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E. ELLE ET AL
RECEPTACLE FOR PASTES

2,001,819

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Fig.1

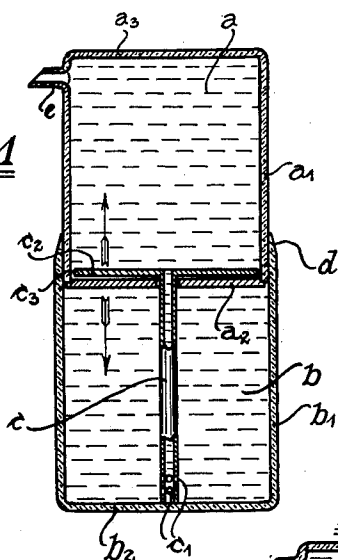


Fig.2

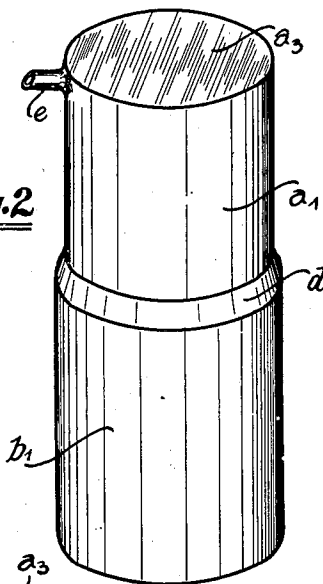


Fig.3

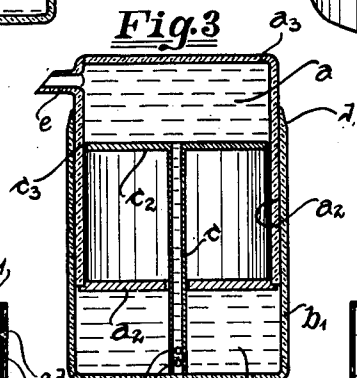


Fig.4

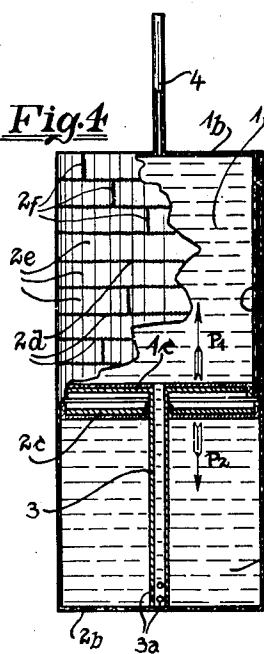


Fig.5

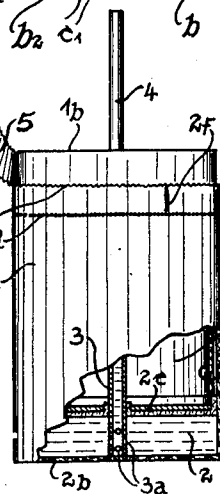
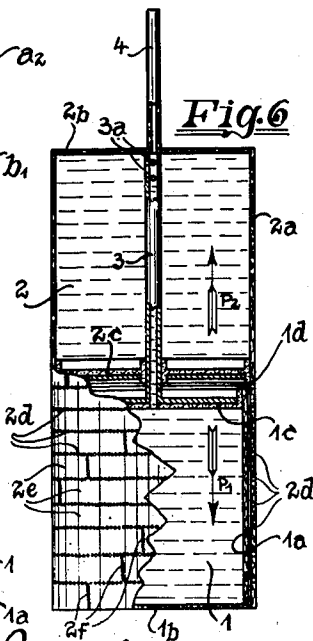


Fig.6



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RECEPTACLE FOR PASTES

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6 Claims. (Cl. 206—56)

This invention relates to a receptacle for facilitating the dispatch and storage of pastes, making their removal more easy and thus superseding the usual tubes with their undesirable attendant phenomena.

