No. 772,443. PATENTED OCT. 18, 1904.

C. TURNER.

POWDER HOLDING AND DELIVERING DEVICE.

APPLICATION FILED JAN. 20, 1904.

NO MODEL.

Fig. 1.

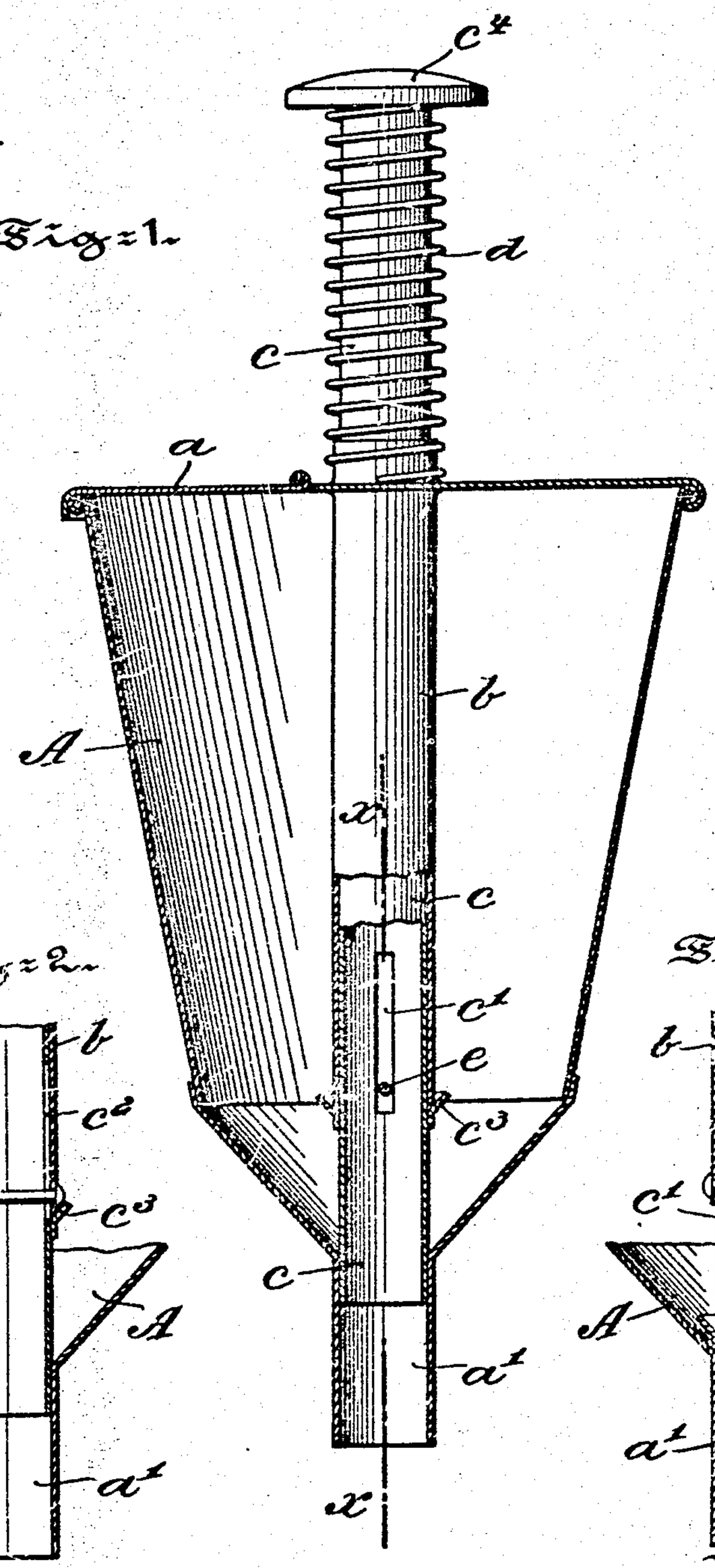


Fig. 2.

