

Description**Cross reference**

This application and co-pending European Patent Application EP-A-0129301 have been divided from European Patent Application EP-A-0056011.

Background of the invention**1. Field of the invention**

The present invention pertains to an apparatus for extracting corks from bottles. A number of features are desirable in such an apparatus. One of the most important of these is that the corkscrew portion of the apparatus be well centred in the cork during operation, so as to ensure the removal of the entire cork, and minimize the possibility of breaking the cork and permitting the resulting fragments to fall into the wine in the bottle. Another important consideration is that the corkscrew must be pulled in a substantially straight line along its own axis when the cork is being removed, and this axis should ordinarily be substantially aligned with that of the bottle, so as to facilitate removal. Another desirable feature in cork-extracting apparatus is the provision of means to reduce the manual force required to drive the corkscrew into the cork and/or to extract the cork from the bottle. There is also a need for preventing small cork fragments from breaking off even when the corkscrew is driven completely through the cork.

2. Description of the prior art

UK Patent Application No. 2027681, and counterpart applications, disclose cork extractors as defined in the first part of Claim 1 which meet the above needs. These applications describe a simple, inexpensive apparatus for extracting a cork from a bottle as well as an improved corkscrew proper which may be used to advantage in said apparatus as well as in virtually any other type of corkscrew or cork extractor. The apparatus includes a holder and cork-engaging member. The cork-engaging member includes the corkscrew per se and abutment means, such as a handle, carried on the corkscrew and engageable with the holder to limit downward movement of the cork-engaging member with respect to the holder in use. The holder includes guide means having a guide passageway extending generally longitudinally therethrough. The guide passageway has guide surface means facing generally radially inwardly and is sized to lie closely adjacent the outer diameter of the corkscrew helix, the corkscrew being rotatably and longitudinally movable in the guide passage. The holder further includes stop means engageable with the bottle to limit downward movement of the holder with respect to the bottle as well as grip means spaced downwardly from the guide means and engageable with the bottle to radially align the guide means with the bottle. Thus, the grip means in conjunction with the stop means of the holder serve to generally radially

center and coaxially align the guide means, and thus the corkscrew received therein, with the bottle and its cork.

By rotating the cork-engaging member and, at least initially, simultaneously exerting a downward force thereon, the corkscrew may be driven into the cork while still properly centered and aligned therewith by the holder. When the abutment means of the cork-engaging member comes into abutment with the holder, thereby preventing further downward movement of the cork-engaging member, continued rotation of that member in the same direction will cause the cork to rise on the helical corkscrew, the guide means being spaced above the top of the bottle by a sufficient distance to permit such movement.

The corkscrew itself is improved by the provision of a central body, e.g. of high tensile metal, covered by an outer layer of friction-reducing material, such as polytetrafluoroethylene, on at least one portion of the downwardly facing surfaces of the central body. This greatly enhances the ease with which the corkscrew may be driven into the cork. This friction-reducing expedient not only virtually eliminates any problem in easily penetrating a tight cork, but also permits the use of design features in the central body which could not be used without the friction-reducing layer and which themselves enhance the ease of insertion and otherwise improve the corkscrew. Accordingly, the friction-reducing layer on the corkscrew is largely instrumental in making the relatively simple apparatus described above effective in easily penetrating and properly removing even extremely hard and/or tight corks.

The corkscrew also has an improved lower pointed tip portion which is formed in such a way that it eliminates the tendency for small cork fragments to be broken away, even when the corkscrew is driven completely through the cork. This effect is further enhanced by the friction-reducing layer mentioned above so that the possibility of contamination of wine by cork fragments is virtually eliminated.

Summary of the invention

The present invention is directed to improved cork-extractors. The object of the invention is to provide a cork-extracting apparatus which is particularly adapted for use with large necked bottles. This object is met by the apparatus defined in Claim 1.

The cork extractor of the present invention comprises a corkscrew and preferably also a handle secured to the upper end of the corkscrew. The apparatus further includes guide means, spacer means and gripping elements. The guide means receive the corkscrew and permit longitudinal and rotative movement thereof. Abutment means carried by the corkscrew, for example the handle, serve to limit downward movement of the corkscrew with respect to the guide means. The spacer means interconnect the guide means and the gripping elements and define a stop shoulder which is adjacent a laterally inner side of the

spacer means and spaced from the guide means, and which is engageable with a bottle for limiting downward movement of the guide means with respect to the bottle and spacing the guide means upwardly from the bottle. The spacer means also define an opening for receipt of the cork as it emerges from the bottle. The gripping elements extend below the stop shoulder for gripping engagement with the bottle and, in accordance with a particular feature of this invention are resiliently radially deflectable with respect to the stop shoulder defined by the spacer means, whereby the portions of the gripping elements immediately adjacent said stop shoulder may move radially outwardly without corresponding movement of said stop shoulder.

