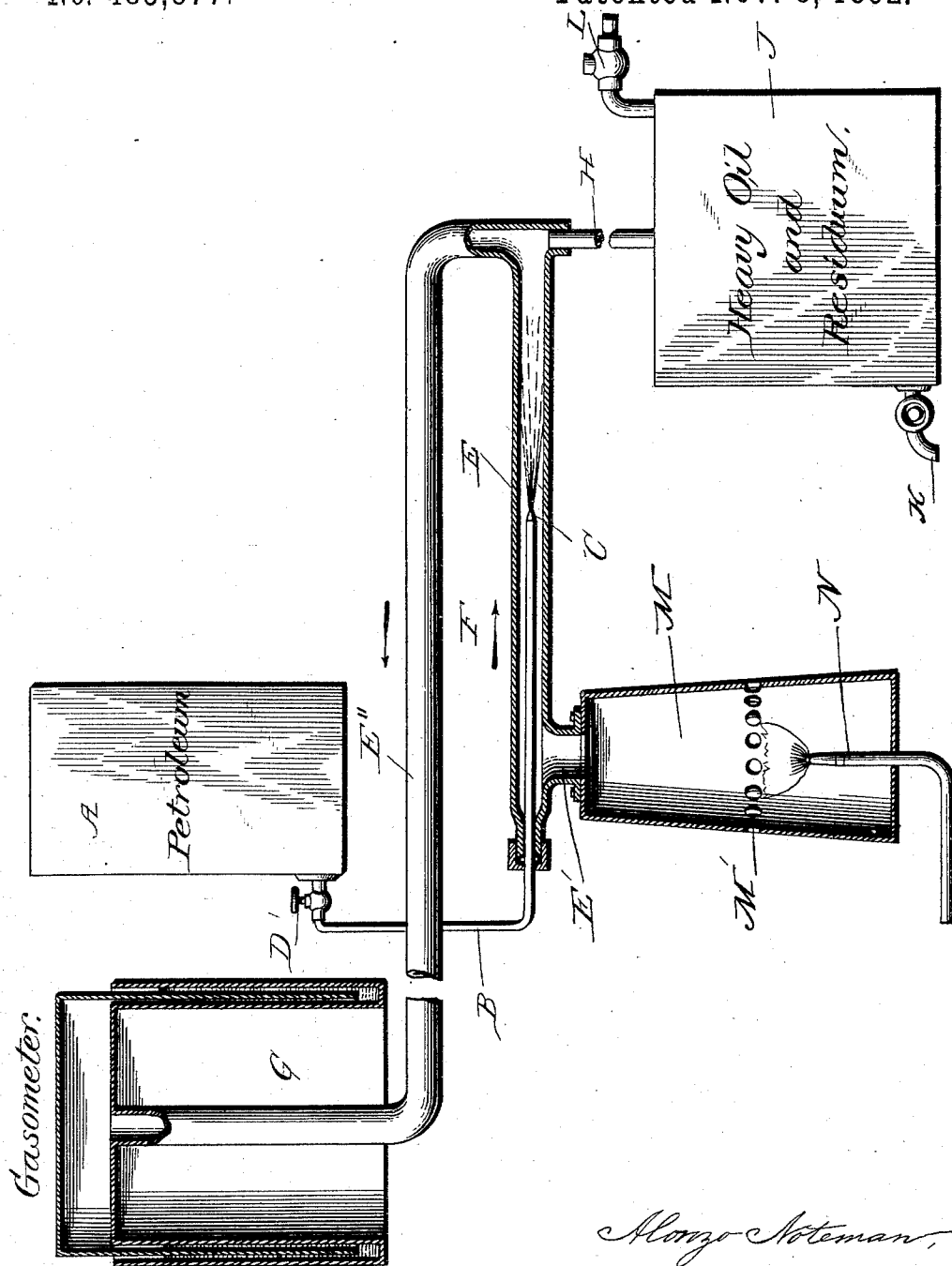


(No Model.)

A. NOTEMAN.
APPARATUS FOR MAKING GAS.

No. 485,877.

Patented Nov. 8, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

ALONZO NOTEMAN, OF TOLEDO, OHIO.

APPARATUS FOR MAKING GAS.

SPECIFICATION forming part of Letters Patent No. 485,877, dated November 8, 1892.

Application filed June 24, 1892. Serial No. 437,826. (No model.)

