

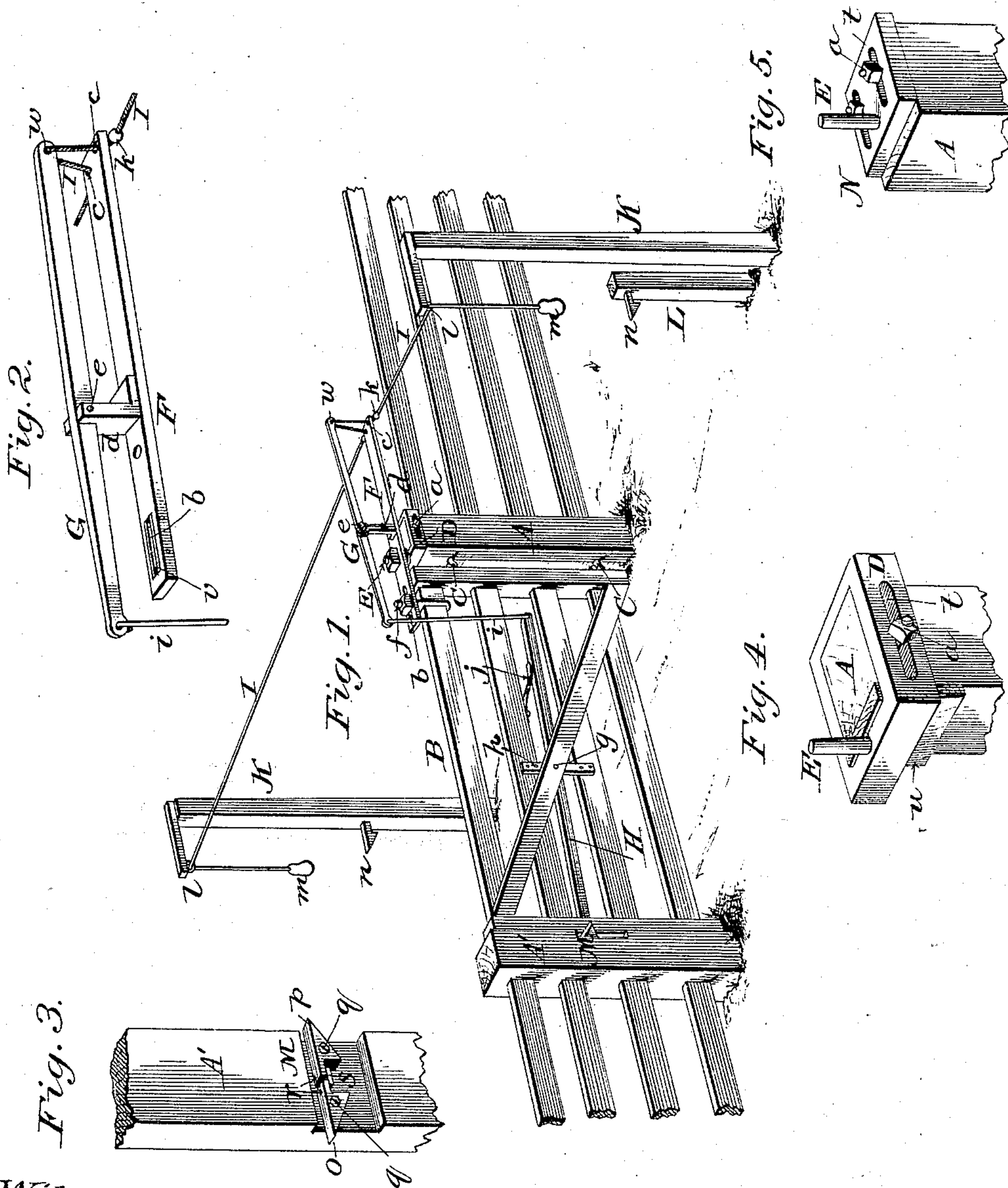
(No Model.)

W. T. VANN.

ATTACHMENT FOR OPERATING GATES.

No. 314,632.

Patented Mar. 31, 1885.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## ATTACHMENT FOR OPERATING GATES.

