

No. 665,481.

Patented Jan. 8, 1901.

W. F. SOMES.
SOLDERING TOOL.

(Application filed Feb. 20, 1900.)

(No Model.)

Fig. 1.

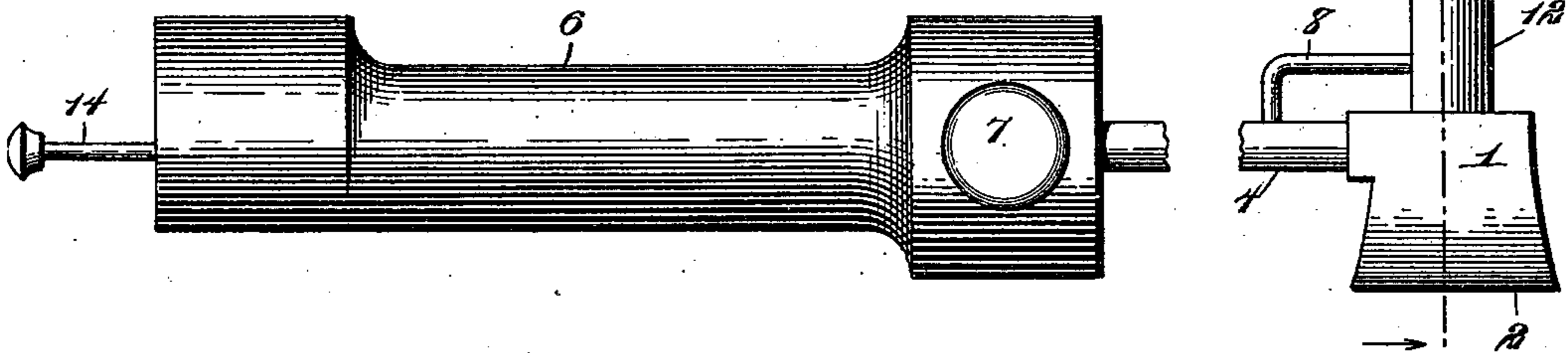


Fig. 2.

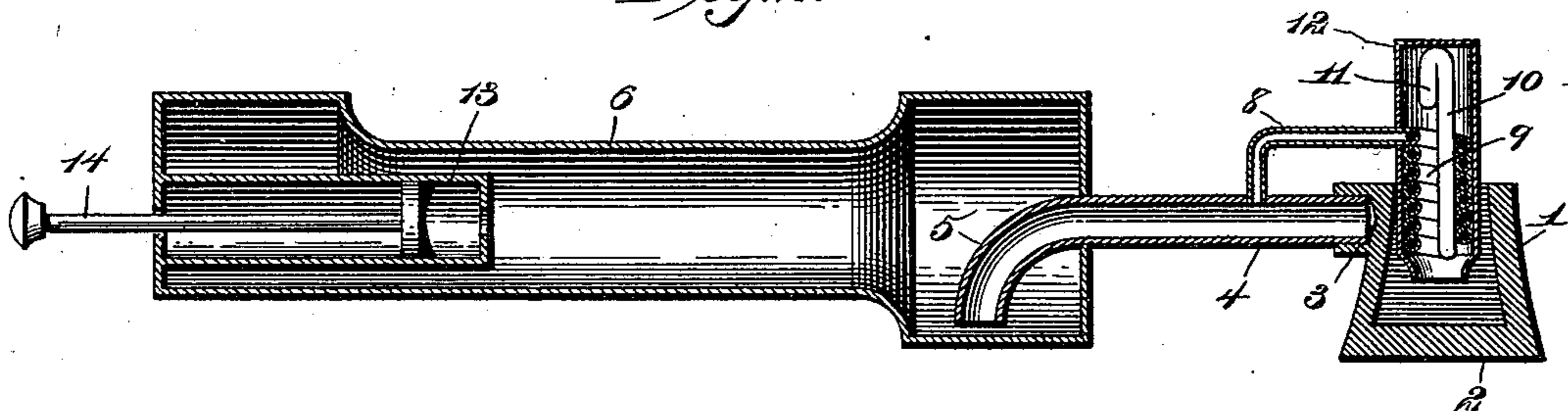


Fig. 3.