In a preferred embodiment of the present invention, the corkscrew is of a length such that, when, in operation, the abutment means is engaged to limit downward movement of the corkscrew, the corkscrew extends into the cork receiving opening whereby the cork may move threadedly upwardly on the corkscrew as the latter is rotated to withdraw the cork from its bottle.

The apparatus of the present invention is operated by engaging the bottle neck with the stop shoulder on the spacer means and while squeezing the gripping elements against the side of the bottle neck exerting a downward force on the corkscrew with simultaneous rotation to begin driving the corkscrew into the cork. With the preferred apparatus of the invention, continued rotation of the corkscrew will drive it through the cork, and when the abutment means prevents further downward movement of the corkscrew, the cork will begin to climb upwardly out of the bottle on the corkscrew. Since the gripping elements are resiliently radially deflectable with respect to the stop shoulder defined by the spacer means, proper clamping of the neck of the bottle during the cork removal operation is ensured even for relatively wide-necked bottles.

This advantage of the present cork extractor makes it possible to provide the cork extractor with catch means for preventing rotation of the emerging cork, such as are taught in our co-pending European Application EP-A-0056011, and still ensure satisfactory engagement of the emerging cork with the catch means. In those embodiments of the cork extractor shown in the co-pending Application wherein the holder includes a pair of legs extending downwardly from the guide means, with the upper portions of the legs forming the spacer means and the lower portions of the legs forming the bottle gripping elements, emplacement of the holder on a very large necked bottle can cause substantial radial deflection not only of the gripping elements but also of the spacer means. Then, if the catch means are formed on the spacer means and project radially inwardly therefrom, such deflection might interfere with proper engagement of the cork by the catch means. This can also occur with bottles of an unusual shape, e.g. bottles

having relatively short necks which flare outwardly quite near the top. In contrast, in accord with the preferred embodiments of the present invention, each of the legs may have a longitudinal split extending upwardly from the stop shoulder which abuts the top of the bottle. The radially outer portion of the spacer elements can then be deflected radially outwardly from the inner portion adjacent such split while the radially inner portion of the leg above the shoulder remains in an undeflected position. Thus, any catch means which are carried on said radially inner portion remain in proper position to engage the cork when it has emerged the desired distance from the bottle neck.

Brief description of the drawings

Figure 1 is a longitudinal cross-sectional view of a preferred embodiment of cork-extracting apparatus of this invention in operating position on a bottle neck and with some parts being shown in elevation.

Figure 2 is a transverse cross-sectional view taken along the line 2-2 in Fig. 1.

Description of the preferred embodiments

In this specification, terms such as "upper", "lower", "upwardly" and "downwardly" refer to the apparatus as shown in the drawings and as it would be positioned for use on an upright bottle. Such terms are used for convenience, and should not be construed in a limiting sense. Also, terms such as "radial", "longitudinal", "circumferential" etc are used with reference to the corkscrew when in place in the holder unless otherwise noted.

The cork extractor shown in the drawings includes a cork-engaging member comprising a helical corkscrew 28 coated with a friction reducing material and having an attached handle 30, all substantially identical to the cork engaging member shown in Figs. 1-6 of our co-pending European Application EP-A-0056011 from which the present Application and the co-pending European Application EP-A-0129301 have been divided. The present extractor further comprises a holder generally designated by the numeral 32. Holder 32 is substantially identical to holder 10 of Figs. 1-6 of the co-pending Application EP-A-0056011 in general external configuration. However, holder 32 differs from said holder 10 in that its guide means is formed by the generally tubular upper portion 34 of the plastic main body of the holder without a separate bushing. Rather, the aperture 36 through portion 34 is sized to slidably receive corkscrew 28 and define the guide surface for aligning the corkscrew with the cork while allowing rotation and longitudinal movement of the corkscrew in the guide means.

