

PATENT SPECIFICATION

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(54) CONTAINER FOR DISPENSING SMALL OBJECTS

(71) We, P. FERRERO & C. S.p.A., an Italian Joint Stock Company, of Piazza Pietro Ferrero 1, Alba (Cuneo) Italy, do hereby declare the invention for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:-

The present invention provides a container for dispensing small objects, such as sweets and tablets.

British Patent Specification No. 1365040 describes and claims a container having a single opening and closure. By increasing the number of openings, the invention significantly enhances the convenience with which the container can be used. The container is designed to be held, opened and closed by one hand, and is particularly useful in situations where only one hand can be freed, such as when driving. If there is more than one opening, an object can be dispensed even if the container is picked up the wrong way round, without having to turn the container round in the hand. Moreover, in the particular case of an injection-moulded container, once the dies have been cut, there is no significant increase in manufacturing costs. Where, as is preferred, the container of the present invention is divided into a plurality of compartments each having a respective one of the openings, the openings give independent access to different objects, for instance different kinds of sweets, within the respect compartments.

In accordance with the present invention, there is provided a container for dispensing small objects, such as sweets and tablets, and being of such a size that it can be grasped by the fingers of one hand while leaving the thumb free, the container including a top portion having at least two openings and having respective closures for the openings which closures can be opened and shut singly by means of the thumb while the

container is grasped by the fingers of the hand.

For a better understanding of the invention and to show how the same may be carried into effect, reference will now be made, by way of example, to the accompanying drawings, in which:-

Figure 1 is a perspective view of a closed container in accordance with the invention,

Figure 2 is an exploded, perspective view of the container with its closures open, and

Figure 3 is a part section along the line III-III of Figure 2, but with the container assembled.

The container shown in the drawings has a main portion 1, which can be formed from a fairly rigid, transparent synthetic plastics material such as polystyrene, and has an initially separate top portion 2 which may be formed from a more flexible, opaque synthetic plastics material such as polyvinylchloride. Both the main portion 1 and the top portion 2 can be made by injection moulding.

The container is divided into a plurality of compartments (in this case, two) by a partition 3 which is integral with the main portion 1 and by a partition 4 which is integral with the top portion 2. The top portion 2 is in the form of a plug and has a skirt 5 which enters the main portion 1; the partition 4 extends down as far as the bottom of the skirt 5, and terminates just short of, but in register with, the partition 3 (see Figure 3).

The container is for dispensing small objects, such as small sweets and tablets, and is of such a size that it can be grasped by the fingers of one hand while leaving the thumb free. Purely as an example of the possible size of such a container, the illustrated container is 63 millimetres high, 35.5 millimetres wide and 13.5 millimetres thick and, whilst these measurements may be widely varied, it is preferred that the container should have a horizontal cross-section

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in which the minimum dimension is not more than, and is advantageously substantially less than, half the maximum dimension at right angles thereto. The container shown in the drawings is generally cylindrical, the term "cylindrical" being used in the mathematical sense, namely having a generally constant cross-section throughout its length, but the term is to be interpreted as including the possibility of the container departing in minor respects from a truly cylindrical configuration. For example, the container may have a reduction in cross-section towards the bottom, or may taper throughout its length, or may have its narrower sides formed with a concave, instead of flat, outer surface. Despite having chamfered edges, the specific shape of the container shown in the drawings is substantially a parallelepiped.

As can be seen in Figure 2, the container has two openings 6 on opposite sides of the top portion 2, each opening 6 having a vertical plane of symmetry, which planes are coincident and are at right angles to the minimum cross-sectional dimension of the top portion 2. The top portion 2 defines respective hinged flap closures 7 for the openings, which flap closures 7 are hinged about horizontal axes spaced from the edge of the top portion 2, by means of respective thin pieces 8 of plastics material (see Figure 3) connected to a bridge 9 (Figure 1) which separates the two openings 6, the flap closures 7 and the bridge 9 being integral with the top portion 2. Each flap closure 7 has a respective end portion 10 which, when in a closing position, projects slightly beyond the top of the container for engagement by the thumb, so that the flap closures 7 can be opened and shut singly by means of the thumb while the container is grasped by the fingers of the hand. It will be seen that each opening 6 leads to a respective compartment within the container.

The flap closures 7 have a snap-action retention in the closed position, and the snap-action retention illustrated in the drawings is that particularly described in British Patent Specification No. 1365040, referred to above. However, any other suitable type of snap-action retention can be used.

A two compartment container in accordance with the invention can be filled with different objects in each compartment, for instance mint-flavoured sweets in one compartment and cinnamon-flavoured sweets in the other.

WHAT WE CLAIM IS:-

1. A container for dispensing small objects, such as sweets and tablets, and being of such a size that it can be grasped by the fingers of one hand while leaving the thumb free, the container including a top portion having at least two openings and

having respective closures for the openings which closures can be opened and shut singly by means of the thumb while the container is grasped by the fingers of the hand.

2. A container as claimed in claim 1, wherein there are two of the openings at opposite sides of the centre of said top portion, each opening having a plane of symmetry and the two planes being coincident and at right angles to the minimum horizontal cross-sectional dimension of the top portion.

3. A container as claimed in either claim 1 or claim 2, having a horizontal cross-section in which the minimum dimension is not more than half the maximum dimension at right angles thereto in the same cross-sectional plane.

