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(54) Basic unit for dispensers.

(57) A basic unit for dispensers holding e.g. liquid soap. The basic unit comprises three parts, a hood (1), a push button (2) and a bottom section (3). The bottom section is precision-fitted into the hood. It is also arranged to guide said push button.

The basic unit is intended to be loaded with a dispenser equipped with a discharge device dispensing e.g. liquid soap.

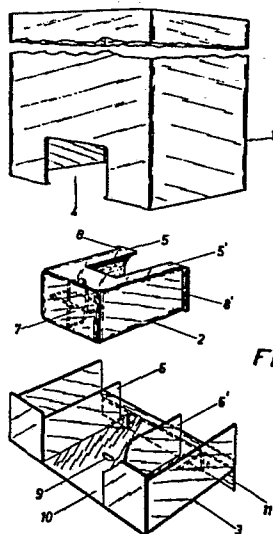


Fig. 1

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Basic Unit for Dispensers

The invention concerns a basic unit intended to be used in connection with various kinds of dispensers such as liquid soap dispensers. The unit in accordance with the invention is intended to be used together with standard types of dispensers of the kind comprising a container holding the material to be dispensed and a material discharge device. Refill dispensers as well as expendable dispensers may be used together with the basic unit of the subject invention.

The most important advantage gained in the use of soap dispensers holding liquid soap as compared with using soaps in solid form is the considerable improvement to personal hygiene and the resulting reduction in the spreading of bacteria.

Soap dispensers of many various designs and constructions are already known. The majority of prior-art dispenser are, however, quite expensive owing to comparatively high production-tool costs in relation to the volume of sale of each dispenser type.

Prior-art dispensers comprise two basic components, viz. the soap container proper and the dosing or metering pump. When actuated, the dosing or metering pump dispenses a quantity of soap. The two basic components must be supplemented with a support of some kind allowing the dispenser to be attached to a wall, stand or the like. In some cases and applications protective or reinforcing means might be required to allow the dispenser to withstand comparatively rough handling. Another desired feature in dispensers is that it be tamper-proof and capable of withstanding un-

authorized manipulation.

Since dispensers must be designed for use within a large variety of different fields of usage and since consequently demands regarding construction and function vary, a considerable range of models is required. As a result, the costs for production tools are considerable, as mentioned above, and so are therefore the labour costs. Container-volume needs vary and so do the needs for strengthening or otherwise modifying the container, and these and similar considerations make rational manufacture of dispensers difficult. The most important fields of usage of dispensers are private homes, offices, work shops, factories, hospitals and other medical institutions, schools and other institutions where washrooms and lavatories are used by a large number of people.

The subject invention has for its purpose to provide a basic unit for use together with dispensers, which unit is easily accommodated to meet the various demands on design and shape and which allows the dispenser unit proper to meet various needs and objects and therefore, after comparatively slight modifications, to be produced in long series and thus at lower production costs. In addition, the basic unit is easy to mount and attach and has a shape facilitating attachment thereto of the dispenser unit proper.

The basic unit in accordance with the invention is characterised by

a hood which is manufactured from an elongate blank and has a configuration fitting the shape of the container of the dispenser intended to be mounted in the basic unit,

a bottom section arranged to be precision-fitted to the hood and constructed to allow it to be retained by the hood owing to the friction between the hood and the bottom section, and

a member serving as a push button, said member mounted on the bottom section so as to be displaceable therein in a horizontal plane, said member being so arranged that when

pushed inwards it actuates the material discharge device of the dispenser mounted in the basic unit.

The invention will be described in closer detail in the following with reference to the accompanying drawings,
5 wherein

Fig. 1 is an exploded view of a basic unit in accordance with the invention, and

Fig. 2 is a view from the front of a basic unit in accordance with the invention in mounted condition and
10 supporting a dispenser unit therein.

