

(No Model.)

M. A. MORRIS.
HINGE.

No. 428,402.

Patented May 20, 1890.

Fig. 1

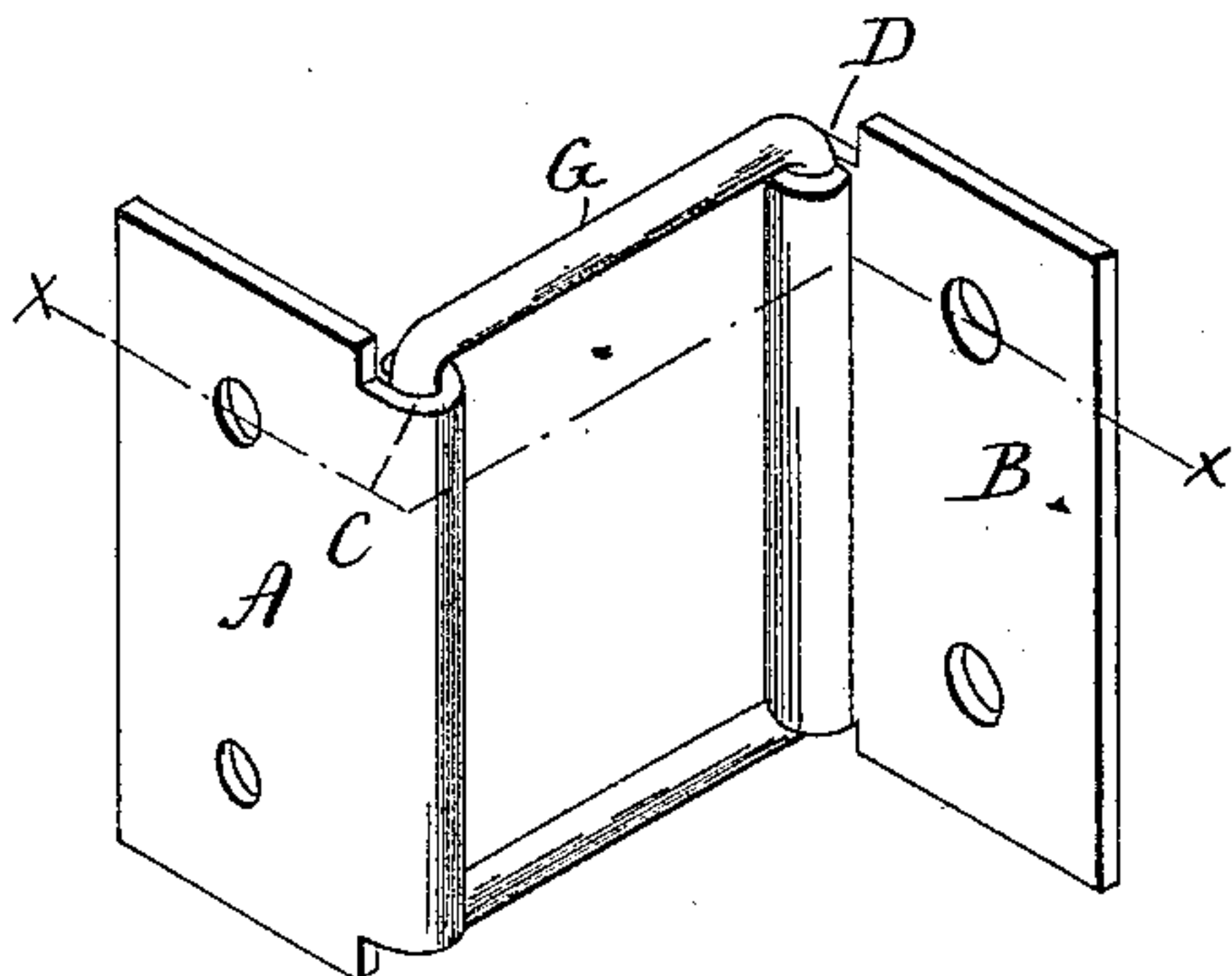


