

C. E. PORTER.
CAR STEP.
APPLICATION FILED OCT 22, 1921.

1,415,699.

Patented May 9, 1922.

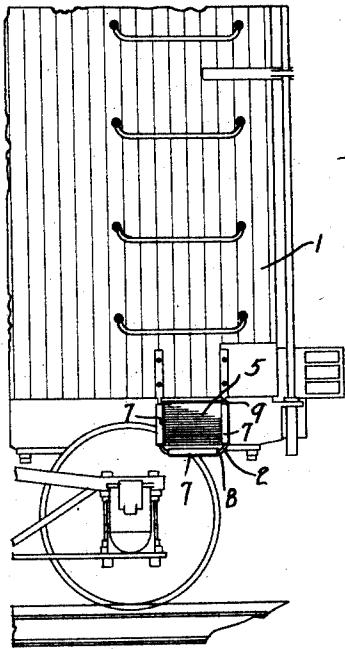


Fig. 1.

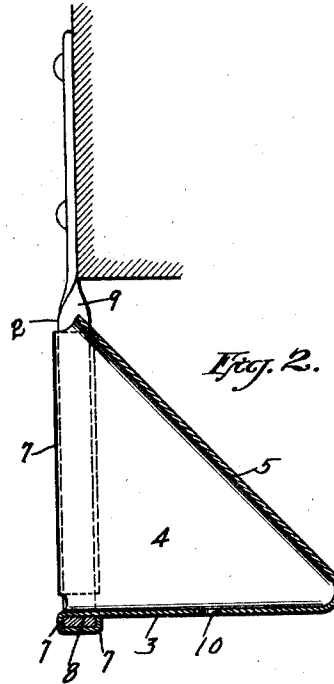


Fig. 2.

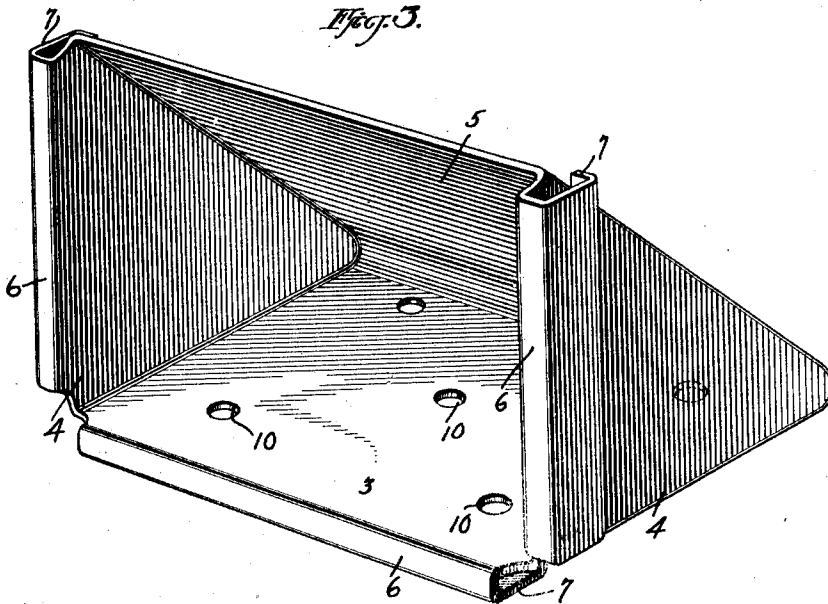


Fig. 3.

WITNESSES

W. H. Harwood.
F. J. Foster.

INVENTOR

CHARLES E. PORTER.

BY

Mumford
ATTORNEYS

UNITED STATES PATENT OFFICE.

CHARLES E. PORTER, OF NEVILLE TOWNSHIP, ALLEGHENY COUNTY, PENNSYLVANIA.

CAR STEP.

1,415,699.

Specification of Letters Patent.

Patented May 9, 1922.

