L. B. STILSON.

Safety-Car Shoes.

No. 154,159. Patented Aug. 18, 1874.

Fig. 1.

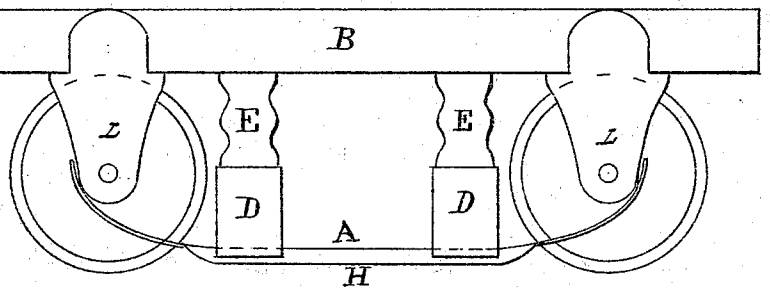


Fig. 2.

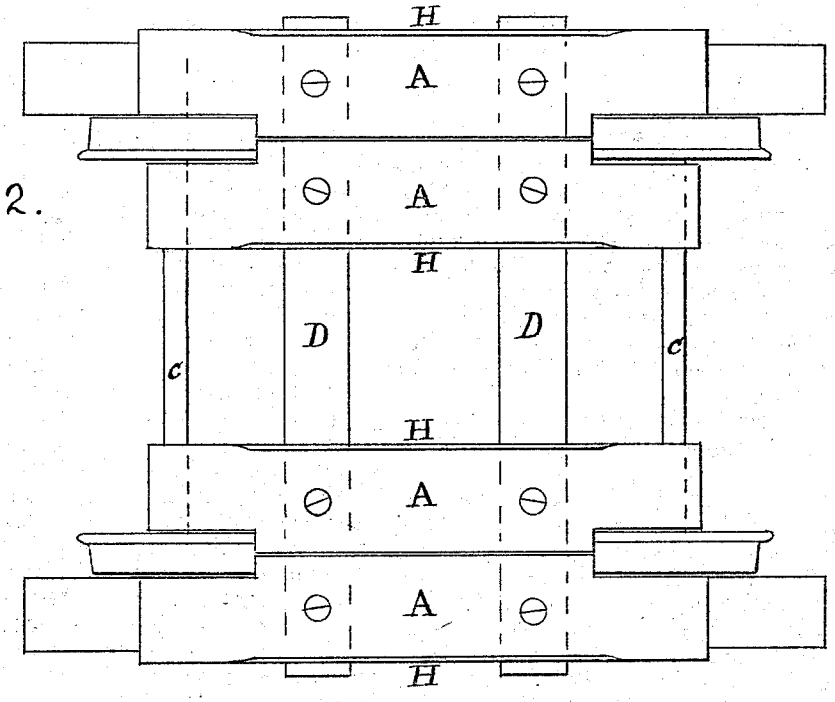
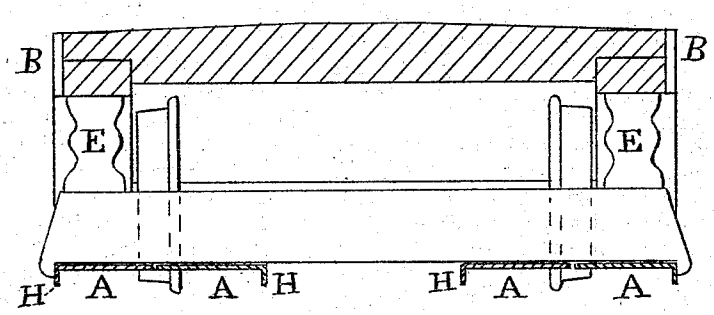


Fig. 3.



Witnesses:

H. A. Daniels

Will. H. Morow

Inventor:

Lyman B. Stilson.

Per Atty: A. H. & R. K. Evans.

UNITED STATES PATENT OFFICE.

LYMAN B. STILSON, OF MINNEAPOLIS, ASSIGNOR OF PART OF HIS RIGHT TO WM. D. HALL, P. R. L. HARDENBERGH, AND HENRY E. SEYMOUR, OF ST. PAUL, MINNESOTA.

IMPROVEMENT IN SAFETY CAR-SHOES.

Specification forming part of Letters Patent No. **154,159**, dated August 18, 1874; application filed April 10, 1874.

To all whom it may concern:

Be it known that I, LYMAN B. STILSON, a resident of the city of Minneapolis, county of Hennepin and State of Minnesota, have made certain new and useful Improvements in Safety Car-Truck Shoes, of which the following is a full, clear, and exact description.

Figure 1 is a side view, showing the car-truck, safety-shoe, and rail. Fig. 2 is a bottom view of the same; Fig. 3, a cross-section of the safety-shoe.

The same letters of reference are used in the various figures in the designation of identical parts.

The object of my invention is to produce a side-projecting flanged shoe, in combination with other devices, that shall, by its catching and clutching the rail or rails, prevent a train of cars from entirely leaving or jumping the track when rounding a curve, meeting an obstruction, or in the more common cases of a misplaced switch or broken rail; and it is believed that the safety car-shoe herein presented and described precludes the possibility of any serious accident from the above-named causes, and, so far as the knowledge of your petitioner extends, it is original with him.

Letters A show iron or steel shoes attached to the under side of a car-truck. Letters D are timbers, to which the main and flanged portion of the safety-shoes are attached. Between the outer ends of the timbers D and the car-truck frames B are the springs E, said springs relieving the force of the concussion consequent upon the shoe or shoes suddenly striking down upon the rail or rails. Projecting from the outer edges and at right angles with the face of the shoes A are the flanges H. These flanges are a part of the whole shoe, and are formed slightly concave upon their inner face, conforming thereby in a measure to the side shape of the T-rail, that they may clutch and cling to said rail or rails firmly, overcoming thereby any tendency of the car above to tip. Each end of the said flanges H is counter-beveled from the wheels of the car-truck, the bevel retaining the concave form, the object being that, in case of the truck running off from the track at an angle, the shoe will surely catch and hold without cutting into the side of the rails, and also to enable the flange H to pass any projections from out the side of the rails. The length of the flanges H is proportionately represented by the distance between the outer sides of the supporting-timbers D. The extending ends of the shoes A, from the outside of the timbers D to their extreme ends, are bent or curved to meet the boxes L, Fig. 1, or the axles C, Fig. 2, said boxes and axles furnishing support to said ends.

I am aware that similar shoes have been made with side-projecting flanges; and, therefore, I do not claim, broadly, such a shoe.

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

The supporting-timbers D, in combination with the springs E and shoes A, substantially as and for the purpose specified.

LYMAN B. STILSON.

Witnesses:

R. P. LUPTON,

W. R. WILLARD.