OPIC
Office de la propriété intellectuelle du Canada

CIPO
Canadian Intellectual Property Office

(12) (19) (CA) **Brevet-Patent**

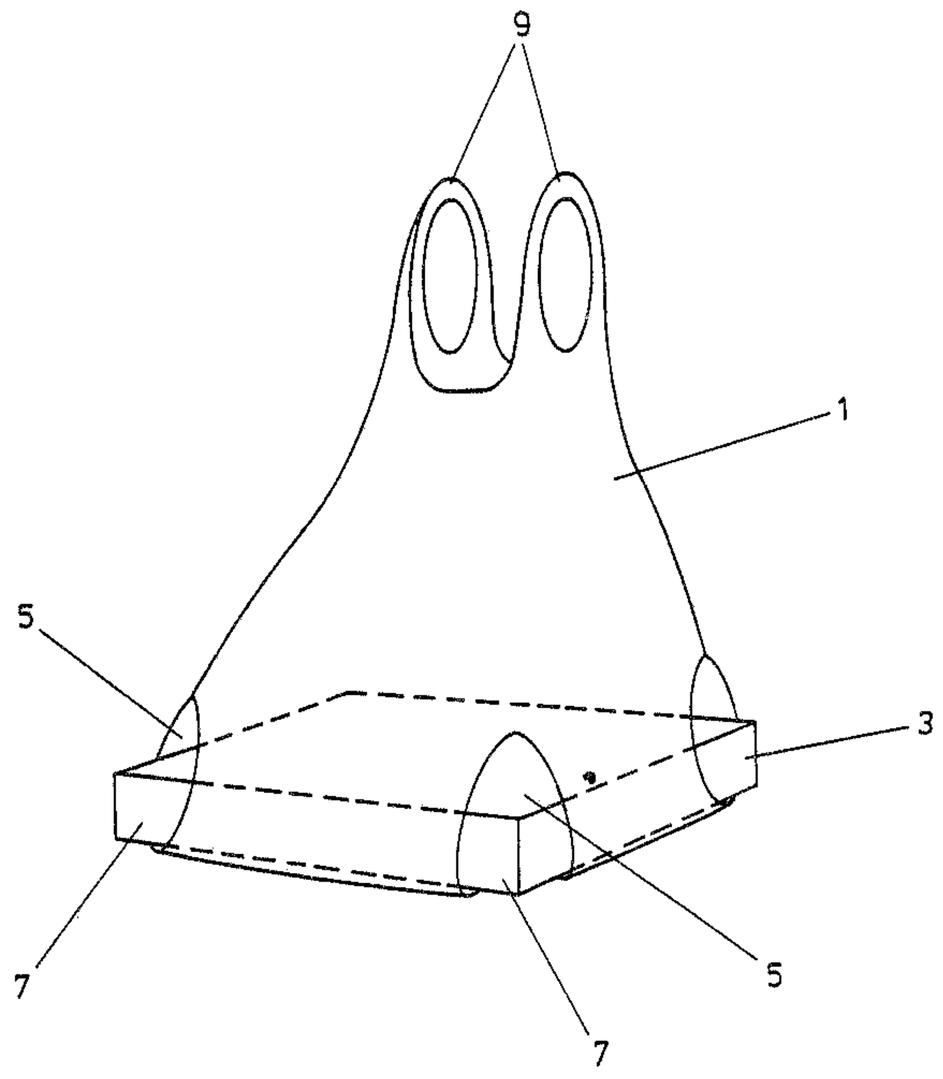
(11) (21) (C) **2,138,156**

(86) 1993/06/23
(87) 1994/01/06
(45) 2001/05/01

(72) Mooney, Sean St Anthony, GB
(73) Mooney, Sean St Anthony, GB

(51) Int.Cl.[5] B65D 33/00, B65D 33/06
(30) 1992/06/23 (9213248.9) GB
(30) 1992/09/07 (9218908.3) GB
(30) 1992/12/07 (9225561.1) GB

(54) **DISPOSITIF PORTE-CHARGE**
(54) **LOAD CARRYING DEVICE**



(57) A novel carrier is provided herein as well as a method for producing such carrier. The carrier is designed for use by a person to carry a load which is to be carried in an essentially-horizontal condition. The carrier is shaped so that, in use, it provides a base for supporting the base of the load. The carrier includes a carrying handle or loop which is located essentially-centrally above the load. The carrier is in the form of a bag. The base of the bag has edges for supporting edges of the base of the load. The bag is of sufficient size at its lower end to accommodate a load to be carried in its essentially-horizontal condition. The bag additionally is provided with holes or cut-out portions or perforation lines which, when ruptured, provide holes or cut-out portions. Each of the holes or cut-out portions is dimensioned and positioned so as to receive one lowermost corner or other lowermost projecting portion of the load. The holes or cut-out portions originate at a position between the handle or loop and the base of the bag and extend, in use, to the base of the bag. The holes or cut-out portions are so formed that they extend only partially along each edge of the base, thereby allowing the base of the bag, and each of the edges of the bag to support, respectively, the base of the load and each edge of the base of the load to stabilize the load in its essentially-horizontal condition.

