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(54) Foldable corkscrew

(57) Corkscrew comprising a basic body (1) apt to be seized by one hand, and a worm (2) intended to be screwed down into a cork (T) which closes the mouth of a bottle (B), the said worm being rotatively mounted on the body (1) via a corresponding hinge (20): the corkscrew is provided with an arm (4) one end (41) of which is to be put, in use, onto the mouth of the bottle (B) at a point between the worm (2) and a point on said body (1) upon which a downward thrust (S) is exerted by the hand seizing it: said arm (4) being connected to said body (1) via a hinge (40) having axis orthogonal to the direction of development of the same body (1). (Fig. 7E).

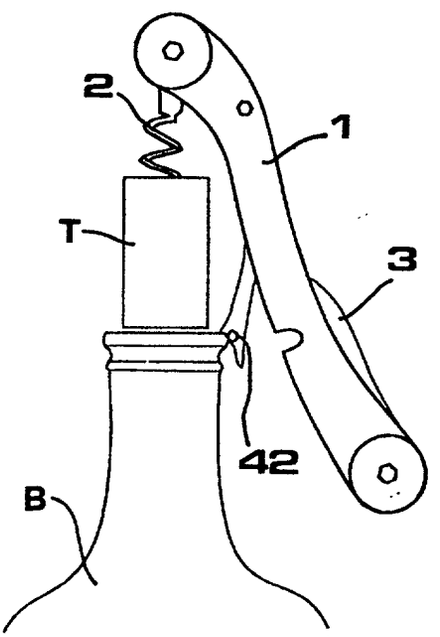

Fig. 7E

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Description

[0001] The present invention refers to a foldable corkscrew.

[0002] A model of foldable corkscrew is known which entails, subsequently to the screwing of the worm (or spiral) down into the cork to be extracted, the application of an upwardly directed extraction force onto its handle. This operation, preceded by the positioning of the free end of a rotating arm onto the mouth of the bottle on the side opposite to the worm and to the point of application of the force on the corkscrew's body, implies having to retain quite stably the bottle by one hand while the other lifts up the corkscrew in order to prevent the bottle from being subjected to an excessive shaking upon the removal of the cork with a risk of accidental leak of its content. Besides, in order to avoid the above risk, it is necessary to gradually exert the cork's extraction force near the end of the operation, which requires some ability by those using this kind of corkscrew.

[0003] The main object of the present invention is to overcome the above drawbacks.

[0004] This result has been achieved, according to the invention, by providing a corkscrew having the characteristics indicated in claim 1. Further characteristics of the present invention being set forth in the dependent claims.

[0005] The present invention makes it possible to pull out the cork by a smoother and more gradual manoeuvre, with less force, without shaking the bottle and with no risk of unintentionally dropping the bottle's content.

[0006] Moreover, a corkscrew according to the invention is of reduced dimensions, allowing it to be put safely inside a waistcoat's pocket, is simple to make, cost-effective and reliable even after a prolonged service life, and can be used by anybody, included those, like elderly people, who suffer from pathologies which limit their movements.

[0007] These and other advantages and characteristics of the invention will be best understood from a reading of the following description in conjunction with the attached drawings given as a practical exemplification of the invention, but not to be considered in a limitative sense, wherein:

- Fig. 1 is a side view of a corkscrew according to a possible embodiment of the present invention;
- Fig. 2 is a see-through view of the corkscrew of Fig. 1;
- Fig. 3 is a view from "A" of the corkscrew of Fig. 1;
- Fig. 4 is a view from "B" of the corkscrew of Fig. 1;
- Fig. 5 shows the corkscrew of the preceding figures, with the capsule-cutting blade being extracted;
- Fig. 6 shows the corkscrew with the worm being extracted;
- Figs. 7A-7E show the steps of extracting the cork by the corkscrew of the preceding figures.

[0008] Reduced to its basic structure, and reference being made to the figures of the attached drawings, a corkscrew according to the invention comprises a basic body 1, which acts also as a handle, a metal worm 2 intended to be screwed down into the cork to be extracted, and a blade 3 for cutting the capsules normally provided as a seal for the corks. In the exemplary embodiment shown in the drawings, the worm 2 and the blade 3 are at the two opposite ends of body 1. Both the worm 2 and blade 3 are rotatively mounted by corresponding hinges 20, 30 having axis transverse to the longitudinal development of the body 1 to allow the rotation thereof from and to the same body, that is, to allow the positioning thereof in a condition of use or, respectively, of rest or closing. Moreover, the tail end of blade 3, that is, the end hinged to the body 1, is provided with a semicircular slot 31 inside which a pin 10 is positioned solid to an inner face of body 1 and which acts as a limit stop for the blade 3 both upon opening and closing thereof. With reference to the exemplary embodiment shown in the attached drawings, the worm 2 is rotated in anticlockwise direction to dispose it in operating condition, while the blade 3 is rotated in clockwise direction to expose its cutting edge 32 which, when the blade is closed, results disposed within a corresponding space inside the body 1.

