

A. Rankin,

Shutter Bower.

No. 108052.

Patented Oct. 4. 1870.

Fig. 1.

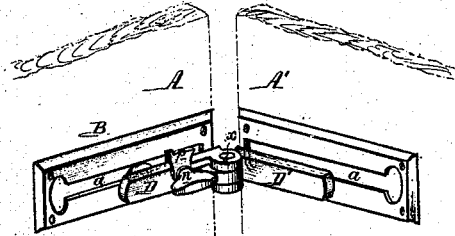


Fig. 2.

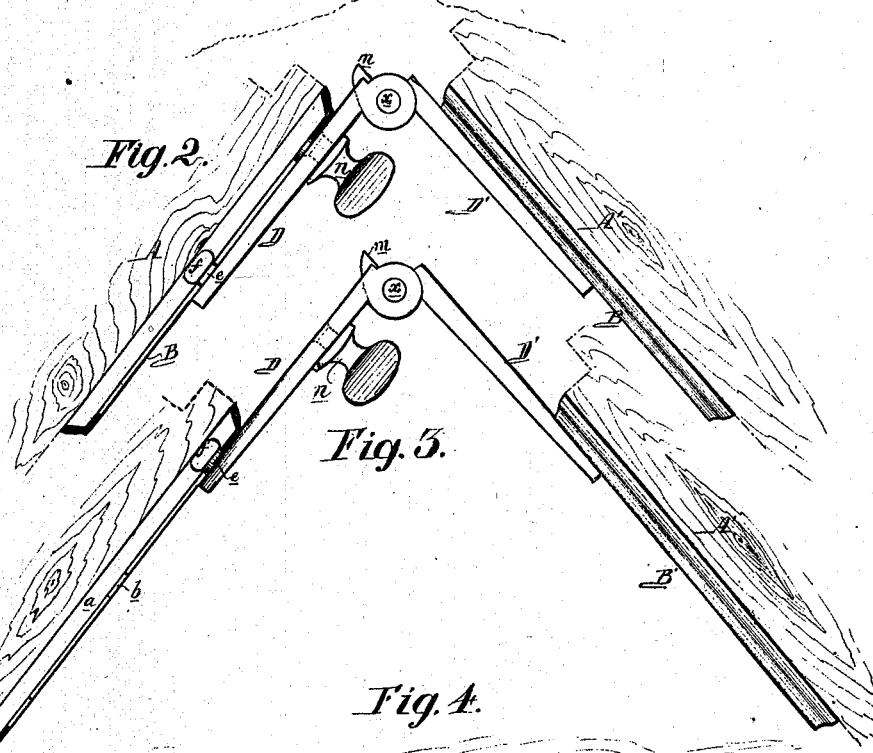


Fig. 3.

Fig. 4.

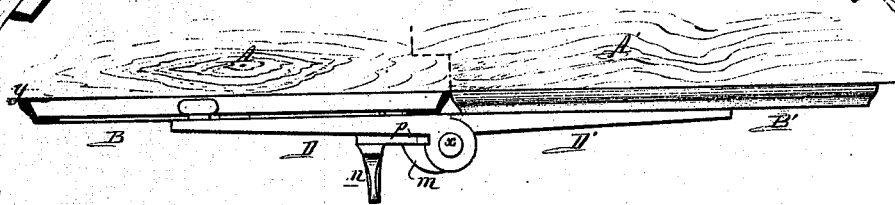
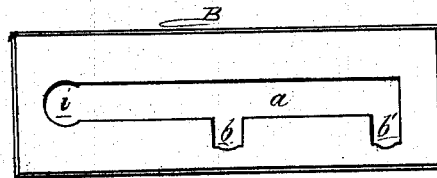


Fig. 5.



Witnesses { *Ing. B. Harding*
John Parker

Andrew Rankin
By Mrs. Atty
Thomson & Son

United States Patent Office.

ANDREW RANKIN, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 108,052, dated October 4, 1870.

IMPROVEMENT IN SHUTTER-FASTENERS.

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

I, ANDREW RANKIN, of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented a Device for Bowing and Securing Shutters, of which the following is a specification.

Nature and Object of the Invention.

My invention consists of a device too fully described hereafter to need preliminary explanation, whereby shutters may be retained in a bowed condition and locked after being closed.

Description of the Accompanying Drawing.

Figure 1 is a perspective view of my device applied to shutters;

Figure 2, a sectional plan of portions of the shutters bowed by my device;

Figure 3, the same as fig. 2, showing the shutters bowed to a greater extent;

Figure 4, a sectional plan of portions of the shutters, showing the same closed and secured by the device; and

Figure 5, a front view of one of the plates.

General Description.

A and A' represent portions of the shutters, to the inside of each of which is secured a plate, B, and each plate has a longitudinal slot, *a*, communicating with two notches, *b* and *b'*, as best observed on reference to fig. 5.

D and D' are two arms, hinged together at *x*, each arm having, near its outer end, a pin, *e*, the head *f* of which can pass through an enlargement, *i*, of the slot, near one end of the plate B; but, after being thus introduced, cannot be disconnected from the plate, excepting where the said enlargement occurs.

When the shutters are bowed to a limited extent, as shown in fig. 2, the pins *e* of the two arms, D and D', have been dropped, the pin of one arm into the notch *b* of the plate B of one shutter, and the pin of the other arm into the notch *b'* of the plate of the other shutter, so that the two arms will retain the shutters in their bowed condition.

Should it be desirable to have the shutters bowed to a greater extent, the arms D and D' may be elevated, so that their pins *e* are withdrawn from the

notches *b b'* in the plates, when the shutters may be opened until the said pins, after sliding along the slots in the plates, fall into the notches *b' b*, the hinged arms accommodating themselves to the inclination of the shutters.

On the hinged portion of the arm D' is a projection, *m*, and on the other arm is a turn-buckle, *n*, having a projection, *p*, which, when the shutters are closed and the arms are in line with each other, as shown in fig. 4, can fit between the face of the arm D and the said projection *m* of the arm D', thereby locking the hinge of the arms, and consequently securing the shutters in their closed condition. The hinge, however, can be readily unlocked, and the shutters released, by turning the buckle *n* until its projection *p* ceases to intervene between the projection *m* of the arm D' and the face of the arm D.

It will now be seen, without further description, that, by the aid of the above-described device, the shutters may be retained in a bowed condition, and adjusted as regards the extent of opening, and that the shutters may be locked after being closed.

In the present instance the plates B B have edges *y* at the back, so that there may be a space or recess between the plates and the shutters, for the free play of the heads *f* of the pins *e*. The plates, however, may consist of simple flat strips of metal, in which case recesses should be cut in the shutters for the play of the heads of the said pins.

Claims.

1. The slotted and notched plates B and B', secured to the shutters, in combination with the hinged arms D and D' and their headed pins *e*.

2. The combination, substantially as described, of the projection *m*, on one of the said hinged arms, with the turn-buckle *n* on the other arm.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

ANDREW RANKIN.

Witnesses:

JNO. B. HARDING,
FRANK B. RICHARDS.