The invention consists in that the receptacle is constructed as an extensible vessel, and the extensible parts are connected by means of a riser tube extending through their upper and lower closures. The riser tube may be fixed on the bottom of the receptacle part carrying the same, terminate in the cover thereof and extend, tightly fitting, through the bottom of the other receptacle part. The inlet aperture in the riser tube for the paste displaced by the shiftable part is preferably arranged at the lowest point, that is near its supporting bottom, so that the part containing the paste can be completely emptied. In order to prevent a complete separation of the receptacle parts during their extension, the cover of one receptacle part forms an abutment for the bottom of the other receptacle part.

Glass, porcelain or metal are suitable as material for the receptacle. It has been found particularly advantageous to make the receptacle of an easily tearable material similar to cardboard. In this instance at least the wall of the receptacle half having the greater internal diameter is made of tearable material and of such length that it extends over the entire wall of the other receptacle half. The wall of the receptacle half having the greater internal diameter is subdivided into transverse zones on a portion of its length by perforation-like weakenings in the material.

Several embodiments of the invention are illustrated by way of example in the accompanying drawing in which:—

Figs. 1 and 3 show one form of construction in longitudinal section in extended and collapsed positions respectively.

Fig. 2 is a perspective view of Fig. 1.

Fig. 4 shows a second form of construction in longitudinal section partly in elevation.

Fig. 5 is an elevation partly in longitudinal section of the construction shown in Fig. 4 in collapsed condition, the wall of the receptacle part having the larger diameter being made of tearable material.

Fig. 6 shows a third form of construction in longitudinal section partly in elevation, the receptacle part of larger diameter being also made of tearable material.

One receptacle part *a* has a discharge spout

e (spraying aperture) in its wall *a*₁ or in the middle of the cover *a*₃, if necessary detachable from the wall, and a bottom *a*₂. The receptacle part *a* slides in a receptacle part *b*. Whereas the wall of the part *a* is slightly roughened on its outer side, the inner side of the wall *b*₁ of the part *b* is roughened. The bottom *b*₂ is made in one piece with or detachable from the wall *b*₁. In the part *b* a riser tube *c* is rigidly or detachably mounted on the bottom *b*₂. Near its point of attachment the tube *c* has apertures *c*₁ for allowing the entrance of the paste to be displaced from the part *b*. The riser tube *c* extends through the bottom *a*₂ of the receptacle part *a* fitting accurately therein and terminates in the cover *c*₂ of the receptacle part *b*. The outer side of the riser tube *c*, the inner side of the bore in the bottom *a*₂ and the circumference *c*₃ of the cover *c*₂ are likewise roughened. The receptacle part *b* has a collar *d* for facilitating the gripping of the receptacle part *a* and is preferably provided with a scale.

If the receptacle part *a* is pressed into the part *b*, the bottom *a*₂ forces the paste in the part *b* through the apertures *c*₁ into the riser tube *c* from which it passes into the part *a*, the space in this part gradually decreasing in size (Fig. 3). The paste displaced above the cover *c*₂ is discharged from the spout *e* or is sprayed from the aperture therein.

When the receptacle part *a* is pulled up in the part *b* after emptying, the bottom *a*₂ abuts against the cover *c*₂.

If the cover *a*₃ and the bottom *b*₂ are connected by screw connection with the walls of the receptacle parts, they can be removed for refilling the receptacle. If, however, these members *a*₃, *b*₂ are made in one piece with the walls, as shown in the drawing, the filling is effected by suction through the spout *e*, the parts *a* and *b* being pulled apart.

In the forms of construction illustrated in Figs. 4 to 6 the walls *1a* and *2a* of the two receptacle parts *1* and *2* are slidable one within the other. Both receptacle halves *1* and *2* are each provided at the outer remote end with a bottom *1b* and *2b* rigidly connected with their receptacle part walls *1a* and *2a* respectively. A piston *1c* is provided in the part *1* and a piston *2c* in the part *2*. The piston *1c* in the receptacle part *1* is carried by a tube *3* having lateral apertures *3a* arranged near the bottom *2b*, the piston *2c* accommodated in the other receptacle part *2* is slidable on the tube *3*. The piston *2c* is actuated by the part *1*. When the two receptacle parts *1* and *2* are telescoped

in the opposite direction to the arrows P_1 and P_2 , the edge $1d$ of the wall $1a$ bears against the piston $2c$ and shifts the same in the direction of the arrow P_2 . The tube 3 bears against the bottom $2b$.

