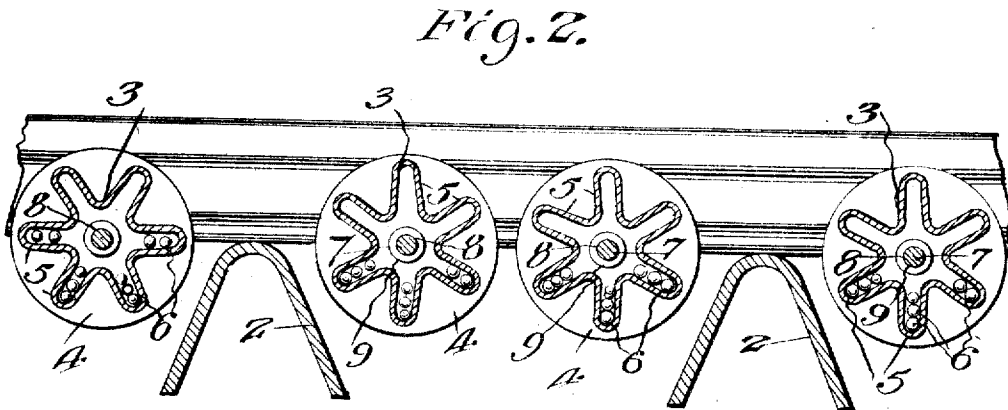
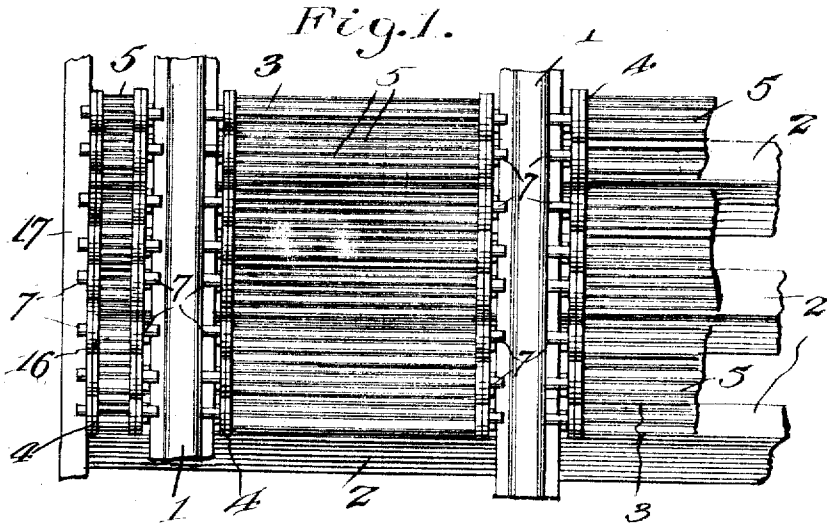


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RAILWAY CATTLE GUARD.  
APPLICATION FILED JUNE 15, 1909.

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Patented Jan. 25, 1910.  
2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 3.

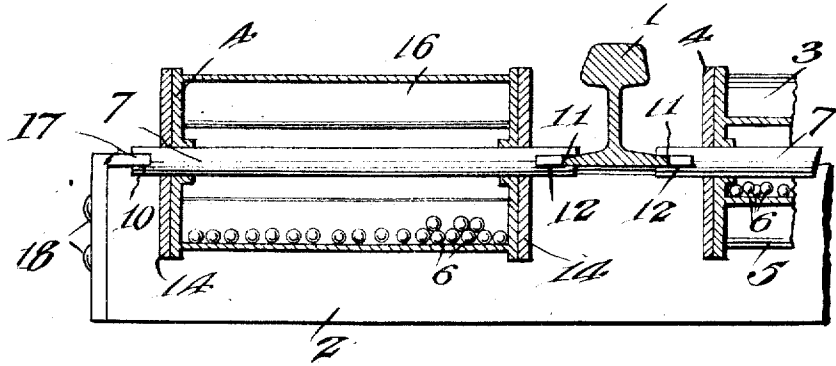


Fig. 5.

