

J. J. GOCHENOUR.

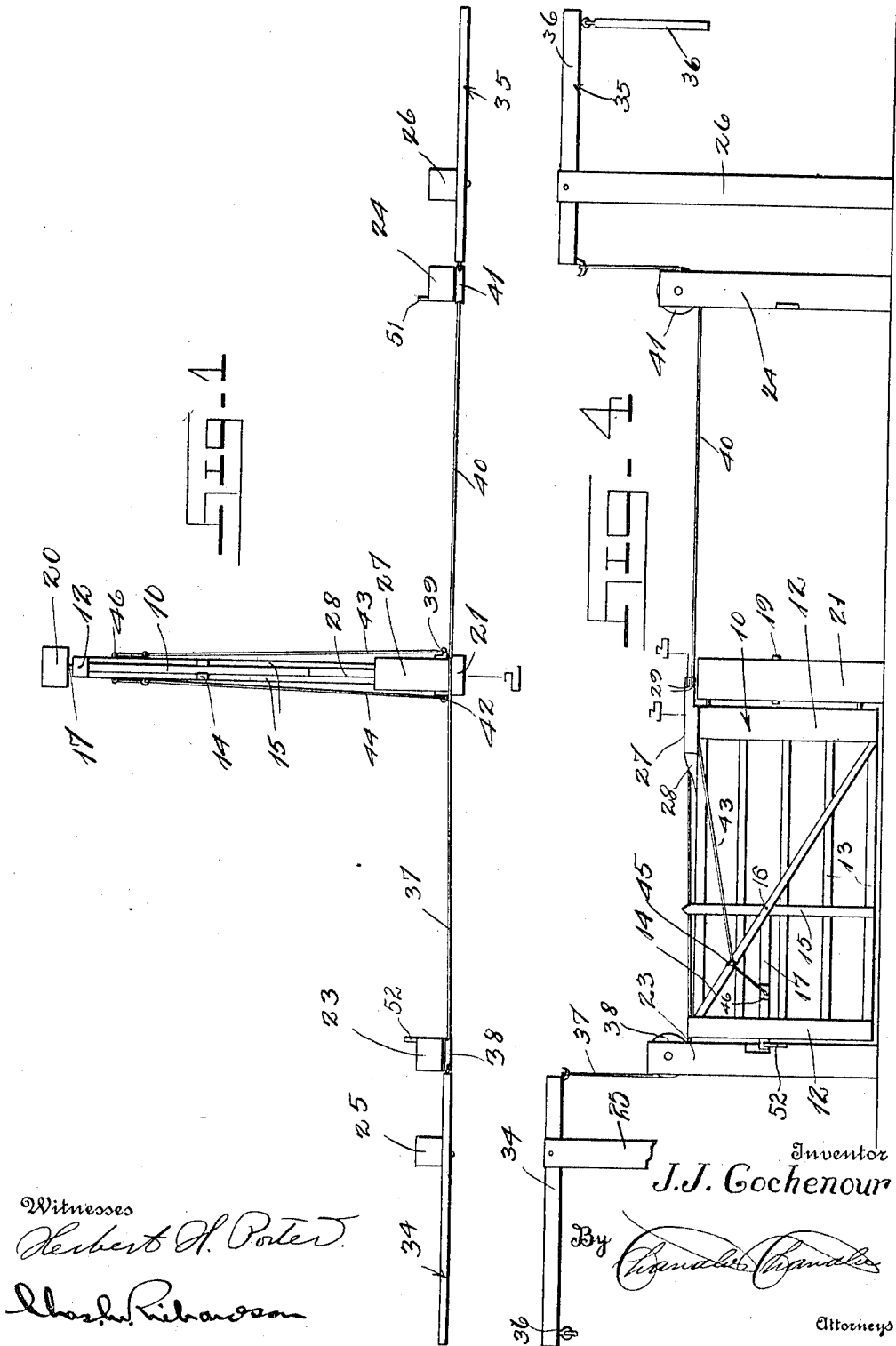
GATE.

