No. 648,027. Patented Apr. 24, 1900.

W. B. HOGAN.

GATE.

(Application filed Jan. 8, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

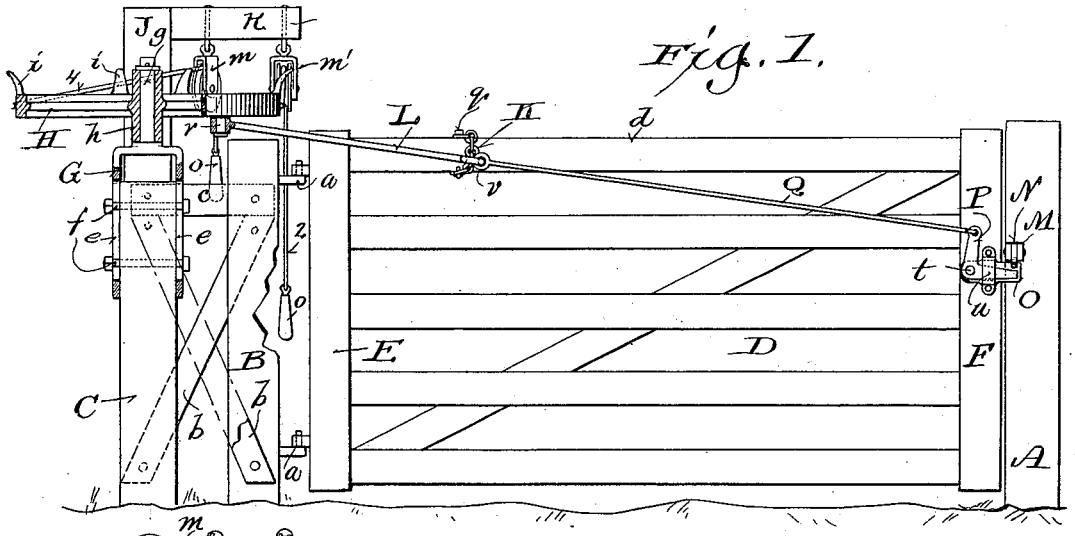

Fig. 2.