Fig. 2

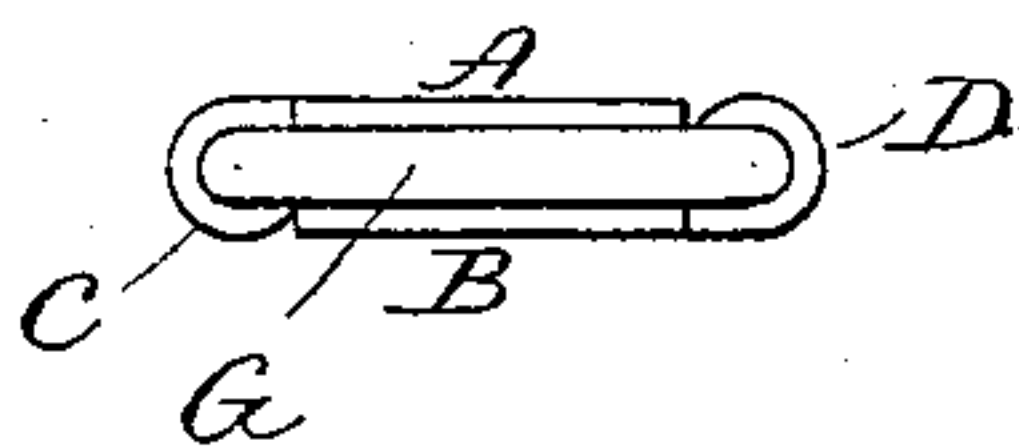


Fig. 3

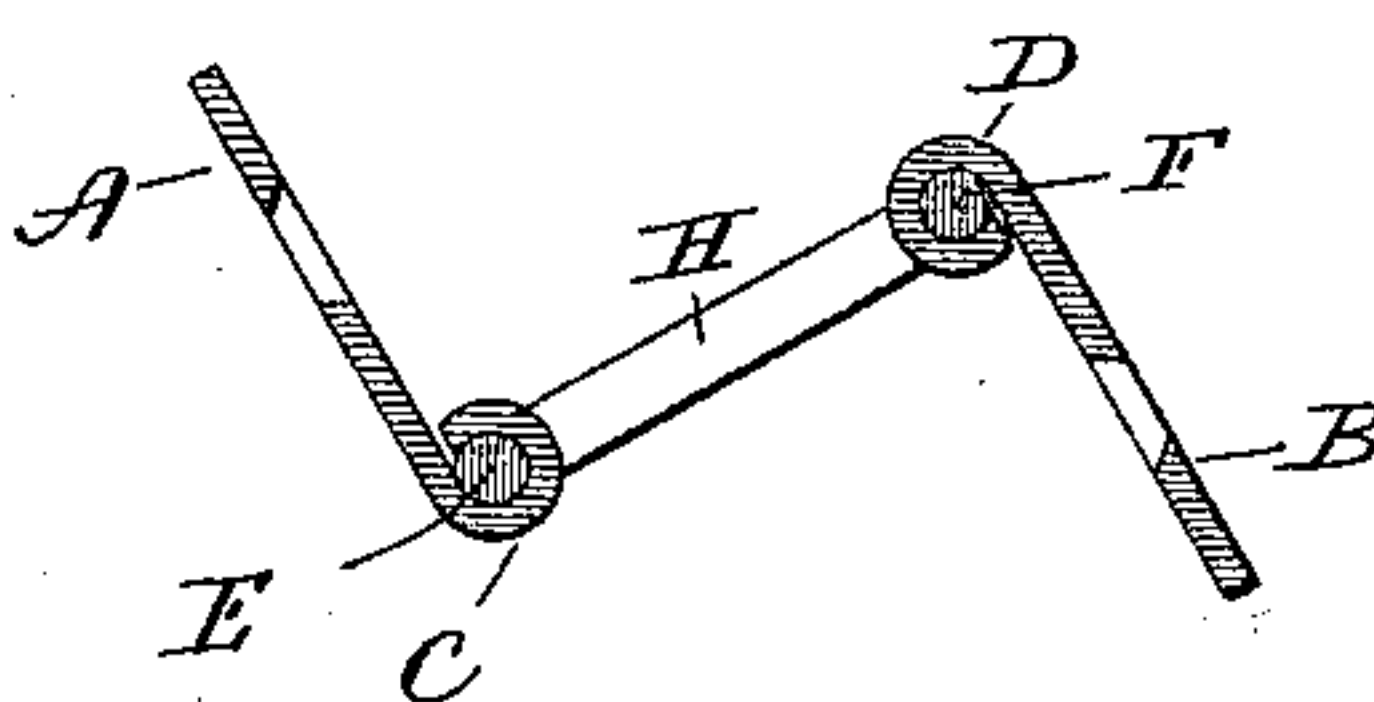