Holder 32 has a pair of diametrically opposed legs 38 integral with and extending downwardly from tubular portion 34. Legs 38 have upper portions 38a and lower portions 38b with a pair of inner, downwardly facing stop shoulders 38c

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located at the juncture of portions 38a and 38b. Shoulders 38c serve as stop means for abutting the top of a bottle such as 40 whereby portions 38a thereabove serve as spacer means for spacing the guide means 34 from the upper end of the bottle. Lower portions 38b extend downwardly along the neck of bottle 40 and are radially deflectable whereby they serve as gripping elements for gripping the bottle neck. The upper portions or spacer means 38a of legs 38 define a cork-receiving opening 42 therebetween.

Catch means in the form of a pair of opposed radial projections 44 are integrally carried by and extend longitudinally along the upper portions of spacer elements 38a whereby they project into the path of travel of cork 46 as it emerges from the bottle. As best seen in Fig. 2, each projection 44 has a sharp edge 44a extending generally longitudinally and is formed by a first surface 44b, which lies generally in a radial plane with respect to cork 46, and a second surface 44c, which intersects surface 44b at edge 44a and is inclined circumferentially and radially outwardly therefrom.

Surfaces 44b face in diametrically opposite directions. Thus, projections 44 tend to resist rotation of cork 46 in a clockwise direction, as viewed from the top, more so than in a counter-clockwise direction. This configuration of the catch means is not intended to provide substantial assistance in ejecting the cork, once it has been removed from the bottle, from the apparatus. However, the configuration of projection 44 offers little impedence to ordinary manual disengagement of the cork from the apparatus.

In accordance with an important feature of the illustrated embodiment of this invention, legs 38 have splits 38d extending longitudinally upwardly from the radially outer extremities of respective shoulders 38c to a point intermediate the ends of spacer elements 38a. Thus, the portions of spacer elements 38a located radially outwardly of splits 38d are continuous with gripping elements 38b and may be deflected radially outwardly as shown in Fig. 1 to grip a large bottle neck without spreading the radially inner portions of spacer elements 38a on which shoulders 38c and catch means 44 are formed.

The above description of the cork extractor illustrated in the drawings has served to highlight the differences between the illustrated cork extractor and the cork extractor shown in Figs. 1-6 of our co-pending Application EP-A-0056011. For the sake of brevity, the common features of these two forms of cork extractor will not be described in this specification in detail, and the reader is therefore directed to the specification of EP-A-0056011 for such additional information.

Likewise, the operation of the present cork extractor to remove a cork from a bottle is substantially identical to that of the aforementioned cork extractor of the co-pending Application EP-A-0056011, and therefore need not be repeated here. However, it will be appreciated

that, if the holder of Figs. 1-6 of EP-A-0056011 were emplaced on a bottle having an extremely wide neck or an irregularly shaped neck which began to flare outwardly a much shorter distance from the top of the bottle than in most cases, its legs, being integral, might be flexed radially outwardly so far as to separate the catch means and interfere with their proper engagement with the emerging cork, particularly if the cork were relatively short. In contrast, the illustrated cork extractor of the present invention provides for proper engagement with relatively wide necked bottles without separation of the two projections 44 which form the catch means. Thus, the provision of gripping legs 38 which are resiliently radially deflectable with respect to the stop shoulders 38c ensures that a large bottle such as 40 can be gripped while the catch means 44 remain entirely disposed within the path of travel of the emerging cork 46.

The present invention therefore provides an improved form of cork-extractor for consumers who may have a significant number of occasions to open relatively wide necked bottles.

Claims

1. Apparatus for extracting a cork from a bottle comprising:

a corkscrew (28);
guide means (34) receiving said corkscrew (28) and permitting longitudinal and rotative movement of said corkscrew (28);

spacer means (38a) connected to said guide means (34) and defining a stop shoulder (38c) spaced from said guide means (34) and engageable with said bottle (40) for limiting downward movement of said guide means (34) with respect to said bottle (40) and spacing said guide means (34) upwardly from said bottle, said spacer means (38a) further defining an opening (42) for receipt of said cork (46) as it emerges from said bottle;

a plurality of resiliently radially deflectable gripping elements (38d) connected to said guide means (34) and extending below said shoulder (38c) for gripping engagement with said bottle (40); and

abutment means (30) carried by said corkscrew (28) for limiting downward movement of said corkscrew (28) with respect to said guide means (34);

characterized in that said gripping elements (38b) are resiliently radially deflectable with respect to said stop shoulder (38c) whereby the portions of the gripping elements (38b) immediately adjacent said stop shoulder (38c) may move radially outwardly without corresponding movement of said stop shoulder (38c).

