Sept. 16, 1930. F. C. GERMONT 1,775,719

DISPENSING DEVICE

Filed July 8, 1929

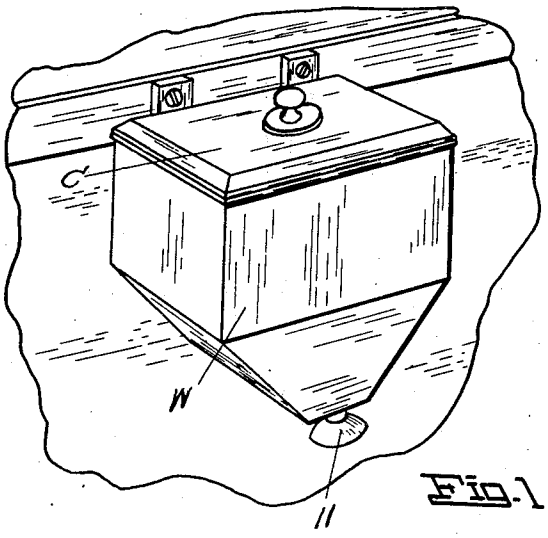


Fig. 1

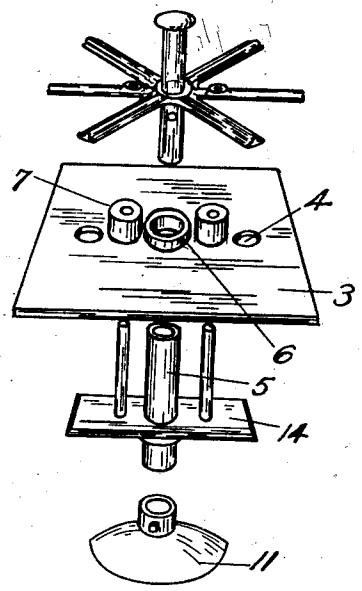


Fig. 4

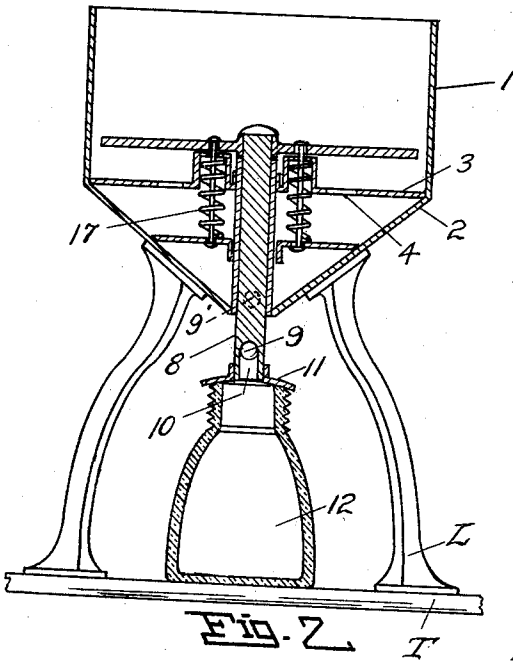


Fig. 2

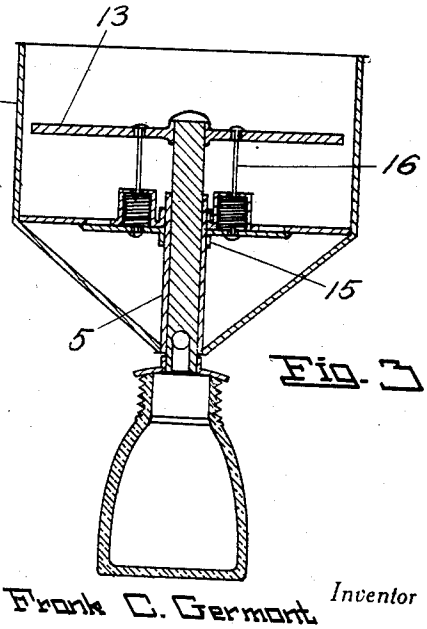


Fig. 3

Frank C. Germont Inventor

By Herbert E. Smith,

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UNITED STATES PATENT OFFICE

FRANK C. GERMONT, OF SPOKANE, WASHINGTON

DISPENSING DEVICE

Application filed July 8, 1929. Serial No. 376,643.

My present invention relates to an improved dispensing device which while adapted for use with various powders or granular material, is especially adapted for use in filling salt-cellars and other table articles with condiments and similar materials.

