

1,005,347.

F. SPENCER.
CATTLE GUARD.
APPLICATION FILED MAY 11, 1911.

Patented Oct. 10, 1911.

Fig. 1.

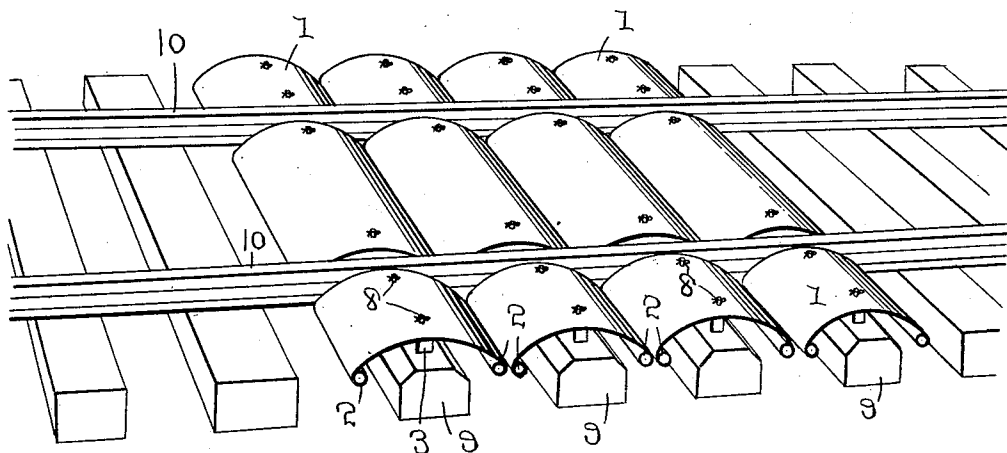


Fig. 2.

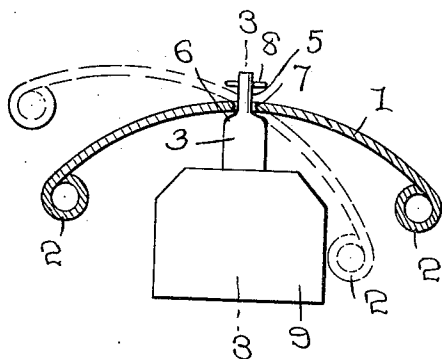
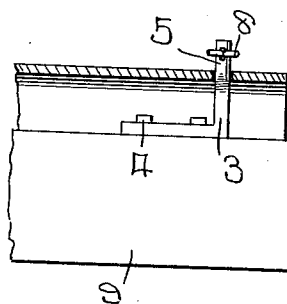


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRED SPENCER, OF TENINO, WASHINGTON.

CATTLE-GUARD.

1,005,347.

Specification of Letters Patent.

Patented Oct. 10, 1911.

Application filed May 11, 1911. Serial No. 626,452.

To all whom it may concern:

Be it known that I, FRED SPENCER, a citizen of the United States, residing at Tenino, in the county of Thurston and State of Washington, have invented certain new and useful Improvements in Cattle-Guards; and I do hereby 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 to cattle guards and more particularly to cattle guards placed at railway crossings to prevent cattle from crossing or walking along the track.

An object of the invention is to provide a cattle guard which will effectively perform its purpose and yet be out of the way of rods, chains, brake beams, etc., on passing trains.

Another object is to provide a cattle guard of the above stated character, which will not harm the cattle, but will prevent the latter from standing on the track at the crossing, and,

Another object is to provide a cattle guard of the above stated nature, which will be positive in operation, simple in construction and cheap to manufacture and install.

Other objects and advantages will be hereinafter set forth and pointed out in the specification and claims.

In the accompanying drawings which are made a part of this application, Figure 1 is a perspective view of the cattle guard as positioned at a crossing. Fig. 2 is a detail sectional view through one of the guard plates as positioned above the tie, showing in dotted lines the position assumed by the guard plate when weight is applied to one edge thereof, and, Fig. 3 is a detail sectional view on the line 3—3 of Fig. 2.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 represents the guard plates, which are curved in substantially semicircular form and have their lower edges turned or curved under, as shown at 2, the purpose of which will later appear.

The plates 1 are preferably made of strong metal and are supported and spaced above the ties by means of L-shaped studs or pivot brackets 3, which have one of their right angled portions secured to the ties by bolts or other fastening means 4, and their upper

ends reduced and rounded, as shown at 5, forming the shoulders 6 upon opposite sides of said reduced ends 5. The plates 1 are provided with suitable openings 7 through the highest or central portions thereof to allow the reduced rounded ends 5 of the studs 3 to project through said plates and support the latter in balanced position. The plates 1 when upon the studs 3, rest against the shoulders 6 to more readily return said plates to their normal positions. To prevent the plates 1 from working or running off of the studs 3, the cotter pins 8 are passed through horizontal openings in the upper rounded ends 5 of said studs, above the plates 1. It will be understood that any number of studs 3 may be employed for supporting each guard plate 1, but I have only illustrated two such studs for each plate, one being positioned near each end of said plates.

The guard plates 1 are preferably made in two lengths, the short ones to be supported above the ties 9 outwardly of the rails 10 of the track, while the long plates 1 are supported in a similar manner above the ties 9, inwardly of the rails extending from within a short distance of one rail 10 to within a like distance of the opposite rail 10.

Should any of the cattle step upon the plates 1, the foot of the animal would slide to one edge and press the plate or plates downwardly, causing the opposite edge or edges to move upwardly, the plate or plates rocking upon the studs 3 until the plate assumes the position shown in dotted lines in Fig. 2. In this position the lower edge 2 is against the tie 9, while the upper edge 2 is about on a plane with the upper edges of the rails 10.

As the edges of the guard plates 1 are curved or rounded, as previously described, it is evident that all possibility of chains, etc., depending from passing trains coming in contact with the edges of the plate and being caught thereby, is entirely eliminated. It will also be seen that as soon as any weight, causing one of the edges of a guard plate 1 to move downwardly, is removed, the plate will resume its normal position. It will also be impossible for a foot to be caught between the edges of two of the guard plates 1, or into the rounded edges of said plates.

On account of the guard plates 1 being curved downwardly from the center toward either side, all ashes or cinders from a passing train as well as snow and other material

falling upon these parts, will slide to the edges and off of plates and drop between the ties 9.

Thus it will be seen that I have provided
5 a cattle guard of extremely simple construction and positive operation, and one which may be cheaply manufactured and installed. It will also be evident that should any one
10 of the plates or supports become worn or broken, it may be quickly and readily replaced, without loss of time. The entire cattle guard may be secured in position or removed in an extremely short period of time,
15 without interfering with the schedule of the trains or compelling any trains to stop while the workmen are installing or removing the guard.

What I claim is:

20 1. A cattle guard comprising curved metallic plates having their lower opposite edges curved under to form rounded edges, angular studs adapted to be secured upon ties of a track, said studs having rounded upper ends to receive said plates, said studs

also having shoulders below said rounded 25 ends and upon opposite sides thereof, said plates resting upon said shoulders, said plates adapted to be tilted to either side when weight is applied upon that side, said
30 plates adapted to return to their normal positions when the pressure thereupon is relieved, cotter pins secured through the rounded upper ends of said studs above said plates to prevent the latter from working
35 off of said studs.

2. A cattle guard comprising metallic plates curved to form an arc of a circle in cross section and having their edges curved under to form rounded edges, supporting
40 studs for said plates and means to hold the plates in position on said studs.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRED SPENCER.

Witnesses:

C. A. KENWORTHY,
O. E. McCAUDLEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
