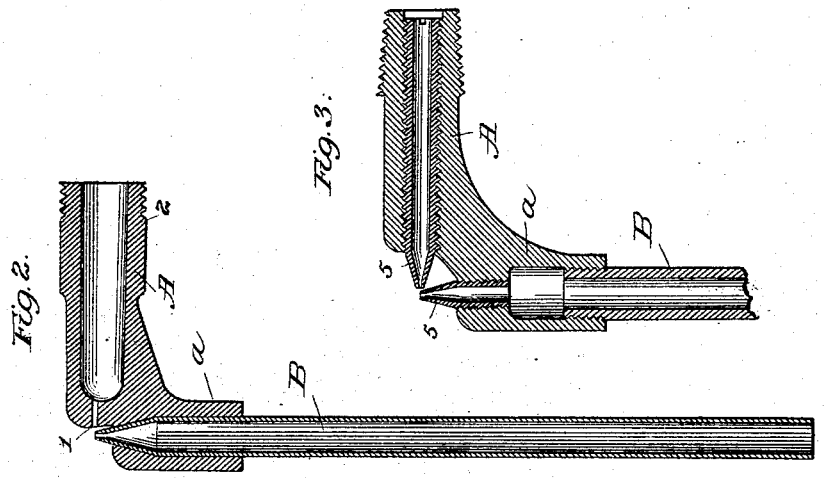
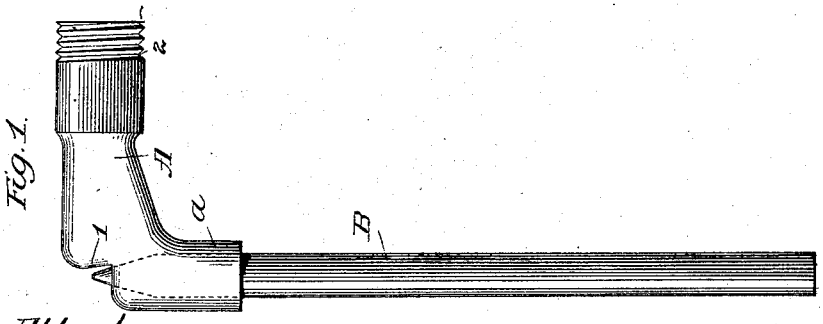
(No Model.)

J. G. GARLAND.

ATOMIZER.

No. 302,477. Patented July 22, 1884.





Attest:
Walter Macedon
F. L. Middleton

Inventor.
James G. Garland
by Joyce & Spear
Attys.

UNITED STATES PATENT OFFICE.

JAMES G. GARLAND, OF BIDDEFORD, MAINE.

ATOMIZER.

SPECIFICATION forming part of Letters Patent No. 302,477, dated July 22, 1884.

Application filed November 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES G. GARLAND, of Biddeford, in the county of York and State of Maine, have invented a new and useful Improvement in Atomizers; and I do hereby declare that the following is a full, clear, and exact description of the same.

My improvement relates to what is known as the "Bergson Atomizer." In these atomizers, as heretofore made, the tubes are of metal or glass, connected and held in proper position by solder or permanently-fixed bracing.

The object of my invention is, first, to provide an independently-removable leg, so that if one is worn out and the other remains good the worn-out leg may be removed and a new one substituted in its place; second, to provide at the same time means for easily adjusting the liquid-leg to the air-leg; third, to render the whole atomizer stronger and more durable; fourth, to form the coupling for connecting the air-leg to the air or steam supply pipe in one piece with the leg itself; fifth, to provide means whereby the air-leg may be screwed on to its place without disturbing the adjustment of the outlet of the tubes.

The main feature of my invention consists in forming in one piece the air-leg and a holder or support for the liquid-leg, and, in connection with this, in subordinate details, hereinafter explained.

In the accompanying drawings, Figure 1 shows a side elevation; Fig. 2, a section through the center of the legs of my improvement. Fig. 3 is a section of a modified form.

The junction of the air and liquid passages is in all the forms shown a solid angular piece, in which passages are formed for the air and liquid, so as to cause the current of one to cross that of the other.

In Fig. 1, A represents the air-leg, which is cast or otherwise formed in one piece, preferably of metal, with a holder, *a*, for the liquid-leg. The air-leg A is bored out or formed with an axial hole terminating in a fine orifice at 1. It is also provided with a plain or screw-threaded bulb or end, 2, for connection with the air or steam forcing device, and is flattened upon the sides to receive a wrench, by means of which it may be turned on to its pipe when connected by screw-thread. The part *a* is bored or otherwise formed to receive the liquid-leg B, which extends up through the bore of the part *a*, and its reduced end is brought into the proper relation to the orifice 1. I prefer to solder in the leg B, but may hold it in place by screw-threads or in any convenient way, so that it may be removed in case either leg becomes worn, while the other remains good. The part A *a* being formed out of one piece of any suitable material, and the holes accurately bored, the other leg may be adjusted to its place accurately and without difficulty.

In Fig. 3 the part A *a* is provided with tips or nozzles 5 5, which may be screwed removably in line with the bore of each leg, or they may be held in place in any convenient way. In this case the liquid-leg may be made solid, as in Fig. 3, or removable, as in Figs. 1 and 2.

The tips may be used for one or both of the legs, as may be desired.

My improvement is designed to be used in my apparatus shown in Patent No. 8,847 and Patent No. 222,888, but is capable of use in any other atomizer apparatus.

I claim as my invention—

The combination, with the air-leg A, adapted for connection with the air or steam forcing apparatus, of the part *a*, formed therewith and adapted to receive and hold the liquid-leg, both legs being provided with outlets to the open air, substantially as described.

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

JAMES G. GARLAND.

Witnesses:
R. H. INGERSOLL,
CHAS. A. MOODY.