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- (71) Applicant: Masso I Pares, Francesc d'Assis 08006 Barcelona (ES)
- (72) Inventor: Masso I Pares, Francesc d'Assis 08006 Barcelona (ES)
- (74) Representative: Toro Gordillo, Ignacio Maria Viriato, 56-10 izda.28010 Madrid (ES)

#### (54) **BEVERAGE CAN**

(57) The invention relates to a beverage can comprising an embossed body that is made from a sheet of aluminum. The mouth of the can is closed by a flange or seamed with a lid which is equipped with a pull ring for opening the can or, more specifically, for tearing off a frangible lid. According to the invention, the body is sub-

stantially flat along the lateral axis and has a very stylish, almost-rectangular plan comprising round edges and vertices, in which the major axis of said rectangular section is slightly arched, such that the longer sides of the body take the form of a concavely curved side and a convexly curved side.

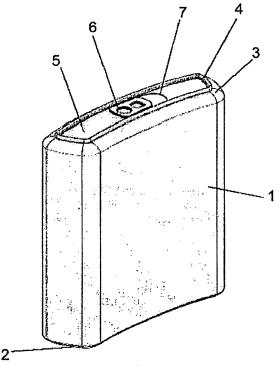


FIG. 1

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#### Description

#### **OBJECT OF THE INVENTION**

**[0001]** The present invention relates to a beverage can, such as for juices, soft drinks, etc, of the type having a thin embossed sheet of aluminum and the lid of which is equipped with a pull ring for tearing a cover defined by a perforated line or a frangible line arranged in the lid itself.

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**[0002]** The object of the invention is to achieve a can that is much easier to handle and to transport when handled unitarily, i.e. at the moment of consumption, especially when the user or consumer carries it with him or herself

#### BACKGROUND OF THE INVENTION

**[0003]** As is known, there are countless beverages such as lemon or orange drinks, soft drinks, sports drinks, etc., which are marketed contained in metal cans, specifically in aluminum cans.

**[0004]** These cans have a body with a basically cylindrical configuration, although with frustoconical narrowings at their ends and with a significantly sunken lower base, with a flange at the level of the upper base, on which a lid is fixed to the body of the can by means of a seam or the like, which lid is provided with a ring for tearing off a cover allowing the liquid contained inside the can to exit.

**[0005]** These cans are interesting both from the cost and manufacturing process point of view and from the subsequent use point of view, however their essentially cylindrical configuration is not the most ideal in certain practical cases, for example when the consumer of a beverage must take it with him or herself, not having a suitable transportation receptacle and for example, having to transport the can in one of the pockets of one of his or her articles or clothing, in a small handbag, etc.

**[0006]** In these cases the volume of the can make said transportation uncomfortable and bothersome.

#### DESCRIPTION OF THE INVENTION

**[0007]** The can proposed by the invention completely and satisfactorily solves the problem set forth above, forming an element that is easily transportable and manageable immediately before and during the consumption of its contents.

**[0008]** To that end and more specifically, said can, compared with the classic cylindrical configuration, adopts a considerably flattened prismatic configuration, having an almost rectangular plan but with a slightly curved minor axis, such that said can is easily introduced into the pocket of an article of clothing, such as for example into the pocket of a jacket without being excessively prominent or projecting out and perfectly adapting to the body due to its own curvature.

**[0009]** Apart from that, the can will be formed as any other conventional can by means of a suitably embossed sheet of aluminum, with which a traditionally fixed lid collaborates, with the only exception that in this case the lid, like the plan of the body, is rectangular and quite elongated, incorporating the classic opening ring, which will define a pouring window preferably located in correspondence with one of the ends of the mentioned base or lid, in order to facilitate in turn the consumption of the beverage. To improve its ergonomics, the body will have round edges and vertices.

#### DESCRIPTION OF THE DRAWINGS

**[0010]** To complete the description which is being made and with the object of aiding in better understanding the features of the invention, according to a preferred practical embodiment thereof, a set of drawings is attached as an integral part of said description in which the following is shown with an illustrative and non-limiting character:

Figure 1 shows a perspective view of a beverage can made according to the object of the present invention.

Figure 2 shows a plane view of the same can.

#### PREFERRED EMBODIMENT OF THE INVENTION

[0011] In view of the figures shown, it can be observed how the can proposed by the invention is formed from a basically considerably elongated, prismatic and rectangular plan body (1) configuration comprising round edges and vertices, but with considerably curved longer sides such that one of them is concavely curved whereas the other is convexly curved, determining a substantially arched trajectory for the major axis of the rectangle corresponding to the plan of the body (1), facilitating the adaptation of the body (1) of the can to the corporal anatomy of the user, in addition said body (1) having a convergent truncated-pyramid lower end sector (2), joined to the lower base and closed and another approximately convergent truncated-pyramid upper section (3) as well, which through a ring-shaped flange (4) receives the corresponding lid (5) provided in turn with a pull ring (6) to tear the cover (7) causing the opening of the can at the moment of consumption of its contents.

