(No Model.)

LOUIS SEPULCHRE & LÉON SEPULCHRE.

MINERAL OIL GAS GENERATOR.

No. 547,297. Patented Oct. 1, 1895.

Fig. 1.

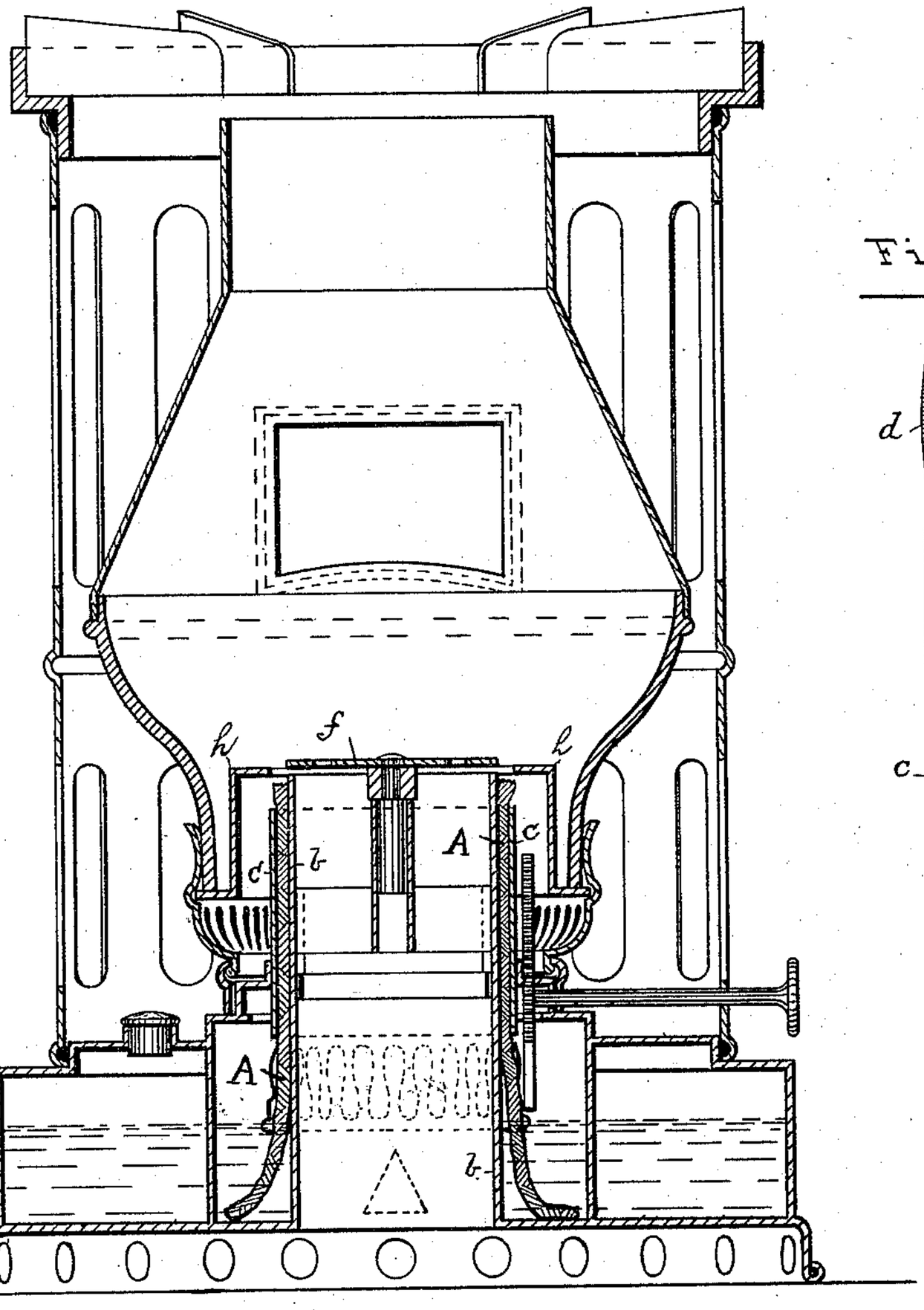
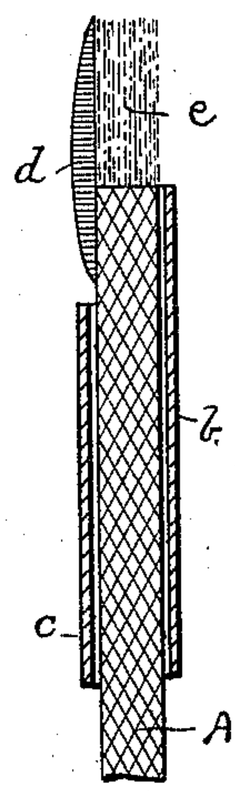


Fig. 2.