2. The apparatus of Claim 1, wherein said corkscrew (28) is of a length such that, when said abutment means (30) is engaged to so limit downward movement of said corkscrew (28), said corkscrew (28) extends into said cork receiving opening (42) whereby said cork (46) may move



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located at the juncture of portions 38a and 38b. Shoulders 38c serve as stop means for abutting the top of a bottle such as 40 whereby portions 38a thereabove serve as spacer means for spacing the guide means 34 from the upper end of the bottle. Lower portions 38b extend downwardly along the neck of bottle 40 and are radially deflectable whereby they serve as gripping elements for gripping the bottle neck. The upper portions or spacer means 38a of legs 38 define a cork-receiving opening 42 therebetween.

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In accordance with an important feature of the illustrated embodiment of this invention, legs 38 have splits 38d extending longitudinally upwardly from the radially outer extremities of respective shoulders 38c to a point intermediate the ends of spacer elements 38a. Thus, the portions of spacer elements 38a located radially outwardly of splits 38d are continuous with gripping elements 38b and may be deflected radially outwardly as shown in Fig. 1 to grip a large bottle neck without spreading the radially inner portions of spacer elements 38a on which shoulders 38c and catch means 44 are formed.

The above description of the cork extractor illustrated in the drawings has served to highlight the differences between the illustrated cork extractor and the cork extractor shown in Figs. 1-6 of our co-pending Application EP-A-0056011. For the sake of brevity, the common features of these two forms of cork extractor will not be described in this specification in detail, and the reader is therefore directed to the specification of EP-A-0056011 for such additional information.

Likewise, the operation of the present cork extractor to remove a cork from a bottle is substantially identical to that of the aforementioned cork extractor of the co-pending Application EP-A-0056011, and therefore need not be repeated here. However, it will be appreciated

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a plurality of resiliently radially deflectable gripping elements (38d) connected to said guide means (34) and extending below said shoulder (38c) for gripping engagement with said bottle (40); and

abutment means (30) carried by said corkscrew (28) for limiting downward movement of said corkscrew (28) with respect to said guide means (34);

characterized in that said gripping elements (38b) are resiliently radially deflectable with respect to said stop shoulder (38c) whereby the portions of the gripping elements (38b) immediately adjacent said stop shoulder (38c) may move radially outwardly without corresponding movement of said stop shoulder (38c).

2. The apparatus of Claim 1, wherein said corkscrew (28) is of a length such that, when said abutment means (30) is engaged to so limit downward movement of said corkscrew (28), said corkscrew (28) extends into said cork receiving opening (42) whereby said cork (46) may move

threadedly upwardly on said corkscrew (28) as said corkscrew (28) is rotated to withdraw said cork (46) from said bottle (40).

3. The apparatus of Claim 2, including a plurality of legs (38) extending downwardly from said guide means (34), the upper portions (38a) of said legs comprising said spacer means and the lower portions (38b) of said legs comprising said gripping elements, each of said legs (38) having a longitudinal split (38d) extending upwardly from said stop shoulder (38c), whereby the radially outer portion of the legs (38) can be deflected radially outwardly adjacent said split (38d) while the radially inner portion of the legs (38) above said stop shoulder (38c) remains in an undeflected position.

4. The apparatus of any preceding claim, and further comprising catch means (44) adjacent said spacer means (38a) in said opening (42) engageable with said cork (46) as it emerges from said bottle (40) to prevent rotation of said cork.

5. The apparatus of Claim 4, wherein said catch means (44) define catch surfaces (44b, 44c) positioned in the path of travel of said cork (46) as it emerges from said bottle (40) and embeddable in said cork.

6. The apparatus of Claim 5, wherein said catch means (44) project generally radially into the path of travel of said cork (46) for engagement with the sides of said cork.

7. The apparatus of Claim 6, wherein said catch surfaces (44b, 44c) include at least two relatively sharp edges (44a) extending generally longitudinally along the sides of said opening.

8. The apparatus of Claim 7, wherein said edges (44a) extend along the upper portion of said opening (42) and terminate a substantial distance from the lower extremity of said opening (42).

