SURFACE AREA REGULATING DISPENSER.

Priority: 16.11.90 US 614301

Date of publication of application: 20.05.92 Bulletin 92/21

Publication of the grant of the patent: 05.10.94 Bulletin 94/40

Designated Contracting States: ES FR IT

References cited:
FR-A- 1 056 510
US-A- 2 878 061
US-A- 4 017 030
US-A- 4 483 095
FR-A- 1 123 434
US-A- 3 885 341
US-A- 4 218 843
US-A- 4 813 174

Proprietor: DOW CORNING CORPORATION
3901 S. Saginaw Road
Midland Michigan 48686-0994 (US)

Inventor: Weiss, Lon Louis
1671 East Everglade Avenue
Fresno, California (US)
Inventor: Jacobson, Lawrence Roy
2504 Abbott
Midland, Michigan (US)
Inventor: Rankin, Frank Sym
581 East El Paso 102
Fresno, California (US)

Representative: Laredo, Jack Joseph et al
Elkington & Fife
Prospect House
8 Pembroke Road
Sevenoaks, Kent TN13 1XR (GB)

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid (Art. 99(1) European patent convention).
Description

This invention relates to regulating dispensers for controlled release polymers containing agricultural chemicals and the like. The invention particularly relates to surface area regulating dispensers wherein the exposed surface area of the polymer to be released can be regulated by choice of elements included in a standardized dispenser.

Devices for containing and releasing volatile vapours from a solid or the like are known. It is also known to make boxed shape dispensers having openings for exposing air-refreshening materials contained therein to the air. It is further known to provide a device for dissemination of a vapourizable material at a predetermined rate using elongated capillary conduits of predetermined cross-sectional area for containing the vapourizable substance therein. It is known to provide a vapour dispensing device in substantially a box shape wherein a carrier material impregnated with or coated by a vapourizable air treating composition is disposed inside the box. The rate of vapourization is controlled through the use of means to cover or uncover openings in the box walls. It is also known to provide infusion devices that are placeable in a liquid and contain matter which is to be diffused into the liquid.

FR-A-1123434 discloses a device for combating evil-smelling odours or toxic emanants from a receptacle. The device is provided on the walls or lids of the receptacle and contains a substance to deodorise or disinfect unpleasant emanations from the contents of the receptacle.

FR-A-1056510 discloses a device having a support unit for a product which is to be evaporated. The evaporation of the product is retarded by closing off orifices on the support unit through which evaporation takes place. This is carried out by means of an annular disc which is moved to block off the orifices to a greater or lesser extent.

However, what has been known heretofore does not encompass small easily attachable dispensers having varying sized and interchangeable substance containers. Likewise, it has not been known as to what was a good proper means for attaching a vapour dispensing device to a variety of objects.

Therefore, there is a need to provide small regulating dispensers that are easily attached to a variety of natural and man-made structures. There is a further need to provide these dispensers with means for varying the exposed surface area of the dispensed material and for rapidly accomplishing this variation.

It is a general object of this invention to provide a dispenser for agricultural chemicals.

It is an object of this invention to provide a dispenser for agricultural chemicals wherein the extent of exposed surface area of the chemicals can be varied to at least two different release conditions.

Another object of the invention is to provide a dispenser for agricultural chemicals which can be easily relocated.

Another object of the invention is to provide a dispenser for agricultural chemicals which is flexible in terms of the quantity and type of chemicals dispensed.

A further object of the invention is to provide a dispenser for agricultural chemicals which can be manufactured in distinct shapes and/or colors depending upon the insect to be attracted and/or the chemical to be contained, etc.

The subject of the present invention, therefore, relates to a dispenser for regulating the exposed surface area of a product to be dispensed comprising a face plate and a container wherein said container has a body portion for accommodating a product to be dispensed, characterised in that the face plate has a first hole in an affixing section and a second hole in a dispensing section; said body portion of said container is closed except for at least one open section; an edge defining said open section of the body portion of the container is concentrically aligned with a raised edge defining said second hole in the dispensing section of said face plate; the container and the face plate are affixed by an attachment means between said edge of the container and said raised edge of the face plate; such that the container may be replaced by another one having a different shaped body portion to regulate the rate of release from the container of the product to be dispensed.

