

(No Model.)

J. STEPHENSON.

HORSE GUARD FOR TRAM CARS.

No. 379,496.

Patented Mar. 13, 1888.

Fig. 1.

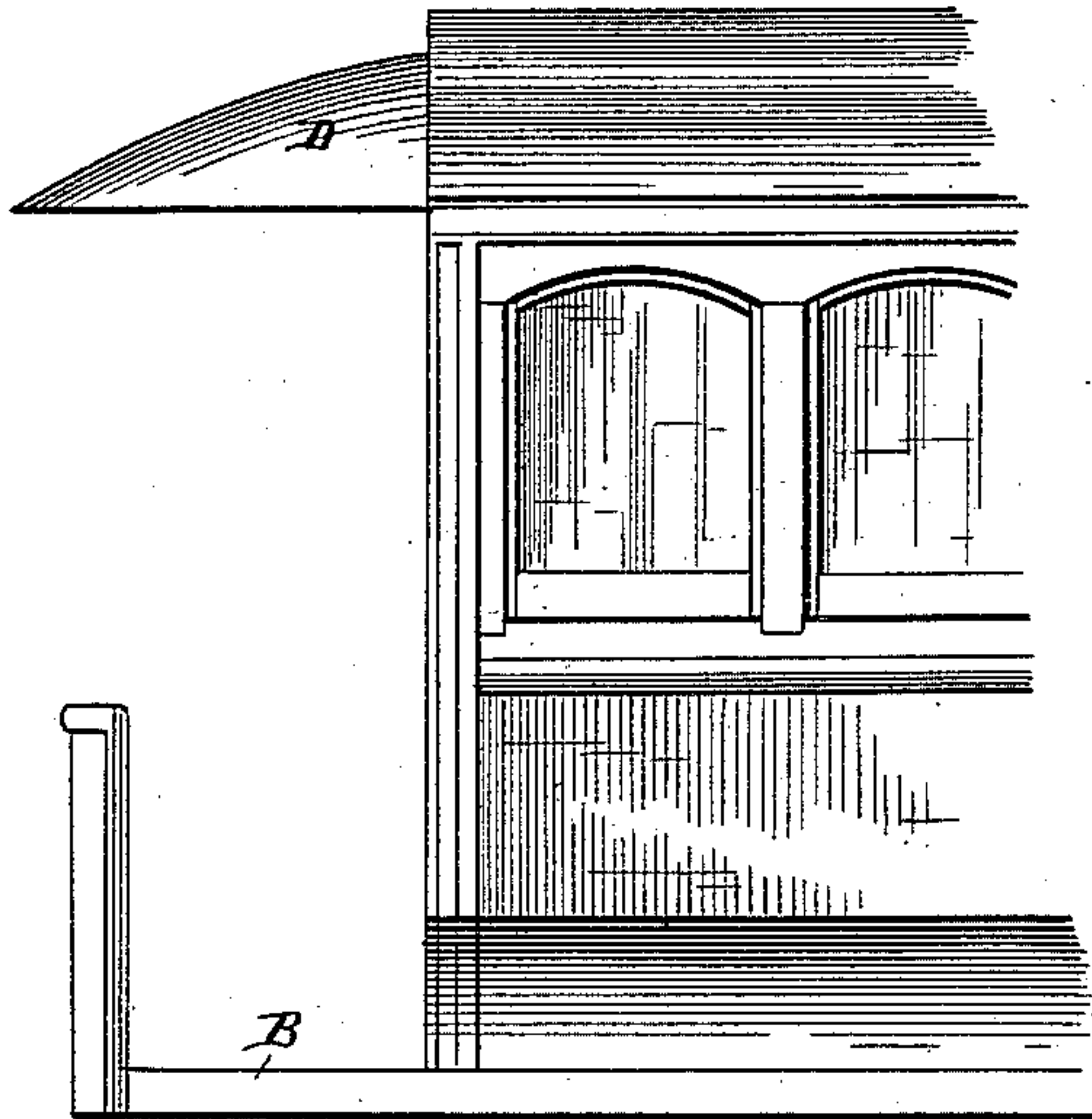


Fig. 2.

