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DRINKING CUP FOR BEVERAGE CONSUMPTION, AND USE FOR TASTING CHAMPAGNE

5 The invention generally relates to the field of accessories for consumption of beverages, and in particular of sparkling wines and champagne.

More precisely, the invention relates to a drinking cup that allows a beverage to be consumed directly from a container holding it, this cup being intended to be fitted in a removable manner on said container, and forming a hollow body penetrated by a beverage inlet centered on an axis, an air inlet, and a mouth opening,
10 this hollow body having a wall with an annular cross section surrounding the axis and a closing wall, connected to the wall with annular cross section obliquely with respect to the axis, the air inlet and the mouth opening being respectively relatively near and relatively far from the beverage inlet in an axial direction, and one or both of the air inlet and the mouth opening being contiguous to the wall to annular cross
15 section and to the closing wall.

A drinking cup of this type is described, for example, in the patent document US 4 574 970.

More generally, numerous types of end fittings intended to facilitate beverage consumption are known, as evidenced in particular by the patent
20 documents FR-2 222 976, CH-649 511, DE-U-299 17 965, DE-30 17 789, US-3 085 710, FR-2 657 846, GB-505 207 and DE-26 41 874.

Two specific problems arise in the design of such end fittings when they are intended to allow one to taste sparkling wines or champagne directly from a container such as a bottle, that is to say, without the use of a glass.

25 The first problem relates to the regulation of the known phenomenon, in the case of champagne, of considerable foam formation produced by the more or less abrupt manipulation of the bottle.

In effect, after opening a bottle, the champagne contained therein, because of the decompression it undergoes, can spontaneously form more or less abundant
30 foam, in particular in the event of impact, and can thus produce an overflow of the liquid out of the bottle.

It is therefore necessary to control this overflow in order to make possible consumption of the sparkling beverage, such as a sparkling wine or champagne, directly from the container holding it, in particular a bottle, without risk to the
35 consumer or to those around him of being sprayed with it.



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The second problem relates to the quality of the taste of the beverage, and in particular of the champagne, in spite of the absence of a glass.

In effect, under conventional tasting conditions, not only does the act of pouring the champagne into a glass release a part of its gaseous charge, but also the
5 glass offers the champagne contained in it an open and relatively large volume that fosters regulation of the loss of gas.

In the case in which champagne is drunk directly from the bottle, it is therefore also necessary to control the formation of foam, generated in particular by the inclination of the bottle, in order to allow its contents to be consumed under
10 satisfactory conditions from the tasting standpoint.

In this context, the invention aims to propose a drinking cup that is particularly well suited to consumption of a sparkling beverage, particularly sparkling wine or champagne, and which meets the requirements mentioned in the preceding.

For this purpose, the drinking cup of the invention, otherwise in accordance with the generic definition given for it in the preamble above, is essentially characterized by the fact that the wall with annular cross section is a wall of revolution flaring out at a distance from the beverage inlet, and by the fact that a mid-plane joining the air inlet to the mouth opening forms an angle with the axis that
15 is at most 60 degrees.

Preferably, the air inlet and the mouth opening are both contiguous to the wall to annular cross section and to the closing wall.

The air inlet and/or the mouth opening can each be formed by a slat made in the closing wall, this slat advantageously being curved and having a concavity
25 facing away from the axis.

In order to increase the effectiveness of control of the spray, the angle formed by the mid-plane joining the air inlet with the mouth opening is preferably between 30 and 60 degrees, and is preferably 50 degrees.

Furthermore, the wall with annular cross section advantageously has a flaring
30 out that decreases with increasing distance from the beverage inlet, with it being possible for this flaring out to be followed by a narrowing to form a basin in the wall capable of collecting a certain volume of beverage.

The drinking cup of the invention is advantageously produced at least partially out of a flexible material, which can be fitted tightly on the container.

The drinking cup of the invention is ideally applicable to tasting a bottled beverage, in particular champagne, with the beverage inlet of the cup being fitted on the neck of the bottle.

