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(54) **BOTTLE OPENER**

(57) The invention relates to a bottle opener comprising a substantially tubular body (1), the rear end of which extends into a handle (15) and the front end of which includes: a front opening (11) into which the head (21) of the cork (2) is introduced sideways; an upper wall (12) which receives the impact of, and retains, the cork (2) as

it is removed from the bottle (3); and a lower longitudinal opening (13) defined by two opposing side edges (14), into which the part of the cork body located between the cork head (21) and the bottle mouth (31) is inserted sideways. The opener is pivoted downwards in order to remove the cork (21) from the body of the bottle (3).

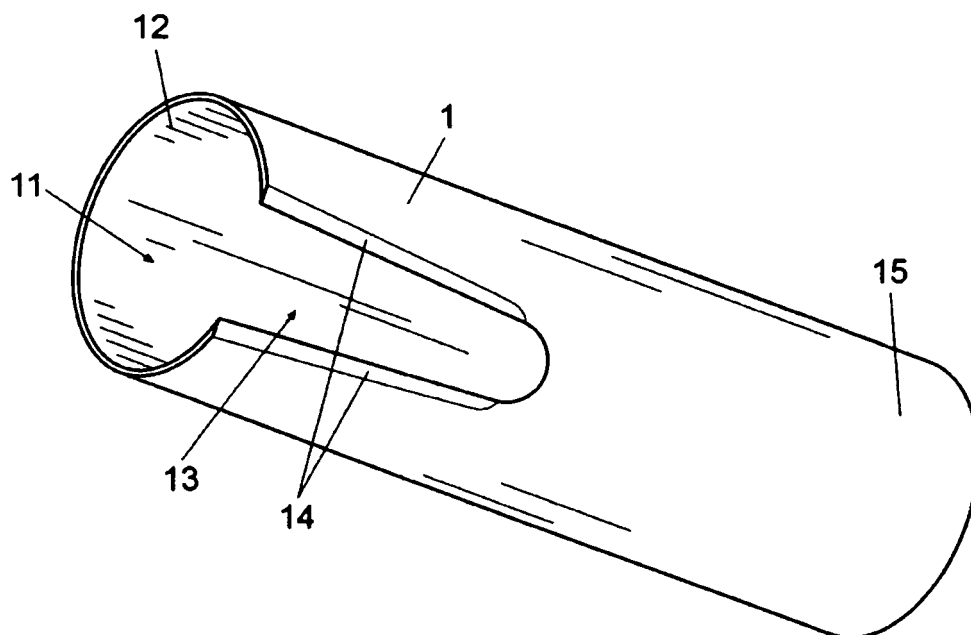


Fig. 1

Description

Object of the invention

[0001] The present invention relates to a bottle opener, especially for bottles of cava, champagne or other bottles of aerated beverages provided with a thickened head stopper.

Related art

[0002] Nowadays, there exists the known problem involved in opening bottles of cava or similar bottles containing aerated beverages, wherein the stopper defines a thickened head and a minor section body due to the strong compression to which it is submitted during its staying within the bottle rim or neck.

[0003] The high adjustment of the stopper requires applying an important initial force in order to unlock it from the bottle, and usually the stopper goes flying due to the pressure existing within the bottle.

[0004] This opening involves an important problem for many people who do not have the necessary strength to perform the initial unlocking of the stopper, and an important risk of damages for people and objects due to the possible impact of the stopper.

[0005] Nowadays, there exist specific openers for this type of bottles which form a kind of clamp, like pliers, that allows putting pressure on the stopper head sideways in order to convey a rotational movement thereto. The application of this rotation force instead of a force in the removal direction can cause the tear or the break of the stopper head, while the body thereof remains inside the bottle.

Description of the invention

[0006] In order to solve the mentioned problems, the opener being the object of this invention has been devised, which has some characteristics directed towards providing it with a great constructive simplicity, allowing the unlocking of the stopper by levering on the bottle mouth and therefore with a minimum effort and, finally, retaining the stopper shot by the pressure existing within the bottle, preventing it from hitting people or objects.

[0007] With this purpose, and according to the invention, the opener is formed by a body with a substantially tubular configuration which extends at its rear end into a handle with the same or a minor section, and which has in its front end: a frontal mouth to be introduced sideways into the head of the stopper, an upper wall for the impact and retention of the bottle stopper as it is removed from the bottle and, in its lower area, a longitudinal opening, open at least at the front end of the tubular body and delimited by two opposing side edges, for the sideways reception of that part of the stopper body located between the stopper head and the bottle mouth; the downwards pivoting of the opener causing a lever effect against the

bottle mouth and the push of the stopper in the removal direction in order to initially unlocking it from the bottle.

