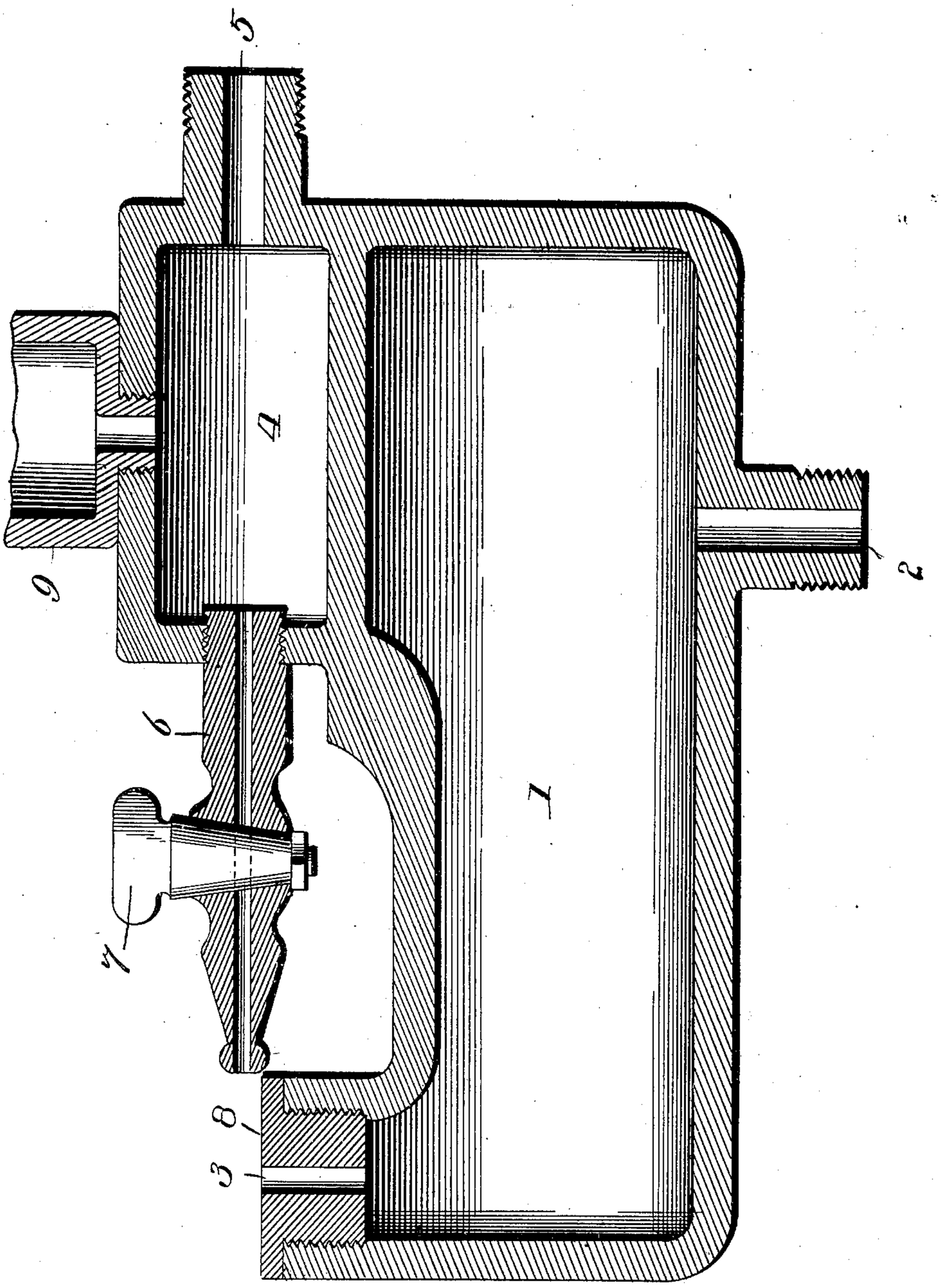
No. 673,827. Patented May 7, 1901.

C. F. STROHM.

ATOMIZER.

