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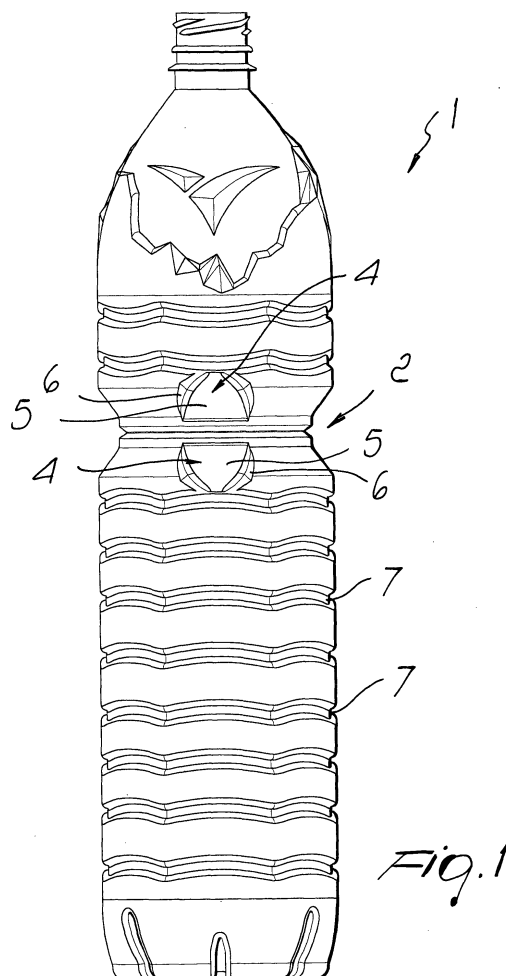
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(54) **Bottle for beverages with ergonomic grip**

(57) A bottle (1) for beverages, comprising a grip region (2), and having the particularity that the grip region comprises at least two recesses (4) formed in diametrically opposite points of the cross-section of the bottle.



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Description

[0001] The present invention relates to a bottle with increased grip ergonomics and structural efficiency, adapted to contain beverages and particularly but not exclusively still water.

[0002] Ordinary bottles for containing beverages, soft drinks and typically water can be manufactured traditionally by using glass or, more advantageously, by using thermoplastic polymeric material; for example, they can be made of PET. These bottles made of thermoplastic polymeric material have several advantages over more conventional glass bottles. These advantages include, for example, reduced fragility and a considerable weight saving. Both advantages lead to significantly easier wholesale and retail transportation and distribution of the product. In order to be at once lightweight and sturdy, these bottles made of thermoplastic polymeric material are formed with very thin walls, which are stiffened by periodic ribs. Such ribs are generally obtained by giving the walls of the bottle a curvature and an opposite curvature having relatively tight radii (on the order of one millimeter). This solution allows to obtain the sought stiffening without having to increase in any section of the bottle the thickness of the wall and therefore its weight.

[0003] Bottles made of thermoplastic polymeric material can be manufactured in the most disparate and characteristic shapes, but it is extremely convenient for them to be producible by means of molding techniques that have a high production rate, such as for example blow-molding technique or the like. For this and other reasons, which substantially relate to ease and optimization of storage, the shapes that are most advantageous, and accordingly are used most commonly, do not stray far from the cylindrical shape having a circular cross-section or from the prism-like shape with a square cross-section having rounded edges.

[0004] Bottles are commonly known which comprise a grip region in a region comprised between the central section and the neck. Such grip region is generally obtained by reducing the transverse cross-section of such region of the bottle, so as to allow the consumer to easily and safely grip the bottle.

