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(54) Hinged closure cap for container

(57) A flask comprises a liquid holder (1) and a screening cap (2), fixable thereon, with a pouring opening (3) and with a clip-shaped closure (4) therefor, which clip-shaped closure comprises a first clip element (5), and a second clip element (6) which at one end is hingedly connected to the first clip element and at the other end is hingedly connected to the screening cap. The second clip element is provided with a closing element (7) which fits into the pouring opening. The clip-shaped closure can be brought from a position closing the pouring opening to a position clearing the pouring opening and vice versa by moving the first clip element in the direction away from the liquid holder, and towards the liquid holder, respectively.

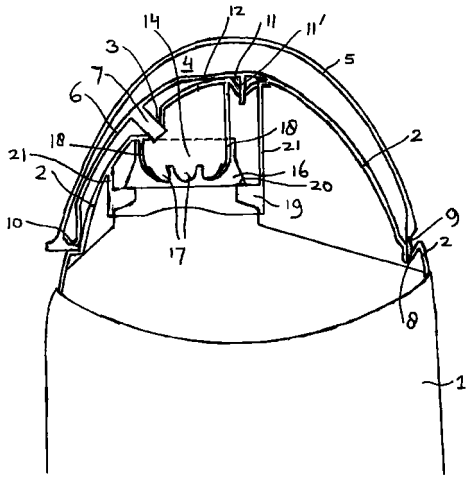

FIG. 2

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Description

[0001] The present invention relates to a flask for liquids, such as, for instance, bath soap, shampoo and the like. In practice, the closure of such flasks frequently presents difficulties in that a relatively laborious manner of opening and closing is involved, through, for instance, a screw cap, or in that, for instance in the case of a snap closure, after pouring out a particular amount of liquid, leakage arises easily.

[0002] The object of the invention is to provide a flask which can be opened and closed in a very simple manner and in which leakage is avoided virtually completely.

[0003] To achieve this object, according to the invention, the flask comprises a liquid holder and a screening cap fixable thereon with a pouring opening and with a clip-shaped closure therefor, which clip-shaped closure comprises a first clip element and a second clip element which at one end is hingedly connected to the first clip element and at the other end is hingedly connected to the screening cap, which second clip element is provided with a closing element which fits into the pouring opening, while the clip-shaped closure can be brought from a position closing the pouring opening to a position clearing the pouring opening and vice versa by moving the first clip element in the direction away from the liquid holder, and towards the liquid holder, respectively.

[0004] In a first embodiment, the first clip element is relatively rigid and, at the end remote from the hinged connection with the second clip element, is hingedly connected to the screening cap, and the second clip element is more flexible, while the second clip element both in the first and in the second position is substantially free from bending forces, and the clip-shaped closure can be brought from the first to the second position and vice versa while bending the second clip element.

[0005] In a second embodiment, both clip elements are relatively rigid, and the first clip element, at the end remote from the hinged connection with the second clip element, is detachably connected to the screening cap, while after breaking the connection between the first clip element and the screening cap, the clip-shaped closure is movable away from the liquid holder, and the pouring opening is cleared, while the pouring opening can be closed by moving the clip-shaped closure towards the liquid holder and securing the relevant end of the first clip element on the screening cap. Preferably, in the hinge joints between the second clip element and the screening cap and the first clip element, respectively, a bias is provided, so that after releasing the connection between the first clip element and the screening cap, the two clip elements move directly in the direction away from the liquid holder.

[0006] From a viewpoint of costs, it is favorable when the clip-shaped closure is manufactured as one whole from plastic and the hinged connections are obtained by deformation on folding seams.

[0007] In order to prevent, when pouring out liquid from the liquid holder, the screening cap from being filled in its entirety, which readily gives rise to leakage at the connection of the screening cap to the liquid holder, there is provided in the screening cap an outflow space which is in communication with the pouring opening and which, when the screening cap is fitted on the liquid holder, connects to an outflow opening of this liquid holder, which is formed by a spout.

