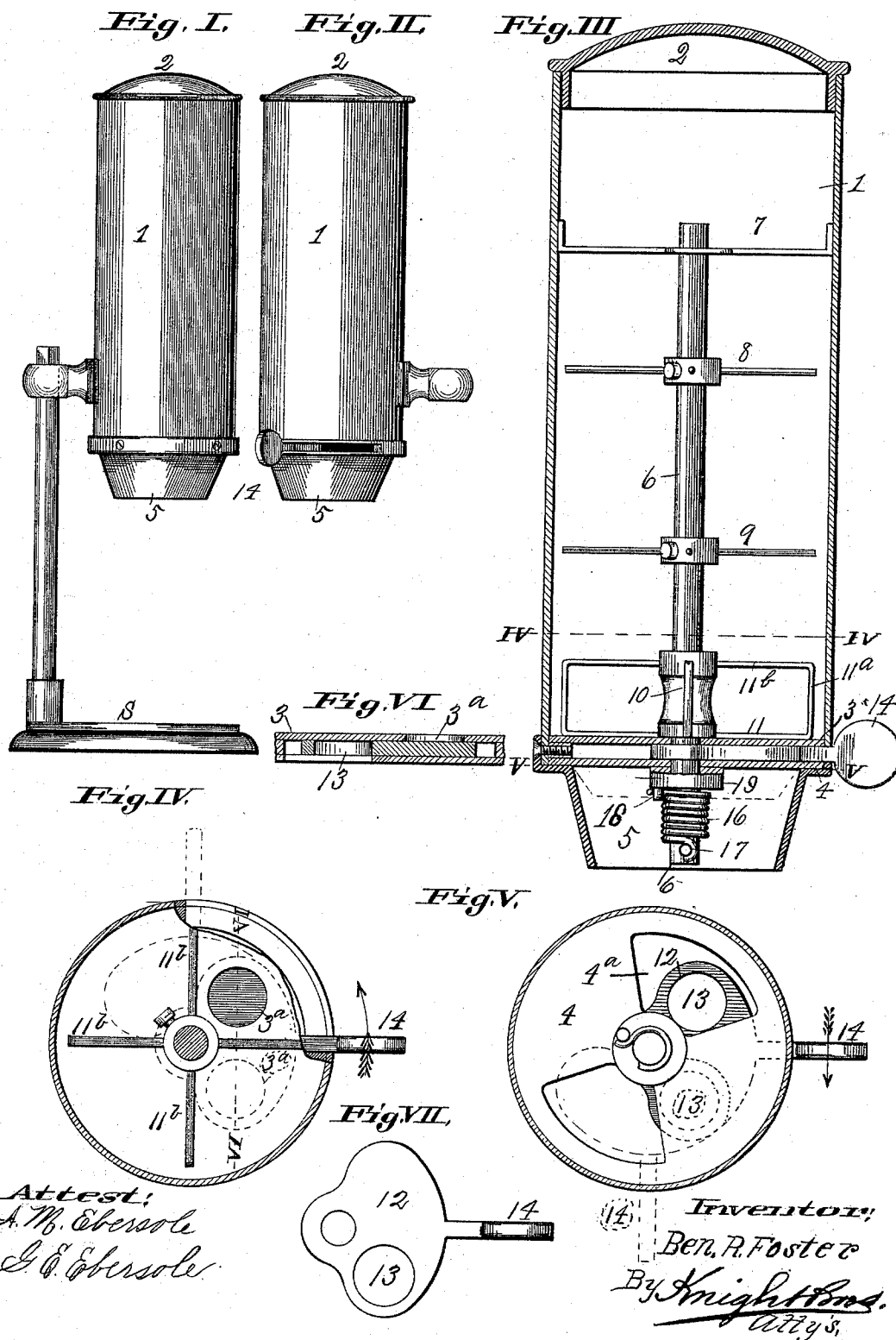


(No Model.)

B. R. FOSTER.
SOAP POWDER CANISTER.

No. 527,329.

Patented Oct. 9, 1894.



UNITED STATES PATENT OFFICE.

BENJAMIN R. FOSTER, OF ST. LOUIS, MISSOURI.

SOAP-POWDER CANISTER.

SPECIFICATION forming part of Letters Patent No. 527,329, dated October 9, 1894.

Application filed August 17, 1893. Serial No. 483,353. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN R. FOSTER, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Soap-Powder Canisters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

In canisters which are in common use for delivering powdered soap to the hands for washing purposes, it is customary to agitate the valve at the bottom of the canister so as to deliver the requisite quantity of powdered soap by a dredging operation. In another class of devices for the same purpose, a valve plate is employed, with a pocket, which is normally in filling position, in communication with the interior of the receptacle, and which is moved by hand into discharging position. Owing to the cohesive nature of soap powder, this slow movement of the valve does not always effectually discharge the quantum of soap. For the same reason the stirrers commonly employed, the principal effect of which is to plow channels through the powder, fail to keep the powder in such friable condition as to insure the filling of the valve pockets. To obviate these difficulties, I employ stirrers with radial lower arms, working in contact with the floor, so as to constantly sweep the floor, prevent any agglomeration of condensed soap powder in the lower part of the receptacle, and keep the valve passages always open, with vertical arms, which pass close to the wall of the cylindrical receptacle, and prevent the formation there of a dead mass of condensed soap powder; and with radial upper arms which stir the lower portion of the powder and to deliver the soap, I employ a pivoted, measuring valve, which is turned in one direction by the thumb to bring the measuring pocket into position to be filled from the receptacle, and when released, is returned to normal position by a spring, causing a sudden jar which insures the discharge of the whole quantity of soap contained in the pocket in the valve.

