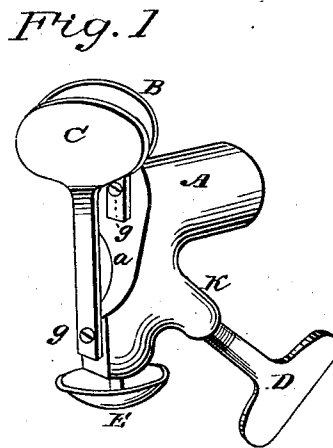
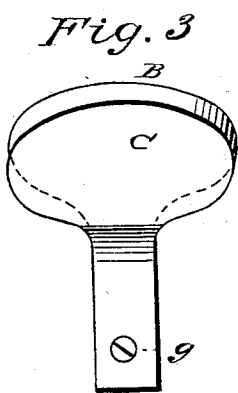
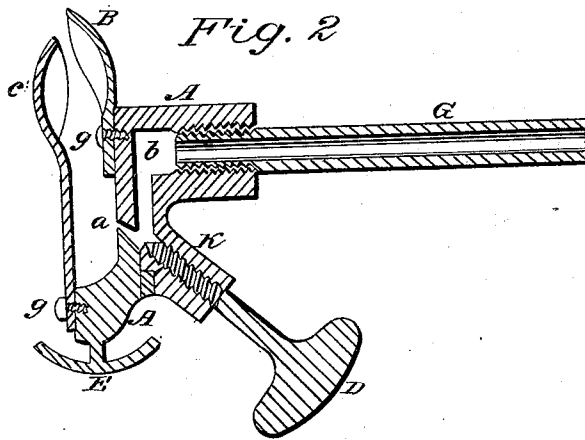


T. TULLY.
Vapor Burner.

No. 102,335.

Patented April 26, 1870.



Witnesses
J. S. Patton
Edward Bargeet

Inventor
Thomas Tully

United States Patent Office.

THOMAS TULLY, OF ST. JOSEPH, MISSOURI.

Letters Patent No. 102,335, dated April 26, 1870.

IMPROVEMENT IN VAPOR-BURNERS

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, THOMAS TULLY, of St. Joseph, in the county of Buchanan and State of Missouri, have invented certain new and useful Improvements in Vapor-Burners, of which the following is a specification.

My invention relates to that class of burners in which the gasoline or other hydrocarbon flows from a suitable reservoir into a burner and is converted into vapor by the heat generated by the burner.

Its objects are to secure a bright, steady flame, and the greatest practicable amount of heat, to which end

The improvement consists—

First, in constructing the spreaders or deflectors of the burners of a concavo-convex oval shape, with their horizontal axes longer than their vertical ones, as hereinafter set forth.

Second, in so combining two concavo-convex oval-shaped spreaders, that their concave sides shall face each other, but with the upper edge of the one farthest removed from the jet lower than the other, as hereinafter set forth.

Third, in so combining two concavo-convex spreaders, constructed and arranged as above described, with an inclined jet in the body of the burner, that the escaping vapor shall impinge first against the deflector farthest from the jet, then against the inner one, and then escape between the two, as hereinafter described.

In the accompanying drawings which represent my improved burner—

Figure 1 is a perspective view.

Figure 2, a vertical section.

Figure 3, a view of the spreaders detached.

The body A of the burner is formed of brass or other suitable metal.

A supply-pipe, G, leads from the reservoir to the burner, being screwed into the opening b.

A channel, i, connected with the opening b, is formed in the burner, its lower end being closed by a plug, v.

A screw-key, D, is inserted in an opening in the neck K, and is inclined at an angle of about forty-five degrees to the pipe G.

The point of this screw-key enters the jet a in the usual manner, to regulate the escape of the vapor, the

jet being inclined upward at an angle corresponding with that of the screw-key.

The spreaders B C are concavo-convex, as shown in the drawings, being in form very much like a clam-shell. They are arranged opposite each other, so that their concave surfaces face each other, and are secured to the body of the burner by screws, rivets, or other fastenings.

The inner spreader B is secured to the top of the body A, while the outer one is secured to the lower part.

The upper edge of this spreader is placed about one-fourth of an inch lower than the upper edge of the spreader B, so that the vapor will be reflected from one to the other.

In operation, a few drops of oil are allowed to drip through the jet a into the cup E and ignited, this being the usual way.

The heat thus produced generates vapor in the channel i, which escapes through the jet a, and impinges against the spreader C, and is thence reflected against the other spreader B.

The vapor, as it escapes, mingles with air, which rushes in between the deflectors, so that, when it issues from the top of the spreaders, it forms a brilliant white flame of great heating power and of beautiful shape.

The heat generated in this way soon heats the burner and generates vapor in the way common to this class of burners.

I do not broadly claim a concavo-convex spreader, nor the arrangement of two concave spreaders, with their concave surfaces facing each other.

I claim as my invention—

1. The concavo-convex oval spreader, constructed as described, of a clam-shell shape, with its longer axis horizontal.

2. The construction and relative arrangement, as set forth, of the two concave oval-shaped spreaders, so that the upper edge of the outer spreader shall be below the corresponding edge of the inner one.

3. The relative arrangement, as set forth, of the inclined jet and the concave oval spreaders.

Witnesses:

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