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BUBBLE PIPE

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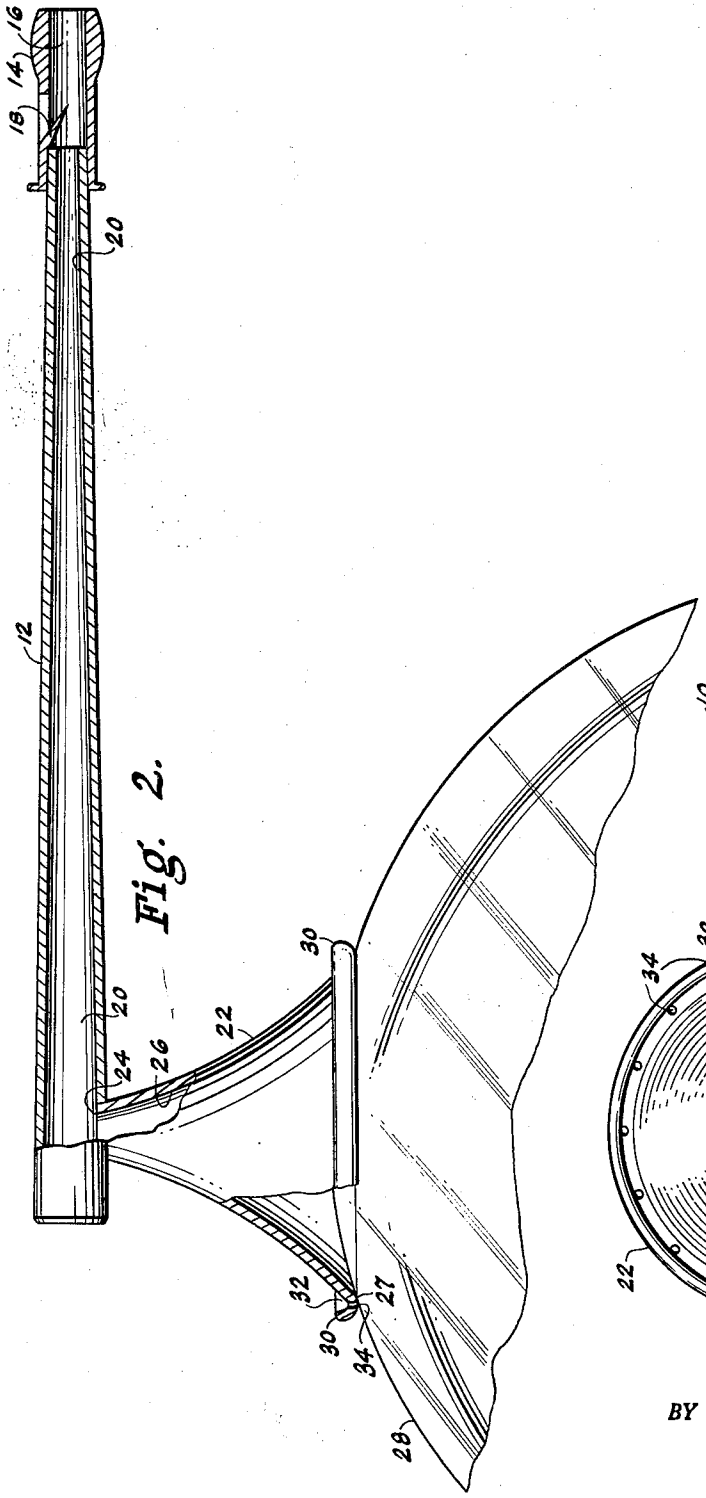


Fig. 2.

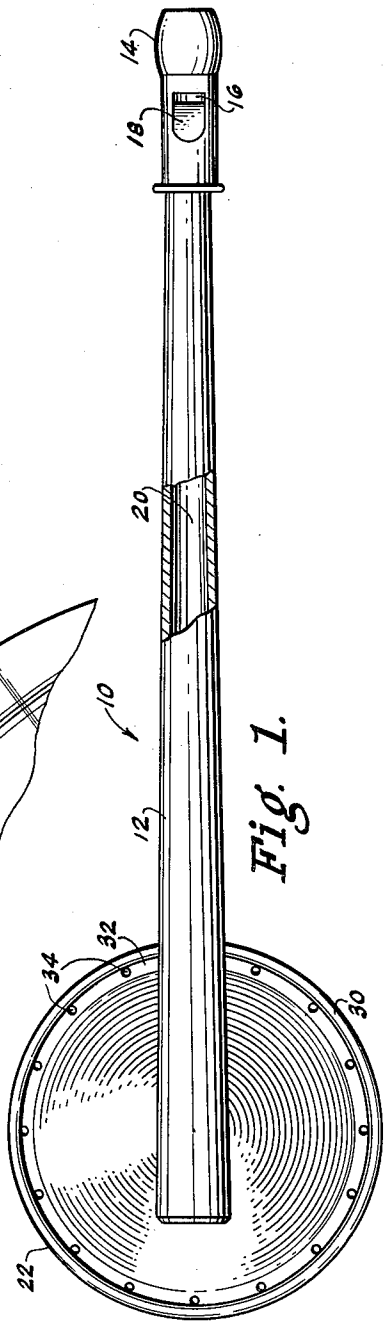


Fig. 1.

