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File Number: T 552/90 - 3.2.1
Application No.: 86 303 460.9
Publication No.: 0 203 744
Title of invention: Apparatus for dispensing liquid

Classification: B67D 3/00, B67D 1/08

D E C I S I O N
of 9 April 1991

Applicant: The Coca-Cola Company

Headword:

EPC Article 56

Keyword: "Inventive step (yes)"

Headnote



((2))

Case Number : T 552/90 - 3.2.1

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D E C I S I O N
of the Technical Board of Appeal
of 9 April 1991

Appellant : The Coca-Cola Company
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Representative : Leale, Robin George et al
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Decision under appeal : Decision of Examining Division 2.3.12.088 of the
European Patent Office dated 19 January 1990
refusing European patent application
No. 86 303 460.9 pursuant to Article 97(1) EPC.

Composition of the Board :

Chairman : F. Gumbel
Members : S. Crane
M. Schar

Summary of Facts and Submissions

- I. European patent application No. 86 303 460.9, filed on 7 May 1986, with priority being claimed from United States application Nos. 738 432 and 775 994, dated 28 May 1985 and 13 September 1985 respectively, was refused by a decision of the Examining Division dated 19 January 1990.
- II. The reason given for the decision was that independent Claims 1 and 7 then on file lacked inventive step having regard to the state of the art according to the following documents:
 - US-A-2 708 533 (D1)
 - EP-A-0 129 811 (D2)
 - US-A-3 258 166 (D3).
- III. A Notice of Appeal was filed against this decision on 28 March 1990, the appeal fee being paid on the same day. The Statement of Grounds of Appeal was filed by telefax on 29 May 1990 and confirmed in writing on 31 May 1990.
- IV. The Appellants argued that the subject-matter of the claims was distinguished from the closest prior art according to document D1 by features which provided a clearly advantageous construction and which could not be derived in an obvious manner from the cited state of the art.
- V. In response to a telephone call from the Rapporteur of the Board on 7 February 1991 the Appellants indicated with a letter dated 20 February 1991 their approval of certain minor amendments of Claim 1 and the description and proposed the deletion of method Claims 7 to 10.

The grant of a patent is, therefore, requested on the basis of Claims 1 to 6, of which independent Claim 1, amended as agreed by the Appellants, reads as follows:

"An apparatus for dispensing liquid with a controlled rate of flow, comprising:

a container (20) with a top end (20A) openable to the atmosphere, a bottom end (20B) with a discharge opening (20S) therein, and sidewalls connecting said top and bottom ends (20A, 20B), said container (20) having a rim (24) around the top end (20A) defining a top opening;

a flow rate control tube (30) having a top open end (30A) adjacent the top opening of said container (20) and a bottom open end (30B) disposed at a predetermined distance above said discharge opening (20S), said tube establishing atmospheric pressure at said bottom open end (30B) thereof;

a removable lid (40) having sealing means (44, 46; 50, 52, 54) for forming a hermetic seal between the lid (40) and said rim (24) around the top opening and means (42) for supporting said flow rate control tube (30) within said container (20), characterised in that said removable lid (40) is formed of flexible plastic and said means for supporting includes a socket (42) for receiving and supporting the top open end (30A) of said flow rate control tube (30), said socket (42) being integrally formed with said lid (40) and having an aperture (43) therein for communication with the atmosphere and said top open end (30A) of said tube (30)."

Dependent Claims 2 to 5 relate to preferred embodiments of the apparatus according to Claim 1. Claim 6 relates to a

post-mix beverage dispenser including apparatus as claimed in any of Claims 1 to 5.

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC; it is, therefore, admissible.
2. **Formal admissibility of the claims**

Present Claim 1 consists of a combination of original Claims 1 and 2 together with the features that the lid is of flexible plastics material and that the socket is integrally formed with the lid. The first of the features is to be found at page 7, line 16 of the original application, the second is evident from the drawings. Although the statement that the lid is of flexible plastic material refers only to the first embodiment it is apparent from the last paragraph of page 9 that the lids of both embodiments are of the same material. There is, therefore, no objection to the claim being restricted by the addition of this feature.

Dependent Claims 2 to 6 are essentially equivalent to the corresponding Claims 3 to 7 of the original application.

3. **State of the art**
 - 3.1 The closest state of the art is shown in document D1, on which the preamble of present Claim 1 is based.

This document is concerned with a syrup dispenser from which the syrup is delivered chilled. To this end the lid of the syrup container is arranged to support ice cubes. Heat transfer between the syrup and the lid may be

improved by attaching fins to its underside. Although this is not specifically stated, the lid, in view of its heat transfer function, is clearly of metal. The lid slopes to one side so that the melt water from the ice cubes can be drained off. As shown in Figure 1, the lower end of the sloping lid is below the level of the syrup in the tank when this is full. The lid has a refill opening in which a stopper is arranged, the stopper supporting a flow rate control tube that passes completely through the stopper. The lid is removably sealed to the rim of the container. It is presumably necessary to remove the lid occasionally to allow cleaning of the container, there is, however, no suggestion to remove the lid to allow filling of the container.

