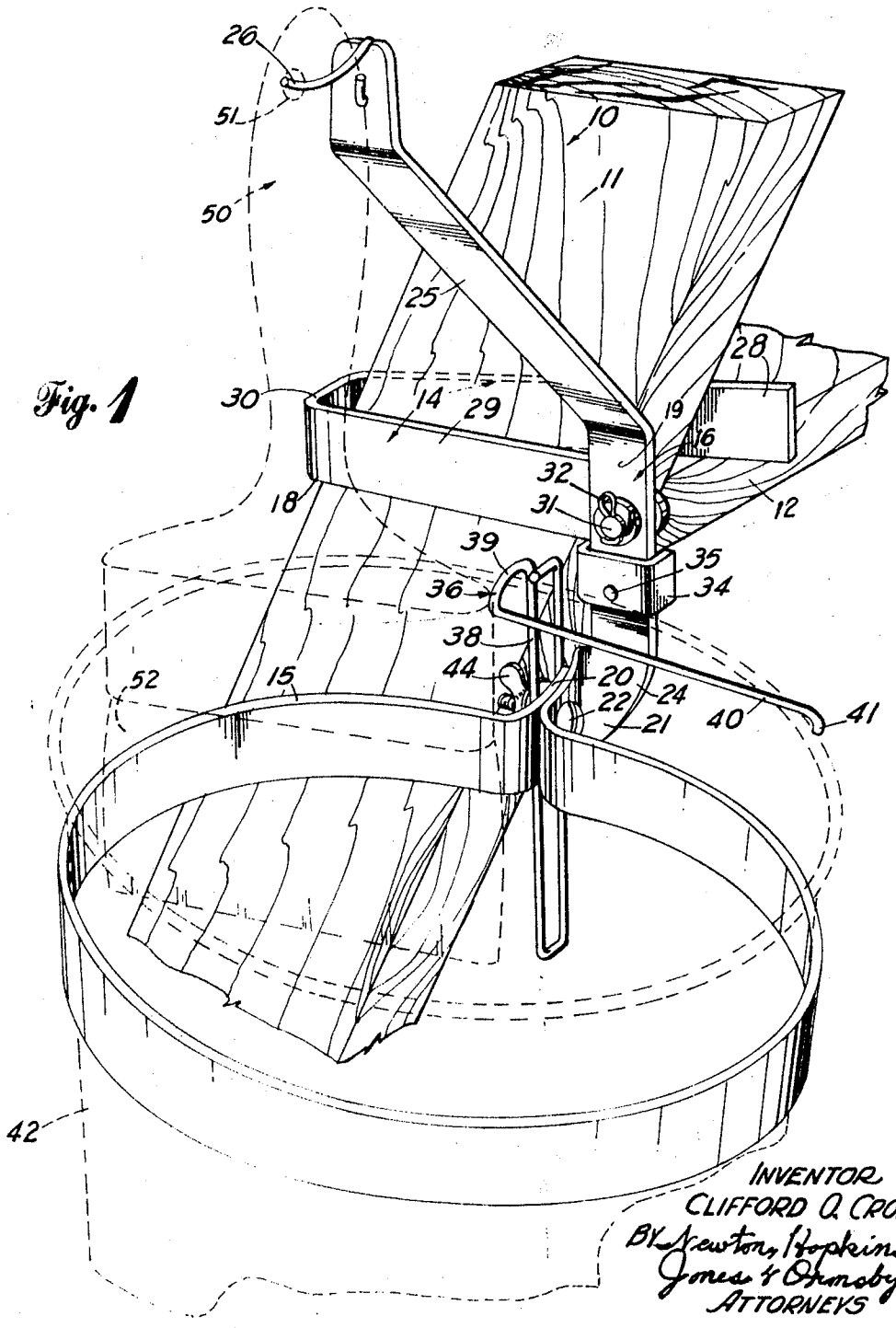
July 29, 1969 C. O. CROW 3,458,165

LADDER SUPPORTED CONTAINER HOLDER

Filed Sept. 28, 1967 2 Sheets-Sheet 1

Fig. 1



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LADDER SUPPORTED CONTAINER HOLDER