[0008] In order to readily obtain, upon fitting the screening cap on the liquid holder, a proper connection of the outflow space to the pouring opening, the outflow space is bounded by an edge provided with lips, limiting the outflow opening. In particular, the lips fit into the outflow opening of the spout.

[0009] To prevent the screening cap from being removed from the liquid holder in normal use, an annular element is present in the screening cap which, when the screening cap is fitted on the liquid holder, engages the spout under an edge on the outer side of the spout.

[0010] The invention will now be further explained with reference to the accompanying drawings. In the drawings:

Fig. 1 schematically shows a cross section through the flask according to the invention;
Fig. 2 schematically shows a longitudinal section through this flask;
Fig. 3 schematically shows the clip-shaped closure therein;
Fig. 4 shows in perspective the screening cap; and
Fig. 5 shows a further exemplary embodiment of a clip-shaped closure according to the invention.

[0011] In the drawings, corresponding parts are designated by the same reference numerals.

[0012] The flask in Figs. 1 and 2 comprises a liquid holder 1, and a screening cap 2, securable thereon, with a pouring opening 3 and with a clip-shaped closure 4 therefor. The clip-shaped closure 4 comprises a first, relatively rigid clip element 5 which is hingedly connected to the screening cap 2, and a second, more flexible clip element 6, which at one end is hingedly connected to the first clip element 5 and at the other end is hingedly connected to the screening cap 2. The second clip element 6 comprises a closing element 7, which fits into the pouring opening 3.

[0013] In the exemplary embodiment shown, the clip-shaped closure is manufactured as one whole from plastic. The hinged connections therein are then formed by folding seams. The first clip element 5 has, as is indicated in Fig. 4, a curved shape and is thus relatively rigid. The clip-shaped closure 4 has a part 8 fixedly connectable to the screening cap 2. The transition of this part 8 to the first clip element 5 is formed by a folding seam 9. The first clip element 5 is capable of hinging about this folding seam 9. The second clip element 6

consists of a flat strip and thus forms a flexible part of the clip-shaped closure 4 with respect to the first clip element 5. The transition between the two clip elements is formed by a folding seam 10. The clip-shaped closure 4 further has a part 11 fixedly connectable to the upper part of the screening cap 2. This part is fixedly connected to the screening cap 2 via a run-through element 11'. The transition from the part 11 to the second clip element 6 is formed by a folding seam 12. The second clip element 6 is capable of hinging about the folding seams 10 and 12. At the end of the first clip element 5 where it is hingedly connected to the second clip element 6, an outwardly projecting part 13 is arranged to enable the first clip element 5 to be moved upwards therewith.

[0014] In a first position, in which the pouring opening 3 is closed by the closing element 7, the second clip element is in a virtually unstressed condition. This is also the case in a second position, in which the flask is opened and the first clip element 5 has reached its extreme position, as represented in Fig. 3 by chain-dotted lines. When the clip-shaped closure 4 is moved from the first to the second position or vice versa, this can only be done while bending the second clip element 6, as indicated in Fig. 3 by the broken lines. When the part 13 is moved up, at some point the clip-shaped closure 4 will swing to its second position and the flask is opened for use. When after use the part 13 is moved down, the clip-shaped closure 4 will at some point swing to its first position and the flask will be closed.

[0015] In the screening cap, an outflow space 14 is present, which is in communication with the pouring opening 3 and which, when the screening cap 2 is fitted on the liquid holder 1, connects to an outflow opening of the liquid holder 1, formed by a spout 16. The outflow space 14 is bounded by an edge 18 provided with lips 17. The lips 17 fit into the spout 16. The outflow space 14 is further bounded entirely by the edge 18 fully surrounding the outflow space 14 and extending up against the underside of the screening cap 2.

[0016] Further, in the screening cap 2, an annular element 19 is present, which, when the screening cap is fitted on the liquid holder, engages under an edge 20 on the outer side of the spout 16. Because the transition of the liquid holder 1 to the spout 16, which, for that matter, has a circular cross section, has an elliptical shape, the annular element 19 too is elliptical in shape. The annular element 19 is connected with the underside of the screening cap 2 through strips 21. The screening cap, the edge 18 with the lips 17, and the strips 21 with the annular element 19 are manufactured as one whole from plastic.

