

(No Model.)

2 Sheets—Sheet 1.

F. B. THATCHER.
SALT SHAKER.

No. 568,503.

Patented Sept. 29, 1896.

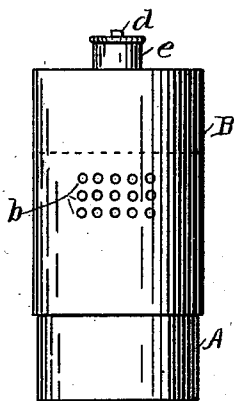


Fig. 1.

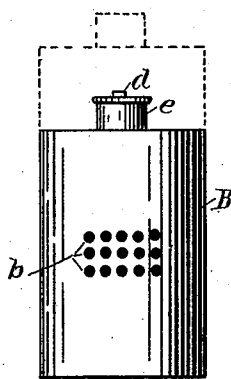


Fig. 2.

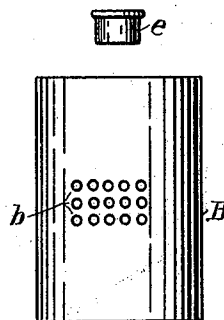


Fig. 3.

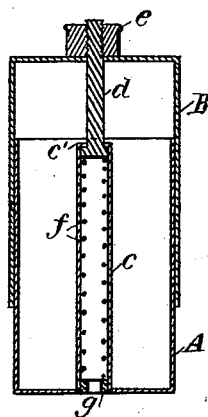


Fig. 4.

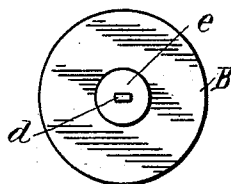


Fig. 5.

WITNESSES:

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J. J. Murphy.

INVENTOR:

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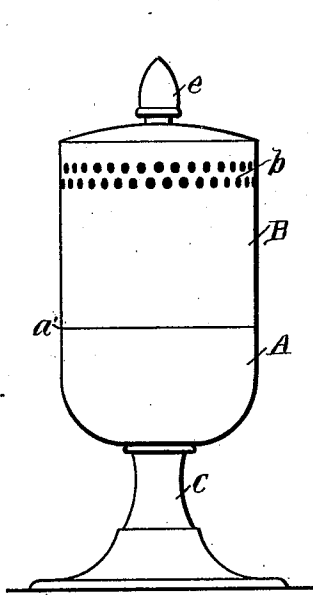


Fig. 6

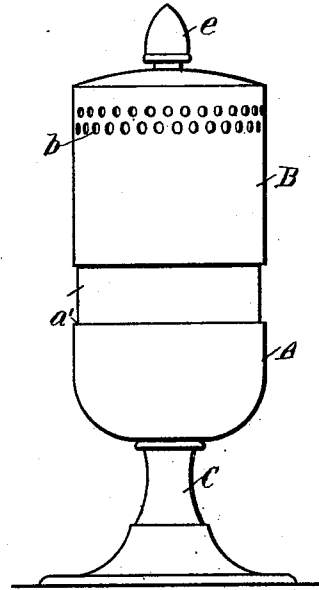


Fig. 7

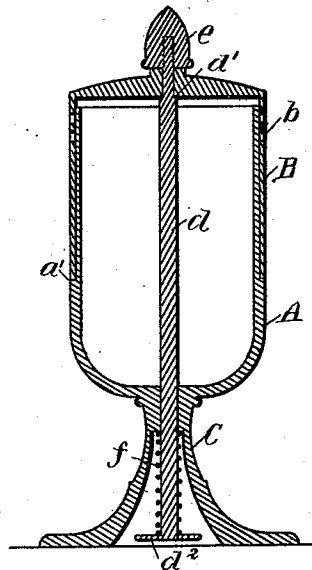


Fig. 8.

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UNITED STATES PATENT OFFICE.

FREDERICK B. THATCHER, OF PROVIDENCE, RHODE ISLAND.

SALT-SHAKER.

SPECIFICATION forming part of Letters Patent No. 568,503, dated September 29, 1896.

Application filed August 29, 1891. Serial No. 404,072. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK B. THATCHER, of the city and county of Providence, in the State of Rhode Island, have invented certain new and useful Improvements in Salt-Shakers; and I do hereby declare the following specification, taken in connection with the accompanying drawings, forming a part of the same, to be a full, clear, and exact description thereof.

In another application of even date herewith I have shown and described an improvement in salt-shakers or other analogous devices which relates to the production of a device which shall be self-closing and which when closed shall be practically moisture-tight, so as to prevent the contents from absorbing moisture from the external atmosphere.

The present invention relates to certain improvements in such self-closing, moisture-tight shakers and to certain modifications in the organization of the device; and the invention consists in certain combinations and arrangements of parts hereinafter described.

Referring to the drawings, Figure 1 is a view in perspective of one form of device embodying my present improvements, showing the parts in closed position. Fig. 2 is a like perspective view showing the parts in position for discharging the contents of the receptacle. Fig. 3 represents several of the parts disconnected. Fig. 4 is a central vertical section of Fig. 1. Fig. 5 is a top view of the same. Fig. 6 is a perspective view of a modified form of device embodying my present improvements and showing the parts in closed position. Fig. 7 is a like perspective view of the same, showing the parts in position for discharging the contents of the receptacle; and Fig. 8 is a central vertical section of Fig. 6.

Referring first to the form of device shown in Figs. 1 to 5, inclusive, A represents a suitable receptacle, shown in the drawings as cylindrical in form. This receptacle may be formed from sheet metal or any other suitable material. B represents a cylindrical cap or cover arranged to fit over the end of the cylindrical receptacle A and form a telescopic joint therewith, as shown in Figs. 1 and 4.