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LOUIS SEPULCHRE AND LÉON SEPULCHRE, OF HERSTAL, BELGIUM.

MINERAL-OIL-GAS GENERATOR.

SPECIFICATION forming part of Letters Patent No. 547,297, dated October 1, 1895.

Application filed April 20, 1892. Serial No. 429,882. (No model.) Patented in Belgium December 16, 1891, No. 97,606, and in England February 8, 1892, No. 2,367.

To all whom it may concern:

Be it known that we, LOUIS SEPULCHRE and LÉON SEPULCHRE, subjects of the King of Belgium, residing at Herstal, in the Kingdom of Belgium, have invented certain new and useful Improvements in Mineral-Oil-Gas Generators, (for which Letters Patent have been obtained in Belgium, No. 97,606, dated December 16, 1891, and in England, No. 2,367, dated February 8, 1892;) and we 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.

This invention relates to certain improvements in hydrocarbon burners, and particularly to that class of devices which are applicable for both illuminating and heating purposes; and the object of our invention is to provide a device which shall present certain advantages over those heretofore in use, as is hereinafter fully set forth.

The novel features of the invention are clearly defined in the claims.

In the drawings illustrating our invention, Figure 1 represents a vertical section of the burner as applied to a stove, and Fig. 2 a fragmentary sectional view showing the left side of a burner embodying our improvements.

Our burner may be adapted to receive either a flat or circular wick. In the accompanying drawings the wick A is represented as of tubular form and arranged to operate between an inner wall or central tube *v* and an outer wall or external tube *c*. The lower end of the inner tube is open, as shown in Fig. 1, in order that air may flow upwardly through same to the center of the flame and thus support combustion. The exterior wall or tube *c* is of less height than the inner tube, in order to expose an annular portion of the outer surface of the wick, so that when the said part of the wick is ignited the heat from the flame *d* will vaporize the oil with which the wick A is saturated and cause the said vapor to ascend vertically, as indicated at *e* in Fig. 2.

Referring to Fig. 1, *f* is a central circular deflector fitted over the upper open end of the tube *v* to deflect the central ascending air-current outward, and *h* an annular deflector arranged outside of the wick and adapted to deflect inwardly the current of air passing upwardly around the wick. By regulating the positions of the deflectors *f h* the vapors may be made to burn at the upper part of the wick A, or they may be carried upward and ignited above that point, the strength of the ascending air-current being sufficiently great to accomplish this result when the deflectors are properly adjusted.

From the above description it will be seen that the construction of our wick-tube is such that its temperature is kept at a low point, first, by reason of its sides being exposed to the action of the draft produced by the chimney, and, second, from the fact that the arrangement of our dampers prevent the burning of the top edge of the wick. Thus the higher wall of the tube is not in contact with the burning part of the wick. In keeping the wick cool on one side the gases escape at such low temperature that they cannot ignite at once, but are reserved for consumption at a height above the wick.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A hydrocarbon burner adapted for both heating and illuminating purposes, consisting of an oil-reservoir, a chimney-support, a chimney, and a wick-tube having walls of unequal heights, the said walls exposed to ascending air-currents, whereby they are prevented from heating, substantially as set forth.

2. The combination in a heating and illuminating vapor generator and burner, of a wick-tube provided with walls of unequal heights, an adjustable deflector arranged to operate above the inner wall of the burner, and an adjustable deflector arranged at the outer side of the wick-tube, both walls of the wick-tube exposed to ascending currents of air, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

LOUIS SEPULCHRE.
LÉON SEPULCHRE.

Witnesses:
JULES HAMAL,
Y. GRASS.