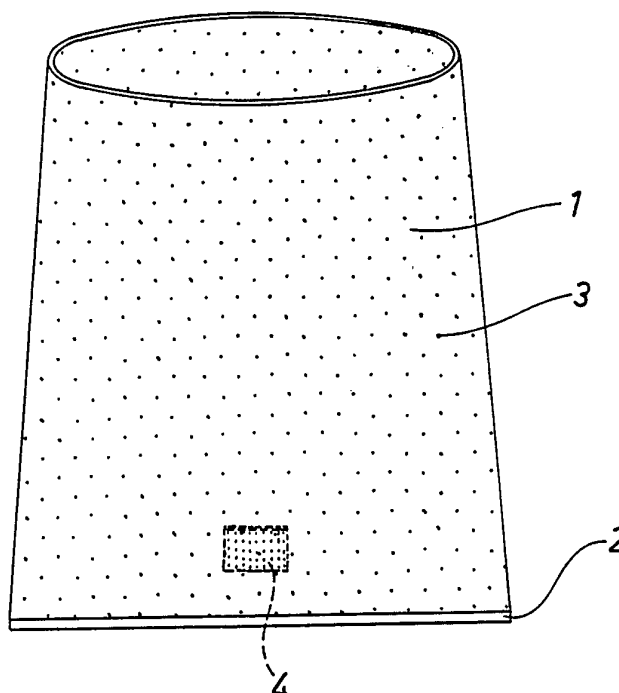




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁵ : B65D 81/26, 33/01	A1	(11) International Publication Number: WO 94/07766 (43) International Publication Date: 14 April 1994 (14.04.94)
(21) International Application Number: PCT/FI93/00391 (22) International Filing Date: 30 September 1993 (30.09.93) (30) Priority data: 924384 30 September 1992 (30.09.92) FI (71) Applicant (for all designated States except US): LAPIN MU-OVI KY [FI/FI]; Aronrinne 2-4, FIN-96190 Rovaniemi (FI). (72) Inventor; and (75) Inventor/Applicant (for US only) : OIKKONEN, Taisto [FI/FI]; Aronrinne 2-4, FIN-96190 Rovaniemi (FI). (74) Agent: LEITZINGER OY; Ruoholahdenkatu 8, FIN-00180 Helsinki (FI).		(81) Designated States: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, VN, European patent (AT, BE, CH, DE, DK, ES, 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). Published <i>With international search report.</i>

(54) Title: SACK FOR MOISTURE CONTAINING PRODUCTS**(57) Abstract**

The invention is dealing with a sack (1), a bag or similar packing for moisture containing products. The plastic wall (1) of the sack is provided with a plurality of micro-holes, and a moisture absorbing member (4) is arranged within the sack.

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Sack for moisture containing products.

The aim of the invention is a sack, bag, or the like, for moisture containing products.

For the storage, transport and packing of moisture containing products, different types of bags and sacks are used, the material of their manufacture often being a plastic membrane by reason of costs. Such a sack, however, is often so tight that the product in the bag does not keep very long without getting spoiled. Again, if a breathing material is used, such as fabric or porous paper, the bag will easily get wet and moisture will be able to penetrate into the interior of the sack and spoil its contents.

The aim of the present invention is to accomplish a sack, or a corresponding packing or bag, in which it is possible to preserve moisture containing products for a longer period of time and which bags do not necessarily have to be protected from rain or exterior moisture.

The essential feature of the invention is that the plastic wall of the sack is provided with a plurality of micro-holes, and that the sack is provided inside with a moisture detecting member.

The micro-holes are quite small holes made in the wall of the sack, through which moisture from the interior of the sack is able to escape into the surrounding atmosphere, but rain-water, for instance, not being able to penetrate into the interior of the sack. In addition, when a moisture detecting member is also provided within the sack, collection of moisture inside of the sack, which would spoil the contents of the sack, is not possible.

The moisture absorbing member used in the sack according to the invention is silicate, e.g. vermiculite, or similar moisture absorbing material contained in a perforated bag.

The invention is described in more detail in connection with the enclosed drawing which presents one working example of the invention.

The figure presents a sack 1 made of plastic tubing with a bottom seam 2. The bag membrane is perforated by a plurality of micro-holes 3, the perforation of which is carried out either in the step of producing the tube, or in the step of producing the bag.

In the interior part of the sack a detached perforated bag 4 is placed, which contains a moisture absorbing material such as vermiculite. Naturally, also other moisture absorbing materials may be used.

In the working example presented, a detached bag 4 is used inside of the sack. Naturally, also other solutions may be adapted in placing the moisture absorbing material into the interior of the sack.