[0017] Fig. 5 shows a second embodiment of a clip-shaped closure 4. In this embodiment, the two clip elements 5 and 6 are relatively rigid and the connection of the first clip element 5 to the screening cap 2 is detachable. For that purpose, the relevant end 22 of the first clip element 5 is hook-shaped and can be snapped into a recess 23 in the screening cap 2. In this embodiment too, the clip-shaped closure is preferably manufactured as one whole. In the hinge joints 10 and 12, a certain bias then acts very favorably. When in that case the end 22 is removed from the recess 23, the clip-shaped closure swings to the position represented in Fig. 5 and the pouring opening is cleared. When the first clip element 5 is moved down, i.e., in the direction of the liquid holder 1, the second clip element 6, by way of the closing element 7, closes the pouring opening 3 and the flask is held in this closed position by clicking the end 22 into the recess 23.

[0018] The invention is not limited to the embodiments presented here, but comprises all kinds of modifications thereof, naturally insofar as they fall within the scope of protection of the following claims.

Claims

1. A flask comprising a liquid holder and a screening cap, fixable thereon, with a pouring opening and with a clip-shaped closure therefor, which clip-shaped closure comprises a first clip element, and a second clip element which at one end is hingedly connected to the first clip element and at the other end is hingedly connected to the screening cap, which second clip element is provided with a closing element which fits into the pouring opening, while the clip-shaped closure can be brought from a position closing the pouring opening to a position clearing the pouring opening and vice versa by moving the first clip element in the direction away from the liquid holder, and towards the liquid holder, respectively.

2. A flask according to claim 1, characterized in that the first clip element is relatively rigid and, at the end remote from the hinged connection with the second clip element, is hingedly connected to the screening cap, and the second clip element is more flexible, while the second clip element both in the first and in the second position is substantially free from bending forces and the clip-shaped closure can be brought from the first to the second position and vice versa while bending the second clip element.

3. A flask according to claim 1, characterized in that both clip elements are relatively rigid, and the first clip element, at the end remote from the hinged connection with the second clip element, is detachably connected to the screening cap, while after breaking the connection between the first clip element and the screening cap, the clip-shaped closure is movable away from the liquid holder and the pouring opening is cleared, while the pouring opening can be closed by moving the clip-shaped closure towards the liquid holder and securing the

relevant end of the first clip element on the screening cap.

4. A flask according to claim 3, characterized in that in the hinged connections between the second clip element and, respectively, the screening cap and the first clip element, a bias is provided, so that after releasing the connection between the first clip element and the screening cap, the two clip elements move directly in the direction away from the liquid holder.

5. A flask according to any one of the preceding claims, characterized in that the clip-shaped closure is manufactured as one whole from plastic, and the hinged connections are obtained by deformation on folding seams.

6. A flask according to any one of the preceding claims, characterized in that in the screening cap an outflow space is present, which is in communication with the pouring opening and which, when the screening cap is fitted on the liquid holder, connects to an outflow opening of this liquid holder, formed by a spout.

7. A flask according to claim 6, characterized in that the outflow space is bounded by an edge provided with lips.

8. A flask according to claim 7, characterized in that the lips fit into the outflow opening of the spout.

9. A flask according to any one of claims 6-8, characterized in that in the screening cap an annular element is present which, when the screening cap is fitted on the liquid holder, engages the spout under an edge on the outer side of the spout.

