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EUROPEAN PATENT APPLICATION

21 Application number: 81302613.5

51 Int. Cl.³: **B 65 D 1/20**
B 65 D 25/24

22 Date of filing: 11.06.81

30 Priority: 11.06.80 GB 8019129
13.10.80 GB 8032983

43 Date of publication of application:
16.12.81 Bulletin 81/50

84 Designated Contracting States:
BE DE FR NL

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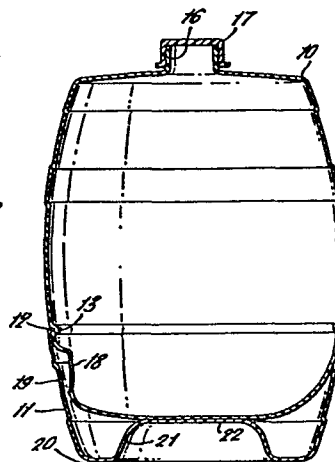
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54 **Barrel assembly.**

57 A barrel assembly (1) for use for example for brewing beer in the home comprises a blow-moulded barrel (10) supported by a peripheral skirt (11). An inner lip (12) on the skirt (11) snap-fits into a groove (13) formed in the barrel (10) to give the barrel (10) peripheral support while a platform portion of the skirt (11) supports the barrel (10) centrally. A lateral aperture (19) in the skirt (11) co-operates with a lower opening (18) in the barrel to allow dispensation of beer or other liquid from the barrel. The skirt (11) is recessed to permit two or more assemblies (1) to be stacked one upon another.

FIG. 2.



1.

BARREL ASSEMBLY

This invention relates to a barrel assembly comprising a hollow barrel of plastics material and
5 having at least a lower opening therein facing substantially radially adjacent the lower end of the barrel, and a skirt of plastics material for supporting the barrel.

Barrel assemblies of this type are known and
10 are particularly, but not exclusively, useful for brewing beer or making wine in the home, the barrel in such cases acting as a pressure vessel while fermentation takes place. United Kingdom Patent No. 1437321 shows an example of such a barrel
15 assembly, but this assembly has the disadvantage of bad stability due partly to the fact that the supporting base member engages the hollow body at its lower end, below the lower opening in the body.

The invention seeks to alleviate this
20 disadvantage by the combination of one of the barrel

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and skirt having a lip formed thereon and resiliently engageable in a complementary groove formed in the other of the barrel and skirt to attach the skirt to the barrel and the skirt having an aperture therein for cooperation with the lower opening of the barrel to allow emptying of the barrel through the lower opening and aperture. Thus the invention has the advantage that the skirt can engage the barrel above the lower opening resulting in good stability.

10 The invention has the further advantage that the lip and groove engagement allows easy attachment and detachment of skirt and barrel.

15 Preferably, the lip is formed on the skirt and the groove is formed in the exterior of the barrel. For convenience, the groove may extend around the barrel in a direction perpendicular to the axis of the barrel. The plastics material of the skirt may have sufficient resilience that the engagement of the lip with the groove is a snap-fit. 20 ~~It~~ This having the advantage that the skirt can exert a good grip on the barrel.

 The skirt is preferably substantially bowl-shaped with a base portion from which a peripheral wall extends upwardly for interengagement

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with the barrel, this shape allowing convenient blow-moulding of the skirt. The base portion may be recessed so that one assembly may be stacked on top of a second assembly with the base portion of the one assembly resting on an upper surface of the barrel of the second assembly. If the barrel has an upper projecting opening, this recessed base has the further advantage of providing clearance for such opening in stacking of several barrel assemblies.

The barrel and skirt may be shaped so that the assembly has a substantially symmetrical external shape when the skirt is engaged with the barrel, giving a good external appearance and allowing the assembly to be given the general appearance of a traditional beer barrel of wooden staves and iron hoops.

The lower end of the barrel may be substantially rounded in shape, this having the advantage of easier blow-moulding than a flat or recessed end. Such a rounded lower end is further advantageous in providing better resistance to internal pressure such as is caused when brewing beer or making wine in the barrel.

An embodiment of the invention will now be described, by way of example, with reference to the accompanying drawings, in which:

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Figure 1 is a front elevation of a barrel assembly for brewing beer;

Figure 2 is a sectional view of the assembly of Figure 1 taken on the plane X-X.

5 A barrel assembly generally designated 1 comprises a barrel 10 and a peripheral supporting skirt 11. The skirt 11 and barrel 10 are attached together by means of an inner lip 12 formed on the skirt 11 and a complementary annular groove 13 formed in the exterior of the barrel. The skirt
10 11 is formed such that the lip 12 has an inner diameter when relaxed slightly less than the outside diameter of the barrel adjacent the groove 13 so as to provide a "snap-fit" of the lip 12 and groove 13. The barrel 10 and skirt 11 are of blow-moulded thermoplastics material
15 which has sufficient resilience to permit the snap-fit of the skirt onto the barrel and gives an external appearance similar to the traditional form of wooden barrel with iron hoops.