Fig. 4

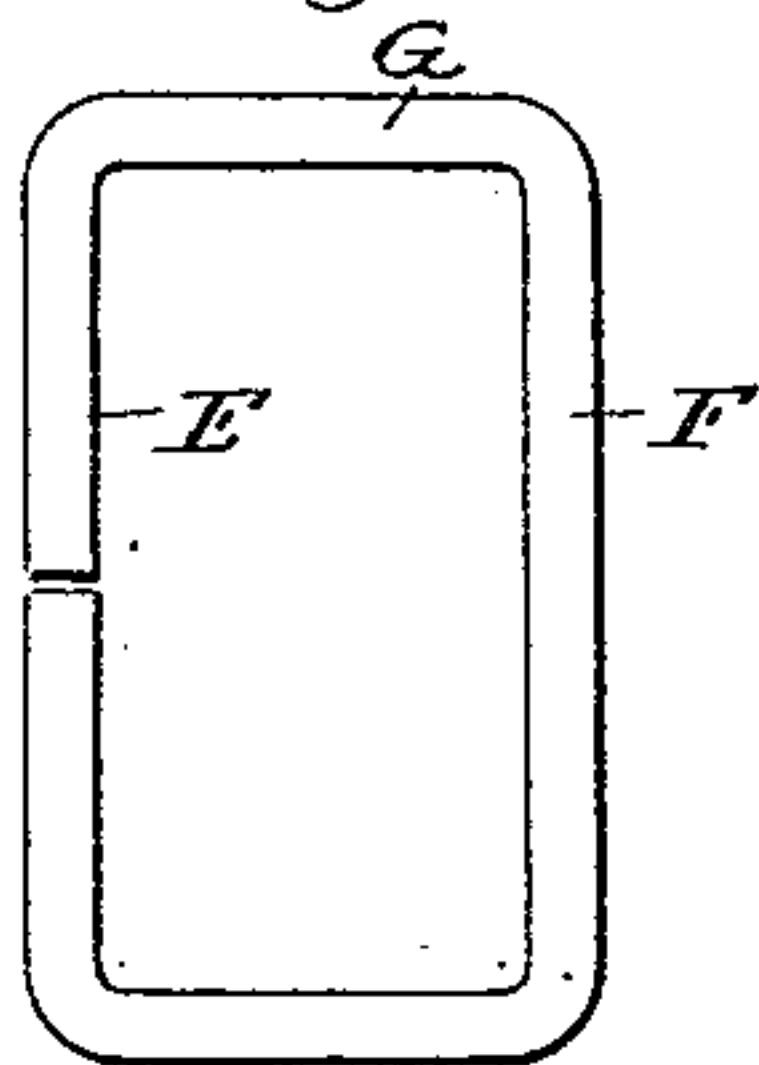


Fig. 5

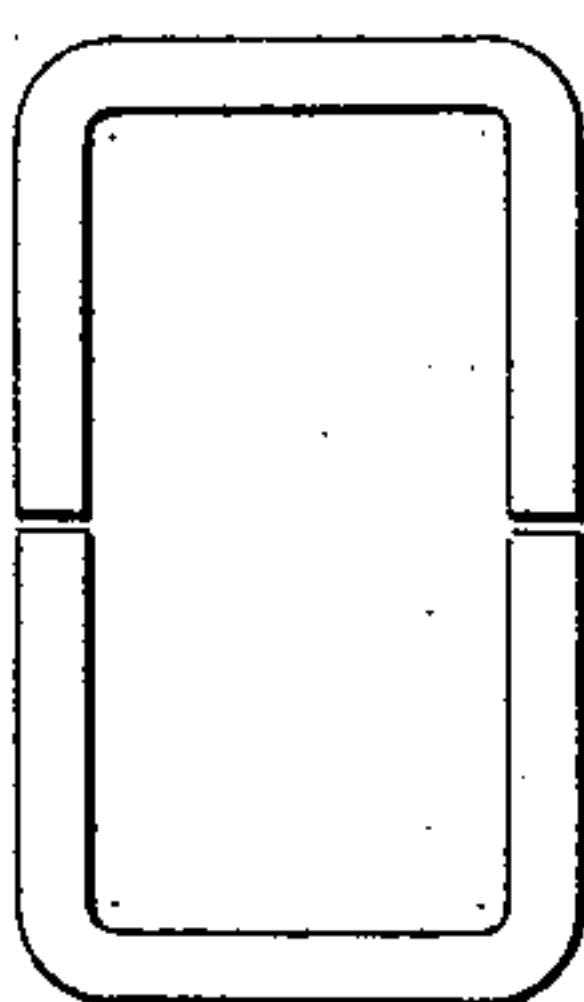
