

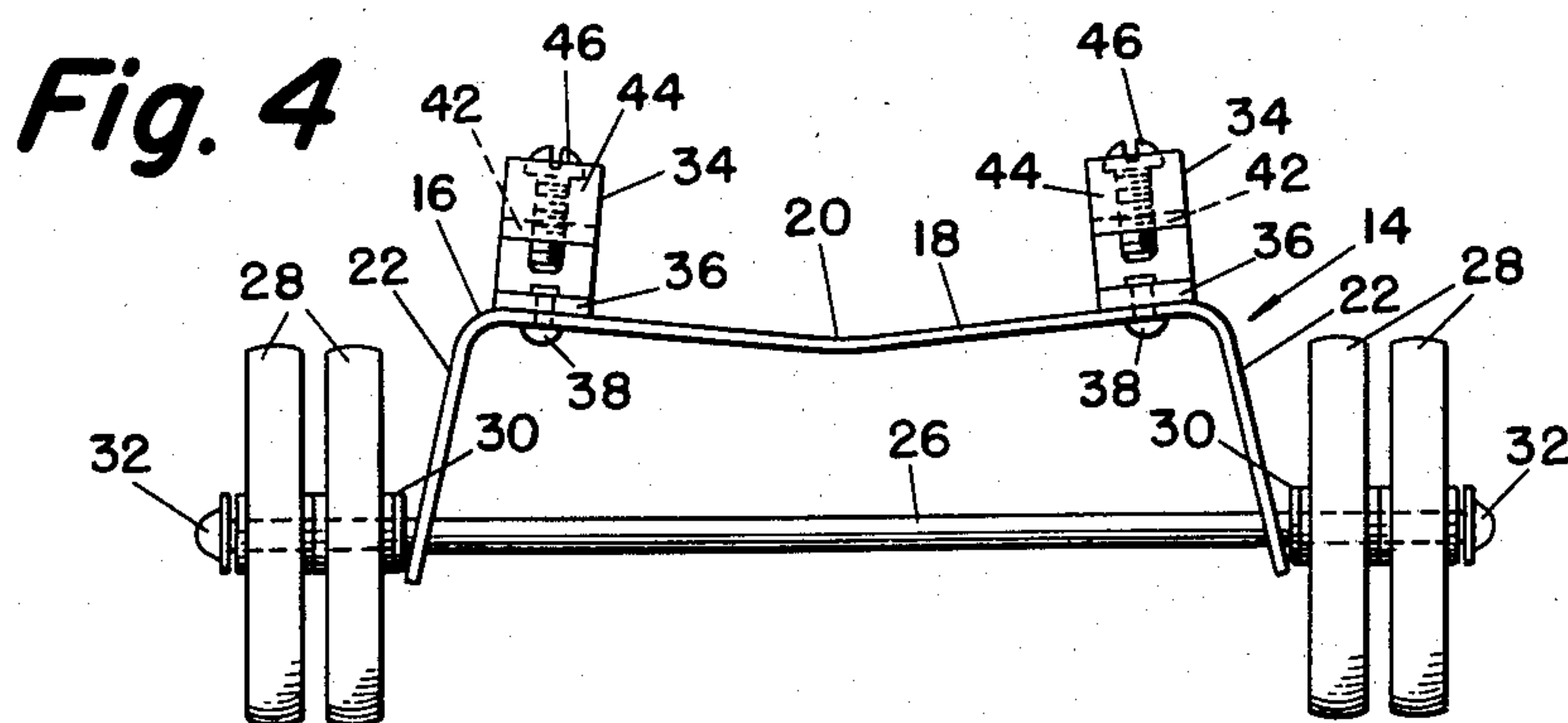
