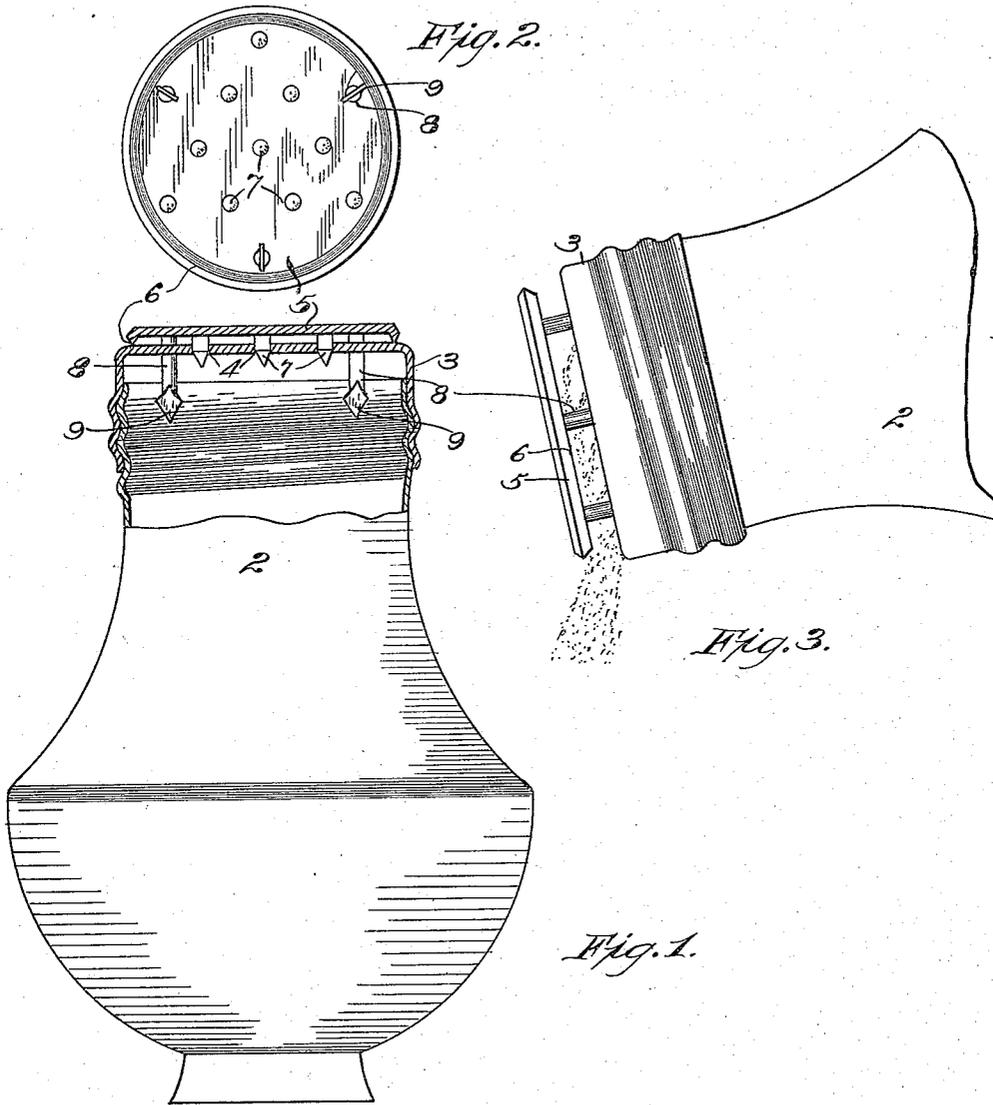


E. A. COCHRAN,  
SALT SHAKER,  
APPLICATION FILED NOV. 14, 1914.

1,166,743.

Patented Jan. 4, 1916.



WITNESSES:

*F. E. Maynard,*  
*Irvin Simmett.*

INVENTOR

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# UNITED STATES PATENT OFFICE.

EDWARD A. COCHRAN, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-THIRD TO  
GEORGE M. DAVIS, OF SAN FRANCISCO, CALIFORNIA.

## SALT-SHAKER.

1,166,743.

Specification of Letters Patent.

Patented Jan. 4, 1916.

Application filed November 14, 1914. Serial No. 872,099.

*To all whom it may concern:*

Be it known that I, EDWARD A. COCHRAN, a citizen of the United States, residing at the city and county of San Francisco and State of California, have invented new and useful Improvements in Salt-Shakers, of which the following is a specification.

This invention relates to salt shakers and particularly to a moisture-proof container for preserving table salt against the absorption of moisture.

The invention consists of a container with a removable cap having a peculiar valve closure which is also effective as a lump disintegrator.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a side elevation of the device partly in section. Fig. 2 is a bottom plan of the valve. Fig. 3 is a view of the salt shaker in discharging position.

2 indicates a container with a threaded removable top cap 3 having numerous perforations 4. Above the cap is a disk valve 5 having on its underside a circumferential knife edge 6 which acts to cut away any accumulations on the cap surface and thus seat well to keep out moisture.

The valve is provided with a number of short pointed spurs 7 which enter the cap holes 4, keeping them clear of salt particles and also preventing the free circulation of moist air. Play or movement of the valve is permitted by a set of stems 8 projecting from one side of the disk and into respective apertures.

Manufacturing the device so cheaply as to enable its possible free distribution as an advertising novelty is one of the objects of the invention, and to that end the parts are so designed as to be simple and most inexpensively produced. This is carried out by

locking the valve to the cap by the simple method of flattening the ends of the stems 8 by the application of a pinching tool which also forms points 9 on the stems useful to break up salt lumps impinging thereon.

When the container is tilted over, the valve shifts automatically away from the cap and allows the contents to be discharged and automatically closes when the container is righted.

It will be noticed that I utilize three stems 8 which play in respective of the cap perforations 4, thus again tending to cheapen cost of manufacturing by eliminating any special stem guide. Moreover the valve is preferably cast of a non-corrosive material and all its members are, therefore, integrally formed at one operation, thus avoiding any machining.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. The combination with an open mouth container having a removable perforated cap, of a reciprocable valve closure for the cap having an annular knife edge operative to cut and keep a clean seat on the cap.

2. In a salt shaker of the character described, a removable perforated flat top, a guided disk valve having downturned peripheral knife edges closable against the top, and having spurs fixed and movable therewith, and guides extending through the top into the container and having the inner ends formed with flattened darts which serve to contact with the cap when the valve opens and to break up lumps of contained material.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

EDWARD A. COCHRAN.

Witnesses:

IRVINE SINNETT,  
W. W. HEALEY.