

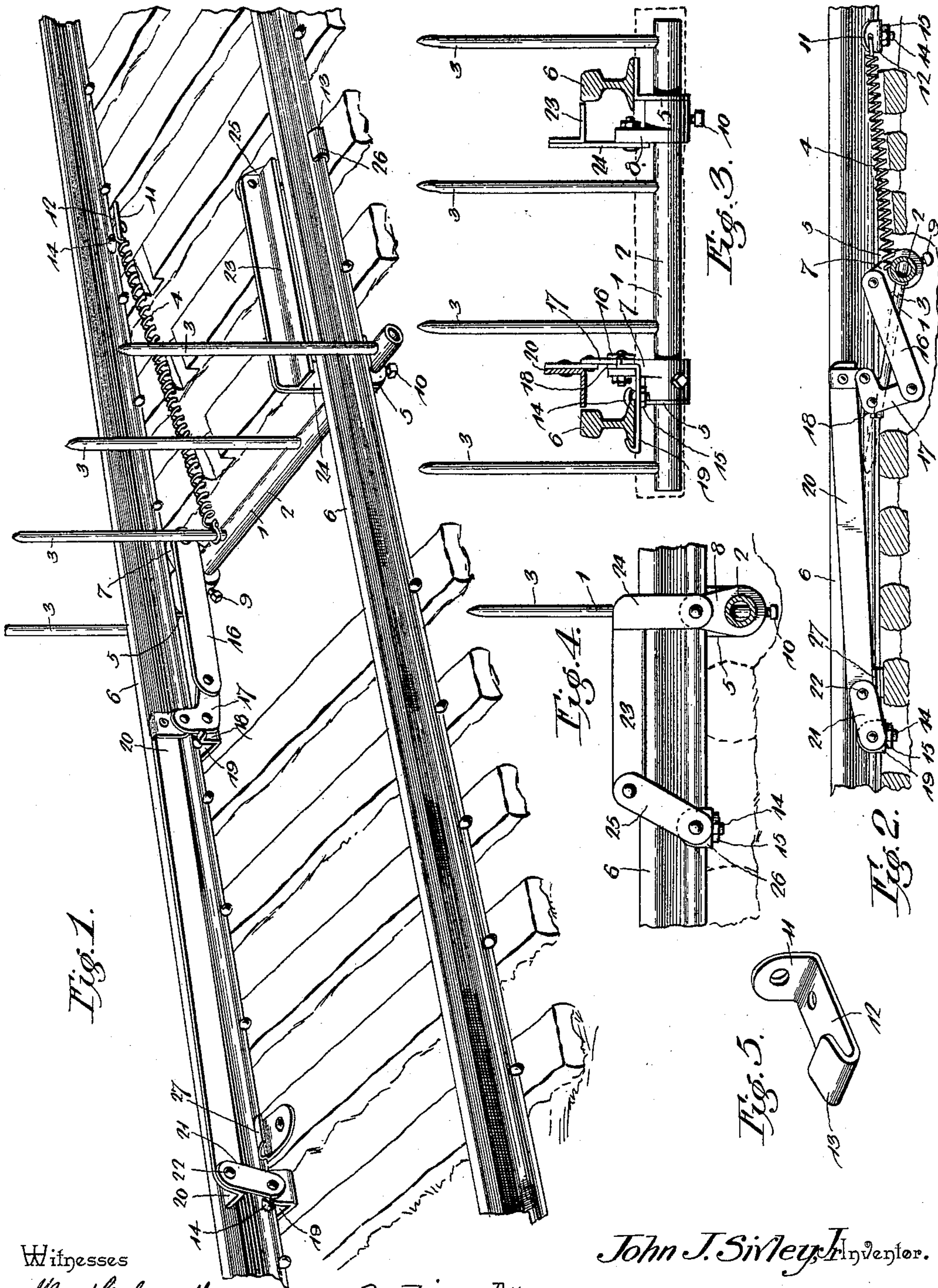
No. 614,506.

Patented Nov. 22, 1898.

J. J. SIVLEY, JR.
RAILWAY CATTLE GUARD.

(Application filed July 22, 1898.)

(No Model.)



Witnesses

Kaufmann & Co.

J. J. Sivley, Jr.

By His Attorneys,

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UNITED STATES PATENT OFFICE.

JOHN J. SIVLEY, JR., OF CLARKSVILLE, TEXAS.

RAILWAY CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 614,506, dated November 22, 1898.

Application filed July 22, 1898. Serial No. 686,627. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. SIVLEY, Jr., a citizen of the United States, residing at Clarksville, in the county of Red River and State of Texas, have invented a new and useful Railway Cattle-Guard, of which the following is a specification.

The invention relates to improvements in railway cattle-guards.

10 The object of the present invention is to improve the construction of railway cattle-guards and to provide a simple, inexpensive, and efficient one which will be positive and reliable in operation, adapted to be readily
15 applied to a railroad-track, and capable of remaining normally closed to prevent cattle from leaving one field or inclosure and entering another by way of a railroad-track.

20 Another object of the invention is to enable the railroad cattle-guard to be readily opened by a train approaching in either direction.

25 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.

30 In the drawings, Figure 1 is a perspective view of a cattle-guard constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view. Fig. 4 is a detail view illustrating the manner of supporting the shorter operating-bar. Fig. 5 is a detail perspective view of one of the clamps for
35 engaging the rails.

