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(72) Inventors:
• **Ferrari, Guglielmo**
26851 Borgo san Giovanni, Lodi (IT)
• **Ferrari, Sylvia**
26851 Borgo san Giovanni, Lodi (IT)

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(74) Representative:
De Gregori, Antonella et al
Ing. Barzano & Zanardo Milano S.p.A.
Via Borgonuovo 10
20121 Milano (IT)

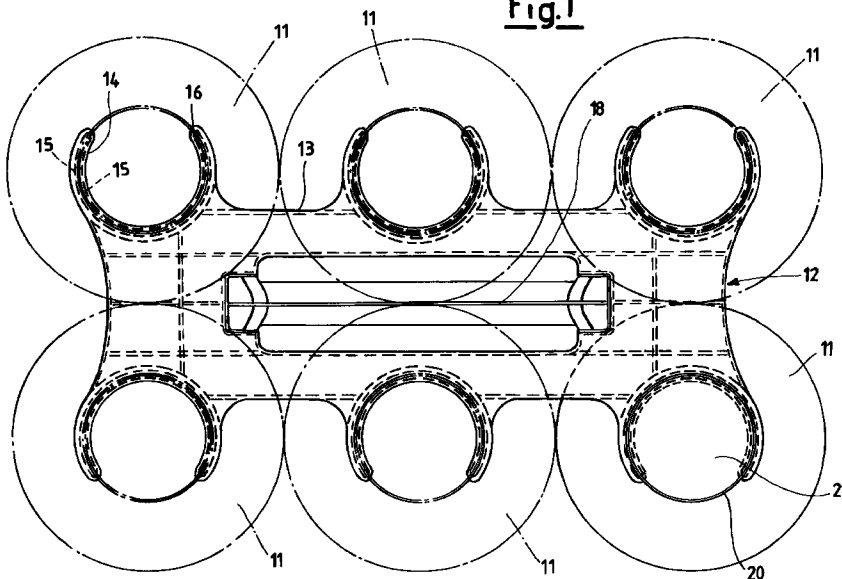
(71) Applicants:
• **Ferrari, Guglielmo**
26851 Borgo san Giovanni, Lodi (IT)
• **Ferrari, Sylvia**
26851 Borgo san Giovanni, Lodi (IT)

(54) Device for transporting bottles

(57) A device for transporting bottles or similar containers, containing a plate-like element (12, 12') fitted with at least one slot (14) capable of receiving, in one space (16) opening toward the outside, a reduced diameter portion of one of the bottles or containers (11), while a catching element (18) projects from the plate-

like element (12, 12'). For its use with one or several containers, the device already takes up an extremely limited space on its own, and can easily be stacked up upon others, without occupying much space.

Fig.1



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Description

[0001] This invention refers to a device for transporting bottles or similar containers.

[0002] In the field of collecting and transporting bottles and similar containers, certain containers of a boxy type are currently in use, which contain a number of slots in a vertical row, in the form of receptacles, suitable for inserting individual containers. Such containers are also fitted with handles firmly attached to their structure, which allow them to be transported.

[0003] These containers are of a certain size that essentially corresponds to the same size of the bottle or similar container in height, as well as a certain cost which presently inhibits their more generalized use. The distributors of bottles or containers in fact prefer using packages made of heat-shrinking plastic materials, which may eventually be fitted with a band acting as a handle.

[0004] The mentioned boxy containers are therefore purchased directly from the user, which after calling at the purchasing outlet, for instance of wine or water bottles, picks up the individual bottles and fits them into his container. This subsequently facilitates the transport of these products to the home or the purchaser's point of usage.

[0005] The purpose of this invention is to produce or describe a device or element capable of transporting bottles or similar containers having at an extremely limited cost, while facilitating the transport of the bottles contained in the same.

[0006] Another purpose is to produce a device for transporting bottles or similar containers of an extremely limited size, so as to facilitate its storage or its eventual transport when empty. Another purpose is to achieve a minimum volume of the device, even if used in large numbers.

