Dec. 17, 1963 C. A. DOWNS 3,114,433

TRAVELING SCAFFOLD

Filed Jan. 4, 1963

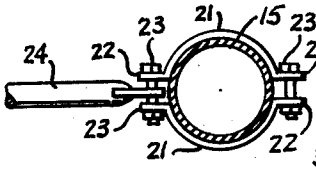


FIG. 2

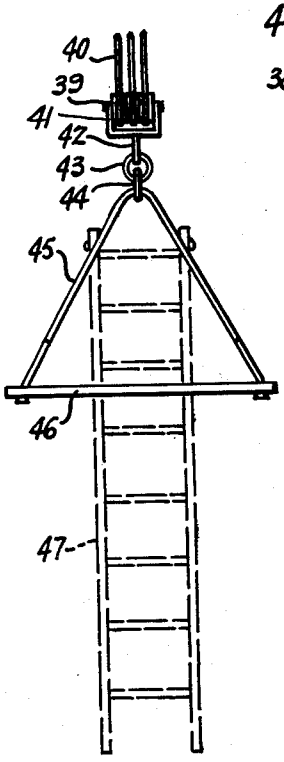


FIG. 4

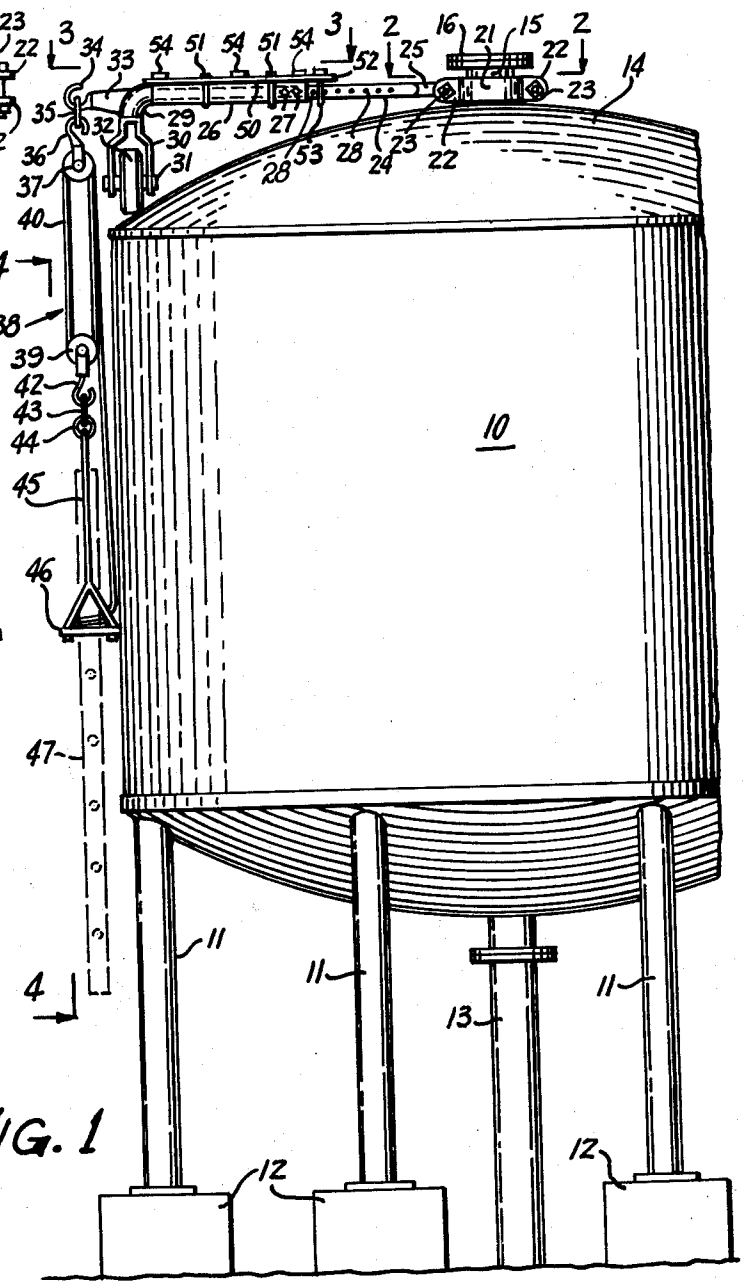


FIG. 1

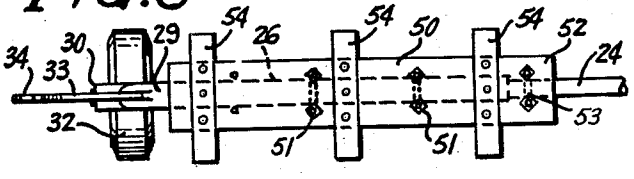


FIG. 3

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TRAVELING SCAFFOLD

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1 Claim. (Cl. 182—82)

This invention relates to a traveling scaffold and has particular applicability to a scaffold adapted to be temporarily or permanently mounted on the tops of tubular or cylindrical storage tanks for supporting a scaffold or the like adjacent the side of the tank, providing means whereby the exterior of a tank may be readily painted, repaired, or otherwise worked upon as desired.

An additional object of the invention is the provision of such a device which may be readily attached to and removed from the top of an individual tank when desired.

A further object of the invention is the provision of such a traveling scaffold which is readily adjustable to a variety of diameters of cylindrical tanks.

An additional object of the invention is the provision of a device of this character provided with a radial arm supporting a vertical rubber tire wheel adapted to rotate about the rim of the dome-shaped top of a cylindrical tank to facilitate rotative movement thereof.

Still another object of the invention is the provision of such a traveling scaffold having a platform on the top thereof, whereby the top of a tank may be readily painted or otherwise treated.

