No. 658,352. Patented Sept. 25, 1900.

J. DONOVAN.

RAILWAY CATTLE GUARD.

(Application filed May 31, 1900.)

(No Model.)

Fig. 1.

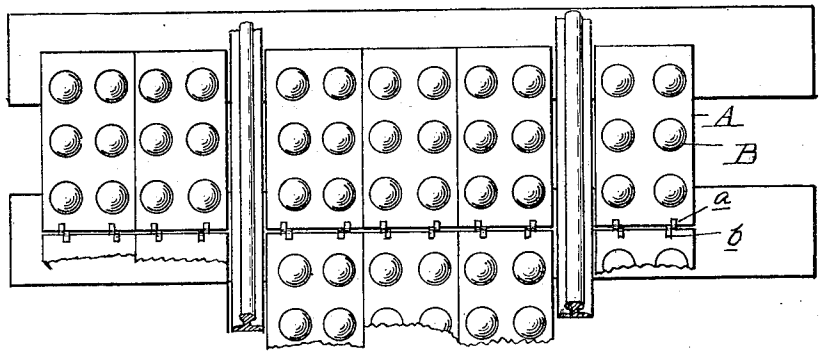


Fig. 2.

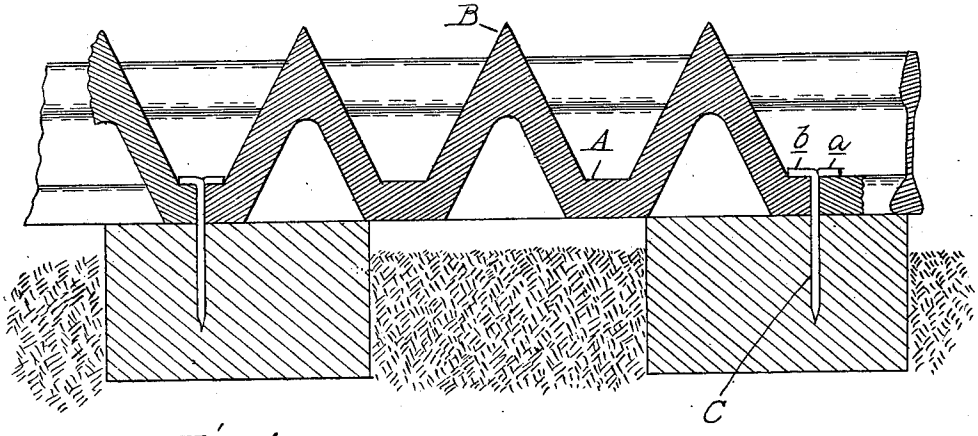
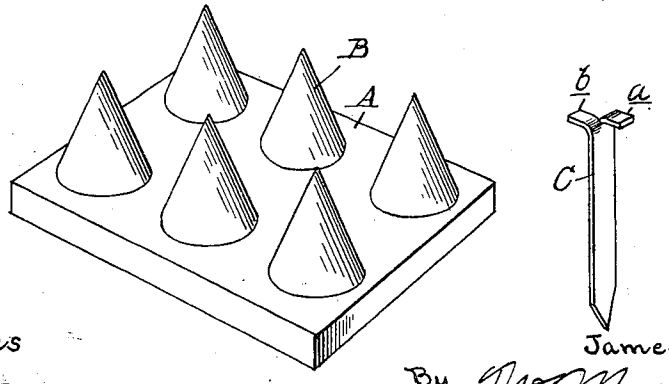


Fig. 3.



Witnesses
H. C. Smith
M. B. Dogherty

Inventor
James Donovan
By Munn & Co
Attys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES DONOVAN, OF THREE RIVERS, MICHIGAN, ASSIGNOR TO THE ROBERTS CAR AND WHEEL COMPANY, OF SAME PLACE.

RAILWAY CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 658,352, dated September 25, 1900.

Application filed May 31, 1900. Serial No. 18,658. (No model.)

To all whom it may concern:

Be it known that I, JAMES DONOVAN, a citizen of the United States, residing at Three Rivers, in the county of St. Joseph and State of Michigan, have invented certain new and useful Improvements in Railway Cattle-Guards, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to railway cattle-guards; and it is the object of the invention to obtain an inexpensive construction and one which will be unaffected by the action of the elements.

Heretofore it has been customary to form railway cattle-guards either of wood or metal or a combination of the two. Where wood is employed, it is of course subject to decay, so as to necessitate frequent repairs, while the metal is subject to corrosion, which in a comparatively-short time will destroy the strength and efficiency of the guard. Another influence that tends to destroy the metal guards is the dripping of salt water from the refrigerator-cars passing over the road. In the present invention the objection to both wood and metal is overcome by forming the guard of molded sections of a non-corrodible material, such as vitrified tile; and the invention consists in the peculiar construction, arrangement, and combination of parts, as hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of the railway cattle-guard. Fig. 2 is a longitudinal section thereof on a larger scale, and Fig. 3 is a perspective view of one of the sections and the securing means thereof detached.

The guard is preferably formed of a number of like sections, which may be of any desired shape or size. As shown in the drawings, each of these sections comprises a rectangular base A, provided with a series of upwardly-projecting pyramids or cones B. These pyramids or cones may be either solid or hollow, as shown. The sections may be molded from any suitable non-corrodible material; but tile is preferably used, both on account of its cheapness and also because it is absolutely proof against the action of salt water or of the elements. The sections, as shown, are of a size to span the distance between the two ties and preferably secured in position by means of the flat nails or spikes C, which latter may be formed from sheet metal, having heads formed by oppositely-extended bent flanges *a* and *b*. These nails or spikes may be then driven between the edges of the tile-sections and their heads will thus securely fasten the sections to the ties.

What I claim as my invention is—

1. A railway cattle-guard, comprising a molded section of non-corrodible material comprising a base and a series of pointed upward projections formed integral therewith.

2. A railway cattle-guard comprising a molded section of non-corrodible material consisting of a base and a hollow cone formed integral therewith and projecting upwardly therefrom.

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

JAMES DONOVAN.

Witnesses:

JAMES WHITTEMORE.

M. B. O'DOGHERTY.