

No. 875,996.

PATENTED JAN. 7, 1908.

S. W. HAYES.
PORTABLE DERAILER.
APPLICATION FILED OCT. 18, 1906.

Fig. 1.

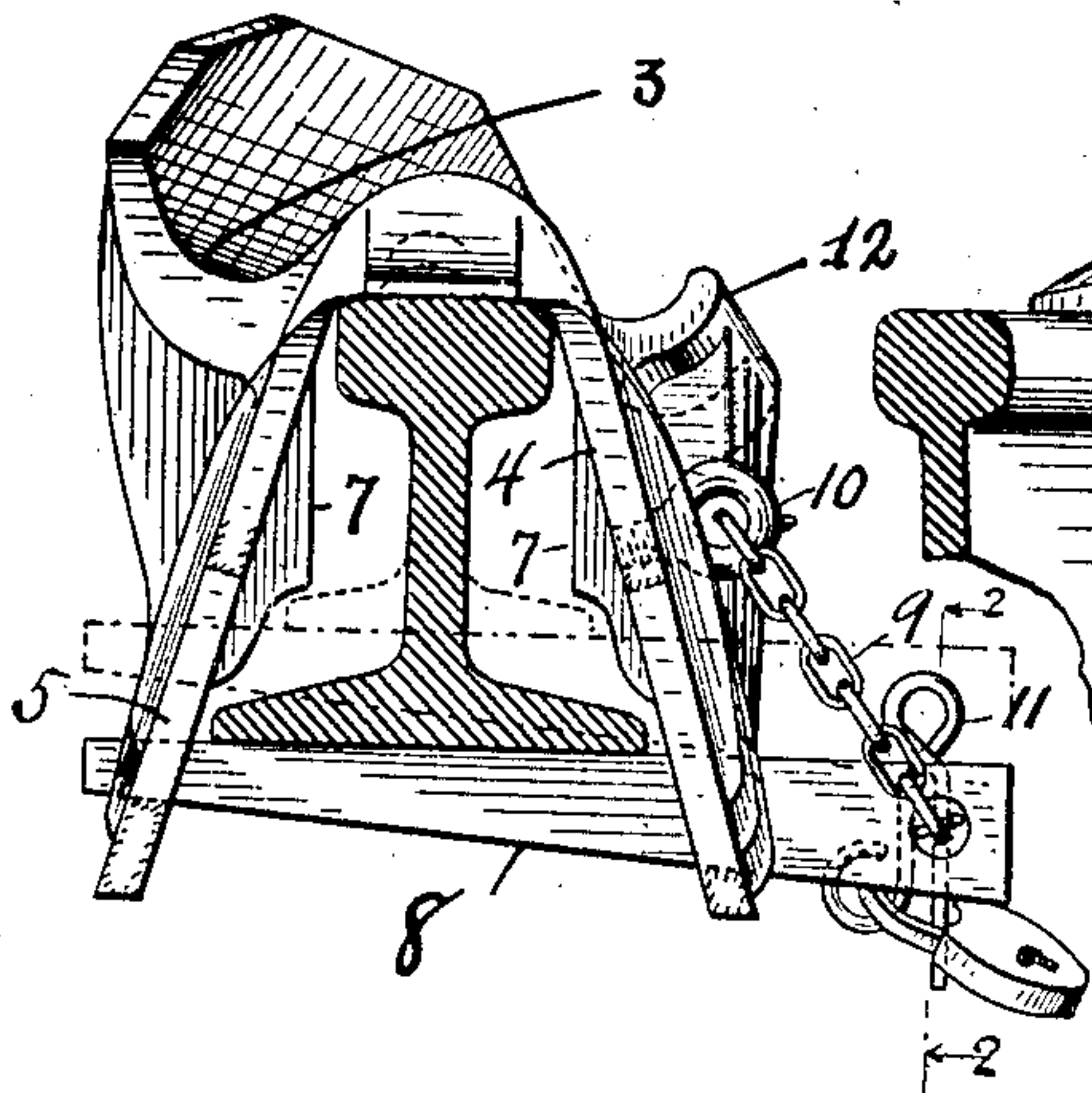


Fig. 2.