[0008] As has been mentioned, this opener has an extremely simple configuration, and can be obtained from a resistant tube, for instance of stainless steel, in the event that the longitudinal opening is closed by its rear end, or from a sheet, conveniently bended or folded, in the event that the longitudinal opening is open by its front and rear ends.

[0009] In an embodiment of the invention, the longitudinal opening has a decreasing width towards the rear area for the adjustment of the side edges to the opposing sides of the stopper body during its sideways introduction into said longitudinal opening.

[0010] In order to facilitate the sideways and simultaneous introduction of said side edges between the stopper head and the mouth of the bottle, said side edges have a sharp edge or section decreasing towards the free end.

[0011] Although this opener has been specifically devised for the opening of bottles of cava or other bottles using a stopper of the mentioned type, it has been foreseen that said opener might include a suitable lowering for the opening of crown-like stoppers, said lowering being preferably defined in the rear end or handle of the tubular body.

Description of the drawings

[0012] In order to complement the present description and with the aim of facilitating the understanding of the features of the invention, the present descriptive memory is accompanied by a set of drawings wherein the following has been represented with illustrative and non-limiting character:

- Figure 1 shows a front-lower perspective view of the of the opener wherein the longitudinal lowering directed to acting on the stopper head and causing its removal is defined.
- Figure 2 shows a profile view of the opener of the preceding figure with the side edges introduced between the head and the mouth of the bottle, in a position previous to its triggering.
- Figure 3 corresponds to an elevated view of figure 2, wherein the opener has been represented partially sectioned, with full line in the same position as figure 2 and with discontinuous line in a position of triggering and unlocking of the stopper.
- Figure 4 shows an elevated view of an exemplary embodiment of the opener wherein the tubular body extends at its rear end into a minor section handle provided with a lowering forming an opener of crown stoppers.

Preferred embodiment of the invention

[0013] In the example of embodiment shown in the at-

tached drawings, the opener is made up by a body (1) of tubular configuration which has in its front end a frontal mouth (11) for the introduction of the stopper head, an upper wall (12) for the impact and retention of the stopper (2) of the bottle (3) in the moment it is removed and, in its lower area, a longitudinal opening (13) defined by two side edges (14) which has a sharp edge or decreasing section towards its free end.

[0014] In the shown example, the longitudinal opening (13) has a decreasing width towards the rear end, in which it is closed.

[0015] As can be observed in Figures 2 and 3, in order to remove the stopper (2) it is sufficient to introduce sideways the head (21) of the stopper through the frontal mouth (11) and the part of the stopper body comprised between the head (21) and the mouth (31) of the bottle in the longitudinal opening (13), and levering with the opener on the mouth (31) to push the stopper (2) towards the upper area. When the stopper (2) is unlocked from the bottle and goes flying due to the internal impression, the head (21) impacts against the upper wall (12) of the opener, being withheld inside the opener.

[0016] The rear end of the tubular body (1) forms a handle (15) which, in the example shown in Figure 4, is smaller than the rest of the tubular body (1) and has a lowering (16) forming an opener for crown stoppers.

[0017] After having sufficiently described the nature of the invention, as well as an example of a preferred embodiment, it is to be stated to all relevant effects that the materials, shape, size and arrangement of the described elements can be modified, provided that such modification does not alter the essential features of the invention that are subsequently claimed.

Claims

1. Bottle opener, especially for bottles of cava, champagne and other bottles (3) of aerated beverages provided with a stopper (2) with head (21); **characterized in that** it comprises a body (1) with a substantially tubular configuration which extends at its rear end into a handle (15) and which has in its front end: a frontal mouth (11) for the sideways introduction of the head (21) of the stopper (2), an upper wall (12) for the impact and retention of the stopper (2) of the bottle (3) in the moment it is removed, and, in its lower area, a longitudinal opening (13) delimited by two opposing side edges (14), for the sideways reception of the part of the body of the stopper (2) located between the head (21) of the stopper and the mouth (31) of the bottle (3), the downwards pivoting of the opener causing the unlocking of the stopper (21) from the body of the bottle (3).
2. Opener, according to claim 1, **characterized in that** the longitudinal opening (13) has a decreasing width towards the rear area for the adjustment of the side

edges (14) to the opposing sides of the body of the stopper (2) during its sideways introduction into said longitudinal opening (13).