ABSTRACT

A novel carrier is provided herein as well as a method for producing such carrier. The carrier is designed for use by a person to carry a load which is to be carried in an essentially-horizontal condition. The carrier is shaped so that, in use, it provides a base for supporting the base of the load. The carrier includes a carrying handle or loop which is located essentially-centrally above the load. The carrier is in the form of a bag. The base of the bag has edges for supporting edges of the base of the load. The bag is of sufficient size at its lower end to accommodate a load to be carried in its essentially-horizontal condition. The bag additionally is provided with holes or cut-out portions or perforation lines which, when ruptured, provide holes or cut-out portions. Each of the holes or cut-out portions is dimensioned and positioned so as to receive one lowermost corner or other lowermost projecting portion of the load. The holes or cut-out portions originate at a position between the handle or loop and the base of the bag and extend, in use, to the base of the bag. The holes or cut-out portions are so formed that they extend only partially along each edge of the base, thereby allowing the base of the bag, and each of the edges of the bag to support, respectively, the base of the load and each edge of the base of the load to stabilize the load in its essentially-horizontal condition.

(a) TITLE OF THE INVENTION

LOAD CARRYING DEVICE

(b) TECHNICAL FIELD TO WHICH THE INVENTION RELATES

This invention relates to load carrying devices and in particular to carrying devices for use by individuals wishing to convey articles which need to be carried in a particular orientation. More specifically, the invention relates to such carrying devices for conveying articles which are of substantially rectangular shape.

(c) BACKGROUND ART

A particular example of an article which has to be carried in a particular orientation is a box containing a take-away pizza. Such a box should be carried so that the pizza is maintained in a substantially-horizontal orientation. The box is typically square in plan and of a small depth which is sufficient to accommodate the thickness of the pizza. Currently it is a normal practice for one or more such take-away pizza packages to be carried directly by the purchaser, simply because it would not be possible to carry these articles in a conventional carrier-bag while maintaining the boxes in a substantially-horizontal condition. In order to carry one or more boxes directly, it is normally necessary for the purchaser to use both hands in order to hold the conveyed material securely in its proper orientation. Accordingly, the purchaser has no hand free in order to carry other articles, e.g., a carrier-bag full of shopping, a briefcase or an umbrella.

(d) DESCRIPTION OF THE INVENTION

By one broad aspect of this invention, a carrier is provided for use by a person to carry a load which is to be carried in an essentially-horizontal condition, the carrier being shaped so that, in use, it provides a base for supporting a base of the load, the carrier having a carrying handle or loop which is located essentially-centrally above the load. The carrier is in the form of a bag, the base of the bag having edges for supporting edges of the base of the load. The bag is of sufficient size at its lower end to accommodate a load to be carried in its essentially-horizontal condition. The bag additionally is provided with holes or cut-out portions or perforation lines which, when ruptured, provide holes or cut-out

portions. Each of the holes or cut-out portions is dimensioned and positioned so as to receive one lowermost corner or other lowermost projecting portion of the load. The holes or cut-out portions originate at a position between the handle or loop and the base of the bag and extend, in use, to the base of the bag. The holes or cut-out portions are so formed that they extend only partially along each edge of the base, thereby allowing the base of the bag, and each of the edges of the bag to support, respectively, the base of the load and each edge of the base of the load to stabilize the load in its essentially-horizontal condition.

By a first variant of this first broad aspect of the invention, the holes or cut-out portions are dimensioned and positioned so as to receive, in addition to the lowest corner, one upper corner or other upper projecting portion of the load.

By a second variant of this first broad aspect of the invention, and/or the above variant thereof, the carrier is adapted for use in carrying a load which is, in plan, of substantially-rectangular shape.

By a third variant of this first broad aspect of the invention, and/or the above variants thereof, the carrier further comprises both holes or cut-out portions and appropriately-dimensioned and positioned perforation lines which, when ruptured, provide further holes which may receive corners or other projecting portions of the load which is carried in the carrier

By a fourth variant of this first broad aspect of the invention, and/or the above variants thereof, the carrier further has a hole or cut-out portion at each of four of its corners, so as to receive four corners of a substantially-rectangular load. By a first variation thereof, the carrier additionally comprises, above each of the four holes or cut-out portions, perforation lines which, when ruptured increase the size of the original holes or cut-out portions so as to allow the carrier to accommodate loads of a greater size.

By a fifth variant of this first broad aspect of the invention, and/or the above variants thereof, the carrier is made from a flexible plastics material.

By a sixth variant of this first broad aspect of the invention, and/or the above variants thereof, the carrier is made of a textile material..

