

(No Model.)

J. W. FISHER.
GATE.

No. 445,052.

Patented Jan. 20, 1891.

Fig. 1.

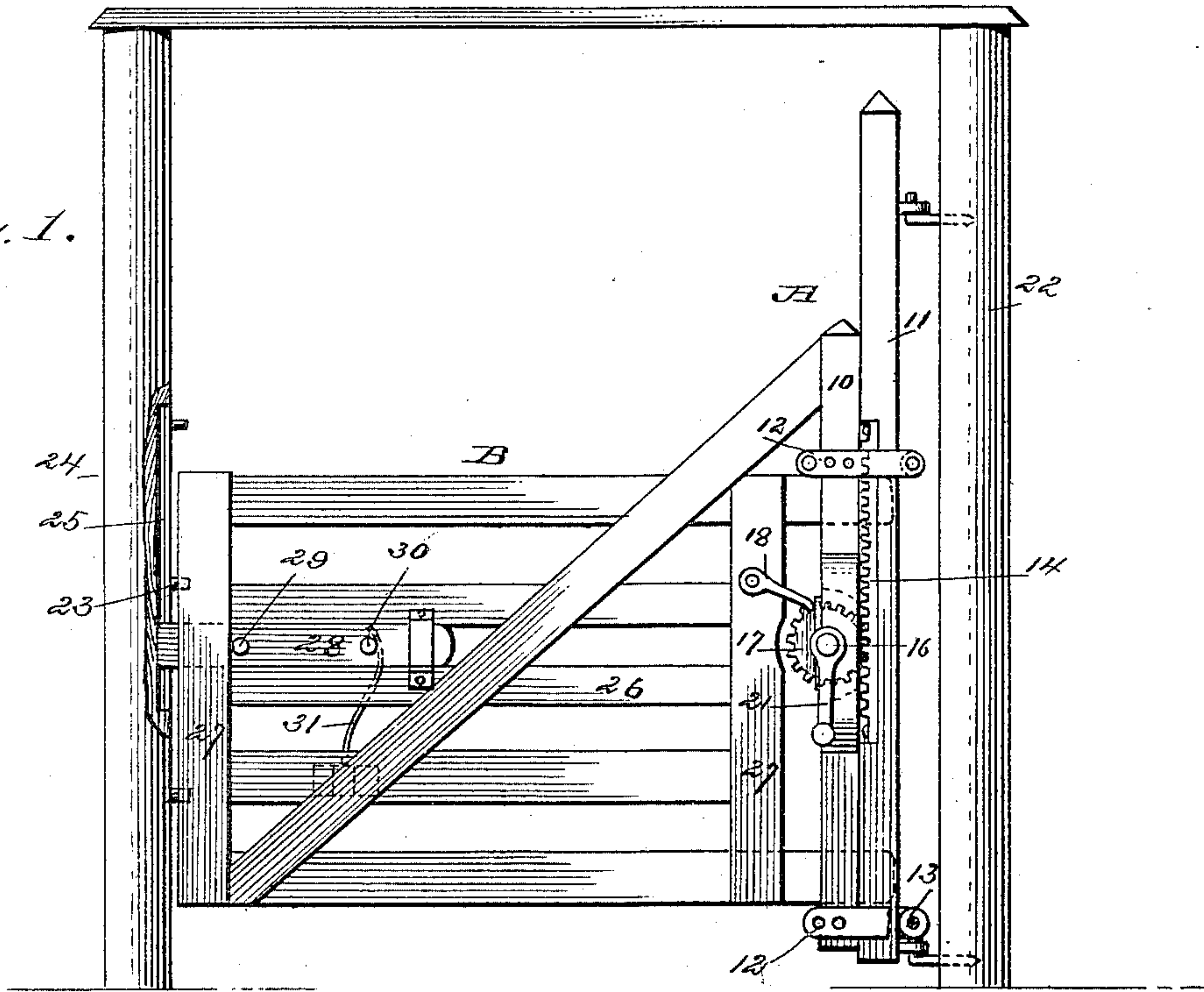
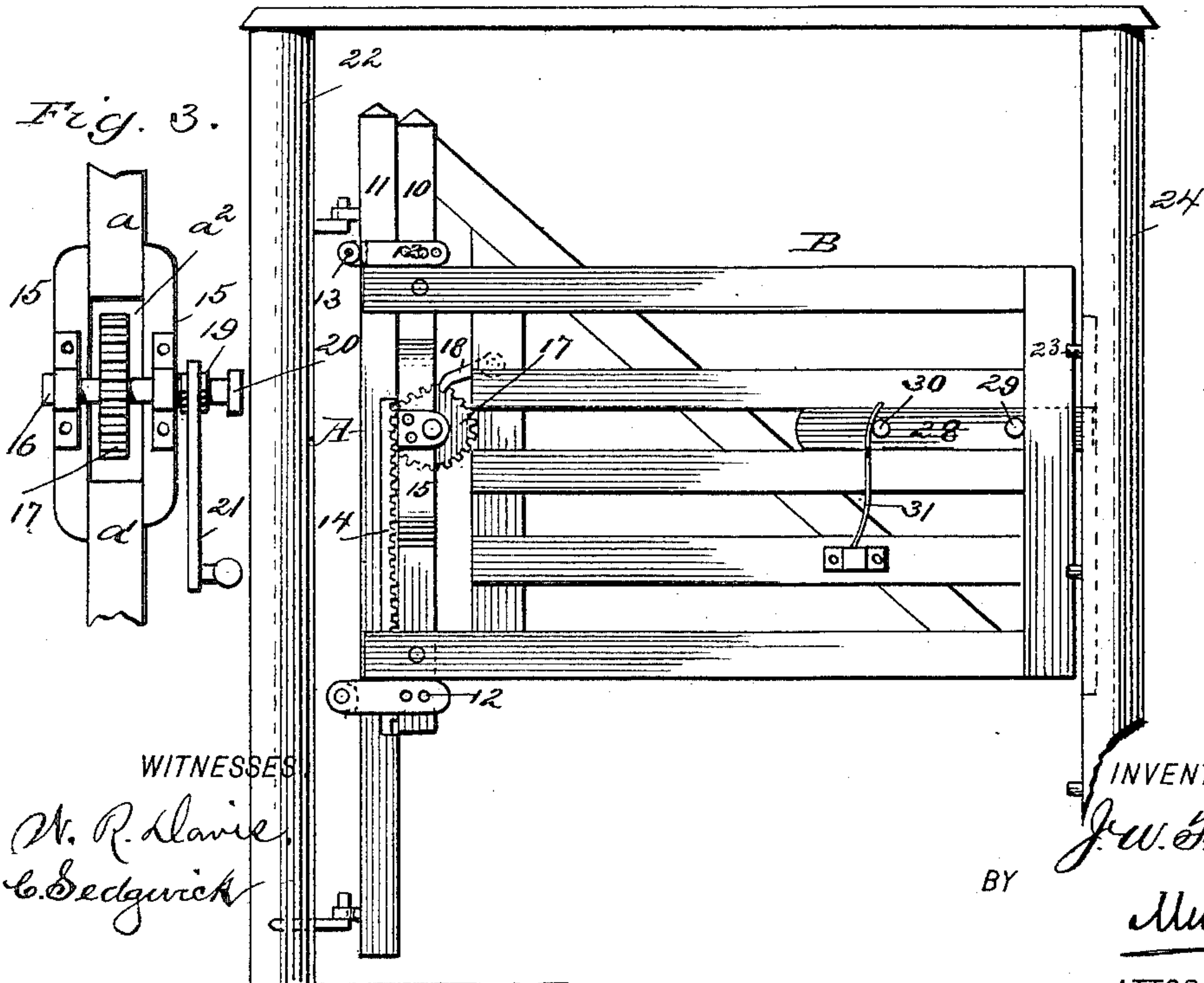


