

(No Model.)

J. H. LAWRENCE.

HINGE.

No. 309,393.

Patented Dec. 16, 1884.

Fig. 1.

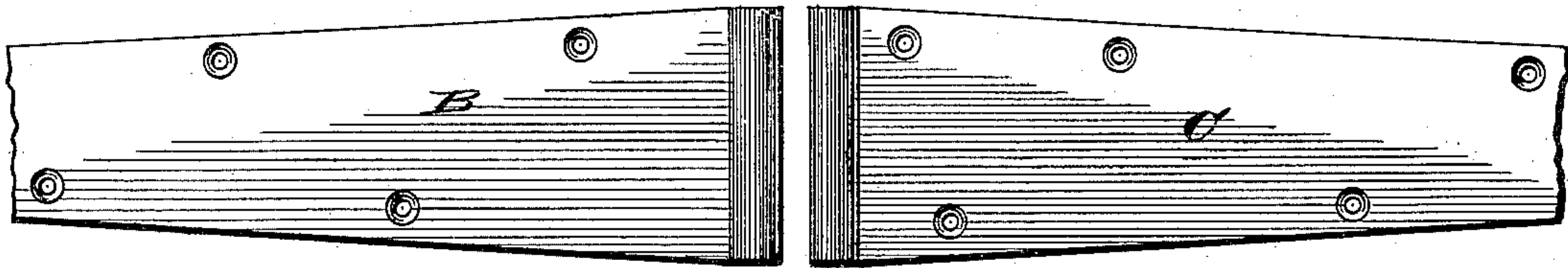
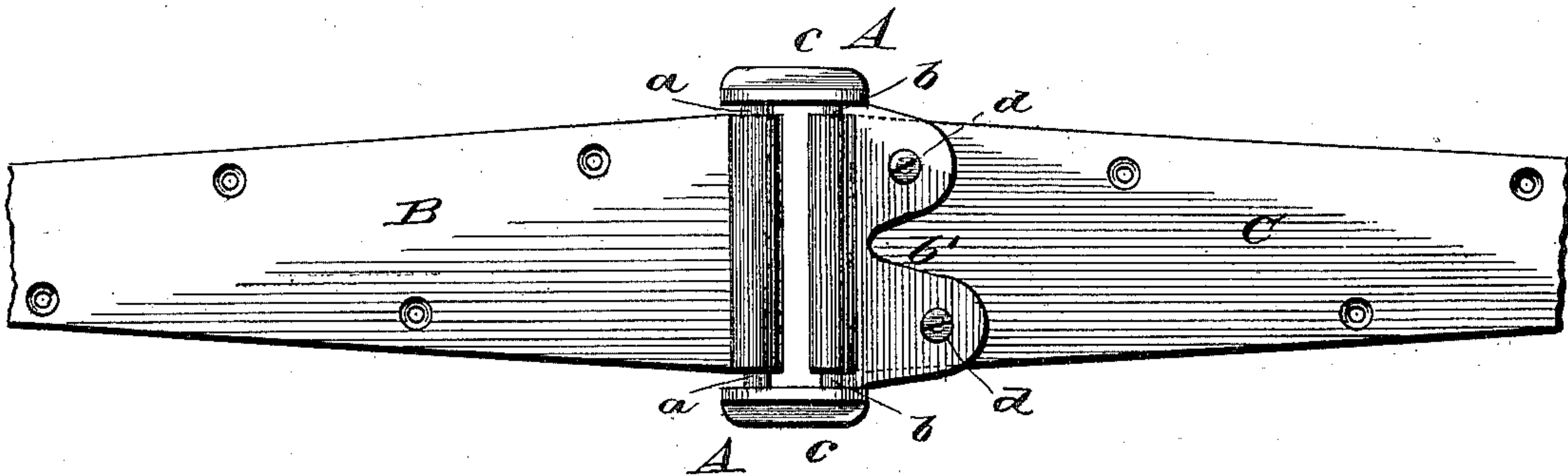
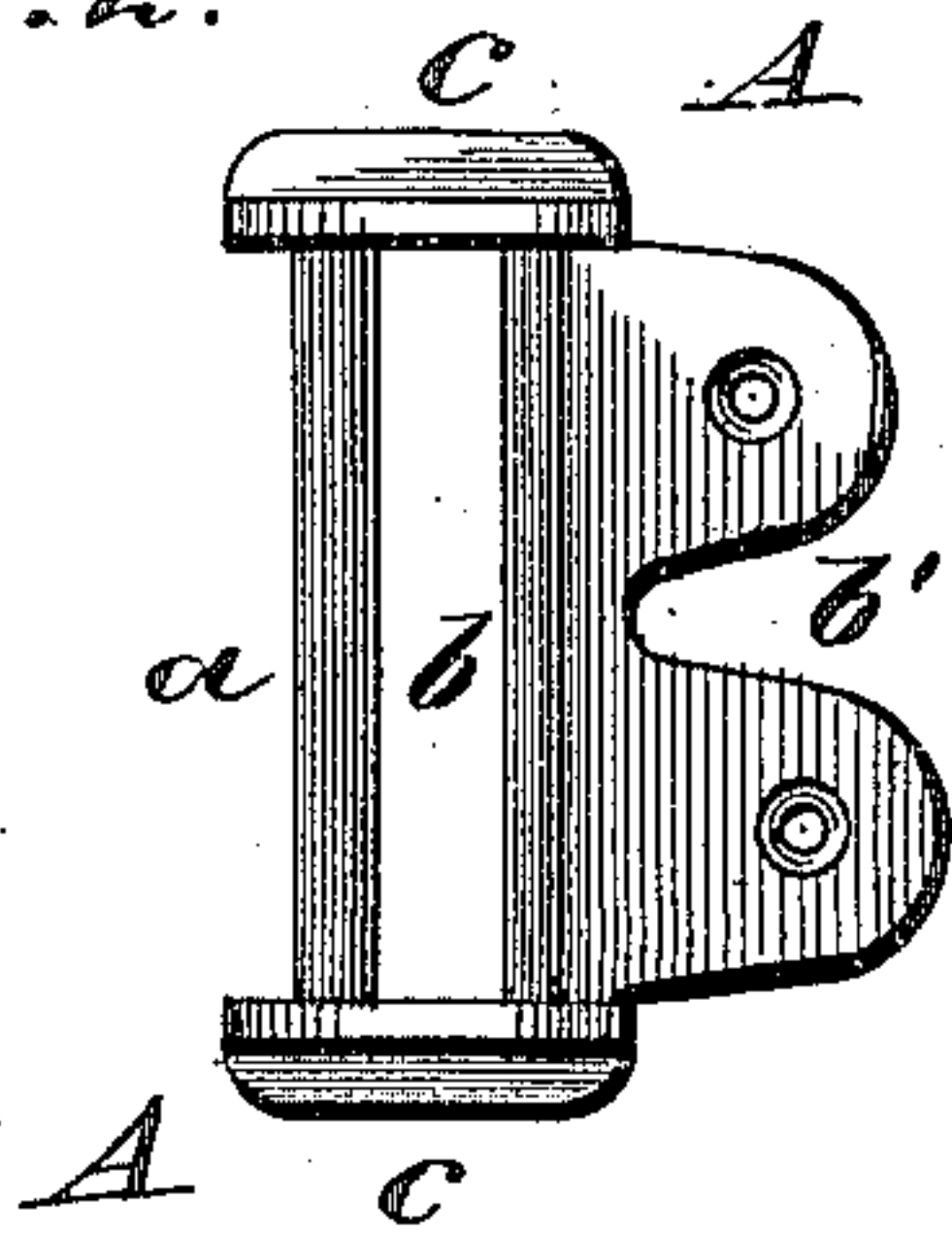


