

Description

The present invention relates to a covering device for a container of various kinds of contents such as salt, pepper, detergent, cleanser and the like.

Hitherto, cleansers, detergents and the like have been sold at stores in, for instance, cylindrical containers having a lid with an opening in the center of the top end and a seal adhered so as to close the opening. When the contents are used, the seal is peeled off.

Cleansers, detergents and the like are usually stored in a kitchen, a bathroom or a lavatory where humidity is relatively high. Therefore, the cleansers, etc. are likely to become damp due to the invasion of humidity into the container through the unsealed opening.

It is, therefore, an object of the present invention to provide a covering device for a container which is preferably capable of keeping the contents thereof dry.

The covering device according to the present invention includes a covering base and a plurality of, preferably substantially equally divided, lid segments having pivoting ends on outer edges thereof. The lid segments are respectively pivotable outwardly on the pivoting ends so as to open, and, mounted on a container in a stand-up state with an opening on its top lid, the segments close due to gravity so as to cover the opening. In some embodiments a single pivoted lid segment may be sufficient.

In use, the covering device of the present invention is put on a container, and the container is tilted and shaken so as to let the contents out of the container. When the container is tilted and shaken, the plurality of lid segments pivot on the pivoting ends on the outer edges and open outwardly, so that the contents can be released through the opening of the container. When the container is stood up after letting the contents out, the lid segments close by gravity so as to cover the opening of the container. Thus, when the container is stored upright in a humid place, humidity cannot easily invade the container from the opening, and the contents may be kept substantially dry, or at least less damp.

Practical examples of the invention will now be described with reference to the accompanying drawings, in which:

Fig. 1 is a perspective view of a covering device according to one embodiment of the present invention and a container having an opening on a top lid thereof so that the covering device is mounted thereon;

Fig. 2 is a partly exploded perspective view of the covering device of Fig. 1;

Fig. 3 is a plan view of the covering device of Fig. 1;

Fig. 4 is a vertical sectional view of the covering device of Fig. 1, taken along the line 4-4 in Fig. 3; and

Fig. 5 is a bottom view of the covering device of Fig. 1.

An embodiment of the present invention is shown in Figs. 1 to 5. A covering device is suitable for a cylindrical container 1 for a powder cleanser and so on.

The container 1 has its own top lid 2 at its one end, and six holes 3 are formed in the central area of the top lid 2. The cleanser, for instance, is sold in this type of container with a seal (not shown) adhered over the holes 3 so as to seal the container 1. In use of the cleanser after purchase, the seal is peeled off from the top lid 2 so that the cleanser can be shaken out of the container 1 through the holes 3.

The covering device, which is designed to be mounted on the container 1, includes three lid segments 5 and a covering base 6 that is fitted on the container 1. Each one of the lid segments 5 has a pivoting end 4 on the outer edge thereof. The three segments 5 are obtained by being divided substantially equally, radially at a center of the covering base 6 and provided on the covering base 6 which is made of polyethylene. The equally divided lid segments 5 are respectively provided in a pivotal fashion so that each of them pivots outwardly on the pivoting end 4 to open.

More specifically, as shown in Fig. 2, at pivoting ends 4 of the segments 5 are provided stainless-steel bars 7 which are respectively disposed between pairs of supporting members 8 made of polyethylene. These polyethylene members 8 are fixed to the upper surface of the polyethylene covering base 6.

When the container 1 with the covering device described above set thereon is stood up, the three lid segments 5 close due to gravity and cover the holes 3 of the container 1. In case a container has six holes 3 on its own lid 2, the device is set on the container 1 so that the three segments 5 cover respective two of the six holes 3.

The lid segments 5 are made of polypropylene, which has a relatively large specific gravity for plastic. Such a large specific gravity enhances responsive pivoting movement of the segments, and such an enhanced responsive movement prevents the powder cleanser inside the container 1 from clogging between the segments 5.

The number of the segments 5 is not limited to three as described above. However, if, for instance, the covering device has six substantially equally divided lid segments, the size of one segment may be too small and therefore the weight of one segment may be too light. As a result, the segments may not securely pivot back so as to close the holes 3, and the contents (such as powder cleanser) is prone to easily clog between the segments. If the covering device has only one segment, the container must be tilted and shaken in a certain direction when letting the contents out. Therefore, it is preferable to provide three divided segments 5 on the covering device, so that the contents may always easily

come out in spite of the direction in which the container 1 is tilted and shaken and without having the above trouble.

