

(No Model.)

D. H. ROYER.
BLIND OPERATING DEVICE.

No. 339,326

Patented Apr. 6, 1886.

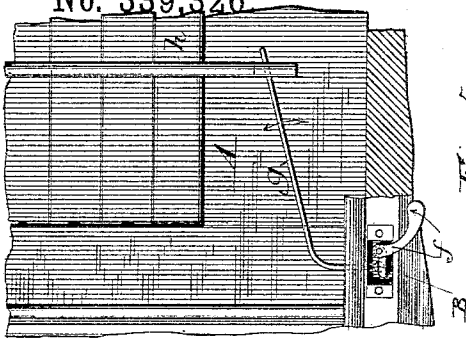


Fig. 1.
on line 3-3

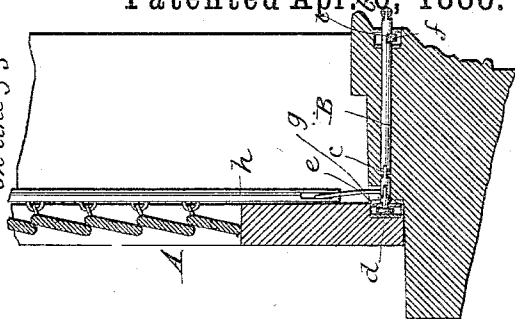


Fig. 2.
on line x-x

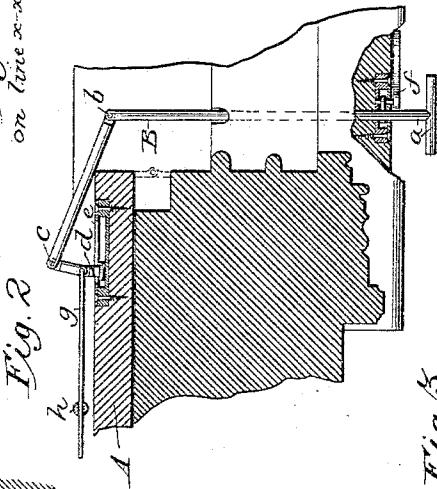
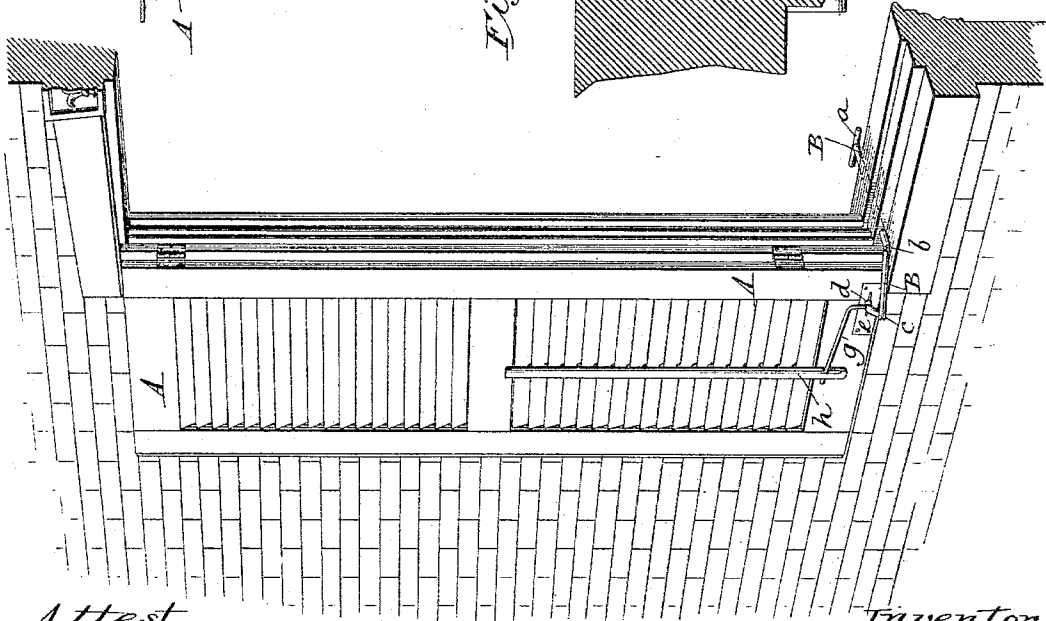
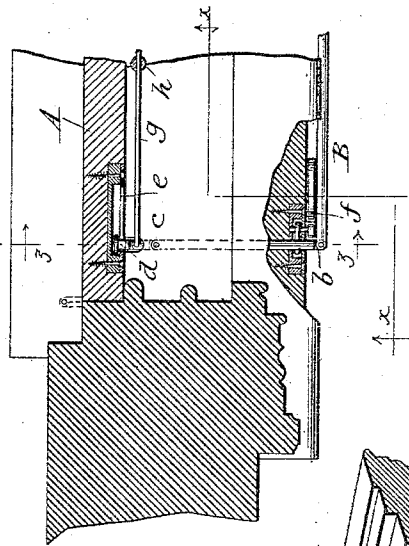


Fig. 3.



Attest

Inventor

James P. Hollingsworth
W. H. Shipley

Fig. 1.

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By his atty
J. T. Dodge.

UNITED STATES PATENT OFFICE.

DAVID H. ROYER, OF MILLMONT, PENNSYLVANIA.

BLIND-OPERATING DEVICE.

