

W. PARTRIDGE.
Car-Track Clearer

2 Sheets—Sheet 1.

No. 49,648.

Patented Aug. 29, 1865.

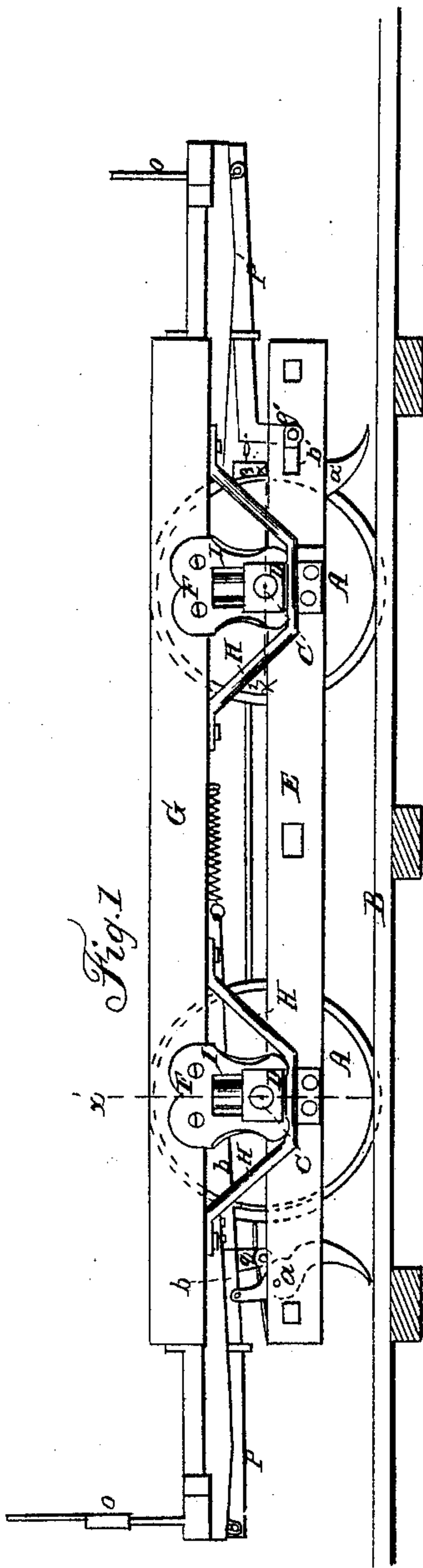


Fig. 1

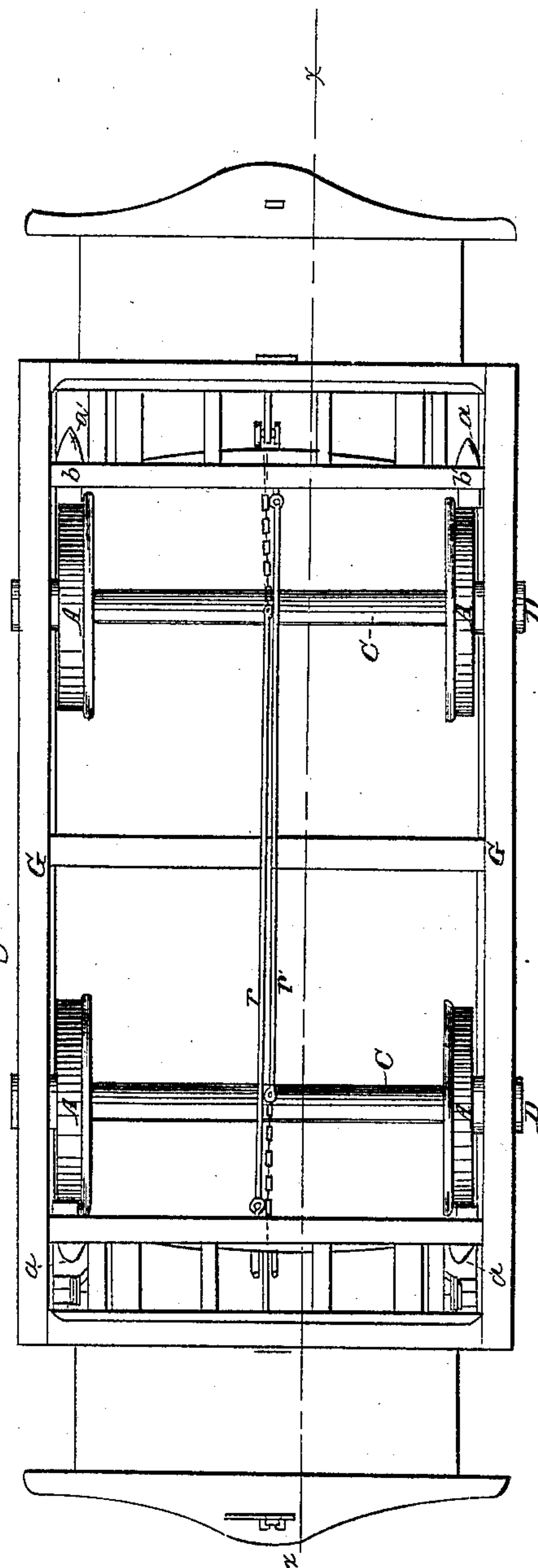


Fig. 2

Witnesses.
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IMPROVEMENT IN RAILROAD-CARS.

