

No. 670,973.

Patented Apr. 2, 1901.

H. W. STEINMANN.
CATTLE GUARD.

(Application filed Oct. 31, 1900.)

(No Model.)

Fig. 1.

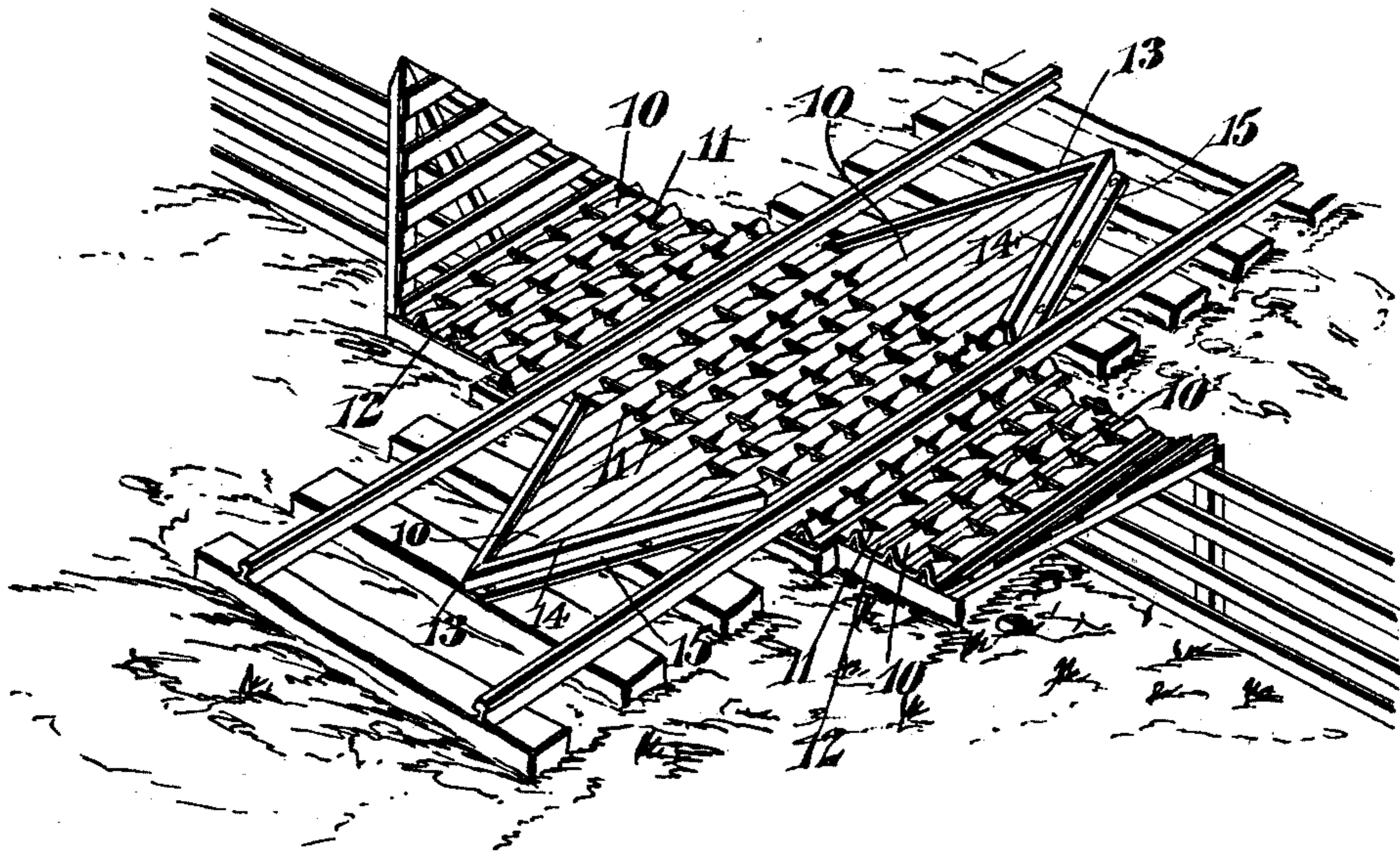


Fig. 2.

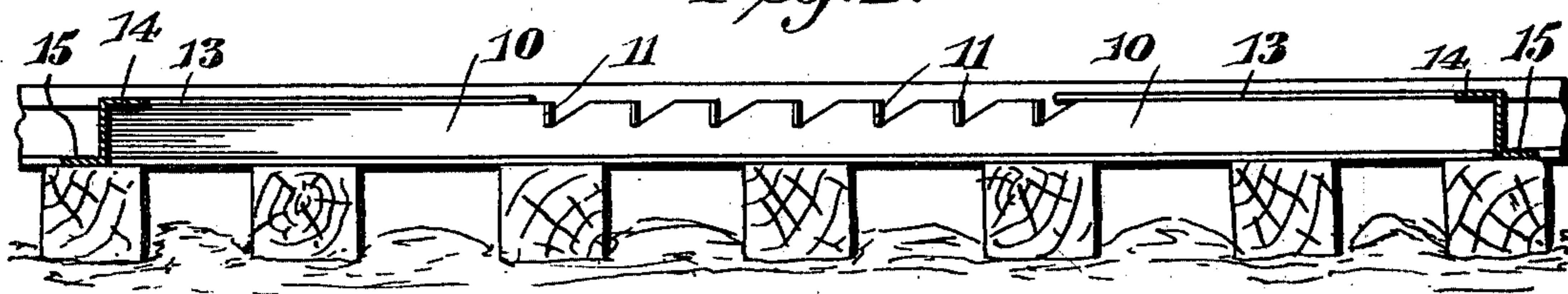


Fig. 3.