(Application filed Nov. 30, 1900.)

(No Model.)



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CHARLES FRANCIS STROHM, OF NEVADA, MISSOURI.

ATOMIZER.

SPECIFICATION forming part of Letters Patent No. 673,827, dated May 7, 1901.

Application filed November 30, 1900. Serial No. 38,225. (No model.)

To all whom it may concern:

Be it known that I, CHARLES FRANCIS STROHM, a citizen of the United States, residing at No. 226 Southwest street, in the city of Nevada, in the county of Vernon, in the State of Missouri, have invented a new and useful Atomizer for All Kinds of Air-Pumps, which I have named or called "Aireoiled," of which the following is a specification.

My invention has relation to oil-spray atomizers; and it consists in the novel construction and arrangement of its parts, as hereinafter described.

The object of this invention is to provide a device for atomizing a liquid, such as water, by means of a blast of air which has been sprayed with oil.

The device is especially to be used with inlet-ports of air-compressors; but it also may be used to advantage in connection with air-pumps or other similar apparatus, the atomizer when in use being located near the inlet-ports of the air pumping or compressing apparatus, the spray from the atomizer reducing the temperature of the atmosphere in the vicinity of the said ports. Thus the valves in the air pumping or compressing apparatus are to a degree relieved of heat, and by the action of the liquid spray keeps the packing in good condition and prevents leakage. All minute particles of dust, which exist to a more or less degree in all atmospheres, are moistened, and thus, if passed through the valves, are in a softened condition and cannot injure the seats, &c. By reason of the reduced temperature and water-sealing of the valves in the apparatus an increase in the capacity of the apparatus is attained, and by introducing a lubricant in the spray from the atomizer a saving is made on the wear and tear of the valves and cylinders and linings of the air pumps and compressors.

My invention relates particularly to the construction of the atomizer.

In the accompanying drawing the figure is a sectional view of the atomizer.

The atomizer consists of the water-chamber 1, having a water-inlet 2 and a perpendicular water-outlet 3. The air-chamber 4 is mounted on the top of the water-chamber 1 and is provided with the air-inlet 5 and the horizontal air-outlet nozzle 6, said nozzle 6 being provided with a valve 7. The outer end of the nozzle 6 is in close proximity to the plane 8, through which the water-outlet 3 emerges. An oil-cup 9 is located on the top of the air-chamber 4.

The operation of the device is as follows: The water enters the water-chamber 1 through the water-inlet 2 and passes out in a perpendicular column through the water-outlet 3. At the same time compressed air is introduced into the air-chamber 4 through the air-inlet 5. The air while in the chamber 4 is mixed with the oil dropping from the oil-cup 9. The mixed air and oil then passes out through the nozzle 6 in a horizontal blast and is blown across the plane 8 over the outer end of the water-outlet 3, thus producing a spray composed of air, oil, and water.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An atomizer consisting of a water-chamber having a perpendicular water-outlet and a suitable water-inlet, a compressed-air chamber, having an air-inlet and a horizontal air-outlet, said air-outlet being alined with the water-outlet and a means for introducing oil into the compressed-air chamber.

2. An atomizer consisting of a water-chamber having an inlet and a perpendicular outlet, a compressed-air chamber mounted on the said water-chamber, said compressed-air chamber having an air-inlet and a horizontal air-outlet, said air-outlet being alined with the water-outlet and a means for introducing oil into the air-chamber.

3. An atomizer consisting of a water-chamber having an inlet and a perpendicular outlet terminating at its upper end in a horizontal plane surface, a compressed-air chamber having an air-inlet and a horizontal air-outlet, said air-outlet being alined with the water-outlet, said air-outlet terminating at the edge of the said horizontal plane.

4. An atomizer consisting of a water-chamber having suitable inlets and outlets, an air-chamber having suitable inlets and outlets and an oil-cup, the parts being so arranged as to produce a spray consisting of air, oil and water.

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

CHARLES FRANCIS STROHM.

Witnesses:
H. M. DUCK,
J. M. LATIMER.