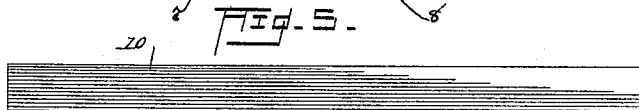
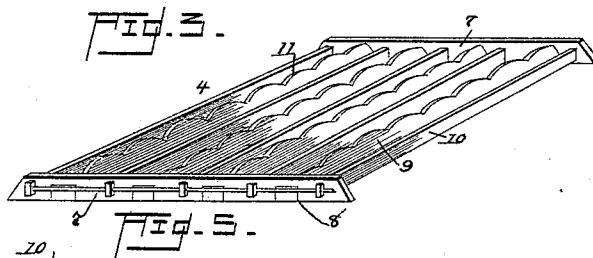
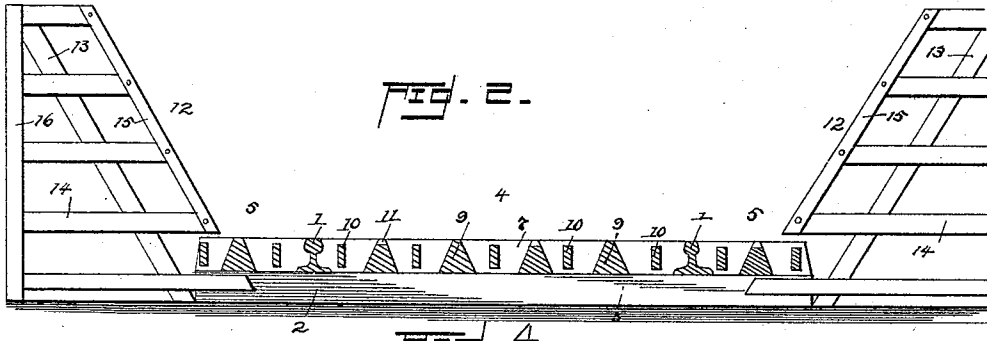
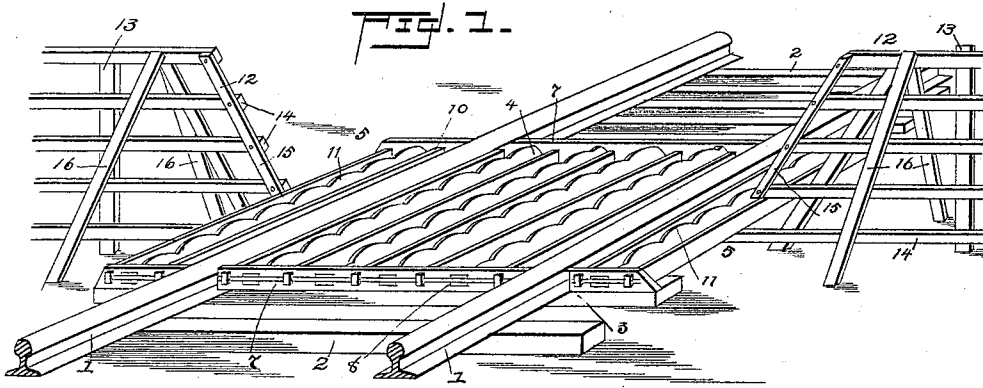


(No Model.)

C. O. DAVIDSON.
CATTLE GUARD.

No. 450,450.

Patented Apr. 14, 1891.



Witnesses:

Inventor

C. J. Duwall,
W. S. Duwall.

By his Attorneys, *Charles O. Davidson.*

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

CHARLES OLIVER DAVIDSON, OF CARRINGTON, MISSOURI, ASSIGNOR TO
HENRY C. THOMAS, OF BALTIMORE, MARYLAND.

CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 450,450, dated April 14, 1891.

Application filed July 29, 1890. Serial No. 360,310. (No model.)

To all whom it may concern:

Be it known that I, CHARLES OLIVER DAVIDSON, a citizen of the United States, residing at Carrington, in the county of Callaway and State of Missouri, have invented a new and useful Cattle-Guard, of which the following is a specification.

This invention has relation to improvements in cattle-guards to be employed at railway-crossings.

The objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a portion of a railroad located at a crossing and provided with a cattle-guard constructed in accordance with my invention. Fig. 2 is a transverse section through the guard and rails. Fig. 3 is a perspective in detail of the central guard-section. Fig. 4 is a detail in side elevation of one of the main guard-rails. Fig. 5 is a similar view of one of the secondary guard-rails.

Like numerals indicate like parts in all the figures of the drawings.

1 designates the rails of the tracks, which are located upon the usual cross-ties 2.

3 designates a pair of extended cross-ties located at the proposed ends of the guards.

In practicing my invention I employ a central or inner guard-section 4 and opposite outer guard-sections 5. Each of the guard-sections comprises two end bars 7, which are provided upon their under sides with suitable recesses or gains 8 and a series of main guard strips or rails 9 and secondary guard strips or rails 10. The main guard-strips 9 have their ends terminating in the recesses 8, in which they are securely bolted, and said strips alternate with the secondary strips 10, which are secured to the said end bars. The main guard-strips are preferably triangular in cross-section and their upper edges are scalloped or rounded, as at 11, the scallops of one strip being located so as to alternate with those of the adjacent strips. The secondary strips have their upper edges about flush with the intermediate recesses formed by the scallops, so that they are below the upper edges of the main guard-rails. The bottoms of the main guard-rails rest upon the ties 2 when the cen-

tral and side sections are in position between and outside of the rails, while the secondary guard-rails have their lower edges above the cross-ties.

12 designates the ends of two opposite fence-sections, and 13 the posts. The rails 14 of the sections are extended beyond the posts, so as to take under and over the side guard-sections, and the ends of the rails are connected by means of a strip 15, inclined to correspond with the inclination of the ends of the rails. Opposite pairs of inclined posts 16 serve to brace the ends of the fence-sections beyond the vertical posts, so that said sections may not become broken by cattle running into the same.

The manner of constructing the guard in sections permits of a removal of the sections as a whole without destroying any of the parts composing them, so that after a road has been repaired the sections may be replaced with accuracy and dispatch. In the arrangement of the main and secondary guard-bars it will be noticed that a secondary guard-bar occurs at each side of the rails, so that small stock cannot obtain a footing by reason of their close position between the rail and an adjacent main guard-bar. It is well known that small stock in endeavoring to pass over such obstructions as cattle-guards invariably attempt to pass between two of the main guard-rails, and for this purpose I provide and employ the secondary guard-rails, which are so much lower than the main guard-rails as to readily turn the feet of small animals, thus intimidating them to such an extent as to prevent them from passing over the guard.

Having thus described my invention, what I claim is—

1. The cattle-guard for railroads, the same consisting of opposite transverse end bars and a series of alternating main and secondary longitudinal bars, the former having their upper edges provided with a series of scallops, the scallop of one bar being out of transverse alignment with those of the adjacent bars, and the upper edges of the secondary bars being flush with the ends of the scallops, substantially as specified.

2. A railroad-track provided opposite a crossing with a central and two outer cattle-

guard sections, each of said sections consist-
ing of opposite end bars having recesses in
their under edges, a series of scalloped main
guard-bars terminating in and bolted to the
5 recesses, and a series of secondary guard-bars
connected to the end bars occurring next to
the rails and arranged alternately with rela-
tion to the main guard-bars, substantially as
specified.

In testimony that I claim the foregoing as to
my own I have hereto affixed my signature in
presence of two witnesses.

CHARLES OLIVER DAVIDSON.

Witnesses:

J. J. PARKER,

ROBERT J. HUGHES.