A. HELDRICH.

DISPENSING VESSEL.

APPLICATION FILED MAY 1, 1912.

1,066,813. Patented July 8, 1913.

Fig. 1.

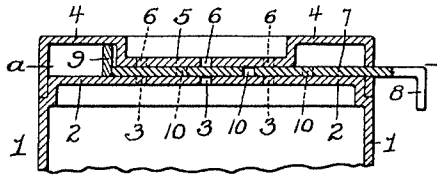


Fig. 3.

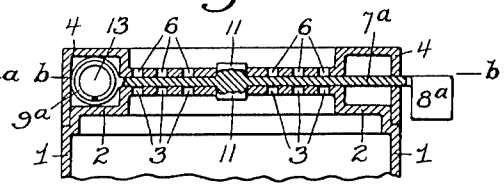


Fig. 2.

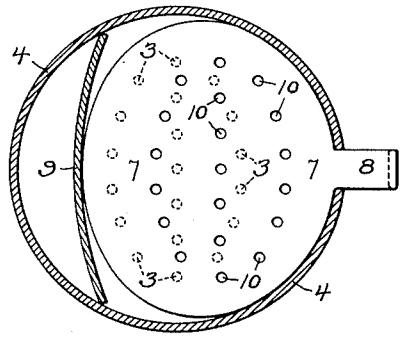
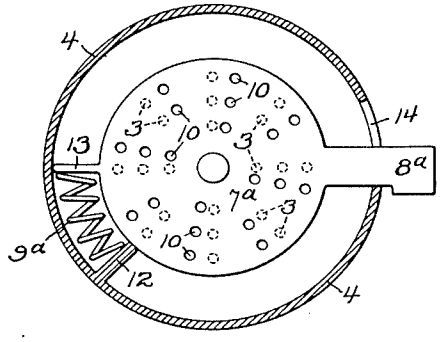


Fig. 4.



WITNESSES

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DISPENSING VESSEL.

1,066,813. Specification of Letters Patent. Patented July 8, 1913.

Application filed May 1, 1912. Serial No. 694,511.

To all whom it may concern:

Be it known that I, ANDREW HELDRICH, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Dispensing Vessels, of which the following is a specification.

My invention relates to that class of dispensing vessels, such as salt and pepper shakers, powder boxes, and the like which have perforated tops and a perforated valve movable in respect thereto so as to open and close the perforations and permit or prevent discharge of the contents of the vessel.

The object of my invention is to so construct such a dispensing vessel that the valve will be normally retained in the closed position; all leakage when the valve is closed will be prevented; no part of the valve, or of the spring which closes it, will be accessible to the contents of the vessel; there will be no outside exposure of the valve, except as to the thumb piece whereby the valve is operated, and the structure will be compact and inexpensive.

In the accompanying drawing Figure 1 is a transverse sectional view of the upper end of a dispensing vessel constructed in accordance with my invention; Fig. 2 is a sectional plan view of the same on the line *a*—*a*, Fig. 1; Fig. 3 is a view similar to Fig. 1, but illustrating another construction embodying my invention; and Fig. 4 is a sectional plan view on the line *b*—*b*, Fig. 3.

In Figs. 1 and 2 of the drawing, 1 represents the upper portion of the body of the vessel and 2 the cap of said vessel which may either be integral with the body as shown, or may be secured to said body in any desired manner, such cap having therein perforations 3 disposed as desired. To the upper portion of the vessel is fitted a cover 4, preferably having a dished or depressed central portion 5 which is perforated as at 6 so that its perforations register with the perforations 3 in the cap 2.

Between the cap 2 and the dished portion 5 of the cover 4 fits a laterally sliding valve 7 which has a thumb piece 8 projecting through a slot in the cover, as shown in Fig. 2, the inner face of this valve bearing against a flat spring 9 which is contained in one of the chambers formed between the cap 2 and cover 4, outside of the limits of the dished portion 5 of the latter, as shown in Fig. 1. The spring 9 bears at its ends against the inner face of the side wall of the cover 4, as shown in Fig. 2, so as to have a constant tendency to press the valve 7 outwardly and thus carry its perforations 10 out of register with the perforations 3 and 6 formed in the cap 2 and cover 4, thereby closing the vessel both against the discharge of any of its contents and against the access of moisture, dust, or any other foreign matter to such contents.

When it is desired to discharge any of the contents from the vessel pressure of the thumb or finger upon the thumb piece 8 will move the valve 7 inwardly until its perforations register with those of the cap and cover of the vessel, the latter perforations being closed again, however, as soon as the pressure of the thumb or finger is removed from the thumb piece 8.

In Figs. 3 and 4 I have illustrated my invention as embodied in a vessel having a swinging valve 7^a, the latter having a central pivot stud 11 which is adapted to central openings in the perforated portion of the cap 2 and cover 4, both of the latter being dished in those portions in which the perforations are formed so as to produce outside of the limits of said dished portions, a chamber of somewhat larger size than that shown in Fig. 1, this chamber receiving a coiled spring 9^a which bears at one end against a lug 12 projecting inwardly from the cover 4 and at the other end against a wing 13 projecting outwardly from the perforated and swinging valve 7^a from which also projects the thumb piece 8^a which plays in a segmental slot 14 in the cover 4, this slot being of such dimensions as to permit swinging movement of the valve 7^a to an extent sufficient to carry its perforations 10 into or out of register with the perforations 3 and 6 of the cap 2 and cover 4, the tendency of the spring 9^a being to move the valve 7^a to such position that its perforations shall be out of register with the others. Either form of valve fits snugly between the cap and cover of the vessel so that when the valve is in its closed position any leakage of the contents of the vessel is prevented as is also the entrance of moisture or external impurity into the vessel, the contents of which are therefore always kept dry and in an uncontaminated condition, and by reason of the fact that no portion of the moving valve or of its actuating

spring is accessible to the contents of the vessel there is no possibility of said contents clogging the valve, all portions of the valve and its operating spring being inclosed with the exception of the unobjectionable projecting thumb piece. The valve attachment does not materially increase the size of the vessel or add materially to the expense of the same.

I claim:

1. The combination, in a dispensing vessel, of a perforated cap and a perforated cover having a chamber between them, with a perforated valve movable between the cap and cover so as to open and close the perforations therein, and a spring contained in said chamber and serving to move the valve to its closed position.

2. The combination, in a dispensing vessel, of a perforated cap and a perforated cover, one of such members being dished in that portion in which the perforations are formed, a perforated valve movable between said cap and cover so as to open or close the perforations therein, and a spring also contained between said cap and cover in a chamber outside of the dished portion of the same, said spring acting upon the valve so as to move the same to a closed position.

3. The combination, in a dispensing vessel, of a perforated cap and a perforated cover, either of which is dished in its perforated portion, a perforated valve movable between said cap and cover so as to open or close the perforations therein, and a spring contained in a chamber between the cap and cover beyond the limits of the dished portion, said spring bearing upon an abutment in said chamber and also upon a projecting abutment on the valve and tending to move the latter to the closed position.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ANDREW HELDRICH.

Witnesses:

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