

(No Model.)

L. HILLS.
CATTLE GUARD.

No. 501,785.

Patented July 18, 1893.

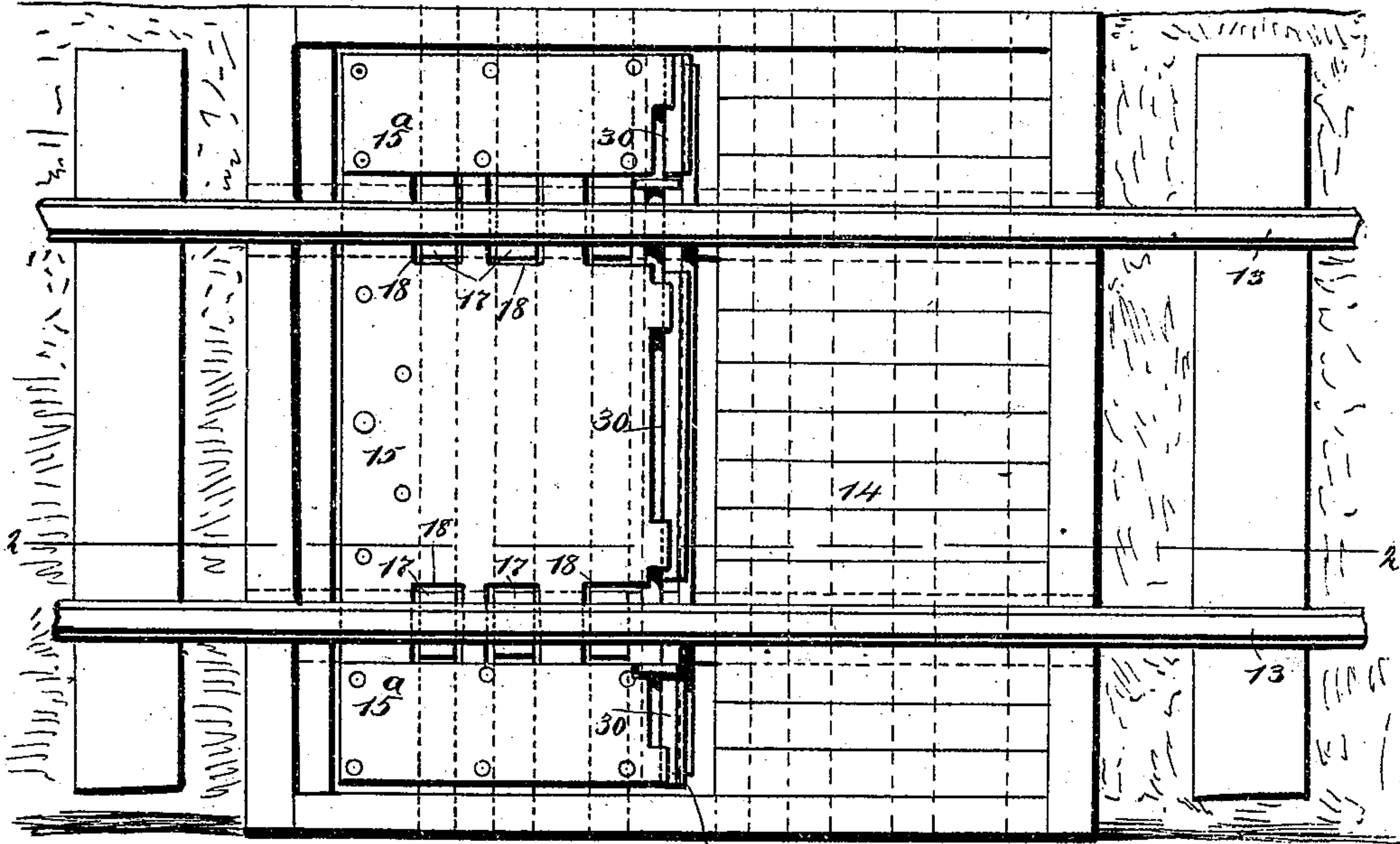


Fig. 1.

