Nov. 18, 1930. W. SHANKS ET AL 1,782,017

RAIL FITTING

Filed Dec. 18, 1925

Fig. 1

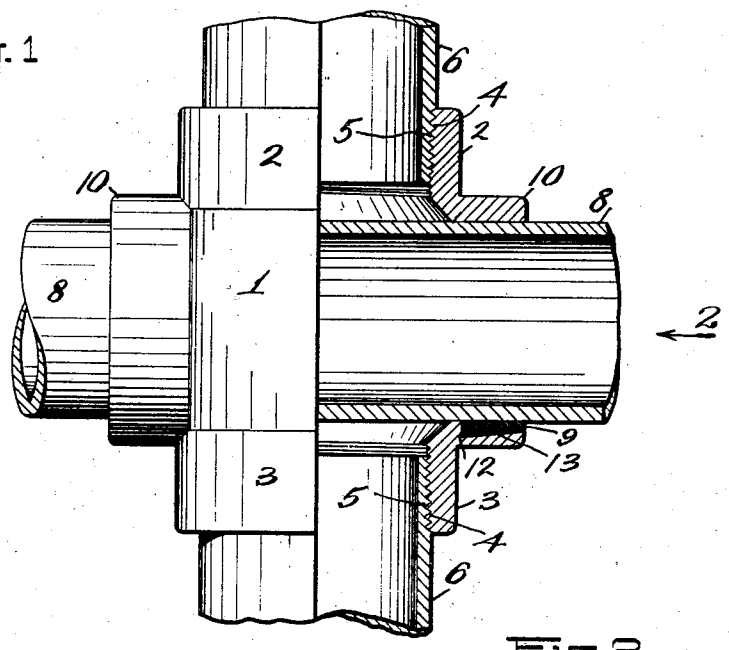


Fig. 2

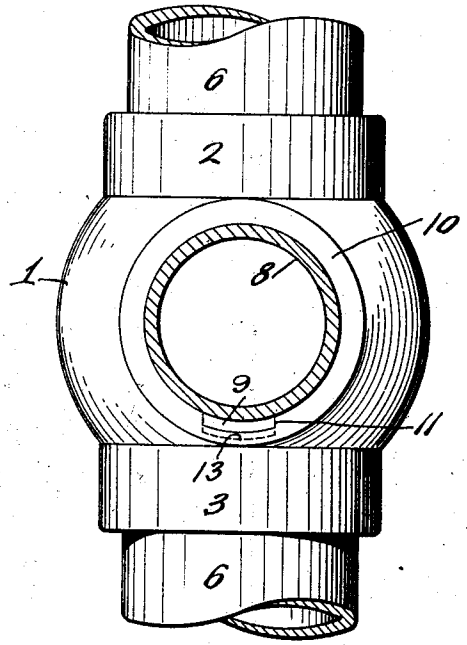


Fig. 3

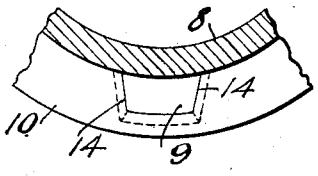
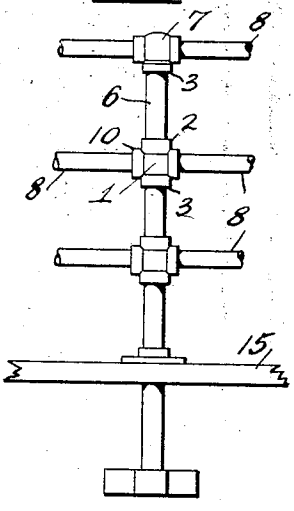


Fig. 4



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Patented Nov. 18, 1930 1,782,017

UNITED STATES PATENT OFFICE

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RAIL FITTING

Application filed December 18, 1925. Serial No. 76,138.

This invention relates to certain improvements in rail fittings of that class in which rails are set in position in posts or standards as, for example, the guard rail constructions now commonly employed in railway and subway stations, boardwalk rails and the like.

It is the especial object of the present invention to provide an improved fitting for use in such constructions by which the rails and standards or posts may be locked together by a locking means which may be used after the rails are in position, the locking means being of simple character so that they can be readily and quickly installed by unskilled labor.

A further object of the invention is to provide an improved locking device for locking the parts together which does not include any movable parts requiring adjustment and which will hold a fitting in place against movement due to vibration of the rails or to movement of the rails due to temperature changes.

