Dec. 18, 1934. H. MEVES 1,984,651

DISPENSING DEVICE

Filed April 23, 1934

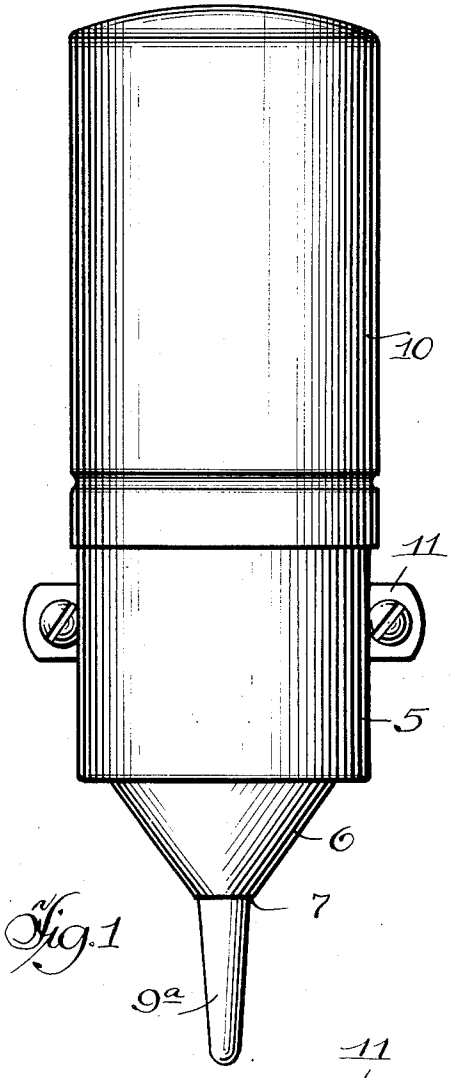


Fig. 1

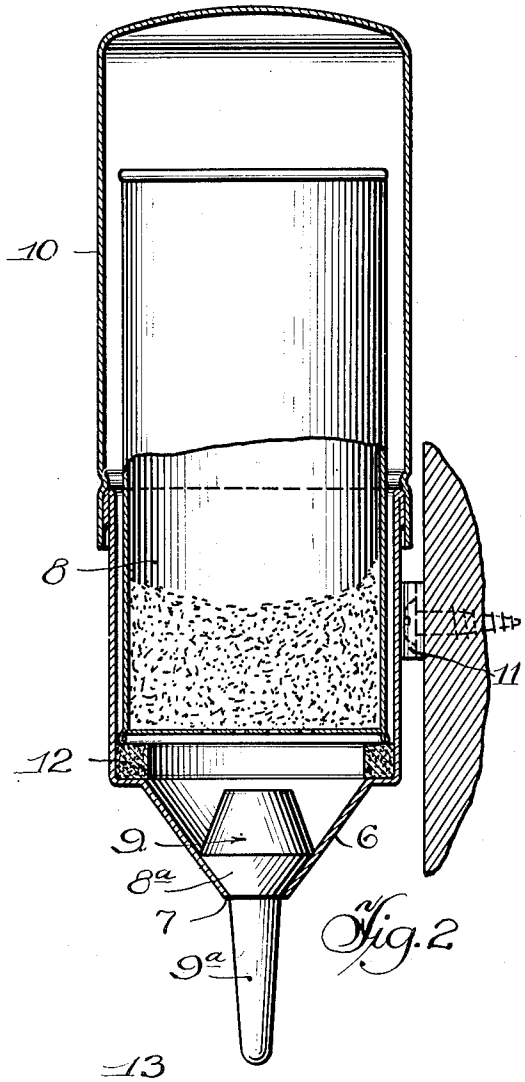


Fig. 2

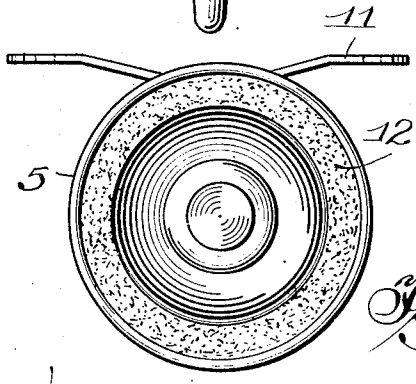


Fig. 3

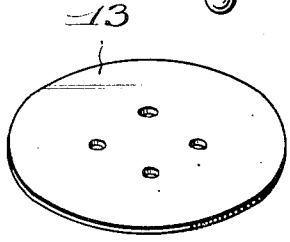


Fig. 4

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Patented Dec. 18, 1934 1,984,651

UNITED STATES PATENT OFFICE

1,984,651

DISPENSING DEVICE

Hugo Meves, Chicago, Ill.

Application April 23, 1934, Serial No. 721,913

3 Claims. (Cl. 221—62)

My present invention relates to dispensing devices for powdered and granulated material and comprises a simplification of the structure and improvement in the operating characteristics of the device of Patent No. 1,257,910 issued to me February 26, 1918.

My apparatus is intended to secure the dispensing of powdered or granulated material, such as soap powder or any variety of powdered or granulated detergent or abrasive, and it may also be employed for dispensing any material in a powdered or granulated condition.

The structure of my prior patent comprised a bracket for holding the ordinary can or receptacle in which such powders are commonly sold from which bracket depended a hopper. A casing fitted over the can or container, also the structure of the former patent, is provided with a guided plunger, the upper end whereof constituted a tapper for vibrating the can containing the material to be dispensed, and a valve to close the lower discharge end of the hopper.

My improvement, which is the subject-matter of the present application, consists in providing a casing which extends the bracket member vertically so that it may hold the receptacle in which the material to be dispensed is purchased without the outside enclosing casing, but I also provide an upper casing member which will entirely enclose the container when that may be desired. Further, a thin perforated plate may be placed in the bottom of my present casing and the material to be dispensed may be poured directly therein.

I have also eliminated the plunger guides whereby the hopper is completely unobstructed, and I have considerably enlarged the valve so that it constitutes not only a valve but the percussion element for vibrating the container to discharge the material. This considerably increases the efficacy of the apparatus as it increases the mass of the element and the percussion from the impact thereof and, as it is extremely difficult to make the percussion element strike the container in exactly the same point twice, the effectiveness of the percussions is increased by distributing them all over the end of the container holding the material.

I have attained the foregoing objects of simplification and increase of effectiveness by means of a structure illustrated in the accompanying drawing, in which—

Fig. 1 is an elevation of a structure embodying my present invention.

Fig. 2 is a vertical, central section of the structure shown in Fig. 1.

Fig. 3 is a plan of the structure shown in Fig. 1 with the top casing member removed, and

Fig. 4 is a perforated disk.

Similar reference characters refer to similar parts throughout the respective views.

The main casing element may be spun from an integral piece of suitable metal or may be made of several pieces in accordance with the ordinary sheet metal manufacturing procedure. This main casing member consists of a cylindrical body 5 from the bottom of which at a suitable distance from its periphery extends a conical shaped chute or hopper 6, the lower end 7 whereof is truncated and left open to constitute the discharge opening from the hopper.

I prefer to give the valve or percussion element 9 a double conical form and to make the valve or percussion element sufficiently less in length than the length of the hopper so that it may strike against the bottom of the material can 8 with a sharp rap when the plunger 9*a*, extending from the bottom of the valve through the discharge port 7, is moved or lightly struck upwardly. The lower cone 8*a* of the percussion member is of a size and form to fit in and close the lower end of the hopper when it is in its lowermost position. It is only necessary to press or lightly strike the lower end of the plunger upwardly to secure a dispensing of the material, which is much the same as was possible with the structure of my prior patent, but in the present structure the percussion element not only is more effective by reason of its mass, but it is capable of striking all portions of the bottom of the material container, or thin sheet of perforated metal 13, when the material is poured into the casing, so as to make it much more effective in agitating the materials to be dispensed.

My present structure is entirely practical and operative without the upper casing member 10 which is added entirely for purposes of appearance when it may be desired. The vertical side wall of the casing member 5 is provided with suitable means for securing it in any desired location, such as a bracket 11, which may be screwed in any desired position.

I have also provided in this new structure a sponge rubber annulus or gasket 12 fitting around the top of the hopper on the bottom of the cylinder 5, which gives some resiliency to the package and increases and lengthens the effect of the percussions.

Soap powder and scrubbing materials usually come in cylindrical containers with means for perforating an end thereof and may be very simply employed with my apparatus by opening the places provided and inserting such container upside down in the lower casing member of my present structure.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. A dispensing device comprising a container casing having a cone-shaped development on the bottom thereof, the end of which cone is truncated to provide a discharge port, said casing being formed to receive and support a perforated vibratory element on the bottom thereof above said conical development, and a combined valve and percussion element provided with a stem extending through the discharge port in said conical development, the bottom of said percussion element being formed to fit the development above said port, said valve and percussion element being vertically extended to limit its vertical reciprocation but being wholly unrestricted except by the walls of said development from lateral movement.

2. A dispensing device comprising a container casing having a cone-shaped development on the bottom thereof, the end of which cone is truncated to provide a discharge port, a perforated vibratory disk supported upon the bottom of said casing above said development and a combined valve and percussion element provided with a stem extending through the discharge port in said conical development, the bottom of said percussion element being formed to fit the development above said port, said valve and percussion element being vertically extended to limit its vertical reciprocation, but being wholly unrestricted except by the walls of said development from lateral movement.

3. A dispensing device comprising a container having a cone-shaped development on the bottom thereof, the end of which cone is truncated to provide a discharge port, a resilient annulus mounted on the bottom of said casing around the opening to said development, a perforated vibratory plate supported by said annulus and a combined valve and percussion element provided with a stem extending through the discharge port in said conical development, the bottom of said percussion element being formed to fit the development above said port, said valve and percussion element being vertically extended to limit its vertical reciprocation but being wholly unrestricted except by the walls of said development from lateral movement.

HUGO MEVES.