Dec. 17, 1935. R. B. SHEARER 2,025,004

SUPPORT

Filed Nov. 8, 1934 2 Sheets-Sheet 1

Fig. 1.

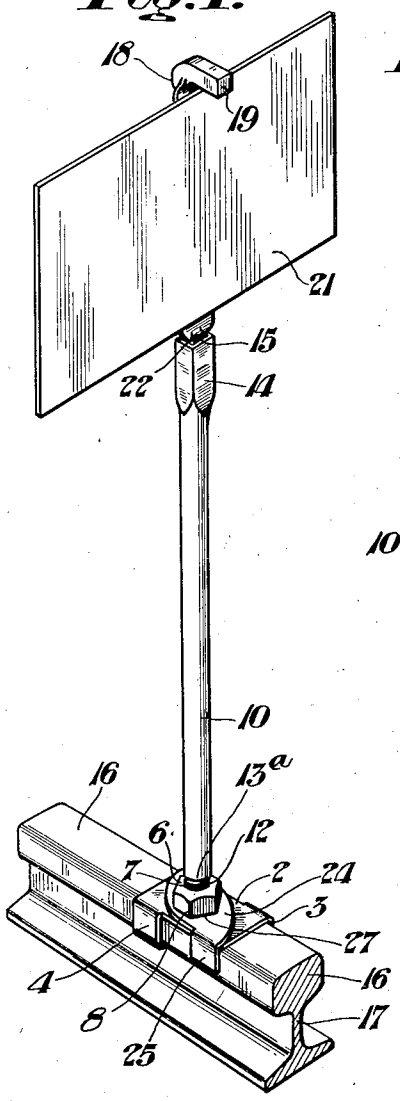


Fig. 4.

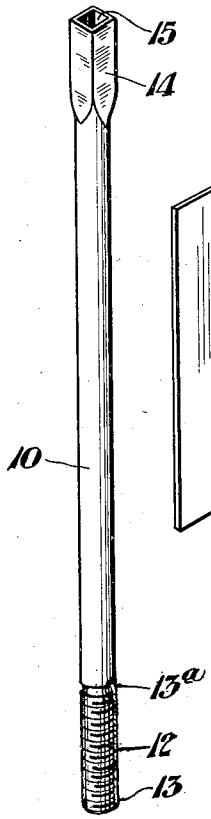


Fig. 5.

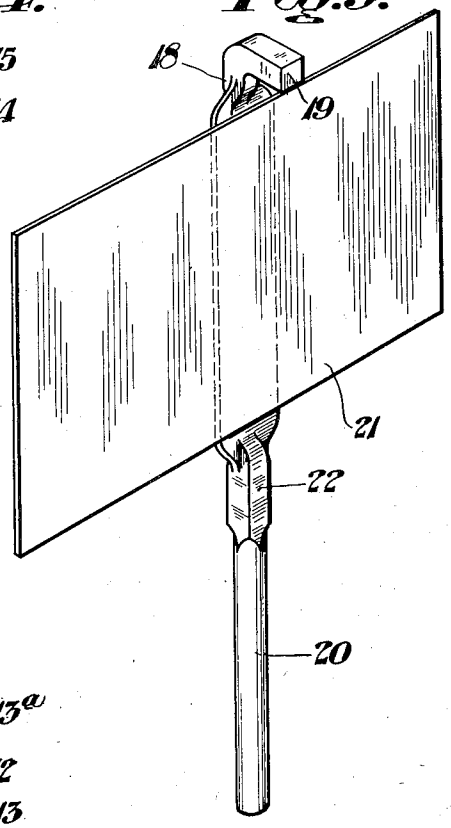


Fig. 3.

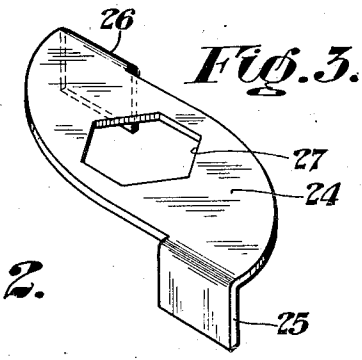
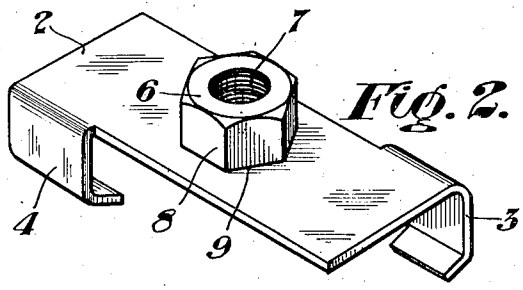


Fig. 2.



