



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<p>(21) International Application Number: PCT/NO96/00107</p> <p>(22) International Filing Date: 2 May 1996 (02.05.96)</p> <p>(30) Priority Data: 951676 2 May 1995 (02.05.95) NO</p> <p>(71) Applicant (for all designated States except US): FERMENSI A/S [NO/NO]; P.O. Box 26, N-6401 Molde (NO).</p> <p>(72) Inventor; and (75) Inventor/Applicant (for US only): FARSTAD, Otto [NO/NO]; Tellusveien 5B, N-6400 Molde (NO).</p> <p>(74) Agent: ØVREBØ, Arthur; Bryns Patentkontor a/s, P.O. Box 765, Sentrum, N-0106 Oslo (NO).</p>		<p>(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments. In English translation (filed in Norwegian).</i></p>
<p>(54) Title: CONTAINER</p>		
<p>(57) Abstract</p> <p>Container consisting of an outer container (1) and an inner container (5). The inner container (5) is helical. The inner container (5) may be closed at one end thereof and positioned at the bottom of the outer container (1).</p> <div data-bbox="885 1227 1396 1892" style="text-align: right;"> </div>		

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## C O N T A I N E R

The present invention relates to a container consisting of an outer and an inner container as disclosed in the preamble of  
5 claim 1.

A pliable sack, e.g., a plastic sack filled with a liquid, would not be stable, but instead is shapeless and would therefore have to be either placed on a pallet/shelf with  
10 casings or suspended in a specific apparatus designed therefor.

This form of packaging is therefore difficult to handle, and for this reason it is desirable to produce a container that is  
15 stable and thereby easier to manipulate. This is, not least, because a pliable material such as plastic, for example, is preferable for the transporting of liquids, particularly because such a container could be packed up after being emptied and before being filled, and would occupy a minimum of  
20 space.

This solution is provided by means of a container of the type introduced above whose characterizing features are disclosed in claim 1. Further features of the invention are disclosed in  
25 the other subsequent dependent claims.

The inner sack filled with a fluid would, in a suitable manner, fill up the outer sack, which would now form a stable container that stands firmly on a base.  
30

The container's stability will increase with the number of curves in the spiral form of the inner sack.

In the following, the invention will be described in more  
35 detail with reference to the drawings, where:

Figure 1 is a schematic illustration of an embodiment of the

invention.

Figure 2 is a schematic illustration of a further embodiment of the invention.

5

On Figure 1 is shown an outer container 1 with a tubular inner container 5 coiled up in the form of a spiral and closed at one end 3 thereof, and having a filling opening at 4. The inner container may have the form of an ascending spiral. In this embodiment form, the closed end is positioned at the bottom of outer container 1. The filling tube or end piece 4 of inner container 5 may contain a closing mechanism or other known per se filling mechanisms. The outer container 1 may also be completely closed at both ends thereof, with the filling mechanism of the inner container projecting out through an opening in outer container 1.

10

15

By the term "tubular" is meant any elongate, hollow body having a round, rectangular or other cross-sectional form.

20

Figure 2 shows an additional embodiment form where the filling opening 4 to the inner container 5 is fed through the spiral and passed out at the bottom of outer container 1. The other end 3 of the inner container may be closed, or it may be fed out of inner container 1 together with filling opening 4, and both ends, then, may be open or may be provided with closing mechanisms that can be closed as desired.

25

The discharge opening may be in the form of a top end piece or a valve provided at the bottom or at the top of the outer sack.

30

The outer container 1 may consist of a material such as, e.g., woven propylene, and would determine the form and volume of the container.

35

The inner container 5 may consist of polyethylene foil and may

be formed as a tube that is closed at one end 3 and coiled like a spiral or formed as a spiral, with an outlet 4 at the opening of outer container 1. The inner container may also consist of a tube that is open at both ends and which is fed  
5 out at the opening or the bottom of outer container 1, as mentioned above.

The inner container filled with a liquid would in a suitable manner fill out the outer container 1, which would now form a  
10 stable container that stands firmly on a base.

