

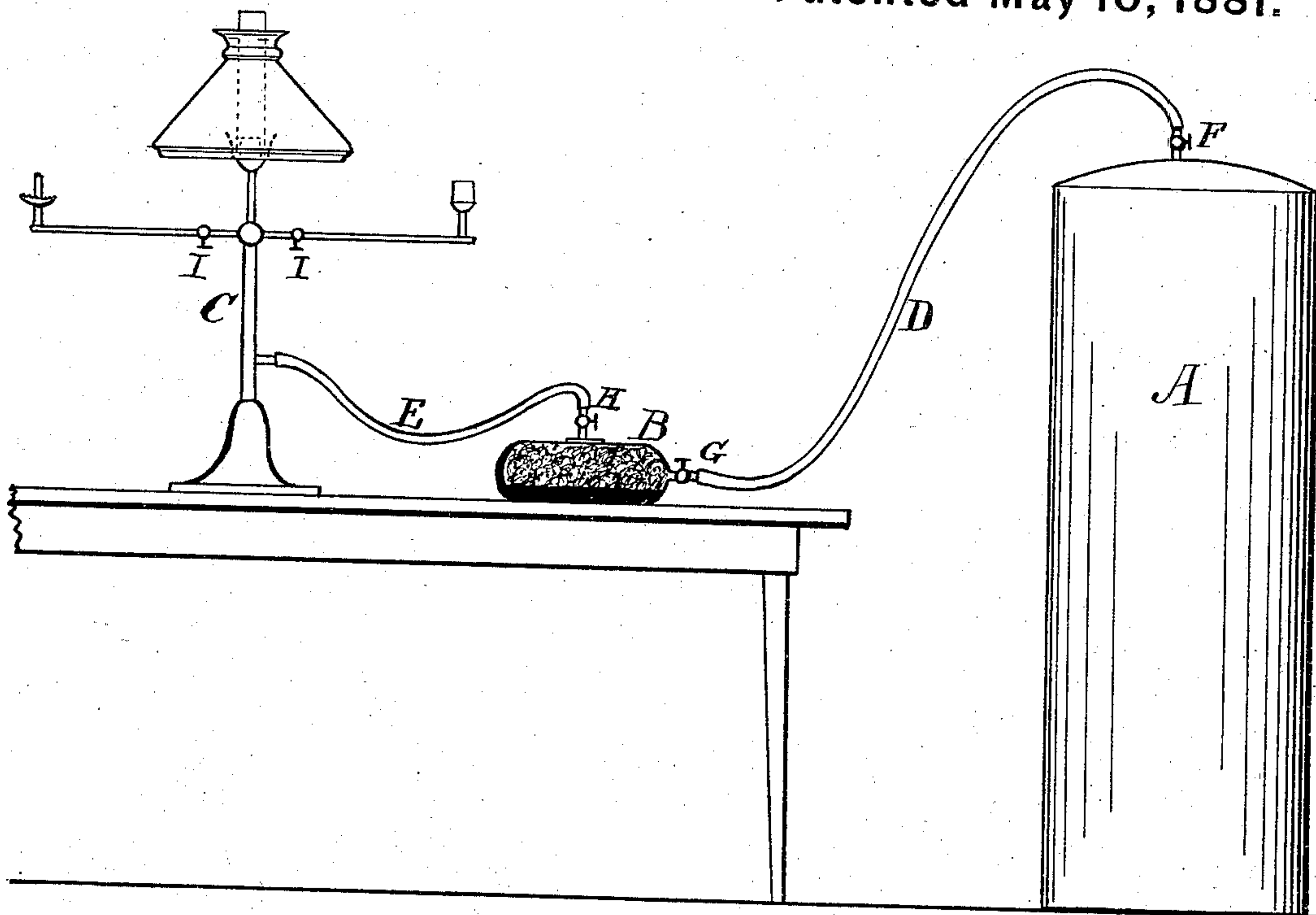
(No Model.)

E. B. REYNOLDS.

Apparatus for Obtaining an Illuminating and
Heating Gas.

No. 241,419.

Patented May 10, 1881.



Witness;
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UNITED STATES PATENT OFFICE.

EDWARD B. REYNOLDS, OF CLEVELAND, OHIO.

APPARATUS FOR OBTAINING AN ILLUMINATING AND HEATING GAS.

SPECIFICATION forming part of Letters Patent No. 241,419, dated May 10, 1881.

Application filed February 3, 1881. (No model.)

To all whom it may concern:

Be it known that I, EDWARD B. REYNOLDS, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in Apparatus for Obtaining an Illuminating and Heating Gas; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The figure of the accompanying drawing is mostly an elevation of my apparatus with the generator in vertical section.

This invention consists of a cylinder containing a substratum of pulverized charcoal made into a paste by mixing therewith a sufficient quantity of gasoline or naphtha, and an overlying tightly-compressed packing of cotton or other fibrous material, whereby an illuminating and heating gas is obtained by forcing a current of atmospheric air through said packing, the said gas consisting of an exceeding small quantity of hydrocarbon vapor, and a greatly predominating amount of atmospheric air, the result being a gas obtained at a greatly-decreased expenditure of material and cost.

In accomplishing this I take a cylinder, B, as seen in the accompanying drawing, provided at one end with an inlet-pipe with stop-cock G, for the admission of air, which may be supplied from a compressed-air cylinder, A, or an air-pump. I also provide said cylinder with

an outlet-pipe, H, also provided with a stop-cock. This cylinder contains on the bottom a layer of charcoal, pulverized and made into a paste by mixing therewith a sufficient quantity of gasoline to give it the consistency of common mortar. Over this layer of charcoal paste I place a packing of cotton or similar fibrous material, filling the remaining space in a tightly-compressed mass. Now, by forcing a stream of air into and through this packing, the air takes up or combines with it a very small quantity of the hydrocarbon vapor, sufficient to make it inflammable, with no excess or waste of said vapor.

By the preparation of the charcoal mixed with the gasoline, as stated, the great absorbing qualities of the charcoal prevents an excessive mingling of the vapor with the air. By this means, also, the air is thoroughly diffused throughout the mass, and a perfect atomization of the vapor takes place by the friction of the air in passing into and through the fiber.

Having described my invention, I claim—

In an apparatus for obtaining an illuminating and heating gas, the packing composed of a pasty mass of charcoal and gasoline, and a tightly-compressed mass of cotton or other fibrous material, substantially as described.

EDWARD B. REYNOLDS.

Witnesses:

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