

No. 627,386.

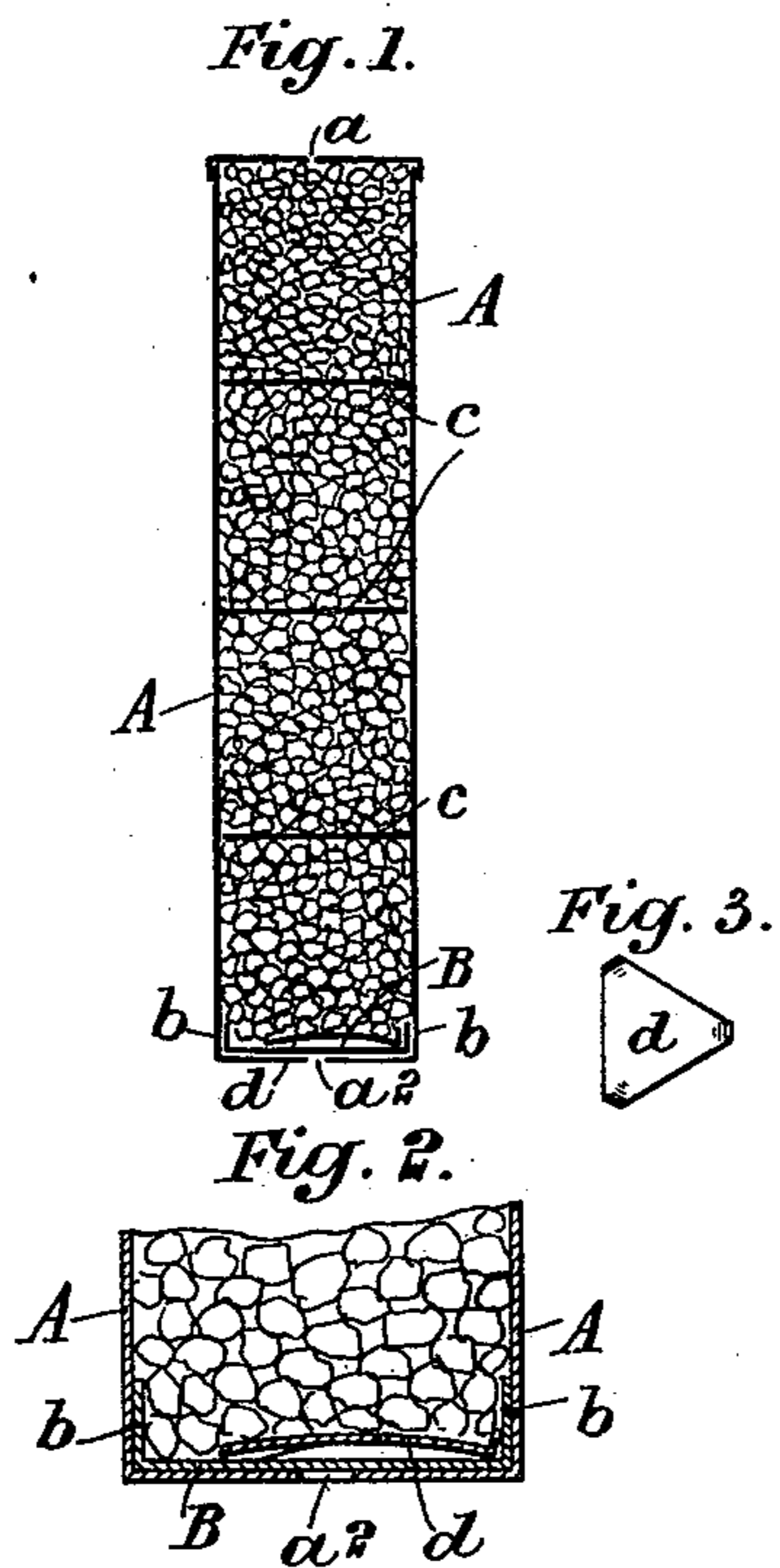
Patented June 20, 1899.

A. BROWETT.

DEVICE FOR GENERATING AND BURNING ACETYLENE GAS.

(Application filed Oct. 15, 1898.)

(No Model.)



WITNESSES:

P. W. Wright
A. C. Connor

INVENTOR

ALEC BROWETT

BY

Horner and Horner
HIS ATTORNEYS.

UNITED STATES PATENT OFFICE.

ALEC BROWETT, OF LONDON, ENGLAND.

DEVICE FOR GENERATING AND BURNING ACETYLENE GAS.

SPECIFICATION forming part of Letters Patent No. 627,386, dated June 20, 1899.

Application filed October 15, 1898. Serial No. 693,625. (No model.)

To all whom it may concern:

Be it known that I, ALEC BROWETT, engineer, a subject of the Queen of Great Britain and Ireland, residing at 8 The Grove, Stroud Green, London, England, have invented a certain new and useful Improved Device for Generating and Burning Acetylene Gas; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to provide a device for generating and burning acetylene gas, which device is so economical in first cost that it can be thrown away after use and replaced by a fresh one, it being as readily applied and used as an ordinary candle. The device, in fact, is an independent article of manufacture in the nature of a cartridge forming ammunition for acetylene-gas lamps.

I will describe my invention with reference to the accompanying drawings, in which—

Figure 1 is a vertical section of a device made in accordance with my invention. Fig. 2 is an enlarged view of the lower part. Fig. 3 is a plan view of a detail.

A is a case of thin metal or other incombustible material. The cartridge may be of any convenient shape, but it is preferably cylindrical, with the ends secured thereto in any convenient way. It is perforated with a hole a (or with holes) at top and with a hole a^2 (or holes) at bottom, and in it I place carbid of calcium, there being a porous material, such as blotting-paper, placed between the bottom of the interior of the case and the charge of carbid, as shown at B, the said porous material being dish-shaped or with a turned-up edge, as shown at b , which seats itself against the interior of the case under the pressure of the gas generated and prevents the escape of gas at the lower orifice a^2 .

In order to prevent the expansion of the carbid during decomposition from pressing

upon the blotting-paper, so as to obstruct the orifice a^2 , I prefer to place a small arched piece of metal d (shown separately in Fig. 3) over the blotting-paper, it being so shaped as to allow free access of water. It is shown as having curved-up parts where it rests on the blotting-paper to prevent chance of cutting it. There are preferably (but not necessarily) disks or pieces c of blotting-paper or other porous material at intervals between the portions of the charge.

On the case, with its contents, being placed in a vessel containing water the water enters by the lower opening a^2 , and coming into contact with the carbid of calcium generates gas, which escapes and can be ignited at the top orifice a .

The cartridge can be made of various lengths to give various times of burning, and it can be readily used with existing lamps for cycles or the like by removing the burner from the oil vessel and using the said vessel as the water vessel, in which the said charged case is placed. It can also be made in larger sizes and be provided with a tube for conveying the gas generated to gas-engines or other place of utilization.

I claim—

As a new article of manufacture, a cartridge for use in generating acetylene gas, consisting of an incombustible case perforated for the admission of water and for the exit of gas and provided over the water-inlet orifice with a material such as the disk B which is permeable to water but which prevents the exit of gas and a piece, such as d to protect the exit against the pressure of the carbid, substantially as hereinbefore described.

In testimony whereof I affix my signature in presence of two witnesses.

ALEC BROWETT.

Witnesses:

CHARLES MILLS,
LEONARD WALTER.