

W. I. LUDLOW.  
Hinges.

No. 137,458.

Patented April 1, 1873.

Fig. 1.

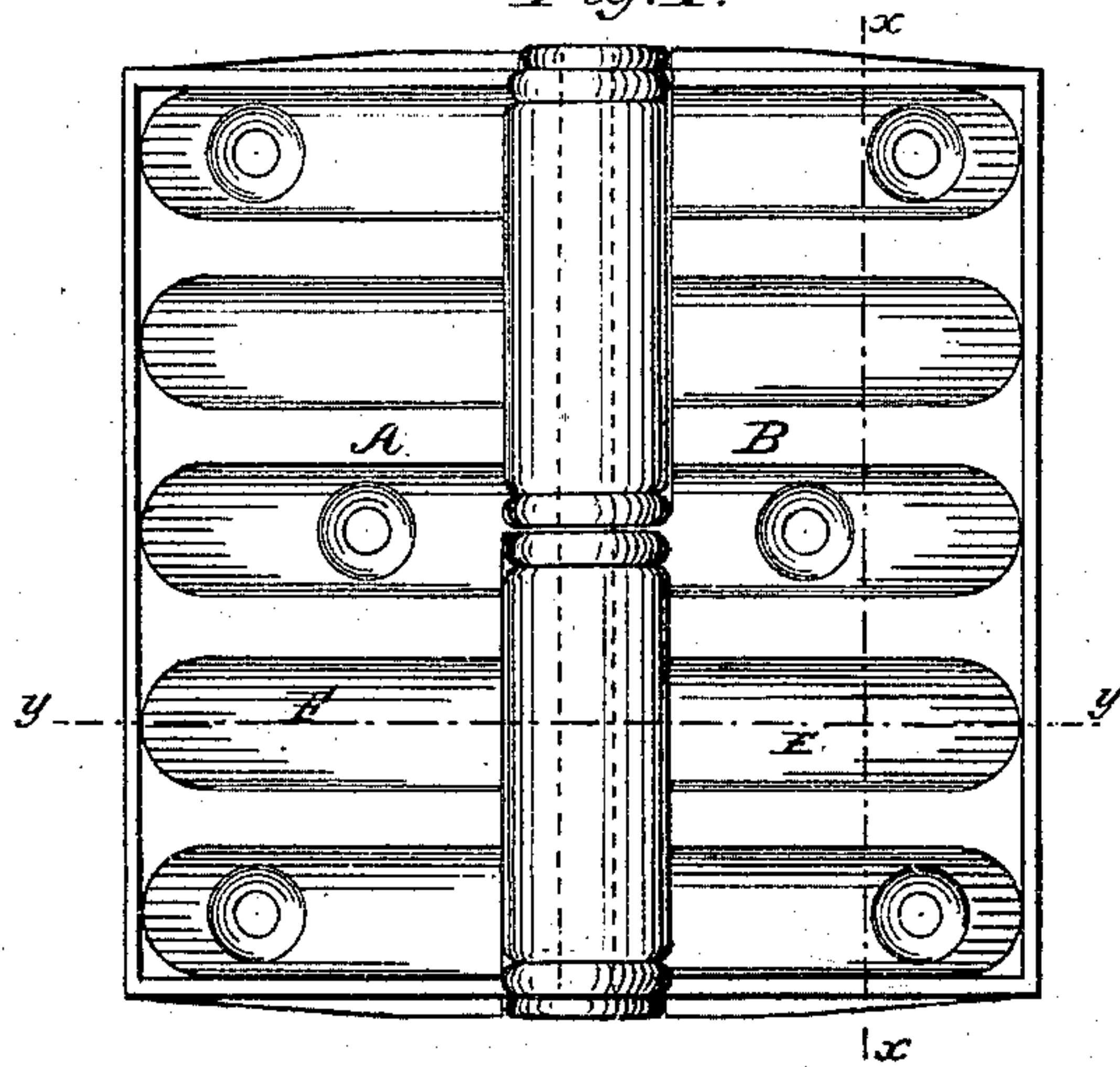


Fig. 2.

