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(54) Corkscrew with seal remover and bottle opener

(57) The object of the invention is a corkscrew device with an incorporated seal remover and bottle opener, which allows in a single operation to tear the safety seal and extract the cork from the bottles. It comprises a basic body (1), a spiral screw (2) for perforation, a handle (3) and a recess (4) acting as a stop. When the handle (3) is used to turn and pres downwards, the screw (2) perforates the cork (5) until it is stopped when the recess (4) meets the neck of the bottle (6). As the turning motion continues the friction between the bottle and the recess tears the seal and the cork (5) rises up the screw (2) until it meets the handle (3). The joint connecting the corkscrew (1) and the screw (2) allows the screw (2) to turn 90° in order to remove the cork from it.

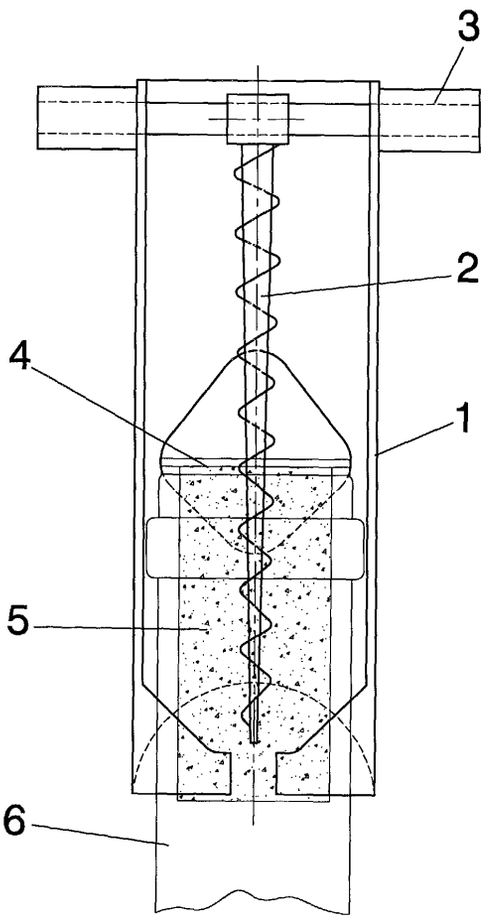

FIG.1

EP 1 205 432 A1

Description

[0001] The present invention relates to a CORKSCREW WITH SEAL REMOVER AND BOTTLE CAP OPENER with technical characteristics and a construction that provide substantial advantages over the current state of the art.

[0002] Corkscrews are one of the most widely used devices in the specific sector of restaurants, as well as in household use, in both their manual and automatic varieties, in order to open bottles and other liquid containers. There is obviously a wide range of articles of this sort, many of which are manual and others activated by automated means. In any case, most of these devices are centred on extracting bottle caps that are generally either corks or metal caps. In the case of corks, many bottles also include a seal that ensures the quality and intactness of the liquid contained in the bottle.

[0003] This seal is generally removed by making a cut in it with a sharp object, so that the seal can be manually removed. The cork is generally extracted with the aid of a longitudinal spiral screw that is inserted in the cork, and which carries the cork with it when pulled away from the neck of the bottle. As relates to the metal cap also used to close bottles, particularly smaller ones or those for individual use, it is generally removed with a stiff object that provides leverage.

[0004] Currently available corkscrews generally perform only one of these functions. That is, they can remove either a cork or a metal cap. In the case of the former, the seal must be removed before the spiral screw can be inserted. The cork is then extracted in the case of a manual device by the force applied by the user. After this is done it is also necessary to remove the cork from said screw, which also requires a considerable force due to the stiffness of the cork. In general, it takes longer to remove the cork from the tool than to extract it from the neck of the bottle.

