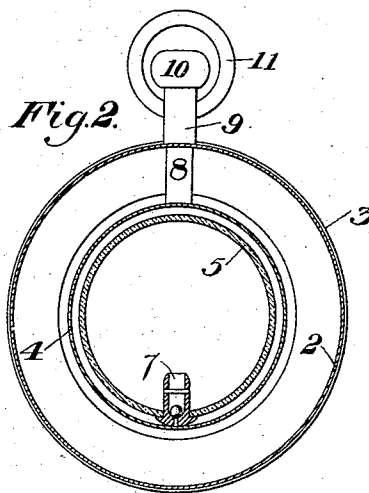
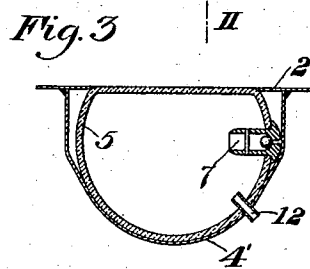
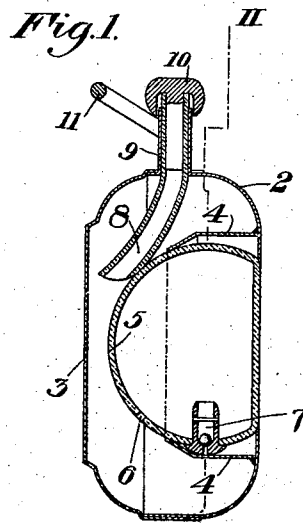


(No Model.)

R. E. WARNER.
POWDER BLOWER.

No. 518,975.

Patented May 1, 1894.



WITNESSES

H. M. Corwin
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INVENTOR

Rosby E. Warner
by Th. Bakewell, Sons
- his attorneys

UNITED STATES PATENT OFFICE.

RODY E. WARNER, OF PITTSBURG, PENNSYLVANIA.

POWDER-BLOWER.

SPECIFICATION forming part of Letters Patent No. 518,975, dated May 1, 1894.

Application filed January 15, 1894. Serial No. 496,849. (No model.)

To all whom it may concern:

Be it known that I, RODY E. WARNER, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Powder-Blowers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

10 Figure 1 is a vertical sectional view of my improved powder blower. Fig. 2 is a vertical section on the line II—II of Fig. 1; and Fig. 3 is a detail view of a modified form.

My invention relates to apparatus employed for blowing powder, and is designed to improve the action of such apparatus, and make a more equable distribution of the powder throughout the air which it impregnates.

To that end it consists in a blower comprising a case having a rubber ball or other collapsible bulb therein, a reservoir within the case with which a perforation in the bulb communicates, and a tube leading from this reservoir, thus affording an indirect system of forcing out the powder and giving a more uniform distribution of the powder throughout the air.

It also consists in a case, preferably of metal, having therein the bulb of the blower, as well as in the construction and arrangement of the parts as hereinafter more fully described and set forth in the claims.

In the drawings, in which like numerals indicate like parts, the round case or box 2, having a removable cover portion 3, is provided on one face with the inwardly bent annular flange 4, which incloses the rubber bulb 5, this bulb being cemented or otherwise secured to the inclined inner part of this flange. The bulb projects into the interior of the box, and communicates therewith by a hole 6, while an inwardly opening valve 7 leads from the outer air into the bulb.

Leading from the interior of the case and resting upon the face of the bulb, is a rubber tube 8, which is held within a hollow stem 9 secured to the case. This tube leads from the opposite portion of the case to that with which the bulb communicates, and is preferably beveled off at its open inner end as shown, as it is found that thereby the powder enters the same more easily and uniformly.

10 is a plug which is pushed into the outer end of the tube 8 and closes the same when not in use, and 11 is a ring pivoted to the stem 9.

In the modification of Fig. 3, the flange 4 takes the form of a cup 4', which entirely incloses the inner portion of the bulb and protects it from the powder which in some instances may be injurious thereto. A hollow pin 12 gives communication between the bulb and case, and serves to hold the bulb in place. A check-valve may be used in this tube or hollow pin if desired, and other solid pins may be used to hold the bulb in place, or it may be cemented or otherwise secured.

The advantages of my invention result from the uniform and equable distribution of the powder which is placed in the case, throughout the air which passes through the bulb into the case, and thence out through the tube 8, as well as from the compactness and simplicity of the apparatus.

A round ball or bulb may be used instead of one having a flat outer face as shown, and many other changes may be made without departure from my invention, since

What I claim is—

1. A powder blower comprising a case, a collapsible bulb therein, having a valve-controlled air inlet communicating with the exterior of the case, a reservoir within the case having communication with the bulb, and a tube leading from said reservoir and extending from the interior thereof so as to afford an indirect exit for the air blown from the bulb and for the powder which is agitated by such air; substantially as described.

2. A powder-blower, comprising a case having an opening in one face, a bulb therein having a valve-controlled air inlet communicating with the exterior of the case, an opening from the bulb into the powder reservoir in the case, and a discharge tube leading from the reservoir; substantially as described.

In testimony whereof I have hereunto set my hand.

RODY E. WARNER.

Witnesses:

W. B. CORWIN,
H. M. CORWIN.