J. H. KERSTETTER.

ADJUSTABLE HINGE.

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1,381,072.

Patented June 7, 1921.

Fig. 1.

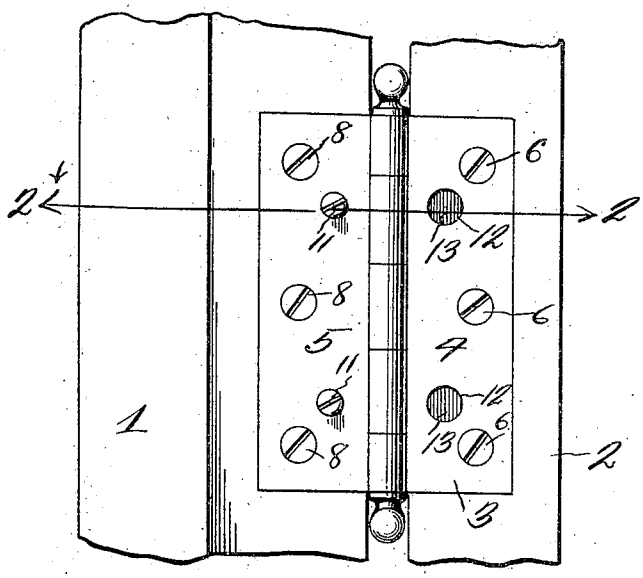
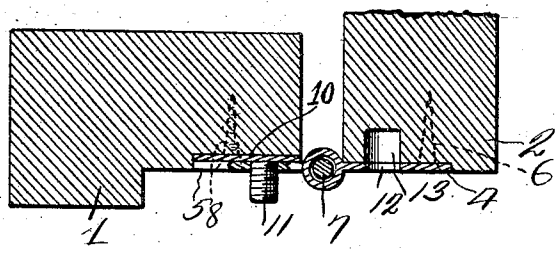
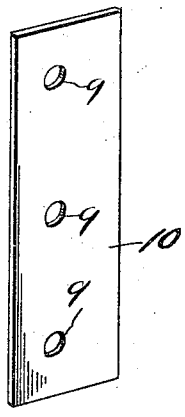


Fig. 3.

Fig. 2.





Inventor

J. H. Kerstetter

By D. Swift

Attorney.

UNITED STATES PATENT OFFICE.

JOHN H. KERSTETTER, OF STATE COLLEGE, PENNSYLVANIA.

ADJUSTABLE HINGE.

1,381,072. Specification of Letters Patent. Patented June 7, 1921.

Application filed November 5, 1920. Serial No. 422,067.

To all whom it may concern:

Be it known that I, JOHN H. KERSTETTER, a citizen of the United States, residing at State College, in the county of Center, State of Pennsylvania, have invented a new and useful Adjustable Hinge; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to burglar proof and adjustable hinges and has for its object to provide a hinge of this character, wherein it will be possible to raise or lower the free end of the door to take up the sag of the door, or prevent binding of the door at its upper end.

A further object is to provide a hinge comprising hinged leaves, one of said leaves having threaded therein adjustable screws which may be forced into engagement with a plate under the leaf for forcing the leaf outwardly or allowing the same to move inwardly, when it is desired to prevent binding or to take up the sag of a door. Also to provide screws passing through the leaf and the plate for holding the leaf in any position to which it may have been moved by the adjusting screws. Also to provide the other leaf of the hinge with apertures, which receive the adjusting screws when the hinge is closed, thereby positioning the adjusting screws so that they will prevent the removal of the door if the hinge pin should be removed.

With the above and other objects in view the invention resides in the combination and arrangement of parts as hereinafter set forth, shown in the drawings, described and claimed, it being understood that changes in the precise embodiment of the invention may be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings:—

Figure 1 is a view of the hinge, showing the same in open position and in place on a door frame and door.

Fig. 2 is a horizontal sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a perspective view of the adjusting screw engaging plate.

Referring to the drawings the numeral 1 designates a portion of a door frame and 2 the door which is secured to the frame by means of the hinge 3. The hinge 3 comprises the leaves 4 and 5. Leaf 4 is secured to the edge of the door 2 by means of screws 6 which pass through the leaf and into the door edge. The leaf 5 of the hinge is pivoted to the leaf 4 by means of a pin 7 and is secured to the door frame by means of screws 8, which pass through the leaf and through apertures 9 in the adjusting plate 10. The adjusting plate 10 is disposed between the leaf 5 and the door frame and forms an engaging plate with which the adjusting screws 11 which are threaded in the plate 5 engage when it is desired to force the leaf 5 outwardly for preventing binding of the door at the top, or to allow the leaf to move inwardly when it is desired to take up a sag of the door at its lower end.

When it is desired to move the leaf 5 outwardly the screws 8 are loosened, then the adjusting screws are threaded inwardly until the leaf 5 is in the proper outward position, after which the screws 8 are tightened, thus it will be seen that the door has been moved so that the binding of the same may be overcome. The lower hinge of the door being of the same construction, it will be seen that the lower hinge may be adjusted so that the door will not bind at the bottom.

The hinge leaf 4 is provided with apertures 12 which register with apertures 13 in the door, said apertures being so positioned that they will receive the outer ends of the adjusting screws 11 when the door 2 is in closed position, thereby forming means which prevent the door from being removed from the door frame when the hinge pin 7 is removed. Where hinges are not provided with interlocking means, it is only necessary to remove the hinge pins when it is desired to remove the door from the door frame, therefore by providing the adjusting and interlocking screws 11, it will be impossible to remove the door from the door opening by removing the hinge pins 7.

From the above it will be seen that a hinge is provided which is not only burglar proof, but one wherein the door may be positioned in various positions in a vertical plane within a door opening, thereby allowing the prevention of binding or sagging of the door.

The invention having been set forth, what is claimed as new and useful is:—

The combination with a door frame and a door, of a supporting hinge for said door, said hinge comprising a pair of hingedly

connected leaves, one of said leaves having threaded therein spaced adjusting screws, a plate disposed between the door frame leaf and the frame and engaged by the adjusting screws, securing screws passing through the adjusting screw leaf and the adjusting screw plate, said adjusting screw extending a substantial distance above the leaf carried by the frame, the door leaf of the hinge being provided with apertures registering with apertures in the edge of the door, said apertures being so positioned that when the door is closed they will receive the outer end of the adjusting screws, said apertures in the edge of the door forming means whereby the outer ends of the adjusting screws may project through and beyond the inner face of the door carried leaf and also forming means whereby a maximum range of adjustability of the adjusting screws may be obtained.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN H. KERSTETTER.

Witnesses:

P. B. MEEK,

JOHN L. HOLMES.