

J. R. Murphy,

Lock Hinge,

No. 40,145,

Patented Sept. 29, 1863.

Fig. 1.

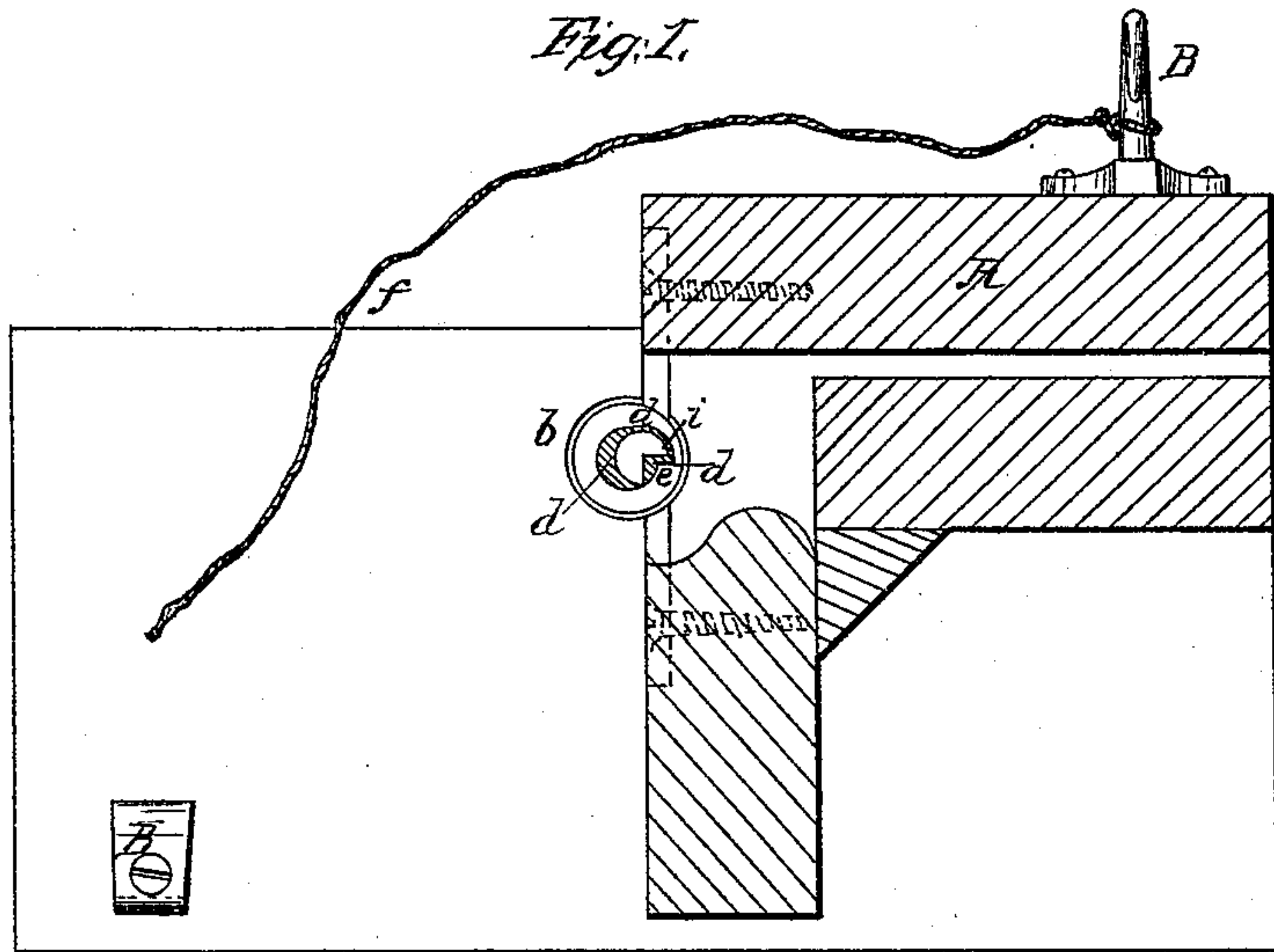
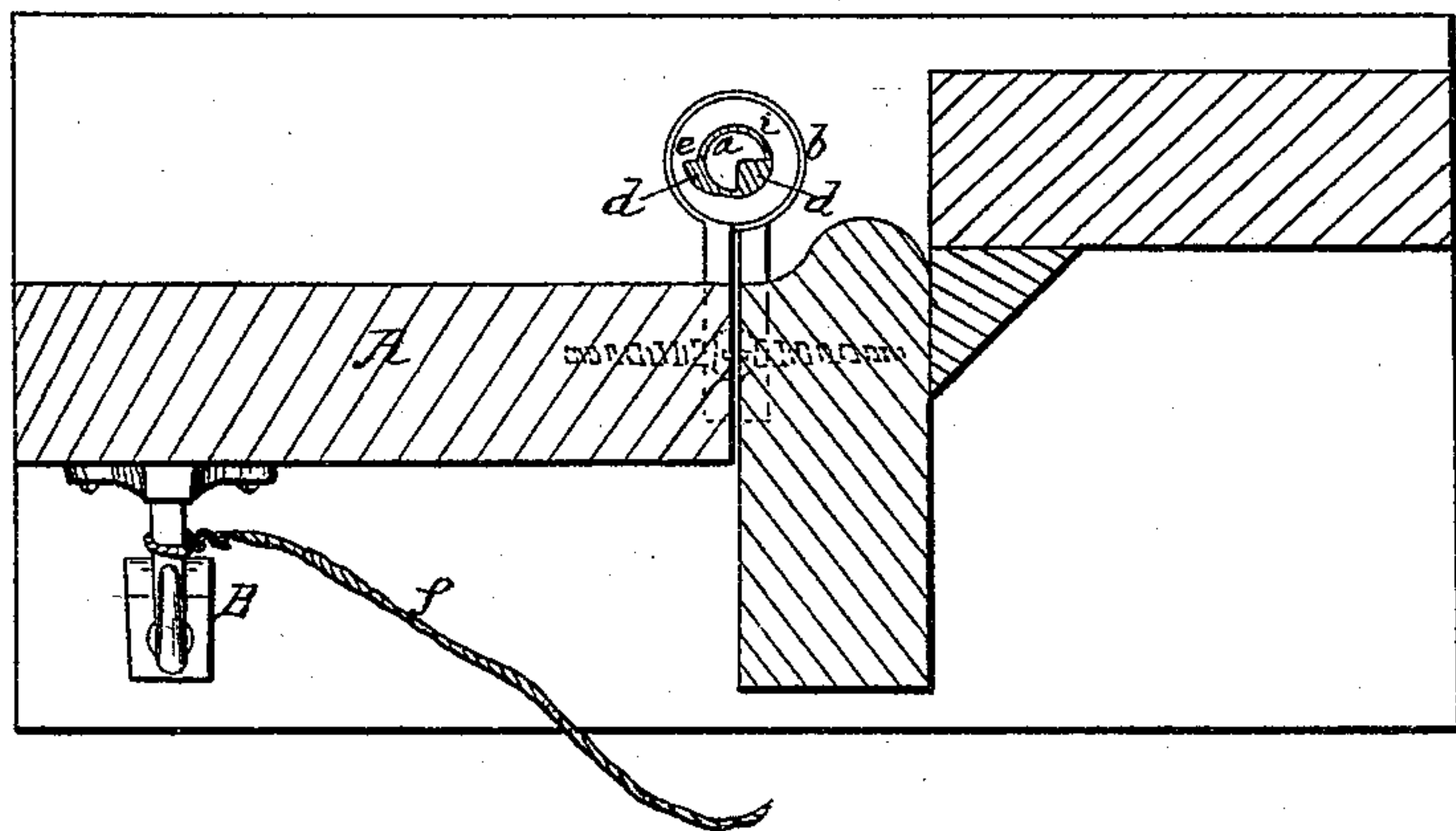