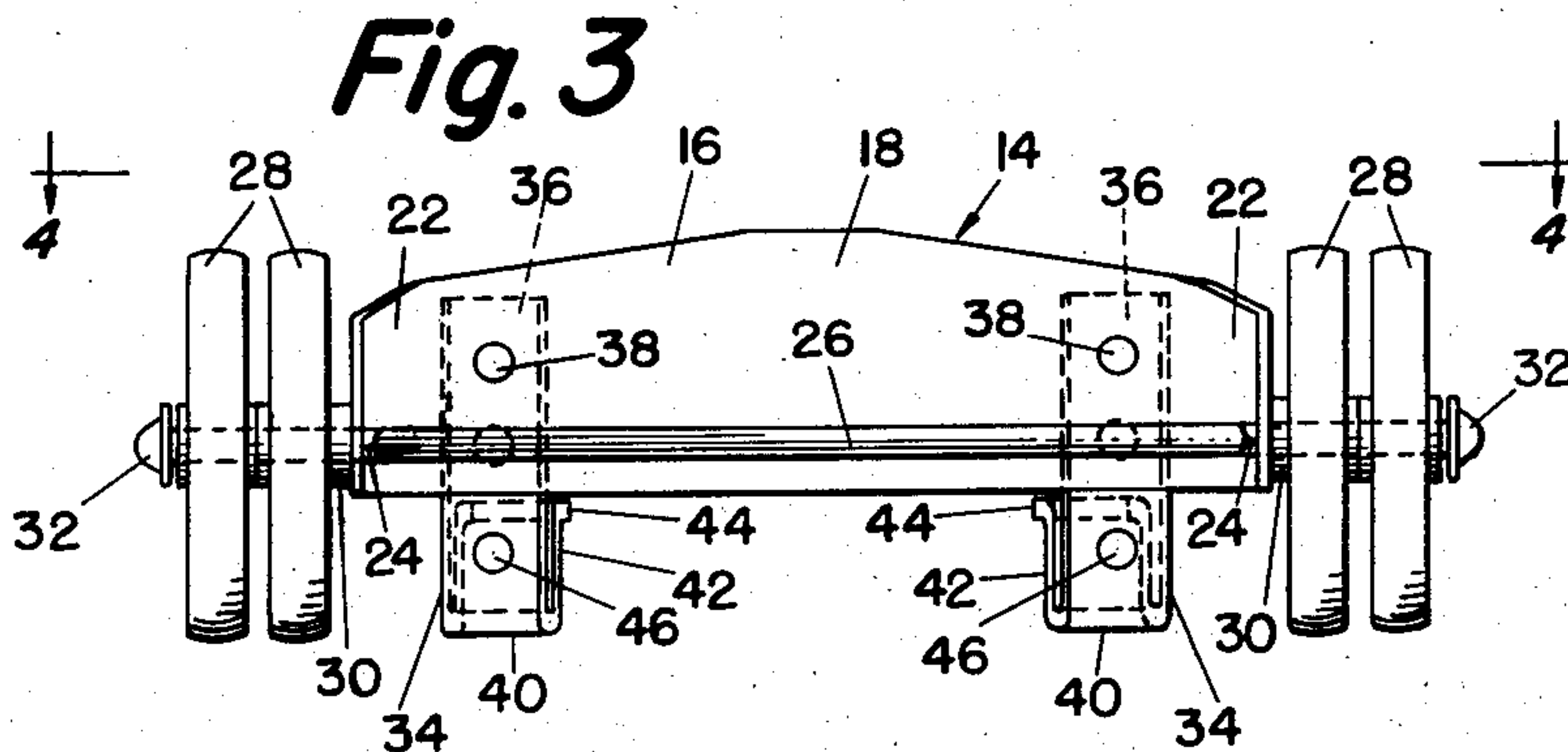
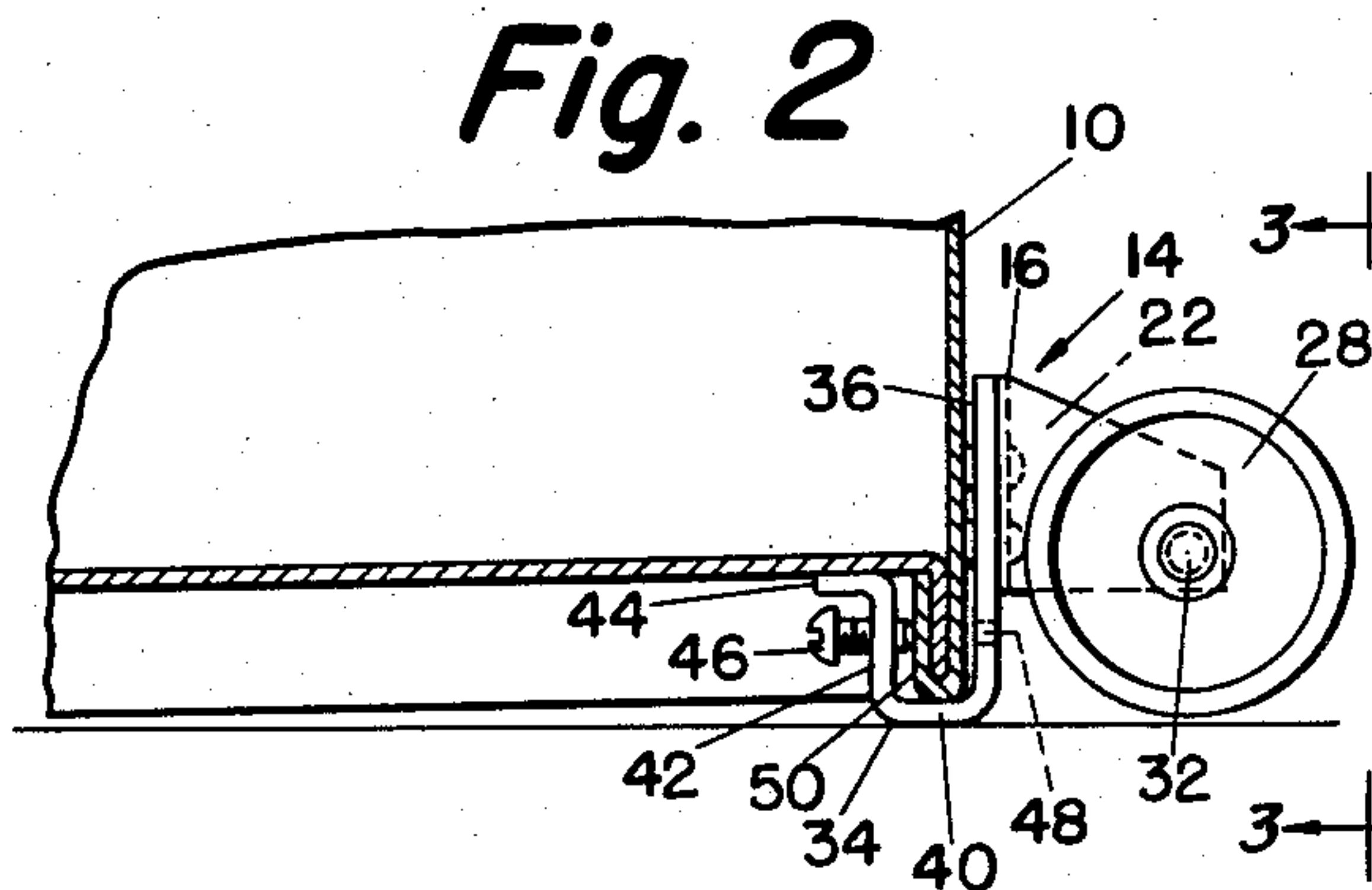
