

C. SHOLL.

Hinges.

No. 165,957.

Patented July 27, 1875.

Fig. 1.

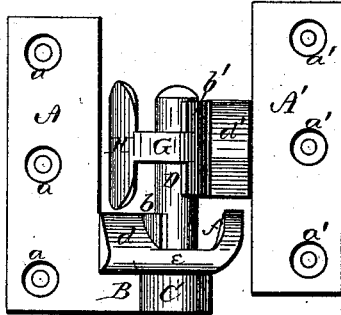


Fig. 2.

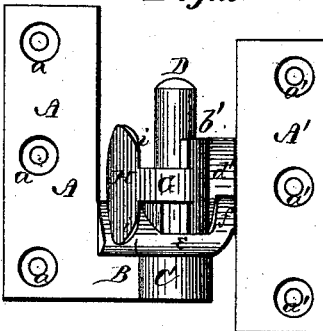


Fig. 3.

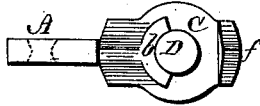


Fig. 4.

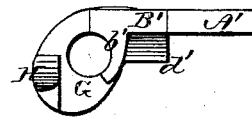


Fig. 6.

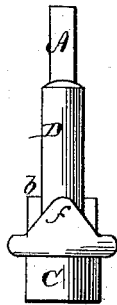


Fig. 5.

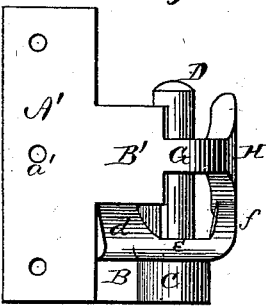


Fig. 7.

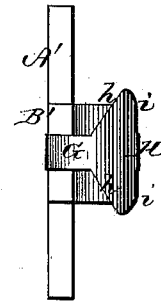
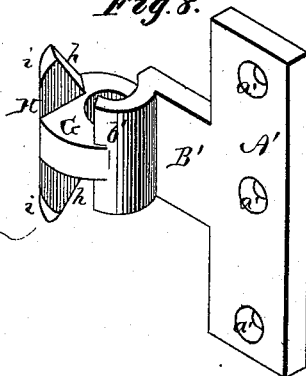


Fig. 8.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHRISTIAN SHOLL, OF MOUNT JOY, PENNSYLVANIA.

IMPROVEMENT IN HINGES.

Specification forming part of Letters Patent No. 165,957, dated July 27, 1875; application filed December 7, 1874.

To all whom it may concern:

Be it known that I, CHRISTIAN SHOLL, of Mount Joy, in the county of Lancaster and in the State of Pennsylvania, have invented certain new and useful Improvements in Hinges; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon making a part of this specification.

The nature of my invention relates to reversible lock-hinges; and it consists in the combination of a male part having projection, cylinder, pin, offset, beveled swells forming flanges, and a wedge-shaped projection, with the female part having projection, double inclined swells, tube, collar, and lip, with curved and straight sides, all as more fully herein-after set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a view of my hinge thrown open, and before it drops to be locked. Fig. 2 is a similar view, showing the hinge after it has dropped down and is locked. Figs. 3 and 4 are plan views of the male and female part of the hinge, respectively. Fig. 5 is a view of the hinge closed. Figs. 6 and 7 are side views of the male and female part of the hinge, respectively. Fig. 8 is a perspective view of the female part of the hinge.

The male part of my hinge consists of a leaf, A, having screw-holes *a a* countersunk on both sides, and provided at its lower end with a projection, B, of exactly one-third the height of the leaf, said projection terminating at its lower portion in a cylindrical part, C, from which the pin D projects upward. The thickness of the leaf A is made equal to one-third the diameter of the cylindrical part C, and is opposite the center thereof. Around the inner side of the pin D is a horizontal shoulder or offset, *b*, of the same height as the upper edge of the projection B. This edge of the projection B is rounded, and on each side, between the shoulder *b* and the leaf, there is formed an inclined or beveled swell, *d*, the

lower ends of which run into a flange, *e*, formed around the upper end of the cylindrical part at the base of the pin D. From the flange *e*, at the outer side of the cylindrical part C, extends a wedge-shaped projection, *f*, upward, the upper edge of which is about on a line with the upper edge of the projection B and upper surface of the shoulder *b*.

It will be seen that if the leaf A were split directly in the center this line would divide the projection B, pin D, cylindrical part C, and wedge *f* directly in the center, and the two halves would be exactly alike; hence this part of my hinge may be used either on the right or left side, as desired.

The female part of my hinge consists of a leaf, A', with a projection, B', extending from one edge in the center, said projection being exactly one-third the height of the leaf, and so arranged as to leave one-third of the leaf above and one-third below the projection. The leaf A' is provided with screw-holes *a'*, countersunk on one side only. On the inner side of the projection B' is formed a double inclined swell, *d'*, and on the same side the projection B' is extended in a curve forming part of a tube, *b'*, and from the center thereof is formed a collar, G, which, together with the partial tube *b'*, constitutes the eye through which the pin D is to pass. The collar G is one-third the thickness of the projection B', and arranged in the center thereof, and on said collar a lip, H, projecting equally above and below, and forming at each end one straight side, *h*, and one curved side, *i*.

It will be noticed that if the leaf A' be divided transversely, directly in the center, this line will divide the projection B', swell *d'*, tube *b'*, collar G, and lip H directly in the center, and the two halves would be exactly alike, allowing of this part of my hinge being used with either end up, and hence capable of being used either on the right or left side.

The two leaves of the hinge are secured in the usual manner, the leaf A to the window-frame and the leaf A' to the shutter.

When the shutter is closed the hinge assumes the position shown in Fig. 5, the lower end of the tube *b'* resting upon the shoulder *b*. In opening the shutter the tube rides on said shoulder until the back of the projection

B' strikes the incline *f*, and almost at the same time the curved side *i* of the lip H strikes the swell *d*. The shutter then rises until the lip has passed over the edge of the projection B, when the straight side *h* of the lip coming against the swell *d* on the other side, and the swell *d'* comes against the other incline *f*, the shutter will settle down in the position shown in Fig. 2, and be locked, there being at that time three points of bearing which prevent any movement of the shutter. In closing the shutter it is raised until the lip H has passed over the edge of the projection B, when the tube *b'* will again rest and ride upon the shoulder *b*.

Having thus fully described my invention,

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

The combination of the leaf A, having projection B, cylinder C, pin D, offset *b*, beveled swells *d d'* forming flange *e*, and wedge-shaped projection *f*, with the leaf A', having projection B', double inclined swells *d'*, tube *b'*, collar G, and lip H, with curved and straight sides *i h*, all substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of November, 1874.

CHRISTIAN SHOLL.

Witnesses:

C. L. EVERT,

H. A. HALL.