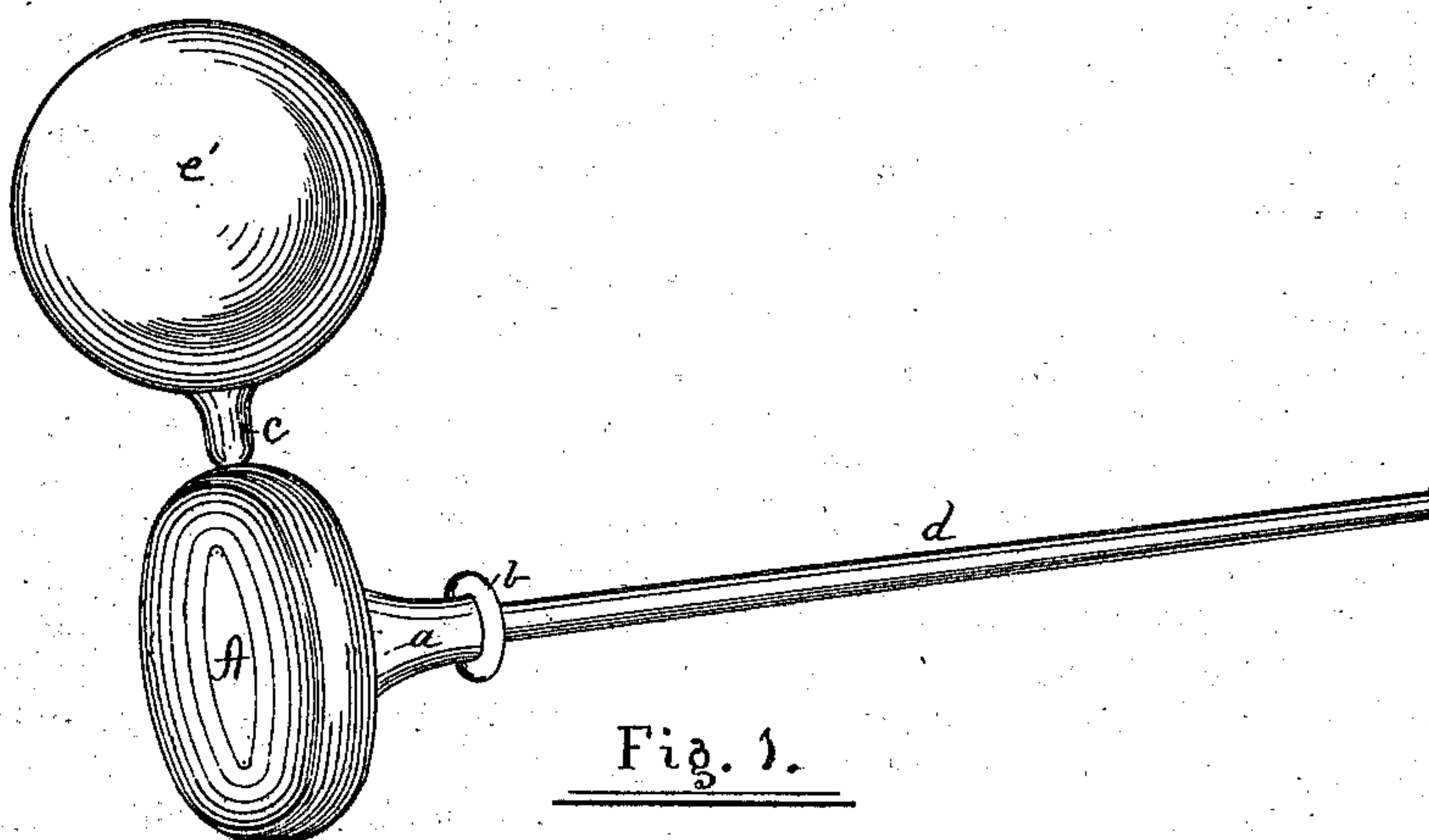


A. BARBARIN.
Soap-Bubble Toy-Pipes.

No. 154,441.

