

J. H. WHEELER.
CATTLE GUARD FOR RAILWAYS.
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931,537.

Patented Aug. 17. 1909.

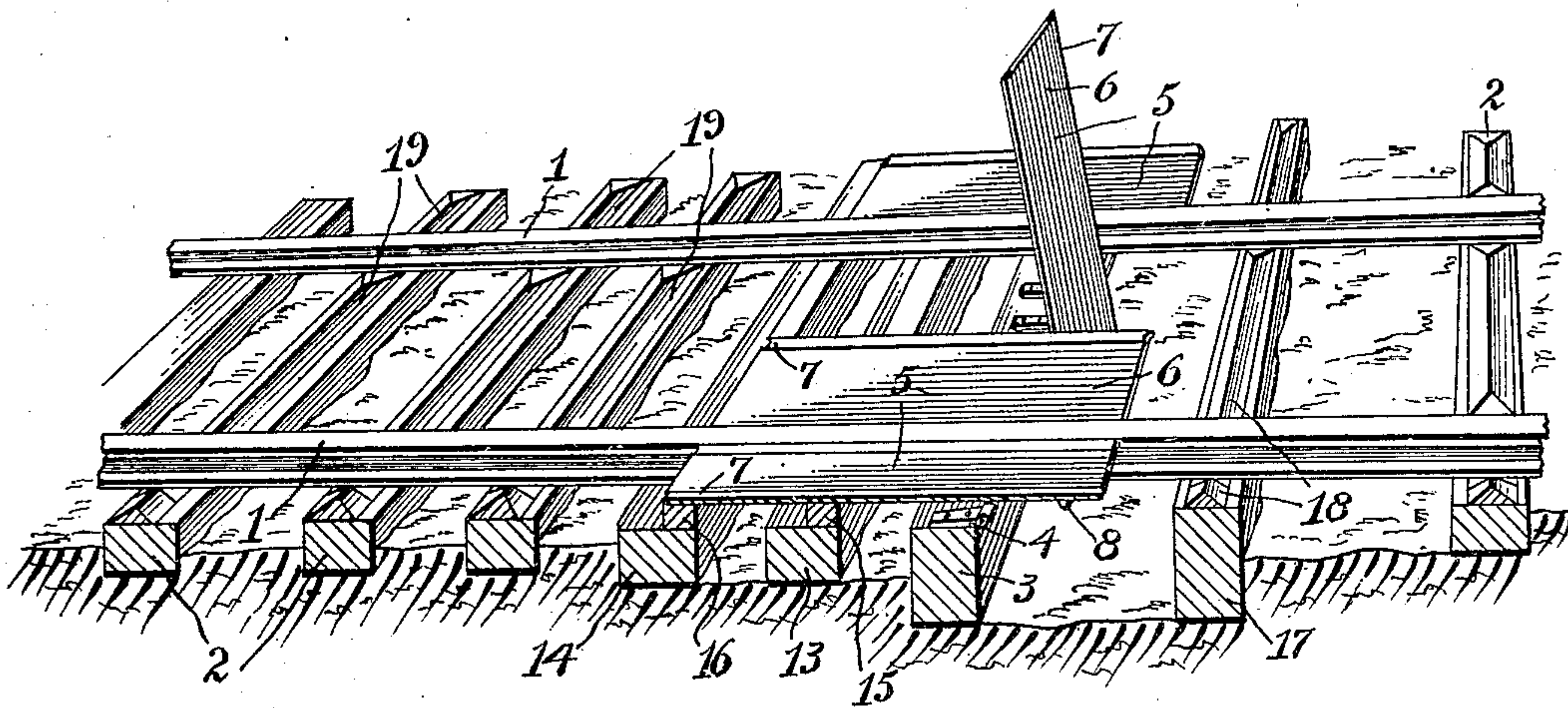


Fig. 1.