In the accompanying drawings:—Figure I is an elevation of my device, mounted upon a stand. Fig. II is a view of the opposite side of the same, showing the thumb valve. Fig.

III is a vertical section thereof, on a larger scale. Fig. IV is a horizontal section on the line IV—IV, Fig. III. Fig. V is a horizontal section, viewed from below, on the broken line V—V, Fig. III. Fig. VI is a vertical section through the valve, and the bottom of the receptacle on the line VI—VI, Fig. IV. Fig. VII is a plan view of the valve.

1 represents a cylindrical receptacle, which may be mounted upon a stand S, as shown in Fig. I, or supported upon the wall, or in any convenient manner. This receptacle is provided with a cover 2, a floor 3 and a bottom 4, beneath which is a converging chute 5, for delivering powdered soap.

6 is a vertical rock shaft, having its bearing below in the floor 3 and a bottom 4, and above in a cross bracket 7. Upon the rock shaft 6, at suitable distances apart are spiders or spurs 8, 9, and near the lower end, is mounted a skeleton scraper formed of a hub 10, and a number of radial lower arms 11, serving both as stirrers and also, to sweep the floor 3, in order to prevent agglomeration of the soap, which is liable to become condensed in the lower part of the receptacle. The lower arms are bent upward to form vertical arms 11^a, which revolve in close proximity to the wall of the receptacle, and these may be connected to the rock shaft by radial upper arms 11^b, each skeleton scraper being formed of a single piece of wire. Keyed upon the rock shaft 6, between the floor 3 and bottom 4, is a pivoted valve plate 12, provided with a measuring pocket 13, at its outer end and moved in one direction toward the feed opening in the floor by a projecting thumb lever 14, and in the opposite direction toward the discharge opening *a* in the bottom by a spiral spring 16, connected at its lower end to a stud 17 on the rock shaft 6, and at its upper end to a fixed stud 18, upon a boss 19, projecting downward from the bottom 4.

In operation the valve plate 12 is moved ninety degrees, more or less, by the thumb lever 14, to bring the pocket 13 into register with the feed opening 3^a, in the floor 3 of the receptacle, to receive a charge of soap. When the rock shaft is released, it is returned to its normal position, by the spring 16, with a sudden movement, causing a sharp jar which effectually dislodges the soap in the pocket 13,

and discharges it all through the opening 4^a in the bottom. The measuring pocket 13, being made of the requisite capacity, it will be observed that a single movement of the valve plate 12, by the application of the thumb of the right hand to the lever 14, will take the required quantum of powdered soap from the receptacle, and upon the release of the thumb lever, this will be dropped into the left hand, through the opening 4^a in the bottom. My apparatus delivers the full supply of soap for one occasion by a single movement of the valve plate.

The operation of the scraper serves to keep the floor 3 constantly clear of accumulated soap, and to keep the soap in free powdered condition, in readiness to drop instantly into the measuring pocket 13, when it is exposed beneath the opening 3^a, by the movement of the valve plate.

I claim as my invention—

1. The combination of a cylindrical receptacle 1, having a floor 3 formed with a feed-opening 3^a and a bottom 4 formed with a discharge opening 4^a, a vertical rock-shaft 6 having radial stirring arms, the valve-plate 12, secured to the rock-shaft between the floor and the bottom, having a measuring pocket 13 located normally over the discharge open-

ing in the bottom, and a thumb-lever whereby the valve-plate is moved to bring the pocket beneath the feed-opening, and a spring for returning, instantaneously jarring, and holding the valve-plate with its pocket in discharging position; substantially as described.

2. The combination of a cylindrical receptacle 1, having a floor 3 formed with a feed-opening 3^a and a bottom 4 formed with a discharge-opening 4^a, a vertical rock-shaft 6 having a skeleton-scraper at its lower end formed with radial lower arms 11 for sweeping the floor and vertical side-arms 11^a for sweeping the sides of the receptacle, the valve-plate 12, secured to the rock-shaft between the floor and the bottom having a measuring pocket 13 located normally over the discharge opening in the bottom, and a thumb-lever whereby the valve-plate is moved to bring the pocket beneath the feed-opening, and a spring for returning, instantaneously jarring, and holding the valve-plate with its pocket in discharging position; substantially as described.

BEN. R. FOSTER.

In presence of—

OCTAVIUS KNIGHT,

A. M. EBERSOLE.