

C. ARTNER.
SHAKER.

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950,088.

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Fig. 2.

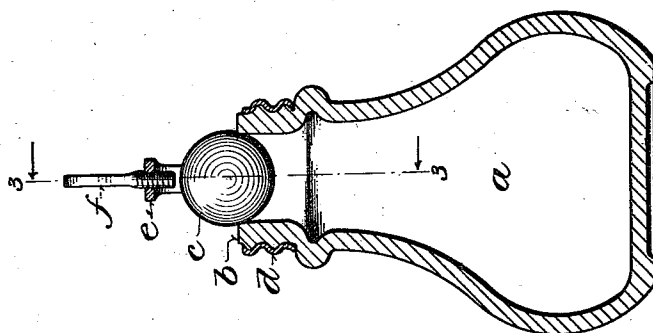


Fig. 1.

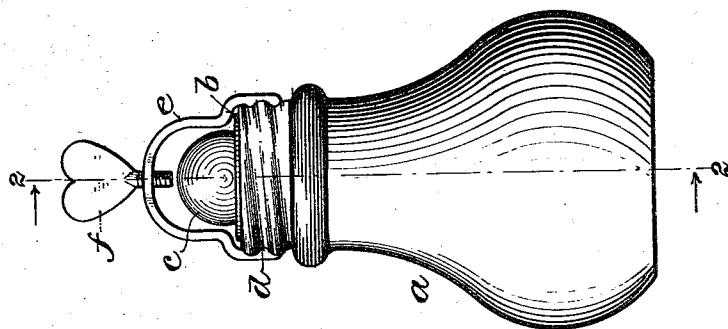
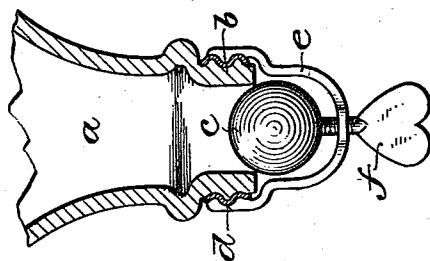


Fig. 3.



Witnesses:

Tired Palm

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UNITED STATES PATENT OFFICE.

CARL ARTNER, OF MILWAUKEE, WISCONSIN.

SHAKER.

950,088.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CARL ARTNER, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Shakers, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

10 This invention relates to devices for shaking and sprinkling salt, spices or other substantially dry powdered or comminuted substances. Its main objects are to insure free delivery of such substances from the receptacles containing them, to provide means for regulating or adjusting the delivery thereof; to avoid contact of the contents of such receptacles with metal; to prevent obstruction of the discharge orifices of such receptacles; 15 to prevent the contents of such receptacles from absorbing moisture from, or being contaminated by open exposure to the atmosphere; and generally to improve the construction and operation of devices of this class.

In the accompanying drawing like characters designate the same parts in the several figures.

30 Figure 1 is a side view of a salt or spice shaker embodying the invention in a form for table use; Fig. 2 is a central vertical section of the same on the line 2 2, Fig. 1; and Fig. 3 is a similar section on the line 3 3, Fig. 2, of a portion of the shaker, showing the same inverted and the ball slightly removed from its seat.

35 The shaker comprises a receptacle *a*, which for table use for salt, pepper or the like, is preferably made of glass or some nonmetallic material. Like an ordinary table salt shaker or pepper box, it has a circular mouth or opening at the top and an externally screw threaded neck *b* around the mouth or opening. A ball *c*, of somewhat larger diameter than the diameter of the mouth or opening of the receptacle, fits partially into and normally closes the same when the receptacle stands in an upright position, as shown in Figs. 1 and 2. For use with salt 40 or other substances which have a corrosive effect on metal, the ball is preferably made of glass or of some nonmetallic material. The ball is loosely confined over the mouth or opening of the receptacle by a keeper consisting of a collar *d*, removably threaded on the neck *b* and provided with an up-

wardly arched yoke or cross piece *e*. To regulate or vary the area of the discharge orifice between the ball and its seat when the receptacle is inverted or tipped and shaken, 60 the yoke or cross piece *e* is provided with an adjustable abutment or bearing for the ball. This abutment or bearing may consist as shown, of a thumb screw *f* threaded in the cross piece centrally with relation to the collar *d*, as shown. 65

When the shaker is not in use and stands in its normal position as shown in Figs. 1 and 2, the ball resting upon its seat in the mouth or opening of the receptacle, closes 70 the receptacle and prevents exposure of its contents to the outside atmosphere. This is of special advantage to salt or other deliquescent substances which absorb moisture from the atmosphere. 75

In operation, when the receptacle is inverted or tipped and shaken, the ball dropping from its seat against the point of the screw *f*, as shown in Fig. 3, leaves a narrow opening around it for the escape of the powdered or comminuted contents of the receptacle. The movement of the ball between its seat and the point of the screw produced by the shaking of the receptacle, interrupts 80 the flow of material from the receptacle, causing it to issue therefrom in a spray or finely distributed condition. It also prevents incrustation of the material, such as salt, on the ball or its seat, and keeps the discharge orifice free and clear from obstruction. The area of the discharge orifice is readily varied to afford a freer or more 85 restricted delivery, by the adjustment of the screw *f*. To fill or refill the receptacle, the collar *d* of the keeper is unscrewed from the neck *b*, and the ball is removed from the mouth or opening in which it is seated. 90

Various materials may be employed in the construction of the shaker, and various modifications may be made in details of construction without departing from the principle and scope of the invention. 100

I claim:

1. In a shaker for powdered and comminuted substances the combination of a receptacle having a circular discharge opening, a ball fitted in and normally closing said opening, and a collar detachably secured to said receptacle around said opening and having a cross piece loosely confining said ball in place over said opening and adapted to hold it in position to leave 110

but a narrow orifice between it and its seat when said receptacle is inverted.

2. In a shaker for powdered and comminuted substances the combination of a receptacle having a discharge opening, a ball fitting into said opening, a collar detachably secured to the receptacle around said opening and having an arched cross piece spanning the opening, and a screw threaded in said cross piece and adapted to adjustably confine the ball over said opening.

3. In a shaker for powdered and comminuted substances, the combination of a non-metallic receptacle having a circular mouth or opening at the top and an externally

screw threaded neck around said opening, a nonmetallic ball fitting partially into and normally closing said opening, and a collar removably threaded on said neck and having a cross piece adapted to loosely confine said ball over said opening in position to leave but a narrow orifice between it and its seat when said receptacle is inverted.

In witness whereof I hereto affix my signature in presence of two witnesses.

CARL ARTNER.

Witnesses:

CHAS. L. GOSS,
ROBERT ARTNER.