[0007] A further purpose is to enable a clear separation between the device for transporting the containers and the material constituting the containers themselves.

[0008] These purposes according to this invention are achieved by producing a device for transporting bottles or similar containers, characterized in that it comprises a plate-like element fitted with at least one cavity capable of receiving in one of its outwardly opening parts a reduced diameter portion of one of the bottles or containers, while a catching element projects outward from the plate-like element.

[0009] Such a device is preferably fitted with a multiple number of cavities along its lateral edges.

[0010] Moreover, such a device is preferably made of a molded plastic material and conveniently capable of being stacked upon other devices of the same type, so as to take up a minimal space.

[0011] The characteristics and advantages of a device for transporting bottles or similar containers according to this invention will be more clearly evident from the following, exemplifying and non-limiting description,

referred to the simplified attached drawings, in which:

Figure 1 is a top plan view of a device according to this invention, in which six bottles or similar containers have been inserted, as partially shown by a dashed line,

Figure 2 is a elevation side view of the device shown in Figure 1,

Figure 3 is a longitudinal elevation view, partially sectionalized at the point corresponding to the catching element of the device shown in Figure 1,

Figure 4 is a sectionalized view of a number of devices according to this invention, stacked upon each other,

Figure 5 shows top plan view of a device according to the invention, in a structurally simplified form,

Figure 6 is a lateral elevation view of the device shown in Figure 5, with an inserted container,

Figure 7 is a prospective view of a further embodiment of the present invention.

The reference figures 1-4 show a device for transporting bottles or similar containers, which is in this instance produced from a rigidly molded plastic material and allows the transport of six bottles identified by the numeral 11. The device may of course be produced so as to carry any desired number of bottles or similar containers, as will be seen in the subsequent figures.

[0012] The device includes a plate-like element 12 fitted along its shorter lateral edges 13 with a row of six slots 14. The slots 14 are produced by pairs of concentric ribs 15 projecting from the central portion of the plate-like element in a direction perpendicular to the surface. These pairs of ribs 15, of a cross section resembling an upturned U, have a circular path and project by an angle of over 180°, thus forming the cavity 14.

[0013] For appropriately shaped containers the cavity could obviously also assume a different shape, based on the profile of the reduced diameter portion of the container to be fitted into the slot.

[0014] This slot 14 thus forms in one of its outwardly facing parts 16 a passage for the lateral introduction of a reduced diameter portion 17 of one of said bottles 11. In particular, since many bottles present a projecting annular edge 20 known as "collar" next to their neck or just below the threaded area holding the cap 21, such annular edge 20 may conveniently be utilized to produce the actual support of the bottle by the pair of ribs 15 forming the slot 14.

[0015] In the example shown, the plate-like element 12 has a substantially elongated and flattened rectangular form and three slots 14 along each of its longer sides. The shape of the plate-like element 12 may of course also be different, without thereby falling outside the innovative principle of this invention.

[0016] The peripheral surface of the device or plate-like element 12 exhibits ample fitments and rounded

surfaces that prevent any accidentally hazardous contact with the user.

[0017] A central portion of the plate-like element 12 is fitted with a catching element 18, projecting upward to form a handle. A central opening 19 is provided beneath this catching element 18, which projects in a bridge-like fashion from the plate-like element 12.

[0018] A device according to this invention may advantageously be employed for transporting containers such as water, wine or beverage bottles, bottled foodstuffs such as sauces, oil etc., which are laterally inserted into their respective slots 14. An appropriate sizing of the slots 14 or of their outwardly facing parts 16, can produce a slightly forced insertion of the container's neck and thus a more stable attachment to the device according to this invention.

As shown in Figure 4, a device for transporting bottles or similar containers according to this invention may advantageously be stored in a stack with a number of other similar devices, thus occupying a truly minimal space. Such devices may in fact easily be superposed, so that the catching elements 18 of one device fit into a central opening 19 of the overlaying device. This opening is provided below the catching elements 18 and is of a size approaching that of the mentioned catching devices 18, so as to allow a perfect stacking capability.

