

No. 710,250.

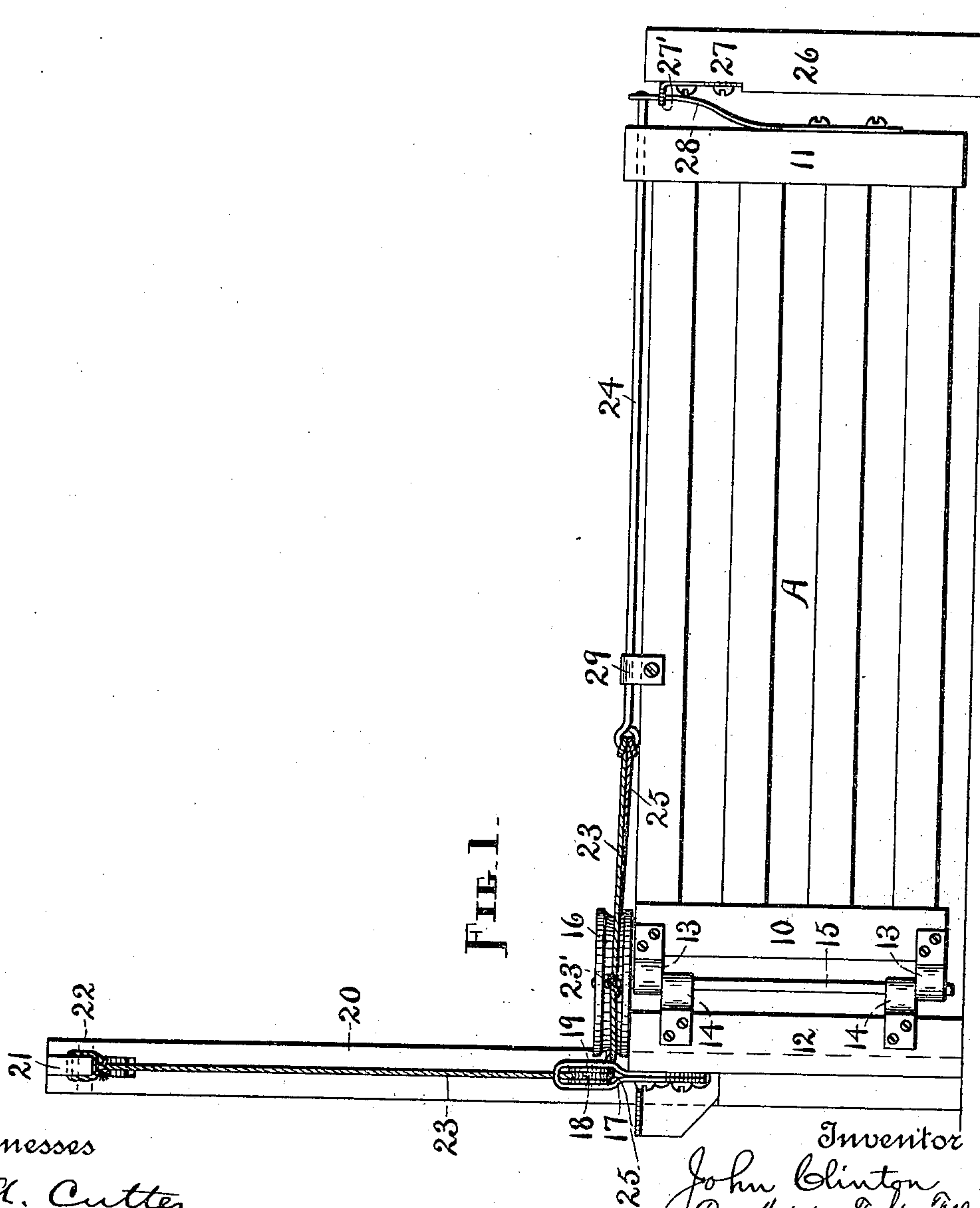
Patented Sept. 30, 1902.

