

No. 730,224.

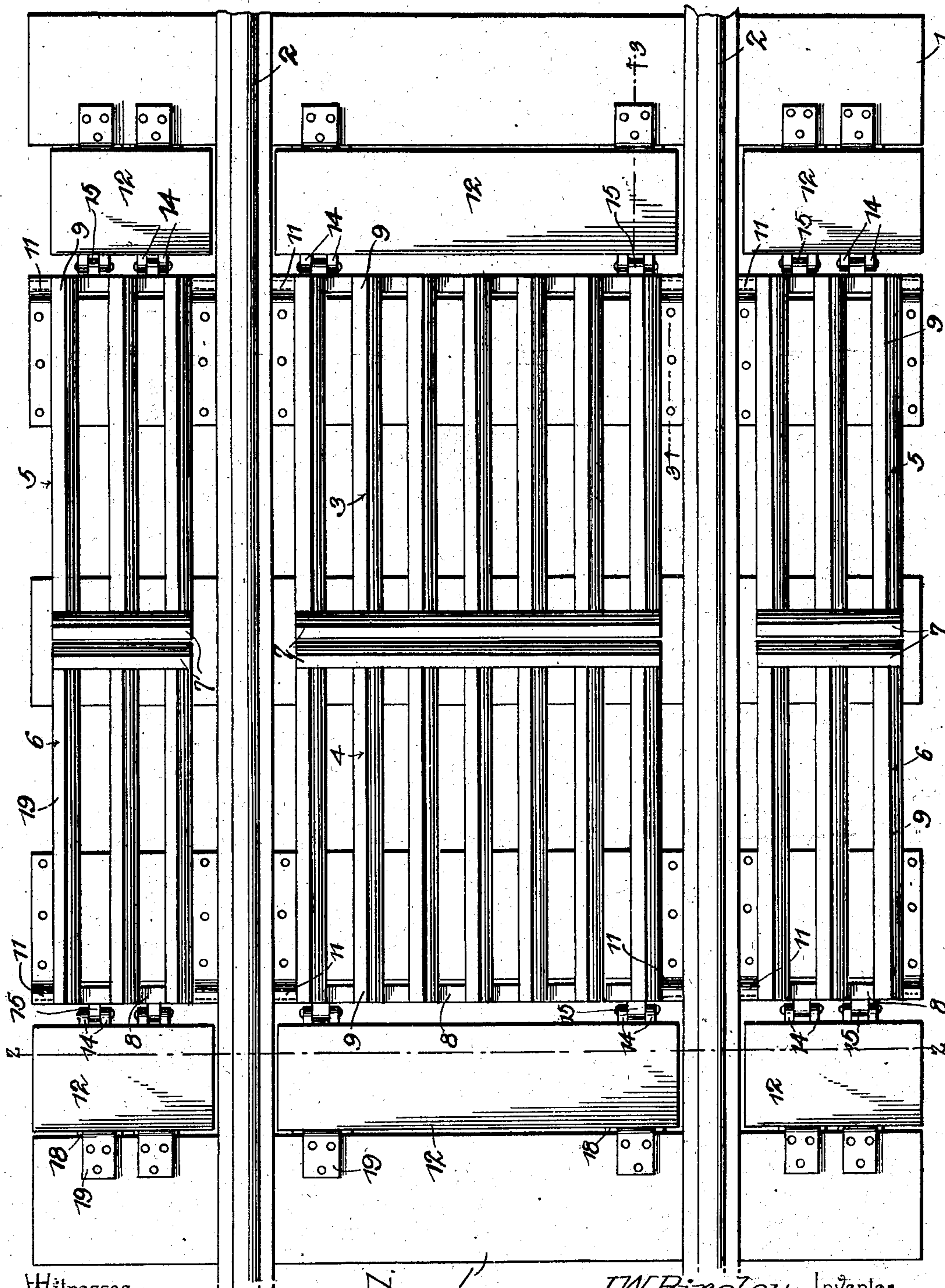
J. W. BIRELEY.  
CATTLE GUARD.

PATENTED JUNE 9, 1903.

NO MODEL.

APPLICATION FILED FEB. 19, 1903.

