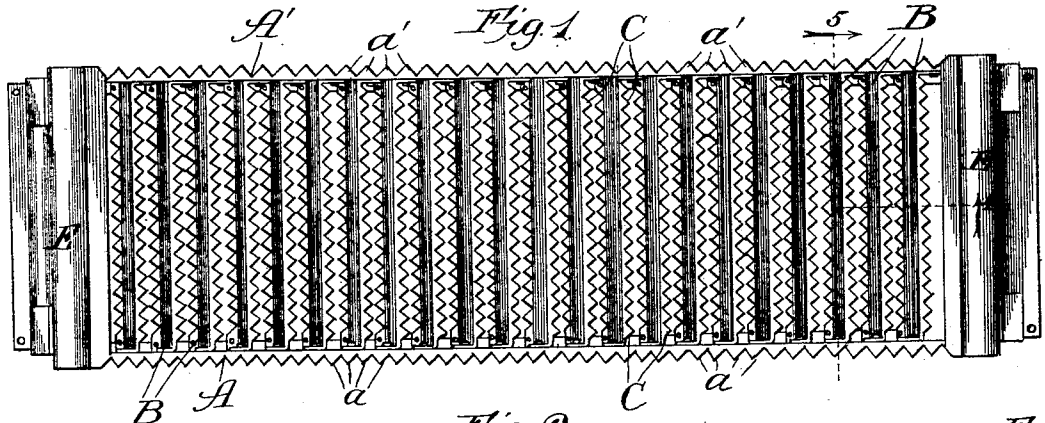
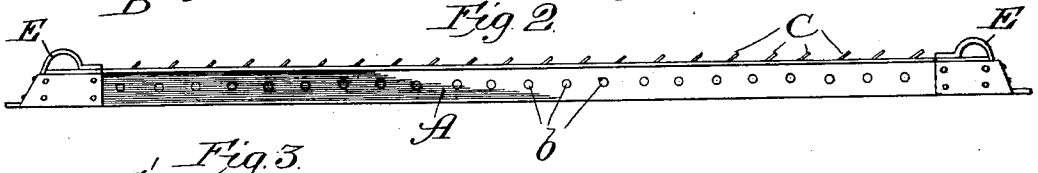
(No Model.)

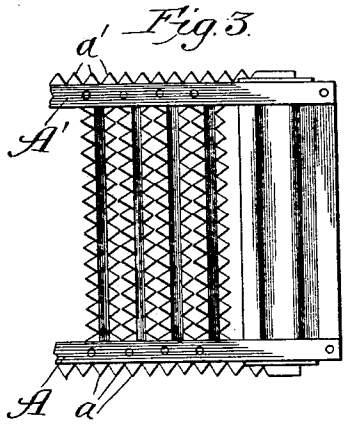
F. C. SEYMOUR.

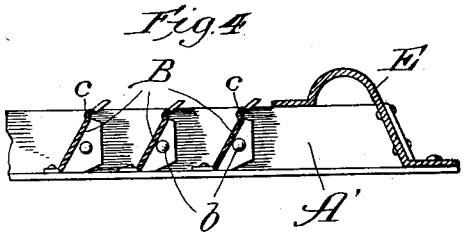
CATTLE GUARD.

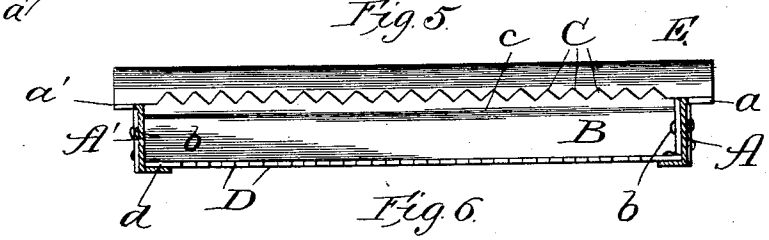
No. 590,500. Patented Sept. 21, 1897.

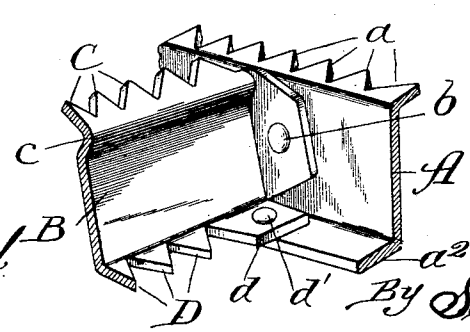












Witnesses:
Chas. E. Gaylord,
Lute' J. Alter

Inventor.
Frank C. Seymour
By Samuel E. Ribben
Atty.

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

UNITED STATES PATENT OFFICE.

FRANK C. SEYMOUR, OF CHICAGO, ILLINOIS.

CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 590,500, dated September 21, 1897.

Application filed January 22, 1895. Serial No. 535,752. (No model.)