The receptacle A is provided on one side with a slot *a*, as shown at Fig. 3, and the cover B is provided with a corresponding series of holes *b*, as shown in Figs. 1, 2, and 3, the holes *b*, when the parts are united, being arranged to be brought in line with the slot *a*, as shown.

Arranged centrally in the cylindrical receptacle A and secured to the bottom thereof in any suitable manner is a tube *c*, to the upper end of which tube is secured a collar *c'*. Arranged to slide within said tube *c* is a plunger *d*, provided with an enlargement at its lower end, as shown. The upper end of said plunger passes through the collar *c'* at the upper end of the tube *c* and through a hole in the top of the cover B and is secured to said cover by means of a nut *e*, screwed upon the end of said plunger, whereby the top of the cover will be clamped upon the plunger between the nut *e* and a shoulder *d'*, formed upon the plunger. Preferably the plunger *d* is provided with one or more flat sides, and the holes in the collar *c'* and in the top of the cover B, through which the plunger passes, are formed of corresponding shape, whereby the cover may be so held with relation to the receptacle A that the holes *b* will always remain in proper alinement with the slot *a*.

Arranged within the tube *c* is a spiral spring *f*, one end of which bears against the enlarged lower end of the plunger *d* and the other end of which bears against a collar *g*, secured in the lower end of the tube *c*, as shown in Fig. 4. The spring *f* in its normal position will hold the cover B up in the position shown in Figs. 1 and 4, in which position the series of holes *b* in the cover are above the slot *a* in the receptacle A, which latter is thereby closed, the telescopic joint between the cover and receptacle serving to effectually exclude moisture from the contents of the receptacle.

When it is desired to shake out a portion of the contents of the receptacle, all that is necessary is to press downward upon the cover B until the holes *b* are brought opposite the slot *a*, when there will be free and open passages for the contents of the receptacle. This movement of the cover with relation to the receptacle will contract the spring *f*, and so that when pressure upon the cover is released it will be returned by the spring

to its normal position and so as to lift the holes *b* above the slot *a* and thus tightly close the opening into the receptacle.

If desired, the slot *a* may be formed in the cover and the series of holes *b* may be formed in the receptacle.

Referring now to Figs. 6, 7, and 8, which represent a modified form of device, the cylindrical receptacle *A*, which in this case is shown as mounted upon a hollow standard *C*, is provided with an annular shoulder *a'*, as shown in Figs. 7 and 8, and there is no slot in the side of the receptacle. The cylindrical cover *B* fits over the top of the receptacle *A*, as in the other form of device, and is likewise provided with a series of holes *b*, which in the present case are located at or near the top of the cover and extend entirely around the same. In this form of the device the tube within the receptacle is omitted and the plunger *d*, which extends through and is secured to the cover *B* by means of the nut *e* and shoulder *d'*, as before, is extended downward through the bottom of the receptacle and the upper portion of the standard *C* and into the opening in the bottom of said standard. The bottom of the plunger is provided with an enlargement or thumb-piece *d*², and the spiral spring *f* in this case surrounds the lower end of the plunger and bears at one end against the thumb-piece *d*² and at the other end against the standard *C*, all as shown in Fig. 8. In this case, therefore, as will be seen, the spring *f* will in its normal position hold the cover *B* down upon the receptacle *A*, with the holes *b* in the cover below the upper edge of the receptacle, and with the lower edge of the cylindrical cover pressed tightly against the annular shoulder *a'* on the receptacle, and so as to exclude moisture from the interior of the receptacle. When now it is desired to eject a portion of the contents of the receptacle, by simply pressing upon the thumb-piece *d*² the cover *B* will be lifted and so as to bring the holes *b* above the upper edge of the receptacle *A*, when the contents of the receptacle may be readily shaken out through the holes *b*. This movement of the cover will contract the spring, which, when the pressure upon the thumb-piece *d*² is removed, will draw the cover down to its normal position, and so as to again bring the holes *b* below the upper edge of the receptacle and the lower edge of the cover snugly in contact with the annular shoulder

a' and thus tightly close the receptacle and the contents thereof against the entrance of moisture.

If desired, the annular shoulder *a'* on the receptacle *A* may be omitted and the under side of the top of the cover *B* be brought to a seat upon the upper annular edge of the receptacle, or the telescopic joint may be alone relied upon to exclude moisture, as in the first form of device above described.

The devices above described are simple in construction, easy of manipulation, and serve to effectually exclude moisture and prevent its absorption by the contents of the receptacles, thereby preserving the same in a dry state in all conditions of the atmosphere.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with a suitable receptacle open at one end, of a longitudinally-sliding cover forming a telescope-joint therewith and inclosing the open end of the receptacle, said cover being provided with discharge-orifices, and a spring acting to normally hold said cover, with relation to said receptacle, in a position to close the discharge-orifices in said cover, substantially as described.

2. The combination with a suitable receptacle open at one end and provided with a slot in its side, of a longitudinally-sliding cover forming a telescope-joint therewith and inclosing the open end of the receptacle, said cover being provided with discharge-orifices arranged to be brought into communication with the slot in said receptacle, and a spring acting to normally hold said cover, with relation to said receptacle, in a position to cut off the communication between said slot and said discharge-orifices, substantially as described.

3. The combination of a suitable receptacle provided with a slot in its side, a cover forming a telescopic joint with said receptacle and provided with discharge-orifices, a plunger secured to said cover, a guide for said plunger, and a spring acting upon said plunger to normally hold said cover in a position to close the discharge-orifices therein, substantially as described.

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Witnesses:

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