R. EISENBERG.

SOLDERING IRON HEATER.

APPLICATION FILED MAY 10, 1911.

1,024,320.

Patented Apr. 23, 1912.

2 SHEETS—SHEET 1.

Fig. 6

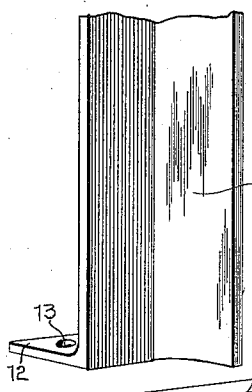


Fig. 1

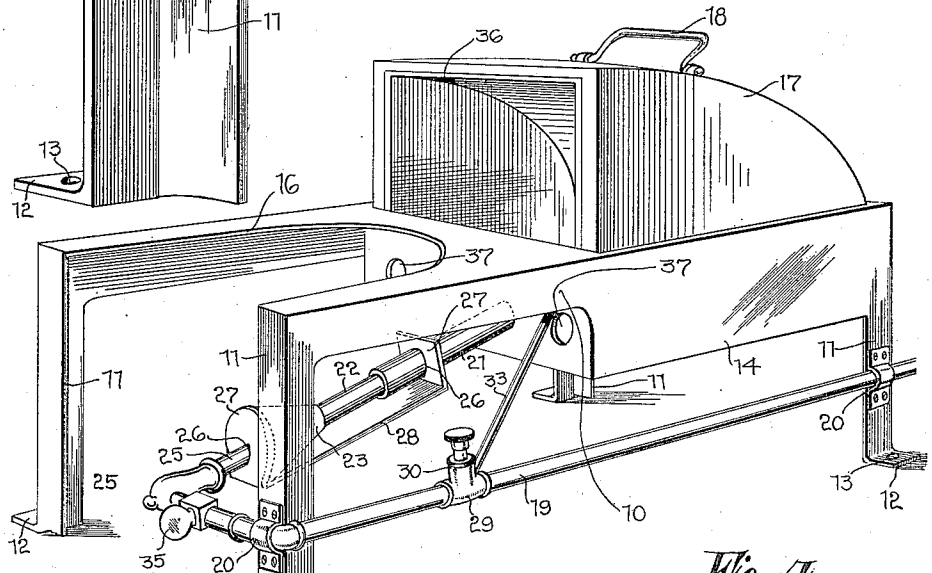


Fig. 4

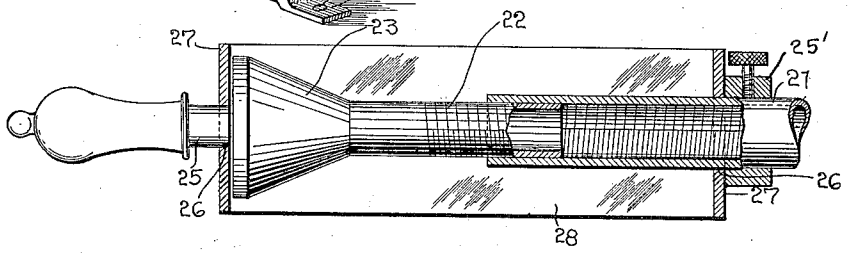
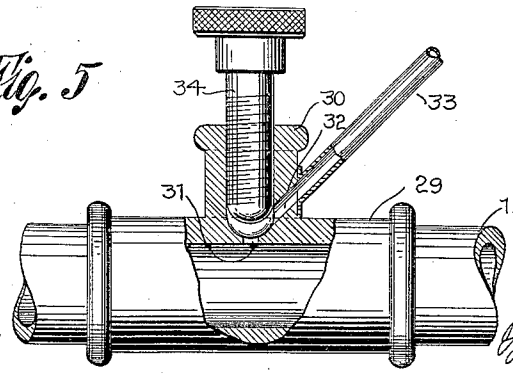


Fig. 5



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 1.

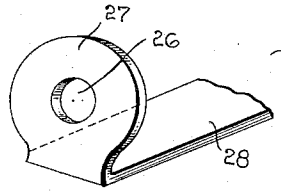


Fig. 2.

