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Remarks:
Amended claims in accordance with Rule 137(2) EPC.

(54) **Carrier for cans with a gripping zone**

(57) Carrier for cans configured by means of a blank which comprises a main area for holding the cans, at least two cuts (1) for fixation of the cans situated in the main area arranged facing each other, a means of grip-

ping (2) for lifting the arrangement comprising the cans and the blank, where the blank is made from compact cardboard with fibre oriented according to the preferred direction.

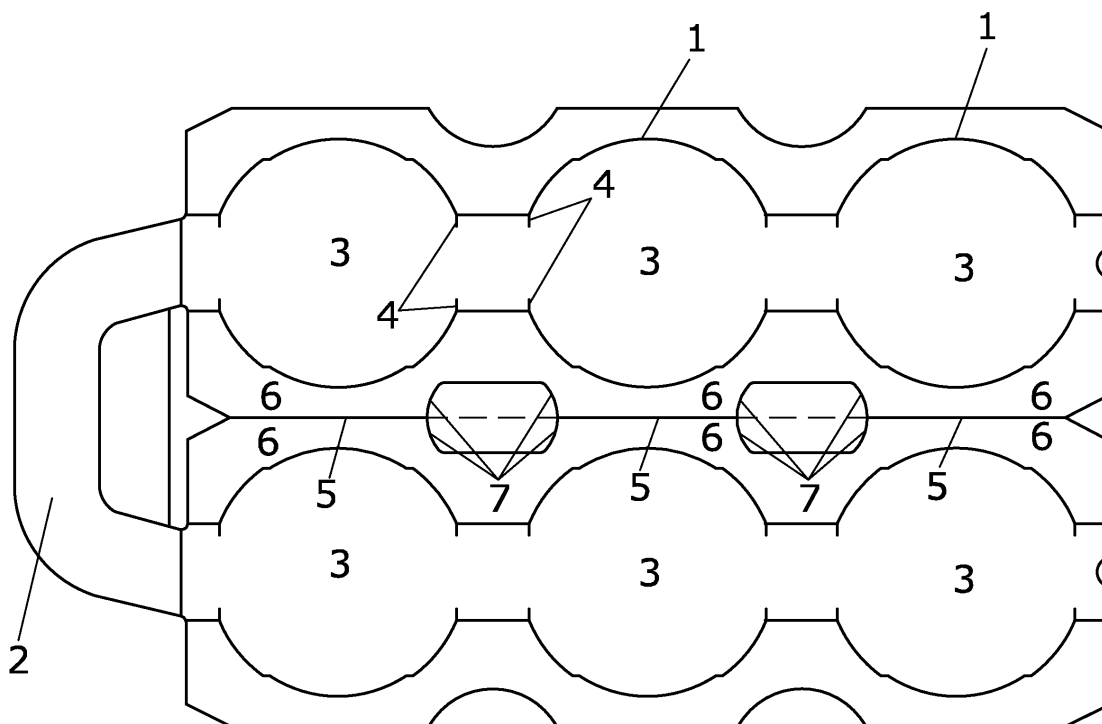


FIG.1

Description

OBJECT OF THE INVENTION

[0001] The present invention refers to a carrier for cans with a gripping zone.

[0002] The carrier is formed from a panel of compact cardboard.

[0003] The carrier permits a specific number of cans to be held together and transported.

OBJECT OF THE INVENTION

[0004] The present invention refers to a carrier for cans made from compact cardboard, with a gripping zone for facilitating transport thereof, with the gripping zone in respect of the arrangement being the key to the invention.

[0005] Various carriers are known in the state of the art such as that described in document W003004377 which describes a carrier for cans made from corrugated cardboard which connects a group of cans, the centre of which is provided with two gripping points for transporting the arrangement.

[0006] The document with publication number EP0456361 describes a carrier for cans with a handle made from plastic material. It is advisable, for environmental reasons, to use cardboard in carriers for cans as cardboard is much easier to recycle. The carrier in this case is technically totally different. The holding zone is in the centre of the can in a vertical direction and is held due to the elasticity of the plastic. In contrast, in the present invention, the holding is made in the neck of the can, in the upper part, and holding is based on pressure through stretching at the moment of gripping. Given this type of plastic carrier, in devising a cardboard carrier, several problems need to be resolved, as in the case of plastic carriers, the cans are connected and held by the middle part or trunk of the can, and the performance of the plastic when attaching the cans is totally different from a cardboard carrier.