[0005] In bottles having a square cross-section, despite the grip region formed by the reduction in the transverse cross-section, the consumer can still perceive the grip as being unsteady. In the case of such a bottle having a square cross-section, in fact, the fingers with which the consumer grips the bottle make contact with substantially flat surfaces. Often this feeling of unsteady grip can be increased by the fact that the outer surface of the bottle can be easily moist or even wet. If the bottle that contains the beverage has been stored in a refrigerator, the moisture of the surrounding environment is in fact likely to condense on it. Other reasons why the outside walls of the bottle can be wet are, for example, accidental spillage of the beverage when it is poured or

any seepage of the beverage through the closure if the closure has not been closed adequately. As a consequence of the unpleasant perception of an unsteady grip, the consumer can be easily induced to tighten the fingers with which he grips the bottle, compressing it and often deforming it.

[0006] The aim of the present invention is to provide a bottle that allows easy and safe grip on the part of the consumer.

[0007] Within this aim, an object of the invention is to provide a bottle that is lightweight and at the same time sturdy.

[0008] Another object of the invention is to allow to provide a bottle highly reliable and having a low cost.

[0009] This aim and these and other objects that will become better apparent hereinafter are achieved by a bottle for beverages, comprising a grip region, characterized in that said grip region comprises at least two recesses formed in diametrically opposite points of the cross-section of said bottle.

[0010] Further characteristics and advantages of the invention will become better apparent from the detailed description of the bottle according to the invention, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

Figure 1 is an elevation view of the bottle according to the invention;

Figure 2 is a detail view of the grip region of the bottle of Figure 1.

[0011] With reference to the figures, the reference numeral 1 generally designates a bottle. The bottle can have a circular or polygonal or other cross-section but preferably has a square cross-section with rounded edges. The walls of the bottle are affected by a plurality of stiffening ribs 7, which can be arranged in any manner but are preferably arranged along lines that are substantially parallel to the bottom of the bottle. The bottle can comprise advantageously a reduction in transverse cross-section that is suitable to form a grip region 2. If it is necessary to stiffen the grip region 2, the reduction in transverse cross-section can be combined with the addition of one or more central reinforcement ribs 3. The grip region 2 in turn comprises, at least in two diametrically opposite points, two recesses 4, which can have a circular, elliptical, polygonal or any other shape suitable to accommodate the fingers. Preferably, such recesses are semicircular and are present on each side of the bottle if the bottle has a polygonal cross-section. The recesses 4 can be arranged directly above or below the central reinforcement rib 3, i.e., where the grip region 2 has its best mechanical strength properties. If the recesses are shaped like a semicircle or similar, they can be arranged advantageously in pairs, the recesses of each pair being separated by the same central reinforcement rib 3 and being therefore arranged respectively above and below the central reinforcement rib 3.

This arrangement allows to accommodate safely and easily the fingers with which the consumer grips the bottle. In detail, each recess 4 comprises a surface 5, which can be concave or preferably flat but must in any case offer a comfortable resting area for the fingers of the consumer. The flat surface 5 is enclosed and delimited by lateral buttresses 6. The lateral buttresses 6 perform several functions. First of all, they offer lateral support for the fingers of the consumer and this makes the grip safer, fully preventing the bottle from slipping even if it is wet. Secondly, the buttresses act in the same manner as the stiffening ribs 7 and thus make the entire grip region 2 more rigid.

[0012] In practice it has been found that the bottle thus described achieves the intended aim and objects, by allowing easy and safe grip on the part of the consumer, said bottle being lightweight, sturdy, inexpensive and highly reliable.

[0013] All the details may be replaced with other technically equivalent elements. In practice, the materials used, as well as the dimensions, may be any according to requirements.