[0009] Advantageously, a corkscrew according to the invention comprises an arm 4 engaged with the body 1 by a hinge 40 having axis parallel to that of hinge 20 connecting the worm 2 to the body 1 and whose free end 41 is intended for resting onto the mouth of the bottle to be uncorked. The hinge 40 is located at a preset distance "d" from that (20) of worm 2, such distance being advantageously less than half the distance "d'" between the said hinges 20 and 30, that is, less than the length of body 1.

[0010] The body 1 and arm 4 may be advantageously shaped so that the arm 4, in rest position, results housed within a corresponding cavity of body 1, except for its back or outer side 43 which, in such condition, projects from the body 1 and can thus be rotated downwards by the simple pressure of a finger and, thereby, be extracted at least partially from the outline of body 1.

Moreover, advantageously, the free end 41 of arm 41 has a profile substantially concave to accommodate the convex profile usually exhibited by the bottles' mouth, and is provided with an arcuate transverse appendix 42. The arc 42 acts as a limit stop for the rotation of the arm 4 upon closing, thereby forming a stop means against a striker delimited by a corresponding recess 11 of body 1. In addition, the arc 42 allows a more stable support for the arm 4 onto the mouth of the bottle to be uncorked.

[0011] Also advantageously, provision is made for said body 1 to be made of two elements 1a, 1b equal and parallel to each other, and connected by dismountable trasverse through-elements 12 which act as spacers for said elements 1a, 1b so that the latter will delimit the spaces for housing the cutting edge 32 of blade 3,

the arm 4 and the anchoring portion 21 of worm 2.
The use of dismountable through-elements 12 allows easily separating the two elements 1a, 1b of body 1 to remove and replace the pieces (2, 3, 4) in case of rupture of the latter.

[0012] A corkscrew according to the invention may be used as follows.
Once the capsule possibly disposed as a seal of cork T is cut out by using the blade 3, the same blade is placed back in rest position and the worm is extracted by rotating it downwards (arrow "F" in Fig. 6). Afterwards, by seizing the body 1 of the corkscrew by one hand and keeping the bottle B steady by the other hand, the worm 2 is screwed down into the cork T as shown in Fig. 7A. Following this, the arm 4 is rotated downwards (arrow "G" in Fig. 7B) until its end 41 with arc 42 is disposed onto the mouth of the bottle B, as shown in Fig. 7C. At this point, with the hand which seizes the body 1 a thrust "S" is exerted downwards. This action, owing to the constraint formed by the arm 4 resting onto the mouth of bottle B between the worm 2 and the point of application of thrust "S" onto the seized part of body 1, will cause the rotation of the latter about the axis of hinge 40 and, accordingly, the lifting of worm 2 along with the cork T as far as the full extraction of the latter.

[0013] The present corkscrew makes it possible, therefore, to extract the cork by exerting a downward directed thrust by the hand which seizes the body 1, in an easier and safer way with respect to the corkscrews which require, instead, the application of a manual pull force.

Claims

1. Corkscrew comprising a basic body (1) apt to be seized by one hand, and a worm (2) to be screwed down into a cork (T) which closes the mouth of a bottle (B), the said worm being rotatively mounted on the body (1) via a corresponding hinge (20), **characterized in that** it is provided with an arm (4) one end (41) of which is to be put, in use, onto the mouth of the bottle (B) at a point between the worm (2) and a point on said body (1) upon which a downward thrust (S) is exerted by the hand seizing it: said arm (4) being connected to said body (1) via a hinge (40) having axis orthogonal to the direction of development of the same body (1).

2. Corkscrew according to claim 1, **characterized in that** the said body (1) is made up of two elements (1a, 1b) connected to each other by dismountable spacers (12).

3. Corkscrew according to claim 1, **characterized in that** the end (41) of the arm (4), intended for resting on the mouth of the bottle to be uncorked, ha a substantially concave profile.

