H. IDEN.

CIGAR-LIGHTERS.

No. 194,243. Patented Aug. 14, 1877.

Fig. 1.

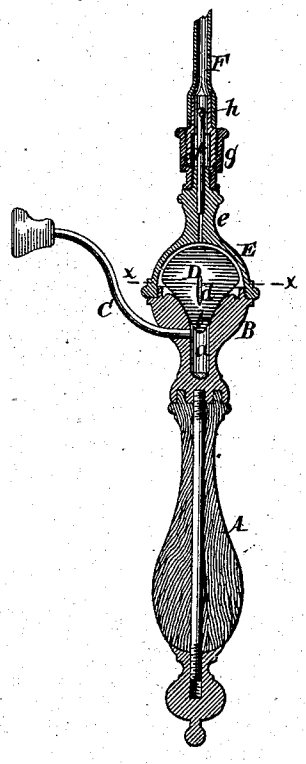


Fig. 3.

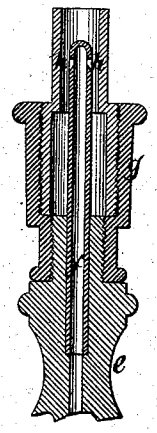


Fig. 2



Witnesses.

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by

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UNITED STATES PATENT OFFICE.

HENRY IDEN, OF NEW YORK, N. Y.

IMPROVEMENT IN CIGAR-LIGHTERS.

Specification forming part of Letters Patent No. **194,243**, dated August 14, 1877; application filed March 1, 1877.

To all whom it may concern:

Be it known that I, HENRY IDEN, of the city, county, and State of New York, have invented a new and Improved Cigar-Lighter, which invention is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a vertical central section. Fig. 2 is a horizontal section in the plane *x x*, Fig. 1. Fig. 3 is a sectional view of the supply-openings on a larger scale than the previous figures.

Similar letters indicate corresponding parts.

This invention consists in the combination, in a cigar-lighter, of a globe-shaped valve-chamber provided with a well, a valve which is ground down on its seat and provided with a small gasway, and with an acorn-shaped nipple, which extends down into the well of the valve-chamber, a gas-jet communicating with said well, and a cap which covers the valve-chamber and fits the top part of the valve, allowing to the same just enough play for the purpose desired, said cap being connected to a flexible gas-supply pipe, so that, when the gas-lighter is left undisturbed, just enough gas passes through the gasway of the valve to keep the flame of the gas-jet burning, and when the lighter is inclined in any desired direction the valve drops out of its seat just sufficiently far to admit the requisite supply of gas to the jet, and not more. From the cap of the valve-chamber extends a small pipe, closed at its top and provided with under-cut recesses in its sides, and with said pipe is combined a cup, with an internal screw-thread for the connection with the flexible gas-supply pipe, so that the tar which forms in the flexible gas-supply pipe is prevented from stopping up the channel or channels leading to the jet of the cigar-lighter.

In the drawing, the letter A designates a handle, which is secured to a spherical chamber, B, said chamber being provided with a well, *a*, from which emanates the gas-jet C.

In the chamber B is contained a valve, D, which is ground down on its seat, and which is provided with an acorn-shaped nipple, *b*, that extends down into the well *a*.

The cover E of the chamber B is hemispherical, and it is secured to the body of the chamber by a screw-thread.

The valve is provided with a small gasway, *d*, so that, when the lighter is in a perpendicular position and the valve closes down upon its seat, a sufficient quantity of gas passes through this gasway to feed a small flame in the jet C, and at the same time the hemispherical top of the valve is in such relation to the inner surface of the cover E that when the lighter is brought in an inclined position the valve can open just far enough for the passage of a sufficient quantity of gas to produce a flame of the desired size.

When the lighter is allowed to drop back to a perpendicular position, the valve, being guided by the acorn-shaped nipple, immediately drops back to its seat, and the flame is reduced. By these means all waste of gas is avoided, and the danger of producing an inconveniently large flame is prevented.

From the cover E rises a projection, *e*, which is bored out to receive a small pipe, *f*, and on the upper end of said projection is secured a cup, *g*, provided with an internal screw-thread for the reception of a coupling, to the outer end of which is fastened the flexible gas-pipe F. The small pipe *f* extends up through the cup *g*, (see Fig. 3,) and it is closed at its top, but provided with under-cut recesses *h h*, which open into its interior. If a drop of tar falls down from the flexible pipe, it will run down over the rounded top of the pipe *f* into the cup *g*, and the openings *h h* are not liable to become choked.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a cigar-lighter, of a globe-shaped valve-chamber, B, provided with a well, *a*, a valve which is ground down on its seat and provided with a small gasway, *d*, and with an acorn-shaped nipple, *b*, extending down into the well of the valve-chamber, a gas-jet, C, communicating with said well, and a cap which covers the valve-chamber and fits the top part of the valve, allowing the same just sufficient play for the purpose desired, said cap being connected to a flexible pipe, all constructed, combined, and operating substantially as shown and described.

2. The combination, in a cigar-lighter, of a valve-chamber, B, gas-jet C, valve D, and flexible pipe F, with a cup, *g*, and a gas-supply pipe, *f*, extending up into the cup, closed at its top and provided with under-cut recesses *h h* in its sides, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

HENRY IDEN. [L. S.]

Witnesses:

FRANZ BOGENHARDS,

LOUIS HARTMANN.