

J. GIBBS.

DOOR AND GATE FASTENER,

No. 186,337.

Patented Jan. 16, 1877.

Fig. 1

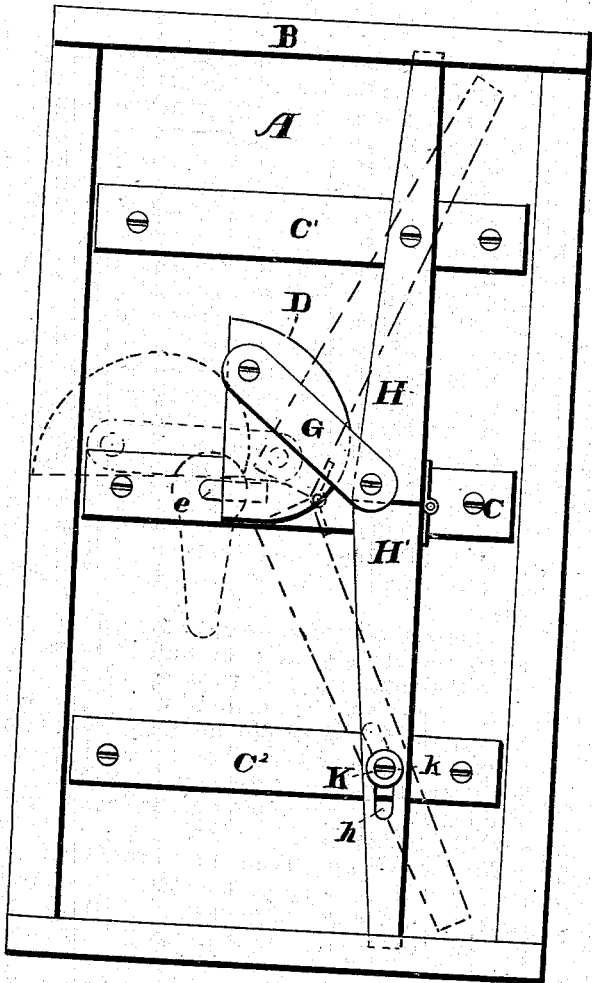
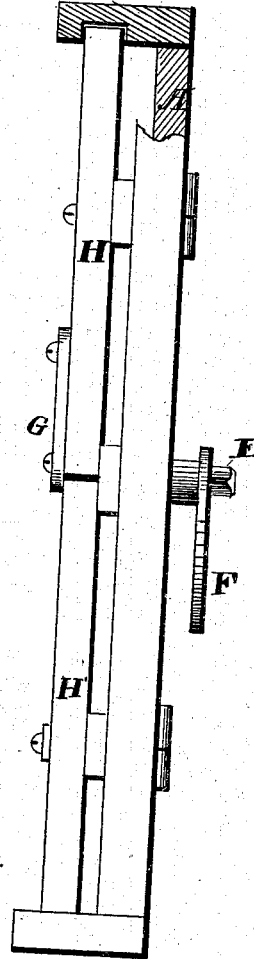


Fig. 2



WITNESSES

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UNITED STATES PATENT OFFICE.

JASON GIBBS, OF CLYDE, OHIO.

IMPROVEMENT IN DOOR AND GATE FASTENERS.

Specification forming part of Letters Patent No. **186,337**, dated January 16, 1877; application filed December 15, 1876.

To all whom it may concern:

Be it known that I, JASON GIBBS, of Clyde, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in Door or Gate Fasteners; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention is in fasteners designed to afford a simple locking mechanism for the securement of doors, window-sashes, gates, and other similar articles. It is especially adapted for heavy barn-doors, either double or single, and consists in the novel combination of parts hereinafter more fully described and definitely claimed.

Referring to the drawings, Figure 1 is a view in elevation of the inner face of a door provided with my locking attachment. Fig. 2 is a side or edge view with the door in broken section.

A represents the interior face side of a single door, supported and working in the frame B. Secured to the horizontal central cleat C is the segmental lever button or cam D, which rotates in an arc of a circle having its plane parallel to the door. The pivot E passes through the door at right angles to same, and through the cleat C, its outer end provided with the handle F, and its inner extremity bent at an angle of ninety degrees, so as to form the arm e, which connects with the button or cam D at the extremity of the latter opposite to that of its connection with the horizontal connecting-link G. This part D has a twofold action—one as a lever to draw out the toggle-joint by means of the connecting-lever, and a second action as a cam-fastener to butt against the toggle-joint when the latter is in vertical line, and lock same in place. This link G is pivoted to the lower portion of the upper arm H of the toggle-levers J. The opposite end of the arm moves in and out of the mortise cut in the lower face of the upper sill of the door-frame, while the arm is pivoted to the upper cleat C' of the door. The lower arm H' of the toggle-levers is not fixedly pivoted to the door, as is the upper arm, but is made with an elongated slot, h, parallel with its longer dimension. Within

this slot is the bolt K, which serves as a support to the arm as the slot works about the bolt. This bolt K projects from the lower cleat C'' of the door, and has a washer, k, interposed between the head of the bolt and the outer face of the arm H', so as to protect the latter against the wearing action of the bolt-head, as the bolt traverses the slot, or rather, as the arm moves by means of its slot about this bolt. The lower extremity of this arm H' engages in the mortise cut in the upper face of the lower sill of the door-frame, while its opposite extremity is hinged to the correspondingly lower connecting end of the upper arm H, though it is evident that the toggle-lever joint may be by a swivel or pivot connection instead of the hinge-joint shown in the drawings. So, too, instead of the mortises in the sills of the frame, cleats may be secured to same, and thus form engagement-lugs for the toggles, in lieu of the recesses.

A horizontal arm may be attached to the levers, to aid in locking or unlocking same from the interior; and it is apparent that double doors may be secured by my improvement by having the sectional doors meet in a tongue and groove lock, or by having the half-door, provided with my improvement, made with an overlapping cleat, which will bind the second half in place.

So, too, my invention may be applied to gates, to window-sashes, and other analogous uses, the drawing representing it upon a single door, only as an illustration of its operation.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The fastener for doors, gates, &c., consisting in the combination, with the segmental lever button or cam D, and horizontal connecting-link G, of the toggle-levers H H', one arm of which is pivoted, and the other loosely working upon the face of the door or gate, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of December, 1876.

JASON GIBBS.

Witnesses:
J. H. RHODES,
C. J. HUGHES.