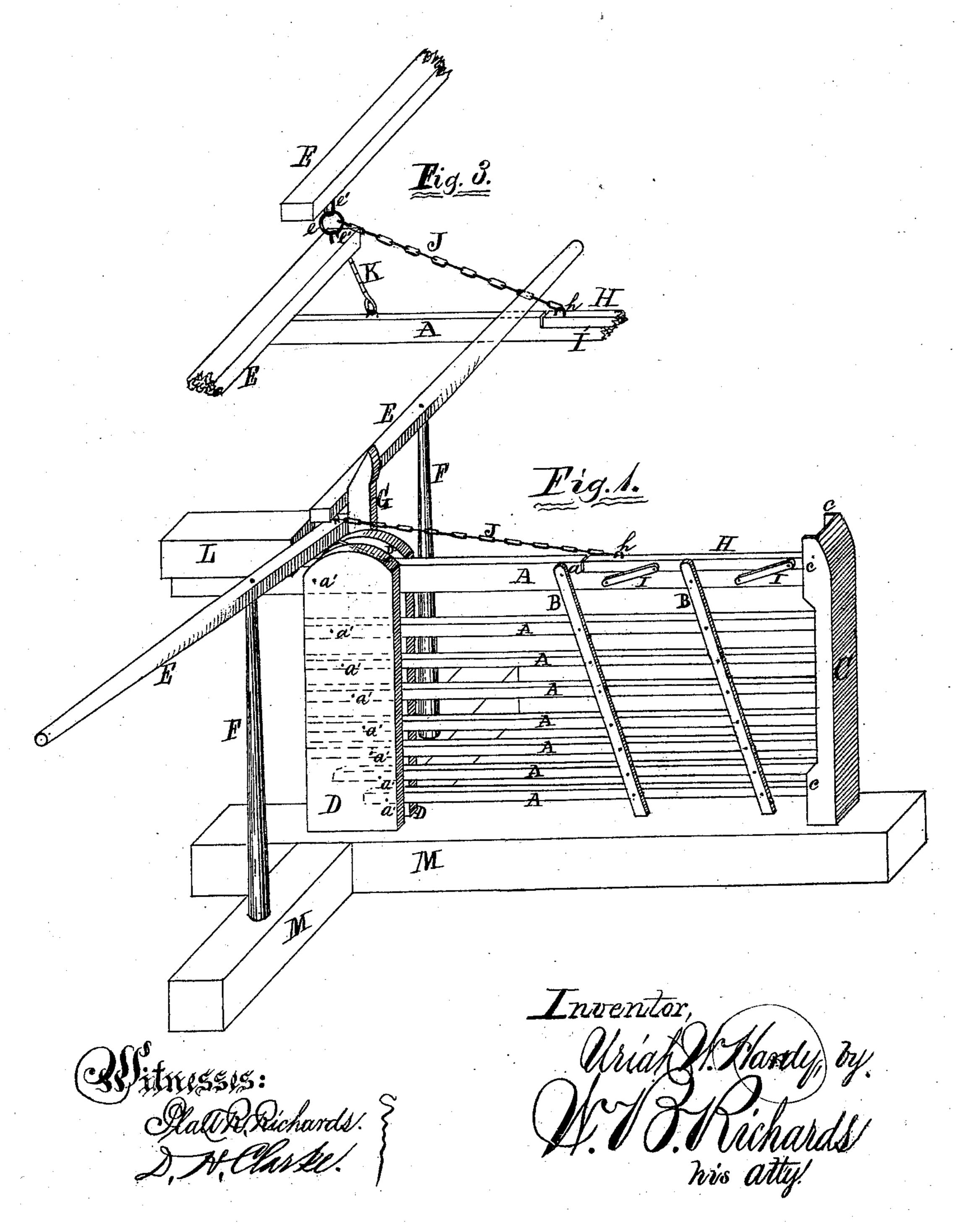
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