Fig. 2.



WITNESSES

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HINGE.

SPECIFICATION forming part of Letters Patent No. 309,393, dated December 16, 1884.

Application filed January 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. LAWRENCE, a citizen of the United States, residing at Sterling, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Hinges; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention has reference to certain improvements in door-hinges, and pertains more especially to certain novel devices by which but one leaf of the hinge is pivoted.

I am aware that the idea of pivoting but one leaf of a hinge is not new; but heretofore the stationary leaf has been held rigid by means of a flange or flanges forming part of the center stem of the hinge and pressing against such leaf, such flange having no support other than that of the center stem. The objection to this construction is, that inasmuch as the center stem has to support the weight of the door, and the doors to which hinges are usually attached are outside doors, exposed to the action of the wind, the strain is sufficiently great on such center without the additional work of holding the rigid leaf. To add the requisite amount of material to the center stem to insure the rigidity of the fixed leaf would render the hinge disproportionate, add to its cost, and render it less salable.

In my improvement I cause the part which holds the fixed leaf to not only support itself, but assist in sustaining and bracing the center stem, thus causing such fastening to perform a double function, and relieving the center stem of the aforesaid additional strain.

In the drawings, Figure 1 is a side elevation of an open hinge embodying my invention. Fig. 2 is a detailed view of the parts involved.

A is the vertical part or core, consisting of the pivot *a*, the fixed bar *b*, and the ends *c c*. These parts are all integral, and the bar *b* has the side plate or extension, *b'*, integral with such bar *b*, and provided with screw-holes *d*.

B and C are the leaves of the hinge, and are

placed in position as follows: The inner end of the leaf B is clasped from the rear around the stationary pivot *a*, and the inner end of the leaf C is clasped in like manner around the fixed bar *b*, as shown. The holes *d* in the plate *b'* are continued through the leaf C, and the screws passed through such holes prevent any movement of the leaf C upon the bar *b*.

The flexibility of the hinge is attained solely by the rotation of the inner end of the leaf B upon the fixed pivot *a*.

The leaves B and C are permitted to fold by increasing the transverse diameter of the pivot *a* slightly beyond that of the bar *b*, whereby the outer plane of the pivot *a* falls outside of that of the bar *b* and the extreme ends of the hinge are allowed to meet.

By this construction I hold the fixed leaf C from turning on the bar *b* in two ways: First, the inner end of the hinge C abuts against the extension *b'* and prevents the bar *b* from revolving in the leaf C; and, second, the screws which pass through the holes *d* clamp the hinge C against the door-frame. I also utilize the extension *b'* to sustain and brace the bar *b* and retain a due proportion between the parts. The hinge C also acts as a lock upon the bar *b*.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

In a hinge, the combination of the pivot *a* and bar *b*, provided with the extension *b'*, having the screw-holes *d* therein, the end pieces, *c*, all of such parts being made integral, and the leaf B and leaf C, the leaf B having its inner end clasped loosely around the pivot *a*, and the leaf C having its inner end clasped around the bar *b*, so that the inner edge of such leaf C rests upon the outer face of the extension *b'*, whereby and by means of the screws passed through the holes *d* in the extension *b'*, and also through the leaf C, the bar *b* is sustained and braced and held from rotating in the leaf C, substantially as shown, and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN H. LAWRENCE.

Witnesses:

WALTER N. HASKELL,
WALTER STAGER.