(No Model.)

T. J. SAUSAMAN.

SWINGING GATE.

No. 450,749. Patented Apr. 21, 1891.

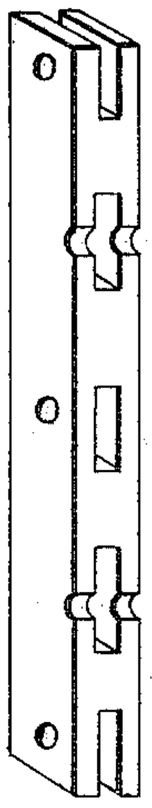


Fig. 4.

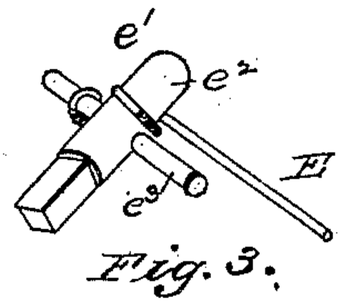
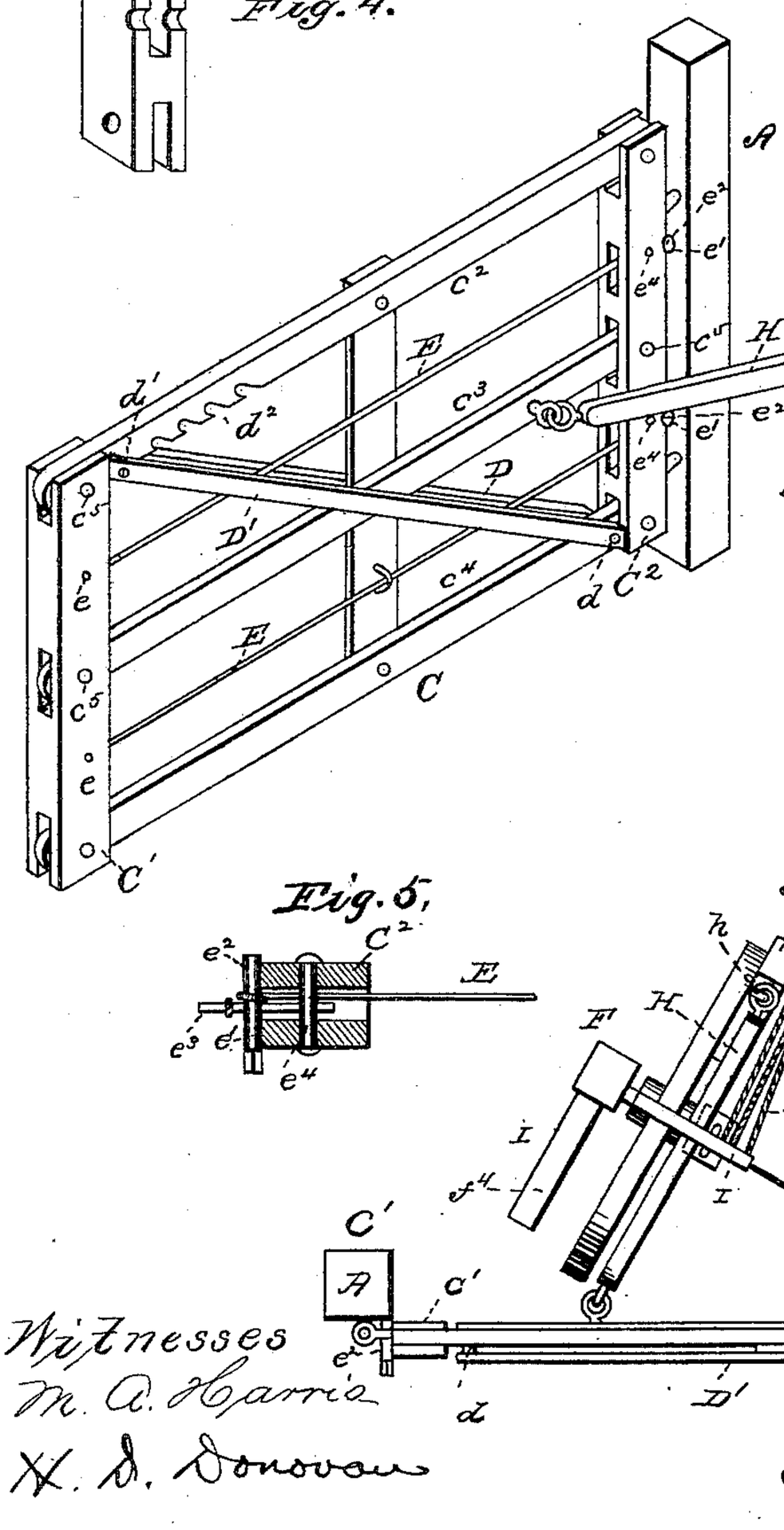


Fig. 3.