Hence, a small lightweight dispenser is provided. The dispenser consists then of two parts: a container and a faceplate. The faceplate is generally a small, flat piece and is preferably constructed of light weight durable material such as plastic. One end of the faceplate is generally open to define a first hole for attaching the faceplate to a vine, branch or the like. The body structure surrounding the first hole is preferably discontinuous to define, for instance, a web to aid in the attachment. The opposite end of the faceplate has a second hole therein. This second hole is surrounded by a raised edge. The container is made to fit in concentric alignment with the second hole. The container and the faceplate can be attachable by a raised edge on the faceplate engageable by the container so that a form-fit is achieved, or by outfitting each with a lip for snap fitting the container to the faceplate. Containers of various sizes, each having the same upper lip or upper edge
dimensions for fitting a standard faceplate, are made available. This allows for simple and rapid replacement of containers within face plates. Containers of larger dimensions effectively expose more of the contained agricultural substance to the air than those of smaller dimensions and consequently diffuse the substance at a faster rate. This becomes important because release rates of pheromones and insect attractants must be regulated in a range to which the insect responds. Rates different than a nominal rate are either wasteful or ineffective to influence insect behavior. Containers, and of course the receiving raised edges of the faceplate, can be made in various geometric shapes. The faceplate and/or container can be made from different colored plastics for both coding purposes such as date of application, product variations and to take advantage of the attraction of certain insects to certain colors.

The above-listed preferred aspects are not intended as limiting. For instance, the faceplate can be constructed with an additional third hole for introduction of a nail or tie wrap therethrough for use in more securely attaching the device to an object. Additionally, the faceplate can be constructed of a greater lengthwise dimension with additional second holes therethrough for attaching a plurality of containers in varying or similar sizes for use in evolving or diffusing combinations of agricultural chemicals to the environment. It is also preferable to construct the faceplate with small nubs of plastic, integral to the faceplate itself, jutting slightly outwards the second hole in the faceplate where the container is to be attached. This serves the dual purpose of preventing solid form chemicals within the container from being jostled out upon movement of the device and as a further limitation of exposed chemical surface area.

Fig. 1 of the drawings is a bottom view of a substantially oval faceplate according to the invention.

Fig. 2 is a top perspective view of a substantially oval faceplate and container according to Fig. 1.

Fig. 3 is a side view of a container to be attached to the faceplate, the container having a cylindrical shape.

Fig. 4 is a top view of the cylindrically shaped container.

Fig. 5 is a perspective view of three alternate container shapes.

Fig. 6 is a side view of the device wherein the container is shown attached to the bottom of the faceplate.

Fig. 7 is a cut-away view of the raised edge section of the faceplate where the container is attached.

Fig. 8 is a side cut-away view showing the lip of the container engaged with the lip of the raised edge defining a snap-fit.

Fig. 9 is a side view of the device wherein the container is shown attached to the bottom of the faceplate via a form-fit.

Fig. 10 is a bottom view of a rectangular faceplate having attachment structure for a triangular container.

Fig. 11 is a top perspective view of a faceplate having a plurality of attached containers.

As shown in Figs. 2, 3 and 4 of the drawings, the invention is a surface area regulating dispenser including a faceplate 15 having an affixing section 17 and a dispensing section, the affixing section having an affixing first hole 16, the dispensing section having a second hole 18 therein, a container 21 having a body portion 22 which is closed except for at least one open section 24, and means for attaching the container 21 to the faceplate 15 wherein said open section 24 of the container 21 is substantially in alignment with the second hole 18 in the dispensing section.

The underside of a faceplate 15 having an essentially oval shape is shown in Fig. 1. The affixing section 17 is shown to have an opening 16 in the faceplate body. The device can be deployed in the environment by affixing it to a branch, vine or the like, for example, by threading said branch or vine through the affixing hole 16. The affixing hole 16 can be defined by a discontinuous web, as shown in Fig. 1, to aid in affixing the device to a variety of objects which may be encountered in the field but not readily threaded through a hole defined by a continuous web. The discontinuous web can be designed to attach to itself, thus closing the web, therefore further securing the device to a branch, vine or the like. The dispensing section of faceplate 15 is shown to be essentially comprised of means defining a second hole 18. A preferred embodiment of the device includes a faceplate 15 having stubs 19 which project outwards over hole 18 in the plane of faceplate 15. Stubs 19 serve the dual purpose of preventing any emitting body from being jostled out of the dispensing section and also as a further limitation on the extent of exposed surface area. The stubs 19 can be short and/or resilient enough to allow a body of scent emitting material to be pressed through hole 18.

