

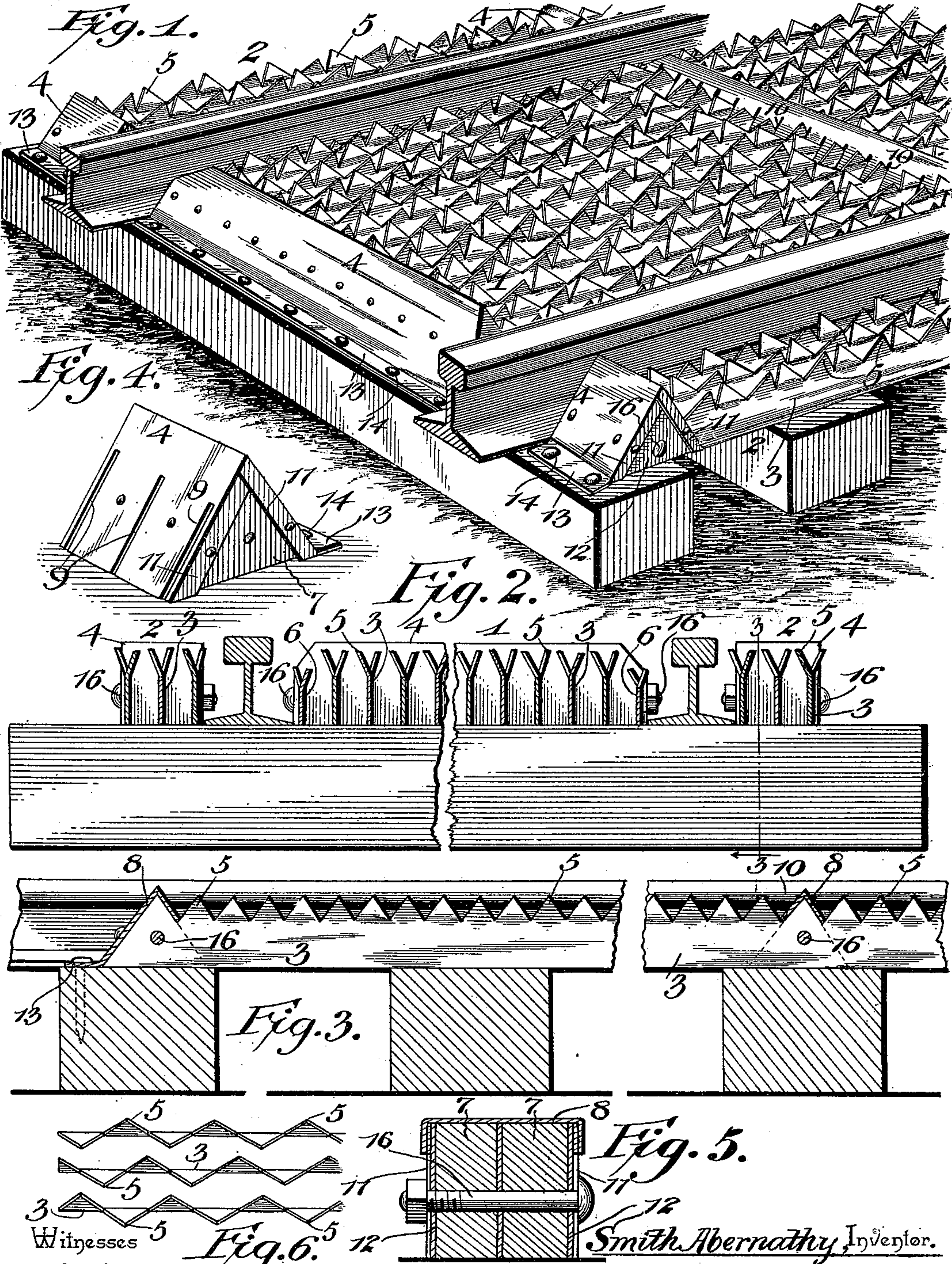
No. 635,413.

Patented Oct. 24, 1899.

S. ABERNATHY.  
RAILWAY CATTLE GUARD.

(Application filed Sept. 7, 1898.)

(No Model.)



Witnesses  
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By his Attorneys,

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# UNITED STATES PATENT OFFICE.

SMITH ABERNATHY, OF KEENER, ALABAMA.

## RAILWAY CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 635,413, dated October 24, 1899.

Application filed September 7, 1898. Serial No. 690,417. (No model.)

*To all whom it may concern:*

Be it known that I, SMITH ABERNATHY, a citizen of the United States, residing at Keener, in the county of Etowah and State of Alabama, have invented a new and useful Railway Cattle-Guard, of which the following is a specification.

The invention relates to improvements in railway cattle-guards.

