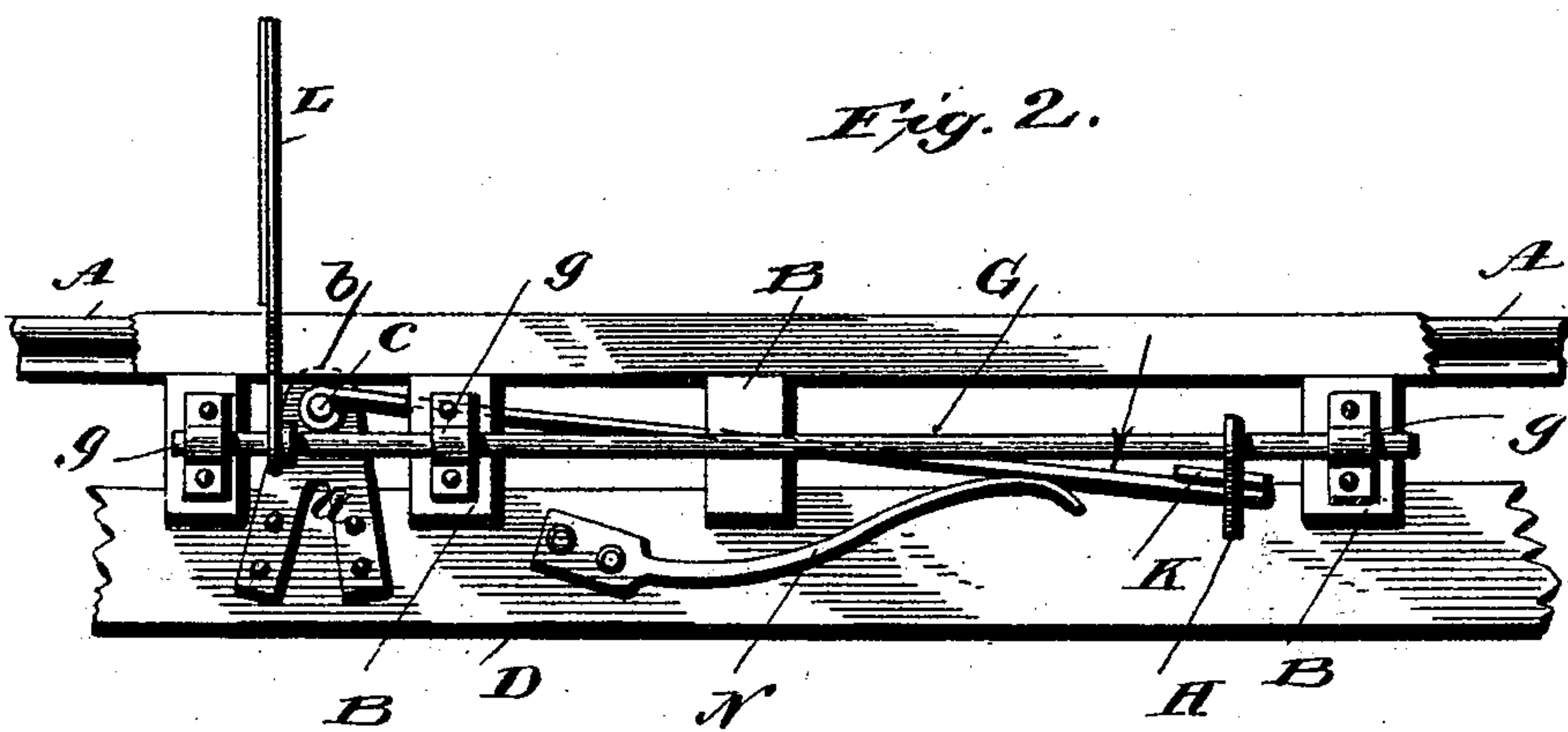
