

(No Model.)

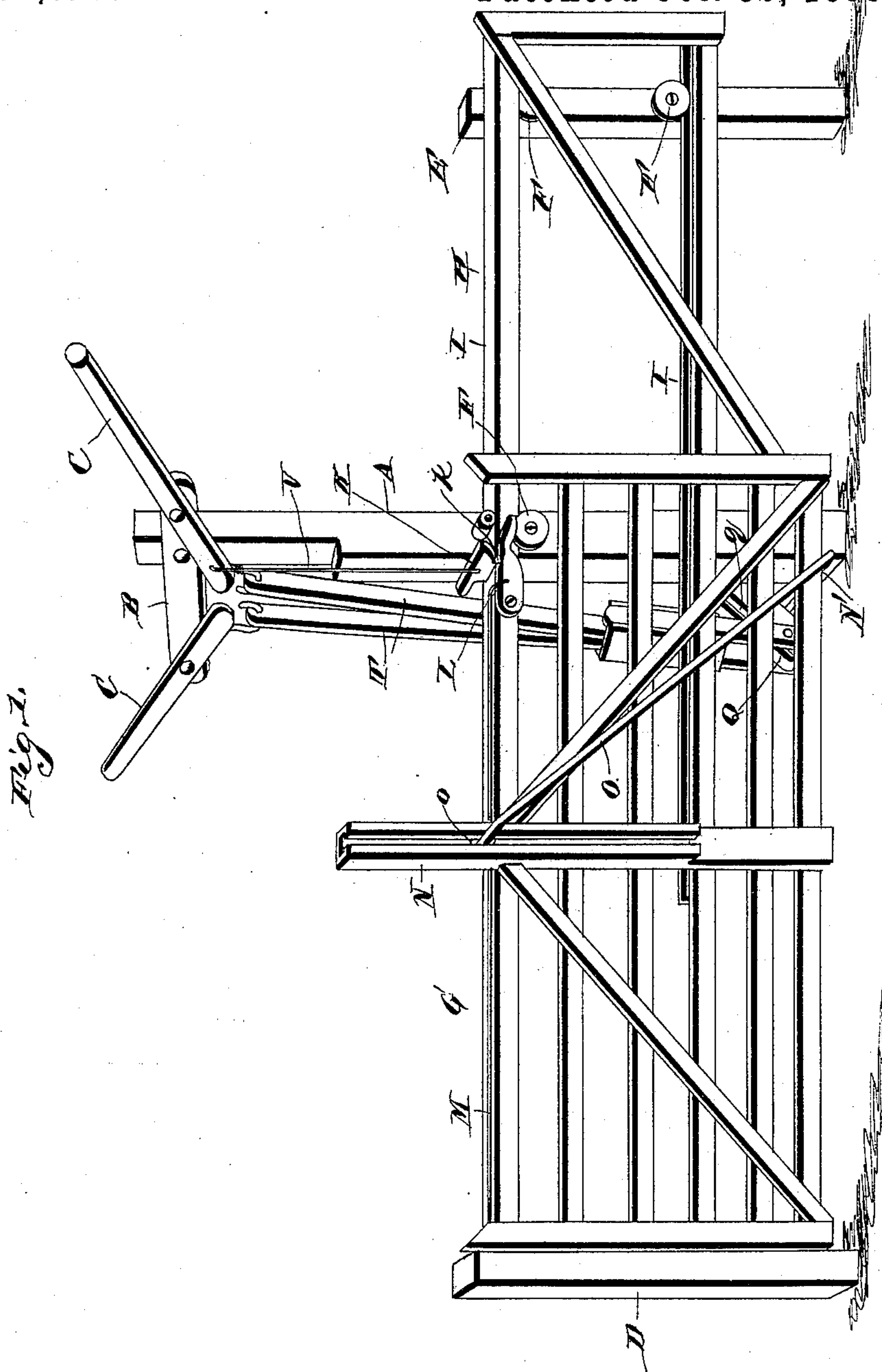
2 Sheets—Sheet 1.

J. A. GEHRETT & J. W. CARTLICH.

GATE.

No. 392,024.

Patented Oct. 30, 1888.



Witnesses.

