(No Model.)

2 Sheets—Sheet 1.

R. E. SLAWSON.

AUTOMATIC GATE.

No. 482,462. Patented Sept. 13, 1892.

FIG. 1.

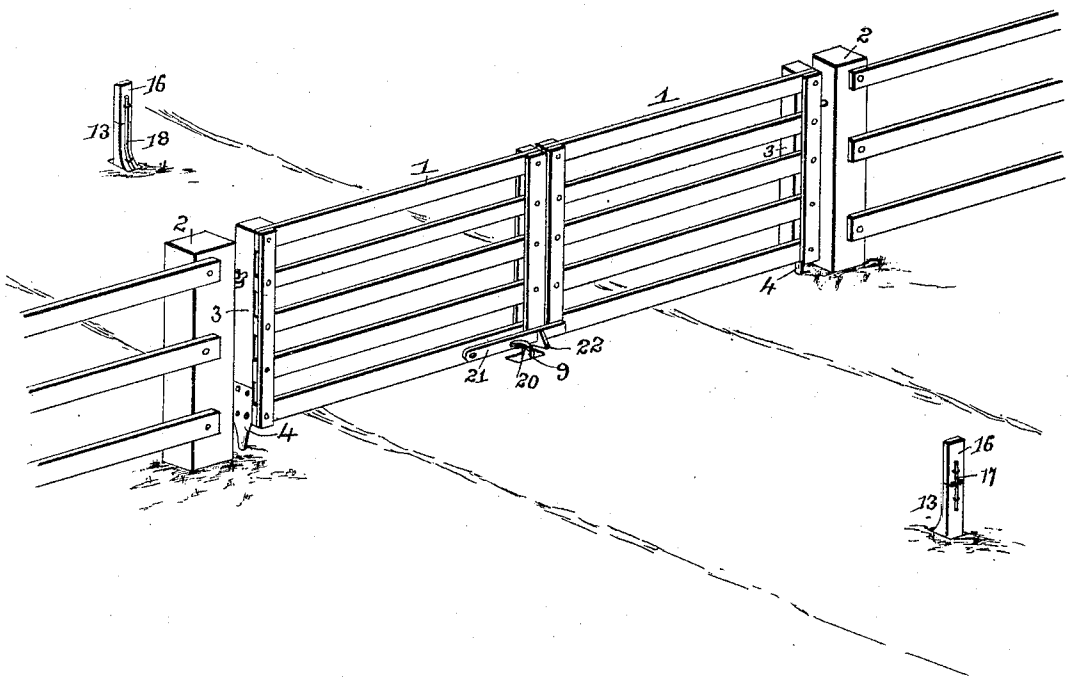
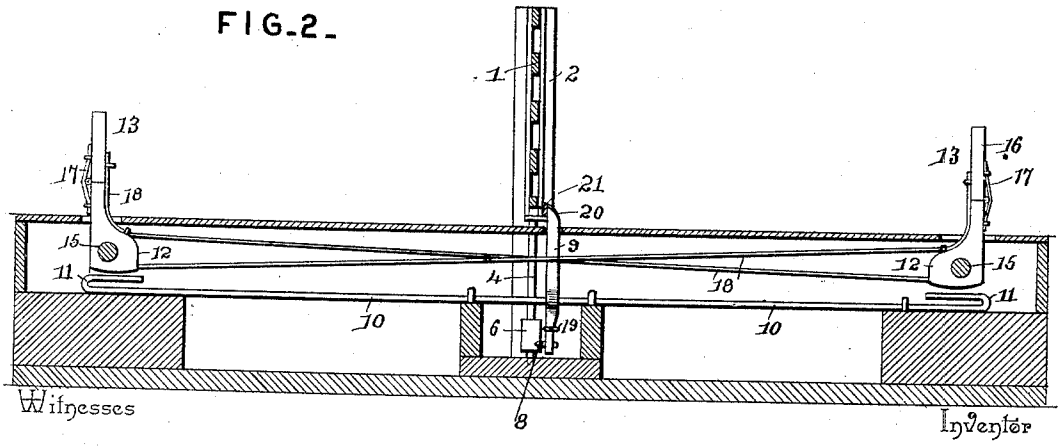


FIG. 2.



Witnesses

Jas. K. McCathran

N. F. Daley

Inventor

Randolph E. Slawson

By his Attorneys,

C. A. Snow & Co.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

R. E. SLAWSON.

AUTOMATIC GATE.

No. 482,462. Patented Sept. 13, 1892.

FIG. 3.

