

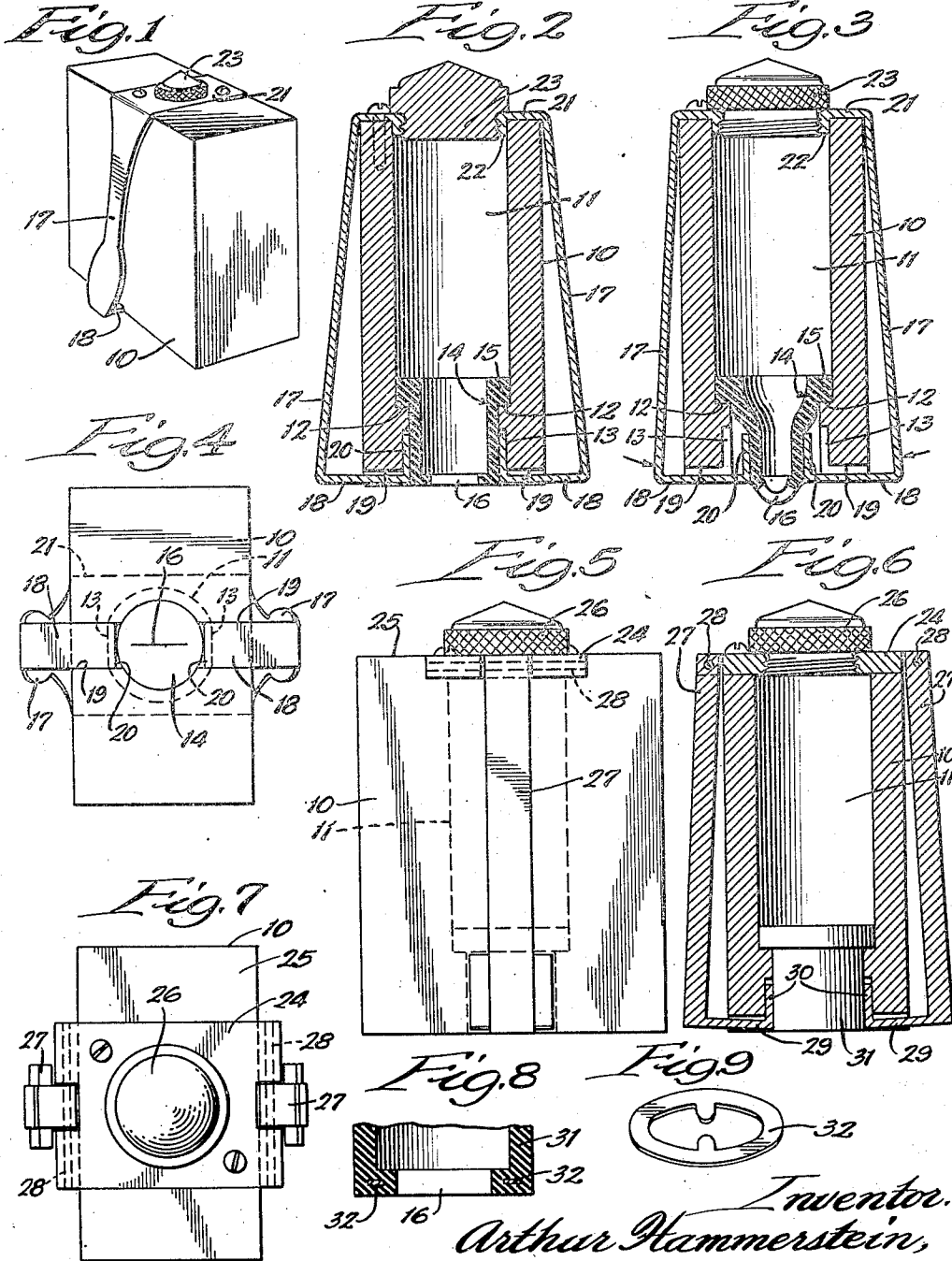
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A. HAMMERSTEIN

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DISPENSING DEVICE

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Inventor:
Arthur Hammerstein,

By Dawson, Borth & Spangenberg,
Attorneys.