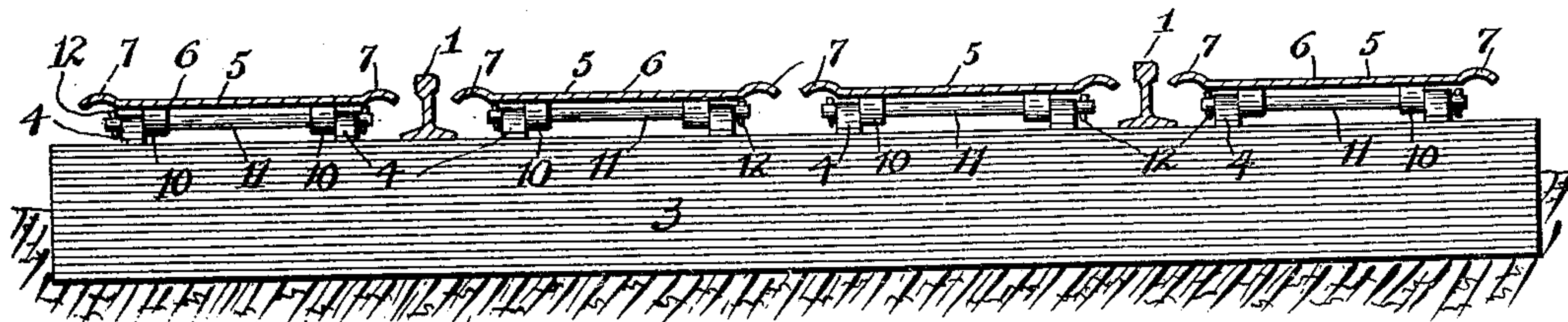


Fig. 2.

