

(No Model.)

D. E. HELTON.

GATE.

No. 390,124.

Patented Sept. 25, 1888.

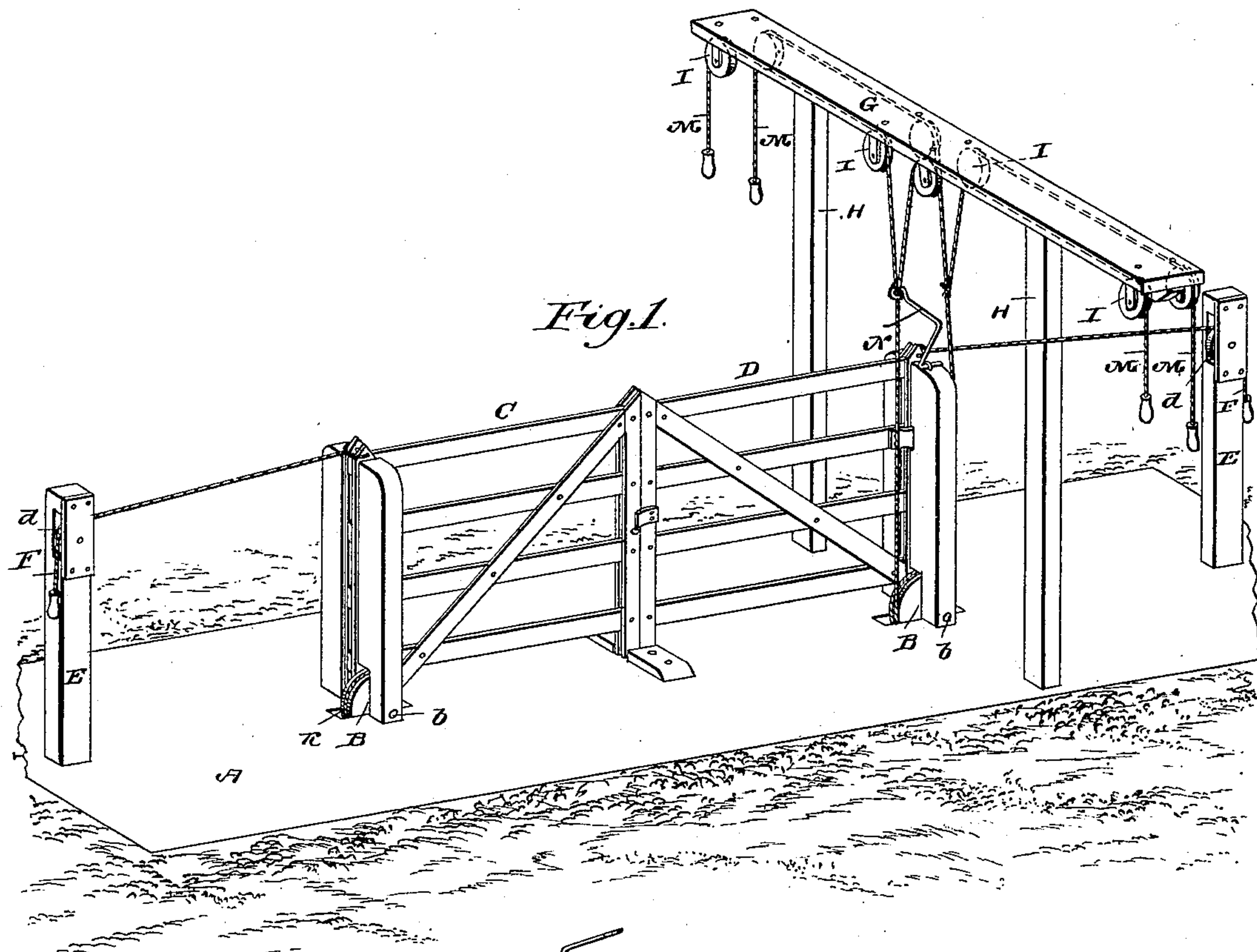


Fig. 1.