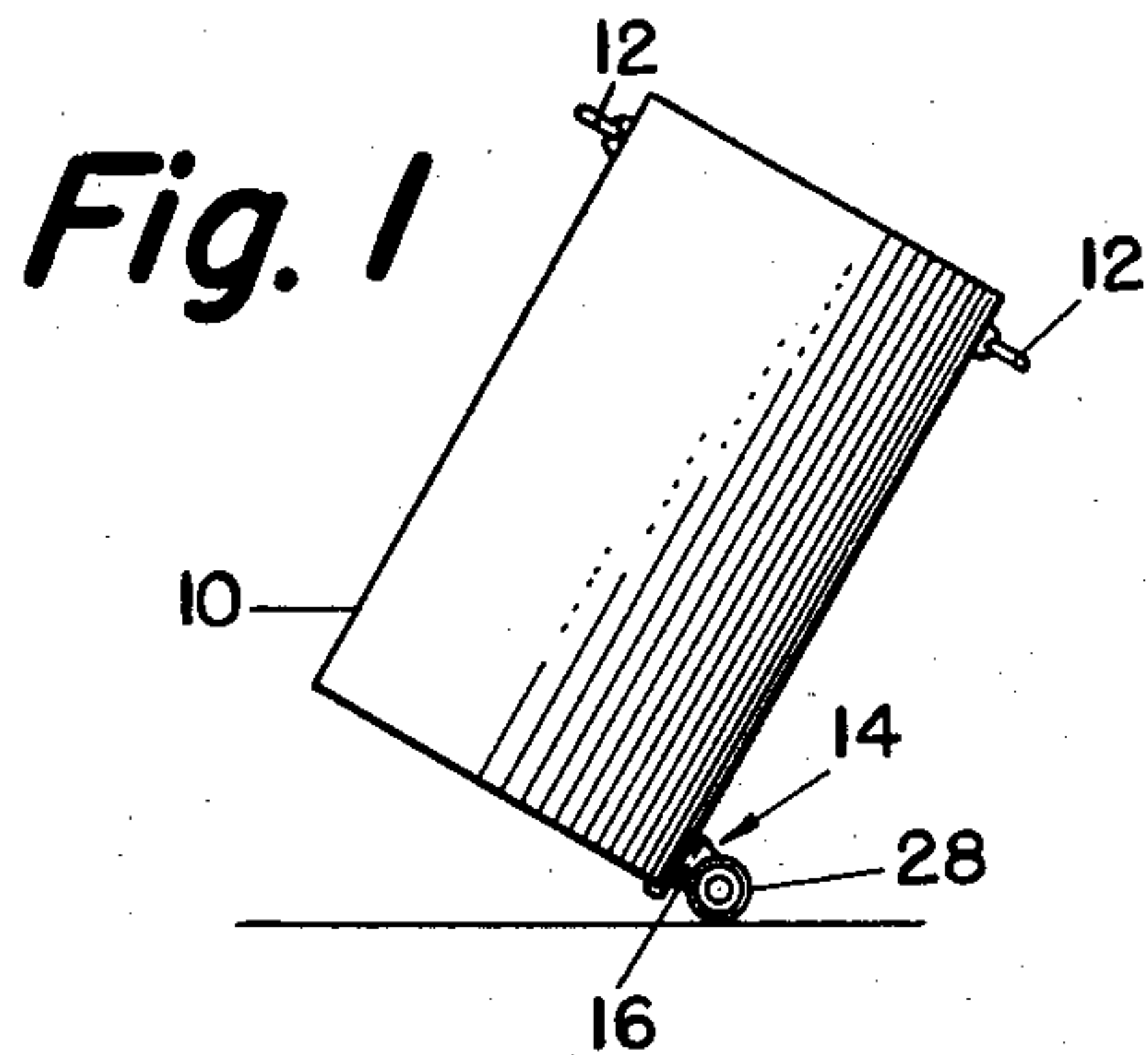
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A. S. PORTNER