SPECIFICATION forming part of Letters Patent No. 339,326, dated April 6, 1886.

Application filed August 24, 1885. Serial No. 175,178. (No model.)

To all whom it may concern:

Be it known that I, DAVID H. ROYER, of Millmont, in the county of Union and State of Pennsylvania, have invented certain Improvements in Blind-Operators, of which the following is a specification.

This invention relates to a device which serves the two-fold purpose of opening and closing and fastening window-shutters, and of operating the rolling slats from the interior of the building.

To this end it consists in a jointed rod extending outward through the window-sill and arranged to slide and rotate therein, combined with a sliding connection to control the shutter, and with an arm or finger to operate the slats, as hereinafter fully explained.

In the accompanying drawings, Figure 1 is a perspective view from the exterior of the building, showing a blind with my device applied thereto. Fig. 2 is a horizontal section representing the parts in the position which they occupy when the blind is open. Fig. 3 is a similar view showing the position of the parts when the blind is closed. Fig. 4 is a cross-section on the line xx of Fig. 3, looking outward toward the blind. Fig. 5 is a vertical cross-section on the line zz of Fig. 3.

In the drawings, A represents an ordinary shutter with rolling slats hinged to close a window-opening in the ordinary manner.

In proceeding to apply my improvement I first provide a rod, B, having at one end the handle a , and at points near its outer end the two joints b and c . This rod I pass through a hole bored in the window-sill from the inside to the outside, so that it may both slide and turn freely therein, and at its outer end I connect it by a vertical pivot to an ear, d , arranged to slide horizontally in the inner face of the blind. This ear may be of any appropriate construction; but I prefer to provide it, as shown in the drawings, with an outwardly-extending stud to receive the pivot, and to seat it in a slotted supporting-plate, e , through which the stud projects.

The construction and arrangement of the parts are such that on sliding the rod outward in an endwise direction its outer jointed sections, acting through the ear d , will fully open the blind and finally assume the position represented in Figs. 1 and 2, thereby locking the

blind firmly in the open position. On drawing the rod inward its outer sections will act to close the blinds, as represented in Fig. 3. When the shutter is closed, the joint b will extend inside of the window-sill and allow the inner end of the rod to be swung horizontally against the wall, as shown in Fig. 3, so that it may not project into the apartment in an objectionable manner. When the sill is of an unusual width or thickness, a special joint may be provided to permit the closing action of the rod.

For the purpose of locking the shutter in the closed position and intermediate positions, as may be demanded, I provide the rod with one or more notches, i , and mount in the window-sill a locking device, f , which may be of any appropriate form. I recommend, however, as the most simple device, that represented in the drawings, consisting of a rock-shaft having at its inner end the finger to engage the notches in the rod, and at its outer end an operating-handle, which serves also as a weight to hold the finger in engagement.

The parts above described are sufficient in themselves to effect the opening and closing of the shutter. When, however, it is required that the device shall answer the additional purpose of adjusting the rolling slats, I construct the ear d or the stud thereon so that it may rotate with the rod, and attach thereto a finger, g , extending upward and engaging the usual bar, h , by which the slats are controlled. When the blind is in a nearly closed or a partially open position, the rotation of the rod in one direction or the other will operate the finger g , and cause it to raise or lower the bar h , and thereby roll the slats as may be demanded. The lower end of the finger g may serve as the pivot for connecting the end of the rod with the plate d , as represented in the drawings, and this construction is recommended.

The connection of the jointed rod to the shutter by means of the ear sliding upon the latter is advantageous in that it permits the end of the rod to change position in such manner as to pass freely into a hole of the size of the rod, so that the mortising, slotting, or cutting of the sill, which would otherwise be necessary, is avoided.

I am aware that a jointed sliding rod has

been employed to open and close a blind; but I believe myself to be the first to attach a jointed rod to the shutter by a plate or equivalent device having a sliding motion, such as herein described.

The construction of my device admits of its being applied to existing blinds and sills without change therein, the only opening required in the sill being the hole for the rod, which may be produced by an ordinary bit.

My device is peculiarly advantageous when used in connection with blinds supported by locking-hinges which are unlocked by a rising motion of the blind. When the blind is open, the jointed end of the rod, extending at substantially right angles to the main portion, serves as a crank, so that on turning the rod the end will lift the blind.

It is to be noted that my device is intended for application to and through the window-sill, in which position it may be used without interfering with the movement of the window-sashes or their counterbalancing-weights.

Being applied through the sill the device may be connected to the blind at such distance from the hinge as to give easy control thereof, and in this respect it is superior to

those operators which require to be attached to the stile of the blind at or near the inner edge.

Having thus described my invention, what I claim is—

1. The shutter-operating device consisting of the sliding rod provided with joints *b* and *c*, the ear *d*, jointed to its extremity, and the slotted plate *e*, connected to the ear *d*.

2. In combination with the swinging blind and the window-sill, the sliding and rotating rod *B*, provided with joints *b* and *c*, the ear *d*, arranged to slide horizontally on the blind, and the arm *g*, applied at one end as a pivotal connection between the rod and the ear *d*, and connected at its opposite end to the slat *h*, whereby the arm is permitted to accommodate itself to the changing position of the rod with reference to the blind.

In testimony whereof I hereunto set my hand this 6th day of August, 1885, in the presence of two attesting witnesses.

DAVID H. ROYER.

Witnesses:

WM. R. KENNEDY,
W. H. SHIPLEY.