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(71) Applicant: **ME COM S.r.l.**
13885 Salussola BI (IT)

(72) Inventor: **Mestrinaro, Andrea Alessandro**
13885 Salussola (BI) (IT)

(74) Representative: **Lotti, Giorgio et al**
Corso Vittorio Emanuele II 61
10128 Torino (IT)

(54) **Closing system for stoppers for bottles**

(57) *A closing system (1) for stoppers (10) for bottles (11) presenting a tether (15) which is wound above* the *stopper (10) and around a throat (14) of the bottle (11), and provided with two free ends (2, 4), which are fixed by means of a clip (F) which is arranged below the throat (14) of the bottle (11).*

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Description

[0001] The present invention refers to a closing system for stoppers for bottles.

[0002] In particular, the present invention will make specific reference, without losing any of its general nature, to a closing system which is mushroom shaped and semi-level which is usually used for closing bottles which contain liquids with a gassy component, such as, for example, sparkling or dry wines. The present closing system may also be validly applied for closing stoppers for bottles which contain still wines, vinegar or oil with the aim of guaranteeing the integrity of the contents.

[0003] Closing systems of a well known kind comprise a plain or coloured tether which, with the aim of avoiding the accidental expulsion of the stopper, is wound above the stopper and around a throat of the bottle, and is closed with a knot which is produced with the ends of the tether at the finishing of the packaging.

[0004] This knot is tied manually as close as possible to the throat of the bottle and below the so-called "quota vaga" in order to put the entire tether into tension, but while it is aesthetically pleasing and useful for defining a seal for the bottle, it involves a series of disadvantages in both the production phase and the opening phase.

[0005] In fact, the manual production of the knot requires considerable labour costs, and long packaging times, while it is an obstacle, sometimes insurmountable without resorting to cutting instruments, to opening the bottle as it must be produced tightly below the "quota vaga" and is very difficult to untie.

[0006] The aim of the present invention is to produce a closing system for stoppers for bottles, which will be free of the above-described disadvantages and which will permit a simple and cost-effective sealing of the bottle, as well a rapid and easy opening of the bottle itself.

[0007] The present invention fulfils the above aims thanks to a closing system which presents the characteristics which are specifically described in the Claims which follow.

[0008] The present invention will now be described with reference to the attached drawings, which illustrate a non-limiting form of embodiment of the present invention, in which:

- FIGURE 1 shows a preferred form of embodiment of a closing system which is produced according to the details of the present invention,
- FIGURE 2 shows, in lateral elevation, a detail which is shown in FIGURE 1, and
- FIGURE 3 shows a section view according to the plane VI-VI of the detail which is shown in FIGURE 2.

[0009] With reference to FIGURE 1, the number 1 indicates a closing system, in its entirety, for stoppers 10 for bottles 11 provided with an upper opening 12 which is closed by the stopper 10 and encircled by an annular ridge 13, which presents an outer diameter which is greater than an outer diameter of a throat 14 of the bottle 11 and which defines the so-called "quota vaga" of the throat 13.

[0010] In particular, the closing system 1 comprises a tether 15, which presents two free ends 2 and 4, which is wound above the stopper 10 to form a bridge 16, and around the throat 14 immediately below the ridge 13 in order to form a ring 17 around the throat 14 itself.

[0011] In addition, the closing system 1 comprises a clip (F), whch may be made of metallic material or of plastic material, and, as is better illustrated in FIGURES 2 and 3, comprises a lozenge-shaped body 21 which is substantially flattened and which presents a passing collar 22 which extends inside the body 21 for a length which is greater than the half of the length of the body 21 itself, and two delimiting tongues 23 on two opposite sides of the collar 22.

[0012] The collar 22 is thus radially open towards the outside of the body 21 for a circumferential length which is greater than the circumferential length of the closed portion of the body 21, and is engaged by the ends 2 and 4 in such a way as to block the ends 2 and 4 themselves.

[0013] In particular, once the ring 17 and the bridge 16 have been produced, and once the ends 2 and 4 have been put into traction, the clip (F) is shrink-fit onto the ends 2 and 4 themselves with the two tongues 23 arranged opposite the ends 2 and 4 and substantially in correspondence with the throat 14 of the bottle 11, and is subsequently deformed by the pressing or crushing of the two tongues 23 in such a way as to cause their deformation and permit the blocking of the ends 2 and 4.

[0014] It is immediately evident that the clip (F) easily replaces, and with a considerable saving in terms of time, the manual production of the above-cited knot and guarantees, however, the sealing of the bottle 11. In addition, the blocking of the clip F on the ends 2 and 4 with the latter in traction and with the clip F below the throat 14 permits the ends 2 and 4 to be split with a simple action thus easily freeing the stopper 10 from the tether 15, or rather it permits a simple opening of the bottle 11.

[0015] In use, the tying of the tether 15 above the stopper 10 and around the throat 14 may be produced:

- by forming a loop in planar arrangement with the two ends 2 and 4 in a counterfacing position;
- introducing the stopper 10 and the initial part of the throat 14 into the loop as far as the so-called "quota vaga";
- closing and tightening the loop;
- overturning the tether 15 in such a way as to make the end 4 parallel to the end; and ,
- fixing the two ends with the clip F.

[0016] The tethering which has just been described may be completely automated permitting the elimination of all the manual operation to the advantage of production times and costs.

[0017] Eventually, the clip F could also be provided

with a logo indicating the brand of the liquid inside the bottle.

