(No Model.)

C. HOLMBERG.

SELF HEATING SOLDERING IRON.

No. 589,970. Patented Sept. 14, 1897.

FIG. 1.

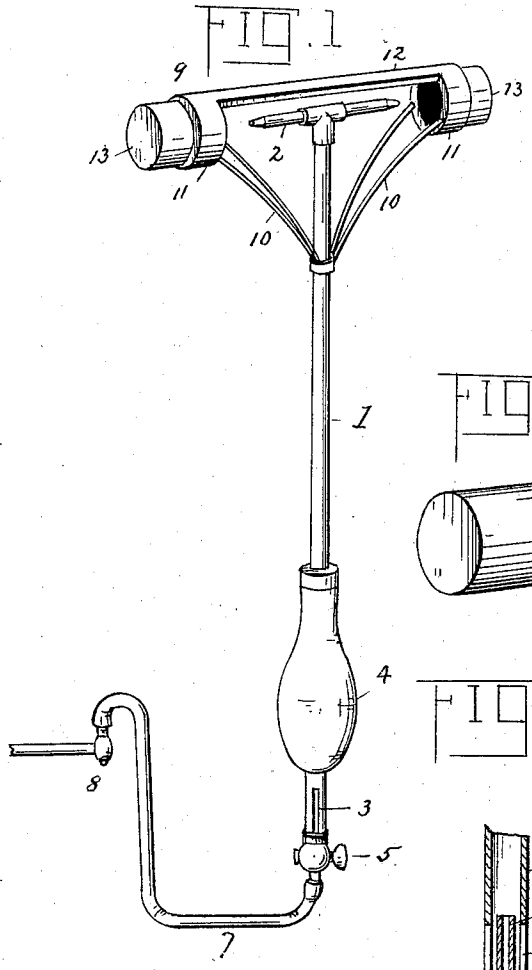


FIG. 2.

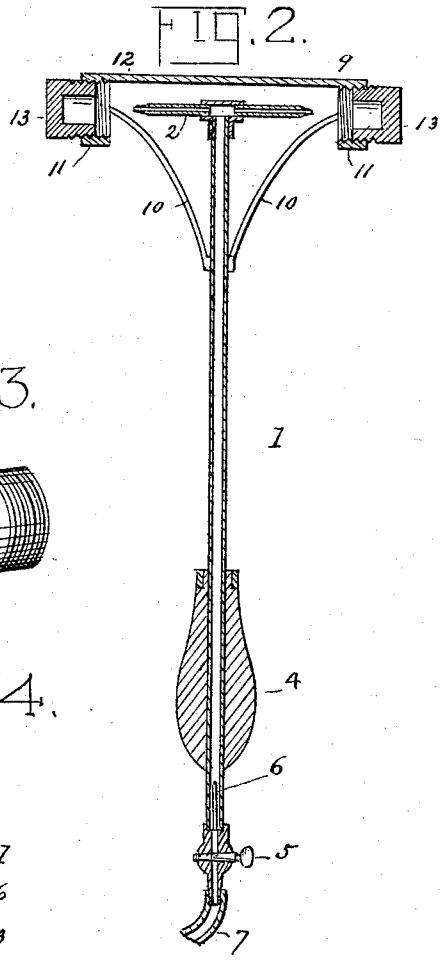
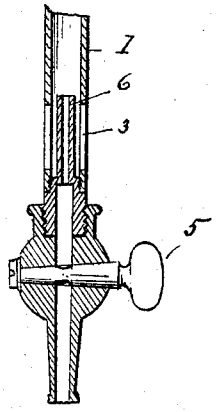


FIG. 3.

FIG. 4.



WITNESSES

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CHARLES HOLMBERG, OF BROOKLYN, NEW YORK.

SELF-HEATING SOLDERING-IRON.

SPECIFICATION forming part of Letters Patent No. 589,970, dated September 14, 1897.

Application filed January 9, 1897. Serial No. 618,555. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HOLMBERG, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Self-Heating Soldering-Irons; and I do hereby declare the following 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.

My invention relates to certain new and useful improvements in self-heating soldering-irons, the object of the same being to provide a simple and cheaply-constructed soldering-iron which is adapted to be connected with a gas-supply for applying heat to the inside of the tips of said iron.