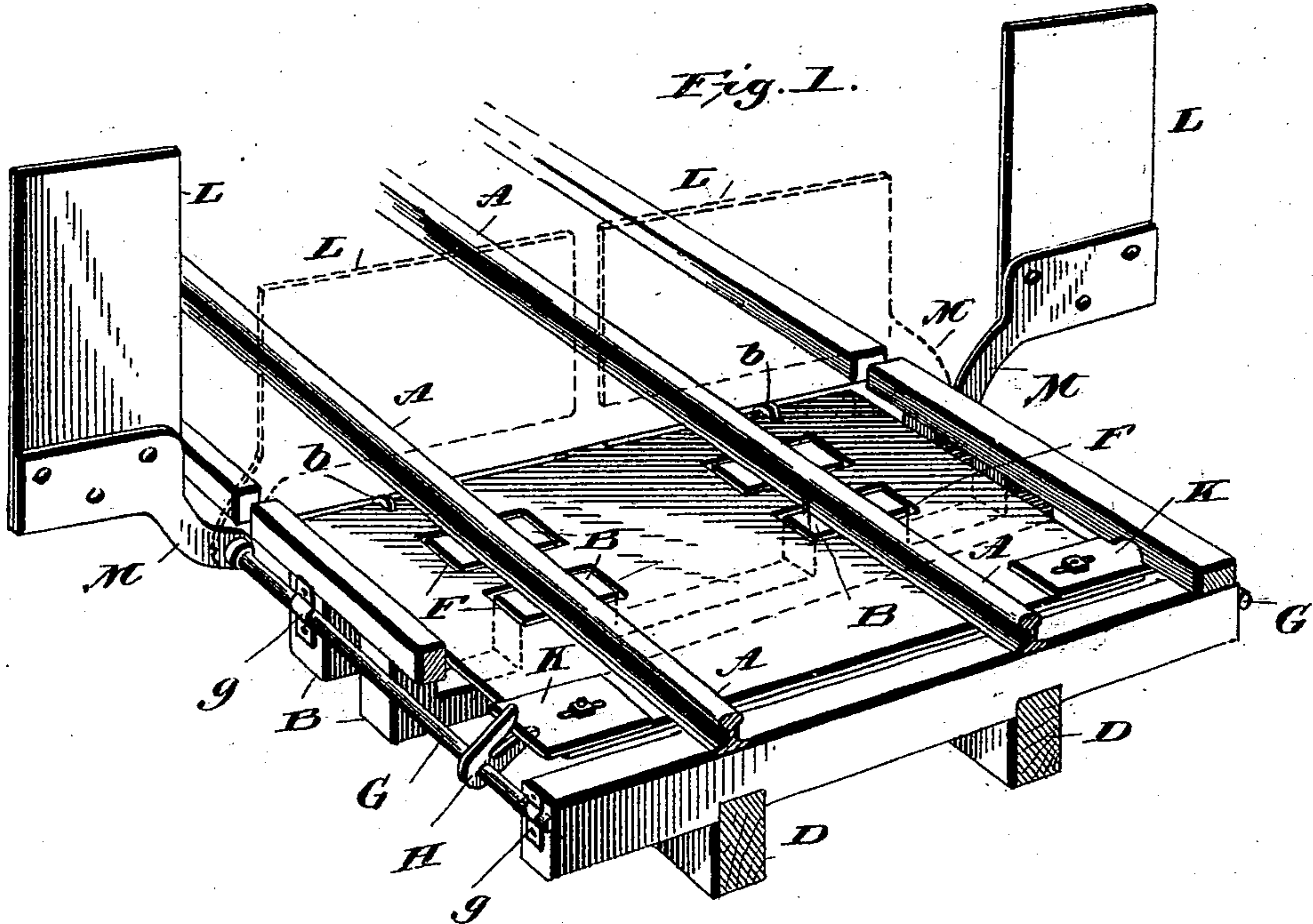


