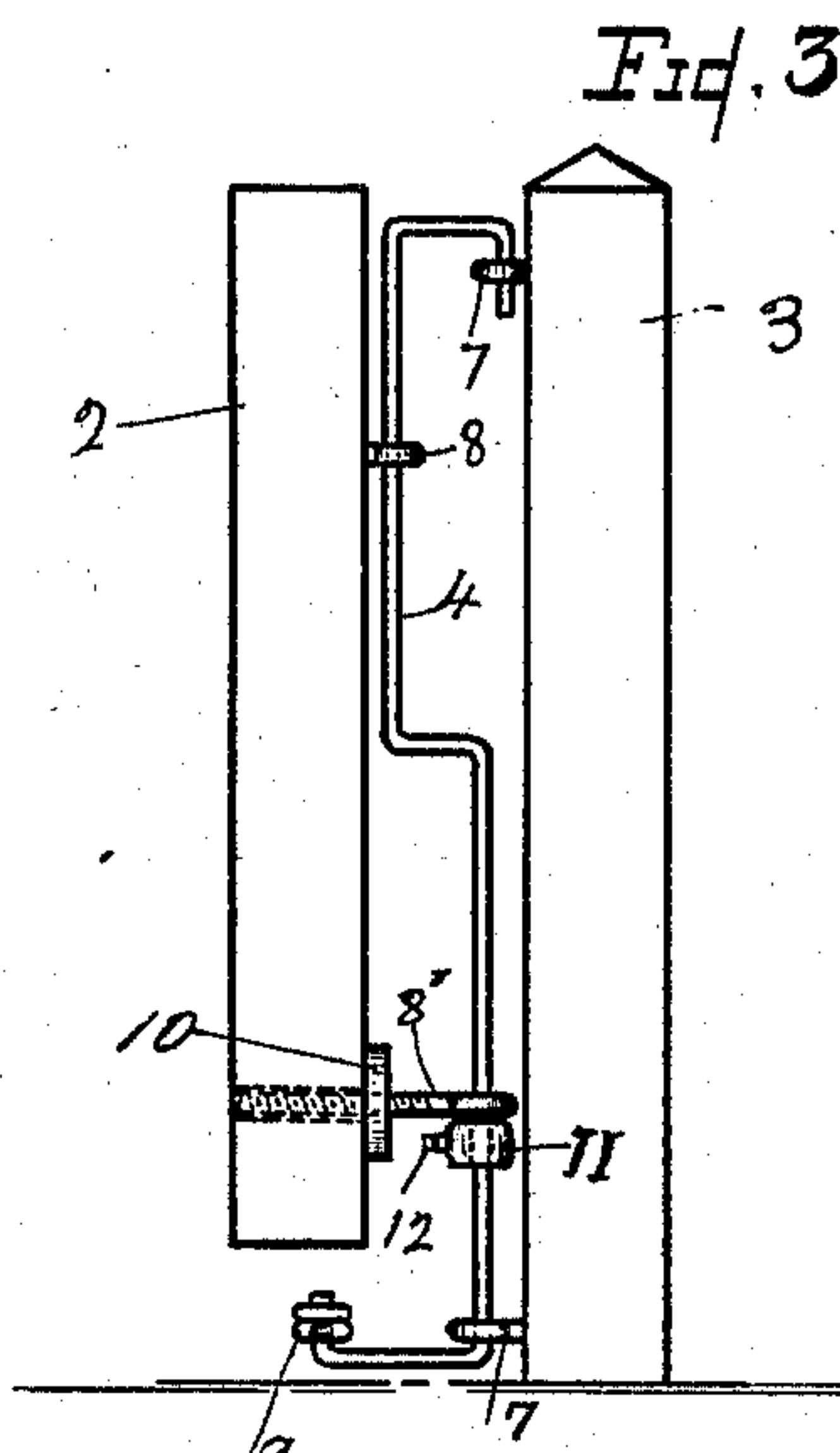
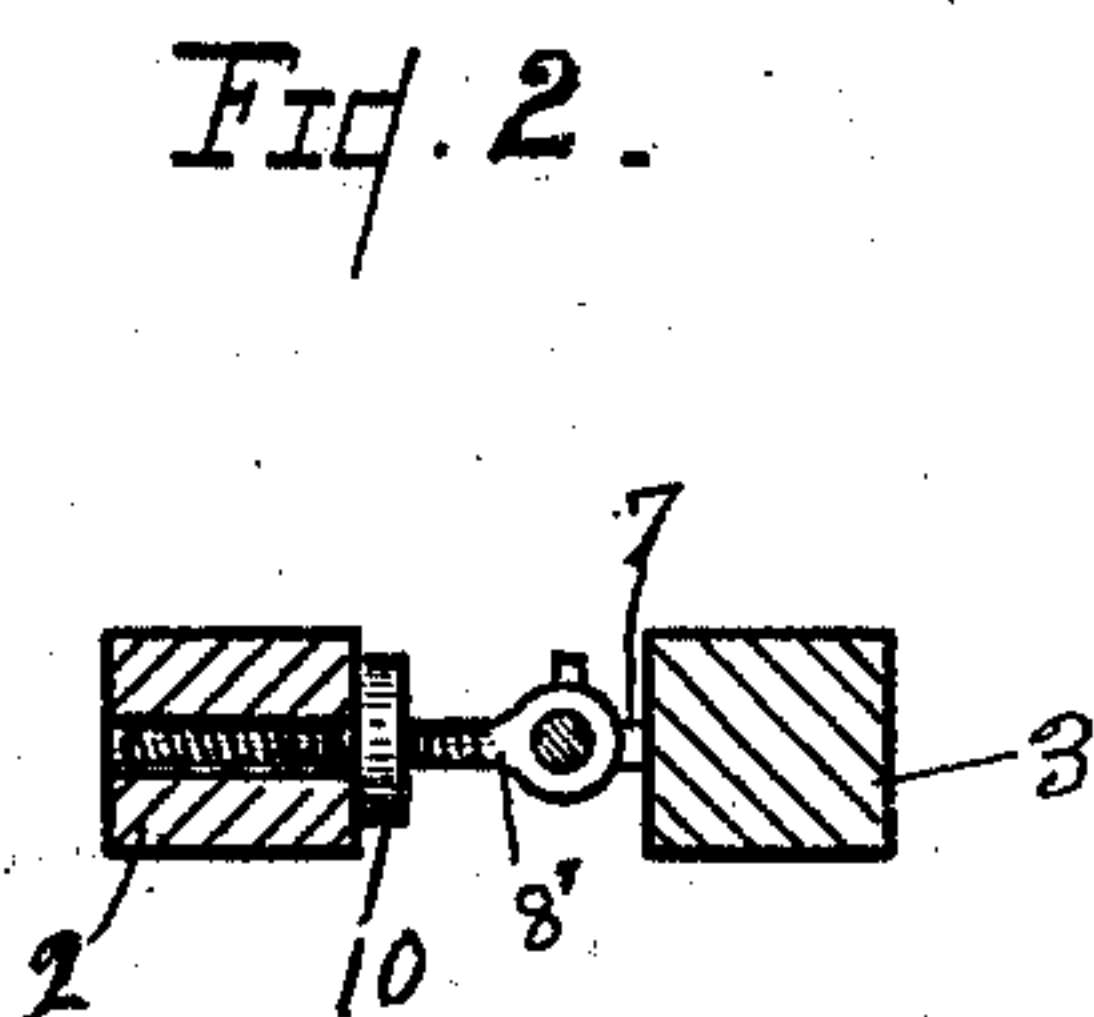
