No. 705,258. Patented July 22, 1902.

E. LE PELLETIER.

HYDROCARBON VAPOR BURNER.

(Application filed Sept. 13, 1898.)

(No Model.)

Fig. 1.

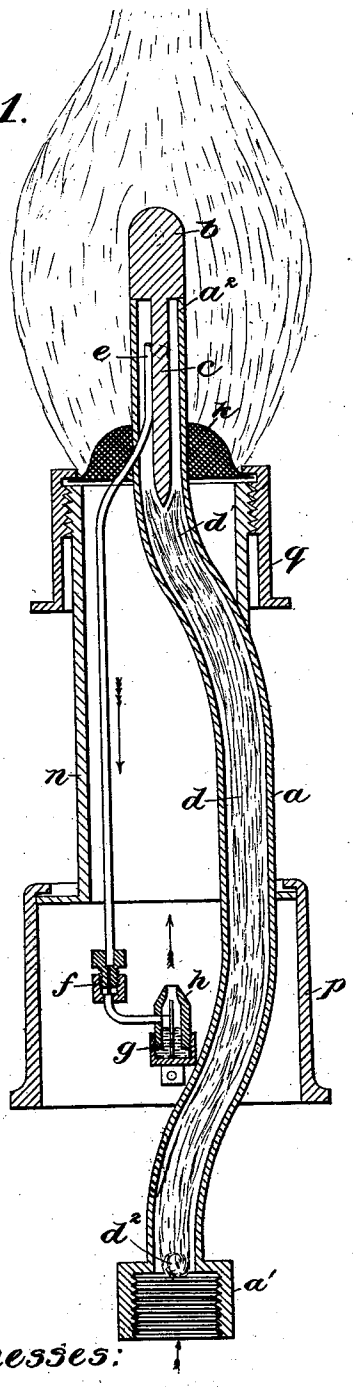


Fig. 3.

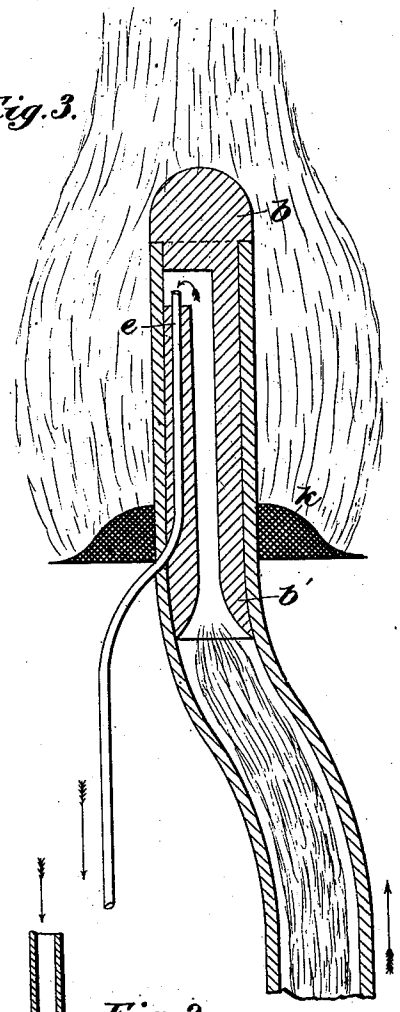
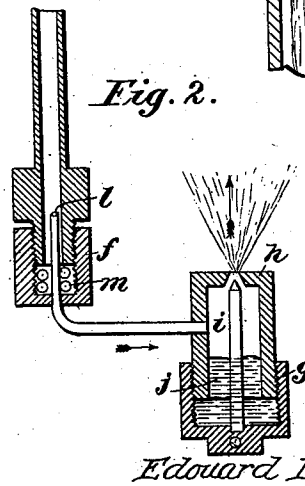


Fig. 2.



Witnesses:

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Edw. L. Reed

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EDOUARD LE PELLETIER, OF VIENNA, AUSTRIA-HUNGARY.

HYDROCARBON-VAPOR BURNER.

SPECIFICATION forming part of Letters Patent No. 705,258, dated July 22, 1902.

Application filed September 13, 1898. Serial No. 690,887. (No model.)

To all whom it may concern:

Be it known that I, EDOUARD LE PELLETIER, a citizen of the Republic of France, and a resident of Vienna, Austria-Hungary, have invented certain new and useful Improvements in Hydrocarbon-Vapor Burners, of which the following is a specification.

The object of the invention is to provide a petroleum-vaporizing burner of simple, economical, and durable construction which may be easily cleaned to remove carbonaceous and tarry deposits.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a central vertical section. Fig. 2 is a detail section on a larger scale. Fig. 3 is a sectional detail of a modification.

Referring first to Figs. 1 and 2, a designates a main tube having a double bend with the ends a' and a^2 in alinement, the lower end a' being preferably enlarged and threaded, as shown, for connection with a suitable supply-pipe. (Not shown.) The upper end a^2 of the tube is closed by a cap-piece b, having a pointed spindle c extending down into the end of the tube with the object of diminishing the area thereof. Within the tube is located a wick or brush of metal wires d, the upper end d' of which is compressed by the pointed end of the spindle c. At the lower end the wires terminate in or are secured to a spherical head d^2. A supplemental vaporizing-tube e passes through the wall of the main tube and communicates with the annular space in the upper end thereof. From this point the supplemental tube extends downward and carries at its lower end, by a detachable joint f and short curved pipe f', a vapor-jet nozzle or tip h, located in axial line with the ends of the main tube. This tip is made in two parts h' and g, screwed into each other, the lower one, g, carrying a spindle with a conical point for regulating the vapor-feed. A fusible metal filling j effects a tight closing of the joint between the parts g and h'.

The preferred form of connection between the tube e and the burner is shown in detail in Fig. 2, where the pipe f' is shown with an end l extending up into the pipe e and is surrounded by asbestos packing rings or windings m. An outer burner-tube n surrounds the vaporizing-tube and carries at its upper end a wire-gauze x, held in place by a threaded cap q.

The burner-tube may, if desired, carry an enlarged portion p, encircling the vapor-jet nozzle.

In the form shown in Fig. 3 the cap b', instead of having a spindle, has a central bore c^2 flared at its lower end to compress the wires, as indicated at c^3. In this case the supplemental tube e communicates with a lateral extension of the central bore c^2.

Having thus described my invention, what I claim is—

In a vaporizing-burner for petroleum, the combination with a main tube having a double bend with the ends on each side thereof in axial alinement, of a supplemental vaporizing-tube communicating with the upper end of said main tube and extending downward therefrom, a vapor-jet nozzle or tip carried at the lower end of said supplemental tube and made in two parts screwed into one another, the lower one carrying a spindle for regulating the vapor-feed, a fusible metal in the vapor-tip closing the joint between the two parts of the tip, said burner-tip being in line with the alining ends of the main tube, and an outer burner-tube encircling the main tube and having a burner-gauze at its upper end, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

EDOUARD LE PELLETIER.

Witnesses:
HENRY C. CARPENTER,
JOHANN LUXT.