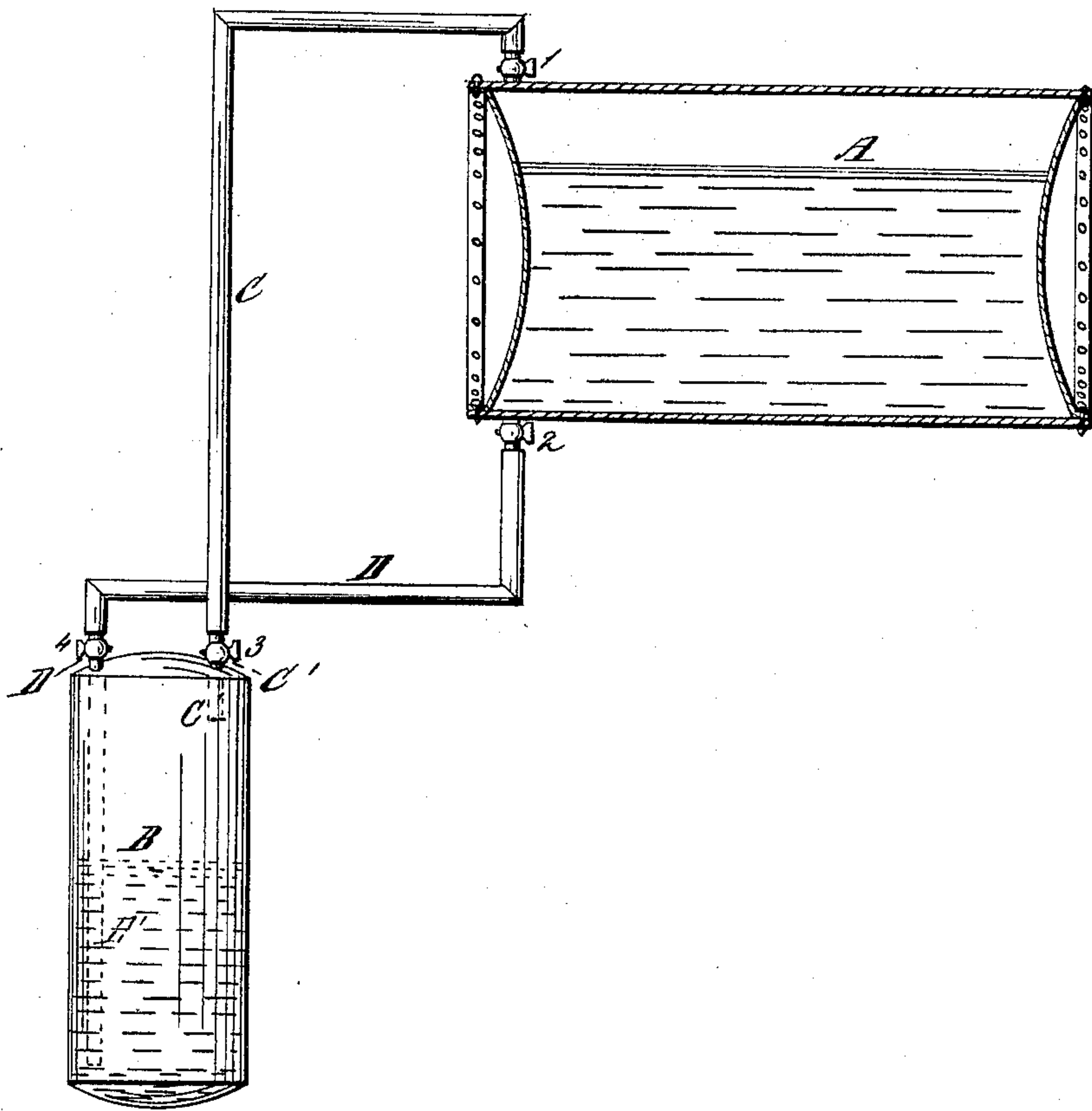


*J. F. Boynton,  
Fire Annihilator,*

*No 68,940.*

*Patented Sep. 17, 1867.*



*Witnesses  
Jos. L. Coombs  
J. L. Coombs*

*Inventor  
J. F. Boynton  
By J. L. Coombs  
att'y*

# UNITED STATES PATENT OFFICE.

JOHN F. BOYNTON, OF SYRACUSE, NEW YORK.