4. Corkscrew according to claim 1, **characterized in that** the back (43) of said arm (4) projects from the outline of body (1) when in closed or inoperative condition.

5. Corkscrew according to claim 1, **characterized in that** the free end (41) of said arm (4) is provided with an arcuate transverse appendix (42).

6. Corkscrew according to claim 1, **characterized in that** it is provided with an extractable blade (3).

7. Corkscrew according to claim 1, **characterized in that** the distance (d) between the hinge (40) of said arm (4) and that (20) of said worm (2) is less than half the length of body (1).

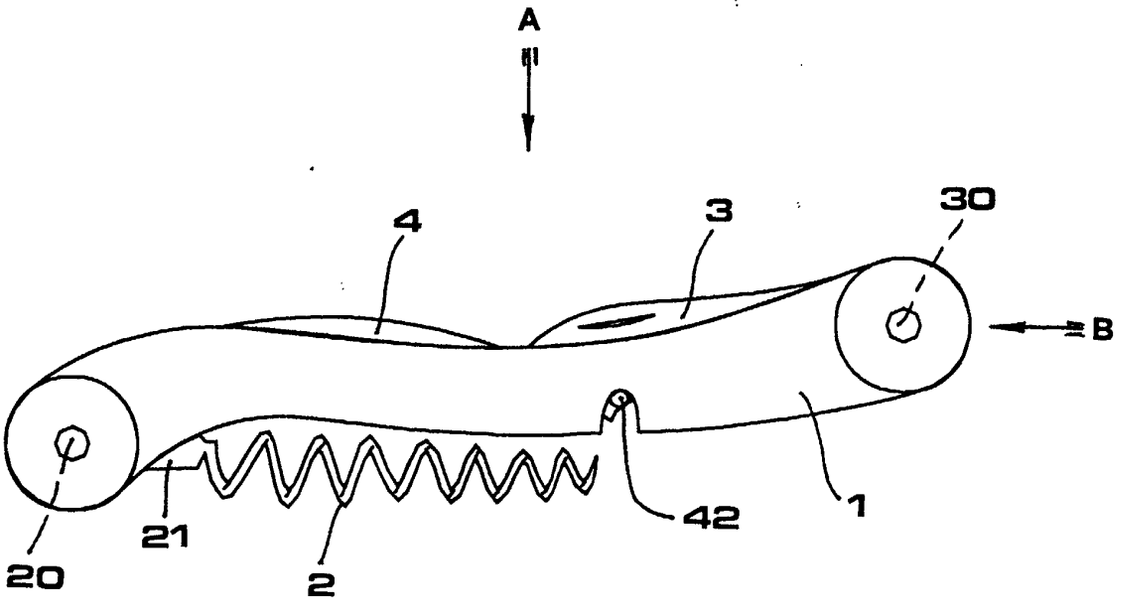

Fig. 1

