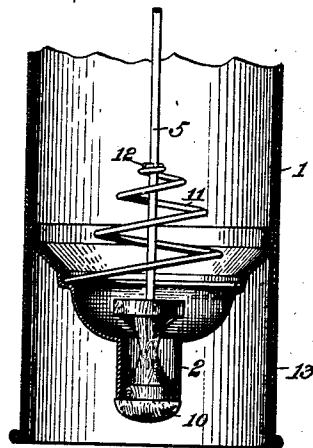
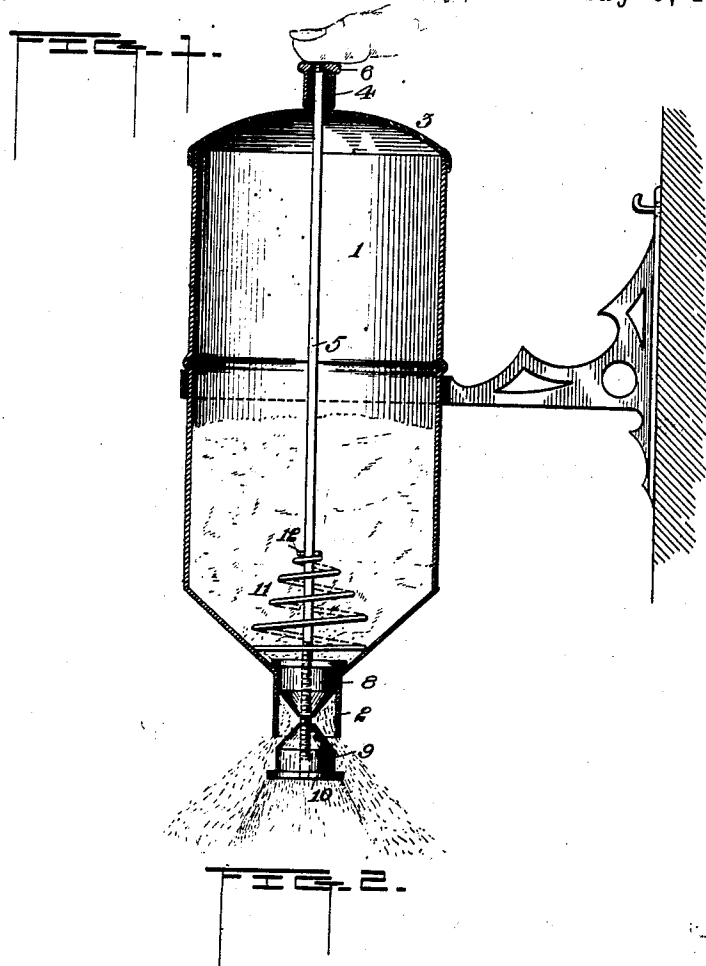


(No Model.)

W. S. FICKETT.
DREDGE.

No. 427,165.

Patented May 6, 1890.



WITNESSES

L. A. Carter, Jr.
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UNITED STATES PATENT OFFICE.

WILLIAM SMITH FICKETT, OF ROCHESTER, NEW YORK, ASSIGNOR TO
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DREDGE.

SPECIFICATION forming part of Letters Patent No. 427,165, dated May 6, 1890.

Application filed October 22, 1889. Serial No. 327,797. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SMITH FICKETT, a resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Dredges; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

The object of the invention is to simplify and cheapen the construction of dredges or devices intended for discharging powdered material, and also to increase their efficiency; and it consists in the construction hereinafter described and pointed out.

In the accompanying drawings, Figure 1 is a central longitudinal section of the improved dredge, and Fig. 2 is a sectional view of the lower part on a larger scale and includes modifications.

The reference-figure 1 indicates a box or receptacle having a nozzle 2 and a cover 3. The box may be made of tin, glass, paper, or other material, and variously ornamented, as desired. The cover may have a screw-thread connection with the receptacle, or it can be adapted to simply slip over or within the same; or, if desired, it can be permanently affixed, as by soldering or equivalent means.

4 indicates a short tube formed in the cover or attached thereto. In some cases the cover and tube may be stamped out of sheet metal.