2 SHEETS—SHEET 1.



Witnesses  
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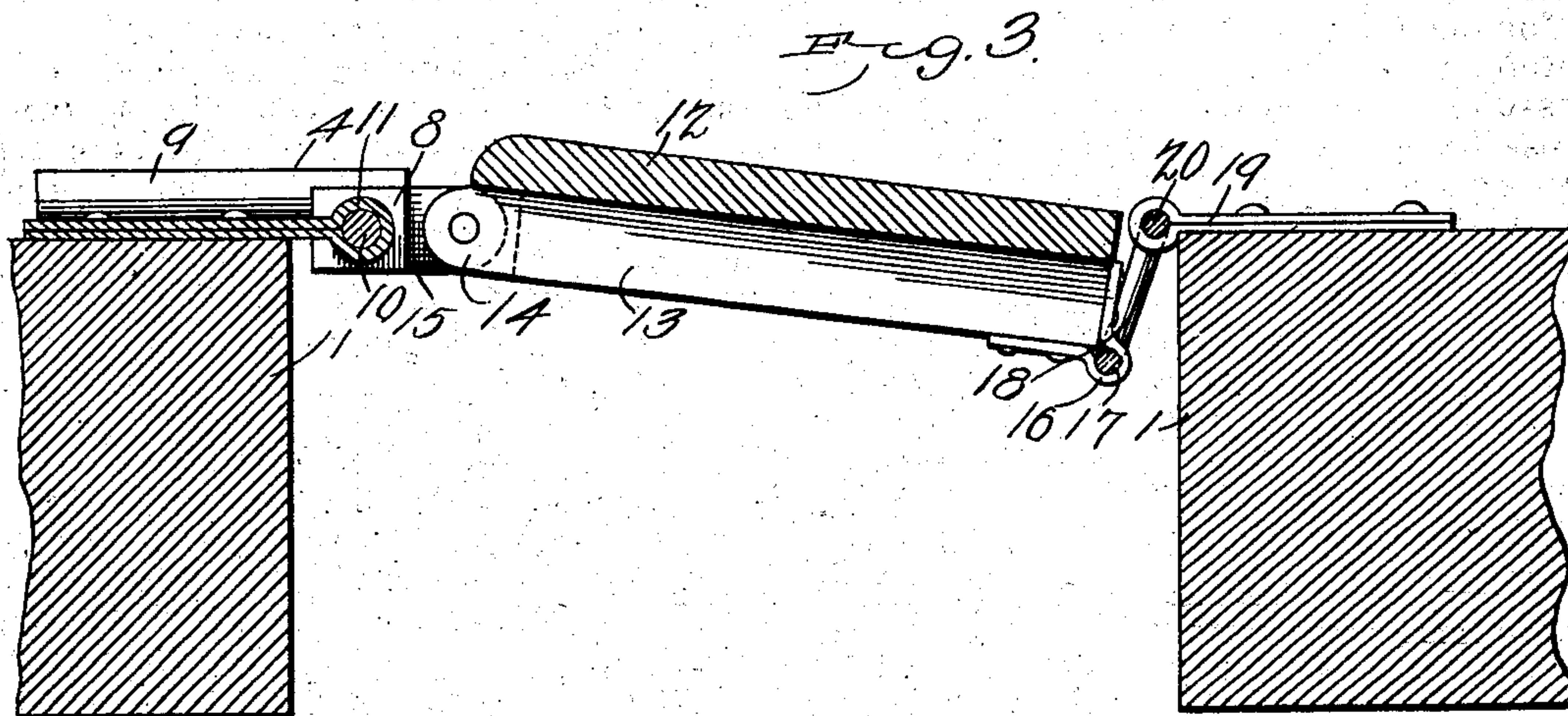
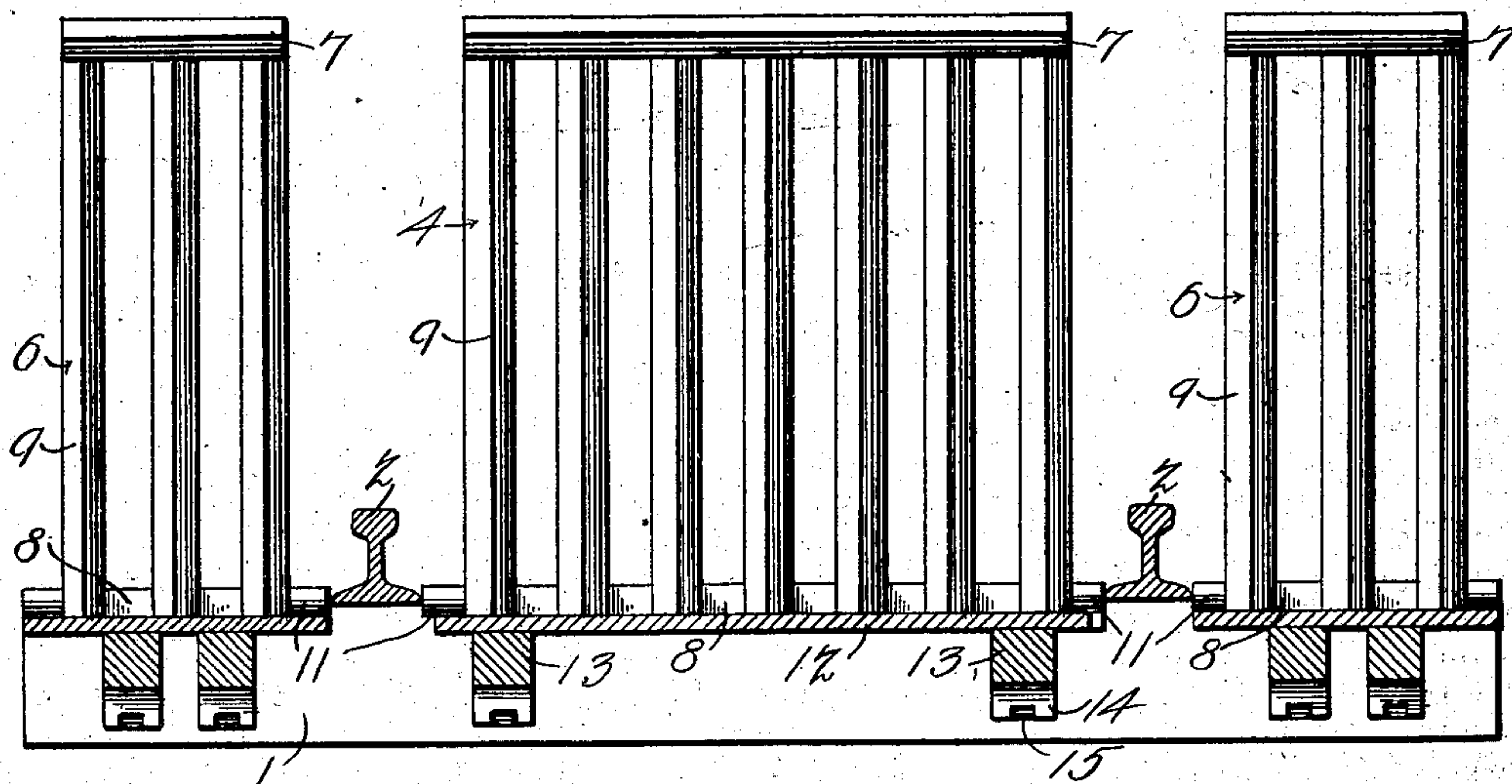
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Witnesses  
E. F. Stewart  
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## UNITED STATES PATENT OFFICE.