J. CLINTON.
GATE.

(Application filed Jan. 9, 1902.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses
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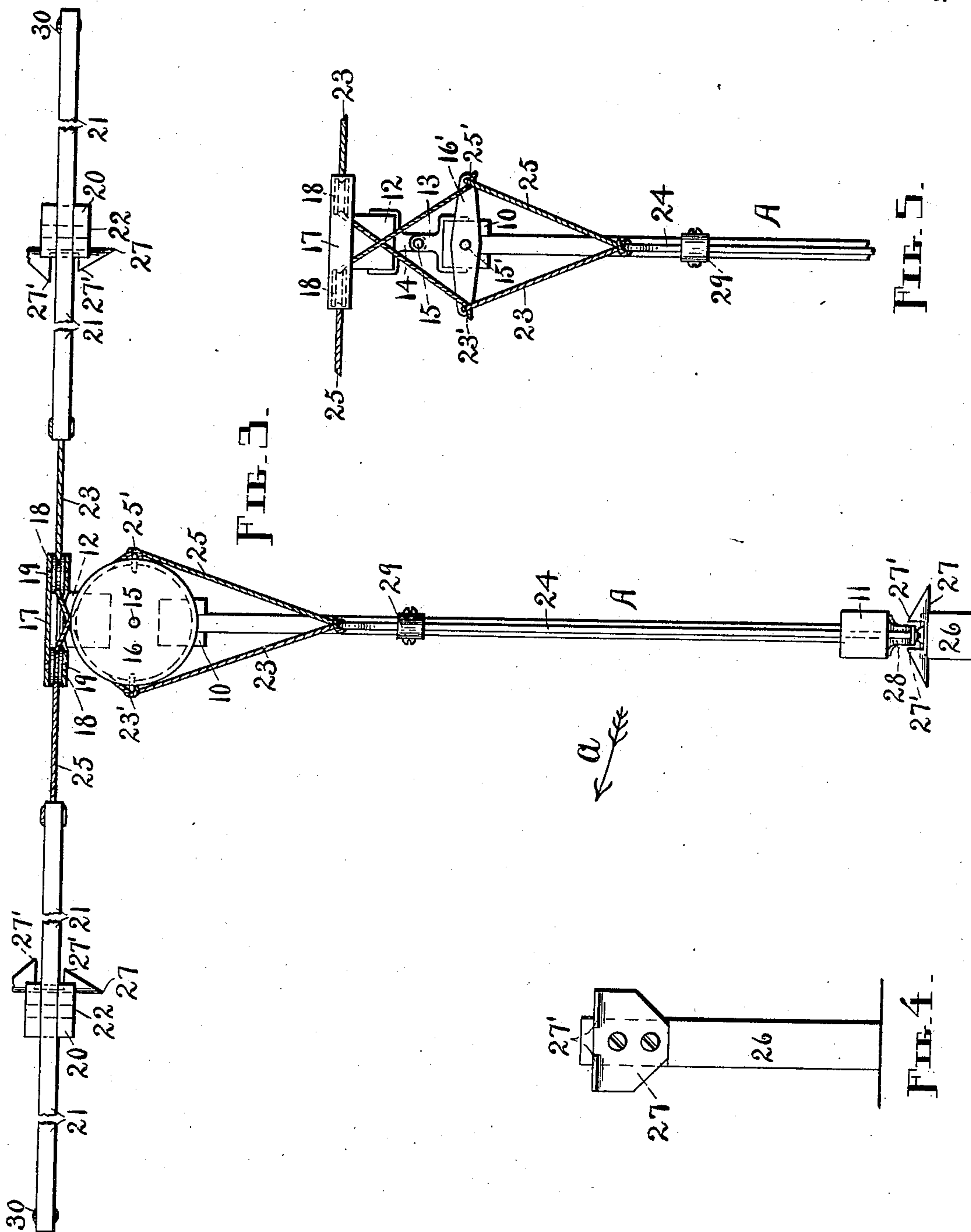
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3 Sheets—Sheet 3.