**[0012]** This special substantially flattened configuration along the lateral axis of the body (1) of the can makes the unitary transportation thereof considerably easier, specifically when the consumer carries it with him or herself, since it is easily fitted to the inside of the pocket of a jacket or of any other article of clothing, adapting itself to the body by its own curvature. At the moment of carrying out said consumption, its opening is as easy as that of any conventional can, the liquid exit orifice being defined by the cover (7) located at one of the ends of the base (5) to facilitate the direct pouring if the beverage

into the user's mouth, since obviously in the practical cases for which the use of this type of can has mainly been expected, a complementary glass will not be available.

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#### **Claims**

1. A beverage can of the type comprising an embossed body that is made from a sheet of aluminum, the mouth of which is closed by a flange or seamed with a lid which is equipped with a pull ring for opening the can, specifically, for tearing off a frangible lid, characterized in that its body is substantially flat along the lateral axis with a very stylish almost-rectangular plan comprising round edges and vertices, so that said body is easily housed in the pocket of an article of clothing or the like.

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2. A beverage can according to claim 1, characterized in that the major axis of said rectangular section of the body slightly arched, such that the longer sides of the body are a concavely curved side and a convexly curved side.

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 A beverage can according to the previous claims, characterized in that said rectangular prismatic body is stretched at its ends by short truncated-pyramid sections and also by round edges and vertices.

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**4.** A beverage can according to the previous claims, characterized in that the cover, which can be torn by the pull ring, is located at one of the ends of the upper base of the can.

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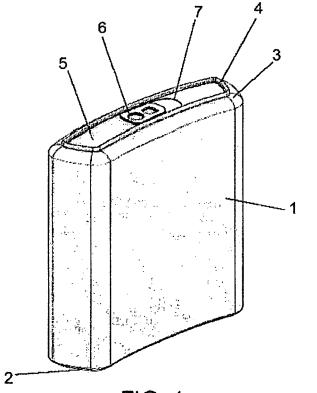
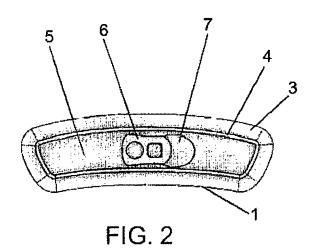


FIG. 1



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#### INTERNATIONAL SEARCH REPORT

International application No.

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#### A. CLASSIFICATION OF SUBJECT MATTER see extra sheet According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) **B65D** Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) CIBEPAT, EPODOC, WPI, PAJ C. DOCUMENTS CONSIDERED TO BE RELEVANT Category\* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. Y DE 8004187 U1 (SEIFERT) 26.06.1980, the whole 1\_4 document. ES 196117 U (EL ALUMINIO, S.A.) 16.02.1975, the whole Y 1-4 document. US 2079599 A (BONTHRON) 11.05.1937, the whole 1-4 document. ES 1012303 U (G & D REGALOS Y DECORACIÓN, S.A.) 1 16.07.1990, figures. JP 2004359278 A (SUMIYA JOJI) 24.12.2004, A figures. See patent family annex. Further documents are listed in the continuation of Box C. Special categories of cited documents: later document published after the international filing date or priority date and not in conflict with the application but cited to "A" document defining the general state of the art which is not considered to be of particular relevance. understand the principle or theory underlying the invention "E" earlier document but published on or after the international filing date document of particular relevance; the claimed invention cannot be document which may throw doubts on priority claim(s) or which is "X" "L" considered novel or cannot be considered to involve an inventive cited to establish the publication date of another citation or other special reason (as specified) step when the document is taken alone document of particular relevance; the claimed invention cannot be document referring to an oral disclosure use, exhibition, or other "Y" considered to involve an inventive step when the document is combined with one or more other documents , such combination document published prior to the international filing date but later than being obvious to a person skilled in the art the priority date claimed document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 02.OCTOBER.2006 (02.10.2006) (16-10-2006)Name and mailing address of the ISA/ Authorized officer O.E.P.M. Belda Soriano, Leopoldo Paseo de la Castellana, 75 28071 Madrid, España. Facsimile No. 34 91 3495304 Telephone No. + 34 913495585

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# INTERNATIONAL SEARCH REPORT International application No. Information on patent family members PCT/ ES 2006/000314 Patent document cited Publication Patent family Publication date in the search report member(s) DE8004187 U 26.06.1980 NONE ES 196117 U 16.02.1975 ES 196117 Y 16.07.1975 NONE US2079599A A 11.05.1937 ES 1012303 U 16.07.1990 ES 1012303 Y 16.01.1991 24.12.2004 NONE JP2004359278A A

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