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2,089,584

COMBINED BRAKE BEAM AND BOTTOM ROD SUPPORT FOR RAILWAY CARS

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Fig. 1.

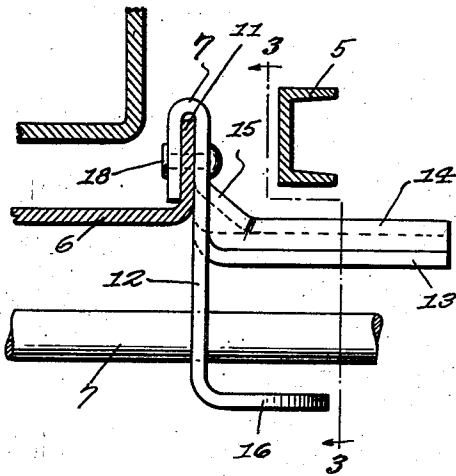


Fig. 3.

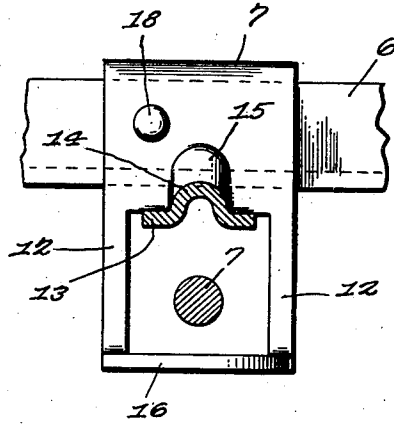


Fig. 2.

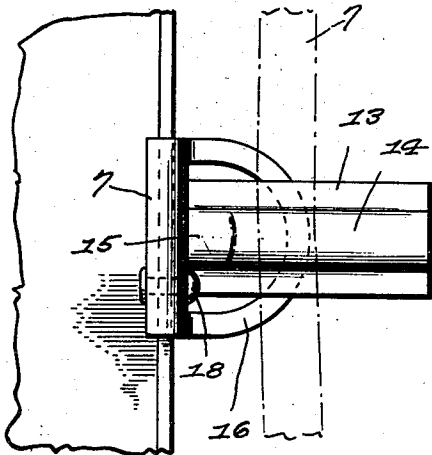
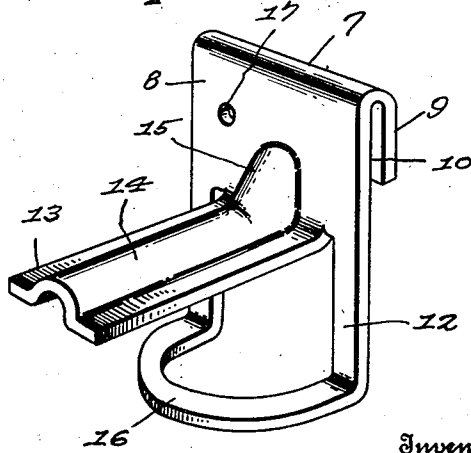


Fig. 4.



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## UNITED STATES PATENT OFFICE

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COMBINED BRAKE BEAM AND BOTTOM ROD  
SUPPORT FOR RAILWAY CARSRichard D. Smith, Andover, Va., assignor to  
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Application July 20, 1936, Serial No. 91,575

3 Claims. (Cl. 188—210)

This invention relates to safety mechanism for railway cars of that general class shown and described in U. S. Letters Patent issued to me on the 2nd day of June, 1936, under Number 2,042,740, the present invention being an improvement thereon.

The object of the invention is to reinforce and strengthen the bracket constituting the brake beam and bottom rod support, by forming the brake beam supporting arm with a pressed longitudinally disposed rib extending the entire length of said arm and connected with the overhanging spring-board engaging hook by a hollow diagonal brace, whereby the rigidity and stability of the bracket is materially increased without increasing the weight thereof.

A further object of the invention is to make the brake rod supporting loop of sufficient length to allow for variations in the length of truck levers between brake beam fulcrums and bottom connections, and further to extend the lower end of the brake rod support in a horizontal plane to provide a terminal shelf which not only forms a support for the brake rod in case of breakage thereof, but also imparts additional rigidity to the loop and prevents the end of the loop from striking crossing planks and other obstructions in the road bed.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency.

In the accompanying drawing forming a part of this specification and in which similar numerals of reference indicate corresponding parts in all the figures of the drawing,

Figure 1 is a vertical sectional view of a portion of a railway truck showing the safety device in position thereon.

Figure 2 is a top plan view.

Figure 3 is a vertical sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a perspective view of the complete bracket detached.