Fig. 2.



Witnesses:

E. Evans Jr.
A. D. Patten

Inventor:

J. R. Murphy.
By atty. A. B. Stoughton.

UNITED STATES PATENT OFFICE.

J. R. MURPHY, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO ALEXANDER SPEER, OF SAME PLACE.

IMPROVEMENT IN SELF-LOCKING WINDOW-HINGES.

Specification forming part of Letters Patent No. 40,145, dated September 29, 1863.

To all whom it may concern :

Be it known that I, J. R. MURPHY, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful improvements in the construction of self-locking hinges for window-shutters and other purposes; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a horizontal section through a window-shutter and frame, showing a hinge in top plan constructed after my plan, and the shutter as locked open or back by said hinge. Fig. 2 represents a similar horizontal section and top plan with the shutter, however, swung shut or closed in the frame.

Similar letters of reference where they occur in the separate figures denote like parts in both.

Many devices have been used in connection with shutter-hinges to hold the shutter when swung open or back; but these devices have been made separate from or in addition to the hinge itself, which ordinarily consists of but two pieces.

My invention consists in so forming the pivot or pin upon one half or part of the hinge, and the box or bearing upon the other half or part of the hinge as that the two parts, in addition to their forming the appliances for the swinging or turning of one part of the hinge upon the other part also form a locking mechanism by which the shutter or door is held back when swung open.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

The pivot-pin *a*, upon which the hub portion *b* of the hinge turns, has a portion of it, as at *c*, cut away, so as to form a shoulder, *i*. The

opening *d* in the hub of the hinge is of a cam or eccentric form, and has a shoulder upon it, as at *e*, which shoulder *e*, when the shutter *A* is swung back, as shown in Fig. 1, locks against the shoulder *i* of the pivot-pin *a*, and thus holds the shutter back. To release and close the shutter it is only necessary, with the hand or otherwise, to push the bottom of the shutter *A* in the direction of the red arrow, Fig. 1, until the shoulders *i e* have passed by each other, and, by drawing upon the cord *f* or upon the shutter itself, it will swing shut, and when shut, the pin and hub and their shoulders will be in the position shown in Fig. 2. The shape of the opening in the hub of the hinge admits of the lateral motion of the shutter upon the pin to lock and unlock the two parts of the hinge. The locking is self-acting, as it is only necessary to swing open the shutter and the two shoulders will interlock with each other. To draw to or close the shutter, a slight manipulation is necessary, as has been above stated. Thus, without adding to the first cost of a hinge, I cause it, in addition to its ordinary function as a hinge, to form a catch or lock to hold back the shutter, door, or other thing swung to or upon it.

B is an ordinary inside catch to hold the shutter when closed.

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

In combination with the two parts of a hinge, the shoulder *i* upon the pivot-pin, and the cam-shaped or eccentric opening and the shoulder formed in the wall thereof, for the purpose of locking a shutter or door back and at the same time concealing the locking mechanism, substantially as described.

J. R. MURPHY.

Witnesses:

J. DONALDSON,
W. W. SPEER.