No. 671,682. Patented Apr. 9, 1901.

C. B. TUTTLE.

RECEPTACLE FOR TOILET PREPARATIONS.

(Application filed Dec. 21, 1893.)

(No Model.)

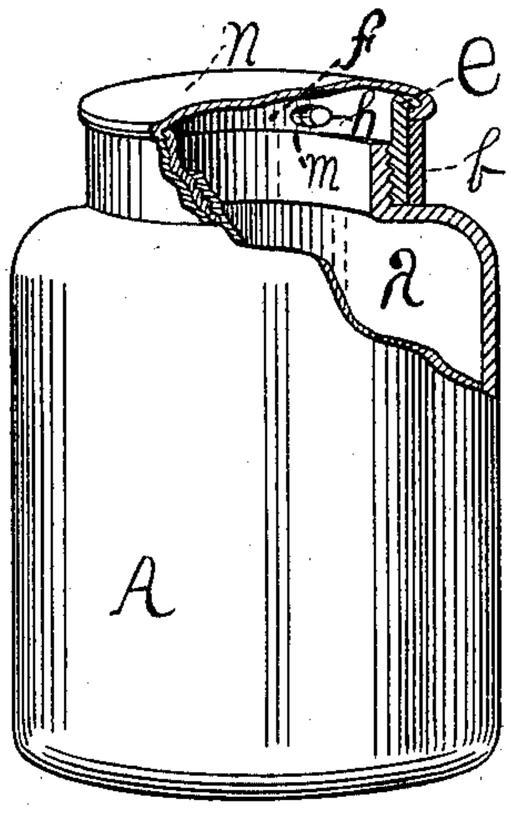

Fig. 1

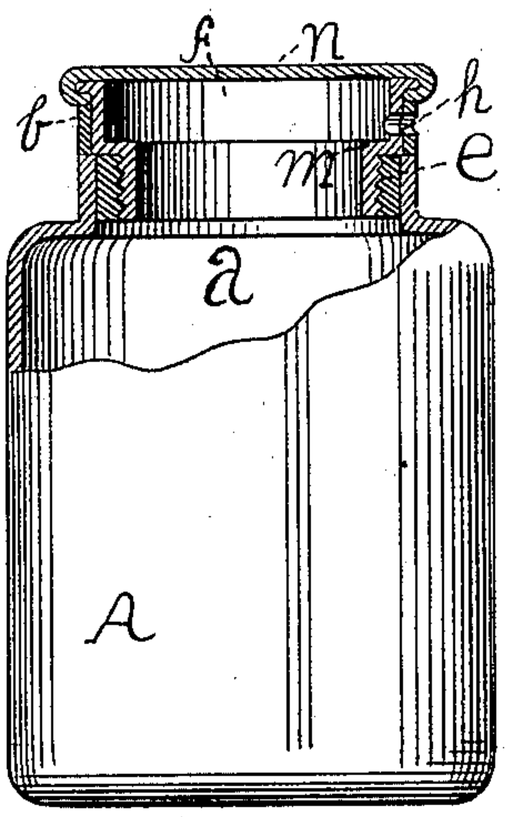

Fig. 2

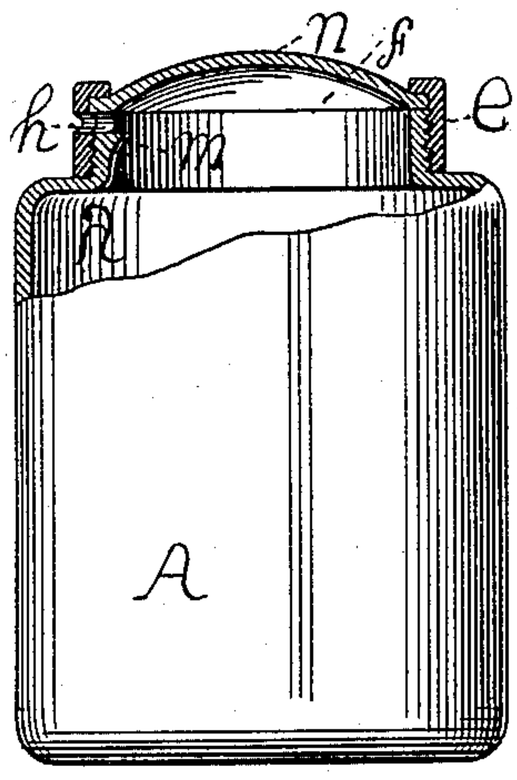

Fig. 3

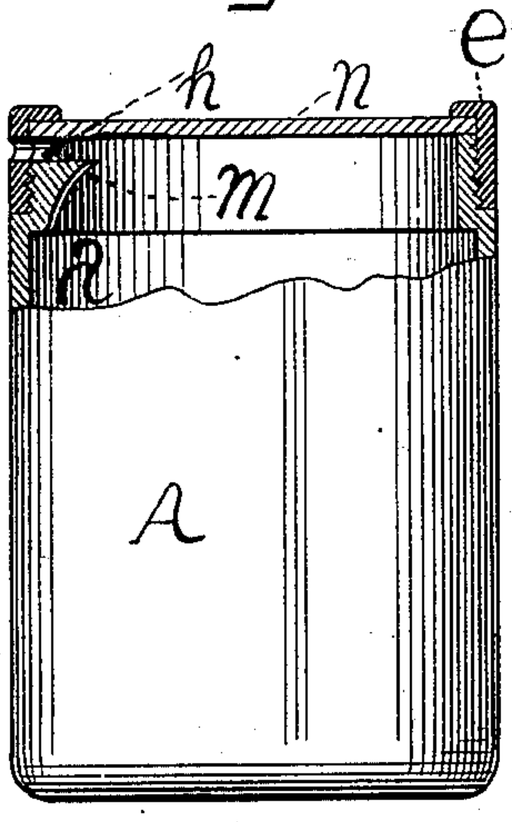

Fig. 4

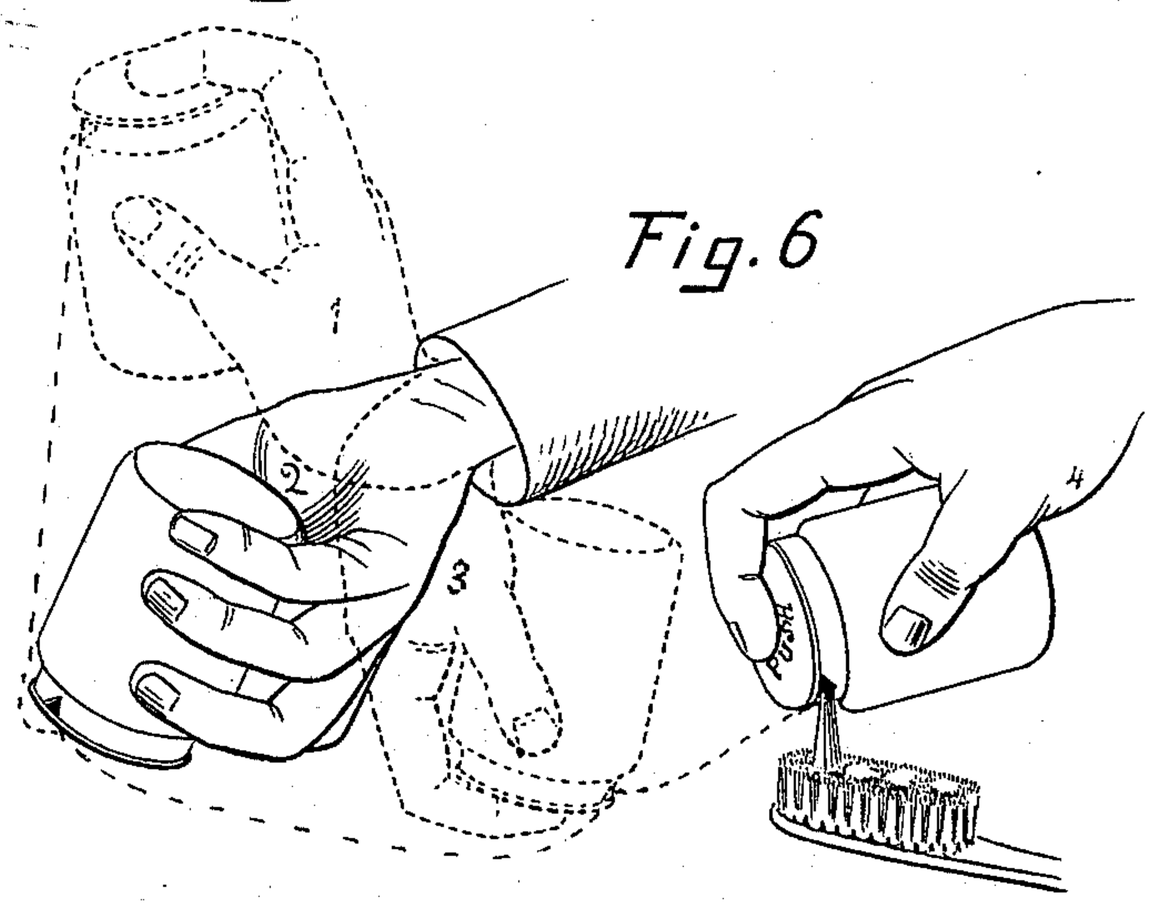

Fig. 6

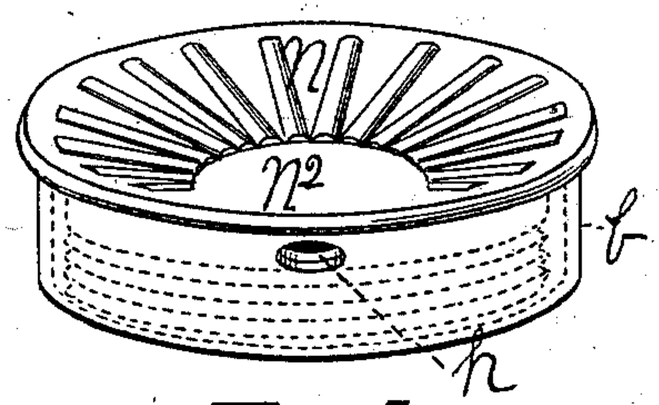

Fig. 5

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RECEPTACLE FOR TOILET PREPARATIONS.

SPECIFICATION forming part of Letters Patent No. 671,682, dated April 9, 1901.

Application filed December 21, 1893. Serial No. 494,276. (No model.)

To all whom it may concern:

Be it known that I, CALVIN B. TUTTLE, of Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented certain Improvements in Receptacles for Toilet Preparations, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to that class of receptacles designed for holding toilet preparations, more especially tooth-powder.

As objects of the invention I have had in mind to provide for ejecting powder from a receptacle rapidly and in small successive quantities, so that the aggregate quantity of powder desired for one use may be quickly deposited in small dense deposits at intervals along the brush or other deposit-receiving object; also, to provide against powder-dust and the development thereof by use or accidental disturbance of the receptacle; and the invention consists in a receptacle so constructed as to carry out this object with economy and effective utility and with due regard to the artistic appearance of the receptacle as an article for toilet use, all as hereinafter described, and referred to in the appended claims.

Figure 1 of the drawings is a sectional perspective view; and Figs. 2, 3, and 4 are sectional elevations, respectively. Fig. 5 is a perspective view illustrating the ejector detached. Fig. 6 is a perspective view illustrating the four principal positions and movements given to the receptacle-body while in use.