[0019] After all the containers have been inserted, such a device also allows the various devices holding the containers to be superposed and/or stacked over each other in groups, due to the minimal space occupied by each catching element. This catching element will in fact not cause any problem or nuisance in this regard, and allow a stable superposition and/or stacking process.

[0020] Such a device could conveniently be used in lieu of the heat-shrinking plastic films and be distributed by the same packager of the containers and products.

[0021] Thanks to its extremely limited cost, such a device could be of throw-away type or eventually destined to be returned for the purchase of the next package of containers.

[0022] Figure 5 shows how such a device could also be produced in a further simplified form. Functionally equal elements are indicated by the same reference numbers.

[0023] Figures 5 and 6 show how the plate-like element 12 can be produced in the form of a single ring forming a single slot 14. Even this slot 14 is open in 16 to receive a reduced diameter portion of a bottle or container. The slot 14 is produced by a pair of ribs 15 which are in this case also forming the body of the plate-like element 12.

[0024] Moreover, a catching element 18 associated with the plate-like element 12 is provided in diametrically opposed positions.

[0025] This element 18 is in the form of a handle and hinged to the plate-like element 12 at the point 22, while remaining free to rotate around the latter.

[0026] In the position shown in Figure 5, the device is slipped over the neck of the bottle and then fitted into the reduced diameter portion or groove by applying a slight lateral pressure.

[0027] The slot 14 may, both in this single-fitting example and in the previous multiple fitting examples be shaped in a keyhole-type or oval form, so as to adapt to the various container diameters.

[0028] For transporting purposes the element 18 shaped like a handle is rotated by 90° with respect to the position shown in Figure 5, thus allowing an easy transport of the container, as shown in Figure 6.

[0029] Even this container has the same characteristics and advantages of easy stacking, lightness, simple construction and low cost previously described. It may also be used as a throw-away device or along with the containers.

[0030] Figure 7 shows a further embodiment of the device according to the invention, where a plate-like element 12' has been reduced in its dimension so as to support two slots 14 capable of receiving bottles in their space 16. In Figure 7 it is evident that a couple of plate-like elements 12' is connected by a catching element 18, provided as in the preceding examples. The catching element 18 is placed to connect the two reduced plate-like elements 12' according to a perpendicular direction to the elements 12'.

[0031] In this last case it is obtained a really reduced and very functional structure, that can also be stacked, according to the teachings of the invention.

Claims

1. A device for transporting bottles or similar containers, characterized in that it comprises a plate-like element (12, 12') fitted with at least one slot (14) capable of receiving in an outwardly facing part (16) a reduced diameter portion of one of the bottles or containers (11) while a catching element (18) projects from the plate-like element (12, 12')
2. A device according to claim 1, characterized in that said plate-like element (12, 12') carries a multiple number of said slots (14) along its lateral edges (13).
3. A device according to claims 1 or 2, characterized in that said slot (14) has a keyhole-type form.
4. A device according to claims 1 or 2, characterized in that each slot (14) is formed by pairs of concentric ribs (15).
5. A device according to claim 2, characterized in that each slot (14) is formed by pairs of concentric ribs (15) laterally projecting to the smaller side surface of said plate-like element (12, 12').

6. A device according to claims 4 or 5, characterized in that said pairs of ribs (15) have a cross section resembling an upturned U.
7. A device according to claims 4 or 5, characterized in that said pairs of ribs (15) exhibit a circular path and project at an angle exceeding 180°. 5
8. A device according to claim 1, characterized in that said catching element (18) is hinged in (22) to said plate-like element (14) and free to rotate with respect to the latter. 10
9. A device according to claim 2, characterized in that said catching element (18) projects in a bridge-type fashion from said plate-like element (12). 15
10. A device according to claim 9, characterized in that an opening (19) is provided below said catching element (18), of a size approaching that of said catching element (18). 20
11. A device according to any of the foregoing claims, characterized in that it is capable of being stacked and superposed to other devices of a similar type. 25
12. A device according to any of the foregoing claims, characterized in that it is made of a molded plastic material. 30
13. A device according to claim 1, characterized in that said plate-like element (12') has been reduced to support two slots (14) placed on its opposite sides and capable of receiving bottles in said space (16). 35
14. A device according to claim 13, characterized by comprising a couple of said reduced plate-like elements (12') connected by said catching element (18) placed according to a perpendicular direction to said elements (12'). 40
15. A device according to claim 1, characterized in that said slot (14) is capable of receiving on its upper part an annular edge (20) of a bottle and/or a container (11). 45