[0007] The document with publication number US5310051 also describes a blank for carrying cans which aims to solve the problem of transporting the arrangement by means of the reinforcement of the central zone which is where the transport points are situated.

[0008] In all these systems the key factor is how the cans are held during transport, as the force exercised on the gripping points and the actual transport itself tends to detach one of the cans from the group.

DESCRIPTION OF THE INVENTION

[0009] This problem is resolved in the present invention by grouping and transporting the cans by means of compact cardboard blanks which also improves hygiene as the blank covers the cans.

[0010] When the cans are grouped with cardboard blanks and the support blank is supposed to support the

weight of all the cans and enable them to be carried about, normally one of the cans becomes detached due to the force supported by the blank and the movement during transport.

[0011] The problem is resolved in the present invention with a specific configuration of the blank and an adequate position of the gripping zone in the blank.

[0012] The type of material used in the present invention is compact cardboard which has the resistance required to support the group of cans.

[0013] When cardboard is manufactured, the paste fibres are aligned in parallel in the direction in which the cardboard blank is moving. In the present invention this characteristic is used in that the blank in a specific direction is more rigid and stronger.

[0014] An initial aspect of the invention refers to a carrier for cans configured with a blank which consists of:

- A main area for holding the cans,
 - At least two cuts for fixing the cans in the main area arranged facing each other.
 - A means of gripping for lifting the arrangement consisting of the cans and the blank,
- Where
- The blank is made from compact cardboard with the fibre oriented according to a preferred direction; and,
 - The gripping means is a handle arranged on the side of the blank in such a way that each connection of the handle with the main area of the blank is extended by means of a continuous fixation band, ensuring that:
 - The cuts for fixing the cans are arranged on either side of the band; and,
 - The direction of the oriented fibre in the cardboard blank coincides essentially with the direction in which the band or bands is/are extended.

[0015] There may be at least two fixation bands in the blank which give rise to two alignments for the cans.

[0016] A second aspect of the invention of the carrier for cans shows the cuts for fixing the can outlets such that the blank curves round the outlet of the can when gripping and transporting in such a way that the internal fixation rims tend to approach each other, thus pressurising said outlet.

[0017] A third aspect of the invention is that the carrier is provided between the groups of cuts associated with the fixation bands of the outlets of the cans with one or more cuts which enable separation of the internal sections of blank arranged round said fixation cuts of the can outlet.

[0018] In addition, as the present invention is made from cardboard, it is more easily recycled than plastic products designed for the same purpose.

[0019] Another advantage of this invention is that as it is a blank which is held in the upper part of the cans, it protects the tops of the cans which is the area drunk from.

This surface may also be used for placing product advertising.

DESCRIPTION OF THE DRAWINGS

[0020] The present descriptive report is supplemented by a series of drawings, illustrative of a preferred embodiment but not, however, restricting the invention in any way.

[0021] Figure 1 shows a side view of the blank which is the subject of the invention.

[0022] Figure 2 shows a side view of the blank which is the object of the invention with the gripping zone in a side facing that of figure 1.

PREFERRED EMBODIMENT OF THE INVENTION

[0023] In a preferred embodiment of the invention the carrier for cans is constituted on the basis of the blank shown in figure 1.

[0024] This blank is designed to group and transport six cans in two rows.

[0025] In the carrier which is the subject of the invention, the cans are inserted in the blank through the top. The blank is provided with semi-circular facing cuts (1) for each can.

[0026] The gripping means consists of a handle (2) arranged on the side of the blank in such a way that each connection of the handle with the main area of the blank is extended by means of a continuous band (3), in this case two bands (3).

The upper part of the cans show a narrowed zone and they are finished in the upper part in a thickened ring. The narrowed zone is housed in the semi-circular cuts (1), the upper circular zone of the can is covered.

[0027] The design of the cuts enables the cans to be held by their upper rim, and the upper part of the can is protected.

[0028] In order to facilitate displacement of the bands (3) in contact with the semi-circular cuts (1) on each of said semi-circular cuts (1) and on one of its ends an oblique cut (4) is made.

