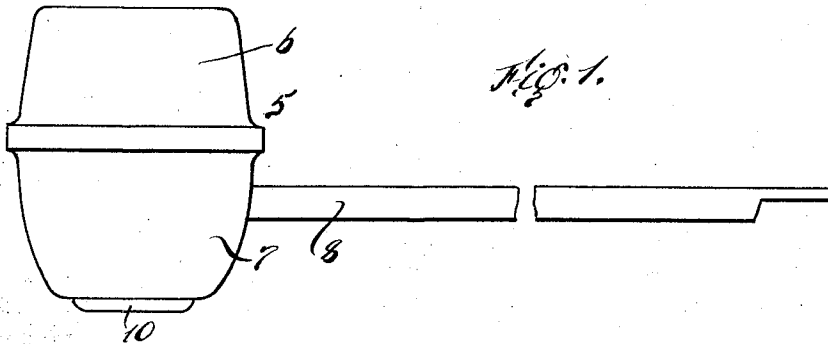
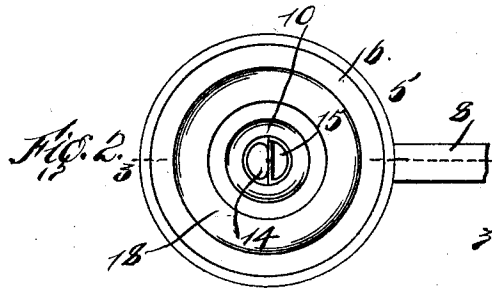
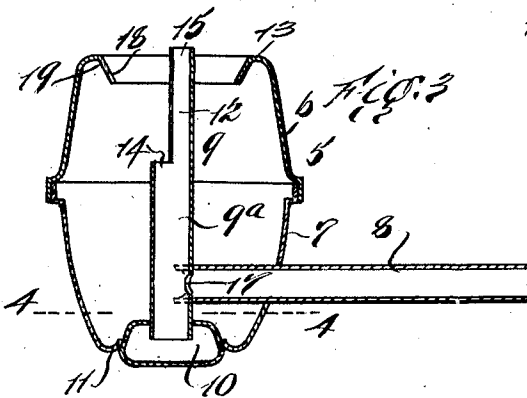
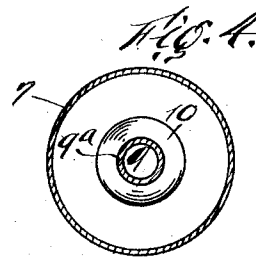


I. COHN.
 SOAP BUBBLE PIPE.
 APPLICATION FILED JAN. 25, 1921.

1,389,098.

Patented Aug. 30, 1921.



Inventor
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 By his Attorney
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UNITED STATES PATENT OFFICE.

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SOAP-BUBBLE PIPE.

1,389,098.

Specification of Letters Patent. Patented Aug. 30, 1921.

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To all whom it may concern:

Be it known that I, IRWIN COHN, a citizen of the United States of America, residing at Stroudsburg, Monroe county, State of Pennsylvania, have invented certain new and useful Improvements in Soap-Bubble Pipes, of which the following is a full, clear, and exact description.

This invention relates to improvements in pipes or devices for blowing soap-bubbles. Besides involving certain structural improvements, my improved pipe is specially arranged or designed to lend itself to manufacture out of celluloid, whereby an extremely light and durable article will be produced.

My improved pipe is comprised of a bowl portion and a tubular stem member which is connected to a vertically disposed Venturi tube having a plurality of outlets located at different levels relative to the top open end of the bowl for the purpose of producing more than one bubble at a time or one bubble within the other. Other features of improvement will hereinafter appear.

I will now proceed to describe my invention in detail, the novel features of which I will finally claim, reference being had to the accompanying drawing, wherein:—

Figure 1 is a side elevation of my improved pipe;

Fig. 2 is a plan view thereof, the stem being broken away;

Fig. 3 is a sectional view on line 3—3 of Fig. 2; and

Fig. 4 is a sectional plan view on line 4—4 of Fig. 3.