[0005] The device disclosed in this description represents an important improvement, as it provides a corkscrew with a specific configuration allowing it to open bottles having a cork or a metal cap. Likewise, the design of this corkscrew makes the seal that surrounds the bottle neck to be torn and removed during the extraction of the cork, without requiring a second tool or additional handling. It is important to stress that with currently available corkscrews the cutting and removal of the seal must be performed before using the corkscrew, that is, the seal must be removed before the corkscrew can act on the cork.

[0006] The device disclosed allows using the corkscrew directly on the seal, thereby reducing the time employed. It consists of a stiff longitudinal structure jointed to an also longitudinal spiral structure in the form of a screw, which is integrally joined to the handle itself. With this handle, the user exerts a force to screw the spiral screw into the cork. The configuration of the corkscrew ensures that the screw enters at the centre of the cork, without deviations and without tearing or breaking said cork, which often results in pieces of cork falling into the bottle and clouding the liquid.

[0007] The corkscrew device is provided with a recess that acts as a stop; as the corkscrew turns the screw enters the cork until the lip of the bottle stops the corkscrew when it meets said recess. At this point, as the corkscrew continues to turn the friction of the recess on the bottle causes the seal to tear and break away. Thus, the bottle is opened by a single operation that allows removing simultaneously the seal and the cork.

[0008] Once extracted, the cork can be screwed off the screw very easily, due to the joint between the basic structure of the device and the screw. The screw is turned 90° to form a right angle with the corkscrew and the cork is unscrewed manually.

[0009] Likewise, this corkscrew device allows removing the metal cap placed on certain bottles by means of the recess that presses on the cap and releases it from the bottle lip.

[0010] Due to its simple configuration and design and to its ease of operation, this device represents an obvious improvement on currently available devices in the market, as it reduces the extraction of the cork and the tearing of the seal to a single operation, and is applicable to both corks and metal caps.

[0011] The characteristics of the invention will be better understood in view of the accompanying drawings where for purposes of illustration only the following is shown:

Figure 1 is a plan view of the invention.

Figure 2 is a plan view of the corkscrew acting on the cork.

Figure 3 is a plan view of the joint between the corkscrew and the screw.

Figure 4 is a plan view of the recess acting on the cork.

[0012] In view of the figures, figures 1 and 2 show the configuration of the corkscrew (1), which incorporates a screw (2) for perforation, a handle (3) and the recess (4) that acts as a stop. Thus, when the user acts on the handle (3) and presses downwards, the screw (2) perforates and enters into the cork (5) that closes the bottle (6). The screw (2) continues to move downwards until the recess (4) meets the neck of the bottle (6). At this time, and since the turning motion continues, the friction of the bottle (6) against the recess (4) causes the seal to tear, thereby securing the cork (5) and eliminating the safety seal in a single operation. At this time the cork (5) begins to rise up the spiral screw (2) until it is stopped by the handle (3). The cork (5) is extracted by a simple pulling force.

[0013] In order to remove the cork (5) from the cork-

screw, as shown in figure 3, the screw (2) is turned 90° and the cork (5) is removed by unscrewing.

[0014] Figure 4 shows the manner in which the recess (4) acts to free the metal cap 87) which is also used to close bottles, particularly those meant for individual consumption. In this case, the cap (7) is inserted in the recess (4) and a small force will suffice to release the cap (7) from its position on the lip of the bottle (6).

[0015] This description is not continued in the understanding that any expert in the field should understand the scope of the invention and the advantages derived thereof. The materials, size, shape and arrangement of the component elements may vary as long as the essence of the invention is unaltered. This terms employed in this description must be understood in a wide sense and not in a limiting manner.

Claims

1. Corkscrew device with seal remover and bottle cap opener, essentially **characterised in that** it comprises a stiff longitudinal structure (1) that incorporates a spiral or screw (2) for perforation, a handle (3) and the recess (4) that acts as a stop, so that when the user acts on the handle (3) turning and pressing it downwards, the screw (2) perforates and enters into the cork (5) which closes the bottle (6), continuing downwards until it is stopped when the recess (4) meets the neck of the bottle (6).