The improved safety device is shown in connection with a portion of a truck, in which 5 designates the brake beam, 6 the spring-board, and 7 the brake rod which extends beneath the spring-board in the usual manner.

The device comprises a unitary structure in the form of a bracket 8, two of which are preferably used on each truck and arranged in pairs at opposite sides of the spring-board 6, as will be readily understood. The bracket 8 is preferably stamped or otherwise formed from a single metallic blank, one end of which is bent or folded

downwardly to form an inverted U-shaped hook 9 defining a recess 10 adapted to receive the adjacent upstanding flange 11 of the spring-board 6. The metal at the lower end of the metallic blank is provided with spaced incisions defining a depending supporting loop or stirrup 12 adapted to receive the brake rod 7. The metal between the legs of the supporting loop formed by said incisions is pressed laterally and upwardly to form an integral substantially horizontally disposed supporting arm 13 adapted to extend beneath the brake beam 5. The metal of which the arm 13 is formed is pressed upwardly to provide a hollow longitudinally disposed strengthening rib 14 preferably extending the entire length of said arm and having its inner end terminating in an integral diagonally disposed hollow connecting brace 15 extending to and connecting the adjacent portion of the bracket 8 and which rib and connecting brace serve to retain the arm 13 in a fixed position and prevent accidental bending thereof when subjected to strains or stresses.

The supporting loop or stirrup 12 is preferably made of sufficient length to allow for variations in the length of truck levers between brake beam fulcrums and bottom connections and the lower end of said loop is bent or pressed laterally to form a horizontally disposed supporting shelf 16 preferably extending in the same direction as the arm 13 and arranged parallel therewith, as best shown in Figure 1 of the drawing. By bending the lower end of the supporting loop 12 in this manner, not only is additional strength imparted to the loop but said bent portion forms, in effect, a resilient supporting shelf for the rod in case the latter should break or tend to drop, while, at the same time, sufficient clearance is provided between the bottom of the loop and the road bed to prevent the loop from striking crossing planks and other obstructions. In other words, owing to the length of the loop 12, the latter may be bent laterally at any point in its length to allow for variations in the length of truck levers between brake beam fulcrums and bottom connections, thus adapting the bracket to any style or make of truck. The legs of the loop 9 at one end thereof are formed with registering openings 17 adapted to receive a rivet or similar fastening device 18 which extends through the flange of the spring-board 6 and serves to securely anchor the bracket in position thereon.

It will thus be seen that there is provided a new article of manufacture embodying an integral or homogeneous structure which can be

conveniently and economically stamped from a single blank of metal and which will effectually prevent the brake beam and brake rod from falling on the track should either of said parts become broken or fail to function properly, thereby preventing serious accidents which might otherwise occur. The hollow rib 14 of the supporting arm not only serves to reinforce and strengthen the latter but also provides a convex surface at the medial longitudinal line of said arm to receive the impact of the brake beam should the latter break or fall. The metal from which the bracket 8 is formed is preferably of uniform thickness throughout its entire area so that the different elements or parts of the bracket are of correspondingly uniform thickness and strength.

It will, of course, be understood that the brackets may be made in different sizes and shapes and constructed of any suitable material without departing from the spirit of the invention.

Having thus described the invention, what is claimed as new is:

1. A safety device for car trucks comprising an integral bracket having a depending rod supporting loop bent laterally at a point intermediate its length to form a supporting shelf extending laterally from the loop and having its supporting surface located beyond one side of the vertical plane of the loop, said bracket being provided at its upper end with an overhanging hook for engagement with a flange of a spring-board, a

brake beam supporting arm projecting laterally from that side of the bracket opposite the hook and spaced upwardly from said shelf, said arm having its intermediate portion pressed upwardly to form a hollow longitudinally disposed reinforcing rib extending for the entire length thereof, and a hollow diagonally disposed brace forming a continuation of said rib and united with the adjacent portion of said bracket.

2. A device for car trucks comprising a bracket having a depending rod supporting loop bent laterally at a point intermediate its length to form a supporting shelf extending laterally from the loop and having its supporting surface located beyond one side of the vertical plane of the loop, means at the upper end of said bracket to engage a spring board and suspend the bracket therefrom, and a brake beam supporting arm projecting laterally from the bracket over the shelf in vertical spaced relation thereto.

3. A device for car trucks comprising a bracket having a depending rod supporting loop bent laterally at a point intermediate its length to form a supporting shelf extending laterally from the loop and having its supporting surface located beyond one side of the vertical plane of the loop, and a hook at the upper end of said bracket disposed at the opposite side thereof from said shelf for engaging a flange of a spring board and suspending the bracket therefrom.

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