No. 823,443. PATENTED JUNE 12, 1906.

F. SANDHAM.

HINGE.

APPLICATION FILED OCT. 25, 1904.

Fig. 1.

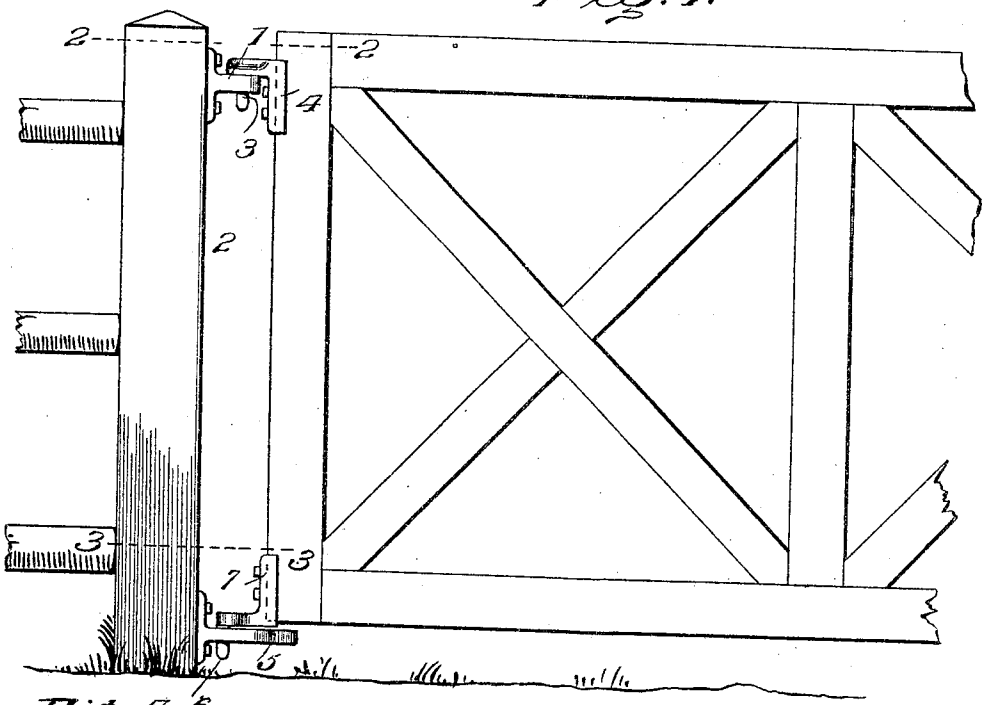


Fig. 4.

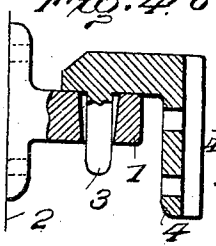
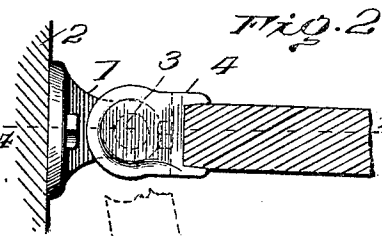


Fig. 2.



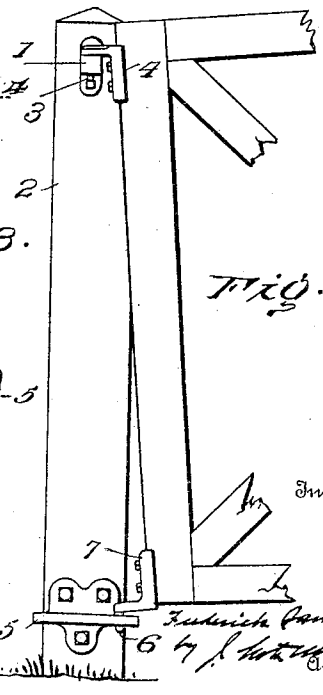


Fig. 6.

Fig. 5.