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Fig.1

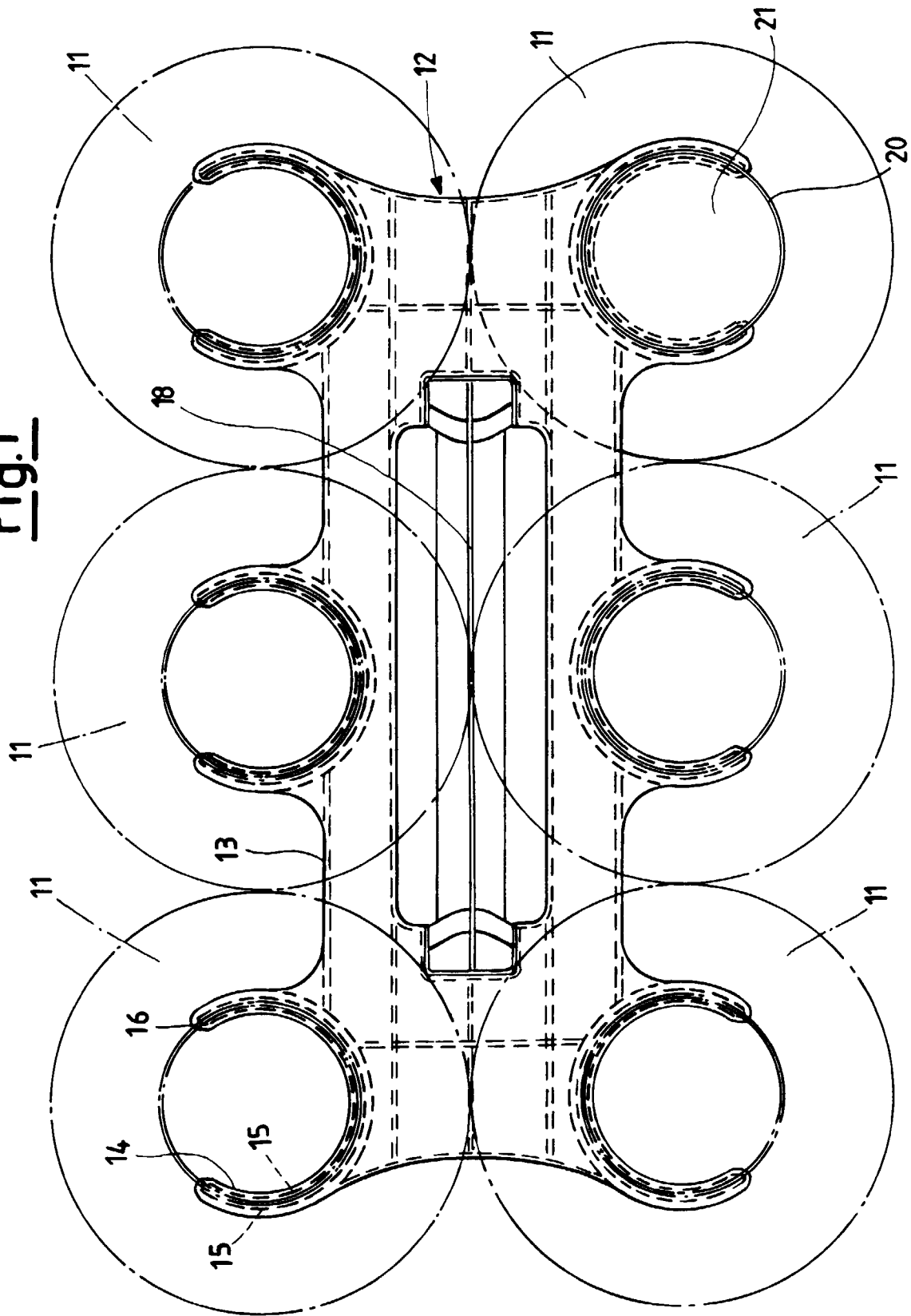