2. Corkscrew device with seal remover and bottle cap opener, as claimed in claim 1, essentially **characterised in that** when the lip of the bottle (6) meets the recess (6), the turning motion causes a friction of the bottle (6) against the recess (4) that tears the seal, while the cork (5) begins to rise up the spiral screw (2) until it is stopped by the handle (3).

3. Corkscrew device with seal remover and bottle cap opener, as claimed in claims 1 and 2, essentially **characterised in that** the joint that connects the stiff longitudinal basic structure (1) and the screw (2) allows said screw (2) to turn 90° so that the cork may be unscrewed from it.

4. Corkscrew device with seal remover and bottle cap opener, as claimed in claims 1,2 and 3, essentially **characterised in that** when the cap (7) of the bottle is inserted in the recess (4) and a slight pressure is applied, said cap (7) is removed from its original position.

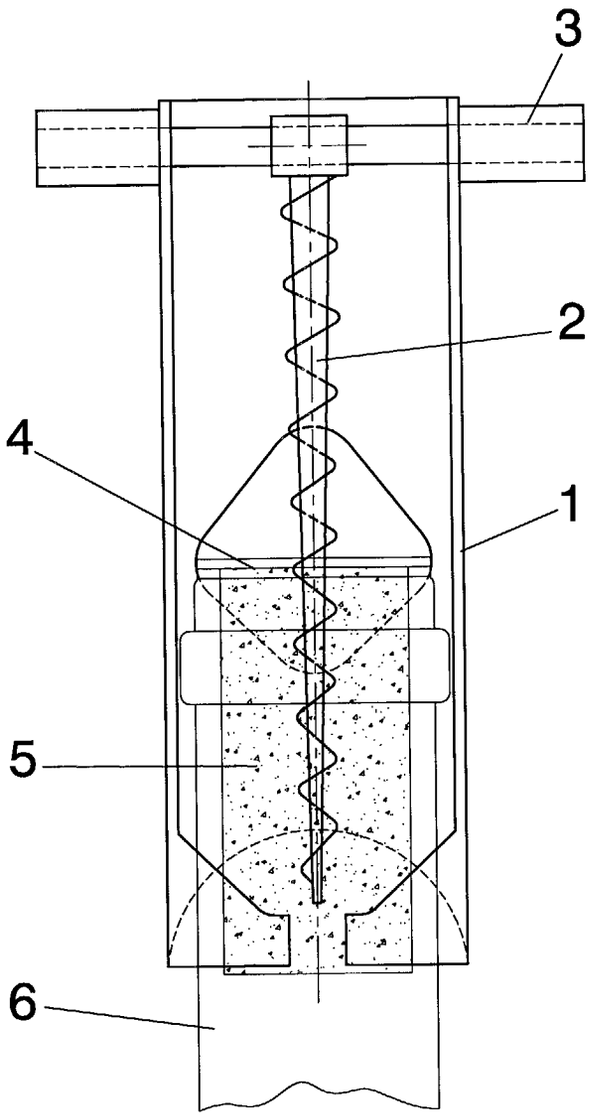

FIG.1

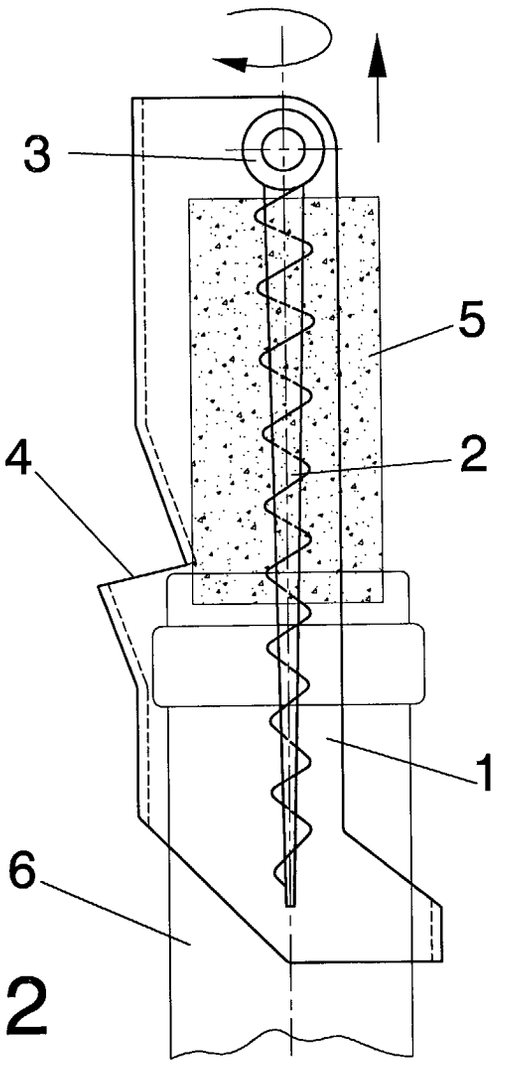

FIG.2

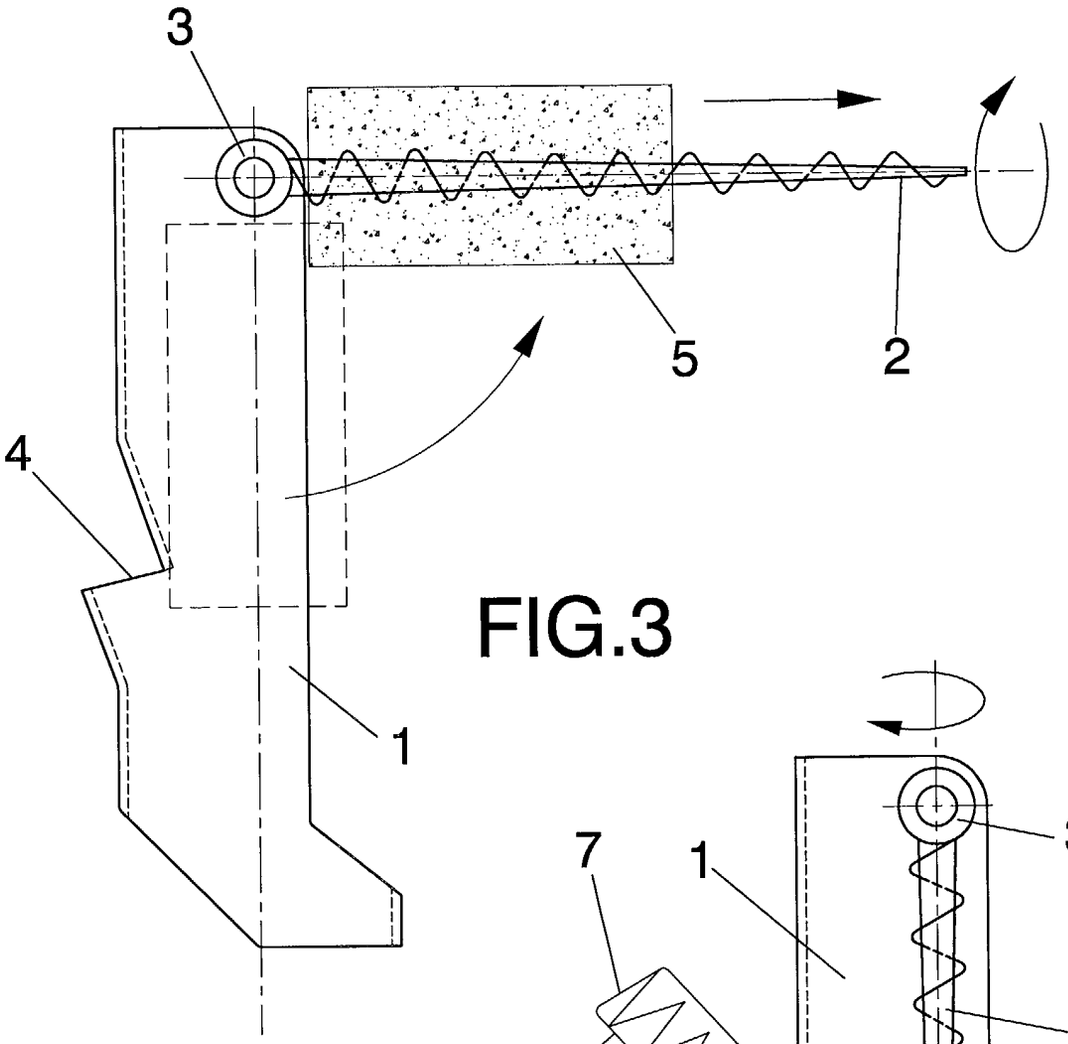

FIG.3

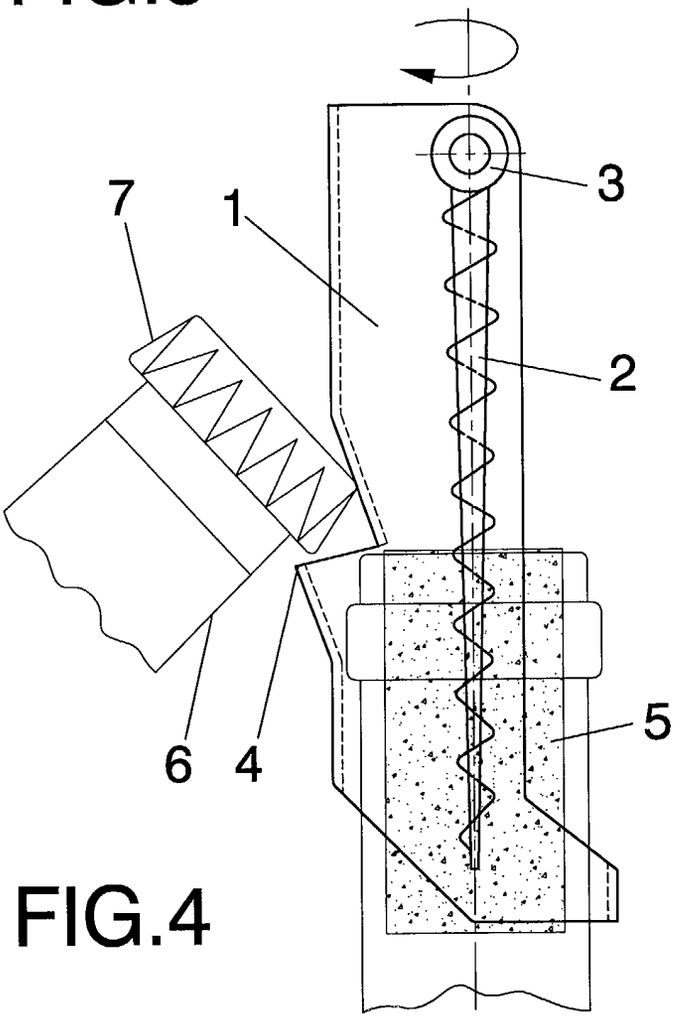

FIG.4

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EUROPEAN SEARCH REPORT

Application Number
EP 01 50 0267

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.7)
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A	DE 297 11 041 U (SIEGER GMBH & CO) 21 August 1997 (1997-08-21) * page 8, line 14 - line 38 * * figures 5,6 *	1,2	

TECHNICAL FIELDS SEARCHED (Int.Cl.7)

B67B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	11 February 2002	Smolders, R

CATEGORY OF CITED DOCUMENTS

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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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11-02-2002

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