Claims

1. Closing system (1) for stoppers (10) for bottles (11) comprising a tether (15) which is wound above the stopper (10) and around a throat (14) of the bottle (11), and which is provided with two free ends (2, 4); the closing system (1) being **characterised by** the fact of comprising a clip (F) which is fixed along both the free ends (2, 4) and below the throat (14) of the bottle (11).

2. Closing system according to Claim 1, **characterised by** the fact that the clip (F) is lozenge-shaped

3. Closing system according to Claims 1 or 2, **characterised by** the fact that the clip (F) is made of metallic material.

4. Closing system according to Claims 1 or 2, **characterised by** the fact that the clip (F) is made of plastic.

5. Closing system according to any of the preceding Claims whatsoever, **characterised by** the fact that the clip (F) is deformed by pressing.

6. Closing system according to any of the preceding Claims whatsoever, **characterised by** the fact that the said clip (F) presents a passing housing (22) in order to block the said two free ends (2, 4) in such a fashion that they do not move.

7. Closing according to any of the preceding Claims whatsoever, **characterised by** the fact that the said tether (15) defines a bridge (16) which is formed over the said stopper (10) and a ring (17) around the said throat; the clip (F) putting in traction at least the said two free ends (2, 4) below the throat (14).

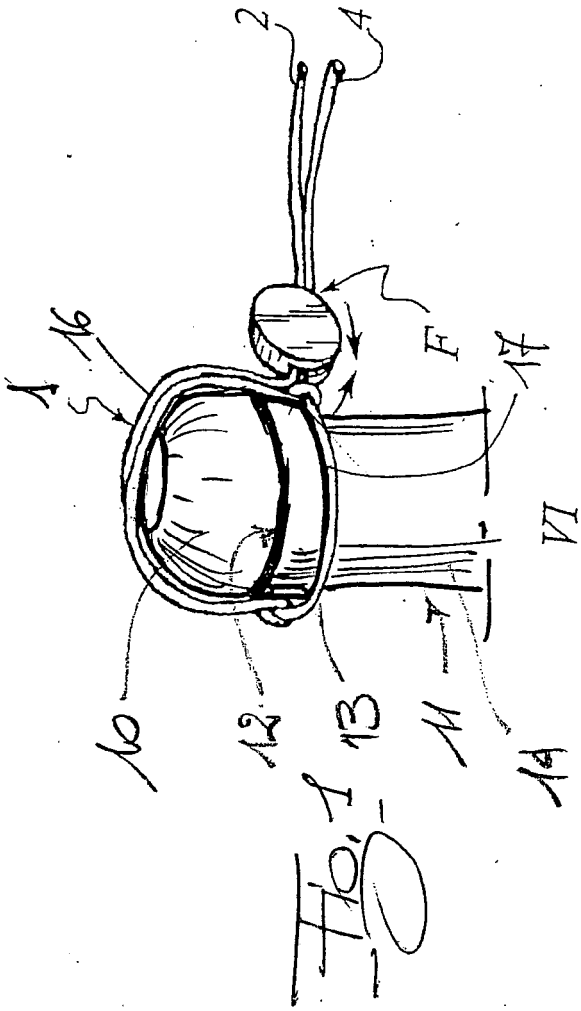


Fig. 1

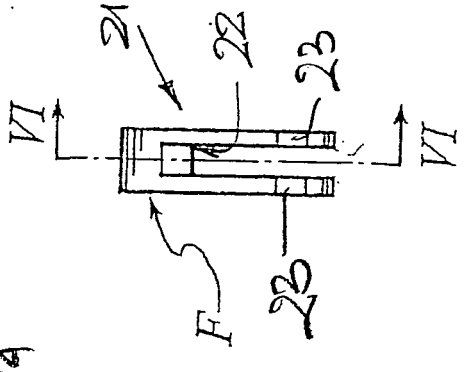


Fig. 2

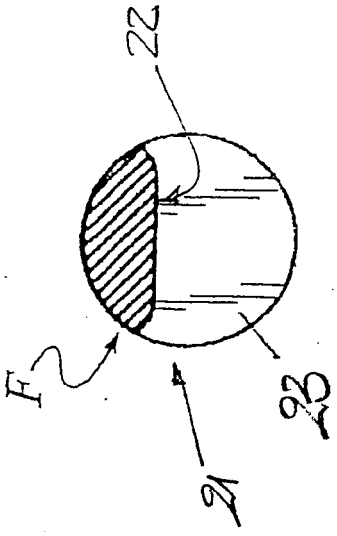


Fig. 3

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EUROPEAN SEARCH REPORT

Application Number
EP 07 01 8049

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	CH 126 557 A (M & A KINDSCHI [CH]) 16 June 1928 (1928-06-16) * the whole document *	1-3,6,7	INV. B65D55/06
X	FR 331 946 A (LOCKLING, THEODORE DENNIS; MICHELIS, CHARLES EDWARD MATHEW) 8 October 1903 (1903-10-08) * page 1, line 55 - page 2, line 6; figure 4 *	1,7	
X	US 2 772 014 A (CLARK PRESTON F) 27 November 1956 (1956-11-27) * column 1, line 56 - column 2, line 15; claim 2; figures 1-4 *	1,2,7	

TECHNICAL FIELDS SEARCHED (IPC)

B65D

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	7 March 2008	Janosch, Joachim

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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A : technological background
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E : earlier patent document, but published on, or after the filing date
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EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 07 01 8049

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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07-03-2008

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FR 331946 A		NONE	
US 2772014 A	27-11-1956	NONE	

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82