(No Model.)

L. HILLS.
CATTLE GUARD.

No. 516,307.

Patented Mar. 13, 1894.



Witnesses:

Louis C. Hills
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UNITED STATES PATENT OFFICE.

LORENZO HILLS, OF PITTSBURG, TEXAS.

CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 516,307, dated March 13, 1894.

Application filed December 20, 1893. Serial No. 494,148. (No model.)

To all whom it may concern:

Be it known that I, LORENZO HILLS, a citizen of the United States, residing at Pittsburg, in the county of Camp and State of Texas, have invented certain new and useful Improvements in Cattle-Guards; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in cattle guards for railway crossings which will positively prevent cattle from getting entangled and killed, and which under all ordinary circumstances will prevent them from passing and will not throw or trip them on the track nor endanger the safety of the trains.

In my invention I provide a platform which is hinged to a rod held in suitable bearings beneath the rails and at right angles to the same, this construction of platform being similar to the one for which I was granted a patent, No. 501,785, of July 18, 1893, and an important object of this present invention is to produce a guard which will be simple in construction and operation, and at the same time avoid the necessity of an excavation under the railway, for the mechanism and signals, which was the design in my former patent, this excavation being objectionable as it would weaken the bed of the road.

My invention consists further in the novel construction, combination and adaptation of the parts as will be hereinafter more fully described and then specifically defined in the appended claims.

I clearly illustrate my invention in the annexed drawings, which with the letters of reference marked thereon form a part of this specification, like letters of reference indicating like parts throughout both views, and in which—

Figure 1, is a perspective view of a section of a railway track with the cattle guard and platform in their relative operating positions. Fig. 2, is a side elevation, of a portion with platform depressed.

Reference now being had to the details of

the drawings by letter, A, A, represent rails supported on ties B, under which are the sills D. To the said sills at any convenient points as *a, a*, are secured the bearings *b, b*, which support the rod *c* immediately beneath the rails A, and running at right angles to the same. To this rod is hinged the platform E, which extends beneath the rails. The ties beneath the swinging platform are recessed to allow the said platform to move, and the ties immediately beneath the rails are not cut away, so that a sufficient support is provided therefor, and the platform is cut away at these points as shown at F to allow the same to swing freely.

G, G, are rods journaled in bearings secured to the ends of the ties or sleepers as shown at *g, g*, &c., and at or near the ends of said rods G, which are nearest the free end of the swinging platform, are keyed the bifurcated levers H, the extensions of said levers engaging the projections K, integral with the free end of the platform. L, L, are guards which are supported by arms M, keyed to the rods G, at points preferably opposite the hinged portion of the platform. The guards are rigidly secured to the arms M, and the said arms keyed to the rods G, so that they will be normally in a position vertical to the plane of the platform, when the platform is held against the under surface of the rails by means of the springs N, secured to the sills D, and bearing against the under surface of the platform one near each end of the same.

The construction and operation of my cattle guard will be readily understood. When the cattle come upon the platform their weight will tilt the platform; the integral projections of the platform will engage the bifurcated levers H which turn the rods G, and the guards L, will be turned at right angles to their normal position, and across the rails and meet at a point midway between them, thus preventing the cattle or stock from passing on the track. It is my intention to paint the guards in some bright color so that when they are suddenly turned down, they will startle the animals, and cause them to turn away in fright. When they have passed from off the platform, the platform will regain its former position, under the action of the

springs, and the guards return to a vertical position, and clear the track for the passage of trains.

5 In the manufacture of my guards, I make them as well as the arms M, of thin pliable material so that in case of a stampede of cattle they will readily yield to allow the stock to pass by and then spring back to their natural positions, and not be injured.

10 Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

15 1. In a cattle guard for railway crossings, the combination of a tilting platform beneath the rails of a railway, a rock shaft pivoted to the ends of two or more ties and a bifurcated lever keyed thereto, adapted to engage with an integral extension of the said platform, and the guards keyed to the said
20 rock shaft, all substantially as shown and described.

2. In a cattle guard for railway crossings, the combination of a tilting platform pivoted beneath the rails of a railway, springs bearing against the under surface of said platform, a rock shaft having suitable bearings at the ends of two or more sleepers or ties, a bifurcated lever keyed to one end of said shaft, and adapted to engage with an extension of the said platform, the guard and arm keyed at the other end of the rock shaft and normally held in a vertical position, and adapted by a tilting movement of the platform to be turned at right angles across the railway track, all substantially as shown and
35 described.

In testimony whereof I affix my signature in presence of two witnesses.

LORENZO HILLS.

Witnesses:

JAMES M. CLARK,
JAMES M. SMITH.