C. J. ROGERS.

Soldering-Iron Heater.

No. 164,216. Patented June 8, 1875.

Fig. 1

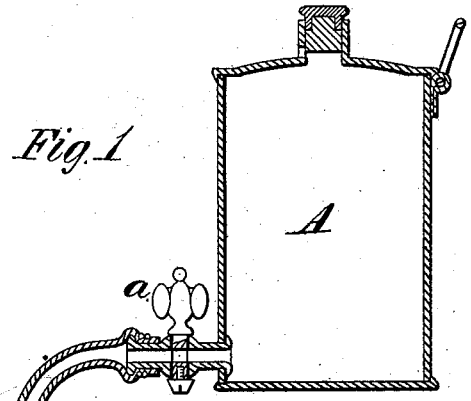
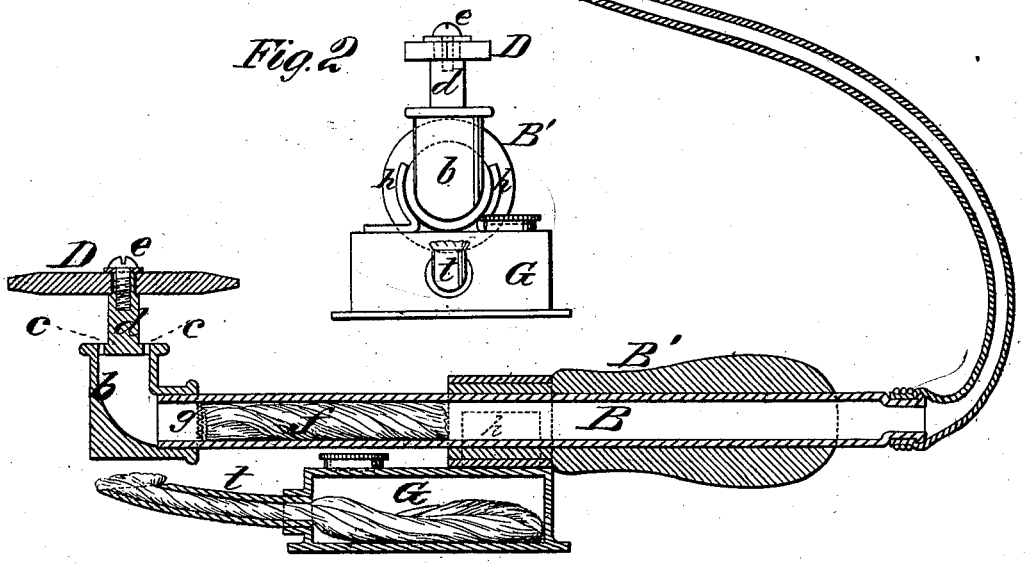


Fig. 2



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES JAMES ROGERS, OF NORWICH, CONNECTICUT.

IMPROVEMENT IN SOLDERING-IRON HEATERS.

Specification forming part of Letters Patent No. **164,216**, dated June 8, 1875; application filed November 7, 1874.

To all whom it may concern:

Be it known that I, CHARLES JAMES ROGERS, of Norwich, in the county of New London and State of Connecticut, have invented a new and valuable Improvement in Soldering Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a central section of my apparatus, and Fig. 2 is a detail view.

This invention has relation to hand soldering-tools which are heated by means of gas generated from alcohol or benzine; and it consists in adjustably applying the copper soldering-piece to a stem rising from a gas-burner, which is on one end of a tubular handle, in combination with a lamp for generating gas in said burner, which is removably applied to the handle of the tool, as will be fully understood from the following description:

In the annexed drawings, A designates a reservoir, of any suitable capacity, which communicates with a tubular handle, B, by means of a flexible pipe, C, of any suitable length, and *a* designates a cock for cutting off and regulating the flow of the gas-generating fluid to the said tubular handle. On one end of the handle B a rectangular piece, *b*, is applied, which forms a chamber in which gas is generated. The upper end of the piece *b* has fine perforations *c c* through it, and a short stem, *d*, formed centrally on it. On the upper end of this stem the copper soldering-piece D is secured by means of a screw, *e*, by loosening which latter either the pointed end or the flattened beveled end of the copper piece D can be presented for use. Inside of the handle B, wicking or other suitable absorbing material *f* is applied, the front part of which is separated from the gas-generating chamber in piece *b* by means of wire-cloth *g*, which prevents the wick from encroaching on said chamber. The tubular handle has a wooden holder, B′, secured on it for protecting the hands from undue heat, which holder has a metal ferrule on one end, shown in Fig. 1. G designates the body of a lamp, which is removably applied to the holder B′ by means of spring-clasps *h h*, and which is provided with a wick-tube, *t*, that terminates just below the piece *b*, when the lamp is clasped to the holder B′.

When the wick *f* is saturated with fluid from the reservoir A, and the supply of this fluid properly regulated by means of the cock *a*, the lamp G is lighted, the heat from the flame of which will gasify the oil in the piece *b*, and this gas being ignited will quickly heat the copper piece D to the required temperature for soldering. The lamp G is then removed and the tool used in the usual manner.

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

The detachable lamp G *t*, provided with spring-clasps *h h*, in combination with the reservoir A, flexible tube C, tubular handle B, having a wooden holder, B′, gas-generator, *b*, and soldering-iron, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES JAMES ROGERS.

Witnesses:

HEMAN H. BARBOUR, Jr.,

J. MARK ROGOWSKI.