The stability of the container will increase with the number of curves in the spiral of the inner container.

15 The dimensions of the tube are determined on the basis of the desired number of curves in the spiral that will be positioned in the outer container and suitably filled to a desired level.

The inner container 5, as mentioned above, may consist of a  
20 tube, or may be produced in the form of a spiral, with dimensions that are appropriate for the liquid with which it is to be filled, with respect to viscosity, stability and the form and volume of the outer container.

25 The inner container 5 may consist of a plurality of helical inner containers that are closed at one end, with an outer container 1.

The inner containers may also be corrugated and closed at one  
30 end thereof.

P a t e n t   C l a i m s

1.

Container consisting of an outer container (1) and at least  
5 one inner container (5), characterized in that  
the inner container(s) (5) is (are) helical.

2.

Container according to claim 1, characterized  
10 in that the lower end of the inner container (5) is closed  
(3) and is positioned at the bottom of the outer container  
(1).

3.

Container according to claims 1-2, characterized  
15 in that the inner container(s) (5) is (are) a tube of  
plastic foil in the form of a spiral.

4.

Container according to claims 1-3, characterized  
20 in that the inner container(s) (5) is (are) corrugated and  
designed with one end thereof closed.

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Fig.1.

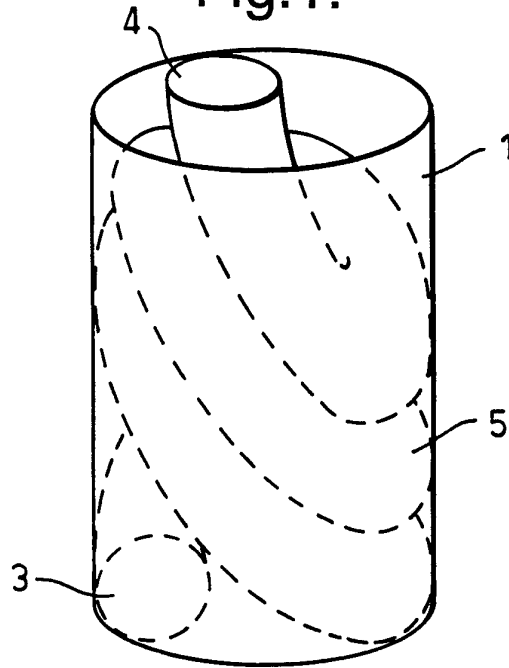
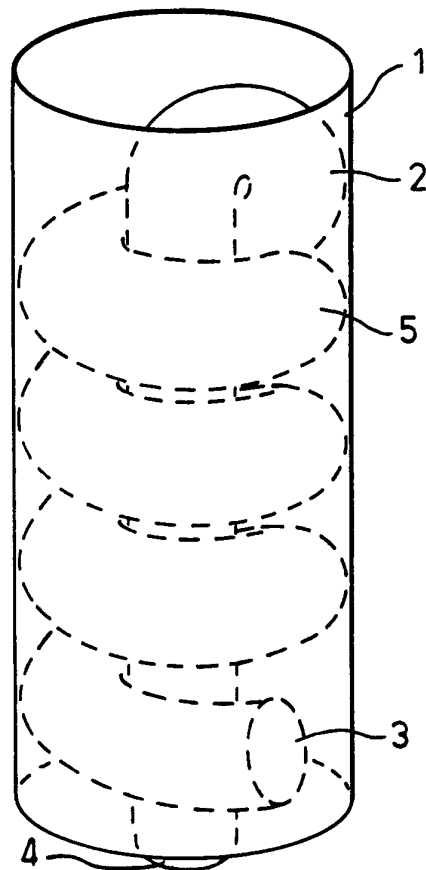


Fig.2.



## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/NO 96/00107

A. CLASSIFICATION OF SUBJECT MATTER		
IPC6: B65D 90/04, B65D 77/06 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
IPC6: B65D		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
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Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	NO 159074 B (AERO TEC LABORATORIES INC.), 22 August 1988 (22.08.88), abstract  -- -----	1-4
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
NO-B- 159074	22/08/88	NONE	