3. Opener, according to any of the preceding claims, **characterized in that** the side edges (14) have a sharp edge or decreasing section towards its free end in order to facilitate its longitudinal introduction between the head (21) of the stopper (2) and the mouth (31) of the bottle (3).
4. Opener, according to any of the preceding claims, **characterized in that** the opener has in the rear end of the handle (15) a lowering (16) forming an opener for crown-like stoppers.

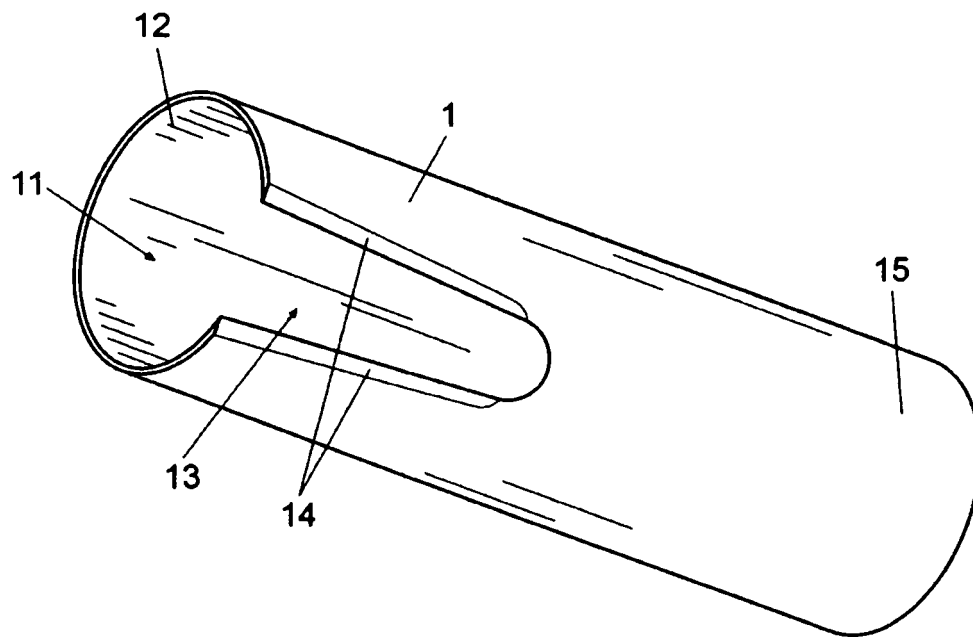


Fig. 1

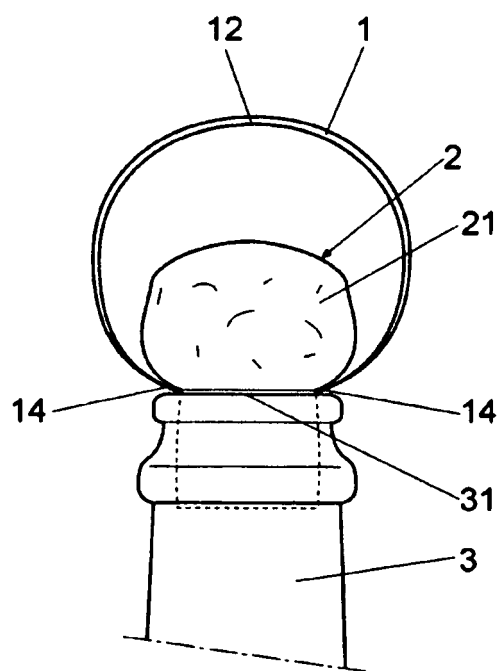


Fig. 2

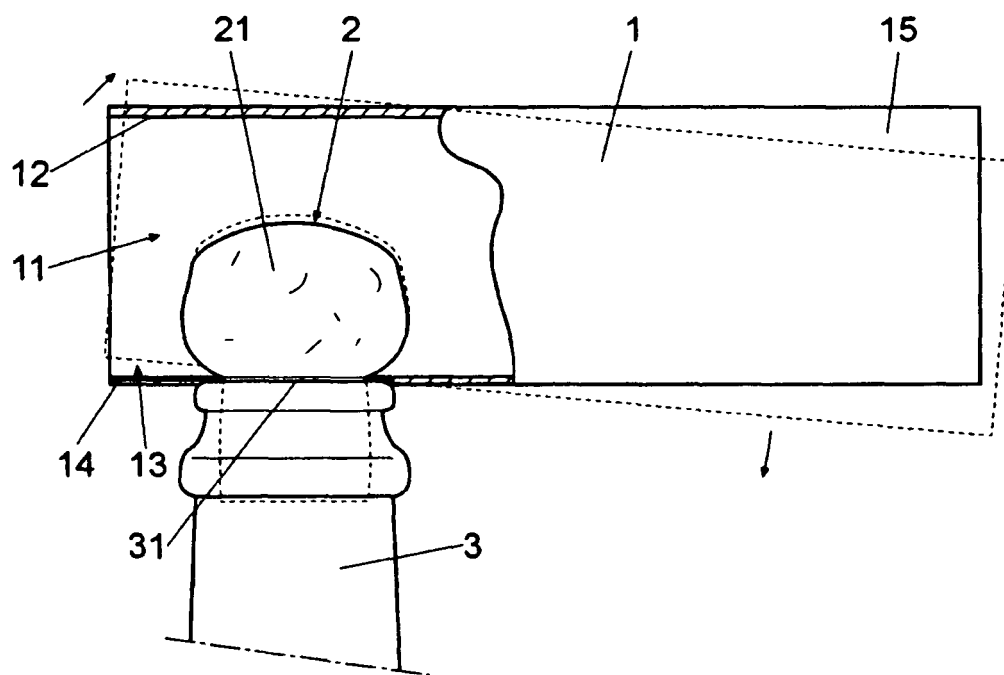


Fig. 3

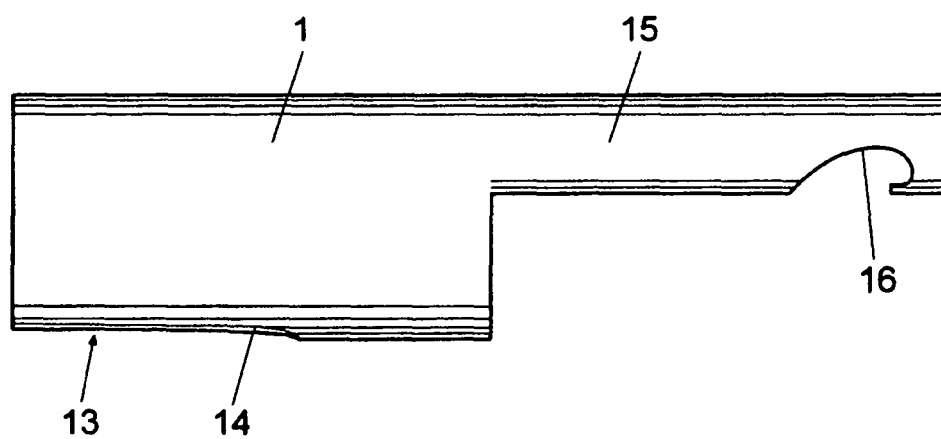


Fig. 4

INTERNATIONAL SEARCH REPORT

International application No.

PCT/ ES 2010/070213

A. CLASSIFICATION OF SUBJECT MATTER

B67B 7/06 (2006.01)

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)

B67B7/+

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

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

INVENES, EPODOC, WPI

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	FR 2133031 A5 (HEBERT JEAN CLAUDE) 24.11.1972, page 2, line 4 - page 3, line 18; figures	1,4 2,3
Y	DE 2931798 A1 (BARTSCH SIEGFRIED) 10.09.1981, figures & Abstract from DataBase WPI. Retrieved from EPOQUE; AN 1981-J6937D	2
Y	FR 1519035 A (RIGAUD) 29.03.1968, figures 1-3	3
A	US 4437360 A (BECKER et al.) 20.03.1984, column 1, line 47 - column 2, line 41; figures	1-4
A	US 4875394 A (CRUDGINGTON et al.) 24.10.1989, figures	1-4
A	US 4519277 A (RAAB et al.) 28.05.1985, column 2, line 39 - column 3, line 50; figures	1-4

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:	"I"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance.		
"E" earlier document but published on or after the international filing date		
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"O" document referring to an oral disclosure use, exhibition, or other means	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other documents, such combination being obvious to a person skilled in the art
"P" document published prior to the international filing date but later than the priority date claimed		
	"&"	document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/ ES 2010/070213

Patent document cited in the search report	Publication date	Patent family member(s)	Publication date
FR 2133031 A	24.11.1972	NONE	-----
DE 2931798 A C	10.09.1981	NONE	-----
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US 4875394 A	24.10.1989	NONE	-----

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