5 indicates a valve-stem or piston-rod, the upper end of which is extended above the cover and normally embraced by a cap 6, which consists of a short tube closed by a knob, and which, preferably, has a screw-thread connection with the rod. This tube, by preference, fits over and slides upon tube 4. It is essential that this tube be arranged with its length in the direction of the valve-rod and be of sufficient size and length to suitably hold or support the cap, and it permits the charging therethrough of powder when said cap is removed.

At the foot of the valve-rod is a device which may for convenience be styled either a "valve" or "piston," which consists of two cone-shaped parts 8 and 9, which preferably have a screw-thread connection with the

rod. These cones have their apices placed together at the entrance to nozzle 2, and the lower one may be provided with an enlargement to serve as a stop and the upper one may also be so provided, if desired. The space around the apices of these cones within the nozzle constitutes a discharging-receptacle, and its capacity, and consequently the amount discharged at each operation, may be varied by varying the distance between the cones.

11 indicates a coiled spring surrounding the valve, one end of which is fastened to the rod at 12, while the other rests upon the bottom of the receptacle, its purpose being to close the valve and also to stir the contents of the box. The valve is opened by pressing upon the cap 6, so as to force it onto the tube 4 and push down the rod. By this means the spring is compressed and the valve moved to the position shown in Fig. 1.

To prepare the device for use, it is filled with any suitable material—such as powdered soap, for example. This may be introduced by removing the cap 6 and then pouring the powder through the tube 4, or, preferably, if the cover 3 be removable, by first uncovering the box. By the present construction the rod plays freely in the tube 4 and does not interfere with the entire removal of the cover.

When it is desired to discharge a portion of the contents of the box, the valve is depressed, and such part as lies around the apices of the cones is carried down and delivered from the nozzle, as indicated in Fig. 1. Upon removing the finger from the cap 6 the spring immediately closes the valve, acting at the same time to stir the contents of the box. Its location just about and above the nozzle adapts it for this purpose.

Heretofore it has been found in practice that the valves in use cut a channel through some substance like powdered soap, the surrounding portion becoming packed and refusing to flow down with sufficient freedom into the nozzle below. This evil is remedied in the present construction by the spring located in close proximity to the outlet, which, by its expansion and contraction, obviates the above-described action of the valve.

The screw-thread connection of the cone 9

with the rod provides for moving it up and down on the rod to alter the dimensions of the space about the apices of the cones and thus vary the amount of power delivered.

5 If desired, the device may be provided with an ornamental bracket, as shown in Fig. 1, or the wall of the box may be extended, as at 13, to form a foot for the same. This can be made to flare, and can be given an ornamental
10 form, if desired. It is not essential, however, to the operation of the device, neither is the particular form of the spring nor the valve, though the former is preferably located in the lower part of the receptacle, and
15 the latter is so shaped as to avoid cutting a channel through the contents of the box, and is adapted to discharge a definite though regulable quantity.

The article is intended to be used with any
20 fine substance which it is desired to discharge in a measured manner, and it is by no means confined to use with powdered soap, for which, however, it is well adapted.

Having thus described my invention, what I
25 desire to secure by Letters Patent is—

1. In a device for sprinkling powder, the receptacle provided with a nozzle and a cover, in combination with a valve having its body
30 made in two parts, one of which is adjustable to vary the amount of discharge, and a valve rod or stem extending through the cover and freely movable therein, substantially as described.

2. In a device for sprinkling powder, the

receptacle provided with a nozzle and a cover, 35 in combination with the valve having stops, and a rod or stem extending through the cover and freely movable therein, and a spring surrounding the valve-rod and closely adjacent to the entrance to the nozzle and adapted 40 to close the valve and stir the powder, substantially as described.

3. In a device for sprinkling powder, the receptacle provided with a nozzle and a cover provided with an open tube, in combination 45 with a valve and valve-rod, the latter passing through the cover and tube and having over its free end a movable cap fitting the tube in the cover, whereby the valve can be opened, and whereby the cap may, when desired, be 50 removed to permit powder to be introduced without removing the cover, substantially as set forth.

4. In a device for sprinkling powder, a receptacle having a cover and nozzle, in combination 55 with a valve and valve-rod, the valve being formed of two cone-shaped pieces with their apices directed toward each other, one of said pieces being adjustable, substantially as described. 60

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM SMITH FICKETT.

Witnesses:

JOSIAH SULLIVAN,
W. G. JEROME.