This invention relates to a device for demountable mounting on a ladder side rail to be used interchangeably on the right and left hand sides of the ladder to support a container from its underside such as a paint can or a water pail.

Hence an operator who is painting a wall or washing it has been obliged either to hold the container in one hand while using the other to manipulate a paint brush or some sort of a washing device in the nature of a cloth, a brush, or some sort of a mop head, or in the alternative to use a hook to hang over one of the rungs or steps of the ladder and suspend the can or pail by its bail which meant that the operator had to reach between the steps of the ladder in order to have access to the contents of the pail or the can, thus setting up an awkward manipulation.

It is a primary object of my invention to provide a structure in which the container including a can or a pail may be firmly supported from its underside irrespective of any bail, and doing so on a fixed plate or pan extending from either side of the ladder as may be selected, all to the end that the container will be immediately available without having to reach through the ladder between steps.

It is a further important object of the invention to provide a structure of the above indicated nature which may be readily clamped to a ladder rail in the absence of having to employ any screws or bolts requiring tools, and in the absence of having to have permanent studs or holes in the rail itself.

A still further important object of the invention resides in the fact that the device may be not only adjustable to varying thicknesses of rails, but also may be used interchangeably on either the right or left hand rail.

Further objects such as the rigidity of the construction, the relatively low cost, and the ease of accommodating the device embodying the invention to any shape or form of a ladder will become apparent to those versed in the art in the following description of one particular form of the invention as best known to me, and as illustrated in the accompanying drawings, in which:

Fig. 1 is a view in top plan in partial section of a structure embodying the invention;
Fig. 2 is a view in side elevation;
Fig. 3 is a view in vertical section on the line 3—3 in Fig. 2;
Fig. 4 is a view on an enlarged scale in diametrical vertical section through the container support;
Fig. 5 is a view in front elevation of the left hand portion of the ladder attaching bracket;
Fig. 6 is a view in front elevation of the right hand portion of the attaching bracket; and
Fig. 7 is a view of the device as attached to a ladder having a flat step.

A bracket generally designated by the numeral 10 is formed in two primary parts, a left hand part 11 and a right hand part 12. The left hand part of the bracket is formed to have a plate 13 from the upper portion of which extends a pair of spaced apart legs 14 and 15. In the form herein shown, these legs 14 and 15 are outturned from a web 16 which bears against the plate 13 and is fixed thereto such as by welding.

These legs 14 and 15 have a pair of vertically aligned holes 16 and 17. A front foot 18 is turned from the plate 13 substantially at right angles thereto in a direction from the plate opposite to the direction in which the legs 14 and 15 extend.

The bracket part 12 has a plate 19 from the outer side of which extends in spaced apart relation a pair of legs 20 and 21, these legs 20 and 21 extending substantially at right angles from the plate 19 and, as herein shown, being legs interconnected by a web 22 which abuts the side of the plate 19 and is fixed thereto such as by welding. These legs 20 and 21 are provided with a pair of vertically aligned holes 23 and 24 spaced apart on centers the same as the spacing for the holes 16 and 17 in the legs 14 and 15. The plate 19 has a foot 25 turned therefrom substantially at right angles thereto in a direction opposite from the extension of the legs 20 and 21.

The foot 25 carries a pair of vertically spaced apart studs 26 and 27 in a fixed manner.

The foot 18, Fig. 5, carries a plurality of holes 28 at an upper level on a common horizontal line, and a plurality of holes 29 at a lower elevation on a common horizontal line. The foot 18 laps over the foot 25, and the studs 26 and 27 are extended through selected ones of the holes 28 and 29 depending upon the required spacing apart of the plates 13 and 19. Wing nuts 30 and 31 are screw-threadedly engaged over the portions of the studs 26 and 27 which extend outwardly beyond the foot 18.

Both of the plates 13 and 19 have a reentering notch 32 extending upwardly from their lower edges 33, the contour of these notches 32 being that as shown in Figs. 3 and 7 wherein the notch has an opening through the edge 33 sufficiently large to receive loosely a round 34 to a ladder engaging the ladder rail 35 at the zone where the bracket 10 is to be applied to the ladder. The vertical height of the notch 32 is sufficient to receive the full diameter of the round 34 therewithin, and the notch on its forward side is rounded out from a relative point 36 at the edge 33 arcuately forwardly to follow the contour substantially of the round 34 up to the upper edge 37 of the notch 32. This provides an arcuate edge 38 of the notch 32 which follows close to half of the forward circumferential side of the round 34.

The bracket 10 in being applied to the ladder rail 35 is adjusted in the overlapping of the feet 18 and 25 to the nearest holes 28 and 29 aligning with the studs 26 and 27, and then the wing nuts 30 and 31 are tightened. It is not necessary that the plates 13 and 19 be compressively gripped against the two faces of the ladder rail 35 along which the plates 13 and 19 extend. The bracket thus adjusted is slipped downwardly and its lower end tipped forwardly sufficiently to allow the bracket to be seated on the ladder round 34 as indicated in Fig. 3, where the point 36 may be engaged downwardly below the axis of the round 34 with the surface 38 bearing against the forward side of the round.

