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GB-A- 2 127 795

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Description

Purpose of the Invention

[0001] This invention refers to an improved spiral for corkscrews contributing novel characteristics and important advantages with respect to devices known and used in the current state of the art.

[0002] More specifically, the invention proposes the development of a spiral component applicable to any kind of corkscrew known for its use to remove corks from bottles, the characteristics of this spiral component corresponding to those of any known, regarding shape, material used in their manufacture and finish and by which a component is provided which is easily introduced into the cork of a bottle, by simple friction, and the removal thereof may be performed smoothly and without effort, thanks to a ball-bearing in the upper part of the spiral.

[0003] The field of application of this invention is obviously included in the industry dedicated to the manufacture and marketing of corkscrews of any kind.

Background and Summary of the Invention

[0004] Many models of corkscrew are known in the market, intended to simplify the removal of corks used to close bottles of wine or similar fluids. Such corkscrews are known for example from GB-A-2 127 795, corresponding to the features in the preamble of the appended claim.

[0005] Generally, all these corkscrews, whether manual, portable, wall, traditional or of the mechanism type, etc, have the common characteristic of incorporating a spiral component of a predetermined length to remove corks and which normally finish in a sharp tip to facilitate the screwing and introduction operations. Said tip is rotated with respect to the rest of the corkscrew in which it is incorporated, both during the introduction and removal operations. As a result, for such operations to be performed easily and comfortably, in practice it is desirable that the mentioned relative movement of the spiral is made as smoothly as possible.

[0006] However, frequently the latter is not as simple as desired and the spiral is submitted to incorrect operations, as a result of jamming, wear, etc.

[0007] Therefore, the invention proposes as a basic purpose, the provision of a spiral solving the problems of the previous state of the art, by providing minimum friction when performing the relative rotational movement during the penetration movement in a cork, as well as total smoothness and negligible effort when removing a cork.

[0008] For the latter, the spiral component has been equipped with a suitable ball-bearing, by which said rotational movement is produced. This bearing is fixed to the upper part of the spiral for which an initial part thereof has been suitably shaped, to permit that the retention between both components may be carried out by using means such as a rivet or similar.

[0009] As will be understood, the bearing permits that the relative movement of the spiral around its longitudinal axis is performed uniformly, absolutely smoothly, and practically without effort, hence extending the useful life of the mechanism.

Brief Description of the Drawings

[0010] These and other characteristics of the invention are shown by means of the following detailed description of a preferable execution, taken as an illustrative and non-limiting example, with reference to the attached drawings, where:

Figure 1 shows a perspective view of a breakdown of a spiral according to the invention, where different components thereof are seen and,

Figure 2 also shows a perspective view of the spiral of figure 1, once assembled.

Description of a Preferable Execution of the Invention

[0011] To make a detailed description of this invention, reference will be made to the figures of the attached drawings, by which an illustrative example of the preferable execution is made and in which the spiral of the invention may be observed in its broken-down state, showing the different components integrating it and in its assembled state, that is, ready for its installation in a corkscrew. Firstly, if we consider Figure 1, it is seen that the components involved in the construction of the spiral component consist of a body (1) or spiral, a bearing (2), with predetermined formal and structural characteristics and a relative fastening device (3) between the body (1) and the bearing (2) and which will preferably consist of a suitable rivet or similar. According to figure 1, the body (1) may be constructed with any shape, size, number of turns or final characteristics desired, since none of the latter intervene (nor represent an obstacle) in the materialization of the invention. However, and according to the invention, the body (1) includes in its upper part, an initial section (1a), specially shaped, with no substantial separation between its turns, to supply an area with the structural resistance necessary for the secure fastening of the bearing (2). This fastening is performed by leaning the respective face of the bearing (2) against the corresponding free end of the spiral, that is, the free end of the part (1a), and with the use of a rivet or similar device (3), which is made to pass through the axial hole of the bearing (2) in its position of alignment with the axial passage provided by the part (1a) formed by adjacent turns substantially without separation between two successive turns) and of an approximately equivalent diameter. The riveting operation permits the formation of a strong interlocking union between both the spiral
(1) and the bearing (2), the rivet (3) being extended between the upper external part of the bearing (2) and the lower end of the mentioned part (1a). As will be understood, the relative rotational movement of the spiral body (1) is now facilitated, as no friction exists with any of the corkscrew parts in which it is fitted.

[0012] It is not considered necessary to extend the contents of this description any further for an expert in the matter to be able to understand its scope and advantages.

[0013] Nevertheless, and given that the execution described only corresponds to an example of use, it is clear that variations may be introduced, within the subject matter of the appended claim. Such modifications include shape, size and/or the materials used to manufacture the assembly or its parts.

Claims

1. Spiral member for assembly into a corkscrew, said spiral member comprising a spiral body (1) having a first spiral portion constituting a spiral screw terminating in a point at one end of said spiral member for introduction into a cork closing a bottle, and having a second spiral portion (1a) at the opposite of said spiral member end, said second spiral portion (1a) comprising several turns, arranged without gap to abut one another and being a equal diameter to the turns of said first spiral portion, said spiral member including a ball bearing (2) surrounding an axial passage, characterised in that the spiral member comprises rivet means, said ball bearing (2) and said second spiral portion (1a) each having a corresponding axial passage, such that the rivet means extends through the axial passage of the ball bearing and is interlocked in the corresponding axial passage of said second spiral portion (1a), thus attaching the ball bearing to the spiral body.

Patentansprüche

1. Spiralbauteil für den Einbau in einem Korkenzieher, der einen spiralförmigen Körper (1) aufweist, der einen ersten spiralförmigen ein spiralförmiges Gewinde bildenden Teil aufweist, der an einem Ende dieses Spiralbauteiles mit einer Spitze für die Einführung in den Verschlusskorken einer Flasche endet, und der einen zweiten im entgegengesetzten Ende des Spiralbauteiles vorhandenen Spiralteil (1a) aufweist, der mehrere ohne Abstand voneinander angeordnete Wendungen mit einem Durchmesser wie der der Wendungen des ersten spiral-förmigen Teiles aufweist, wobei der Spiralbauteil ein Kugellager (2) einschließt, das eine Achstel lung umschliesst, dadurch gekennzeichnet, dass der Spiralbauteil ein Nietmittel, und jedes der be-