

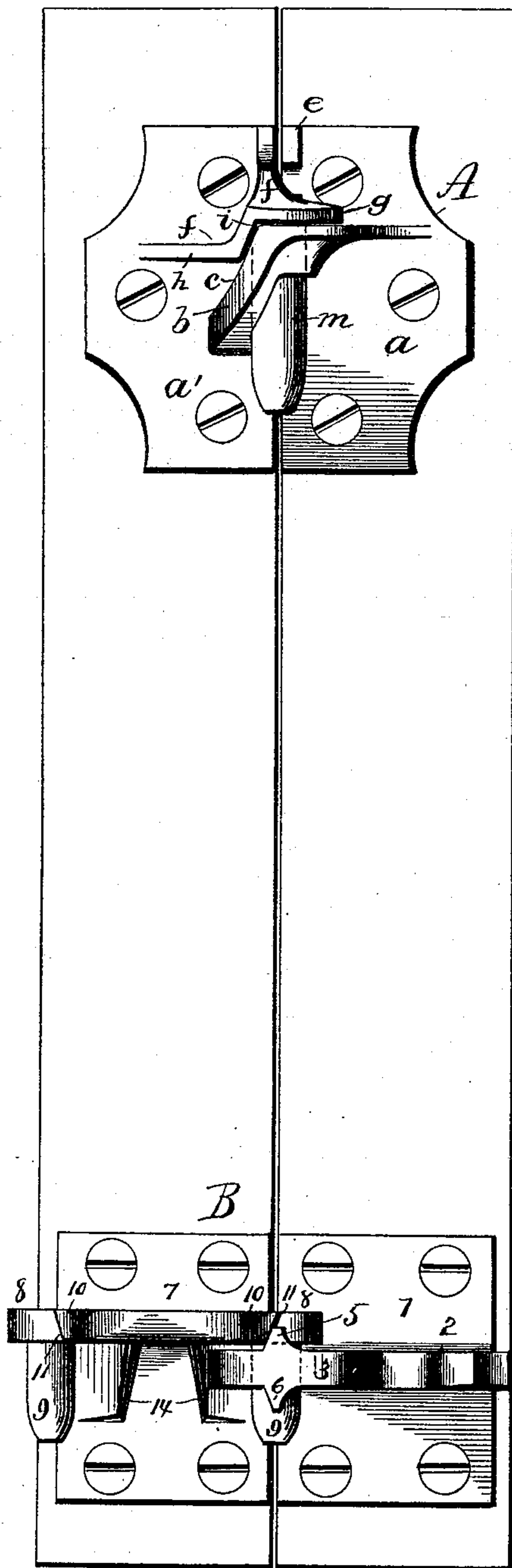
(No Model.)

2 Sheets—Sheet 1.

L. PORTER.
LOCK HINGE.

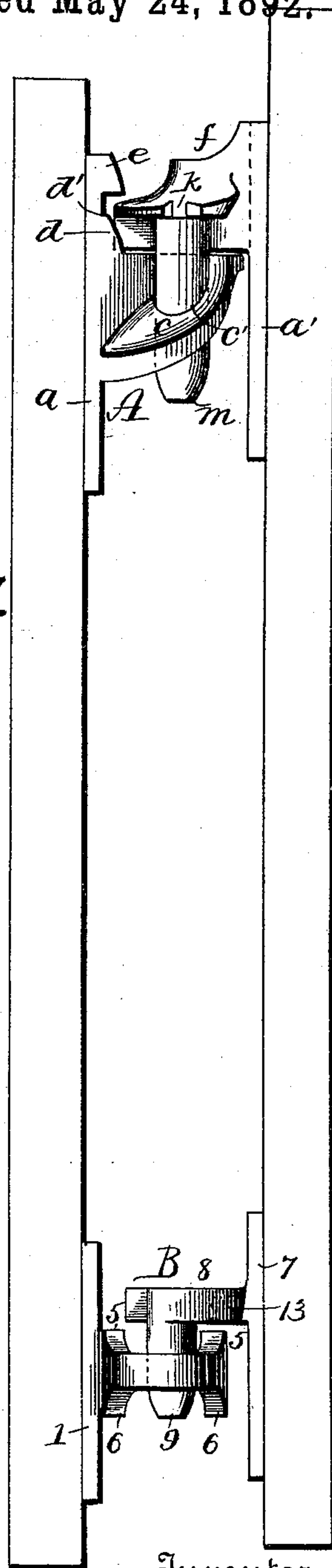
No. 475,415.