To all whom it may concern:

Be it known that I, FRANK C. SEYMOUR, a citizen of the United States, residing at Chicago, Cook county, Illinois, have invented new and useful Improvements in Cattle-Guards, of which the following is a specification.

The object of my invention is to provide a simple, durable, and serviceable cattle-guard of the type generally known as the "surface" guard. To this end I construct my guard preferably in several sections, each composed of side rails with top serrations and having cross-bars, which are provided with teeth or serrations, preferably both at the top and bottom edges. These cross-bars may be inclined at an angle, so that the legs of the animals will be scratched and punished by the teeth as they attempt to withdraw them, whereby they will be effectually frightened and deterred from passing onward; and my invention consists in the features and details of construction hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of one section of my improved guard; Fig. 2, a side elevation thereof; Fig. 3, a bottom plan of a portion of the section of the guard; Figs. 4 and 5, sectional views taken through lines 4 and 5, respectively, of Fig. 1, and looking in the direction of the arrow; and Fig. 6, an enlarged perspective of a portion of the side rail and cross-bar.

The guard is made, preferably, in interchangeable sections which are similar in construction and of any number desired. At each crossing or other point I prefer to use four sections, two between the rails of the track and one at each side of the track. A greater or less number of sections, however, may be employed, in which case the only change required is that of dimensions, which may be altered without departing from the spirit of my invention. A description of one section will therefore apply to and suffice for all.

Each section comprises a grating or framework consisting of a pair of narrow side rails A A' of the proper height and length and preferably of sheet metal. These rails are provided with laterally-extending teeth or serrations a a' at their top edges, while the bottom edges are preferably turned inward toward each other to form flanges a^2. Cross-bars B are arranged between the side rails, preferably at an angle thereto, as shown in Fig. 4, and secured by means of rivets b or in any other convenient and suitable manner. These cross-bars are provided at their top edges with teeth or serrations C, which project at an angle to the body of the rails.

The cross-bars are provided at their bottom edges with substantially horizontally-extending serrations or teeth D, and the ends d of the flanges from which the teeth are formed may be, though not necessarily, secured to the inwardly-extending flanges of the side rails by means of rivets d' or otherwise. Each cross-bar is provided near its top edge with a crimp or bead C, substantially at the base of the teeth, whereby additional strength is secured. This crimp runs substantially longitudinal of the cross-bar, as clearly shown in Fig. 6.

The serrations or teeth in both the side rails and cross-bars are preferably triangular, although it is obvious that other shapes may be adopted which are capable of answering the same purpose, which is to scratch and punish the feet of the animal.

It will be understood that each section may be spiked or otherwise secured at its ends to the ties and that a slight excavation of the ballast under the guard may be made to permit the legs of an animal to pass partially through the guard, so as to be pricked by the lower teeth D.

As shown particularly in Fig. 4, I provide each end of the sections with a curved piece E, which is securely attached thereto and projects a sufficient distance above the plane of the teeth C. The design and purpose of this piece is to prevent dragging chains, &c., upon passing cars from catching in the guard. A dragging chain would strike the piece E and be swung or thrown upward, and the car could thus pass clear of the guard before the chain would fall again upon the track.

By the use of my invention I am enabled to construct a very simple and efficient guard. In case an animal attempts to cross, its feet will enter between the cross-bars, and in endeavoring to press onward its hoofs and ankles

will be scratched and punished by the teeth D and the upper part of its legs by the teeth C, thereby effectually frightening the animal and preventing it from crossing and straying upon the track.

Although I have described more or less precise forms and details of construction, I do not intend to be understood as limiting myself thereto, as I contemplate changes in form, proportion of parts, and the substitution of equivalents, as circumstances may suggest or render expedient, without departing from the spirit of my invention.

I claim—

1. In a surface cattle-guard, a section composed of side rails provided at their top edges with teeth or serrations and cross-bars extending between and secured to the side rails and provided with teeth or serrations at both their top and bottom edges respectively.

2. A surface cattle-guard, comprising side rails A A′ running substantially parallel with the track and provided at their top edges with laterally-projecting teeth *a*, *a′*, and cross-bars B having teeth C at their top edges and teeth D at their lower or bottom edges.

3. A cattle-guard comprising side rails and cross-bars having teeth or serrations at their top edges and provided with a crimp near such top edges and substantially at the base of the teeth.

4. A cattle-guard comprising longitudinal side rails running substantially parallel with the track and bars extending substantially crosswise of the track and between the side rails, the bars comprising a body portion and toothed or serrated flanges extending at an angle from the upper and lower edges of the body portion.

5. A cattle-guard comprising longitudinal side rails and cross-bars extending between the side rails and having teeth or serrations at both their top and bottom edges.

FRANK C. SEYMOUR.

Witnesses:
SAMUEL E. HIBBEN,
GEO. HIBBEN.