To all whom it may concern:

Be it known that I, ALONZO NOTEMAN, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Apparatus for Making Gas; and I do 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, reference being had to the accompanying drawing, and to the letter of reference marked thereon, which form a part of this specification.

My invention relates to improvements in apparatus for making gas, and relates especially to an apparatus for making gas from petroleum, whereby the gaseous product of the crude petroleum is removed therefrom and the heavy oil or residuum is retained intact.

The object of my invention is the provision of a simple, durable, and inexpensive apparatus by means of which petroleum in its crude state is operated upon and the gaseous products therein or the lighter gas is removed and carried to a suitable receiver and the heavy oil or residuum is removed to a suitable tank or receptacle, thus producing an apparatus which will make gas from the petroleum which is highly efficient for heating and illuminating purposes and convey the oil intact to be used for well-known purposes.

To attain the desired objects, the invention consists of an apparatus embodying novel features of construction and arrangement of parts, which will be understood from the following description and claims.

In the accompanying drawing I have shown a diagrammatic view of an apparatus constructed in accordance with and embodying my invention.

Referring by letter to said drawing, A designates a tank or receptacle in which is stored petroleum in its crude state or other products of oil—such as benzine, gasoline, &c.—and from this tank leads the feed-pipe B, which, preferably, is provided with a nozzle C and a cock or valve D for regulating the feed of petroleum. The feed-pipe enters the lower branch E of the pipe F, having the upper branch E'', which leads to a gasometer or receiver G, which may be of any desired con-

struction, and said pipe is further provided with an elbow or bend from which leads a pipe H for conducting the heavy oil or residuum to a tank or storage-receptacle J, provided with a cock K and pipe having a check-valve L. The lower branch E of the pipe F, near its free or closed end, is provided with an opening surrounded by a flange E', and secured to the flange and communicating with the opening is the casing or box M, which is provided with a series of openings M' for admitting air to the burner N, arranged below said openings. The flange or collar forms the communication between the mouth of the casing and the lower branch of the pipe into which the jet-pipe enters, and the casing is preferably reduced or tapered toward the exit or mouth, and the flange or collar also reduces the exit, and at that point forms a stop and causes the air and products of combustion to press at that point and insure a proper commingling of the air and products of combustion with the vapor of the petroleum, and this is an important feature and renders the action of the apparatus perfect.

The construction, operation, and advantages of my invention will be readily understood from the accompanying drawing, taken in connection with the foregoing description, and I will merely state that the oil is fed to the lower branch of the pipe F, where it is subjected to the action of air and the products of combustion or heat to a temperature of about 170° Fahrenheit, which vaporizes the oil, mixes therewith air and the products of combustion, and removes the gaseous or lighter products from the petroleum, which, ascending, pass through the upper branch of the pipe to the receiver in the form of a gas highly efficient for heating and lighting purposes, and the heavy oil or residuum passes down to the tank, from which it can be drawn for the desired purposes.

The main feature of my apparatus is that the petroleum in its crude state is acted upon and the gaseous products which are inherent are removed and carried to a receiver and the heavy oil is retained intact and can be used efficiently for the intended purposes, and I also provide an apparatus which is simple, durable, inexpensive, and practical.

I claim as my invention—

1. An apparatus for making gas from crude petroleum, consisting of a tank or vessel for containing the petroleum, a feed-pipe leading
5 therefrom, a pipe into which the feed-pipe enters, having a branch leading to a gas receiver or holder, a tank for heavy oil or residuum, communicating with the lower branch
10 of the pipe, a casing below the lower branch of the pipe, which receives the small feed-pipe, having a reduced exit or mouth communicating with the lower branch at a point near the discharge end of the feed-pipe, and
15 a burner in the closed casing.

2. An apparatus for making gas from crude petroleum, consisting of a tank for containing crude petroleum, a small feed-pipe leading therefrom for dropping or spraying the
oil, a larger pipe receiving the feed-pipe and

having a branch leading to a gas holder or
20 receiver, a tank communicating with the lower branch for receiving the heavy oil or residuum, a casing having a reduced exit and provided with a series of openings to admit
25 atmospheric air, a collar or flange forming communication between the mouth of the casing and the branch pipe near the feed-pipe and forming a stop to receive the air and products of combustion under pressure, and a
30 burner in the closed casing, all adapted to serve for the purpose described.

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

ALONZO NOTEMAN.

Witnesses:

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WM. N. MOORE.