[0029] Between the semi-circular cuts (1) associated with each band (3) for fixation of the can outlets, separation cuts (5) are made which permit separation of the internal sections (6) of the blank arranged round said semi-circular fixation cuts (1) of the can outlet.

[0030] The separation cuts (5) are essentially longitudinal and the orientation coincides with the direction of the bands with other transversal cuts (7) being possible in one or two ends.

[0031] When this report mentions essentially longitudinal cuts the intention is to cover variations in the procedure for constituting the blank which do not permit perfectly longitudinal cuts.

[0032] The essential nature of this invention is not altered in any way by variations in materials, form, shape and arrangement of the component elements which are

described in a manner which is in no way restrictive but which is sufficient for an expert to proceed to its reproduction.

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Claims

1. Carrier for cans configured by means of a blank which comprises:

- A main area for holding the cans,
- At least two cuts (1) for fixing the cans in the main area arranged facing each other.
- A means of gripping (2) for lifting the arrangement consisting of the cans and the blank,

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Characterised in that

- The blank is made from compact cardboard with the fibre oriented according to a preferred direction; and,
- The gripping means is a handle (2) arranged on one side of the blank in such a way that each connection of the handle with the main area of the blank is extended by means of a continuous fixation band (3), thus ensuring that:

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- The cuts (1) for fixing the cans are arranged on either side of the band; and,
- The direction of the oriented fibre in the cardboard blank coincides essentially with the direction in which the band or bands (3) is/are extended.

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2. Carrier for cans according to claim 1 **characterised in that** the cuts (1) for fixing the can outlets have a configuration which facilitates curvature of the blank round the outlet of the can in such a way that the internal fixation rims tend to approach each other, thus pressurising said outlet.

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3. Carrier for cans according to claim 1 **characterised in that** it comprises at least two bands (3) which give rise to two alignments of cans.

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4. Carrier for cans according to claim 1 **characterised in that** between the groups of cuts (1) associated with the one or other of the fixation bands (3) for fixing the outlets of the cans there are one or more cuts (5) which enable separation of the internal sections (6) of blank arranged round said fixation cuts (1) of the can outlet.

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5. Carrier for cans according to claim 4 **characterised in that** the separation cuts (5) are essentially longitudinal and the orientation coincides with the direction of the bands with other transversal cuts (7) being

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possible in one or two ends.

with the direction of the bands with other transversal cuts (7) being possible in one or two ends

Amended claims in accordance with Rule 137(2) EPC.

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1. Carrier for cans consisting of a single plate adapted to hold the cans at one of its sides configured by means of a blank which comprises:

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- A main area for holding the cans,
- At least two cuts (1) for fixing the cans in the main area arranged facing each other.
- A means of gripping (2) for lifting the arrangement consisting of the cans and the blank,

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Characterised in that

- The blank is made from compact cardboard with the fibre oriented according to a preferred direction; and,
- The gripping means is a handle (2) arranged on one side of the blank in such a way that each connection of the handle with the main area of the blank is extended from the margin of the main area, at one end of continuous fixation bands (3), which are part of the main area of the blank, thus ensuring that:

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- The cuts (1) for fixing the cans are arranged on either side of the band (3); and,
- The direction of the oriented fibre in the cardboard blank coincides with the direction in which the band or bands (3) is/are extended.

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2. Carrier for cans according to claim 1 **characterised in that** the cuts (1) for fixing the can outlets have a configuration which facilitates curvature of the blank round the outlet of the can in such a way that the internal fixation rims tend to approach each other, thus pressurising said outlet.

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3. Carrier for cans according to claim 1 **characterised in that** it comprises at least two bands (3) which give rise to two alignments of cans.

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4. Carrier for cans according to claim 1 **characterised in that** between the groups of cuts (1) associated with the one or other of the fixation bands (3) for fixing the outlets of the cans there are one or more cuts (5) which enable separation of the internal sections (6) of blank arranged round said fixation cuts (1) of the can outlet.

