R. COCHRAN AND J. McCORMACK.

HINGE.

APPLICATION FILED AUG. 9, 1918.

1,314,732. Patented Sept. 2, 1919.

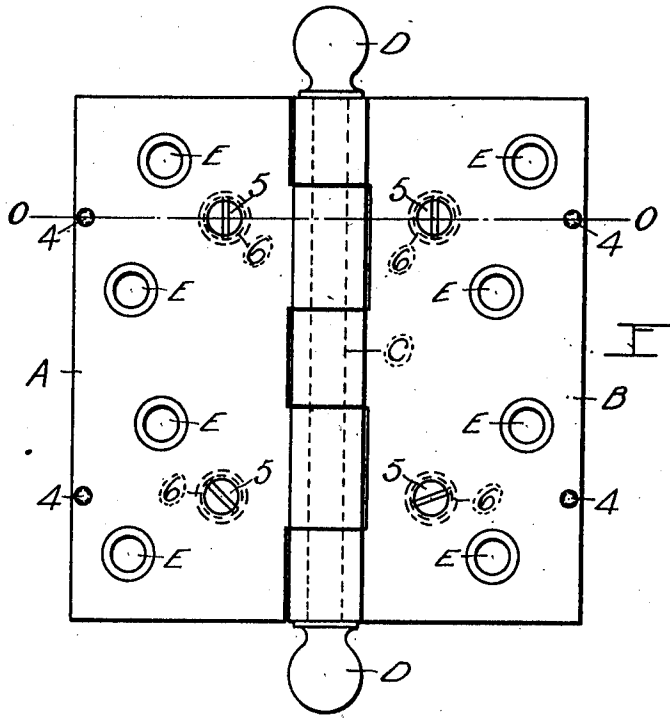


FIG. 1.

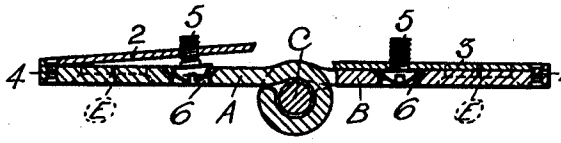


FIG. 2.

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UNITED STATES PATENT OFFICE.

RUSSELL COCHRAN AND JOHNSTON McCORMACK, OF HAMILTON, ONTARIO, CANADA.

HINGE.

1,314,732. Specification of Letters Patent. Patented Sept. 2, 1919.

Application filed August 9, 1918. Serial No. 249,178.

To all whom it may concern:

Be it known that we, RUSSELL COCHRAN and JOHNSTON MCCORMACK, respectively, a citizen of the United States and a subject of the King of Great Britain, residing at Hamilton, in the county of Wentworth and Province of Ontario, Canada, have invented certain new and useful Improvements in Hinges, of which the following is a specification.

Our invention relates to improvements in door hinges and more particularly to the class of butt hinges, and consists essentially of adjustment plates rigidly secured at one edge to the perpendicular outer edges of the hinge leaves, and means to adjust the intervening space between the free ends of said plates and the leaves.

The invention has for its object to provide a butt hinge possessing means whereby the thickness or gage of its leaves may be varied and made irregular at various points in order to adjust the door and take up inequalities due to expansion and contraction of dissimilar and various parts thereof, and warping or bulging of edges. The adjustment of doors was formerly attained by loosening the screws in the hinges and placing wedges or inserts between the hinge and the door, or by planing the edges.

A further object is to provide a hinge of said class, that will facilitate and expedite the hanging of a door inasmuch as the former necessity of carefully seating the hinge may be dispensed with, as the door can be properly adjusted after hanging.

A still further object is to provide such a hinge which will be simple, durable, efficient in operation and inexpensive to manufacture.

With these and other objects in view, the invention consists in the construction, combination and arrangement of the parts as will be hereinafter more fully described, illustrated in the accompanying drawing, and pointed out in the claim hereunto appended.

Reference being had to the accompanying drawing, Figure 1 is an elevation of the improved hinge shown as to appear when the door is swung open to a position parallel to the wall, and Fig. 2 is a cross section of the same taken on the line 0—0 of Fig. 1.

Similar reference characters refer to similar parts throughout the several views.

A, B, indicates the hinge leaves; C, the pintle; D, the pintle heads; and E, the wood screw holes.

Resilient metal plates 2, 3, of similar area to the spring leaves, are secured thereto at their outer perpendicular edges by flush rivets 4, or in any suitable manner, or they may be made of the same stock, bent over and pressed flat at said edges. These plates are punched to register with the wood screw holes E in the leaves.

Round head machine screws 5 are threaded through the plates 2, 3, adjacent their inner perpendicular edges, and chamfered holes 6 are cut in the leaves of a size to permit the heads of said screws to occupy and seat against the chamfered or widened portion thereof. These holes are sized to permit insertion of a screw driver from the face side of the leaves, but to prevent the screw head from slipping through from the plate side.

In their normal position the plates 2, 3 assume flat position against the leaves, and in such position is the hinge secured to the door and sash, allowance being made in the hinge bed for the ends of the screws 5.

The resiliency of the plates 2, 3, acts to retain the screw heads engaged with their respective seats, and rotating the screws by means of a screw driver extends or diminishes the space between the leaves and the plates in the vicinity of the respective screw, as well illustrated in Fig. 2.

Having now fully described our invention, what we claim and desire to secure by Letters Patent of the United States, is:—

In a device of the class described, the combination with hinge leaves, of like sized resilient plates rigid with one edge of said leaves, round head machine screws threaded at intervals through said plates, said leaves having holes concentric with said machine screws and chamfered on the side adjacent said plates, the heads of said machine screws occupying and seating against the chamfered portions of said holes, said leaves and plates having registering holes for the passage of wood screws, substantially as described.

In testimony whereof we have affixed our signatures.

RUSSELL COCHRAN.
JOHNSTON McCORMACK.

Witness:
H. G. HENDRY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."