

No. 780,310.

PATENTED JAN. 17, 1905.

M. J. STARK.
COMBINED SOLDERING IRON AND HEATER.
APPLICATION FILED SEPT. 29, 1904.

FIG. 1.

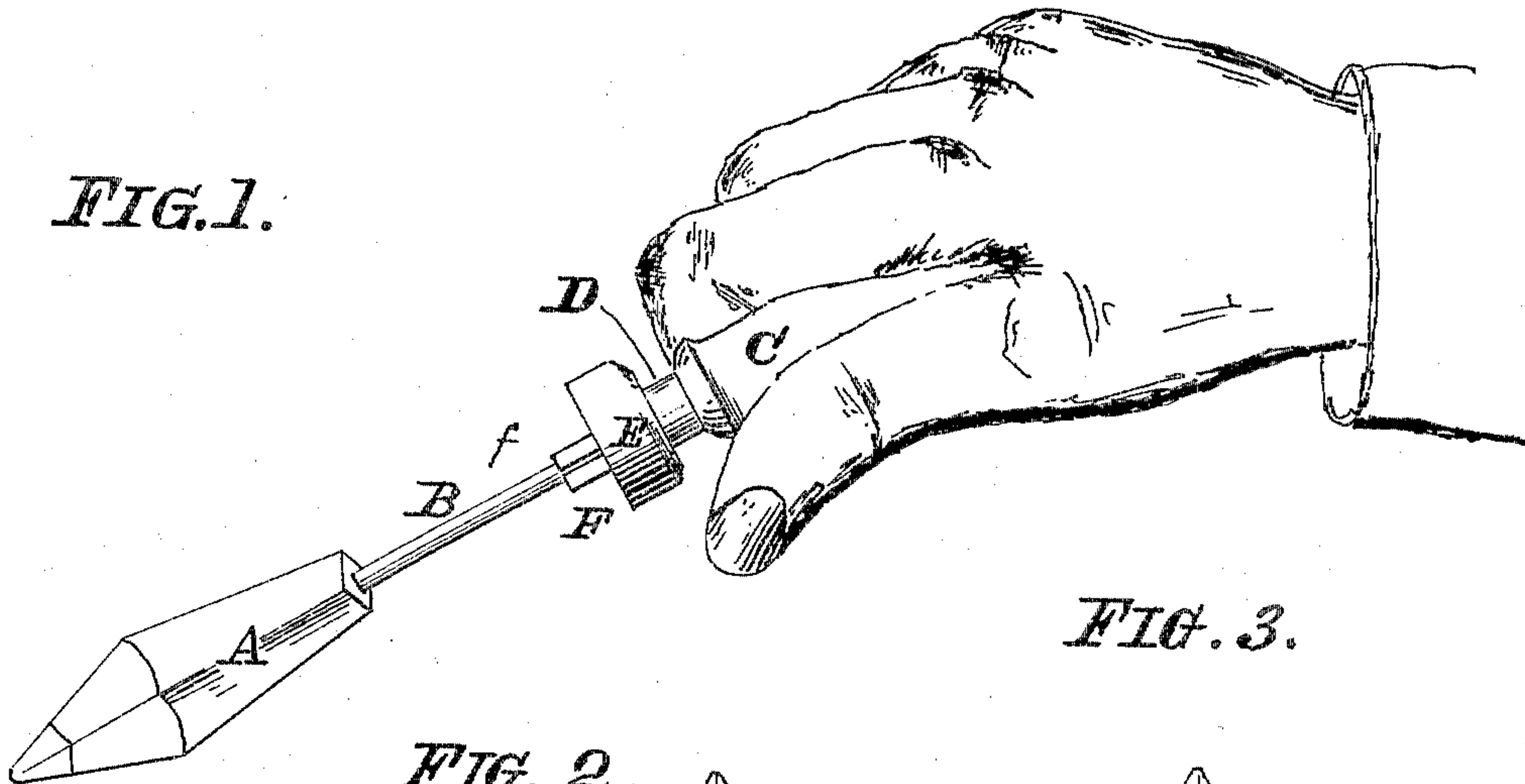


FIG. 3.

