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Fig. 1.

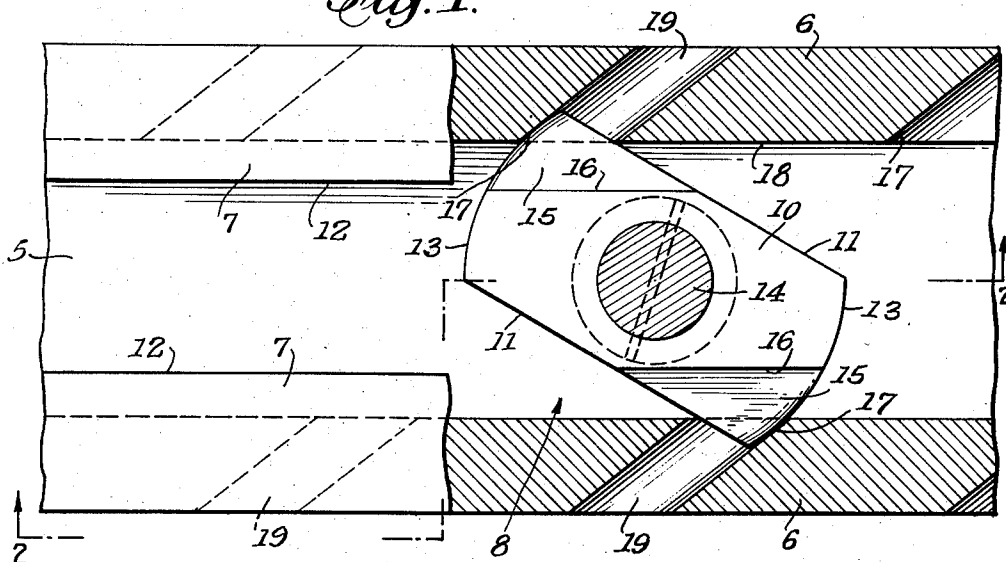


Fig. 2.

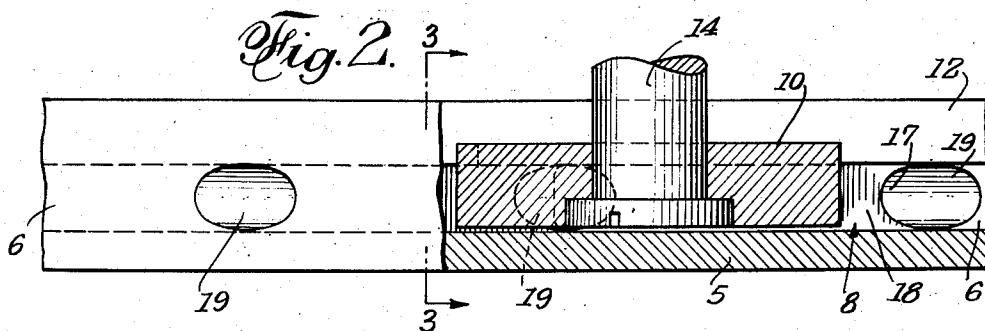
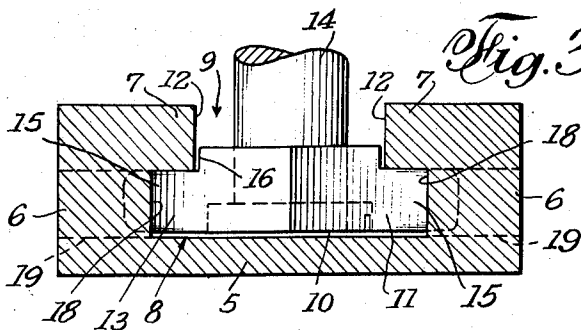


Fig. 3.



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4 Claims. (Cl. 287—20.5)

This invention relates to a rail that is adapted to separably receive elements and members, such as chair legs, posts, stanchions, etc., to firmly hold such elements and members non-displaceably relative to a floor, deck or wall to which such rail is secured.

Ordinarily, such rails are formed as channels having intumed flanges, the same being advantageously made of aluminum alloys of suitable strength and mounted in operative position to be flush with the surface of the floor, deck or wall to which secured.

An object of the present invention is to provide a rail of the character referred to with inexpensively provided abutments that are accurately longitudinally spaced and located so that the elements or members connected thereto are spaced on uniform and/or similar increments.

Because of the manner of application of such rails, the same are subject to the accumulation of dirt and other foreign matter, particularly in such recesses as may be open to receive such foreign matter.

Accordingly, another object of the invention is to provide an article-anchoring rail of the present character that provides the position-determining abutments in a novel manner that eliminates dirt-accumulating recesses or cavities.

The invention also has for its objects to provide such means that are positive in operation, convenient in use, easily installed in a working position and easily disconnected therefrom, economical of manufacture, relatively simple, and of general superiority and serviceability.

The invention also comprises novel details of construction and novel combinations and arrangements of parts, which will more fully appear in the course of the following description. However, the drawing merely shows and the following description merely describes, one embodiment of the present invention, which is given by way of illustration or example only.