- 3.2 Document D3 also relates to dispensing apparatus provided with a flow rate control tube. The container of the apparatus is bottle-shaped with an integrally formed bottom end (top end when the container is inverted for dispensing) in which the flow rate control tube is directly mounted. To refill the container it has to be removed from the dispensing apparatus. The container may be of a plastics material.
- 3.3 Document D2 relates to a snap-on reusable plastics lid for drink cans of the pull-ring type. The lid is formed with a drinking spout and is provided on its underside with a gasket that sealingly engages the top surface of the can.

4. Novelty

The dispensing apparatus defined in Claim 1 is distinguished from the closest state of the art disclosed in document D1 by the features of the characterising clause of the claim. These features are essentially that the lid is formed of flexible plastics and has an

integrally formed socket for supporting the top open end of the flow rate control tube.

The subject-matter of Claim 1 is, therefore, novel.

5. Inventive step

5.1 The application is concerned with facilitating the refilling in situ of the liquid container of a dispenser of the type defined in the preamble of Claim 1 wherein a flow rate control tube is supported in a removable lid of the container.

By forming the lid of flexible plastics the danger that its repeated removal to allow unobstructed filling of the container could distort it sufficiently to impair operation of the rim seal is substantially eliminated. Similarly, poor sealing between the top end of the flow rate control tube and the removable lid is avoided by providing the lid with an integral socket for the tube. There is, therefore, no need to provide a seal between any separate support means for the tube and the lid itself. Poor sealing at either of these points would allow air to enter the container otherwise than via the flow rate control tube when liquid is dispensed and thus prevent the flow rate control tube from operating properly.

It has been argued in the decision under appeal that it would be obvious to replace the metal lid of document D1 by a flexible plastics lid "if good heat conducting properties are regarded as dispensable". The Board does not find this argument convincing, since these properties are an essential feature of the arrangement of document D1, which is concerned with the transfer of heat from the liquid to the ice cubes placed on the lid. In any case, the use of a flexible plastics for the lid is associated

with allowing the lid to be readily and repeatedly removed to allow refilling the container and is not simply a question of replacing one material with another. There is nothing in the state of the art that could suggest to the skilled man to do away with the refill opening provided in the lid of the apparatus according to document D1 and instead make the lid readily removable for filling purposes. Indeed, since the container of document D1 is to be filled to a level above the lower end of the sloping lid he would recognise this modification as being impracticable. In the opinion of the Board the skilled man faced with the problem of making the refilling of the container of document D1 easier would for these reasons be led simply to increase the size of the refill opening and its associated stopper. With the stopper still present there is no incentive for him to consider ways of supporting the flow rate control tube otherwise than by having it pass through the stopper as shown in document D1.

In the dispensing apparatus shown in document D3 the container can only be filled through its dispensing outlet after removal from the apparatus. This state of the art can, therefore, give no lead to the subject-matter of the present application.

Document D2, which has been cited to show a flexible snap-fastening lid with integral "socket", is so remote with respect to its field of use as to be irrelevant. In any case, the "socket" is merely a drinking spout and in no way associated with a flow rate control tube.

Accordingly, the Board comes to the conclusion that the subject-matter of Claim 1 cannot be derived in an obvious manner from the state of the art and, therefore,

constitutes a patentable invention (Articles 52(1) and 56 EPC). This claim, together with dependent Claims 2 to 6, can, therefore, serve as the basis for the grant of a patent.

Order

For these reasons, it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the Examining Division with the order to grant a patent on the basis of the following documents:

Claims: 1 filed on 27 February 1989 with the amendments agreed by letter of 20 February 1991
2 to 6 filed on 18 June 1988;

Description: pages 1 to 3 as originally filed
page 4 filed on 18 June 1988
page 5 filed on 27 February 1989, with the amendments to pages 3 and 5 agreed by letter of 20 February 1991;

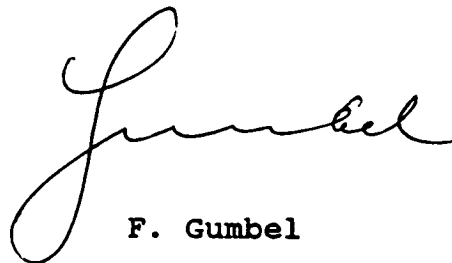
Drawings: sheets 1/2 and 2/2 as originally filed.

The Registrar:



S. Fabiani

The Chairman:



F. Gumbel