FIG. 2.

FIG. 4.

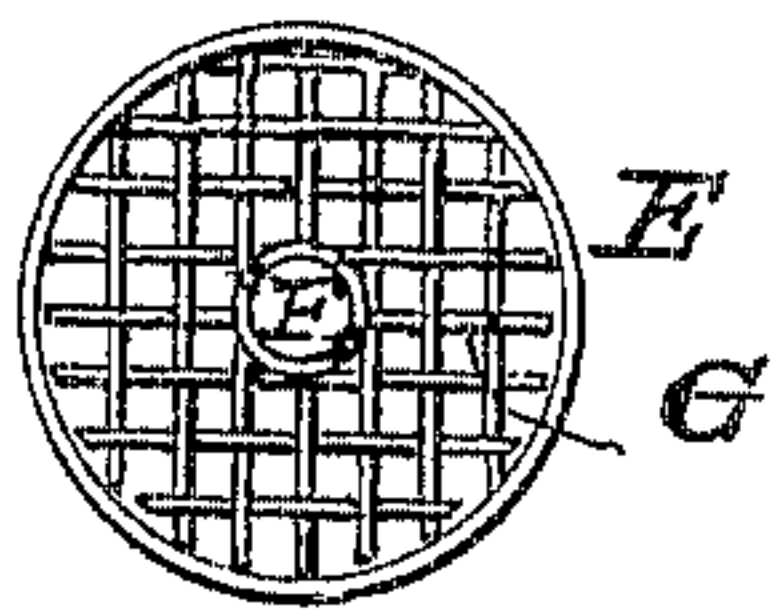
