(No Model.)

H. E. MOORE.

GATE.

No. 381,634. Patented Apr. 24, 1888.

Fig. 1.

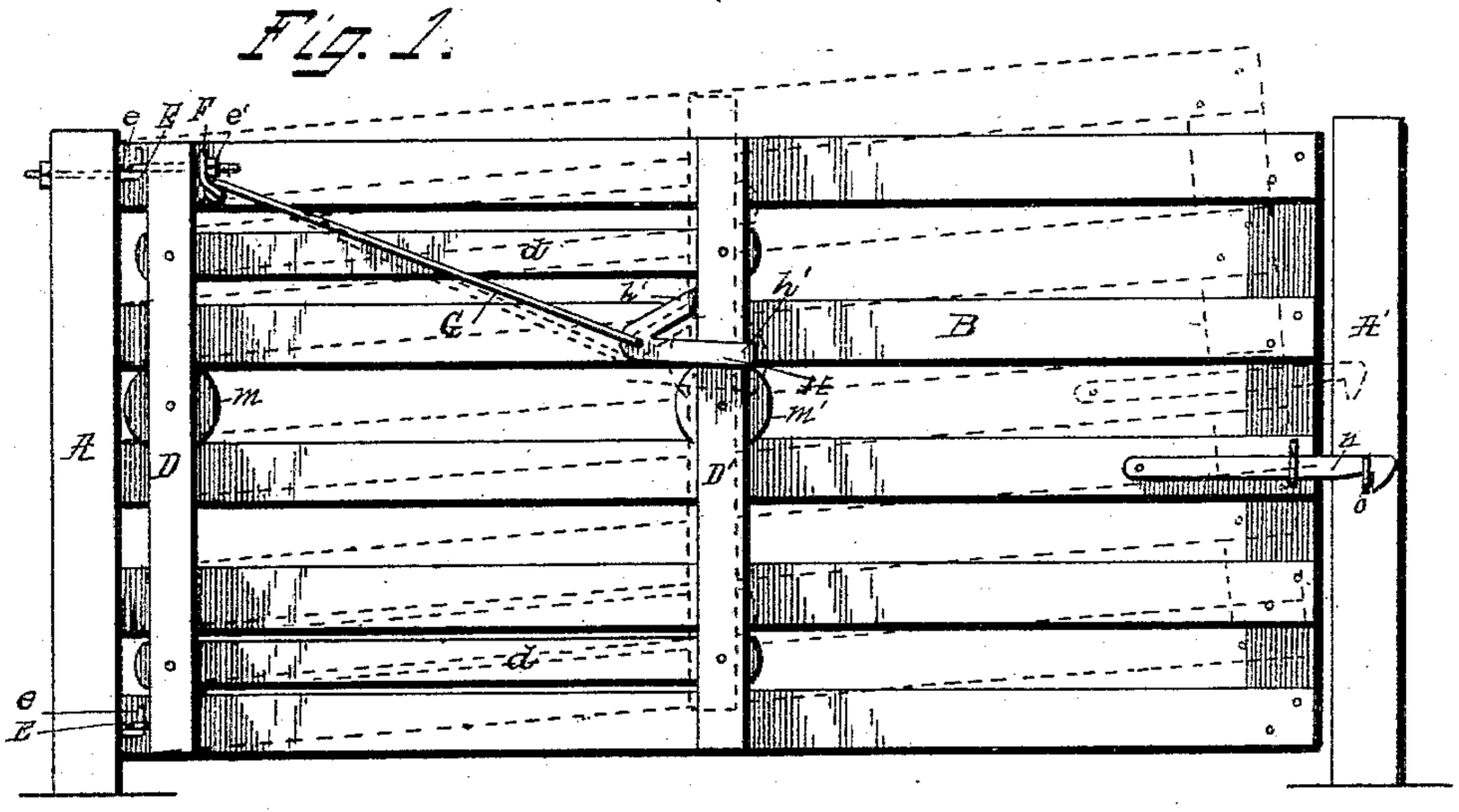


Fig. 2.