As represented in Fig. 1, the ejector *n* constitutes the top wall of the receptacle. It is preferably composed of sheet metal and is adapted to yield inwardly against pressure and spring back to its normal position when the pressure is removed. It is located in close proximity to the exit-opening *h*, and the ejecting operation is performed by the inward movement of the ejector affecting that portion of the contents which is piled about the exit-opening. In size the exit-opening is made with due regard to the character and density of the intended contents. Preferably it is made as large as it can well be, yet retain support for the contents of the receptacle against falling prematurely through the same. The ejector, it should be understood, has for its function solely to eject the contents from the receptacle in small quantities and so far as possible leave the same in dense deposits when outside the exit-opening. To this end the ejector may have its area proportioned with due regard to the material of which it is composed and its mode of support in connection with the contiguous body-walls of the receptacle, whereby its adaptability for movement may be limited to any amount desired. It should allow of movement just enough so as when moved normally its influence shall not extend beyond that portion of the receptacle-chamber which is located in close proximity to the exit-opening. Its limited adaptability for movement and its relation of nearness to the exit-opening and the size of the exit-opening give ample way for the atmosphere displaced by normal movements of the ejector to pass gently through the exit-opening without disturbing contents of the receptacle, which are not preliminary to the operation of discharge stationed before the opening to impede the progress of said atmosphere therethrough.

The ejector *n* is preferably constructed with a spot or place n^2 of least resistance to accommodate and induce displacement laterally. To this end the field portion of the ejector may be corrugated, as shown in the present Fig. 5, in lines radiating from the spot n^2. Another mode of construction would be to reduce the normal thickness of the ejector at said spot. Other modes of construction are obvious. This point n^2 is located in close proximity to the exit-opening *h*, as shown.

The ejector and also the exit-opening *h* are preferably located at the top end of the receptacle, as with this arrangement it becomes necessary to invert the receptacle in order to effect a discharge of powder therefrom, and any movement of the ejector *n*, whether accidental or otherwise, is ineffectual to discharge the contents of the receptacle, so long as the package remains in a normal or practically upright position, and, further, this construction permits the use of the receptacle for holding preparations of a liquid character.

As represented in Fig. 1, the receptacle comprises a holding-chamber *a*, wherein is stored the main bulk of the contents and

which to that end occupies the main body portion of the receptacle. Above the holding-chamber in the top portion of the receptacle is located a discharge-chamber *f*. Said top portion of the receptacle is reduced in diameter conformably to the preferred smaller diameter of said discharge-chamber. An aperature is provided between said chambers of size to permit the intended contents of the receptacle passing gently to and from the holding-chamber. In said chamber is located the ejector *n* and exit-opening *h*, and in the use of the receptacle that portion of the contents which is to be affected by the ejecting operation is removed from the storage into the discharge-chamber and there stationed before the said exit-opening *h* preliminary to the operation of the ejector *n* for making the intended discharge. This construction is of special advantage, as the receptacle becomes largely exhausted of its contents.

I also prefer to construct the receptacle with an inwardly-extending projection *m*, which is located adjacent to and in the present instance just below the exit-opening *h*. Said projection supports one side of that portion of the powder which is piled against the exit-opening and resistingly coöperates with the ejector *n* to effect a discharge of the powder through the exit-opening and aids in holding the contents in reduced portion before the exit-opening. It also tends to prevent the powder contents of the receptacle from packing too densely about or puffing through the exit-opening.

The body portion of the receptacle is preferably formed of glass or a similarly transparent material because of the advantage it allows to a consumer whereby to observe the mechanical operations of discharging contents from the receptacle.

As a convenient means for combining the ejector *n* with the body A of the receptacle when formed of glass I employ a tubular part *e*, by means of which the combination is obtainable in different ways. It is shown in Fig. 1 as I prefer to make it. The ejector *n* and part *e* are secured together, the ejector being supported against the top end face of part *e*, with its outer edge bent downwardly and inwardly over a suitable flange formed externally on the part *e*. The part *e* has a screw-thread formation to engage a similar formation on the receptacle-body A and is screwed down tightly, its bottom end bearing against the body A. It extends above the body A and forms the lateral walls of the discharge-chamber *f*. The exit-opening *h* is located in the part *e* above the top of body A and so that the top edge face of body A constitutes the inwardly-extending projection *m*.