In use, the container 1 provided with the covering device as described above thereon is turned upside down and/or tilted and shaken in order to let the contained cleanser out. As a result, the plurality of, preferably three, substantially equally divided lid segments 5 respectively pivot about the bars 7 outwardly on the pivoting ends 4 of the outer edges of the segments 5 so as to be released and open. Thus, the cleanser inside the container 1 comes out through the holes 3 of the container 1.

On the other hand, when the container 1 is stood up, the segments 5 securely return to a closed state due to gravity and cover the holes 3 of the container 1. Therefore, even if the container 1 is stored in a humid place, humidity is prevented from entering the container 1, and as a result, the contents of the container 1 with the covering device thereon may be kept dry.

As described above, since the covering device of the present invention includes a plurality of lid segments that can pivot outwardly to open and then pivot back to close by gravity, the covering device can prevent humidity from invading a container, and as a result, even if the container provided with the covering device is stored in a humid place, the contents may be kept dry or much less damp than in the prior art container.

Claims

1. A covering device used so as to be mounted on a container (1) provided with an opening (3), said covering device comprising a covering base (6) and a plurality of equally divided lid segments (5) provided on said covering base (6), said lid segments (5) having pivoting ends (4) on outer edges thereof so as to pivot outwardly to open and then pivot back by gravity to cover.
2. A covering device according to claim 1, wherein said covering device has three segments (5).
3. A covering device according to claim 1 or 2, wherein said segments (5) are made of polypropylene.
4. A covering device for an opening (3) of a container (1), the device comprising a covering base (6) mountable on the container (1), and at least one lid segment (5) pivotably mounted on said covering base (6) the lid segment or segments having a closed position in which the opening of the container is covered, the segment or segments being pivotable away from said closed position to uncover the opening, the lid segment (5) or segments being urged by gravity to said closed position when the container is upright.