The device of my invention is automatically operated by pressure from the receptacle to be filled from the container of the device and spring pressed means are employed within the dispensing device for controlling the feed of the material from the main receptacle and from the discharge hopper. The dispensing device is adapted for use either on a table, or it may be supported on a wall, where it is readily accessible for the purpose of replenishing the supply in various table articles. The dispensing device of my invention is simple in construction and reliable in operation, readily assembled during its process of manufacture, and very efficient in the performance of its required functions.

The invention consists in certain novel combinations and arrangements of parts as will hereinafter be more fully set forth and claimed. In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention wherein the parts are combined and arranged according to the best mode I have thus far devised for the practical application of the principles of my invention.

Figure 1 is a perspective view of the device of my invention showing it supported on a wall. Figure 2 is a vertical sectional view showing the device with supporting legs. Figure 3 is a sectional view of the operating parts of the device with the parts in open position for feeding material from the hopper. Figure 4 is a disassembled view of the operating parts of the device.

In Figure 1 a wall cabinet W having a lid or cover C is equipped with the device of my invention, while in Figure 2 the dispensing device is provided with supporting legs L and the feet of the legs rest upon a table as T. In either position the salt-cellar 12 is used as a pressure actuating device for operating the dispensing device to fill the receptacle with material from the body 1 and its conical discharge hopper 2. The main receptacle or storage space 1 may be of any desired shape, and between this receptacle and the conical or tapering discharge hopper 2 a horizontal partition 3 is rigidly fixed. The partition has a pair of spaced ports 4 through it, and a central tube or sleeve 5 extends upwardly from the discharge or lower end of the hopper through a joint ring 6 in the partition, where the sleeve and ring are secured together as by soldering to form a rigid structure.

The partition is also formed with a pair of spring-cups 7 located at opposite sides of the center of the partition and projecting above the top of the partition.

Within the tube or sleeve 5 a stem 8 is adapted to reciprocate and near its lower end the stem is fashioned with a lateral port 9 that communicates with a longitudinal outlet port 10 in the end of the stem and port 9 is adapted to register with port 9′ in the sleeve 5. A presser head 11, of concave form, is attached at the lower end of the stem below the conical discharge hopper and a salt-cellar 12 or other open-mouthed vessel is pressed against the head, as shown in Figures 2 and 3, when the salt cellar is to be filled from the hopper.

In the container 1 a horizontally disposed agitator or stirrer in the form of a spider frame 13 is located, and this stirrer is rigidly attached to the upper end of the stem above the partition. As the stem and stirrer are reciprocated, it will be apparent that the radial arms forming the spider frame will be passed through the material in the container for the purpose of breaking up lumps and for preventing the material from forming a solid body.

Below the partition and its ports, a valve 14 is provided, to control passage of the material from the body of the container through the ports to the discharge hopper, and this valve, which is normally open rests upon the tapered wall of the discharge hopper, and is fixed to the slide ring 15 that encircles the tube or sleeve 5. The valve is also connected to and moves with the spider frame of the stem by means of short rods 16 that pass through openings in the spring cups 7, the

ends of the rods being rigidly connected respectively to the valve and to arms of the spider frame. About these rods are coiled springs 17, the lower ends of which bear against the valve at opposite sides of the stem, and the upper ends of the springs are encased within the spring cups.

Thus it will be apparent that the springs normally hold the stem and its presser head projected downwardly below the bottom of the hopper. When the stem is lifted, as by pressure from the salt-cellar, to position of Figure 3, the ports 4 are closed by the valve, the port 9 registers with a complementary port 9′ in the tube or sleeve 5, and the material is then free to flow through these registering ports and thence through the port 10 to the salt-cellar. When the salt-cellar is removed, the springs depress the stem to cut off the ports 9 and 9′ and project the lower end of the stem as indicated in Figure 2.

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

1. The combination with a container, a hopper and a ported partition therebetween, of a central tube rigid with the hopper and partition and provided with an outlet port, a ported stem within the tube and provided with a projecting end, a valve below the partition and slidable on the tube, connections between the upper end of the stem and the valve, and springs forming parts of said connections for the purpose described.

2. The combination with a container, a hopper, a ported partition and a central rigid tube having an outlet port in the hopper, of a ported stem in the tube having an exterior presser head below the hopper, a spider frame on the upper end of the stem in the container, a valve slidable on the tube within the hopper, rods connecting said frame and valve, and springs on the rods between the frame and valve.

3. The combination with a container, a hopper, a ported partition having spring cups, and a central rigid tube having an outlet port, of a ported stem in the tube having an exterior presser head, a spider frame on the upper end of the stem, rods passed through said cups and rigidly connecting the valve and spider frame, and springs coiled about said rods in the cups and bearing on the valve.

In testimony whereof I affix my signature.

FRANK C. GERMONT.