

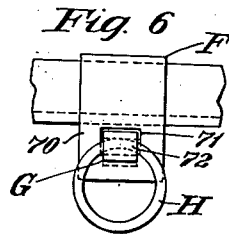
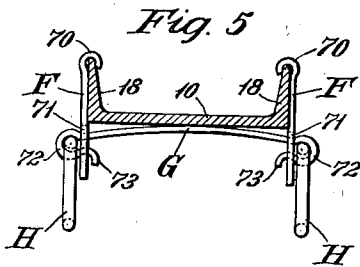
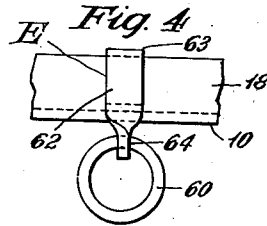
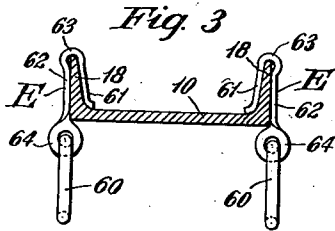
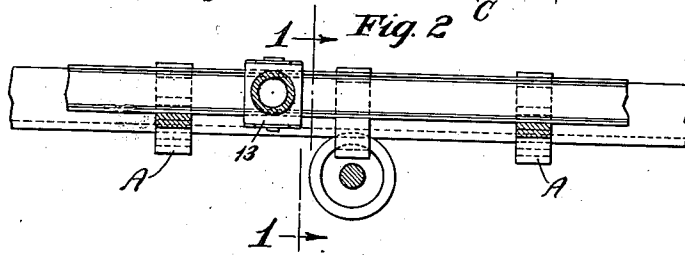
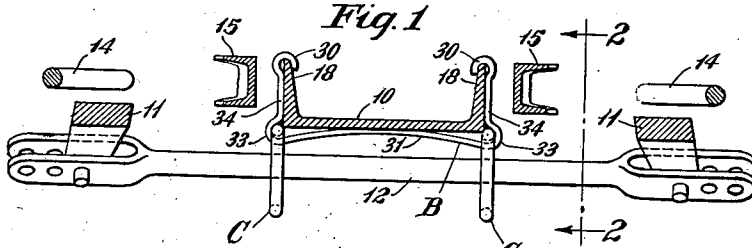
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2,067,588

SAFETY SUPPORT

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SAFETY SUPPORT

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Original application May 29, 1933, Serial No.
673,372. Divided and this application June 17,
1935, Serial No. 26,977

16 Claims. (Cl. 188—210)

This application is a division of application,
Serial No. 673,372, filed May 29, 1933.

This invention relates to improvements in
safety supports especially adapted for use in
5 connection with brake riggings of railway cars.

One object of the invention is to provide a
safety supporting means of simple construction,
which may be economically manufactured, so de-
signed that it may be easily applied to the usual
10 spring plank of a railway car truck and is effectively held in place by gripping engagement with
said plank.

A more specific object of the invention is to
provide a safety supporting means of the char-
acter indicated having means connected there-
with through which the connecting rod of the
15 brake extends for supporting the brake rod and
beam in case of accidental dropping of the
same.

Other objects of the invention will more
clearly appear from the description and claims
hereinafter following.

In the drawing forming a part of this speci-
fication, Figure 1 is a vertical sectional view
through the spring plank of a railway car truck
and a portion of the brake mechanism of the
25 car, illustrating my improvements in connection
therewith, the section corresponding substantially
to the line 1—1 of Figure 2. Figure 2 is a
vertical sectional view corresponding substan-
tially to the line 2—2 of Figure 1. Figure 3
30 is a view similar to Figure 1, illustrating an-
other embodiment of the invention, the brake
mechanism being omitted. Figure 4 is an ele-
vational view, partly broken away, looking
35 toward the left in Figure 3. Figure 5 is a view,
similar to Figure 3, illustrating still another em-
bodiment of the invention. Figure 6 is an ele-
vational view, partly broken away, looking
40 toward the left in Figure 5.