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Fig. 6.

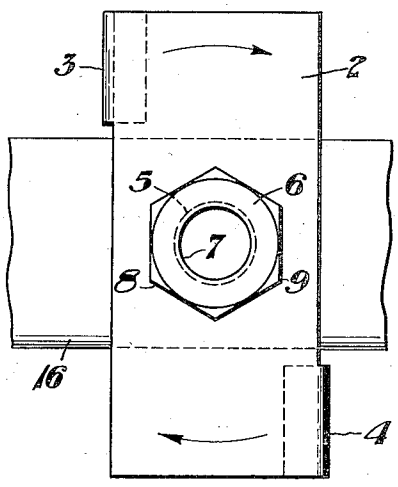


Fig. 7.

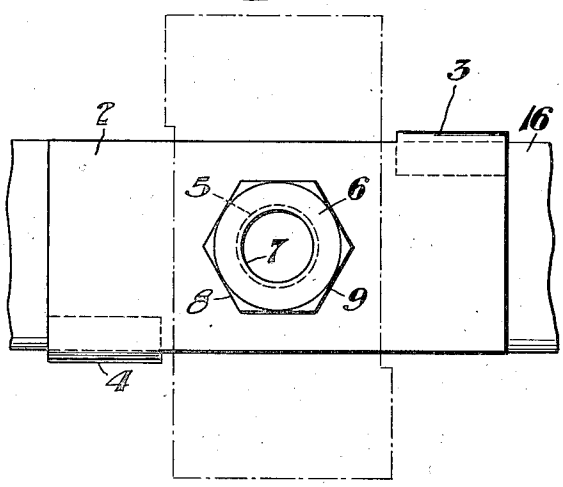


Fig. 8.

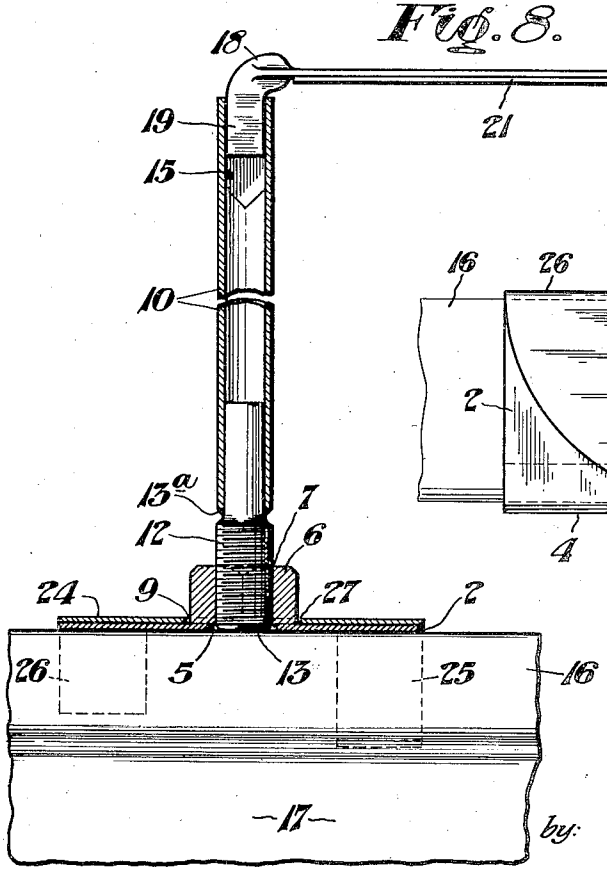
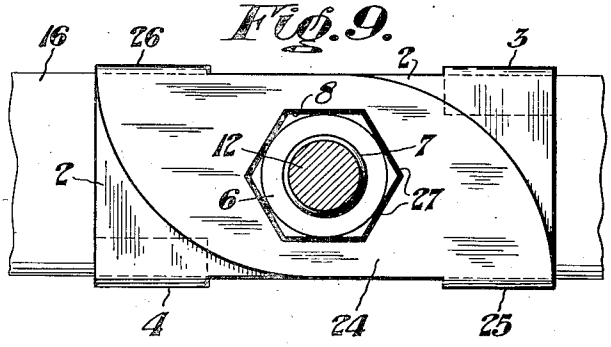


Fig. 9.