Other characteristics and advantages of the invention will emerge clearly from the description of it given in the following, in an indicative and non-limiting way, with reference to the appended drawings in which:

- Figure 1 is a view in median axial section of a drinking cup according to a first embodiment of the invention, this section being along I-I of Figure 2, and with the cup being represented after having been fitted on a bottle;
- Figure 2 is an external front view of the cup illustrated in Figure 1;
- Figure 3 is an external side view of the cup illustrated in Figures 1 and 2;
- Figure 4 is a top view of the cup illustrated in Figure 1, this cup being observed perpendicularly to the mid-plane P marked in Figure 1;
- Figure 5 is a view similar to Figure 2, illustrating a drinking cup according to a second embodiment of the invention;
- Figure 6 is a view in median axial section of the cup illustrated in Figure 5, this section being along VI-VI of Figure 5, and with the cup being represented after having been fitted on a bottle;
- Figure 7 is a view in axial section of a cup produced from a flexible material, and which is represented in the process of being used.

As stated in the preceding, the drinking cup of the invention is intended to be fitted in a removable manner on bottle B containing a beverage to be consumed, such as champagne, in order to allow this beverage to be consumed without a glass, in a controlled manner.

As shown particularly in Figures 1 and 6, this cup 1 takes the form of a hollow body that is penetrated by beverage inlet 10, air inlet 11, and mouth opening 12 which the consumer places in his mouth.

In use, beverage inlet 10 of the cup is centered on axis of symmetry X of bottle B and of its neck G.

The interior volume of this cup is delimited by wall 2 with annular cross section that surrounds axis X, and by closing wall 3 that, with the exception of air inlet 11 and mouth opening 12, is connected in a sealed manner to wall 2 with annular cross section.

As shown in particular in Figures 1 and 6, closing wall 3 is in fact connected to wall 2 with annular cross section according to an oblique angle of incidence with respect to axis X, so that in the plane of these figures, walls 2 and 3 form between

them, relatively farther from beverage inlet 10 measured along an axial direction D, a relatively closed angle J, and, relatively closer to beverage inlet 10, a relatively open angle K.

5 Air inlet 11 is formed in the zone of connection of walls 2 and 3 where these walls form between them the open angle K, whereas mouth opening 12 is formed in the zone of connection of walls 2 and 3 where these walls form between them the closed angle J.

According to a first essential aspect of the invention, wall 2 with annular cross section is a wall of revolution that flares out some distance from beverage inlet 10, so that the foam formed by the beverage coming out of neck G of bottle B can be spent while spreading out.

According to a second essential aspect of the invention, the mid-plane P (Figure 1) that joins air inlet 11 with mouth opening 12 forms, with axis X, an angle A that is at most 60 degrees, thereby opposing expansion of the foam by the presence of a solid screen that allows it to collapse.

Even more advantageously, the angle A formed by the mid-plane P joining air inlet 11 with mouth opening 12 is between 30 and 60 degrees, and is preferably equal to 50 degrees, this inclined position of plane P promoting collapsing of the foam.

20 In the preferred embodiment of the invention, air inlet 11 and mouth opening 12 are both contiguous to wall 2 with annular cross section and to closing wall 3, each of these openings being formed by a slat made in the edge of closing wall 3.

Furthermore, as shown in Figures 2, 4 and 5, each of the slats thus forming air inlet 11 and mouth opening 12 is curved, and has a concavity facing away from axis X.

As shown furthermore in Figures 1 and 6, closing wall 3 can be at least approximately made up of a portion of a cylinder of large radius and have a slight concavity facing away from beverage inlet 10.

30 The ideal form of the drinking cup is obtained by giving wall 2 with annular cross section, at least locally, a flaring that decreases along the axial direction D (Figures 1, 3 and 6) moving from beverage inlet 10 towards closing wall 3.

In other words, angle C in Figure 3, formed by axis X and tangent T to wall 2 with annular cross section at any point of this wall, becomes smaller as the distance separating this point from beverage inlet 10, measured along axis X, increases.

Angle C, assumed to be oriented, can even become negative close to mouth opening 12, the flaring out of the cup being therefore followed by a narrowing, forming a basin in wall 2 capable of collecting a certain volume of beverage.

5 The drinking cup of the invention can be made up of one or more materials, at least one of which can be a thermoplastic polymer, and can be produced at least partially by molding.

Figures 1 to 6 illustrate in a non-limiting manner the case in which walls 2 and 3 are produced out of a material that is rigid at room temperature.

10 In this case, the cup of the invention preferably has flexible joint 4, for example, made from an elastomeric material, making it possible to fit beverage inlet 10 of the cup tightly on neck G of bottle B.

As shown in Figures 1 and 6, joint 4 can be in the form of a sleeve so as to surround neck G at least partially, and to penetrate partially into wall 2 with annular cross section (Figure 1) or to be arranged in its base 20 (Figures 5 and 6).