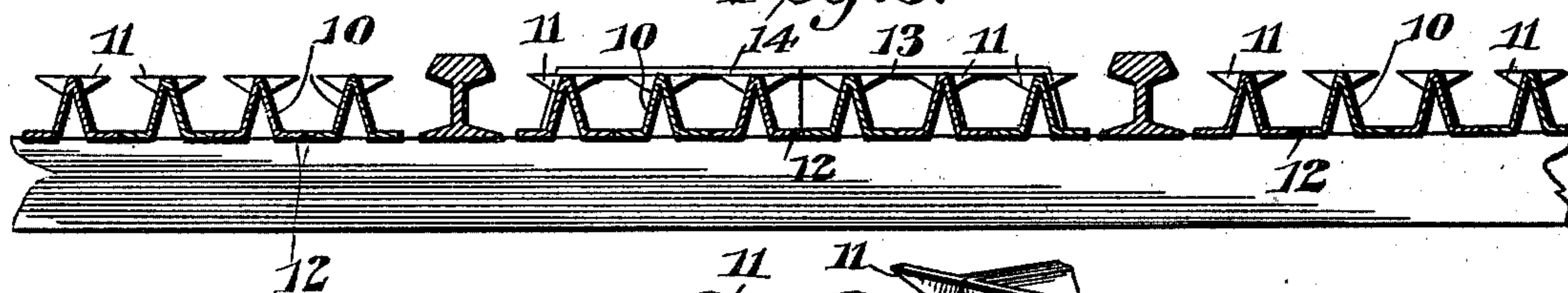
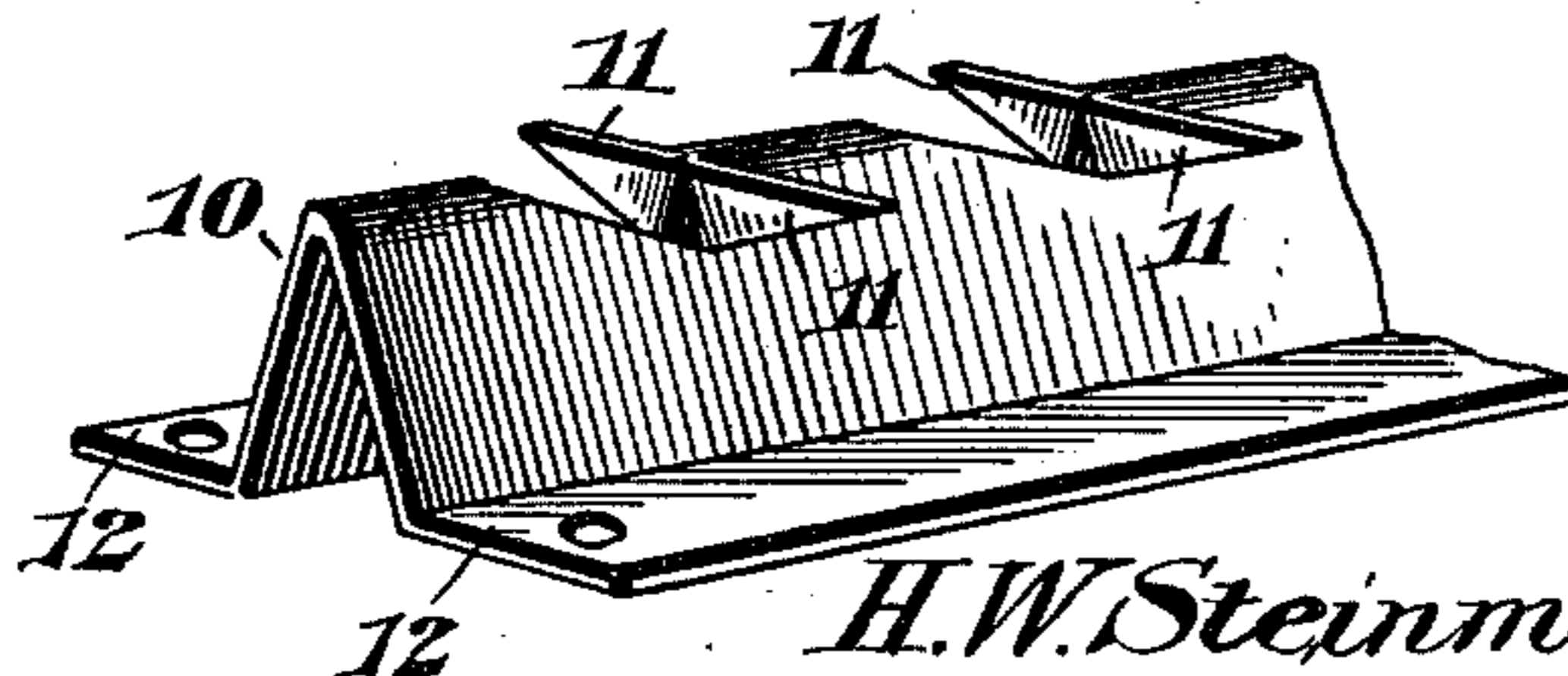


Fig. 4.



