

No. 610,171.

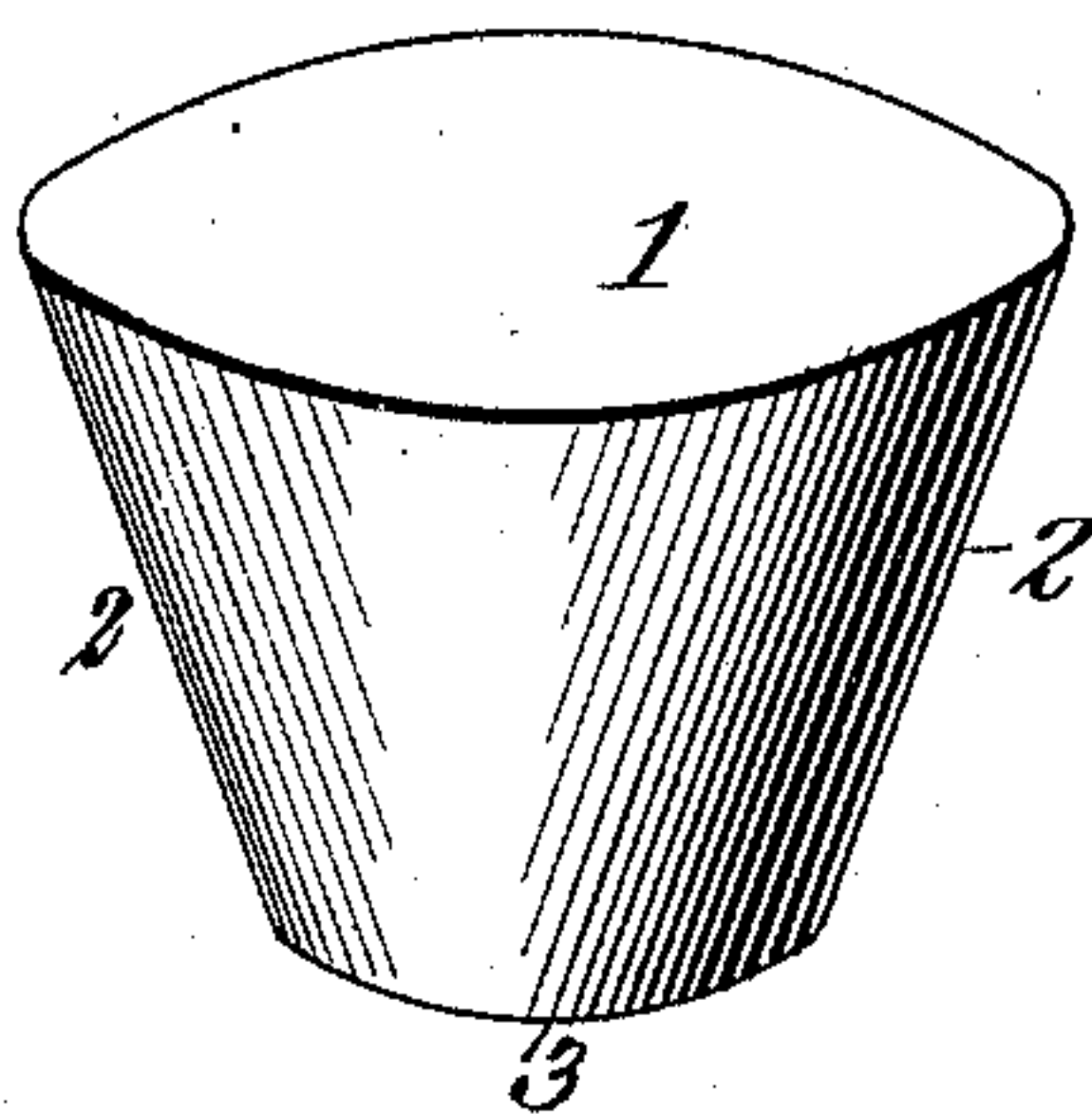
Patented Sept. 6, 1898.