Patented Aug. 25, 1874.



WITNESSES.

H. A. Jenkins
T. J. Roach,

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UNITED STATES PATENT OFFICE

ARTHUR BARBARIN, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN SOAP-BUBBLE TOY PIPES.

Specification forming part of Letters Patent No. 154,441, dated August 25, 1874; application filed June 29, 1874.

To all whom it may concern:

Be it known that I, ARTHUR BARBARIN, a resident of the city of New Orleans and State of Louisiana, have invented a certain new and useful Improvement in Device for Making Soap-Bubbles; and I do hereby declare the following to be a full, clear, and correct description of the same; reference being had to the annexed drawing making a part of this specification.

Figure 1 represents a perspective view of the device when complete for operation.

A is a hollow glass, porcelain, or other bulb, of any suitable size, provided with a hollow central neck, *a*, and open throat, *b*, and upon the periphery of which stands a well-secured perforated cup or thimble, *c*, the perforated end of which, being rounded, is in direct communication with the interior of the bulb, for the purposes hereinafter mentioned. Into the open throat *b*, as will be seen, one end of an ordinary tube or pipe-stem, *d*, of any suitable material, size, and shape, is inserted and properly secured within the neck *a*, for the purpose of supporting the bulb when held between the fingers of the operator, and for blowing air into the bulb when in use.

To prevent a film of the liquid from adhering to the air-passage or attaching itself around the interior opening of the hollow neck *a*, thereby producing a balloon within the bulb, when air is blown into it the neck is gradually enlarged toward the center of the bulb up to its periphery; otherwise the formation of the balloon within the bulb at that point would impair the efficacy of the device; and to prevent the formation of bubbles upon the surface of the liquid within the bulb it is preferable that the soapy liquid be prepared in a separate vessel, and poured into it through the open throat *b* after having temporarily withdrawn the pipe stem or tube *d* for that purpose; and the quantity of liquid poured into the said bulb, in my opinion, should not exceed one-third of the capacity of the vessel.

To start the device, after having partially

filled the bulb with the liquid and replaced the stem *d*, as stated, a slight rotation of the bulb toward the right or the left—or by waving the hand holding the device in any direction, or by causing the liquid to jump toward the perforation of the cup or thimble *c*, or by inclining the bulb so as to cause the liquid to enter the cup or thimble—is sufficient to prime or charge the same with the necessary quantity of liquid to lubricate the same, and to produce with ease the finest bubbles on air being blown through the pipe-stem or tube *d*, which several operations may be repeated as often and as fast as desirable until the liquid is exhausted; but I prefer the waving of the hand, for the reason that the motion made to release the balloon or bubble *e'* from the edge of the cup or thimble primes or charges the latter at the same time.

It is evident, from the peculiar construction of the device, that more than one bubble or balloon may be produced at the same moment, if, instead of one cup or thimble, two or more of the same be applied, at proper distances from each other, upon the periphery or other suitable part of the bulb, the number of cups or thimbles, however, to be regulated in proportion to the diameter of the bulb, or in proportion to the size of the balloons while blowing, so as to prevent their contact with each other.

Although upon the drawing the periphery of the bulb A is represented as being somewhat rounded and having a smooth surface, in practice it is preferable that the same be roughened, flattened, or corrugated, &c., to cause the bulb to remain in proper position; and the perforated end of the cup or thimble *c* communicating with the interior of the bulb may be more or less contracted, as necessity may dictate.

Should it be preferred to cast the device in one piece, an additional opening or inlet, stopped by any suitable means, should be made upon any suitable part of the bulb, for the purpose of partially filling the same with the soap-water.

In manufacturing the device, the same may be varied in form, color, and such configurations as fancy may dictate; but I prefer a transparent material, as it permits the inspection of the liquid within the bulb.

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

The bulb *A*, neck *a*, open throat *b*, the perforated cup or thimble *c*, and pipe stem or tube *d*, as and for the purposes herein described.

ARTHUR BARBARIN.

Witnesses:

H. N. JENKINS,

T. J. ROACH.