Raised edge 20 is shown to completely encircle second hole 18 in the dispensing section. Raised edge 20 preferably is manufactured to a tight tolerance so as to produce a form-fit with container 21 (not shown in Fig. 1) or may be produced with a lip so that a snap fit with container 21 is achieved. The edge can also be made discontinuous, for example, by spaced sections together defining a lip for engaging the container.
It must be kept in mind that the faceplate 15 shown and described in Fig. 1 is but one embodiment of a faceplate within the realm of the invention as disclosed and claimed. Other configurations are possible, for instance the faceplate 15 is not necessarily an elongated or oval shape as shown, but may be rectangular or some other geometric form. Likewise, second hole 18 is not necessarily round and may be, for example, of triangular or rectangular cross-section. As a further limitation and control on the exposure of the emitting body surface area, hole 18 can vary in size independent of the size of any attached container 21 (not shown in Fig. 1). Altering varying sized containers 21 with faceplates 15 having differently sized second openings 18 provides for proper selection of advantageous release rates. Also, the area affixing section 17 defining hole 16 is shown to have a small break therein, defining a form of hook, but this is not limiting and the affixing hole can, within the scope of this invention, be unbroken, have a larger break, or have means by which it is attachable to itself.

Fig. 2, which illustrates the top surface of the faceplate in perspective, shows and depicts similar features as discussed with respect to Fig. 1. In Fig. 2, container 21 is shown affixed to face plate 15. An alternate affixing device such as wire or a nail can be introduced through a third hole 48 as a replacement or assistance for affixing Section 17.

Fig. 3 is a side view of the container 21. The container body 22 as shown can form a substantially complete enclosure, but for an open top edge at which the container 21 attaches to faceplate 15 (not shown in Fig. 3). The top of container body 22 preferably is manufactured with rim 23, namely a radially protruding flange that can be received by a lip on faceplate 15 (not shown in Fig. 3). Body 22 of container 21 is of any number of sizes to provide individually attachable containers 21 of varying cross-sectional area and/or volume.

Referring to Figure 4, container 21 is again shown. However, Fig. 4 represents a top view of container 21 wherein unenclosed section 24 is clearly visible. Container rim 23 is shown encircling the top of container 21.

Referencing Fig. 5 container 21 is depicted in perspective showing a number of possible shapes usable in accordance with the invention. Hemi-spherical container body 50, conical container body 51 and ovoid container body 52 provide for varying degrees of polymer surface area exposure to satisfactorily control release rates. Each container body 50,51, and 52 has rim 23 to aid in affixation to faceplate 15 (not shown in Fig. 4).

Now referring to Figure 6, a side view of the dispenser is shown. Container 21 is shown attached to faceplate 15. Such attachment is shown to be by way of a snap fit between rim 23 (not shown) and raised edge 20. Such means of attachment is not limiting. For instance, raised edge 20 and container body 22 can be manufactured to such tight tolerances that a form-fit is achieved between raised edge 20 and container body 22. A fit of this type is shown in Fig. 9. Note that in Fig. 9 it is not necessary to construct container 21 with rim 23 although inclusion of such would not inhibit attachment of the container via a form fit.

Fig. 7 depicts a side view partial cross-section of raised edge 20 that can be used for accomplishing a snap fit with container 21 (not shown in Fig. 7). Raised edge 20 as shown has top 25 and bottom 26. Bottom 26 extends further inwardly than top 25, for example being thicker than top 25, whereby a lip 27 is defined.

Referencing Fig. 8, in order to effect attachment of container 21 to faceplate 15, the container body 22 can be forced against bottom 26 of raised edge 20. Raised edge 20 deforms outwardly somewhat, allowing container rim 23 to pass over lip 27 of raised edge 20, which snaps back inwardly, the rim 23 resting securely against faceplate 15 and top 25 of raised edge 20. In this manner, lip 27 of raised edge 20 secures container 21 to faceplate 15. It can also be seen from Fig. 8, that a slide fit is achievable by constructing raised edge 20 as a discontinuous receptacle having an opening for laterally sliding container 21 into engagement with raised edge 20. In this manner, lips 27 of raised edge 20 form tracks for slidingly engaging rim 23 of container 21.

The snap fit shown and described in Figs. 7 and 8 is subject to some further variations. For instance, faceplate 15 may be constructed with a depression within faceplate 15 in place of raised edge 20. A lip may be made integral to this depression in faceplate 15 so that a snap fit can be made between the depression in faceplate 15 and rim 23 of container 21.

Fig. 10 is a bottom view of the dispenser showing a rectangular faceplate 15, a triangular second hole 18, and a triangular raised edge 20 for attaching a triangular container 21 (not shown) thereto.

