

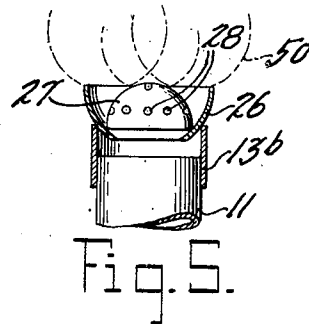
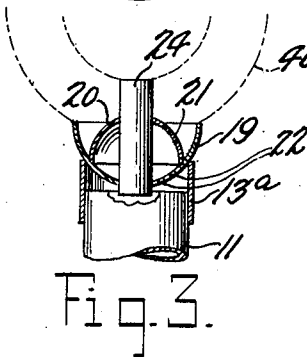
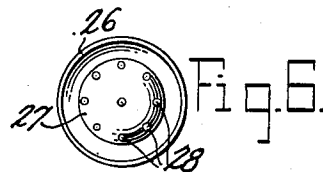
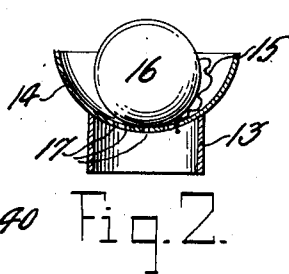
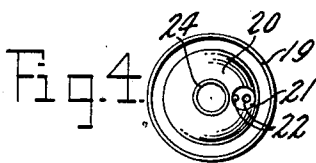
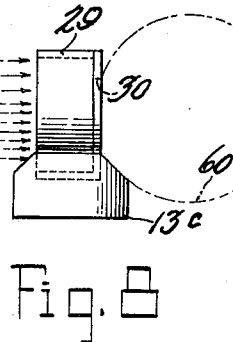
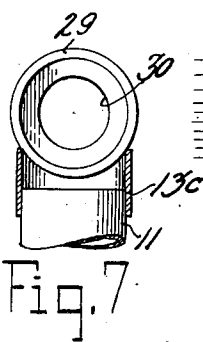
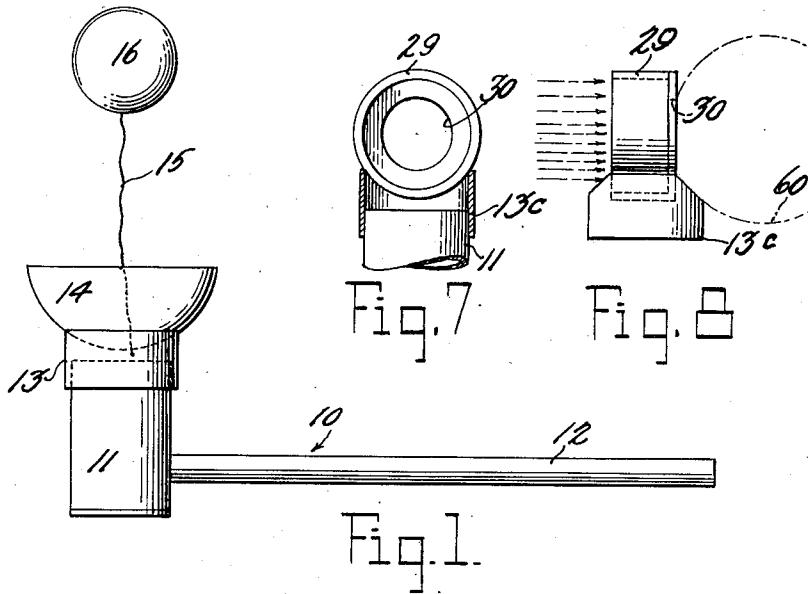
Feb. 20, 1951

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2,542,100

COMBINED BUBBLE PIPE AND TETHERED BALL

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COMBINED BUBBLE PIPE AND TETHERED BALL

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2 Claims. (Cl. 46-6)

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This invention relates to new and useful improvements in a bubble pipe device for amusement purposes.

The principal object of the invention is to provide a bubble blowing device that will permit of a multiplicity of caps comprising a set or unit, adapted to create variable effects, being alternately mountable on the basic element for producing the bubbles such as a pipe designed for this purpose.

