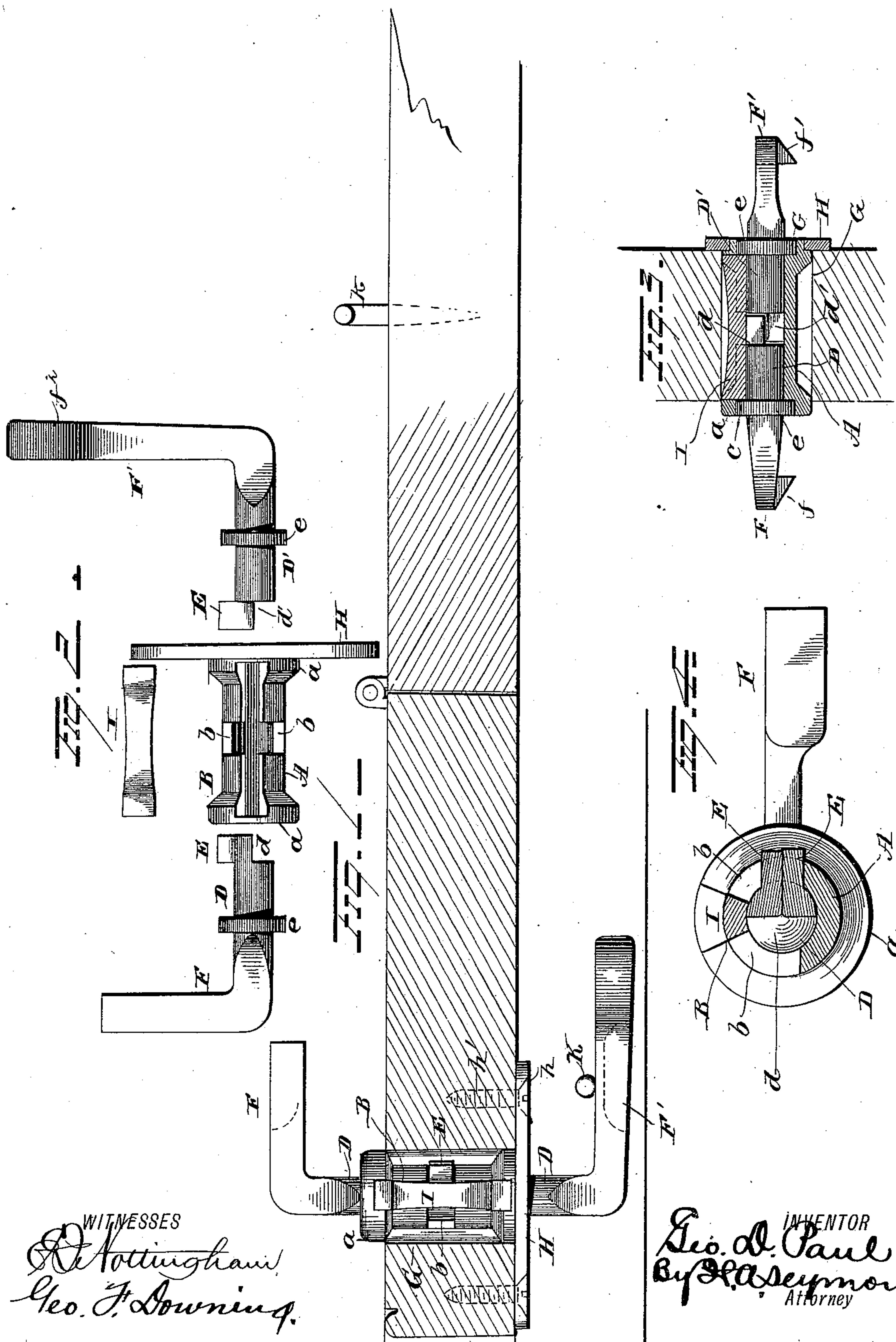


(No Model.)

G. D. PAUL.
SHUTTER FASTENER.

No. 354,653.

Patented Dec. 21, 1886.



WITNESSES

At Nottingham!
Geo. F. Downing.

INVENTOR

INVENTOR
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UNITED STATES PATENT OFFICE.

GEORGE D. PAUL, OF EAST ORANGE, NEW JERSEY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE PAUL MANUFACTURING COMPANY, OF SAME PLACE.

SHUTTER-FASTENER.

SPECIFICATION forming part of Letters Patent No. 354,653, dated December 21, 1886.

Application filed July 27, 1886. Serial No. 209,251. (No model.)

To all whom it may concern:

Be it known that I, GEORGE D. PAUL, of East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Shutter or Blind 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 appertains to make and use the same.

My invention relates to an improvement in shutter-fasteners.

Hitherto shutter-fasteners have been so constructed that there has been a space between the swinging catch and the edge of the slot in which it moved, which has been liable to become clogged with dirt or paint and the action of the catch thereby impaired; or they have been dependent upon spring-power for their effectiveness, and the tension of the spring having been liable to become weak or the spring broken, their effectiveness has been short-lived.

The object of my present invention is to provide a gravity-fastener which shall be free from the objectionable features of the fasteners hitherto constructed, and which shall be simple, durable, and inexpensive.

With these ends in view my invention consists in certain features of construction and combinations of parts as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of the lower portion of a shutter closed with the fastener in position therein. Fig. 2 represents the parts of the fastener detached and in position to be combined. Fig. 3 is a vertical longitudinal section through the fastener, and Fig. 4 is a cross-section through the center.