Fig. 1 shows the three basic components of the basic unit in accordance with the invention. These basic components are a hood 1, a member 2 serving as a push button, and a bottom section 3. The hood is in the shape of a
15 square tube and is provided with a notch 4 to accommodate the push button 2. In addition, the hood is shaped to allow a lid to be attached thereto. The lid has no bearing on the inventive concepts of the basic unit of the subject invention and therefore is not shown in the drawings. The hood
20 furthermore has means allowing it to be secured to a wall or the like. The hood is preferably made from metal, such as stainless steel, or from rigid plastics. The starting material from which the hood is manufactured is available in the form of long tubes which are severed to suitable
25 lengths, thus defining the height/volume of the hood. It should be understood that the basic unit therefore is easily adapted to meet various demands on size without increase of the production-tool costs.

The push button 2 may be shaped and designed in a
30 variety of ways within the scope of the invention. The embodiment shown probably is the most simple one and therefore the cheapest to manufacture and the easiest for the user to manipulate. The push button 2 is formed with two legs 5, 5' arranged for sliding movement between walls 6,
35 6' formed in the bottom section 3 for this purpose. In the manner indicated the walls guide the movements of the push

button 2 in a horizontal plane. In addition, the push button 2 is provided with a projecting section 7, which in accordance with the embodiment illustrated has a cross-like sectional configuration and which is intended to actuate the metering pump of the dispenser in such a manner that when the push button is pressed inwards, it actuates the metering pump and a quantity of soap is discharged. The projecting section naturally need not necessarily have the cross-sectional shape illustrated. To prevent the push button from sliding out from the basic unit it is formed with stop shoulders 8, 8' engaging the edges of the walls 6, 6' of the bottom section. Vertically, the push button is guided by the dispenser mounted in the basic unit. The push button preferably is made from die-cast metal or injection-moulded plastics.

Also the bottom section 3 preferably is made from die-cast metal or injection-moulded plastics. As described in the foregoing the bottom section is formed with walls 6, 6' guiding the movements of the push button 2. In addition, the bottom piece 10 of the bottom section has an aperture 9 therein, fitting the outlet of the dispenser discharge device. The bottom section also comprises peripheral walls (except in the area opposite the push button), which walls are designed in such a manner as to ensure that the bottom section can be introduced into and retained inside the hood with precision fit. The intention is to provide bottom section/hood engagement in the easiest possible manner, in this case by simply making use of the friction between the two components, i.e. the bottom section and the hood. A projecting edge prevents the bottom section from being pushed vertically too far into the hood.

Also the bottom section 3 is provided with means allowing it to be secured to a wall or the like. In this case the attachment means is a vertical flange 11 facing the wall and provided with apertures. The hood is also attached to the wall which means that the hood and the bottom section are in fixed relative positions.

Fig. 2 illustrates the various components of the unit in assembled condition. A dispenser container together with its associated discharge device are mounted in the basic unit. This drawing figure illustrates the manner in which the dispenser is supported by the bottom section. There is no difference in appearance or construction of the various parts shown in this drawing figure and those shown in Fig. 1, for which reason further description would be superfluous. The dispenser unit shown in this drawing figure is of a common prior-art type.

The division of the basic unit into three different components has the added advantage that in some cases special demands on the basic unit may be met by alteration of one of the components only. In addition, the producer's storage costs are reduced, since the same starting material may be used to produce the basic unit irrespective of changes thereto in design and shape.

Owing to the precision fit, welding, glueing or similar interconnecting operations are superfluous, which contributes to keeping production costs at a low level. Finishing operations are not either necessary.

Dispensers with which the basic unit is to be loaded may be of prior-art types. Preferably, a uniform dispenser model is designed which may be adjusted to meet various demands on e.g. volume by varying the height of the dispenser. Also the metering pump preferably is of a known design. However, the basic unit easily lends itself to adjustment to various models of metering pumps. Only a simple modification of the design of the bottom section 3 is required to adjust the basic unit to dispensers of various configurations.