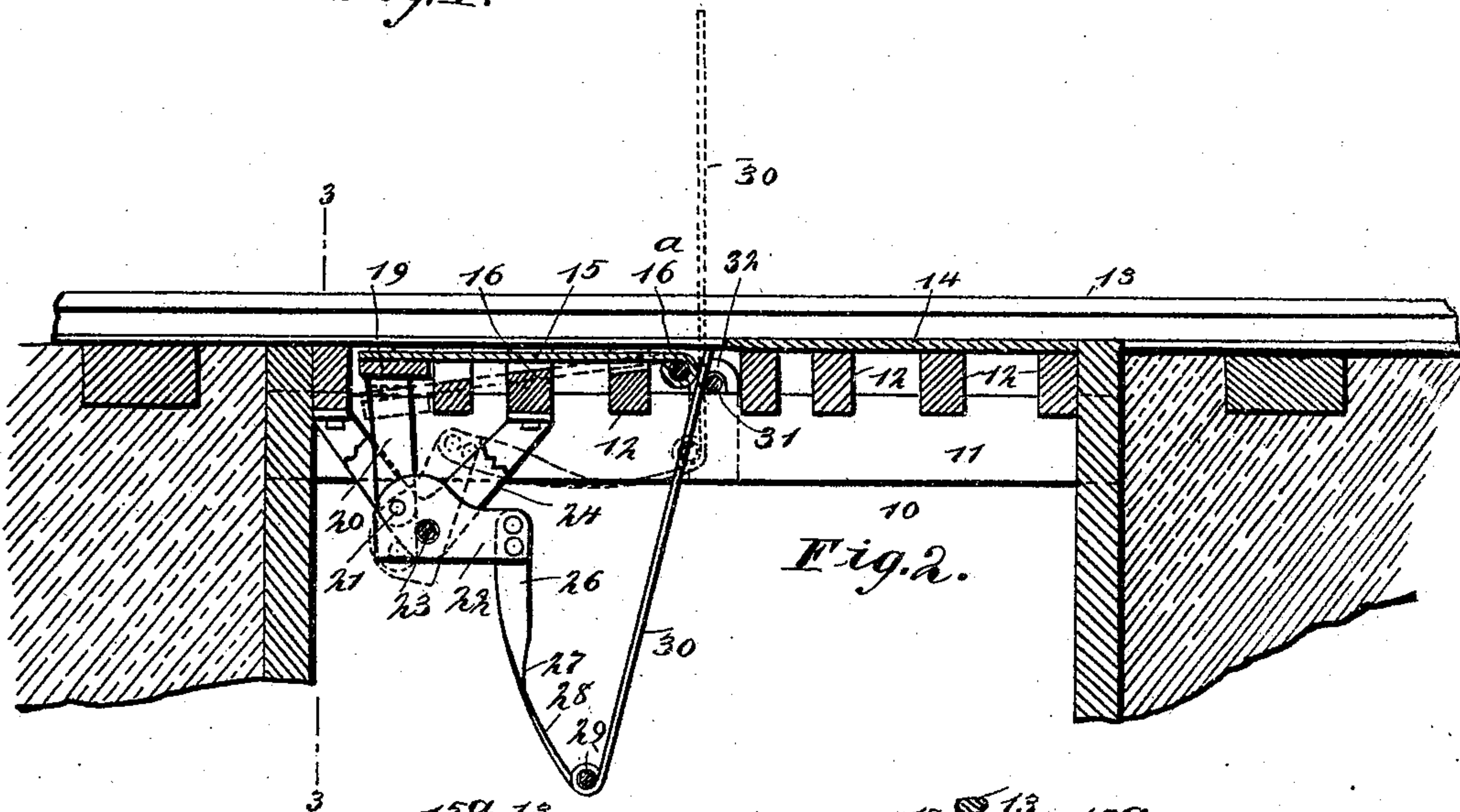


Fig. 2.