Still other objects reside in the combinations of elements, arrangements of parts, and features of construction, all as will be more fully pointed out hereinafter, and disclosed in the accompanying drawings wherein there is disclosed a preferred embodiment of this inventive concept.

In the drawings:

FIGURE 1 is a fragmentary side elevational view of one form of cylindrical tank showing a traveling scaffold constructed in accordance with the instant invention applied thereto.

FIGURE 2 is an enlarged sectional view taken substantially along the line 2—2 of FIGURE 1 as viewed in the direction indicated by the arrows.

FIGURE 3 is an enlarged fragmentary top plan view taken substantially along the line 3—3 of FIGURE 1 as viewed in the direction indicated by the arrows; and

FIGURE 4 is a fragmentary side elevational view taken substantially along the line 4—4 of FIGURE 1 as viewed in the direction indicated by the arrows.

Similar reference characters refer to similar parts throughout the several views of the drawing.

Having reference now to the drawings in detail, there is generally indicated at 10 a cylindrical storage tank of any desired size and of conventional design which is supported on legs 11 mounted in blocks 12, and provided with the usual outlet pipe 13. Tank 10 has a dome-shaped top 14 which is provided with a central nozzle 15 or filling opening, provided with a flanged closure 16.

The device of the instant invention comprises a split collar comprised of two separable half portions 21, each provided with oppositely extending vertical plane flanges 22 which are apertured to receive horizontal end threaded connecting bolts 23. The separable halves 21 thus provide an annular ring which encompasses nozzle 15, and may be loosely secured thereto for rotation thereabout. A radial arm extends from one bolt 23 to beyond the side walls of the tank. A first radially inner tubular member 24 has a vertical end flange 25 which is apertured to receive one of the bolts 23 and extend radially from the ring formed by the separable half sections 21. Member 24 is consequently nonrotatable about its own axis. Tubular member 24 telescopically engages in a second

radially outer tubular member 26, which is provided with openings containing bolts 27 which selectively engage aligned openings 28 in tubular member 24 so that the effective length of the radially extending member comprised of tubular members 24, 26 may be varied in accordance with the effective diameter of the tank to be treated.

At the outer end of tubular member 26 is an L-shaped fitting 29 which carries a depending bifurcated yoke 30 having at its lower end a transverse axle 31 extending thereacross, and radially oriented with respect to the tank. Axle 31 carries a rubber tired wheel 32 which is adapted to ride adjacent the outer periphery of dome-shaped cover 14.

A projection 33 extends from fitting 29 and terminates in a hook 34 which is adapted to support a link 35 engaging a hook 36 carried by the upper block 37 of a block and tackle assembly, generally indicated at 38, and including a lower block 39 and a plurality of conventional connecting ropes 40. Lower block 39 supports a yoke 41 which carries a hook 42 which may engage a link 43 engaging an eye 44 carried by a triangular scaffold support 45 including a scaffold board 46.

If desired, a ladder 47, as indicated in dotted lines, may be substituted for the scaffold support 45 and its scaffold board 46, in accordance with working conditions.

The top of tubular member 26 has mounted thereon a longitudinally or radially extending platform board 50, which is secured thereto by U-bolts 51. A portion 52 of platform 50 extends outwardly over first radially inner tubular member 24 and is provided with a U-bolt 53 which clampingly engages the radially inner tubular member 24 additionally and individually to hold the parts in related assembly.

Transverse cleats 54 extend across the top of board 50 at suitably spaced intervals, so that a working surface is provided for working across the top of the tank as desired.

From the foregoing the use and operation of the device should now be readily understandable. The split rings 21 are applied about the nozzle or inlet of a tank to be worked on, and the extensible tubular members 24 and 26 suitably adjusted so that the wheel 32 rides on the periphery of the tank. Scaffold 46, or alternatively ladder 47, is then attached by means of the block and tackle assembly previously described to the hook 34, and raised or lowered as needed along the sides of the tank 10. The device may revolve relatively freely, so that it may be moved as necessary about the periphery of the tank, or, alternatively, may be clamped in position until a suitable section of the tank has been painted vertically, and then moved to another radial position. Similarly painting of the top 14 of tank 10 may be effectuated from the platform formed by the boards 50 and their associated cleats 54.

From the foregoing it will also be seen that there is herein provided an improved traveling scaffold particularly adapted for use on cylindrical tanks, which accomplishes all the objects of this invention, and others, including many advantages of great practical utility and commercial importance.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiment hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative, and not in a limiting sense.

I claim:

In a traveling scaffold for a closed top cylindrical tank possessing a vertical exteriorly cylindrical member at the center of the top,

a split collar adapted loosely to encircle the member and including four apertured vertical plane flanges,

connected in pairs by end threaded horizontal axis bolts and adjustably positioned nuts,

a radial arm extending non-rotatively with respect to its axis from one of said bolts to beyond the side wall of the tank,

at which latter location the outer end of the arm terminates in a fitting carrying a hook, the hook being connectable to a support for a vertically adjustable scaffold,

said fitting also carrying a depending bifurcated yoke carrying at its lower end an axle radially oriented with respect to the tank and a transversely oriented rubber tired wheel, the latter adapted to travel upon the adjacent periphery of the tank top,

said radial arm including a radially inner tubular member,

a radially outer tubular member telescopically associated about said inner member,

means passing through both members at selectable locations for longitudinally securing said members relative to each other,

and a single platform above portions of each of said members provided with bolt means to secure the platform horizontally and individually with respect to each member,

to thus aid said longitudinal member securing means.

References Cited in the file of this patent

UNITED STATES PATENTS

884,813	Gordnier	Apr. 14, 1908
921,431	Miller	May 11, 1909
1,101,839	Elvestrom	June 30, 1914
2,117,008	Oswalt	May 10, 1938