Patented May 24, 1892.



Witnesses
E. J. Attridge
G. F. Downing

Fig. 1. Fig. 2.



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Lausing Porter
By *H. A. Seymour*
Attorney

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2 Sheets—Sheet 2.

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Fig. 3.

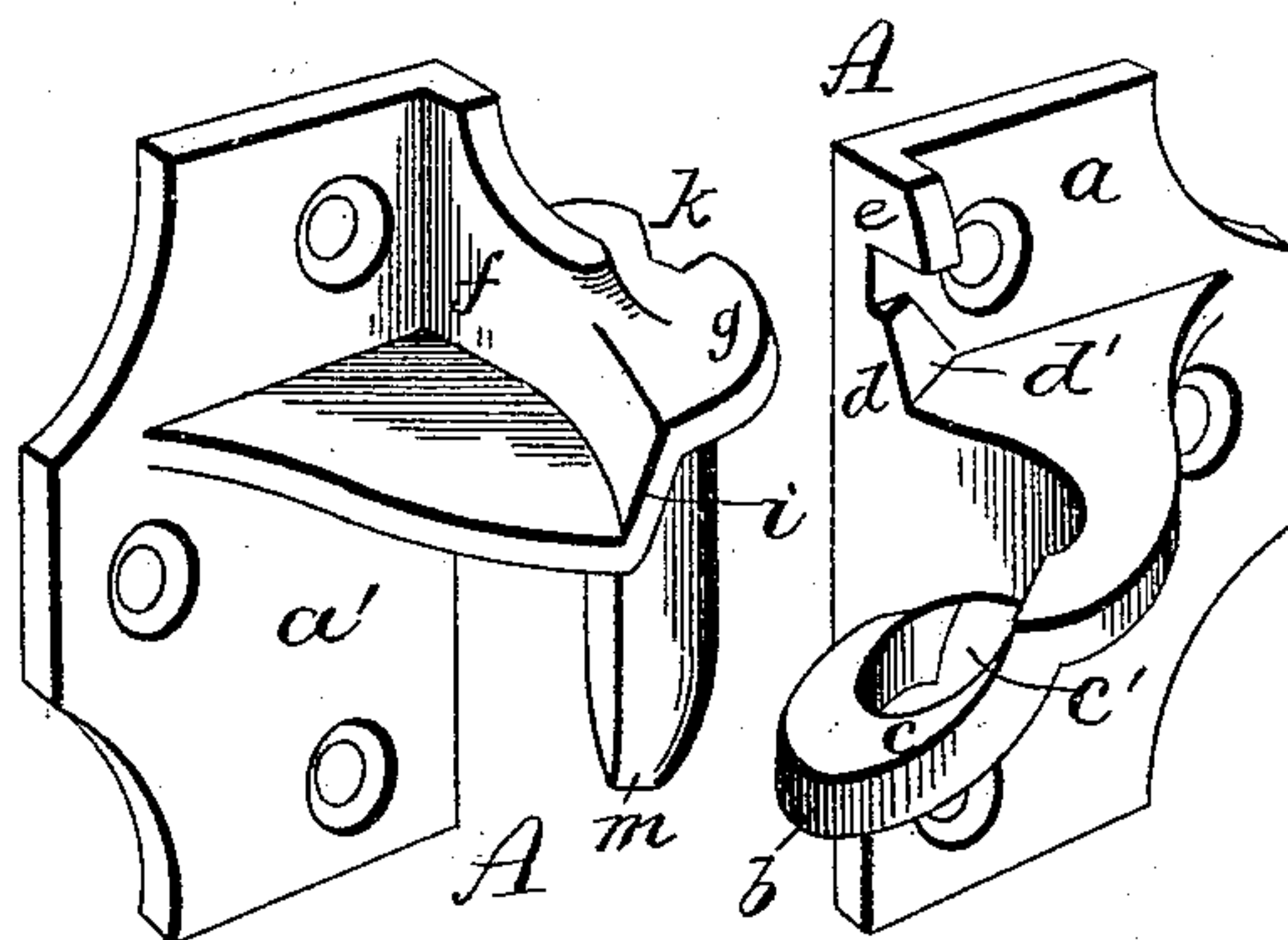


Fig. 4.