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1 Claim. (Cl. 46—7)

This invention relates to bubble pipes and, more particularly, to a bubble pipe for blowing large bubbles.

Ordinarily, it is difficult to blow large bubbles with conventional bubble pipes. In many instances, air blown into the bubble pipe at a high pressure causes the bubble to burst before reaching its maximum size. In other instances, where the air pressure is minimized, the size of the bubble is limited by the amount of bubble fluid available for the film required to support the bubble. It is, therefore, an object of the present invention to provide a special purpose bubble pipe which will effectively provide for the blowing of relatively large bubbles in a simple and consistent manner.

A further object of the present invention is to provide a bubble pipe having air pressure metering means and bubble fluid supply means which will allow for the blowing of relatively large size bubbles.

All of the foregoing and still further objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawing, wherein:

FIG. 1 is a plan view, with parts broken away, of a bubble pipe made in accordance with the present invention.

FIG. 2 is a side elevational view, with parts broken away, of the bubble pipe shown in FIG. 1, in actual use.

Referring now to the drawing, a bubble pipe **10** made in accordance with the present invention is shown to include a stem **12** having a mouth piece **14** at one end with a longitudinal bore **16** communicating with a longitudinal passageway **20** extending partly through the length of the stem **12** and communicating with a radially extending opening **24** within which one end of a bowl member **22** is secured.

The mouth piece **14** also includes a reed **18** which serves as an air pressure metering device for limiting the pressure of air supplied to the bowl **22**, as well as for producing an audible sound which will enhance the usefulness of the device.

The interior **26** of the bowl **22** is flared outwardly to provide a terminal flared surface area **27** which conforms substantially to the contiguous surface curvature of a bubble **28** to be blown by the pipe, thus preventing the presentation of sharp or abrupt surfaces which would cause fracture of the bubble during the expansion thereof.

A bubble fluid storage area **32** in the form of an annular trough, is formed by a reentrant annular bead **30** that opens in a direction opposite to that of the bowl interior **26**. The root of the trough **32** is provided with a plurality of circumferentially spaced apart ports **34** which provide communication between the trough **32** and the flared terminal surface **27** of the bowl **22**, thus providing means for delivering fluid from the trough **32** to the

bubble **28** as it is expanded during the blowing operation.

It will now be recognized that in the use of the pipe, the bowl is dipped into the bubble fluid in a conventional manner, and removed therefrom with the bowl **22** moving downwardly in the manner shown in FIG. 2, in which position, the trough **32** will retain a supply of fluid therewithin, and a film of bubble solution will be formed across the inner section of the flared bowl. As the ports **34** are sufficiently small to prevent the draining of the trough as the bowl is removed from the bubble fluid supply tank, the fluid will not drip therefrom until the bubble is formed within the bowl **22** by blowing into the mouth piece **14**. At this time, the bubble fluid within the interior **26** of the bowl will supply the film necessary to form the initial bubble, whereas additional fluid can be supplied to the bubble from the trough **32** as the size of the bubble increases to the extent that the contiguous surface thereof contacts the ports **34** and enables the surface of the bubble to draw fluid from the trough **32** through the ports **34**. It will thus be appreciated that the bubble pipe will allow for the blowing of relatively large size bubbles in a consistent and simple manner.

At any time during the bubble blowing operation, the operator may detach the bubble by a quick sideward or upward movement of the pipe, and thus observe this large bubble in flight. A measure of skill and excitement is added since the operator must decide when the bubble has been blown to its maximum size, before detaching, as further blowing will burst the bubble.

While this invention has been described with particular reference to the construction shown in the drawing, it is to be understood that such is not to be construed as imparting limitations upon the invention, which is best defined by the claim appended hereto.

Having thus described our invention, we claim as new and desire to secure by Letters Patent:

A bubble pipe comprising, in combination, a stem having a mouth piece at one end and a bowl portion at the opposite end with an air passageway communicating therebetween, valve means mounted in said mouth piece metering the flow of air into said passageway and defining a vibrating sound producing reed, said bowl portion having an outermost outwardly flared interior surface area conforming generally to the contiguous surface curvature of the bubble to be blown therefrom, and defining a smooth surface curved radially outwardly, said outermost end of said bowl portion having a reentrant annular bead defining an annular trough, and constituting a bubble fluid storage area externally of said bowl, and fluid delivery means comprising a plurality of circumferentially spaced apart ports communicating said storage area and said smooth curved surface.

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