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DISPENSING DEVICE

Arthur Hammerstein, Palatine, Ill.

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This invention relates to a dispensing device, and it is particularly useful in the dispensing of salt, pepper, other granular or powdered materials and liquids.

An object of the invention is to provide a dispensing device of simple and sturdy structure which permits the ready dispensing of salt, pepper, or the like, while at the same time providing a container which is effectively supported against tipping over, etc. Yet another object is to provide a salt cellar of unique design equipped with dispensing levers which give a maximum of control in the opening of the dispensing thimble of the device, while at the same time providing a support against the knocking over of the device. Yet another object is to provide a dispensing device in which resilient parts may be removed and replaced as desired and in which highly effective control of the dispensing operation is obtained with a minimum of effort. Other specific objects and advantages will appear as the specification proceeds.

The invention is illustrated, in a preferred embodiment, by the accompanying drawing, in which—

Figure 1 is a perspective view of a dispensing device embodying my invention; Fig. 2, a transverse sectional view showing the device in non-dispensing position; Fig. 3, a view similar to Fig. 2 but showing the device in dispensing position; Fig. 4, a bottom plan view of the device as shown in Fig. 2; Fig. 5, a side view in elevation of a modified form of the invention; Fig. 6, an end view in elevation of the structure shown in Fig. 5; Fig. 7, a top plan view of the structure shown in Fig. 5; Fig. 8, a broken sectional view of the dispensing thimble equipped with a resilient reinforcing member; and Fig. 9, a perspective view of the reinforcing spring member employed with the structure shown in Fig. 8.

In the illustration in Figs. 1 to 4 inclusive, 10 designates a casing body formed of plastic, metal, or any other suitable material. Plastics have been found very satisfactory for the product. The product may be also formed of vitreous and other kinds of material.

The casing body 10 provides a chamber 11 adapted to receive salt, pepper, or other material to be dispensed. The chamber 11 is narrowed toward the bottom of the casing to form shoulder 12. Spaced below the shoulder 12, the casing 10 is further enlarged to provide a recess 13.

Seated within the lower portion of the chamber 11 is a resilient dispensing thimble 14 having an

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annular rim 15 resting upon the shoulder 12. The bottom of the thimble 14 is provided with an elongated slit 16. The thimble 14 may be formed of rubber or any other suitable resilient material which will maintain the slit 16 normally closed to prevent the egress of salt or other material to be dispensed and the ingress of air, the slit, however, opening upon the exertion of pressure upon the thimble in a direction aligned with the slit 16 so as to provide a dispensing opening.

It is of great importance in a dispensing structure of this character to provide the utmost of control in the dispensing operation; that is, control of the size of the opening so that the desired flow of the material dispensed can be obtained. I have found that a control of extreme nicety can be obtained through the use of a lever or pair of levers carried by the casing and movable inwardly toward the casing under the pressure of the fingers so as to exert force against the sides of the thimble. In the specific illustration given, I provide levers 17 extending downwardly and laterally toward the bottom of the casing 10 and having inwardly-turned actuating arms 18. The arms 18 extend inwardly through slots 19 at the bottom of the casing and have upwardly-turned end portions 20 extending within the recesses 13 of casing 10. In the structure shown, the arms 18 lie substantially flush with the bottom of the casing 10 and prevent the casing from being tipped laterally. Since the levers extend upwardly along the sides of the casing 10, they provide a long resting surface for the fingers and thumb of the hand grasping the device and permit an extremely accurate degree of pressure to be applied in the dispensing operation.

The levers 17 at their upper ends merge into a cross strip 21 which may be secured to the casing 10 by screws or other suitable means. The metal strip 21 is preferably provided centrally with a downwardly-extending collar 22 received within the chamber 11. The collar 22 is preferably threaded on its inner side to receive a threaded closure 23.