20 The barrel 10 has an upper opening 16 the exterior of which is threaded for closure by a screw-cap 17. The barrel 10 also has a lower opening 18 which may be fitted with an outlet tap (not shown) for dispensing beer or other liquid from the barrel. An aperture 19 aligned with the opening 18 is formed in the skirt 11 to allow the
25 outlet tap to project outwardly therethrough.

 The skirt 12 comprises a base portion 20 with a recess 21 and a platform 22 on which the barrel 10 rests

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in use. One barrel assembly 1 may be stacked on another by virtue of the recess 21 of the one assembly giving clearance for the cap 17 of the other assembly, the weight of the one assembly being transferred by the base portion 20 thereof to the upper end of the barrel 10 of the other assembly. Thus several barrel assemblies may be stacked on top of each other.

A handle may be attached to the upper end of the barrel 10 to facilitate transport of the barrel manually.

A hole may be formed in the centre of the platform 22 with slots in the platform 22 extending radially from the hole.

An advantage of the assembly described above is that the skirt provides a rugged support and firm footing for the barrel. The skirt also protects the lower part of the barrel from impact.

The barrel and skirt may alternatively be formed by rotation moulding, a process in which a predetermined amount of plastic powder is poured into a hollow mould which is then heated until the plastic melts and then rotated so that the plastic forms a skin on the inside of the mould. An advantage of using this rotation moulding technique is that a very even wall thickness and surface finish of moulded article results.

A further alternative for forming the skirt is to use the technique of injection moulding.

It will be clear that it is not necessary to use the same method for forming both skirt and barrel.

CLAIMS

1. A barrel assembly comprising a hollow barrel of plastics material and having at least a lower opening therein facing substantially radially adjacent the lower
5 end of the barrel, and a skirt of plastics material for supporting the barrel, characterised by the combination of one of the barrel and skirt having a lip formed thereon and resiliently engageable in a complementary groove formed in the other of the barrel and skirt to attach the skirt
10 to the barrel and the skirt having an aperture therein for cooperation with the lower opening in the barrel to allow emptying of the barrel through the lower opening and aperture.

15 2. A barrel assembly as claimed in claim 1 characterised in that the lip is formed on the skirt and the groove is formed in the exterior of the barrel.

3. A barrel assembly as claimed in claim 2
20 characterised in that the groove extends around the barrel in a direction perpendicular to the axis of the barrel.

4. A barrel assembly as claimed in any preceding claim characterised in that the skirt is formed of
25 resilient material such that the engagement of the lip with the groove is a snap-fit.

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5 5. A barrel assembly as claimed in any preceding
claim characterised in that the skirt is substantially
bowl-shaped, having a base portion from which a
peripheral wall extends upwardly for interengagement with
the barrel.

10 6. A barrel assembly as claimed in claim 5
characterised in that the base portion of the skirt is
recessed so that one assembly may be stacked on top of a
second assembly with the base portion of the one assembly
resting on an upper surface of the barrel of the second
assembly.

15 7. A barrel assembly as claimed in any preceding
claim characterised in that the barrel and skirt are
shaped so that the assembly has a substantially symmetrical
external shape when the skirt is engaged with the barrel.

20 8. A barrel assembly as claimed in any preceding
claim characterised in that a lower end of the barrel is
substantially rounded in shape.