With these and other objects not specifically referred to in view, the invention consists in certain novel parts, arrangements and combinations which will be described in connection with the accompanying drawings and the novel features pointed out in the claim annexed hereto.

Referring to the drawings—

Figure 1 is a side view, partly in vertical section, partly broken away, of one of the improved fittings.

Figure 2 is an end view of the construction shown in Figure 1, looking in the direction of the arrow 2 of that figure.

Figure 3 is a detail sectional plan view of a modification, and

Figure 4 is a side elevation of a rail standard and a plurality of rails associated therewith.

Referring now to these drawings, the improved fitting includes a sleeve marked generally 1. In constructions embodying the invention, the fitting will be provided with projections by which it may be attached to the supporting post. As shown, the fitting is provided with upper and lower projections 2, 3, which are internally threaded, as indicated at 4, to receive the threaded ends 5 of the posts or standards 6. It will be understood, of course, that where the fitting is to be used with the top rail, as indicated at 7 in Figure 4, the upper projection 2 may be omitted.

The sleeve 1 is provided with an aperture to receive the rail 8. These rails 8 which are or may be of the usual form of iron pipes, are inserted in the sleeves and are locked in position by the improved locking means contemplated by the invention. These locking means are shown in detail as provided on one side of the sleeve, but it will be understood, that if desired, they may be employed on both sides and such use is contemplated by the invention. The improved locking means of the present invention are, preferably, suitably dimensioned pieces of soft or deformable metal as, for instance, lead, which can be readily and easily placed in position by unskilled labor. This type of locking means is desirable in that it can be readily put in place, and if it is necessary to remove it or if for any reason it should work out, it is only necessary to insert another piece of the metal, this doing away with the necessity of using special wedge keys or the like which have to be specially made for the purpose.

In accordance with the invention, therefore, a lock of soft metal, indicated by the numeral 9, is employed for locking the rail in the sleeve. To prevent accidental removal or displacement of this metal means are provided for anchoring the metal in place, and these means may be conveniently formed in a socket provided in the sleeve for the reception of the metal. These means may be somewhat varied. Referring first to the construction shown in Figures 1 and 2, the sleeve 2 is provided with an extension or boss 10 which is formed with a recess 11. This recess, as shown in Fig. 1, does not extend entirely through the wall of the sleeve and there is left a shoulder 12 which forms a stop or abutment for the metal. The metal is held in this socket or recess, in the construction shown in Figures 1 and 2, by beveling or undercutting the bottom of the recess, as shown at 13 so that when the metal is in position it has a wedge action and is held against re-

moval or displacement due to vibration of the rail or to movement of the rail due to temperature changes. Furthermore, this metal permits, without displacement, the slight movement of the rail due to temperature changes without causing any buckling or injury to the parts.

In Figure 3 is shown a modification of the recess in which, in addition to the beveling or inclining of the bottom 13 of the recess, the side walls of the recess are inclined away from each other in an inward direction, as indicated at 14, so that an additional hold on the metal is obtained.

In use the standards are screwed in to the fittings and they may be, if desired, imbedded in concrete or other material of which the platform 15 is made. The rails 8 are then put through the sleeves. A piece of soft metal, such as lead or the like, is then stuffed to the approximate dimension of the socket and thus effectually locks the rail to the sleeves.

It will be apparent from the foregoing description that a very cheap and effective rail fitting has been devised and one which can be quickly and readily removed by unskilled labor and one in which the locking means may be easily and readily replaced without the necessity of any special parts.

While the invention has been shown and described in its preferred form, it will be understood that various changes may be made in the specific construction and arrangement of the parts and the locking sockets, without departing from the invention as described in the appended claim.

What is claimed is:

In a rail fitting, the combination of a coupling member having a longitudinal sleeve capacitated to receive a rail and means for supporting the coupling, a rail positioned in the longitudinal sleeve, a relatively narrow recess extending longitudinally of the rail sleeve and having a bottom inclined toward the vertical axis of the coupling and inwardly diverging side walls, and a rail locking member comprising a single piece of deformable metal dimensioned to substantially fill the recess and driven therein and engaging the rail and sleeve to lock the rail in its sleeve.

In testimony whereof, we have hereunto set our hands.

WILLIAM SHANKS.
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