APPLICATION FILED FEB. 1, 1912.

Patented July 1, 1913.

2 SHEETS—SHEET 1.

1,066,404.



Witnesses

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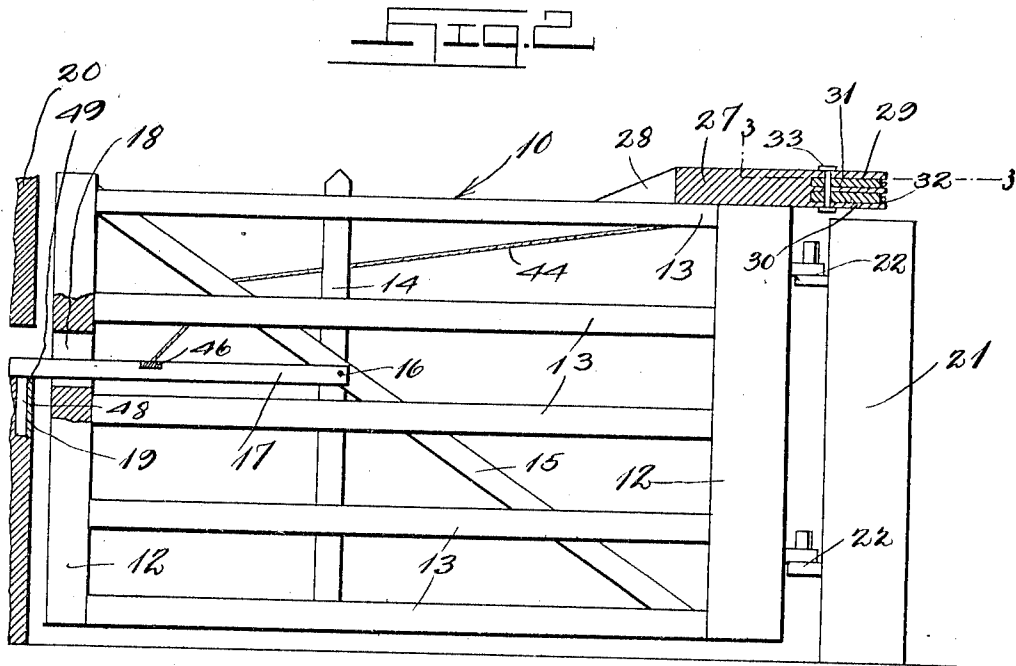
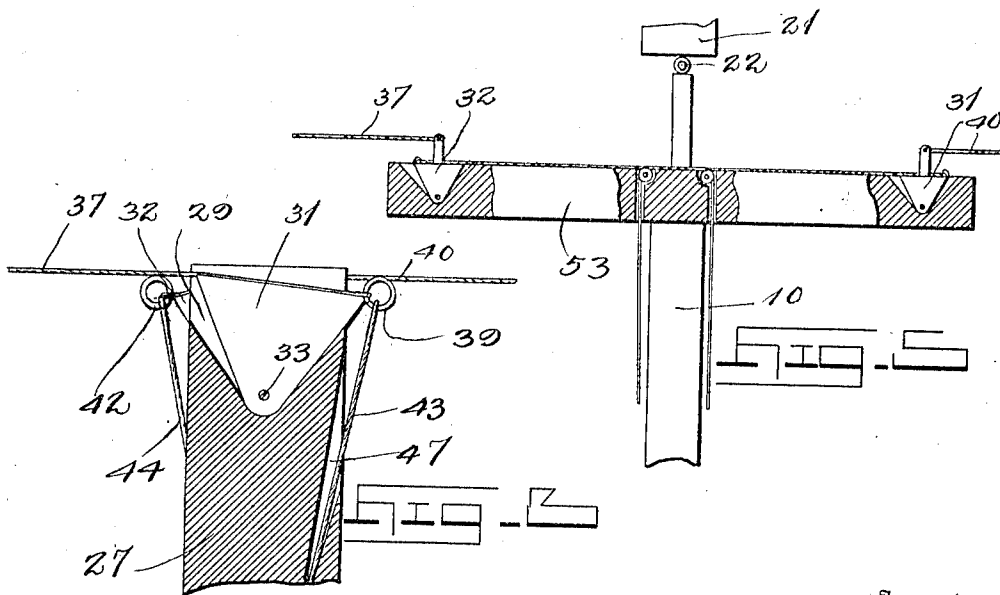
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Witnesses