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Patented Dec. 17, 1935

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UNITED STATES PATENT OFFICE

2,025,004

SUPPORT

Raymond B. Shearer, Belle Vernon, Pa., assignor to The American Steel and Wire Company of New Jersey, a corporation of New Jersey

Application November 8, 1934, Serial No. 752,155

9 Claims. (Cl. 40—145)

This invention relates to supports, and more particularly those which are used in combination with a railroad rail for supporting a display medium, or target, although not limited thereto.

In repairing railroad rails and the like consideration as to safety must be given to the workmen, and requires a warning in the nature of a "target" to warn the operators and attendants of rolling stock of their presence. Such targets usually comprise a clamp member for attachment to the head of a rail and an upright member which supports a sign. These clamp members are easily loosened by wind, rail vibration and the like and often fall to the ground unnoticed by the workmen, with attendant jeopardy to their safety. Although this difficulty has been overcome to some extent by utilizing rather complicated clamp members, they require, to erect and dissemble, the use of tools which are easily misplaced, resulting in a considerable waste of time.

It is one of the objects of the present invention to provide a novel support particularly for use in combination with a rail and the like, which may be easily and quickly attached by assembling its component elements in a novel manner.

Another object is to provide a device of the class described which is extremely light in weight, easy and cheap to manufacture and one which at the same time will prove very rigid and durable in service.

These and further objects will be apparent after referring to the drawings, in which:

Figure 1 is a perspective view of the device of the invention as connected to a railroad rail.

Figures 2, 3, 4 and 5 are perspectives of the various elements of the device of the invention.

Figure 6 is a plan showing the initial step of applying the device of the invention.

Figure 7 is a plan of the element of Figure 6 after it has been rotated approximately 90 degrees.

Figure 8 is a sectional elevation of the element of Figures 6 and 7.

Figure 9 is a plan partly in section.

Referring more particularly to the drawings, the numeral 2 designates a base member of the device of the invention which comprises a substantially rectangular plate. This rectangular plate 2 is provided on one of its ends with a downwardly extending clamp member 3 and at its diagonally opposite end with a similar clamp 4. The clamp members 3 and 4 are spaced apart a sufficient distance with respect to the longitudinal axis of the plate to provide a clearance space which is at least as wide as the width of the head of a railroad rail, to the section of which they are made to substantially conform.

The plate 2 is apertured in its substantial midportion as at 5 and provided in alinement therewith, and on its upper surface, with a boss 6 which is internally threaded, as at 7, and having a circumference 8 of hexagonal shape. This boss 6 is rigidly secured to the plate 2 as by welding, as indicated at 9. While the boss 6 of the device of the invention is shown as comprising substantially a large hexagonal nut, it is to be understood that it may, in practice, be of any shape other than round.

A shaft 10 is adapted to be supported by the boss portion 6 of the plate 2 and is provided on its lower end with a threaded stud-portion 12 and with a hardened extremity 13 which is shown as being of angular shape. The threaded stud-portion 12 is preferably secured to the shaft 10 by welding, as at 13a. The other end of the shaft 10 is squared, as at 14, and provided for a considerable depth with an internal recess 15 which is likewise square in cross-section.

Referring to Figure 6 of the drawings, the plate 2 is disposed with its longitudinal axis transverse of the head 16 of a railroad rail 17 with its clamp members 3 and 4 on opposite sides thereof. The plate 2 is then rotated approximately 90 degrees to the position shown in Figure 7, whereon clamps 3 and 4 will be made to engage the side edges and under sides of the head 16. The shaft 10 is then disposed with its threaded stud-portion 12 in the threads 7 of the boss 6.

In order that the shaft 10 may be rotated with the utmost ease, a novel combined display supporting medium and wrench is provided. This comprises a shaft 18 which is substantially square in cross-section and having on one of its ends a right angularly extending portion 19. The other end of the shaft 18 is rounded as at 20, providing a handle or grip portion. The length of the shaft 18 is sufficient to permit of the attachment of a sign or target 21, and is preferably flattened to provide a good bearing area.

