

No. 786,197.

PATENTED MAR. 28, 1905.

E. J. CRANDELL.
CATTLE GUARD.

APPLICATION FILED FEB. 6, 1905.

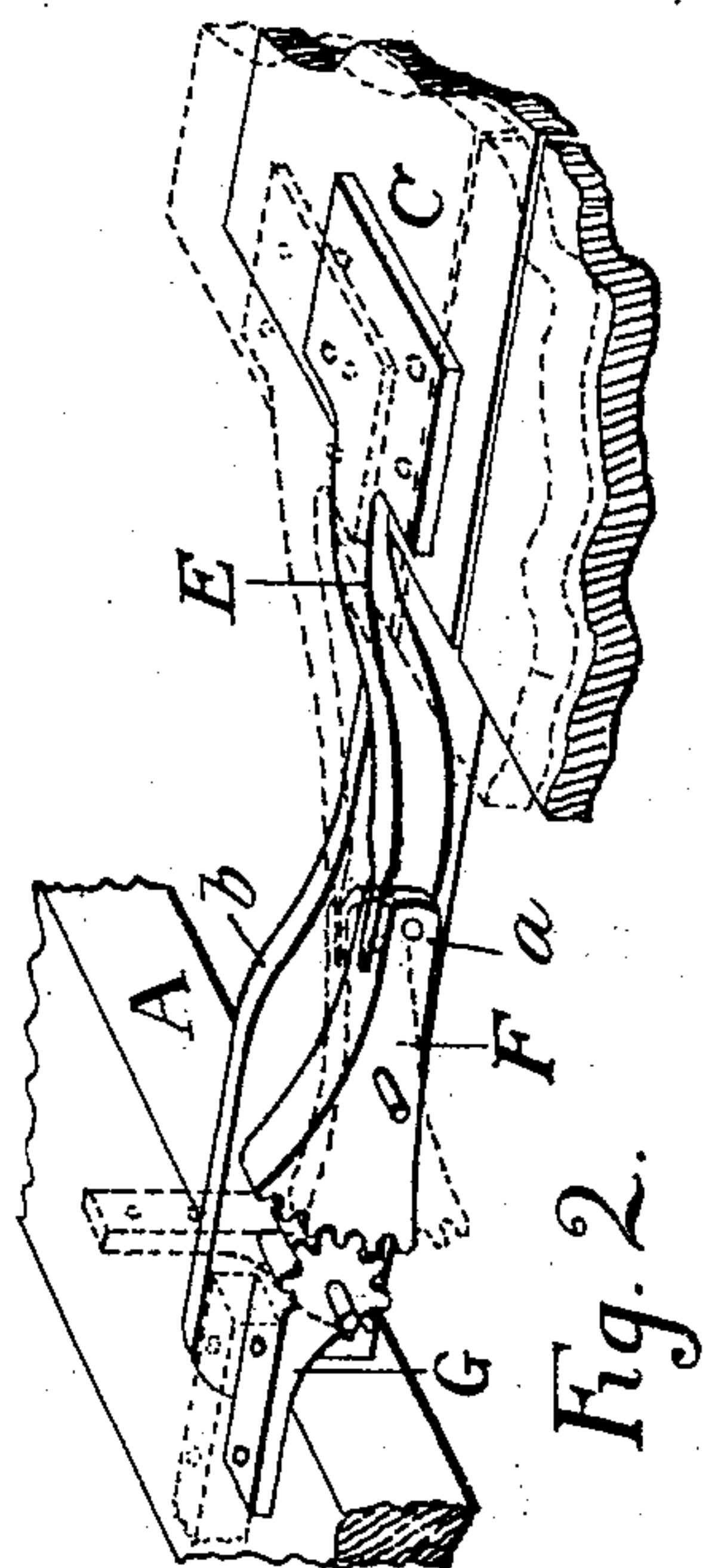


Fig. 2.

