

C. E. Struck,

Lock Hinge.

No. 103,795.

Patented May 31, 1870

Fig. 1.

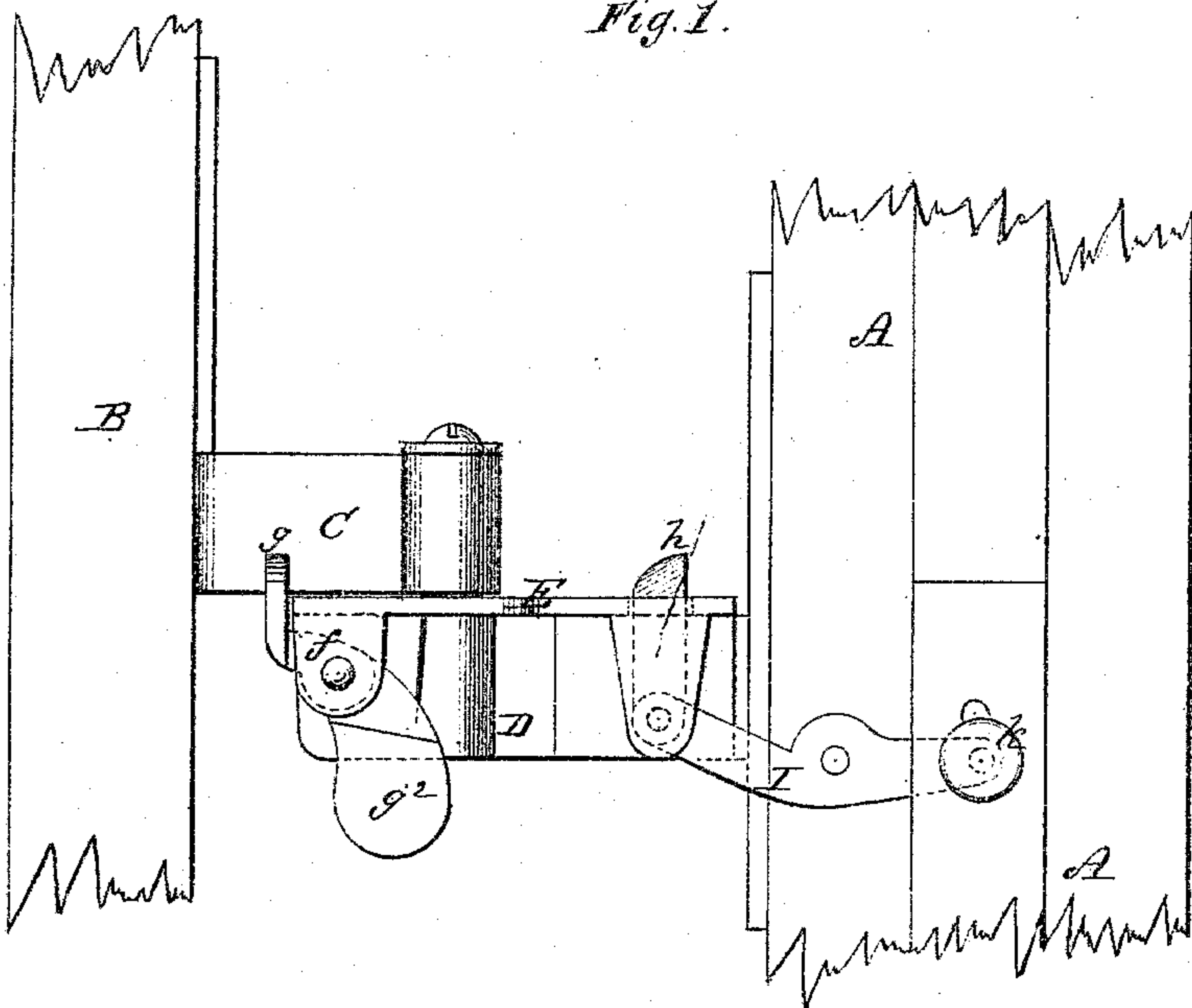
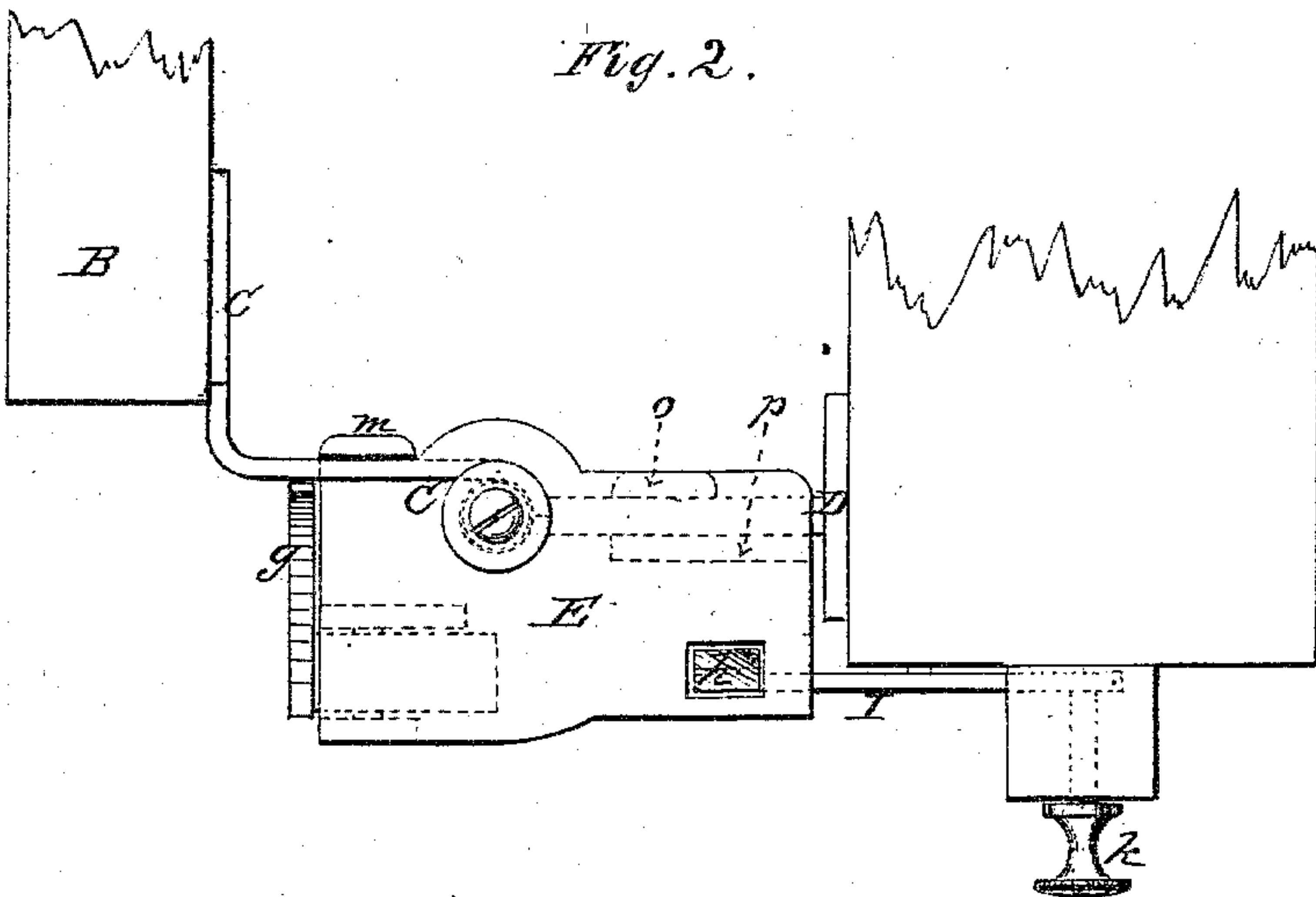