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Inventors,
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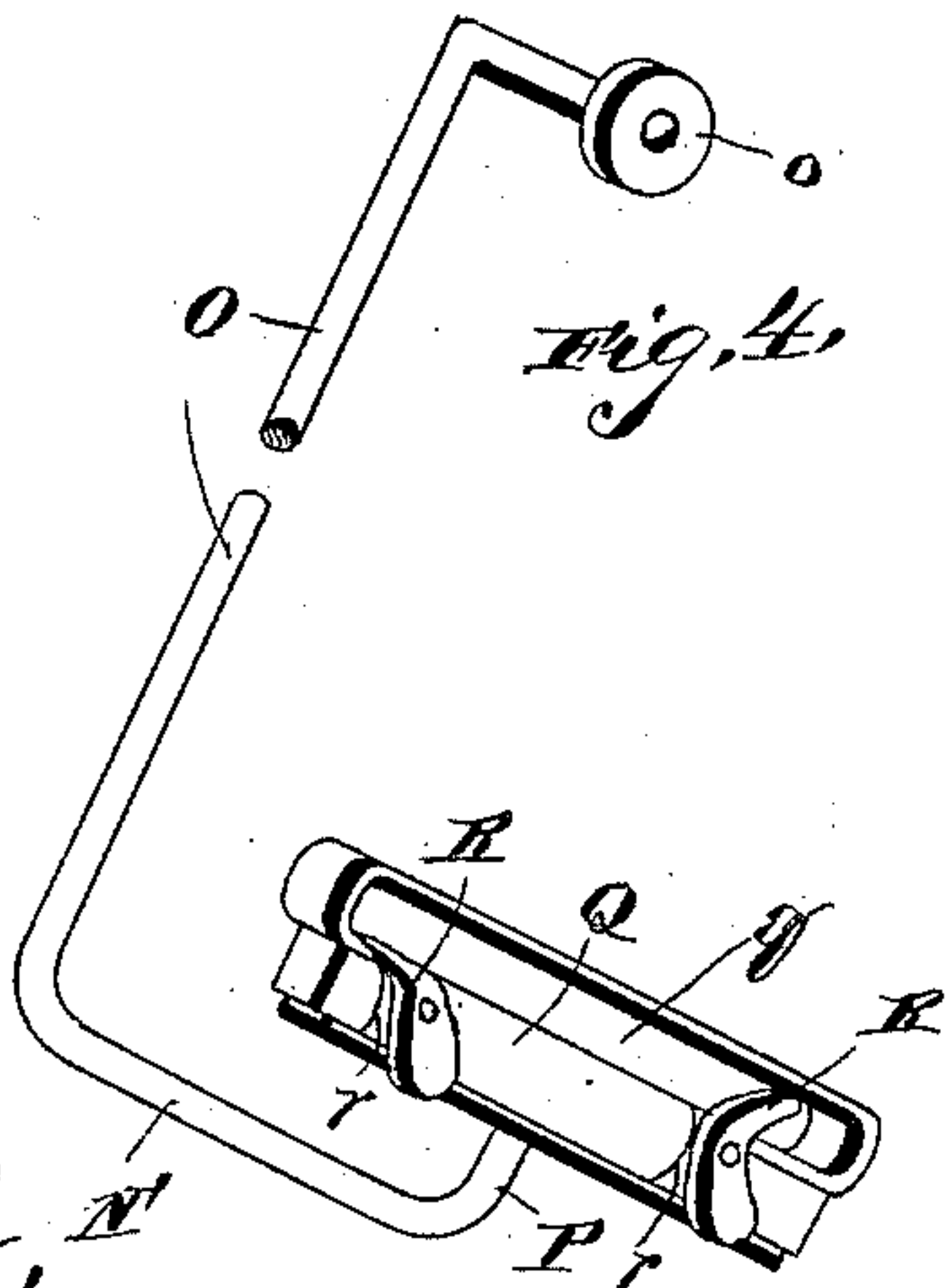
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UNITED STATES PATENT OFFICE.

JAMES ALISON GEHRETT AND JESSE W. CARTLICH, OF CARROLLTON,
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GATE.

SPECIFICATION forming part of Letters Patent No. 392,024, dated October 30, 1888.

Application filed May 29, 1888. Serial No. 275,477. (No model.)

To all whom it may concern:

Be it known that we, JAMES ALISON GEHRETT and JESSE W. CARTLICH, citizens of the United States, residing at Carrollton, in the county of Carroll and State of Missouri, have invented a new and useful Improvement in Gates, of which the following is a specification.

Our invention relates to improvements in sliding automatic gates, having for its object to simplify, cheapen, and improve the construction and so arrange the parts that the action of the operating levers or handles on the gate will be direct, in order to enable the gate to be opened by a steady movement of the same. In the ordinary practice the operating mechanism for automatic sliding gates is such as to necessitate a rapid or quick jerk of the handle or lever in order to throw the gate entirely back at once, or otherwise it will be liable to stop in a partly-open condition and will not be movable by means of the handles or levers. The handles in gates of this character only act forcibly on the gate when the latter is either entirely open or entirely closed, whereas it is our object to provide means whereby the levers or handles will act on the gate regularly at all points of its motion, thereby enabling it to be either partly or entirely opened at will.

The invention consists in a certain novel construction and arrangement of devices, fully set forth hereinafter in connection with the accompanying drawings, wherein—

Figure 1 is a perspective view of the gate. Fig. 2 is a side view looking at the opposite side. Fig. 3 is a transverse sectional view through the grooved guide-bar. Fig. 4 is a detail view of the slotted head and also of the shaft and operating-arm to which the head is attached.

