

No. 827,555.

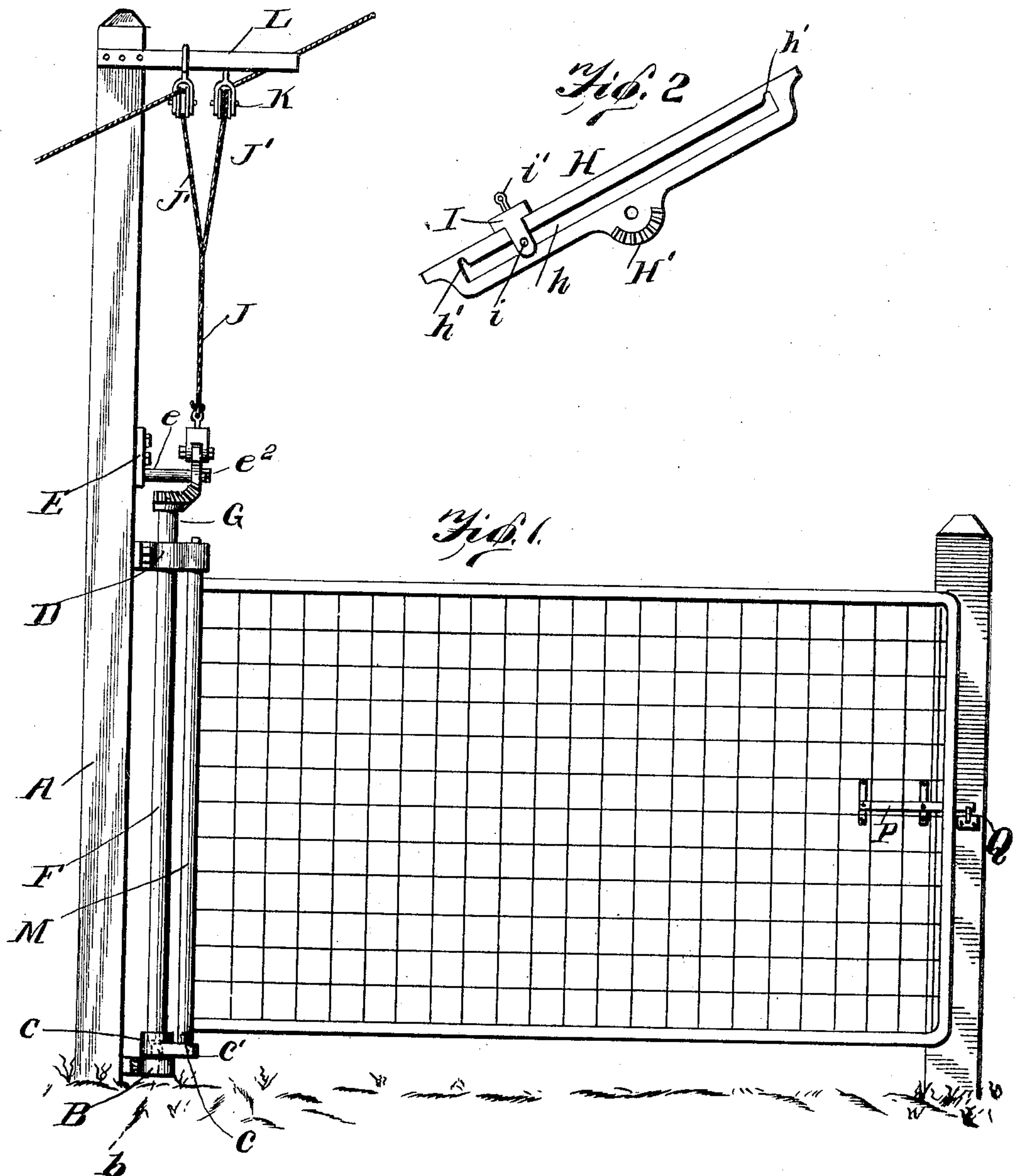
PATENTED JULY 31, 1906.

F. E. NELSON & G. W. TRIBBEY.

GATE.

APPLICATION FILED MAR. 31, 1906.