The object of the present invention is to improve the construction of railway cattle-guards and to provide a simple, inexpensive, and efficient one adapted to be readily mounted on a railroad-track adjacent to the rails and capable of effectually preventing stock from passing over the railroad-track from one field or inclosure into another. Another object of the invention is to provide a railway cattle-guard of this character which will be capable of being readily removed to permit a track to be repaired when necessary.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a railway cattle-guard constructed in accordance with this invention and shown applied to a railroad-track. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a longitudinal sectional view. Fig. 4 is a detail perspective view of one of the triangular supporting devices. Fig. 5 is a detail sectional view of the same. Fig. 6 is a detail plan view illustrating the arrangement of the teeth.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 and 2 designate central and side sections of a railway cattle-guard, located, respectively, between the rails and at the sides thereof, as clearly illustrated in Figs. 1 and 2 of the accompanying drawings, and consisting of longitudinal strips or bars 3 and triangular supporting devices 4, located at the center and ends of the sections. The longitudinal strips or bars, which are arranged edge-wise, as shown, have parallel lower body portions and are provided at their upper edges with substantially triangular projections or teeth 5, oppositely inclined or set, as shown,

in order to arrange them so as to cover practically the entire area of the sections and prevent an animal from getting its feet between the bars or strips. The central section is provided at its sides with smaller bars 6, having their teeth located in a plane below the teeth of the other bars in order to locate them out of the path of the flanges of the car-wheels and prevent them from being struck by the same, and by providing these narrower bars or strips an animal is effectually prevented from walking or getting its feet between the sides of the sections and the rails. The adjacent teeth of the bars or strips are correspondingly bent, as shown, and the said teeth are also staggered or arranged opposite the intervals of the teeth of the adjacent strips.

The triangular supports, which are located at the center and ends of each section, form guards and consist, preferably, of a core made up of wooden blocks or sections 7 and a sheet-metal covering 8, and the inner sides of the covering are provided with kerfs 9 to receive the ends of the bars or strips, which fit in the space between the blocks, the central supports being provided with kerfs 10, extending entirely through each side. The sheet-metal covering preferably consists of a triangular or V-shaped cap provided at its side edges with oppositely-inclined flanges 11 and the sides 12, which are preferably formed by extensions of the outer strips or bars, as illustrated in the outer or side sections; but the triangular supports may, as illustrated by the construction of the central section, be provided with ends or sides distinct from the bars or strips.

The end supports are provided with flanges 13, forming extensions of the outer inclined portions of the sheet-metal caps or coverings and provided with spike-receiving openings 14, whereby the sections are detachably mounted on the cross-ties, and when it is desired to replace the latter or otherwise repair the track the sections of the cattle-guard may be readily removed by withdrawing the spikes. The blocks or sections of the triangular supports are secured together by transverse bolts or rods 16, passing through registering perforations of the blocks and provided at one end with a head and at the other end with a nut.

The invention has the following advan-



tages: The cattle-guard, which is simple and inexpensive in construction, is adapted to be readily applied to a railroad-track, and it is capable of effectually preventing stock from using the same as a passage-way for leaving a field or inclosure to enter another. The device may also be readily removed from the track when it is desired to replace the cross-ties or otherwise repair the track.

10 The function of the supports 4 is to support the ends of the longitudinal bars and by projecting above the plane of the teeth to prevent brake-beams or hanging or dragging broken portions of the car-trucks from catching in the guard and tearing it from place. Furthermore, they serve to hold the sections of the guard firmly together, and by removing the supports from the ties the entire guard is easily removed when surfacing the track.

20 They serve as the sole support for the bars.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

25 What is claimed is—

1. A railway cattle-guard, comprising longitudinal bars provided along their upper edges with teeth, and adapted to be set edgewise upon and across the ties, the combined supports and guards of substantially triangular shape, each having a filling or core of wood, and an inverted-V-shaped covering of metal provided with kerfs extending from the bot-

tom thereof upward and terminating short of the top, said cover being extended at the base and fastened to the ties, the toothed bars being inserted through said kerfs into the core, and a fastening device passing through the core and the bars, the said supports serving as the sole means of connection between the toothed bars and the ties, substantially as described.

2. A railway cattle-guard comprising the longitudinal bars provided along their upper edges with teeth and set on edge across the ties, and the combined guards and supports 4 of substantially triangular shape and of greater height than the bars, composed of a filling or core of wood made in sections, and a covering of metal, the metallic covering being extended at the base to provide attaching flanges to spike the supports in place, the metallic covering being provided with kerfs to receive the ends of the longitudinal bars, and the wooden blocks being located at opposite sides of the bars, and the transverse bolts passing through the blocks and bars, substantially as described.

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

SMITH ABERNATHY.

Witnesses:

JOE CASE,

J. P. KEENER.