(No Model.) 2 Sheets—Sheet 1.

S. CARMIN.

GATE.

No. 584,324. Patented June 15, 1897.

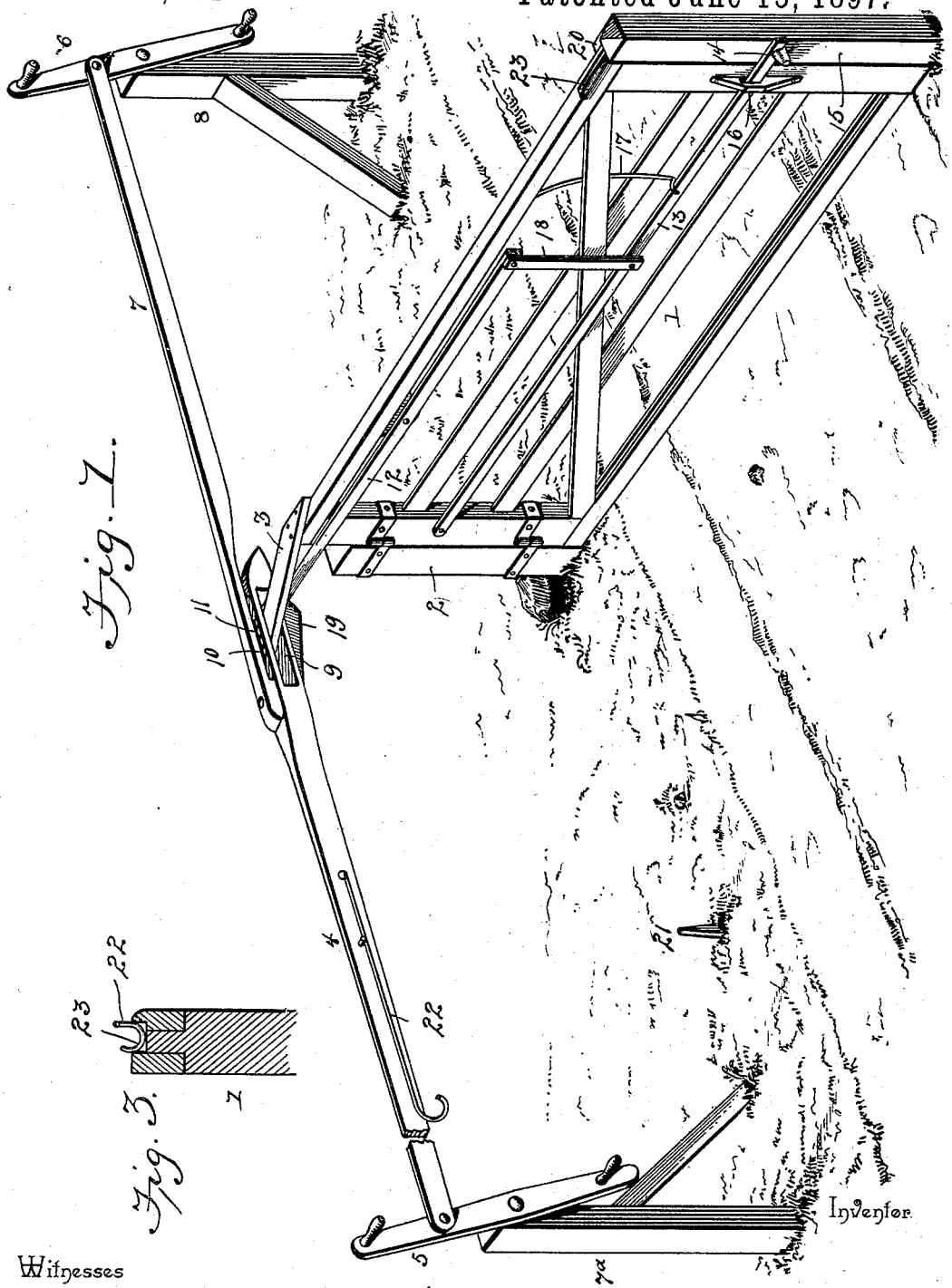

Fig. 1.

Fig. 3.