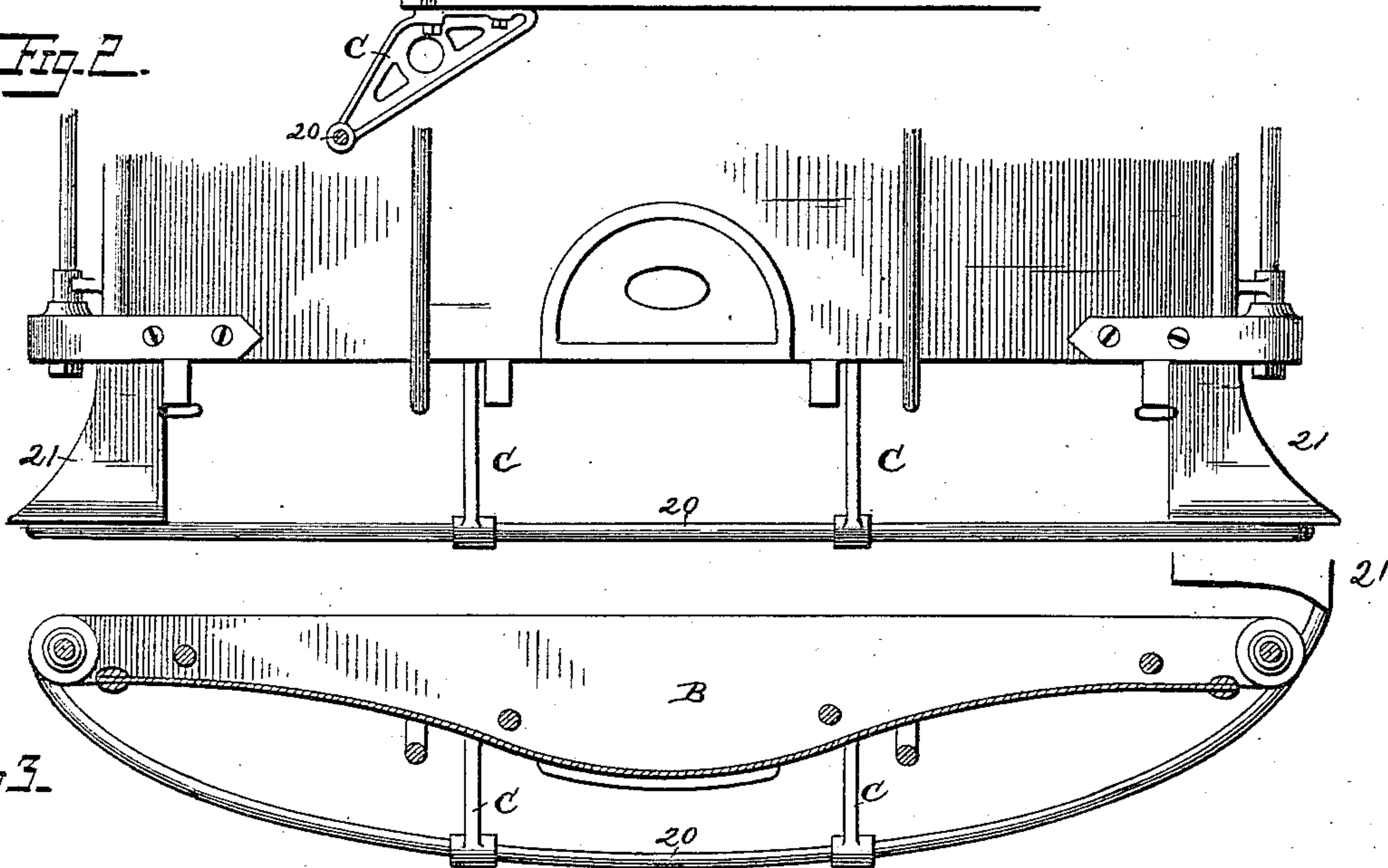


Fig. 3.