Fig. 2.



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Fig. 3

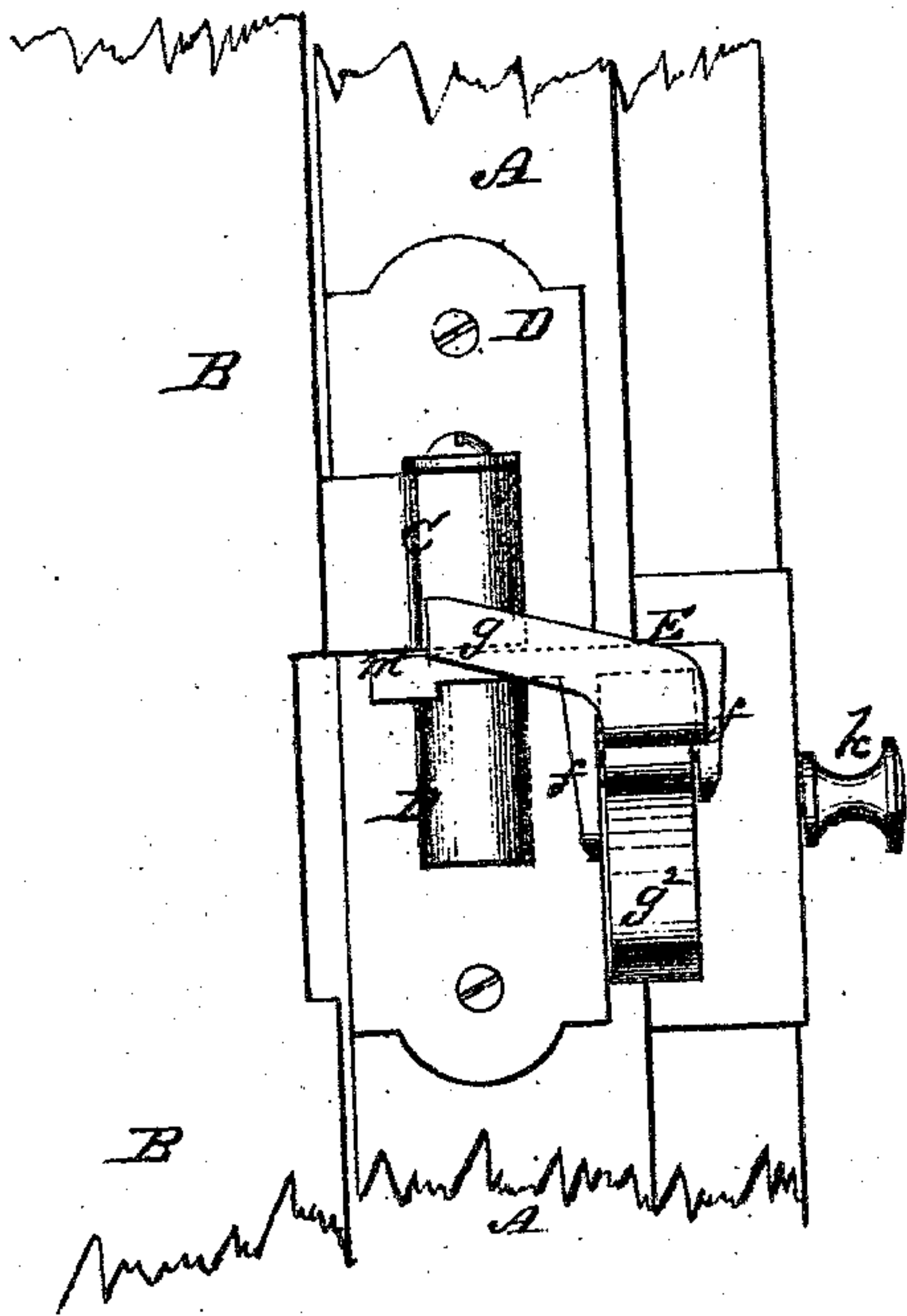


Fig. 4.