In said drawing, 10 indicates the usual spring
plank of a railway car truck, 11,—the brake
levers, 12,—the bottom connecting rod for the
levers 11—11, 13,—the lever fulcrum bracket or
45 strut on the right hand brake beam, 14 and 15,—
the tension and compression members, respec-
tively, of the brake beams, and A—A,—safety
supporting members for the brake beams at-
tached directly to the spring plank and in them-
selves forming no part of the present invention.

Referring first to the embodiment of the in-
vention illustrated in Figures 1 and 2, my im-
proved safety supporting means comprises
broadly a supporting member B having stirrup
55 members C—C connected thereto.

The supporting member B, comprises a pair of
hooklike members 30—30, engaged with the
upwardly tapered flanges 18—18 of the spring
plank 10, and a horizontally bowed barlike sec-
tion 31 formed integral with the hook members
5 30—30 and pressing on the bottom of the spring
plank 10.

The stirrup members C—C are preferably in
the form of rings carried by the barlike section
31 at opposite sides of the spring plank. 10

The connecting rod 12 of the brake mechanism
extends freely through the rings C—C and these
rings serve as supporting means for the rod 12
when the same becomes accidentally detached
15 from the levers 11—11 or drops with one or both
brake beams due to some other failure of the
supports of the brake rigging.

A single spring steel bar is preferably em-
ployed to form the hooklike members 30—30 and
the bowed bar section 31. As most clearly shown
in Figure 1, the upwardly bowed section 31 bears
20 against the bottom side of the main body por-
tion of the spring plank 10 and has looplike sec-
tions 33—33 at opposite ends thereof connecting
the barlike section 31 with the shanks 34—34
25 of the hooklike members 30—30. The looplike
sections 33—33 serve to accommodate the upper
portions of the rings C—C.

The supporting member B is attached to the
spring plank by bowing the same to a sufficient
30 extent to permit the hooks 30—30 to be sprung
over the upper edges of the vertical flanges
18—18 of the spring plank 10 and interlock with
the flanges. As will be evident, the support B,
together with the rings C—C carried thereby,
35 when in position on the spring plank, is securely
held against removal by the resilient action of
the bowed, barlike section 31 pressing on the bot-
tom of the spring plank.

Referring next to the embodiment of the in-
vention illustrated in Figures 3 and 4, my im-
proved supporting means comprises a pair of sup-
porting members E—E, which are attached to the
vertical flanges 18—18 of the spring plank 10 and
45 mount stirrup members 60—60 in the form of
rings, through which the bottom connecting rod
of the brake rigging extends. Each supporting
member E comprises a resilient, inverted V-shaped
section having diverging arms 61—61 connected at
50 their upper ends by a curved portion 63. The arms
61—62, together with the curved section 63, form
the hook member proper, which is engaged over
the corresponding vertical flange 18 of the spring
plank 10. The arm 62 of the member E projects
55 below the plane of the bottom surface of the

spring plank 10 and has its lower end portion twisted to provide an enlargement 64 in a plane at right angles to the arm 62. The enlargement 64 is perforated to provide an eye member adapted to receive the upper section of the corresponding ring 60. As clearly shown in Figure 3, the arms 61—62 of the supporting member E are at least as great in length as the height of the corresponding flange 18 of the spring plank 10. The enlargement 64 is so spaced from the upper end of the member E that the same engages underneath the corresponding lower corner of the spring plank 10 and clamps the supporting member in place.

Referring next to the embodiment of the invention illustrated in Figures 5 and 6, my improved supporting means comprises a pair of supporting hooks F—F, a curved resilient bar G suspended by the hooks F—F, and a pair of stirrups or rings H—H through which the bottom connecting rod of the brake rigging extends.

