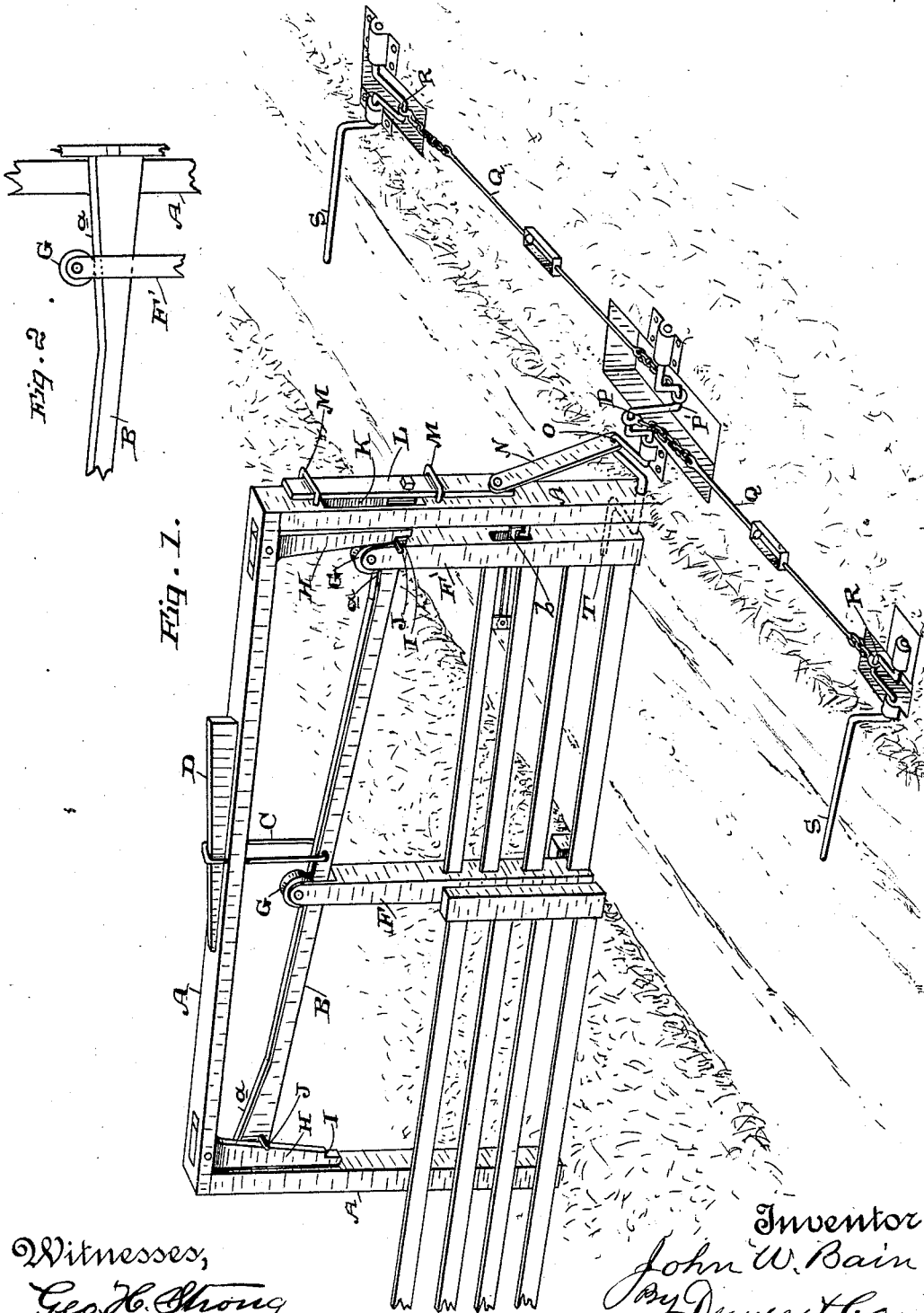


(No Model.)

J. W. BAIN.
GATE.

No. 420,489.

Patented Feb. 4, 1890.



Witnesses,
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UNITED STATES PATENT OFFICE.

JOHN WESLEY BAIN, OF GONZALES, CALIFORNIA.

GATE.

SPECIFICATION forming part of Letters Patent No. 420,489, dated February 4, 1890.

Application filed May 23, 1889. Serial No. 311,865. (No model.)

To all whom it may concern:

Be it known that I, JOHN WESLEY BAIN, of Gonzales, of the county of Monterey, State of California, have invented an Improvement in Gates; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to certain improvements in automatically-operating farm-gates; and it consists in the construction and combination of devices, which I shall hereinafter fully describe and claim.