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UNITED STATES PATENT OFFICE.

JOHN CLINTON, OF LIVINGSTON, MONTANA, ASSIGNOR TO THOMAS D. MILLEA, JOHN D. MILLEA, AND MICHAEL J. CARROLL, OF SPRINGFIELD, MASSACHUSETTS.

GATE.

SPECIFICATION forming part of Letters Patent No. 710,250, dated September 30, 1902.

Application filed January 9, 1902. Serial No. 88,988. (No model.)

To all whom it may concern:

Be it known that I, JOHN CLINTON, a citizen of the United States, residing at Livingston, in the county of Park and State of Montana, have invented a new and useful Gate, of which the following is a specification.

My invention relates to gates which are operated by levers remotely placed relative to the gate itself; and it consists in the peculiar construction and arrangement of actuating and locking and unlocking members, as hereinafter fully described, and particularly pointed out in the claims; and the object of my improvement is to provide means for unlocking, swinging, and locking the gate at a single operation or by a single movement to open or close the same, said means being simple in construction and operation, comparatively inexpensive, not liable to get out of order, durable, and effectual. Simplicity and cheapness of construction are two essential and valuable features of my invention, as heretofore gates designed for use on farms, ranches, and the like have been too complicated and expensive for practical purposes. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of the device, showing the gate closed, one of the operating-levers and its post being removed; Fig. 2, an elevation at right angles to the one shown in Fig. 1 and back of the locking-post, the operating-levers being broken away, the gate being open; Fig. 3, a plan view of the device; Fig. 4, an inside view of the locking-post; and Fig. 5, a top view of the rear of the gate, showing a modification of the actuating or rotary member.

Similar letters and figures refer to similar parts throughout the several views.

The gate A may be made up in any suitable manner, but should be provided with a rear upright 10 and a front upright 11, said uprights being connected by bars, cross-pieces, braces, or otherwise, as desired.

In the rear of the upright 10 is a post 12, having its base set into the ground. The gate A is hung from the post 12 by means of the hinges 13 and 14, respectively fastened to the upright 10 and said post, and by the vertical rod 15, which passes through said hinges. Rig-

idly attached to the upper end of the rod 15 is a rotary member, consisting in this case of a horizontal pulley 16. A bracket 17 of suitable construction is securely fastened to the back of the post 12 and has vertical idlers 18 18, pivoted at 19 19, therein.

Set into the ground at the right and left of the post 12 and some distance therefrom are posts 20 20, each having a lever 21, pivoted to the top thereof at 22. A cord 23 is fastened to the inner end of one of the levers 21, and said cord extends downward under the adjacent idler 19, thence around the opposite side of the pulley 16, to which it is fastened at 23', and finally passes to the rear end of the latch-rod 24. A cord 25 is fastened to the corresponding end of the other lever 21, passes downward beneath the adjacent idler 19 and around the pulley 16 on the side opposite the cord 23, and thence to the rear end of the rod 24, to which it is secured. The cord 25 is fastened at 25' to the pulley 16.

A post 26 is set into the ground in front of and a little remote from the gate upright 11, and on the upper part of the side of this post, which is adjacent to the upright 11, is a catch 27. (Best shown in Figs. 3 and 4.) The catch 27 is provided with two horizontally-projecting triangular-shaped prongs 27', the inner edges of which are parallel with each other. The spring-latch 28 is screwed or otherwise fastened at its base to the front face of the upright 11 and is adapted to enter the space between the prongs 27', since the upper terminal of said latch normally stands out from the face of said upright. The rod 24 has its front end fastened to the free end of the latch 28, and the cords 23 and 25 are attached to the rear end of said rod, as before stated. The rod 24 is held in place by and reciprocates through a keeper 29 on the upper bar of the gate A and through the upper part of the upright 11. Each post 20 is provided with a catch 27 at the proper height to lock the gate when it is swung open, as will presently be described.