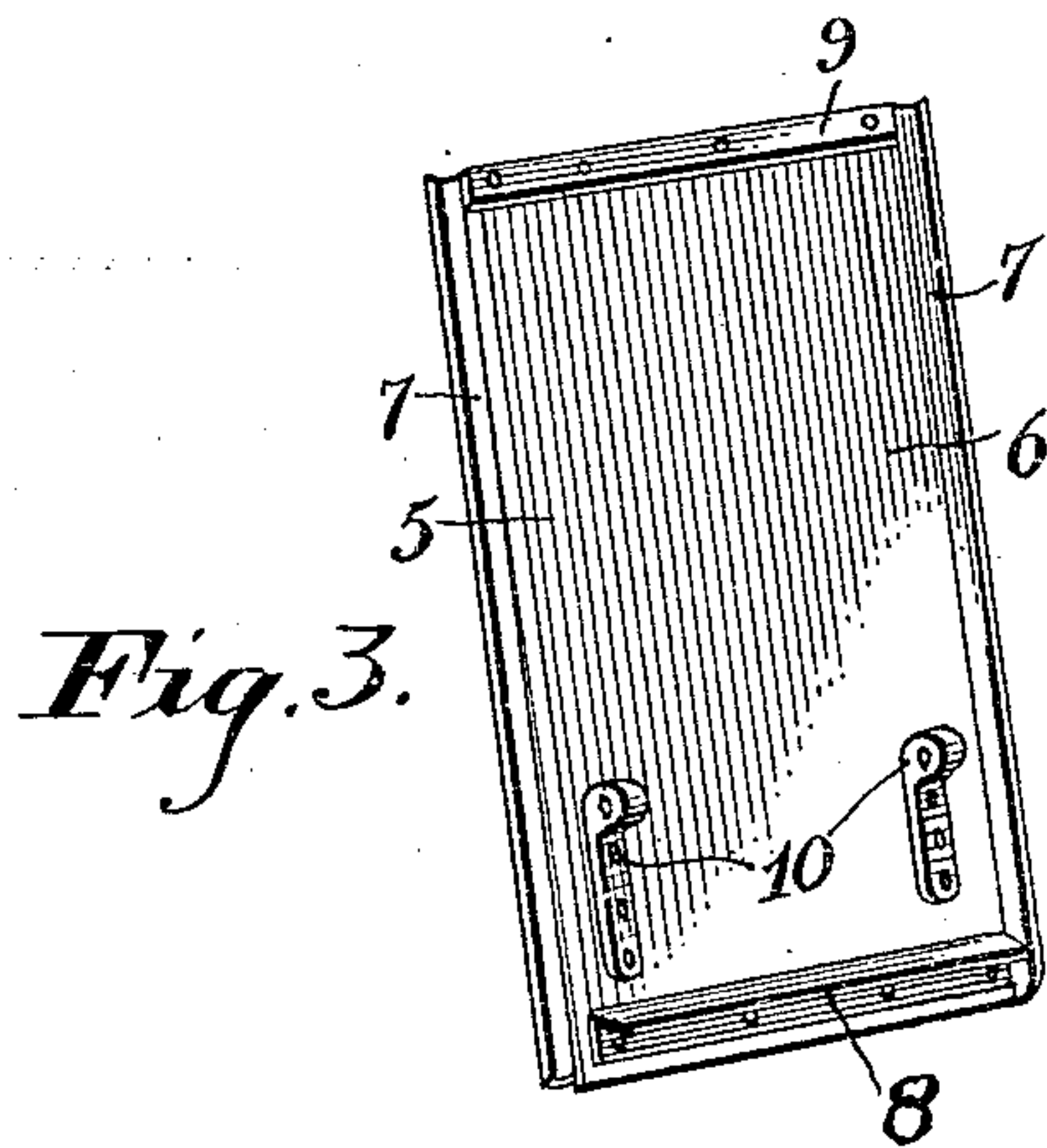


Fig. 3.

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CATTLE-GUARD FOR RAILWAYS.

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Specification of Letters Patent.

Patented Aug. 17, 1909.

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To all whom it may concern:

Be it known that I, JAMES H. WHEELER, a citizen of the United States of America, residing in the city of Bellingham, in the State of Washington, in the United States of America, have invented certain new and useful Improvements in Cattle-Guards for Railways, of which the following is a specification.

The invention relates to improvements in cattle guards, as described in the present specification, and illustrated in the accompanying drawings that form part of the same.

The invention consists essentially in the novel construction and arrangement whereby a ditch is formed across the trackway to receive the fore feet of the animal, and platforms hinged to the timber forming the rear wall of said ditch are tipped thereinto on pressure from the weight of said animal.

The objects of the invention are to devise a simple and durable mechanism for such devices which will effectually operate under all climatic conditions, and form a barrier to the passage of cattle and other animals on to the property of a railway track, and at the same time allow animals which may have trespassed on said property through other openings to readily pass over the guard into the public roadway.

In the drawings, Figure 1 is a sectional perspective view, showing the road bed of a railway fitted with the guards. Fig. 2 is a cross-sectional view through the line A—B in Fig. 1. Fig. 3 is an enlarged perspective detail view showing the under side of one of the trip platforms forming the guard.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, 1 are the rails of a trackway spiked as customary to ties 2.

3 is a tie of larger dimensions than the ties 2, and extending to each side of the rails 1 a little beyond the ties 2.

4 are hinge members firmly spiked to the top of the tie 3, and having the knuckles thereof along one edge of said tie.

5 are trip platforms preferably formed as here shown of the plate of metal 6 riveted at one end thereof to the angle iron 8 and at the other end thereof to the strap iron 9. The platforms 5 are strengthened by the flutes 7 extending parallel to and in proximity to the side edges.

10 are hinge members firmly bolted to

the under side of the said trip platforms toward one end thereof.

11 are rods inserted through the knuckles of the hinge members 4 secured to the tie 3 and the hinge members 10 secured to the trip platforms 5, and having the split pins 12 inserted through suitable lateral orifices toward each end of said rod and immediately outside the hinge members 4. The trip platforms 5 are thus pivotally arranged on the tie 3 at the edge thereof, the said platforms having the shorter ends thereof projecting outwardly over the edge of the said tie 3, and the other and longer ends normally resting of their own weight on the strips 15 and 16 secured to the top of the ties 13 and 14 over which the trip platforms extend. It must be here noted that the ends of the trip platforms resting on the strip 16 do not extend beyond said strip, but lie flat on the top thereof, consequently currents of air caused by vehicles passing along the tracks at a high rate of speed cannot get underneath said platforms to raise them from their normal position.

