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(54) A portable container assembly.

(57) A container assembly for use on a ladder has a trough shaped container part 1 (preferably moulded in plastics) with a hook 8 by which it is hung from a ladder rung 9. The assembly is stabilised on the ladder by arms 10 which are extendible from the base 2 of the container part to abut the ladder uprights 12, 13. The arms 10 are preferably slidably extendible and mounted in channels formed in the underside of the base 2 by through-moulding.

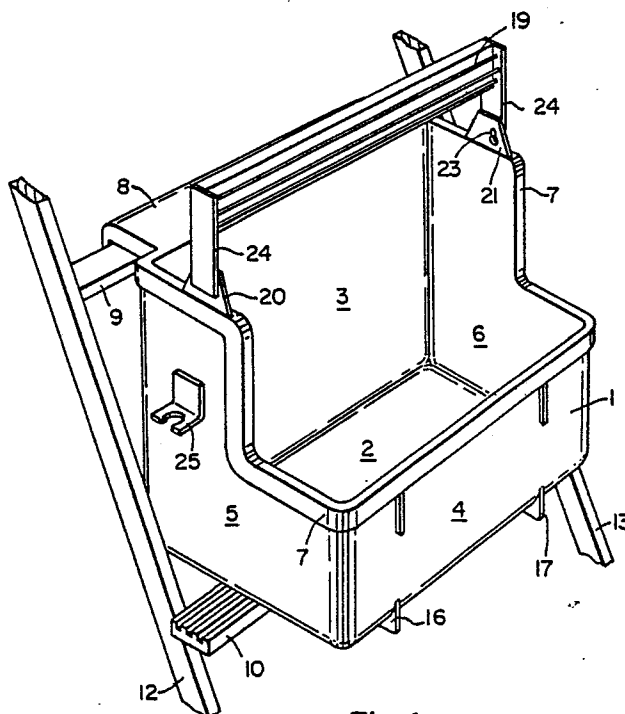


Fig.1.

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"A portable container assembly"

TECHNICAL FIELD & BACKGROUND ART

This invention relates to portable container assemblies used to hold paint, tools or other items when work is being done from a ladder, so that the hands of a user are free to work while the container assembly is carried by the ladder. Such assemblies are well known where a container is hung from a rung of the ladder by securing means such as hooks. This type of container assembly is inexpensive and simple but suffers from the disadvantage that it can easily be accidentally displaced by the user moving around on the ladder so causing the contents to be dropped or spilt. In an attempt to overcome this problem, it has also been proposed, for example in G.B. Patent 1,076,703 and U.S. Patents 3,940,824 and 3,642,240, for a container assembly to hang from a rung of a ladder and to have means engaging with a lower rung of the ladder to stabilise the container. However, with such proposals there are disadvantages in that different ladders may have different rung spacings. Although proposals have been made for adjusting the lower rung engaging means to suit different rung spacings, these proposals are generally regarded as expensive to manufacture and fit as part of the assembly and/or inconvenient to adjust and use in practice. It is an object of this invention to provide a simple and inexpensive container assembly for use on a ladder, which alleviates the previously described disadvantages of the prior proposals.

STATEMENT OF INVENTION & ADVANTAGES

According to the present invention there is provided a portable container assembly for use on a ladder, comprising a container part provided with first and second securing means, the first securing means being for mounting the container part on the ladder and the second securing means being located remote from the first securing means and being extendible from the container part for engagement with the ladder to stabilise the container part on the mounting of the first securing means.

The container assembly will likely be formed entirely from moulded plastics such as polypropylene, making the assembly inexpensive and lightweight, the latter being an advantageous feature since it is to be carried. Also polypropylene is impact resistant as the assembly is likely to be knocked about somewhat in use.

The container part of the assembly will usually have an open top formed by wall parts upstanding from a base. One or more hooks can be provided on the wall parts to extend outwardly of the container part and substantially rigid (and preferably integral) therewith at or adjacent the open top. These hooks conveniently provide the first securing means and permit the assembly to be hung from a rung of a ladder so that the open top is uppermost. As will be appreciated if the container part is freely carried by the hooks it could be rocked about those hooks and spill its contents. To alleviate this, and in accordance with the invention, there is provided the second securing means. This latter means preferably comprises rigid arms which are extendible laterally from the container part (i.e. substantially parallel to the rungs of the ladder) and are located toward the base of the container so that the arms can abut against the struts (usually termed "uprights") between which the rungs extend in the ladder to stabilise the container part and its contents under their own weight.

