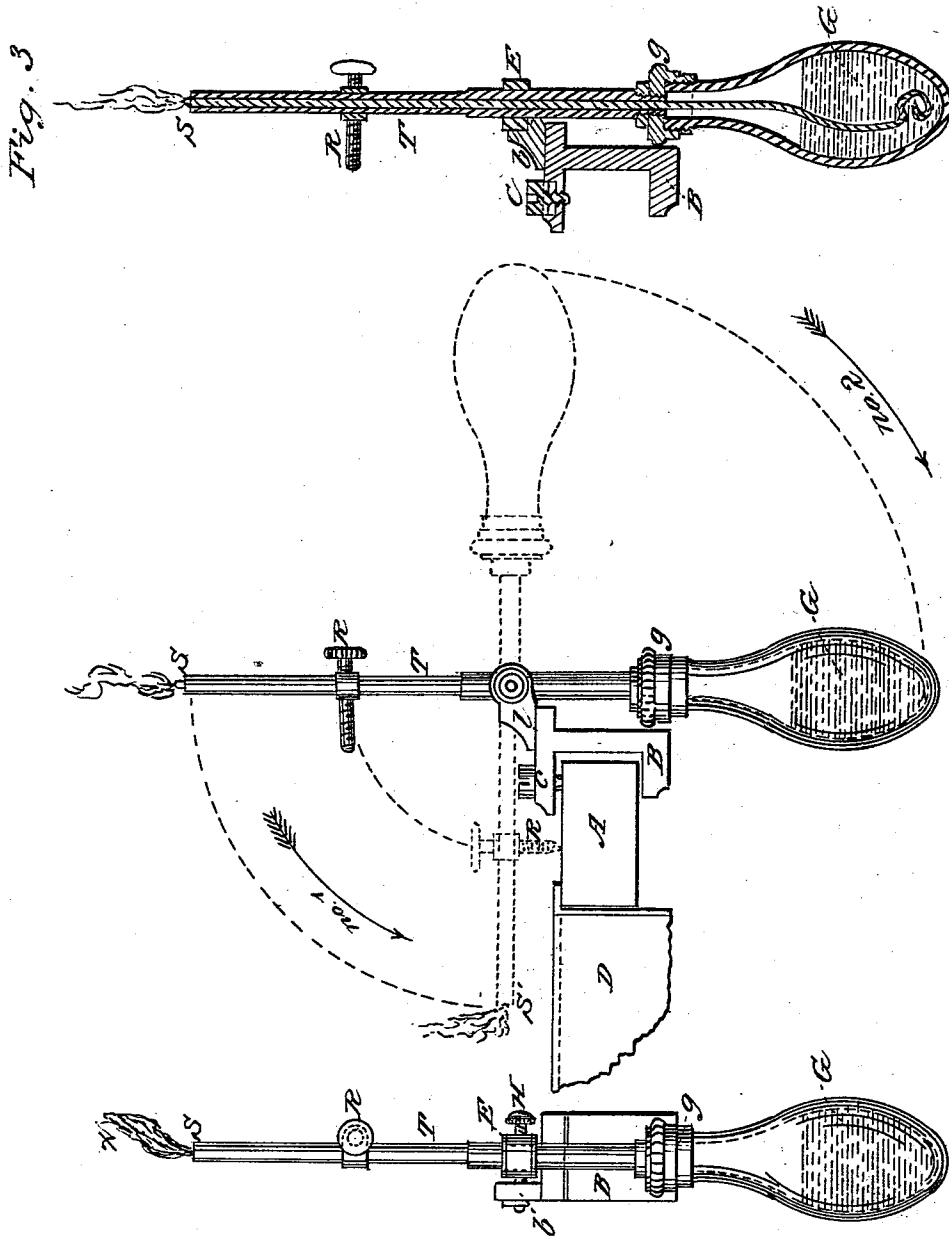


G. E. SHAW.

Fire Test.

No. 61,572.

Patented Jan. 29, 1867.



Witnesses
Philip R. Kincaid
A. P. Gengembie

Inventor
Geo. E. Shaw

United States Patent Office.

GEORGE E. SHAW, OF PITTSBURG, PENNSYLVANIA.

Letters Patent No. 61,572, dated January 29, 1867; antedated January 17, 1867.

IMPROVED FIRE-TEST TORCH.

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, GEORGE E. SHAW, of the city of Pittsburg, in the county of Allegheny, and State of Pennsylvania, have invented an improved and new Torch or Fire-Brand, adaptable to any of the carbon oil fire-testers now in use, by which a more uniform application of the flame can be made to the oil undergoing the test than is generally done. My new fire-test torch consists in a small lamp pivoted on a fixed centre fast on a clamp; and in the accompanying drawings—

Figure 1 represents a front view of my fire-test torch.

Figure 2 is a side view of the same, showing it as attached to my improved carbon-oil tester, and indicating by dotted lines its two positions; and

Figure 3 is a sectional view of the same through the line *x x*.

A represents the top part of the carbon-oil tester, to which the clamp B is secured by the tightening of the screw C. D is the oil cup of the carbon-oil tester, in which the oil is placed to be tested. The clamp B has a projection, *b*, in which is a hole to receive the pivot of the piece E, which is secured therein by a washer and rivet, screw or otherwise. G is a lamp body, made of any suitable material and shape, having the part *g* fitted with a lid or stopper made to open for introducing the fluid to be burnt in the torch or lamp G. In the top or stopper *g* of the lamp is screwed or otherwise fastened, a tube, T, to receive a wick. This tube T is of the proper length, so that when the lamp G is in the position indicated by the dotted lines in the fig. 2, the flame at S' will be brought to the required place over the surface of the oil in the cup D. The wick-tube T passes, and can slip freely, in a hole made for that purpose in the piece E, and is held in place and prevented from slipping by the screw H; so that it can be adjusted at different heights to suit different fire-testers.

The operation of my improved fire-brand for carbon-oil tester is as follows: The lamp G being trimmed with a wick, and filled with alcohol or any other burning fluid, can be lighted just as soon as it is required to make a test. When it is required to ascertain if the oil in the cup D will ignite, the lamp G is lifted, which causes it to pivot on the centre E, and it assumes the position indicated by the dotted lines, having moved in the direction of the arrow No. 1. If the oil in the cup D does not ignite, the lamp G is allowed to regain its vertical position, which it will do spontaneously, by reason of the gravitation of the reservoir G, and it will move in the direction of the arrow No. 2. The reservoir G can be made of glass, so that it will always indicate if the fluid in it is burnt out or not; it can be made larger than the drawings to suit the fire-tester for which it is intended. R is a screw, running in a piece of metal, fastened on to the tube T, and serving, by its point resting on the top of the fire-tester or on a proper stop placed for that purpose, on the clamp B, to regulate accurately the height at which the flame of the torch is to approach the oil undergoing the test in the cup D.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. The torch or lamp G, pivoted, suspended, or hinged to the clamp D, or to a piece of a fire-tester for carbon oil, so that it can be made to occupy either the vertical position or the horizontal position represented in fig. 2 of my drawings, or any other position between the same, in the manner substantially as set forth.

2. The combination of the clamp D, screw C, pivoted piece E, and screw H, with the lamp G, tube T, and screw R, to make an adjustable fire-test torch, substantially as and for the purpose specified.

3. The screw R, in combination with the tube T, piece E, and clamp B, for regulating accurately the position of the fire-brand in relation to the oil undergoing the test.

GEO. E. SHAW. [SEAL.]

Witnesses:

H. P. GENGEMBRE,
PHILIP R. KINCAID.