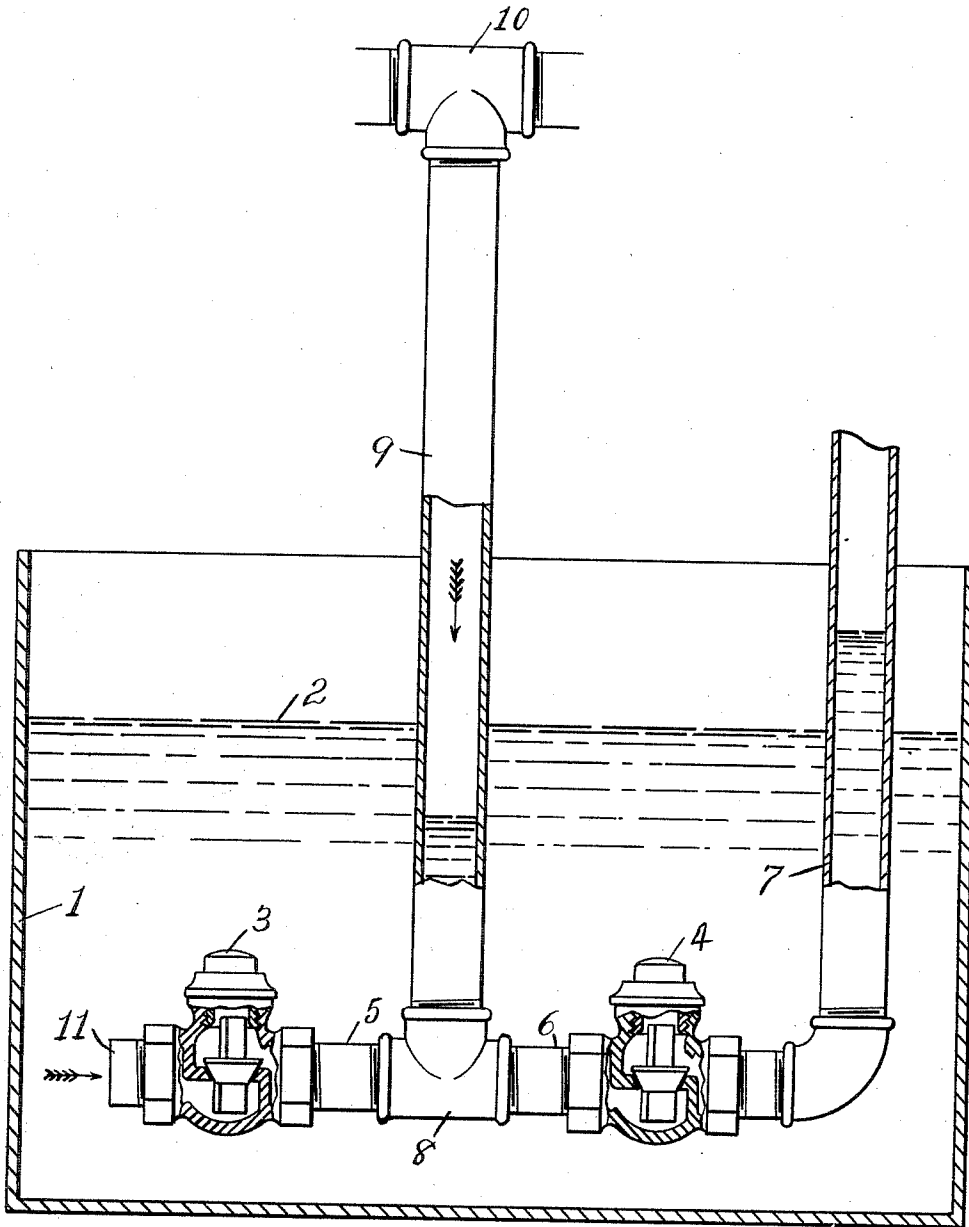


J. C. FOUNTAIN.
PUMP FOR EXPLOSIVE GAS.
APPLICATION FILED DEC. 14, 1911.

1,044,511.

Patented Nov. 19, 1912.



Witnesses
J. S. Edmunds
E. Bedford

Inventor
John C. Fountain
By P. J. Edmunds
Attorney

UNITED STATES PATENT OFFICE.

JOHN C. FOUNTAIN, OF LONDON, ONTARIO, CANADA.

PUMP FOR EXPLOSIVE GAS.

1,044,511.

Specification of Letters Patent.

Patented Nov. 19, 1912.

Application filed December 14, 1911. Serial No. 665,803.

To all whom it may concern:

Be it known that I, JOHN C. FOUNTAIN, a subject of the King of Great Britain, and a resident of the city of London, in the county of Middlesex, in the Province of Ontario, Canada, have invented a new and useful Pump for Explosive Gas, of which the following is a specification.

This invention relates to the raising of water and the like by means of the explosion of gas in a confined space. And it consists of the improved construction and novel combination of parts of the same as will be hereinafter first fully set forth and described and then pointed out in the claim.

Reference being had to the accompanying drawing forming part of this specification—the figure is a side view of a device embodying my invention. In this view the front side of the water tank is removed and the piping and check valves are shown and part of the piping and check valves are shown in section.

In the annexed drawing 1 designates a tank preferably of an automobile which is filled with water to the height indicated by the broken line 2. In this tank 1 the check valves 3 and 4, horizontal pipes 5 and 6, upwardly extending pipe 7 from the check valve 4, T-pipe 8, the vertical pipe 9 and T-pipe 10 extend as shown.

As the exhaust from the explosive gas or from the engine acts in the T-pipe 10 on the water in the vertical pipe 9, the explosion of the gas on the water in the vertical pipe 9 compresses and lowers the water in said pipe 9, this lowers the water in the T-pipe 8, horizontal pipes 5 and 6, closes the check valve 3, opens the check valve 4, so that the water is free to pass up in and out of the upwardly extending pipe 7.

When the force of the explosion of the gas expends itself in lowering the water in the pipe 9 and raising the water in pipe 7 the check valve 4 is immediately closed, and the check valve 3 is immediately opened into the pipe 11, this permits the water in pipe

11 to pass through the check valve 3, horizontal pipe 5, and vertical pipe 9, to its normal position in said pipe 9, when the operation hereinbefore described is repeated and so on until a sufficient amount of water is forced up and into and out of pipe 7. As the water rises in the pipe 7 from the effects of the explosion of the gas the water in pipe 7 is conducted to the jacket of an automobile or any other gas cylinder which is kept cool by the water rising in the pipe 7. As a result this device not only raises the water in the pipe 7 but continually raising and lowering the water in said pipe 7 it keeps the water in the cylinder of the automobile or any gas engine cool.

Thus a simple, strong, durable and inexpensive device is provided for this purpose and one efficient in practical use.

Having thus described my invention, I claim:

A device of the class described comprising a receptacle adapted to be filled with fluid to a pre-determined height, an engine exhaust pipe positioned above said receptacle, a connecting pipe carried by said exhaust pipe and having its lower end positioned beneath the level of said fluid, oppositely-extending branch pipes communicating with said lower end of the connecting pipe and positioned beneath the surface of said fluid, one of said branch pipes having an inlet for said fluid and the other of said branch pipes having a vertically-positioned outlet therefor, check valves positioned beneath said fluid in each of said branch pipes and one of said valves adapted to admit fluid to the connecting pipe under normal conditions to the level of the fluid within the receptacle.

In testimony whereof, I have signed in the presence of the two undersigned witnesses.

JOHN C. FOUNTAIN.

Witnesses:

P. J. EDMUNDS,
L. M. HALL.