(No Model.)

P. MERRILL.

CATTLE GUARD.

No. 472,897. Patented Apr. 12, 1892.

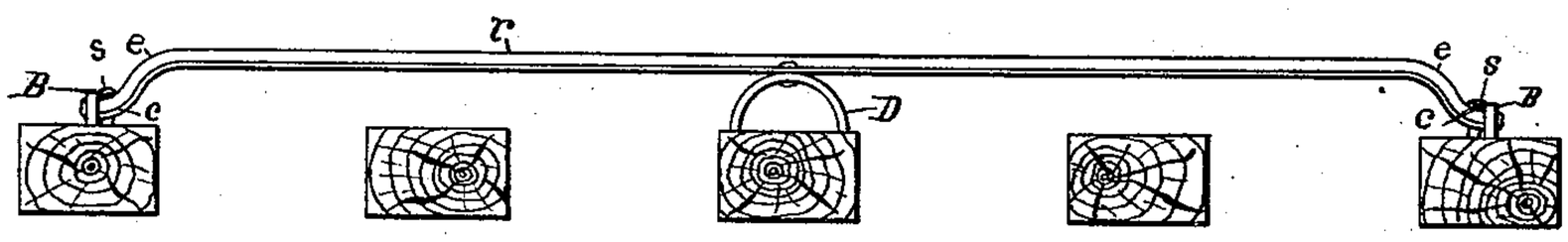

Fig. 1

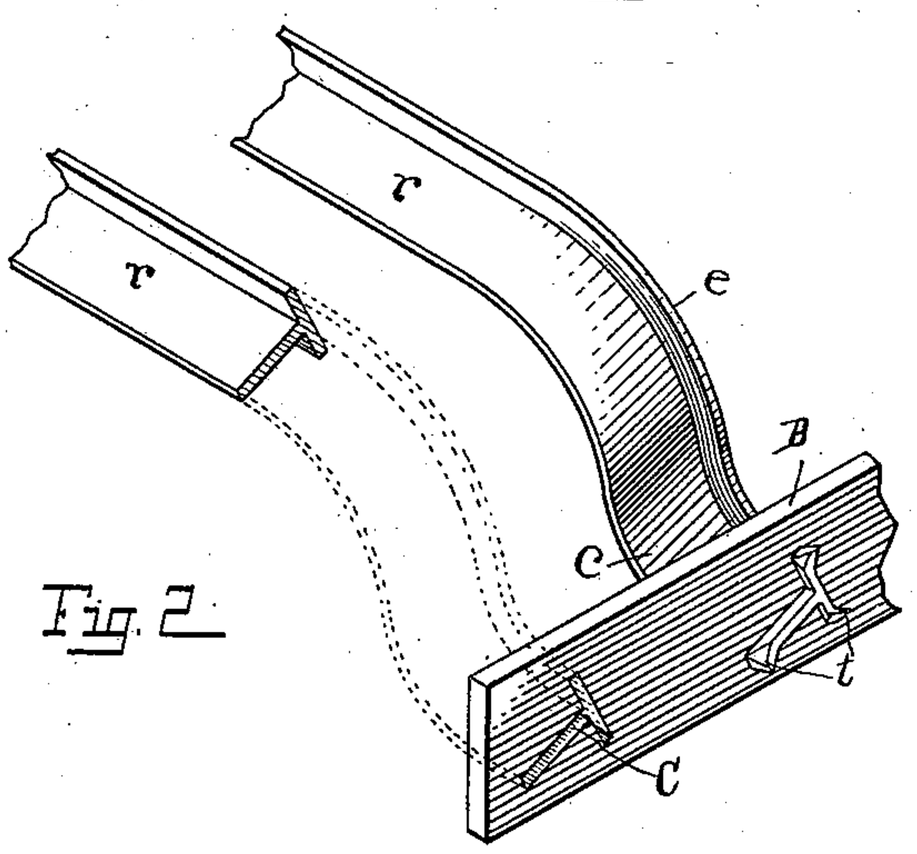

Fig. 2

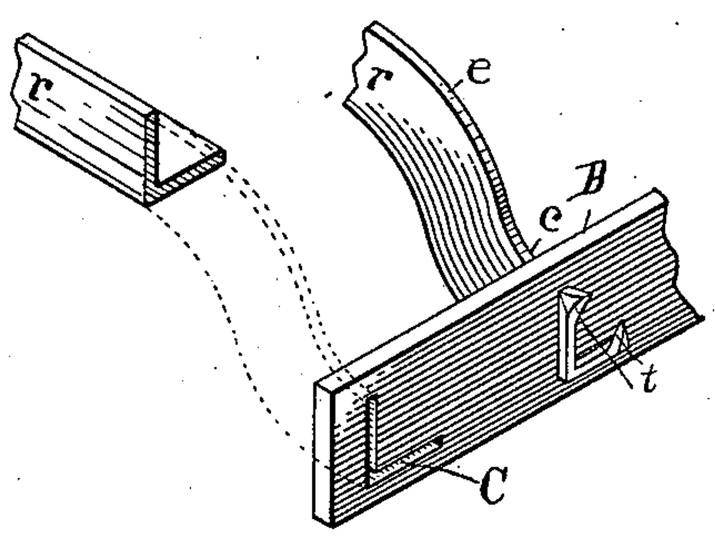

Fig. 3

Witnesses:
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PARKER MERRILL, OF ST. LOUIS, MICHIGAN.

CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 472,897, dated April 12, 1892.

Application filed April 25, 1891. Serial No. 390,421. (No model.)

To all whom it may concern:

Be it known that I, PARKER MERRILL, a citizen of the United States, residing at St. Louis, county of Gratiot, State of Michigan, have invented certain new and useful Improvements in Railway Cattle-Guards, of which the following is a specification.

The object of the invention is economy of material and labor in construction, as compared with the patent of mine dated February 17, 1891, No. 446,601.

In the drawings forming a part of this specification, Figure 1 is a side elevation showing the position of the guard-rail above the ties. Fig. 2 is a broken perspective of a lateral detail. Fig. 3 is a broken perspective of a lateral detail to show different shapes of the guard-rail.

Referring to the lateral parts of the drawings, *r* is the guard-rail.

D is a transverse beam resting upon the tie and supporting the guard-rail, which is secured to it with rivets at its middle length.

B B are transverse beams for the ends of the guard, resting upon the upper surface of the tie, and are preferably flat bars of metal set upon edge, as here shown.

C shows the perforations in the transverse beams B to receive the ends of the guard-rails. The guard-rails *r* have near their ends the double or reverse bend *e c*, which brings the ends of the guard-rail in proper position to pass through the perforations C on a line parallel with and lower than the unbent portion of the guard-rail. The ends of the guard-rail pass through the terminal beams far enough for their ends or corners to be bent against the outside of said beams to hold them in position, as shown at *t* in Fig. 2.

For an efficient guard it is necessary to employ transverse beams that will support the guard-rails at least two and one-half inches above the upper surface of the ties. This will present to the animal the appearance of an elevated grating.

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

In a cattle-guard having guard-rails elevated above the ties, the combination of the flat bars B, of metal, set on edge, forming the terminal beams of a guard, with angle-iron guard-rails passing through said beams, formed with the double or reverse bends *e c* at their ends and having in their flanges the bend *t* on the outside of said terminal beams to hold them in position, substantially as set forth.

PARKER MERRILL.

Witnesses:
ADA F. MERRILL,
ELISABETH WILSON.