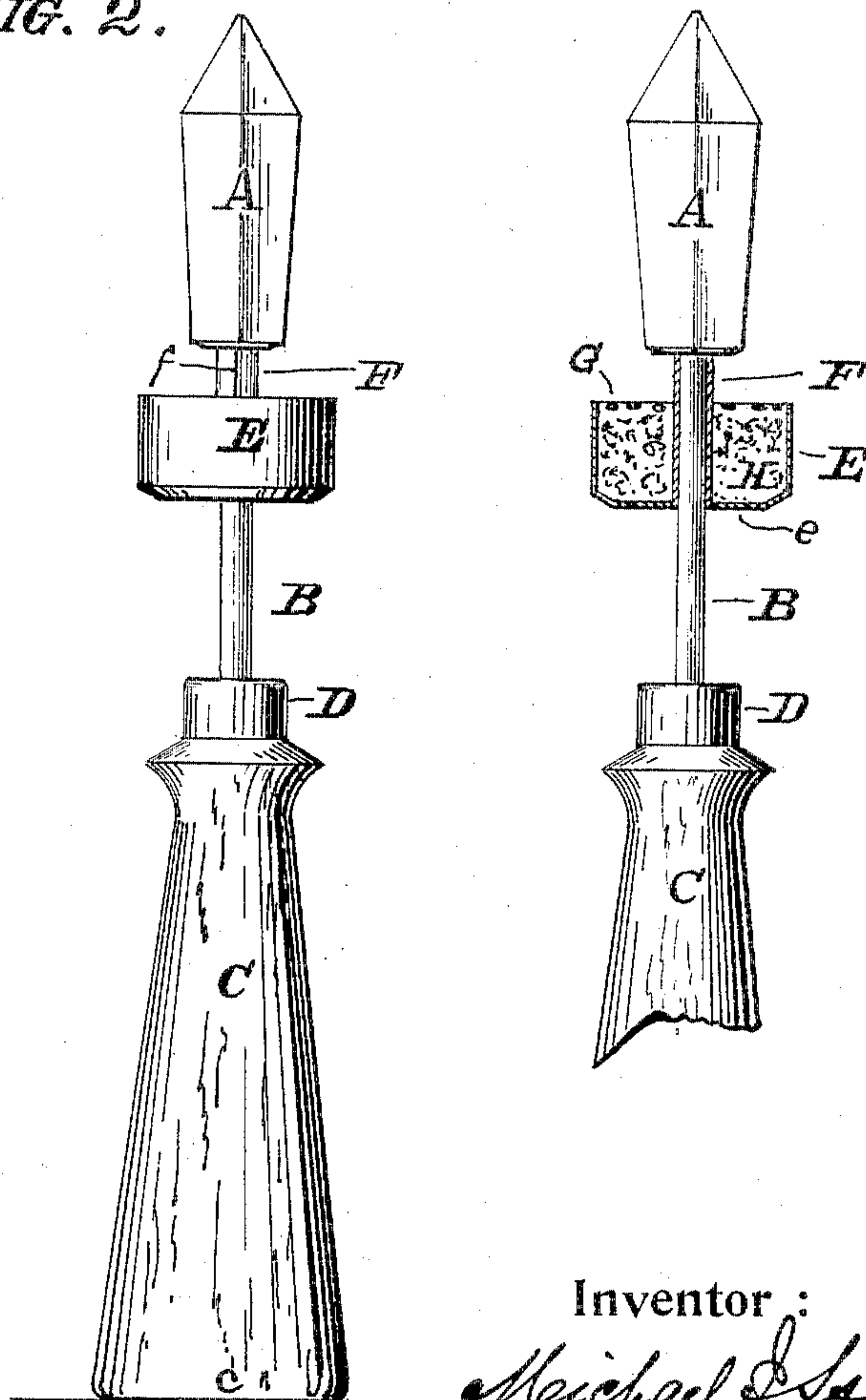
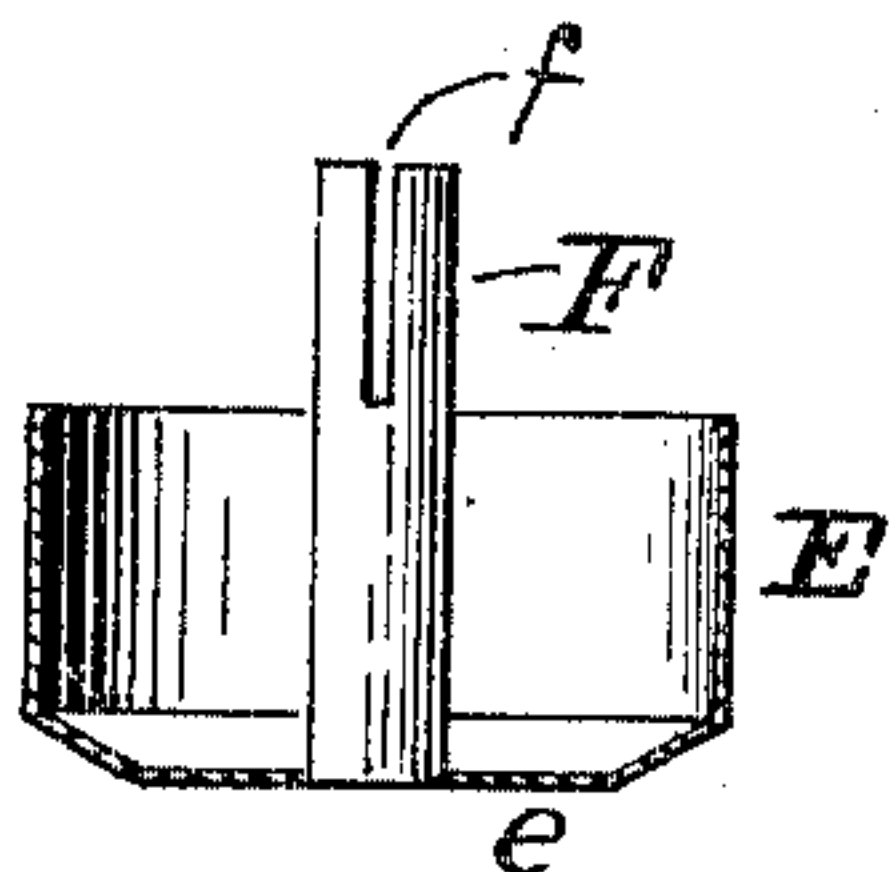