E. N. DICKERSON.  
CARBID CARTRIDGE FOR ACETYLENE GAS.

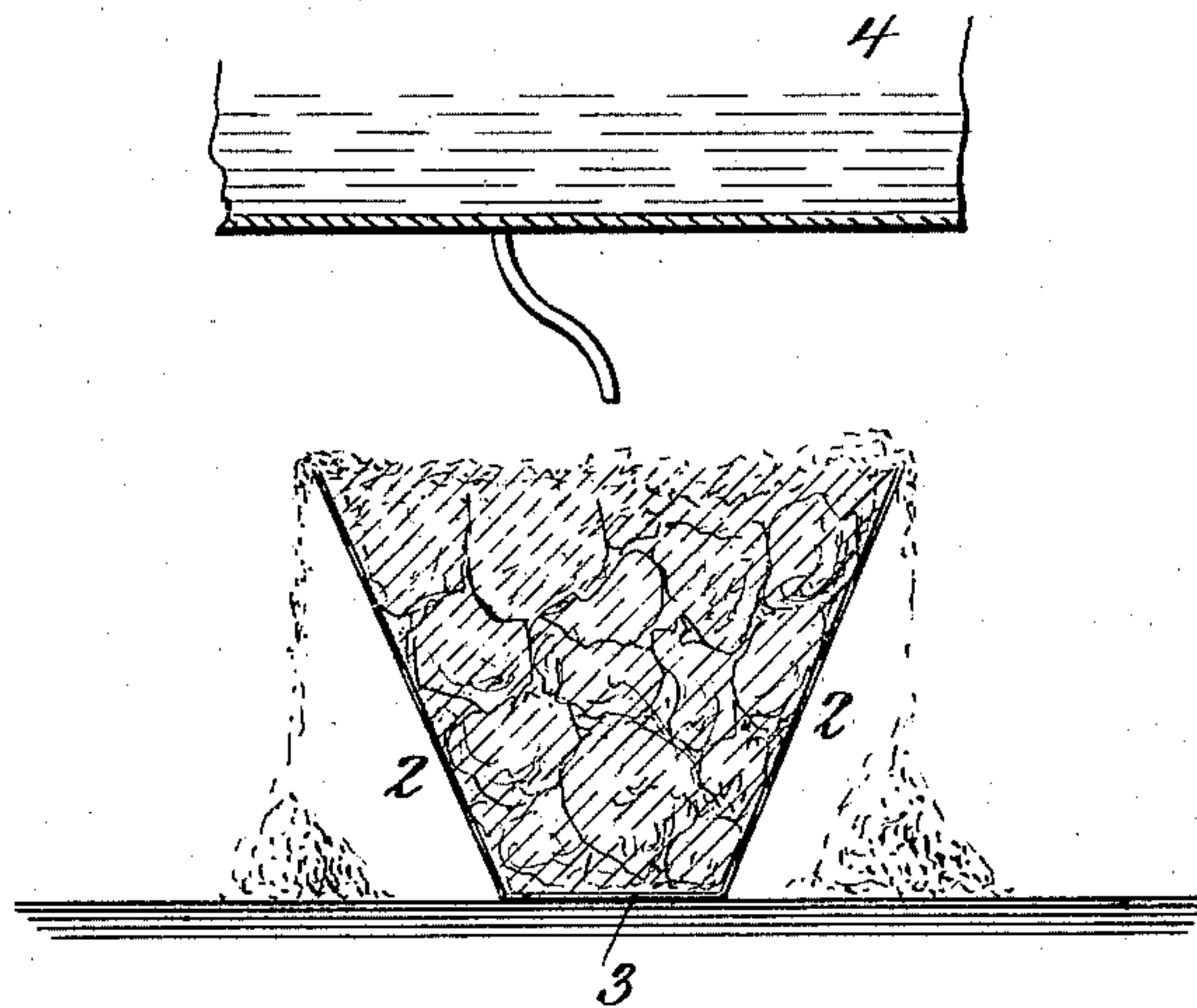
(Application filed June 16, 1897.)

(No Model.)

*Fig. 1,*



*Fig. 2,*



WITNESSES:

*R. H. Hayward*  
*H. Cantant*

INVENTOR

*E. N. Dickerson*

# UNITED STATES PATENT OFFICE.

EDWARD N. DICKERSON, OF NEW YORK, N. Y.

## CARBID-CARTRIDGE FOR ACETYLENE GAS.

SPECIFICATION forming part of Letters Patent No. 610,171, dated September 6, 1898.

Application filed June 16, 1897. Serial No. 640,981. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD N. DICKERSON, of the city, county, and State of New York, have invented a certain new and useful Improvement in Carbid-Cartridges, of which the following is a specification.

The present invention relates to a new form of carbid-cartridge.

In the generation of acetylene gas in small quantities, as for supplying a portable lamp where the generating apparatus is located inside the lamp, it has been customary to make the carbid in the form of a cartridge, the masses of carbid being bound together by some suitable binding medium, as paraffin or the like. Where these cartridges have been made of a substantially cylindrical or square shape and water has been supplied thereto, the resulting refuse accumulates to such an extent that after use for a short length of time it is impossible for the small quantity of water needed to generate the small quantity of gas to reach any of the carbid which has not been decomposed.

The present invention is intended to obviate this difficulty.

In the drawings I have shown a cartridge which embodies my invention, in which Figure 1 is a view in perspective, and Fig. 2 is a vertical section showing the manner of supplying water to the carbid.

The essential feature of the invention is that the cartridge 1 shall be provided with tapering sides 2 and a bottom or base 3 of smaller area than its upper surface. It is immaterial whether the cartridge is of the inverted-cone-frustum shape shown in the

drawings so long as the cartridge has sides which converge from the upper surface to the base. A cartridge of the form of an inverted truncated pyramid, for instance, would have the same advantages. When a cartridge made according to the present invention is placed in position, as shown in Fig. 2, and water is applied, as from a water-supply 4, to the upper surface of the cartridge, the refuse lime gradually falls over the sides of the cartridge and banks up against the downwardly-converging sides of the cartridge. In this way the refuse is disposed of in such a manner as not to interfere with the penetration of the water to the carbid which has not been acted on. The carbid-cartridge is, as shown, entirely self-supporting and is unprovided with any external casing in contact with its sides.

What is claimed as new is—

A self-supporting carbid-cartridge consisting of calcium carbid and a cementing material which gradually releases the calcium carbid as the same is acted upon by water, the said cartridge having an upper surface of greater area than its base, and inwardly-converging sides, thereby permitting the refuse lime to fall free of the base, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

E. N. DICKERSON.

Witnesses:

W. LAIRD GOLDSBOROUGH,  
H. COUTANT.