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

40 1 designates a gate comprising a shaft 2 and a series of pickets 3, mounted on the shaft and extending upward therefrom and maintained normally in an elevated position transversely of a track by a coiled spring 4, connected with one of the pickets or rods 3 and
45 with the adjacent rail. The shaft or connecting-bar 2, which forms the bottom of the gate, is journaled in suitable bearings 5, which are mounted on and depend from rails 6, and the
50 said rod or shaft is provided with arms 7 and 8, located adjacent to the inner faces of the rails and connected with operating mechan-

ism whereby the gate is rocked in its bearings to open and close it.

The arms 7 and 8 are provided with collars 55 and are secured to the bottom of the gate by clamping-screws 9 and 10, and the spring, which holds the gate normally closed, is preferably connected with one of the pickets or rods. The outer end of the spring is linked 60 into a perforated lip 11 of a clamp 12, consisting of a plate provided at its outer end with a jaw 13, and a screw or bolt 14, arranged near the inner end of the plate. The jaw engages the outer portion of the bottom flange 65 of the rail, and the head of the nut or screw engages the inner portion of the same, a nut 15 being preferably arranged on the lower end of the bolt or screw at the lower face of the clamp. 70

The gate in opening swings away from the spring, distending the same, and the arm 7 is connected by a link, bar, or rod 16 to one arm of a bell-crank lever 17, which is fulcrumed at its angle on a lip 18 of a clamp 19. The 75 other end or arm of the bell-crank lever extends upward for supporting a depressible operating-bar 20, constructed of angle-iron and located adjacent to the inner edge of the top portion or head of one of the rails in position to be engaged by the wheels of a train. 80 One of the flanges of the operating-bar 20 is disposed in a horizontal position, and the other flange is vertical and is disposed at the back of the bar and is perforated for the attachment of the supporting devices. The 85 inner end of the bar 20 is preferably provided with a depending plate or piece forming an ear and pivoted to the upper arm of the bell-crank lever, and the outer end of the depressible bar 20 is connected with the upper 90 end of an inclined link 21 by a suitable pivot 22, the lower end of the link being pivoted to the lip of a clamp 19, similar to the clamp for supporting the bell-crank lever. The clamps 95 19, which are located at the ends of the depressible bar 20, are constructed the same as the clamp 12, heretofore described. When the depressible bar 20 is engaged by the wheels of a train, it is moved downward and 100 is also pushed in the direction of the gate, which is rocked toward the bar 20, and the latter is designed to be of sufficient length to permit the gate to open completely before a

train passes over it. The arm 8, which is located at the other side of the track, is connected with a short depressible operating-bar 23, constructed of angle-iron and provided at its inner end with a depending arm 24, which is pivoted to the said arm 8 of the gate. The other end of the short depressible arm 23 is supported by a link 25, disposed at an inclination and pivotally mounted on a lip of a clamp 26.

The downward movement of the outer end of the long depressible bar is limited by a resilient stop or cushion 27, consisting of a plate secured to the adjacent cross-tie and having one end bent inward upon itself, forming a resilient arm. The resilient arm, which is located above the body portion of the plate 27, is arranged to receive the outer end of the bar 20 when the same is depressed.

The invention has the following advantages: The railway cattle-guard, which is simple and comparatively inexpensive in construction, is positive and reliable in operation and is capable of automatic action. The gate is normally arranged in a vertical position, and it is adapted to extend across and beyond a railroad-track and prevent cattle from leaving one field or inclosure and entering another by way of a railroad-track.

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, such as reversing the operating mechanism to enable the gate to swing in the opposite direction.

What I claim is—

1. In a device of the class described, the combination with a gate journaled at the bottom and provided with an arm, a bell-crank lever fulcrumed at its angle and having one arm connected with the arm of the gate, a depressible operating-bar connected at its inner end with the other arm of the bell-crank lever and supported by the same, and a link supporting the other end of the depressible bar, substantially as described.

2. In a device of the class described, the combination of a gate journaled at the bottom, a bell-crank lever fulcrumed at its angle and having one arm connected with the

gate, a depressible operating-bar connected at its other end with the arm of the bell-crank lever, a link supporting the outer end of the depressible bar and a spring connected with the gate and holding the same normally closed, substantially as described.

3. In a device of the class described, the combination of a gate journaled at the bottom, and provided with arms 7 and 8, a short depressible bar provided at its inner end with an arm pivoted to the arm 8 of the gate, the long depressible bar located at the other side of the gate, links supporting the outer ends of the depressible bars, a bell-crank fulcrumed at its angle and having one arm connected with and supporting the inner end of the long depressible bar, and a connecting-bar extending from the other arm of the bell-crank lever to the arm 7 of the gate, substantially as described.

4. In a device of the class described, the combination with a gate, of clamps, each composed of a plate provided at its inner end with a lip and having a jaw at its outer end to engage the outer portion of the bottom flange of a rail, and a headed fastening device mounted on the plate and arranged to engage the inner edge of the bottom flange of the rail, a depressible bar supported by the lips of the clamps, and connections between the depressible bar and the gate, substantially as described.

5. In a device of the class described, the combination of a gate journaled at the bottom, a bell-crank lever fulcrumed at its angle and having one arm connected with the gate, a depressible bar connected with the other arm of the bell-crank lever, a link supporting the outer end of the depressible bar, and a resilient stop located beneath the depressible bar and consisting of a plate having one end bent inward upon itself to form a resilient arm, 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.

JOHN J. SIVLEY, JR.

Witnesses:

A. M. GRAVES,
M. L. SINN, Jr.