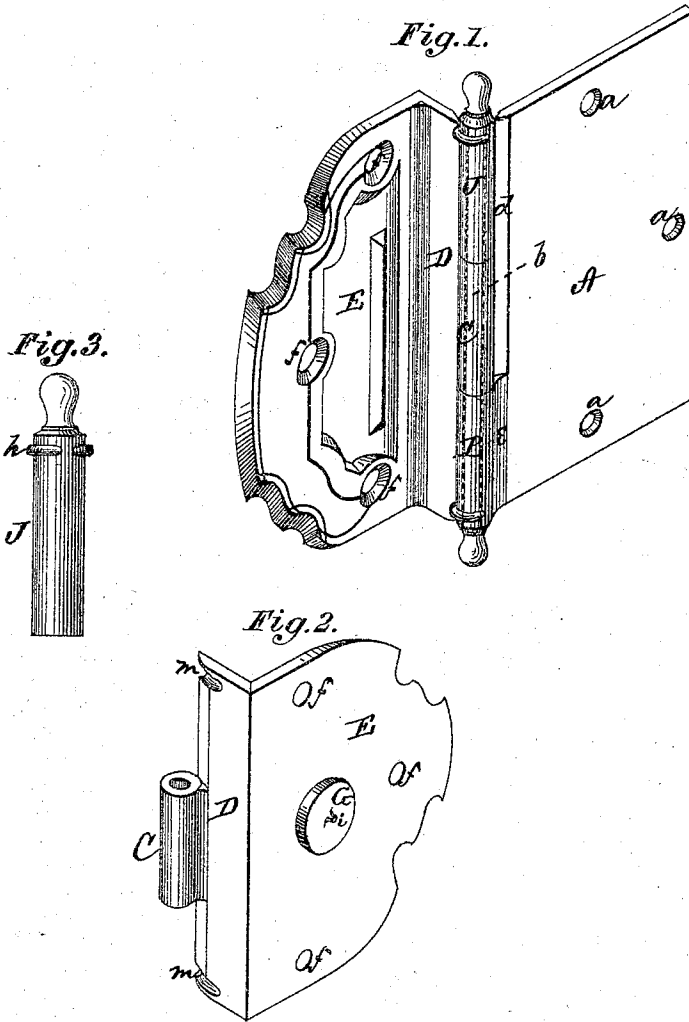


S. BINGHAM.

Hinges.

No. 134,969.

Patented Jan. 21, 1873.



Witnesses:
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN HINGES.

Specification forming part of Letters Patent No. 134,969, dated January 21, 1873.

To all whom it may concern:

Be it known that I, S. BINGHAM, of Saratoga Springs, in the county of Saratoga and State of New York, have invented certain new and useful Improvements in Hinges; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to hinges, and consists in constructing the same with a ring or flange for both the upper and lower joint-pieces, in similar form to what is known as the "bayonet fastening," and combining the same with the ordinary parts of a hinge, the construction being substantially as hereinafter 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 perspective view of the entire hinge; Fig. 2 is a similar view of the piece that goes on the door, showing the inner or under side of the same; and Fig. 3 is a side view of the top joint-piece.

A represents the standing part of the hinge that goes upon the door-casing. This part is a rectangular piece of suitable dimensions, with holes *a a* to receive the screws which fasten it to the casing, and is countersunk on both sides so that it can be applied to the right or left side of the casing, as the case may require. Upon one edge, at the lower end of the part A, is formed the lower joint-piece B, having a ball-tip at the lower end; and from the upper end extends the rod or pintle *b* parallel with the edge of the part A. The edge *d* of the part A, above the joint-piece B, is beveled on both sides, to allow the angle formed by the joint-piece C of the other part of the hinge, and the reverse side of the same, to be filled in, so as to make the parts strong, and also easy to draw from the sand mold during the process of manufacture, and also to allow the hinge to close without interference of its parts. The angle formed by the joint-piece B and the part A is also filled for the same purpose, as shown at *e* in Fig. 1. The swinging part of the hinge upon the door is made in the general

form of two planes—one, D, rectangular and the other, E, irregular, and having one straight side united at a suitable angle with a joint-piece, C, like the common butt, but is attached upon the edge of the part D further out of the plane of said part than the common butt, so as to cause it to reach and turn upon the pin *b* when the parts are combined to form a complete hinge. This part D E may be put on either end up, the joint-piece C being in the center, to form a right or left hand hinge, as the case may require, and is to be attached on the stiles or side pieces of the door instead of, as usual, upon the edge, thereby making it both reversible and self-adjusting in its application to the door, and it is also susceptible of ornamentation on its face side. On the reverse side of the piece E is a round boss, G, which is to be let into the door by boring a hole of the right size for its reception at the point marked upon the door by the point *i* in the center of the boss. The boss G being let into the door secures the hinge more firmly upon the same, and relieves the strain on the screws passing through the holes *f f*; but this boss I do not claim as of my invention. J is the top joint-piece made cylindrical and hollow, to allow it to go upon the pin *b*, and it has a ball-tip to correspond with the piece B. It has upon it a ring or flange, *h*, near the upper end, which flange is cut away on one side, as shown in Fig. 3, to admit it onto the pin *b* without interference of the parts A and D, and it is made fast so that it cannot be pulled upward by turning it to the right or left, the flange *h* entering a recess, *m*, made on the reverse side near each end of the part D, and the lower joint-piece B has a like flange. The principal use of the joint-piece J is to give the hinge a neat, uniform, and finished appearance. Still, if a notch or recess be made in the part A to correspond with the recess *m*, the hinge can be converted into a tight-joint hinge by turning the piece J around on the pin till the flange *h* enters the notch or recess in the part A.

To apply this hinge, place the standing part A in the rabbet made in the casing to receive the door, placing its edge against the top or piece against which the door shuts; then mark top and bottom, take the hinge away, and cut the recess to receive it. Replace the hinge in

said recess and make it fast. Having put on as many as required, put the door in its place in the position of shut, and wedge, or otherwise adjust it, to the exact place where it is desirable it should hang; then put the swinging part C D E of the hinge on the pin *b*, push down to its place and swing it against the door, when the point *i* will indent the door; then swing the part C D E back and bore a hole in the door of the right size and depth to receive the boss G; then fasten the swinging part and put on the piece J, fastening the same as above described; and, after all the hinges are secured in this manner, the door is hung.

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

The top joint-piece J and lower joint-piece B, provided with the ring or flange *h*, partially surrounding the same, in combination with the standing part A, swinging part D E having recesses *m m*, joint-piece B, and rod or pintle *b*, the several parts being constructed and arranged substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

SOLON BINGHAM.

Witnesses:

I. H. MILLS,
A. P. KNAPP.