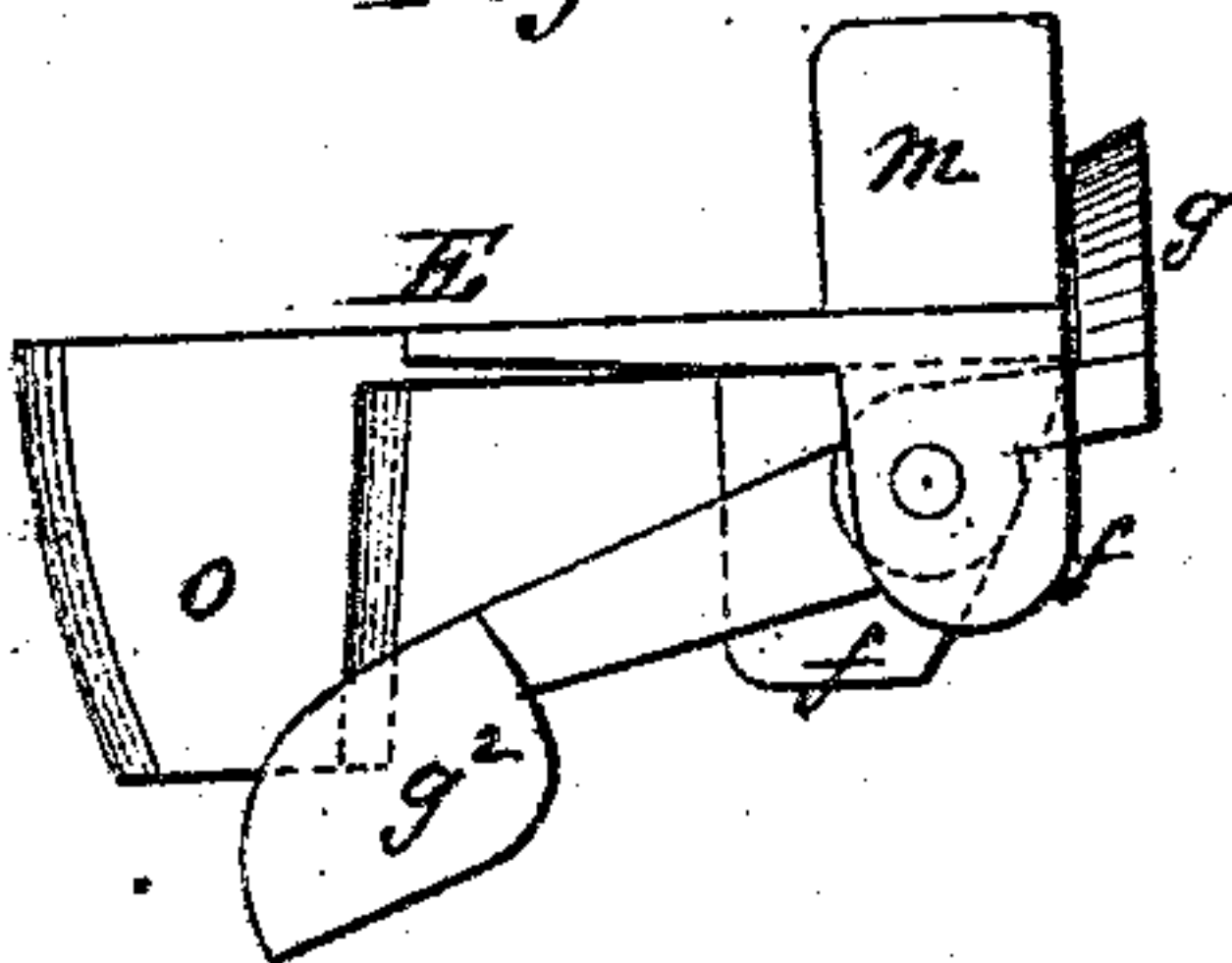
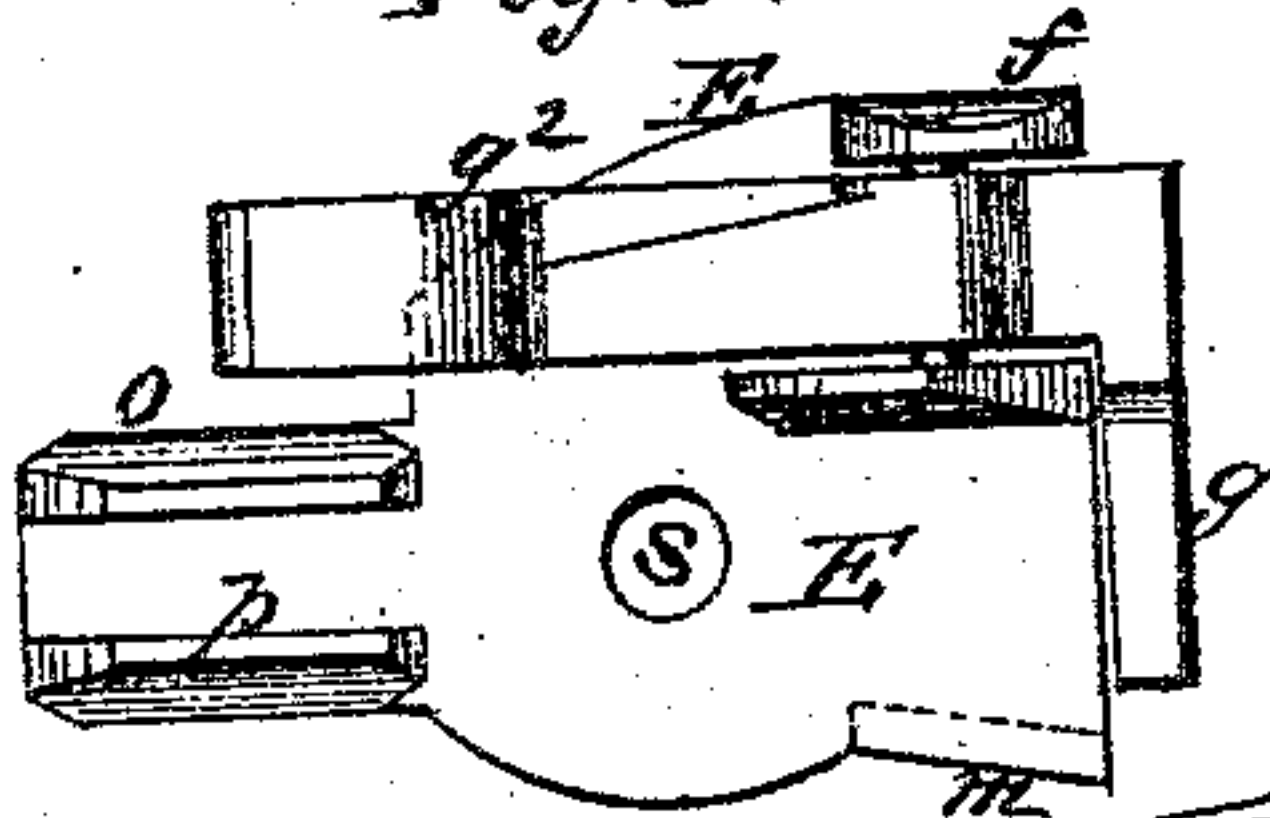