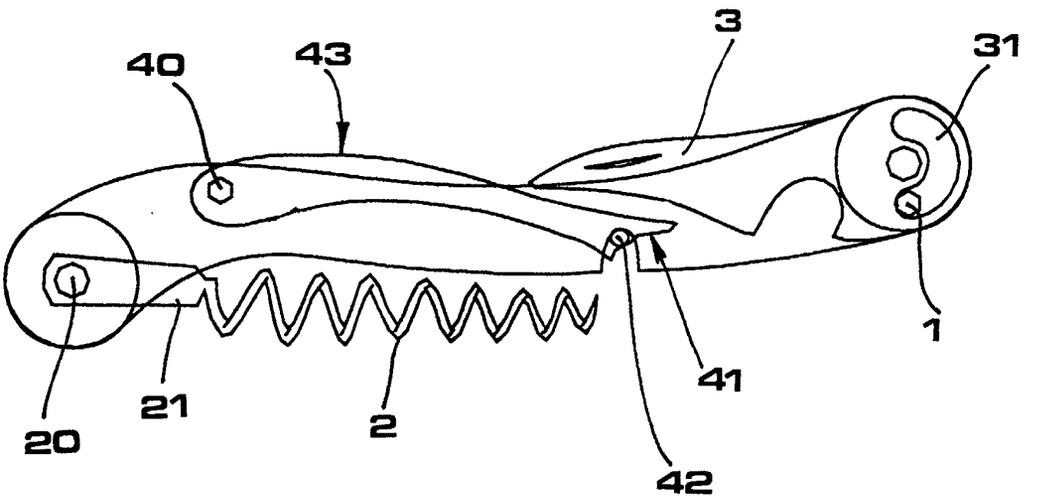

Fig. 2

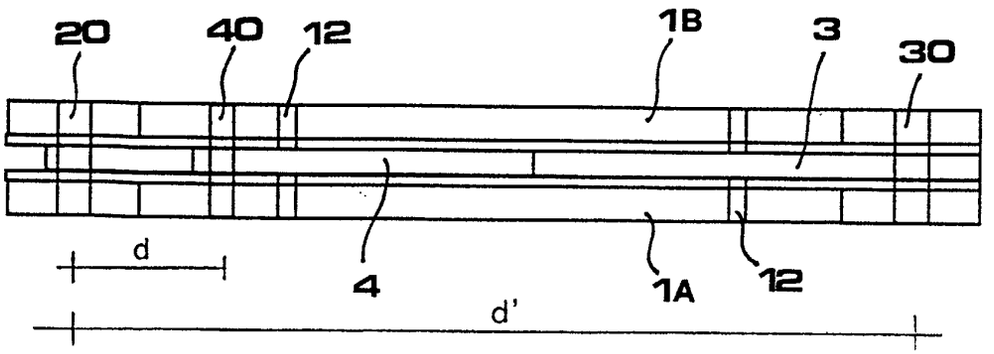

Fig. 3

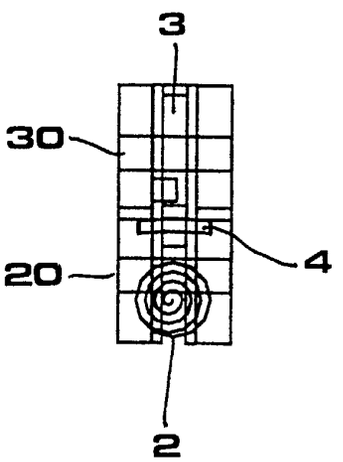

Fig. 4

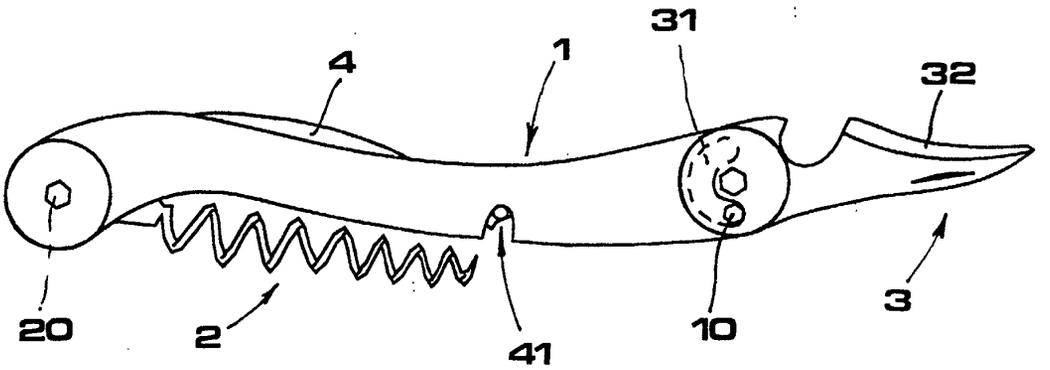

Fig. 5

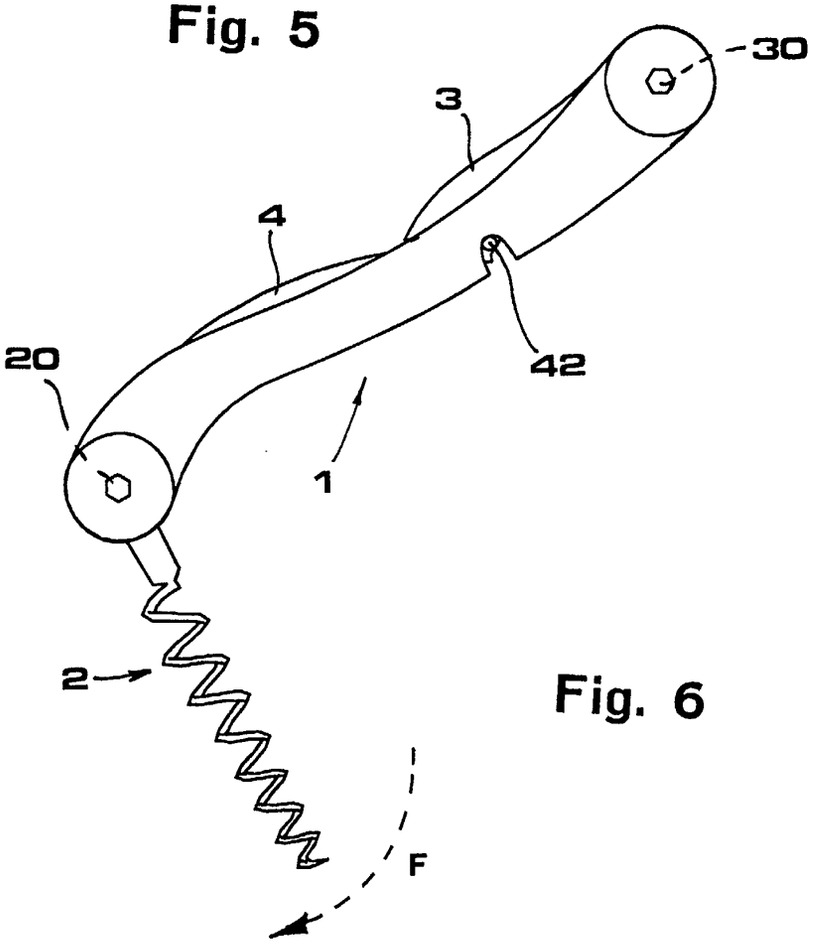

Fig. 6

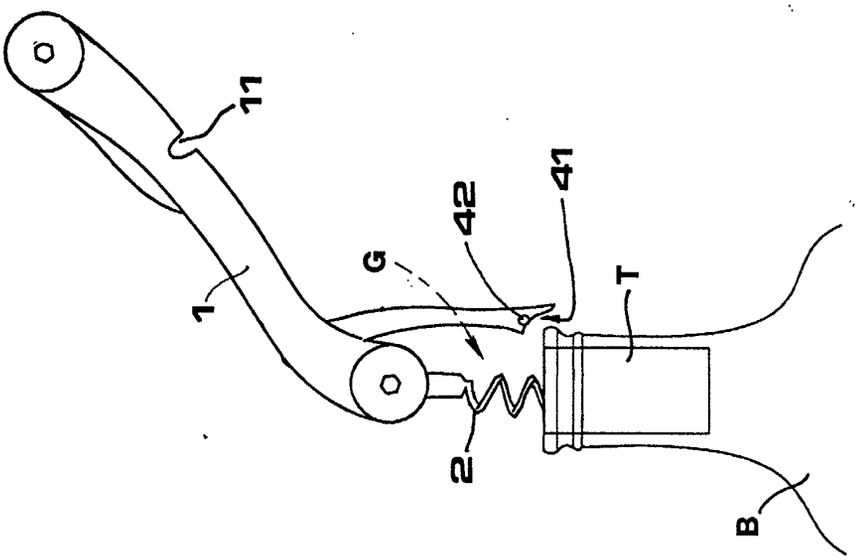

Fig. 7B

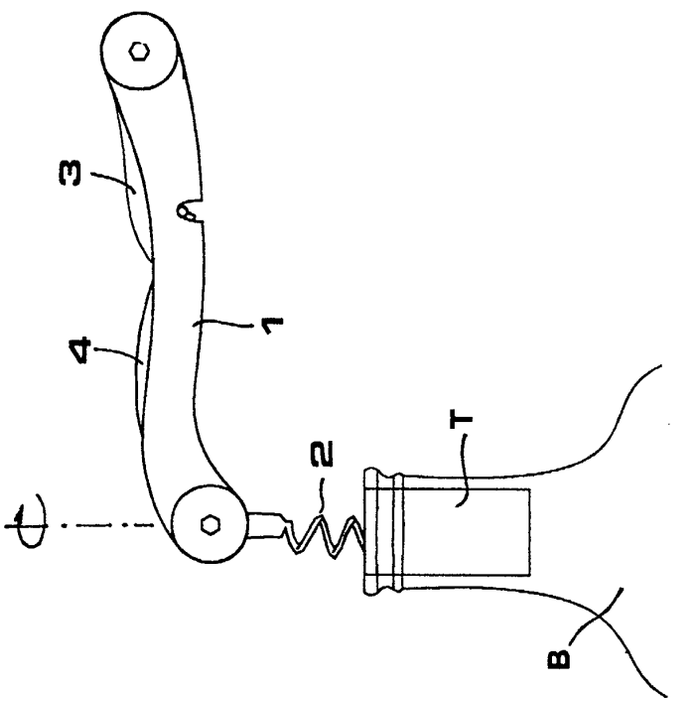

Fig. 7A

