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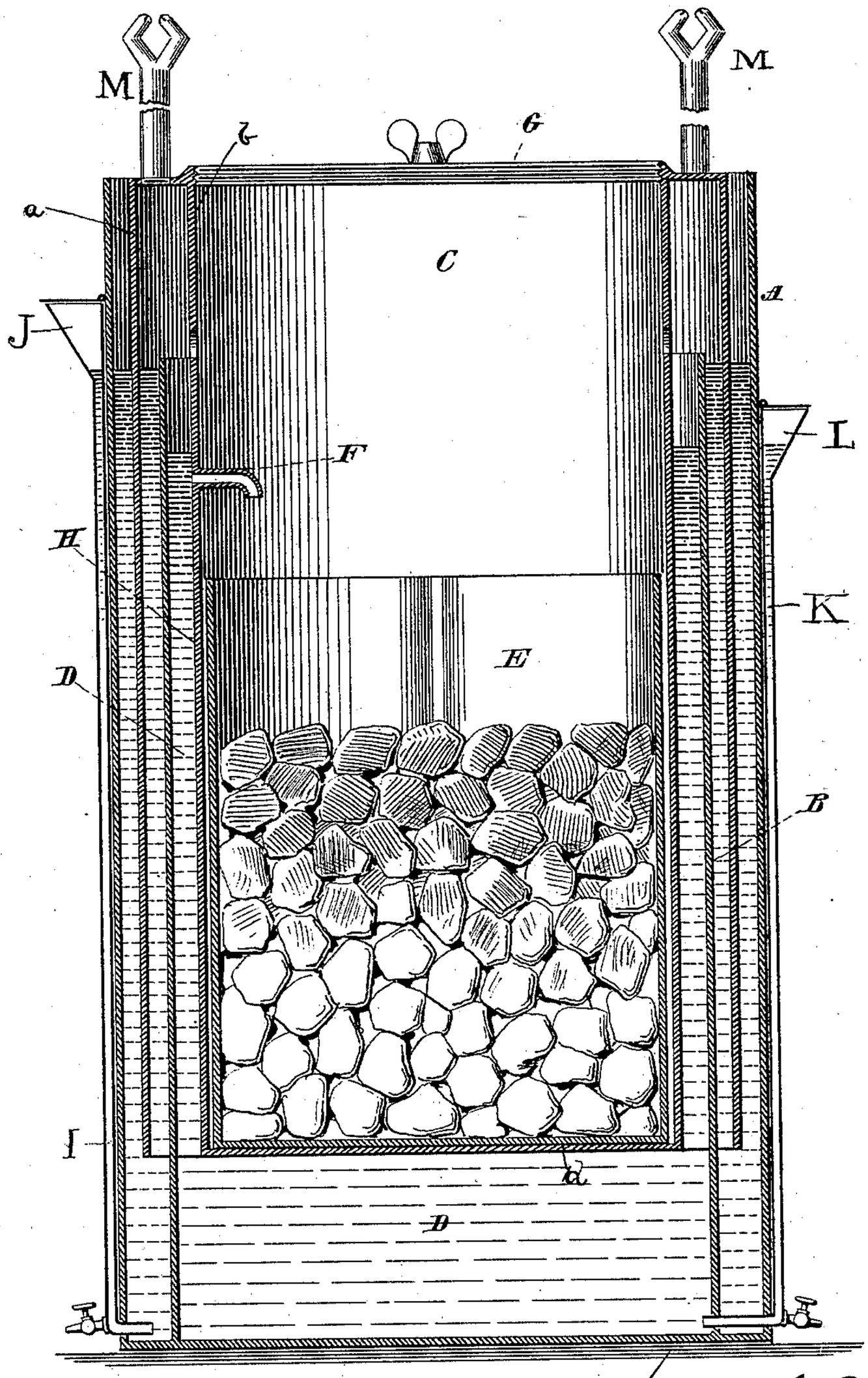
W. S. PROSKEY.

ACETYLENE GAS GENERATOR.

(Application filed Feb. 7. 1898.)

(No Model.)



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WITNESSES

Gustave Dieterich.

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UNITED STATES PATENT OFFICE.

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ACETYLENE-GAS GENERATOR.

SPECIFICATION forming part of Letters Patent No. 612,956, dated October 25, 1898.

Application filed February 7, 1898. Serial No. 669,460. (No model.)

To all whom it may concern:

Be it known that I, WINFIELD S. PROSKEY, a citizen of the United States, residing in the city of Jacksonville, in the county of Duval, State of Florida, have invented certain new and useful Improvements in Acetylene or Carbid Lamps, of which the following is a specification.

The invention consists of the following construction and combination of parts, the details of which will be fully described, and the features of novelty then set forth in the claim.

The drawing represents a central longitudinal section of an acetylene lamp embodying my invention.

In the drawing, A represents the outer receptacle or compartment, open at the top and closed at the bottom.

B represents an inner wall concentric with wall A, having a water-tight connection with the bottom of compartment A, also open at the top, but not extending as high as compartment A.

I represents a pipe leading into the bottom of the compartment formed by the concentric walls of the compartments A and B, terminating at its top in a hopper J and having the usual draw-off pipe at its bottom. This outer annular compartment is adapted to be filled with water to near the top of the partition B for the purpose of forming a water seal for an expansible gas-holder.

C represents the expansible gas-holder and carbid-receptacle. It is formed with double concentric walls *a b*, closed at the top and open at the bottom, which are designed to telescope the concentric wall B, the outer wall *a* passing into the annular water seal between the receptacle A and the wall B. A water-tight partition *d* is formed upon the lower end of the gas-holder C and is adapted to contain the carbid.

K is a water-pipe, having a hopper L extending above the pipe F, which pipe is provided with the usual draw-off pipe and delivers water into the lower liquid-chamber D, formed by the inner wall B.

When the gas-holder and carbid-receptacle is lowered into the liquid seal and into the liquid or water chamber D, the water rises around the gas-holder and carbid-chamber to a point at or about the level of the pipe F, where the water is delivered into the carbid automatically in quantities sufficient at the moment for the generation of the necessary gas.

The gas-holder in combination with the liquid-chamber acts as a cooling device for the carbid-receptacle, and the gas-holder in combination with the liquid-chamber, the carbid-receptacle, the water seal, and the expansive action of the gas-holder, under pressure, act together as a safety device.

The portable character of the lamp, its safety, even if upset, in which case no explosion could occur, only the water escaping, the extreme cheapness of the lamp, and the absolute simplicity of its parts, enabling a novice to fill and empty and clean the same—all these seem to give the invention an uncommon practical value not found in any other lamp.

E is a supplementary carbid-holder. Where it is designed to make this holder E removable, the pipe F is omitted or considerably shortened and the holder E is made of such size and shape that it will conveniently pass the pipe F and out through the air-tight cap G in the top of the gas-holder.

M represents burners or pipes for carrying off the generated gas for illuminating or other purposes.

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

In an acetylene-gas generator, the combination of an outer compartment having double walls and closed at the bottom, an inner compartment closed at both ends, and having an annular wall open at the bottom, said annular wall constructed to enter between the double walls of the outer compartment, a pipe in the upper portion of the wall of the inner compartment discharging into the inner closed compartment, the upper portion of the inner compartment having an opening into the chamber formed by the inner compartment and its double wall, and a pipe leading from the upper end of said chamber.

In testimony whereof I have hereunto set my signature.

WINFIELD S. PROSKEY.

Witnesses:
GUSTAVE DIETERICH,
C. AUGUSTUS DIETERICH.