

No. 622,984.

Patented Apr. 11, 1899.

E. TATHAM.

LAMP FOR BURNING GASEOUS HYDROCARBONS.

(Application filed Aug. 25, 1896.)

(No Model.)

FIG. 1.

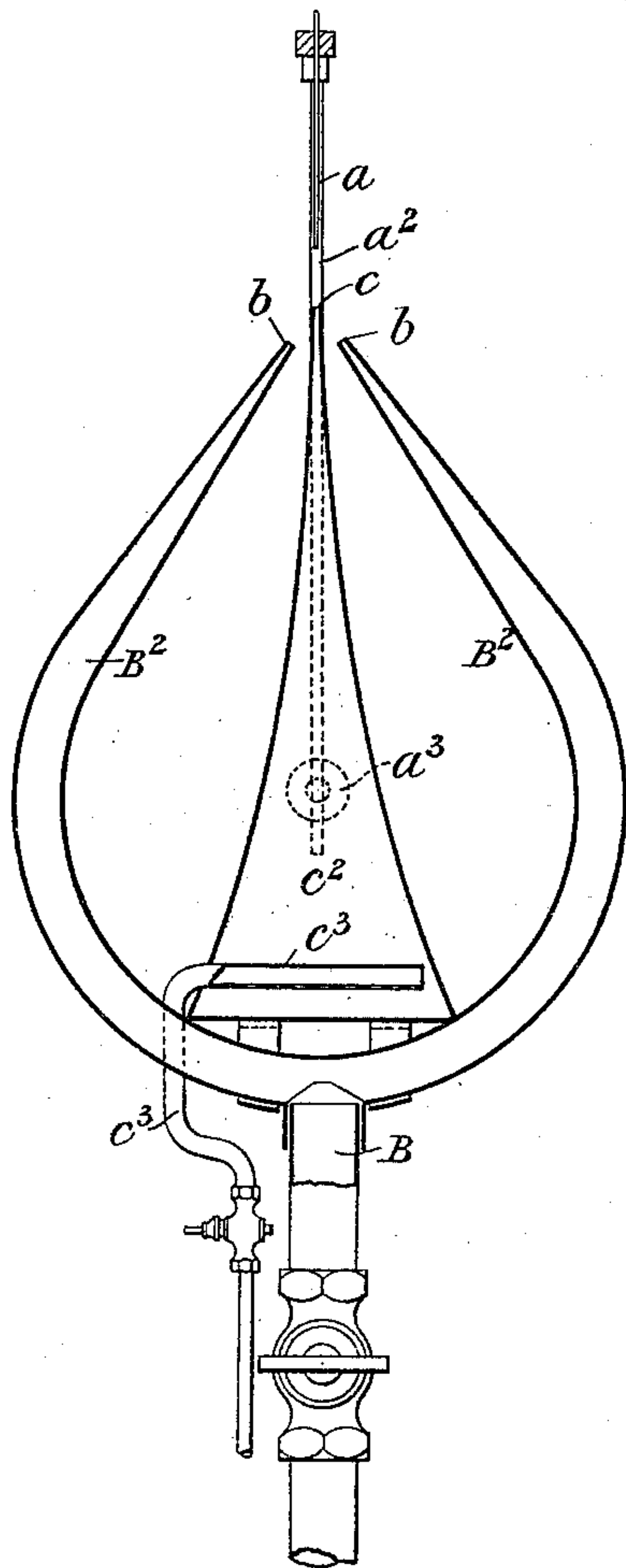
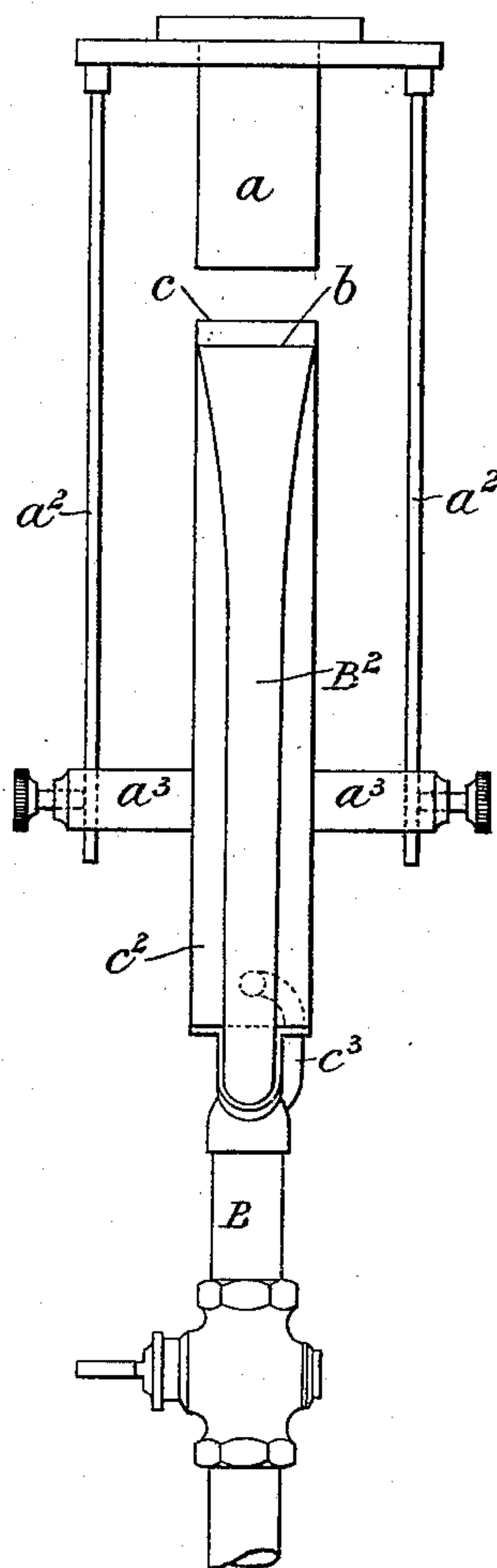