Application filed October 22, 1921. Serial No. 509,456.

To all whom it may concern:

Be it known that I, CHARLES E. PORTER, a citizen of the United States, and a resident of Neville Township, in the county of Allegheny and State of Pennsylvania, have invented a new and Improved Car Step, of which the following is a full, clear, and exact description.

This invention relates to improvements in car steps, particularly to a device which can be substituted for the usual form of strap or stirrup step used on freight cars.

An object of the invention is to provide a device of this character, which can either serve as a step and be attached to the car, or serve as a guard and be quickly attached to the ordinary form of stirrup step.

A further object is to provide a device of this character, which will effectively prevent the foot of a brakeman or trainman from slipping through the stirrup step, and a device which will be simple and practical in construction, strong, durable and efficient in use, and comparatively inexpensive to manufacture.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings:

Figure 1 is a fragmentary view of the end of a freight car showing my improved guard in applied position;

Figure 2 is a view in transverse section through the guard; and

Figure 3 is an enlarged perspective view thereof.

Referring in detail to the drawings, I have used the reference numeral 1 to designate a freight car body, from which a conventional strap or stirrup step 2 depends. Accidents have frequently occurred when trainmen have inadvertently slipped through the step instead of stepping on it. My improved step guard which carries means for self attachment to a conventional form of stirrup step obviates this danger.

The guard seen most clearly in Figure 3, comprises a platform or step proper 3, and connected at their lower edges to the side edges of the step are triangular guard members 4. A covering plate or rear guard member 5 is connected at its lower edge to the

rear edge of the step 3 and at its side edges to the stops of the triangular members 4. The covering plate, platform and guard members may be integral, or may be formed from a number of sheets of metal, welded or otherwise secured together.

The forward edge of the step 3 and the forward edges of the triangular guard members 4 are formed with bendable extensions 6. These extensions may be bent to provide channeled members such as 7, which embrace the cross piece 8 and the depending legs 9 of the stirrup step 2. By bending or wrapping these extensions around the step the protector is securely held in place with its open end presented outwardly. It will be seen that this protector does not project beyond the side of the freight car and does not in any way interfere with the handling of the car. At the same time there is absolutely no danger of a trainman putting his foot entirely through the step, the guard members 4 and 5 serving to guide his foot into place. Openings such as 10 in the step prevent water from collecting therein.

I have illustrated and described this device as a protector which may be applied to a conventional type of step. It will, however, be evident that in building new freight cars any suitable attaching means may be provided for attaching the device directly to a car and doing away entirely with the old type of step. The device illustrated in the drawings is intended for use upon old cars and may be very quickly and easily applied.

Although I have illustrated one of the preferred embodiments of my invention, it will be apparent that various slight changes and alterations might be made in the general form and arrangement of the parts described without departing from the invention and hence I do not wish to limit myself to the precise details set forth, but shall consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of the appended claims.

I claim:

1. As a new article of manufacture, a step of the character described, including a platform, upstanding triangular guard plates at the sides of the platform, an inclined guard plate connected to the upper edges of the triangular members and the rear

edge of the platform, and means at the forward edges of the triangular guard plates and platform engageable with a support.

2. As a new article of manufacture, a step
5 of the character described, including a platform, upstanding triangular guard plates at the sides of the platform, an inclined guard plate connected to the upper edges of the triangular members and the rear edge of
10 the platform, and means at the forward edges of the triangular guard plates and platform engageable with a support, said means comprising bendable extensions integral with said plates and platform.

3. A step of the character described, in- 15
cluding a platform, a cover therefor connected at its rear edge to the rear edge of the platform, said cover located at an angle to the plane of the platform and having its forward edge above and in vertical align- 20
ment with the forward edge of the platform, guard plates connecting the side edges of the platform and cover, and extensions on the front ends of the guard plates and platform adapted to be bent to embrace a con- 25
ventional stirrup step.

CHARLES E. PORTER.