It should be obvious that it is possible to construct dispensers comprising containers only instead of containers and a hood enclosing the container as in accordance with the basic unit system described above. Such simple dispenser constructions preferably are produced by manufacturing the container from a tubular blank. A bottom piece is

welded to the container to ensure reliable sealing between the bottom piece and the container. The bottom must also be provided with attachment means to support a metering pump. Constructions of this kind could be denominated inflexible. They suffer from the following drawbacks compared with the subject invention, viz.:

- Elimination of the advantage of easy cleaning that is obtained owing to the easily retractable, separate dispenser.
- 10 - Replacement of the metering pump is difficult and more expensive. Basic units in accordance with the subject invention have an almost indefinite life.
- The construction of the bottom section becomes complicated and expensive if the discharge-actuating means is to be designed in the ideal and simple manner so advantageous to the consumer, as is the case in accordance with the subject invention.
- 15 - It is necessary to make the bottom piece from a material allowing it to be welded to the hood and the consequence is that in cases of some desirable component combinations the basic unit becomes more expensive.
- 20

The embodiment of the invention described in the foregoing is to be regarded as an example only and a number of modifications are possible within the scope of the appended claims. The basic unit is easily adaptable for use together with dispensers capable of discharging measured quantities of soap in the form of grains, powder or flakes.

C l a i m s

1. A basic unit for dispensers and similar devices and intended to be used in combination with dispensers of the kind comprising a container holding the material to be
5 dispensed and a material discharge device, c h a r a c t e -
r i s e d b y

a hood (1) which is manufactured from an elongate blank and has a configuration fitting the shape of the con-
tainer of the dispenser intended to be mounted in the basic
10 unit,

a bottom section (3) arranged to be precision-fitted onto the hood and having a shape allowing it to be retained by the hood owing to the friction between the hood and the bottom section, and

15 a member (2) serving as a push button, said member mounted on the bottom section so as to be displaceable therein in a horizontal plane, said member being so arranged that when pushed inwards it actuates the material discharge device of the dispenser mounted in the basic unit.

20 2. A basic unit as claimed in claim 1, c h a r a c -
t e r i s e d i n t h a t said bottom section (3) is provided with means to attach said section to a wall or the like, said means being a vertical flange (11) provided on the part of said bottom section facing said wall.

25 3. A basic unit as claimed in any one of the preceding claims, c h a r a c t e r i s e d i n t h a t the hood (1) is fixed in position relative to said bottom section (3) in that both parts when interconnected are secured individually to the wall or the like.

4. A basic unit as claimed in any one of the preceding claims, characterised in that guide means (6, 6') are formed in said bottom section to accommodate said push button (2).

5 5. A basic unit as claimed in any one of the preceding claims, characterised in that the member (2) serving as a push button consists of die-cast metal or injection-moulded plastics.

6. A basic unit as claimed in any one of the preceding
10 claims, characterised in that said hood
(1) is made from metal or from strong plastics.