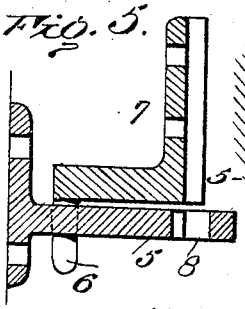
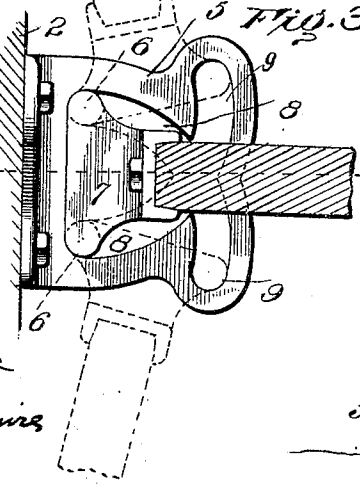


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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HINGE.

No. 823,443. Specification of Letters Patent. Patented June 12, 1906.

Application filed October 25, 1904. Serial No. 229,929.

To all whom it may concern:

Be it known that I, FREDERICK SANDHAM, of Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Hinges; 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 object of this invention is to provide an improved gate-hinge so constructed as to insure the automatic closing of the gate when swung in either direction and which will be strong, simple, and inexpensive and not liable to readily get out of order.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation of a gate equipped with my improved hinge. Figs. 2 and 3 are enlarged cross-sectional views on lines 2 2 and 3 3, respectively, Fig. 1. Figs. 4 and 5 are sections on lines 4 4 and 5 5, Figs. 2 and 3, respectively. Fig. 6 shows the position occupied by the hinge members when the gate is swung open.

The upper hinged member consists of a bracket 1, secured to the stationary post 2, and a pintle 3, depending from a bracket 4, rigidly secured to the end upright of the gate, said pintle extending downwardly through the eye of the bracket 1, the overhanging portion of the bracket 4 resting on the latter.

The lower hinged member consists of a horizontally-disposed guide-plate 5, secured to the post, and two pintles 6, depending from a bracket 7, secured to the gate. The plate 5 is formed with curved slots or guideways 8, each formed on a radius from the inner end of the other, with the result that the two slots intersect at their centers, terminating in lateral branches 9. The pintles 6 extend down into these slots; but their bracket does not rest upon the guide-plate 5, thus avoiding throwing the weight upon the latter, such weight being taken up by the upper hinge. In opening the gate in either direction one of the pintles 6 acts as the lower pivot, bearing firmly against the inner end of its respective slot or guideway, while the other pintle 6 travels through the other slot or guideway, being limited in its movement only by the length of the respective lateral branch 9, such latter pintle guiding the gate as it travels laterally and upwardly. The pivot on which the gate swings at the bottom being to one side of a vertical line drawn through the pintle of the upper hinge, it is manifest that as the gate is swung laterally it will ride upwardly instead of moving on a truly horizontal line, with the result that as soon as released after being opened it will automatically return to its normal position, with the two pintles 6 occupying the same positions in their respective slots or guideways.

It will be noted that the two pintles 6 are of greater length than the thickness of plate 5, so that they may project through the slots to such an extent that in the opening and closing of a gate the pintles cannot come out from the slots. Thus it is practically impossible for the gate members to become disengaged from the complementary members of the post.

From what has been said it will be seen that a hinge constructed in accordance with my invention is extremely simple and inexpensive and that by means thereof the opening and closing of a gate may be readily and easily effected without undue friction on any of the parts and with every degree of certainty that the gate will occupy its normal position, and yet be free to be opened and closed at will.

I claim as my invention—

1. The combination with a gate, of a weight-supporting hinge, a second hinge comprising a plate formed with two slots or guideways each on a radius from the inner end of the other, and pintles fitting in said slots or guideways, the inner ends of the latter being equidistant from a vertical line through the axis of the first-mentioned hinge.

2. The combination with a gate, of a weight-supporting hinge, a second hinge comprising a plate formed with two intersecting slots each on a radius from the inner end of the other, and pintles carried by the gate and extending downwardly and through said slots, said pintles being greater in length than the thickness of the slotted plate.

3. A hinge comprising a plate formed with two slots each on a radius from the inner end of the other, and a coacting member having two pintles designed to extend downwardly and through said slots, said pintles being greater in length than the thickness of the slotted plate.

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

FREDERICK SANDHAM.

Witnesses:

CHAS. W. SIEVERT,

ALBERT H. SIEVERT.