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5. Carrier for cans according to claim 4 **characterised in that** the separation cuts (5) are essentially longitudinal and the orientation coincides

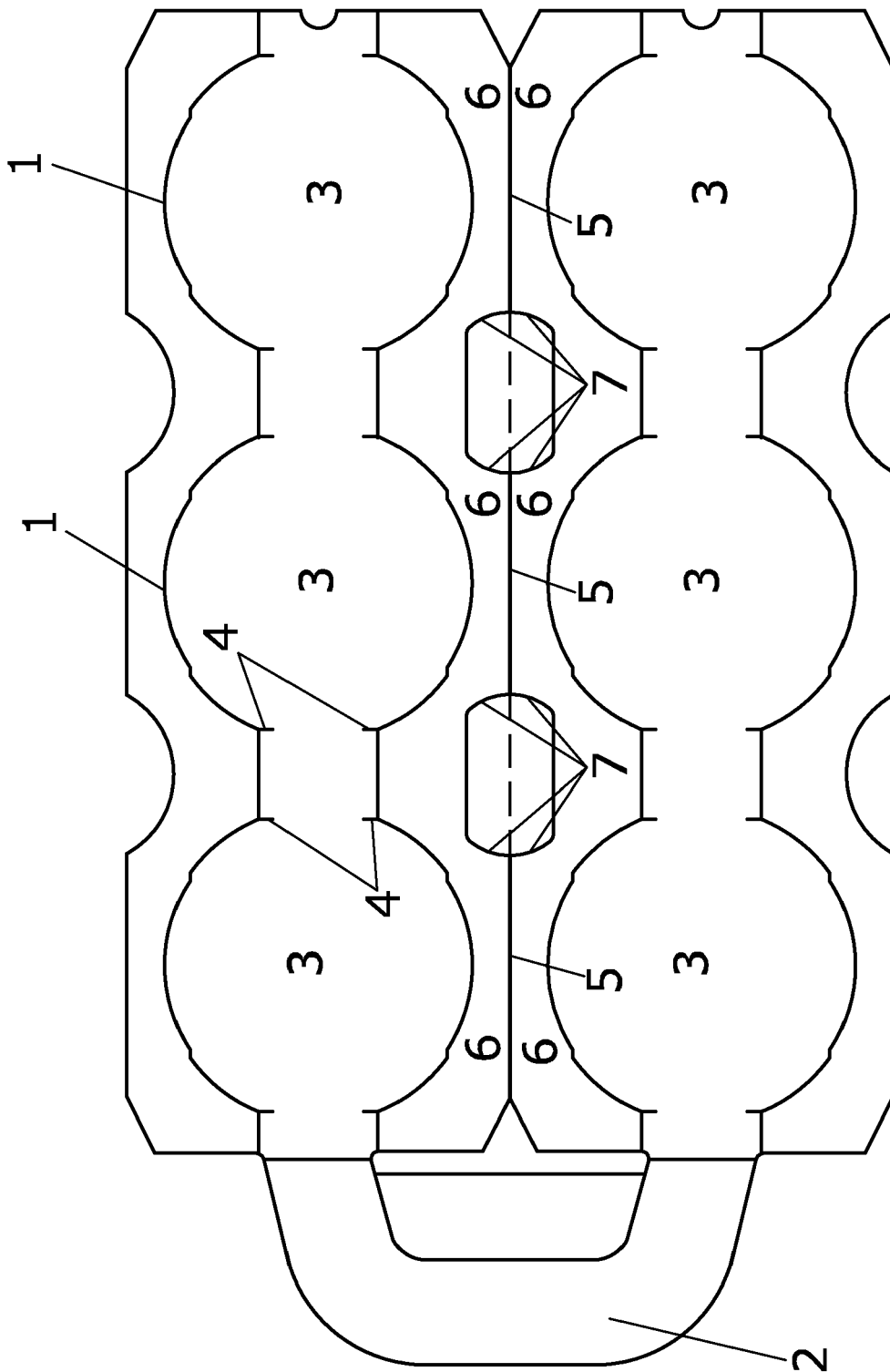


FIG. 1

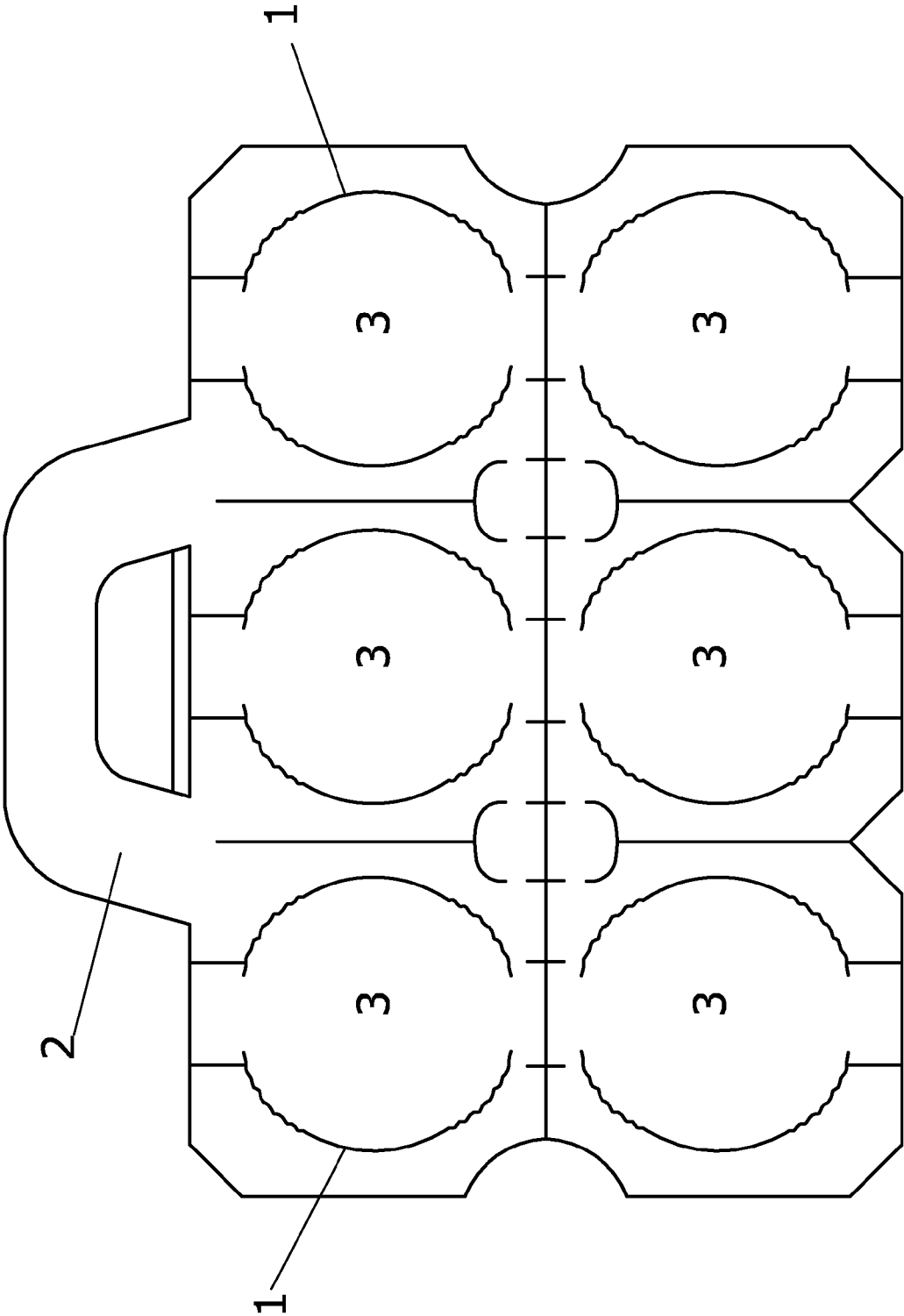


FIG. 2



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 08 38 1001

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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X	EP 0 352 589 A (UNILEVER NV [NL]; UNILEVER PLC [GB]) 31 January 1990 (1990-01-31) * column 3, line 13 - line 25 * * column 5, line 7 - line 9 * * figures 1,2 *	1,2,4	
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A	US 6 049 211 A (VARPULA TIMO [FI] ET AL) 11 April 2000 (2000-04-11) * column 1, line 19 - line 24 *	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
Place of search		Date of completion of the search	Examiner
Munich		18 June 2008	Appelt, Lothar
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p> <p>& : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 08 38 1001

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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