

No. 815,379.

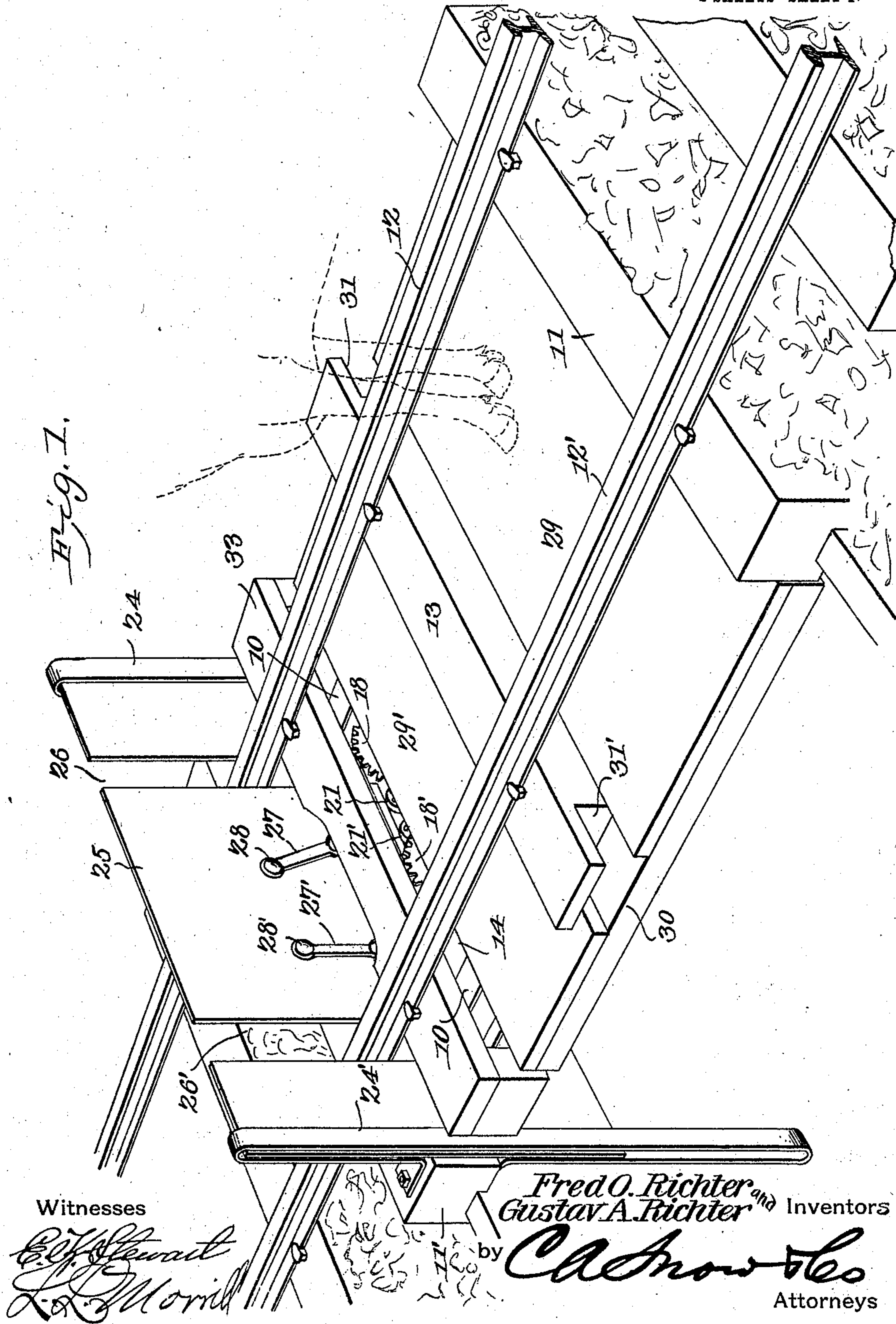
PATENTED MAR. 20, 1906.