Witnesses

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J. F. Riley

Inventor

By his Attorneys,

Samuel Carmin

C. A. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

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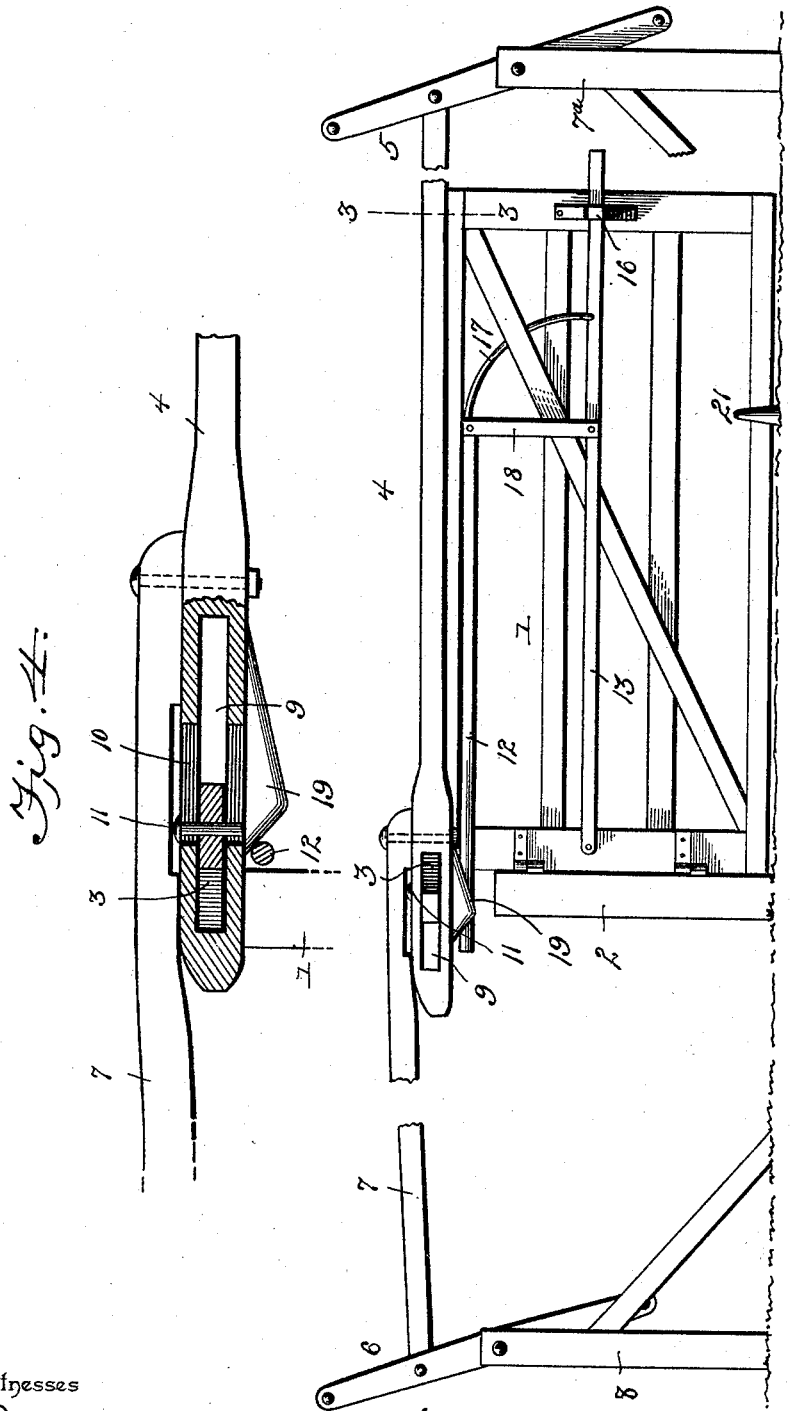

Witnesses

E. N. Monroe

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UNITED STATES PATENT OFFICE.

SAMUEL CARMIN, OF WARREN, INDIANA.

GATE.

SPECIFICATION forming part of Letters Patent No. 584,324, dated June 15, 1897.

Application filed April 9, 1897. Serial No. 631,414. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL CARMIN, a citizen of the United States, residing at Warren, in the county of Huntington and State of Indiana, have invented a new and useful Gate, of which the following is a specification.

The invention relates to improvements in gates.

The object of the present invention is to improve the construction of swinging gates, more especially the mechanism for opening and closing the same, and to provide an operating device which will be positive and reliable and adapted to enable a gate to be readily opened, locked in an open position, and closed after a person has passed through it without necessitating his dismounting or leaving a vehicle.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a gate constructed in accordance with this invention. Fig. 2 is a rear elevation of the same, the gate being open. Fig. 3 is a detail sectional view on line 3 3 of Fig. 2. Fig. 4 is a detail sectional view taken longitudinally of the operating mechanism, illustrating the construction of the latch-operating device.

Like numerals of reference designate corresponding parts in the several figures of the drawings.

