Sept. 29, 1942. H. A. RICKER 2,297,325

ADJUSTABLE SUPPORT

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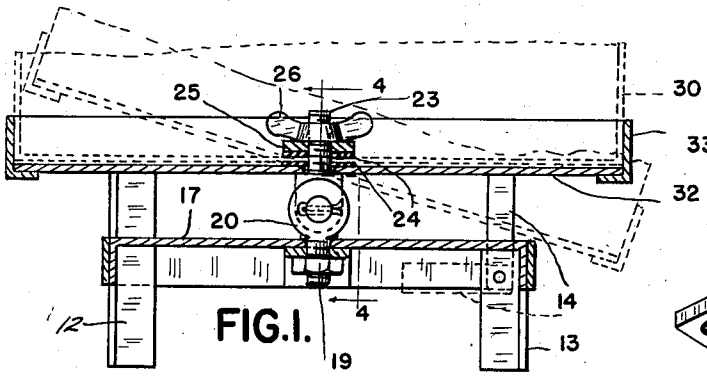


FIG.1.

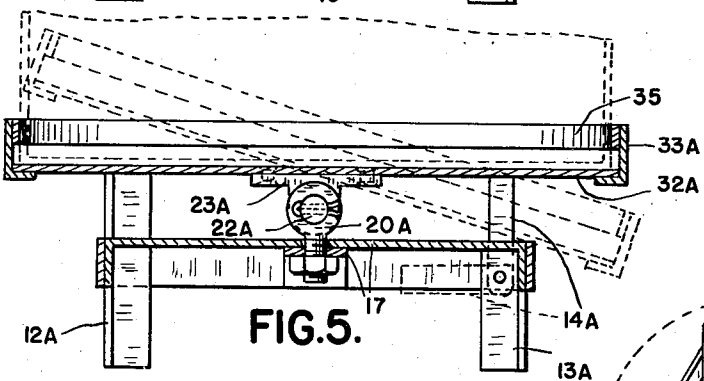


FIG.5.

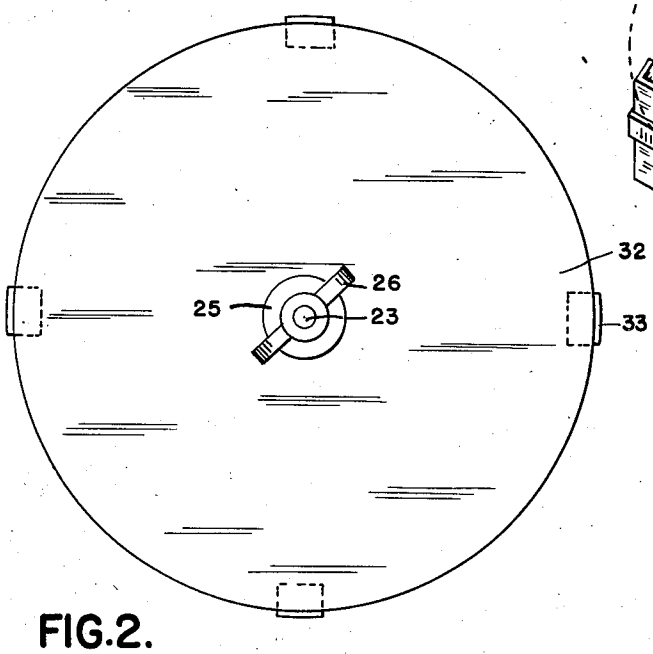


FIG.2.

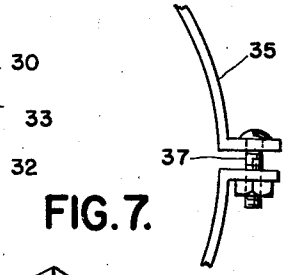


FIG.7.

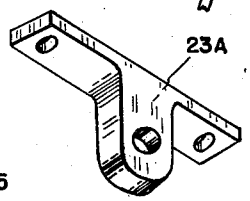


FIG.6.

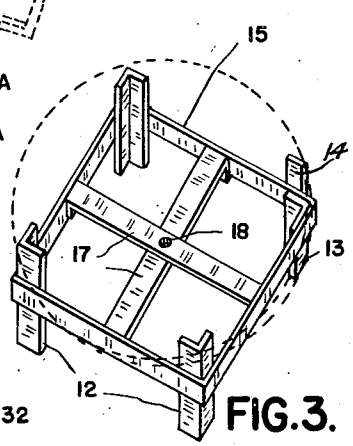


FIG.3.