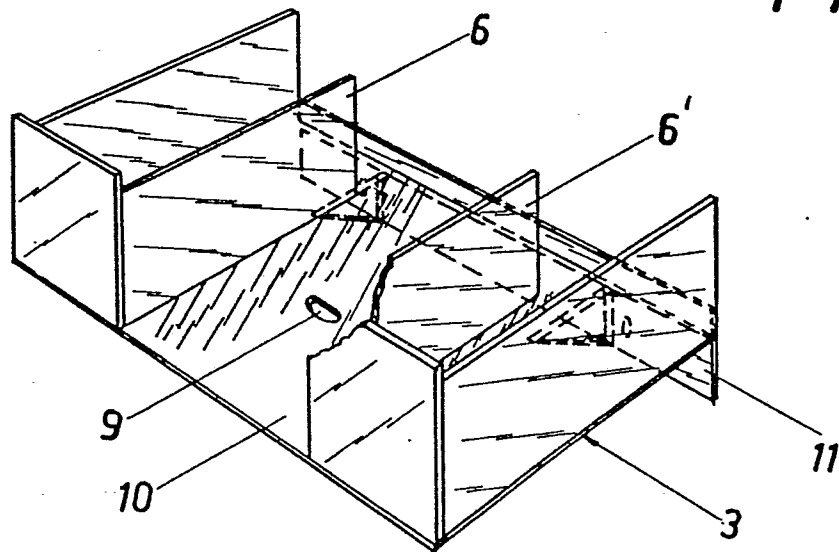
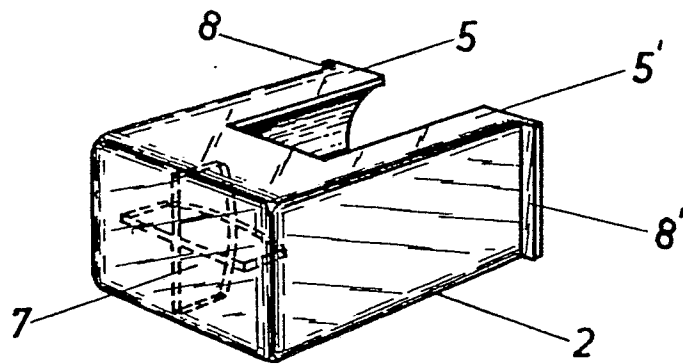
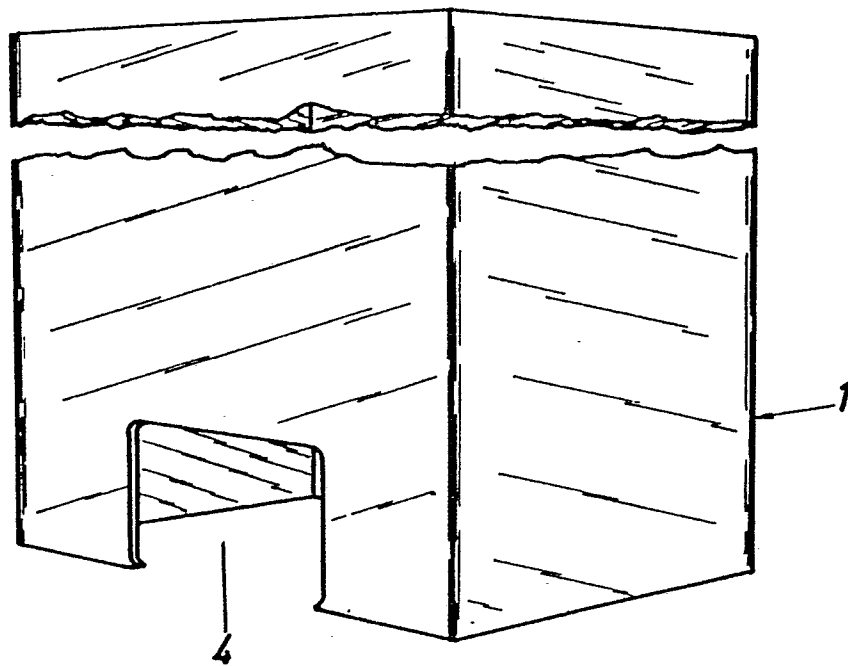
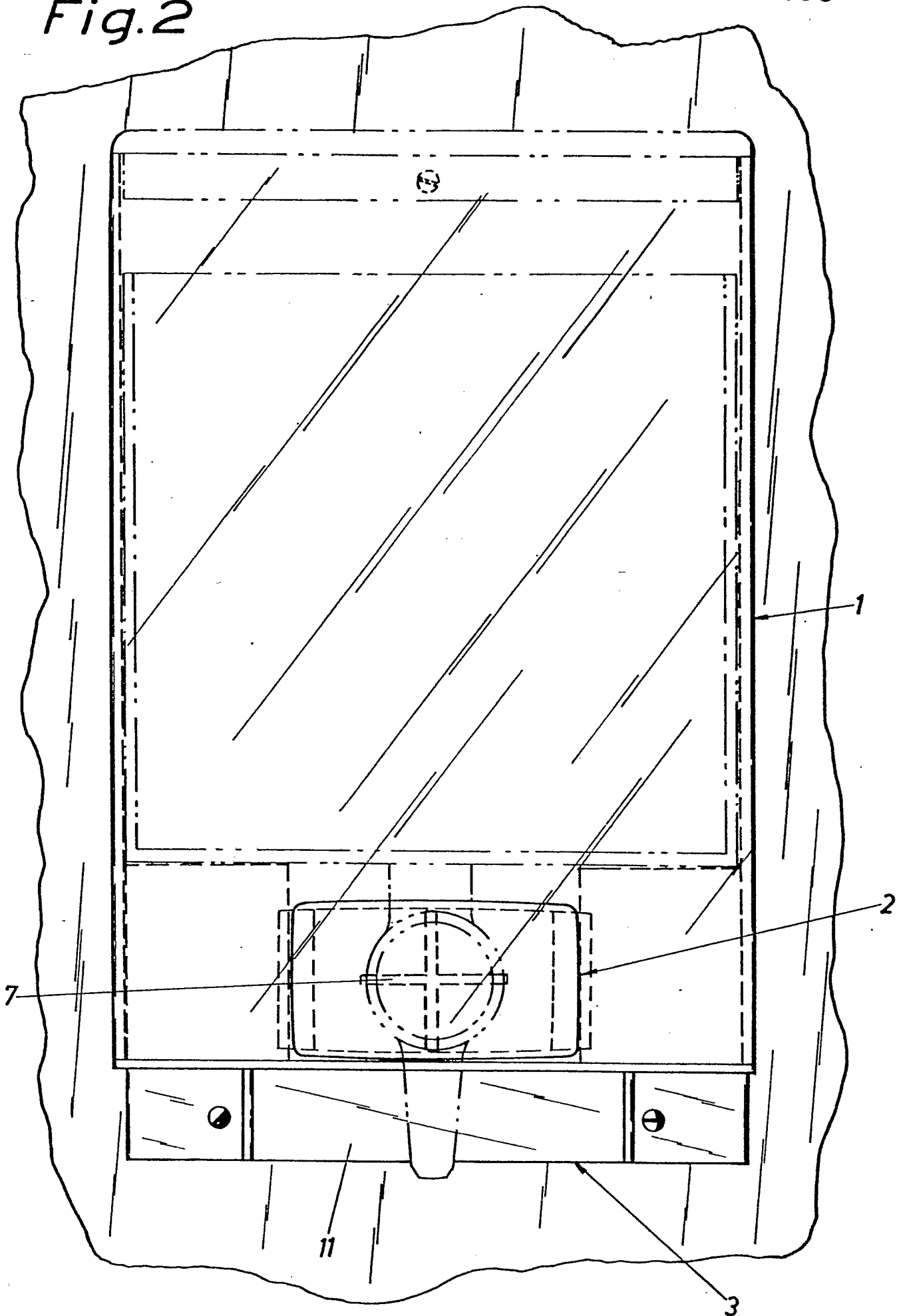


Fig. 1

Fig.2





European Patent
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EUROPEAN SEARCH REPORT

0041495

Application number

EP 81 85 0100

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. ³)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	FR - A - 642 243 (ROLLAND) -----	1	A 47 K 5/06
			TECHNICAL FIELDS SEARCHED (Int. Cl. ³)
			A 47 K
			CATEGORY OF CITED DOCUMENTS
			X: particularly relevant A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention E: conflicting application D: document cited in the application L: citation for other reasons
			&: member of the same patent family, corresponding document
☒ The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 10-08-1981	Examiner CAVALERI