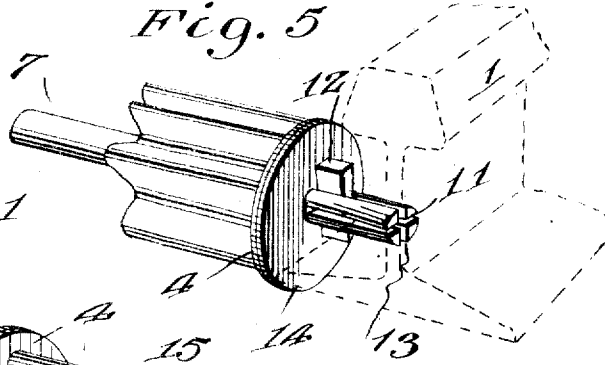
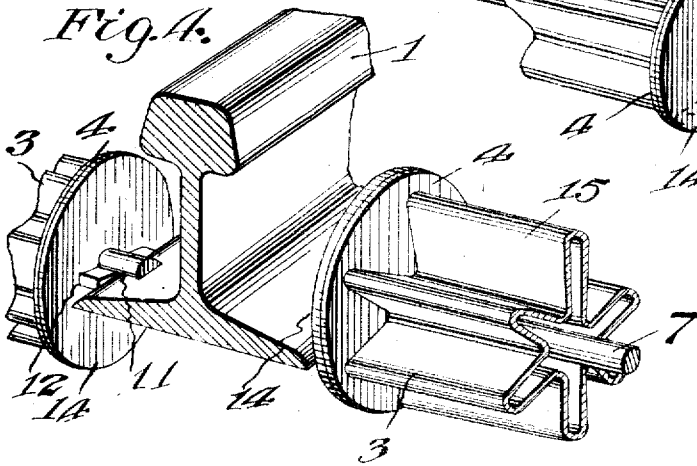


Fig. 4.



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# UNITED STATES PATENT OFFICE.

GEORGE F. WOOD, OF MCKINNEY, TEXAS, ASSIGNOR OF ONE-HALF TO GEORGE R. SMITH,  
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## RAILWAY CATTLE-GUARD.

947,268.

Specification of Letters Patent.

Patented Jan. 25, 1910.

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*To all whom it may concern:*

Be it known that I, GEORGE F. WOOD, a citizen of the United States, residing at McKinney, in the county of Collin and State of Texas, have invented certain new and useful Improvements in Railway Cattle-Guards, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention is an improved railway cattle guard and consists of the novel construction, combination and arrangement of parts hereinafter fully described and claimed.

15 The object of the invention is to provide a device of this character which will be inexpensive in construction, durable in use and efficient in operation; to provide one which will make a rattling noise when an animal  
20 attempts to cross it and thereby frighten the animal; and to provide one in which the track rails may be used as a part of the supporting framework of the device.

25 The above and other objects of the invention are attained in its preferred embodiment illustrated in the accompanying drawings, in which—

30 Figure 1 is a plan view of the improved railway cattle guard; Figs. 2 and 3 are longitudinal and transverse sectional views; and Figs. 4 and 5 are detail perspective views showing the manner in which the rollers or cylinders of the guard may be fastened.

35 In the drawings 1 denotes railway track rails and 2 cross ties for supporting the same. These ties are preferably made of triangular-shape in cross section at the guard so that their upper or side faces will be  
40 downwardly inclined.

40 The guard comprises a plurality of rollers preferably of substantially cylindrical shape and made of sheet metal so that they will be hollow and corrugated longitudinally. These  
45 rollers which are arranged between a pair of the track rails 1 are designated by the numerals 3 and each consists of two circular heads 4 and a longitudinally corrugated hollow body 5 made of sheet metal and having  
50 said heads suitably united to its ends.

50 The rollers or cylinders are made in this manner so that they may contain small objects 6 which will move around in the roller as it is rotated by the animal and produce a  
55 rattling noise and frighten the animal away.

55 Said objects 6 may be pebbles, marbles, shot,

or other hard substantially spherical objects which will produce a noise when they fall against the corrugated sheet metal body 5.