A represents the body of a sleeve sufficiently long to extend through the base of a blind or shutter and provided with flanges or rims *a* around its ends. It is further provided with an oblong closed slot, B, extending from the inner side of one of the end flanges to the inner side of the opposite end flange, as shown, and located along the upper side of the sleeve. The sleeve is also pro-

vided with a transverse centrally-located slot, *b*, extending from the center of the slot B, somewhat more than one-fourth of the circumference, to the right and left. The ends of the sleeve are rabbeted out, forming an annular shoulder, C.

A pair of tumblers, D D', are adapted to fit within the opposite ends of the sleeve A and have a free rocking motion therein. The inner ends of the tumblers are each partially cut away, as shown at *d d'*, to admit of their lapping past each other, and are each provided with a laterally-extending lug, E, which is adapted to travel freely within the transverse slot *b* as the tumbler D or D' rocks in its bearing. The two tumblers are further provided with annular flanges or rims *e*, adapted to fit within the enlarged ends of the sleeve and bear against the shoulder C.

The outer ends of the two tumblers D D' are bent at right angles to the tumblers themselves and form catches, as represented at F and F'. The outside arm or catch, F, is provided with a beveled under face, *f*, which adapts it to automatically lift when pressed in contact with a stationary pin, and the inside arm or catch, F', is provided with a similar oppositely-inclined surface, *f'*, adapted to automatically lift the arm, when pressed, in contact with a stationary pin. The inside arm or catch is further provided with a handle, *f*², for convenience in operating it.

The parts of the fastener are assembled and operated as follows: A hole, G, is formed in the shutter large enough to receive the rims of the sleeve A with a close fit. The inside tumbler, D', is then adjusted in the sleeve by turning the lug upwardly, so that it will slide in the slot B until it reaches the transverse slot *b*, when the tumbler is swung over to the right or left into the said transverse slot. The outside tumbler, D, is then pushed through the hole G from the outside as far as the arm F will admit of, and the outer end of the sleeve is then slipped into the hole G from the inside over the end of the tumbler D, the latter being turned so that the lug E will slide in the slot B until it reaches the transverse slot *b*, when it is rocked over into contact with the lug E

of the tumbler D'. The slot B is then filled by a key, I, adapted to fit therein. The sleeve is then pushed into its position within the hole G and secured in the proper position therein by means of a face-plate, H, rigidly secured to the inside end of the sleeve and provided with screw-holes *h* in its ends adapted to receive fastening-screws *h'*. The arms F F' rest normally in depressed adjustment as far as admitted by the transverse slot *b* in the sleeve, one of the lugs E resting in contact with the end of the slot and the other resting in contact with said first-named lug. The lowest adjustment admitted by the said slot *b* and lugs E is preferably that which brings the arms F F' into a horizontal position, or nearly so, and when occupying such a position and the shutter closed the arm F' is adapted to rest on the inside of a pin or other stop, K, set in the window-stool, the top of the pin resting flush with or slightly below the upper side of the arm.

To open the shutter the arm F' is raised over the top of the pin or stop K and the shutter swung around toward the side of the house until the inclined portion *f* of the arm F engages the top of a hook or catch, *k*, set in the side of the house, which engagement lifts the arm F over the hook or catch, and the arm, falling by gravity on the inside of the hook or catch, locks the shutter in open adjustment.

To close the shutter the operator raises the arm F', which, by the position and contact of the lugs E, simultaneously raises the arm F, and, drawing the shutter to its closed position, either lifts the arm over the pin or stop K into locked adjustment or allows the inclined portion *f'* of the arm F' to engage the top of the pin or stop K, and the arm F' to be thereby elevated over the pin or stop into locked adjustment.

It will be observed that while the outside arm, F, may be raised by raising the inside arm, the raising of the outside arm will not affect the position of the inside arm, nor can the inside arm be disturbed in the least by any manipulation of the outside arm, and the fastener becomes thereby burglar-proof in its nature.

The arms F F' are prevented from being thrown over past an upright position by the engagement of the lug E with the side of the key I.

There is no spring-power to become weak or get out of order, no socket or recess to become clogged with dirt or paint, and the appearance of the fastener may be made attractive by nickel-plating or other neat ornamentation.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts without departing from the spirit and scope of my invention; hence I do not wish to limit myself strictly to the construction herein set forth; but,

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

1. In a shutter or blind fastener, a gravity-catch pivoted to a window-shutter and adapted to swing in a plane parallel with the shutter, substantially as set forth.

2. In a shutter or blind fastener, the combination, with an inside arm or catch attached to a tumbler mounted within the shutter and adapted to swing in a plane parallel with the shutter, of an outside arm or catch attached to a second tumbler mounted in the shutter, the two tumblers being arranged to coact, substantially as set forth.

3. In a shutter or blind fastener, the combination, with a slotted sleeve adapted to be secured in a perforation in the shutter, of a pair of tumblers having catch-arms secured thereto, the said tumblers being loosely mounted in the sleeve and having their adjacent ends overlapping, substantially as set forth.

4. In a shutter or blind fastener, the combination, with a sleeve adapted to be secured in a perforation in a shutter, of a pair of tumblers loosely secured, with overlapping lugs or projections on their adjacent ends adapted to travel in a transverse slot in the sleeve, and catches secured to the tumblers, substantially as set forth.

5. In a shutter or blind fastener, the combination, with a pair of tumblers loosely secured in a sleeve, of a pair of catches secured to the tumblers and adapted to swing in a plane parallel with the shutter, the said catches being provided with inclined portions for elevating them over the stops, substantially as set forth.

6. The combination, with the sleeve with its fastening-plate and slots, of the tumblers loosely secured therein by a key adapted to fit one of the slots, and catches secured to the tumblers, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GEORGE D. PAUL.

Witnesses:

JAMES FPRELL,
S. M. LONG.