15 In the latter case, cut-outs 21 are advantageously provided in base 20 to make elastic deformation of this base and mounting of the cup on neck G possible.

20 However, it is also possible to reduce flexible joint 4 to a single washer resting in a sealed manner on an internal flange such as 22 of wall 2, with it being then possible for the cup to be held on neck G by cut-outs such as 21 made in base 20 of wall 2.

The use of joint 4 can even prove superfluous if the manufacturing tolerances of the bottles used are sufficiently exacting, or if the cup is produced out of a flexible material, for example, out of food-quality polypropylene.

25 Figure 7 illustrates a drinking cup of precisely this type, in the process of being used by a consumer.

As indicated in the preceding, the drinking cup of the invention is ideally applicable to the tasting of a beverage in bottle B, in particular champagne. The explanation is the following.

30 In a first step, the bottle is uncorked normally, and the cup of the invention is attached onto neck G of the bottle. Under normal conditions, there is no untimely production of foam.

35 In a second step, the consumer inclines the whole formed by the bottle and the cup and brings the latter to his mouth at the site of mouth opening 12. At this time, the liquid leaves the bottle and runs over the internal surface of wall 2, and this is also the time during which a large quantity of foam can be produced, which is

capable of filling the interior volume of the device and even escaping of through opening 11 then situated in high position.

The foam that hits the internal surface of wall 3 breaks up, and the liquid that forms runs in the direction of mouth opening 12.

- 5 The foam that possibly escaped through opening 11 falls back and breaks up on the external surface of wall 3, and the liquid which forms runs over this external surface also in the direction of mouth opening 12.

- 10 It should be noted that the device of the invention is particularly suited to tasting champagne and sparkling wines whose pressure (on the order of 2.5 to 5 kg) is much greater than the pressure of other semi-sparkling beverages, such as sodas or beer, which generally does not exceed 1 kg.

Claims

1. A drinking cup which allows a beverage to be consumed directly from a container holding it, this cup (1) being intended to be fitted in a removable manner on said container (B), and forming a hollow body penetrated by beverage inlet (10) centered on axis (X), air inlet (11), and mouth opening (12), this hollow body having wall (2) with annular cross section surrounding axis (X) and closing wall (3) connected to wall (2) with annular cross section obliquely with respect to axis (X) air inlet (11) and mouth opening (12) being respectively relatively near and relatively far from beverage inlet (10) in an axial direction (D) and at least one of air inlet (11) and mouth opening (12) being contiguous to wall (2) with annular cross section and to closing wall (3), characterized by the fact that wall (2) with annular cross section is a wall of revolution which flares out some distance from beverage inlet (10), and by the fact that mid-plane (P) joining air inlet (11) to mouth opening (12) forms with axis (X) an angle (A) which is at most 60 degrees.

2. A drinking cup according to Claim 1, characterized by the fact that air inlet (11) and mouth opening (12) are both contiguous to wall (2) with annular cross section and to closing wall (3).

3. A drinking cup according to either of the preceding claims, characterized by the fact that air inlet (11) is formed by a slit made in closing wall (3).

4. A drinking cup according to Claim 3, characterized by the fact that the slit forming air inlet (11) is curved and has a concavity facing away from axis (X).

5. A drinking cup according to either of the preceding claims, characterized by the fact that mouth opening (12) is formed by a slit made in closing wall (3).

6. A drinking cup according to Claim 5, characterized by the fact that the slit forming mouth opening (12) is curved and has a concavity facing away from axis (X).

7. A drinking cup according to any one of the preceding claims, characterized by the fact that closing wall (3) has a concavity facing away from beverage inlet (10).

8. A drinking cup according to any one of the preceding claims, characterized by the fact that angle (A) formed by mid-plane (P) joining air inlet (11) with mouth opening (12) is between 30 and 60 degrees, and is preferably 50 degrees.

9. A drinking cup according to any one of the preceding claims, characterized by the fact that wall (2) with annular cross section has a flaring out which decreases with increasing distance from beverage inlet (10).

10. A drinking cup according to Claim 9, characterized by the fact that the flaring out of wall (2) with annular cross section is followed by a narrowing.

11. A drinking cup according to any one of the preceding claims, characterized by the fact that it is produced at least partially out of a flexible material, which can be fitted onto container (B) in a sealed manner.

12. Application of the drinking cup according to any one of the preceding claims to the consumption of a beverage in bottle (B), in particular champagne, with beverage inlet (10) fitted onto neck (G) of bottle (B).