In Fig. 11, a perspective view of a dispenser having a dispensing section with a plurality of second holes 18 therein for attaching a plurality of containers 21 thereto in substantial alignment with the plurality of holes 18. In this manner it is possible to release a combination of different polymers to the atmosphere without physically mixing them and potentially destroying their individual, unique properties.

Although some particular embodiments of the invention have been shown and described, various forms and embodiments of the device are possible within the scope of the invention claimed. For in-
stance, it is assumed that affixing Section 17 defin-
ing hole 16 will generally be used to affix the
device to natural or man-made objects in the field,
for example means disposing the device above the
ground. If desirable to furnish additional support to
the device, it is within the scope of the invention to
provide an alternative or additional hole through the
faceplate for receiving alternative affixing means,
such as a nail or tie wrap. Although it is con-
templated that the device will be constructed of
plastic for durability and flexibility, other materials
can be used, consistent with the intended outdoor
use of the device. Additionally, it is desirable to
provide the faceplate and/or containers in various
colors as it is known in the art of the affinity of
certain insects to certain colors.

Claims

1. A dispenser for regulating the exposed surface
area of a product to be dispensed comprising
a face plate (15) and a container (21) wherein
said container (21) has a body portion (22) for
accommodating a product to be dispensed,
characterised in that
the face plate (15) has a first hole (16) in an
affixing section (17) and a second hole (18) in
a dispensing section;
said body portion (22) of said container (21) is
closed except for at least one open section
(24);
an edge defining said open section (24) of the
body portion (22) of the container is concen-
trically aligned with a raised edge (20) defining
said second hole (18) in the dispensing section
of said face plate (15);
the container (21) and the face plate (15) are
affixed by an attachment means between said
device of the container and said raised edge
(20) of the face plate such that the container
(21) may be replaced by another one having a
different shaped body portion (22) to regulate
the rate of release from the container of the
product to be dispensed.

2. A dispenser as claimed in claim 1, charac-
terised in that said raised edge (20) defining
said second hole (18) in the dispensing section
of the face plate (15) at least partially encom-
passes said second hole (18).

3. A dispenser as claimed in claim 1 or 2, charac-
terised in that said edge defining the open
section (24) of the body portion (22) of the
container (21) is a radially protruding flange
forming a rim (23).

4. A dispenser as claimed in any of claims 1 to 3,
characterised in that said attachment means
between said edge of the container (21) and
said raised edge (20) defining said second
hole (18) is selected from the group consisting
of a form-fit attachment, a snap-fit attachment
and a slide-fit attachment.

5. A dispenser according to any of claims 1 to 4,
characterised in that the dispensing section
has a plurality of said second holes (18) there-
in for attaching a plurality of said containers
(21), wherein the edge defining the open sec-
ction (24) of the body portion (22) of said plural-
ity of containers (21) is concentrically aligned
with said raised edge (20) defining said plural-
ity of second holes (18).

6. A dispenser according to any of claims 1 to 5,
characterised in that the face plate (15) com-
prises at least one third hole (48) for the in-
troduction of alternate fixing means.

7. A dispenser for regulating the exposed surface
area of a product to be dispensed, charac-
terised in that said dispenser comprises
a face plate (15) and a plurality of containers
(21) wherein said plurality of containers (21)
each have a body portion (22) for accom-
modating a product to be dispensed,
said face plate (15) has a first hole (16) in an
affixing section (17) and a second hole (18) in
a dispensing section;
said body portions (22) of said plurality of
containers (21) are closed except for at least
one open section (24) in each of said contain-
ers;
each container (21) has an edge defining said
open section (24) of the body portion (22)
thereof, which is concentrically alignable with a
raised edge (20) defining said second hole (18)
of the dispensing section of said face plate
(15);
each container (21) can be selected and in-
dividually affixed to said face plate (15) by an
attachment means between any edge of said
plurality of containers (21) and said raised
edge (20) of the second hole (18) in said face
plate (15);
the shape of said body portions (22) of said
plurality of containers (21) being different, to
allow selection to regulate the rate of release
of the product to be dispensed.