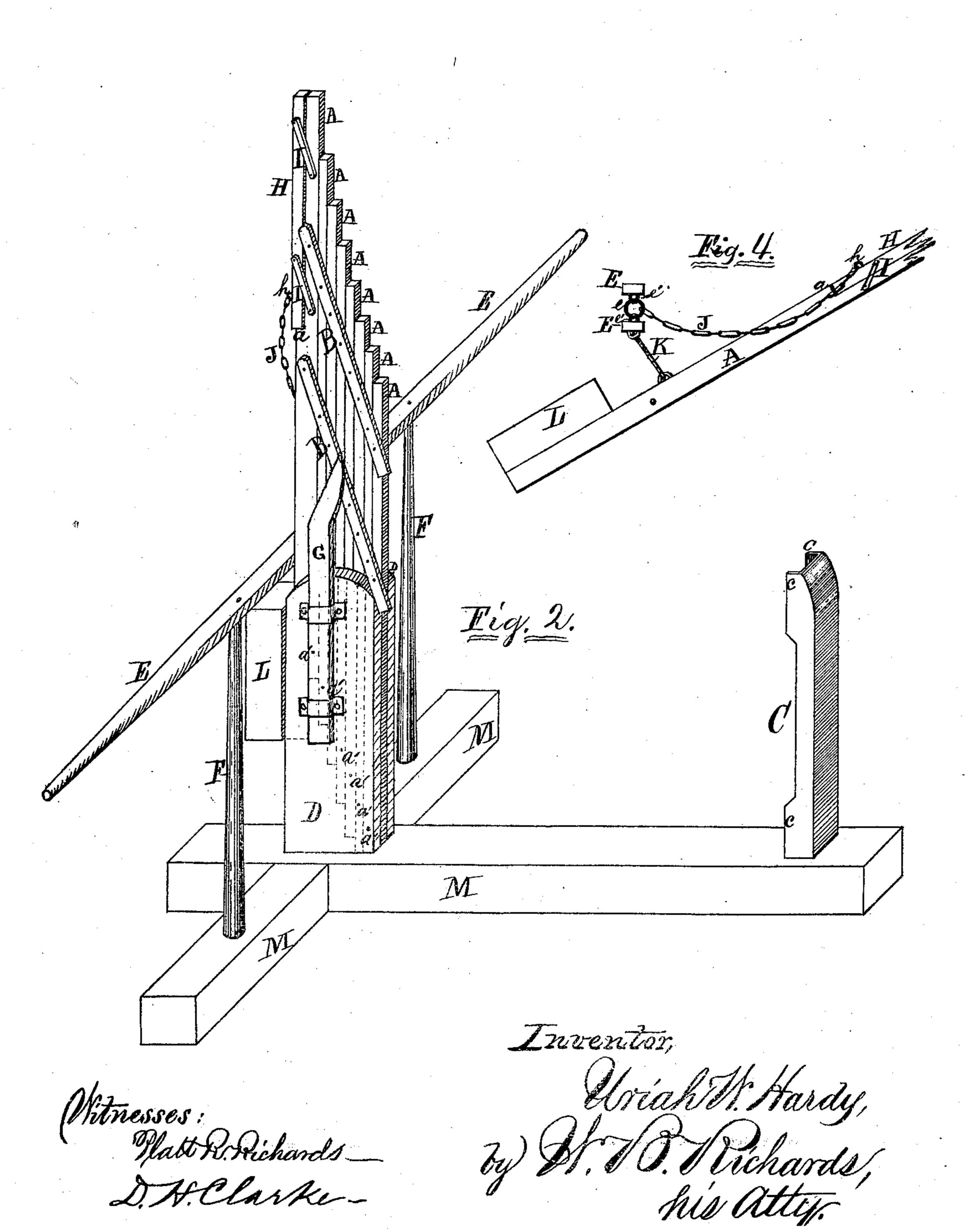