Fig. 5.



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CHARLES E. STRUCK, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND
JAMES TWAMLEY, OF SAME PLACE.

Letters Patent No. 103,795, dated May 31, 1870.

IMPROVEMENT IN BLIND-FASTENERS.

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

To all whom it may concern:

Be it known that I, CHARLES E. STRUCK, of New York, county of New York, in the State of New York, have invented certain new and useful Improvements in Blind-Fasteners; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing making part of this application.

My invention relates to a new mechanism or apparatus for holding open, or locking when closed, or both, the ordinary outside blinds or shutters of buildings.

Previous to my invention numerous devices for this purpose have been devised, but in all of them known to me, there is either the objection of too great cost, too much complication of mechanism, or difficulty of application, and liability to derangement from the shrinking or sagging of the shutter.

My invention has for its objects to provide a simple and economical appliance, which can be readily put onto all outside blinds, and which will be effectual in its operation, and not liable to derangement from the sagging or shrinkage of the shutter; and to these ends

My invention consists in a metallic plate or frame, adapted to fit on and interlock with one-half of the ordinary shutter-hinge, and provided with a weighted vibratory latch, and a permanent stop, between which latch and lug the movable portion of the hinge is confined when the shutter is open, substantially as hereinafter more fully explained; and

My invention further consists in the employment, in connection with such a metallic plate, of a swinging latch, for clamping or holding the movable part of the hinge when the blind is closed in or shut, as will be hereinafter more fully described.

To enable those skilled in the art to make and use my invention, I will proceed to describe the construction and operation of my improved apparatus, referring by letters to the accompanying drawing, in which

Figure 1 is an elevation of one of my improved blind-fasteners, shown as applied to the hinge of an ordinary outside blind. The blind and window-frame are only shown to a sufficient extent to illustrate clearly the application of my invention.

Figure 2 is a top view of the same.

Figure 3 is an elevation or view, looking at the outer edge of a window-frame.

Figures 4 and 5 are side and bottom views of the fastening device, detached from the blind and adapted for application to the opposite side to that in which the device is shown in other figures.

In the several figures the same part will be found designated by the same letters of reference.

A illustrates a portion of the frame of a window; and

B, a portion of an ordinary outside blind or shutter.

C is the moving half of an ordinary shutter-hinge, or that half which is attached to the blind; and

D is the stationary half, or that portion of the hinge which is fastened to the frame A of the window.