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UNITED STATES PATENT OFFICE.

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CATTLE-GUARD.

SPECIFICATION forming part of Letters Patent No. 670,973, dated April 2, 1901.

Application filed October 31, 1900. Serial No. 35,045. (No model.)

To all whom it may concern:

Be it known that I, HERMAN WERNER STEINMANN, a citizen of the United States, residing at Buckholts, in the county of Milam and State of Texas, have invented a new and useful Cattle-Guard, of which the following is a specification.

The present invention relates to cattle-guards; and the object thereof is to provide an improved surface guard which will effectually prevent the attempted passage of an animal along railway-tracks, but will not interfere with the free passage of trains. This object is accomplished by providing a guard the surface of which has a plurality of spurs and is so constructed that should an animal step thereon its foot will be directed against one or more of these spurs, thus causing the animal to withdraw its foot and not attempt to pass over the same.

In order that a comprehensive understanding of the invention may be obtained, the preferred form of construction is fully illustrated in the accompanying drawings and described in the following specification.

In the drawings, Figure 1 is a perspective view of the preferred form of construction. Fig. 2 is a longitudinal section of the same. Fig. 3 is a cross-section; and Fig. 4 is a detail perspective, on an enlarged scale, more plainly illustrating the construction of the spurs.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

In carrying out the invention, as shown, a plurality of spaced ribs 10, having inclined side faces, are arranged upon the ties longitudinally of the track and cover the space between and for some distance on the outside of the rails. These ribs are provided with laterally-projecting spurs 11, which extend into the depressed spaces between said ribs. The spurs of one rib preferably alternate with the spurs of the adjacent rib. Each rib is preferably made separate and comprises a blank of sheet metal struck to the form of an inverted V in cross-section and has along its lower side edges base-flanges 12, by means of which it is secured to the ties. The apex or upper edge is provided with the laterally and horizontally projecting spurs 11, formed

by making inclined cuts in this upper edge, splitting such cut portions, and bending the spur-sections thus formed outwardly in opposite directions. Those ribs which are arranged between the tracks have only their intermediate portion provided with the spurs, the ends being left smooth. Furthermore, those ribs which are between the tracks are of different lengths, the central ones being the longest and the others gradually decreasing in length until those nearest the rails are of substantially the same length as those outside the same. The ends of all the ribs between the rails are covered and protected by triangular guards 13, which comprise upright metallic plates having upper horizontal flanges 14, which project over the ends of the ribs, and horizontal base-flanges 15 at their lower edges, by means of which said guards are secured to the tie. By this means it will be observed that a triangular guard is provided at each end of the portion between the tracks. From the outer edges of the cattle-guard the usual fence extends. The ends of this fence are, however, inclined, so that they will not be in the way of passing trains.

In operation the animal upon approaching the guard and attempting to pass will step upon the same, whereupon the spurs will prick its foot and will thus deter the animal from proceeding. As no part of the guard projects above the rails, there will be no interference with the free passage of trains, and the ends of the ribs being carefully protected no trailing or hanging car attachments will catch thereon and the ends will be held from being bent or twisted. It will also be observed that by the above arrangement, the caps or guards 13 not only serve as protectors for the ends of the ribs, but by having the end of the cattle-guard between the rails arranged in the form of a V said caps also act as guard-rails. It will be understood that any desired number of these ribs may be arranged between the rails, and while the spurs have been illustrated as projecting horizontally they may be upwardly inclined at any degree that may be deemed necessary or desirable, and even in certain cases project in a vertical direction. The points of the spurs may also be arranged on a level with the tops of the rails or any distance below the same.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A cattle-guard comprising a plurality of inverted substantially V-shaped ribs, provided upon their apices with a plurality of outwardly-projecting horizontal integral spurs.

2. A cattle-guard comprising a plurality of projecting foot-engaging elements arranged between the rails, said guard being provided with a contracted end, and a cap covering the

edges of said contracted end and serving as a guard-rail.

3. A cattle-guard comprising a plurality of spaced ribs arranged longitudinally between the rails, the central ribs being longer than the others, and guards capping both ends of said ribs.

4. A cattle-guard, comprising a plurality of inverted substantially V-shaped ribs provided upon their apices with a plurality of outwardly-projecting integral spurs, said spurs being formed by cutting the upper edge of said ribs, splitting such cut portions and bending the cut sections outwardly.

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

HERMAN WERNER STEINMANN.

Witnesses:

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