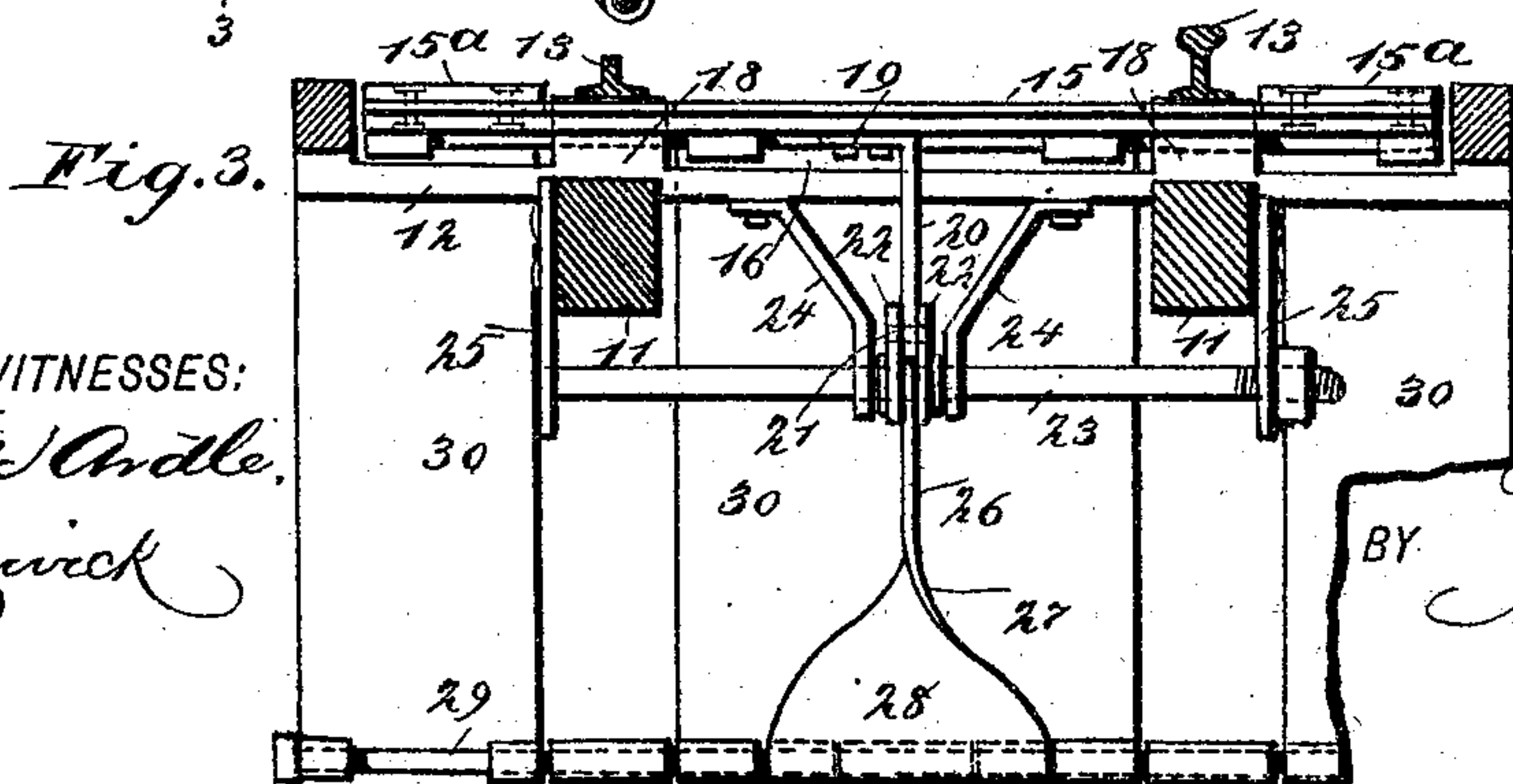


Fig. 3.

WITNESSES:

E. M. Childs.
C. Sedgwick

INVENTOR.

L. Hills

BY

Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

LORENZO HILLS, OF PITTSBURG, TEXAS.

CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 501,785, dated July 18, 1893.

Application filed March 13, 1893. Serial No. 465,778. (No model.)

To all whom it may concern:

Be it known that I, LORENZO HILLS, of Pittsburg, in the county of Camp and State of Texas, have invented new and useful Improvements in Cattle-Guards, of which the following is a full, clear, and exact description.

My invention relates to improvements in cattle guards for railways.

It is customary on railroads, to arrange cattle gaps or guards at points opposite fences running at right angles to the railway, so as to prevent cattle from wandering upon the track, and endangering themselves and the safety of the train.

The object of my invention is to produce a simple apparatus which may be applied conveniently and economically to a cattle gap, and which will prevent cattle from getting their legs caught between the sleepers above the gap, which will also prevent cattle from passing over the gap, and which will frighten the cattle from the track.

To these ends my invention consists in certain features of construction and combinations of parts, which will be hereinafter described and pointed out in the claims.

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

Figure 1 is a plan view of the apparatus embodying my invention. Fig. 2 is a longitudinal section along the track and through the gap, on the line 2—2 in Fig. 1; and Fig. 3 is a cross section on the line 3—3 in Fig. 2.

