J. CRANNELL.
Gas-Lighting Torch.

No. 215,329. Patented May 13, 1879.

Fig. 1.

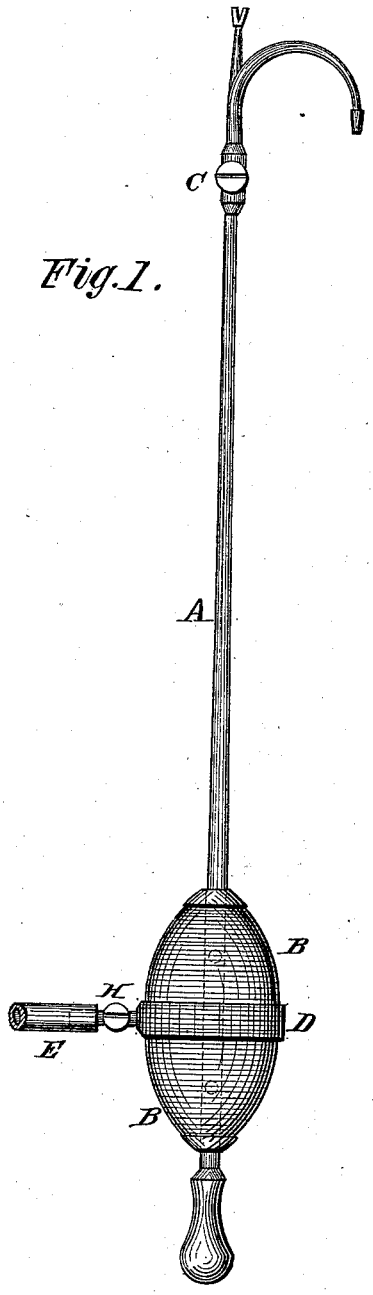
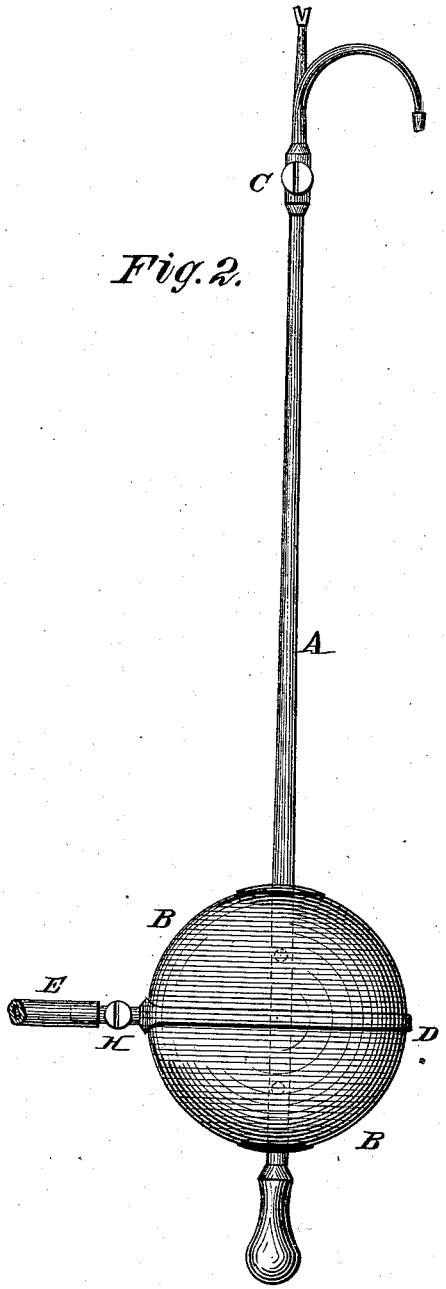


Fig. 2.



Witnesses:
P. C. Dieterich
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Inventor
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Per C. A. Watson & Co. Attorneys.

UNITED STATES PATENT OFFICE.

JESSE CRANNELL, OF TROY, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO EDMUND CLUETT, OF SAME PLACE.

IMPROVEMENT IN GAS-LIGHTING TORCHES.

Specification forming part of Letters Patent No. **215,329**, dated May 13, 1879; application filed February 6, 1879.

To all whom it may concern:

Be it known that I, JESSE CRANNELL, of Troy, New York, have invented certain new and useful Improvements in Gas-Lighting Torches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and the letters of reference marked thereon, which form a part of this specification.

Figure 1 represents the gas-lighting torch complete, with holder inflated and ready for use; and Fig. 2 represents the same after the gas in the holder has been exhausted.

The object of my invention is to produce a cheap, reliable, and simple gas-lighting torch without using wick or wax tapers or any other substance likely to drip during combustion; and the nature of it consists in providing the stem or handle of the torch with a small elastic gas-holder, which can readily and quickly be filled from any gas-burner, and with an elastic band or spring for compressing the holder and producing the necessary pressure upon the gas within the holder, and to make a jet of gas at the tip of the torch.

A is the hollow stem of the torch, made of metal, and passing entirely through the holder B, the edges of the openings in the holder being firmly and closely secured around such stem.

C is a stop-cock in the stem, located between the holder and the tip of the stem, to stop the flow of the gas from the holder.

B is the gas-holder, made of rubber or other elastic material capable of securing within its walls hydrocarbon gas.

D is an elastic band around the holder, for compressing the holder after it has been inflated with gas, and for insuring a steady flow of gas through the tip when the stop-cock C is open, so long as any remains in the holder.

E is the inlet-pipe, through which the gas is conveyed from the supply-pipe or burner into the holder, and is closely secured in the holder at any convenient point between the stop-cock C and the stop-cock H.

H is a stop-cock in the inlet-pipe, to prevent the flow of gas back from the holder after inflation.

At the lower part of the stem a handle is secured, and at or near the top of the stem the ordinary key for opening and closing the stop-cocks in the gas-fixtures may be located. The part of the stem within the holder is pierced with holes, to admit the gas from the holder into the stem.

The operation is as follows: The stop-cock H being open, the inlet-pipe is slipped over the supply-pipe or over an ordinary gas-burner, and the gas admitted to the holder, the ordinary pressure at the source of supply being sufficient to inflate the holder. After the holder has been filled the stop-cock H is closed, and the torch is ready for use.

A holder six inches in diameter is sufficient to hold gas enough to feed a small jet for an hour or more, and sufficient for lighting a great many burners.

A torch made and supplied in this manner has many advantages over the ordinary torches supplied with alcohol or wax tapers, &c. It is simple in construction, will not easily get out of order, no wax or other substance to drip, and no smoke during combustion. The stem can also be made very light, and it can be a long stem for reaching gas-burners placed at high points, or long stems may be substituted for short ones by putting a screw-coupling in the stem above the holder.

This torch will be very light, and when inflated will be still lighter, and can be easily handled by any person.

I am aware that rigid tubes or reservoirs have been used for this purpose, and also that flexible bulbs have been used for extinguishing purposes, said bulbs being pressed or contracted by the hand, and also that a spring has been placed within a flexible bag, said bag being operated by the spring for discharging the gas, and I do not therefore claim such as my invention, in which is generally used a bulb much too large to be grasped by the hand; but,

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An elastic bulb or reservoir, B, and devices for filling the same with hydrocarbon gas, in combination with an elastic band to furnish the required pressure, substantially as described.

2. The elastic reservoir B and the band D, in combination with the tube A and stop-cock C, substantially as and for the purpose set forth.

Witnesses: JESSE CRANNELL.
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