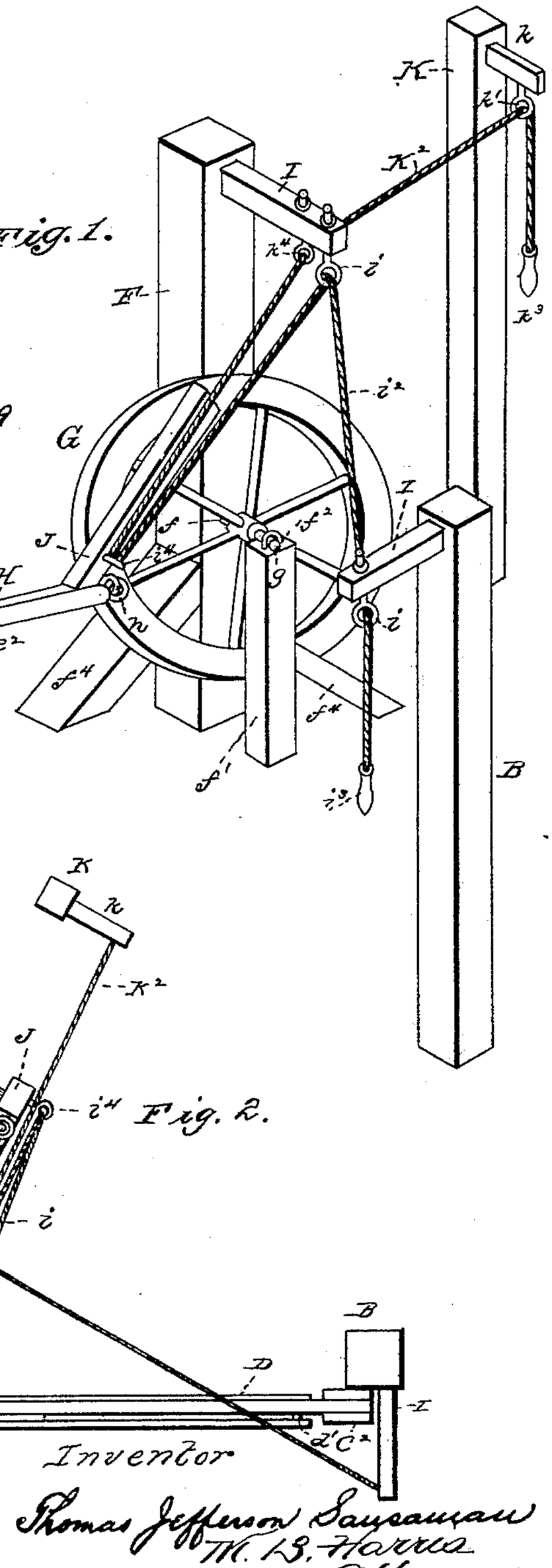


Fig. 1.

Fig. 5.

Fig. 2.

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UNITED STATES PATENT OFFICE.

THOMAS JEFFERSON SAUSAMAN, OF HOOVERSBURG, INDIANA.

SWINGING GATE.

SPECIFICATION forming part of Letters Patent No. 450,749, dated April 21, 1891.

Application filed November 18, 1890. Serial No. 371,881. (No model.)

To all whom it may concern:

Be it known that I, THOMAS JEFFERSON SAUSAMAN, a citizen of the United States, residing at Hooversburg, in the county of Miami and State of Indiana, have invented certain new and useful Improvements in Swinging Gates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to swinging gates; and it consists in the construction and novel arrangement of parts, as hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the appended claim.

The objects of my invention are, first, to provide a simple, neat, and inexpensive gate; second, to provide a gate that is vertically adjustable at its free end, whereby the gate may be elevated to allow small stock to pass under; third, to construct the gate of both plank and wire rails and to provide the latter at one end with a tension device, whereby all slack in the wires may be readily removed and the gate prevented from sagging; fourth, to provide a novel means of opening and closing the gate; fifth, to construct the opening and closing device so that when the gate is opened during windy weather it will stay open without having to be held open.