FIG. 1

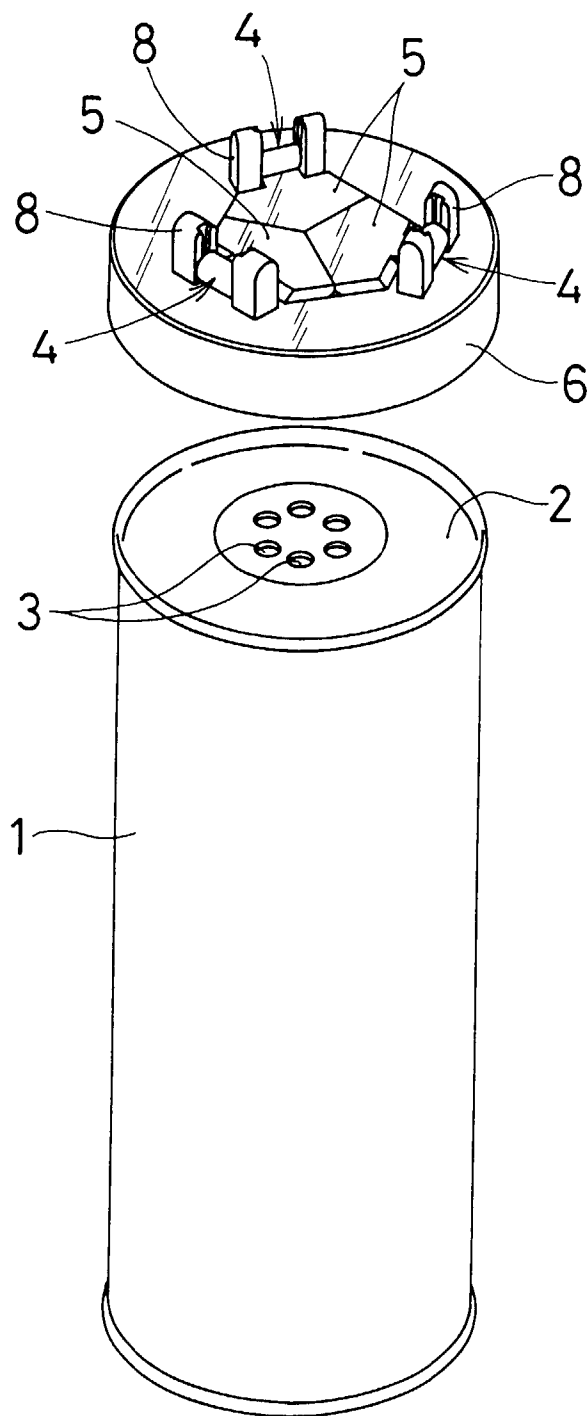


FIG. 2

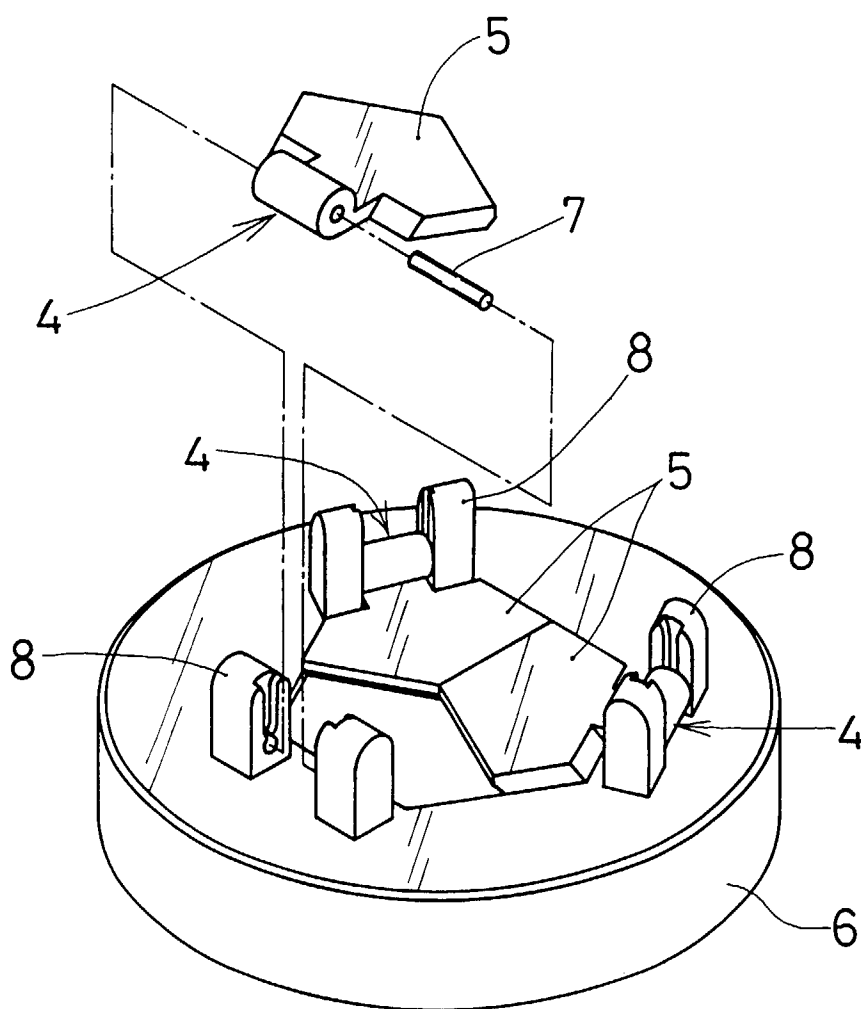


FIG. 3

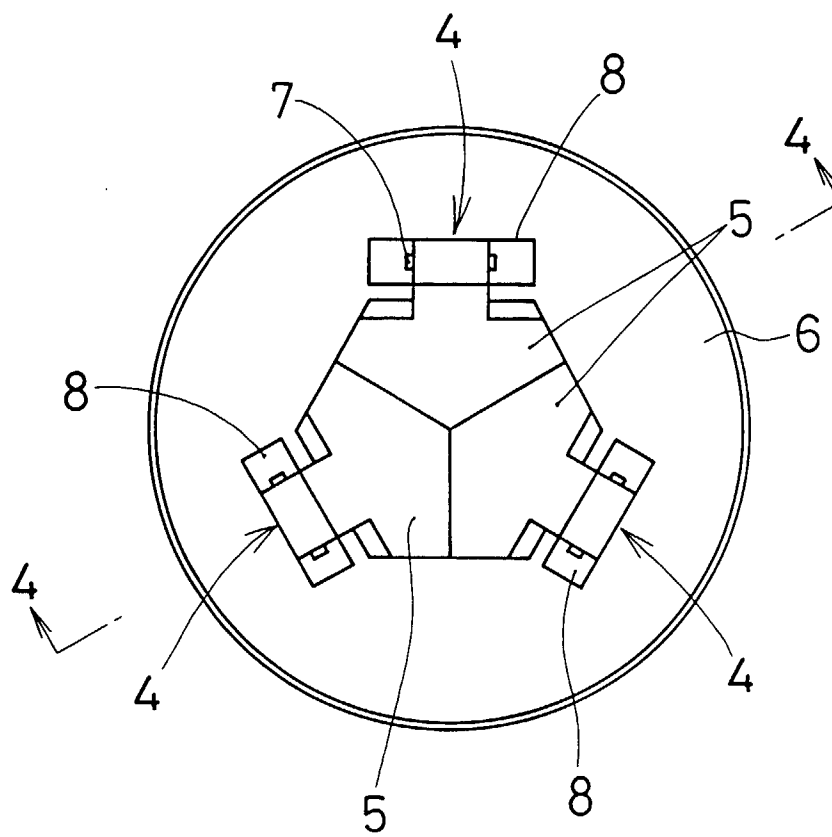


FIG. 4

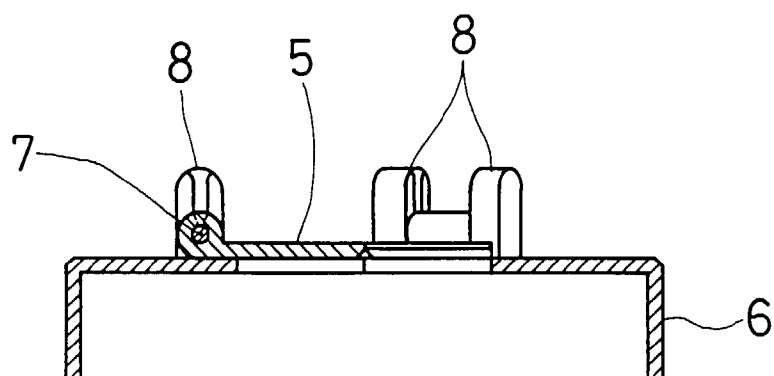
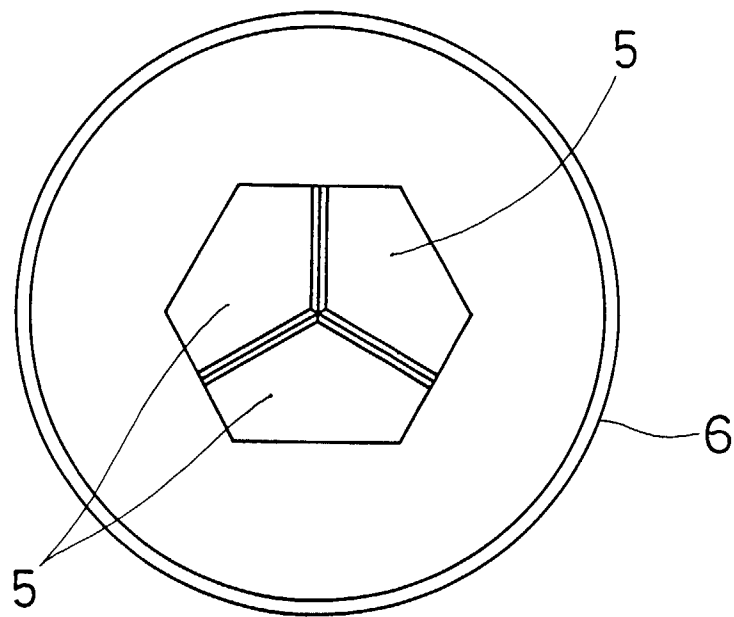


FIG. 5





European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 98 30 3642

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	US 2 071 700 A (MC PHAIL) 23 February 1937 * the whole document *	1-4	B65D47/08
X	US 2 035 329 A (MC PHAIL) 24 March 1936 * the whole document *	1-4	
X	US 2 950 833 A (SHORT) 30 August 1960 * the whole document *	1,3,4	
X	FR 1 120 605 A (CELLULOID) 9 July 1956 * the whole document *	4	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6) B65D
Place of search THE HAGUE		Date of completion of the search 12 August 1998	Examiner Martens, L
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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