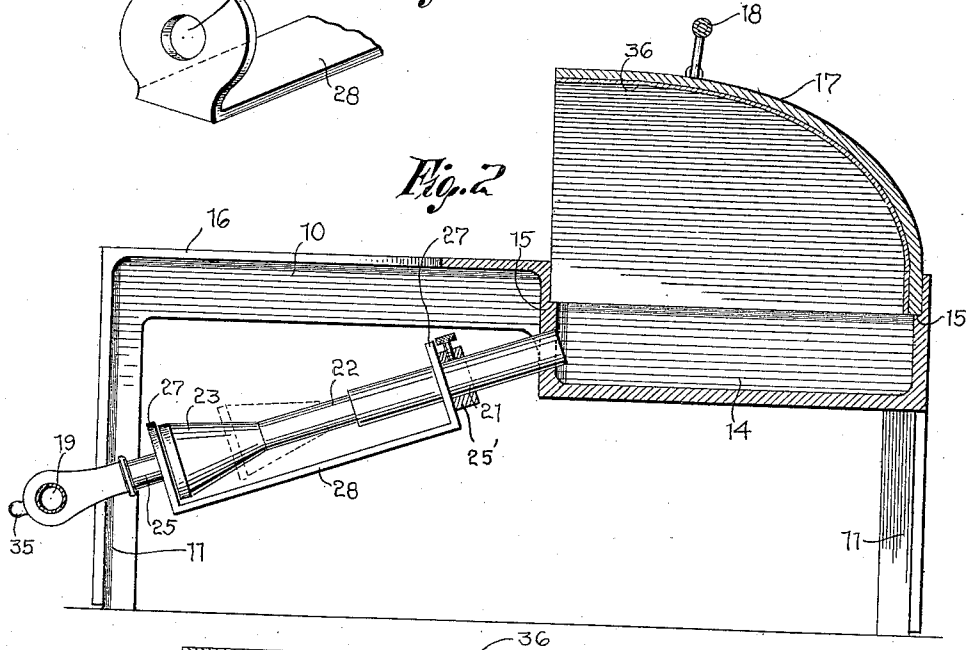


Fig. 3.

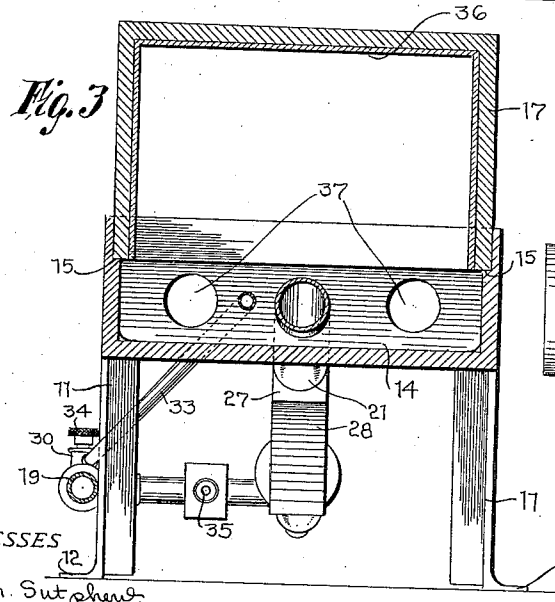
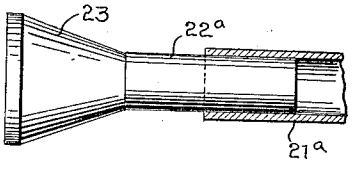


Fig. 8.



WITNESSES

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UNITED STATES PATENT OFFICE

RUBIN EISENBERG, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO ISAAC DRUKMAN, OF BALTIMORE, MARYLAND.

SOLDERING-IRON HEATER.

1,024,320. Specification of Letters Patent. Patented Apr. 23, 1912.

Application filed May 10, 1911. Serial No. 626,313.

To all whom it may concern:

Be it known that I, RUBIN EISENBERG, a citizen of the United States of America, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Soldering-Iron Heaters, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to heaters for tools, such as soldering irons, and the principal object of the same is to provide a heater in which simple means are provided for supplying heating flame and also in which a novel heating chamber is provided for the tool.

Preferred and practical embodiments of the invention are shown in the accompanying drawings, wherein:—

Figure 1 is a perspective view of the improved heater. Fig. 2 is a central vertical longitudinal sectional view of the heater showing the manner of connecting the discharge pipe and supply pipe. Fig. 3 is a transverse vertical sectional view of the heater showing the position of the bracket for connecting the discharge pipe and supply pipe. Fig. 4 is a fragmentary view, partly in top plan and partly in section, of the fuel supply pipe including a mixing bell and discharge pipe. Fig. 5 is a fragmentary view, partly in side elevation and partly in section, showing a valve controlled pilot light branch extending from the fuel supply pipe. Fig. 6 is a fragmentary perspective view of one of the supporting legs for the heater. Fig. 7 is a similar view of a connecting bracket for the fuel pipe and the mixer. Fig. 8 is a view, partly in section and partly in elevation, of a modified fuel mixer.