2 SHEETS—SHEET 1.



WITNESSES:

*R. E. Wilson*  
*Geo. S. Brock*

INVENTORS

*Frederick E. Nelson*  
*George W. Tribbey.*  
BY *Munn & Co.*  
ATTORNEYS

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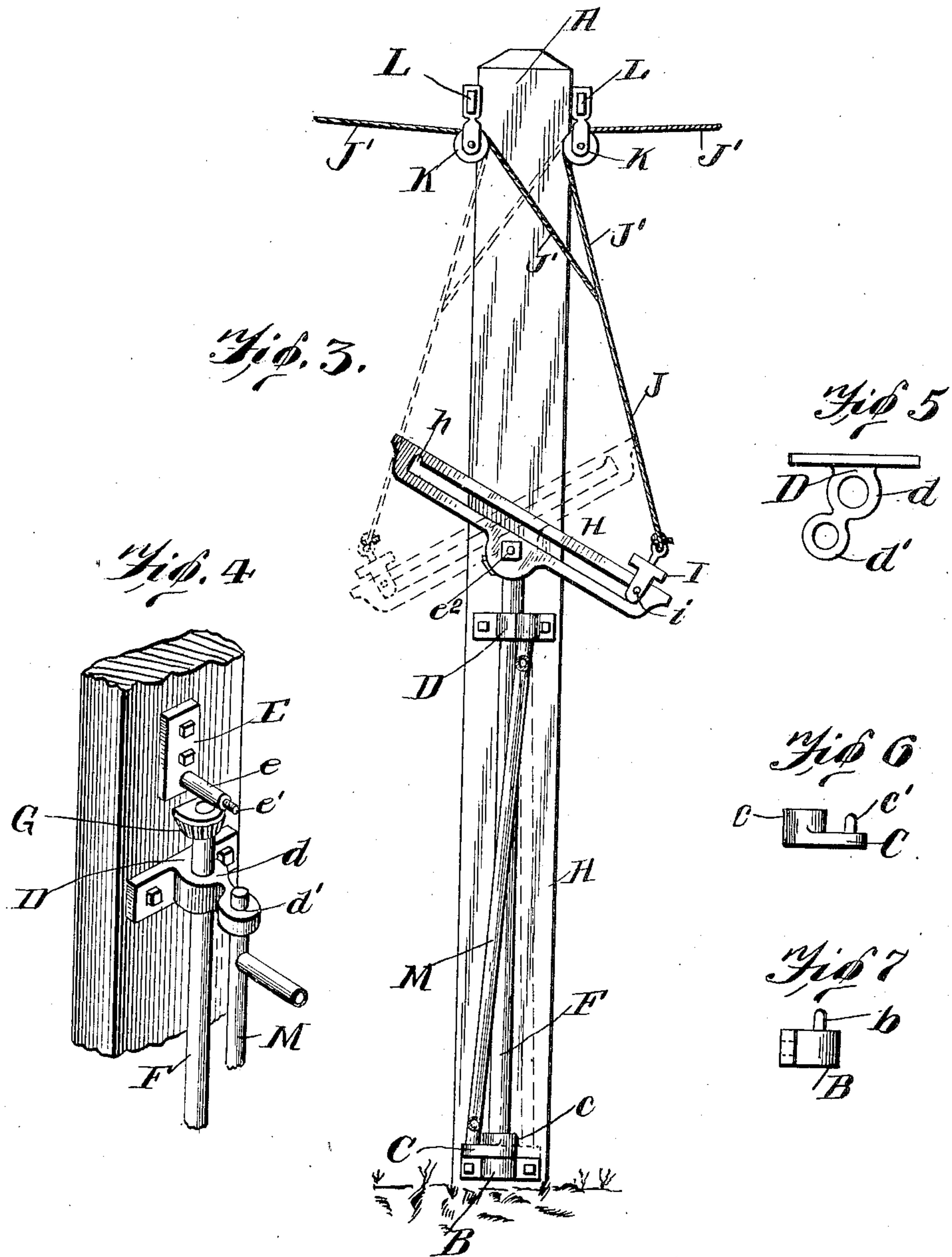
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# UNITED STATES PATENT OFFICE.