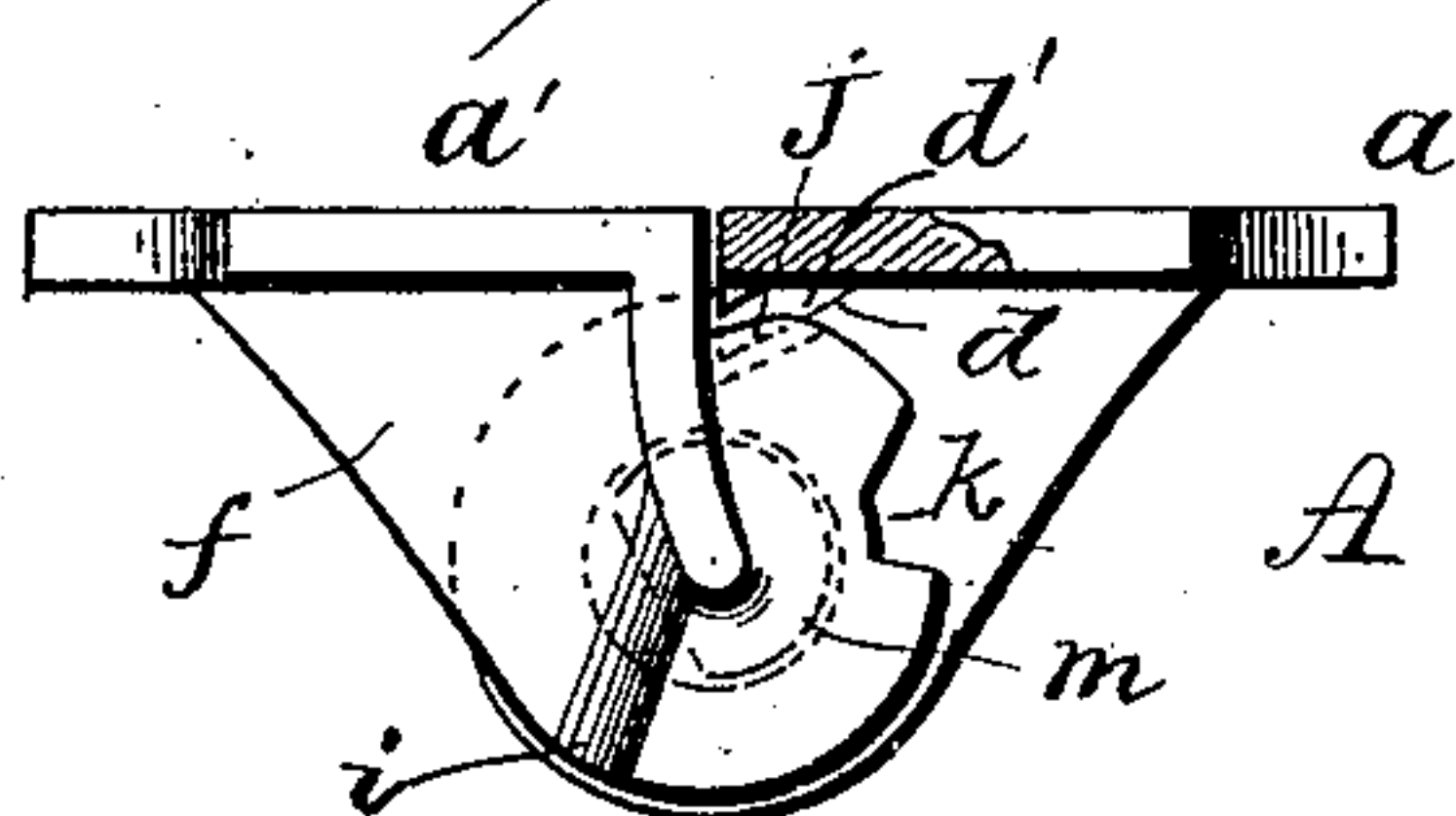


Fig. 5.