In the drawing, like reference characters designate similar parts in the several views.

Fig. 1 is a plan view, partly in section, showing a rail according to the present invention, and the manner of locating an article-connected member in said rail.

Fig. 2 is a partial side elevational and partial sectional view as taken on line 2—2 of Fig. 1.

Fig. 3 is a cross-sectional view as taken on line 3—3 of Fig. 2.

The cross-sectional form of the rail is well-known, the same being defined by a bottom web 5, a pair of parallel walls 6 along the side edges of the web 5, and intumed flanges 7 provided on the walls 6 in spaced relation to the web 5. As can be seen from Fig. 3, the rail is thus provided with a longitudinal channel 8 that is substantially wider than the longitudinal passage 9 defined between the intumed flanges 7.

An anchor plate 10 is adapted to be connected to said channel so as to be retained therein against displacement in a direction away from web 5. To this end, the plate 10 is made of a width to slidably fit in passage 9, the

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thickness thereof being greater than the height of channel 8 so as to achieve such sliding engagement when the sides or edges 11 are in parallelism with the inner edges 12 of flanges 7.

The length of plate 10 is substantially greater than its width, the opposite end 13 thereof being arcuately curved on a common center representing the axis of a shaft or stud 14 on which the plate 10 is pivotally carried.

As seen best in Fig. 1, on diagonally opposite sides, the plate 10 is reduced in thickness to form tongues 15 that are thin enough to fit beneath flanges 7 and in the sides of channel 8 that are wider than passage 9. Said tongues 15 are defined by parallel edges 16 that are spaced on each side of the shaft axis a distance equal to the distance between plate sides or edges 11. If the corners of tongues 15 are removed, the plate 10 can be turned from engagement of edges 11 with the flange edges 12 to engagement of edges 16 with said flange edges. Such a condition is present when the plate is of the non-locking type and, therefore, is capable of any longitudinal position along the rail.

The present novel means is provided for locating the plate longitudinally along the rail so that the same is firmly anchored and firmly anchors an article that is connected to shaft or stud 14. The same comprises abutments or shoulders 17 that are formed in the inner faces 18 of the rail walls 6, the same comprising the inner portions of the angularly or obliquely disposed walls of holes 19 extending obliquely through said walls 6, all of said holes being parallel.

Said abutments 17, on opposite sides of the rail, are spaced in accordance with the diametral size between ends 13 of plate 10. Thus, when said plate is turned on its axis to bring the edges 16 parallel to the rail edges 12, the tongues 15 enter said holes 19 to achieve abutting engagement with abutments 17.

It will be noted that rail web 5 and the flanges 7 remain intact and that only the walls 6 are perforated by the holes 19. Hence, the rail remains unweakened. Also, the holes 19, being laterally directed, are not subject to accumulating foreign matter, as would holes that open upward.

The holes 19 are directed at an angle with respect to the length dimension of the walls 6, the angle between abutments 17 and the wall face 18 being obtuse. Consequently, the tongues 15 of the plate 10 are enabled to engage said abutments to hold said plate against endwise movement, thereby locking the plate to the rail.

While the foregoing has illustrated and described what is now contemplated to be the best mode of carrying out my invention, the construction is, of course, subject to modification without departing from the spirit and scope of the invention. It is, therefore, not desired to restrict the invention to the particular form of construction illustrated and described, but to cover all modifications that may fall within the scope of the appended claims.

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

1. An anchoring rail comprising, a bottom plate and parallel side walls, the side walls having oppositely disposed holes extending obliquely therethrough, an anchor plate having an article supporting post secured thereon, the anchor plate having a length slightly greater than the distance between the walls and positioned between the walls, the anchor plate having arcuate ends and being rotatable to bring opposite alternate corners of the plate into the ends of oppositely disposed holes to lock the plate in the rail.

2. An anchoring rail comprising, a bottom plate and parallel side walls, the side walls each having an intumed flange, the side walls having oppositely disposed holes

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extending obliquely therethrough, an anchor plate having an article supporting post fixed thereto, the anchor post having a length greater than the distance between the side walls and a width slightly less than the distance between inner edges of the inturned flanges, the anchor plate having arcuate ends and lying on the bottom plate between the side walls, the anchor plate being rotatable to bring diagonally opposite corners of the plate into ends of the holes in the side walls to hold the plate in position.

3. An anchoring rail comprising, a bottom plate and parallel side walls, the side walls each having an inturned flange, the side walls having oppositely disposed holes extending obliquely therethrough, an anchor plate having an article supporting post secured thereon, said anchor plate having a length greater than the distance between the side walls, a width slightly less than the distance between the inner edges of the flanges and a thickness slight-

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ly greater than the distance from the top of the bottom plate to the under side of the flanges, the plate also having arcuate ends and the plate at opposite corners being reduced in thickness so that the corner of the plate may be moved under the inturned flange and into the end of a hole in the side wall to hold the anchor plate in the rail.

4. The invention as defined in claim 3 in which the holes of the walls are offset relatively to bring the ends of the plate in proper holding position.

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