F. O. & G. A. RICHTER.

CATTLE GUARD.

APPLICATION FILED AUG. 31, 1905.

2 SHEETS—SHEET 1.



No. 815,379.

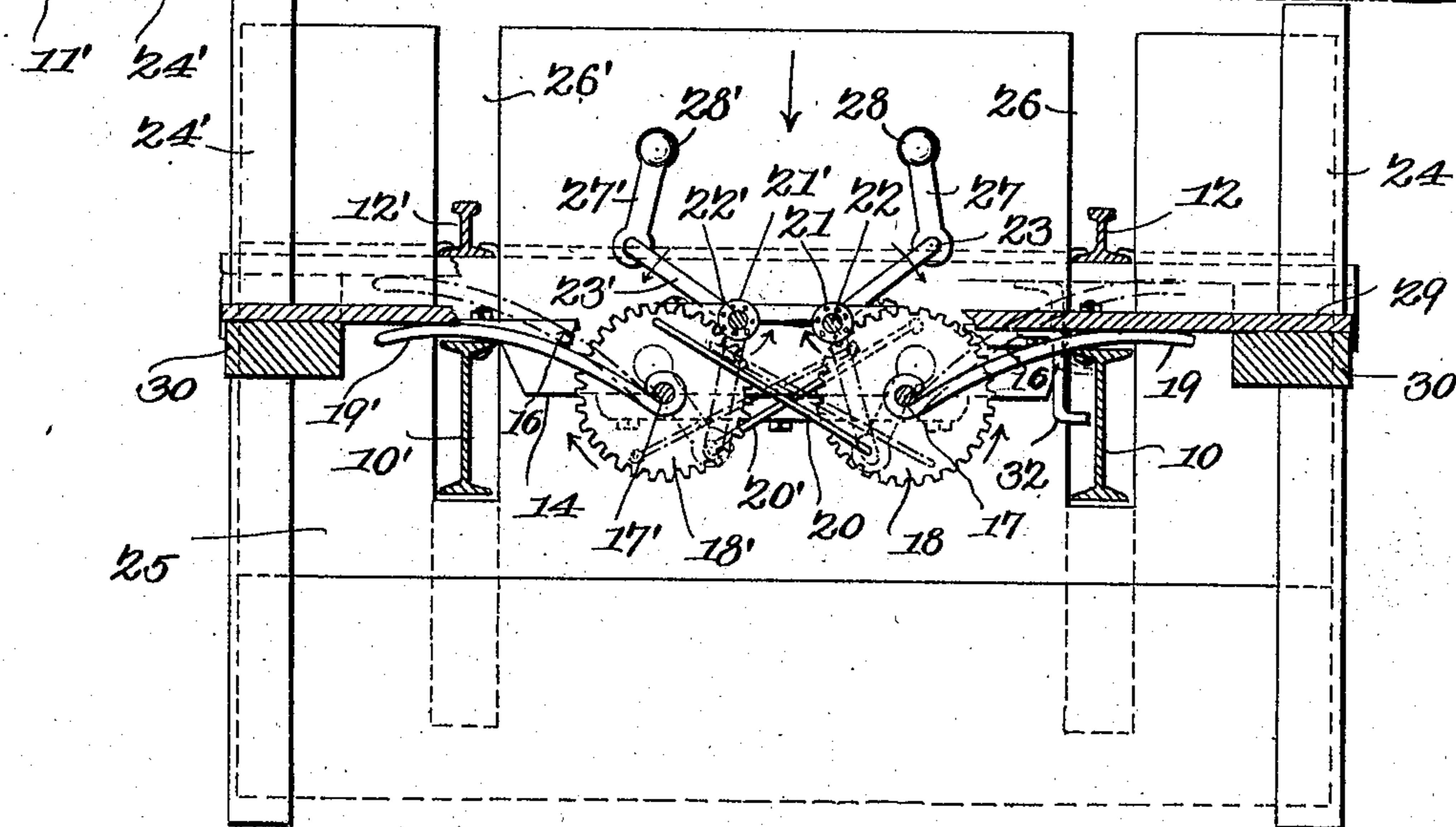
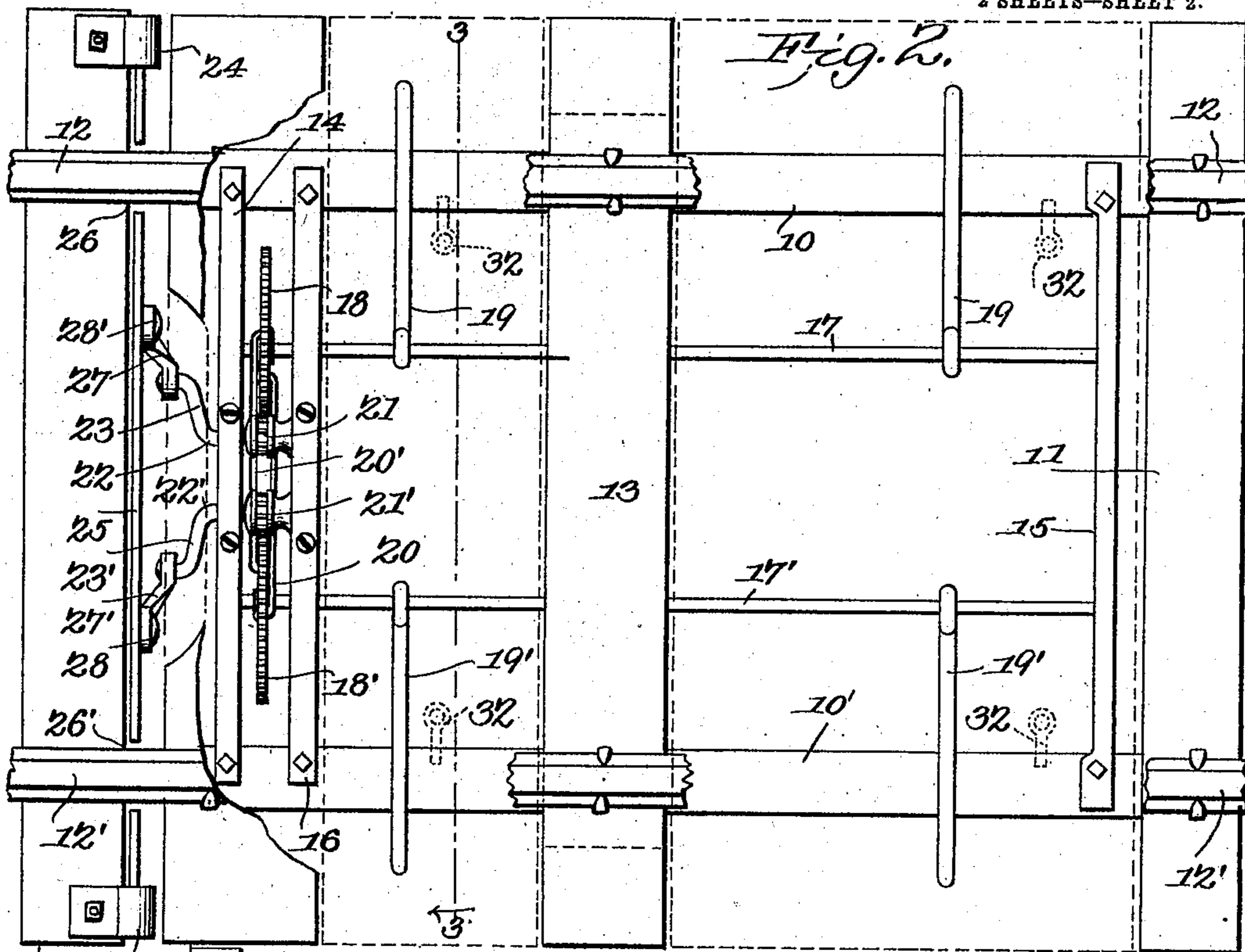
PATENTED MAR. 20, 1906.