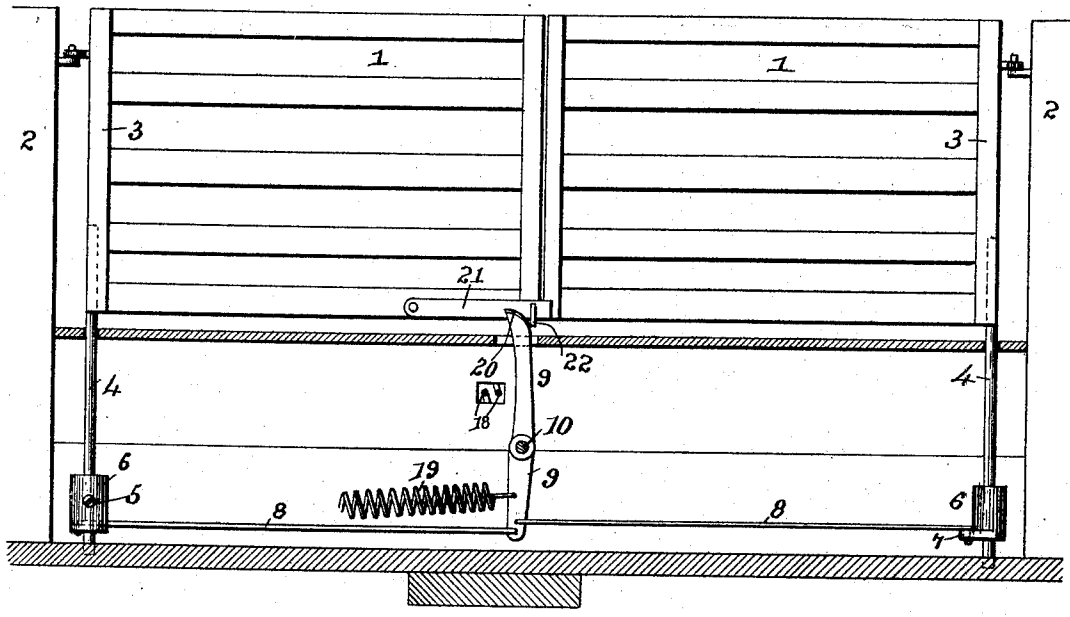
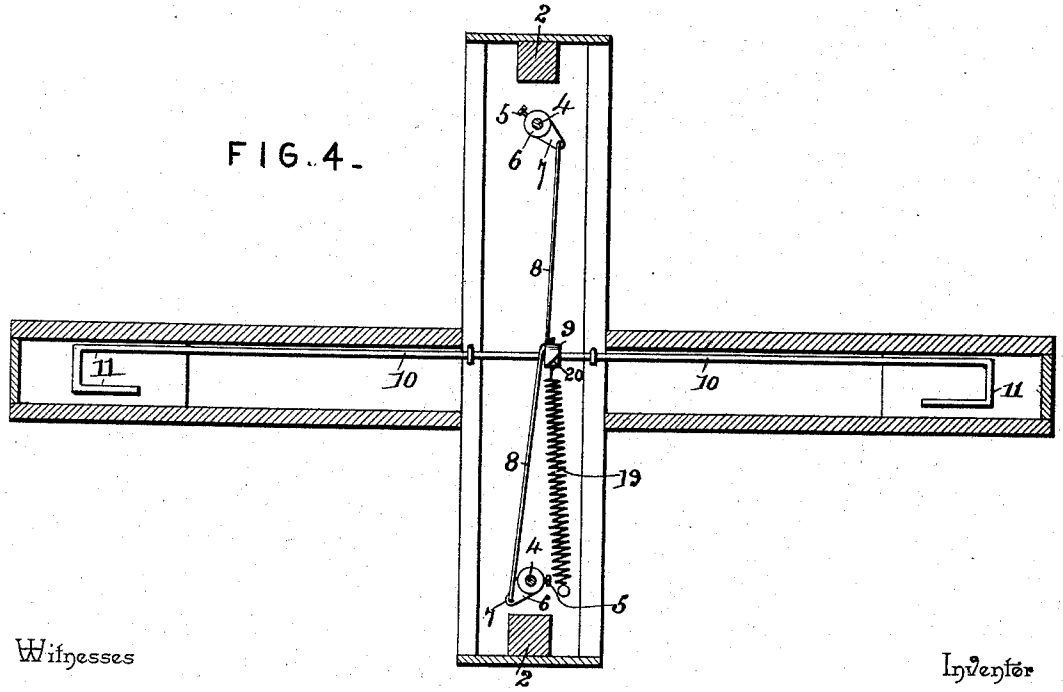


FIG. 4.



Witnesses

Jas. K. McCathran
H. P. Riley

Inventor

Randolph E. Slawson

By his Attorneys,

C. A. Snow & Co.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RANDOLPH E. SLAWSON, OF DAVENPORT, NEBRASKA.

AUTOMATIC GATE.

SPECIFICATION forming part of Letters Patent No. 482,462, dated September 13, 1892.

Application filed December 12, 1891. Serial No. 414,823. (No model.)

To all whom it may concern:

Be it known that I, RANDOLPH E. SLAWSON, a citizen of the United States, residing at Davenport, in the county of Thayer and State of Nebraska, have invented a new and useful Automatic Gate, of which the following is a specification.

The invention relates to improvements in automatic gates.

The object of the present invention is to provide a simple and inexpensive gate which will be readily opened by an approaching vehicle and which will remain open until a vehicle has passed through and which will be closed by a vehicle after passing through.