Alternatively the aforementioned arms can be arranged to be extendible downwardly from the container part to abut a rung of the ladder below that on which the assembly is carried by the first securing means. Preferably the arms are slidably extendible from the container part so that they can be adjusted for differently sized ladders, (that is with different distances between their uprights and/or rungs; it is also preferred that the arms can be withdrawn fully into or against the container part to facilitate manual carriage or storage of the assembly. The arms can be provided at their ends remote from the container part with forks in which the uprights or a rung of the ladder are intended to engage. Alternatively, the aforementioned ends of the arms can be provided with a clasp which can be spring loaded to grip the uprights or rungs of the ladder.

DRAWINGS

One embodiment of a container assembly constructed in accordance with the present invention will now be described, by way of example only, with reference to the accompanying illustrative drawings, in which:

Figure 1 is a perspective view of the container assembly mounted on a ladder (part only of the ladder being shown) and

Figure 2 is a perspective view of the container assembly in an inverted condition and with the carrying handle detached.

#### DETAILED DESCRIPTION OF DRAWINGS

The container assembly to which the drawings refer is constructed entirely of moulded polypropylene and has a trough-shaped container part 1 formed as a one piece moulding comprising a base part 2, upstanding opposed side wall parts 3 and 4, and opposed end wall parts 5 and 6. The height of the wall part 3 is substantially greater than that of the opposing wall part 4. The end wall parts 5 and 6 are substantially L-shaped so that regions of those wall parts adjacent to the wall part 3 are of similar height to that wall part 3 and regions of the end wall parts 5 and 6 adjacent to the wall part 4 are of similar height to that wall part 4. By this arrangement the container part has a cut-away front opening to facilitate access thereto. The upper edges of the wall part 4 and end wall parts 5 and 6 are provided with a continuous external reinforcing flange 7. The reinforcing flange 7 continues onto the upper edge of the wall part 3, for a short distance from each end of that wall part 3 where it extends into a hook part 8 which projects outwardly and downwardly from the upper edge of the wall part 3 for hooking over a rung 9 of a ladder (as can be best seen in Figure 1). The hook part 8 extends over the major length of the wall part 3, so that when the container assembly is hung from the rung it is stable in a plane substantially parallel to the wall part 3.

To restrain the assembly from rocking about the hook part in a plane substantially parallel to the end wall parts 5 and 6 rigid arms 10 and 11 are provided. The arms 10 and 11 are slidably mounted on the underside of the base part 2 to extend perpendicular one from below each of the end wall parts 5 and 6, and at positions to abut uprights 12 and 13 of the ladder (as shown in Figure 1). The arms 10 and 11 are slidably mounted and retained on to the base part within channels 14 and 15 respectively which are conveniently formed by through-moulding within the base part 2. The channels 14 and 15 project from the underside surface of the base part 2 and are reinforced by flanges 16 and 17 which extend over the respective channels 14 and 15 between the lower edges of the wall parts 3 and 4 and parallel to the wall parts 5 and 6. The flanges 16 and 17 are substantially perpendicular to the base part and their edges remote

from that part provide a stable base on which the assembly can stand. The flanges 16 and 17 are moulded partway in the wall parts 3 and 4 to reinforce these wall parts.

The arms 10 and 11 are restrained from sliding out of the channels 14 and 15 by means of projections 18 and 19 moulded on to their inwardly facing ends, these projections abut the channels 14 and 15 when the arms are fully extended (as shown by the arm 10 in Figure 2). Preferably the arms 10 and 11 are a tight or interference sliding fit within their respective channels.

A moulded handle 19 can be detachably secured to the container part 1, by means of brackets 20 and 21 which project upwardly from the upper edges of the end wall parts 5 and 6 respectively. These brackets are provided with keyholes 22 which respectively receive dowells 23 formed as an integral part of uprights 24 of the carrying handle.

A bracket 25 can be secured to or moulded on the end wall part 5 to provide a convenient means of holding tools such as a paint brush.

Preferably the handle 19 can be pivoted on the container part to overlie and abut the hook part 8 and thereby permit unimpeded access to the fully open top of the container part.

#### Claims

1. A portable container assembly for use on a ladder, comprising a container part (1) provided with first (8) and second securing means (10, 11), the first securing means (8) being for mounting the container part (1) on the ladder and the second securing means (10, 11) being located remote from the first securing means (8), CHARACTERISED IN THAT said second securing means (10, 11) is extendible from the container part (1) for engagement with the ladder to stabilise the container part (1) on the mounting of the first securing means (8).
2. An assembly as claimed in claim 1 CHARACTERISED IN THAT the first securing means (8) comprises at least one hook part for hanging the assembly from a rung (9) of the ladder.
3. An assembly as claimed in either claim 1 or claim 2 and CHARACTERISED IN THAT the second securing means comprises at least one arm (10, 11) which is extendible from the container part (1) for abutting against an upright (12) of the ladder.
4. An assembly as claimed in any one of the preceding claims CHARACTERISED IN THAT the second securing means comprises at least one arm (10, 11) which is extendible from the container part for abutting against a, or a further, rung of the ladder.