The rollers or cylinders 3 are preferably mounted by arranging them on transverse  
60 pivot rods 7 which extend through openings 8 punched in the heads 4. Said openings 8 are formed by punching the heads inwardly so that the portions 9 of the heads will provide inwardly extending bearing surfaces  
65 for the pivot rod, thereby strengthening said heads, as shown in the drawings. The base flanges of the track rails 1 are used as supports for the pivot rods 7, which latter are  
70 secured to said flanges by forming in their ends notches 10, 11 to receive the base flanges of the opposing track rails. The notch 10 at one end of each pivot rod is comparatively  
75 short and of just sufficient size to receive and effectively engage the base flange of one of the track rails, but the notch 11 at the other end of said pivot rod is long so as to receive  
80 a locking wedge or key 12 in addition to the base flange of the opposing track rail. The key 12 is in the form of a wedge-shaped plate which is driven into the inner portion  
85 of the notch 11 after the outer end of said notch has been engaged with the base flange of the rail so that the pivot rod 7 will be rigidly clamped between the two track rails.  
90 If desired, the end of the pivot rod having the long notch 11 may have another notch or slot 13 intersecting the notch 11 in a plane at right angles to the same so that the wedge  
95 key may be inserted vertically instead of horizontally, as will be understood on reference to Fig. 5 of the drawings. Washers 14 are preferably arranged on the pivot rod 7 at the ends of the rollers or cylinders 3. It  
100 will be understood that one or more of the rollers may be arranged between each of the cross ties.

As above stated, the rollers 3 are arranged between opposing track rails in either single  
105 or double tracks and where there are double tracks similar rollers 15 may be similarly mounted between the adjacent rails of the two tracks. On both single and double  
110 tracks rows of similar but smaller rollers 16 are arranged between the outer base flanges of the rail and an angle metal pivot supporting bar or plate 17 which may be spiked, as shown at 18, to the ends of the cross ties 2 or otherwise suitably mounted.

In operation, when an animal voluntarily

attempts to cross the cattle guard it always first tests it. The moment the animal touches the cylinder or roller with its hoof or nose the motion of the cylinder in revolving suggests its instability and the rattling noise caused by the balls or other objects in the cylinder will frighten the animal away. In case an animal crosses the guard involuntarily, as, for instance, by being pushed over it by other animals or being frightened across it by a train, the animal will not be injured or caught in the guard. This feature obviates all danger of trains being wrecked which frequently happens where ordinary pit guards are used. It is impossible for an animal to get caught or hung in the guard since the rotary movement of the cylinders or rollers and the resiliency of the metal from which the device is constructed will readily release any part of the animal upon its slightest exertion.

It will be noted that the peculiar construction of the device renders it inexpensive and at the same time strong and durable. The mounting of the pivots for the rollers on the flanges of the rails obviates the necessity of extra supporting framework and, consequently, enables the guard to be easily and quickly installed at an exceedingly small cost. When once installed, it will be exceedingly durable and it will be practically without cost of maintenance. By making the rollers or cylinders of galvanized iron they will be visible on the darkest night which is an advantageous feature.

While I have shown and described in detail the preferred embodiment of the invention, I wish it to be understood that various changes in the form, proportion and arrangement of parts and in the details of construction may be resorted to within the spirit and scope of the invention.

Having thus described the invention what is claimed is:

1. In a railway cattle guard, the combination with opposing track rails having base flanges, of transversely arranged horizontally disposed pivot rods formed at their ends with inwardly extending longitudinal notches to receive the opposing base flanges of the track rails, wedges driven into the inner portions of the notches at one end of said pivot rod and engaged with the base flanges of the adjacent track rail to retain said pivot rods in position between the rails, guard rollers rotatably mounted on said pivot rods, and washers upon said pivot rods between the ends of the rollers and the track rail.

2. In a railway cattle guard, the combination with cross ties of substantially V-shape in cross section, and track rails upon said ties and formed with oppositely projecting base flanges, of angle metal supporting plates having upright portions secured to the ends of said cross ties and inwardly extending horizontal flanges disposed in the horizontal plane of the base flanges of the track rails, transversely extending horizontally disposed pivot rods having their ends formed with inwardly extending longitudinal notches to engage the flanges on said track rails and said angular supporting plates, wedges driven into certain of the notches of said pivot rods to retain them in position, and guard rollers freely rotatable on said pivot rods and disposed between the cross ties.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

GEORGE F. WOOD.

Witnesses:

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