Each hook F is in the form of a plate having a bent upper end section 70 forming the hook proper, which engages over the top edge of corresponding vertical flange 18 of the spring plank 10. The plate portion of the hook member F extends beneath the lower surface of the spring plank 10 and said extending portion is provided with an opening 71 adapted to accommodate the corresponding end of the bar G.

The bar G is preferably spring steel and yieldingly bears on the bottom surface of the spring plank 10. The opposite ends of the bar G are formed with loop portions 72—72, which terminate in downwardly turned extensions 73—73. The opposite ends of the bar G extend through the openings 71—71 of the hook members F—F, the loop portions 72—72 being disposed outwardly of the platelike shank portions of said hook members F—F while the sections 73—73 are engaged within said openings 71—71 and project inwardly beyond the members F—F. The bar G being of spring steel, the loop portions 72—72 have a certain amount of resiliency and the portions 73—73 yieldingly bear on the lower walls of the openings 71—71 of the hook members F—F, thereby pressing the bowed section of said bar G tightly against the lower surface of the spring plank 10 and holding the hook members interlocked with the flanges 18—18 of the spring plank 10.

The ringlike members H—H, which form the safety supporting means proper for the bottom connecting rod of the brake rigging, have their upper sections engaged through the loop portions 72—72 of the bar G. The rings H—H are thus attached to the supporting hooks F—F and are confined on the bar G, as clearly shown in Figure 5.

In applying the safety supporting means shown in Figure 5 to the spring plank, the hook members F—F are sprung over the upper edges of the flanges 18—18 of the spring plank 10, the bowed bar G yielding sufficiently to permit this.

I have herein shown and described what I now consider the preferred manner of carrying out my invention, but the same is merely illustrative and I contemplate all changes and modifications that come within the scope of the claims appended hereto.

I claim:

1. In a safety support adapted to be attached to the usual channel-shaped spring plank of a railway car truck, the combination with a pair of hook members engaging over the vertical

flanges of the spring plank; of an upwardly bowed, resilient, barlike section engaging the bottom side of the spring plank, said barlike section being formed integral with the hook members; and stirrups supported from opposite ends of said barlike section.

2. A supporting member comprising a one-piece, barlike section having its opposite end portions bent upwardly and hook members formed at the extremities of said bent portions, said hook members engaging over the vertical flanges of the spring plank of a railway car truck, the intermediate section between said hook members being bowed upwardly and pressing on the bottom side of the spring plank, and looplike members supported from said barlike section at opposite sides of the spring plank.

3. A one-piece supporting bracket comprising a resilient bar having a horizontal, upwardly bowed section for engaging the bottom of the spring plank of a railway car truck, vertical sections at opposite ends of said first named section, hooks at the upper ends of said vertical sections, said hooks being arranged to engage over the flanges of the spring plank, and outwardly bowed connecting portions between said first named section and the vertical sections, said bowed portions receiving supporting stirrup members.

4. A support for a brake connecting rod, said support comprising a bar having a vertical section formed with a hook for engaging over both sides and the top edge of one of the flanges of a spring plank of a railway car truck, said bar being formed into a ringlike eye at its lower end, a portion of said eye extending laterally from said hook to be wedged beneath the spring plank and to cooperate with said hook to retain said support on said spring plank independently of other securing means, and a looplike member suspended by said eye.

5. A support for a brake connecting rod, said support comprising a bar of spring steel including a pair of laterally diverging inner and outer sections connected at their upper ends, said connected sections forming a hook adapted to engage over one of the flanges of a spring plank of a railway car truck, said inner and outer sections respectively engaging the inner and outer sides of said flange substantially throughout its height, the lower end of the outer section terminating in an enlargement forming an eye, said enlargement being wedged beneath the outer lower corner of the spring plank, and a looplike member supported from said eye.

6. In a safety support adapted to be attached to the usual channel-shaped spring plank of a railway car truck, the combination with a pair of hook members for engaging over the upper flanges of the spring plank, each hook member having a shank disposed to extend vertically along the outer side of the corresponding flange of the spring plank and to project beneath said plank, the projecting portion of said shank being provided with an opening therethrough; of a bowed resilient bar member disposed to yieldingly engage the bottom of said spring plank, said bowed member having its outer ends extending through the openings of the shanks of the hook members; and stirrups suspended on the outer ends of said bar member.