By a seventh variant of this first broad aspect of the invention, and/or the above variants thereof, the carrier additionally comprises an intermediate load structure which is dimensioned so as to fit into the base of the carrier in use and to provide a support for

other articles to be carried using the carrier. By a first variation thereof, the intermediate load structure is separable from the rest of the carrier. By a second variation thereof, the intermediate load structure is attached to the rest of the carrier. By a third variation thereof, the intermediate load structure is in the form of a relatively-rigid box. By a fourth variation thereof, the intermediate load structure is in the form of a relatively-rigid rectangular sheet, the sheet providing a surface onto which articles may be loaded for carrying using the carrier. By a fifth variation thereof, the intermediate load structure comprises a stack of relatively-rigid sheets, each sheet being spaced from an adjacent sheet by means of at least one spacing element.

By an eighth variant of this first broad aspect of the invention, and/or the above variants thereof, the carrier is capable of folding into a substantially-flat configuration for transportation and storage.

By a second broad aspect of this invention, a method is provided for producing a carrier for use by a person to carry a load which is to be carried in an essentially-horizontal condition. The method includes the first step of providing, in an existing carrier bag, having a carrier handle or loop, and a base having edges for supporting edges of a base of a load, appropriate locations for holes or cut-out portions, or perforation lines which, when ruptured, provide holes or cut-out portions, the appropriate portions being between the carrying handle or loop of the bag and extending to the base of the bag. The next step involves forming appropriately dimensioned holes or cut-out portions so that they extend only partially along each end of the base of the carrier bag. Associated with this step is the step of assuring that the holes or cut-out portions are arranged so that they are adapted, when in use, to receive one lowermost corner or other lowermost projecting portion of a load being carried using the carrier, thereby allowing the base of the bag and each edge of the base of the bag to support, respectively, the base of the load, and each edge of the base of the load in its essentially-horizontal condition.

By a first variant of this second broad aspect of this invention, the method further comprises dimensioning and positioning holes or cut-out portions so as to receive, in addition to the lowermost corner, one upper corner or other upper projecting portion of the load.

By a second variant of this second broad aspect of this invention, and/or the above variant thereof, the method further comprises providing the carrier bag with holes or cut-out portions and with appropriately-dimensioned and positioned perforation lines which, when ruptured, provide further holes which may receive corners or other projecting portions of the load carried in the carrier.

By a third variant of this second broad aspect of this invention, and/or the above variants thereof, the method comprises forming the existing carrier bag from a flexible plastics material.

In a fourth variant of this second broad aspect of this invention, and/or the above variants thereof, the method comprises forming the existing carrier bag from a textile material.

In more general terms, according to one embodiment of an aspect of the present invention, a carrier is provided for use by a person to carry a load which is to be carried in an essentially-horizontal condition. The carrier is shaped so that, when in use, it provides a base for supporting the base of the load, the carrier including a carrying handle or loop which is located, in use, essentially-centrally above the load. The carrier is in the form of a bag which is sufficiently large at its lower end to accommodate the load to be carried in its essentially-horizontal condition. The bag is provided with holes or cut-out portions which are dimensioned and positioned so as to receive the corners or other projecting portions of the load. This stabilizes the load in its essentially-horizontal condition.

Preferably, the carrier is adapted for use in carrying a load, e.g., a take-away pizza box, which is, in plan, of substantially-rectangular shape.

In a second embodiment of an aspect of this invention, a carrier may have a cut-out portion at each of four corners of the bag, so as to receive the four corners of a substantially-rectangular load.

In a third embodiment of an aspect of this invention, the bag may comprise, instead of, or in addition to, the holes or cut-out portions, appropriately-dimensioned and positioned perforation lines which, when ruptured, provide holes which may receive corners or other projecting portions of the load. For instance, the bag may comprise four corner holes, above each of which are provided perforation lines which, when ruptured, increase the size of the original holes so as to allow the bag to accommodate loads of a

greater size where necessary. Such a bag has great versatility of use, having greater strength when used to carry smaller loads but also possessing the potential to carry larger loads.

A carrier in accordance with other embodiments of aspects of the present invention may be made of any suitable material. By way of an example, in a fourth embodiment, it may be made of the sort of flexible plastics film of which conventional carrier-bags are made. By way of a further example, in a fifth embodiment, a carrier may be made of a suitable textile material.

In a sixth embodiment of an aspect of this invention, the carrier may be made from an existing carrier bag by providing in the existing bag with appropriately-positioned and dimensioned holes and/or cut-out portions and or perforation lines. Thus, the present invention in another of its broad aspects, provides within its scope, a method of making a carrier from an existing carrier bag, in this way.

The term "load" is intended to cover not just the article which the carrier is intended to carry but also an intermediate structure which may be located between the carrier and the article to be carried.

In one arrangement, according to a seventh embodiment of an aspect of this invention, in which there is an intermediate load structure as mentioned above, the carrier may be provided with a relatively-rigid box structure which is dimensioned so as to fit into the base of the carrier to provide a box into which objects may be loaded. The box has, in effect, a handle structure which is provided by the more flexible parts of the carrier so that the box may be carried in one hand. The holes or cut-out portions in the carrier may then receive corners of the intermediate structure. The box may be made of any suitable material, e.g., cardboard, and it may be stored in a folded condition, being unfolded for use when required. It may be provided separately from, or alternatively may be attached to, the other parts of the carrier (i.e., the base, the carrying handle, etc..).

