

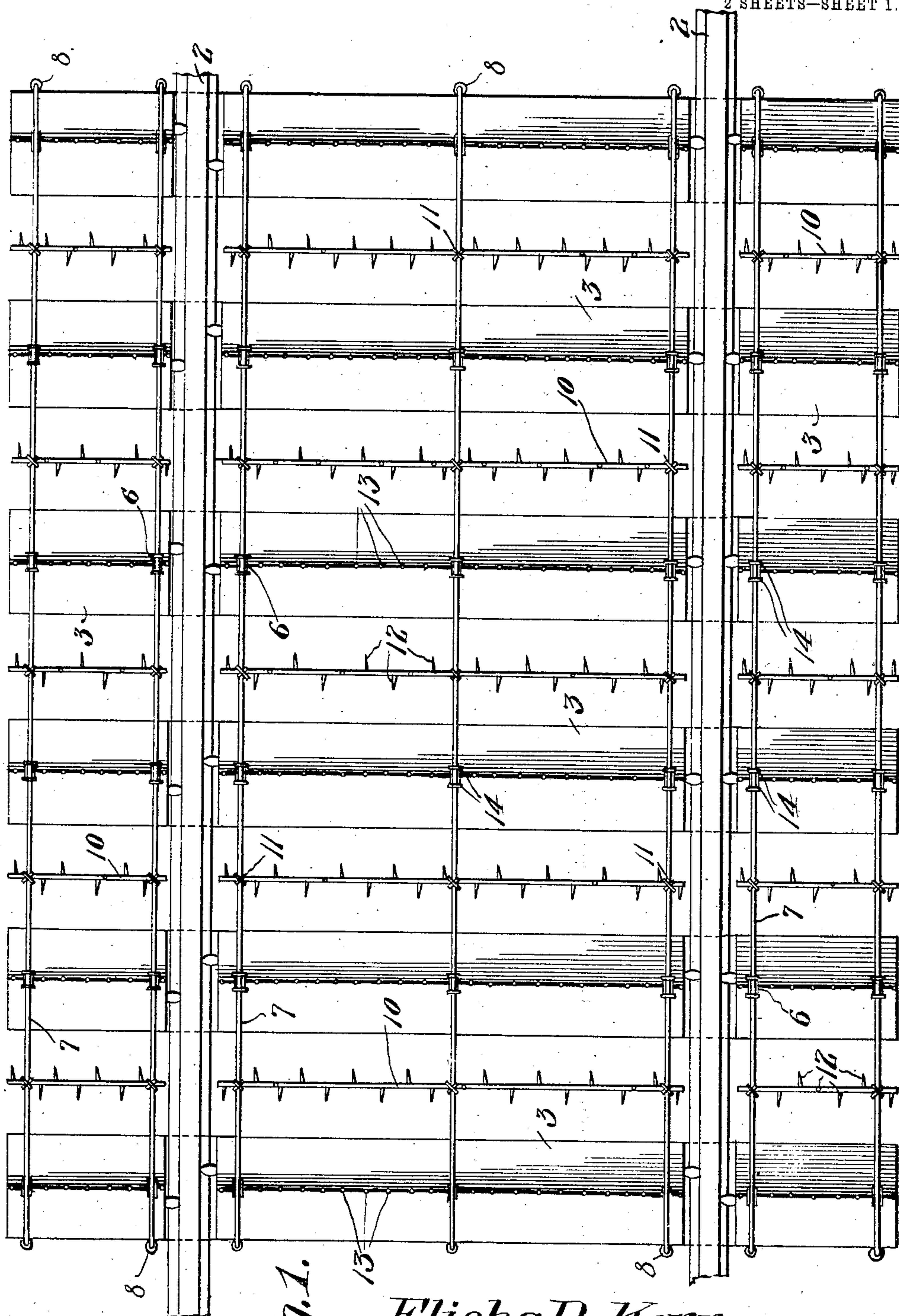
No. 824,247.

