(No Model.)

J. N. HATCHER.

GATE.

No. 381,694. Patented Apr. 24, 1888.

Fig. 1.

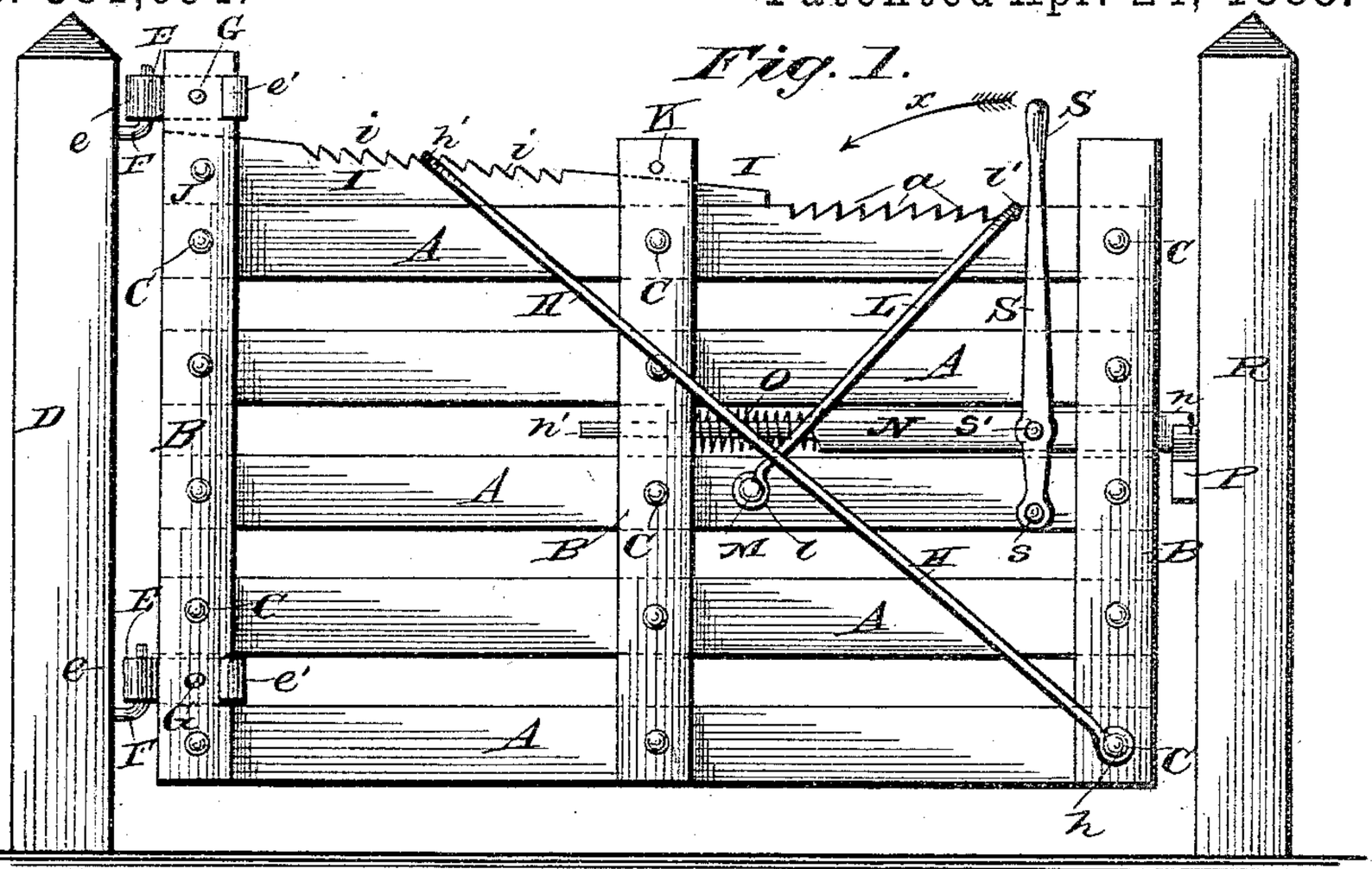

Fig. 2.