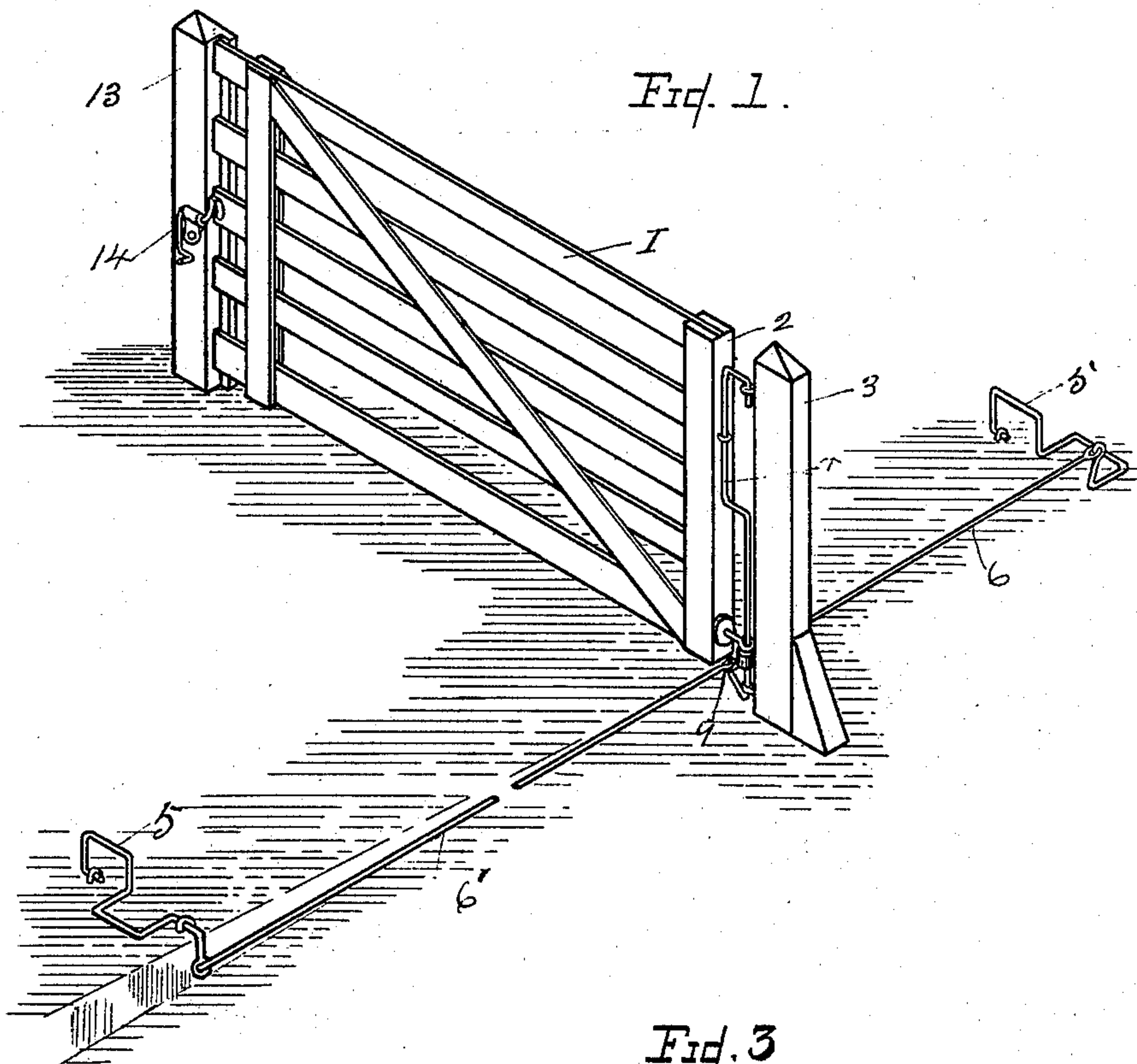