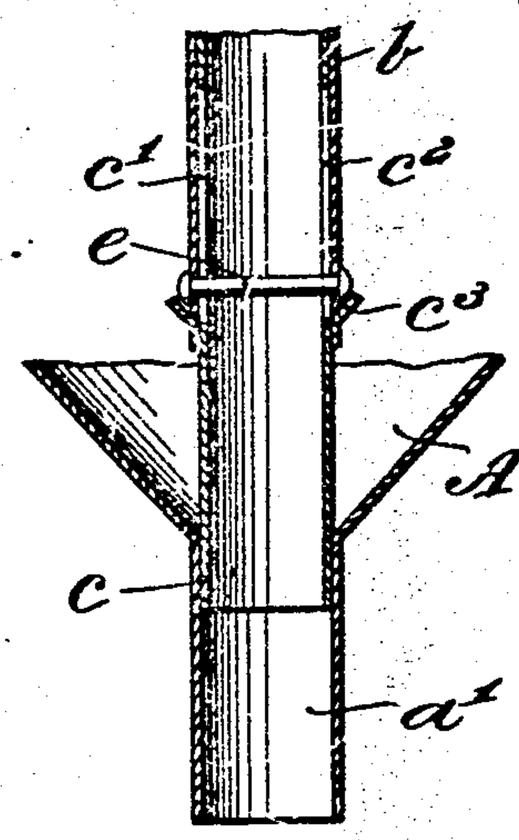
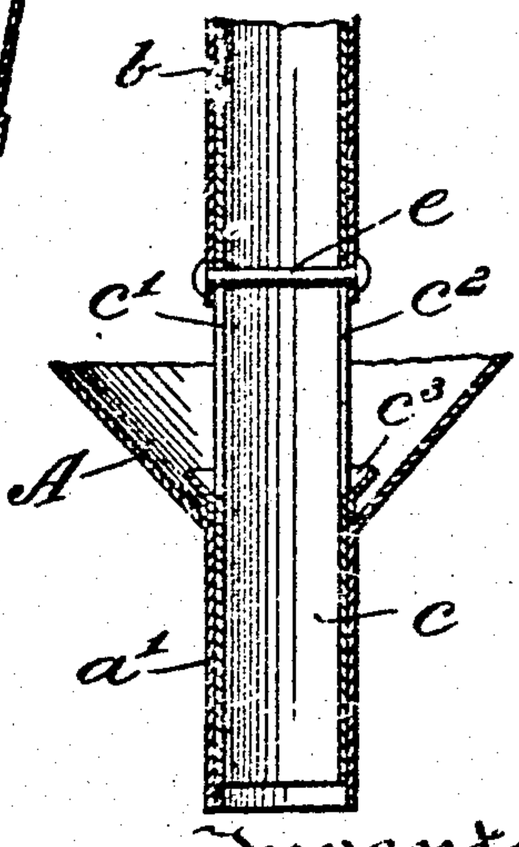


Fig. 3.



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No. 772,443. Patented October 18, 1904.

UNITED STATES PATENT OFFICE.

CHARLES TURNER, OF PHILADELPHIA, PENNSYLVANIA.

POWDER HOLDING AND DELIVERING DEVICE.

SPECIFICATION forming part of Letters Patent No. 772,443, dated October 18, 1904.

Application filed January 20, 1904. Serial No. 189,813. (No model.)

To all whom it may concern:

Be it known that I, CHARLES TURNER, a citizen of the United States, residing in the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Powder Holding and Delivering Devices, of which the following is a specification.

My invention has relation to a handy device for containing materials in powdered or similar form and delivering from the device without waste of the same.

The principal objects of my invention are, first, to provide a portable device for containing materials in powdered or similar form and delivering from the device without waste of the same; second, to provide a device of the character described with spring-controlled plunger valve or tube adapted to be operated in a downward direction to discharge from the hopper or receptacle the material in powdered or similar form in definite quantity from the hopper or receptacle, and, third, to provide a device of the character described with a spring-controlled slitted dispensing plunger tube or valve and with a cleanser device therein for preventing clogging or jamming of material in the valve or tube to interfere with a positive discharge of a definite quantity of the material in powdered or similar form from the hopper or receptacle of the device.

My invention, stated in general terms, consists of a device for holding and delivering material in powdered or similar form constructed and arranged in substantially the manner hereinafter described and claimed.

