

F. H. CORDMEYER.
BUBBLE BLOWER.
APPLICATION FILED OCT. 10, 1911.

1,028,994.

Patented June 11, 1912.

Fig. 1.

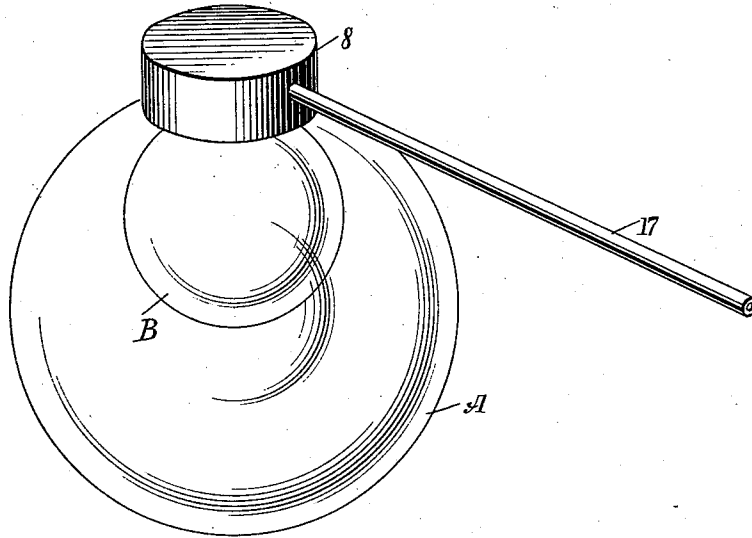


Fig. 2.

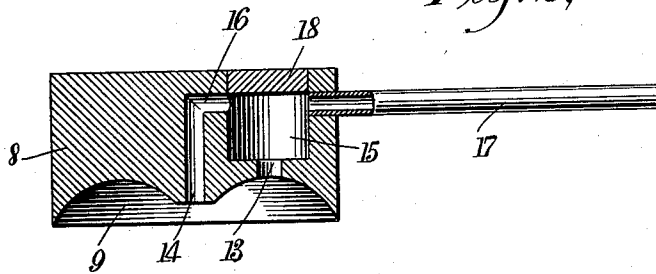
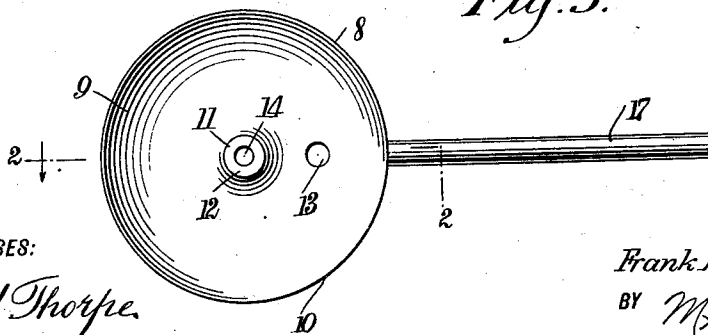


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANK H. CORDMEYER, OF NEW YORK, N. Y.

BUBBLE-BLOWER.

1,028,994.

Specification of Letters Patent.

Patented June 11, 1912.

Application filed October 10, 1911. Serial No. 653,789.

To all whom it may concern:

Be it known that I, FRANK H. CORDMEYER, a citizen of the United States, and a resident of the city of New York, Woodside, borough of Queens, in the county of Queens and State of New York, have invented a new and Improved Bubble-Blower, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide an apparatus of the character named, the operation whereof results in the formation of a plurality of soap bubbles, one contained within the other; and to provide means contained within the apparatus for insuring the formation of the bubbles in the prescribed manner and correlation.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a perspective view of an apparatus constructed and arranged in accordance with the present invention, showing the same as in use; Fig. 2 is a vertical section taken on the line 2—2 in Fig. 3; and Fig. 3 is a face view of an apparatus constructed and arranged in accordance with the present invention.

As seen in the accompanying drawings, a small solid body 8, constructed preferably from wood, is provided with a face having a large annular groove 9. The groove 9 extends from the outer edge 10 of the face to the inner edge 11 on the small frusto-cone 12 formed by shaping the groove 9, as seen in Figs. 2 and 3 of the drawings.

The body 8 is provided with two passages 13 and 14, the former being relatively larger than the latter. Both passages connect with and form an opening from the chamber 15. The passage 13 is relatively short and opens directly from the chamber 15, insuring in this manner a quicker and larger delivery of the air introduced in the chamber 15. The passage 14, at the upper end, is provided with a branch 16 alined with the opening provided in the side of the body 8, to receive the pipe stem 17. The alinement of the branch 16 and the opening for the pipe stem 17 is purely one of convenience of construction, and forms no essential element in the present invention. The chamber 15 is preferably formed by boring into the body 8

from the upper side thereof. The hole thus formed is substantially closed by a plug or seal 18. The plug or seal 18 is secured in the body 8 by any suitable means.

The operation of an apparatus constructed and arranged as described is as follows: Soapsuds having been formed the apparatus is dipped therein to permit a film of suds water to adhere to the face of the body 8 and of the groove 9 thereof. If convenient the bubble is started with the body 8 turned in such manner as to hold the groove 9 upward to collect any moisture contained therein in line with the lower portion of the groove whereat is situated the passage 13. A bubble is first formed to surround the passage 13, the air coming from the chamber 15 more quickly and in larger volume through the said passage 13. The bubble so formed will spread about the outer edge 10 of the groove 9, in all instances crossing the frusto-cone 12 and the edges thereof. When the bubble thus passes the frusto-cone 12 it extends thereover and envelops the same, terminating finally as seen in Fig. 1 of the drawings, at the outer edge 10 of the body 8. The air which is delivered from the chamber 15 through the passage 14 after the bubble formed by the air from the passage 13 has passed the said passage 14, develops from the suds film surrounding or partly covering the passage 14, a second bubble of smaller dimension, and contained within the first or larger bubble indicated in Fig. 1 as A. The smaller bubble, indicated in said Fig. 1 by the letter B, being contained within the bubble A is enveloped by air at the outside of a temperature practically the same as the air inside. The development of the bubble is never, for this reason, carried to the extent as is the bubble A. In practice it is found that while the bubble A yet adheres to the edge 10 of the apparatus, the bubble B will separate from the frusto-cone 12 and float around within the bubble A, being moved thereto by the air passing into the bubble A through the passage 13. Ultimately the bubble A, with its contained bubble B, becomes separated from the apparatus, floating in the air to the delight and mystification of the beholder.

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

1. In a bubble blower, a body portion hav-

ing a plurality of exteriorly circumposed annular ridges and provided with an air chamber having a plurality of differently restricted orifices, the smaller of said orifices
5 opening within the circumference of the innermost of said ridges.

2. In a bubble blower, a body portion having an interiorly formed air chamber; and a plurality of outlet passages for said chamber,
10 one of said passages being relatively freer than the other of said passages to deliver the major portion of air from said chamber; and a plurality of annular ridges
15 one circumvallating the more constricted passage and the other circumvallating the first mentioned ridge.

3. In a bubble blower, a body portion hav-

ing an interiorly formed air chamber, and a plurality of outlet passages for said chamber, one of said passages being relatively freer
20 than the other of said passages to deliver the major portion of air from said chamber; a plurality of annular ridges one circumvallating the more constricted passage and the
25 other circumvallating the first mentioned ridge; and an open ended pipe for delivering air within said chamber.

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

FRANK H. CORDTMEYER.

Witnesses:

E. F. MURDOCK,

PHILIP D. ROLLHANS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents
Washington, D. C."