9. The apparatus of Claim 8, wherein said catch means comprise two flanges projecting generally radially inwardly from said spacer means (38a) and terminating in said sharp edges (44a).

Patentansprüche

1. Vorrichtung zum Herausziehen eines Korkens aus einer Flasche mit einer Wendel (28),

einer Führung (34), die die Wendel (28) aufnimmt und deren Längs- und Drehbewegung erlaubt,

einer Abstandshalteeinrichtung (38a), die mit der Führung (34) verbunden ist und eine Aufsetzschulter (38c) bildet, die von der Führung (34) beabstandet ist und auf die Flasche (40) aufsetzen kann, um eine Abwärtsbewegung der Führung (34) bezüglich der Flasche (40) zu begrenzen und die Führung (34) über der Flasche auf Abstand zu halten, wobei die Abstandshalteeinrichtung (38a) weiterhin eine Öffnung (42) umgreift, die den Korken (48) beim Verlassen der Flasche aufnimmt,

eine Vielzahl von elastisch radial auslenkbaren Greifelementen (38d), die mit der Führung (34) verbunden sind und unter der Schulter (38c)

abwärts abstehen, um sich greifend an die Flasche (40) anzulegen, und

einer Anschlagseinrichtung (30) auf der Wendel (28), die die Abwärtsbewegung der Wendel (28) bezüglich der Führung (34) begrenzt,

dadurch gekennzeichnet, daß die Greifelemente (38c) von der Aufsetzschulter (38c) hinweg elastisch radial auslenkbar sind, so daß die unmittelbar an der Aufsetzschulter (38c) liegenden Teile der Greifelemente (38b) sich ohne eine entsprechende Bewegung der Aufsetzschulter (38c) radial auswärts bewegen können.

2. Vorrichtung nach Anspruch 1, bei der die Wendel (28) so lang ist, daß, wenn die Anschlagseinrichtung (30) aufliegt und so die Abwärtsbewegung der Wendel (28) begrenzt, letztere in die Korkenaufnahmeöffnung (42) hineinverläuft, so daß der Korken (46) gewindemäßig auf der Wendel (28) emporsteigen kann, während sie gedreht wird, um den Korken (46) aus der Flasche (40) herauszuziehen.

3. Vorrichtung nach Anspruch 2 mit einer Vielzahl von Schenkeln (38), die von der Führung (34) abwärts vorstehen, wobei die oberen Teile (38a) der Schenkel die Abstandshalter und die unteren Teile (3b) der Schenkel die Greifelemente aufweisen und jeder der Schenkel (38) einen längsverlaufenden Spalt (38d) enthält, die von der Aufsetzschulter (38c) aus aufwärts verläuft, so daß die radial äußeren Teile der Schenkel (38) sich am Spalt (38d) radial auswärts auslenken lassen, während der radial innere Teil der Schenkel (38) über der Aufsetzschulter (38c) in einer unausgelenkten Lage verbleiben.

4. Vorrichtung nach einem der vorgehenden Ansprüche weiterhin mit einer an der Abstandshalteeinrichtung (38a) in der Öffnung (42) vorgesehenen Fangeinrichtung (44), die in den Korken (467), während er die Flasche (40) verläßt, eingreifen kann, um seine Drehung zu verhindern.

5. Vorrichtung nach Anspruch 4, bei der die Fangeinrichtung (44) Fangflächen (44b, 44c) aufspannt, die in der Bewegungsbahn des Korkens (46) beim Verlassen der Flasche (40) liegen und in den Korken eindringen können.

6. Vorrichtung nach Anspruch 5, bei der die Fangeinrichtung (44) allgemein radial in die Bewegungsbahn des Korkens (46) hinein vorstehen, um seitlich in diesen eingreifen zu können.

7. Vorrichtung nach Anspruch 6, bei der die Fangflächen (44b, 44c) mindestens zwei verhältnismäßig scharfe Kanten (44a) aufweisen, die allgemein längs entlang den Seiten der Öffnung verlaufen.

8. Vorrichtung nach Anspruch 7, bei der die Kanten (44a) im oberen Teil der Öffnung (42) verlaufen und im Abstand vom unteren Ende der Öffnung (42) enden.

9. Vorrichtung nach Anspruch 8, bei der die Fangeinrichtung zwei Flansche aufweist, die allgemein radial einwärts aus der Abstandshalteeinrichtung (38a) vorstehen und zu scharfen Kanten (44a) auslaufen.