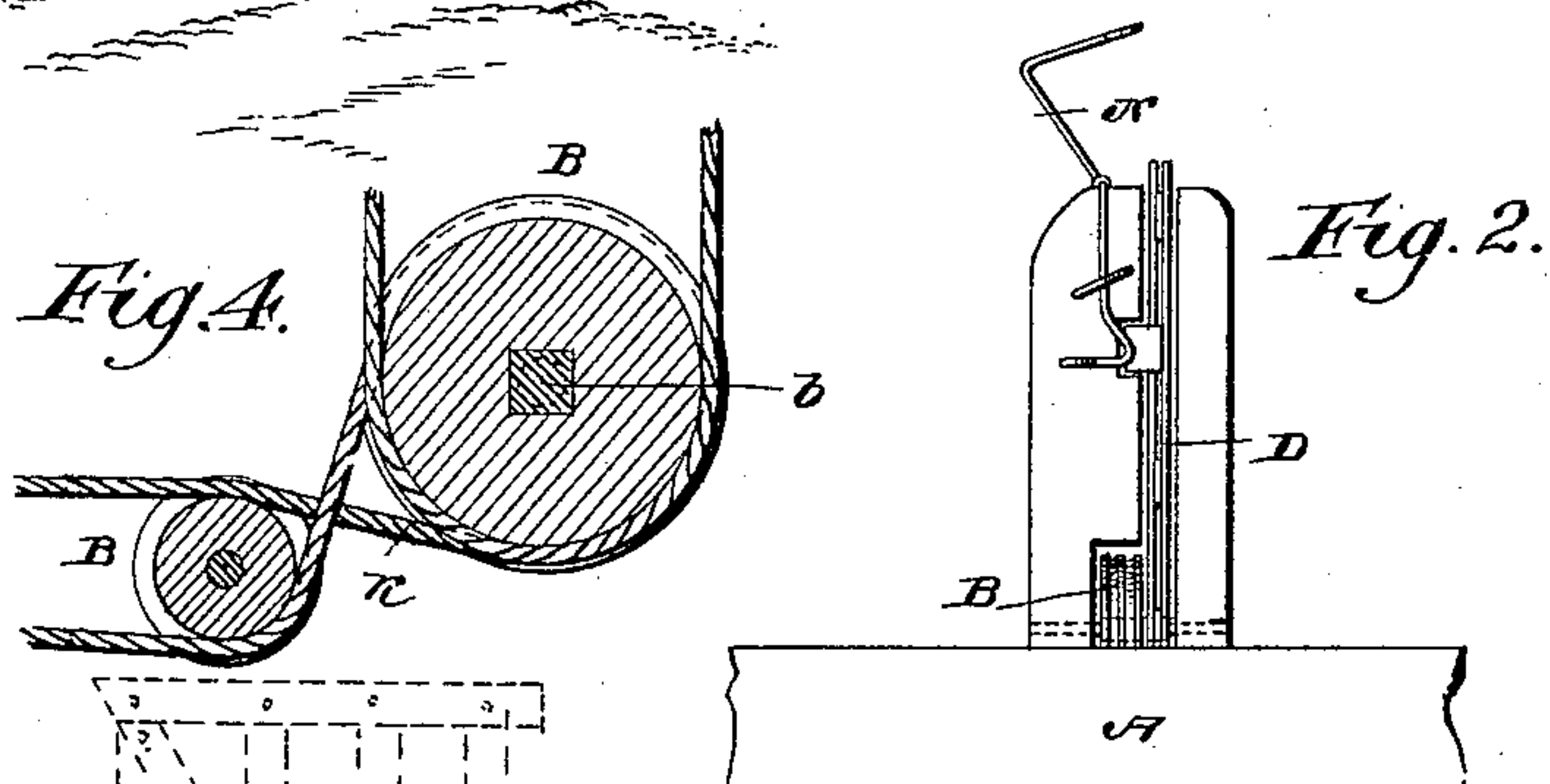


Fig. 2.

