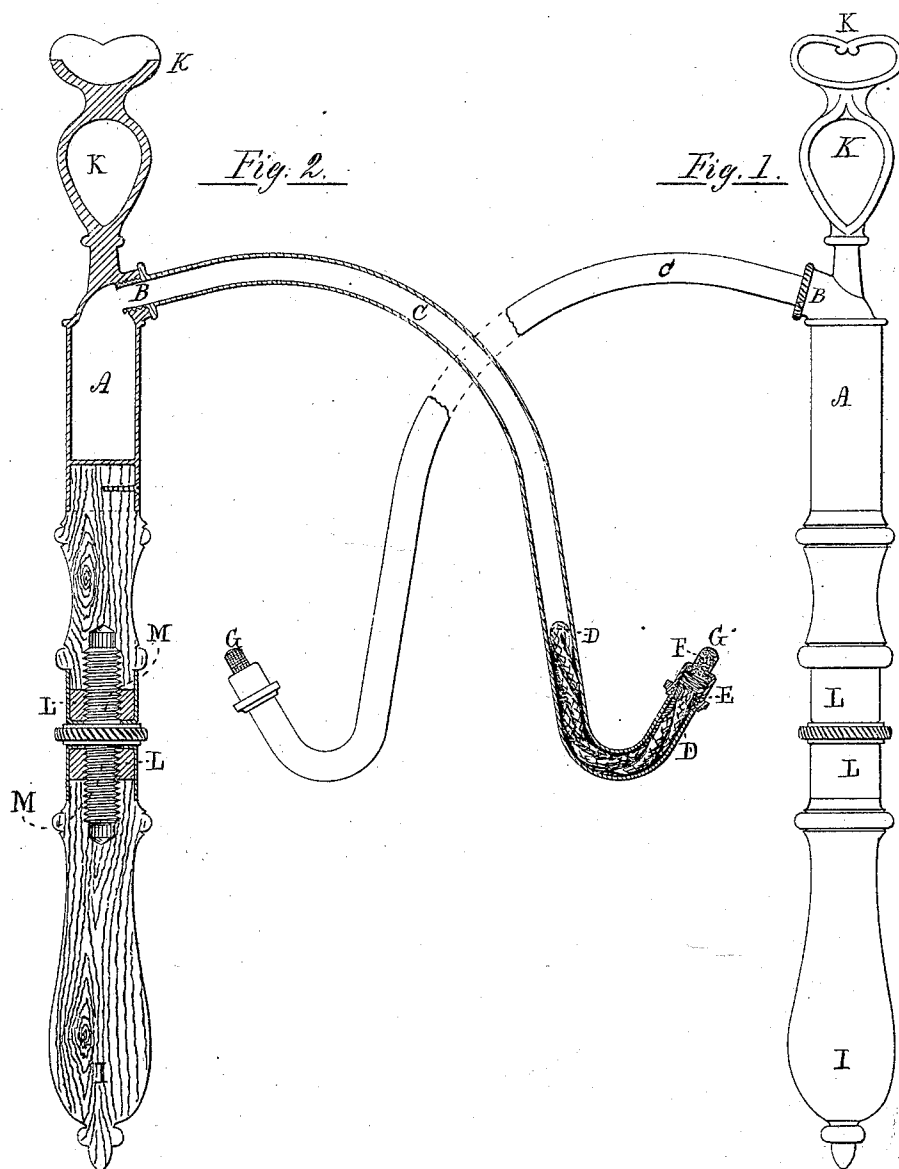


T. W. HOUCHIN.

Improvement in Gas-Lighting Torch.

No. 131,445.

Patented Sep. 17, 1872.



WITNESSES.

A. L. Dwyer, Doane
H. W. Henley.

Thomas W. Houchin

INVENTOR.

UNITED STATES PATENT OFFICE.

THOMAS W. HOUCHIN, OF MORRISANIA, NEW YORK.

IMPROVEMENT IN GAS-LIGHTING TORCHES.

Specification forming part of Letters Patent No. 131,445, dated September 17, 1872.

To all whom it may concern:

Be it known that I, THOMAS W. HOUCHIN, of Morrisania, in the county of Westchester, New York, have invented, made, and applied to use a new and useful Gas-Lighting Torch; and that the following is a full, clear, and correct description of the same, reference being had to the accompanying drawing making part of this specification and to the letters of reference marked thereon, in which—

Figure 1 is a side elevation of my improved torch. Fig. 2 is a sectional view of the same.

In the drawing like parts of the invention are designated by the same letters of reference.

The nature of the present invention consists in the construction, as more fully hereinafter set forth, of an improved gas-lighting torch; the object of the invention being the production of a gas-lighting torch easily constructed, and one that will efficiently answer the purpose for which it is intended.

To enable those skilled in the arts to make and use my invention, I will describe the same.

A is a chamber of metal or any suitable material to receive the alcohol or fluid employed. This chamber is supplied with an opening, B, for the introduction of the alcohol or fluid, and into which one end of the supply-pipe C is inserted. C is the supply-pipe, made of metal, of any suitable shape, and having placed in it a braided wick, D, or any substitute for the same, to take up the alcohol or fluid employed by capillary attraction, and conduct the same to the burning-point at the forward end of the pipe C. E is a circular plate of metal or collar passed over the wick and moved freely over the same to compress it, and thus govern the supply of fluid. F is a lining of asbestos or other absorbent non-consuming material, forming a connection between the wick D and burner G. The burner G is made of metal, having a cavity to receive the asbestos or other packing, and is formed of perforated metal or wire-gauze of proper size and shape, and being provided with openings of sufficient size for the flame required. The chamber A is supported upon a handle, I. This handle may be composed of two or more sections of wood, so that the handle may be of any desired length, and when packed for shipment the sections of which the handle

is composed may be disunited so as to occupy but little space. The sections composing the handle are provided with a screw-socket, L, into which, when desired to unite the sections, is fitted a double-ended screw, M. K shows a key for turning on the gas, made of any proper shape, and preferably placed at the upper end of the torch above the chamber A.

Such being the construction, the operation may be thus described: The wick D having had passed over it the circular plate E, and been compressed as much as it may require, is inserted in the tube C. The chamber A is then supplied with alcohol or other fluid, and the tube C is inserted in the opening B. The torch is then inverted, so that the key K will be downward, by which movement alcohol leaves the chamber A, enters the wick-tube C, and is taken up by the braided wick D. The torch may then be returned to its former position, and is ready for use. The gas is turned on by the key K, and the alcohol supplied to the wick D is consumed at the burning-point G at the forward end of the pipe C.

The ability to separate the handle in sections enables the packing of the torch in small compass.

The asbestos lining saves the necessity of replenishing the wick or burner, thus insuring the economy of the article.

It will be observed that the pipe C is turned up at the lower end, so that the flame of the burning alcohol will not play against the pipe and corrode it, and char and consume the wick, as occurs when the end of the pipe, as in common gas-torches, is turned downward.

Having now set forth my invention, what I claim as new is—

1. The combination of the chamber A, pipe C, wick D, contracting collar E, and burner G packed with asbestos and covered with wire-gauze, all constructed and arranged as and for the purpose specified.

2. In a gas-lighting torch, the handle I made in sections, united by the screw-joints L M, constructed as described, and operating as and for the purpose set forth.

THOMAS W. HOUCHIN.

In presence of—

A. SIDNEY DOANE,
WM. HASTINGS.