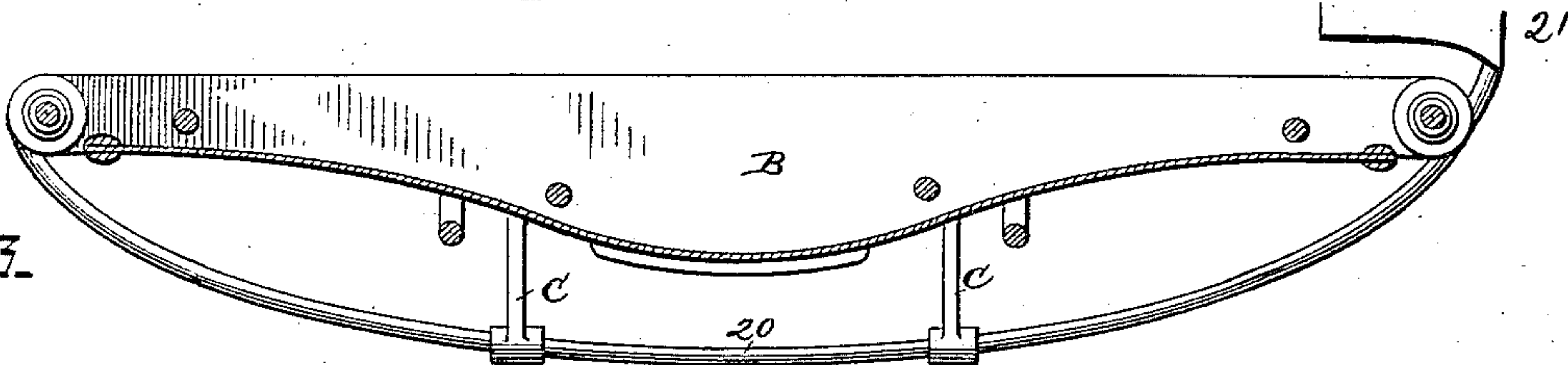
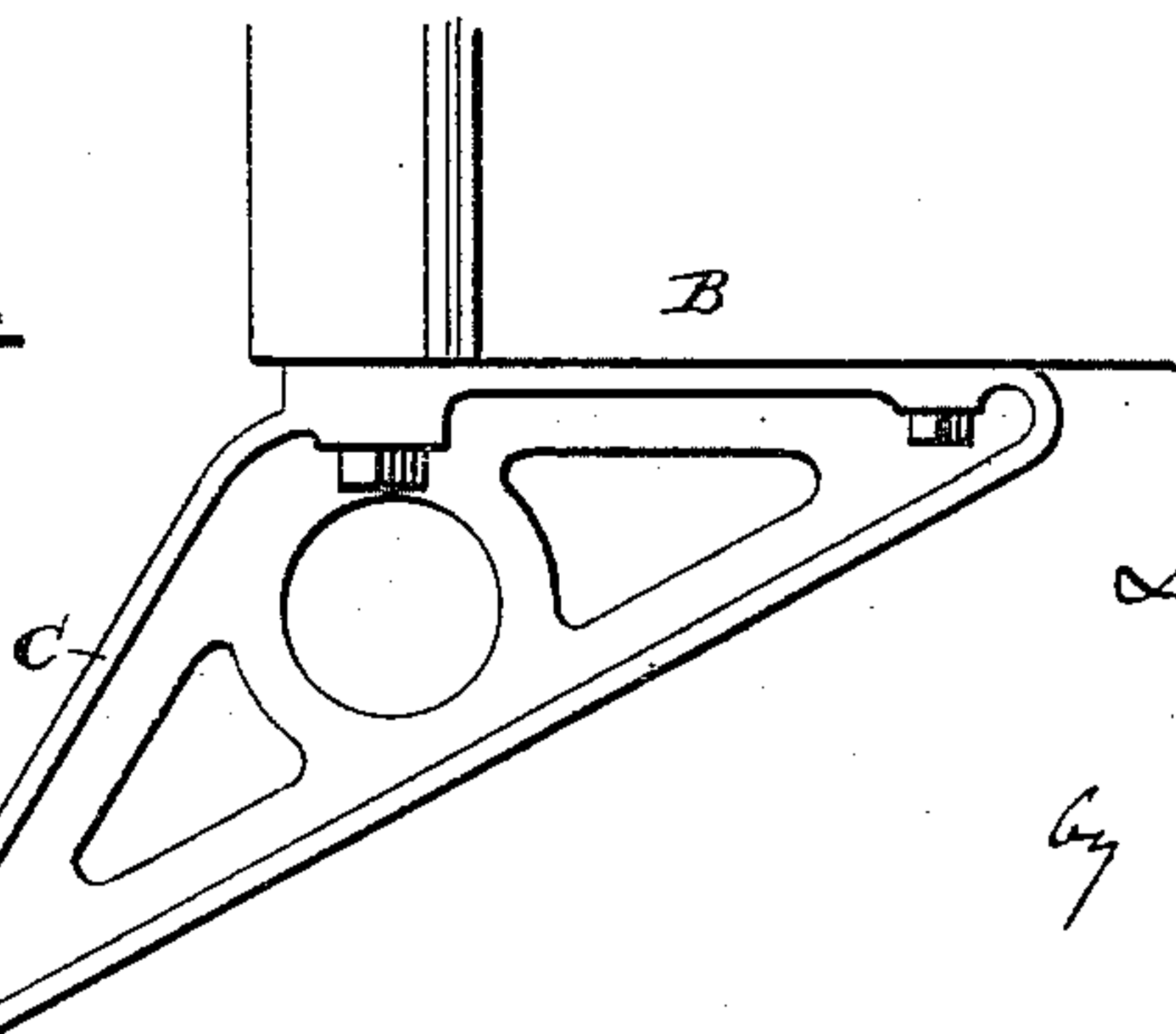


