(No Model.)

I. FORSTER.

SHUTTER BOWER AND LOCK.

No. 586,172. Patented July 13, 1897.

FIG. 1.

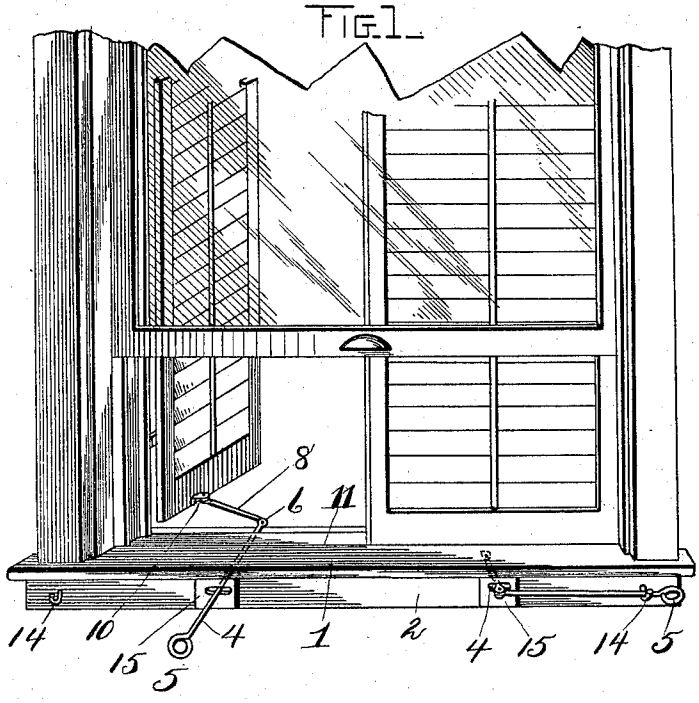


FIG. 2.

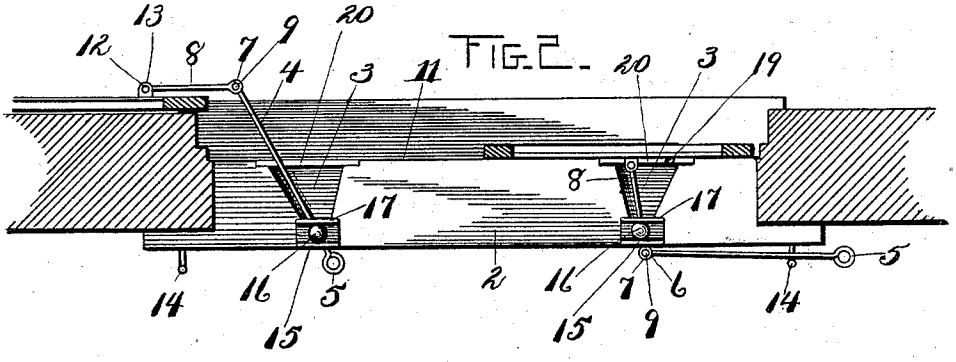
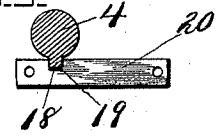


FIG. 3.



Witnesses
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SHUTTER BOWER AND LOCK.

SPECIFICATION forming part of Letters Patent No. 586,172, dated July 13, 1897.

Application filed March 1, 1897. Serial No. 625,587. (No model.)

To all whom it may concern:

Be it known that I, ISAAC FORSTER, a citizen of the United States, residing at Newburg, in the county of Orange and State of New York, have invented certain new and useful Improvements in Shutter Operators and Locks; 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 improvements in shutter-operating devices; and the object is to provide a simple and convenient as well as effective and durable device for opening and closing the shutters from the inside of the window without raising the sash.

To this end the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same reference-characters indicate the same parts of the invention.

Figure 1 is a perspective view of the inside of a window with the sash raised, showing my improved shutter-operator in place, one shutter being shown partly open and the other closed or locked. Fig. 2 is a horizontal section looking down on a line below the window-sill, and Fig. 3 is a detail section of the operating-rod.

1 represents the sill, and 2 the bottom section of the window-frame.

3 represents a horizontal transverse slot extending through the frame 2 and diverging outwardly, as shown in Fig. 2.

4 represents a cylindrical rod extending horizontally through said slot, its inner end terminating in an eye or handle 5, by which the device is manipulated. The outer end of this operating-rod 4 is formed with a flat socket 6, to which a similar socket 7 on the contiguous end of a connecting-rod 8 is hinged or pivoted by a bolt or rivet 9, and the opposite end of said connecting-rod 8 is likewise formed with a socket 10, pivoted on a bolt 12, pivoted in an angular bracket 13, fixed on the inner face of the lower solid rail of the shutter.

When the shutter is closed, as shown in the right-hand view of the figures of the drawings, the connecting-rod 8 is exactly the length of the distance from the shoulder 11 on the sill to the outer face of the bottom section 2 of the window-frame. This brings the hinged joint between the rods 4 and 8 flush with the face of the frame 2, and the rod 4 is then turned to the left or right, as the case may be, and its free end laid in the retaining-hook 14, which then forms a perfect lock for the shutter.

15 represents a guide-plate through which the rod 4 passes, and 16 represents a rubber packing-sleeve encompassing the rod 4 and secured between the inner face of the plate and the lug 17 to hold it in place to make an air-tight joint where the rod passes through said guide-plate to prevent the ingress of cold, rain, or the like in inclement weather.

18 represents a small rib or web on the rod 4, which engages a slot 19 in the wear-plate 20, fixed to the shoulder 11, to prevent the wind blowing the shutter to after it has been opened, as shown in the left-hand side of Fig. 2.

The device is a very simple, convenient, and inexpensive one for the purpose, and it may be operated at all times without opening the window, and whether the shutter is open or closed there is no obstruction projecting into the room, the operating-rod in either case being confined below the projecting edge of the sill, as shown.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such changes and modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

A device for operating shutters, comprising the guide-plate 15, the flexible packing-sleeve secured to said plate, the operating-rod, 4, provided with the rib, 18, and passing through said guide-plate and sleeve, and through an alined transverse orifice in the window-frame, in combination with the wear-plate 20, having the slot, 19, and the connecting-rod pivoted at one end to a bracket fixed to the shutter, and at the other end to the other end of the rod 4, substantially as shown and described.

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

ISAAC FORSTER.

Witnesses:
SEWARD U. ROUND,
WILLIAM E. FLANAGAN.