* C L M S *

Revendications

1. Appareil pour extraire un bouchon d'une bouteille comprenant:

une vis (28);

des moyens de guidage (34) recevant ladite vis (28) et permettant un mouvement longitudinal et rotatif de ladite vis (28);

des moyens d'espacement (38a) reliés auxdits moyens de guidage (34) et définissant un épaulement (38c) d'arrêt espacé desdits moyens de guidage (34) et pouvant porter contre ladite bouteille (40) pour limiter le mouvement vers le bas desdits moyens de guidage (34) par rapport à ladite bouteille (40) et espacer lesdits moyens de guidage (34) vers le haut de ladite bouteille, lesdits moyens d'espacement (38a) définissant en outre une ouverture (42) destinée à recevoir ledit bouchon (46) à sa sortie de ladite bouteille;

plusieurs éléments de prise (38d) pouvant fléchir radialement et élastiquement, reliés auxdits moyens de guidage (34) et s'étendant au-dessous dudit épaulement (38c) pour établir une prise avec ladite bouteille (40); et

des moyens de butée (30) portés par ladite vis (28) afin de limiter le mouvement de descente de ladite vis (28) par rapport auxdits moyens de guidage (34);

caractérisé en ce que lesdits éléments de prise (38b) peuvent fléchir radialement et élastiquement par rapport audit épaulement d'arrêt (38c) de façon que les parties des éléments de prise (38b) immédiatement adjacentes audit épaulement d'arrêt (38c) puissent se déplacer radialement vers l'extérieur sans mouvement correspondant dudit épaulement d'arrêt (38c).

2. Appareil selon la revendication 1, dans lequel ladite vis (28) est d'une longueur telle que, lorsque lesdits moyens de butée (30) sont engagés de façon à limiter le mouvement vers le bas de ladite vis (28), ladite vis (28) pénètre dans ladite ouverture (42) de réception du bouchon afin que ledit bouchon (46) puisse monter en se vissant sur ladite vis (28) pendant que ladite vis (28) est tournée pour retirer ledit bouchon (46) de ladite bouteille (40).

3. Appareil selon la revendication 2, compre-

nant plusieurs pattes (38) partant vers le bas desdits moyens de guidage (34), les tronçons supérieurs (38a) desdites pattes comprenant lesdits moyens d'espacement et les tronçons inférieurs (38b) desdites pattes comprenant lesdits éléments de prise, chacune desdites pattes (38) présentant une fente longitudinale (38d) s'élevant dudit épaulement d'arrêt (38c) de manière que la partie radialement extérieure des pattes (38) puisse être fléchie radialement vers l'extérieur à proximité immédiate de ladite fente (38d) tandis que la partie radialement intérieure des pattes (38), au-dessus dudit épaulement d'arrêt (38c), reste dans une position non fléchie.

4. Appareil selon l'une quelconque des revendications précédentes, comprenant en outre des moyens d'accrochage (44) adjacents auxdits moyens d'espacement (38a) dans ladite ouverture (42) et pouvant entrer en prise avec ledit bouchon (46) à sa sortie de ladite bouteille (40) afin d'empêcher la rotation dudit bouchon.

5. Appareil selon la revendication 4, dans lequel lesdits moyens d'accrochage (44) définissent des surfaces d'accrochage (44b, 44c) positionnées sur le trajet du déplacement dudit bouchon (46) à sa sortie de ladite bouteille (40) et pouvant s'encaster dans ledit bouchon.

6. Appareil selon la revendication 5, dans lequel lesdits moyens d'accrochage (44) font saillie globalement radialement sur le trajet du mouvement dudit bouchon (46) afin d'entrer en prise avec les côtés dudit bouchon.

7. Appareil selon la revendication 6, dans lequel lesdites surfaces d'accrochage (44b, 44c) présentent au moins deux bords relativement vifs (44a) s'étendant globalement longitudinalement le long des côtés de ladite ouverture.

8. Appareil selon la revendication 7, dans lequel lesdits bords (44a) s'étendent le long de la partie supérieure de ladite ouverture (42) et aboutissent à une certaine distance de l'extrémité inférieure de ladite ouverture (42).

9. Appareil selon la revendication 8, dans lequel lesdits moyens d'accrochage comprennent deux rebords faisant saillie globalement radialement vers l'intérieur desdits moyens d'espacement (38a) et aboutissant auxdits bords vifs (44a).



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