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ADJUSTABLE SUPPORTING MEANS

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Fig.1

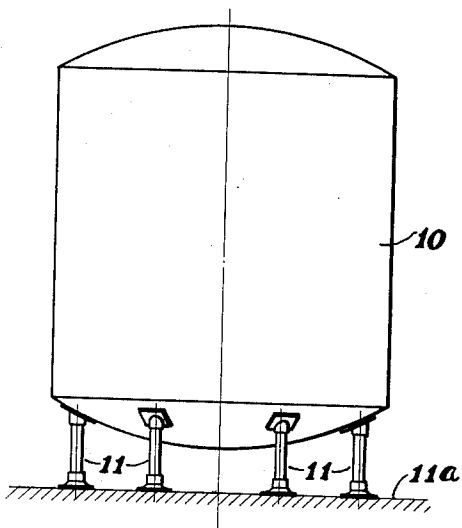
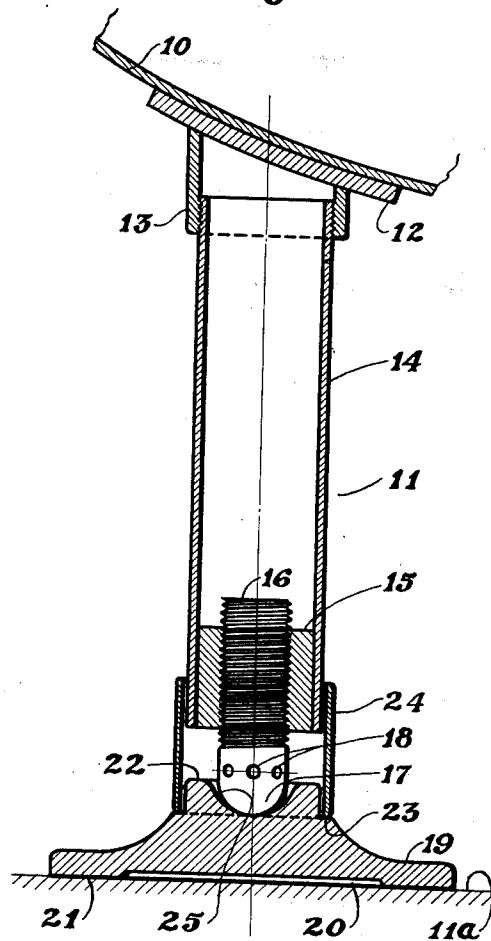


Fig. 2



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ADJUSTABLE SUPPORTING MEANS

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1 Claim. (Cl. 248—2)

The present invention relates to adjustable supporting means.

More particularly the present invention relates to supporting means which are used on floors which are not level. The present invention has been illustrated in connection with tanks. In certain industries, such as the milk and brewing industries, a large number of steel tanks are employed. In these industries cleanliness is of paramount importance, and the floors are frequently sloped so that they can be readily washed. In such industries the adjustable supporting means embodying the principles of the present invention are of very considerable importance in facilitating the proper alignment of the tanks or other members to be supported. In the drawing forming part of this application a vertically disposed tank is illustrated. It will be understood, however, that the invention is equally applicable to horizontally disposed tanks, or indeed to any of a great variety of members to be supported.

An object of the present invention is to provide adjustable supporting means readily adaptable to a great variety of uses, which is composed of only simple parts, and is sturdy and readily adjustable.

A further object is to provide an adjustable supporting means which is slightly in appearance, which is not readily accessible to dirt, and which may be manipulated by means which are readily available to ordinary mechanics and maintenance men.

Further objects will appear as the description proceeds.

Referring to the drawing—

Figure 1 is a view in elevation of a tank having a plurality of supporting means, which supporting means embody the principles of the present invention; and

Figure 2 is a sectional view, on an enlarged scale, of one of the supporting means illustrated in Figure 1.

The numeral 10 indicates a tank or other member to be supported. The numerals 11—11 indicate a plurality of supports for carrying the weight of the tank 10, said supports being mounted upon the floor 11a, which in practice may have inequalities therein or may be sloping. Some or all of the supporting means 11 may be adjustable as to length, and a preferred embodiment of the means for providing such adjustability is illustrated in Figure 2.

Disposed upon the under side of the tank 10 and preferably welded or otherwise secured there-

to is the pad 12, which may be a plate shaped to conform to the portion of the tank 10 to which it is applied. Secured to the under side of the pad 12 is the pipe coupling 13. Each coupling may be beveled to suit the contour of the under side of the corresponding pad 12. Threaded into the coupling 13 is the length of pipe 14, which pipe 14 has secured therein at its lower extremity the nut 15. Threaded into the nut 15 is the bolt 16 having the rounded head 17. The head 17 of the bolt 16 is provided with a plurality of sockets 18—18 for engagement by a spanner wrench or other turning tool.

The numeral 19 indicates a foot adapted to rest upon the adjacent portion of the floor 11a. Said foot 19 may be hollowed out slightly, as indicated by the numeral 20, providing the annular bearing portion 21. The foot 19 on its upper side is provided with the upstanding cylindrical portion 22, the external diameter of which may be substantially equal to the diameter of the pipe 14. Surrounding the upstanding portion 22 is the substantially horizontally presented surface 23 adapted to form a seat for the sliding sleeve 24.

The upper surface of the foot 19 is provided with the socket 25 for receiving the rounded head 17 of the bolt 16. The radius of the bearing surface of the socket 25 will be greater than the radius of the head 17, whereby said head 17 may find a proper bearing within the socket 25 throughout a practical range of movement of the foot 19 relative to the axis of the pipe 14.

The mode of operation of the above described embodiment of the present invention will be clear without detailed explanation. When it is desired to adjust the length of the support 11 the sleeve 24 may be moved up out of covering relationship with the head 17 of the bolt 16, whereby by using a spanner wrench or its equivalent the bolt 16 may be turned relative to the nut 15, thereby varying the length of said bolt 16 projecting below the lower extremity of the pipe 14. This adjustment may be had under full load. Even though the foot 19 be tilted, within limits, relative to the pipe 14, the head 17 of the bolt 16 will find a proper bearing surface upon the surface of the socket 25. The tank 10 may, by the simple expedient of adjusting a portion of the adjustable supports 11, be brought to its proper alignment, regardless of inequalities or sloping of the floor 11a, within limits. After the adjusting operation on any one of the supports 11 has been performed, the sleeve 24 will be allowed to drop into protecting relationship relative to the bolt 16 and socket 25,

whereby to prevent ingress of foreign material thereto.

Though a preferred embodiment of the present invention has been described in detail, many modifications will occur to those skilled in the art. It is intended to cover all such modifications that fall within the scope of the appended claim.

What is claimed is—

10 An adjustable support comprising a coupling having a portion adapted to conform to the contour of a member to be supported, a pipe thread-

ed into said coupling, a nut secured within said pipe at the outer end thereof, a bolt threaded into said nut, said bolt having a rounded head, a foot having a socket portion for receiving said head, the radius of said socket being greater than 80 the radius of the head of said bolt, and a sleeve, plain on its inner surface, slidable upon said pipe and said foot for protecting said bolt and said socket from ingress of foreign matter, said foot having a seat for receiving the bottom of 85 said sleeve.

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