

No. 743,741.

PATENTED NOV. 10, 1903.

A. MUELLER.
INSUFFLATOR.

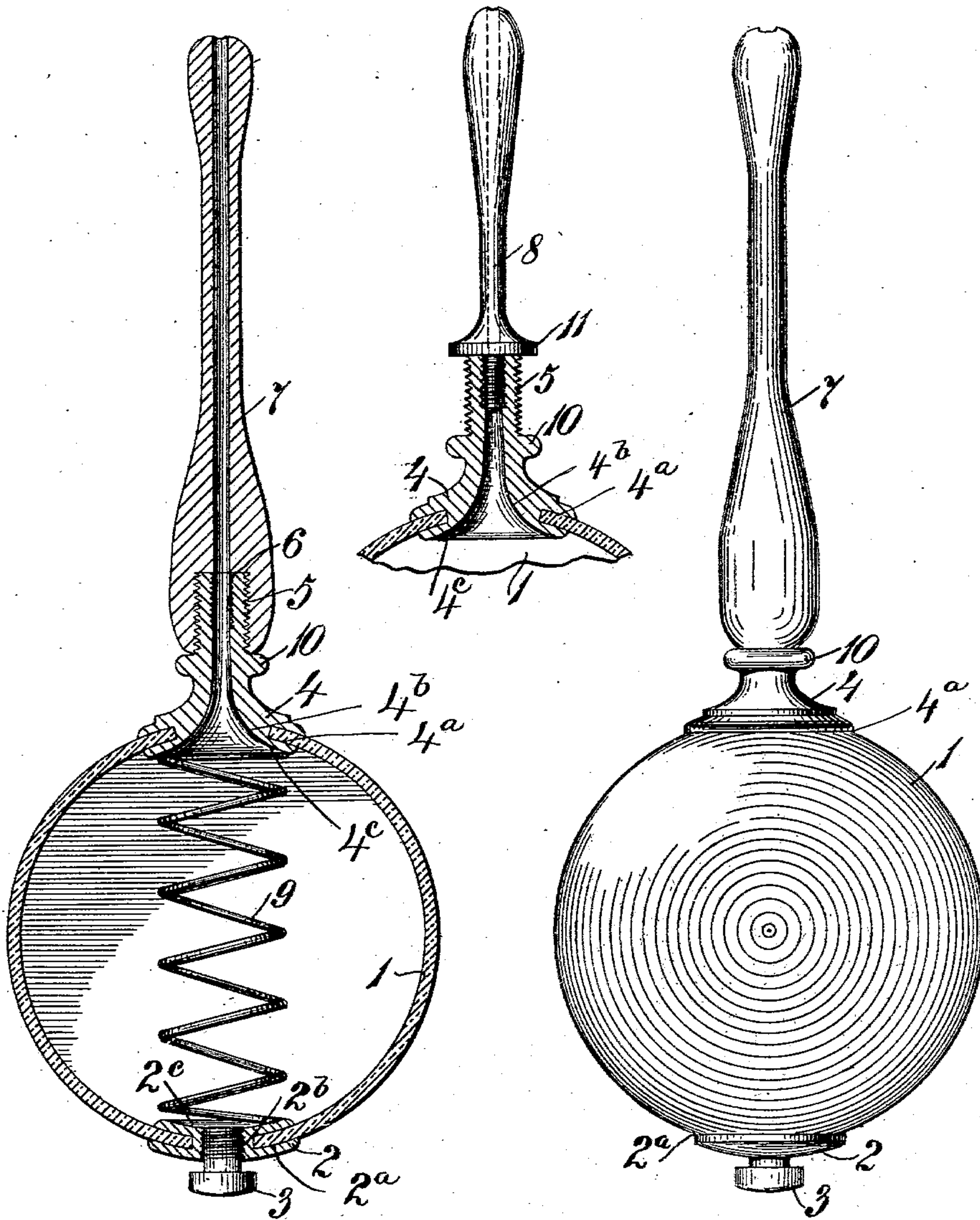
APPLICATION FILED FEB. 12, 1903.

NO MODEL.

Fig.1.

Fig.2.

Fig.3.



Witnesses
Handwritten signature
E. C. Potter

Inventor
A. Mueller
by H. E. F. [signature]
Attorneys

UNITED STATES PATENT OFFICE.

ANNA MUELLER, OF KNOXVILLE, PENNSYLVANIA.

INSUFFLATOR.