Fig.2

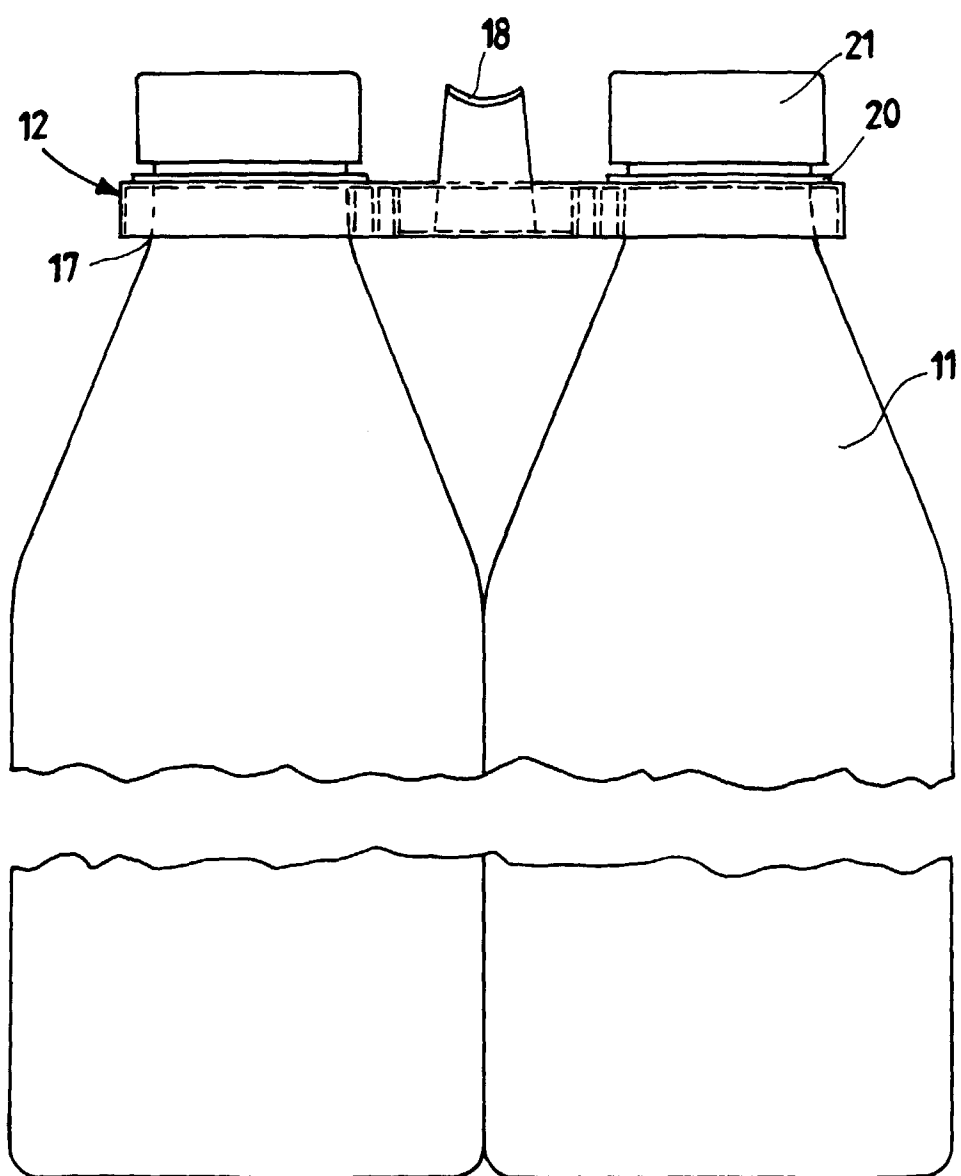


Fig.3

