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R. R. RUNDELL

1,861,980

SALT SHAKER

Filed Sept. 20, 1929

Fig. 1

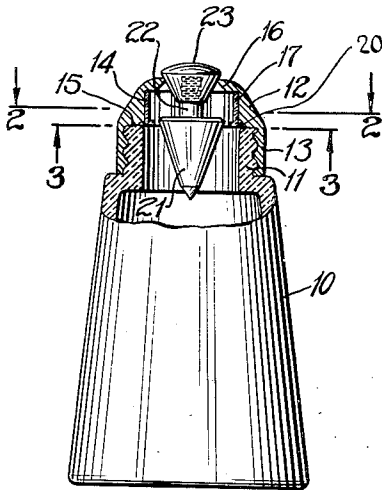


Fig. 2

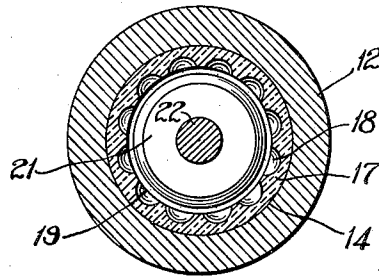


Fig. 3

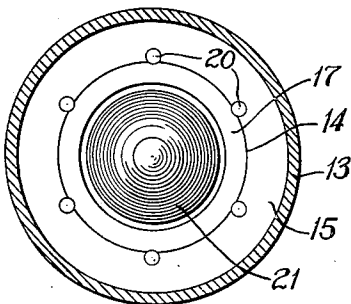
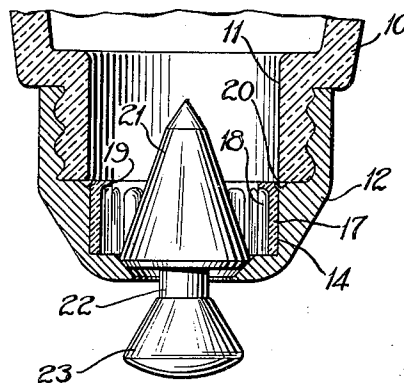


Fig. 4



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SALT SHAKER

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My invention relates to dispensing receptacles and has for an object to provide a receptacle from which comminuted material may be discharged by shaking the receptacle, means being provided to insure such discharge whether the material be dry or moist.

More specifically, my invention relates to salt shakers of the general type disclosed in my copending application Serial No. 226,360, filed October 15, 1927, and an object of the present invention is to provide an improved construction which will permit of discharging substantial quantities of salt at each operation of the salt shaker and which at the same time will prevent excessive discharge of dry salt.

A specific object of the invention is to provide a salt shaker with a retaining chamber in which damp salt will pack and through which a plunger may be reciprocated to scrape off quantities of salt packed in said chamber.

In said copending application, I show a similar chamber in which the ejector operates but the walls of said chamber are smooth and damp salt will not pack readily therein. A specific object of the present invention is to provide a chamber which is slightly constricted at its lower end and the walls of which are not smooth so that the chamber will operate more efficiently to retain salt therein.

Other objects of my invention will appear in the following description of a preferred embodiment, and thereafter the novelty and scope of the invention will be pointed out in the claim.

In the accompanying drawing;

Figure 1 is a side elevation of a salt shaker embodying my invention, the upper portion of the salt shaker being broken away to reveal details of the ejecting apparatus and of the retaining chamber;

Fig. 2 is an enlarged view in cross section taken on the line 2—2 of Fig. 1 and looking in the direction of the arrows;

Fig. 3 is an enlarged view in cross section taken on the line 3—3 of Fig. 1, and looking in the direction of the arrows; and

Fig. 4 is an enlarged fragmentary view in vertical section of the ejecting portion of

the salt shaker, the latter being shown in inverted position.