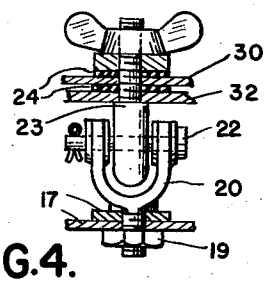


FIG.4.

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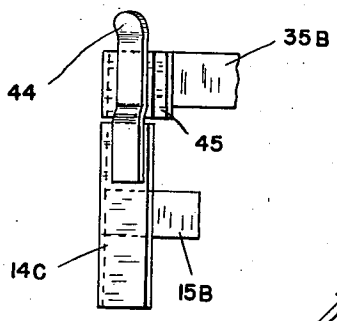
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ADJUSTABLE SUPPORT

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FIG.11.



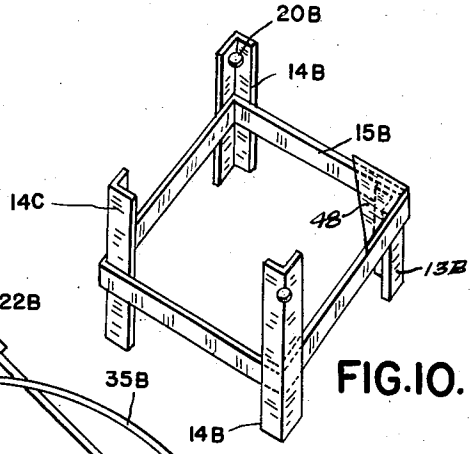


FIG.10.

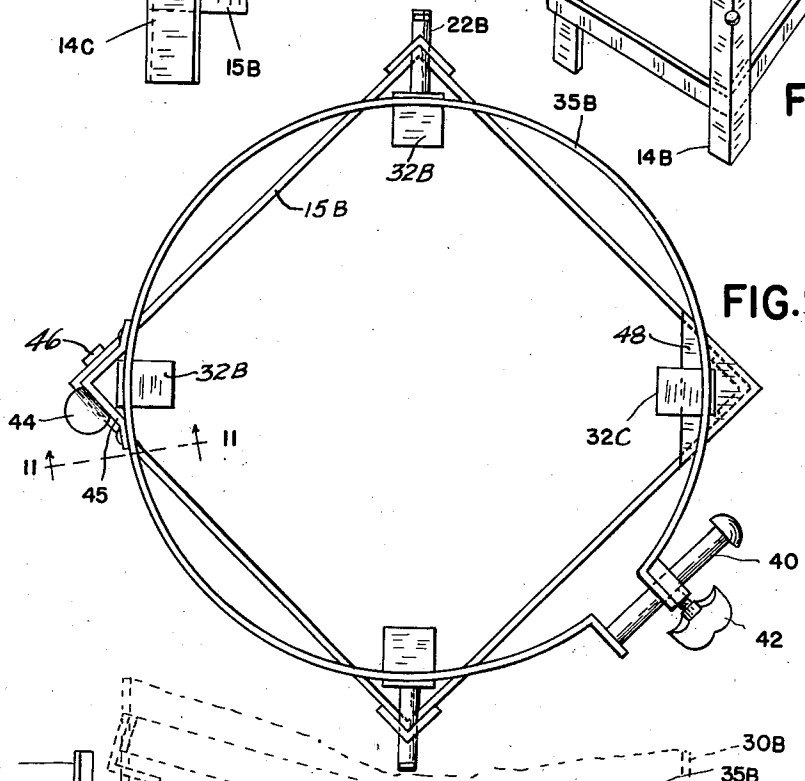


FIG.9.

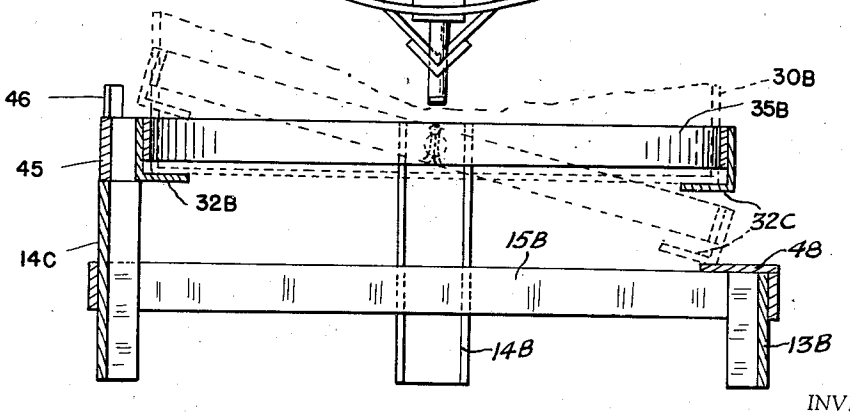


FIG.8.

