

No. 744,603.

PATENTED NOV. 17, 1903.

J. D. PIERCE.
ATOMIZER.

APPLICATION FILED OCT. 18, 1902.

NO MODEL.

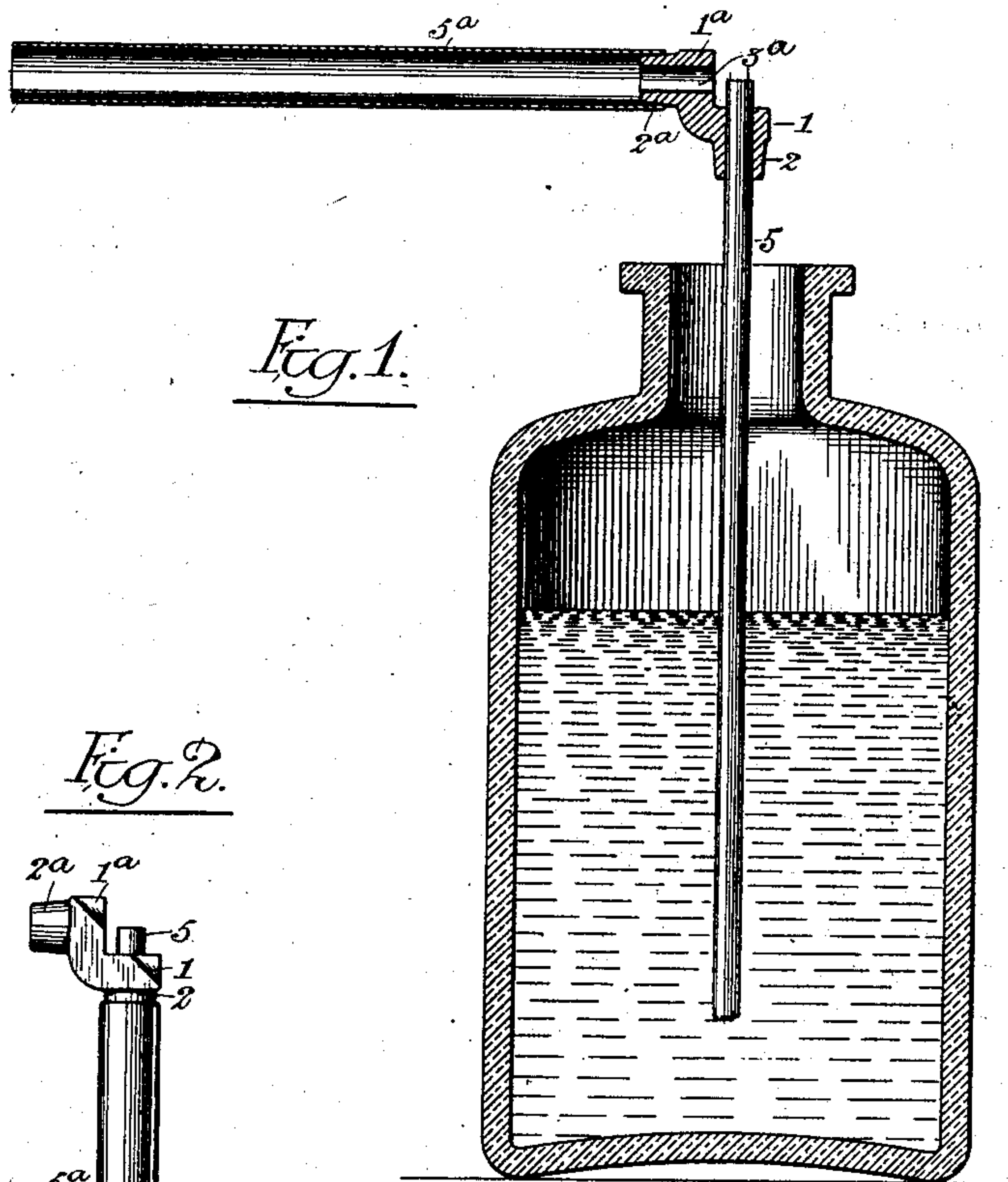


Fig. 1.

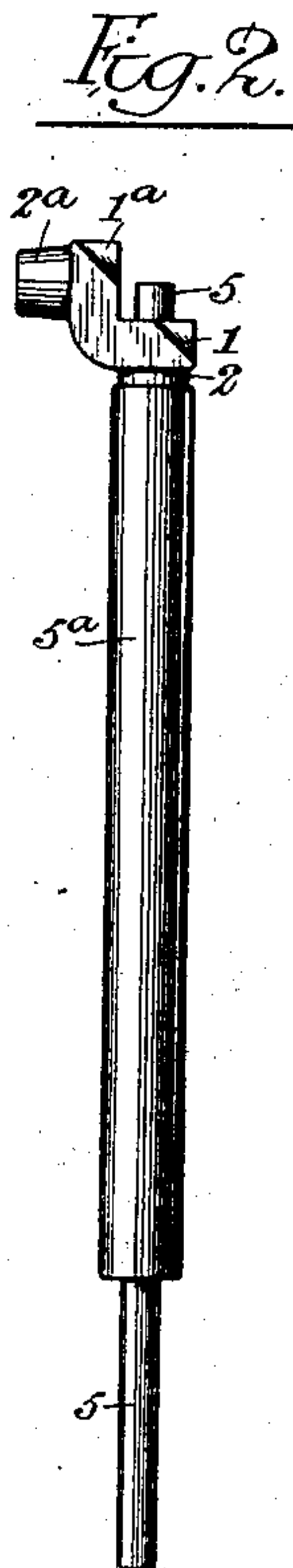


Fig. 2.