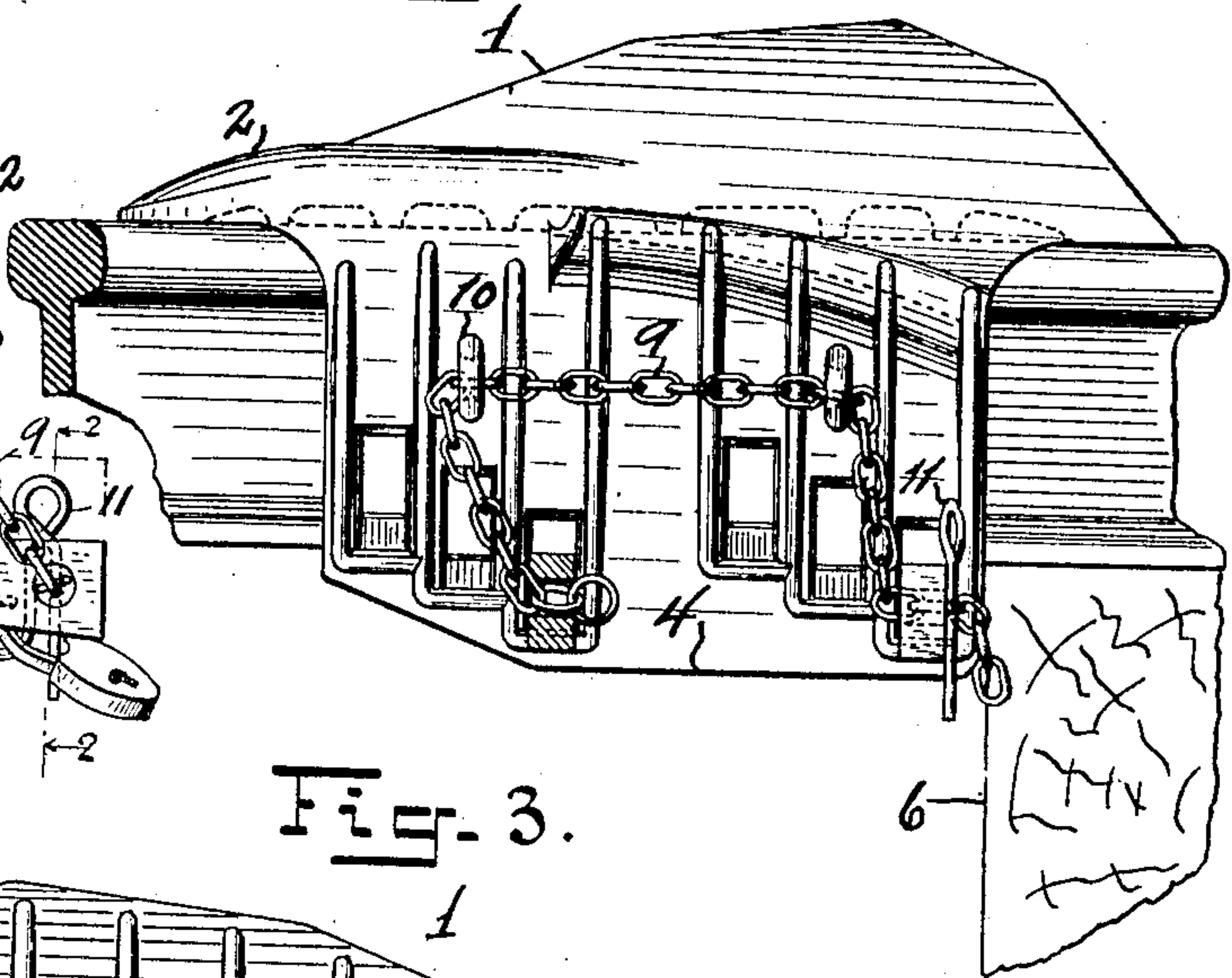


Fig. 3.

