J. J. AKRE.

GATE.

APPLICATION FILED NOV. 7, 1912.

1,079,283. Patented Nov. 18, 1913.

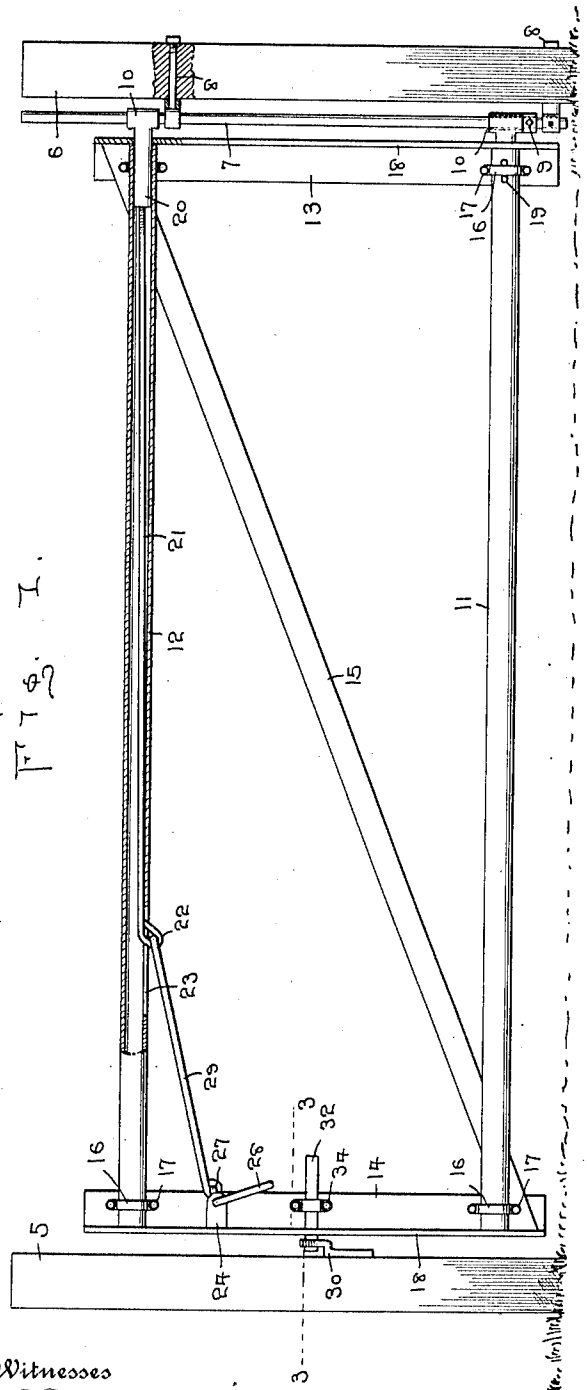


Fig. 1.

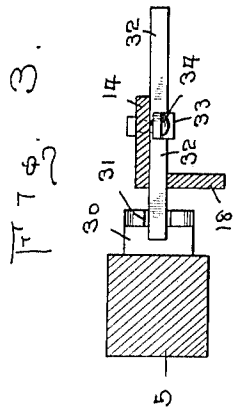


Fig. 3.

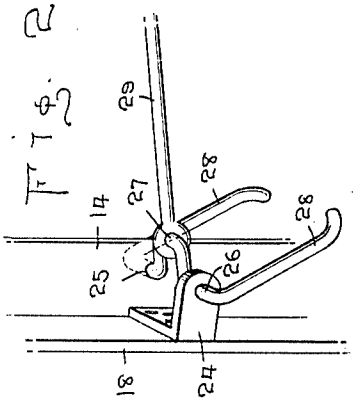


Fig. 2.

Witnesses

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GATE.

1,079,283. Specification of Letters Patent. Patented Nov. 18, 1913.

Application filed November 7, 1912. Serial No. 729,999.

To all whom it may concern:

Be it known that I, JOHN J. AKRE, a citizen of the United States, residing at Spring Grove, in the county of Houston and State of Minnesota, have invented certain new and useful Improvements in Gates; 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.

This invention relates to gates, and it more particularly relates to gate frame and hinge construction.

An object of the invention is to provide simple and efficient means for easily lifting the free end of a hinged gate for unlatching the latter and permitting it to be opened.

Other objects and advantages may be recited hereinafter and in the claim.

In the accompanying drawings, which supplement the following specification, Figure 1 is an elevation view, partly in section, of my improved form of gate frame. Fig. 2 is a fragmental detail view of the lifter, and, Fig. 3 is a horizontal sectional view, taken on the line 3—3 of Fig. 1.

In these drawings, in which similar reference characters correspond with similar parts throughout the several views, the front and rear gate posts are designated by the reference characters 5 and 6, respectively. A vertical rod or pivot 7 is secured to the rear post by means of bolts 8, and secured on the rod 7 is a collar 9, on which rests the lower hinge member 10, said hinge member being loosely fitted around the vertical shaft 7. The gate frame consists of a lower tube 11, an upper tube 12, a rear vertical bar 13, a front vertical bar 14 and an inclined brace 15. The front and rear bars comprise the vertical frame elements, while the tubes 11 and 12 constitute the horizontal frame elements of the gate, these horizontal elements having their end portions secured to the vertical elements by any proper means, such, for instance, as straps 16 and bolts 17, these straps and bolts constituting clamps, for securing said horizontal elements and said vertical elements together. The vertical elements are preferably formed of angle bars, of ordinary construction, and the ends of the horizontal elements are formed at right angles to the length of the tubes, these right angled or squared ends being fitted snugly against the lateral flanges 18 of the vertical members. The inclined brace 15 has one end secured to the lower end of the front vertical member 14, preferably by means of one of the bolts 17, so that the clamping member 16—17 serves the double purpose of holding the brace and the lower horizontal member in engagement with the front vertical member. The brace 15 inclines upward and rearward and is secured to the upper end of the rear vertical member by means of the same clamping member which secures the end portions of the rear vertical member and the upper horizontal member together.

The lower rear corner of the frame may be secured in fixed relation to the lower hinge member 10, by means of bolts 19, and in view of these bolts, the lower rear clamp 16—17 may be dispensed with, if desirable. The upper hinge member 10 is of substantially the same formation as the lower hinge member 10, consisting of a T-connection having its head in pivotal engagement with the rod or shaft 7, and its shank or stem 20 extending into the upper tubular member 12, and adapted for longitudinal movement therein, being loosely fitted. The shank 20 is in screw-threaded engagement with a draw rod 21, having an eye 22 formed on one end and extending through a longitudinal slot 23, in the lower side of the upper tube. An apertured lug 24 is secured on the flange 18 and extends at right angles therefrom, or in parallel relation to the base flange, to which the horizontal elements are secured. The base flange is apertured at 25, in alinement with the aperture of the lug 24; and within these apertures is pivotally mounted a lifter member, which consists of a crank-shaft 26, having a crank 27 and handles 28 formed thereon, said crank being seated between the base flange and the parallel lug 24, and said handles extending approximately at right angles to the plane of the crank. A link 29 pivotally connects with the crank and with the eye 22 of the draw rod, and it may be seen that said crank, link, draw rod, upper hinge member and shaft 7, together with the lower hinge member would support the gate in horizontal position, the brace 15 retaining the gate in its rectangular shape.

In fixed position, on the front gate post, is secured a keeper 30, having its top portion notched at 31, for the reception of a latch bar 32. This latch bar is secured in fixed