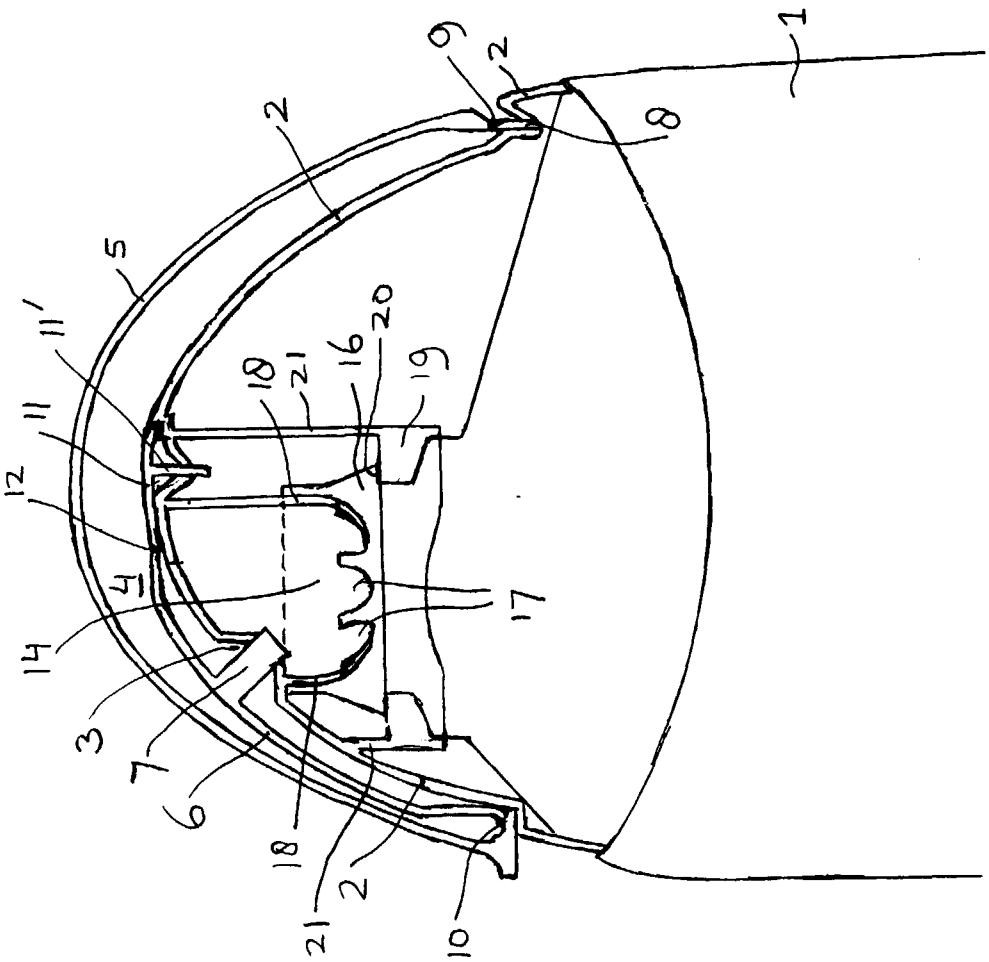
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FIG. 2

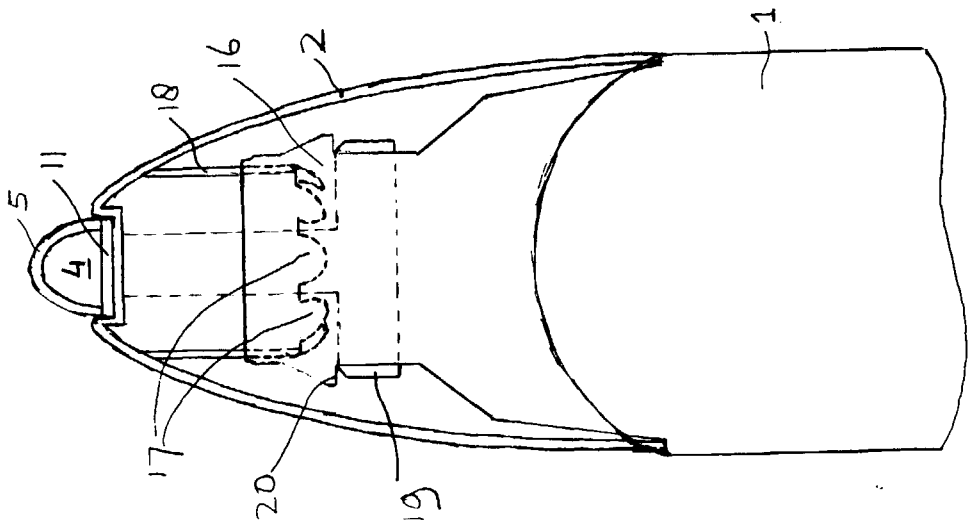
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FIG. 1