Fig. 4.



Attest:

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UNITED STATES PATENT OFFICE.

JOHN STEPHENSON, OF NEW YORK, N. Y.

HORSE-GUARD FOR TRAM-CARS.

SPECIFICATION forming part of Letters Patent No. 379,496, dated March 13, 1888.

Application filed July 21, 1887. Serial No. 244,919. (No model.)

To all whom it may concern:

Be it known that I, JOHN STEPHENSON, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Horse-Guard Bunters, of which the following is a specification.

The accompanying drawings illustrate so much of a tram-car as is necessary to a complete understanding of the present invention, in which—

Figure 1 is a side elevation of a portion of one end of a car provided with my improved horse-guard and bunter. Fig. 2 is an enlarged front elevation of the lower portion of the dash-board. Fig. 3 is a plan view thereof, and Fig. 4 is an enlarged side elevation of the truss-shaped bracket or bunter supporting the horse-guard.

Tram-car horses sometimes fall while the car is in motion and the moving car overruns the fallen horse, who, while struggling to rise, is hurt by the points of bolts and other irons beneath the car-platform. This I prevent by placing a bow, 20, preferably of iron pipe passing around the front of the car, about midway between the car-platform and the ground, and though the ends of the bow may be fastened to the platform or the car-bottom, I prefer them to connect with the side steps, 21, on lines with the outer edges thereof, so that they serve to protect the steps should a vehicle collide with the car, the rail or pipe causing the wheel to sheer off so as not to contact with and wrench off or otherwise injure the step. The parts thus united make a curved line similar to a ship's bow, as seen in Fig. 3.

The central part of the bow-guard 20 is suspended below the level of the platform B by hangers C of strength and construction to form bunters, so that when cars bump endwise the bow-guard 20 of one car will strike the bunt-hangers of the other and prevent contact with other part of the car, and, preferably, the hangers C are provided with eyed ends, so that the bow 20 is held in the eye, obviating the riveting of the hanger and bow to secure them together.

To give strength and lightness to the bunt-hangers, I prefer to make them of metal in the form of a triangular truss, the area of the triangle filled with a web, which, for lightness and elegance, may be perforated.

The roofs D of tram-car platforms have hitherto been limited to end at the verge line of the platforms B, or rather within that line, to prevent damage to roofs when cars contact endwise.

The comparatively-short condition of the roofs is harmful in wet weather, because of the water dripping on the driver and passengers occupying the platform. This I design to remedy or ameliorate by extending the guard-bow 20 in advance of the car-platform B sufficient to protect a roof, D, which overshoots the car-platform, and, in combination with trussed hangers, present such area of bumping-surface as will prevent end contact of car elsewhere.

I claim—

1. A tram-car having an end platform with a horse-guard or bunter below and in front of said platform, and consisting of a single curved bar or pipe of greater extent than that of the end platform, and connected at the ends to and braced by the steps, substantially as described.

2. A tram-car having at its end or ends a horse-guard or bunter below and in front of said platform, and consisting of a single curved bar or pipe of greater extent than that of the end platform, and held in place by trussed hangers secured to the underside of the platform, and provided with eyed ends to hold the bunter, substantially as described.

3. A tram car having its platform-roof (bonnet) extending over and beyond the end platform-dash with a bunter horse-guard rail and hangers projecting beyond the extended roof, as and for the purpose described.

4. A tram-car having a horse-guard bunter consisting of a single rail supported by hangers at the front and with the ends secured to the side steps on lines with the outer edges thereof, the combination forming a continuous curved line similar to a ship's bow, as and for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN STEPHENSON.

Witnesses:

S. A. STEPHENSON,
JOHN A. TACKABERRY.