United States Patent [19]

Owen

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[54] **CONTAINER CARRIER WITH INTEGRAL HANDLE LOOP**

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[52] **U.S. Cl.** .....**220/94 R,** 220/42 D

[51] **Int. Cl.** **B65d 25/28**

[58] **Field of Search**.....220/91, 42, 94, 94 A, 220/73; 206/65 C; 229/52 A, 52 AL; 215/100 A; 294/87.2

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[57] **ABSTRACT**

A can or similar container for a variety of contents, including paints, and comprising a sleeve of plastic material with its upper edge portion interlocked with the can end and closure assembly and provided with substantially horizontal semi-cylindrical slit means forming a semi-cylindrical strap portion below the can top and which strap portion may be stretched over the adjacent portion of the sleeve and can top to provide a handle for carrying or otherwise supporting the can.

4 Claims, 4 Drawing Figures

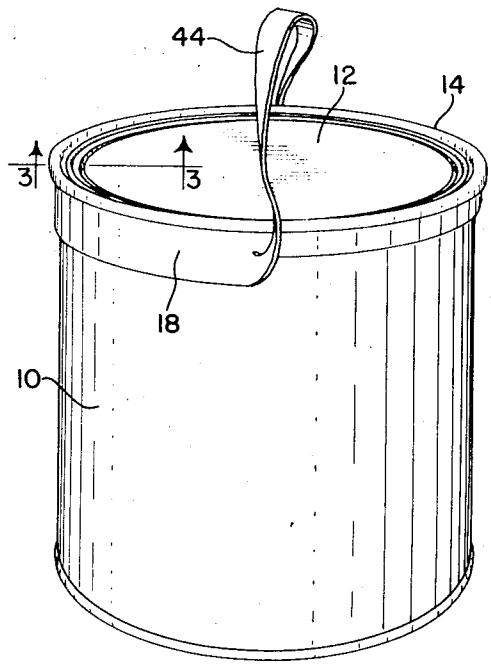


Fig. 1

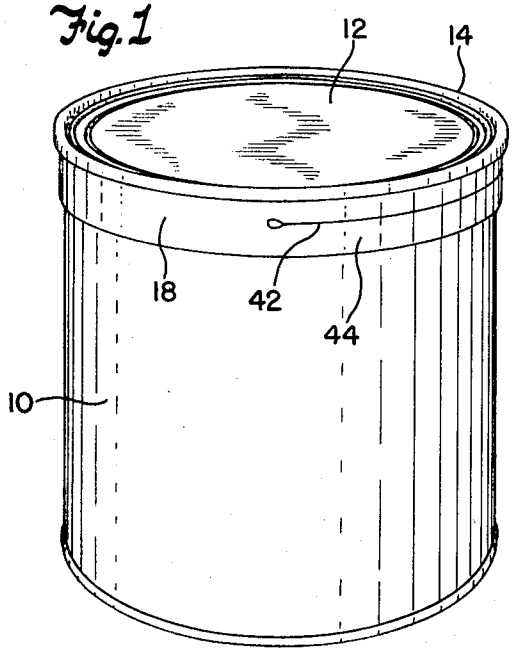


Fig. 2

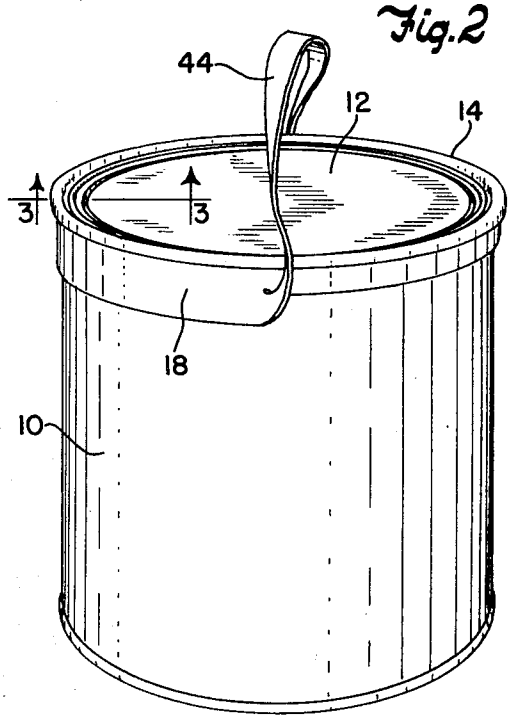


Fig. 4

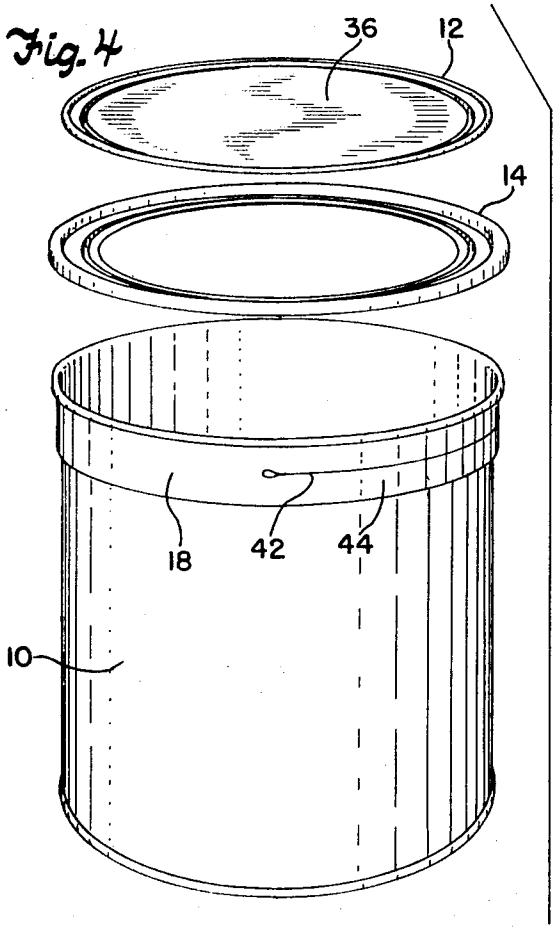
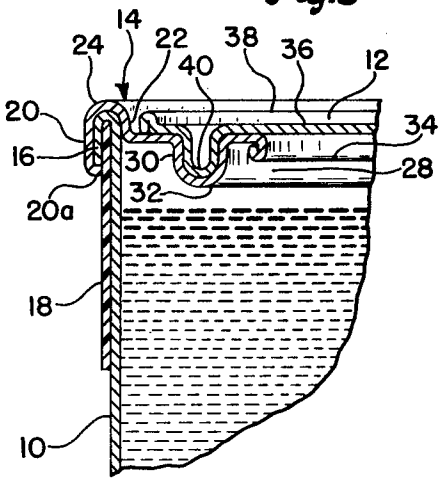


Fig. 3



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CONTAINER CARRIER WITH INTEGRAL HANDLE LOOP

The invention is concerned with handled cans or similar containers for a variety of products, including paints, and aims to provide an improved handle arrangement therefor.

In the usual cans of this type, such as paint cans, there is provided a metal bail handle with pivotal mounting to the can body. Such bails and their interconnections with the can bodies are costly and also interfere with labeling. According to the present invention, a plastic sleeve is initially assembled to the can body by interlocking the upper edge thereof with the end seam or bead during the seaming operation. The sleeve is provided with horizontal slit means near the top of the can body and extending about half way therearound to provide a semicylindrical strap portion initially lying flat against the can body but which strap portion may be manipulated to a position extending above the top of the can and serving as a handle when ready for use.