The invention consists in the construction and novel combination and arrangement of parts 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 longitudinal sectional view. Fig. 3 is a transverse sectional view. Fig. 4 is a horizontal sectional view.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 1 designate gates hinged to posts 2 and having their end bars 3 provided with depending stems or portions 4, which are journaled in suitable bearings and have secured to them by set-screws 5, sleeves 6, provided with arms 7, and connected to the arms 7 are rods 8, which oscillate the arms and open and close the gates. The rods 8 extend across the gateway, and they have their inner ends attached to a depending arm 9 of a rock-shaft 10, which extends on a line with the roadway and is provided at its ends with angle-arms 11, arranged to be engaged and to be depressed by cam-levers 13, whereby the rock-shaft is turned and the gates are opened. The cam-levers 13 are pivotally mounted above the ends and arms 11 of the rock-shaft and are provided at their fulcrumed ends with enlargements 12, which form cams and are adapted to engage and depress the angle-arms of the rock-shaft. When the axle of an approaching vehicles strikes one of the levers 13, it forces the lever which is struck downward and carries the cam 12 into engagement with the adjacent angle-arms, thereby turning the rock-shaft and opening the gates, which are held open until after the vehicle has passed through by the cam 12, which is arranged between the angle-arm and the pivot 15.

The levers are each provided with an outwardly-swinging hinged section 16, which is held in alignment with the other portion of the lever 13 by a spring 17, and which is connected with the cam 12 of the other lever by a wire 18, whereby a vehicle after passing through the gates will swing the hinged section of the farther lever outward, thereby drawing the cam of the other lever out of engagement with the arm of the rock-shaft by means of the wire which connects the levers. The gates are closed when the rock-shaft is released by a spiral spring 19, which is connected to the central depending arm 9 of the rock-shaft and which returns the latter to its initial position with the angle-arms raised. The central arm 9 of the rock-shaft is provided with a beveled projection 20, which extends upward and is adapted to engage one of the gates, that is provided at its bottom with a latch 21, to prevent the gates being accidentally forced open, and the beveled edge of the projection enables the gate to readily close and pass the same. The latch 21 has its inner end pivoted and its outer end arranged in a keeper 22 and may be readily opened by the foot of a person to enable him to open one of the gates without operating the levers. The beveled arm of the rock-shaft is adapted to engage the latch and lift the same to release the gates.

The rock-shaft and the other mechanism which is arranged in the ground are designed to be placed in a suitable box, pipe, conduit, or the like to protect them.

In the accompanying drawings the gate-operating mechanism is shown applied to a double gate; but it is equally applicable to a single gate, as will be readily understood. The levers are arranged a sufficient distance from the gates to allow an approaching vehicle to trip a lever and to leave room for the gates to swing open.

It will be seen that I may, without departing from the spirit of the invention, apply the

improvements to a single gate, and in such an arrangement the latch 21 would be located adjacent to the latch-post.

What I claim is—

1. The combination of a swinging gate provided with a horizontally-extending arm, a rock-shaft disposed longitudinally of the roadway and provided with an intermediate arm connected with the said arm of the gate and having terminal arms, and levers adapted to be moved by a vehicle-axle and arranged to engage the terminal arms to turn the rock-shaft, substantially as described.

2. The combination of a swinging gate having a depending portion and provided with an arm extending therefrom, a rock-shaft arranged at right angles to the gate and provided at its ends with arms and having a centrally-arranged arm, a rod connecting the central arm of the rock-shaft with the arm of the gate, and cam-levers pivotally mounted above the ends of the rock-shaft and arranged to be operated by a vehicle to depress the arms at the ends of the rock-shaft, substantially as described.

3. The combination of a swinging gate having a depending portion and having an arm extending therefrom, a rock-shaft provided at its ends with arms and having intermediate of its ends an arm 9, connected with the arm of the gate, levers mounted above the ends of the rock-shaft and adapted to depress its terminal arms and provided with outwardly-swinging hinged sections, and connections between the hinged section of one lever and the body of the other lever, substantially as described.

4. The combination of a swinging gate having a depending portion and provided with an arm extending therefrom, a rock-shaft provided intermediate of its ends with an arm connected with the arm of the gate and having at its ends arms, cam-levers mounted above the ends of the rock-shaft and arranged to depress its arms and provided with outwardly-swinging hinged sections, connections between the hinged section of one lever and the cam of the other lever, and springs for holding the hinged section in alignment with the other portions of the levers, substantially as described.

5. The combination of the swinging gates provided with horizontally-extending arms, a rock-shaft disposed longitudinally of the roadway and provided intermediate of its ends with a beveled projection and with an arm connecting with the said arms, said rock-shaft having terminal arms, the axle-operated levers arranged to engage the terminal arms, and a latch mounted on one of the gates and adapted to engage the other and arranged to be engaged by the said beveled projection, 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.

RANDOLPH E. SLAWSON.

Witnesses:

E. DELANEY,

W. F. UZZELL.