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UNITED STATES PATENT OFFICE

2,297,325

ADJUSTABLE SUPPORT

Henry Ancle Ricker, Windsor, Ontario, Canada

Application June 27, 1939, Serial No. 281,430

3 Claims. (Cl. 31—56)

This invention relates to supporting devices for pails and other containers, and particularly to an improved support adapted to serve as a stand for a milk pail, conveniently portable therewith, and which is so constructed as to hold the pail either upright, or tilted at a convenient angle for milking.

An important object of the invention is to provide such a supporting device which is very simple and inexpensive in construction, and of such light weight that it may be conveniently carried and handled with the pail.

Still another object is to provide such a support or stand which allows ready insertion or removal of a pail, permitting the same to be removed and cleaned at will.

Another important object of the invention is to provide such a supporting standard adapted to hold a milk pail at a convenient angle during milking, freeing the milker from the necessity of holding the pail with the legs or feet, while also helping to maintain the pail in a sanitary condition by holding it somewhat elevated above the floor.

Other objects and advantages will be apparent from the following description, wherein reference is made to the accompanying drawings illustrating preferred embodiments of my invention and wherein similar reference numerals designate similar parts throughout the several views.

In the drawings:

Figure 1 is a substantially central vertical cross section of an adjustable stand constructed in accordance with the present invention.

Figure 2 is a plan view thereof.

Figure 3 is an isometric perspective view of the stand with the pail supporting platform removed.

Figure 4 is a sectional detail taken substantially on the line 4—4 of Figure 1, and looking in the direction of the arrows.

Figure 5 is a view similar to Figure 1 showing a somewhat modified construction.

Figure 6 is a perspective view of a supporting and hinge bracket, employed to carry the platform in the modified construction.

Figure 7 is a fragmentary detailed plan view of the pail-clamping means.

Figure 8 is a view similar to Figure 1, showing another somewhat modified construction.

Figure 9 is a plan view thereof corresponding to Figure 2.

Figure 10 is an isometric view of the stand portion, corresponding to Figure 3; and

Figure 11 is a sectional detail taken substantially on the line 11—11 of Figure 9, and looking in the direction of the arrows.

This application is a continuation in part of my previously filed copending application, Serial No. 223,660, filed August 8, 1938.

Referring now to the drawings, my improved support will be seen to comprise a rigid stand, formed of legs 12, 13, and a strap metal framework 15 extending around and secured to the legs. The legs may be formed of angle iron, and cross braces, 17, also formed of strap metal are joined to the framework, all parts being preferably welded together. The legs 12 project above the framework, while the shorter leg 13 does not, although a swinging prop 14 hinged to the side of leg 13 is swingable to and from an upright position, shown in full lines in Figure 1, in which it projects above the framework to the same extent as the other legs and serves as an extension for the short leg 13.

A central aperture 18 extends through the cross braces and a clevis 20 is secured therein by a nut 19. A pivot pin 22 extends through the arm of the clevis, carrying an eye bolt, 23. The eye bolt is provided with a pair of gaskets 24, a washer 25, and wing nut 26, and projects upwardly far enough to extend through the bottom of the pail 30, or other container to be held, which is apertured to receive it. The pail is adapted to rest upon a sheet metal platform 32 carried by the eye bolt. Upwardly extending positioning lugs 33 are secured to the margin of the platform.

It will be understood that when the pail is secured in place on the platform, the gaskets act to seal the hole, and that the pail is then used with the stand attached. The stand, being relatively light in weight, does not interfere with the free use of the pail, but enables the latter to be held upright, as shown in full lines in Figure 1, or in the inclined position shown in dotted lines in that view, which is more convenient for milking. The prop 14 is of course raised when it is desired to hold the pail upright, and lowered to the position in which it is shown in dotted lines, to allow the pail to be inclined.

In the somewhat modified construction shown in Figure 5, in which parts corresponding to those already described have been given like reference characters, distinguished by the addition of the letter "A" to each, the stand, comprising legs and framework, will be seen to be similar in construction, the platform being carried, however, by a bracket 23A attached to its bottom rather than by the eye bolt employed in the first em-

bodiment. The pail is removably attached to the platform by means of a clamping ring **35** supported above the platform by the lugs **33A** and having flexible out-turned end portions through which a clamping bolt **37** is projected, which, when tightened, draws the ring firmly about the sides of the pail near the bottom, to hold the pail firmly upon the platform. This arrangement will be seen to permit ready attachment and detachment of an imperforate pail, although it will be appreciated that it is not possible, with this arrangement, to accommodate as wide a range of pail sizes as with the embodiment first described.