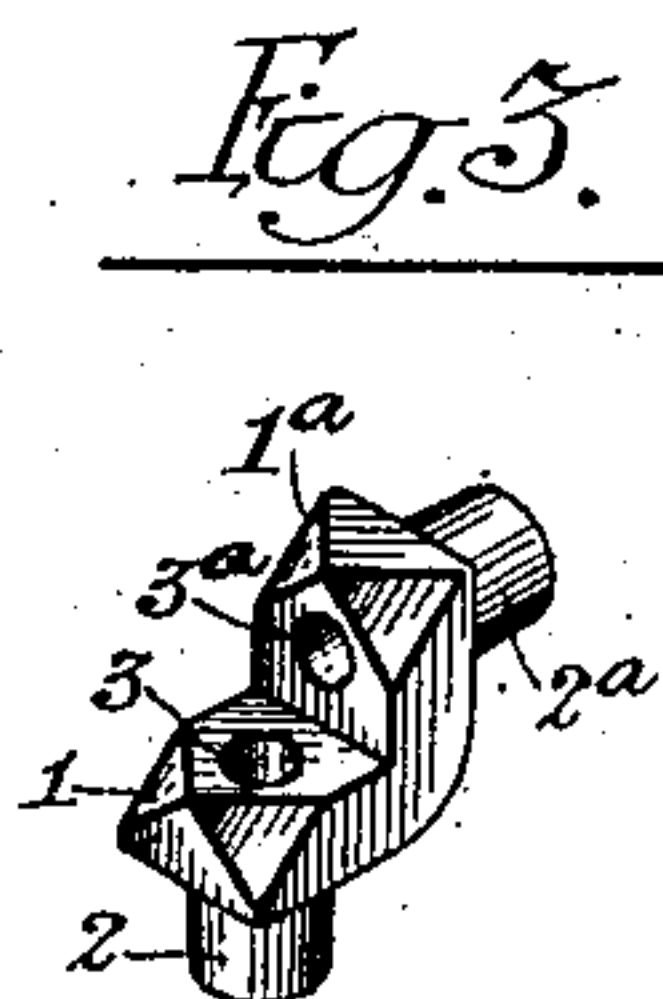


Fig. 3.

Witnesses:-

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UNITED STATES PATENT OFFICE.

JOHN D. PIERCE, OF PHILADELPHIA, PENNSYLVANIA.

ATOMIZER.

SPECIFICATION forming part of Letters Patent No. 744,603, dated November 17, 1903.

Application filed October 18, 1902. Serial No. 127,837. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. PIERCE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain
5 Improvements in Atomizers, of which the following is a specification.

My invention relates to that form of atomizer which consists of an air-blast pipe and a liquid-supply pipe disposed at an angle to
10 each other, the spray being caused by directing the blast of air across the perforated end or mouth of the liquid-pipe.

The invention consists of a simple, cheap, and effective form of such atomizer in which
15 the pipes are rigidly held in that angular relation to each other which insures the most effective spraying action, but which can be reduced to compact form for transportation or storage and has no parts to be broken by rough
20 handling.

In the accompanying drawings, Figure 1 shows my improved atomizer in condition for use. Fig. 2 is a view showing the parts of the atomizer adjusted for packing or trans-
25 portation, and Fig. 3 is a perspective view of the principal element of the atomizer.

My improved atomizer consists principally of a metal block comprising two wings 1 and 1^a, disposed at an angle to each other, the
30 wing 1 having an outwardly-projecting tapered stud 2, and the wing 1^a having outwardly-projecting tapered stud 2^a, each wing and its projecting stud having a central bore 3 or 3^a. To the bore 3 a pipe 5 of comparatively small diameter is closely fitted, and this pipe projects above the top of the wing 1, so that its upper end is opposite the center of the bore 3^a. The pipe 5 is a liquid-supply
35 pipe and when in use is projected into the contents of a bottle or other receptacle containing the liquid to be atomized or sprayed.

To the outside of the stud 2^a is fitted a pipe 5^a, which is intended to carry the air-blast necessary to operate the atomizer; but when
45 the atomizer is not in use this pipe may be withdrawn from the stud 2^a, slipped over the

pipe 5, and fitted to the stud 2, as shown in Fig. 2, so that the atomizer can be conveniently carried in the pocket or packed in small compass for storage or transportation. The blast
50 is usually supplied by placing the pipe 5^a in the mouth and blowing through the same; but said pipe can of course be connected to any desired form of blast device.

The passage of the blast over the mouth of
55 the pipe 5 causes a partial vacuum therein and induces the liquid to rise from the bottle, the blast causing the spraying of this liquid as soon as it reaches the top of the pipe 5.

As the pipe-carrying block is in one piece,
60 the pipes 5 and 5^a are always held in a definite relation to each other, which relation is the best for securing the proper spraying action, and as the top of the fluid-pipe 5 always bears a definite relation to the bore 3^a, which
65 supplies the blast, there is no likelihood of the atomizer getting out of order. Hence it is always ready for immediate use.

Each of the wings 1 and 1^a is by preference beveled at the corners in order to lessen its
70 weight and improve its appearance.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. An atomizer comprising a block with perforated wings at an angle to each other, each
75 wing having a projecting stud, a fluid-supply pipe carried by one of said wings, and an air-blast pipe applicable to the projecting stud on either wing.
80

2. An atomizer-block having two perforated wings disposed at an angle to each other, each of said wings having a projecting hollow stud, substantially as specified.

In testimony whereof I have signed my
85 name to this specification in the presence of two subscribing witnesses.

JOHN D. PIERCE.

Witnesses:

F. E. BECHTOLD,
JOS. H. KLEIN.