PATENTED JUNE 26, 1906.

E. R. KERR.
CATTLE GUARD.

APPLICATION FILED NOV. 8, 1905. RENEWED MAY 24, 1906.

2 SHEETS—SHEET 1.



Witnesses
E. J. Stewart
Wm. Baggett

Fig. 1.

Elisha R. Kerr,

by

C. A. Snow & Co.

Attorneys

Inventor,

UNITED STATES PATENT OFFICE.

ELISHA R. KERR, OF ERIN, TENNESSEE.

CATTLE-GUARD.

No. 824,247.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed November 8, 1905. Renewed May 24, 1906. Serial No. 318,558.

To all whom it may concern:

Be it known that I, ELISHA R. KERR, a citizen of the United States, residing at Erin, in the county of Houston and State of Tennessee, have invented a new and useful Cattle-Guard, of which the following is a specification.

This invention relates to cattle-guards for railroads; and the principal objects of the invention are to simplify and cheapen the construction and to increase the efficiency of this class of devices.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations, and modifications within the scope of the invention may be made when desired.

In the drawings, Figure 1 is a top plan view illustrating a cattle-guard constructed in accordance with the principles of the invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a perspective detail view. Figs. 4, 5, and 6 are sectional details illustrating modifications. Fig. 7 is a detail perspective view illustrating another modification.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

In the construction of this improved cattle-guard a number of specially-prepared track-supporting ties 1 1 are utilized, said ties being sawed or hewn to the desired dimensions, usually eight by eight inches square in cross-section. Of these ties any desired number may be employed, according to the desired length of the cattle-guard, and said ties are placed uniformly at a distance apart of about eight inches, more or less. The track-rails 2 2 are in the usual manner supported and spiked upon the ties 1 1. It is to be understood that of said ties any desired number may be used. In the accompanying drawings six ties have been shown; but the number and exact dimensions of the ties are entirely optional and may be varied according to circumstances.

Upon the ties 1 1, between the rails and adjacent to the outer sides of the latter, are supported cap members 3 3 of triangular shape, having their sides at angles of forty-five degrees to their bases, which rest upon the upper surfaces of the ties and are of a width equal to the latter. These cap members may be constructed of solid pieces of wood, as best seen in Fig. 2 of the drawings, the wood utilized in the construction being thoroughly creosoted or otherwise treated to enable it to resist continued exposure to the weather without decay, said cap members being secured upon the ties by means of spikes 4 or in any other suitable way.

In Figs. 4 and 5 have been illustrated various forms of cap members, (designated, respectively, 3^a and 3^b), each form being constructed or made up of a plurality of planks of suitable dimensions, said planks being nailed or spiked together by means of nails or spikes, as 4. In the various forms the nails or spikes used for securing the cap members upon the ties and for building up the caps are coated with or bedded in some suitable adhesive mixture or cement, as indicated at 5, in order that the parts may be joined together in such a manner that there will be no danger of their being accidentally disassembled.

In Fig. 6 has been illustrated a form of cap member (specially designated 3^c), the same being made of cast-iron of suitable size and shape to be supported upon the tie, where it is secured by means of nails or spikes, as 4.

The upper edges of the cap members are provided with notches 6 of suitable depth to form seats for a plurality of wire rods 7, which are extended longitudinally the full distance of the cattle-guard and which are firmly secured to the cap members supported upon the terminal ties 1 of the guard, as by means of eyebolts 8 and nuts 9, thus preventing said rods from being accidentally displaced. Ordinarily three of these rods will be supported upon the cap members between the rails and two upon each set of cap members adjacent to the outer sides of the rails. The exact number and disposition of these rods, however, may be varied according to circumstances.