F. O. & G. A. RICHTER.

CATTLE GUARD.

APPLICATION FILED AUG. 31, 1905.

2 SHEETS—SHEET 2.



Witnesses

E. J. Stewart
L. J. Morrill.

Fred O. Richter and
Gustav A. Richter

Inventors

by

C. A. Snow & Co.

Attorneys

UNITED STATES PATENT OFFICE.

FRED OTTO RICHTER AND GUSTAV ADOLPH RICHTER, OF BUCKHOLTS, TEXAS.

CATTLE-GUARD.

No. 815,379.

Specification of Letters Patent.

Patented March 20, 1906.

Application filed August 31, 1905. Serial No. 276,633.

To all whom it may concern:

Be it known that we, FRED OTTO RICHTER and GUSTAV ADOLPH RICHTER, citizens of the United States, residing at Buckholts, in the county of Milam and State of Texas, have invented a new and useful Cattle-Guard, of which the following is a specification.

This invention relates to cattle-guards, and has for an object to provide a device of the class embodying new and improved features of reliability, utility, and efficiency.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made without departing from the spirit or sacrificing any of the advantages of this invention.

In the drawings, Figure 1 is a perspective view of the improved cattle-guard with the gate raised by an animal shown thereon in dotted lines. Fig. 2 is a top plan view of the operating mechanism with the platforms shown in dotted lines and the rails broken away. Fig. 3 is a transverse sectional view taken on line 3 3 of Fig. 2, showing the gate raised and in dotted lines the position of the parts with the gate depressed.

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

In its preferred embodiment the improved cattle-guard forming the subject-matter of this application is carried upon a pair of beams 10 10', engaging stationary abutments 11 11', which form cross-ties for the support of rails 12 12' and, with the cross-tie 13, carried on the beams 10 10', support the rails intermediate the abutments. To the beams adjacent their ends are secured cross-bars 14 and 15 and a third cross-bar 16, spaced from the bar 14. Between and to the cross-bars 14 and 15 are journaled the shafts 17 17', extending parallel with the beams 10 10' and carrying the gears 18 18' rigidly thereon between the bars 14 and 16. Rigidly secured to the shafts 17 17' are the curved levers 19 19' in any approved number and extending outwardly above the beams 10 10' and beneath

the rails 12 12'. To cause the shafts 17 17' and the gears 18 18' to move simultaneously and oppositely when any one of the levers 19 19' is depressed, the gears are connected by the links 20 20', pivotally connected to and extending from the upper side of each gear to the lower side of the other. Engaging the gears 18 18' are the pinions 21 21', mounted upon shafts 22 22', journaled on the cross-bars 14 and 16 and having crank-arms 23 23' extending beyond the bar 14 and toward the abutment 11'.

To the abutment 11' are secured the vertical guides 24 24', wherein is mounted to slide vertically a gate 25, provided with slots 26 26', embracing the beams 10 10' and the rails 12 12'. The crank-arms 23 23' are connected with the gate 25 by means of the links 27 27', pivoted to the gate, as by the pins 28 28'.

Upon the levers 19 19' are supported the platforms 29 29' between the beams 10 10' and the rails 12 12' and connected, if preferred, by a cleat, as 30. The cross-tie 13 may be provided with shoulders 31 31' to engage the cleat 30 and prevent a displacement of the platforms. The platforms may be further secured by hooked members 32, secured to the under sides thereof and engaging beneath the beams 10 10'. To cover the gearing, a plank 33 may be secured beneath the rails and adjacent the gate.