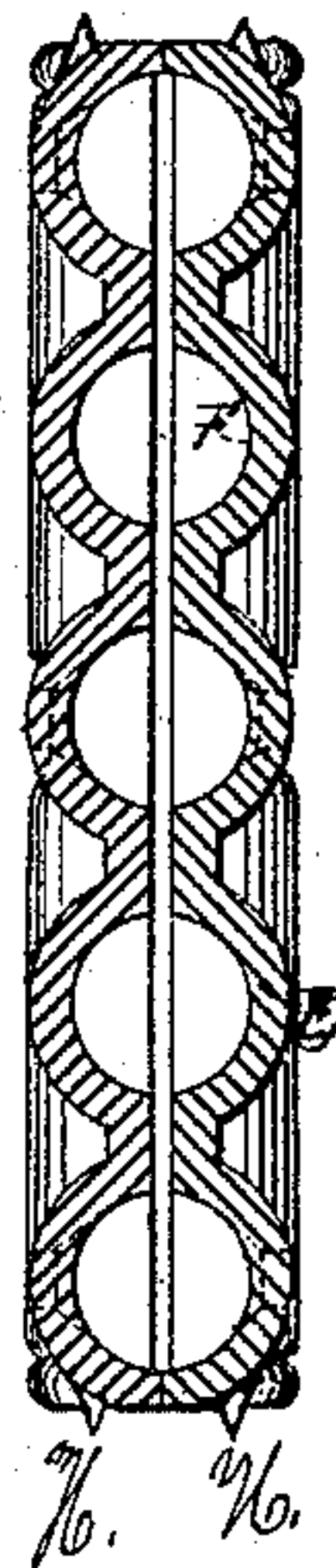


Fig. 3.

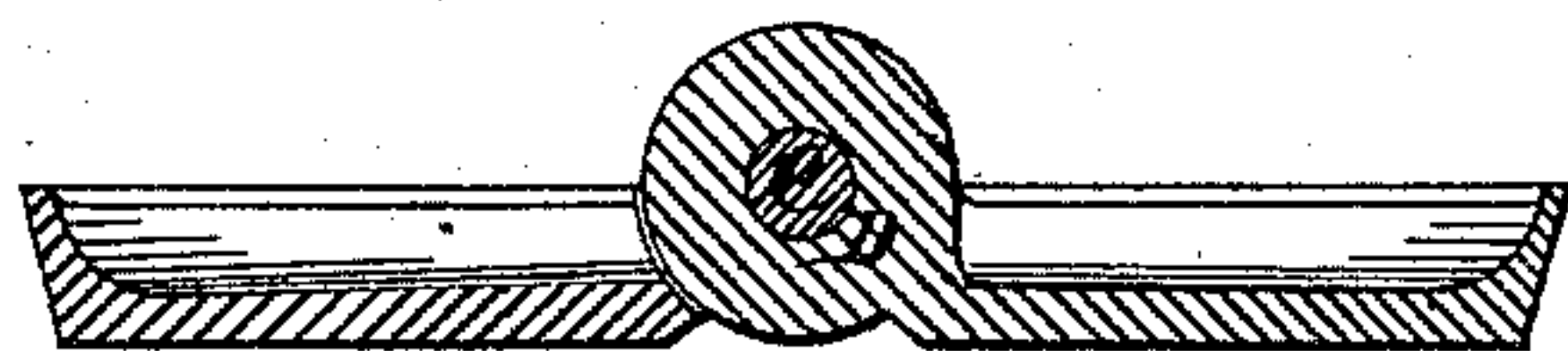


Fig. 4.