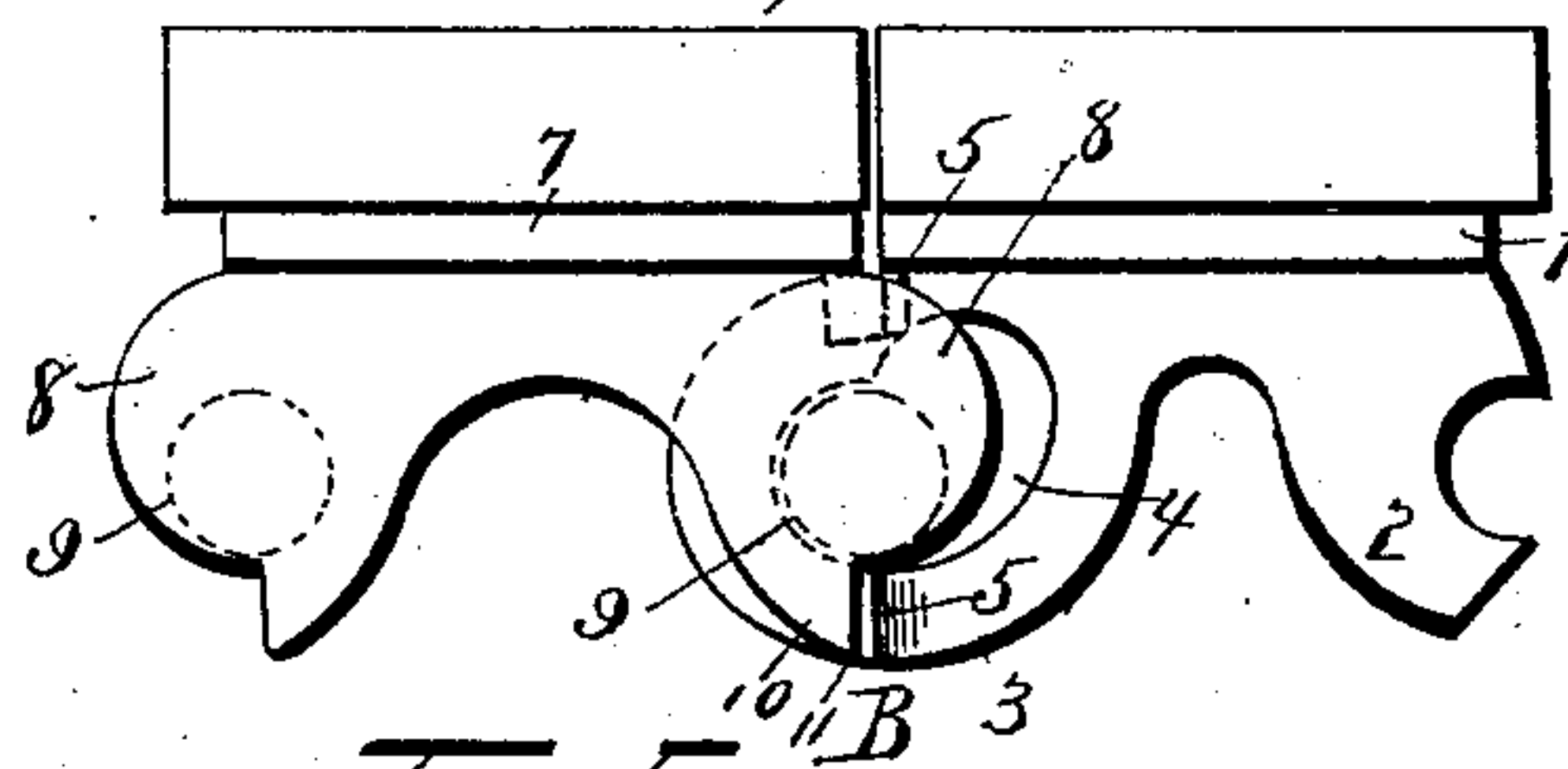
