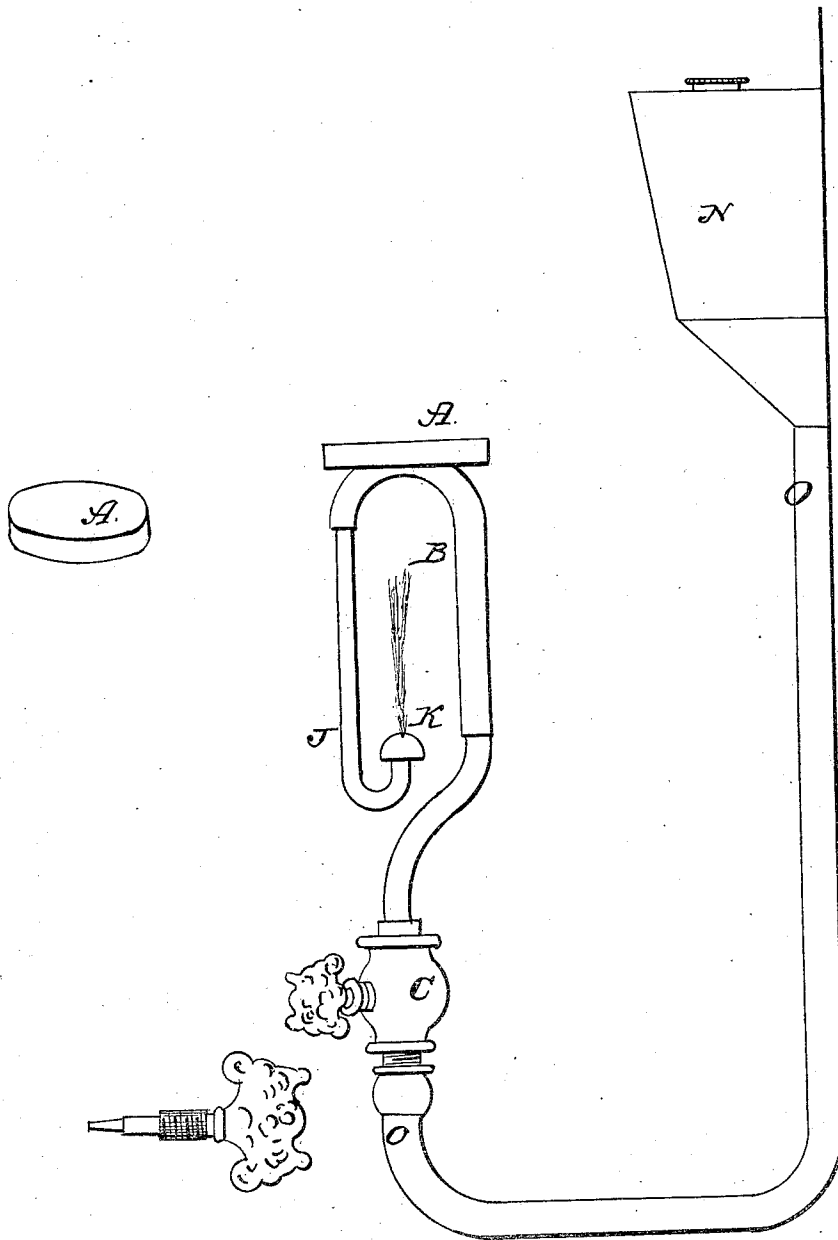


A. M. MACE.
Vapor Burner.

No. 21,893.

Patented Oct. 26, 1858.



UNITED STATES PATENT OFFICE.

A. M. MACE. OF SPRINGFIELD, MASSACHUSETTS.

HYDROCARBON-VAPOR BURNER.

Specification of Letters Patent No. 21,893, dated October 26, 1858.

To all whom it may concern:

Be it known that I, ALONZO M. MACE, of the city of Springfield, in the county of Hampden and State of Massachusetts, have
5 invented a new and useful Improvement in Hydrocarbon-Vapor Burners; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference
10 being had to the annexed drawings, making part of this specification.

The nature of my invention consists in providing siphon shaped vaporizing tubes with a chamber connected and communicating
15 with the upper part of the tubes and over the flame of a burner, the heat of which produces the vaporization as hereafter described.

In the drawings (N) represents an elevated reservoir made of tin, copper, or other
20 material to contain any desirable quantity of burning fluid, and connected with the stopcock (C) by the pipe (O). The stop (C) is made like the common globe valve,
25 except that the spindle and seat in the diaphragm are made nearly straight to nicely regulate the flow of the fluid. To the stop (C) is connected the siphon shaped vaporizing tube (B, J) having its longer branch
30 (B) packed or filled with asbestos or other light material, and its shorter branch (J) connected at its lower end with a burner (K).

(A) is a chamber connected with the upper part or crown of the tube (B J) and so

placed over the flame of the burner (K) as to present a heating surface for the perfect vaporizing and drying of the liquid material which is forced through the stop (C)
40 and the packing in the long branch (B) to the heated portion of the tube, and the chamber (A). The hydrocarbonaceous matter which is thus changed to perfect vapor is conducted to the chamber or burner (K) from which it issues to supply the flame. 45

The chamber (A) may be made of any form best calculated to receive the heat from the flame, it being necessary to the perfect vaporization of the fluid that the heat
50 should be nearly equal to that of redness. The packing of asbestos in the tube is in order to more perfectly equalize the flow of the liquid which is forced through the packing by heat or pressure from the fountain (N). 55

I do not claim any particular form of a chamber connected with the crown of a vaporizing tube, but generally,

What I do claim and desire to secure by Letters Patent is, 60

The use of a heating chamber A, connected with vaporizing tubes at the crown or upper part and over the flame, the same being constructed substantially in the manner and for the purpose set forth.

ALONZO M. MACE.

Witnesses:

R. B. HILDRETH,
S. G. PRIEST.