The nature and characteristic features of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a vertical sectional view of a device of the character of my invention and embodying essential features of construction and arrangement thereof. Fig. 2 is a similar view taken on the line $x\ x$ of Fig. 1; and Fig. 3 is a view similar to Fig. 2, but showing the valve or tube depressed to permit of the discharge of the powder.

Referring to the drawings, A is the receptacle or hopper of the device, of any preferred material and shape, provided with preferably a partly-hinged cover a, and at the base of the receptacle is provided a discharge-throat a' of preferably tubular form. Depending into the interior of the receptacle A from the fixed portion of the cover of the receptacle is provided a tube b. Within the tube b is provided a plunger-tube c, slitted at c' and c^2 and flanged at c^3 below said slits c' and c^2, one portion (the shorter length of the tube or cylinder c) extending into the discharge-throat a' of the receptacle A, while the other (the longer) portion of the plunger-tube c extends through the fixed tube b beyond the cover a of the receptacle A and is provided at the upper end with a handhold or cap c^4. Between the handhold or cap c^4 and top of the cover a is arranged a coiled spring d, whereby the plunger-tube c is elevated normally into inoperative position to close the discharge-throat a' of the receptacle, with the flange c^3 of the tube c in engagement, with the lower free end of the fixed tube b within the receptacle A, as illustrated in Fig. 1. In the lower portion of the fixed tube b is arranged a cleaner device consisting of a wire e, extending through the slits c' and c^2 and traversing the plunger-tube c diametrically in order to maintain the slits clear of the powdered material about the fixed and movable tubes within the receptacle A and to prevent any possibility of accumulation between the tubes of the material or jamming of such to in any way interfere with the free working of the plunger-tube c, so as to prevent the regulated discharge, as required, of a definite quantity of material from the receptacle or hopper A through the discharge-throat a' of the device.

The operation of the device is as follows: In the normal position of the device the spring d elevates the tube c until its slits c' c^2 are inclosed by the tube b, and the lower unslitted portion of the tube c connects the tube b with the throat a' of the hopper. In this position no powder can enter the throat a', and hence no discharge from the hopper takes place. Upon pressing downward upon the cap c^4 the tube c slides downward in the tube b and

throat a' until its slits c' c^2 are uncovered by the tube b, as illustrated in Fig. 3. In this position powder in the receptacle A passes through the slits c' c^2 into the tube c and through the throat a' of the receptacle. The movement of the tube c within the tube b is limited in both directions by the flange c^3 on the tube c, and said flange c^3 also serves to break up the powder as the tube c descends and ascends.

The device of my invention is especially adapted for containing soap material in powdered form or tooth-powder and for dispensing the same therefrom in regulated quantity for use.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A device of the character described, consisting of a receptacle provided with a discharge-throat, a fixed tube depending into the receptacle, a slitted plunger-tube movable within the fixed tube and throat of said receptacle and a cleaner device operatively arranged in the slitted portion of said movable tube, substantially as and for the purposes set forth.

2. A device of the character described, consisting of a receptacle provided with a contracted discharge-throat, a fixed tube depending into the receptacle from the cover thereof, a spring-actuated slitted plunger-tube movable in the fixed tube and throat of said receptacle, and a cleaner device connected with the fixed tube and extending through the slitted portion of said movable tube, substantially as and for the purposes set forth.

3. A device of the character described, consisting of a receptacle provided with a discharge-throat and with a fixed and hinged cover, a fixed tube depending into the receptacle from the fixed cover, a spring-controlled slitted and flanged plunger-tube movable in said fixed tube and the throat of said receptacle, and a cleaner device connected with said fixed tube and extending through the slitted portion of said movable tube, substantially as and for the purposes set forth.

4. A device of the character described, consisting of a receptacle provided with a discharge-throat, a fixed tube depending into the receptacle from the cover thereof, a spring-controlled slitted plunger-tube movable up and down in said fixed tube and throat of said receptacle and a cleaner device connected with said fixed tube and extending crosswise through the slitted portion of said movable tube, substantially as and for the purposes set forth.

In witness whereof I have hereunto set my signature in the presence of two subscribing witnesses.

CHAS. TURNER.

Witnesses:
J. WALTER DOUGLASS,
THOMAS M. SMITH.