1 designates a swinging gate constructed in any suitable manner and hinged to a post 2, and it is provided at its top with a rearwardly-extending arm 3, disposed at an angle to the gate and connected with a reciprocating operating-bar 4, whereby when the latter is moved longitudinally the gate will be swung to open or close it, according to the direction in which the reciprocating operating-bar 4 is moved. The outer end of the operating-bar 4 is pivoted to a lever 5 and its inner end is connected with a similar lever 6 by a bar 7, but a continuous operating-bar may be provided, if desired. The levers 5 and 6, which are located at opposite sides of the gate, are disposed substantially vertically when the latter is closed and they are fulcrumed between their ends on posts 7 and 8. The upper and lower ends of the levers are provided with handles, the lower ones being within convenient reach of a person on foot and the upper ones being adapted to be readily grasped by a person on horseback or in a vehicle without necessitating dismounting or leaving the vehicle.

The inner end of the operating-bar 4 is provided with a horizontal slot 9 to receive the arm 3 of the gate, and it has a vertical slot 10, through which passes a pin 11, that connects the operating-bar and the arm 3. By arranging the pivot-pin 11 in the slot 10 the reciprocating operating-bar is permitted a limited longitudinal movement independent of the arm 3 to enable it before actuating the gate to depress a latch-lever 12 and disengage a latch-bar 13 from a keeper 14 of a latch-post 15. The latch-bar 13, which is disposed substantially horizontally, is pivoted to the gate in the usual manner at its rear end, and its front end, which is arranged within a keeper 16, is engaged by a spring 17, which is adapted to force the latch downward and hold it in engagement with the keeper 14.

The latch-lever 12, which is disposed horizontally, is fulcrumed between its ends on the gate and has its front end connected by a link-bar 18 with the latch 13, and the rear portion of the lever 12, which is rounded to provide a beveled upper face, is engaged by a depending flange 19, carried by the operating-bar 4. The flange 19 is substantially triangular, being provided with oppositely-beveled lower edges, the inner end being abruptly inclined, as shown, to lift the latch before the operating mechanism acts on the gate to swing the same.

The gate opens only in one direction, and the operating-lever 5 is designed to be located a sufficient distance beyond the same to prevent the gate in opening from coming in contact with a team. The latch-post 15 is provided with a vertical stop-flange 20, and a short post or stake 21 is provided to limit the opening swing of the gate, which is locked or held in its open position by a supplemental latch 22, mounted on the reciprocating operating-bar. The latch 22, which is constructed of a single piece of resilient material, consists of a substantially straight shank and a de-

pending curved arm located at the outer end of the shank and arranged to engage a recess 23 of the top of the gate. The recess, which has slightly-beveled side edges, is adapted to be readily disengaged from the supplemental latch, which does not, owing to its curvature, have to be lifted by hand, but may be readily sprung upward by the closing of the gate and with the force necessary to actuate the latter.

It will be seen that the operating mechanism is positive and reliable, that it is adapted to be readily applied to any ordinary swinging gate, and that it will enable the gate to be readily opened and closed at a distance from it without dismounting from a horse or leaving a vehicle.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. The combination with a swinging gate, of a reciprocating operating-bar arranged at the back of the gate and connected with and adapted to swing the same, a latch, a latch-lever connected with the latch and extending rearward from the gate, and a flange depending from the operating-bar and arranged to engage and depress the latch-lever, substantially as and for the purpose described.

2. The combination with a gate provided with a rearwardly-extending arm, of a reciprocating operating-bar located at the back of the gate and connected with said arm and having a limited longitudinal movement independent of the same, a latch, a horizontal latch-lever connected with the latch and extending beneath the operating-bar, and an oppositely-beveled flange depending from the operating-bar and arranged to engage the latch-lever, substantially as described.

3. The combination of a swinging gate provided with a rearwardly-extending arm, a reciprocating operating-bar having a horizontal slot and a vertical slot, a pivot-pin arranged in the vertical slot and pivoting said arm in the horizontal slot, a latch, a horizontal latch-lever connected with the latch, an oppositely-beveled flange depending from the operating-bar and arranged to engage the latch-lever, and operating-levers located at opposite sides of the gate and connected with and adapted to actuate the operating-bar, substantially as described.

4. The combination of a swinging gate provided at its top with a recess, a reciprocating operating-bar connected with the gate and adapted to actuate the same, and a resilient latch mounted on the operating-bar and consisting of a shank, and a depending arm arranged to engage the recess of the gate when the latter is open, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

SAMUEL CARMIN.

Witnesses:
DANIEL CARPENTER,
LEWIS C. CARMIN.