4. A container as claimed in any one of the preceding claims, and being generally cylindrical (as hereinbefore defined).

5. A container as claimed in any preceding claim, wherein each of the openings is in the top portion of the container and the respective closures are flaps hinged about horizontal axes (when the container is standing upright on a horizontal surface) which axes are spaced from the edge of the top portion, each flap having a respective end portion which projects beyond the top portion for engagement by the thumb, and wherein each flap has a snap-action retention in the closed position.

6. A container as claimed in claim 3 when read as appendant to claim 2, wherein the top of the container has two of said openings which are separated by a bridge to which the closure flaps are each hinged.

7. A container as claimed in any preceding claim, and being divided into a plurality of compartments each having a respective one of the openings.

8. A container as claimed in claim 7, and comprising a main portion and an initially separate plug which forms said top portion and has a skirt that enters the main portion, the main portion being divided into the compartments by at least one partition which extends up substantially as far as the base of the skirt of the plug, and the interior of the plug being divided into compartments by at least one partition which registers with that of, or which partitions register with those of, the main portion.

9. A container as claimed in claim 8, wherein both the main portion and the initially separate top portion are made of synthetic plastics material and the synthetic plastics material of the main portion is more rigid than that of the top portion.

10. A container for dispensing small objects, such as sweets and tablets, the container being substantially as herein described with reference to, and as shown in, the accompanying drawings.

in which the minimum dimension is not more than, and is advantageously substantially less than, half the maximum dimension at right angles thereto. The container shown in the drawings is generally cylindrical, the term "cylindrical" being used in the mathematical sense, namely having a generally constant cross-section throughout its length, but the term is to be interpreted as including the possibility of the container departing in minor respects from a truly cylindrical configuration. For example, the container may have a reduction in cross-section towards the bottom, or may taper throughout its length, or may have its narrower sides formed with a concave, instead of flat, outer surface. Despite having chamfered edges, the specific shape of the container shown in the drawings is substantially a parallelepiped.

As can be seen in Figure 2, the container has two openings 6 on opposite sides of the top portion 2, each opening 6 having a vertical plane of symmetry, which planes are coincident and are at right angles to the minimum cross-sectional dimension of the top portion 2. The top portion 2 defines respective hinged flap closures 7 for the openings, which flap closures 7 are hinged about horizontal axes spaced from the edge of the top portion 2, by means of respective thin pieces 8 of plastics material (see Figure 3) connected to a bridge 9 (Figure 1) which separates the two openings 6, the flap closures 7 and the bridge 9 being integral with the top portion 2. Each flap closure 7 has a respective end portion 10 which, when in a closing position, projects slightly beyond the top of the container for engagement by the thumb, so that the flap closures 7 can be opened and shut singly by means of the thumb while the container is grasped by the fingers of the hand. It will be seen that each opening 6 leads to a respective compartment within the container.

The flap closures 7 have a snap-action retention in the closed position, and the snap-action retention illustrated in the drawings is that particularly described in British Patent Specification No. 1365040, referred to above. However, any other suitable type of snap-action retention can be used.

A two compartment container in accordance with the invention can be filled with different objects in each compartment, for instance mint-flavoured sweets in one compartment and cinnamon-flavoured sweets in the other.

WHAT WE CLAIM IS:-

1. A container for dispensing small objects, such as sweets and tablets, and being of such a size that it can be grasped by the fingers of one hand while leaving the thumb free, the container including a top portion having at least two openings and

having respective closures for the openings which closures can be opened and shut singly by means of the thumb while the container is grasped by the fingers of the hand.

2. A container as claimed in claim 1, wherein there are two of the openings at opposite sides of the centre of said top portion, each opening having a plane of symmetry and the two planes being coincident and at right angles to the minimum horizontal cross-sectional dimension of the top portion.

3. A container as claimed in either claim 1 or claim 2, having a horizontal cross-section in which the minimum dimension is not more than half the maximum dimension at right angles thereto in the same cross-sectional plane.

4. A container as claimed in any one of the preceding claims, and being generally cylindrical (as hereinbefore defined).

5. A container as claimed in any preceding claim, wherein each of the openings is in the top portion of the container and the respective closures are flaps hinged about horizontal axes (when the container is standing upright on a horizontal surface) which axes are spaced from the edge of the top portion, each flap having a respective end portion which projects beyond the top portion for engagement by the thumb, and wherein each flap has a snap-action retention in the closed position.

6. A container as claimed in claim 3 when read as appendant to claim 2, wherein the top of the container has two of said openings which are separated by a bridge to which the closure flaps are each hinged.

7. A container as claimed in any preceding claim, and being divided into a plurality of compartments each having a respective one of the openings.

8. A container as claimed in claim 7, and comprising a main portion and an initially separate plug which forms said top portion and has a skirt that enters the main portion, the main portion being divided into the compartments by at least one partition which extends up substantially as far as the base of the skirt of the plug, and the interior of the plug being divided into compartments by at least one partition which registers with that of, or which partitions register with those of, the main portion.

9. A container as claimed in claim 8, wherein both the main portion and the initially separate top portion are made of synthetic plastics material and the synthetic plastics material of the main portion is more rigid than that of the top portion.

10. A container for dispensing small objects, such as sweets and tablets, the container being substantially as herein described with reference to, and as shown in, the accompanying drawings.





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11. A container as claimed in any preceding claim, and containing sweets.

12. A container as claimed in either claim 7 or claim 10, and containing different objects in the respective compartments.

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