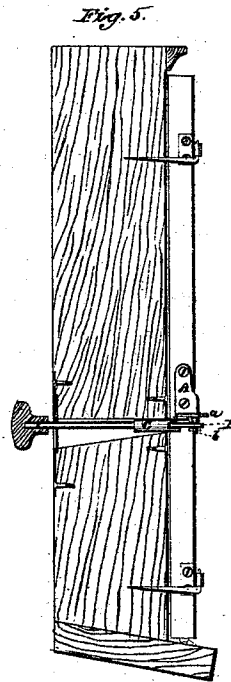
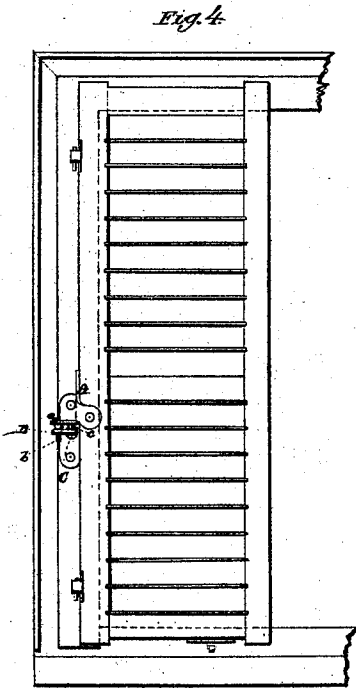
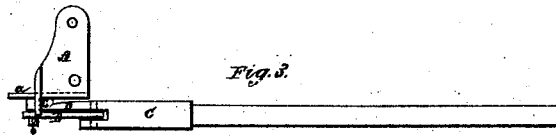
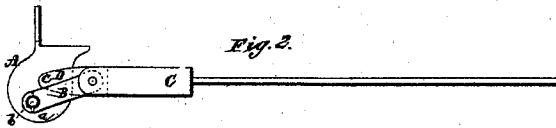
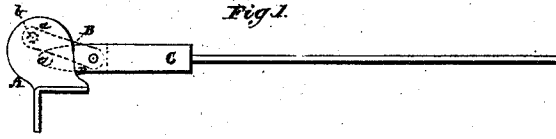


H. W. Boynton,

Shutter Worker.

No. 106,114.

Patented Aug. 9. 1870.



Witnesses
S. H. Piper
L. N. Hildent

H. W. Boynton
by his attorney
W. H. Brady

United States Patent Office.

HENRY W. BOYNTON, OF HAVERHILL, MASSACHUSETTS.

Letters Patent No. 106,114, dated August 9, 1870.

IMPROVEMENT IN SHUTTER-WORKERS.

The Schedule referred to in these Letters Patent and making part of the same

To all persons to whom these presents may come:

Be it known that I, HENRY W. BOYNTON, of Haverhill, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Mechanism for Operating a Window-Blind or Shutter; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, of which—

Figure 1 is a top view,

Figure 2, a bottom view, and

Figure 3, a side elevation of it.

Figure 4 is a front elevation of a blind and window-frame with my invention applied thereto.

Figure 5 is a vertical and transverse section of the said window-frame, it being taken through the lever of the operative mechanism.

In the drawing—

A denotes a pivoted bracket, which, when in use, is fastened to the blind, or arranged therewith, in manner as shown in figs. 4 and 5.

This bracket has a circular bearing, *a*, extended from it, a pivot, *b*, being projected down from the said bearing.

This pivot goes through a connection bar, B, near one end of such bar, and serves to aid in joining it to the bearing.

The bar B at its other end is jointed to a lever, C, which has extended from it, in manner as shown, a prong or arm, D, which, at its outer end, is or may be turned upward, or there provided with a rounded projection, *e*, to bear against the under side of the bearing *a*.

When in use, the lever C goes through the window-frame, and is disposed therewith and with the bracket and the bar B in manner as represented in figs. 4 and 5.

The lever, with the bar B and arm D, are intended to operate the blind, or raise it and open and close it in manner in which the lever, shown in the United States patent No. 89,150, accomplishes such.

In the United States patent No. 54,996, a blind-hinge is shown as provided with an arm, *a*, connect-

ing-bar, and a sliding bolt, which, in some respects, are analogous to the pivoted projection *a*, the link or bar B, and the lever C, of my blind-operative mechanism.

In carrying out my present invention, I not only have sought to avoid the use of the angularly slotted head of the operative lever, as shown in the first-named of the aforesaid patents, (there being practical objections to such a head,) but I have endeavored to substitute for it the connection-bar, and I have combined with such bar, and the parts to which it is jointed, the bearing *a*, and the prong or arm D, having the extensions *e*, they enabling the blind not only to be swung back and forth by the lever, but to be lifted so as to unfasten the blind, whether open or closed.

I would remark that for correct operation of my improved mechanism that is to enable it to raise the blind, the holes of the link or bar B, as well as the crotch of the fork of the lever, should be wide or large enough to admit of the lever being moved vertically on its fulcrum the necessary amount, the extension *e* of the prong or arm D always being underneath and against the circular bearing *a*, while the bracket is fixed to a blind, and the lever goes through the window-frame, and has its fulcrum therein.

I make no claim to any thing or things, or combination or arrangement of mechanical devices as represented or described in either of the aforesaid patents.

I claim—

The arrangement and combination of the circular bearing-plate *a*, and the prong or arm D, with the lever C, the link or bar B, the pivot *b*, and the bracket A, the whole being for application to a window-blind or shutter and its frame, substantially in manner and for operating the same, as hereinbefore explained.

HENRY W. BOYNTON.

Witnesses:

R. H. EDDY,

J. R. SNOW.