FIG. 2.



WITNESSES

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EDWIN TATHAM, OF LONDON, ENGLAND.

LAMP FOR BURNING GASEOUS HYDROCARBONS.

SPECIFICATION forming part of Letters Patent No. 622,984, dated April 11, 1899.

Application filed August 25, 1896. Serial No. 603,874. (No model.)

To all whom it may concern:

Be it known that I, EDWIN TATHAM, a subject of the Queen of Great Britain and Ireland, residing at Colfe Lodge, Lewisham Hill, London, in the county of Kent, England, have invented certain Improvements in Lamps for Burning Gaseous Hydrocarbons, of which the following is a specification.

My invention has for its object to provide means whereby hydrocarbons in a gaseous form are utilized in a very efficient and economical manner for the production of light or heat. This I effect by supplying oxygen-gas at the point where the gaseous hydrocarbon is ignited and burned, the said oxygen-gas being conveniently supplied from a receptacle containing it under pressure, such as a gasometer or a cylinder such as compressed gases are sold in. The hydrocarbon in a gaseous form is caused to emerge through an orifice or orifices in proximity to and a little below the level of the outlet for oxygen gas.

In employing my invention for the obtaining of light I support in proximity to the point of combustion of the gaseous hydrocarbon and the oxygen a refractory material, which is rendered incandescent by the heat of the said combustion. The gaseous hydrocarbon may be coal-gas or carbureted air or mixtures thereof or other suitable hydrocarbon in a gaseous form. In the zone heated by the combustion of the oxygen and hydrocarbon I support a pencil or pencils or other form of refractory material, the said pencils or the like being held, for example, in a bridge-piece supported by standards. The said refractory material may be, for example, lime magnesium or the rare earths or the well-known water-gas pencils, such as are used for being brought to incandescence by the combustion of water-gas.

Figure 1 is a vertical section, and Fig. 2 is an elevation, of a burner made according to my invention for burning coal-gas, carbureted

air or other gaseous hydrocarbon in conjunction with oxygen.

The gaseous hydrocarbon passes by a pipe B through two branches B² and out by long narrow slits b, situated one on either side of and a little below the long narrow oxygen-gas outlet c, which is at the upper part of the chamber c², to which oxygen is supplied by means of a pipe c³, terminating inside the chamber c² in a perforated portion with the perforations directed downward, so that the oxygen is discharged against the bottom of the chamber c² and spread into the said chamber, so that it issues from the jet c in a gentle stream. The material to be rendered incandescent consists of a thin plate a, supported by a bridge-piece a², held by the supports a³ from the burner.

The lamps may of course be arranged as pedestal-lamps or as bracket or suspended lamps and with one burner or two or other number of burners.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

In a lamp, the combination of a nozzle for the supply of oxygen gas under pressure, with a supply-pipe for ordinary illuminating or heating gas, having orifices in proximity to the said nozzle, a chamber to supply the oxygen to the nozzle and an oxygen-supply pipe opening into the said chamber, with perforations directed downward, and a refractory material supported in the zone heated by the combustion of the gas and oxygen, substantially as set forth.

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

E. TATHAM.

Witnesses:

EDWD. GEO. DAVIES,
CHAS. MILLS.