An object of the invention is to provide a can or similar container with a plastic handle member initially lying flat against the can body and manipulatable to a position above the can top when ready for use as a handle.

Another object of the invention is to provide such a handle member as an integral part of a plastic sleeve which is interlocked with the peripherally seamed end of the can assembly.

A further object of the invention is to provide the interlocked sleeve with semi-cylindrical slit means forming a semi-cylindrical strap portion which may be stretched to a position above the can top to serve as the handle member when ready for use.

The invention still further aims to provide a container and handle assembly wherein the sleeve lends itself to inexpensive initially interlocking association with the can end during formation of the peripheral seam or bead therearound to form the load supporting connection when the handle strap portion is moved to can supporting position above the can top.

The above and other objects of the invention will in part be obvious and will be hereinafter more fully pointed out in connection with the detail description of the drawings wherein:

FIG. **1** is a perspective view of the assembled can and sleeve with the handle strap in its initial non-use position flat against the can body;

FIG. **2** is a perspective view similar to FIG. **1** but showing the strap in position for use as a handle;

FIG. **3** is an enlarged sectional view taken along the line **3—3** of FIG. **2** showing the interlocking between the sleeve and the peripheral seam of the can assembly, and

FIG. **4** is an exploded view of the can body and attached sleeve, the can lid retainer section, and the lid.