The railroad is provided with the customary gap 10 made beneath the track, and this gap is spanned by sills 11, on which the sleepers 12 are supported, these being arranged beneath the track rails 13 in the usual way. One part of the gap is covered by a fixed platform 14, and the other part (which is the side from which the cattle are likely to approach) is covered by a vertically movable platform 15, which extends beneath the rails and across the track, this platform being preferably strengthened by end cleats 15^a, and it is hinged at one edge on the cross-rod 16^a, which is supported in suitable bearings on the sills 11. The sleepers beneath the swinging platform 15 are recessed, as shown at 16 in Figs. 2 and 3, to provide for the movement of the plat-

form, and the sleepers rise to the full height beneath the rails, as shown at 17, and the platform is therefore cut away at these points, as shown at 18, so as to permit it to swing freely. On the under side of the platform, near its free edge, is a cleat 19, to which is secured a depending arm 20, which at its lower end is pivoted as shown at 21, between parallel tilting arms 22 which oscillate on a supporting shaft 23, which extends through the gap parallel with the sleepers, and is supported in hangers 24 and 25. It will be understood that one arm 22 may be used instead of two, but two or more are preferably employed, as this arrangement is stronger, and the other parts are easily connected between the arms.

To the inner ends of the arms 22, which practically form a single arm, is fastened a depending brace 26, which is twisted near the center, as shown at 27, and is widened out at the bottom, as shown at 28, its lower end being secured to a rod 29 which extends parallel with the shaft 23, and which carries upwardly-extending guard strips 30, which are adapted when swung upward, to project between the platforms 14 and 15, and to rise to a full height to prevent cattle from passing them. There are preferably three of these guard strips 30, one being arranged to move upward between the rails 13, and the other two being disposed outside of the rails, and they are held to move between the shaft 16^a and the guide rod 31 which extends parallel with the shaft and is held in suitable keepers 32 on the sills 11. The guard strips are preferably of metal which is of sufficient stiffness to stand upright, but which under any heavy pressure will bend over, so that in case there is a stampede of cattle when the guard strips are up, the cattle may push over the guard strips and pass them without injury, after which the guard strips may be bent up again ready for use. The guard strips 30 should be painted some bright color so that when suddenly thrust upward they will frighten the creature actuating them so that said creature will leave the track.

The operation of the guard is as follows: When a creature steps upon the movable platform 15, the platform is depressed, thus swinging down one end of the arms 22 and lifting the other, as shown by dotted lines in

Fig. 2, and this movement carries upward the
brace 26 and rod 29, so as to thrust the guard
strips 30 above the track, as shown by dotted
lines in Fig. 2. The arrangement described
5 is adapted for use where the cattle are likely
to approach from one side only, but it will be
understood that if cattle are likely to ap-
proach from both sides of the gap, the appa-
ratus may be duplicated so that there will be
10 a movable platform on each side of the gap,
and guard strips for each platform, these be-
ing actuated as described.

It will be understood that the sleepers or
ties may be dispensed with and the sills 11
15 arranged to support both the rails and the
platform 15, the sills being suitably recessed
and the platform cut away to permit the nec-
essary movement of the latter.

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

1. The combination, with a railway track,
of a swinging platform pivoted thereon, a tilt-
ing arm arranged beneath the platform, a con-
25 necting arm extending from one end of the
tilting arm to the platform, a brace secured
to the opposite end of the tilting arm, and
guard strips carried by the brace and adapted
to be thrust upward above the track, substan-
30 tially as specified.

2. The combination, with the railway track,
of a swinging platform arranged thereon, a
tilting arm arranged beneath the platform, a
connecting arm extending from one end of

the said arm to the platform, guard strips car- 35
ried by the tilting arm and adapted to be
thrust upward above the track at one edge of
the platform, and a guide rod arranged trans-
versely on the track and adjacent to the
guard strips, substantially as specified. 40

3. The combination with a pivoted platform
provided with a depending arm at its free end,
of a pivoted arm below the platform to which
the depending arm is pivoted, a brace pro-
jecting from the pivoted arm, and guard strips 45
carried at the free end of the said brace, sub-
stantially as described.

4. The combination with a pivoted platform
provided with a depending arm, of a pivoted
arm below the platform to which the depend- 50
ing arm is pivoted, a brace secured to the in-
ner end of the pivoted arm, said brace being
twisted near its center and having its lower
end widened and secured to a rod, and guard
strips secured upon the said rod, substan- 55
tially as herein shown and described.

5. The combination with a pivoted platform
provided with a depending arm at its free end,
of a pivoted arm below the platform to the
outer end of which the depending arm is piv- 60
oted, a brace secured to the inner end of the
pivoted arm, and flexible guard strips carried
at the free end of the brace, substantially as
described.

LORENZO HILLS.

Witnesses:

ALVIN L. HILLS,
JAMES M. SMITH.