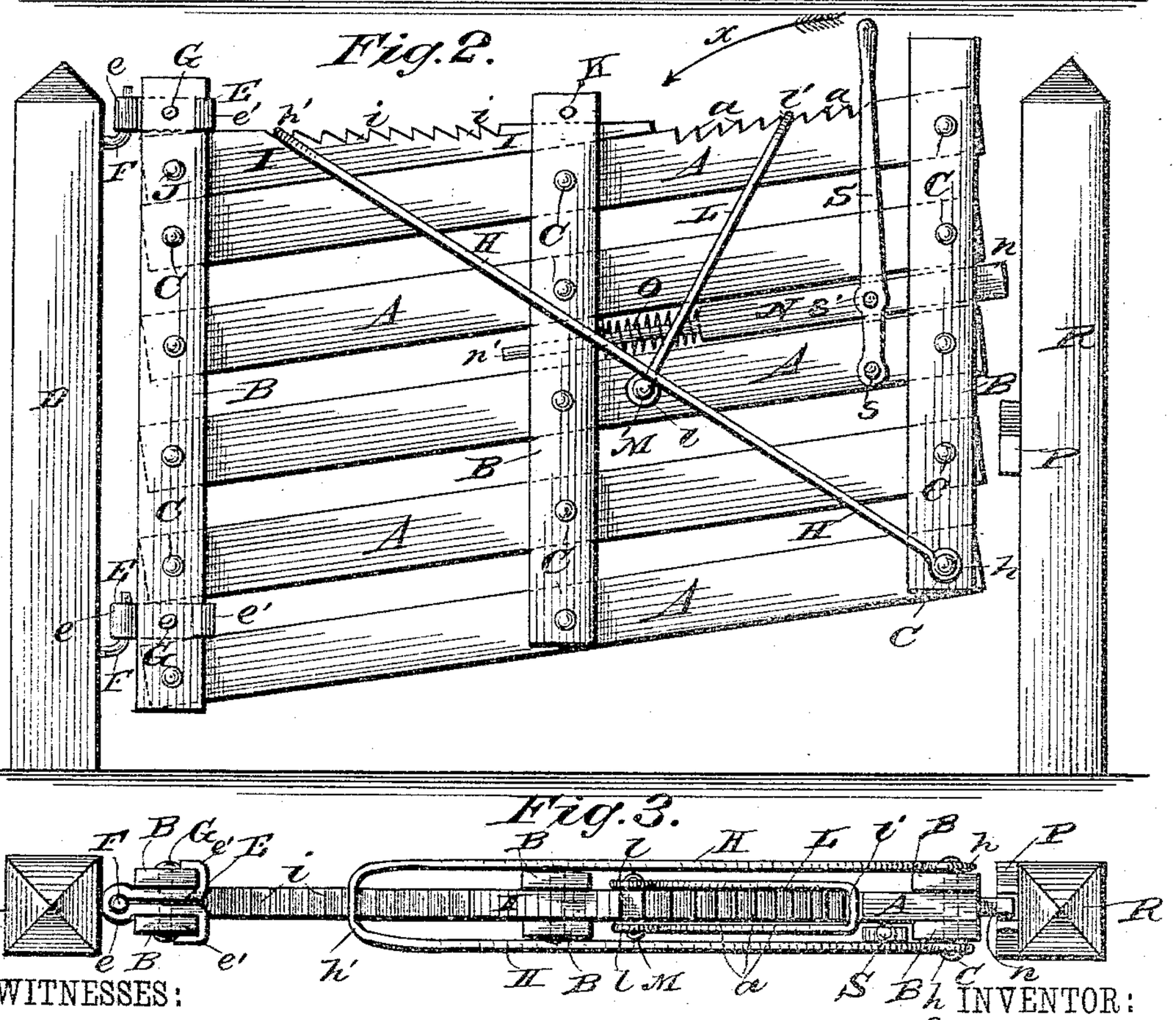

Fig. 3.

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GATE.

SPECIFICATION forming part of Letters Patent No. 381,694, dated April 24, 1888.

Application filed October 29, 1887. Serial No. 253,702. (No model.)

To all whom it may concern:

Be it known that I, JUDSON NOELL HATCHER, of Americus, in the county of Montgomery and State of Missouri, have invented a new and Improved Gate, of which the following is a full, clear, and exact description.

My invention relates to gates for fences for inclosing lands, and more particularly to that class of gates adapted to open fully sidewise, and also adapted to flex edgewise to open the gateway partially below the gate; and the invention has for its object to provide a simple, inexpensive, and durable gate of this character.

The invention consists in certain novel features of construction of the gate, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of my improved gate in lowered or level position. Fig. 2 is a front elevation showing the gate raised at the outer end, and Fig. 3 is a plan view of the gate in the position it has in Fig. 1 of the drawings.

The body or main portion of the gate is made with a series of longitudinally-ranging rails or slats, A, preferably five in number, pivotally connected to three pairs of uprights, B B, by bolts or pins C, which allow the gate to be raised at its outer end. The pairs of uprights B are arranged at opposite sides of the rails A. The gate is hinged to the fence-post D by a pair of hinges, each consisting of a metal bar or strap, E, bent double upon itself to provide an eye, *e*, fitting the pintle of the part F of the hinge on the post D, and outside of the eye *e* the doubled bar E passes between the two adjacent uprights B B, and the outer ends, *e'* *e'*, of the bar are bent around in opposite directions to form hooks, which overlap the outer faces of the uprights, whereupon a bolt, G, is passed through the uprights and hinge-bar to hold the hinge securely to the gate, to support the latter on the fence-post, and allow the gate to be opened laterally or sidewise.