Fig. 2.

Fig. 3.



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JAMES W. FISHER, OF PALOUSE, WASHINGTON, ASSIGNOR OF ONE-HALF TO
ELBERT W. JONES AND ERNEST A. JONES, BOTH OF SAME PLACE.

GATE.

SPECIFICATION forming part of Letters Patent No. 445,052, dated January 20, 1891.

Application filed April 25, 1890. Serial No. 349,477. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. FISHER, of Palouse, in the county of Whitman and State of Washington, have invented a new and Improved Gate, of which the following is a full, clear, and exact description.

My invention relates to an improvement in gates, and has for its object to provide a means whereby the gate may be conveniently and expeditiously elevated when occasion may demand to swing inward and outward over any obstruction—such as a snow-drift, for instance; and a further object is to provide a simple, durable, and effective spring-latch.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters and figures of reference indicate corresponding parts in all the views.

Figure 1 is an elevation of one side of the gate. Fig. 2 is a similar view of the opposite side, and Fig. 3 is a front view of a portion of the elevating mechanism of the gate.

The rear stile A of the gate is composite, and consists of two parallel bars 10 and 11, one of said bars being adapted to slide upon the other. The bar 11 is the swing-bar of the gate and is of much greater length than the other bar 10, and the two bars are held in contact by means of straps 12, rigidly attached to the inner shorter bar 10 of the rear stile, the said inner bar being attached rigidly to the body B of the gate. The straps 12 are projected from the bar 10 laterally across and beyond the swing-bar 11, and between the outer ends of the straps a friction-roller 13 is pivoted, adapted for engagement with the outer face of the swing-bar. Two straps are ordinarily employed, each provided with a friction-roller, one being located, preferably, slightly above the top of the gate and the other below the bottom thereof, as is illustrated in Figs. 1 and 2. A recess is made in the inner face of the swing-bar 11 of the composite rear stile, and in said recess a toothed bar or rack 14 is rigidly secured. The inner

bar 10 of the composite stile is preferably made in two sections a and a' , as shown in Fig. 3, the said sections being connected in such manner that a space a^2 intervenes between their opposed ends, such connection being effected by vertical side cleats 15. In the said side cleats a spindle 16 is journaled, and upon said spindle a pinion 17 is rigidly secured, the said pinion being located within the space a^2 , as is also best illustrated in Fig. 3. This pinion is engaged by the free end of a pawl 18, which pawl is pivoted at its other end to one of the uprights of the gate-body. The pinion 17 meshes with the teeth of the rack 14, and one end of the spindle 16 is made to project, preferably, beyond the inner cleat 15. The projecting end of the spindle near its bearing is squared or made rectangular in cross-section, as illustrated at 19 in Fig. 3, and the extremity of the projecting end is formed with a head or button 20. That portion of the spindle between the button and the squared surface 19 is reduced or cylindrical in cross-section. A crank 21 is used in connection with the spindle to revolve the same, which crank when it is employed to operate the spindle is carried in engagement with the squared or rectangular portion 19 thereof, and when not in use is slid over the reduced or cylindrical portion of the spindle intervening between the head and the squared section, in order that if the crank is turned when in this position the spindle shall not be affected thereby.

The swing-bar 11 of the composite stile is hinged near its top and bottom in any approved manner to any suitable form of post or standard 22, and the latch end of the gate is preferably made to contact with stop-pins 23, attached to another post or standard 24, the said post or standard having produced in its inner face a longitudinal slot 25.

The body of the gate is usually made up of a series of horizontal slats 26, connected by vertical slats 27, and at the latch end of the gate, preferably between two central horizontal slats, a latch 28 is held to slide, the outer end of which latch is adapted to enter the recess 25 in the post 24, which recess serves as a keeper for the latch. The latch

is limited in its outer movement by the engagement of a pin 29, attached thereto, with the front vertical slat, and at or near the center of the latch a second pin 30 is located, 5 while against the rear face of said pin one end of a spring 31 is made to bear, the other end of the spring being rigidly secured to one of the horizontal slats of the gate-body. This spring causes the outer end of the latch nor- 10 mally to extend beyond the front of the gate, and the pin 30 serves as a knob, whereby the latch may be drawn back to open or close the gate, and when the gate is closed and the knob released the spring, acting, forces the latch 15 into its keeper.

It is evident from the foregoing description of construction that the gate is enabled to swing in the ordinary manner.

In the drawings the pins 23 are represented 20 as stopping the gate from swinging outward; but the pins may be dispensed with and the gate allowed to swing in either direction.

In the event that any obstacle—such as snow—blocks up the space between the bot- 25 tom of the gate and ground or the sill of the gate, thereby interfering with its proper manipulation, the gate may be elevated so as to clear the said obstacle by revolving the spin-

dle 16 and causing the pinion 17 to engage with the rack 14. The swing-bar remains at 30 all times attached to the post 20, and the body of the gate is free to slide upward upon it. When the gate has been elevated a sufficient distance, the pawl 18 is caused to engage with the pinion and the gate may be opened or 35 closed readily and at will.

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

The combination, with the vertical hinged 40 bar 11, having a rack 16 on its inner face, of the vertically-sliding gate having a vertical bar 10 at its inner end provided with straps 12, embracing the bar 11, and provided with 45 rollers 13, traveling on the face of the said bar opposite its rack, a transverse shaft 16, journaled in bar 10 and provided with an operating handle and gear 17, meshing into the rack-teeth, and a pawl mounted on the gate and engaging said gear, substantially as set 50 forth.

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Witnesses:

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