As a means for closing and varying the size of the exit-opening I employ a shutter *b*, which is preferably constructed in the form of a ribbon surrounding the part *e* and adapted to turn on the part *e* in order to bring its perforations into and out of alinement with the exit-opening *h*, and thereby open, vary the size of, and close the exit-opening. The horizontal alinement is maintained and the shutter held in place by one end thereof bearing against the projecting edge of the part *n* and the other bearing down upon the body A, as shown in Fig. 1.

Fig. 2 of the drawings represents a modified form of this invention, wherein the tubular part *e* is formed with a reduced tang and screw-threaded to engage the thimble of cork inserted into the neck of an ordinary bottle, and this construction, presenting, as it does, an aperture between the chambers of less diameter than the discharge-chamber, is suited to the requirements of contents having an especially volatile character.

Fig. 3 of the drawings represents a construction of the invention having the movable ejector *n* composed of a fibrous or other suitably-flexible material and molded to the form substantially as shown, and thus adapted to permit the necessary inward movements and resume the normal position upon removal of the inwardly-acting force.

As represented in Fig. 4 of the drawings, the body portion A has a practically-uniform diameter throughout and the discharge-chamber *f* is omitted. In this construction, as also in that of Fig. 3, the tubular part *e* has its top edge bent inwardly, forming a flange to overlap and hold the ejector *n* in place against the top edge face of the body A. The exit-opening is extended through the wall A, and the tubular part *e* is made to perform the function of a shutter for the exit-opening.

Other modified constructions of the receptacle, and especially other modifications of the ejector part *n* and other arrangements of the ejector, whether as a component part of the package-walls or within the chamber of the receptacle to be operated from without, are obvious without departing from the spirit of my invention, and although in my judgment that construction shown in Fig. 1 and above first described is most desirable I would not be understood as limiting my invention to any specific construction.

What I claim is—

1. A receptacle for the purpose described, having a chamber with an exit-opening through the wall thereof and a movable ejector for discharging the contents of the receptacle combined with a shutter for closing the exit-opening, substantially as described.

2. A receptacle for the purpose described, having a chamber with an exit-opening through the wall thereof and having a portion of its retaining-walls movable for discharging the contents of the receptacle, combined with a shutter for closing the exit-opening, substantially as described.

3. A receptacle for the purpose described, having a chamber with an exit-opening through the wall thereof and an ejector, movable longitudinally of the device, when pressed upon, for discharging the contents of the re-

ceptacle, combined with a shutter for closing the exit-opening, substantially as described.

4. A receptacle for the purpose described, having a chamber with an exit-opening through the wall thereof and having a portion of its retaining-walls movable longitudinally of the device, when pressed upon, for discharging the contents of the receptacle and provided with a shutter for closing the exit-opening, substantially as described.

5. A receptacle for the purpose described, having a chamber with an exit-opening through the wall thereof and a movable ejector for discharging the contents of the receptacle combined with a shutter for closing the exit-opening, said shutter being also movable adjustably, to vary the size of the exit-opening, substantially as described.

6. A receptacle for the purpose described, having a chamber with an exit-opening through the wall thereof and a movable ejector for discharging the contents of the receptacle combined with a shutter consisting of a perforated shield surrounding the receptacle over the exit-opening and movable to carry its perforation into and out of alinement with the exit-opening, substantially as described.

7. The casing formed of tubular part, *e*, and movable part, *n*, having the exit-opening, *h*, combined with the body, A, and the perforated shield, *b*, arranged between the body, A, and part, *n*, surrounding the part, *e*, and movable thereon, substantially as described.

8. A receptacle for the purpose described, having a holding-chamber, an opening through its chamber-wall, for the introduction of contents in bulk, an exit-passage adjacent to said opening and a cover for the opening, said cover being engaged with the body portion of the receptacle and movable thereon to close the exit-passage and means for ejecting the contents of the receptacle, substantially as described.