Figure 1 is a perspective view of my gate and connected mechanism. Fig. 2 shows one end of the tilting beam.

A is a frame-work of suitable height to allow teams to pass beneath the upper bar, and B is a lever the central portion of which is suspended by a link C or other suitable device from the upper bar of the gate-frame A. This link or support C serves as a fulcrum, about which the lever B may be tilted, so that either one end or the other will be depressed alternately. In the present case I have shown the wedge D, and it will be manifest that a screw or other similar arrangement may be used for raising or lowering the fulcrum-link C, and thus keeping the gate at a proper height from the ground, so that its operations will not be interfered with by striking against the ground by reason of its settling.

The gate E has two uprights F F', the first of which is the longer of the two, so that when the gate is suspended from the bar B by means of the rollers G, which are journaled in the upper part of the uprights F F', the gate will stand horizontally, as shown in the drawings, while the bar B stands at an incline.

It will be manifest that when the bar B stands at the incline shown in the drawings the gate will travel down this incline, if open, until it closes against the side of the surrounding frame A, and when the bar is tilted in the opposite direction the gate will in the same manner travel down the incline until it strikes the other end of the surrounding frame, and will thus leave an open space to drive through.

At each end of the frame A is a swinging latch H, having a notch made in it, as shown

at I, and when the lever B has been tilted so that one of the ends is depressed the pin J at that end will engage with the notch I of the latch, and this will hold the bar B in that position until the gate has completed its travel. When the gate reaches this lower end, it strikes against the latch H and pushes it back, so as to release the pin J from the notch I, and the bar will then be in readiness to be again tilted in the opposite direction; but it will not tilt of its own accord, because the weight of the gate upon that side keeps it in its depressed position.

In order to move the bar B, I have shown one end of it passing through a slot K, which is made in one of the end posts of the frame A, and this end of the bar engages or is connected with a vertical slide L, which travels in guides M upon the outer side of the post A. The lower end of this slide is connected by a rod or pitman N with a crank O, as shown. This crank is formed upon a shaft which is journaled horizontally just outside of the roadway and post A, and the shaft has also the cranks P and P' formed in it outside the crank O. These cranks are connected by means of rods or links Q with other cranks R, which are formed in shafts journaled at some distance each side of the gate, and these shafts have cranks or bails formed in them, over which the wheel of the vehicle may pass, so as to depress the bails and turn the cranks R. This movement is transmitted through the rod Q, cranks P and O, and connecting-rod M to the slide L, and thus the bar B is tilted.

The operation will then be as follows: The gate being closed, as shown in the drawings, when the wheels of the vehicle pass over one of the cranks or bails S the lever B will be tilted, so that its opposite end will be depressed, and the pin J at that end will engage the notch I of the latch H, which will hold the lever in this position after the wheel has released the bail S. The gate will then travel slowly down the inclined bar B until it reaches the outer end, when it strikes against the latch H, and thus releases the pin J, so that the bar B is in condition to be again tilted back to its former angle. This is done by the passage of the wheel over the bail T, which is made on the inner end of the cen-

tral shaft which carries the cranks O and P. After the vehicle has passed through the gate and the lever is again tilted to its first position the gate, being raised with its outer end, will again travel down the incline until it closes. The act of closing will release the catch I at the inner end of the frame, as before described, so as to leave the bar in readiness to be again tilted; but the weight of the gate upon the inclined bar will also retain it in its position until the incline is changed by force. The outer bail S must not be touched by the wheels in leaving the gate. The ends of the tilting bar are inclined upward, as shown at *a*, the inclination assisting to start the gate from one end and checking it quietly at the other end. A catch *b* prevents the rebound after the gate strikes the post.

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

1. The extension-frame, the tilting bar suspended on it from a central fulcrum, the gate traveling on said bar, and a slide moving vertically in guides upon one side of the frame

and connected with the end of the tilting lever, in combination with the horizontally-journaled shaft having the crank portion O, connected with said slide, and having also the cranks P and P', which are connected with the wheel-irons, substantially as described.

2. The tilting bar suspended from the main frame, the cranks, and connecting mechanisms operated by the wheel-irons, whereby said bar is tilted about its fulcrum and the gate suspended from said bar and having rollers upon which it may travel from end to end of the same, in combination with the suspending device between the main frame and the tilting bar, and an inclined plane engaging the suspending device, whereby the fulcrum of the bar may be raised or depressed, substantially as described.

In witness whereof I have hereunto set my hand.

JOHN WESLEY BAIN.

Witnesses:

THOS. RENISON,
H. H. MILLER.