

W. D. BAKER.
ADJUSTABLE ATOMIZER.
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1,036,540.

Patented Aug. 27, 1912.

Fig. 1.

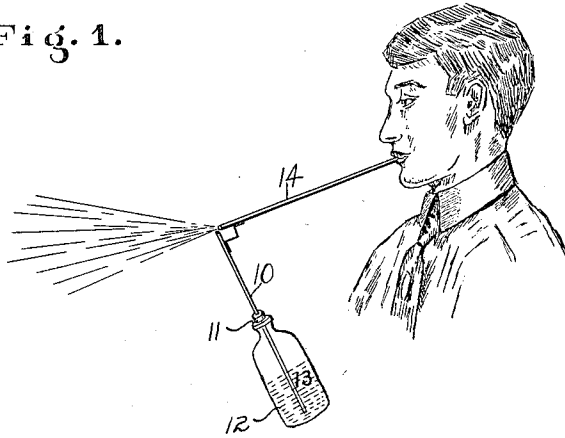
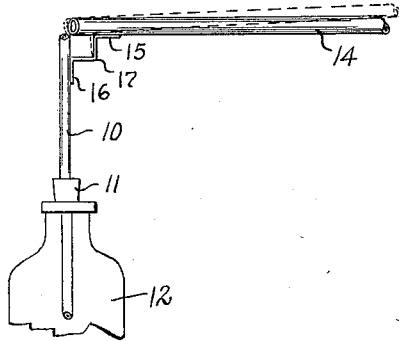


Fig. 2.



WITNESSES:

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ADJUSTABLE ATOMIZER.

1,036,540.

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To all whom it may concern:

Be it known that I, WALTER D. BAKER, a citizen of the United States, and a resident of Indianapolis, county of Marion, and State of Indiana, have invented a certain useful Adjustable Atomizer; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings.

The object of this invention is to provide an improved vaporizer or atomizer and is particularly adapted to be used in stenciling operations, where it is often desired to change the rate of the vaporization of the dye stuff being used.

The feature of the invention lies in providing a flexible connection of peculiar construction between the two tubes of an atomizer by means of which a slight downward or upward pressure upon the outer end of one of the tubes will cause a corresponding separation or a movement toward each other of the adjacent ends of the tube and change the angular relation between the tubes whereby the volume of the liquid being vaporized may be varied as the work demands, but upon releasing the outer end of the tube said flexible connection will return the tubes to their normal position.

The nature of the invention will be understood by the accompanying drawings and the following description and claims:

In the drawings, Figure 1 shows in perspective the mode of using the vaporizer. Fig. 2 is a detail of the connection between the vaporizer tubes with an altered position shown by dotted lines.

In detail there is shown in the drawings a vaporizer having a small tube 10 extending down through a cork 11 to a point near the bottom of a bottle 12 which is filled with a dye stuff 13, and with a second tube 14 secured near one end by a flexible connection to the tube 10 near its upper end. Air under pressure being introduced into the free end of the tube 14, will cause the liquid or dye stuff 13 to rise to the top of the tube 10 where it will be vaporized and carried away by the current of air from the tube 14 in the manner well known. The flexible connection is formed of thin sheet metal having resilient properties with one end 15 secured by soldering or otherwise near the end of the tube 14 and with the other end 16 similarly secured near one end of the tube 10. The flexible connection extends at right

angles to both portions 15 and 16 and at its mid point 17 is bent at a right angle, such that the axis of the tube 14 is substantially at a right angle with the axis of the tube 10.

As shown by dotted lines in Fig. 2, the right-hand end of the tube 14 has been elevated a slight amount which will cause a very slight downward movement of the opposite end of the tube, which is allowed by the flexible connection. It will be readily understood that a slight downward movement of the outer end of the tube 14 will produce a corresponding upward movement of the end adjacent the tube 10. The angular relation of the two tubes is thus changed.

The use of the vaporizer or atomizer being so common, it will be easily understood that, while using such a device in the manner as shown in Fig. 1, a slight downward pressure on the tube 14 by the lips of the artist will cause only a small amount of dye stuff to be vaporized but in opposition to this an upward pressure by the lips upon the tube 14 will cause a vaporization of a greater amount of dye stuff. This vaporization may be varied as the nature of the work may demand, but it will be noted that when the pressure is removed from the tube 14, the flexible connection will bring it back to its normal position and the artist or operator may always count upon a known rate of vaporization of the dye stuff when first beginning to blow through the tube 14. This is in direct contrast to those vaporizers on the market in which the two tubes are hinged together and it is necessary for the artist to turn away from his work and experiment for a short interval of time until he gets the desired rate of vaporization of the dye stuff before he can commence the work. In those atomizers in which two tubes are rigidly secured together, a variation is to be secured only by moving nearer to or farther away from the work and no degree of satisfaction has ever been obtained by the use of such an atomizer.

While, as herein described, only dye stuff has been used in the bottle or container 12, it is not desired to limit the invention to this particular use for it will be easily understood that it may be used for any other liquid.

I claim as my invention:

1. In an atomizer, the combination with a liquid tube and an air tube, one end of said liquid tube being adjacent one end of said

air tube, of a resilient connection between the adjacent ends of said tubes, whereby pressure upon the free end of one of said tubes will change the angle between the tubes and readjust their adjacent ends and said tubes will be returned to a normal position when such pressure is removed.

2. In an atomizer, the combination with a liquid tube and an air tube, one end of said liquid tube being adjacent one end of said air tube, of a spring connection between the adjacent ends of said tubes secured at substantially a right angle to each of said tubes and bent at substantially a right angle midway between said tubes, whereby said tubes

will normally be at substantially a right angle and application of pressure to the outer ends of said tubes will cause the adjacent ends of said tubes to move toward or away from each other and change their angular relation and on release from such pressure will cause said tubes to return to normal position.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

WALTER D. BAKER.

Witnesses:

G. H. BOINK,
E. H. MAYO.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."