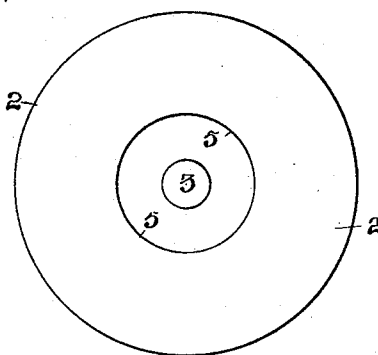
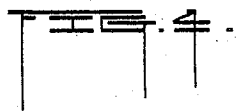
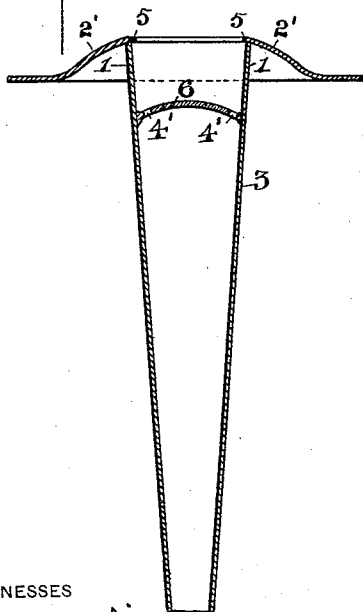
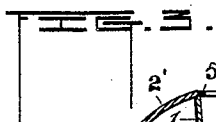
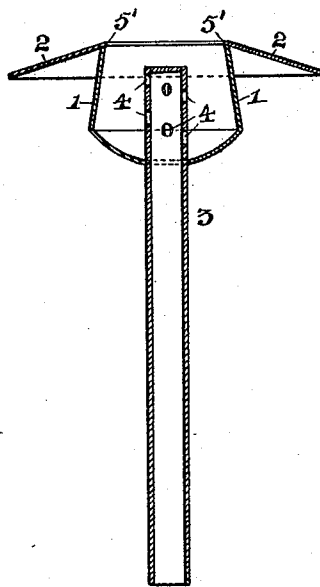
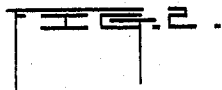
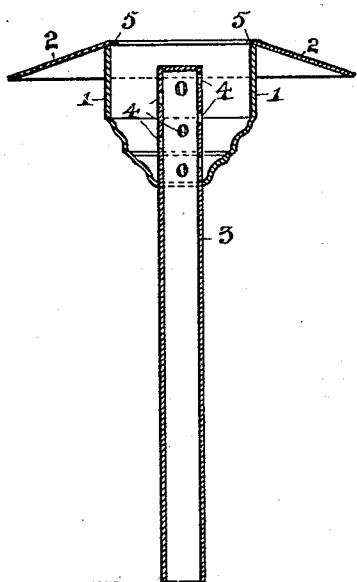
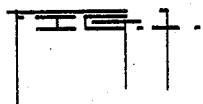


(No Model.)

W. S. FICKETT.
SOAP BUBBLE PIPE.

No. 486,967.

Patented Nov. 29, 1892.



WITNESSES

Arch. M. Catlin.
A. H. Kean.

INVENTOR

William S. Fickett
by
Benj. R. Catlin
att'y.

UNITED STATES PATENT OFFICE.

WILLIAM S. FICKETT, OF ROCHESTER, NEW YORK.

SOAP-BUBBLE PIPE.

SPECIFICATION forming part of Letters Patent No. 486,967, dated November 29, 1892.

Application filed March 19, 1892. Serial No. 425,528. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. FICKETT, a resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Soap-Bubble Pipes; 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 invention relates to a device for blowing bubbles, and has for its object to enable larger and more-enduring bubbles to be made than by ordinary means, such as a smoking-pipe; and it consists in the construction hereinafter described and particularly pointed out.

In the drawings, Figure 1 is a vertical section. Figs. 2 and 3 are similar views of modifications, and Fig. 4 is a plan of Fig. 1.

Numeral 1 indicates a bowl provided with an annular flange 2, made convex or bent backwardly, as shown.

3 is a tube which extends through and is secured in the bottom of the bowl. The end of the pipe within the bowl is closed. 4 indicates lateral perforations below said closed end. 5 indicates an extension or lip of the flange 2, projecting slightly within the circumference of the body of the bowl, as indicated. In Fig. 1 this body is shown of cylindrical form; but it may have other forms. For example, it can be made frusto-conical, as indicated in Fig. 2, and in this case the sharp overhanging edge 5' will serve the same purpose as the lip 5 of Fig. 2—namely, to support the film of the bubble-fluid or its subsequently-blown bubble. These bowls, if made of metal, can be spun or stamped, as desired; but the improvement is not limited to any particular material nor to the precise form or contour illustrated. Preferably the pipe should not extend quite to the plane of the supporting-lip, as otherwise its height interferes with the film; but if so extended it will not entirely defeat the operation of the device. As shown in Fig. 3, the blowing-tube is made frusto-conical, and the convex-annulus 2' has a flat annular border. The enlarged end of the tube constitutes a bowl. 6 denotes a diaphragm provided with perfora-

tions 4', serving to direct the air in divided currents against the wall of the bowl or of the enlarged end of the blast-tube.

To use the blower, the flange 2 is lightly dipped in properly-prepared soapsuds or other fluid and removed, and the film which is thereby taken up by the lip 5 or 5' is expanded by blowing through the tube. The convexity of the flange prevents its too-easy immersion and facilitates the running off of superfluous fluid. It also, by its convexity, is made to present less obstruction to the expansion of the bubble. The current of air or other gases is divided and issues through the perforations 4 or 4' with a diminished and well-distributed force against the interior of the bowl and is deflected in an even and gentle manner against the film and the interior of the bubble as it is formed by the expansion of the film.

I am aware that a reservoir has been provided with a mouthpiece and a lateral hollow perforated bubble-forming cone, and I do not claim such device. In my improvement the perforated device is within the bowl and the perforations are directed outwardly and toward the wall of the bowl.

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

1. The device for blowing bubbles, consisting of a tube having an enlarged bowl provided with an outwardly-convex annular flange or collar having a film-retaining lip on its interior periphery, substantially as set forth.

2. The device for blowing bubbles, consisting of a tube having an enlarged bowl to hold a bubble and a perforated device for directing divided air-currents against the interior of the bowl, the perforations being within its circumference and directed toward the interior surface of its outer wall, substantially as set forth.

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

WILLIAM S. FICKETT.

Witnesses:

ALBERT E. OGLEY,
FRANK DONOHUE.