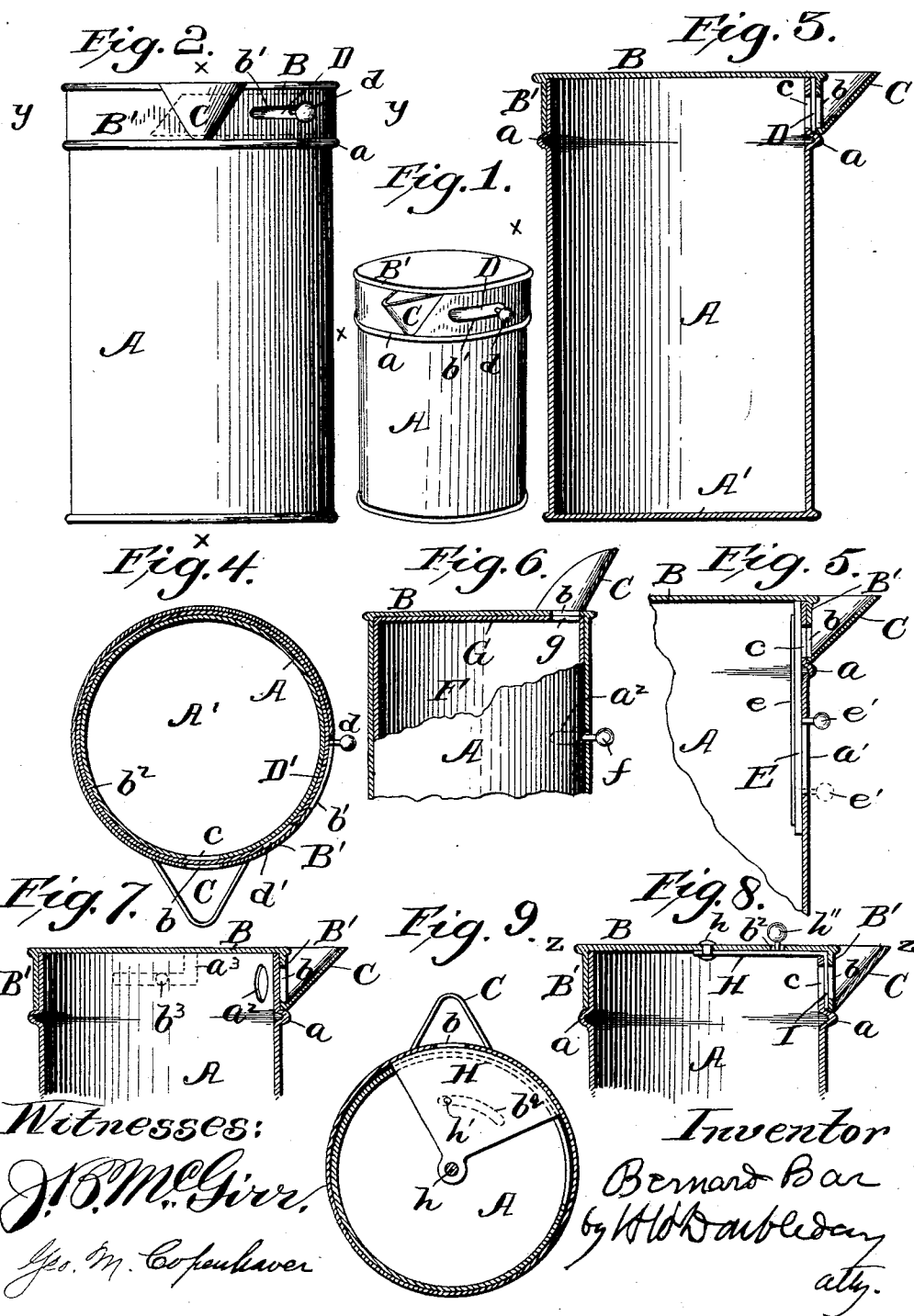


(No Model.)

B. BAR.
PACKAGE FOR POWDERED MATERIAL.

No. 587,517.