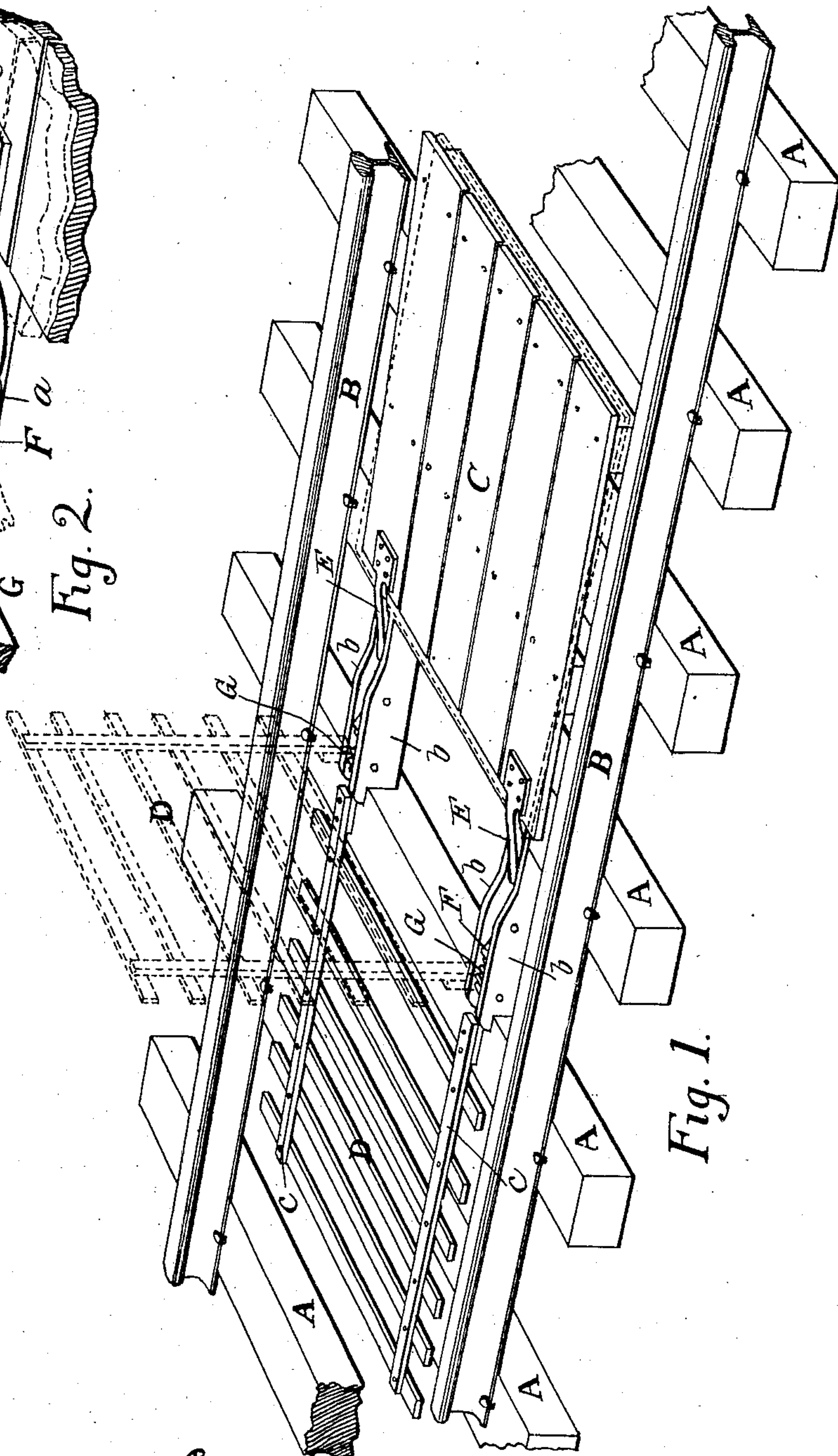


Fig. 1.