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UNITED STATES PATENT OFFICE.

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GATE.

1,066,404.

Specification of Letters Patent.

Patented July 1, 1913.

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To all whom it may concern:

Be it known that I, JOHN J. GOCHENOUR, a citizen of the United States, residing at Maurertown, in the county of Shenandoah, State of Virginia, have invented certain new and useful Improvements in 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.

This invention relates to new and useful improvements in gates, and more particularly to a novel mechanism for opening and closing the same.

An object of this invention is the provision in connection with a swinging gate of means whereby a person may open the same upon his approach from either side and close the same after passing through without necessitating his alighting from a vehicle in which he may be riding.

A further object of this invention is the provision of an opening mechanism for gates which will be comparatively simple and inexpensive to manufacture, reliable and efficient in use and readily operated.

With the above and other objects in view, this invention resides in the novel features of construction, formations, combinations and arrangements of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawings, in which:—

Figure 1 is a top plan view of my invention. Fig. 2 is a side elevation of the gate partly in section. Fig. 3 is a horizontal sectional view taken on the line 3—3 of Fig. 4, and Fig. 4 is an end view of my invention showing the gate in its open position, and with parts of the operating mechanism broken away. Fig. 5 is a view illustrating a modified form of my invention.

Referring to the accompanying drawings by similar characters of reference throughout the several views, the numeral 10 designates generally a gate which comprises the opposite vertical end rails 12 connected by the horizontal longitudinal rails 13 which are braced by angular and vertical braces 14 and 15 respectively united at their crossing points by a bolt 16 which carries pivoted thereon a latch 17 which passes through an opening 18 formed in a rail 12 and extends a suitable distance therebeyond for engagement with a catch 19 supported by a

post 20 located upon one side of the road or drive way, directly opposite to which is mounted a post 21 upon which the gate 10 is hinged at 22 for swinging movement in opposite directions which movement is limited by posts 23 and 24 which are mounted between the post 21 and supporting posts 25 and 26, respectively.

A block 27 is secured to the upper end of the inner rail 12 and to the upper rail 13 by a brace 28. The block 27 adjacent its rear end is formed with a pair of spaced horizontally disposed V-shaped recesses 29 and 30, in which are located triangular shaped operating levers 31 and 33 respectively pivoted at their apices by a bolt or other similar fastening device 33 which passes through the recesses 29 and 30 and opposite sides of the block 27. Operating levers 34 and 35 are pivoted to the upper ends of the posts 25 and 26, and are provided at their outer terminals with movable handles 36 which may be grasped by a person to open and close the gate 10 as will be later described. A flexible member 37 is connected to the inner end of the lever 34, passes over a pulley 38 journaled upon the upper end of the post 23 and is connected to the opposite side of the base of the lever 31 as indicated by the numeral 39. A flexible member 40 similar to the flexible member 37 is connected to the inner end of the lever 35, passes over a pulley 41 journaled upon the upper end of the post 24, and is connected to the opposite ends of the base of the lever 32 as indicated by the numeral 42. Flexible members 43 and 44 are connected to the points 39 and 42 of the levers 31 and 32 respectively and pass through guides 45 provided upon the braces 15 from which they extend downwardly and are connected to a cross bar 46 which extends transversely of the latch 17 so that when pull is exerted upon these members 43 and 44 the latch will be raised. These members 43 and 44 extend through openings 47 which run longitudinally of the block 27 at a slight angle with respect to the longitudinal axis thereof, which holds the said members 43 and 44 in close relation with respect to the gate 10, thereby preventing their contact with any undesired foreign object. In this connection it should be noted that the latch 17 is of sufficient weight to hold the levers 31 and 32 in contact with the opposite sides of the recesses 29 and 30, against the weight

of the levers 34 and 35. A pivoted stop 48 is attached to the inner side of the catch 19 and is limited in its movement upon the opposite sides of the locking notch 49 by stops 50. The function of this movable stop will be brought out in the operation of the device.