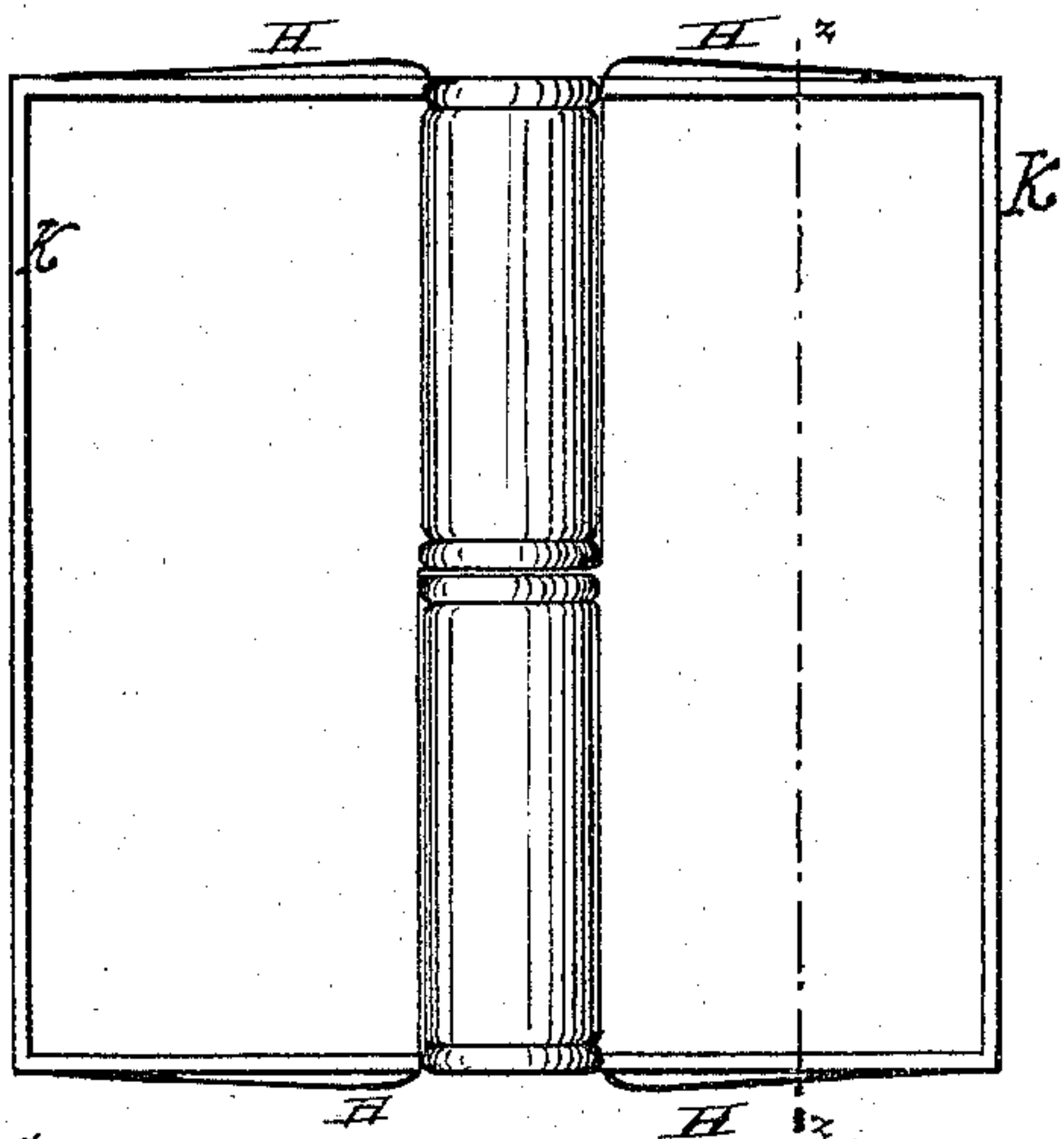
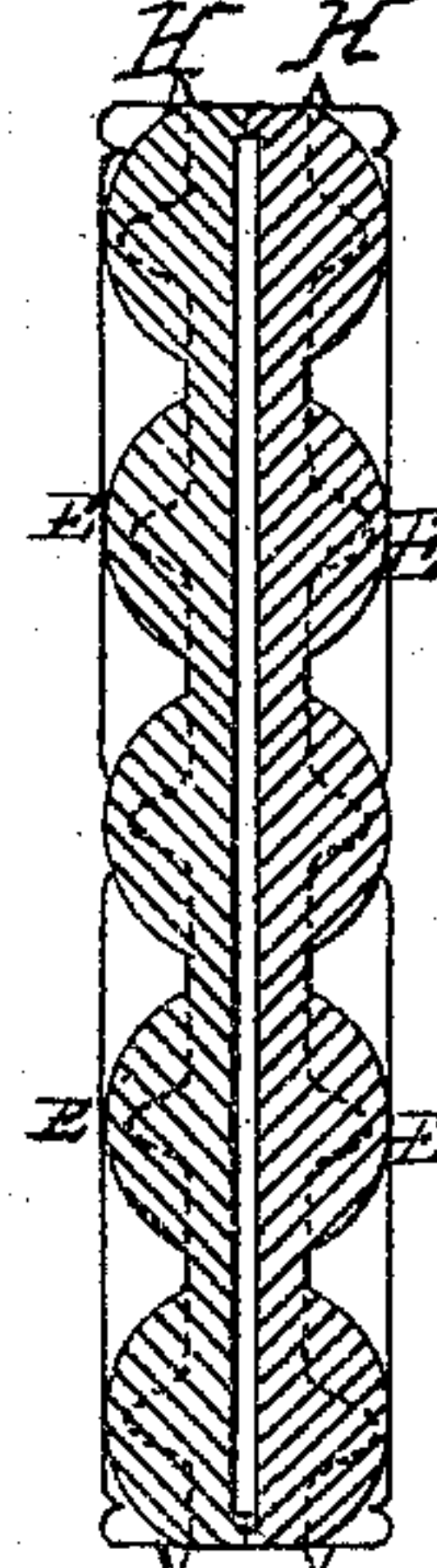


Fig. 5.