8. A dispenser according to claim 7, characteris-
ed in that said body portions (22) of said
plurality of containers which are selected and
individually attached to said faceplate, vary in
Patentansprüche

1. Abgabevorrichtung zur Regelung der exponentielen Oberfläche eines abzugebenden Produkts, enthaltend eine Frontplatte (15) und einen Behälter (21), wobei der Behälter (21) einen Rumpfteil (22) zur Aufnahme eines abzugebenden Produkts aufweist, dadurch gekennzeichnet, daß die Frontplatte (15) ein erstes Loch (16) in einem Befestigungsteil (17) sowie ein zweites Loch (18) in einem Abgabeteil aufweist; der Rumpfteil (22) des Behälters (21) mit Ausnahme mindestens einer Öffnung (24) geschlossen ist; ein Rand, der die Öffnung 24 des Rumpfteils (22) des Behälters definiert, einem erhobenen Rand (20), der das zweite Loch (18) in dem Abgabeteil der Frontplatte (15) definiert, konzentrisch angepaßt ist; der Behälter (21) und die Frontplatte (15) durch Befestigungsmittel zwischen dem Rand des Behälters und dem erhobenen Rand (20) der Frontplatte derart verbunden sind, daß der Behälter (21) durch einen anderen Behälter mit anders geformtem Rumpfteil (22) ersetzt werden kann, um die Geschwindigkeit der Freisetzung des abzugebenden Produkts aus dem Behälter zu regeln.

2. Abgabevorrichtung nach Anspruch 1, dadurch gekennzeichnet, daß der erhobene Rand (20), der das zweite Loch (18) im Abgabeteil der Frontplatte (15) definiert, das zweite Loch (18) zumindest teilweise umschließt.

3. Abgabevorrichtung nach den Ansprüchen 1 oder 2, dadurch gekennzeichnet, daß der die Öffnung (24) des Rumpfteils (22) des Behälters (21) definierende Rand ein radial heraustretender Flansch ist, der einen Bordrand (23) bildet.

4. Abgabevorrichtung nach jedem der Ansprüche 1 bis 3, dadurch gekennzeichnet, daß die Befestigungsmittel zwischen dem Rand des Behälters (21) und dem erhobenen Rand (20), der das zweite Loch (18) definiert, ausgewählt ist aus der Gruppe, bestehend aus formschlüssig passenden Befestigungen, einschließlich passenden Befestigungen und gleitend passenden Befestigungen.

5. Abgabevorrichtungen nach jedem der Ansprüche 1 bis 4, dadurch gekennzeichnet, daß der Abgabeteil eine Mehrzahl von zweiten Löchern (18) zur Befestigung einer Mehrzahl von Behältern (21) aufweist, wobei jeder Rand, der die Öffnung des Rumpfteils (22) eines der Mehrzahl der Behälter (21) definiert, einem erhobenen Rand (20), der eines der Mehrzahl der zweiten Löcher (18) definiert, konzentrisch angepaßt ist.

6. Abgabevorrichtung nach jedem der Ansprüche 1 bis 5, dadurch gekennzeichnet, daß die Frontplatte (15) zumindest ein drittes Loch (48) für die Einführung alternativer Befestigungsmittel aufweist.

7. Abgabevorrichtung zur Regelung der exponentiellen Oberfläche eines abzugebenden Produktes, dadurch gekennzeichnet, daß die Abgabevorrichtung eine Frontplatte (15) und eine Mehrzahl von Behältern (21) enthält, wobei jeder der Behälter einen Rumpfteil (22) für die Aufnahme eines abzugebenden Produkts aufweist; die Frontplatte ein erstes Loch (16) in einem Befestigungsteil (17) und ein zweites Loch (18) in einem Abgabeteil aufweist; die Rumpfteile (22) der Mehrzahl von Behältern (21) mit Ausnahme mindestens einer Öffnung (24) in jedem der Behälter geschlossen sind; jeder Behälter (21) einen Rand hat, der die Öffnung (24) der Rumpfteile (22) definiert und der einem erhobenen Rand (20), der das zweite Loch (18) in dem Abgabeteil der Frontplatte (15) definiert, konzentrisch angepaßt ist; jede Behälter (21) ausge wählt und individuell durch Befestigungsmittel zwischen einem Rand eines beliebigen der Mehrzahl von Behältern (21) und dem erhobenen Rand des zweiten Loches (18) in der Frontplatte (15) befestigt werden kann; die Formen der Rumpfteile (22) der Mehrzahl von Behältern (21) verschieden sind, um die Geschwindigkeit der Freisetzung des abzugebenden Produkts zu regeln.

8. Abgabevorrichtung nach Anspruch 7, dadurch gekennzeichnet, daß die Rumpfteile (22) der Mehrzahl von Behältern, die ausgewählt und individuell an der Frontplatte (15) befestigt werden, in ihrem Volumen variieren.

