

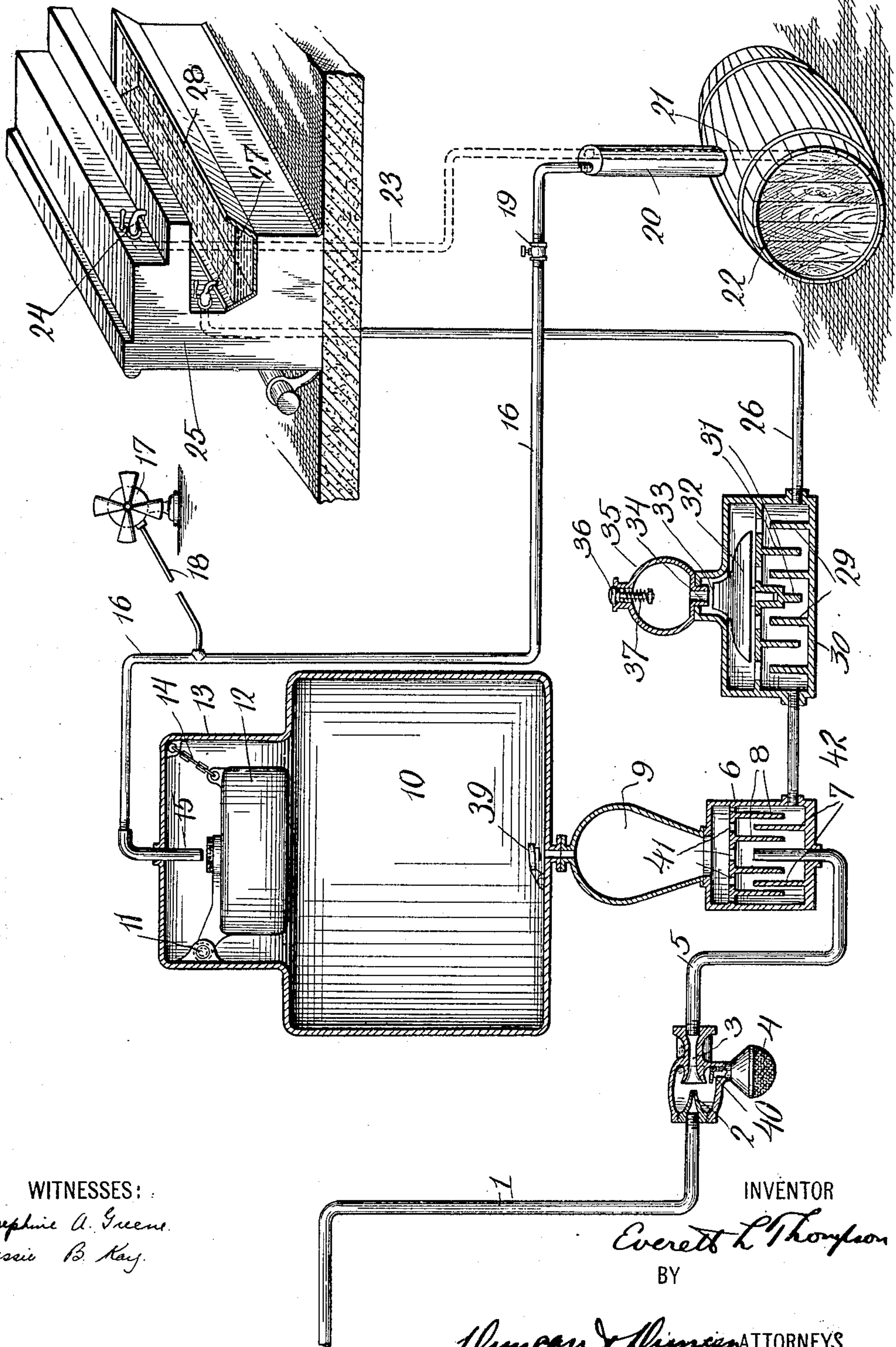
E. L. THOMPSON.

BLAST APPARATUS.

APPLICATION FILED MAY 18, 1907. RENEWED JULY 9, 1908.

913,322.

Patented Feb. 23, 1909.



WITNESSES:

Josephine A. Greene.
Jessie B. Kay.

INVENTOR

Everett L. Thompson

BY

Lincoln & Lincoln ATTORNEYS

UNITED STATES PATENT OFFICE.

EVERETT L. THOMPSON, OF DOVER, NEW JERSEY.

BLAST APPARATUS.

No. 913,322.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed May 18, 1907, Serial No. 374,421. Renewed July 9, 1908. Serial No. 442,694.

To all whom it may concern:

Be it known that I, EVERETT L. THOMPSON, a citizen of the United States, and resident of Dover, in the county of Morris and State of New Jersey, have made a new and useful Invention Relating to Blast Apparatus, of which the following is a specification, taken in connection with the accompanying drawing, forming part of the same.

This invention relates to blast apparatus and relates especially to injector blast devices to be connected with and operated in connection with domestic water supply systems, the blast being utilized in beverage dispensing and other ways.