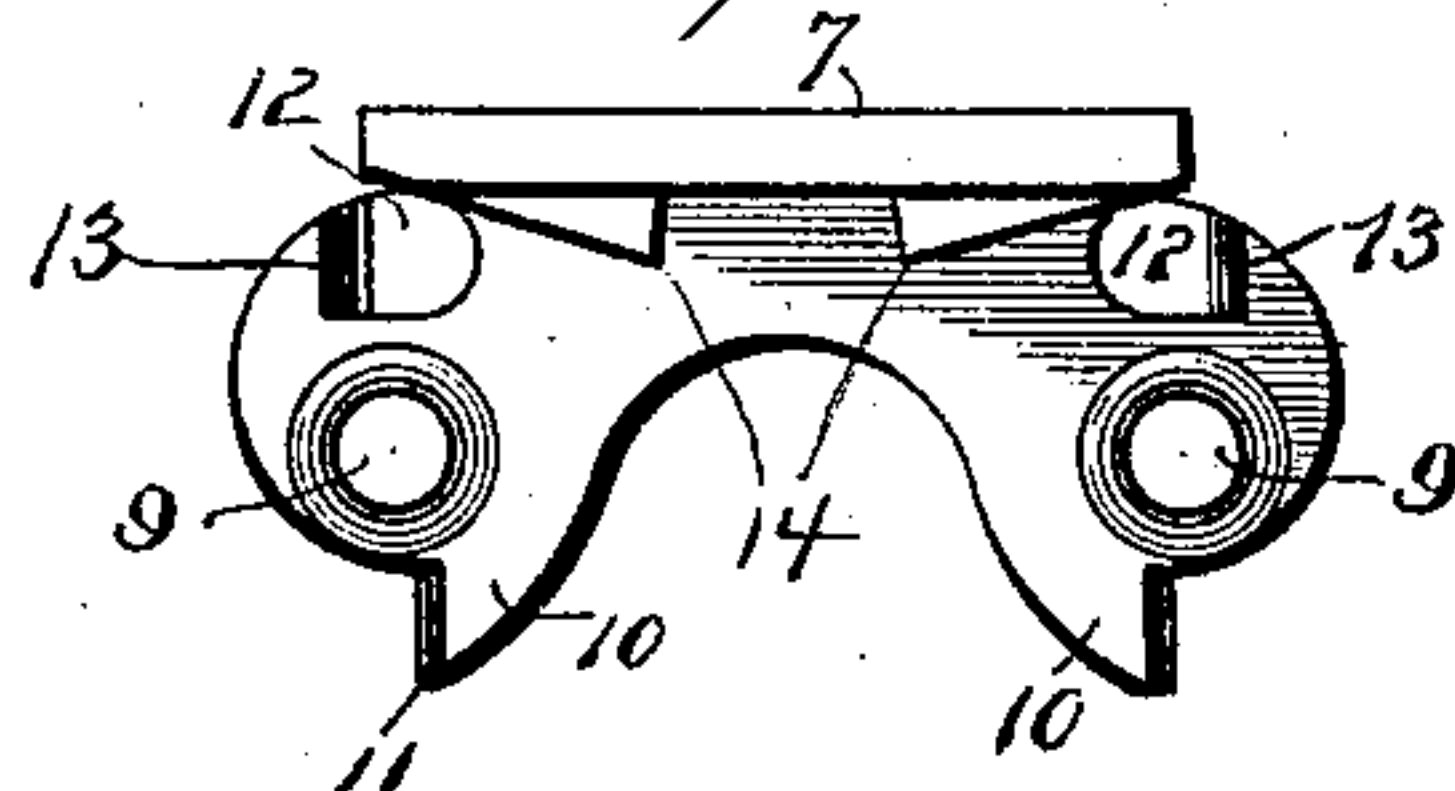