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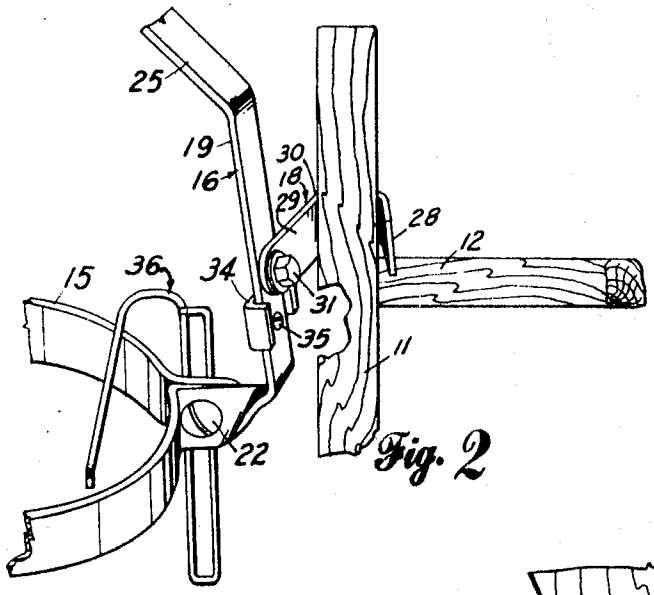


Fig. 2

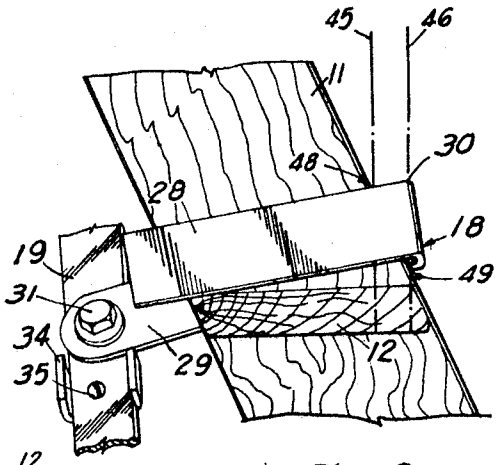


Fig. 3

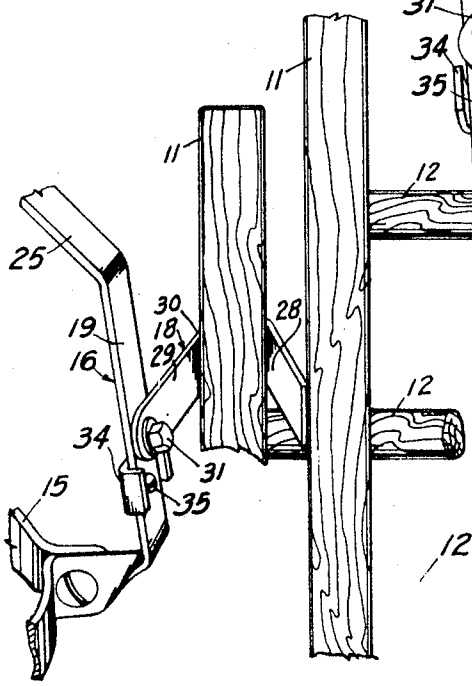


Fig. 4

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3,458,165

LADDER SUPPORTED CONTAINER HOLDER

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ABSTRACT OF THE DISCLOSURE

A ladder supported container holder comprising a support ring sized to encompass a pail above its center of gravity, an upwardly extending support element rigidly connected to the support ring and including a handle portion bent over the pail support ring, a hook member connected to the upper end of the handle portion for supporting brushes or the like above the pail positioned in the support ring, and a V-shaped bracket having legs longer than the width of the side rails of the ladder pivotally connected at the end of one of its legs to the support element below its handle portion, whereby the V-shaped support bracket is inserted about the side rail of the ladder from the front edge of the side rail, with its free leg resting on a rung of the ladder, and both of its legs extending beyond the rear edge of the side rail of the ladder so that the rung of the ladder acts as a fulcrum and supports the container holder and its pail.

Background of the invention

When painting an elevated object or surface, a painter usually carries his bucket of paint with him when he climbs his ladder, and keeps his paint available as he paints so that his brush can be conveniently immersed in the paint. Instead of holding the paint bucket in his hand, most painters attempt to rest the bucket on a platform, such as the foldable platform of a step ladder, so as to retain the use of his hand. Of course, in many instances a convenient platform is not available to the painter, as when the painter is using an extension ladder or circular rung ladder. Also, even if a platform is available for the bucket, the painter needs a place to rest his brush from time to time as he changes positions or makes other adjustments.