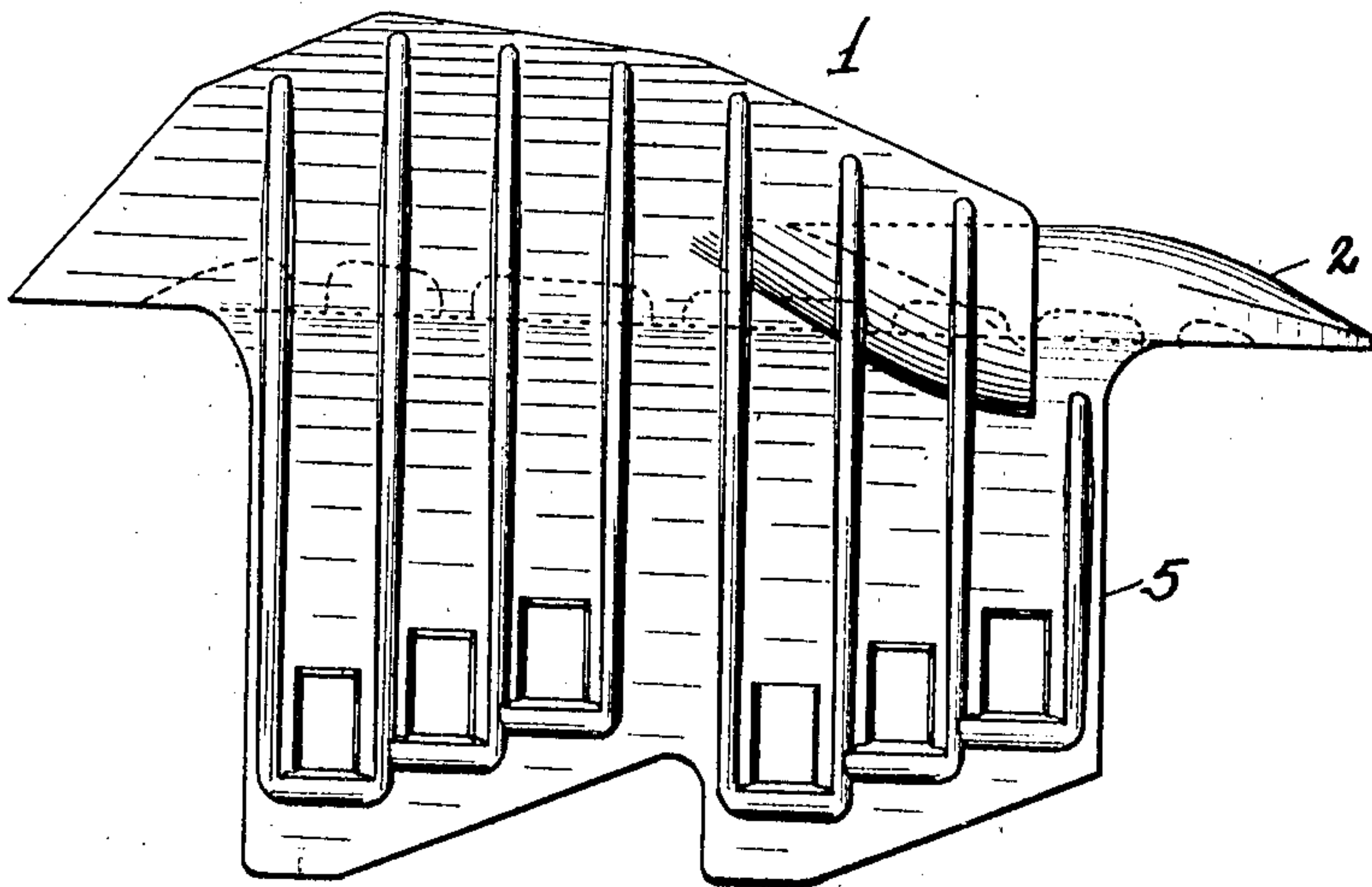
