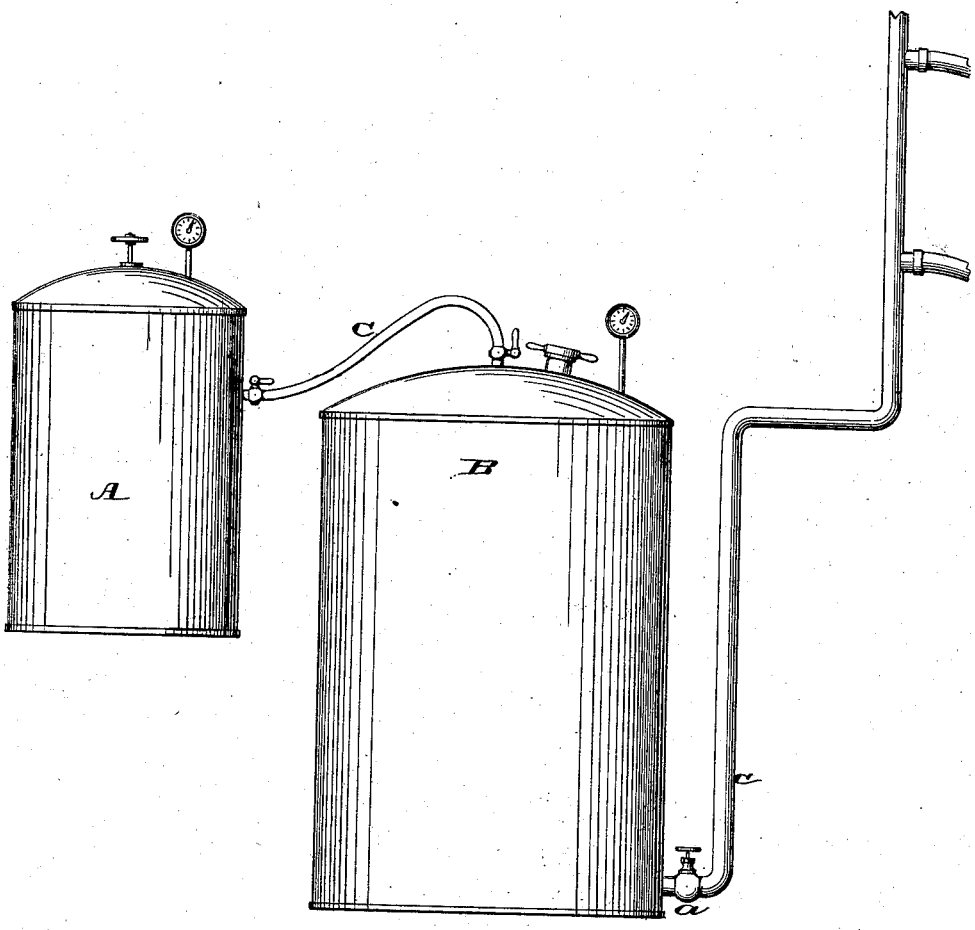
C. M. MARTIN.

METHOD OF EXTINGUISHING FIRES.

No. 191,872. Patented June 12, 1877.



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CHARLES M. MARTIN, OF NEW YORK, N. Y.

IMPROVEMENT IN METHODS OF EXTINGUISHING FIRES.

Specification forming part of Letters Patent No. **191,872**, dated June 12, 1877; application filed March 7, 1877.

To all whom it may concern:

Be it known that I, CHARLES M. MARTIN, of the city and State of New York, have invented a new and Improved Method of Extinguishing Fires; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing.

Heretofore many methods have been in use for utilizing carbonic-acid gas in the extinguishing of fires, advantage being taken of its well-known quality of not supporting combustion. The simple generation of the gas and its conduction in volume to the point of combustion is liable to be seriously disturbed by any and all rapidly-moving currents, which are necessarily incident upon all conflagration. The discharge of water impregnated with carbonic-acid gas by means of pressure generated by the production of such gas by chemical reaction in the vessel containing the water is well known; but much of the gas mechanically entangled in the stream projected, the expulsion being equal in all directions, escapes and passes off before reaching the fire to be extinguished, and hence is not utilized. In such instances two agencies combine toward effecting the extinguishment of the fire, viz: first, the automatic propelling force of the created gas projecting the water; and, second, by the limited quantity of gas remaining entangled in the stream of water thrown, serves to cut off the atmospheric air and retard combustion.

The object of my invention is to provide a method for extinguishing fires wherein will be combined an automatic continuous power for projecting a stream, and a fire-extinguishing chemical medium not dependent on any gaseous character, and arranged between the conveying-hose and the automatic power-generator.

My invention consists in an automatic power-generator to project a stream, and the chemical liquid fire-extinguishing compound, described in Letters Patent No. 182,508, dated September 19, 1876, and consisting of a mixture of calcium, chloride, alum, having a potash base, and water, whereby I am enabled by the former to project a stream of the latter compound, and in the event of an exhaustion of the former, the latter may still be automatically used to a greater or less extent in the extinguishment of the fire.

In the said drawings, A is a gas-generating device, provided with means for generating gas. I prefer to use such as are covered in Letters Patent No. 137,330, dated April 1, 1873.

B is a tank to hold any chemical compound especially adapted to the extinguishment of fires by means of its compound ingredients. For instance, such as is shown and described in Letters Patent No. 182,508, dated September 19, 1876.

These two tanks are joined by means of a pipe, C, having one end connected with the gas-space of tank A, and the other end leading to the top of the tank B containing the chemical mixture.

At the bottom of tank B is a tap, *a*, fitted with a coupling to receive a hose, *c*. The top of tank B is provided with a screw-cap and nipple, for the purpose of introducing the chemical compound.

It is evident that any gas-generator may be used, and any chemical non-gaseous fire-extinguishing compound may be used without departing from the spirit of my invention.

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

The method of extinguishing fires herein described, consisting in projecting upon the fire an extinguishing compound having a low propulsive power, by means of a fire-extinguishing gas having a high propulsive power, substantially as and for the purpose set forth.

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