While various devices have been developed from time to time which support or suspend paint buckets from ladders, no simplified structure has been developed which will support a paint bucket from all types of ladders, which is easily connected to and disconnected from a ladder and movable to a new position on the ladder, which is virtually tilt proof, and which conveniently holds the painter's brush.

Summary of the invention

This invention comprises a ladder supported container holder of a type utilized to support a paint bucket from a ladder without danger of tilting or overturning the bucket while attached to the ladder or when being repositioned to a new location on the ladder, and includes a circular support ring adapted to encompass the paint bucket above its center of gravity, and upwardly extending support member rigidly connected to the support ring, and a V-shaped support bracket pivotally connected at the end of one of its legs to the support member. The V-shaped support bracket is adapted to be fitted about the upwardly extending side rail of the ladder, with one of its legs extending over the rung of the ladder, whereupon the rung of the ladder acts as a fulcrum to hold the support bracket rigidly connected to the ladder.

Thus, it is an object of this invention to provide a ladder supported container holder which can be connected to ladders of various construction.

Another object of this invention is to provide a ladder supported container holder which supports a container of paint above its center of gravity from a side rail and a rung of a ladder.

Another object of this invention is to provide a holder for connecting a bucket of paint to a ladder in such a manner that the bucket of paint and the holder can be removed from and reconnected to the ladder with one hand and with a minimum of attention from the painter.

Another object of this invention is to provide a holder which can be rigidly connected to a bucket of paint and suspend the bucket of paint in an upright position from the side rail of a ladder, and the bucket of paint and its holder can be conveniently repositioned on the ladder or placed upon the floor or ground surface without danger of the holder being disconnected from the paint bucket, or the paint being spilled from the paint bucket, and a paint brush can be suspended above the bucket of paint when the holder is in any of its upright positions.

Other objects, features and advantages of the present invention will become apparent from reading the following specification, when taken in conjunction with the accompanying drawing.

Brief description of the drawing

FIG. 1 is a perspective view of the ladder supported container holder, showing the manner in which the holder is connected to a pail and a ladder;

FIG. 2 is a partial rear elevational view of a step ladder, showing the manner in which the V-shaped support bracket is connected to the side rail and rung of the ladder;

FIG. 3 is a partial side view of a step ladder, showing the manner in which the support bracket is connected to the side rail and rung of the ladder;

FIG. 4 is a partial elevational view of an extension ladder, showing the manner in which the support bracket is connected to the side rail and rung of the ladder.

Description of the embodiment

Referring now more particularly to the drawing, in which like numerals indicate like parts throughout the several views, FIG. 1 shows a ladder **10** having a side rail **11** and step or rung **12**. While only a portion of ladder **10** is shown, it should be understood that the portion shown represents an upstanding step ladder of conventional construction. Container holder **14** is connected to ladder **10** and comprises a circular support ring **15**, upwardly extending support member **16**, and V-shaped support bracket **18**. Support ring **15** and upwardly extending support member **16** are fabricated from a single metal strap **19**. Support ring **15** terminates at one end in ear **20** and is joined to upwardly extending support member **16** by ear **21**. Ears **20** and **21** are apertured (not shown) to accommodate bolt **22**. Strap **19** extends from ear **21** through a twisted and upwardly bent portion **24** to form upwardly extending support member **16**. The upper portion of upwardly extending support member **16** is bent over support ring **15** to form handle portion **25**. The upper end of handle portion **25** is apertured and hook or brush holder **26** is inserted through the aperture and bent around the upper extremity of handle portion **25**, in such a manner as to be rigidly connected to upwardly extending support member **16**. Thus, support ring **15**, upwardly extending support member **16** and its handle portion **25**, and brush holder **26** are of integral rigid construction.

V-shaped support bracket **18** comprises free leg **28** and leg **29** which is connected at its end remote from apex **30** to upwardly extending support member **16**. Pin **31** ex-

tends through mated apertures (not shown) of leg **29** of V-shaped support bracket **18** and upwardly extending support member **16**, in such a manner that its head and cotter pin **32** pivotally connect V-shaped support bracket **18** to upwardly extending support member **16**. Washers are positioned about pin **31**, as necessary, to assure free pivotal movement between these elements.

