No. 684,726. Patented Oct. 15, 1901.

C. SAWYER.

HINGE.

(Application filed June 3, 1899. Renewed Mar. 20, 1901.)

(No Model.)

Fig. 1.

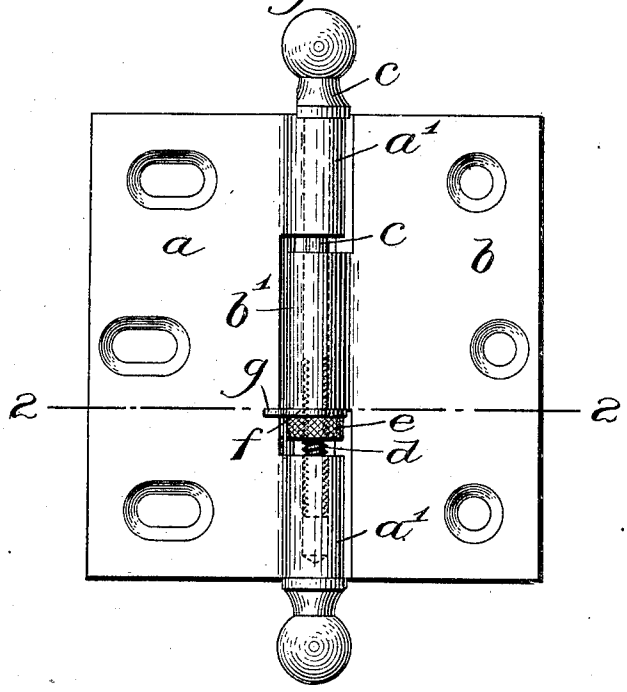
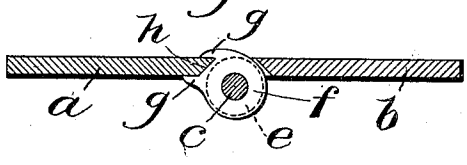


Fig. 2.



WITNESSES:
Charles F. Logan.
Annie J. Dailey.

INVENTOR.
Carleton Sawyer.
BY Crosley & Goddard.
ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CARLETON SAWYER, OF FOXBORO, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO M. L. SANBORN, OF BOSTON, MASSACHUSETTS.

HINGE.

SPECIFICATION forming part of Letters Patent No. 684,726, dated October 15, 1901.

Application filed June 3, 1899. Renewed March 20, 1901. Serial No. 52,082. (No model.)

To all whom it may concern:

Be it known that I, CARLETON SAWYER, of Foxboro, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Door Butts or Hinges, of which the following is a description sufficiently full, clear, and exact to enable those skilled in the art to which it appertains or with which it is most nearly connected to make and use the same.

This invention has relation to that kind of door butts or hinges that are adapted to be adjusted to adjust the door in case of shrinkage or settling of the door-casing so as to interfere with the proper operation of the door.

It is the object of the invention to provide an improvement in hinges of the class mentioned which shall be of the greatest simplicity in construction and the embodiment of the maximum degree of efficiency and usefulness.

The invention consists of a door butt or hinge embodying in its construction two leaves, each provided with knuckles of common construction, a pintle extended through the knuckles and screw-threaded in one part to receive a thumb-nut turned on the said screw-threaded part, so as to afford a bearing for the washer upon which the knuckle of the door-bearing leaf rests, the said washer being connected with the opposite leaf to prevent it from turning and so keep it from turning the nut from its adjusted position, all as recited in the appended claim.

Reference is to be had to the annexed drawings, and to the letters marked thereon, forming a part of this specification, the same letters designating the same parts or features, as the case may be, wherever they occur.

Of the drawings, Figure 1 is a front view of my improved door hinge or butt. Fig. 2 is a horizontal sectional view of the same, taken on a line running through the hinge just above the washer.

In the drawings, *a* designates the leaf of the hinge, which it may be supposed is attached to the door casing or jamb. *b* designates the leaf attached to the door. Each leaf is provided with the ordinary knuckles *a' b'*, and a pintle *c* extends through the knuckles, as usual in the construction of ordinary door-butts, excepting that the pintle at one point in its length is screw-threaded, as at *d*, to receive a thumb-nut *e*, and for this purpose the knuckle *b'* of the leaf *b* is somewhat shortened. The thumb-nut *e* may be milled on its outer surface, as shown, so that it may be readily turned on the pintle up or down.

f designates a washer interposed between the knuckle of the door-bearing leaf *b* of the hinge and the nut *e* and provided with a bifurcated extension *g* at one point of its periphery or circumference, the bifurcation being arranged astride the edge of the leaf *a*, as indicated at *h*, so that when the door-bearing leaf *b* is swung to and fro upon the washer the latter will not be turned or moved circumferentially on the pintle, so as to in any degree disturb the position of the adjusting-nut *e*. At the same time the washer is free to move up and down with the nut, the bifurcation sliding along the edge of the leaf *a*.

This improvement is provided, primarily, for adjusting the door upon the hinge, so as to secure a proper operation of the same if the door-casing should shrink or settle or in case the door should sag, so as to strike upon the door-sill or other part of the door-frame. By adjusting the nut *e* upward on the pintle *c* the door can be brought into proper position without removing it from its hinges. In order, as before stated, to prevent the nut from being moved out of its adjusted position, the washer *f* is prevented from turning by locking it with the leaf *a* of the hinge secured to the door-casing.

Of course other equivalent means of securing the washer *f* against turning will answer the purposes of my invention; but it is essential thereto that the washer should be locked against turning with the door-bearing part of the hinge when the door is swung to and fro.

It will be seen that my arrangement permits the pintle to be locked permanently in position, since no movement of the same is required in effecting an adjustment of the hinge.

Having thus explained the nature of the invention and described a way of constructing and using the same, though without attempt-

ing to set forth all of the forms in which it may be made or all of the modes of its use, it is declared that what is claimed is—

A door butt or hinge embodying in its construction two leaves each provided with one or more knuckles; a pintle having a screw-threaded portion on which a knuckle of one of the leaves may slide; a nut turned upon the screw-threaded part of the pintle below said knuckle and constituting a support therefor; and a washer interposed between this knuckle of the hinge and the nut, the said washer being slidingly connected with or locked to the other leaf of the hinge, whereby said washer is held against turning and the nut left undisturbed in position when the door is swung to and fro.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 20th day of May, A. D. 1899.

CARLETON SAWYER.

Witnesses:
ARTHUR W. CROSSLEY,
ANNIE J. DAILEY.