My improved pipe consists of a bowl member 5, made up of two members 6 and 7, a tubular stem 8 and a Venturi-tube 9, the lower end of which is inserted in an air chamber 10 carried by the lower member 7 of the bowl 5. While the pipe can be constructed without the air chamber 10, said air chamber produces desirable results not only from a point of assemblage, but also from a point of operativeness. It is quite a simple matter to insert the chamber in the bottom of member 7 and also a simple matter to insert the lower end of tube 9 in said chamber, easier in fact than securing the tube directly to the bottom 11 of the bowl member 7.

The Venturi-tube 9 consists of a body portion 9^a, having a restricted extension 12

which is of course tubular and which extends upwardly to a point adjacent the top edge 13 of the bowl 5. Intermediate the ends thereof, tube 9 is provided with an opening 14; hence, said tube has two outlets 14 and 15 located at different points longitudinally of the tube 5. The stem 8 is connected to the tube 9 and is in communication with the interior of the tube 9 by means of an opening 17 in the wall of the tube.

A further feature of the invention consists of an inturned flange 18 located at the open end of bowl 5 to provide an annular recess 19 adjacent the open end of the tube. The flange 18 which is directed toward the interior of the bowl provides a baffle wall to prevent liquid within the bowl from being entirely forced out, thereby preventing liquid which has not been formed into a bubble from being forced out of the bowl and soiling the clothing, table covers or the like. The restricted mouth of the bowl also produces desirable results in that it confines, with the aid of the annular recess 19, air issuing from the mouth 14 within the bowl, which will have the result of materially aiding the production of bubbles by the air which issues from the opening 14. As the bubble produced by air issuing from the opening 14 will be the larger, the open end 15 of the restricted extension 12 will be confined within said bubble, and a bubble produced by air from opening 15 will be located within the larger bubble. The air chamber 10 aids materially in producing a steady flow of air, as it acts as a reservoir to a large extent and also checks, to a large extent, the bursting of a bubble, during formation by an unsteady flow of air through the stem 8. The parts constituting the pipe can be suitably cemented or otherwise secured together.

Having described my invention what I claim is:—

1. In a bubble pipe, a bowl member, a supplemental air chamber within the bowl, a Venturi-tube extending from the air chamber, a stem connected with said tube, and an annular inwardly directed baffle wall carried by the bowl at its open end.

2. In a bubble pipe, a bowl member, a Venturi tube carried thereby and provided with a restricted extension having an open end and an opening intermediate its ends, an inwardly directed baffle wall carried by

the bowl, said baffle wall being located adjacent the open end of the restricted extension of the Venturi-tube, and a stem connected with the Venturi-tube.

5 3. In a bubble pipe, a bowl-member, a supplemental air chamber carried by the bowl member, a Venturi-tube carried by the air chamber, and provided with a restricted extension having an open end and an opening intermediate its ends, an inwardly directed baffle wall carried by the bowl, said baffle wall being located adjacent the open end of the restricted extension of the Venturi-tube, and a stem connected with the
10 Venturi-tube.

4. In a bubble pipe, a bowl member, a Venturi tube within same, consisting of a body portion and a restricted extension carried thereby located at one side of the axis
20 of the body portion, said body portion having an opening adjacent the point where the said body portion and extension meet, and a stem connected to the Venturi tube.

5. In a bubble pipe, a bowl member having the outlet end restricted by an annular baffle extending toward the interior of the bowl and provided with an opening located centrally of the bowl, a Venturi tube within the bowl having its outlet end located in
30 the opening in the baffle wall but out of con-

tact therewith, and a stem connected with the Venturi tube.

6. In a bubble pipe, a bowl member having a mouth, a Venturi tube within same consisting of a plurality of communicating
35 ducts of different sizes, said ducts being open at one end, the opening of the larger duct being within the bowl, the opening of the smaller duct being located at the mouth of the bowl, whereby a bubble produced by
40 the aid of the smaller duct will be located within a bubble produced by the aid of the larger duct, and a stem connected to the larger duct.

7. In a bubble pipe, a bowl member having a baffle wall extending inwardly from the wall at one end thereof and provided with an opening, a Venturi tube within the bowl having an open end located in the opening in the baffle wall but out of contact
50 with said wall, said Venturi tube being provided with an opening intermediate its ends, and a stem connected with the Venturi tube.

Signed at Stroudsburg, Pa., this 21st day of December, 1920.

IRWIN COHN.

Witnesses:

MERTLE T. MARTIN,
ALLEN R. BEERS.