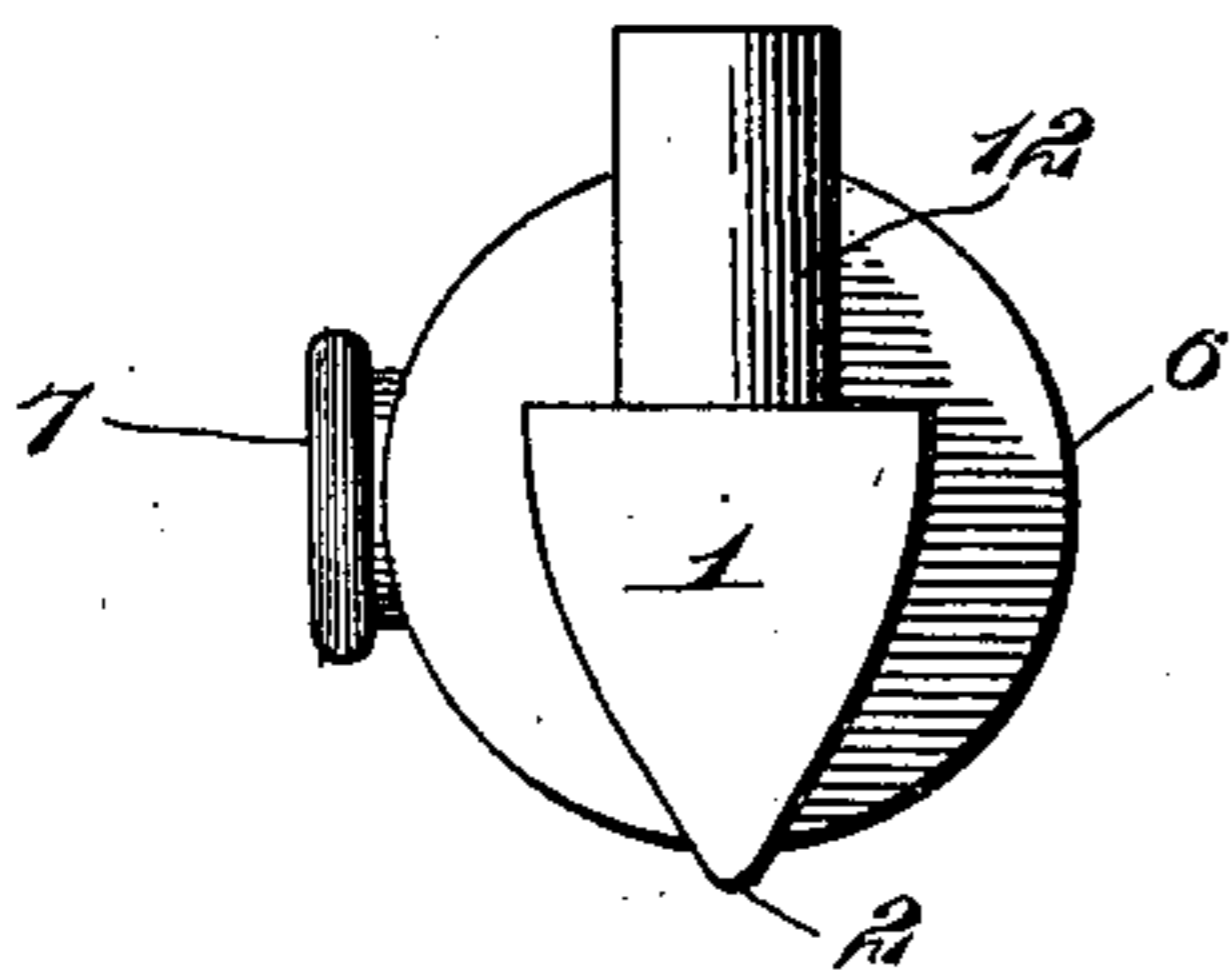
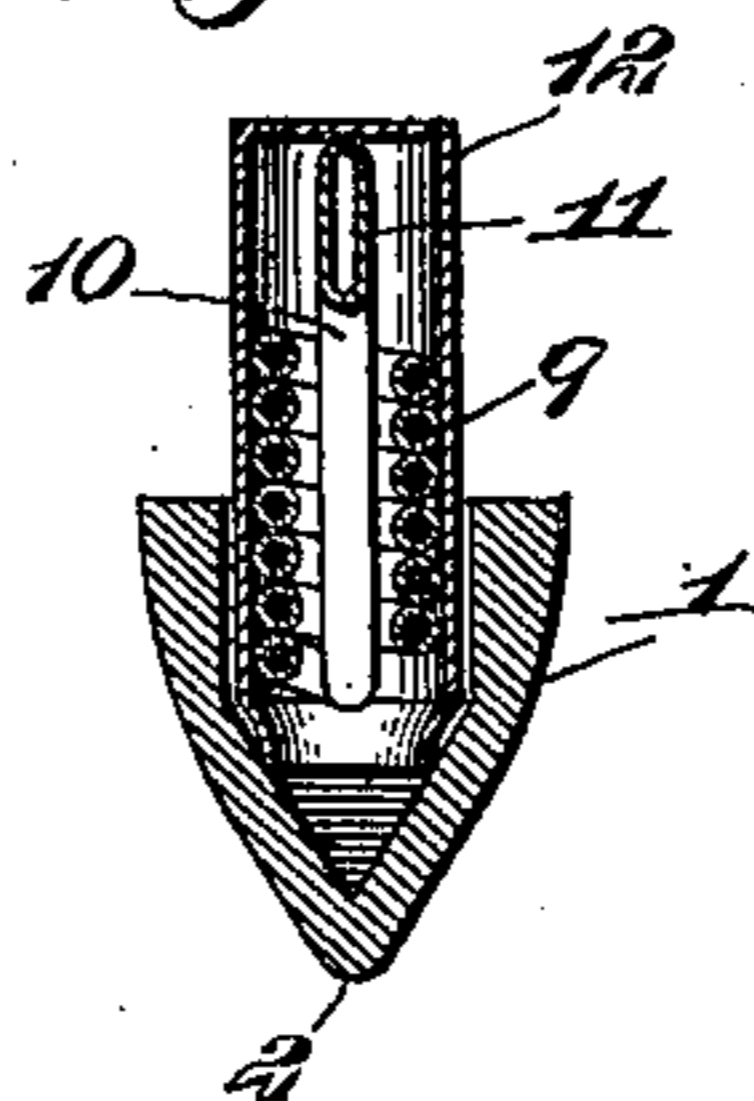