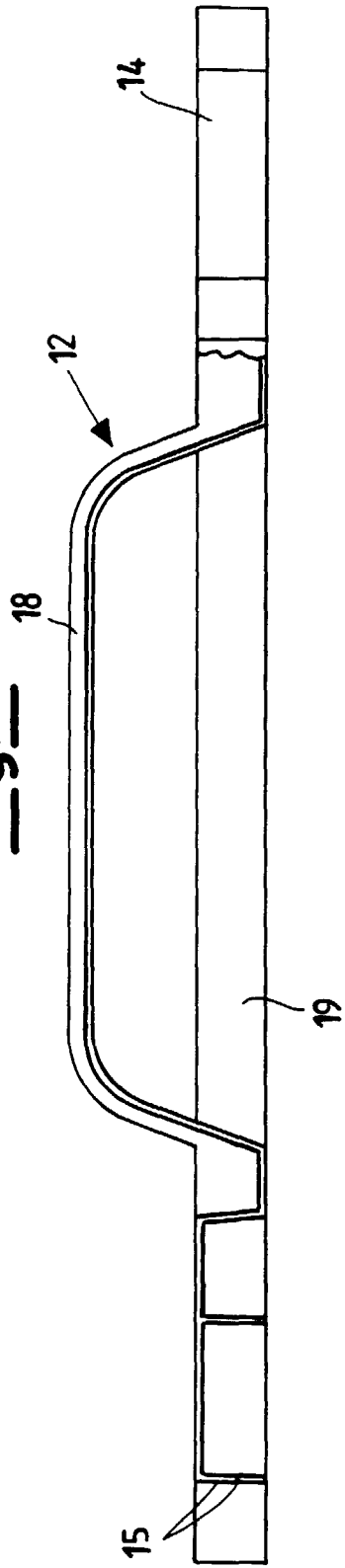


Fig.4

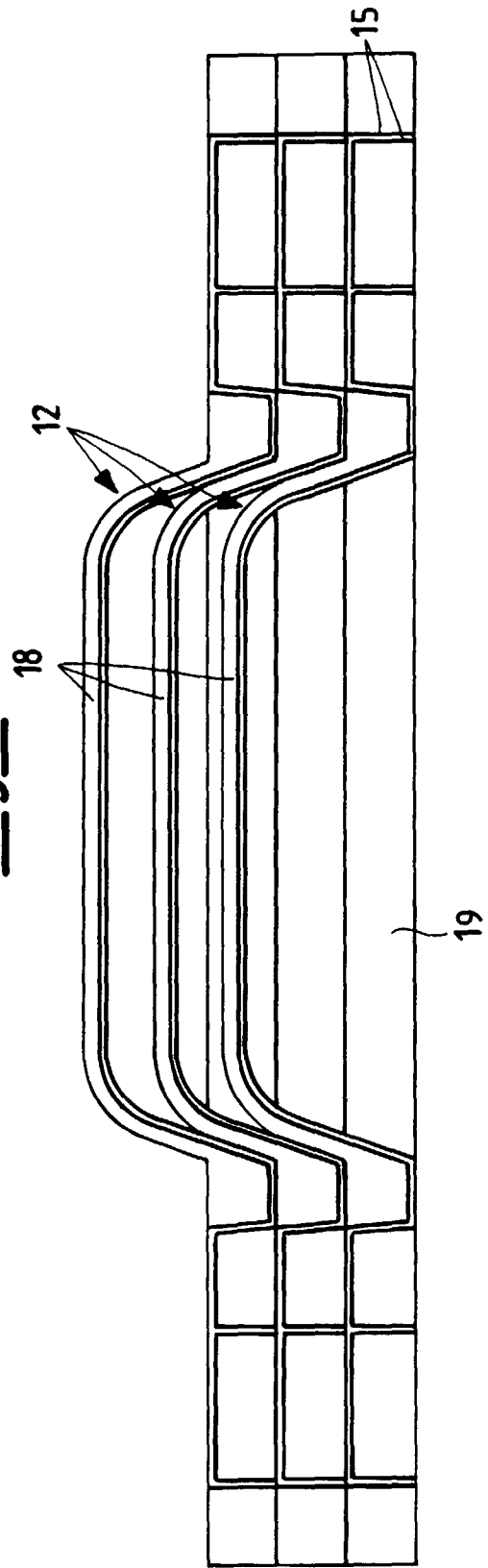


Fig.5