5. An assembly as claimed in either claim 3 or claim 4 CHARACTERISED IN THAT the arm or arms (10, 11) are slidably extendible from the container part (1).

6. An assembly as claimed in claim 5 CHARACTERISED IN THAT the arm or arms (10, 11) are slidably mounted within and retained by channels (14, 15) formed in the container part (1).

7. An assembly as claimed in claim 6 CHARACTERISED IN THAT the arm or arms (10, 11) are a sliding interference fit in said channels (14, 15).

8. An assembly as claimed in any one of the preceding claims CHARACTERISED IN THAT the container part (1) is open topped and formed as a one piece moulding in plastics.

9. An assembly as claimed in claim 8 CHARACTERISED IN THAT the container part comprises a base part (2) and wall parts (3, 4, 5 and 6) extending upwardly therefrom.

10. An assembly as claimed in either claim 8 or claim 9 when appendant to claim 6 CHARACTERISED IN THAT the channels (14, 15) are formed by through-moulding in the container part (1).

11. An assembly as claimed in any one of claims 8

to 10 when appendant to claim 2 CHARACTERISED IN THAT the open top container part (1) has the hook part or parts (8) extending outwardly from an upper edge thereof and the second retaining means (10, 11) is located on or adjacent to the or a base part (2) of the container part (1).

12. An assembly as claimed in claim 11 CHARACTERISED IN THAT the upper edge of the container part (1) is provided with a flanged reinforcing rim (7) which is continuous with the hook part or parts (8).

13. An assembly as claimed in any one of the preceding claims CHARACTERISED IN THAT the container part (1) has a carrying handle (19) pivotally mounted thereon.

14. An assembly as claimed in claim 13 CHARACTERISED IN THAT the carrying handle (19) is detachably mounted on the container part (1).

15. An assembly as claimed in either claim 13 or claim 14 when appendant to claim 11 CHARACTERISED IN THAT the carrying handle (19) is pivotable on the container part (1) substantially to abut and overlie the hook part or parts (8) to permit unimpeded access to the open top of the container part (1).

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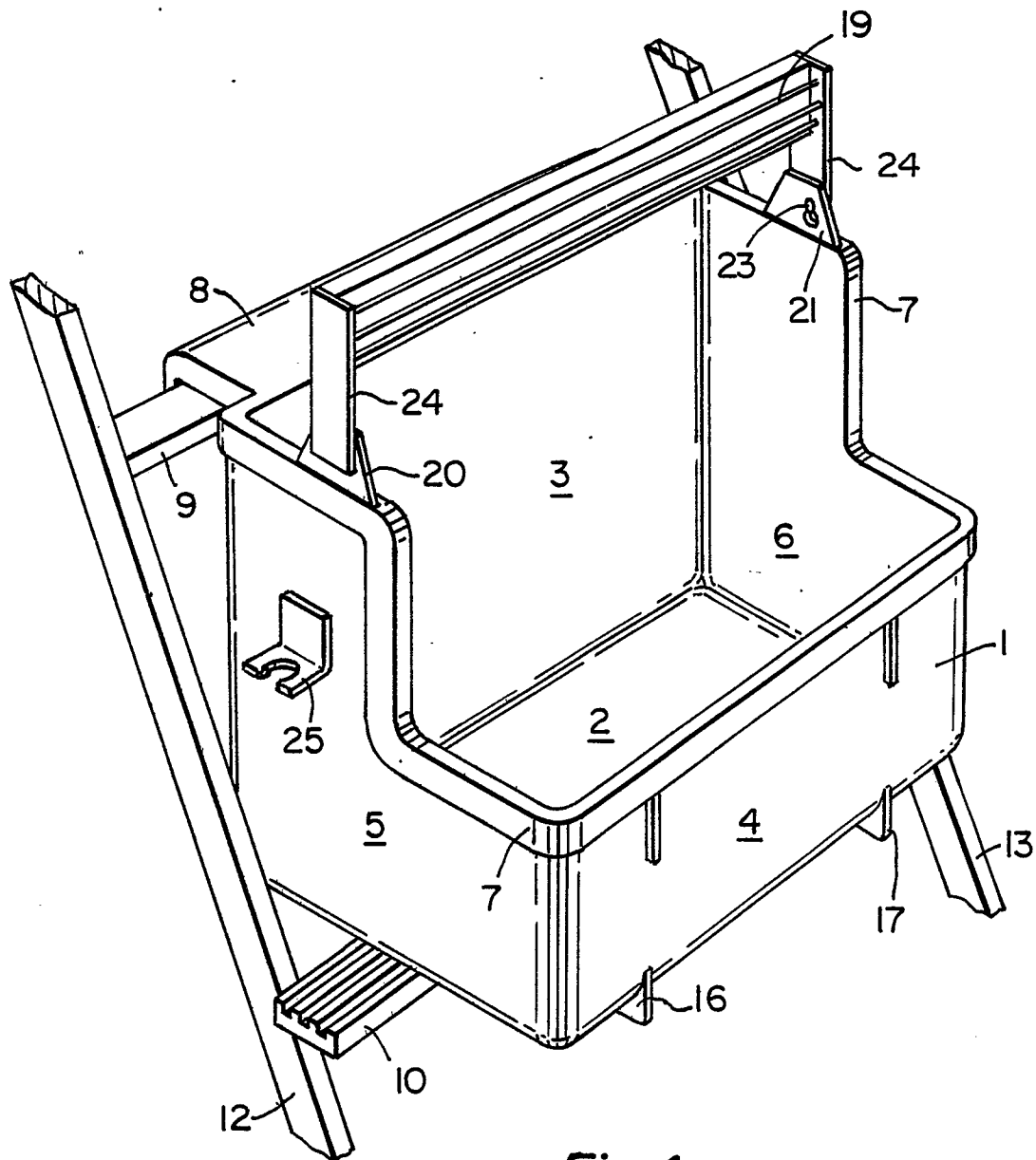