FREDERICK E. NELSON AND GEORGE W. TRIBBEY, OF MARSHFIELD,  
OREGON.

## GATE.

No. 827,555.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed March 31, 1906. Serial No. 309,089.

*To all whom it may concern:*

Be it known that we, FREDERICK E. NELSON and GEORGE W. TRIBBEY, citizens of the United States, and residents of Marshfield, in the county of Coos and State of Oregon, have invented certain new and useful Improvements in Gates, of which the following is a specification.

Our invention relates to improvements in gates of that character in which a sliding weight traversing an oscillatory bar is used to cause the gate to swing in either direction to open and close the same.

The object of our invention is to provide a simple, cheap, and efficient gate of the character described which can be readily operated to open and close at a considerable distance from the gate, whereby the necessity of leaving a vehicle approaching the gate is obviated.

To these ends our invention consists in certain novel features of construction, arrangement, and combination of parts, as will be hereinafter fully described, and pointed out in the drawings, in which—

Figure 1 is a side elevation of a gate and attachments, showing a practical embodiment of our invention. Fig. 2 is a detached view of the oscillatory bar and weight used to give the gate its swinging movement. Fig. 3 is an end elevation, partly in section, of the operating devices as applied to a gate-post. Fig. 4 is a detail perspective view of the means for hinging the upper end of the gate to its post and the means for causing the gate to swing. Fig. 5 is a detail plan of the upper casting or hinge of gate. Fig. 6 is a side elevation of the lower swing-link. Fig. 7 is a side elevation of the lower casting or hinge.

In carrying out our invention a post A of suitable height is used, having attached to its lower portion a suitable distance above the ground the casting B, provided with the vertically-projecting pintle *b*, upon which is rotatably fitted the enlarged end *c* of another casting C. The smaller portion of casting C projects from the enlarged portion *c* and has projecting from its upper face a pin *c'*.

D is another casting secured to the post A, having a projecting eye *d*, and from this eye *d* projects an offset eye *d'*.

E is a plate secured to post A above casting D and has projecting from its outer face the

stud *e*, which has its free end *e'* reduced and threaded.

F is a rod rigidly secured at its lower end to the enlarged portion *c* of casting C and passes upwardly through eye *d* of casting D. The upper end of rod F is made into the form of or has secured to it a segmental miter-gear G, which engages and meshes with a similar segmental miter-gear H' at the center of slotted arm H, which is pivotally mounted on the reduced end *e'* of the stud *e*, projecting from plate E, and is held thereon by a nut *e''* or other suitable means. The bar H, as stated, is slotted, its slot *h* extending from a point near one end to a point near its opposite end, each end of the slot *h* being enlarged, as at *h'*.

I is a weighted slide embracing the sides and top of the bar H, being held to said bar by a pin *i* passing through the slot *h* and through the side members of said slide.

J is a rope or cable secured at one end in an eye *j'*, projecting from the upper face of slide I, said rope or cable extending upwardly a suitable distance and then dividing into two ropes or cables J' J' and diverging, thence passing over sheaves K K, suspended from arms L L, secured to and projecting from the upper end of post A.

M is the rear bar of the frame of the gate N, said bar M being rotatably mounted at its lower end on the pin *c'* of casting C. The upper end of bar M passes through the offset eye *d'* of casting D, said eye *d'* being sufficiently large to permit of the rotating and tilting motion of said bar M. The gate proper is of metal, preferably, and consists of the front and rear vertical bars, the horizontal upper and lower bars, and cross wires or rods, and is provided with a latch P, engaging a keeper Q on the post R.

The operation of our gate is as follows: With the parts in position indicated in full lines, Fig. 3, the gate is closed. If now a pull is made on the rope J from either branch rope J', the pin or bolt *i* of the weighted slide I will be drawn up into the enlarged end *h'* of the slot *h* and will raise the right-hand end of the bar H, causing it to swing on stud *e*, the segmental gear H' meshing with segmental gear G on the upper end of bar F and rotating said bar F. As the lower end of bar F is rigidly attached to the member or link C and C is pivotally mounted at one end on the pin *b* of casting B, the free end of the link is car-



ried past the vertical center of bar F, and the upper end of bar M fitting loosely in the offset eye *d'* and its lower end swiveling on pin *c'* the gate will tilt and release the latch, thus permitting the gate to swing open. If now the rope or cable is released, the bolt *i* of weighted slide I drops out of the notch *h'* and immediately slides to the opposite end of slot *h*, so as to be in readiness for the next pull to swing the gate to its closed position, as indicated in broken lines, Fig. 3.