WITNESSES:

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EDGAR JAMES CRANDELL, OF MEMPHIS, TENNESSEE, ASSIGNOR OF ONE-HALF TO HENRY M. THOMAS, OF MEMPHIS, TENNESSEE.

CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 786,197, dated March 28, 1905.

Application filed February 6, 1905. Serial No. 244,409.

To all whom it may concern:

Be it known that I, EDGAR JAMES CRANDELL, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, 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.

This invention relates generally to cattle-guards for railroad-tracks, and particularly to that type of such guards in which the weight of the trespassing animal operates a gate which forms a barrier across the track and prevents further progress of the animal along the track; and it has for its object to provide a simple, durable, and comparatively inexpensive cattle-guard adapted to be expeditiously removed from and arranged in place on a railway-track and which automatically returns to its normal position when the weight of the animal is removed therefrom; and it consists of the parts and combination of parts hereinafter described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of a section of railway-track, showing my improved cattle-guard in position thereon; and Fig. 2 is a detail perspective view, on an enlarged scale, with parts broken away to show the arrangement of the underlying parts.

Similar letters refer to similar parts throughout both the views.

Referring to the drawings, A represents the ties, and B the rails, of a railway-track. Arranged between the rails of the track and on a plane lower than the upper surface of said rails and at a short distance from the rails at each side is a platform C, constructed of planks arranged side by side and secured by cleats bolted or otherwise rigidly fastened across the lower or bottom sides of the planks, so as to provide a strong and durable platform. The platform rests on one of the ties at one end and also at a point near or at its center of length on the adjacent tie, but does

not extend to the next or third tie, so that when a body of sufficient weight is imposed on the free or unsupported end of the platform it will be depressed and its opposite end tilted. At each side of one end of the platform is rigidly secured an arm E, which is bent or curved downwardly and is pivotally secured between the ears or lugs *a* at the end of a segment-gear F, which is pivoted between the horizontal supports C, which are arranged between and rest on two adjacent ties, said segment F meshing with a similar segmental gear G, also pivoted between the supports *b* and formed or provided with an arm H, which is bolted to the longitudinal cleats *c* of a gate D. The gate D rests normally on the ties of the track, as shown, and both it and the platform are so arranged thereon as to permit the passage of trains thereover without interference.

The platform is tilted by the weight of the animal stepping thereon, so as to raise the arms E of the segment-gears F, as shown by dotted lines, Fig. 2, and thus partly turn or rotate the gears F, which in turn rotate the gears G, and thus lift the gate D to an upright position, as shown by the dotted lines, Fig. 1, so as to form a barrier across the track so long as the animal remains on the platform.

The length of the platform is such that the animal cannot proceed thereon sufficiently far to cause its weight to depress the end of the platform after it has been tilted and the gate raised or lifted to its vertical position aside from the fact that the tilting of the platform has a tendency to frighten the animal and cause it to quickly move off the platform and away from the same.

It will be observed that the device may be quickly removed from and arranged on a track at any desired point along the same, as it is not secured or attached in any manner thereto, but simply rests on the ties between the rails, and that it does not form an obstacle to the passage of trains, as the gate automatically returns to its lowered position below the plane of the rails immediately upon the removal of the weight of the animal from the platform.

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

1. A cattle-guard comprising a tilting platform, a gate, segment-gears connected to said gate, segment-gears pivotally arranged between said platform and gate and meshing with said first-named gears, and arms connected to one set of said gears and operated
10 by said platform to oscillate both sets of gears.

2. A cattle-guard comprising a platform supported on railway-ties so as to be tilted, a gate, segment-gears secured to said gate,

similar gears meshing with the first-named 15 gears and pivotally supported between the platform and the gate, and arms secured to the platform and pivotally connected to said last-named gears, whereby the tilting of the platform imparts a rotary motion to both 20 sets of gears.

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

EDGAR JAMES CRANDELL.

Witnesses:

JAMES BRETT, Jr.,
D. J. REEDER.