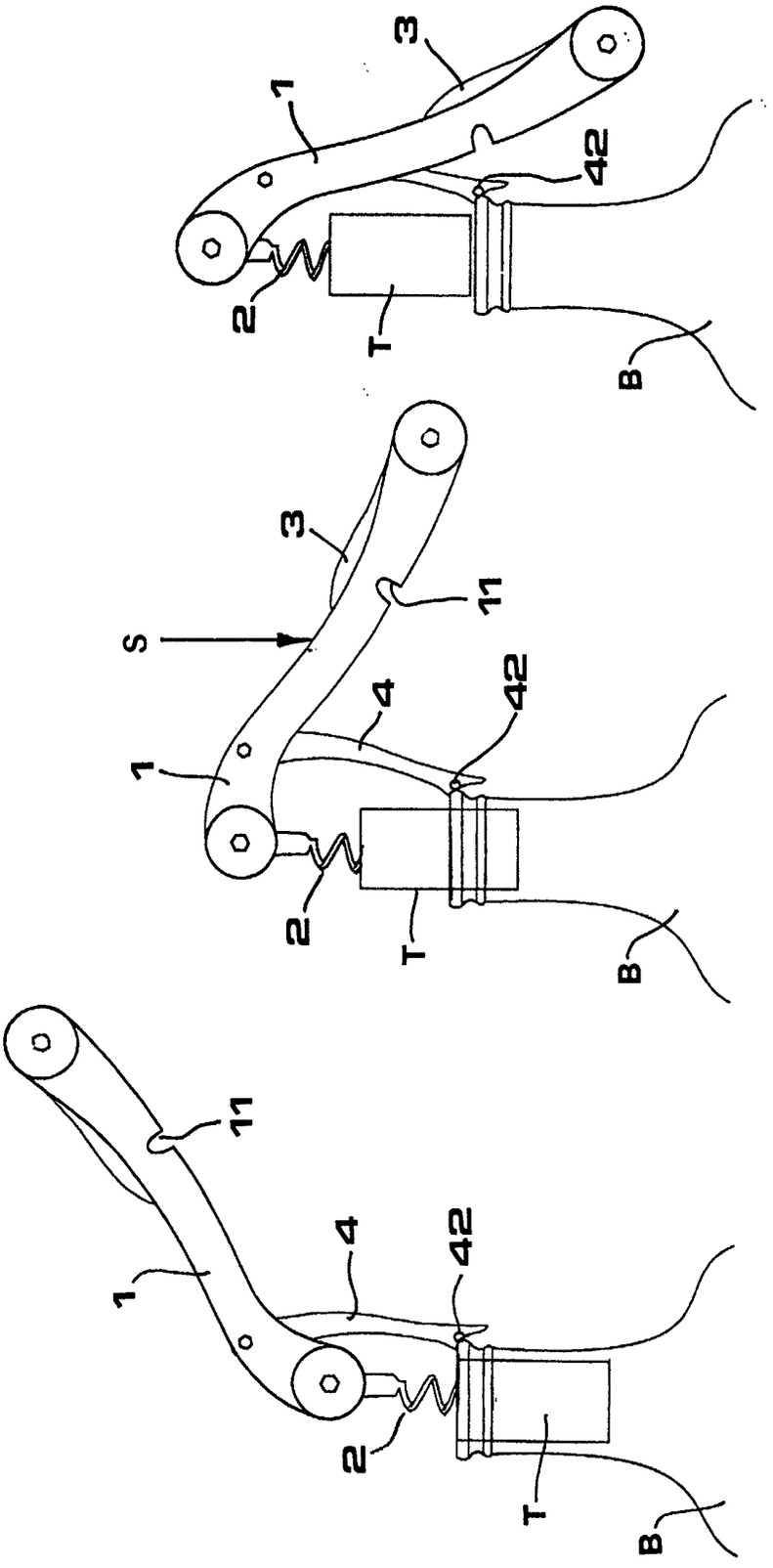

Fig. 7E

Fig. 7D

Fig. 7C

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EUROPEAN SEARCH REPORT

Application Number
EP 02 42 5385

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	10 September 2002	Smolders, R

CATEGORY OF CITED DOCUMENTS

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