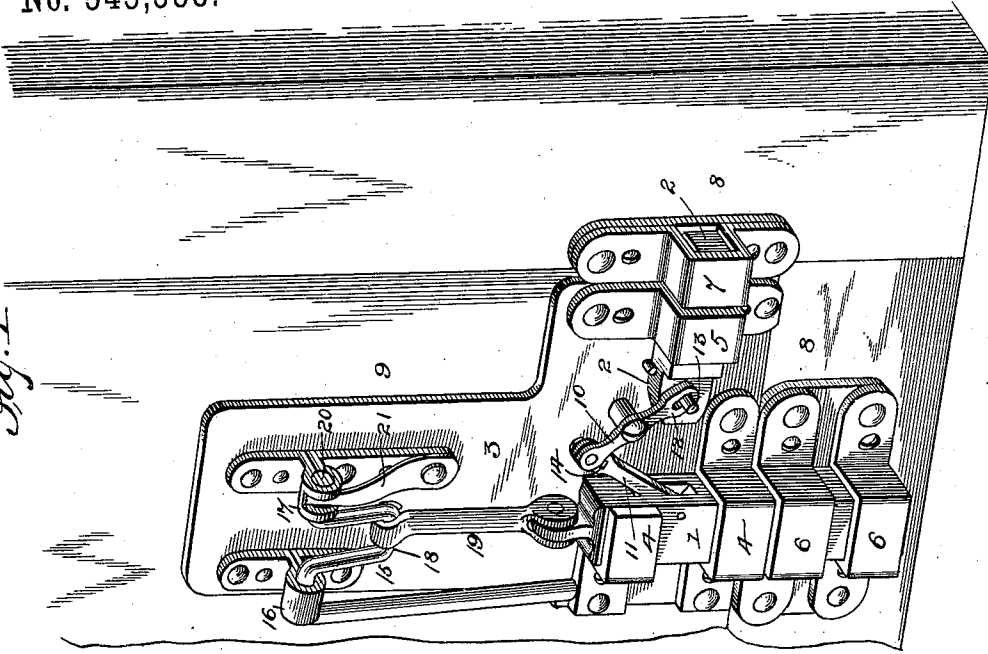


Fig. 2.

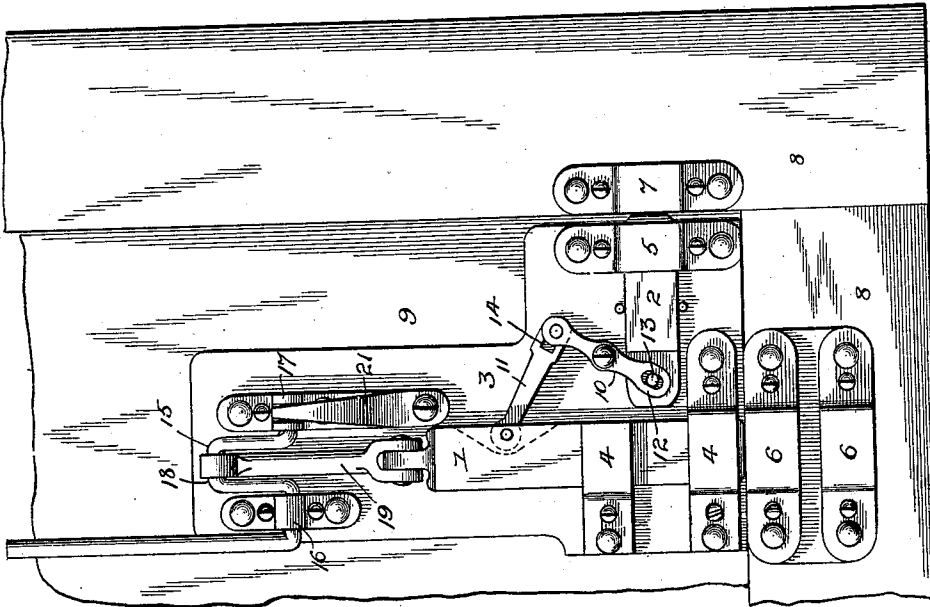
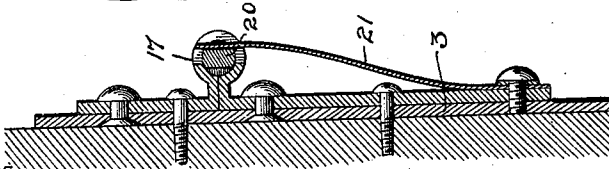


Fig. 3.



Witnesses

E. H. Monroe
J. H. Riley

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Inventor

M. P. Pirtle

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UNITED STATES PATENT OFFICE.

MIKE P. PIRTLE, OF LOUISVILLE, KENTUCKY, ASSIGNOR OF TWO-THIRDS TO
JOHN WM. MILLER AND JOHN A. CARR, OF SAME PLACE.

DOOR-FASTENER.