Referring to the accompanying drawings by numerals, it will be seen that the improved heater comprises a stand 10 in the form of a table or bench provided with corner legs 11 that have flat outwardly-projecting feet 12 that may be equipped with openings 13 to permit the same to be rigidly attached to a floor or other supporting surface by suitable fasteners. At one end, the stand is provided with a pendent chamber 14 that is provided with an internal surrounding ledge 15 adjacent its open upper end. The opposite end portion of the top of the stand 10 is cut away as indicated at 16, so that a workman can stand therein to facilitate placing tools in or removing the same from the chamber 14. The top of the table at both sides of the cut-away portion 16 and at the inner end thereof adjacent chamber 14, is flat and forms shelves or rests for tools and the like. A hood 17 is provided for chamber 14 and sits on ledge 15. Said hood has an open end that is adjacent the inner end of slot or cut-away portion 16, and its top is provided with a handgrip 18 by means of which the hood can be manually lifted from chamber 14.

It is preferred to use gas as the fuel for the heater, and said fuel is supplied by a pipe 19 that is carried by straps 20 attached to two of the legs 11, said pipe being in communication with a source of fuel supply, not shown. Pipe 19 extends around the forward end of the stand 10 and projects into the cut-away portion 16. An inlet pipe 21 extends transversely through the front wall of chamber 14, the outer portion of said pipe being internally threaded and having the externally threaded portion of the outlet pipe 22 of a mixing bell or chamber 23 adjusted therein. The mixer 23 is preferably conical and its flat outer face is provided with a central opening with which the discharge end or outlet 25 of pipe 19 alines. Outlet or supply pipe 25 and inlet or burner pipe 21 extend through the transverse openings 26 in the right-angularly projecting end portions 27 of the elongated supporting and connecting bracket 28 constituting a substantially U-shaped structure. A collar 25′ is carried by the outer end of the bracket 28 as is illustrated in Fig. 4 for engaging the pipe 21.

At an intermediate point, pipe 19 carries a coupling 29 provided with a laterally projecting valve chamber 30 having a port connection 31 with the interior of said coupling and a discharge port 32. A pipe 33 extends from port 32 and enters the front wall of chamber 14 adjacent the fuel inlet pipe 21. A controlling valve 34 is provided for valve chamber 30, said valve being preferably of the screw plug type. Supply pipe 19 is equipped with a controlling valve 35.

The end of inlet pipe 21 that projects within the chamber 14 serves as a burner,

and the similar end of pipe 33 serves as a pilot light therefor.

In use, the tools to be heated are placed within the chamber 14 adjacent the burner, the hood 17 serving to concentrate the heat. The described manner of adjustably connecting the mixer 23 to the inlet pipe 21 permits the same to be adjusted relative to the discharge outlet of pipe 19, so that the desired, or necessary, mixture of air and gas can be obtained. And the use of a pilot, obviously provides simple means whereby the burner can be ignited by simply manipulating the controlling valve 35.

In Fig. 8, the discharge 22^a of the mixer 23 is not threaded, nor is the inlet pipe 21^a with which said discharge pipe telescopes. In this form of the invention, the desired, or necessary, adjustments of the mixer are obtained by sliding the discharge pipe 22^a relative to the inlet pipe 21^a. In all other respects, this form of the invention is the same as that previously described.

From the foregoing, it will be clear that this invention provides a simple heater by means of which one workman can quickly heat a plurality of tools, the chamber 14 and hood 17 providing a casing that confines the heat. Preferably the stand, including legs 11 and chamber 14, are integral and may be of cast metal.

In addition to the foregoing prominent features of the invention, it is contemplated providing the hood 17 with a lining 36 of asbestos or other heat resisting material, and forming openings 37 in the front wall of the chamber 14 to supply air to said chamber.

What I claim as my invention is:—

1. A burner of the class described comprising a burner pipe, a fuel supply pipe, a fuel mixing bell provided with a discharge pipe, said discharge pipe adjustably fitted in said burner pipe, said bell being provided with an inlet opening in alinement with the discharge end of the supply pipe, a substantially U shaped supporting bracket connecting the discharge end of the supply pipe with the burner pipe for holding said supply pipe and burner pipe in their correct relative position, and a controlling valve for said supply pipe.

2. A burner of the class described comprising a burner pipe, a fuel supply pipe, a fuel mixing bell provided with a discharge pipe, said discharge pipe adjustably fitted in said burner pipe, said bell being provided with an inlet opening in alinement with the discharge end of the supply pipe, an elongated bracket provided with upwardly extending angle ends, one of said ends engaging said supply pipe, a collar carried by the other end and engaging said discharge pipe for holding said pipes in their correct spaced relation and valve means carried by said supply pipe.

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

RUBIN EISENBERG.

Witnesses:

JEANETTA ELKAN,

EMANUEL M. BAUM.