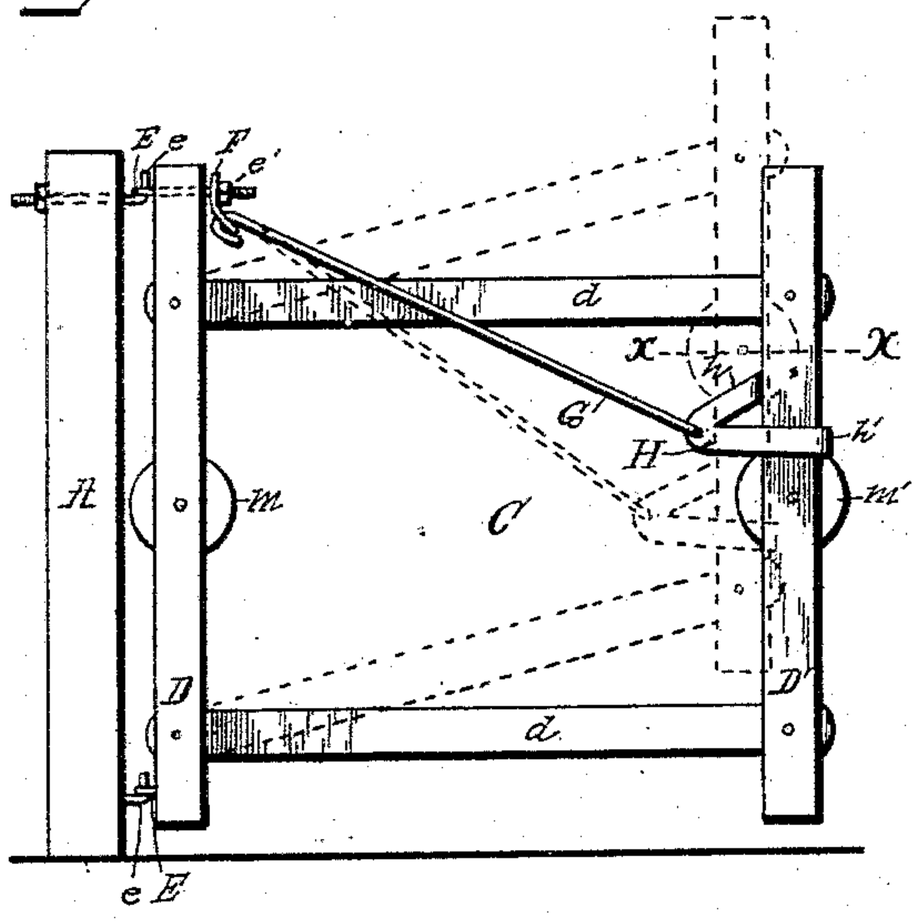
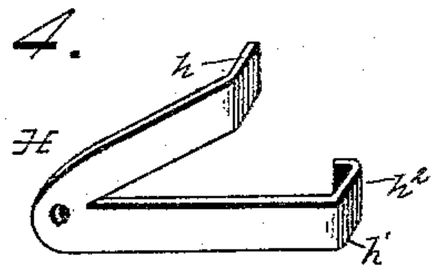


Fig. 3.

Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

HARVEY E. MOORE, OF LENA, OHIO.

GATE.

SPECIFICATION forming part of Letters Patent No. 381,634, dated April 24, 1888.

Application filed October 21, 1887. Serial No. 253,010. (No model.)

To all whom it may concern:

Be it known that I, HARVEY E. MOORE, a citizen of the United States, residing at Lena, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in Gates; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to gates which are supported on a hinged frame, so that the gate can be pushed back on the hinged frame for opening a small space for mounted or foot travelers, or can be swung around to open the whole roadway for the passage of vehicles. The sag in the gate, which inevitably occurs in this class as well as other kinds of gates, is taken up by the frame, which is vertically adjustable at its outer end, and is held in its adjusted position by a suitable connection or connections interposed between the inner and the outer bar of the said frame which supports the gate.

My improvement relates, chiefly, to an improved means for holding the frame at an adjusted position, and which will permit the ready adjustment of the frame to take up sag in the gate, or to elevate the gate to allow small stock to pass underneath.

The improvement consists in a clasp or grip having lateral arms at different levels which embrace the outer end bar of the frame and a connection interposed between the clasp and the inner end bar of the frame, so that the weight of the frame and gate will cause the arms of the clasp to bind or grip the edges of the outer bar securely and support the frame.