The operation of the device is as follows: Assuming the gate to be in its closed position and a person to be approaching the same from the direction of the post 25, the operator gives the handle 36 of the lever 34 a slight pull, which first moves the lever 31 into engagement with the opposite side of the recess, during which movement of the said lever the latch will be raised above the upper end of the pivoted keeper 48, and upon further pulling the handle 36 the flexible member 37 will cause the gate to be swung in the direction of the post 24 owing to the fact that the said member 37 has passed the dead center between the pulley 38 and opposite end of the base of the lever 32. Upon reaching the post 24 the latch 17 will engage the catch 51 supported thereon which holds the gate in its open position until the person operating the same has passed therethrough. Upon reaching the handle 36 of the lever 35, the person desiring to close the gate gives the handle a slight pull, which moves the lever 32 to the opposite side of the recess 29 through the medium of the flexible member 40 thereby releasing the latch 17 from the catch 51, and upon further movement swinging the gate toward the post 20. When the latch 17 reaches the pivoted stop 50, the same will be moved to the opposite side of the notch 49 which limits the movement of the gate in the direction of the post 23 and causes the latch to engage the catch 19 thereby locking the gate in its closed position. A catch 52 similar to the catch 51 is secured to the post 23 for engagement with the latch 17 when the gate is opened from the opposite side in which case the previously described operation is reversed. At this point it should be understood that various minor changes in the details of construction may be resorted to within the scope of the appended claims without departing from or sacrificing any of the advantages of the invention.

Referring more particularly to Fig. 5 of the drawings, the numeral 53 designates a cross bar which is attached to the upper end of the post 21, extending longitudinally of the road and transversely of the gate 10.

The triangular levers 31 and 32 are pivoted at their apices to the terminals of the bar 53 and are connected by the flexible members 37 and 40 to the operating levers 34 and 35 (not shown in this figure). The outer terminals of the bases of the levers 31 and 32 are connected to the latch 17 not shown by the flexible members 43 and 44.

From the foregoing disclosures taken in connection with the accompanying drawings, it will be readily seen that a gate, and an opening mechanism therefor is provided for which will fulfil all of the necessary requirements of such a device.

Having thus fully described this invention what I claim as new and desire to protect by Letters Patent, is:—

1. The combination with a gate, operating levers disposed on opposite sides thereof, a latch supported by the gate, a supporting member attached to the gate and extending longitudinally of the latter and provided with V-shaped recesses disposed in different elevations and having their major ends opening through the end of the support adjacent the hinged end of the gate, levers pivoted in the recesses respectively and limited in their movement by contact with the sides of said recesses, connections between the operating levers and the levers pivoted in the recesses, and connections between the levers pivoted in the recesses and the latch.

2. The combination with a gate, operating levers disposed on opposite sides thereof, a latch supported by the gate, a supporting member attached to the gate and extending longitudinally of the latter and provided with V-shaped recesses disposed in different elevations and having their major portions opening through the end of the support adjacent the hinged end of the gate, V-shaped levers pivoted at their minor ends in the recesses respectively and limited in their movement by contact with the sides of said recesses, connections between the operating levers and the end of the major portion of the V-shaped levers remote from said operating levers respectively, and connections between said end of the major portion of the V-shaped levers and the latch.

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

JOHN J. GOCHENOUR.

Witnesses:

M. DONALDSON,
J. L. FELLER.