9. A receptacle for the purpose described, having a holding-chamber, an opening through its chamber-wall for the introduction of contents in bulk, an exit-passage adjacent to said opening and a cover for the opening arranged to bear against the contents lying adjacent to the exit, said cover being provided with a part, *n*, movable, when pressed upon, for ejecting the contents of the receptacle and a flange, projecting therefrom, engaged to the body portion of the receptacle and movable thereon to close the exit-passage, substantially as described.

10. A receptacle for the purpose described, having a body portion with a holding-chamber inclosed therein, an opening through its chamber-wall for the introduction of contents in bulk, an exit-passage through the wall thereof, adjacent to said opening and a cover for the opening, said cover being formed of sheet metal, engaged to the main body portion and movable, when pressed upon, for ejecting the contents of the receptacle, substantially as described.

11. A receptacle of the character indicated, having a chamber inclosed therein, an exit-opening through the wall thereof, and a portion of its retaining-wall movable when pressed upon, for ejecting the contents of the receptacle, said movable portion having in close proximity to the exit-opening a portion presenting less resistance than the remainder of the movable portion; substantially as and for the purpose described.

12. A receptacle of the character indicated, having a chamber inclosed therein, an exit-opening through the wall thereof and a portion of its retaining-wall movable, when pressed upon for ejecting the contents of the receptacle, said movable portion having, in close proximity to the exit-opening, a portion presenting less resistance than the remainder of the device, and lines of corrugation radiating from said point of least resistance backwardly, substantially as and for the purposes described.

13. A receptacle for the purpose described, having a holding-chamber, an opening through its chamber-wall, for the introduction of contents in bulk, a covering for said opening, and an exit through the wall thereof, said covering being formed with a movable part for discharging the contents of the receptacle and a rigid part, including the exit-opening, and detachably engaging the main body portion of the receptacle, substantially as described.

14. A receptacle for the purpose described, having a chamber with an exit-opening through the wall thereof and at one side of the opening a projection extending inwardly beyond the opening, whereby said opening is shielded from the impact of contents falling theretoward and means for ejecting the contents of the receptacle, substantially as described.

15. A receptacle for the purpose described, having a chamber with an exit-opening through the wall thereof, and at one side of the opening a projection extending inwardly beyond the opening, and a movable ejector for discharging the contents of the receptacle, said ejector being located adjacent to the opening on the side opposite to said inwardly-extending projection, substantially as described.

16. A receptacle of the character indicated, having a chamber of capacity for holding contents in quantity, also an auxiliary or discharge chamber, of smaller capacity, for holding contents preparatory for the operation of discharge, an aperture connecting said chambers for passage of contents in bulk therebetween, an exit-opening through the wall thereof and a movable ejector, consisting of the end wall of said discharge-chamber, adapted to bend inwardly, when pressed upon, for ejecting the contents of the receptacle, said exit-opening being located adjacent to the said movable end wall, as and for the purposes described.

17. A receptacle of the character indicated, having a chamber inclosed therein and having its main body-walls contracted and extended forming a reduced body portion integral with the main body-walls of the receptacle and located at the top end thereof, an opening through the top end wall of said reduced body portion, for the introduction of contents in bulk, its bottom end being open for passage of contents in bulk to and from the chamber in said main body portion, an exit-opening through the wall thereof, adjacent to the said introductory opening and a cover for the introductory opening, said cover being supported in connection with the body-wall of the receptacle and adapted to move inwardly, when pressed upon, for ejecting the contents of the receptacle, substantially as described.

18. A device of the character indicated having a chamber inclosed therein, an exit-opening through the wall thereof, means for holding the contents in reduced portion before the exit-opening, and means for ejecting part of said reduced portion located next adjacent to the exit-opening, substantially as described.

19. A receptacle for the purpose described, comprising a holding-receptacle having a contracted portion near one end, with an enlargement beyond, and having an opening through the enlarged portion, a movable ejector located adjacent the exit-opening and forming part of the wall of the enlargement; substantially as described.

Signed at Lynn, Massachusetts, this 16th day of December, A. D. 1893.

CALVIN B. TUTTLE.

Witnesses:
E. E. HAMILL,
M. I. MORSE.