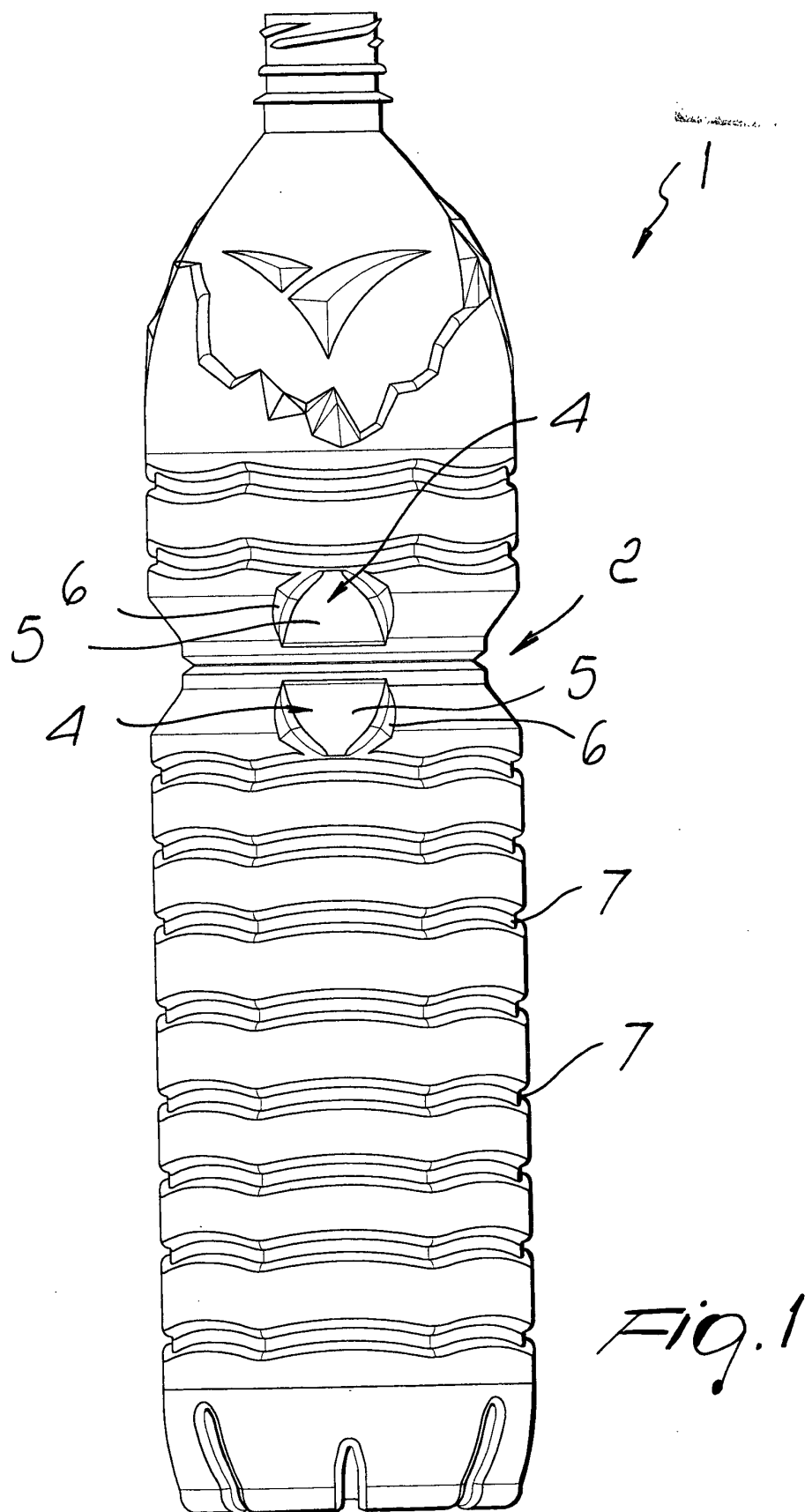
[0014] The disclosures in Italian Utility Model Application No. MI2002U000164 from which this application claims priority are incorporated herein by reference.