Assuming that the gate is closed, as shown in Fig. 1, and that it is approached from the side shown therein, the operation is as follows: Depress the free end of the lever 21, to

which the cord 25 is attached, by drawing down the handle 30, which depends therefrom. This action of course elevates the opposite end of the lever and draws up and
 5 pulls backward the cord 25, which immediately draws the rod 24, with the latch 28, toward the rear and disengages said latch from the catch 27. As soon as this is done the continued upward and rearward movement of the
 10 cord 25 further rotates the pulley 16 and the rod 15 and swings the gate A, now released from its restraining-catch, away from the operator and into a position parallel with the road. The latch 28 instantly springs into en-
 15 gagement with the catch 27 on the post 20, to which the upright 11 is now adjacent, and locks the gate in its open position. Having passed on to the free end of the other lever 21, the operator pulls down the handle 30, and
 20 said lever is actuated to draw the cord 23 upward and backward, by which the gate is unlocked and swung forward into its closed position across the road in precisely the same manner as it was opened, the latch 28 engag-
 25 ing the catch on the post 26 to complete the operation. If the operator approaches from the opposite direction, the movements and operations are the same, except that the gate in this case swings open in the direction in-
 30 dicated by the arrow *a* in Fig. 3.

The construction herein set forth provides for unlocking and swinging the gate by a single positive movement of the primary mem-
 35 bers without the aid of auxiliary levers, springs, or weights or other contrivances.

It will be understood, of course, that the gate should be hung so as to clear the ground between the posts 26 and 20 20.

Instead of using the pulley 16 for the ro-
 40 tary member a cross-bar 16' may be employed, and this cross-bar can be centered on a stud 15' at the top of the upright 10, so as to stand substantially at right angles to the gate A, if desired, the cords 23 and 25 being fastened to
 45 the ends of said cross-bar. This modification does not materially change or affect the operation hereinbefore described.

As above intimated, a cross-bar might be substituted for the pulley 16 on the end of
 50 the rod 15; but said pulley, or at least the rear portion of it, is preferred, for the reason that the same serves to take up the slack of

the cords when the gate is swung, and thus provide against lost motion on the part of the levers and cords and stiffen the gate-
 55 bearings, consequently making the device more positive in operation. Chains may be substituted in part or in whole for the cords 23 and 25, and minor changes other than those mentioned which do not depart from
 60 the nature of my invention may be made.

I am aware that swinging gates are old and do not seek to claim, broadly, such a gate operated by levers located at a distance there-
 65 from; but

What I do claim, and desire to secure by Letters Patent, is—

1. The combination with a post and a gate hinged thereto, of a rotary member at the rear of said gate, a spring-latch on the front
 70 of the gate, a post having a catch interposed in the path of travel of said gate-latch which is adapted to be engaged by and disengaged from said catch, a reciprocating rod attached
 75 at one end to the latch, cords fastened to the other end of said rod and at opposite points on said rotary member, idlers bracketed to the first-mentioned gate-post, under which
 80 said cords pass, and operating-levers to which the cords are attached, substantially as herein shown and described.

2. The combination with a post and a gate connected therewith by hinges and a rod, of a rotary member fast on said rod, a spring-
 85 latch on the front of said gate, a post having a catch interposed in the path of travel of said gate-latch which is adapted to be engaged by and disengaged from said catch, a reciprocating rod attached at one end to the
 90 latch, cords fastened to the other end of said rod and at opposite points on said rotary member, idlers bracketed to the first-mentioned gate-post, under which said cords pass, and operating-levers to which said cords are
 95 attached, substantially as herein shown and described.

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

JOHN CLINTON.

Witnesses:

M. J. CARROLL,
 T. D. MILLEA.