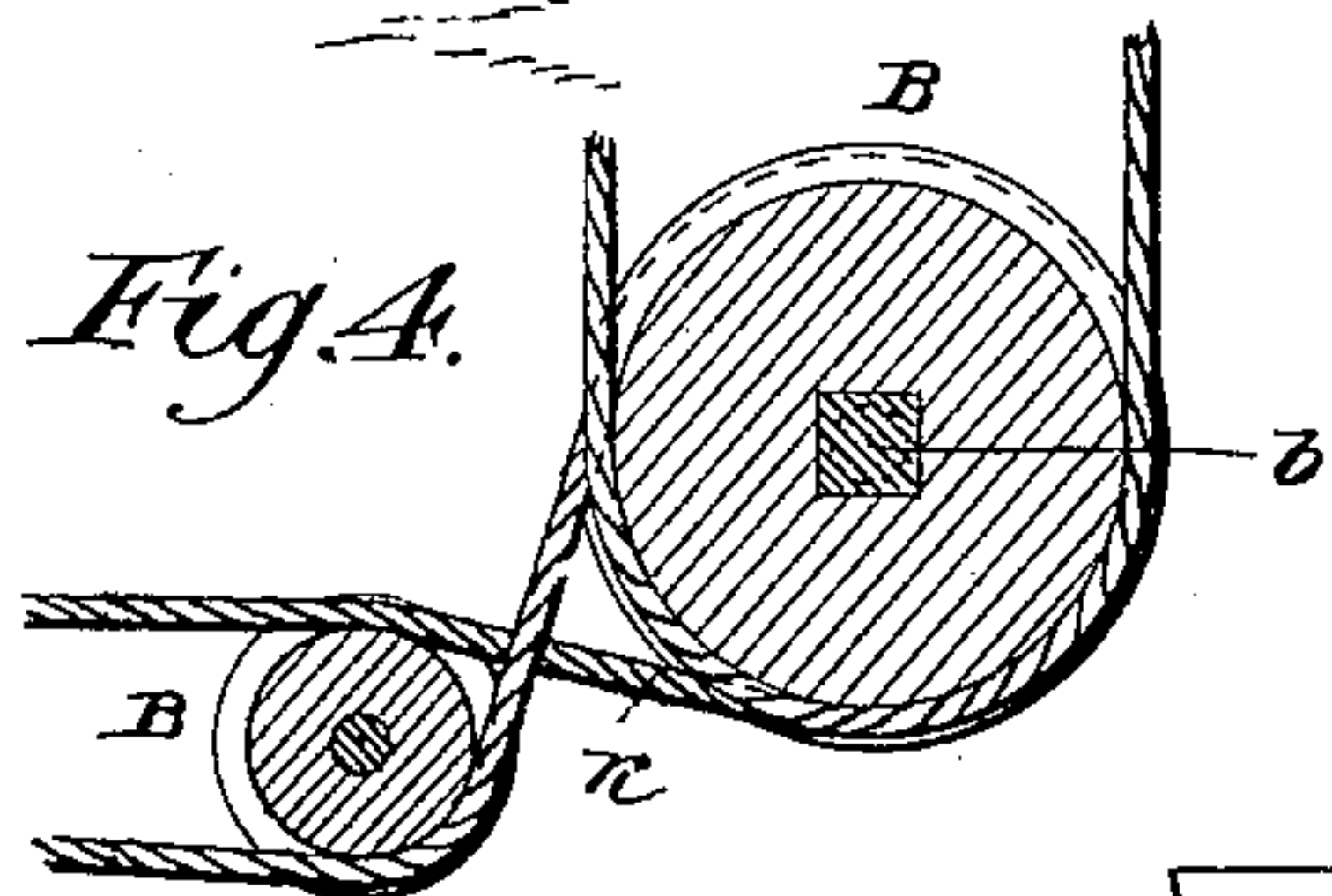


Fig. 4.