U-shaped clip **34** is rigidly connected to upwardly extending support member **16** at a point immediately below V-shaped support bracket **18** by means of connecting brad **35**. The ears of U-shaped clip **34** extend beyond the opposite surface of upwardly extending support member **16** so as to present a stop for V-shaped support bracket **18**, and limit the pivotal movement of V-shaped support bracket **18** with respect to upwardly extending support member **16**.

Pail latch **36** is connected to support ring **15** by means of bolt **22**. Pail latch **36** is fabricated from a heavy gauge wire and comprises loop **38**, downwardly extending hook **39**, and laterally extending brush scraper bar **40**. Hook **39** is connected to the upper end of loop **38** and scraper bar **40** terminates in a downwardly turned tab **41** which normally hooks over the edge of pail **42**. Loop **38** is connected to bolt **22** by inserting loop **38** over the shank of the bolt with washers disposed on each side of loop **38**, and with wing nut **44** biasing together ears **20** and **21** of support ring **15** and loop **38**. Loop **38** is vertically adjustable about bolt **22** to accommodate different sized pails held by support ring **15**.

V-shaped support bracket **18** is formed so that its legs **28** and **29** diverge from apex **30** at an angle of approximately 25 degrees. Thus, the ends of legs **28** and **29** remote from apex **30** are disposed further apart than the ends closer to apex **30**. Legs **28** and **29** are constructed of a length substantially longer than the width of the normal side rails of step ladders, circular rung ladders or extension ladders, and when V-shaped support bracket **18** is positioned about a side rail of a ladder, apex **30** will be positioned adjacent the front edge of the side rail while its legs will project on each side of the side rail to a point beyond the rear edge of the side rail. Thus, when V-shaped support bracket **18** is attached to a ladder in its normal position, upwardly extending support member **16** will be supported by V-shaped support bracket **18** at the rear edge of the side rail of the ladder while apex **30** of the V-shaped support bracket **18** will be positioned adjacent the front edge of the side rail. Therefore, free leg **28** will contact the upper surface of a ladder rung, and from the weight of its pail will tend to pivot about the ladder rung until apex **30** engages the front edge of the side rail of the ladder.

As is shown in FIGS. 2 and 3, the diverging legs of V-shaped support bracket **18** create a loose fit with the side rail and rung of the ladder. When positioned on the ladder, V-shaped support bracket **18** is slid about side rail **11** until its apex **30** or the portions of legs **28** and **29** adjacent apex **30** are positioned closely adjacent the front edge of side rail **11**. V-shaped support bracket **18** is then allowed to slide down side rail **11** until its free leg **28** engages rung **12**. As V-shaped support bracket **18** continues to move down side rail **11**, free leg **28** slightly pivots about rung **12** until apex **30** engages the front edge of side rail **11**. Also, the further downward movement of V-shaped support bracket **18** causes it to tilt slightly, so that leg **29** is disposed slightly lower than free leg **28**. The degree at which leg **29** will tilt or droop below free leg **28** depends upon the thickness of side rail **11** and the angle between legs **28** and **29** of V-shaped support bracket **18**; however, the slight amount of droop encountered does not affect the function of the holder, and support ring **15** supports the pail so that it tilts toward upwardly extending support member **16**, and the holder is fabricated with the expectation that it will be mounted on the ladder in this manner.

As is best shown in FIG. 3, when V-shaped bracket **18** is mounted about side rail **11**, apex **30** of bracket **18** engages the edge of side **11** with the upper edge of free leg **28** and with the lower edge of leg **29**. As is indicated by broken lines **45** and **46**, the slope of the front edge of side rail **11** causes those points of engagement to be laterally displaced, so that the point of engagement **48** of free leg **28** is displaced toward the rear edge of the ladder side rail with respect to the point of engagement **49**. This lateral displacement of the points of engagement causes the holder to end to pivot substantially in a laterally extending plane until leg **29** engages the flat side of side rail **11** and the bucket is positioned closely adjacent the side rail.

When pail **42** is initially inserted in support ring **15**, ring nut **44** is loosened and pail latch **36** is pivoted to move hook **39** and brush scraper bar **40** out of the way. After pail **42** has been received in support ring **15**, pail latch **36** is adjusted so that hook **39** extends over the upper edge of pail **42**, brush bar **40** extends across a cord of the pail, and downwardly turned tab **41** projects back over the edge of the pail. Loop **38** may be vertically adjusted about bolt **22**, as necessary, and wing nut **44** tightened so that pail **42** is rigidly held in support ring **15** by pail latch **36**. With this arrangement, container holder **14** will remain connected to pail **42** even when pail **42** is placed upon the floor or ground surface.