With reference to the accompanying drawing, the can or similar container includes a body portion **10**, a lid or cover **12**, and a cover retainer section **14**, each shown prior to assembly in FIG. **4**. As shown in FIG. **3**, the upper peripheral edge of the body wall is turned outwardly and then downwardly to form a peripheral rim **16** spaced outwardly from the adjacent surface of the body wall to receive therein the upper edge portion of a plastic sleeve **18** which hugs the adjacent surface

of the body wall and may be slightly stretched for this purpose.

The retainer section **14** for the lid or cover is in the form of an annulus with an outer downwardly facing groove defined by outer and inner skirt portions **20, 22,** respectively, depending from a connecting roof portion **24.** This downwardly facing groove fits over the end of the can body wall with the longer outer skirt portion **20** overlying the body rim **16.** During the seaming operation connecting the retainer section to the can body, the lower edge **20***a* of the outer skirt portion **20** will be directed inwardly, as shown in FIG. **3,** to engage the adjacent edge of the body rim **16** and the plastic sleeve. This seaming operation presses the skirt portions **20, 22** against the body rim **16** and body wall, respectively, and this interlocks the edge portion of the sleeve within the rim **16** to the seamed end of the can body. Variations of this seamed connection might be of the interlocking bead type.

The inner shelf portion of the annular retainer **14** includes an upwardly opening groove defined by inner and outer walls **28, 30,** respectively, joined by a bottom wall **32,** the inner wall **28** terminating in an outer shelf portion which, in turn, terminates in a depending strengthening bead **34.** The lid or cover **12** includes a closing central portion **36** with an outer upwardly extending double thickness peripheral strengthening wall **38,** within which is a depending peripheral double wall skirt portion **40** adapted for friction or snap fit within the groove formed by the retainer wall portions **28, 30, 32.**

With the sleeve interlocked with the can body **10** and seam formation thereof, the can is filled and the contents sealed by application of the cover **12** to the retainer section **14** as described above. The filled can will have the appearance of FIG. **1** for shipment, storage or shelf display. The sleeve has a semi-cylindrical slit **42** disposed slightly below the interlocked upper edge portion thereof. This slit **42** defines therebelow a semi-cylindrical strap portion **44** initially lying flat against the body wall with the remainder of the sleeve for shipment, storage or shelf display of the sealed container. When ready for use, the strap portion **44** is stretched or otherwise stressed to extend over the adjacent edge of the can and assume the position of FIG. **2.** When grasped as a handle for carrying the can or otherwise serving as the can support, the load will be transmitted through the sleeve portion remaining interlocked with the can end assembly at substantially diametrically opposed areas. The plastic material of the sleeve **18** may be of the type to receive printing and thus accept part of the can labeling and for this purpose the sleeve may be extended downwardly along the can body and an additional slit may parallel the slit **42** to define the handle strap portion **44,** which, in turn, may assume a V or U configuration from diametrically opposed areas when initially lying flat against the can body with the remaining portion of the sleeve.

I claim:

1. A handled can or like container assembly, comprising a body wall and cover means joined to the body wall by a peripheral end seam formation, and a tubular sleeve of plastics material mounted circumferentially about the upper portion of the body wall in surface contact therewith and with the upper end portion thereof interlocked within the seam formation, said sleeve having slit means generally paralleling its upper

edge and extending from substantially diametrically opposed areas adjacent the interlocked upper edge portion thereof circumferentially about one side of the body wall and forming below said slit means a strap portion to be manipulated from its initial surface contact with the body wall to a portion above the top of the can assembly to form a handle with the ends thereof remaining integral with the sleeve.

2. A handled can or like container assembly as claimed in claim **1**, wherein the sleeve extends axially of the body only a limited extent with the slit means comprising a single semicircular slit forming with the bottom edge of the sleeve the said strap portion.

3. A handled can or like container assembly as claimed in claim **1**, wherein the body wall is turned outwardly and downwardly to receive therein the upper edge portion of the sleeve for interlocking with the seam formation.

4. A handled can or like container assembly as claimed in claim **1**, wherein the cover means includes an annular retainer member interlocked with the seam formation and a cover closing the central opening in the retainer member.

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