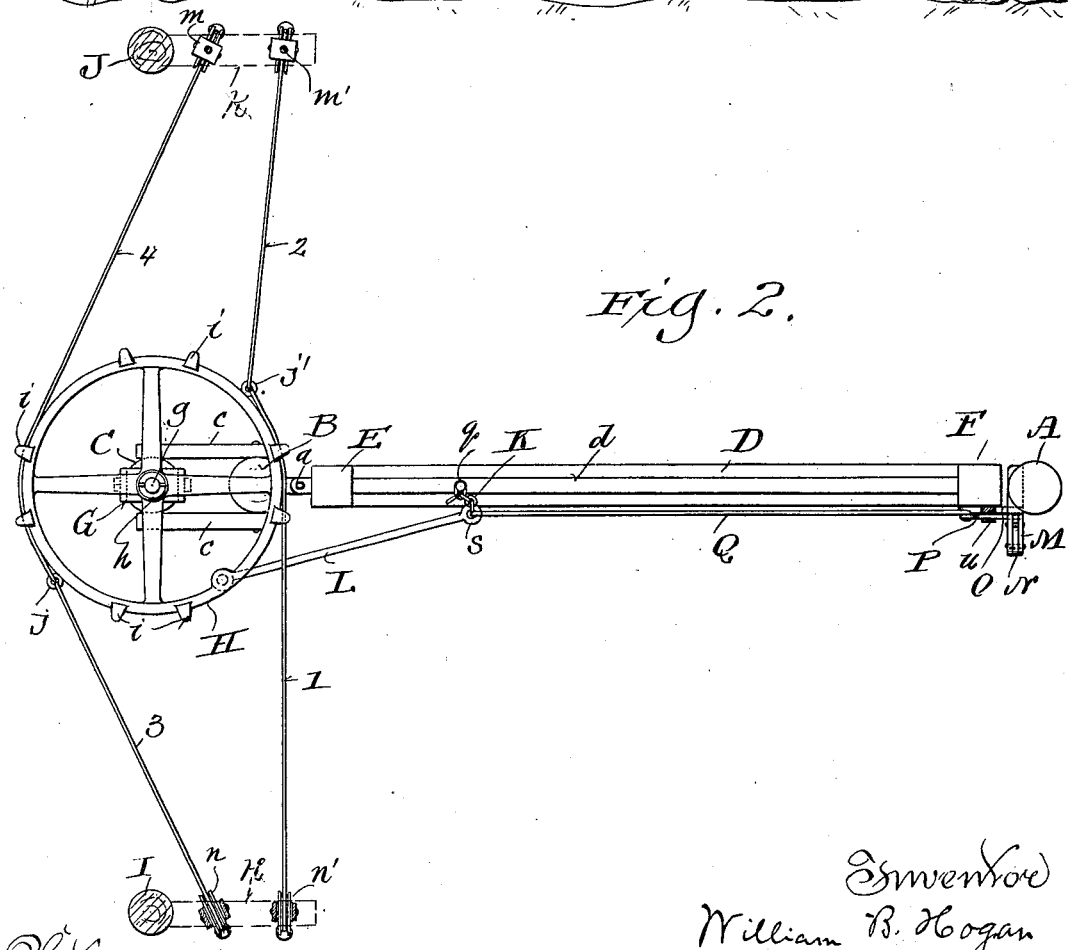

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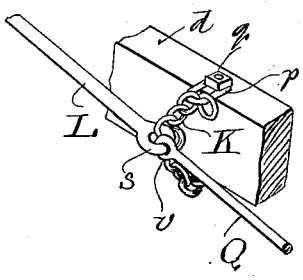
Fig. 3.



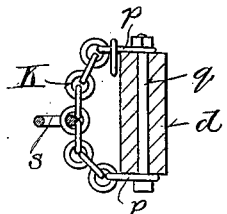


Fig. 4.

Fig. 5.

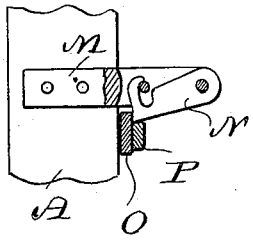
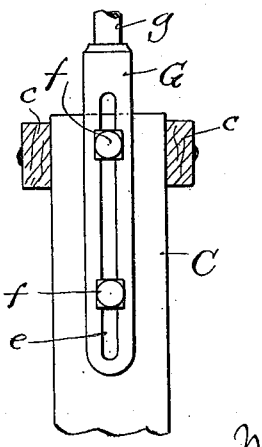


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM B. HOGAN, OF MILWAUKEE, WISCONSIN.

GATE.

SPECIFICATION forming part of Letters Patent No. 648,027, dated April 24, 1900.

Application filed January 8, 1900. Serial No. 681. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. HOGAN, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Gates; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has especial reference to that class of gates which are applicable to farms and which are adapted to be opened or closed by a person sitting in a vehicle; and it consists in certain peculiarities of construction and combination of parts, as will be fully set forth hereinafter and subsequently claimed.

In the drawings, Figure 1 is a side elevation of a gate embodying my present invention, partly broken away and in section to better illustrate certain details of construction. Fig. 2 is a plan view of the same, also partly in section. Figs. 3 to 6, inclusive, are detail views, drawn to an enlarged scale, showing the construction of portions of the said device.

Referring to the drawings, A B represent the gate-posts, and adjacent to post B is another post C, which I term the "wheel-post," the posts B C being united and strengthened by oblique braces *b b* and upper horizontal braces *c c*.

D represents the gate, comprising the usual upright timbers E F at the ends thereof, united by horizontal rails and suitably braced, as shown, the upper horizontal rail being marked *d* and the upright E of the gate being hinged to the part B, as shown at *a a*.

The post C is fitted with a vertically-adjustable yoke G, comprising two vertical arms and an upper cross-piece, said arms being formed with longitudinal slots *e*, and bolts *f f* extend through horizontally-bored holes in said post C and through the said slots, so that when the yoke has been adjusted to the proper height on said post it can be secured in that position by tightening the nuts on the ends of said bolts. The upper cross-piece of said yoke carries a vertical spindle *g* for the reception of the hub *h* of a horizontally-revoluble wheel H, from whose periphery there extend a series of upward and outward projecting ears *i i* and also a pair of perforated lugs or eyes *j j'*.

I J represent a pair of posts, each having a transverse beam *k*, from which are suspended a pair of sheave-blocks carrying grooved rope-pulleys, as indicated at *m m'* and *n n'*, respectively, and four cords (marked 1, 2, 3, and 4) are connected to the lugs or eyes *j j'* and pass over the pulleys in the said sheave-blocks, each cord terminating in a handle or pull *o*, cord 1 thus connecting the eye or lug *j'* with the pulley *n'*, cord 2 running from said eye or lug to and over pulley *m'*, cord 3 extending from the eye or lug *j* to and over pulley *n*, and cord 4 connecting said eye or lug with the pulley *m*, all as best shown in Fig. 2. These posts I and J are placed on opposite sides of the wheel-post C, so that the proper cord can be pulled to open or close the gate by a person seated in a vehicle approaching or leaving the gate from either direction, as is well understood in devices of this class.