The present invention constitutes an improvement over that shown and described in my Patent No. 2,137,034, of November 15, 1938.

A feature of the invention resides in the fact that the said basic element can effectively be employed in conjunction with one of said caps to actuate a small light sphere, from its resting place in a socket, to rise under the pressure of air to the end of a restraining leash and return to its initial resting place when the pressure is reduced.

Other objects and advantages of the invention will be obvious from the following description of an illustrative embodiment thereof.

In the drawings:

Figure 1 is a side elevation of a bubble blowing pipe assembly upon the bowl of which is mounted a cap with an attached sphere. Figure 2 is a detail cross section of the cap shown in Fig. 1. Figure 3 is a further cap shown partly in section which is adapted to form bubbles concentrically within one another. Figure 4 is a top plan view of the same. Figure 5 illustrates a cap (shown in section) that is adapted to permit of a multiplicity of bubbles being formed in close proximity. Figure 6 is a top plan view of the same. Figure 7 is a front elevation partly in section of a cap adapted to form bubbles by shaking the device through the air. Figure 8 is a side elevation of the same showing the direction of the air currents by means of the arrows.

With reference to the drawings, 10 designates a conventional bubble pipe having a bowl 11 and a stem 12. Upon the bowl 11 various caps as shown can be mounted and secured by frictional contact. For instance, in Fig. 1 there is shown a cylindrical cap 13 provided with a concave cuplike receptacle 14 to which is attached by means of a thread 15 a small preferably hollow sphere 16 made of feather-light material. When air is blown into the stem 12 it will pass through orifices 17 (Fig. 2) formed in the bottom of the cup 14 and produce pressure against the bottom of the sphere effective to raise it from its seat to the limits of the restraining leash 15.

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With reference to Figs. 3 and 4 I have shown a cup like element 19 secured to a cap 13a. To the interior of this element 19 there is attached an inverted semi-spherical cup 20 provided with an air passage 21, the outer cup 19 being also provided with a plurality of air passages 22 disposed adjacent the air passage 21. Extending centrally through both of said cups 19 and 20, there is secured a tubular element 24 providing a further air passage from the pipe bowl 11 to permit the air to flow simultaneously with the air flowing through the passages 21 and 22. With this type of pipe mounting, two concentrically disposed bubbles, one within the other, will result with the aid of soap suds when air is blown through the pipe 10.

With reference to Figs. 5 and 6 there is shown a further construction of an interchangeable pipe mounting. In this instance a semi-spherical bottomless cup 26 is attached to the cap 13b and a smaller inverted cup 27 is cemented to the outer one as shown. This inner cup 27 is provided with a multiplicity of apertures 28 so that with the aid of soap suds and air pressure a manifold number of bubbles will be blown.

In Figs. 7 and 8 I have shown still another form of bubble producing cap in which a short tubular element 29, having a full opening at one end and a somewhat constricted opening 30 at the other, is horizontally mounted on a cap 13c. When this arrangement is dipped into soap suds and shaken so that air passes through the element as shown by the arrows, bubbles will result.

The broken lines in the drawing, 40, 50 and 60 indicate the bubble formation respectively.

Variations may be resorted to within the scope of the invention and portions of the improvements may be used without the others, whilst not departing from the spirit of the invention.

Having thus described my invention, I claim:

1. In apparatus of the class described, in combination, a pipe having a bowl adapted to retain a soapy fluid for the blowing of bubbles, a cap to frictionally engage said bowl, a cup like element secured to said cap for the reception of a spherical element, a light spherical element adapted for displacement by said soapy fluid flexibly attached to said cup, and means to permit air pressure combined with the soapy fluid being applied against said spherical element from below.

2. In apparatus of the class described, the combination with a pipe adapted for the blowing of

bubbles, of a cap for said pipe, a cup like receptacle secured to said cap, a spherical element adapted for displacement by a soapy fluid normally reposing in said cup, and a restraining leash connecting said spherical element adjacent to the center of said receptacle; said cup being provided with a series of air passages extending from said pipe.

MAX STURM, JR.

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REFERENCES CITED

The following references are of record in the file of this patent: