No. 793,781. PATENTED JULY 4, 1905.

W. E. GARRETT.

SELF HEATING SOLDERING IRON.

APPLICATION FILED APR. 21, 1905.

Fig. 1.

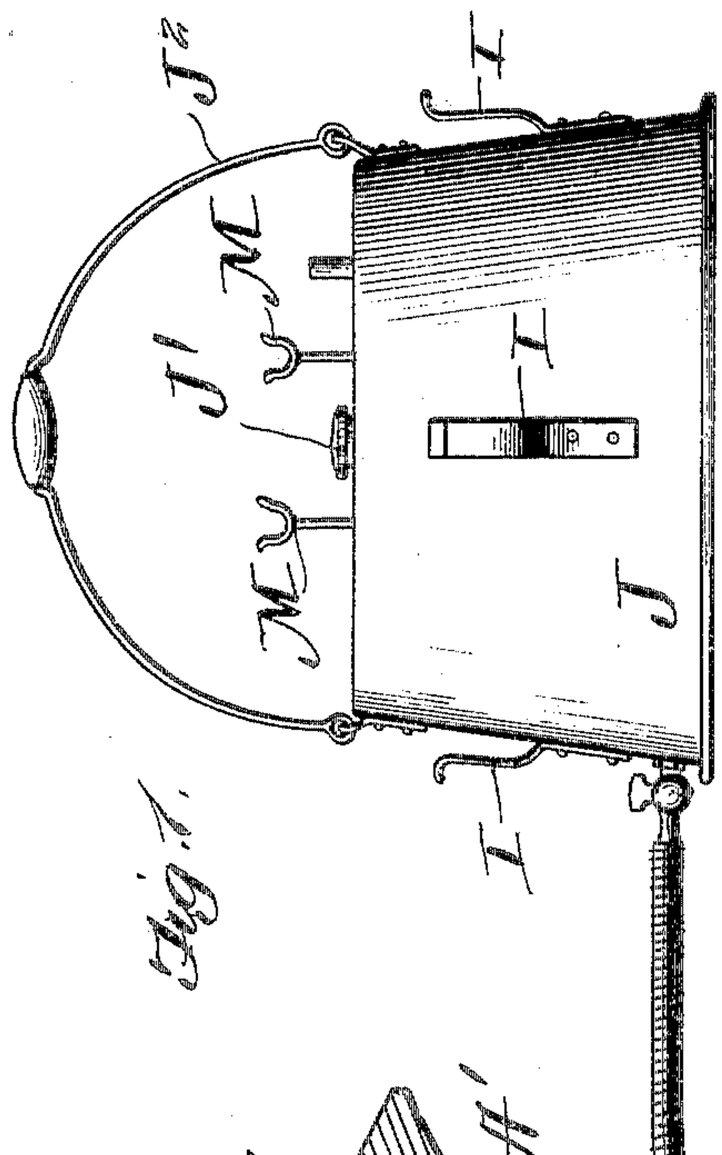


Fig. 4.

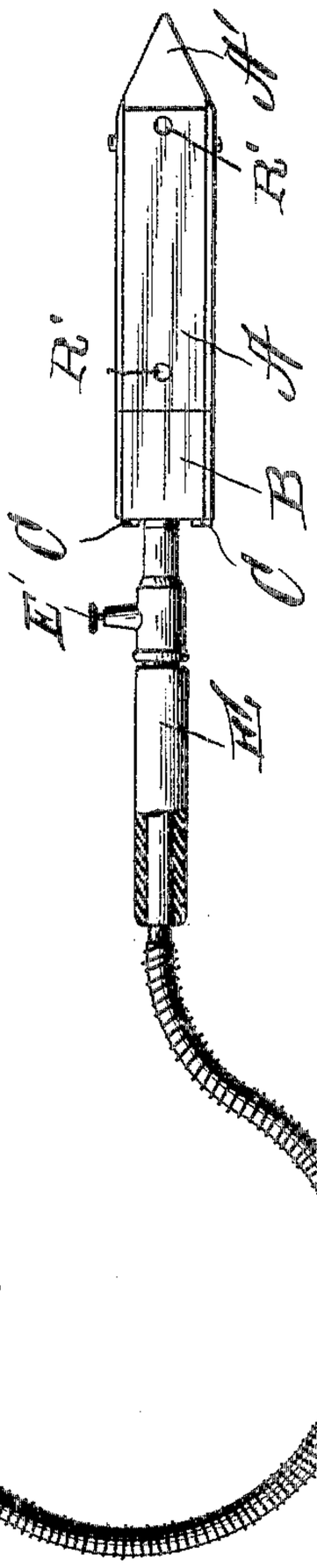


Fig. 2.

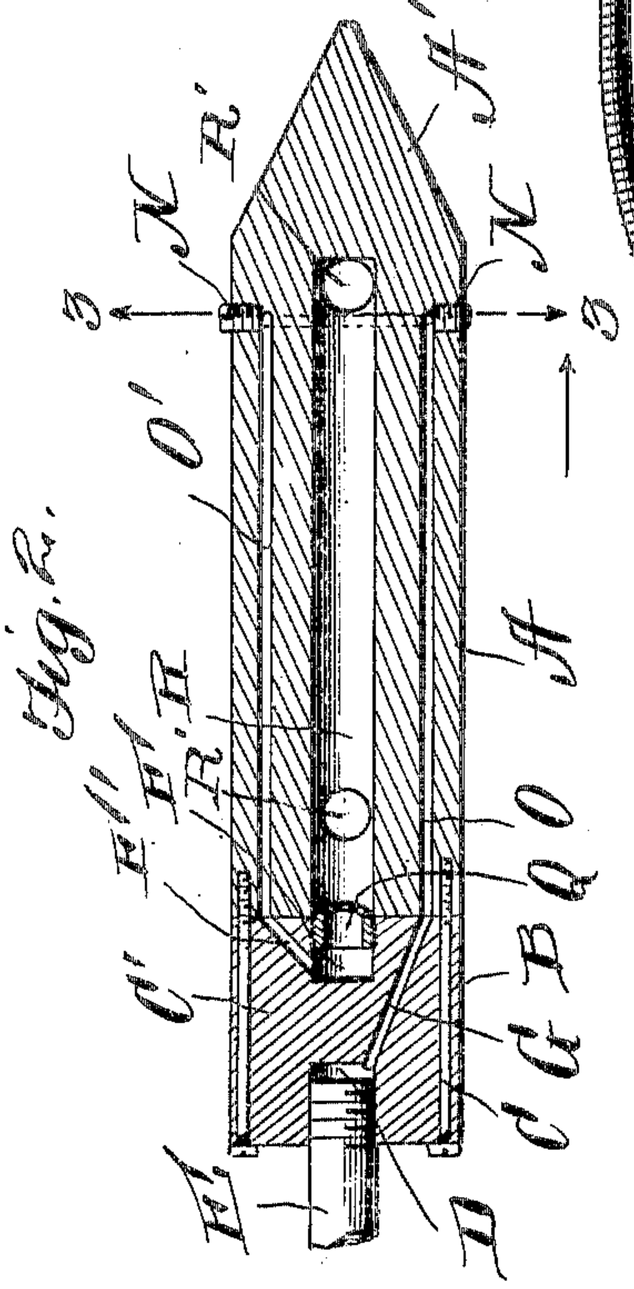
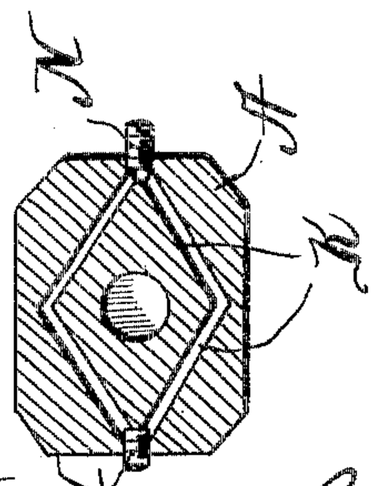


Fig. 3.