In another arrangement according to a eighth embodiment of an aspect of this invention, in which an intermediate load structure is provided, this structure may be in the form of a simple rectangular, relatively-rigid, sheet which is made of, e.g., cardboard. Such a rigid sheet may be fitted into the base of the carrier to provide a surface onto which objects may be loaded. By way of example, a carrier having this arrangement may be used

to convey articles, e.g., flowerpots containing plants which need to be carried in an essentially-upright condition. Again, the sheet may be provided separately from, or attached to, the rest of the carrier.

In a yet further arrangement in accordance with a ninth embodiment of an aspect of this present invention, the intermediate structure may include a stack of rigid sheets, each spaced from adjacent sheets by means of one or more spacing elements, for instance, corner spacers. Such an arrangement will allow more articles to be carried within the carrier than in the case where a single rigid sheet is provided. The articles may be, e.g., flowerpots containing plants, the total height of such articles being such that they can be placed on one rigid sheet, there being clearance between the top of the articles and the bottom of an adjacent, overlying rigid sheet.

It will be appreciated that carriers which are intended for use with an "intermediate load structure" may be transported and stored in a flat condition, either with or without the materials providing the intermediate load structure. Whether or not the intermediate load structure is supplied with the carrier to, for instance, the retailer, the arrangement may be assembled at the point of sale from the "stored flat" materials.

(e) DESCRIPTION OF THE FIGURES

In the accompanying drawings:

Figure 1 shows one embodiment of a carrier according to an aspect of the present invention, with a load in position within the carrier.

Figure 2 shows a second embodiment of a carrier according to an aspect of the present invention.

Figure 3 shows a third embodiment of a carrier according to an aspect of the present invention.

Figures 4 and 5 show fourth and fifth embodiments of a carrier according to other aspects of the present invention.

(f) AT LEAST ONE MODE FOR CARRYING OUT THE INVENTION

Referring to Figure 1 of the accompanying drawings, a carrier 1 according to a first embodiment of an aspect of this invention for conveying a pizza box 3 is formed of

flexible plastics film similar to that used in conventional carrier-bags. It is in the form of a bag having a lower portion of sufficient size to accommodate box 3 in an essentially-horizontal condition. Box 3 is substantially-square in plan. Equally spaced about the lower portion of bag 1 are cut-out portions 5, through each of which projects a corner 7 of pizza box 3. These cut-out portions serve to stabilize the box 3 in its horizontal orientation.

As shown in Figure 1, carrier 1 is provided with handles 0 which, when the carrier is in use, are located substantially-centrally above pizza box 3.

Carriers described above may be made by any suitable manufacturing process, for instance, by forming a cruciform base with a side wall extending integrally or non-integrally from the cruciform base up to and into an integral handle.

It will be appreciated that the carrier described above can be carried in one hand, the other hand being free for carrying other objects. It may be used to carry, e.g., take-away food boxes, flower arrangements, cakes and any other items which need to be maintained in a horizontal position. The engagement of cut-out portions 5 with projecting parts of a load being carried stabilizes the load in its desired orientation.

Referring now to Figure 2 of the accompanying drawings, there is shown a carrier of broadly similar construction to that shown in Figure 1. In this case, the carrier 19 of a second embodiment of an aspect of this invention includes a box 21 having a base 23 and four side walls 25. Box 21 has an open top and is located, as shown in Figure 2, with its base at the bottom of the carrier 21 and its corners projecting through the cut-outs 27 in the carrier. Box 21 may be made of cardboard which may be stored in a folded condition and unfolded for use in the manner shown in Figure 2.

Accordingly, the arrangement shown in Figure 2 provides the facility of a cardboard box which is capable of being carried with one hand.

Referring now to Figure 3, a third embodiment in accordance with an aspect of this invention is similar to that shown in Figure 2. However, in this case, the cardboard box 31 is provided with a top 33 having cut-outs 35 for accommodating specific items, e.g., liquid-containing bottles 37. Such a carrier may also be used for carrying other items which are required to be held in a particular orientation, e.g., plant pots.

The carrier 41 of a fourth embodiment of an aspect of this invention shown in Figure 4 is in the form of a gusseted carrier bag (gussets labelled 43) having handles 45 and cut-

out portions 47 to each side of the gussets 43. Above each cut-out portion are perforations 49 which, when ruptured, increase the size of the cut-out portions and allow the accommodation of larger loads in the carrier when necessary.

The carrier 51 in Figure 5 of a fifth embodiment of an aspect of this invention, is also a gusseted (gussets 53) carrier bag having handles 55. Instead of cut-out portions, it has side perforations 57 which rupture, w hen necessary, to form cut-out portions. The carrier may be used as a standard carrier bag until the perforations 57 are torn so as to allow the bag to be used to carry a horizontally oriented load.