(No Model.)

H. C. GUTERMUTH.
FARM GATE.

No. 585,750.

Patented July 6, 1897.



WITNESSES:

N. Webster Schlater
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UNITED STATES PATENT OFFICE.

HENRY C. GUTERMUTH, OF NINE MILE, INDIANA.

FARM-GATE.

SPECIFICATION forming part of Letters Patent No. 585,750, dated July 6, 1897.

Application filed February 13, 1897. Serial No. 623,232. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. GUTERMUTH, a citizen of the United States, residing at Nine Mile, in the county of Allen, in the State of Indiana, have invented certain new and useful Improvements in Farm-Gates; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in farm-gates adapted for opening and closing by means of the engagement of the wheel of a vehicle with the crank-arms connected by operating-rods to the gate hinge-rod.

The object of my invention is to provide for a farm-gate of ordinary construction operating parts which can be made by any blacksmith and attached to the gate without the aid of a mechanic, and which are simple, durable, and reliable, that will readily operate in opening and closing the gate by the engagement of the vehicle-wheels with proper crank-arms and thus making the gate practically automatic in action. I attain this end by the mechanism described in the following specification and illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of my improved gate hung ready for use, showing the operating parts, with the ground-rods connecting with the crank-arms for the wagon-wheels. Fig. 2 is a detail plan view of the gate-post, the vertical frame-bar of the gate, and the adjustable supporting-collar; and Fig. 3 is a detail side view of the gate-post and frame-bar of the gate, with the operating parts of the hinged connection.

Similar reference-numerals indicate like parts throughout the several views.

1 is the farm-gate as a whole, constructed in a well-known manner.

2 is the rear vertical frame-bar, and 3 the supporting gate-post.

13 is the latch-post, having a rabbeted jamb for the gate to shut against, and 14 is a latch to secure the gate when closed.

Ordinary hinge-staples having vertical eyes 7 and 7 are secured in the gate-post upon the adjacent gate side of the post at the top

and bottom, and a like hinge 8 is secured in the frame-bar 2 at its upper part, and at the lower end is inserted a hinge-eye 8', having a screw-threaded shank passing into the frame-bar 2, and a screw-threaded collar 10, mounted upon the shank against the frame-bar, as shown in Fig. 3.