Referring to the drawings, A designates the main post, to the upper end of which is attached the laterally-extending supporting-arm B, on the outer ends of which are mounted the operating levers or handles C C. A vertical post, D, is arranged in front of the main post to serve as a stop for the gate, and a similar post, E, is arranged in rear of the main post

and is provided with the flanged or headed anti-friction rollers F F. The main post is also provided with a similar roller, F, at the height of the upper roller on the post E.

The gate G is provided with the rear extension or guide-frame, H, the upper and lower track-rails I I of which are extensions of rails in the gate, and are grooved or rabbeted, respectively, on their lower and upper sides to receive the heads or flanges of the above-mentioned anti-friction rollers. A small anti-friction roller, *f*, operates on the upper side of the upper track-rail to hold it down on the upper rollers, F. The guide-frame not only directs the movement of the gate, but balances it, prevents straining, and enables it to move freely back and forth. The top bar of the gate is provided with a notch, *k*, in its upper edge, and a latch, K, which is pivoted on the main post, engages the notch and locks the gate in its closed position. A small trip-lever, L, is mounted on the top bar of the gate, and is adapted to trip the latch when raised by means of the cord M, which extends to the free end of the gate. This device for unlatching the gate is provided for the accommodation of pedestrians, to enable them to open the gate, other means being provided for equestrians and drivers.

A vertical grooved guide-bar, N, is arranged at about the center of the gate, and a horizontal rock-shaft, N', is mounted on the lower end of the gate-post A, and is provided with the operating-arm O, having a traveler, *o*, on its upper end to operate in the groove in the guide-bar. The other end of the rock-shaft is turned up to form the arm P, to the upper end of which is attached the rocking head Q, having the longitudinal slot *q* therein. This head is adapted to oscillate forward and backward, and, being attached to the end of an arm on the rock-shaft, its ends travel for a considerable distance in an approximately vertical line. Gravity-pawls R R are arranged at opposite ends of the slot *q*, so that their upper ends may be swung across the slot and caused to assume a position at right angles thereto. When in this position, the pawls may be swung outward at their upper ends; but they cannot

be swung inward, owing to a shoulder, *r*, on the side of the head. The lower ends of the pawls are weighted, so that the pawl which is at the lower end of the oscillating head assumes a position with its upper end extending across the slot, while the pawl at the upper end of the head is arranged with its upper end out of the line of the slot.

A shaft, *S*, carrying a weight, *s*, is connected by the pivoted links *T T* to the inner ends of the operating levers or handles, and the lower end of the shaft is bifurcated and provided with a transverse pin, *U*, to operate in the slot *q*. The latch is connected to the end of one of the levers by the cord *V*, whereby when the outer end of one of the levers or handles is drawn down the latch will be raised to allow the gate to be opened.

The operation of the gate is as follows: To open, draw one of the levers downward at its outer end. As the lower end of the shaft *S* (or the transverse pin therein) is engaged with the pawl at the lower end of the slot *q*, the said lower end will be raised, the operating-arm will be swung rearwardly at its upper end, and the gate will be swung back. When the gate is in its open position, the rear end of the slotted head will be depressed, and therefore when the operating lever or handle is released the weight *s* draws the shaft *S* down and causes the transverse pin to pass to the other end of the slot *q* and engage the other pawl. To close the gate, draw down on the lever or handle in the same manner as before, and the head will be swung back to its former position and the latch will drop into and engage the notch in the gate.

It will be seen that the gate may be opened and then closed by successive downward pulls on the outer end of either lever or handle, thus obviating the inconveniences due to a construction which makes it necessary that the gate be closed by a different lever from that with which it is opened.

Having thus described the invention, we claim—

1. The combination, with the main post and the rear post having headed or flanged anti-friction rollers thereon, of the gate having the grooved or rabbeted bars engaging the said rollers, the rear extension or guide frame having extensions of the said grooved or rabbeted bars, the vertical grooved guide-bar, the rock-shaft having the arm *O*, provided with a traveler operating in the groove in the guide-bar, and the short arm *P*, having a head on its upper end, and the operating levers or handles connected to the said head, substantially as specified.

2. The combination, with the sliding gate, the rock-shaft having the operating-arm *O*, connected to the gate, and the operating levers or handles, of the head *Q*, having a slot, *q*, therein, the gravity-pawls at the ends of the slot, arranged as described, and the shaft *S*, connected to the said levers or handles and having a transverse pin operating in the slot *q*, substantially as specified.

3. The combination, with the sliding gate having a vertical guide-bar, the rock-shaft having an operating-arm, *O*, mounted on the guide-bar, and an arm, *P*, shorter than the arm *O*, and the levers or handles, of the slotted head *Q*, the engaging-pawls *R R*, the shaft *S*, having a weight, *s*, and a transverse pin, *U*, operating in the slot in the said head *Q*, and the links pivoted to the upper end of the shaft and connected to the inner ends of the levers or handles, substantially as and for the purpose specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

JAMES ALISON GEHRETT.
JESSE W. CARTLICH.

Witnesses:

L. K. KINSEY,
J. W. POLAND.