JOSEPH W. BIRELEY, OF ALEXANDRIA, INDIANA.

## CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 730,224, dated June 9, 1903.

Application filed February 19, 1903. Serial No. 144,153. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH W. BIRELEY, a citizen of the United States, residing at Alexandria, in the county of Madison and State of Indiana, have invented a new and useful Cattle-Guard, of which the following is a specification.

My invention relates to cattle-guards, and has for its objects to produce a device of this character which will be simple of construction, inexpensive to manufacture, efficient in operation, and one which may be readily applied to any existing form of railroad and in which the parts of the device may be readily repaired.

To these ends the invention comprises the details of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a top plan view of the device closed. Fig. 2 is a transverse sectional elevation of the same open. Fig. 3 is a longitudinal sectional elevation on the line 3 3 of Fig 1.

Referring to the drawings, 1 indicates the cross-ties of a railroad, and 2 the railway-rails. These parts may be of the usual or any desired construction and of any suitable material, inasmuch as they constitute no part of the present invention.

My improved device comprises a pair of guards 3 and 4, lying between the rails, and outer guards 5 and 6, arranged in pairs outside of the rails. These guards each comprise top bars 7 and bottom bars 8, connected by a series of pickets 9, which latter are preferably composed of sheet metal bent longitudinally to a shape triangular in cross-section and are secured to the top and bottom bars in any suitable or desired manner.

The bottom bar 8 of each guard projects at its ends laterally beyond the body of the guard, and these laterally-projecting ends 10 are cylindrical and are mounted in bearings 11, bolted or otherwise secured to the ties 1. These bearings are in the form of straps of sheet metal bent centrally around the cylindrical ends of the cross-bars, thus constituting a simple and efficient manner of pivoting the guards to the ties, whereby the former may swing from a horizontal to a vertical position in the manner presently described.

12 indicates a platform of any suitable ma-

terial provided at its under side with two transverse bars 13, provided at their inner ends with perforated ears 14, pivotally connected with perforated lugs 15, projecting laterally from the bottom bars 8 of the gates or guards. Secured to the other ends of the bars 13 are sheet-metal plates 16, centrally bent to form eyes 17, which lie at the lower outer corners of the bars and receive links 18, which are pivoted therein and are further pivoted to the ties by means of sheet-metal straps 19, secured by bolts or otherwise to the ties and centrally bent around the links to form pivot eyes 20.

In practice each of the guards, both inner and outer, is provided with one of these platforms 12, which constitutes the means for operating the guards to cause them to swing from their normally horizontal position to a vertical position, and these platforms are all of the same construction and operation. Consequently further detailed description of the same is believed to be unnecessary.

In operation, supposing the parts to be in the position illustrated in Fig. 3, with the guards closed, the platforms will slightly incline outward and downward from the guards, as shown, and pressure on the platforms, due to the weight of an animal stepping upon the same, will cause them to swing downward and inward toward the gates, thus swinging the latter on their pivots to a substantially vertical open position, thus offering an obstruction to the further progress of the animal and causing it to step aside off the track, as will be readily understood. When the platform is relieved of the weight of the animal, the gate will automatically close by gravity to its normal position.

From the foregoing description it will be seen that I produce a device which is extremely simple of construction and operation, one which may be readily applied to any existing form of railroad, and one in which the parts may, when they become worn, be readily replaced by new ones, the device being entirely free from complicated mechanism, which is liable to become readily disordered in practice. In attaining these ends I do not limit or confine myself to the precise details herein shown and described, inasmuch as minor changes may be made therein without



departing from the spirit or scope of my invention.

Having thus described my invention, what I claim is—

- 5 1. In a cattle-guard, the combination with the railway-rails and cross-ties, of a gate pivoted at its lower end to one of the ties and provided with perforated lugs, a platform situated forward of the gate and having perforated ears pivotally connected with the lugs of the gate, and links pivoted to the platform and to another one of the ties.
- 10 2. In a cattle-guard, the combination with the railway-rails and cross-ties, of a gate having a bottom bar provided with cylindrical ends projecting laterally beyond the body of the gate, sheet-metal straps embracing the cylindrical ends of the bar and secured to one of the ties for pivotally connecting the gate thereto, lugs carried by the bar, a platform situated forward of the gate and having ears pivotally

connected with the lugs, and links pivotally connected with the platform and with another one of the ties.

3. In a cattle-guard, the combination with 25 the railway-rails and cross-ties, of a gate having a bottom bar provided with cylindrical portions, sheet-metal straps embracing the cylindrical portions of the bar and secured to one of the ties for pivotally connecting the gate thereto, a platform situated forward of 30 and pivotally connected with the gate, and means for pivotally connecting the platform with another one of the ties.

In testimony that I claim the foregoing as 35 my own I have hereto affixed my signature in the presence of two witnesses.

JOSEPH W. BIRELEY.

Witnesses:

WILLIAM DAKIN,  
ALBERT F. SALA.