In the further modified construction shown in Figures 7 to 10 inclusive, the framework is lightened by elimination of the cross braces, as best shown in Figures 9 and 10. Two of the legs, **14B**, which project above the framework **15B**, are apertured as at **20B** to accommodate pivot pins **22B** carried by and projecting outwardly from a circular clamping ring **35B**, which is thus trunnioned in legs **14B**. The supporting ring **35B** will be seen to be rockable in these bearings from an upright to an inclined position at will, the two positions being indicated in Figure 8. The lugs **32B** secured to the sides of the ring are arranged to project beneath the pail. The pins **22B** are of sufficient length to allow for free sliding movement thereof in both directions when the ring is expanded or contracted, and due to such flexibility it will be seen to be possible to expand and contract the ring considerably, to accommodate pails of widely varying dimensions. One free end of the ring carries a rod **40** over which the out-turned ear carried by the opposite free extremity of the ring is freely slidable, except when clamped thereto by means of set screw **42**, which may be provided with an enlarged head for convenient hand manipulation.

Leg **14C** is somewhat shorter than legs **14B**, and a stop bracket **45** attached to and projecting from the clamping ring **35B** overlies the leg **14C** and is swingable to and from engagement therewith as the clamping ring is rocked in the frame. A spring clip **44** is provided which normally holds the stop bracket in engagement with the top of leg **14C** to maintain the pail in upright position. The clip is secured to and projects upwardly from the leg **14C**, and may be freed from its overengaging position to release the clamping ring, so that it and the pail may be tilted, either by applying sufficient force to the pail to overcome the frictional hold of the clip, or by flexing the clip manually. A guide **46** secured to the other outside surface of leg **14C** holds the stop bracket against disalignment and guides it into proper registry with the top of the leg and the clip. An abutment plate as **48** is also preferably provided over the short leg **13B**. The top of leg **13B** may terminate on a level with the top of frame **15B**, as shown in Figs. 8 and 10, to permit tilting of the pail. The pail is protected against engagement with the framework when in the inclined position by the plate **48**, which is in position to be engaged by the lug **32C**, which thus limits the inclination and absorbs the wear.

I am aware that the invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof, and I therefore desire the present embodiments to be considered in all respects as illustrative and not restrictive; reference being had to the appended claims rather than to the foregoing description to indicate the scope of the invention.

I claim:

1. A stand for pails and the like, comprising a frame having legs projecting both above and below the same, and having another leg which does not project above the frame to the same extent, a pail-supporting structure rockably carried by the frame and overhanging the legs, and an extension appurtenant to said leg which does not project above the frame to the same extent, said extension being movable up and down and engageable with said supporting structure to act as a prop and prevent unwanted rocking thereof in cooperation with the other legs, the supporting structure being rockable when said extension is lowered, and means for affixing a pail to said supporting structure.

2. A stand for pails and the like, comprising a framework, a pail-supporting element in the form of an expansible and contractible ring rockably affixed to said framework, independent pivot means supporting said ring in the framework at substantially diametrically opposite points and permitting independent movement of the pivotally supported portions thereof, clamping means for releasably holding said ring in a contracted position in which it embraces a pail or the like to affix the same to the stand, a plurality of legs extending downwardly from the framework to support the same in elevated position, and a pair of oppositely disposed bearing supporting portions projecting above the framework and carrying said pivot means, and holding means carried by another of said legs and engageable with said ring to hold the same against unwanted rocking movement.

3. A stand for pails and the like, comprising a framework, a pail-supporting element in the form of an expansible and contractible ring rockably affixed to said framework, independent pivot means supporting said ring in the framework at substantially diametrically opposite points and permitting independent movement of the pivotally supported portions thereof, clamping means for releasably holding said ring in a contracted position in which it embraces a pail or the like to affix the same to the stand, a plurality of legs extending downwardly from the framework to support the same in elevated position, and a pair of oppositely disposed bearing supporting portions projecting above the framework and carrying said pivot means, an abutment portion carried by said ring and overhanging and adapted to be stopped by operative engagement with the top of another of said legs, said last mentioned leg being of such height as to limit the ring against movement in one direction beyond a substantially horizontal position, and means carried by said last mentioned leg for releasably holding said ring in said horizontal position.

HENRY ANCLE RICKER.