It will thus be seen that we provide simple, cheap, and efficient means for opening and closing a gate from either side at a considerable distance and with the expenditure of very little labor.

We claim—

1. In combination with a gate-post, a casting secured to the post near its lower end and having a vertically-projecting pin, a link pivotally mounted on said pin, said link having a vertically-projecting stud or pin, a rod or bar rigidly secured to one end of said link and projecting upwardly, a casting secured to the post and surrounding the aforesaid rod near its upper end, said rod having at its upper end a miter-gear, a gate the rear bar of which is pivotally mounted at its lower end on the vertical pin of the link, and passes at its upper end through an eye offset to one side from the upper casting, a stud projecting from the gate-post, a bar pivotally mounted at its center on said stud, said bar having a segmental miter-gear on its lower edge meshing with the gear on the aforesaid rod, a weighted block mounted to slide on said pivoted bar, and means connected with said block to cause the bar to swing on its pivot, and rotate the rod having the miter-gear at its upper end and through the link at its lower end cause the gate to tilt, and unlatch and swing open or closed.

2. The combination with a gate-post, of castings secured to said gate-post carrying the upper and lower ends of the rear bar of the gate, the lower casting provided with a vertically-projecting pin, and the upper casting provided with two eyes, one of which is offset to one side, a link pivotally mounted on the pin of the lower casting, a vertical rod rigidly secured at its lower end to one end of said link and projecting through one of the eyes of the upper casting, and a miter-gear at the upper end of said rod, a pin or stud projecting upwardly from the link, a gate, the rear bar of which is pivotally mounted at its lower end on the pin projecting from the link and passes at its upper end through the offset eye of the upper casting, a horizontal stud projecting from the gate-post, a slotted bar

pivotally secured at its center on said stud, a segmental miter-gear on the lower edge of said slotted bar, the slot of said bar having offset branches at each end, and the segmental gear on said bar meshing with the miter-gear on the upper end of the aforesaid rod, a weighted block mounted to slide on said bar being guided by said slot, and means secured to said block to cause the slotted bar to swing on its pivot to cause rotation of the rod carrying the miter-gear at its upper end, and cause the link secured to its lower end to oscillate to one side of the vertical center of said rod and tilt the gate to unlatch the same and cause it to swing open or closed.

3. In combination with a gate and a post to which said gate is pivotally secured, of a rod mounted between said gate and post, a pivotal connection between the lower end of said rod and the lower rear end of the gate, a pinion secured to the upper end of said rod, a bar pivotally secured intermediate its ends to the gate-post adjacent to said pinion, a gear-rack projecting from said bar and engaging said pinion, a block slidably mounted on said pivoted bar, and means for sliding said block on the bar to cause the same to rock on its pivot, and rotate the rod carrying the pinion, whereby said rod will cause the gate to swing beyond its vertical center and tilt the same to cause it to unlatch and swing open and closed.

4. In combination with a gate and a post to which said gate is pivotally secured, a vertical rod mounted between said gate and post, a casting secured to the post adjacent to the lower rear end of the gate, a casting secured to the post and embracing the upper end of the aforesaid rod, an eye projecting obliquely to one side from said upper casting and loosely embracing the upper end of the rear upright of the gate, a link-iron pivotally mounted on the lower casting and rigidly secured to the lower end of the rod mounted between the gate and post, said link having a pivotal connection with the lower end of the rear upright of the gate, a pinion secured to the vertical rod at or near its upper end, and a toothed rack meshing with said pinion whereby the pinion and the vertical rod to which it is secured may be rotated and cause oscillation of the link-iron and thereby swing the rear upright of the gate beyond its vertical center, whereby the gate will be tilted to unlatch and swing open or closed.

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Witnesses:

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