SPECIFICATION forming part of Letters Patent No. 314,632, dated March 31, 1885.

Application filed March 7, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM T. VANN, a citizen of the United States, residing at Salem, in the county of Marion and State of Oregon, have invented certain new and useful Improvements in Attachments for Operating Gates; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of the same.

My invention relates to that class of gates commonly known as "automatic gates;" and it consists in a novel construction and arrangement of the parts thereof, as will be herein-after more fully set forth and particularly claimed.

In the drawings, Figure 1 is a perspective view of my improved gate; Fig. 2, an enlarged perspective view of the device for operating the gate; Fig. 3, a perspective view of the catch or keeper, and Figs. 4 and 5 views illustrating details of construction.

The object of this invention is to construct the gate and its operating mechanism so that it can be opened by a person, whether riding or walking, from either side, and also to retain it in said open position as long as desired; and to this end it consists in a novel manner of constructing and mounting the lever for actuating the latch.

The invention further consists in means for adjusting the operating-lever to compensate for varying sizes and forms of hinges, and in other details hereinafter set forth.

A A' represent the gate-posts, which are usually made of wood, and from the former of which the gate B is suspended by hinges C, all of which parts may be of any desired or usual construction.

Upon the upper end of post A is secured, by means of the bolts *a a*, a metal band or cap, D, which band or cap preferably encircles the post and fits thereon, as shown in Fig. 4, and is provided with a vertical stud or pin, E, upon which an arm, F, is mounted and about which it swings as a center. The arm F, as shown in Fig. 2, is provided at its inner end with an elongated slot, *b*, and at its outer end with eyes or holes, *c*, the purposes of which will be presently explained.

About midway of the length of the arm F

is an upright arm or standard, *d*, in which is mounted, on a horizontal pivot, *e*, a lever, G, of about the same length as arm F.

To the upper bar of the gate B is securely fastened a stud or pin, *f*, which extends into or through, and is adapted to move freely within, the slot *b* of the arm F when said arm is moved about its pivot or stud E.

H represents a latch-bar pivoted at *g* between plates or uprights *h* on the gate, so as to be capable of moving vertically when actuated by lever G, with which it is connected by a rod or wire, *i*, when said lever G is rocked or tipped upon its pivot *e*.

In order to hold up the forward end of the latch and keep the gate locked or latched, a spring, *j*, is employed to bear down upon the rear end of said latch-bar H, the force of the spring being overcome when it is necessary to release or operate the latch, said latch passing upward between the catches or sides of its keepers in latching.

The rear end of lever G is furnished with a hole or eye, *w*, through which passes a cord, rope, or wire, I, the two ends of which are carried through the eyes or loops *c* of arm F, and are thence carried in opposite directions to posts K on opposite sides of the gate. These posts are provided each with an overhanging arm bearing an eye or staple, *l*, through which the wires or cords are carried, their ends hanging down from the eyes, and being furnished with balls or weights *m*, which serve both to prevent the cords from being withdrawn from the eyes and to keep them taut. The cord, rope, or wire I is also furnished with buttons or rings *k*, immediately beneath arm F, to prevent its being drawn in either direction through the eyes *c*, one button serving as a stop or holder for the cord when the portion to which the other is secured is pulled. Under this arrangement, if the cord at one side of the gate be pulled, it will draw from the farther button, which, resting against the under side of arm F, holds the cord fast at that point, and, running through the eye or loop *w* of lever G, draws down its rear end, elevating its forward end, and, through the rod or wire *i*, elevating the rear end of latch-bar H, causing its forward end to be withdrawn downward out of engagement



with catch or keeper M. The vertical movement of latch-bar H or of lever G being limited, the cord I, if pulled after such limit is reached, will draw the arm F around in a horizontal plane, swinging the gate upon its hinges and causing it to open, as will be readily understood upon referring to Figs. 1 and 2. The posts K are furnished with catches *n*, with which latch H engages to retain the gate in its open position; or said catches may be applied to separate posts L, as shown in Fig. 1.