Witnesses

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No. 793,781. Patented July 4, 1905.

UNITED STATES PATENT OFFICE.

WILLIAM E. GARRETT, OF DAWSON, ILLINOIS.

SELF-HEATING SOLDERING-IRON.

SPECIFICATION forming part of Letters Patent No. 793,781, dated July 4, 1905.

Application filed April 21, 1905. Serial No. 256,757.

To all whom it may concern:

Be it known that I, WILLIAM E. GARRETT, a citizen of the United States, residing at Dawson, in the county of Sangamon and State of Illinois, have invented certain new and useful Improvements in Self-Heating Soldering-Irons; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in self-heating soldering-irons; and the object of the invention is to produce a simple and efficient device of this nature in which the gasolene may be fed to the iron and the same caused to be ignited for the purpose of keeping the iron continuously hot while it is desired to use the same.

The invention consists in various details of construction and in combinations and arrangements of parts, as will be hereinafter fully described and then specifically defined in the appended claim.

I illustrate my invention in the accompanying drawings, in which—

Figure 1 is a side elevation of my heating-iron, shown as being connected with a gasolene-receptacle. Fig. 2 is a sectional view through the soldering-iron, and Fig. 3 is a cross-sectional view on line 3 3 of Fig. 2.

Reference now being had to the details of the drawings by letter, A designates a soldering-iron having a tapering end A′, and B designates a block which is fastened to the soldering-iron by means of the screws C, which pass through apertures in said block, and the threaded ends of said screws engage threaded holes formed in one end of the iron, as shown clearly in Fig. 2 of the drawings. Said block has a chambered portion D, the walls of which are threaded to receive the threaded pipe E, and also a chambered portion F, into which a duct F′ leads. A diagonally-disposed duct G leads from the chambered portion through one end of the block B and is adapted to communicate with a passage-way O, which leads substantially the length of the iron to the tapered portion and communicates with the diagonally-disposed communicating ducts K. (Shown clearly in Fig. 3 of the drawings.) Said ducts K are formed by passing a drill through the holes which are closed by the plugs N. By removing the plugs N access may be had to the ducts for the purpose of clearing the same of any sediment that might accumulate therein. A duct O′, similar to the duct O, is formed longitudinally through the iron and communicates with the duct F′, which leads to the chambered portion F. A sprayer Q, having threaded circumference, is fitted to the threaded wall of the chamber F, and through which gasolene may be sprayed into the generator R, preparatory to its being ignited as it issues from the latter about the circumference of the iron. The tube E has a valve E′ therein and communicates with the gasolene-receptacle J, which has a filling-aperture J′ in the top thereof and a bail J^2 for convenience in carrying the same. Fixed to the circumference of said receptacle are the bracket-arms I, in which the tube E may be positioned when not in use, while forked members M rise from the top of the receptacle and are provided for the reception of the iron.

In operation gasolene, which may be contained under pressure within the receptacle, is forced through the tube E and through the ducts O, K, and O′ to the chambered portion F, from which it passes from the sprayer Q into the generator R. The gasolene in its course through said ducts becomes vaporized by the heat of the iron and as it issues through the apertures R′ in the iron quickly ignites and burns about the circumference of the iron, thus keeping the iron hot while being used.

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

A self-heating soldering-iron, made up of two sections, one of which sections being tapering and chambered longitudinally with apertures leading from said chamber through the wall of the sections, and provided with grooves parallel with the central chambered

portion, said grooves merging into a passage-way leading about the central chambered portion, the other section of the iron having a sprayer positioned in a recess therein, and to which communication is had from said groove by means of a duct, bolts passing through the section carrying said sprayer and engaging apertures in the end of the other section, and a supply-pipe adapted to feed fuel into one of said ducts.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

WILLIAM E. GARRETT.

Witnesses:
HENRY RENTSCHLER,
JOHN RENTSCHLER.