Witnesses:

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att'y



# UNITED STATES PATENT OFFICE.

WASHINGTON I. LUDLOW, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN HINGES.

Specification forming part of Letters Patent No. **137,458**, dated April 1, 1873; application filed March 22, 1873.

### *To all whom it may concern:*

Be it known that I, WASHINGTON IRVING LUDLOW, of Washington, in the county of Washington and District of Columbia, have invented certain new and useful Improvements in Hinges, of which the following is a specification:

This invention relates to an improved hinge of a form calculated to facilitate the hanging of doors, blinds, or any parts required to be hinged together, and to obviate the necessity of using skill in adjusting it to its mortise, which is so essential in the use of the ordinary form of hinge; and this invention consists in providing the leaves of hinges with one or more beveled edges or flanges, which, when the hinge is inserted into place, are forced into the wood, thus securing the hinge in position until the usual fastening-screws are applied, said beveled edges or flanges serving also in connection with the screws to firmly hold the hinge in position. The invention further consists in combining with the beveled edges or flanges, as above specified, a series of ribs or ridges formed on the leaves of the hinges, as hereinafter mentioned.

In the drawing, Figure 1 is a front view of my improved hinge thrown open. Fig. 2 is vertical section on the line *xx* of Fig. 1. Fig. 3 is a transverse section on line *yy* of Fig. 1. Fig. 4 is a front view of my improved hinge, with the leaves having plane inner surfaces; and Fig. 5 is a vertical section on the line *zz* of Fig. 4, illustrating the back of the leaves formed with curved or ribbed projections.

The leaves or wings A B of the hinge, provided, respectively, with the ordinary pintle C and eye D, are formed with a series of parallel ridges or ribs, E, on their rear sides, extending transversely across the same, or at right angles to the axis of the hinge. Said ridges are made convex, semicircular, or ribbed, as shown in the several figures, in cross-section, and may be formed either on the rear side of a hinge with flat or solid front faces, as shown in Fig. 4, or the contiguous faces of the hinge may be formed with concave depressions or channels F, as shown, which, when the hinge is closed, form cylindrical passages, as shown. This form of

hinge possesses the necessary degree of lightness combined with the requisite strength, and in certain cases is to be preferred to the solid or flat-faced hinge.

As ordinarily practiced, the hanging of doors requires considerable expertness, and is capable of being performed solely by experienced persons, this fact being chiefly due to the usual method of inserting hinges in the door and jamb by cutting or recessing the seat for the same by a mortising tool or chisel.

In order to remedy these defects, and to facilitate the attachment of the hinge, I have devised a hinge provided with beveled edges or flanges, and with the ribs or ridges, as shown, which are designed to be inserted into correspondingly-shaped recesses or seats formed in the edge of the door and its casing or jamb. The seats are cut simultaneously both in the door or casing by means of an ordinary auger or bit, when the door and casing are properly arranged in respect to each other, thus forming, when the latter are separated, a series of bisected or semicircular seats, into which the ribs on the hinge are embedded.

Each leaf of the hinge is provided on one or both of its ends with a flange or spline, H, which are disposed near the under side of the same, and the object of which is to temporarily retain the hinge in position after the same has been inserted into its seats, and previous to applying the usual fastening-screws. Said splines are made tapering or wedge-shaped, so that they will readily penetrate the wood when the hinge is driven edgewise into its receiving-seats.

In order to facilitate the formation of the seats in the door and jamb, I employ in connection with the auger or bit a guide-board provided with the requisite number of openings for the passage of the auger, and with a projecting tongue to be inserted between the door and jamb for securing it in position.

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

1. The leaves or wings A B, formed with beveled or flanged edges H, for the purpose of securing the leaves or wings in their re-

spective mortises, thus temporarily hinging the parts until they can be secured by the fastening-screws, as herein specified.

2. In combination with the beveled or flanged edges H, as in above claim, the series of ribs or ridges E, constructed substantially as herein shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 22d day of March, 1873.

WASHINGTON I. LUDLOW.

Witnesses:

JAMES L. NORRIS,  
WM. J. PEYTON.