When a painter carries pail **42** and container holder **14**, he normally grips the assembly by handle portion **25** of upwardly extending support member **16**. Since handle **25** extends over pail **42**, it is located generally above the center of gravity of the pail, so that the lifting of the assembly in this manner will not cause pail **42** to tilt. When the assembly is removed from a ladder, U-shaped clip **34** will limit the pivotal movement of V-shaped support bracket **18** with respect to upwardly extending support member **16** so that V-shaped support bracket **18** will not pivot to an awkward position, but will remain in an attitude where it is ready to be inserted about side rail **11** of ladder **10**. Since U-shaped clip **34** permits V-shaped support bracket **18** to pivot through approximately 180 degrees, container holder **14** can be connected to the opposite side rail **11** of ladder **10** by merely pivoting V-shaped support bracket **18** about upwardly extending support member **16** until it comes to rest against the opposite leg of U-shaped clip **34**. In this manner, V-shaped support bracket **18** will always be ready for immediate connection to the side rail of a ladder, and can be pivoted with a minimum of attention and effort so as to be connected to the opposite side rail of a ladder.

Since virtually all paint brushes are manufactured with holes in the end of their handles, the brushes can be suspended in an upstanding position by inserting the hole of the handle about a supporting hook, nail, etc. Brush holder **26** is positioned so that when brush **50** has its hole **51** inserted thereover, brush **50** will normally swing down so that the bristles **52** of the brush extend into pail **42**. In this manner, if the painter is carrying the assembly by handle portion **25** and vigorously swings the assembly, the brush **50** supported by brush holder **26** will not pivot wildly about the assembly and splatter paint about, since bristles **52** of the brush **50** will engage the sides of pail **42** and limit the pivotal movement of brush **50** to the area within pail **42**.

When the assembly is properly mounted on a ladder, the painter can scrape the bristles of his brush against scraper bar **40** to remove the excess paint which might have accumulated on the brush. Since scraper bar **40** extends over pail **42**, the paint will fall from scraper bar **40** into pail **42**.

V-shaped support bracket **18** is fabricated of a relatively thin metal strap and free leg **28** presents a substantially narrow profile. As is shown in FIG. 4, free leg **28** is thin enough so that it easily projects between the side rails of the sections of an extension ladder. Furthermore, while the container holder **14** has been illustrated primarily in association with a step ladder, it should be

apparent that the construction is such that it can be used with a circular rung ladder, or ladders having rungs of other configurations since the rung merely provides the fulcrum for V-shaped support bracket **18**.

While pail **42** has been illustrated as a conventional painter's pail, it should be understood that container holder **14** can be utilized with containers of other configurations. Furthermore, while support ring **15** has been illustrated as a solid piece, it may be constructed so that it is adjustable to accommodate pails varying in diameter.

It will be obvious to those skilled in the art that many variations may be made in the embodiments chosen for the purpose of illustrating the present invention.

I claim:

1. Apparatus for supporting a pail from the side rail and rung of an upstanding ladder comprising: a circular pail support ring sized to encompass a pail above its center of gravity, an upwardly extending support element rigidly connected to said support ring and including a handle portion bent over the pail support ring, a hook member connected to the upper end of said handle portion for supporting brushes or the like above the pail support ring, a V-shaped bracket having legs longer than the width of the side rails of a ladder pivotally connected at the end of one of its legs to said support element below said handle portion, a limiting member connected to said support element for restricting the pivotal movement of said V-shaped bracket with respect to said support element, a retaining member connected to said pail support ring for holding a pail within the confines of the pail support ring, and a brush scraper adapted to extend over a pail within the confines of the pail support ring.

2. The apparatus of claim **1** wherein said V-shaped bracket is pivotally connected to said support element at the extending end of one of its legs opposite the apex of said bracket.

3. The apparatus of claim **1** wherein said retaining member is vertically adjustable with respect to said support ring.

4. The apparatus of claim **1** wherein said support element includes an upright portion to which said leg of said V-shaped bracket is pivotally connected and wherein said limiting member is located on said upright portion immediately below said V-shaped bracket for restricting the pivotal movement of said bracket with respect to said support element.

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U.S. Cl. X.R.

211—71; 248—311