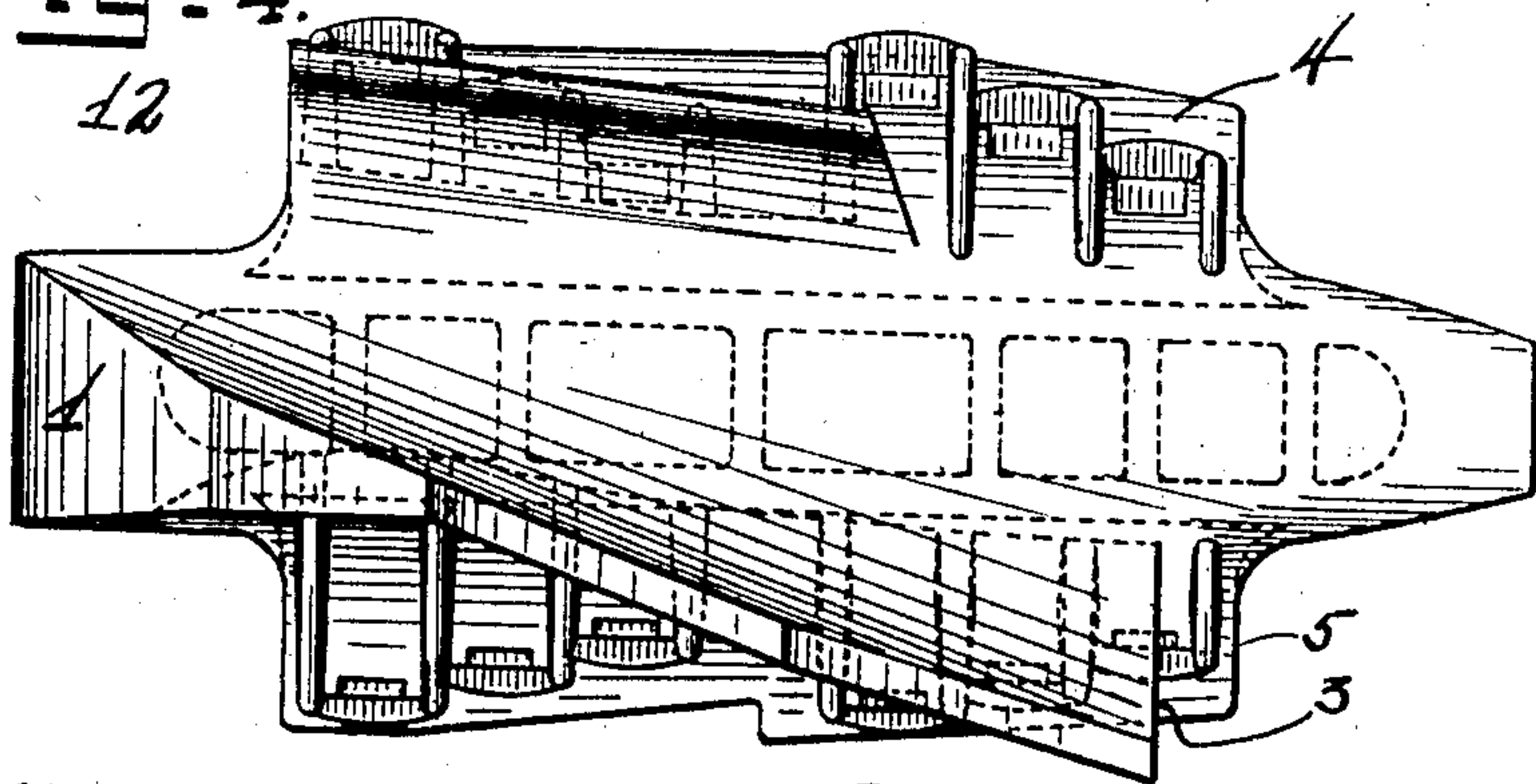