Specification forming part of Letters Patent No. 49,648, dated August 29, 1865.

To all whom it may concern:

Be it known that I, WILLIAM PARTRIDGE, of the city and county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Railroad-Cars; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification.

The nature and object of my invention consist in providing a guard or fender which will prevent accident to passengers and persons traveling in the street and upon street-cars, at the same time one which is not liable to be broken off when the car is thrown from the track by coming in contact with the pavement or with protruding spikes, the ends of rails, or any fixed obstructions which it is liable at all times to encounter, or, in other words, to afford a sure remedy against accident to life or limb, and at the same time to be sufficiently flexible or yielding to preserve itself from accident or liability to be broken off. This fender also serves the purpose of clearing the rail of snow, slush, or other obstructions that may accumulate thereon.

Figure 1 is a side elevation of a car, with all that portion of the car removed which is above the platform. Fig. 2 is a plan of the same. Fig. 3 is a side view of the same, taken on the line xx , Fig. 2. Fig. 4 is a cross-section taken on the line $x'x'$, Fig. 1, showing the connection of the wheel, axle, and supplemental frame with the main frame of the car. Fig. 5 is a longitudinal section of the same connection shown in Fig. 4, taken on the line x^2x^2 , Fig. 1.

In the several figures like letters of reference refer to like parts.

A A A A are the four wheels upon which the car runs upon the rail B. These wheels are fastened to the axle C, and this axle turns upon its journals in the boxes D. These boxes are bolted fast to the supplemental frame E, as shown in Figs. 1 and 4, the inner side of box being furnished with a flange extending downward for the purpose of receiving the bolts which hold the boxes fast to the supplemental frame. The edges of the boxes are made with grooves to slide freely up and down within the opening in the jaws F. These jaws

are bolted firmly to the main frame G, and thus the connection is made between the supplemental and main frames. The lower ends of the jaws are supported lengthwise of the car by the braces H, and springs are interposed between the top of the boxes and the upper portion of the jaw in the ordinary manner.

a , Figs. 1, 2, and 3, is a piece of metal extending down from the supplemental frame nearly to the rail and upward sufficiently far to make an easy connection with the rod b , this rod b being connected to the spring c , the spring being attached to the body of the car or to its main frame. The lower end of this fender or guard is somewhat wider than the rail, and is shaped something like an ordinary cultivator-plow tooth, in order to the more effectually throw off to either side of the rail snow, slush, ice, or any other substance which may accumulate thereon. This fender or guard is attached to the supplemental frame by a bolt with a large head, to afford for it a sufficient lateral bearing, and can turn freely upon this bolt as a center, and the top part of it is connected, by the rod b and spring c , to the body of the car. The point of the fender is made to run very close to the rail in order to throw off anything which may lie loosely on the rail, the spring-connection at the top being sufficiently rigid for this purpose. Should the point of the guard or fender come in contact with any fixed obstacle, like the head of a protruding spike, the end of a rail, or anything sufficiently solid to overcome the spring, the same will yield and the point of the fender will move backward and upward and thus pass the obstruction without injury to itself, the fender turning upon the bolt as a center. In the drawings the spring is shown in a spiral form. Any other form of spring may be used.

The amount of weight which this fender will be capable of throwing from the track depends upon the rigidity of the spring which controls the position of the fender.

The fender should be made to run sufficiently close to the rail to push away from the wheel the arm or finger even of a child, should it be, by accident or otherwise, upon the rail.

As soon as the obstruction before alluded to is passed the fender, by virtue of the spring,

will immediately fly back to its place, and will at all times, except when so passing obstructions, be in place to keep the rail clear.

Each wheel of the car should have a fender both in front and rear. Only one is shown in the drawings, but others can be applied in precisely the same manner.

When this fender is applied to the car in the manner specified—that is, by attaching it to a supplemental frame—the point of the fender always maintains a uniform distance from the rail. If it were attached directly to the body of the car the distance of the fender from the rail would be varied by the unequal loading of the car—as, for instance, when the rear platform is bearing a heavy load comparatively the front platform is tilted up while the rear end is depressed, the points of support being near the center of the car, and springs being always interposed between the wheels and the body of the car. It is plain with the arrangement I have described this tilting of the car can have no possible effect upon the height of the supplemental frame and the fender attached thereto.

It is apparent that these fenders must be so arranged as to prevent them from accident by coming in contact with fixed obstacles, both when they are pushed in front of the wheel or drawn along behind it.

A spring, *d*, is interposed, as shown in Fig. 3, between the cross-tie *e* of the supplemental frame and the fender, thus allowing the fender to move back in a direction from the wheel to pass fixed obstructions.

Having thus fully described the nature and object of my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

1. A hinged fender or guard, when the same is kept in position by a spring, substantially as and for the purpose set forth.
2. The combination of the supplemental frame with the hinged fender or guard, substantially as and for the purposes set forth.

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