

(No Model.)

P. MERRILL.  
CATTLE GUARD.

No. 413,238.

Patented Oct. 22, 1889.

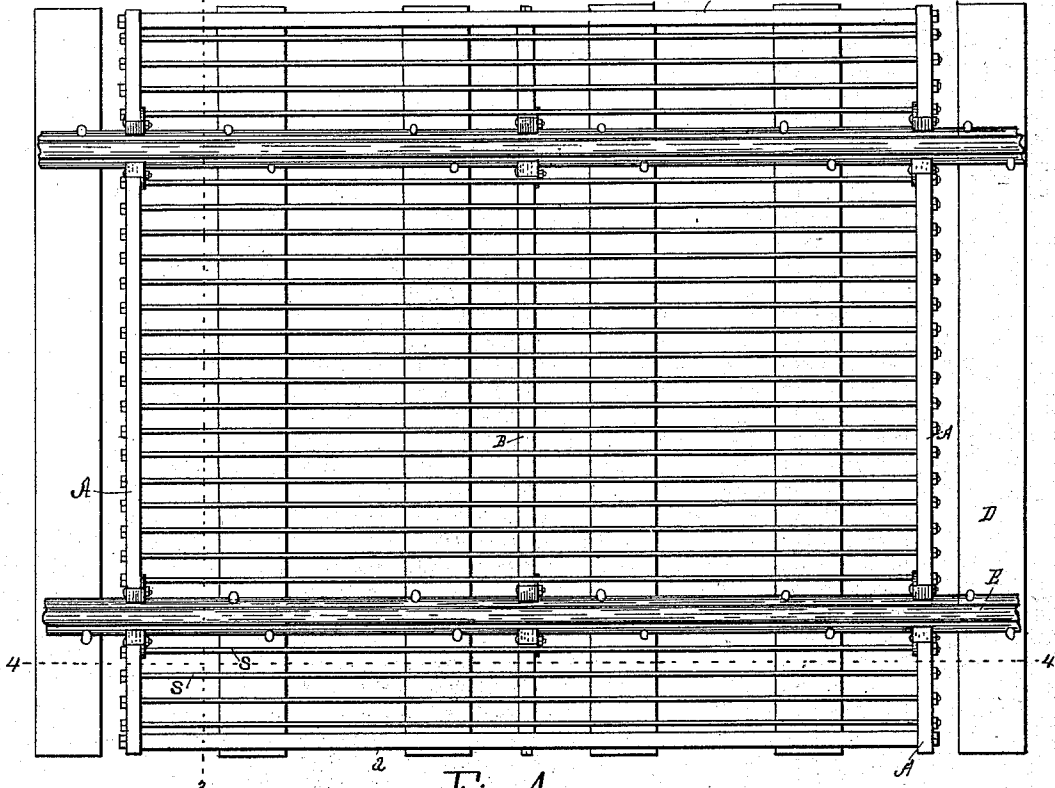


Fig. 1

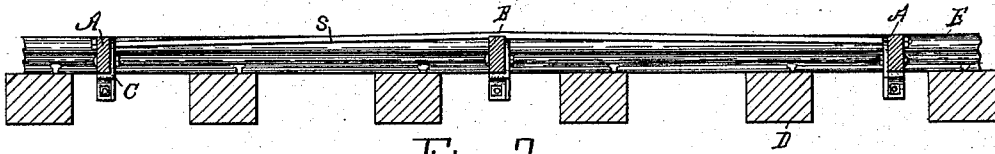


Fig. 2

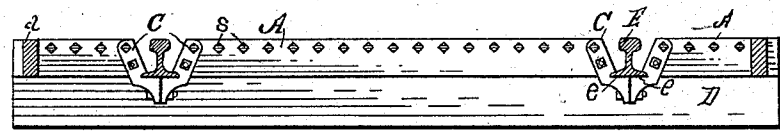


Fig. 3

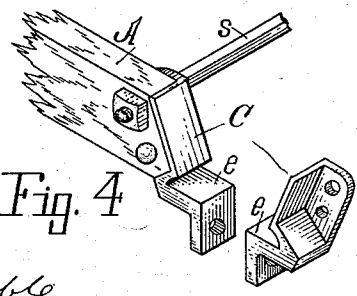


Fig. 4

Witnesses:  
Walter S. Hood  
James E. Kimble

Inventor.  
Parker Merrill  
By Lewis C. West  
Atty

# UNITED STATES PATENT OFFICE.

PARKER MERRILL, OF ST. LOUIS, MICHIGAN.

## CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 413,238, dated October 22, 1889.

Application filed June 22, 1889. Serial No. 315,218. (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 a new and useful Cattle - Guard, of which the following is a specification.

This invention has for its object the construction of a cattle-guard in which a series of parallel bars are arranged above the surface of the ties between and outside of the rails of the track. Other objects pertaining to the details of construction will appear in the following description and claims.

In the drawings forming a part of this specification, Figure 1 is a plan view; Fig. 2, a section on line 4 4 in Fig. 1; Fig. 3, a section on line 3 3 in Fig. 1, and Fig. 4 shows enlarged details in perspective.

Referring to the letters of reference marked on the drawings, A A and B are beams placed both between and outside of the rails and transversely thereto. The series of parallel bars S are attached at the ends to the outside beams A A and preferably rest upon the center beam B in open gains formed in the upper side of the beam B; but the bars S may pass through the center beam the same as through the beams A A. The object of not attaching these separated bars S to the center beam B is that an animal can more easily release its foot in case it should be caught between the bars S, for the reason that said bars would spring up in the center during the effort of the animal to pull out its foot.

An important feature of this guard is that it is attached to and may be entirely supported by the rails of the track; but the braces *a* may rest on the ties, as in Fig. 3. It will be observed that these braces *a* are attached to the outer ends of the transverse beams of the outer sections.

In attaching the sections to the flanges of the rails I employ the castings or brackets C, which have shelves *e*. These shelves extend

laterally a short distance into the metal, so as to form, when two are bolted together beneath the rails, as in Fig. 3, a recess which receives the flange of the rail. The contiguous ends of the outside and inside beams A are bolted to the brackets, as in Figs. 3 and 4. The beams by this means are attached indirectly together and are attached to and supported by the rails E E.

The bars S may be of any suitable shape in cross-section, preferably square and placed cornerwise. An important feature in connection with these bars is that they are above the ties, so that a space is left between the upper side of the ties D and said bars S, by which means cattle are less liable to attempt crossing the guard. While the bars S are here shown parallel with the rails E, this is not necessary, as they may be arranged transversely or at any suitable angle.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A surface cattle-guard consisting of a series of separated bars arranged between the rails and entirely supported by said rails, and a series of separated bars on the outside of each rail, the ends of the outside sections next to the rails being supported by said rails, substantially as set forth.

2. A surface cattle-guard consisting of the beams between and outside of the rails of the track, having their contiguous ends attached to said rails, and a series of separated bars supported by said beams, with a space between the ties and said bars, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in presence of two witnesses.

PARKER MERRILL.

Witnesses:

JAMES E. KIMBLE,  
L. N. BURKE.