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

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PORTABLE DERAILER.

No. 875,996.

Specification of Letters Patent.

Patented Jan. 7, 1908.

Application filed October 18, 1906. Serial No. 339,438.

To all whom it may concern:

Be it known that I, STANLEY W. HAYES, a citizen of the United States, residing at Geneva, county of Ontario, and State of New York, have invented certain new and useful Improvements in Portable Derailers, of which the following is a full, true, and concise specification.

My invention relates to derails which have no permanent connection with the roadbed and are adapted to be carried about and applied to the rail at any point where their use may be required, and the invention consists in the provision of an improved device for this purpose which is capable of secure attachment to the roadbed, irrespective of the size of the rail, and which also involves other advantages and improvements as will be hereinafter fully explained and more particularly pointed out in the accompanying claims.

The drawings which form a part of this specification illustrate a preferred form of the embodiment of my invention, but it will be understood that the invention is by no means limited to the style and construction of the device illustrated.

Referring to the said drawings, Figure 1 is an end elevation of the portable derail secured in position on the rail, the latter being shown in section; Fig. 2 is a side elevation of the same viewed from the outside of the track; Fig. 3 a similar view from the inside of the track; and Fig. 4 is a top plan.

The device consists of a wheel-derailing member, represented generally by reference numeral 1, which is provided with the usual wheel-raising incline 2 and the oblique flange groove 3. The said member is also provided with two side members or flanges 4 and 5 which extend downwardly on opposite sides of the rail and preferably to a point which is below the bottom of the base flange thereof. In this position the said side flanges are adapted to have an endwise bearing upon the tie 6, as shown in Fig. 2, which sustains the longitudinal pressure against the derail and prevents its slipping along the rail when encountered by a moving wheel. The space between the side flanges 4 and 5 is termed herein a trough-shaped recess adapted to fit over the rail, and the interior surfaces of the said flanges are referred to as the sides of the said recess. It will be observed from the drawings that the said sides flare outwardly or downwardly so that the head of the rail

fits rather snugly in the apex of the recess while the margins of the base flange are sufficiently close to the side walls of the recess to form a support for the derail, which serves to maintain it, or at least to aid in maintaining it, in its proper upright position upon the rail. By reason of the flare or inverted V-shape of the recess, moreover, it is possible to place the derail over rails of widely differing size with the same effect, as is clearly indicated by the dotted lines in Fig. 1. Filling flanges 7 may be formed on the walls of the recess to increase the accuracy of the fit, especially with small rails, and as also shown by Fig. 1. The means for fastening the derail thus formed, to the rail, may be applied in various manners, but the present invention contemplates broadly a fastening means which is adjustable so as to secure the device with equal security to rails of different size. As shown herein this means consists of a removable locking bar 8 adapted to be inserted under the rail, and be connected with the side members on opposite sides of said rail, so that when the device is secured in position, it will completely encircle the rail.

The mode of attachment of the locking-device to the side members may be varied from the construction illustrated in the drawings, but as shown therein it comprises a number of apertures provided in each of said side members at relatively different or graded heights and the locking bar is adapted to be inserted into the proper aperture according to the vertical dimension of the rail. I find that it is preferable to fasten the derail to the rail as securely as possible, and I therefore form the locking-bar 8 in the shape of a wedge which can be driven into the apertures so as thereby to bind the derail firmly to the rail. The wedge bars when driven home are secured in place by means of a flexible connection, such as the chain 9, which is secured to eyebolts 10 in the side flanges 4 and passes through a hole in the end of the wedge. A pin 11 is inserted through the chain next to the wedge and a padlock applied to the pin secures the chain from removal. As shown herein, the fastening means are in duplicate, that is to say, two wedge bars are provided at each end of the derail and the chain passes through both wedges, but it will be understood that the number of fastening means is immaterial to the principle of my invention.