The right angular extension 19 on the shaft 18 is disposed in the square bore 15 on the square end 14 of the shaft 10, as shown in Figure 8, and the rounded grip-portion 20 turned in such manner as to permit the hardened extremity 13 on the stud portion 12 of the shaft 10 to make contact with the upper surface of the head 16 of the rail 17, thus causing the clamps 3 and 4 to rigidly engage the under surfaces thereof. As shown in

Figure 7, it can be readily seen that the plate **2** having the diagonally spaced clamps **3** and **4** is susceptible to displacement from this position. This is prevented by providing a plate **24** which is substantially rectangular in the manner of the plate **2** and provided on its diagonally opposite edges which are opposite from the edges on the plate **2** carrying the clamps **3** and **4** with downwardly extending legs **25** and **26**. The plate **24** is also provided with an aperture **27** in its midportion which conforms substantially to the circumference **8** of the boss-portion **6** of the base member.

As shown in Figure 9, when this plate **24** is superimposed on the plate **2** with its legs **25** and **26** extending downwardly along the side edges of the head **16** of the rail **17**, a locking engagement with the base member **2** is effected. This prevents the rotative displacement of the base member.

After the shaft **10** has been sufficiently tightened by the right angular extension **19** of the square shaft **18**, the extension is removed and the shaft arranged in such manner that the rounded portion **20** thereof may be disposed in the recess **15** in the square portion **14** of the shaft **10**. In this connection it is to be noted that the target or display portion on the square shaft **18** does not extend the entire length of the same, thus providing a short square portion **22** which seats in the square bore **15** in such manner as to resist rotation.

From the foregoing it will be seen that the device may be rigidly applied with the least possible effort and by the use of no tools other than its component elements.

While I have shown and described one specific embodiment of my invention, it will be understood that I do not wish to be limited exactly thereto, since various modifications may be made without departing from the scope of my invention, as defined in the following claims.

I claim:

1. A support comprising a base member having an internally threaded apertured portion, at least one clamp connected to said base member, a shaft adapted to be supported by said base member, said shaft having a threaded portion adapted for engagement with the internally threaded apertured portion of said base member and the surface of the structure to which it is to be connected, and an element adapted to be connected to said shaft remote from its threaded portion, said element having a wrench portion for engaging said shaft and a portion adapted for the connection of display media.

2. A support comprising a base member having an internally threaded apertured portion, at least one clamp connected to said base member, a shaft adapted to be supported by said base member, said shaft having a threaded portion adapted for engagement with the internally threaded apertured portion of said base member and the surface of the structure to which it is to be connected, an element adapted to be connected to said shaft remote from its threaded portion, said element having a wrench portion for engaging said shaft and a portion adapted for the connection of display media, and means for preventing the displacement of said base member.

3. A support comprising a base member having an internally threaded apertured portion, at least one clamp connected to said base member, a shaft adapted to be supported by said base member, said shaft having a threaded portion adapted for engagement with the internally threaded apertured portion of said base member and the surface of the structure to which it is connected, an element adapted to be connected to said shaft remote from its threaded portion, said element having a wrench portion for engaging said shaft and a portion adapted for the connection of display media, and means for preventing the displacement of said base member, said last named means having a portion for rigidly engaging said base member and the structure to which it is to be connected.

4. In combination with a rail or the like, an upright member including a substantially rectangular base member having an internally threaded apertured portion, at least two clamp members formed integral with said base member at diagonally opposite points therefor, said clamp members being spaced longitudinally of said base member a distance at least equal to the transverse dimension of said rail and shaped in such manner as to encompass at least a portion of the same when said base member is positioned with its longitudinal axis paralleling the longitudinal axis thereof, said base member being adapted to be positioned on said rail first with its longitudinal axis transversely thereof and then turned approximately 90 degrees to operatively position the same on said rail with its clamp members in encompassing position, and a shaft adapted to be supported by said base member, said shaft having a threaded portion adapted for engagement with the internally threaded apertured portion of said base member and said rail in such manner as to bring said clamp members into rigid contact therewith.