7. In a safety support adapted to be attached to the usual channel-shaped spring plank of a railway car truck, the combination with a pair of hook members for engaging over the upper edges of flanges of the spring plank, each hook

member having a shank disposed to extend vertically along the outer side of the corresponding flange of the spring plank and projecting beneath said plank, the projecting portion of said shank being provided with an opening therethrough; of a bowed resilient bar member disposed to yieldingly engage the bottom of said spring plank, said bowed member having its outer ends extending through the openings of the shanks of the hook members, the outer ends of said bar member being formed into loop portions; and stirrups supported from the loop portions of said bar member.

8. In a safety support adapted to be attached to the usual channel-shaped spring plank of a railway car truck, the combination with a pair of hook members for engaging over the upper flanges of the spring plank, each hook member having a shank disposed to extend vertically along the outer side of the corresponding flange of the spring plank and projecting beneath said plank, the projecting portion of said shank being provided with an opening therethrough; of a bowed resilient bar member arranged to yieldingly engage the bottom of said spring plank, said bowed member having its outer ends extending through the openings of the shanks of the hook members, the outer ends of said bar member being bent into loops, each loop having a free end section extending into the opening of the shank of the corresponding hook member and yieldingly engaging the lower wall of said opening; and stirrups suspended from said loops.

9. In a safety support for brake mechanism, the combination of a main supporting member, a stirrup adapted to establish a support for a part of the mechanism in case it drops, and a bracket for suspending said stirrup from said member and including yielding means for securing the bracket in fixed position on the supporting member, said stirrup being swiveled on the bracket.

10. A safety support for brake mechanism, comprising a stirrup through which a bottom rod may pass, and a resilient bracket thereon having a portion adapted for snap engagement with a supporting member on which the bracket may be mounted, said stirrup being swiveled on the bracket.

11. A brake gear guard, guide, or support device, including a stirrup member and a supporting bracket element for said member, having a U-shaped portion with legs for gripping an up-

right flange on a truck part, said device being supported solely by the engagement of said legs and said flange, said stirrup member being swiveled on said bracket.

12. In combination, a support, and a brake gear safety device, including a stirrup member and a supporting element therefor, having means integral therewith yieldably securing said device to said support, said securing means being arranged to be sprung into place on the support, said stirrup being swiveled to said supporting element.

13. In combination, a spring plank, and a brake gear safety device, including a stirrup and a supporting element for said stirrup, having means integral therewith yieldably securing the same to said spring plank, said securing means being arranged to be yieldably sprung into place on the plank, said stirrup being swiveled on said supporting element.

14. A brake gear guard or support device, including a stirrup and a supporting element for said stirrup, having an inverted U-shaped portion with legs arranged to be slipped down over an upright flange on a truck part and to be spread apart by said flange and thereby grip the same and constitute the sole mounting for the device, said stirrup being swiveled on said supporting element.

15. A brake gear guard or support device comprising an inverted U-shaped hook, the legs of which are arranged to slip down over an upright web on a truck part to be spread apart thereby to tightly grip the opposite sides of the web and constitute the sole mounting and positioning structure for the device, and a stirrup member swiveled on said hook and having a portion thereof arranged to underlie a brake gear element adjacent to said truck part.

16. A safety device for car trucks comprising a bracket having an inverted U-shaped portion defining a substantially wedge-shaped seating recess adapted to receive an upstanding flange of a spring plank, one of the legs of the U-shaped portion being provided with an angularly disposed flange to rest upon the web of a spring plank and the other leg thereof being extended downwardly to form an eye for engaging the bottom of a spring plank and preventing upward movement of the device out of engagement with a spring plank, and a rod supporting stirrup extending through said eye.

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