A circular ring 40 is formed out of any suitable material, such as herein shown as being a rod in circular cross section, from which circular portion there extends a pair of legs 41 and 42 in parallel relationship to terminate in downwardly extending feet 43 and 44, the spacing apart of these feet 43 and 44 which are preferably made to be parallel is sufficient to allow them to extend through both of the legs 20 and 21, when the feet are inserted through the spaces 23 and 24. This is described in relation to the bracket 10 being mounted.
on the right hand rail of the ladder. A pan 45 is formed to have its major portion 46 of that diameter which will permit it to be dropped through the supporting ring 40, and carries an annular flange 47 to rest on the top side of the ring 40. An annular offset 48 is provided between the major portion 46 and the flange 47 to provide a shoulder 49 around which a plurality of plates, herein shown as three in number, and designated by the numerals 50, 51, and 52, may bear, one on top of the other. That is, the plates are supported at a distance defined between the shoulder 49 and the floor 53 of the pan. Each of these plates 50, 51 and 52 has a central circular opening 54, 55, and 56 respectively increasing in diameter as indicated in Fig. 4. For a small container, such as a pint size of plant, all three plates will be left in position, and the diameter of the opening 54 is just large enough to receive the pint size can therethrough to allow it to rest on the floor 53 and thus be supported and held against overturning. Likewise, if a quart size can is to be used, the plate 50 may be removed, and the can inserted through the opening 55 of the plate 51 and likewise supported. Thus, if there is a gallon can for example, both the plates 50 and 51 may be removed, and the can dropped through the opening 56 of the plate 52 to rest on the floor 53. Where a pail or the like or a larger can or container is to be employed, all three plates 50, 51, and 52 may be removed to accommodate the larger diameter container or vessel.

The invention thus far described has been set out in reference to a ladder having rounds 34. The invention is equally well adapted to stepladders or ladders of any kind having flat steps 57, Fig. 7.

Where a flat stepladder is encountered, an attachment to the bracket 10 is provided, designated by the numeral 58, and this attachment 58 consists essentially of a flat bar 59 which extends over the foot 18 of the bracket 10, and downwardly therefrom to have a pad end arm 60 turned substantially at right angles thereto, and this plate 58 is adjustable up and down the foot 18 to accommodate different vertical thicknesses of steps 57 since there is found quite a variance in such depths, particularly as between metal stepladders and wood stepladders.

The bar 59 is provided with a series of holes 61 laterally thereacross in spaced apart vertical rows, near the upper end of the bar, and is likewise provided with a series of holes 62 spaced apart in horizontal rows vertically spaced apart, these spacings being such as will receive the studs 26 and 27 therethrough, for different thicknesses of the ladder rail 63, Fig. 7, so that the arm 60 may be brought up against the underside of the step 57 when the lower edge 33 of the bracket part 11 rests on the topside of the step 57.

It is to be understood of course that the attachment 58 is not required for ladders with rounds 34, but is supplied for use on flat stepladders.

Obviously, the ring 40 and its pan 45 may be shifted to the other side of the bracket 10 from that shown and described, by inserting the feet 43 and 44 through the legs 14 and 15 on the other side of the bracket 10, particularly when the bracket 10 is mounted on the left hand side of the ladder. In any event, it is to be seen that the supporting pan is always positioned out in the open in respect to the ladder, where it is readily available and adjacent to the work. The pan 45 of course may be left engaged as indicated to the ladder, and the ladder may be shifted from position to position without even taking the container off of the pan.

In the foregoing description, nothing has been indicated of the angularity of the legs 14, 15 and 20, 21 across the plates 13 and 19. These legs are preferably applied to be substantially horizontally disposed when the ladder rail 35 is at its average or normal angle of inclination as indicated in Fig. 3. Slight variations from this angle will not of course affect the carrying of the containers or vessels on the pan 45. For neatness in appearance and saving in material, the upper and lower edges of the plates 13 and 19 are made to be parallel with the legs secured thereto.

While I have herein shown and described my invention in one particular form, in more or less minute detail, it is obvious that structural changes may be employed without departing from the spirit of the invention, and I therefore do not desire to be limited to that precise form beyond the limitations which may be imposed by the following claims:

I claim:

1. A holder carried selectively by either one of two rails of a ladder having a plurality of steps therealong, comprising a bracket having a pair of side plates extending along opposite sides of a rail with an integral foot turned respectively therefrom, one foot overlapping and resting along the forward edge of the rail with the other foot shiftably overlapping said one foot; said bracket supported longitudinally along said rail by having a lower end portion of one side plate extending on a ladder step; a plurality of pins carried by and extending from the forward side of said one foot; said other foot having a series of transversely aligned holes selectively receiving said pins therethrough; a bar overlapping said other foot and having a series of spaced apart transversely and longitudinally aligned holes selectively receiving said pins therethrough; an arm turned rearwardly from a lower end portion of said bar; and means engaging said pins on the forward side of said bar clamping together said one foot, other foot, and bar loosely positioning said plates in close proximity to said rail sides with said bar extending under said step upon which said side plate lower end portion rests from the top side.

2. A container holder carried selectively by either one of two rails of a ladder having a plurality of steps therealong, comprising a bracket having a pair of side plates extending along opposite sides of a rail with an integral foot turned respectively therefrom, one foot overlapping and resting along the forward edge of the rail with the other foot shiftably overlapping said one foot; said bracket supported longitudinally along said rail by having a lower end portion of one side plate resting on a ladder step; a plurality of pins carried by and extending from the forward side of said one foot; said other foot having a series of transversely aligned holes selectively receiving said pins therethrough; a bar overlapping said other foot and having a series of spaced apart transversely and longitudinally aligned holes selectively receiving said pins therethrough; an arm turned rearwardly from a lower end portion of said bar; and means engaging said pins on the forward side of said bar clamping together said one foot, other foot, and bar loosely positioning said plates in close proximity to said rail sides with said bar extending under said step upon which said side plate lower end portion rests from the top side; said side plates by upper portions carrying outwardly extending container support means positioned forwardly of the forward side of said ladder step, said means carrying a stack of removable plates, each plate having outside dimensions equalling every other plate and an opening therethrough of a diameter different from that of the other plate, the smaller diameter opening plates being positioned uppermost for removal to receive a larger diameter container in the next below plate.

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