Fig.1.

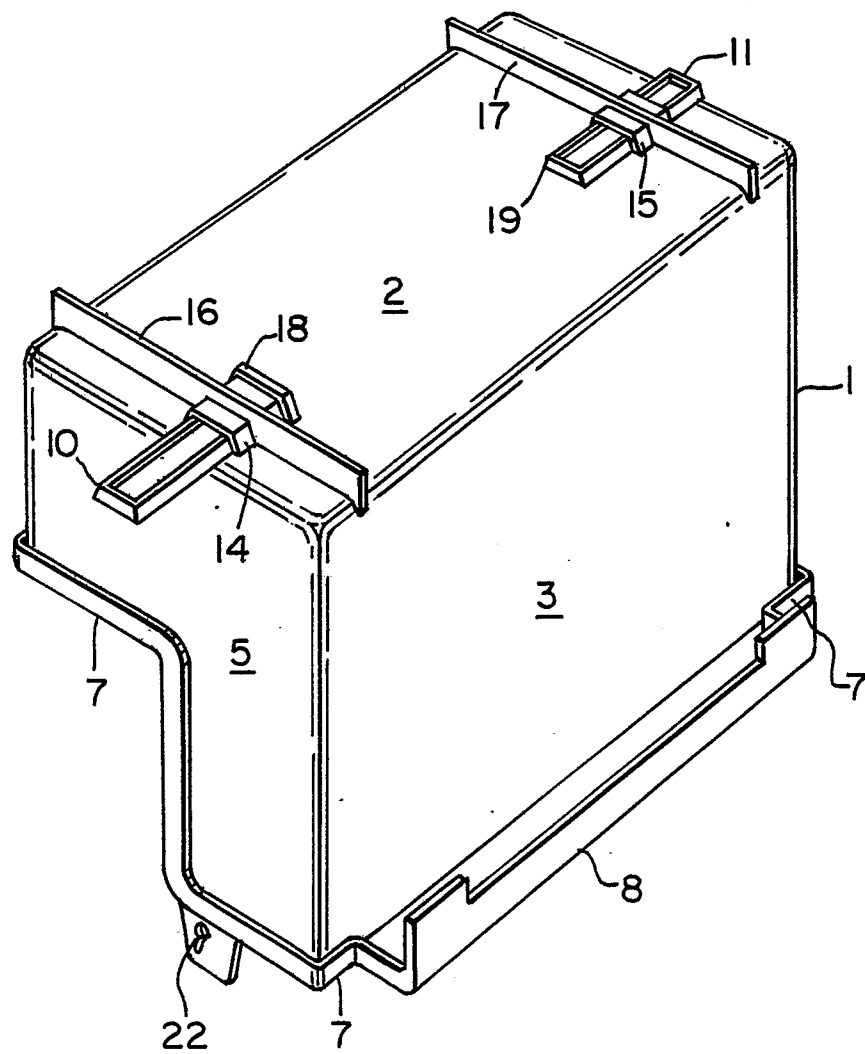


Fig.2.