In addition to the foregoing elements, the derail is preferably, though not necessarily, provided with means for protecting the securing means from injury by the members of the derailed vehicles. This means consists of a laterally projecting shelf 12 formed as a deflector-plate immediately above the fastening means and below the point where the derailed wheel leaves the derail block. By means of this plate, the derailed wheels, instead of falling upon the projecting end of the wedge, as would otherwise be the case, are guided or deflected to one side and fall clear of the derail.

The derail is preferably formed of one integral piece and the downwardly extending side flanges are braced by angle flanges formed in the angle between said side flanges and the derail-block. Likewise, the deflector plate is similarly supported and reinforced by vertical angle flanges between it and its side flange 4.

Having described my invention, what I claim and desire to secure by United States Letters Patent is:—

1. A portable derail, consisting of a wheel-derailing-block adapted to be independently supported upon the rail, and a part carried by said wheel-derailing-block extended downwardly to a point below the base flange of the rail and adapted to engage the tie.

2. A portable derail consisting of a wheel-derailing block formed with an inverted trough-shape recess on its under side adapted to fit over the rail, the sides of the said recess being adapted to engage the base flange of the rail.

3. In a portable derail, a wheel-derailing block provided with an oblique wheel-flange groove, and formed with an inverted trough-shaped recess adapted to fit down over the rail, the sides of said recess being flared and extended downwardly in position to have supporting bearing against the base flange of the rail.

4. A portable derail comprising a wheel-derailing block and fastening means therefor, said parts being adapted to completely encircle the rail.

5. A portable derail comprising a wheel-derailing block provided with downwardly extending side flanges and vertical angle flanges disposed between said block and the side flanges.

6. A portable derail having means for securing it to the rail, in combination with a deflector plate above said means and adapted to protect the same from injury by the derailed member.

7. A portable derail comprising a wheel-derailing block provided with a downwardly

extending side flange, means associated with said flange for securing the derail to the rail and a shelf on said side flange projecting over said securing means and adapted to protect the same.

8. A portable derail comprising a wheel-derailing block provided with a downwardly extending side flange, a laterally projecting shelf on said flange and angle flanges between said shelf and the side flange.

9. A portable derail having downwardly extending side members adapted to be disposed on opposite sides of the rail and removable fastening means adapted to be inserted beneath the rail and to connect with said side flanges.

10. A portable derail having downwardly extending side members reaching below the base flange of the rail and on opposite sides thereof, in combination with fastening means adapted to be connected with said members below the said base flange.

11. A portable derail having a side member adapted to extend below the base-flange of the rail, a locking bar adapted to be inserted beneath the rail, the said flange being provided with means for connection with said bar at different heights.

12. A portable derail adapted to fit down over the rail and provided with means of attachment comprising a wedge member adapted to bind the said derail to the rail.

13. A portable derail having two downwardly extending side flanges adapted to reach below the base flange of the rail on each side thereof, the said flanges being provided with apertures, in combination with a wedge bar adapted to be inserted beneath the rail into said apertures and means for retaining said bar in such position.

14. A portable derail having apertured side members adapted to be disposed on opposite sides of the rail, a wedge adapted to be inserted into said apertures and a flexible means adapted to be fastened to said wedge and to the derail to retain the former in position.

15. A portable derail having side members adapted to be disposed on opposite sides of the rail, the said members being provided with apertures at different heights therein, in combination with locking means adapted to be passed under the rail and be inserted in any of said apertures.

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

STANLEY W. HAYES.

Witnesses:

S. H. MANSFIELD,
H. F. NESTER.