In the drawings, Figure 1 is a perspective view of a gate embodying my improvements, the gate shown open; Fig. 2, a plan view, the gate being closed; Fig. 3, a detail view of the tension device; Fig. 4, a detail view of one of the gate-posts. Fig. 5 is a horizontal section of the gate-post C^2.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in all the figures, A designates the hinge-post, of a suitable height, firmly secured in the ground on one side of the roadway, and at the opposite side of the roadway, in line with the hinge-post, is firmly secured in the ground a latch-post B, between which posts is swung the gate C, constructed as follows:

In order that the gate may be light and at the same time strong and durable, I prefer to make the same of plank and wire rails.

C′ and C^2 designate vertical end posts of the gate, mortised at their ends and middle for the reception of the ends of the parallel rails c^2, c^3, and c^4, which are constructed of wood and are confined to the vertical posts by means of bolts c^5.

To allow the gate to be readily adjusted to permit small stock to pass under, the mortises in the vertical posts of the gate are made somewhat longer than the width of the plank rails.

D and D′ designate elevating-braces pivoted at their lower ends on opposite sides of the lower rail c^4, next to the vertical post C^2, by a bolt d and connected at their upper ends by a transverse pin or bar d', said pin normally resting in one of a series of notches d^2, formed on the lower edge of the top rail c^2, and designed to hold the free end of the gate in a raised position when desired.

The letter E designates wire rails secured by means of pins or bolts e to the post C′ intermediate of the plank rails, their opposite ends passing through suitable openings in the post C^2, and having secured at one end tension devices e', cross-shaped, as shown, consisting, essentially, of a transverse shaft e^2 and a pin e^3 passed through an opening in the center of the shaft. The wire rails are secured at one end by making a couple of turns around one of the projecting ends of the pin e^3, the opposite end of the pin striking against a stop e^4, placed in a recess formed in post C^2.

At a suitable distance on one side of the gate C is firmly secured in the ground a post F, having formed on one of its faces at a suitable distance from the ground a bearing f, for a purpose presently explained.

The letter f' designates a short post firmly secured in the ground at one side of the gate and parallel with the post F, which has upon its upper end a bearing f^2.

G designates a fly or balance wheel of any preferred construction and from four to six feet in diameter, provided with a shaft g, designed to be supported in the bearings f and f^2. To hold the posts F and f firmly braces f^4 are employed, as shown.

The letter H designates a connecting-rod pivoted at one end to an eye h, secured to the fly or balance wheel G, and having a hinged connection at its opposite end with the cen-

tral rail c^3 of the gate C near the hinged end of said gate, as shown.

Secured at the upper ends of the posts B and F are laterally-extending arms I, having secured at their outer ends pulleys i, through which is passed an operating-rope i^2, one end of which has secured to it a suitable handle i^3, and its opposite end is secured to a laterally-projecting pin i^4, projecting from a stop J, secured to the fly or balance wheel G, as shown.

To allow of the gates being readily opened when approached from either side, I secure in the ground to the rear of the post F a post K, having at its upper end a laterally-extending arm k, provided upon its lower face and outer end with a pulley k', through which passes an operating-rope K^2, carrying at its free end a suitable handle k^3. The opposite end of the rope is passed through a pulley k^4, secured on the lower face of the arm I on the post F and is secured to the pin i^4 on the stop J.

I do not desire to confine myself to the precise construction herein shown and described, as many changes may be made without departing from the spirit of my invention.

The operation of my improved gate, taken in connection with the above description and accompanying drawings, may be briefly described as follows: Assuming the gate to be in a closed position, pulling down upon either of the operating-ropes will cause the fly-wheel to revolve for about half a revolution, and, owing to the connection between the fly-wheel and gate, the latter will be caused to swing open. The pivotal point of the connecting-rod with the fly-wheel will then be slightly below a line drawn through the fly-wheel shaft and the joint between said connecting-rod and the gate, and it will be held in this position by the stop J, which prevents the gate from closing until one of the operating-ropes is pulled down, which causes the fly-wheel to make a half-revolution in an opposite direction from that taken in opening the gate.

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

The combination, with the hinge and latch posts and the gate, constructed as described, swung between said posts, of a fly or balance wheel carried by a post secured in the ground to one side of the gate, the connecting-rod attached to the gate and fly-wheel, the stop upon the fly-wheel, and the operating-ropes secured to said stop and passing through suitable guide-eyes on posts at each side of the gate, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS JEFFERSON SAUSAMAN.

Witnesses:
WM. A. PATTERSON,
A. A. KISTLER.