In the embodiment of aspects of the invention of Figures 4 and 5, the strength of the bags along the perforation lines is preferably such that a larger load will automatically cause the perforations to rupture sufficient to yield holes of an appropriate size to accommodate that load.

CLAIMS

1. A carrier for use by a person to carry a load which is to be carried in an essentially-horizontal condition, said carrier being shaped so that, in use, it provides a base for supporting a base of said load, said carrier including a carrying handle or loop which is located essentially-centrally above said load, said carrier being in the form of a bag, a base of said bag having edges for supporting edges of said base of said load, said bag being of sufficient size at its lower end to accommodate a load to be carried in its essentially-horizontal condition, said bag additionally being provided with holes or cut-out portions, or with perforation lines which, when ruptured, provide holes or cut-out portions, each of said holes or cut-out portions being dimensioned and positioned so as to receive one lowermost corner or other lowermost projecting portion of said load, said holes or cut-out portions originating at a position between said handle or loop and said base of said bag and extending, in use, to said base of said bag, and said holes or cut-out portions being so formed that they extend only partially along each edge of said base, thereby allowing said base of said bag, and each of said base of said bag to support, respectively, said base of said load and each edge of said base of said load to stabilize said load in its essentially-horizontal condition.

2. The carrier according to claim 1, in which said holes or cut-out portions are dimensioned and positioned so as to receive, in addition to said lowest corner, one upper corner or other upper projecting portion of said load.

3. The carrier according to claim 1 or claim 2, which is adapted for use in carrying a load which is, in plan, of substantially-rectangular shape.

4. The carrier according to claim 1, claim 2 or claim 3, and further comprising both holes or cut-out portions, and appropriately-dimensioned and positioned perforation lines which, when ruptured, provide further holes which may receive corners or other projecting portions of said load which is carried in the carrier

5. The carrier according to any one of claims 1 to 4, and further having a hole or cut-out portion at each of four of its corners, so as to receive four corners of a substantially-rectangular load.

6. The carrier according to claim 5, additionally comprising, above each of the four holes or cut-out portions, perforation lines which, when ruptured increase the size of the original holes or cut-out portions so as to allow the carrier to accommodate loads of a greater size.

7. The carrier according to any one of claims 1 to 6, which is made from a flexible plastics material.

8. The carrier according to any one of claims 1 to 6, which is made of a textile material.

9. The carrier according to any one of claims 1 to 8, additionally comprising an intermediate load structure which is dimensioned so as to fit into said base of said carrier in use and to provide a support for other articles to be carried using said carrier.

10. The carrier according to claim 9, wherein said intermediate load structure is separable from the rest of said carrier.

11. The carrier according to claim 9, wherein said intermediate load structure is attached to the rest of the carrier.

12. The carrier according to claim 9, claim 10 or claim 11, wherein said intermediate load structure is in the form of a relatively-rigid box.

13. The carrier according to claim 9, claim 10 or claim 11, wherein said intermediate load structure is in the form of a relatively-rigid rectangular sheet, said sheet providing a surface onto which articles may be loaded for carrying using the carrier.

14. The carrier according to claim 9, claim 10 or claim 11, wherein said intermediate load structure comprises a s tack of relatively-rigid sheets, each sheet being spaced from an adjacent sheet by means of at least one spacing element.

15. The carrier according to any one of claims 1 to 14, which is capable of folding into a substantially-flat configuration for transportation and storage.

16. A method of producing a carrier for use by a person to carry a load which is to be carried in an essentially-horizontal condition, said method comprising the steps of:

providing, in an existing carrier bag having a carrying handle or loop, a base of said carrier bag having edges for supporting edges of a base of said load, a location for originating holes or cut-out portions, or perforation lines which, when ruptured, provide holes or cut-out portions, said location being between said carrying handle or loop of said bag and said base of said bag and extending to the base of said bag; and

forming said holes or cut-out portions so that they extend only partially along each edge of said base while assuring that said holes or cut-out portions are arranged so that they are adapted, when in use, to receive one lowermost corner or other lowermost projecting portion of a load being carried using said carrier, thereby allowing said base of said bag and each edge of said base of said bag to support, respectively, said base of said load, and each edge of said base of said load in its essentially-horizontal condition.

17. The method according to claim 16, which further comprises dimensioning and positioning holes or cut-out portions so as to receive, in addition to said lowermost corner, one upper corner or other upper projecting portion of said load.

18. The method according to claim 16 or claim 17, which further comprises providing said carrier bag with holes or cut-out portions and with appropriately-dimensioned and positioned perforation lines which, when ruptured, provide further holes which may receive corners or other projecting portions of said load carried in said carrier.

19. The method according to claim 16, claim 17 or claim 18, which comprises forming said existing carrier bag from a flexible plastics material.

20. The method according to claim 16, claim 17 or claim 18, which comprises forming said existing carrier bag from a textile material.