Fig. 6.



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UNITED STATES PATENT OFFICE.

LANSING PORTER, OF AUBURN, NEW YORK.

LOCK-HINGE.

SPECIFICATION forming part of Letters Patent No. 475,415, dated May 24, 1892.

Application filed September 5, 1891. Serial No. 404,833. (No model.)

To all whom it may concern:

Be it known that I, LANSING PORTER, a citizen of Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Blind-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.

My invention relates to an improvement in blind-hinges, its object being to construct hinges for blinds so as to lock the blind in either a closed or open position.

A further object is to produce hinges for the purpose stated which shall be of simple construction and effectual in the performance of their functions.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a face view showing the positions of the hinges when the blind is closed. Fig. 2 is a view showing the positions of the hinges when the blind is open. Figs. 3, 4, 5, and 6 are detail views.

A represents the upper hinge, the leaf *a* of which is secured to the window-frame and the leaf *a'* to the blind. Projecting from the leaf *a* is a socketed projection *b*, said projection being made of such form as to produce an inclined face *c* at one side of the socket or perforation *c'* of said socket-piece *b*. In close proximity to the top of the socket-piece *b* and at the edge of the leaf *a* is a lug or shoulder *d*, having an inclined face *d'*, said inclined face inclining in the opposite direction to the inclined face *c*. At or near the top of the leaf *a* is a lug or projection *e*, thus leaving a recess between it and the shoulder *d*. Projecting from the leaf *a'* is an arm *f*, said arm having at its free end a shoulder *g*. The shoulder *g* is disposed slightly above the lower face *h* of the arm *f*, and the web connecting the arm and shoulder is made inclined to produce an inclined face *i*, adapted to bear against the inclined face *c* of the socketed piece *b*. The end of the shoulder *g* is made with an inclined face *j*, adapted to bear against

the inclined face *d'* of the shoulder *d*. A notch *k* is made in the shoulder *g* for the accommodation of the lug or projection *e* when the hinges are put together, and the pintle *m*, which projects downwardly from the arm *f*, is made to pass through the opening in the socketed piece *b*.

The leaf 1 of the lower hinge B is secured to the window-frame, and is provided at one end with a hook-shaped arm 2 and at the other end with an arm 3, having a curved slot 4 therein. Projecting in opposite directions from the arm 3 at each side of the curved slot 4 are inclined projections 5 5 6 6. The other leaf 7 of the lower hinge B is provided with two arms 8 8, from which downwardly-extending pintles 9 project, one of said pintles being adapted to enter the curved slot in the arm 3 and the other pintle being adapted to engage the hook-shaped arm 2 when the blind is open. Projecting from each arm 8 is a shoulder 10, having an inclined face 11, adapted to bear against one of the inclines 5 of the slotted arm 3. At the inner end of each arm 8 a recess 12 is made, having one face 13, inclined and adapted to bear against one of the inclined lugs 6 of the slotted arm 3. The leaf 7 is also made with shoulders 14, adapted to ride on the curved edge of the arm 3. From the construction of the lower hinge as above described it will be seen that said hinge is reversible, so that it may be used for either blind.

The hinges being constructed as above described and put together, it will be seen that when the blind is closed the inclined faces *c*, *i*, *d'*, and *j* of the upper hinge will bear against each other, and thus lock the blind closed. The inclined faces on the lower hinge also will bear against each other and assist in the locking of the blind. When it is desired to open the blind, it will be pushed outward, whereupon the inclined faces of the hinges will be forcibly pressed together and the blind caused to rise. The blind can then be swung open, the arm *f* riding upon and being solely supported by the socketed piece *b*. During the time the blind is swinging open on its upper support, as above described, one of the pintles 9 will be moving loosely in the curved slot of the arm 3. When the blind has been completely opened, its weight will cause the

said pintle 9 to move back in the curved slot 4 to the end thereof, from whence it started, and the other pintle 9 will thus be caused to engage the hooked arm 2, and in this manner
5 lock the blind open.

By constructing the hinges as above described the blind will be automatically locked in either a closed or an open position. The hinges are very simple in construction and ef-
10 fectual in the performance of their functions.

From the arrangement of the inclines d' j relative to each other it will be seen that when the blind is closed these inclines will cause the blind to be drawn close to the window-
15 frame, and thus cause said blind and frame to fit snugly together when the blind is closed.

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

20 1. A blind-hinge comprising a pair of leaves, one leaf provided with a socket-piece having an inclined face and a shoulder located opposite said inclined face, said shoulder provided with an inclined face, and the other leaf con-
25 structed with an arm having opposite inclines adapted to ride upon the inclines on the first-mentioned leaf, whereby the second leaf is raised when the blind is opened, substantially as set forth.

30 2. The combination, with a window-frame and window or analogous devices, of upper

and lower hinges, said upper hinge-plates having inclined faces adapted to bear against each other to maintain said blind closed, said
35 lower hinge being also provided with inclined faces adapted to assist in maintaining the blind closed, the degree of said inclined faces being such as to cause the blind to rise when it is opened, said lower hinge being construct-
40 ed and arranged to lock the blind in an opened position, substantially as set forth.

3. A hinge for a blind or analogous device, consisting of two leaves, one leaf having an arm provided with a curved slot and a hooked
45 arm, and projections having inclined faces on said slotted arm, and the other leaf having arms thereon provided with inclined faces to engage the inclined faces of the first-men-
50 tioned leaf and maintain the blind closed, and pintles depending from said arms, one of said pintles being adapted to enter the socket-
55 eted piece and the other pintle being adapted to engage the hooked arm to lock the blind open, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscrib-
ing witnesses.

LANSING PORTER.

Witnesses:

A. L. HEMINGWAY,
R. P. MEAKER.