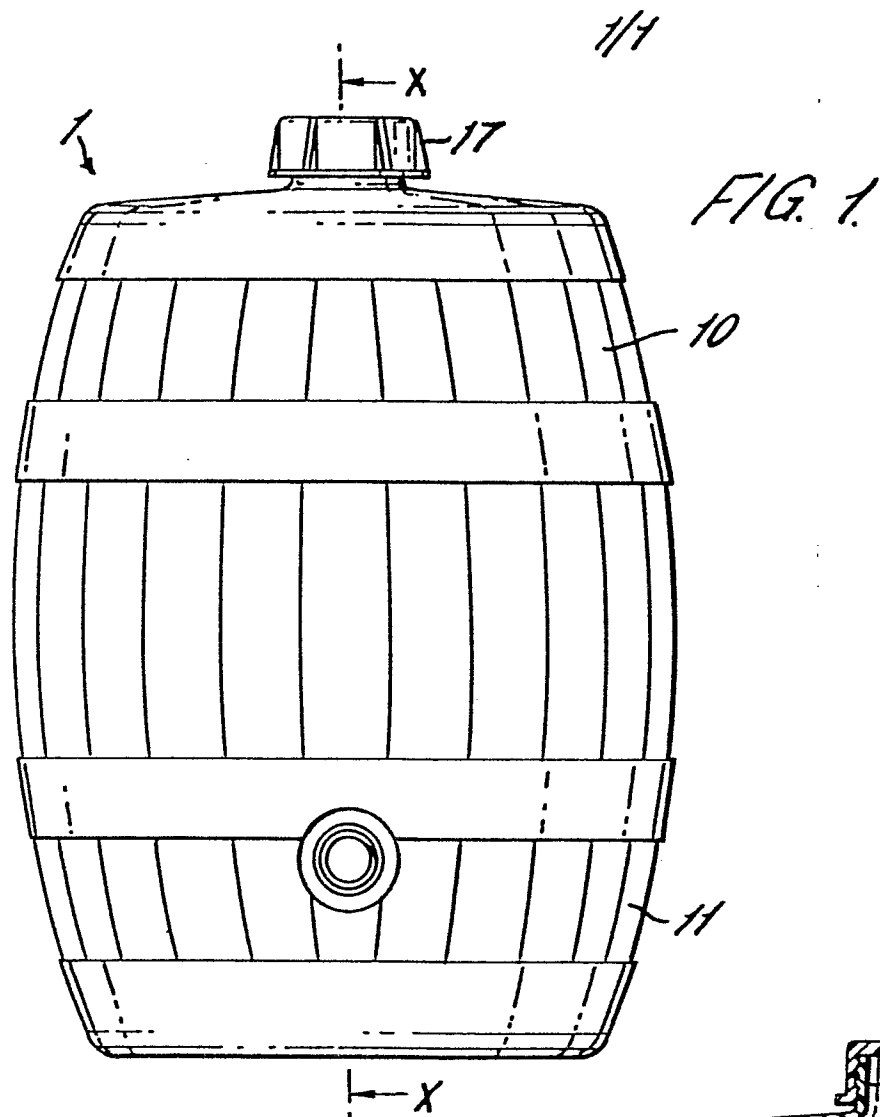
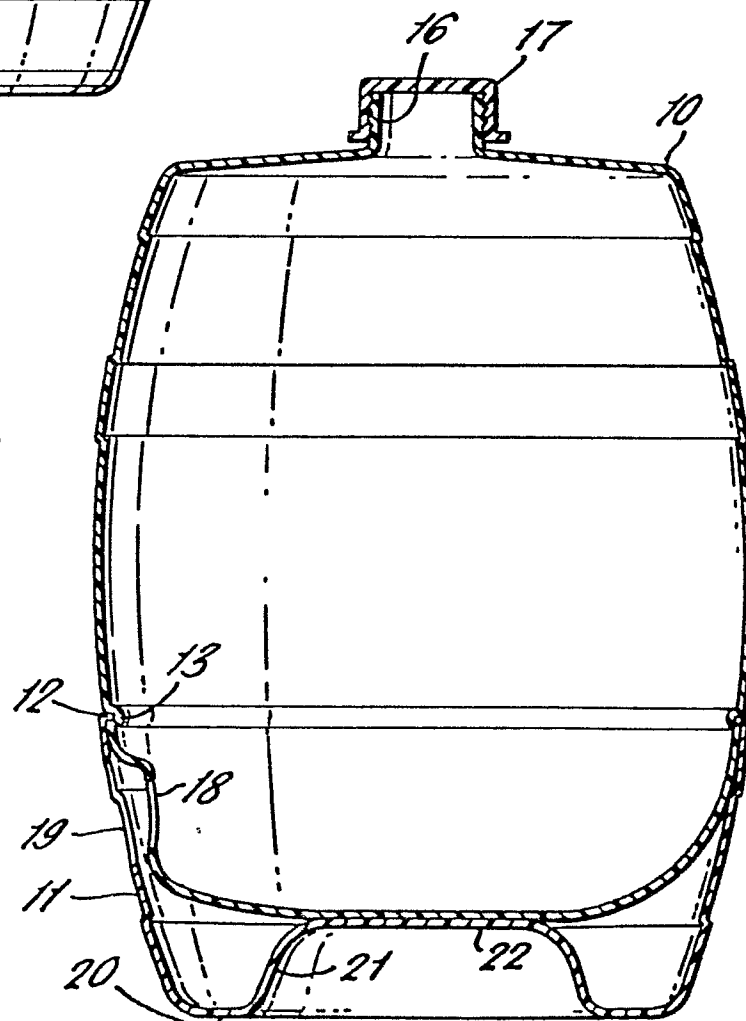


FIG. 2





European Patent
Office

EUROPEAN SEARCH REPORT

0041874

Application number

EP 81 30 2613

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
	<u>US - A - 3 948 404 (COLLINS)</u> * The whole document * --	1-5,8	B 65 D 1/20 25/24
	<u>US - A - 3 390 807 (CORNELIUS)</u> * The whole document * --	1,4-8	
	<u>GB - A - 2 001 032 (MALJANEN)</u> * The whole document * --	1-4,7, 8	TECHNICAL FIELDS SEARCHED (Int. Cl.)
	<u>FR - A - 852 579 (FIRESTONE)</u> * The whole document * --	1,7,8	B 65 D
	<u>US - A - 3 152 729 (PIKER)</u> * Column 2, line 34 - column 7, figures 1-12 * ----	1	
			CATEGORY OF CITED DOCUMENTS
			X: particularly relevant A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: conflicting application D: document cited in the application L: citation for other reasons
			&: member of the same patent family, corresponding document
☒	The present search report has been drawn up for all claims		
Place of search	Date of completion of the search	Examiner	
The Hague	10-09-1981	VANTOMME	