

UNITED STATES PATENT OFFICE

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CATTLE-GUARD.

No. 817,367.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, JOHN W. GORSUCH and DAVID A. BOGUE, citizens of the United States, residing at La Junta, in the county of Otero and State of Colorado, have invented new and useful Improvements in Cattle-Guards, of which the following is a specification.

Our invention pertains to railway cattle-guards—i. e., automatic devices for preventing cattle straying from crossings along railways; and it consists in the peculiar and advantageous guard hereinafter described, and particularly pointed out in the claims appended.

In the accompanying drawings, forming part of this specification, Figure 1 is a top plan view illustrating the guard constituting the present and preferred embodiment of our invention in its normal position relative to a railway. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a side elevation illustrating the platform of the guard construction as depressed and one of the swinging sections thereof in its raised position, and Fig. 4 is an enlarged detail perspective view illustrating one of the peculiar connections intermediate the platform and the pickets comprised in the swinging sections of the guard.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which—

A A are the sleepers or ties of a railway, which may be and preferably are of the ordinary construction.

B B are rails arranged on and fastened to the sleepers or ties in the ordinary or any other approved manner.

C C are timbers arranged below adjacent sleepers A and designed, together with said sleepers, to form a pit D, located at one side of a railway-crossing, and E E are bars, triangular in cross-section, arranged on the sleeper A adjacent to one side of the crossing and having their apices uppermost. These bars E may be of wood, metal, or other material suitable to the purpose of our invention, and they are designed to guide the hoof of a cow or other animal downwardly to the before-mentioned pit D for a purpose presently set forth.

Movable bodily in a vertical direction in the pit D is a horizontal platform F, which is preferably made of wood and is sufficiently heavy to withstand the weather and the

usage to which cattle-guards are ordinarily subjected. The said platform F is designed to be depressed when an animal steps upon it, and it is calculated when so depressed to raise vertically-swinging sections of pickets G. We have shown three sections of vertically-swinging pickets G, one for the space between the rails B, one for the portion of the railway at the outer side of one rail, and one for the portion of the railway at the outer side of the opposite rail. These sections of pickets differ only in the number of pickets which they comprise, and therefore a detailed description of the section illustrated in Fig. 3 will suffice to impart a definite understanding of all. The said section, Fig. 3, comprises apertured standards H, arranged on and fixed to one of the sleepers A, a flat bar I extending between and having trunnions journaled in the said standards H, pickets arranged on and bolted to the said bar I, hooks K disposed at the rear ends of the pickets and having straps or shanks a arranged on and fixedly connected to the upper sides of the rear portions of the pickets, eyes L arranged at the upper side of and fixedly connected to the platform F, and links M having eyes at their ends interlocked with the hooks K on the pickets and the eyes L on the platform and effecting loose connections between the said pickets and the platform.

It will be gathered from the foregoing that the vertically-swinging pickets of the guard are fulcrumed at a point intermediate of their length and that the platform F is movable vertically as a whole—that is to say, is movable vertically in such manner that weight imposed on its upper side at any point will operate to depress it. From this it follows that if in crossing the railway a cow or other animal plants one of its feet at any point on the platform F the said platform will be bodily depressed and the sections of pickets will be raised to an inclined position, with the result that the cow or other animal will not only be frightened away from the crossing, but will be effectually barred against proceeding along the railway. It will also be apparent that when the weight of the cow or other animal is removed from the platform F the said platform and the several sections of pickets G will automatically resume their normal positions, this because of the weight of the long arms of the pickets, and hence the guard will offer no obstruction whatever to the passage of a train.

We have illustrated our improved guard at but one side of a railway-crossing; but it is obvious that a duplicate guard may be and preferably is employed at the opposite side of the crossing. It is also obvious that the guard may comprise as many sections as desired, although we deem a single set of pickets sufficient to turn an animal and discourage it from attempting to proceed along the railway.

It will further be apparent from the foregoing that by virtue of the loose-link connection intermediate the platform F and the rear ends of the comparatively short rear arms of the pickets G the said platform F will invariably assume and normally rest in the horizontal position shown in Fig. 2 and flush with the upper sides of the sleepers A at opposite sides of the pit D. This is advantageous, inasmuch as when the platform is so disposed and hung from the rear ends of the pickets the slightest pressure on the platform will operate to depress the same and raise the pickets.

In addition to the practical advantages which we have hereinbefore ascribed to our novel cattle-guard it will be noticed that the same is desirable because of its simplicity and durability and also because of the fact that it may be installed on railways at present in use without involving any change in the construction thereof other than the provision of the pit D between two of the sleepers or ties A.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a railway cattle-guard, the combina-

tion of a platform movable bodily in a vertical direction in the space between two sleepers or ties of a railway and having eyes on its upper side, vertically - swinging pickets extending in the direction of the length of the railway and having comparatively short rear arms the ends of which are disposed above the platform and also have hooks at the said ends, and links having eyes interlocked with the eyes of the platform and the hooks of the pickets.

2. In a railway cattle-guard, the combination of a platform movable bodily in a vertical direction in a space or pit between two sleepers or ties of a railway and having eyes on its upper side, bars E, triangular in cross-section arranged at the crossing side of the said space or pit and also arranged with their apices uppermost, sections of vertically-swinging pickets extending in the direction of the length of the railway and having comparatively short rear arms the ends of which are disposed above the platform and also have hooks at the said ends, standards arranged at one side of the said space or pit, rocking bars fixed to the pickets and journaled in the said standards, and links having eyes interlocked with the eyes of the platform and the hooks of the pickets.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

JOHN W. GORSUCH.
DAVID A. BOGUE.

Witnesses:

ALTA SWANSON,
WALTER DUBREE.