By referring to Fig. 3, keeper M will be seen to consist of two weighted dogs or catches, *o p*, seated in a suitable recess in the post A', and each mounted on a horizontal pivot, *q*. The lower outer faces of the dogs *o p* are beveled, as shown, in order to allow the latch-bar H to pass readily thereunder and lift them, and their inner ends are cut away and terminate in arms *r*, which rest upon a plate, *s*, secured to the post A', in order to prevent their tipping down too far. The pivots *q* are so located that the inner end of each dog, being heavier than the outer end, will immediately fall as soon as the latch-bar passes under it, thereby securely holding the gate closed.

If desired, springs may be employed to keep the inner ends of the dogs down; but it is not deemed necessary, as the weight of the dogs will in most cases serve the purpose equally well.

Owing to the difference in the sizes and forms of hinges, provision must be made for the varying distances of the gate from the post, and for this purpose I provide the band D with slots *t*, through which the bolts *a* pass, in order to allow the band or cap to be moved nearer to or farther from the gate. This band or cap D being provided with the stud E, on which the arm F swings, it will be seen that the arm F, and consequently the lever G, will be moved with said band to any extent desired in the direction of the width of the gateway or opening.

Instead of employing the band D a plate, N, may be substituted, adapted to be secured to the top of the post, said plate being provided with the upright stud E, and also with slots, as shown in Fig. 5, to permit its adjustment in the same manner as the band D. When the band D is used, a block of wood, *u*, is employed, which fits within the band against the inner face of the post, in order to fill up the space that would otherwise be left, and also to help to fasten the band securely to the post.

In order to prevent the wear of slot *b* in the end of arm F, I provide the sides of said slot with steel facings *v*, as shown in Fig. 2, and secure them therein by pins passing transversely through the arm.

The gate and its mechanism being thus constructed, the operation is as follows: Supposing the gate to be closed, a person, whether in a carriage, on horseback, or walking, catch-

ing hold of the rope, chain, or cord I, depending from the overhanging arm of post K, and pulling the same until the ring or button *k* on the farther side of the arm F comes in contact with the eye *c* therein will, by continuing to pull, cause the outer end of the lever G to descend, rocking upon its pivot *e*, and through the rod or arm *i* depress the outer end of the lever or latch-bar H sufficiently to allow it to pass under the dogs *o p* of the catch or keeper M. Retaining hold of the chain or cord I and continuing to pull the same, the arm F is caused to swing about its pivot *e* and carry with it the gate B until the lever or latch bar H engages with the catch *n* on the post L or K, as the case may be. After passing through the gate is closed by pulling the cord I on the other side, when the same operation will be repeated, the latch-bar H released from the catch *n* and the gate swung inward and caused to close and latch.

The stop *s* of the latch may be omitted, if desired, and the inner ends of the dogs *o p* made to act as stops for each other, in which case their inner ends will be curved to allow one to move by the other without disturbing it.

Having thus described my invention, what I claim is—

1. In combination with a hinged or swinging gate provided with an upright stud or pin and with a pivoted latch-bar, a horizontally-movable lever slotted to embrace the stud, and mounted upon a pivot on the gate-post, a vertically-movable lever pivoted in a support rising from the horizontally-movable lever, having its forward end connected with the latch-bar, and cords or chains extending from the rear end of the vertically-movable lever downward through eyes at the rear end of the horizontally-movable lever, and thence in opposite directions from the gate, substantially as described and shown.

2. In combination with post A, and gate B, provided with stud *f* and latch-bar H, horizontally-movable lever F, vertically-movable lever G, and cords I, all constructed and arranged substantially as shown.

3. In combination with post A, and gate B, provided with latch H and stud *f*, horizontally-movable lever F, pivoted upon post A, and provided with eyes at its rear end, vertically-movable lever G, connected with latch-bar H and pivoted in a support rising from lever F, and cords I I, provided with buttons *k*, and passing loosely through levers F and G, substantially as and for the purpose set forth.

4. In combination with post A and gate B, operating-lever F and a cap or band, D, adjustably secured to post A, substantially as shown and described, and provided with stud or pin E.

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