In the drawing showing in a somewhat diagrammatic manner an illustrative embodiment of this invention, the house water-main or service pipe 1 is illustrated as provided with a suitable injector blast device to be operated by the normal flow of water through the main for other purposes. This injector may have a nozzle 2 to direct the jet into the throat 3 and when in operation opening the check valve 40 and drawing in air or other blast medium through the screen 4 so as to be forced together with the water through the service pipe 5 into the separator 6. The separator as indicated may comprise a series of baffle plates 8, preferably of circular form, supported from a suitable partition in the separator and cooperating with similarly arranged baffles 7 extending upward from below. The water can thus readily pass outward from the pipe 5 to the prolongation 42 of the service pipe. The air separates from the water and passes upward through a number of suitable apertures 41 in the separator partition and after entering the dome 9 passes the check valve 39 into the reservoir 10. This reservoir is preferably provided with a suitable water valve to prevent the discharge of water into the blast mains and utilizing pipes. This water valve may be formed on the float 12 movably mounted on the pivot 11 so as to cooperate with the mouth 15 of the blast pipe 16, a loose connection 14 being preferably provided to limit the downward movement of the valve and float 12 within the chamber 13.

The blast from the mains may, of course, be utilized in many ways and various blast devices may be operated by this blast such as the pneumatic fan motor 17 indicated as connected with the blast main by the pipe

18. Beverage dispensing apparatus may also be operated by the blast, the connector 20 being shown as in position in the liquor container or barrel 22 so as to admit the blast thereto and allow the blast pressure to operate on the surface of the liquor when the valve 19 is open, the liquor thus being forced into the end 21 of the liquor pipe reaching to the bottom of the container and up through this liquor pipe 23 so as to be discharged from the liquor faucet 24 when desired. Of course, a series of these liquor dispensing faucets may be arranged on the bar 25 in the usual way and similarly supplied with liquor in this or other ways.

It is usually desirable to provide means to separate all the blast medium from the water before it passes through the prolongation 26 of the service pipe and water faucet 27 indicated in this instance in connection with the bar. For this purpose a suitable relief separator 30 may be connected with the pipe 42 and provided with a series of cooperating baffle plates 29, 31, by which the air is separated in an obvious manner from the water and allowed to rise through suitable openings past the water valve 32 and thereafter to escape from the dome 35 of the separator past the spring relief valve 36 normally held in the closed position by the adjustable spring 37. Similar discharge of water in this manner is prevented by the water valve 33 secured to the float 32 loosely mounted within the separator so that when it is raised by the water this valve is brought up against the discharge passage 34 so as to close the same.

Having described this invention in connection with an illustrative embodiment thereof, to the details of which disclosure it is not, of course, to be limited, what is claimed as new and what is desired to be secured by Letters Patent is set forth in the appended claims.

1. In blast apparatus, a blast injector device provided with a valved and screened blast inlet and connected with a domestic water service pipe, a separator connected with said blast device to separate the blast from the water, a reservoir provided with a check valve and water valve and connected to said separator, a blast pipe connected with said reservoir, a liquor dispensing device connected with and operated from said blast pipe and a relief separator provided

with a water valve and relief valve connected to said service pipe beyond said separator.

2. In blast apparatus, an injector blast device connected with a regular water service pipe, blast separating and storing means connected with said blast device to receive the water passing through said service pipe and blast device for other purposes and to separate the blast medium therefrom said storing means being adapted to be connected with and operate blast utilizing devices.

3. In blast apparatus, a blast device to be connected with a water service pipe, and operated by water passing through said pipe for other purposes, a water faucet on said service pipe to discharge the water therefrom for utilization for other purposes, and means to separate and utilize the blast from said blast device comprising liquor dispensing apparatus provided with a liquor faucet adjacent said water faucet.

4. In blast apparatus, an injector blast device to be connected with and operated from a water service pipe, a separator connected to said blast device and a relief separator in said service pipe beyond said separator to separate the blast remaining in the water and discharge the same.

5. In blast apparatus, an injector blast device to be connected with a water service pipe, a separator connected to said blast device and means to utilize the blast from said separator and a relief separator to be connected with said service pipe beyond said separator to separate the blast from the water passing therethrough.

6. In blast apparatus, an injector blast device to be connected with a domestic water service pipe, a separating apparatus cooperating with said blast device to sepa-

rate the air from the water passing through the service pipe beyond said separating apparatus and relief means to discharge the surplus air from said separating apparatus.

7. In blast apparatus, an injector blast apparatus provided with a valve and connected with a water pipe, a separator connected with said blast device to separate the blast from the water, a reservoir provided with a check valve and water valve and connected to said separator, a blast pipe connected with said reservoir and a relief separator provided with a water valve and relief valve connected to said water pipe beyond said separator.

8. In blast apparatus, an injector blast device, a separator connected to said blast device and a relief separator to separate and discharge the blast from the water passing beyond said separator.

9. In blast apparatus, an injector blast device, a separating apparatus cooperating with said blast device to separate the air from the water passing through said blast device and relief means to discharge the surplus air from said separating apparatus.

10. In blast apparatus, an injector blast device connected with and operated from a regular water service pipe, air separating and storing means connected with said blast device to receive the water passing through said service pipe and blast device for other purposes and separate the air therefrom, and blast utilizing devices connected with and operated from said storing means.

EVERETT L. THOMPSON.

Witnesses:

JNO. R. HAMILTON,
A. J. RICHARDS.