[0015] Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. A bottle (1) for beverages, comprising a grip region (2), **characterized in that** said grip region comprises at least two recesses (4) formed in diametrically opposite points of the cross-section of said bottle.
2. The bottle for beverages according to claim 1, **characterized in that** said recesses (4) are semicircular.
3. The bottle for beverages according to claims 1 or 2, **characterized in that** said recesses (4) are formed on every side of the cross-section of the bottle.
4. The bottle for beverages according to the preceding claims, **characterized in that** said recesses (4) are formed above a central rib (3).
5. The bottle for beverages according to claims 1, 2 or 3, **characterized in that** said recesses (4) are formed below a central rib (3).
6. The bottle for beverages according to claim 2, **char-**

acterized in that said recesses (4) are formed symmetrically above and below a central rib (3).



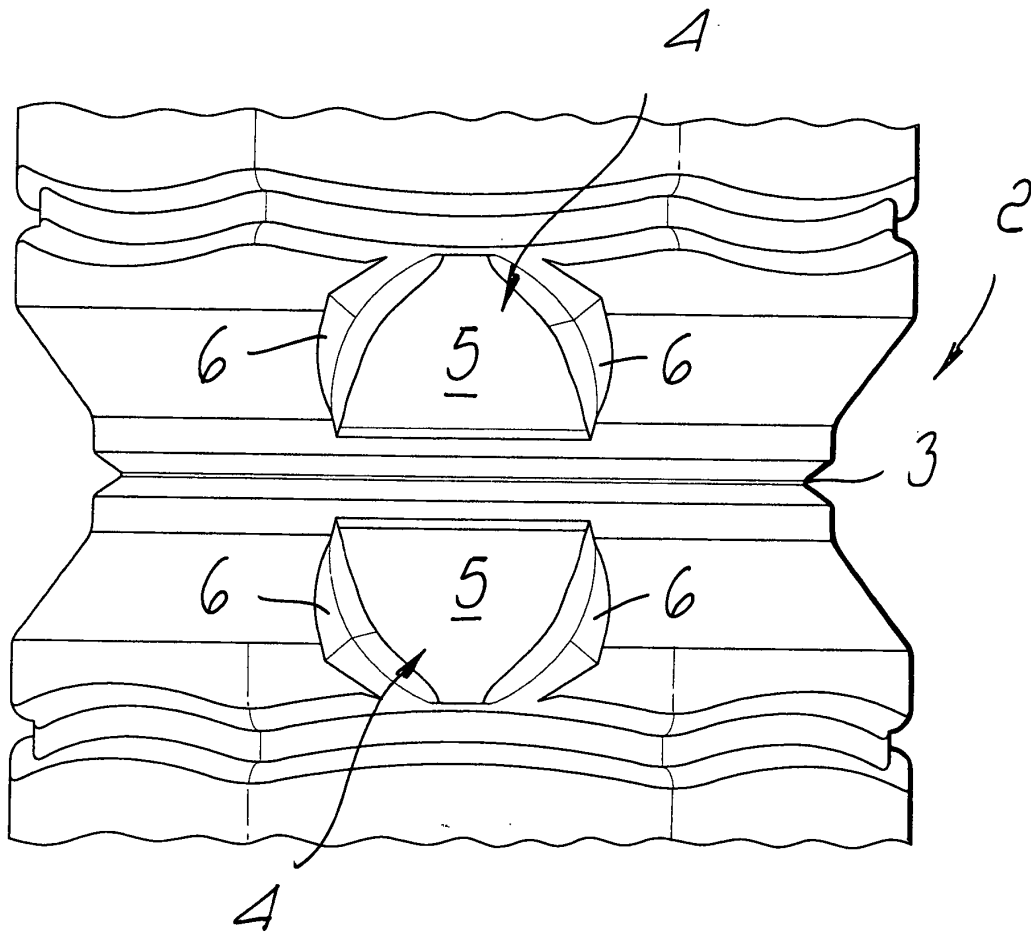


Fig. 2



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EUROPEAN SEARCH REPORT

Application Number
EP 02 02 6377

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X	WO 01 89938 A (JIN JIANSONG) 29 November 2001 (2001-11-29) * abstract; figures 3,4 *	1,2	
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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 14 July 2003	Examiner Galli, M
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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