In Figs. 1 and 3 the gate is shown in a raised position and the associated parts in the positions assumed when the gate is at the extreme of its upward movement. When the weight is removed from the platforms, the weight of the gate forces the crank-arms 23 23' downward, as indicated by the arrows, thereby rotating the pinions 21 21', the gears 18 18', and the levers 19 19', as indicated by their respective arrows, and to the positions indicated in dotted lines and raising the platforms 29 29' to the level of the cross-ties 11 11' and 13, leaving the track unobstructed and the platforms in position to be depressed. It is evident that an application of a weight to the platforms will move the parts in reverse order and raise the gate.

As the levers 19 are all rigidly secured to one shaft and the levers 19' to the other and as the rotary movement of one shaft moves

the other, it is obvious that the application of weight to any point of either platform will serve to raise the gate.

Having thus described the invention, what is claimed is—

1. The combination with a railway-track, of a depressible platform disposed beneath the same, laterally-extending arms engaging the platform and a vertically-slidable gate operatively connected with the arms and movable to operative position when the platform is depressed.

2. The combination with a railway-track, of a depressible platform disposed beneath the same, shafts extending longitudinally of the track, laterally-projecting arms secured to the shafts and bearing against the bottom of the platform, and a vertically-slidable gate operatively connected with the shafts and movable to operative position when the platform is depressed.

3. The combination with a railway-track, of a depressible platform, shafts disposed beneath the platform and provided with gear-wheels, links connecting said gear-wheels, laterally-extending arms secured to the shafts and bearing against the bottom of the platform, a vertically-slidable gate, and pinions meshing with the gear-wheels and operatively connected with the gate for moving the latter to operative position when the platform is depressed.

4. The combination with a railway-track, of a depressible platform, shafts extending longitudinally of the track and provided with gear-wheels, laterally-extending arms secured to the shafts and adapted to bear against the bottom of the platform, pinions meshing with the gear-wheels, a vertically-slidable gate, and crank-arms carried by the pinions and pivotally connected with the gate for moving the latter to operative position when the platform is depressed.

5. The combination with a railway-track, of supporting-beams extending longitudinally of the track, transverse braces connecting the longitudinal beams, shafts journaled in the braces and provided with gear-wheels, a depressible platform, laterally-extending arms secured to the shafts and bearing against the bottom of the platform, a vertically-slidable gate, links pivoted to one side of the gate, and pinions meshing with the gear-

wheels and provided with crank-arms the ends of which are pivotally connected to the links for moving the gate to operative position when the platform is depressed.

6. The combination with a railway-track, of the cross-ties some of which are provided with recesses, a depressible platform disposed between the cross-ties, and a vertically-slidable gate operatively connected with the platform and movable to operative position when the latter is depressed, the upward movement of the platform being limited by engagement with the walls of said recesses.

7. In a cattle-guard, a vertically-sliding gate, angularly-movable arms connected with and to move the gate, shafts rotatably mounted, gears connecting the shafts and arms whereby a rotary movement of the shafts moves the arms, levers rigidly mounted upon the shafts, and a platform so mounted upon the levers that a weight thereon rotatably moves the shaft.

8. The combination with a railway-gate, of shafts extending longitudinally of the track and provided with spaced gear-wheels connected by diagonally-disposed links, laterally-extending arms secured to the shafts, a depressible platform supported by said arms, and a vertically-slidable gate operatively connected to the gate and movable to operative position when the platform is depressed.

9. The combination with a railway-track, of the cross-ties, vertical guides secured to the ends of one of the cross-ties, a gate mounted for vertical movement between said guides, a depressible platform, shafts extended longitudinally of the track and provided with spaced gear-wheels connected by diagonal braces arms extending laterally from the shafts and bearing against the bottom of the platform, and pinions meshing with the gear-wheels and provided with crank-arms operatively connected with the gate for moving the latter to operative position when the platform is depressed.

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

FRED OTTO RICHTER.

GUSTAV ADOLPH RICHTER

Witnesses:

W. R. NEWTON,

E. C. JOHLE.