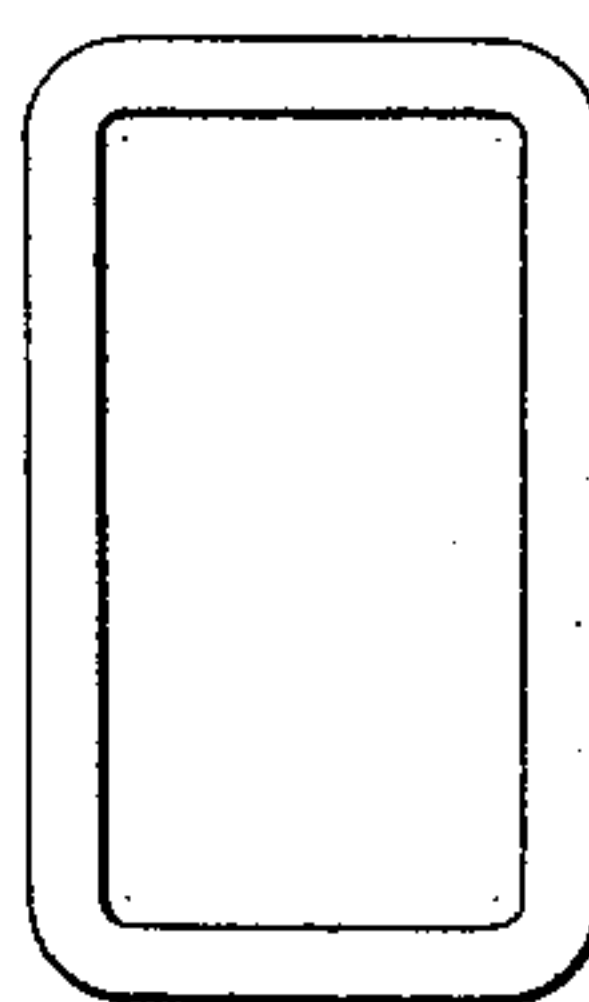


Fig. 6



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HINGE.