A vertical hinge-rod 4 has an arm at the upper end bent at an angle with the axis of the rod, with a vertical hook or pintle at its outer end, adapted to engage in the upper hinge-eye 7 of the gate-post. The rod 4 passes through the hinge-eye 8, and at its middle part is again bent at an angle toward the gate-post in parallel alinement with the upper arm, then bending vertically downward and passing through the lower hinge-eye 7 is again bent at an angle, forming an arm parallel with the upper arm, and its outer end is bent upward to form a hook or pintle for the eyes of the connecting-rods 6 and 6', Fig. 1. The lower vertical part of the rod 4 should be in parallel alinement, or nearly so, with the upper vertical pintle.

The gate is supported in position by the hinge 8', which is seated upon an adjustable collar 11, mounted upon the rod 4 and secured thereto by the set-screw 12.

The shank of the hinge 8' passes into the frame-bar 2, as shown by the dotted lines in Fig. 3. By means of the collar 10 the shank can be adjusted so as to elevate or depress the latch end of the gate, it being obvious that as the shank is drawn out of the frame-bar by turning the collar upon it the front end of the gate will be elevated and thereby any sagging of the gate compensated for. The outer ends of the ground connecting-rods 6 and 6' are connected to the crank-arms 5 and 5, which are of well-known construction, and are pivotally secured to ground-sills by staples and so arranged that when the wheel of a wagon engages with the elevated arm of either crank it will turn by its connecting-rods the lower arm of the hinge-rod 4 and thus swing the gate.

The latch-catch may be in any form that by elevating the front end of the gate will be detached, so as to free the gate from the fastening.

The mode of operating the gate is easily understood. When either crank-arm is de-

pressed by a wagon-wheel driven against it, it will cause the connecting-rod to draw or push the lever or lower arm of the hinge-rod, according to which side of the gate is approached. As the rod 4 turns upon its hinged connections the top of the gate, by the corresponding motion of the upper arm, will be moved laterally and rearwardly toward the gate-post 3, and by this movement the front end of the gate will be elevated out of its latch-fastening and at the same time the frame-bar 2 will be canted over, so that the gate will swing open. To close it, the wheel engages the crank-arm upon the other side, and the hinge-rod turning on its hinges by gravity swings into the latch-post jamb.

As the gate is intended only to swing in one direction when opened, the connecting-rod 6' should be of sufficient length to allow the gate to clear the team when it opens.

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

1. The combination in a swinging gate of the hinge-rod 4 constructed as described, the hinge-eyes attached to the gate-post, the hinge-eyes attached to the gate-frame through which the said rod 4 passes, and the lower hinge-eye of the gate-frame having its shank screw-threaded and adjustably mounted upon it the collar 10, a supporting-collar secured to said hinge-rod by an adjustable set-screw as shown, connecting-rods attached to the outer end of the lower arm of the hinge-rod and extending upon either side of the gate at right angles with the axis of the gate when closed, with crank-arms attached to the outer ends of the connecting-rods so arranged that when they are depressed by engagement with the wheels of a vehicle, they will cause the gate to swing upon its hinges, the gate, the supporting gate-post, and means for fastening the gate when closed, all arranged substantially as described and shown.

2. The combination in a swinging gate of a vertical hinge-rod, having an arm bent at its upper end rearward from the gate, and a

pintle at its outer end adapted to engage in a hinge-eye secured to the gate-post, the said hinge-rod being also bent at its middle part in the same direction and in parallel alignment with the said bent upper arm, then bent vertically downward and passed through a hinge-eye secured to the lower end of the gate-post, and then bent forwardly approximately in parallel alinement ending with the said upper arm, with an upwardly-bent hook or pintle for engagement with the eyes of connecting-rods, the hinge-eyes attached to the gate-post, the hinge-eyes secured to the rear frame-bar of the gate, and the lower hinge having mounted upon it the screw-threaded adjustable collar 10, a collar secured to the hinge-rod by an adjustable set-screw adapted to support the gate upon its lower hinge, the rods connected by the hinge-rod at its lower end and crank-arms at their outer ends, so arranged that when they are depressed by engagement with a wagon-wheel, they will cause the gate to automatically open and close, all arranged substantially as described and shown.

3. A hinge-rod for a swinging gate, comprising two integral vertical sections in parallel arrangement, and the upper and lower sections being arranged adjacent to the gate-frame and gate-post respectively for the purpose specified, the said upper section having a rearwardly-projecting arm with a supporting-post hinge and the said rod having upon its lower end a forwardly-projecting arm in approximate alinement with the closed gate and adapted when oscillated to so elevate the gate as to operate the same by gravity in combination with the gate, the gate-post, the hinges and connecting-rods, all arranged as described and shown and for the purpose stated.

Dated and signed at Fort Wayne, Indiana, this 6th day of February, 1897.

HENRY C. GUTERMUTH.

Witnesses:

JAMES BAXTER,

IDA L. ROSS-LEWIN.