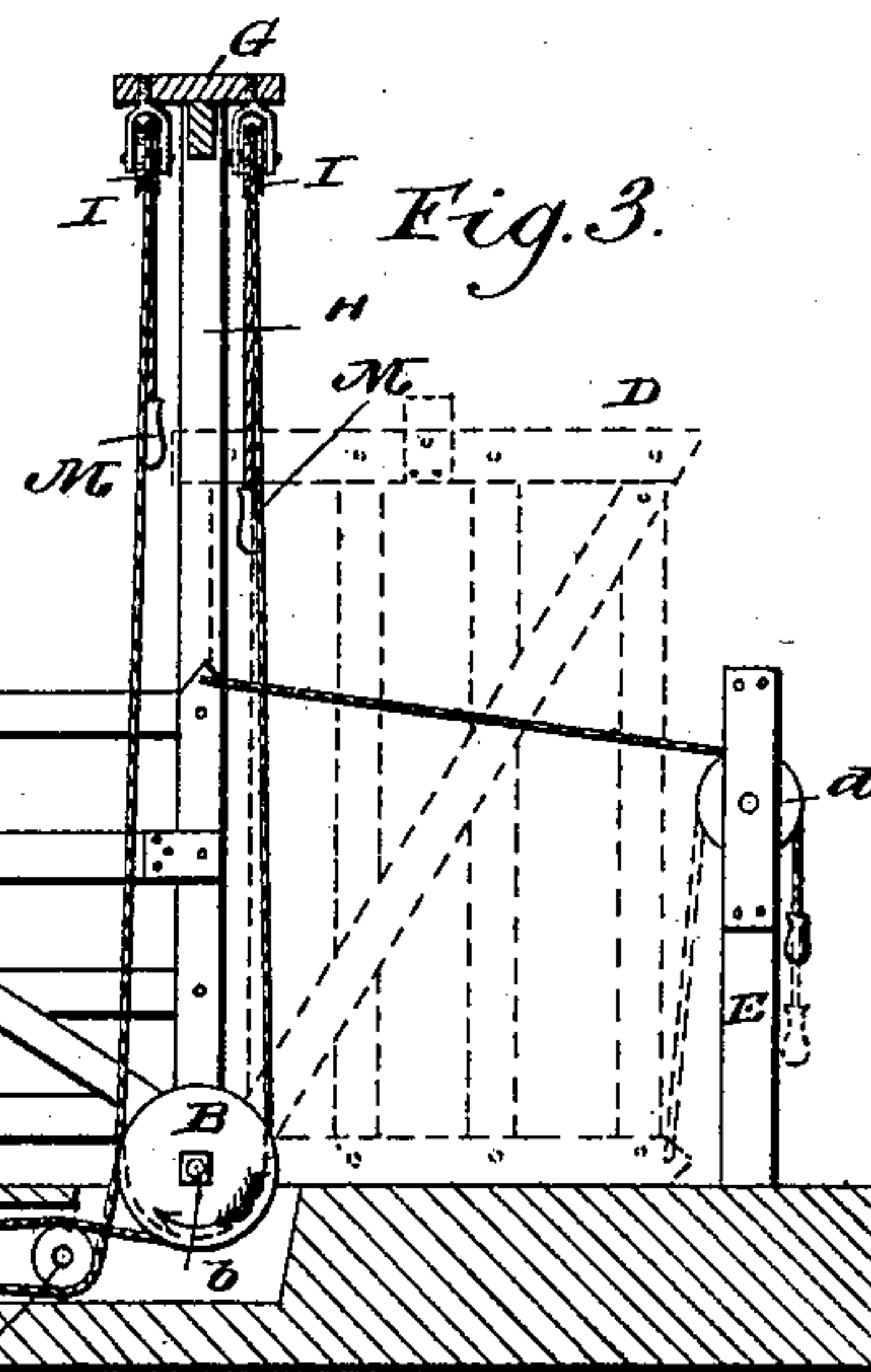