The improvement further consists in the novel construction and combination of parts, which will be more fully hereinafter set forth and claimed, and shown in the annexed drawings, in which—

Figure 1 is a front view of a gate of my construction embodying my invention, showing the adjustment of the same by dotted lines; Fig. 2, a side view of the gate-supporting frame, showing the operation of the clasp or grip by dotted lines; Fig. 3, a cross-section of the outer bar of the frame just above the clasp about on the line X X of Fig. 2, and Fig. 4 is a perspective view of the clasp or grip.

The posts A and A′ are located on opposite sides of the roadway, and have the gate B, of ordinary construction, arranged between them and mounted on the frame C, hinged to the post A, so as to slide back and forth and swing open with the said frame. The frame C, composed of the inner bar, D, the outer bar, D′, and the upper and lower cross-bars *d*, which are pivotally connected at their ends with the bars D and D′, is hinged to the post A by the right-angled spikes *e* and the eyebolts E. The plate F, mounted on the upper bolt, E, and clamped between the edge of the bar D and the nut *e′*, is apertured at its lower end to receive the end of the connecting-rod G, which carries the grip or clasp H at its other or lower end. The clasp or grip having the lateral arms *h* and *h′*, which embrace the edges of the outer bar, D′, has the end h^2 of the arm *h′* bent in approximately parallel with the arm *h′* to embrace the bar D′ for preventing accidental displacement of the clasp or grip. The bar D′ is cut away at *d′* to receive the end h^2, so that it can have a free movement; otherwise it would be interfered with by the rails of the gate. The arms *h* and *h′* are located at different distances from the point of connection between the clasp and the rod G in different vertical planes to embrace the sides of the bar D′. As the draft is upward on the clasp, the arms *h* and *h′* bite into and grip the bar D′ on its opposite edges. The arms *h* and *h′* are located at different levels to moderate their binding action, which is found to be too great when the arms are in the same plane, thereby imposing unnecessary strain upon the arms, which must be made that much heavier to withstand the excessive strain. By having the arms at different levels another important result is effected, as ample room is provided between them to permit their ready disengagement from the bar D′ when the outer end of the frame or the gate is tipped up.

The action of the grip or clasp is this: The weight of the frame and gate exerts a downward pressure on the outer end of the frame, and likewise on the outer end of the clasp, which is pivotally connected at its inner end with the rod G. The arm *h′*, in frictional contact with the bar D′, is carried down and turns the

clasp, as it were, about its connection with the rod G and forces the arm *h* close against the opposite edge of bar D′ and clamps the said bar D′ firmly. When the bar D′ is elevated the reverse of the foregoing-described operation takes place. The arm *h′* is lifted and turns the clasp in the opposite direction and disengages the arm *h* from the bar D′. A continued lift on bar D′ will cause it to slide between the arms of the clasp. When the proper adjustment is made, the gate will be held by the clasp as soon as the gate is left free.

The gate is supported on the rollers *m* and *m′* on the bars D and D′ of the frame, over which it moves when sliding back and forth. When slid back to its full limit, the gate balances and exerts no side draft on the hinges of the frame, and can be opened and closed with great ease. When closed, the gate is held by the hook-latch *n* engaging with the hook-catch *o*, which holds the gate against a sliding or swinging movement.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the frame composed of an inner and an outer vertical bar relatively adjustable, substantially as shown, and cross-bars pivotally connected at their ends with the said vertical bars, of the clasp H, having the end *h* of its upper shorter portion bent at right angles to bear against the inner side of one of the said vertical bars and the end *h′* of its lower longer portion similarly bent to bear against the outer side of said bar, and the rod G, connecting the clasp with the other of the said vertical bars, substantially as and for the purpose described.

2. The combination, with the frame having vertical bars that are relatively adjustable, of the connecting-rod and the clasp H, having upper and lower portions or arms of unequal length, the ends of which are bent at right angles and bear, respectively, against opposite sides of one of the said vertical bars, the longer portion or arm having its end bent a second time at right angles, as at h^2, to engage with the said bar to prevent lateral displacement of the clasp therefrom, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HARVEY E. MOORE.

Witnesses:

L. R. WILLIAMS,

S. G. FRAZIER.