## IMPROVED FIRE-EXTINGUISHERS.

Specification forming part of Letters Patent No. 68,940, dated September 17, 1867.

*To all whom it may concern:*

Be it known that I, JOHN F. BOYNTON, of Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Fire-Extinguishers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in charging a portable closed vessel with saline water and compressed gas or air, which may be thrown into or upon a fire at a considerable distance through a hose-pipe by means of the expansive power of the compressed gas or air within said closed vessel.

In the accompanying drawing, A is a stationary cylinder, which should be gas-tight, and strong enough to bear an internal pressure of one hundred and fifty pounds, or thereabout, to the square inch. B is a portable vessel or receiver, which should be equally tight, and strong enough to bear a like internal pressure. C and D are attachable and detachable connecting-pipes.

The stationary cylinder A is to be partially filled with saline water—say, about two-thirds full. This saline water may be produced by dissolving in water chloride of sodium, sulphate of magnesia or soda, carbonate of soda, alum, or other soluble saline substances, which, when thrown upon fire, in solution, will have a tendency to extinguish it by incrustation and decomposition, disengaging gases unfavorable to combustion.

The saline water in cylinder A should be a weak solution—that is to say, something below saturation. Into said cylinder, so partially filled with saline water, is pumped, through cock 1, or any other suitable port, carbonic-acid gas, carbonic-oxide or nitrogen gas, or atmospheric air, until there is an internal pressure in the cylinder, say, of from seventy-five to one hundred and fifty pounds to the square inch, and the cock then turned to close the cylinder air and gas tight. From this reservoir, if replenished from time to time as exhausted, any desired number of portable vessels, B, may be filled, as follows: Connecting-pipes C and D are attached, as shown in the drawings, and cocks 1, 2, 3, and 4 are all turned so as to open the ports. The open communication between the cylinder A and receiver B will equalize the pressure of the compressed gas or air in both, and the weight

of the water in cylinder A will cause it to run down into the receiver B through pipe D. The pipe D extends internally to near the bottom of the receiver B, as will be seen by dotted lines D'; but the pipe C extends but a short distance inside of the receiver, as shown by dotted lines C'.

When the saline water fills the receiver B to the lower end of pipe C', it will cease to flow in from the cylinder A. The cocks are then all closed, the connecting-pipes attached, the receiver B removed and replaced by another, to be charged in a similar manner. In this manner any desired number of portable vessels B may be charged and set aside for use when needed.

In case of a fire one or any desired number of these charged portable vessels may be carried to the place, and a small hose-pipe being attached at the cock 4, and said cock or valve opened, the pressure of the compressed gas or air will eject the contents of the vessel in a jet of great force into or upon a fire at considerable distance. The saline water, thus heavily charged with air or gas, will instantly extinguish fire, not only in the spot where it is actually thrown, but for a considerable space surrounding, as the saline substances held in solution, on coming in contact with the heated coals, will instantly become solidified, forming incrustations on the coals, and at the same time will give out gases unfavorable to combustion.

Having thus fully described my invention, and the method of carrying it into effect, what I claim, and desire to secure by Letters Patent, is—

1. The method herein described of charging portable vessels with saline water and compressed air or gas, for use in extinguishing fires, substantially as set forth.
2. The portable vessel B, charged with saline water and compressed air or gas, substantially as described, for the purpose of extinguishing fires, as set forth.
3. In combination, the cylinder A, portable receiver B, the connecting-pipes C and D, cocks 1, 2, 3, and 4, and any suitable pump for charging said cylinder A with compressed air or gas, all constructed and arranged substantially as described.

JOHN F. BOYNTON.

Witnesses:

J. J. COOMBS,  
Jos. L. COOMBS.