In the operation of the device, the chamber 11 may be filled by unscrewing the closure 23 and pouring salt or other material into the chamber. The closure is then secured in place, and when it is desired to dispense the salt or other material, the casing 10 may be grasped with the finger-engaging levers 17 and pressure brought to bear against them to bring about inward movement of the upturned ends 20. In this operation, the hand in grasping the casing 10 along with the levers 17 has a nice control

of the levers because they are swung inwardly toward the casing with a squeezing action, the casing serving as a support or guide and assisting in the control.

Inward movement of the thimble 14 causes the slit 16 to open, as shown more clearly in Fig. 3, and salt, pepper, or other material is readily dispensed.

Upon release of the levers 17, they spring back, under the force of their own resiliency, to the initial position shown in Fig. 2, and the thimble is restored to its original shape, as shown in Fig. 2. In this position, not only is the thimble sealed against the outflow of material but also the closure prevents the inflow of air.

The rectangular casing shown prevents tilting of the casing in a longitudinal direction by reason of the length of the casing. At the same time, the levers 17 and their inwardly-turned arms 18 buttress the casing along its narrow side so that tilting is prevented.

In the modification shown in Figs. 5 to 9 inclusive, I provide a plate member 24 secured to the top of the casing 25, and the plate 24 is provided with a threaded opening receiving the threaded closure cap 26. Levers 27 are secured by pins 28 to the plate 24 and have inwardly-turned arms 29 terminating in upwardly-turned end portions 30 engaging the resilient thimble 31. The thimble 31 is reinforced with a spring ring member 32, as shown more clearly in Figs. 8 and 9.

The operation of the structure shown in Figs. 5 to 9 inclusive is substantially the same as that already described. The resilient member 32 formed of spring steel serves to restore the thimble 31 to its sealing position under all conditions and increases the life of the thimble.

The dispensing device, disclosed in both modifications, provides an unusually fine control of the opening of the thimble, permitting the operator to have substantially a graduated control of the opening, while at the same time the downwardly and outwardly-extending levers serve the additional function of preventing tilting of the device. While I have shown two levers, it will be understood that one lever may, if desired, be employed.

While in the foregoing specification, I have described the structure in great detail, it will be understood that such details may be varied widely by those skilled in the art without departing from the spirit of my invention.

I claim:

1. In a dispensing device, a casing providing a chamber, a metal member extending over one end of said chamber and provided with a threaded closure, a resilient thimble closing the other end of said chamber and having a slit therein which is normally closed by the resiliency of the material, and a pair of levers carried by said metal

member and extending downwardly and outwardly toward the bottom of said casing, said levers having inwardly-turned arms engaging said thimble substantially in alignment with said slit.

2. In a dispensing device, a casing providing a chamber, a metal member extending over one end of said chamber and provided with a threaded closure, a resilient thimble closing the other end of said chamber and having a slit therein which is normally closed by the resiliency of the material, and a pair of levers carried by said metal member and extending downwardly and outwardly toward the bottom of said casing, said levers having inwardly-turned arms engaging said thimble substantially in alignment with said slit, said inwardly-turned arms having upwardly-turned end portions extending along the sides of said thimble.

3. In a dispensing device, a casing providing a chamber, a metal member secured to the top of said chamber, said metal member having an opening therethrough closed by a removable closure, a resilient thimble in the other end of said chamber and having a slit therein which is normally closed by the resiliency of the material, a pair of levers formed integrally with said metal member and extending downwardly and outwardly to about the bottom of said casing, and actuating members formed integrally with said levers and extending inwardly and upwardly along said thimble.

4. In a dispensing device, a casing providing a chamber open at both ends, a removable closure for one end of said chamber, a resilient thimble closing the other end of said chamber and having a slit therein which is normally closed by the resiliency of the material, and a pair of levers carried by said casing for movement toward and from said casing and having inwardly-turned arms engaging said thimble substantially in alignment with said slit, said inwardly-turned arms having end portions extending along the sides of said thimble.

ARTHUR HAMMERSTEIN.

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