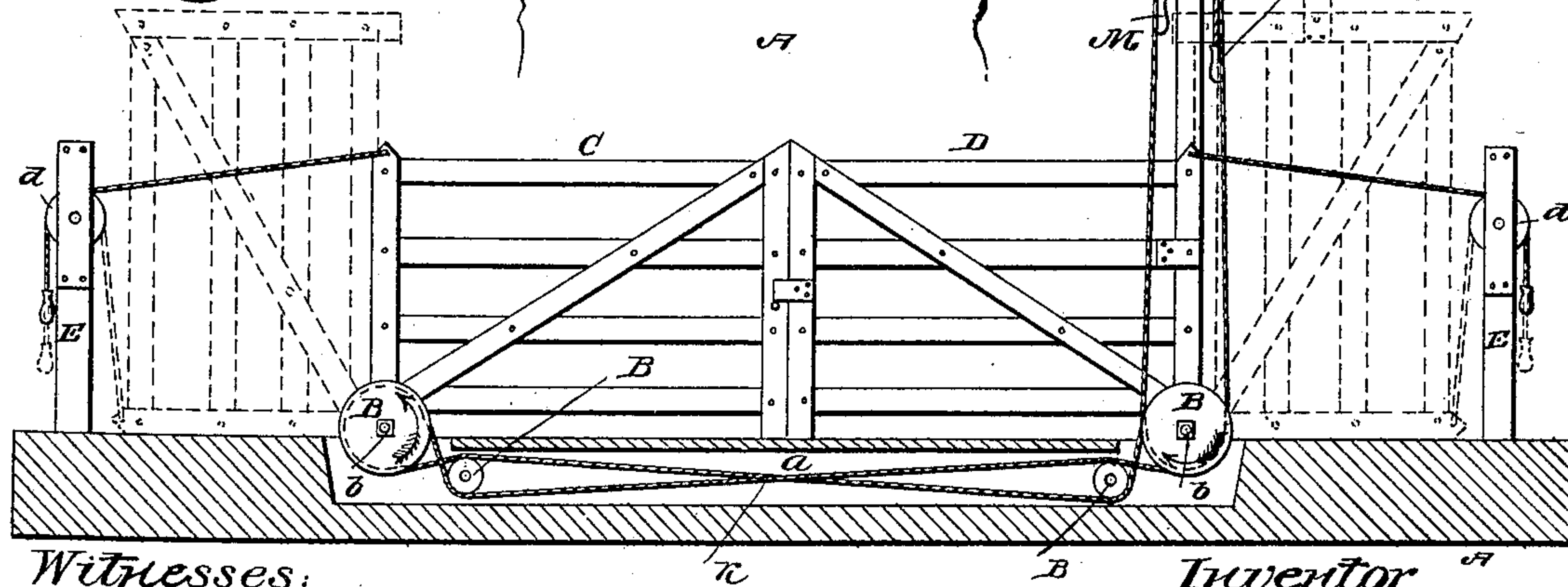