SPECIFICATION forming part of Letters Patent No. 743,741, dated November 10, 1903.

Application filed February 12, 1903. Serial No. 143,109. (No model.)

To all whom it may concern:

Be it known that I, ANNA MUELLER, a citizen of the United States of America, residing at Knoxville, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Insufflators, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in powder-puffers, and is particularly adapted for use by the medical profession for the introduction or application of powder to diseased internal parts.

In the treatment of internal diseases it is difficult to treat the same in the desired manner with liquid, as it is practically impossible to retain the liquid in contact with the diseased part a length of time to effect the desired result. For this reason it is desirable to use powder to be applied to the diseased parts, as the same remains in contact therewith until fully dissolved, thus bringing all the medicinal properties of the medicinal powder into contact with the diseased portion to be treated, whereby to derive the full benefit therefrom.

Briefly described, the invention comprises a spherical bulb, made of rubber or other compressible material, having a button and a nipple at opposite sides of the bulb, each provided with a concave or saucer-shaped seat on the inside thereof, between which is arranged a spring which serves a double purpose—namely, that of acting as an agitator for the powder and serving to return the bulb rapidly to its inflated state. The bulb is connected to a discharge-nipple, preferably constructed to receive various-sized nozzles, as may be required to deposit the medicinal powder to the desired spot.

The above, together with the other features of construction entering into my invention, will be hereinafter more specifically described and then particularly pointed out in the accompanying claim, and in describing the invention in detail reference will be had to the accompanying drawings, forming a part of this application, and wherein like numerals of reference will be employed for designating like parts throughout the different views, in which—

Figure 1 is a central vertical sectional view of my improved device. Fig. 2 is a central vertical sectional view of the nipple, showing a part of the bulb with a modified form of nozzle in position in the nipple. Fig. 3 is a detail side elevation of the device.

To put my invention into practice, I provide a compressible bulb 1 of spherical shape, made of rubber or other desirable material readily compressible under pressure. An opening is made in the top of this bulb and also an opening in the bottom thereof, and in the bottom opening is placed a button or washer 2, provided with a peripheral groove 2^a to receive the bulb, a central opening 2^b, and a concave or saucer-shaped seat 2^c surrounding the central opening 2^b on the inside of the button, the central opening in said button or washer serving as a filling-opening and being normally closed by a plug 3, which may be threaded therein, as shown. In the top opening of the bulb is fitted a nipple 4, having a groove 4^a, like the button 2, to receive the bulb, this nipple being provided with a flaring opening 4^b, leading into the bulb-chamber, and a concave or saucer-shaped seat 4^c. The upper end of the nipple is preferably provided with exterior threads 5 and interior threads 6, whereby a nozzle 7 of the form shown in Figs. 1 and 3 may be employed or a nozzle 8 of the form shown in Fig. 2, thus permitting the use of the bulb with nozzles of various sizes and giving a much wider range for the use of the device. Interposed between the nipple 4 and the button or washer 2 and having its end coils located in the concave seats 4^c and 2^c, respectively, is a spring 9, which, as stated, acts to keep the powder placed in the bulb in an agitated state, whereby when the bulb is compressed the powder will be forced through the nozzle, and this spring also serves to assist in returning the bulb to its normal or inflated state. In filling, a small funnel is employed, and by making the plug 3 removable, as shown, the bulb may be filled from either end—that is, either by removing the plug, whereby to insert the funnel into the bulb, or by filling through the nipple 4.

The nipple 4 is preferably provided with the annular shoulder 10, as shown, whereby when the larger-sized nozzle is employed the

same may be securely tightened by engagement of its lower end with the flange, while with the construction shown in Fig. 2 the same result is obtained by engagement of the
5 flange 11 with the upper end of the nipple.

While I have herein shown and described the invention in detail as it is practiced by me, yet it will be observed that various changes may be made in the details of construction without departing from the general spirit of my invention.
10

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

15 An insufflator comprising a spherical bulb, of compressible material, having outer and

inner openings, a solid button having a peripheral groove, a central opening, and a concave seat surrounding the central opening, and fitting in the outer opening, a solid nipple having a peripheral groove, a flaring opening and a concave seat surrounding the flaring opening, and a stirrer consisting of a coil-spring having its ends located in the concave seats.
20

In testimony whereof I affix my signature in the presence of two witnesses.
25

ANNA MUELLER.

Witnesses:

A. M. WILSON,
E. E. POTTER.