K represents a short chain, certain of whose links, as *p p*, are preferably made longer than the others, and this chain is adjustably secured to the upper rail *d* of the gate by means of a bolt *q*, passing through a vertical perforation in said rail and through links at or adjacent to the ends of said chain, which is held to the desired adjustment by its said links being clamped to the rail by the head of the bolt and the nut at the other end of said bolt, as best shown in Fig. 4.

L is a rod having an eye at each end, that at one end being connected to a pin *r*, projecting from the rim of the wheel H, while the other eye (marked *s*) is connected to one of the links of the chain K.

On the post A there is a housing M, containing a pivoted gravity catch or keeper N, while on the adjacent upright F of the gate there is secured by pin *t* a latch O for engagement with said catch, and pivoted on said pin *t* is a bell-crank lever P for lifting the catch or keeper N, and thereby freeing the latch O at the proper time, as hereinafter explained. The latch and lever are confined to place by a guard *u*.

Q is a rod loosely connected at one end with the upper arm of the bell-crank lever P, while the other end of said rod has an eye *v* loosely connected to the eye *s* in the adjacent end of the rod L.

The operation of my device will be readily understood from the foregoing description of its construction taken in connection with the

accompanying drawings. Let it be understood that the gate is closed and a vehicle approaching it. The occupant of the vehicle grasps the handle of cord 1 and pulls thereon, which revolves the wheel H toward him, and thereby pulls on rod L. Owing to the slight slackness of the chain K this pull first draws on the rod Q, connected to the upper arm of the bell-crank lever P, and raises the lower arm of said lever, and thus raises the catch N above the plane of the latch O, freeing the latter, and the continued pull on said cord 1 now draws on the chain K and swings the gate open on its hinges *a a*. As soon as the vehicle has passed beyond the gateway a pull on the handle of the cord 2 will serve to close the gate, and it is obvious that the gate can be opened from the other direction by manipulating the cord 4 and later closed by the cord 3. The ears *i i* on the horizontally-revolving wheel H prevent the cords from getting out of place, and said wheel H can at all times be adjusted to the proper height by means of the slotted arms of the yoke G and the bolts *f f*.

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

1. The combination with a pair of gate-posts and a swinging gate hinged to one of said posts and latched to the other, of another post adjacent to the hinge-post; a horizontally-revoluble wheel adjustably mounted on said other post; a pair of posts located one at each side of said wheel-post, at some little distance therefrom, and each carrying a pair of sheave-blocks; four cords secured to said wheel and each one of said cords passing over the pulley in one of said sheave-blocks, and terminating in a suitable pull; a keeper on one of the gate-posts; a bell-crank lever pivoted on the gate adjacent to the latch, and having one arm projecting beneath the said keeper when the gate is latched; and a double-jointed rod, loosely connected to said gate, and secured at one end to said wheel, and at the other end to said bell-crank lever.

2. In a swinging farm-gate, the combination with the gate and its posts, of another post adjacent to the post to which the gate is hinged, a horizontally-revoluble wheel adjustably mounted on said other post, and having a series of upward and outward projecting ears thereon; a jointed rod connection between said wheel and gate; a pair of posts located one at each side and at some distance from said wheel-post, and each carrying a pair of sheave-blocks, and four cords secured to said wheel, and each cord passing over the pulley in one of said sheave-blocks and terminating in a suitable pull, the said cords being kept in place in engagement with the periphery of said wheel by said projecting ears.

3. In a swinging farm-gate, the combination with a pair of gate-posts and the gate hinged to one of said posts and latched to the other, of a chain adjustably secured to the top rail of said gate; a bell-crank lever pivotally secured to said gate adjacent to its latch; another post adjacent to the hinge-post; a horizontally-revoluble wheel adjustably mounted on said other post; a rod loosely connected to said wheel and to said chain; another rod loosely connected to the first-named rod and to said bell-crank lever; a gravity catch or keeper on the latch-post, and a series of cords for revolving said wheel in one or the other direction and thereby opening or closing said gate through the described double-rod connection.

In testimony that I claim the foregoing I have hereunto set my hand, at O'Neill, in the county of Holt and State of Nebraska, in the presence of two witnesses.

WILLIAM B. HOGAN.

Witnesses:
ED. F. GALLAGHER,
JAS. F. GALLAGHER.