(No Model.)

F. W. HOEFER.

HINGE.

No. 457,721. Patented Aug. 11, 1891.

Fig. 2.

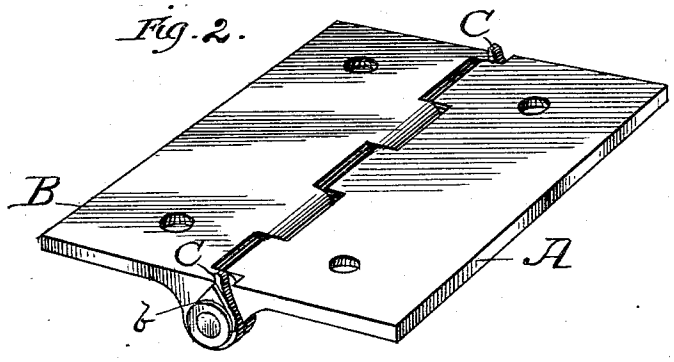


Fig. 3.

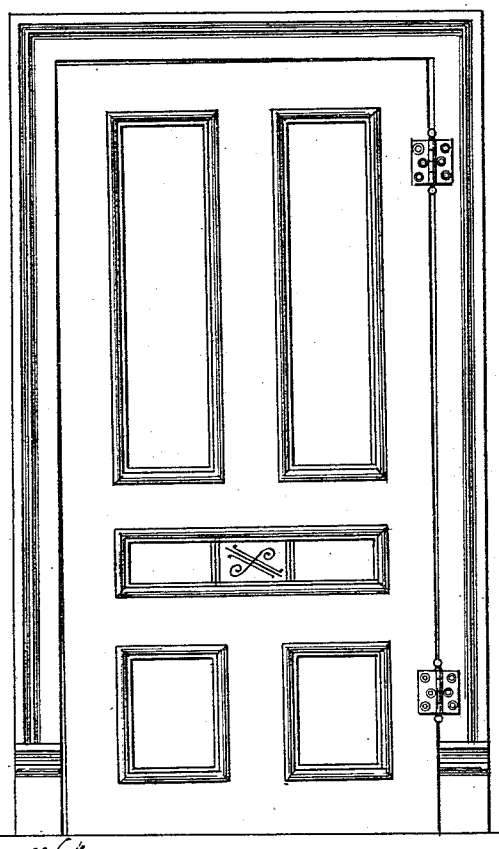
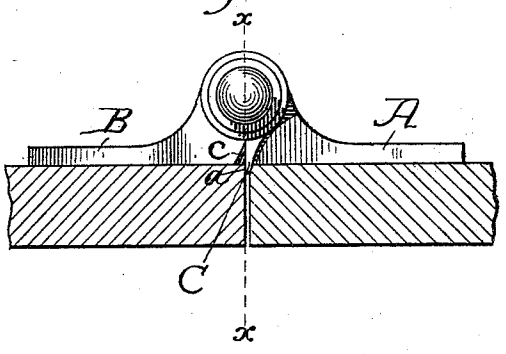


Fig. 1



Witnesses:
Jeremiah Leaming
George W. White

Frederick William Hoefer
Inventor

By F. D. Thomason
Attorney.

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

UNITED STATES PATENT OFFICE.

FREDERICK WILLIAM HOEFER, OF FREEPORT, ILLINOIS.

HINGE.

SPECIFICATION forming part of Letters Patent No. 457,721, dated August 11, 1891.

Application filed December 8, 1890. Serial No. 373,965. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK WILLIAM HOEFER, of Freeport, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Hinges, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings and to the letters of reference marked thereon.

Heretofore more or less difficulty has been experienced in hanging doors or pivoting covers or hatchways by means of hinges because of the uncertainty as to the proper location of the hinge when it is desired to secure the same in place.

The object of my invention is to provide a simple gage which can be cast or otherwise made integral with the plates of the hinge, and the observance of which when the hinge is secured in place insures the axial center of the same being on a line parallel with the adjacent edges of the jamb of the door-frame and the door, and also avoids the likelihood of the door when it is shut mashing into the jamb, substantially as hereinbefore fully described, and as illustrated in the drawings, in which—

Figure 1 shows an end view of a hinge having my improvements applied thereto. Fig. 2 shows in perspective the under side of a hinge having my invention. Fig. 3 is a side elevation of a door and door-frame, showing the door improperly hung.

In the drawings, A and B represent the plates of a hinge having my improvements. It is customary when fastening a hinge to a door and door-frame to exercise considerable "eye-measurement" and guess-work in order to so adjust it as to get the intended pivotal center of the door and so as to get the proper distance between the door and jamb. I avoid this necessity and difficulty by providing the plate B, which is secured to the door-frame, with lugs C C on the under side thereof next the inner edge of the same. These lugs project downward a slight distance, and their walls or sides facing the outer longitudinal edges of the plates are preferably at right angles to the plane of the under surface of said plates and are in the same vertical longitudinal plane intersecting the center of oscillation of the hinge, as shown in dotted line $x\ x$ in Fig. 1. I prefer to place these lugs one at each end of the hinge and to have them project down from the under edge of the knuckles of the plate, providing the plates of the hinge have knuckles at or near their ends. If the hinge is not constructed this way, then the said lugs may project down from the plates thereof at or contiguous to the inner edge, so long as its (or their) location conforms to the requirements of the preceding description.

In placing the hinge in position the plate B is laid flat against the door-frame in such position that the side *a* of the lugs overhang the edge thereof and so that said side is flush against the door-jamb, as shown in Fig. 1. In this position, when both the upper and lower hinges of a door are secured in place, the door will hang perfect, with the edges of the same and the door-jamb parallel, and without such a wide crack between them as to be noticeable and objectionable. If desired, both plates of the hinge may have these gage-lugs C. In this event their position on each plate would correspond. Ordinarily, however, gage-lugs on but one would answer.

My improvements may be applied either to spring-hinges or plain butts. If, however, the hinge is so made that the knuckles, or one of them, comes on the outside, I prefer to cast the plate so as to leave a boss *b* on the outer side of the outside knuckle, which is pear-shaped, and has its upper part concentric with the center of oscillation of the hinge and has the pointed end pointing to and indicating the lug C adjacent thereto. Instead of this index-boss *b*, I can make a niche *c* in the lower edge of the outside knuckle which will answer just as well.

It is apparent that instead of two lugs C C, as hereinbefore described, three or more may be used; or, where the construction will permit it, one lug extending longitudinally the entire length or most of the length of the hinge might be used.

What I claim as new is—

1. A hinge consisting of two screw-plates having a lug projecting from the under sur-

faces thereof, indicating the pivotal center of the hinge, contiguous to their inner longitudinal edges, so located as to assist in ascertaining and locating the proper position of the hinge when it is desired to secure them in place.

2. A hinge consisting of two screw-plates pivotally connected by means of knuckles, one of said plates having a gage-lug projecting down from the under edge of its end knuckle, and having on its outer surface an index pointing to or indicating said lug, as set forth.

FREDERICK WILLIAM HOEFER.

Witnesses:
D. B. BREED,
E. A. HOEFER.