According to Fig. 4 a discharge nozzle 4 is provided in the bottom $1b$ of the receptacle part 1 . According to Fig. 6 the nozzle 4 is in the bottom $2b$ of the receptacle part 2 . In the forms of construction shown in Figs. 4 to 6 at least the wall $2a$ of the receptacle part 2 of larger internal diameter is made of tearable material like cardboard, which is preferably impregnated. The wall $2a$ is made so long that it extends substantially over the whole wall $1a$ of the part 1 . The wall $2a$ is subdivided into transverse zones $2e$ on a portion of its length by weakened portions $2d$ similar to perforations. That portion of the length of the wall $2a$ which engages over the wall $1a$ has the above mentioned weakenings $2d$. These may be real perforations or weakened portions of material, in which the material is not partly removed, but is weakened continually by stamping (incising). The transverse zones $2e$ are separated by one or more perforation-like weakened portions $2f$ extending in the direction of movement of the receptacle parts $1, 2$. These weakened portions $2f$, which, however, might also extend in a helical line, are arranged mutually displaced.

When the two receptacle parts filled with a paste are telescoped by exerting pressure on the bottoms $1b, 2b$ (Fig. 5), the edge $1d$ of the wall $1a$ pushes the piston $2c$ in the direction of the arrow P_2 into the receptacle part 2 . The piston $1c$ also moves in the direction of the arrow P_1 within the receptacle part 1 (Fig. 5).

In the form of construction illustrated in Fig. 4 the paste in the receptacle part 2 is pressed by the movement of the piston $2c$ through the apertures $3a$ into the tube 3 and thence discharged from the receptacle part 1 . The contents of the part 1 are compressed by the movement of the piston $1c$ and escape through the nozzle 4 .

In the form of construction illustrated in Fig. 6 the contents of the receptacle part 2 are forced through the apertures $3a$ in the tube 3 into the discharge nozzle 4 by the movement of the piston $2c$. By the movement of the piston $1c$ the contents of the receptacle part 1 are compressed so that they flow through the tube 3 into the discharge nozzle 4 .

When the container part 1 has been pressed into the part 2 a distance corresponding to the height of a transverse zone $2e$, a strip 5 corresponding to a transverse zone is torn off. The

displaced arrangement of the perforations $2f$ prevents the wall $2a$ from being accidentally torn too deeply in the direction of movement of the receptacle parts when tearing off a strip 5 corresponding to the height of a transverse zone $2e$.

The perforated portion of the wall $2a$ forms a good guide for the part 1 . The wall $2a$, however, does not hinder the telescoping of the two receptacle parts $1, 2$, because its height can be reduced corresponding to the actual consumption by tearing off the zones $2e$.

We claim:—

1. A receptacle for pastes, comprising in combination two telescopic parts, partitions separating said parts, and a riser tube extending through said partitions and establishing connection between said parts.

2. A receptacle for paste, comprising in combination two parts slidable one within the other, each having a bottom and a cover, and a riser tube fixed on the bottom of one of said parts extending tightly fitting through the bottom of the other of said parts and terminating in the cover of said first mentioned part.

3. A receptacle as specified in claim 1, in which the riser tube has an inlet aperture at its lowest portion adapted to allow the passage of the paste displaced by the telescoping of said parts.

4. A receptacle as specified in claim 1, in which the two parts have each a bottom and a cover, the cover of one part adapted to form abutment for the bottom of the other part when the parts are in extended position.

5. A receptacle as specified in claim 1, in which the wall of at least the part having the larger internal diameter is made of tearable material similar to cardboard and made so long that it extends substantially over the entire length of the wall of the other part, the wall of the part having the larger internal diameter being subdivided into transverse zones along a portion of its length by weakened portions of the material similar to perforations.

6. A receptacle as specified in claim 1, in which the wall of the part having the larger internal diameter is made of tearable transverse zones along a portion of its length by perforation-like weakened portions of the material and the transverse zones are subdivided in the direction of movement of the receptacle parts by at least one perforation-like weakened portion, the weakened portions of the individual transverse zones being mutually displaced.

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