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SUPPORTING DEVICE

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INVENTOR.  
ALBERT S. PORTNER

BY

*Caesar and Rivise*

ATTORNEYS.



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2,953,387

## SUPPORTING DEVICE

Albert S. Portner, Philadelphia, Pa., assignor to David Lehrman, trading as The Irones Company, Philadelphia, Pa.

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3 Claims. (Cl. 280—47.13)

This invention relates to a supporting attachment for containers such as trash cans and the like and it more particularly relates to a supporting attachment which permits the trash can to be wheeled about rather than carried.

It has heretofore been the general practice to provide trash cans with oppositely disposed hinged handles to enable a person to lift the can for the purpose of moving it from one place to another. Since such trash cans often become extremely heavy when fully loaded, a person who attempts to lift such cans becomes subject to undue strain.

Various prior attempts have been made to overcome the aforesaid difficulty by providing roller or wheel means on such cans. However, such prior types of roller or wheel means have not proved to be successful because they often tended to run away with the can and they did not therefore provide a sufficiently sound support for the cans when not being moved about.

It is one object of the present invention to overcome the aforesaid difficulties by providing a roller attachment for trash cans and the like which will not only serve as an efficient transporting means for the cans, but which will also serve as a sound and rigid supporting means for the cans when the cans are not being transported.

Another object of the present invention is to provide a roller attachment of the aforesaid type which is relatively simple but which is yet sturdy in construction and highly efficient in operation.

Another object of the present invention is to provide a roller attachment of the aforesaid type which can be easily attached and detached from most standard types of trash cans and the like.

Other objects and many of the attendant advantages of this invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

Fig. 1 is a side elevational view of a trash can having a roller support thereon embodying the present invention.

Fig. 2 is a fragmentary detailed view, partly in section and partly in elevation, showing the roller support in position on the trash can of Fig. 1.

Fig. 3 is a rear elevational view of the roller support illustrated in Figs. 1 and 2; this view being taken on line 3—3 of Fig. 2.

Fig. 4 is a top plan view taken on line 4—4 of Fig. 3.

Referring now in greater detail to the various figures of the drawings wherein similar reference characters refer to similar parts, there is shown a trash can designated 10, having hinged opposed handles 12, which is provided with a detachable roller attachment generally designated 14.

The attachment 14 comprises a bracket 16 having a front portion 18 which is slightly indented at its center, as indicated at 20. This indentation 20 increases the

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rigidity of the bracket. The bracket is also provided with side portions 22. These side portions or arms 22 extend rearwardly from opposite ends of the portion 18 at a slight outward inclination.

Each arm 22 is provided, adjacent its upper rear corner, with an aperture 24. Through these apertures 24 extends a shaft or axle 26; this axle being loosely mounted within these apertures 24 so that a hinged connection is established therebetween. At each end of the axle 26, outwardly of the corresponding arms 22, there is provided a pair of coaxially arranged rollers 28. The rollers 28 of each pair are disconnected from each other except insofar as they are mounted on the common axle 26. Each pair of rollers is also arranged between a loose washer 30 positioned between the inner roller and the corresponding arm 22, and a flange 32 at the corresponding end of the axle.

Attached to the front portion 18 of the bracket are two hook clamps 34. These hook clamps may be attached to the bracket in any manner desired such as riveting, welding, bolting, etc.

The hook clamps 34 are arranged at opposite ends of the bracket portion 18 and each hook clamp comprises a straight portion 36 attached to the bracket portion 18 by means of rivets 38 or the like, a lower elbow portion 40, a reverse outer portion 42 and a forwardly extending flanged end 44 on the reverse portion 42.

Reverse portion 42 of each hook clamp 34 is provided with a tapped hole to receive a screw 46. There is also provided an aperture 48 in the corresponding straight portion 36, such aperture 48 being in opposed relationship to the tapped hole in the corresponding reverse portion 42.

It should be especially noted that the hook clamps 34 extend slightly below the rollers 28.