SPECIFICATION forming part of Letters Patent No. 428,402, dated May 20, 1890.

Application filed March 10, 1890. Serial No. 343,281. (No model.)

To all whom it may concern:

Be it known that I, MARION A. MORRIS, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Hinges; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the hinge open; Fig. 2, an end view of the hinge closed; Fig. 3, a transverse section on line *x x* of Fig. 1; Fig. 4, the wire link detached; Figs. 5 and 6, modifications in the formation of the link.

This invention relates to an improvement in that class of hinges which are adapted to permit the door, or whatever it may be that is hinged, to swing in both directions from the closed position. These hinges are composed of three flaps, one of the outer flaps adapted to be attached to the jamb, the other flap adapted to be attached to the door, the intermediate flap forming the connection between the two attached flaps, and so that the pintle for one of the attached flaps is at one side of the intermediate flap and the pintle for the other attached flap at the other side of the intermediate flap, and so that as the door swings in one direction the flap attached to it turns upon the pintle on the intermediate flap; but when turned in the opposite direction the intermediate flap and the flap attached to the door swing with the door, turning upon the pintle on the jamb-flap. This is a common construction of hinge. In the usual construction of these hinges the intermediate flap is a plate of metal, like the outer flaps, parts of knuckles being formed on both edges of the intermediate flap and on corresponding edges of the outer flap, with a pintle introduced through the respective knuckles.

The object of my invention is a construction of hinge in which the formation of knuckles upon the intermediate flap may be avoided; and it consists in two flaps adapted to be attached, respectively, to the stationary and swinging parts to which the hinge is to be applied, the said flaps each constructed

with a tube on the pintle-edge, combined with a rectangular-shaped wire link, one side of said link inclosed within the tube of one flap and the opposite side of the said link inclosed within the tube of the other flap, the said link forming the intermediate flap, its two sides being the pintle on which the other flaps may respectively swing.

A represents one of the outer flaps, and B the other outer flap. These flaps are preferably made from sheet metal and of size and strength required. One edge of the flap A is rolled to form a tube C on that edge corresponding to the usual knuckles formed on one edge of a flap. The other flap B is constructed with a like tube D on its edge, the tube of one part being on the edge of its flap opposite the tube on the other part. To connect these two flaps I form a wire link, as seen in Fig. 4. This is of rectangular shape, of a length corresponding to the length of the flaps and of a width corresponding to the distance required between the two tubes or knuckles of the outer flaps. The two sides E F of the link are parallel, and the two sides are connected by the ends G H. The link is best made in a single piece, bent so that the ends will meet on one side, as seen in Fig. 4.

The tubular portions C D of the respective flaps are closed around the respective sides E F of the link, as represented in Figs. 1 and 3. The link thus connects the two flaps A B and forms the intermediate flap between the said flaps A B, the two sides E F of the link forming pintles, upon which the flaps may swing in the usual manner, of a three-part or two-way swinging hinge.

In the best construction of the hinge the link will be first formed as seen in Fig. 4, and then the edges of the flaps bent around the respective sides of the link; but the bending of the flaps to produce the tube may be first made and then the connecting-link introduced. In such case the link will be made in two parts, as represented in Fig. 5, and inserted into the said tubes from the respective ends; or the link may be cast in a single piece, so that there is no break in either side, as seen in Fig. 6. I therefore do not wish to be understood as limiting the invention to

the formation of the link from wire, or to the making of it in a single piece; but

What I do claim is—

5 A three-part or two-way hinge composed of two outer or attachable flaps, each of said flaps constructed with a tube on one edge, the tube of one flap upon the edge opposite that of the other flap, combined with a rectangular-shaped link, the two sides of which are in-
10 closed by the respective tubular portions of

the attachable flaps, the said link forming an intermediate flap between the two attachable flaps, and the sides of the links forming pintles on which the said flaps may swing, substantially as described.

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