Patented Aug. 3, 1897.



UNITED STATES PATENT OFFICE.

BERNARD BAR, OF BALTIMORE, MARYLAND.

PACKAGE FOR POWDERED MATERIAL.

SPECIFICATION forming part of Letters Patent No. 587,517, dated August 3, 1897.

Application filed February 2, 1897. Serial No. 621,709. (No model.)

To all whom it may concern:

Be it known that I, BERNARD BAR, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain Improvements in Packages for Powdered Materials, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a perspective view of a receptacle containing my invention. Fig. 2 is a side elevation, enlarged. Fig. 3 is a vertical section on line *x x*, Fig. 2. Fig. 4 is a horizontal section on line *y y*, Fig. 2, showing a slight modification of the gate or cut-off. Fig. 5 is so much of a vertical section of a modification as is necessary to illustrate a modification. Fig. 6 is a partial vertical section of another modification. Fig. 7 is a partial vertical section of another modification. Fig. 8 is a partial vertical section of another modification. Fig. 9 is a horizontal section of the construction indicated in Fig. 8, taken on line *z z* of that figure.

The invention relates to certain novel features of construction and combination of portions of the receptacle which will be pointed out in the claims.

Referring particularly to Figs. 1, 2, 3, and 4, A represents the body of an ordinary receptacle for powdered or ground material of any sort—such, for instance, as tooth-powder—and has a bottom A', these parts being made of thin sheet metal or other suitable material, such as is commonly used for this kind of packages, and is by preference circular in cross-section, although many of the devices are adapted to be used in packages which are angular in cross-section, as will be explained.

The cover is indicated by B B', the depending flange B' being of somewhat greater diameter than the body A, so as to form an annular space or chamber between the flange and the upper end of the body.

a is a rib or bead projecting outward from the body at the lower edge of the depending flange.

C is a delivery guide, lip, or chute attached to the flange with a discharge-opening *c* in the upper end of the body and a corresponding opening *b* in the flange. (See Figs. 3 and 4.)

D is a gate or cut-off disposed in the annular or partial annular recess or chamber above referred to and indicated at *b*², Figs. 3 and 4. In Fig. 4 this gate is shown as being in the form of a complete ring, and it is preferably of such width as to practically fill the space between the top B of the cover and the bead or rib *a*, with a discharge-opening *d'*, which when the gate is turned into the proper position will register with the discharge-openings *b c*, but of course when the gate is in the position shown in Fig. 4 no material can pass through those openings, or the cut-off or gate may consist of a comparatively short section of a ring, as is indicated in dotted lines in Fig. 2, in which case the annular space between the flange B' and the upper end of the body A may be made correspondingly short, having only sufficient length to permit the gate to move endwise such distance as shall be found necessary to permit the opening and closing of the discharge-openings, as will be readily understood without further explanation.

d is a thumb-piece, the shank of which passes through a slot *b'* in the flange B'.

When a package of this general character is used for tooth-powder, the discharge-openings require to be so large in order to insure a reasonably free delivery that with ordinary care a quite large portion of the material is wasted by being scattered instead of being delivered upon the tooth-brush, which is too narrow to catch the powder as it falls, such scattering being also otherwise objectionable; but by the use of my invention the converging sides of the chute collect the powder and insure its being discharged in a small stream, which can be readily delivered upon the up-turned ends of the bristles of the narrowest brush that is sold, it being of course understood that the receptacle can be held in the proper position and the gate opened and closed by the use of one hand only, the thumb-piece *d* being moved in the requisite direction by the thumb or one of the fingers, as the case may be.