The size of the sack 1 or the bag may vary, the sack may be applied in packings of larger size, e.g. as a packing and transport packing of various roots, its size then being 30 - 50 liters, or even larger. In a sack like this potatoes or other roots, for instance, may be preserved for even greater lengths of time, the moisture contained in the roots not collecting in the inner parts of the sack spoiling the roots, but escaping through the micro-holes 3. In addition, the sacks may be stored even in the outer atmosphere, because the sack is made of plastic material which stands moisture well, contrary to conventional jute sacks, for instance. In addition, the holes

made in the plastic membrane are so small in size that rain, for instance, is not able to penetrate through them into the interior of the sack.

The sack according to the invention may also be applied to sack and bag products of smaller size, The essential thing is that the starting material is moisture resistant and micro-perforated, as well as provided with moisture detection member.

Claims

1. A sack (1), cover, or similar packing for moisture containing products, characterized in that the plastic wall (1) of the sack is provided with a plurality of mikro-holes (3), and that the sack is provided inside with a moisture absorbing member (4).

2. A sack according to claim 1, characterized in that the moisture absorbing member (4) is silicate, such as vermiculite or a corresponding moisture absorbing material containing perforated bag (4).

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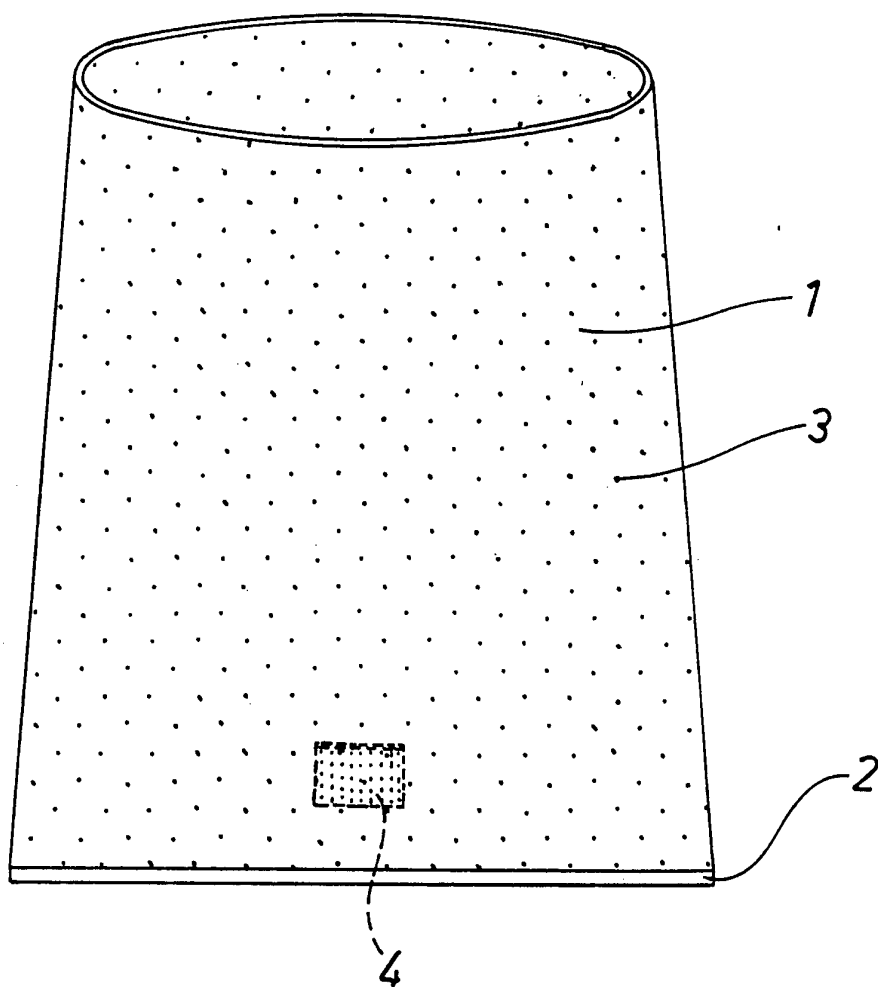


Fig. 1

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 93/00391

A. CLASSIFICATION OF SUBJECT MATTER

IPC5: B65D 81/26, B65D 33/01

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)

IPC5: B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	--	2
A	Patent Abstracts of Japan, Vol 8, No 67, C-216, abstract of JP, A, 58-219919 (SHINNITSUSOU KAKOU K.K.), 21 December 1983 (21.12.83)	1
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Date of the actual completion of the international search

12 January 1994

Date of mailing of the international search report

14 -01- 1994

Name and mailing address of the ISA/
 Swedish Patent Office
 Box 5055, S-102 42 STOCKHOLM
 Facsimile No. +46 8 666 02 86

Authorized officer

Björn Lindkvist

Telephone No. +46 8 782 25 00

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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27/11/93

International application No.
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