FIG. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

MICHAEL J. STARK, OF CHICAGO, ILLINOIS, ASSIGNOR TO THOMAS R. FERRIS AND CHARLES C. RECKITT, OF CHICAGO, ILLINOIS.

COMBINED SOLDERING-IRON AND HEATER.

SPECIFICATION forming part of Letters Patent No. 780,310, dated January 17, 1905.

Application filed September 29, 1904. Serial No. 226,533.

To all whom it may concern:

Be it known that I, MICHAEL J. STARK, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Combined Soldering-Iron and Heater; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This present invention has general reference to improvements in a combined soldering-iron and heater; and it consists, essentially, in the novel and peculiar combination of parts and details of construction, as hereinafter first fully set forth and described and then pointed out in the claims.

In the drawings already referred to, which serve to illustrate this invention more fully, Figure 1 is a perspective view of this improved soldering-iron and heater shown in a condition of actual use. Fig. 2 is an elevation of the same. Fig. 3 is a like view of a portion of the soldering-iron, showing the heater in section. Fig. 4 is a plan of the heater detached, and Fig. 5 is an enlarged sectional elevation of the same with the asbestos filling and wire screen removed.

Like parts are designated by similar letters of reference in all the various figures.

The object of this invention is the production of a simple, convenient, cheap, and serviceable soldering-iron combined with a heater by means of which the soldering-tool may be quickly heated. To accomplish this result, I construct this device essentially of a copper soldering-bit A of any suitable and convenient shape and provide the same with an iron shank or rod B, preferably of round iron or wire, which in turn is fastened in a wooden handle C, by means of which the soldering-tool is manipulated, said handle C being provided with a metallic ferrule D in the usual manner of a tool-handle. This handle C is flattened at its larger end *e*, so that the device may be

placed into a perpendicular position, as will hereinafter more fully appear.

Upon the rod B there is placed a metallic cup E, of a capacity to hold a charge of alcohol, gasolene, or similar liquid fuel sufficient to heat the bit A, said cup being filled with an asbestos filling H to retain the liquid fuel, and which filling H is covered by a wire-netting G to keep the filling H in said cup E. This cup E has centrally a tube F, securely fastened to the bottom *e* of the cup and made of a length exceeding the depth of the cup, the portion of the said tube E projecting beyond the cup being slitted at *f* and slightly contracted, so that said tube will fit the rod B a snug sliding fit, and thereby retain the cup E by frictional contact in any position in which it may be placed upon said rod B.

In operation the soldering implement is placed into a perpendicular position, resting upon a table, &c., by the flattened base *e* and the cup E moved upwardly until the tube F strikes the bit A. Alcohol, gasolene, or any other suitable liquid fuel being poured into the cup E and ignited, the flame will rapidly heat the bit and bring it into condition for use in soldering. Then the cup is moved downward into close proximity of the handle C, as shown in Fig. 1, to be out of the way in operating the device.

The central tube F in the cup E is extended beyond the upper edge of this cup to provide space for the slots therein without allowing the liquid fuel to escape from said cup through these slots, which would take place were the slots F continued downwardly into said cup.

This device is especially designed for use by electricians, dentists, jewelers, and others who have occasional use of a soldering-iron. It is also admirably adapted for family use in connection with an outfit of acid or soldering salt or fluid and wire-solder for making slight repairs in kitchen utensils, &c., which can be accomplished by soldering.

Having thus fully described this invention, I claim as new and desire to secure to me by Letters Patent of the United States—

1. In a combined soldering-iron and heater,

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a bit; a rod in said bit; a handle on said rod; means for supporting the device in a vertical position, and a fuel-cup upon said rod; said cup having a slitted tube engaging said rod
5 by frictional contact.

2. An improved soldering-iron and heater combined consisting of a copper bit; a rod secured to said bit with one end; a handle at the other end of said rod provided with a flat-
10 tened head to support the device in a vertical position; a fuel-cup upon said rod having cen-

trally a slitted tube engaging said rod by frictional contact; a filling of asbestos in said cup and a wire screen covering said asbestos and retaining it within the cup.

In testimony that I claim the foregoing as my invention I have hereunto set my hand in the presence of two subscribing witnesses.

MICHAEL J. STARK.

Witnesses:

S. V. MOMBERG,

THOMAS R. FERRIS.