A metal rod bent double to form a stirrup, H, is pivotally connected to the outer lower corner of the gate by the passage of one of the bolts C through eyes *h*, formed at the ends of the stirrup, the upper cross-bar, *h'*, of which is adapted to engage any one of a series of notches or teeth, *i*, formed at the upper edge of a board or plate, I, which is held by a pivot-bolt, J, to the inner uprights B B of the gate, and extends along the upper rail, A, to and between the central pair of uprights B, through which a pin, K, is passed above the plate I to hold it upon the upper rail A, but allow it to slip or move freely on said rail, as the gate is flexed edgewise in raising or lowering its outer end.

A metal rod bent double to form a stirrup, L, shorter than the one H, is pivotally connected to the middle gate-rail A a little forward of the central pair of uprights B, by a bolt or pin, M, which passes through eyes *l l* at the ends of the stirrup and through the rail, and the upper cross-bar, *l'*, of the stirrup L is adapted to engage any one of a series of notches or teeth, *a*, formed in the upper edge of the outer part of the top rail A of the gate. The teeth *i a*, engaged by the stirrups H L, respectively, preferably pitch in opposite directions, as shown in the drawings.

The gate-latch consists of a bar or rod, N, fitted between two of the rails A, and between the outer pair of uprights B, and fitted also by its reduced inner end or stem, *n'*, between the center pair of uprights, and a spring, O, placed on the stem *n'* and between a shoulder on the latch and the center uprights, normally projects the extremity *n* of the latch into position to engage a notch in a catch-plate, P, fixed to the adjacent fence-post R, to latch the gate closed. To unlatch the gate, I provide a lever, S, which is fulcrumed at *s* to one of the gate-rails, and is connected to the latch by a pivot, *s'*, and projects above the gate-rails in handle form, so as to be readily grasped and moved in the direction of the arrow *x* in the drawings to release the latch from the catch-plate when the gate is to be opened sidewise. The gate may be hung to swing clear of the latch-post R or to shut against the face of the post, as may be preferred, and any suitable latch device or fastening may be employed to hold the gate closed.

The operation of the gate is as follows: We will suppose the gate is closed and about level, as shown in Fig. 1 of the drawings. To raise

the outer end of the gate without swinging the gate open sidewise, to allow passage of fowls or small animals beneath the gate while holding back larger animals, it only is necessary to throw the stirrup L backward at the top, and the outer end of the gate may then be lifted and the cross-bar *h'* of the stirrup H will slip along rearward over the teeth *i'* of the plate I, and will lodge in another tooth when the gate is let go, and the stirrup L will then be swung outward to engage another tooth *a* on the upper gate-rail A, and, as shown in Fig. 2 of the drawings, to lock the gate so it cannot be raised farther at the outer end by animals attempting to crowd under it. To lower the outer end of the gate, it is only necessary to release both stirrups L H from the teeth *i a* and let the gate down, and while it is held by the hands in the desired position the stirrups will again be engaged with the rack-teeth to lock the gate in place.

It will be noticed that by using the toothed plate I the downward strain of the stirrup H in supporting the outer end of the gate is thrown upon the longer half of the upper gate-rail A, and in fact upon all the gate-rails, and the two rear pairs of uprights B B, through the medium of the connecting-bolts C, and that because of this wide distribution of the strain the gate is much stronger and more durable than it would be if the stirrup engaged notches in the top rail A, whether the middle uprights B are used or not; but by using these middle uprights the strength of the gate is greater than it would be without them, and they also form guides to the free end of the stirrup-retaining plate I.

It will also be obvious that by engaging the stirrup H with teeth or notches arranged back of the vertical center of the gate the strain of supporting the gate by the stirrup is thrown quite near the hinged end of the gate, this being a far stronger construction than when a stirrup passing from the lower outer corner of the gate engages teeth of a rack fixed to the center of the top rail of the gate.

The herein described gate-hinges are easily made and applied, and are very substantial in use and assist in holding the pair of hinge uprights B B securely and promote durability of the entire gate structure.

I am aware that two bars have been pivoted to the lower rail of a gate in front of its center and inclined upward and rearward therefrom to a point above the top rail, where they are connected by a bolt which engages the toothed upper edge of the top rail; also that a gate has had toothed bars pivoted between the upper ends of its front, rear, and center uprights and resting on the top rail. Four pairs of bars were pivoted to the second rail from the bottom and each pair was connected by a pin which engaged the toothed bars. I do not claim the same as of my invention.

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

1. A gate comprising the longitudinal rails A, the uprights B, bolts C, the notched bar I, pivoted to the upper edge of the inner uprights B just above the top rail and projecting along the upper side thereof, beyond its center between the upper ends of the middle uprights, and the stirrup H, pivoted to the lower ends of the forward uprights and extending upward and rearward across the notched bar I, substantially as set forth.

2. A gate consisting in the longitudinal rails A, the upper rail being notched at *a*, the three pairs of uprights B, the bolts C, the bar I, pivoted between the upper ends of the inner uprights and projecting along the upper surface of the top rail beyond the center thereof, the stirrup H, pivoted to the lower ends of the front uprights and extending upward and rearward across the notched bar I, and the short stirrup L, pivoted near the center of the gate and extending upward and forward across the notched part *a* of the upper bar A, substantially as set forth.

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Witnesses:
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