The invention consists of a soldering-iron made up of a central tube or pipe, a wooden handle secured thereto at its rear end, a flexible coupling between the rear end of said pipe and a gas-supply, laterally-extending burners upon the forward end of said pipe, a frame surrounding said burners made up of a plurality of bracing-rods secured at their lower ends to said pipe having threaded metallic bands upon their outer ends which are connected by a supplemental bracing-rod, and hollow soldering-tips adapted to screw upon said bands and located when in place just beyond the outer ends of said burners.

The invention also consists in other details of construction and combinations of parts, which will be hereinafter more fully described and claimed.

In the drawings forming part of this specification, Figure 1 represents a perspective view of my improved device shown connected with an ordinary gas-burner. Fig. 2 is a longitudinal section through the same. Fig. 3 is a detail perspective view of one of the soldering-tips. Fig. 4 is a detail view showing the rear end of the central tube of which the device is made up and the connection between said tube and the flexible coupling leading from the gas-supply.

Like reference-numerals indicate like parts in the different views.

My improved soldering-iron is made up of a central tube or pipe 1, having laterally-extending burners 2 upon its forward end and having an opening 3 in one side adjacent to its rear end. It also has secured to it near its rear end a handle 4, of wood or other suitable non-conducting material. Adapted to screw upon the rear end of the pipe 1 is a cock 5, having a nozzle 6 thereon which is adapted to fit within the pipe 1 and extend up to a point beyond the opening 3 in said pipe, thereby constituting a Bunsen burner. To the other end of the cock 5 is connected a flexible coupling-pipe 7, which is attached at its other end to an ordinary gas-burner 8, as clearly shown in Fig. 1. Secured to the forward end of the pipe 1 is a frame 9, made up of a plurality of curved rods or bars 10 10, having secured to their outer ends in pairs rings or bands 11 11, having internal screw-threads thereon. The said rings or bands 11 are themselves connected together by means of a supplemental bracing rod or bar 12. Adapted to screw upon the bands 11 11 are soldering-tips 13 13, the same being of any suitable form and construction and interchangeable, so that the device is adapted to be used upon different kinds of work. When in place, the tips 13, which are formed hollow, lie directly opposite the ends of the burners 2 2, so that the ignited gas from said burners is injected into the inside of said tips.

As thus constructed it will be seen that I have devised an extremely simple, convenient, and effective self-heating soldering-iron which is adapted to be used in connection with an ordinary gas-burner or with a generator of hydrocarbon vapor from gasolene, naphtha, or other similar oil. The flexible coupling 7 permits of free movement of the device, and the connection between the said flexible coupling and the tube 1 provides for the mixture of gas and air or vapor and air in the manner of an ordinary Bunsen burner, the combustion of which will produce a much hotter flame than that of ordinary gas. Furthermore, by reason of the fact that the soldering-tips 13 are removable, I may employ as many different styles of tips as may be desired, substituting one for the other, according to the character of the work to be performed.

Having now described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a self-heating soldering-iron, the combination with a central tube or pipe, and means for connecting the same to a gas or vapor supply, of a plurality of burners upon the forward end of said pipe, a frame connected to said pipe consisting of a plurality of curved outwardly-extending bracing rods or bars, threaded bands or rings attached to the outer ends of said rods or bars, a supplemental bracing-rod connecting said bands or rings, and soldering-tips adapted to be screwed upon said bands, substantially as and for the purpose described.

2. In a self-heating soldering-iron, the combination with a central tube or pipe having an opening in one side adjacent to its rear end, a cock connected to the rear end of said pipe having a nozzle thereon adapted to fit up within said pipe, and a flexible coupling between said cock and a gas or vapor supply, of a plurality of burners upon the forward end of said pipe, a frame connected to said pipe consisting of a plurality of curved outwardly-extending bracing rods or bars, threaded bands or rings attached to the outer ends of said rods or bars, a supplemental bracing-rod connecting said bands or rings, and soldering-tips adapted to be screwed upon said bands, substantially as and for the purpose described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLES HOLMBERG.

Witnesses:
LUDVIG MAGNÜSSEN,
H. VALCKMAR.