SPECIFICATION forming part of Letters Patent No. 545,533, dated September 3, 1895.

Application filed June 4, 1895. Serial No. 551,663. (No model.)

To all whom it may concern:

Be it known that I, MIKE P. PIRTLE, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Door-Fastener, of which the following is a specification.

The invention relates to improvements in door-fasteners.

The object of the present invention is to improve the construction of door-fasteners and to provide a simple, inexpensive, and efficient one, possessing great strength and durability and adapted to secure a corner of a door at both the adjacent edges thereof.

A further object of the invention is to enable a pair of bolts disposed at right angles to each other to be readily operated to reciprocate them inward and outward and to lock them against accidental movement in either direction.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a portion of a door and its casing provided with a locking device constructed in accordance with this invention, the door being locked. Fig. 2 is an elevation of the same, the bolts being withdrawn. Fig. 3 is a detail sectional view illustrating the manner of holding the crank-shaft against accidental movement.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 and 2 designate reciprocating bolts mounted on a base-plate 3 and arranged in suitable guides 4 and 5 and adapted to engage keepers 6 and 7, mounted on the casing 8 of the door 9. The bolts may be arranged at either the top or bottom of a door or the like. The bolt 1 is of greater size and strength than the bolt 2, and is disposed longitudinally of the base-plate, which is suitably secured to the door, and the bolt 2 is disposed transversely of the plate 3. The inner end of the supplemental bolt 2 is pivotally connected to one end of a straight lever 10, which is fulcrumed at a

point intermediate of its ends on the base-plate adjacent to the supplemental and main bolt, and the other end of the lever 10 is connected by a straight link 11 with the main bolt 1, whereby when the latter is reciprocated or moved outward the supplemental bolt will be simultaneously operated in the same manner. The end 12 of the lever 10 is provided with a slightly-elongated opening for the reception of the pivot 13 to permit a limited movement of the main bolt independent of the supplemental bolt, and the outer end of the link 11 is provided with a similar opening 14. These openings of the lever and the link cause only enough motion to be transmitted from the main bolt to produce a sufficient reciprocation of the supplemental bolt, and as the main bolt is of greater length than the supplemental one and consequently has a greater reciprocation, some means must be provided for causing only enough motion to be transmitted from the main bolt to produce a reciprocation of the supplemental one, and the said slots accomplish this result. The main bolt is reciprocated by a crank-shaft 15, journaled in bearings 16 and 17, and provided at one end with a handle and having between the bearings a crank bend 18. The crank bend 18 is connected with the inner end of the main bolt by a bar 19, which is provided at one end with an eye to receive the crank bend, and its other end is bifurcated and is pivoted to a perforated lug of the inner end of the main bolt. By swinging the handle of the crank-shaft the main bolt is reciprocated, as will be readily seen.

In order to lock the crank-shaft against accidental movement, its end 20 is flattened at opposite sides and is engaged by a spring 21, which is secured at one end to a plate of the bearing 17, and the latter is provided with an opening to permit the free end of the spring to engage the flattened faces of the shaft. The flattened faces are arranged to be presented to the spring when the bolt is at the ends of its reciprocation and the spring has sufficient power to hold the crank-shaft against accidental movement, but the handle of the crank-shaft is of sufficient length to enable the bolt to be reciprocated without the least resistance from the spring.

It will be seen that the locking device is simple and comparatively inexpensive in construction, that it possesses great strength and durability, and that it is capable of simultaneously operating a pair of bolts disposed at right angles to each other. It will also be apparent that the bolts may be constructed of different relative sizes, and that the bolts are locked against accidental movement by the crank bend of the shaft 15, and that they cannot be moved or forced back unless the arm of the shaft is swung to actuate the bolts.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention, such as adapting the bolts to the door or other part on which they are to be mounted.

What I claim is—

1. In a locking device, the combination of a pair of bolts mounted for reciprocation and arranged at right angles to each other, a straight lever fulcrumed intermediate of its ends and having one end pivotally connected to one of the bolts, a straight link connected to the other end of the lever and to the other bolt, a bar disposed longitudinally of the latter and connected with the same, and a crank-

shaft connected with the bar and adapted to reciprocate the bolts and forming a lock for the same, substantially as described.

2. In a locking device, the combination of a pair of bolts of unequal length mounted for reciprocation and disposed at right angles to each other; a lever fulcrumed intermediate of its ends and arranged adjacent to the bolts, and having one end provided with an elongated opening, and connected with the shorter bolt by a pivot located in said opening, a link pivoted to the longer bolt, and provided at its other end with an opening, and connected with the other end of said lever by a pivot arranged in its opening, a crank shaft having a crank bend connected with the longer bolt and adapted to reciprocate the same, and a spring for locking the crank shaft against accidental movement, substantially as described.

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

MIKE P. PIRTLE.

Witnesses:

PATRICK MULLANEY,
WALTER RATCLIFFE.