Fig. 3.



Witnesses:

Frank Moorland
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Inventor

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UNITED STATES PATENT OFFICE.

DOUGLAS E. HELTON, OF OGDEN, ILLINOIS.

GATE.

SPECIFICATION forming part of Letters Patent No. 390,124, dated September 25, 1888.

Application filed August 1, 1887. Serial No. 245,904. (No model.)

To all whom it may concern:

Be it known that I, DOUGLAS E. HELTON, a citizen of the United States, residing at Ogden, in the county of Champaign and State of Illinois, have invented a new and useful Wagon-Gate, of which the following is a specification.

This invention has relation to improvements in that class of gates known as "pivoted" or "lifting" gates, in which two gates are made to operate so as to throw away from each other in opening the roadway and to engage and interlock in closing the same.

The invention will be fully understood from the following description and claim, when taken in connection with the accompanying drawings, in which—

Figure 1 is a perspective view of a pair of gates with my improvements applied. Fig. 2 is an end view of one of the posts with the gate journaled between the same. Fig. 3 is a longitudinal sectional view of the sill-case and main frame, showing in full lines the position of the gates when closed and in dotted lines their position when open; and Fig. 4 is a sectional view of one of the rock-pulleys and one of the rotating guide-pulleys with the operating-ropes in position.

Referring by letter to the said drawings, A indicates the sill, which is recessed longitudinally, as shown at *a*, to form a casing or pit for the operating ropes and their guide-pulleys, the recess being in a plane at right angles to the roadway.

B indicates the rocking pulleys or disks having fixed journals *b*, which are supported in the gate-posts and partly within the pit or casing. These disks or pulleys, which have grooved surfaces, are fixed to the outer lower corners of the gate-sections C and D, so that when the said disks or pulleys are turned in their bearings the gates will be thrown in the same direction, so as to open or close.

Arranged at suitable points in rear of the gate-posts and approximately in a line therewith are fixed posts E, which have journaled therein, near their upper ends, pulleys *d*, over which pass ropes F, connected to the outer upper ends of the gate-sections. The free ends of these ropes F are provided with counterbalance-weights.

G indicates a horizontal beam, which is supported upon suitable uprights, H, and arranged in a plane transverse to that of the gates. Depending from the under side of the horizontal beam are guide-pulleys I, there being two sets at a point above one of the gates and a set at each end of the said beam.

K indicates the main operating-rope, which is arranged in loop form within the pit or cell, and is passed around one of the pulleys or disks B, and after passing over one of the guide-pulleys in the said pit is carried to the opposite end of the same, thence around another guide-pulley therein, and after being carried around the opposite disk or pulley B is carried up and over the pulleys depending from the horizontal beam.

By reference to Fig. 3 of the drawings it will be seen that by the arrangement of the operating-rope, which has pull-cords M attached to its opposite ends, the gates may be thrown open by pulling on one of the cords at either side of the crossing and closed by pulling the adjacent rope on the same or opposite side.

N indicates a latch, which may be composed of a stout wire bent in the form substantially as shown and journaled in one of the fence-posts, with eyes in opposite ends to receive and guide operating-ropes. By reference to Fig. 2 of the drawings it will be seen that the lower portion of this latch is so formed as to normally lie in the path of the gate, it being necessary to swing the same in its bearing upon the post before the gate can be opened.

I am aware of the patent granted to Waterbury November 8, 1859, in which pivoted gates are shown, having pulleys at their outer lower ends and connected by means of a rope, a hollow post being employed in which a drum is journaled to receive the rope, a pawl and ratchet, and a crank-lever on the shaft of the drum. I therefore do not claim such devices.

Having described my invention, what I claim is—

The combination, in a gate, of the base or sill, recessed as described, and having the guide-rollers arranged therein, the gates having the pulleys or disks secured to their outer lower corners and journaled in the casing, the frame carrying guide-pulleys, the

post E, the weighted ropes secured to the
outer upper ends of the gates and passing
over pulleys in said posts, the operating-ropes
arranged in the casing and passing over the
5 guide-pulleys therein and over the pulleys se-
cured to the gates, the pull-cords secured to
the operating-ropes and passing over the
guide-pulleys in the main frame, and the latch

N, journaled in one of the posts, as shown,
and having eyes in its opposite ends for the
passage of the ropes, substantially as specified. 10

DOUGLAS E. HELTON.

Witnesses:

FRANK MOORHOUS,
ELMER SPERRY.