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N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

Anited States Patent Office.

URIAH W. HARDY, OF ABINGDON, ILLINOIS.

Letters Patent No. 113,294, dated April, 4, 1871.

IMPROVEMENT IN GATES.

The Schedule referred to in these Letters Patent and making part of the same.

I, URIAH W. HARDY, of Abingdon, in the county of Knox and State of Illinois, have invented certain Improvements in Gates, of which the following is a specification—

Nature and Objects of the Invention.

The nature of my invention relates to improvements in that class of gates known as "folding-bar gates," in which the bars fold up and assume a vertical position when the gate is opened; and the invention consists in the combination of a stay with the pivot-posts and operating-levers, so constructed as to allow of the free working of the levers, as required, and at the same time keep the levers in place, all as hereinafter fully described.

Description of the Accompanying Drawing.

Figure 1 is a perspective view of a gate complete, embodying my invention, and representing the gate closed.

Figure 2 is a perspective view of a gate complete, embodying my invention and representing the gate open.

General Description.

Letters A represent the horizontal gate-bars.

Letters B represent the cross-bars.

C is the latch-post, with ledges c c c c, at its upper and lower ends, to form guides for the end of the gate while opening and closing, and stays, when the gate is shut.

D D are the pivot-posts or side-posts.

E E are the operating-levers.

FF are posts, on which the levers E E are pivoted.

G is a stay, attached to and projecting upward from the side of one the posts D, and its upper part in-

clined, as shown in the drawing.

H is the latch, pivoted on the upper side of the upper horizontal bar, by hinges I I, either on top of the said bar with a stop-pin at its rear end, or in a suitable place cut in the bar, as shown in the drawing, so that when the latch is drawn back its rear end will strike the shoulder a.

The hinges I I are attached, as shown plainly, so that, when the latch H is drawn back, the hinges still incline forward, in order that when the latch is released and in a horizontal position it will drop downward and forward by the force of its own gravity, and engage with any suitable recess in the post C.

The adjacent ends of the levers E E are connected

by a ring, e, and staples e' e'.

J is a chain, extending from the ring e to the sta-

ple h, on the rear end of the latch H.

K is a chain, connecting the adjacent ends of the levers E E with the top bar A, at a point a little forward of the point at which the bar A is pivoted in the posts D D.

L is a weight on the bar A, which is extended for its attachment in the usual manner in this class of gates, and is so poised that the weight and gate balance each the other when the gate stands at an angle of about seventy degrees; passing which in closing the gate will close itself, and passing which in opening it will open itself.

The posts C D D F F, may be set in the ground, or

they may be set in a frame, M.

The construction and operation are as follows:

The bars A are pivoted on a slope line, between the posts D D, at the points a' a' a' a' a' a' a' a' a' a', so that they may stand side by side when the gate is open, and their lower ends rest between the posts D D, holding the gate firmly against wind, or vibration sidewise from any cause, while open and while being opened.

The ends of the upper bars A A A A A A A, are extended back past their pivoted points a' a' a' a' a' a' a', to the edge of the posts D D, as shown by the dotted lines at fig. 1, to assist in holding the gate as last described.

In opening the gate, the person approaching it takes hold of the free end of one of the levers E, which are pivoted loosely on top of the posts F, and, drawing it slightly horizontally, releases or draws back the latch H by the chain J; then by drawing the same end of the lever E downward the chain K will raise the gate to the angle of seventy degrees, passing which it will, with the aid of the momentum acquired, carry itself to a vertical position.

In closing the gate the outer end of either lever E is thrown back horizontally, and its other end striking the upper gate-bar A, will carry it past the inclination of seventy degrees from the horizontal, from which

point it will close itself.

To enable the levers E to have side motion sufficiently in closing the gate, the upper end of the stay G is inclined, as shown plainly at figs. 1 and 2, and when the gate is open the ends of the levers E E, adjacent to each other, are brought up opposite said incline. When the gate is closed the same ends of the levers drop to the vertical part of the stay G, which holds them in position for convenience in reaching by the approaching horseman or other person.

Claim.

I claim as my invention—

The stay G, when constructed as described, with an inclined top, and combined with the posts D, levers E E, and bar A, substantially as described, and for the purpose specified.

URIAH W. HARDY.

Witnesses:

J. W. BUTLER,

P. R. RICHARDS.