In use, the roller support 14 is applied to a trash can, such as the can indicated at 10, by loosening the screws 46 and applying the hook clamps 34 under the bottom peripheral flange 50 of the can 10 (as best indicated in Fig. 2). The screws 46 are then tightened against the inner surface of the adjacent portions of the flange 50 to securely clamp the attachment on the can. If desired, in order to get a more permanent and even more secure connection, the screws 46 can be forced to pierce the flange 50 and to then extend into the corresponding apertures 48 at the other side of the hook clamp. It is also possible to first pierce the flange 50 and to then substitute bolts for the screws 46. Such bolts can then extend through the pierced flange 50 into the corresponding holes 48, and can then be held in place by appropriate lock nuts.

In use, with the roller support 14 attached to the trash can 10, the elbow portions 40 of the hook clamps 34 will serve to rigidly support the can in its normal stationary position, since the elbow portions 40 extend slightly below the rollers 28 (as best illustrated in Fig. 2). However, when it is desired to transport the can from one place to another, it is merely necessary to tilt the can up so that it rests on the rollers 28. In this position, the hook clamps 34 will be tilted up above the ground. With the can in this tilted position (as illustrated in Fig. 1) it is a simple matter to roll it to the desired place where it can then again be moved into the straight vertical position, at which point the elbow portions 40 will automatically resume their rigid supporting positions.

The loose pivotal connection between the axle 26 and the bracket 16 permits the aforesaid tilting action to take place. In addition, the use of two rollers on each side provides better support in soft ground, mud, sand or the like.

One additional fact to be noted is the fact that the tapped holes to accommodate the screws 46 are arranged



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in the upper ends of the reverse portions 42, just underneath the corresponding flanges 44. This permits the roller attachment to be applied to cans having smaller flanges 50 as well as larger flanges 50, such as indicated in Fig. 2. In addition, the positioning of the screws 46 at these upper positions provides a better balanced and more secure attachment to the can.

Obviously many modifications and variations of the present invention are possible in the light of the above teachings. It is, therefore, to be understood that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described.

What is claimed as the invention is:

1. A supporting device for containers comprising a generally U-shaped bracket having a front wall and a pair of rearwardly extending arms, one of said arms extending from each of the opposite ends of said front wall, said front wall having a curvature corresponding to the curvature of the container to be supported, an aperture in each of said arms, said apertures being in alignment to form shaft-supporting journals, a shaft extending loosely and rotatably through said apertures, said shaft being generally parallel to said front wall but in spaced relation thereto, roller means on each end of said shaft outwardly of said arms of the bracket, a plurality of hook clamps connected to the front face of said front wall, each of said hook clamps comprising an elbow portion connecting oppositely disposed, parallel, spaced body portions, said elbow portion being positioned in a plane which is substantially tangential to the outer peripheral plane of said roller means, and adjustable clamping means on each of said hook clamps, said clamping means being constructed and arranged to clamp a flange portion of a container between said body portions.

2. The supporting device of claim 1 wherein one of the body portions of each of said hook clamps is pro-

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vided with a laterally extending flange at its free end remote from said elbow portion, said laterally extending flange being positioned to act as an auxiliary support for the container when the flange portion of the container is clamped in said hook clamps.

3. In combination, a container having a bottom flange extending below the bottom wall of said container and a supporting device releasably clamped to said container, said supporting device comprising a generally U-shaped bracket having a front wall and a pair of rearwardly extending arms, one of said arms extending from each of the opposite ends of said front wall, said front wall having a curvature corresponding to the curvature of the container to be supported, an aperture in each of said arms, said apertures being in alignment to form shaft-supporting journals, a shaft extending loosely and rotatably through said apertures, said shaft being generally parallel to said front wall but in spaced relation thereto, roller means on each end of said shaft outwardly of said arms of the bracket, a plurality of hook clamps connected to the front face of said front wall, each of said hook clamps comprising an elbow portion connecting oppositely disposed, parallel, spaced body portions, said elbow portion being positioned in a plane which is substantially tangential to the outer peripheral plane of said roller means, and adjustable clamping means on each of said hook clamps, said bottom flange of the container being releasably clamped between the body portions of said hook clamps.

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