As shown in the drawing, my invention comprises a receptacle 10 formed with a reduced neck portion 11 which is open at the top. Fitted upon the neck is a cap 12 which has a sleeve portion 13 internally threaded to engage a corresponding thread formed on the neck 11. The body of the cap 12 is formed with a recess of a smaller diameter than the internal diameter of the sleeve 13, forming a shoulder 15 which extends from the recess to the sleeve. This shoulder may be seated on the upper end of the neck 11 when the cap is screwed thereon. In the top of the cap there is an orifice 16 which communicates with the recess 14. This orifice is defined by a flaring wall that is of smaller diameter at its outer edge than at its inner edge. Fitted within the recess 14 is a bushing 17, preferably formed of a material which will not corrode when subjected to the moist contents of the shaker. The inner wall of the bushing 17 is fluted and the flutings 18 preferably run parallel to the longitudinal axis of the shaker. The flutings, however, do not extend to the inner end of the bushing, but each fluting is terminated by a lip 19. The bushing 17 thus forms a retaining chamber or throat in which damp salt may pack due to the flutings and to the lips 19 which form a constriction of the lower end of the chamber. The bushing is preferably secured within the cap 12 by peening the edge of the shoulder 15 over the edge of the bushing, as indicated at 20.

Reciprocable within the retaining chamber is an ejector which comprises a weighted plunger portion 21. The latter is formed with a stem 22 threaded at its outer end and screwed upon this stem is a stopper member 23. The plunger 21 is preferably in the form of an inverted cone sharply pointed at its lower or inner end. The base of the cone provides a flat surface adapted to support a quantity of salt and is beveled along its periphery so that it will fit the flaring wall of the orifice 16 when the parts are in the inverted position shown in Fig. 4. The stopper 23 is also substantially in the form of an

inverted cone, with the base of the cone, or outer end of the stopper somewhat larger than the upper edge of the orifice, so that when the parts are in the normal upright position shown in Fig. 1, the stopper will seat in the orifice, closing the same and supporting the plunger in suspension.

The parts are so proportioned that when in normal position the base of the plunger cone will lie within the bushing 17, close to the lips 19, but with a certain amount of clearance between the plunger and said lips. When the shaker is inverted, the plunger 21 will seat in the orifice 16 and prevent the contents of the receptacle from spilling out, but, when the device is shaken the plunger will reciprocate toward and from the orifice 16, permitting a certain quantity of salt to escape at each reciprocation. The quantity of salt that does escape will depend upon the clearance between the plunger and the bushing 17 and also upon the stroke of the plunger. The sharp inner end of the plunger 21 will break up any mass of salt it strikes and the smooth conical wall of the plunger will direct the salt against the fluted wall of the bushing 17. If the salt is damp, it will tend to pack in the retaining chamber and this tendency will be accentuated by the flutings 18 and the lips 19. As the plunger reciprocates it will scrape off portions of the packed salt and discharge them through the orifice 16. The flare or bevel of the orifice 16 is such as to prevent any clogging in the orifice; furthermore, the outer end of the plunger 21, when in its extreme outer position, as shown in Fig. 4, comes very close to the outer edge of the orifice so that there will be no opportunity for damp salt to pack in said orifice. The conical surface of the stopper 23 serves to disperse or sprinkle the salt ejected. Because the plunger 21 seats in the orifice at each outward reciprocation thereof, there will be no chance for dry salt to stream out of the receptacle. Normally, the orifice 16 is closed by the stopper 23, thus excluding moisture and also preventing insects from entering the receptacle.

While I have illustrated and described a specific embodiment of my invention it will be understood that this is illustrative and not limitative of the invention, and I reserve the right to make various changes in form and construction without departing from the spirit and scope of the invention as pointed out in the following claim.

I claim:

A receptacle for dispensing comminuted material, comprising a container having a reduced neck portion, a cap member fitted upon the neck portion and formed with a recess communicating with said neck and with a thin edged restricted discharge orifice communicating with said recess, a bushing fitted in the recess and formed with a fluted inner

wall, each fluting being restricted at the inner end thereof, and a closure member comprising two substantially cone shaped portions whose bases are incapable of passing through said orifice, the base of one cone being exterior to the receptacle with its apex within the orifice when the container is in upright position, and the base of the other cone being adapted to seat in the orifice when the receptacle is inverted.

In testimony whereof, I have signed this specification.

RAYMOND R. RUNDELL.