17 is a tie approximately equal in size to the tie 3 and immediately in front thereof, the said tie 17 having the triangular-shaped strips 18 extending along the top thereof between and on each side of the rail 1, said strips either forming part of the said tie or securely spiked in position thereon.

The ballast between the ties 3 and 17 is dug away to leave sufficient space for the short end of the trip platforms to be pressed downwardly until the angle iron 8 stops against the tie 3 toward the bottom of said tie. It may also be here mentioned that the tie 17 is spaced a sufficient distance from the tie 3, so that cattle or other animals will have room to remove their feet from between the projecting ends of the platform 5 and the tie 17 after they have stepped on the overhanging end of said platform and tripped up the long end of the platform in attempting to walk thereover.

19 are triangular-shaped strips similar to the strips 18 and spiked on three or more of the ties behind the trip platforms, the ballast between these ties being partly dug away.

The combination of the hinged trip platforms and the ridged ties, as above described, makes an effectual barrier to animals attempting to walk along the road bed, as the ridged tie in front of the trip platforms makes it necessary for the animal to step between the ties, as the slanting sides of the triangular

strips spiked along the top of said ties will cause their feet to slip off into the space between, and when the animal places its feet on the short end of one of the trip platforms projecting over the tie 3, the said projecting end is depressed by the weight of the animal, and the rearwardly extending portion of the platform springs upwardly and strikes the animal a blow, and prevents its further progress along the tracks.

I am aware that hinged barriers operated by platforms pivotally secured thereto and extending between the rails have been used heretofore to prevent cattle from passing along trackways, but such devices are quite impracticable in actual use, owing to the numerous working parts and bearings which become clogged and unworkable through weather and other conditions such as snow or cinders from passing trains. In my invention, however, there is no part which can be in any way affected by weather or made inoperative through snow, or ice, or cinders falling thereon, as the ends of the trip platforms where they project beyond the tie 3 protect the space beneath the said tie and the tie 17 from being filled in with snow or cinders, thereby insuring the ready depression of said end on the pressure of an animal's foot thereon. Furthermore the sheet metal used in the construction of the platforms prevents an animal from securing any foothold to in any way climb the platform when in its tipped position.

Another feature of the invention is that though, as above explained, animals are prevented from going in one direction over the guard, they may quite easily walk over the said guard from the other side thereof; that is, if they get through other unguarded openings on to the property along which the tracks run, they can quite easily and naturally walk over the guard, as the rearwardly extending ends of the platforms rest firmly on the strips 15 and 16.

What I claim as my invention is:

1. In a cattle guard, the combination with a trackway of a pair of ties arranged paral-

lel and forming the walls of a ditch extending across said trackway, said walls extending downwardly to the bed of said ditch below the ballast level of said trackway, and the forward one of said ties having an inverted V-shaped top between and beyond the rails, and a plurality of sheet-metal platforms having fluted side edges and reinforced ends and hinged to the other of said ties and occupying the space between and beyond the rails, and having their forward ends overhanging a portion of said ditch and arranged to reach to the lower end of said ditch wall on pressure being brought to bear on said overhanging ends.

2. In a cattle guard the combination with a trackway of a pair of ties arranged parallel and forming the walls of a ditch extending across said trackway, said walls extending downwardly to the bed of said ditch below the ballast level of said trackway and the forward one of said ties having an inverted V-shaped top between and beyond the rails, a plurality of hinge members spiked to the top of the other of said ties, a plurality of trip platforms formed of sheet-metal having the side edges thereof fluted, angle irons secured to the under side of said trip platforms toward the forward end thereof where they overhang said ditch, strap irons secured to the under side of said trip platforms at the other end thereof, a plurality of hinge members secured to the under side of said strip platforms toward the front end thereof, a plurality of rods extending through the knuckles in the hinge members secured to said tie and the hinge members secured to said trip platforms respectively, and a plurality of pins extending through suitable lateral orifices in said rods on the outside of said hinge members.

Signed at Bellingham, Washington, this 15th day of June, 1908.

JAMES H. WHEELER.

In the presence of—

R. S. SIMPSON,
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