The rods 7 are provided intermediate the apices of the cap members whereby they are supported with flattened or indented portions 8, engaging correspondingly flattened or indented portions 9 of rods 10, which extend

across the rods 7 between the rails and adjacent to the outer sides of the latter and are connected with the rods 7 by wires 11, suitably twisted upon and across the rods 7 and 10 to firmly connect them together. The rods 10 are provided with spurs 12, which may be formed upon or attached to said rods in any suitable convenient manner.

The cap members supported upon the ties are provided at the apices thereof with upwardly-extending spurs 13, which are firmly embedded therein and placed as closely together as may be desired.

The longitudinal rods 7 are secured in the notches or seats of the cap members by means of staples 14, straddling said rods and driven securely into the cap members. When the cap members are made of metal, as in Fig. 6 of the drawings, hook-bolts, as 15, may be substituted for the staples 14.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood by those skilled in the art to which it appertains. The principal advantage of the invention resides in the facility with which it may be constructed at a very moderate expense and in such a manner as to positively prevent the passage of animals over the guard and onto the right of way. The supporting-ties of the guard constitute in themselves a part of the road-bed, and the triangular supporting-caps may be placed thereon with little labor and with small expense. The iron rods used in the manufacture of the guard may be ordinary half-inch rods, which have been found to be sufficiently stout for the purposes of the invention and which may be supplied at light expense. The mounting and wiring of the supporting-rods and the barbed rods may be performed by unskilled labor in a very satisfactory manner. Cattle and other animals will be deterred from attempting to cross the guards by the spikes which project upwardly from the triangular caps, which latter afford the only footholds. If an animal should attempt to cross the guard by stepping upon the inclined sides of the caps, its feet will be deflected in the direction of the barbed rods supported between the caps, whereby the sensitive parts of the leg will be pricked, thus causing the animal to speedily give up its attempts to cross.

To increase the efficiency and security of the improved cattle-guard, the cross-ties 1 1 are spaced apart beneath the rails 2 2 by brace members 17, consisting of wooden bars or blocks about three by three inches square, which are firmly driven between the proximate ties and there secured in any suitable convenient manner.

In place of the metal rods 10 there may be used wooden rods, as 10', (see Fig. 8,) said wooden rods being preferably made round, about two inches in diameter, and provided with prongs or spurs, as 12', and with notches, as 9', forming seats for the rods 7, upon which the rods 10' may be wired or otherwise suitably secured.

Having thus described the invention, what is claimed is—

1. A railroad cattle-guard including a plurality of cross-ties, cap members of triangular cross-section supported upon said ties and having upwardly - extending spikes, and barbed rods supported intermediate the apices of the cap members.

2. A cattle-guard including a plurality of cross-ties, cap members of triangular cross-section supported upon said ties and having upwardly-extending spikes said cap members being provided at intervals with notches, longitudinal rods seated in said notches, and barbed rods connected with and supported by the longitudinal rods intermediate the apices of the cap members.

3. A cattle-guard including a plurality of cap members triangular in cross-section, and supporting means for said cap members; in combination with longitudinal supporting-rods resting upon and connected with the cap members and having flattened portions intermediate the apices of the latter, and transverse barbed rods having flattened portions engaging the flattened portions of the supporting-rods; and means for connecting the barbed rods with the supporting-rods.

4. In a cattle-guard, a plurality of cap members, triangular in cross-section, and provided with notches in their upper edges; in combination with rods seated in said notches, eyebolts upon the terminal ties for the reception of the ends of the rods, nuts upon the ends of the rods, and means for securing said rods in the seats of the intermediate caps.

5. In a cattle-guard, a plurality of rail-supporting ties, brace members spacing said ties apart beneath the rails, cap members triangular in cross-section supported upon the ties between the rails and adjacent to the outer sides of the latter said caps having notches in their upper edges, longitudinal rods seated in said notches and secured upon the terminal ties, and barbed rods connected with and supported by said longitudinal rods intermediate the apices of the cap members.

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

ELISHA R. KERR.

Witnesses:

J. B. BRUNNELL,
E. R. PARTRIDGE.