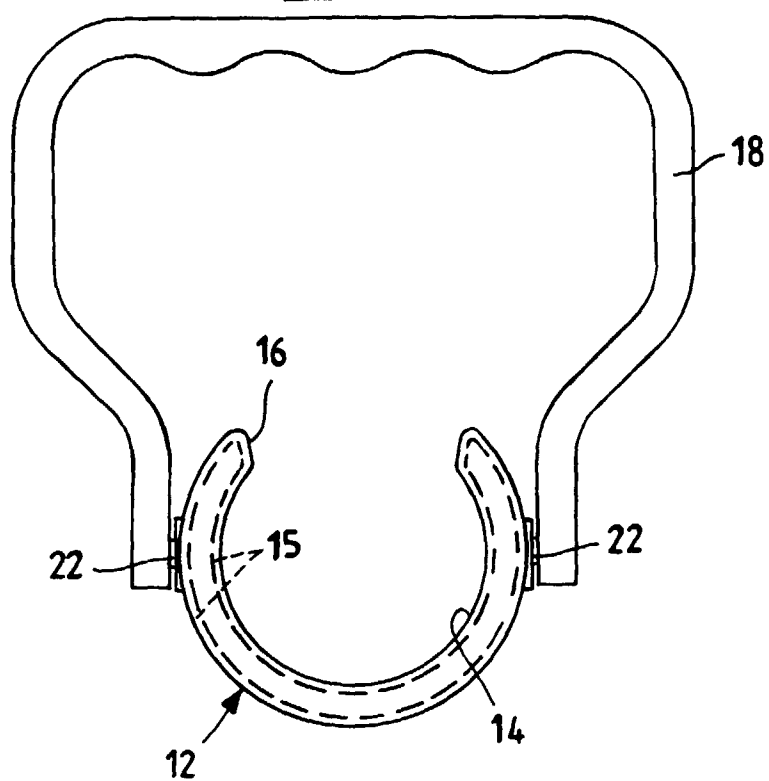


Fig.6

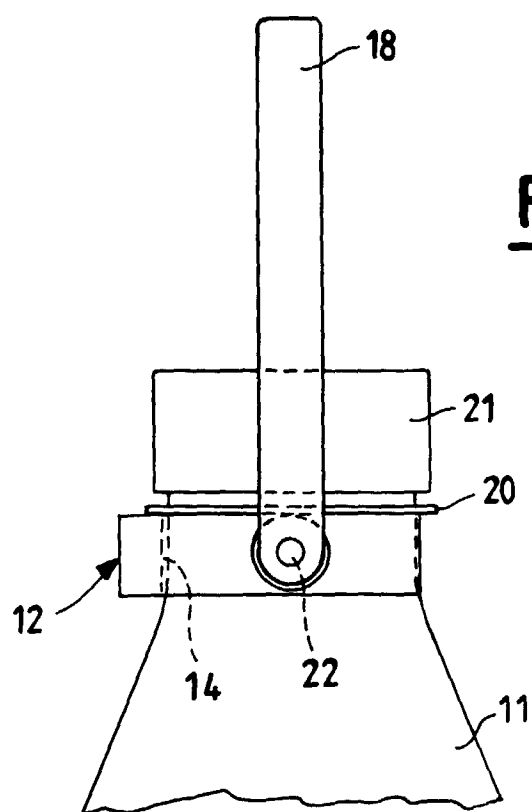


Fig.7