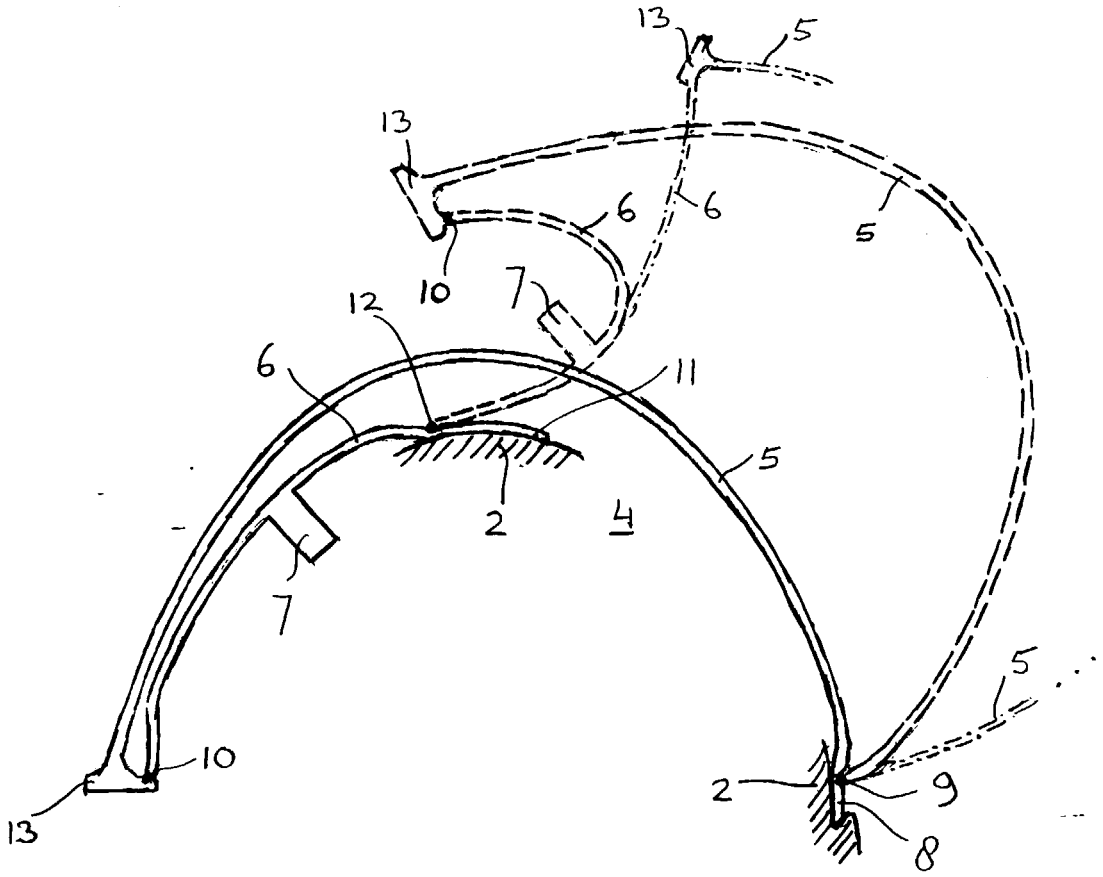

FIG. 3

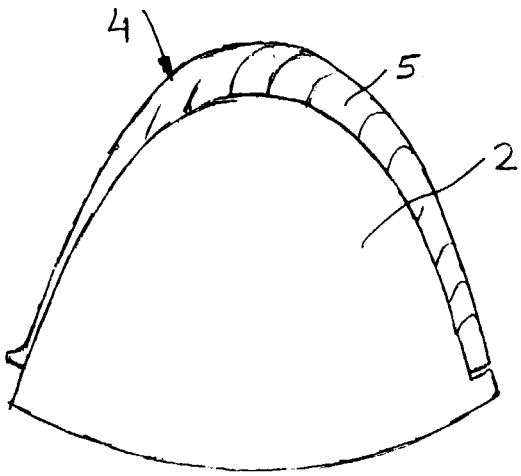

FIG. 4

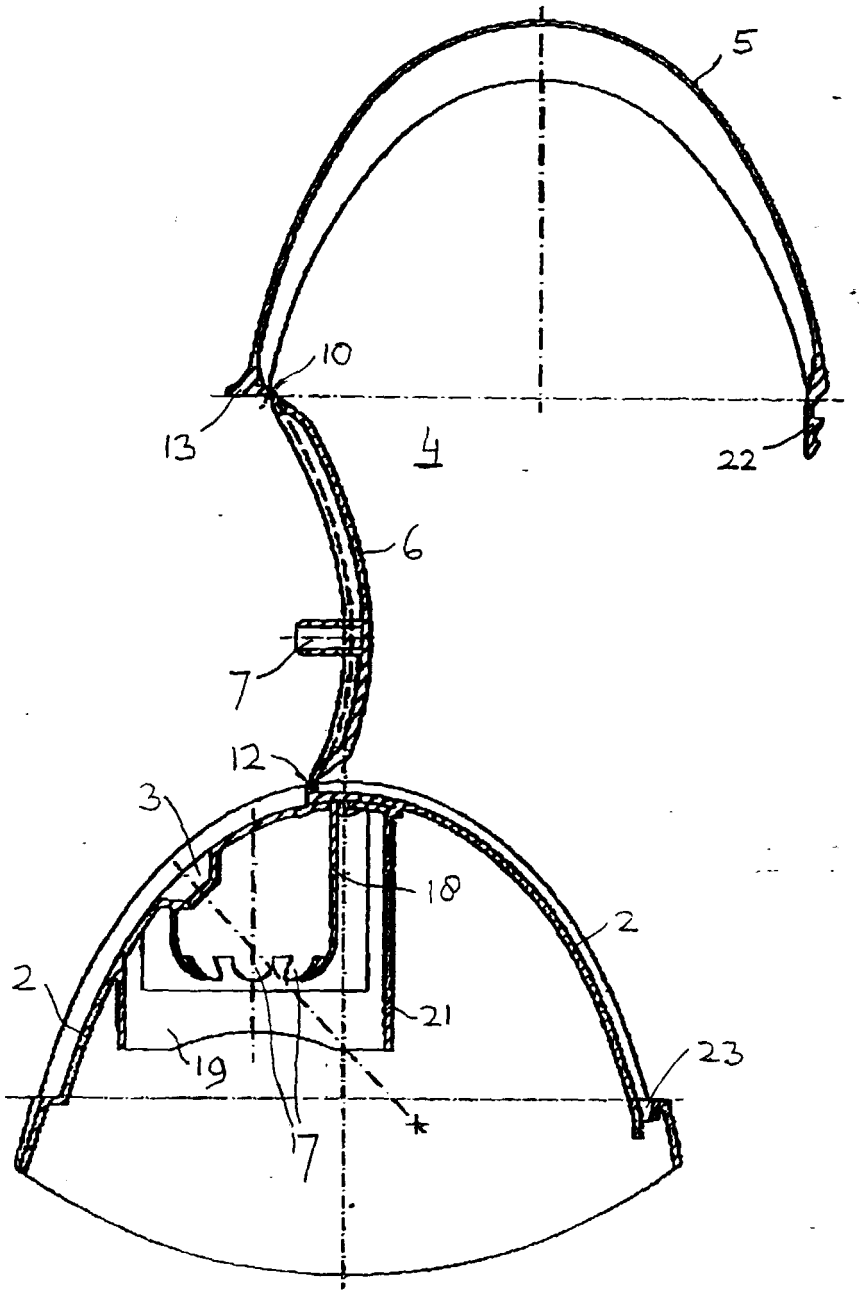

FIG. 5

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EUROPEAN SEARCH REPORT

Application Number
EP 99 20 4217

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TECHNICAL FIELDS SEARCHED (Int.Cl.7)

B65D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	22 March 2000	Pernice, C

CATEGORY OF CITED DOCUMENTS

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