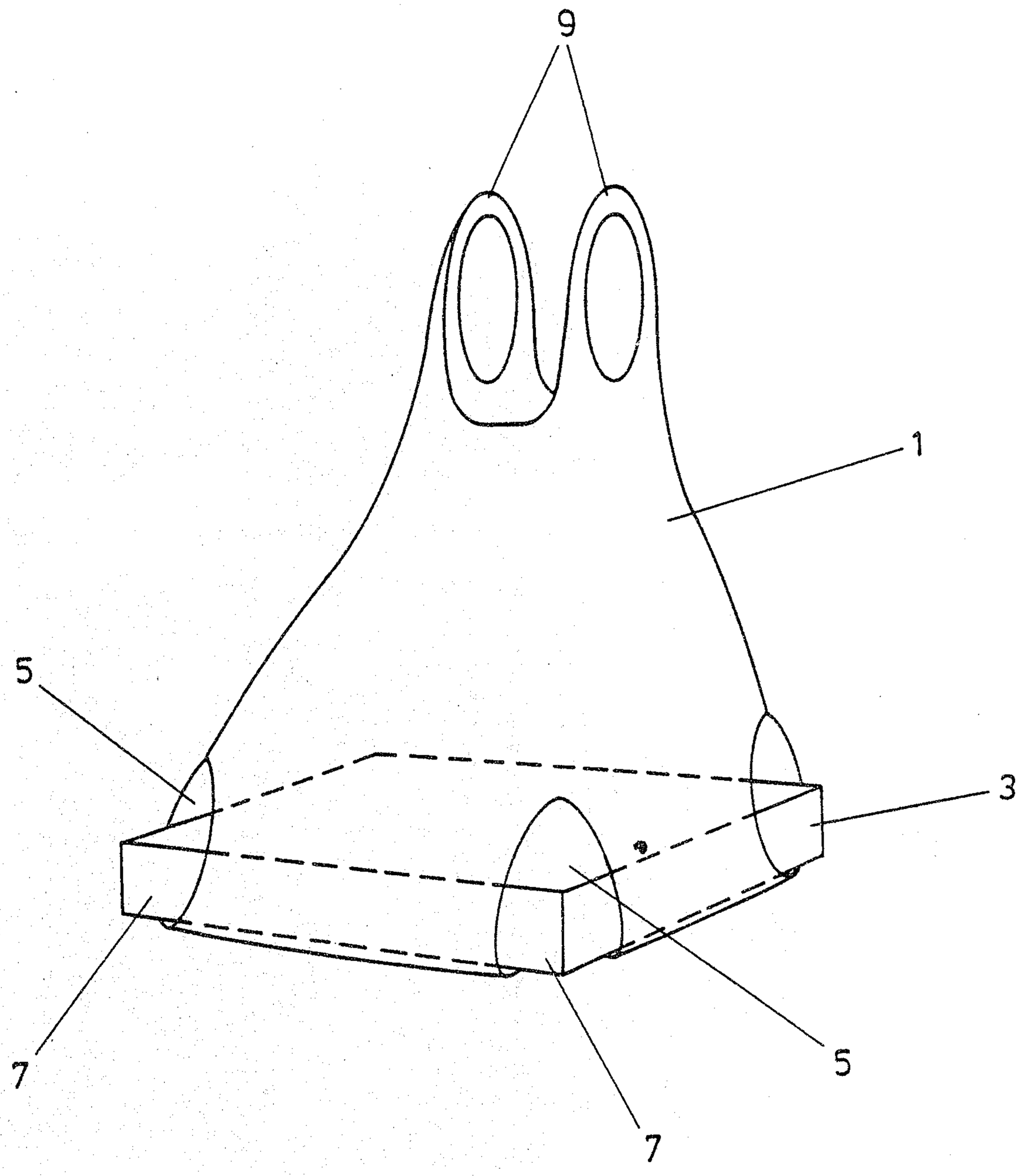


FIG. 1

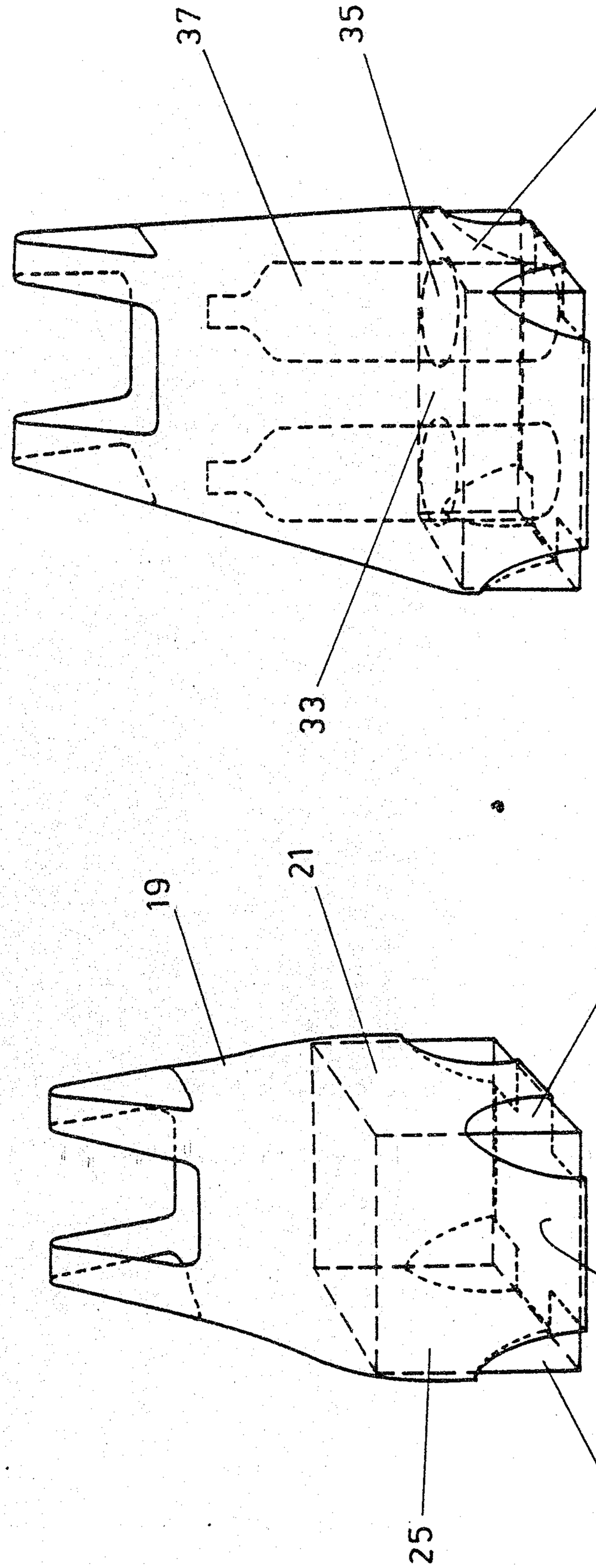