Revendications

1. Distributeur pour régler la zone de surface exposée d'un produit destiné à être distribué, comprenant une plaque frontale (15) et un conteneur (21), ledit conteneur (21) présentant une partie formant corps (22) destinée à recevoir le produit destiné à être distribué, caracté-
risé en ce que
la plaque frontale (15) présente un premier
trou (16) dans une section de fixation (17) et
un deuxième trou (18) dans une section de
distribution ;
ladite partie formant corps (22) dudit
conteneur (21) est fermée à l'exception d'au
moins une section ouverte (24);
un bord définissant ladite section ouverte
(24) de la partie formant corps (22) du conte-
neur est en alignement concentrique avec un
bord relevé (20) qui définit ledit deuxième trou
(18) prévu dans la section de distribution de
ladite plaque avant (15) ;
le conteneur (21) et la plaque frontale (15)
sont fixés par un moyen de raccordement pré-
vu entre ledit bord du conteneur et ledit bord
relevé (20) de la plaque frontale, de manière
telle que le conteneur (21) peut être remplacé
par un autre présentant une partie formant
corps (22) de forme différente, afin de régler le
débit de distribution du produit destiné à être
distribué hors du conteneur.

2. Distributeur selon la revendication 1, caractéri-
isé en ce que ledit bord relevé (20) définissant
ledit deuxième trou (18) dans la section de
distribution de la plaque frontale (15) recouvre
au moins partiellement ledit deuxième trou
(18).

3. Distributeur selon l'une des revendications 1
ou 2, caractérisé en ce que ledit bord définis-
sant la section ouverte (24) de ladite partie
formant corps (22) du conteneur (21) est une
bride faisant saillie radialement en formant un
rebord (23).

4. Distributeur selon l'une quelconque des reven-
dications 1 à 3, caractérisé en ce que ledit
moyen de raccordement prévu ledit bord du
conteneur (21) et ledit bord relevé (20) définis-
sant le deuxième trou (18) est choisi parmi le
groupe constitué des assemblages par conju-
gaison des formes, par encliquetage et par
coulissement.

5. Distributeur selon l'une quelconque des reven-
dications 1 à 4, caractérisé en ce que la sec-
tion de distribution présente une pluralité de
deuxièmes trous (18) pour fixer une pluralité
desdits conteneurs (21), le bord définissant la
section ouverte (24) de la partie formant corps
(22) de ladite pluralité de conteneurs (21) étant
aligné de manière concentrique avec ledit bord
relevé (20) définissant ladite pluralité de
deuxièmes trous (18).

6. Distributeur selon l'une quelconque des revend-
ications 1 à 5, caractérisé en ce que la pla-
que avant (15) comprend au moins un troisiè-
me trou (48) en vue d'introduire des moyens de
fixation alternatifs.

7. Distributeur pour régler la zone de surface
exposée d'un produit destiné à être distribué,
caractérisé en ce qu'il comprend :
une plaque frontale (15) et une pluralité de
conteneurs (21) ladite pluralité de conteneurs
(21) présentant chacun une partie formant
corps (22) pour recevoir un produit destiné à
être distribué,
ladite plaque frontale (15) présente un pre-
mier trou (16) dans une section de fixation (17)
e un deuxième trou (18) dans une section de
distribution ;
lesdites parties formant corps (22) de ladi-
te pluralité de conteneurs (21) sont fermées à
l'exception d'au moins une section ouverte (24)
dans chacun desdits conteneurs ;
chacun conteneur (21) présente un bord
définissant ladite section ouverte (24) de sa
partie formant corps (22) qui peut être aligné
de manière concentrique avec un bord relevé
(20) définissant ledit deuxième trou (18) de la
section de distribution de ladite plaque frontale
(15) ;
chacun conteneur (21) peut être choisi et
fixé individuellement à ladite plaque frontale
(15) par un moyen de raccordement entre un
bord quelconque de ladite pluralité de conte-
neurs (21) et ledit bord relevé (20) du deuxiè-
me trou (18) de ladite plaque frontale (15) ;
la forme de la partie formant corps (22) de
ladite pluralité de conteneurs (21) est différente
pour permettre un choix afin de régler le débit
de distribution du produit à distribuer.

8. Distributeur selon la revendication 7, caractéri-
sé en ce que lesdites parties formant corps
(22) de ladite pluralité de conteneurs, qui sont
choisis et fixés individuellement à la dite pla-
que frontale, sont de volume variable.