I am aware that oil-cans and similar receptacles for liquids have been provided with a spout attached to the can at the place where the hole for the liquid to run out is located, so that said spout will receive the liquid and

direct its delivery, as may be preferred, and I am aware that dredging-boxes have been made with a row of small holes near the upper end, with a corresponding series of registering holes in the downward-projecting flange of the cover, the imperforate portions of said flange closing the holes of the box when the cover is turned into the right position, the relatively small sizes of the holes necessitating a quite violent shaking of the box to insure a proper delivery of its contents, which are usually scattered over a quite large area, a mode of operation which would be entirely impracticable in a package like mine, which is designed more particularly for dentrifices, and in which it is important to have a relatively large single discharge-opening, combined with some device for preventing the scattering which invariably occurs with a series of openings, so that the tooth-powder can be freely discharged with but a slight jarring or tapping of the box with one finger, and yet the powder be delivered upon the very narrow space occupied by the upturned ends of the bristles.

I am aware that in the oil-can above referred to there was a cylindrical gate-section, but it was supported upon the bottom of the can and could not be supported from the cover, at least from a cover of the ordinary description, which has a depending flange of such depth as to extend below the discharge-opening, unless the cover has a discharge-opening formed therein through which material may flow to the chute.

In the modification shown in Fig. 5 the gate or cut-off E is held in position on the inside of the receptacle by lips or flanges *e*, one on either side, soldered to the receptacle, and is moved up and down by the thumb-piece *e'*, which projects through a slot *a'*.

In Fig. 6 the discharge-opening is in the upper end or head of the box to which the chute is attached, and the gate or cut-off consists, essentially, of a cylinder-section F, which carries at its upper end a head or disk G, provided with a discharge-opening *g*, which can be made to register with opening *b* when the cut-off is turned to the proper place by means of the thumb-piece *f*, which works in a slot *a''*. (Indicated in dotted lines in Fig. 6.)

In Fig. 7 the cover itself is made to serve as a gate or cut-off, it having a discharge-opening *b*, the same as in Figs. 1 to 4, and having the chute attached in the same way, but fitting somewhat loosely, so that it can be easily rotated to open and close the opening *c*, with a pin *b''* projecting inward from the depending flange B' and traversing an angular slot *a''* in the upper end of the box, so that the cover can be put on by sliding the pin down through the vertical part of said slot, when by turning the cover around until the pin is within the horizontal part of the slot the cover will be held against accidental

removal, while if the relative positions of the parts be those indicated in the drawings the flange at the end of the slot nearest the opening *b* will serve as a stop to insure that the openings shall register when the cover has been turned as far in that direction as is possible, and by examining Fig. 7 it will be seen that when the pin is at either end of the slot the cover will be held against removal.

In Figs. 8 and 9 the gate consists of a quadrant-shaped plate H, pivoted at *h* to the under side of the top of the box, with a depending flange I disposed in a recess between the cover and the adjacent part of the box and rotated backward and forward by a pin *h'*, which projects upward through a slot *b''* in the top of the box.

What I claim is—

1. In a receptacle for powdered material, the combination of a box having a cylindrical wall and provided with a discharge-opening, a chute disposed to receive material from said opening, a cover having a discharge-opening through which material can flow to the chute, a gate having a vertical cylindrical section supported in close contact with the box, and means for rotating the gate, substantially as set forth.

2. In a receptacle for powdered material, the combination of a box having a cylindrical wall and provided with a discharge-opening, a chute disposed to receive material from said opening, a cover having a discharge-opening through which material can flow to the chute and a vertical flange supported in close contact with the box, and means for rotating the flange, substantially as set forth.

3. In a receptacle for powdered material, the combination of a box having a cylindrical wall and provided with a discharge-opening, a cover, a vertical recess between the cover and the adjacent wall of the box, and a gate disposed in the recess, substantially as set forth.

4. In a receptacle for powdered material, the combination of a box having a cylindrical wall, a cover having a depending flange fitting loosely the upper end of the box, and a gate disposed between the flange and the box, substantially as set forth.

5. In a receptacle for powdered material, the combination of a box having a cylindrical wall provided with a discharge-opening, a cover having an external depending flange also provided with a discharge-opening, and a chute attached to the flange, and means for connecting the flange with the box and permitting the flange to be rotated to serve as a gate, substantially as set forth.

In testimony whereof, I affix my signature in presence of two witnesses.

BERNARD BAR.

Witnesses:

PAUL M. BURNETT,
FRANCIS N. RUGEMER.