FIG. 3

FIG. 2

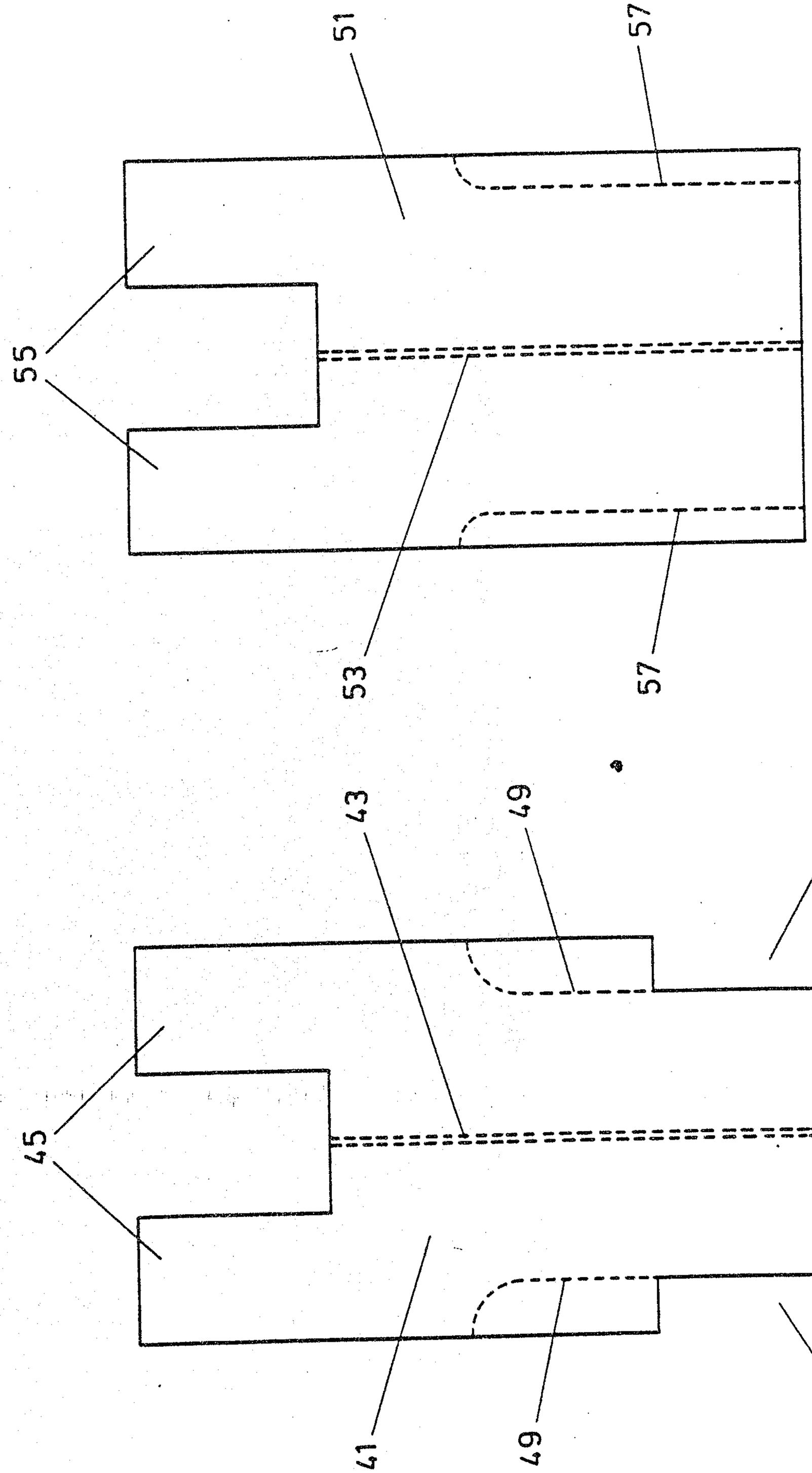
