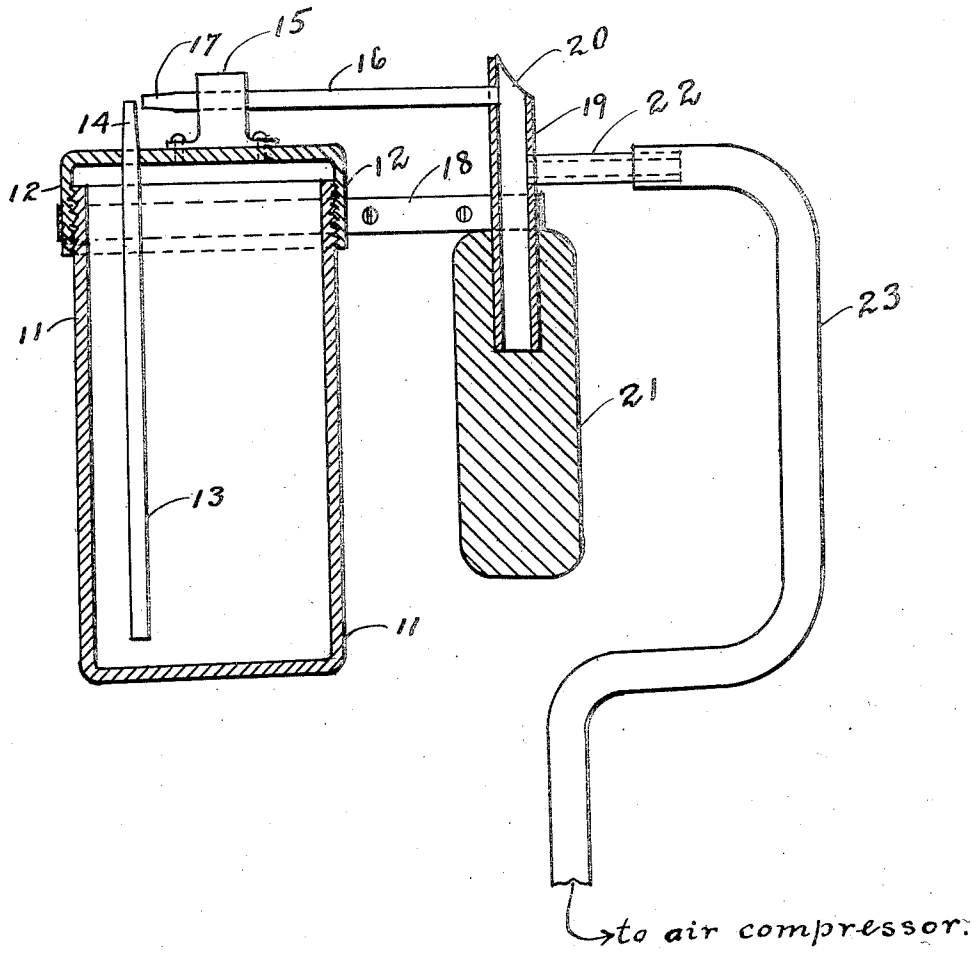
B. P. HALL.

ATOMIZER OR SPRAYER.

APPLICATION FILED MAY 3, 1919.

1,357,452. Patented Nov. 2, 1920.



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BURTON P. HALL, OF FANWOOD, NEW JERSEY.

ATOMIZER OR SPRAYER.

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Application filed May 3, 1919. Serial No. 294,597.

To all whom it may concern:

Be it known that I, BURTON P. HALL, a citizen of the United States, residing at Fanwood, in the county of Union and State of New Jersey, have invented a new and useful Atomizer or Sprayer, of which the following is a specification.

My invention relates to improvements in atomizers or sprayers, in which compressed air or gas under pressure is employed to raise a liquid to a higher level and atomize it, and it consists in the novel features hereinafter more fully described.

The objects of my improvement are:—

First. To produce an atomizer or sprayer which may be operated intermittently while the supply of compressed air or gas is continuous.

Second. To avoid the use of any safety valves or similar contrivances on the container of the liquid to be sprayed or on the air compressor or any other part of the apparatus.

Third. To avoid any operating valves on the spraying nozzle or air nozzle, and—

Fourth. To have the atomizer simple, durable and inexpensive.

I attain these objects by the device illustrated in the accompanying drawing or by any mechanical equipment or obvious modification of the same.

The drawing represents a vertical cross-section of the container and operating handle of my atomizer or sprayer and showing sundry parts in elevation.

11 designates the container, 12 the cap of the same, through which passes the rising tube 13, which terminates in the discharge nozzle 14.

15 is a column shown as secured to said cap 12 and supporting one end of the air or gas tube 16, which terminates in the blast nozzle 17; the other end of said tube 16 communicates with the interior of the hollow member 19, which is connected to said cap 12 by means of the strap 18, and which terminates at its upper end in the opening 20, the rim of which is shaped to conform to the outline of the thumb of the operator; the lower end of said member 19 is closed by the handle 21.

22 is a nipple, communicating at one end thereof with the interior of said member 19, and at the other end with the flexible tube 23, which may be connected to a suitable source of compressed air or gas, such as an air compressor or gas generator.

It is evident that, when air or gas passes through the tube 23 and nipple 22 into the interior of said member 19, it will not enter said tube 16 as long as said opening 20 is uncovered; but, when the operator closes said opening either by means of his thumb or in any other way, the air or gas will pass through said tube 16 and issue from the blast nozzle 17, thereby inducing a current of the liquid from the container 11 through the tube 13 and nozzle 14 and atomizing the same.

This apparently simple expedient of keeping the opening 20 normally open enables the operator to proceed with his work intermittently, as may be required by the task he may have, and have the entire outfit safe without taking care to stop the gas generator or air compressor and without any safety valves or other contrivances.

Many changes could be made in the details of my atomizer or sprayer without departing from the main scope of my invention; I do not therefore restrict myself to the details as shown in the drawing; but I intend to include also all mechanical equivalents and reasonably obvious modifications of the same.

What I claim as my invention and desire to secure by Letters Patent, is:—

In an atomizer or sprayer the combination of a liquid container, a rising tube for said liquid, a blast tube for atomizing said liquid, a conduit furnishing a continuous supply of compressed gas, a hollow member communicating with said supply and with said blast tube, said member being adapted to be used as a handle for said sprayer and to permit a continuous flow of said gas therethrough, and said member terminating at its upper end in an opening, which is normally open and adapted to be closed by the hand of the operator holding said handle, thereby directing the flow of said gas into said blast tube and thereby enabling said supply of compressed gas to be continuous, while the action of said sprayer is intermittent.

BURTON P. HALL.

Witness:
CHAS. GLAS.