5. In combination with a rail or the like, an upright member including a substantially rectangular base member having an internally threaded apertured portion, at least two clamp members formed integral with said base member at diagonally opposite points thereof, said clamp members being spaced longitudinally of said base member a distance at least equal to the transverse dimension of said rail and shaped in such manner as to encompass at least a portion of the same when said base member is positioned with its longitudinal axis paralleling the longitudinal axis thereof, said base member adapted to be positioned on said rail first with its longitudinal axis transversely thereof and then turned approximately 90 degrees to operatively position the same on said rail with its clamp members in encompassing position, a shaft adapted to be supported by said base member, said shaft having a threaded portion adapted for engagement with the internally threaded apertured portion of said base member and said rail in such manner as to bring said clamp members into rigid contact therewith, and means for preventing the displacement of said base member.

6. In combination with a rail or the like, an upright member including a substantially rectangular base member having an internally threaded apertured portion, at least two clamp members formed integral with said base member at diagonally opposite points thereof, said clamp members being spaced longitudinally of said base member a distance at least equal to the transverse dimension of said rail and shaped in such manner as to encompass at least a portion of the same when said base member is positioned with its longitudinal axis paralleling the longitudinal axis thereof, said base member being adapted to be positioned on said rail first with its longitudinal

axis transversely thereof and then turned approximately 90 degrees to operatively position the same on said rail with its clamp members in encompassing position, a shaft adapted to be supported by said base member, said shaft having a threaded portion adapted for engagement with the internally threaded apertured portion of said base member and said rail in such manner as to bring said clamp members into rigid contact therewith, and an element adapted to be connected to said shaft remote from its threaded portion, said element having a wrench portion for engaging said shaft.

7. In combination with a rail or the like, an upright member including a substantially rectangular base member having an internally threaded apertured portion, at least two clamp members formed integral with said base member at diagonally opposite points thereof, said clamp members being spaced longitudinally of said base member a distance at least equal to the transverse dimension of said rail and shaped in such manner as to encompass at least a portion of the same when said base member is positioned with its longitudinal axis paralleling the longitudinal axis thereof, said base member being adapted to be positioned on said rail first with its longitudinal axis transversely thereof and then turned approximately 90 degrees to operatively position the same on said rail with its clamp members in encompassing position, a shaft adapted to be supported by said base member, said shaft having a threaded portion adapted for engagement with the internally threaded apertured portion of said base member and said rail in such manner as to bring said clamp members into rigid contact therewith, means for preventing displacement of said base member, and an element adapted to be connected to said shaft remote from its threaded portion, said element having a wrench portion for engaging said shaft and a portion adapted for the connection of display media.

8. In combination with a rail or the like, an upright member including a substantially rectangular base member having an internally threaded apertured portion, at least two clamp members formed integral with said base member at diagonally opposite points thereof, said clamp members being spaced longitudinally of said base member a distance at least equal to the transverse dimension of said rail and shaped in such manner as to encompass at least a portion of the same when said base member is positioned with its longitudinal axis paralleling the longitudinal axis thereof, said base member being adapted to be positioned on said rail first with its longitudinal axis transversely thereof and then turned approximately 90 degrees to operatively position the same on said rail with its clamp members in encompassing position, a shaft adapted to be supported by said base member, said shaft having a threaded portion adapted for engagement with the internally threaded apertured portion of said base member and said rail in such manner as to bring said clamp members into rigid contact therewith, means for preventing displacement of said base member, an element adapted to be connected to said shaft remote from its threaded portion, said element having a wrench portion for engaging said shaft and a portion adapted for the connection of display media, and means for preventing the displacement of said base member.

9. In combination with a rail or the like, an upright member including a substantially rectangular base member having an internally threaded apertured portion, at least two clamp members formed integral with said base member at diagonally opposite points thereof, said clamp members being spaced longitudinally of said base member a distance at least equal to the transverse dimension of said rail and shaped in such manner as to encompass at least a portion of the same when said base member is positioned with its longitudinal axis paralleling the longitudinal axis thereof, said base member being adapted to be positioned on said rail first with its longitudinal axis transversely thereof and then turned approximately 90 degrees to operatively position the same on said rail with its clamp members in encompassing position, a shaft adapted to be supported by said base member, said shaft having a threaded portion adapted for engagement with the internally threaded apertured portion of said base member and said rail in such manner as to bring said clamp members into rigid contact therewith, means for preventing displacement of said base member, an element adapted to be connected to said shaft remote from its threaded portion, said element having a wrench portion for engaging said shaft and a portion adapted for the connection of display media, and means for preventing the displacement of said base member, said last named means having a portion adapted for rigid engagement with said base member.

RAYMOND B. SHEARER.