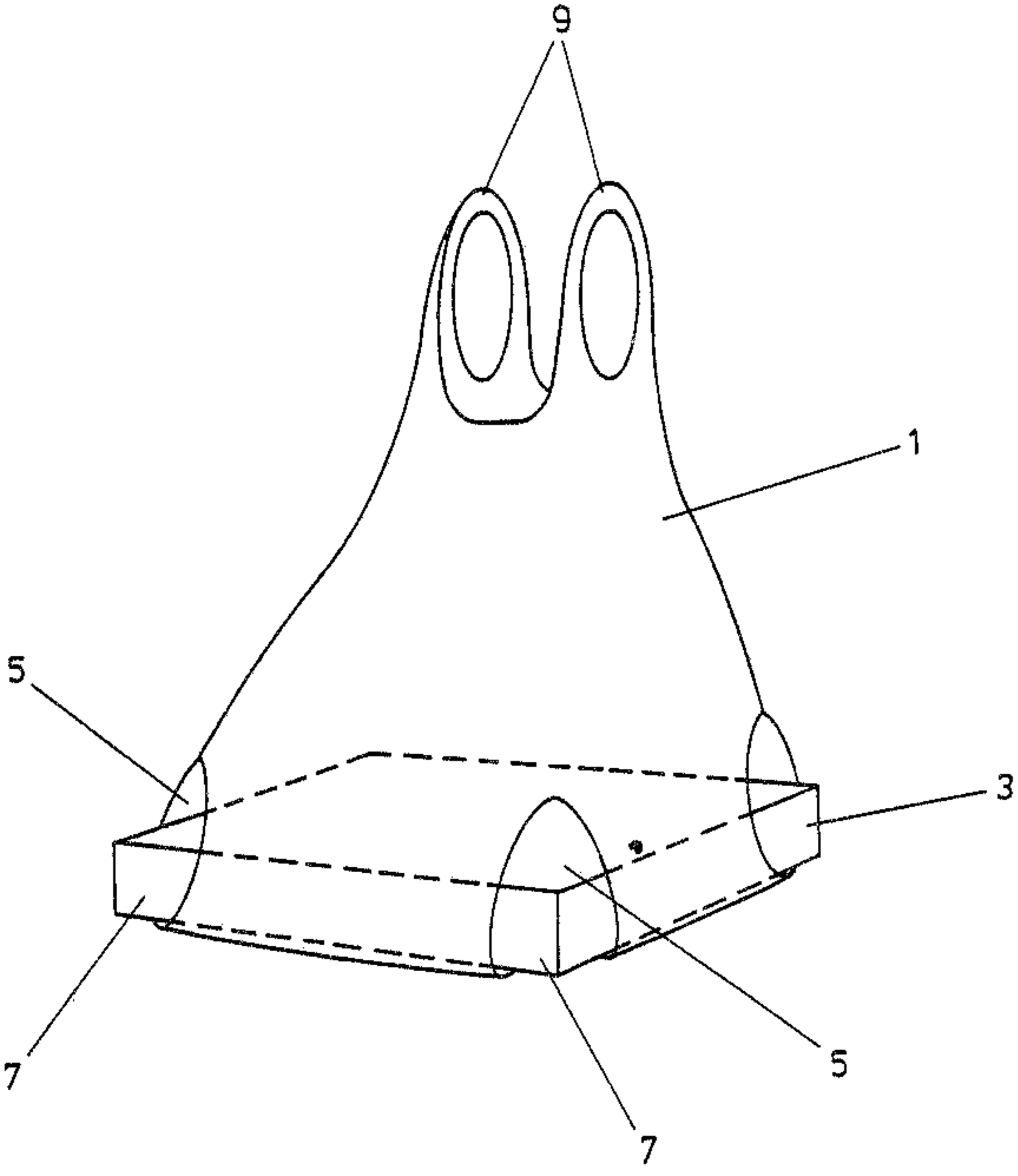


FIG. 5

FIG. 4


9
1
5
3
7
5
7