E is the body of the fastening device, which is in the form (shown) of a metallic plate, having a hole, S, in it (see fig. 5) through which is passed the stud or spindle of the hinge.

This plate E has two lugs, *o p*, projecting downward from its lower side, which are designed to straddle the body of the lower portion D of the hinge, as clearly shown, and

It has also two other lugs *f f*, projecting downward from its lower side, as shown, between which is hung on a pivot the latch *g g*², which is made of the shape seen, its lower end *g*² being made sufficiently heavy to insure the retention of the latch in the proper position, and its upper portion being so formed (with an inclined edge) that the bottom edge of the shutter can freely ride over it.

M is a stop, projecting up from the body or plate E, and which is designed to operate in conjunction with the catch *g* to retain or lock the shutter in place.

When open at figs. 1, 2, and 3, I have shown the apparatus provided with means for locking the shutter when closed, consisting of a bolt, N, which works up and down through a hole in the plate E, and which is moved by one end of a lever, I, to which it is pivoted, which lever is pivoted to the frame of the window, and is provided at its inner end with a knob or button, *k*, by means of which it can be conveniently handled.

The operation of the apparatus may be thus explained:

When the shutter B is opened, the lower edge of the portion C of hinge rides over the inclined (upper) edge *g* of the latch, depressing it until the said portion C of hinge comes against the stop M, which occurs when the shutter is wide open. As soon as the hinge strikes the stop M, (it has passed now clear over the latch *g*,) the end *g* of the catch flies up by reason of its weighted end *g*² turning it on its axis, and the body of hinge C is confined or retained between the latch *g* and stop M, as clearly shown.

When it is desired to close the shutter, the weighted end *g*² of the latch must be raised to depress the outer end *g*, and permit the hinge C to pass over it.

As the blind is closed, the portion C of hinge strikes against and rides over the upper (inclined) end of the vertical bolt N, which is thus depressed, and which rides or is thrown up by the gravity of the heavier end and knob *k*, and locks or secures the blind in its closed condition.

When it is desired to open the shutter again, the

bolt N is thrown down by raising the knob *k*, and, as the shutter is thrown back, it is automatically locked back, as before explained.

It will be seen that the portion C of the hinge is retained or confined between the back edge of latch *g* and the face of lug M, and that, as only a sufficient play is necessary to insure the free movement of the said latch *g*, the said hinge portion will be so steadily and closely held that little or no motion is permitted to the blind, and that, therefore, there will be no noise or rattle of the blind when the wind blows, nor can there be any momentum to strain or break the fastener, which can, therefore, be made very light and cheap.

For ordinary purposes, and where a hook or other device is used to lock the shutters when closed, the fixture may be made, as shown at figs. 4 and 5, so as to perform only the functions of a device for locking the shutter when opened or thrown back.

By making the fastener with a hole, S, adapted to receive the shanks or spindle of the hinge, and with lugs *o p*, or their equivalent, to straddle the hinge, the fixture can be readily applied by any person, and without the use of any tools, to the ordinary hinges of blinds now in use, and, when applied as shown, the fixture will be securely held in place between the two parts of the hinge.

Of course the fixture may be constructed differently in detail from that shown and described, and at the same time possess this characteristic feature of appli-

cability to the hinge in substantially the manner shown, which is the main feature of my invention.

It will be understood that the shape and size of the fixture may be varied to suit the shape and sizes of hinges used, and that either or both of the latches or bolts may be used, though for a cheap manufacture and an article for common or general use, such as seen at figs. 4 and 5, and adapted merely to the purpose of holding the blind open, and as a substitute for all sorts of fixtures applied to the wall of the house, is most desirable.

Having explained my invention, so that one skilled in the art can make and use my improved blind-fixture,

What I claim as new, and desire to secure by Letters Patent, is—

A blind-fastener, adapted to interlock with or between the halves of the hinge, by passing over the pintle, and being secured by lugs to the blade of one-half of the hinge, and provided with a permanent stop and swinging latch for locking the blind when open, as set forth.

Also, in combination with such a fixture, a bolt, for securing the shutter when closed, arranged and opened as described.

In testimony whereof I have hereunto set my hand and seal this 6th day of April, 1870.

Witnesses: CHARLES E. STRUCK. [L. s.]

J. N. MCINTIRE,

E. S. H. CULLY.