G. OLSON & J. PERSSON.

HINGE.

APPLICATION FILED JULY 3, 1909.

948,073. Patented Feb. 1, 1910.

Fig. 1.

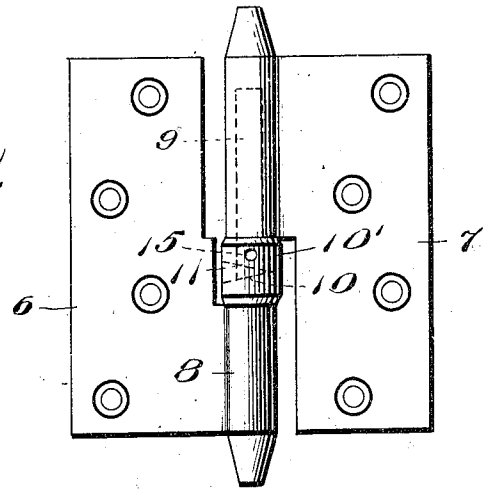


Fig. 2.

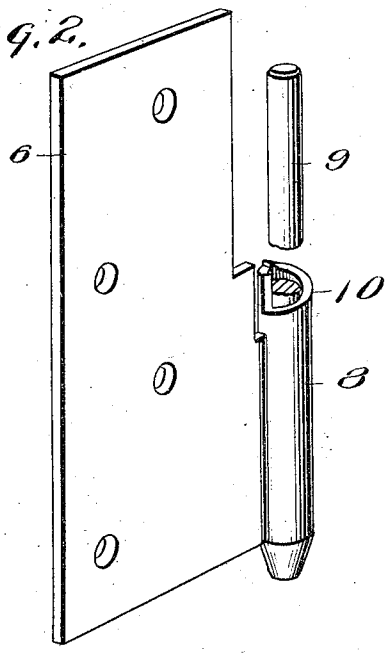


Fig. 3.

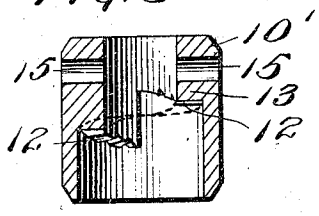
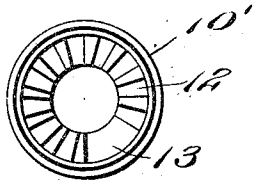


Fig. 4.



Witnesses

Geo. L. Thom

M. L. Morton

Inventors

Gustaf Olson

John Persson.

By Geo. E. Dew

Attorney

UNITED STATES PATENT OFFICE.

GUSTAF OLSON AND JOHN PERSSON, OF CHICAGO, ILLINOIS.

HINGE.

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948,073. Application filed July 3, 1909. Serial No. 505,792.

To all whom it may concern:

Be it known that we, GUSTAF OLSON and JOHN PERSSON, subjects of King of Sweden, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hinges, of which the following is a specification.

This invention relates to hinges, and has for its object to provide improved means for adjusting one of the hinge plates with respect to the other, in order to vertically adjust the door or other swinging parts carried by the hinge. This object is effected by providing an inclined shoulder at the top of the knuckle of one hinge leaf, said incline extending in a spiral around the pintle, and upon this shoulder is mounted a sleeve or collar which is provided with an internal inclined shoulder which rests upon said shoulder, and by turning the collar it is raised or lowered, and it is held in position by means of a ratchet at the shoulders.

The invention is illustrated in the accompanying drawings in which—

Figure 1 is a front elevation of the hinge; Fig. 2 is a perspective view of one hinge member; Fig. 3 is a section of the collar; Fig. 4 is an end view of the collar, showing the ratchet.

Referring specifically to the drawings, 6 indicates one hinge leaf or member and 7 the other, the former being preferably the fixed butt which is attached to the door jamb or post. This member has a knuckle 8 and a pintle 9 projecting upwardly from the knuckle. The top of the knuckle is made with an inclined shoulder 10, extending spirally around the pintle, and a single tooth 11 is made on the incline to engage the ratchet of the collar. This collar 10 fits over the pintle and is counterbored at its lower end to receive the top of the knuckle 8. The shoulder 13 formed by the counter-bore, within the collar, is inclined or made in a spiral complementary to that of the shoulder 10, and said shoulder 12 is provided with a series of ratchet teeth 13 arranged to engage the tooth 11 at any desired point. The collar has holes 15 to receive a pin by which it may be turned.

The knuckle of the member 7 is plain and rests on top of the collar, and is free to swing on the pintle as the door is opened or closed.

To adjust the member 7 vertically the collar may be turned, and will ride up the inclined shoulder, and the ratchet will engage the tooth at the desired point to prevent back slip of the collar. By turning the collar completely around, it will drop down to original position. A door or gate may thus be hung and then the hinge adjusted to fit. It will also be found particularly useful for raising old doors after they settle. This can be done in an instant by simply turning the collar a notch or two. This can be done without removing the door or separating the hinge as when washers or the like are used. The collar can be made of harder metal than the hinge leaf, so as to resist wear.

We claim:

1. A hinge having an inclined shoulder at the end of the knuckle of one of its members, around the pintle, a collar on said pintle, having an inclined shoulder resting against said shoulder, whereby the position of the collar will be varied as it is turned one way or the other, and upon which collar the knuckle of the other hinge-member rests, and means to hold the collar in adjusted position.

2. A hinge having a shoulder at the end of the knuckle of one of its members, extending in a spiral around the hinge pintle, with a projection on said shoulder, and a collar rotatable for adjustment on said pintle, and having an inclined shoulder resting upon said shoulder and provided with a ratchet to engage said projection and prevent back slip of the collar, the knuckle of the other hinge member resting on said collar when the hinge members are assembled.

3. A hinge comprising two members with knuckles and a pintle, one member having an incline extending around the pintle, a collar on the pintle between the knuckles and resting against said incline and arranged to ride up or down the same to vary the relative positions of the members, and means to hold the collar in adjusted position.

In testimony whereof, we affix our signatures in presence of two witnesses.

GUSTAF OLSON.
JOHN PERSSON.

Witnesses:
NELLIE FELTSKOG,
H. G. BATCHELOR.