Fig. 4.



Witnesses

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SOLDERING-TOOL.

SPECIFICATION forming part of Letters Patent No. 665,481, dated January 8, 1901.

Application filed February 20, 1900. Serial No. 5,954. (No model.)

To all whom it may concern:

Be it known that I, WALTER F. SOMES, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Soldering-Tools, of which the following is a specification.

My invention relates to soldering-tools, the object being to provide a device of this character with improved means for keeping the soldering-block heated at an even temperature.

The construction of the improvement will be fully described hereinafter in connection with the accompanying drawings, which form a part of this specification, and particularly pointed out in the appended claim.

In the drawings, Figure 1 is a side elevation of a tool embodying the invention. Fig. 2 is a vertical central longitudinal section of the same. Fig. 3 is a front elevation, and Fig. 4 is a section on the line 4 4 of Fig. 1.

The reference-numeral 1 designates a hollow block of any preferred shape and size and constructed of any suitable metal. The block is here shown with its side walls converged to form an edge 2, and at the rear side of the block is formed a socket 3, adapted to receive the forward end of an oil-supply pipe 4. The rear end 5 of the oil-pipe 4 communicates with an oil-reservoir of any preferred or suitable character. In the construction here shown the hollow handle 6 of the tool constitutes the oil-reservoir, said handle being provided at one side with a filling-opening closed by a screw-cap 7.

Rising from the oil-pipe 4, adjacent to the block 1, is a feed-pipe 8 of much less diameter than the pipe 4, and extending forward and coiled into a vertical burner-coil 9, terminating in a pipe 10, which extends up within the coil and is bent downwardly to form the delivery or discharge nozzle 11, which is perforated for the escape of oil.

The coil 9 is incased by a jacket or casing 12, closed at its upper end and open at its lower end, which extends down within the hollow block 1, as shown. The casing is provided with an opening for the passage of the pipe 8, which pipe, together with the coil, supports the casing in position.

The rear end of the handle 6, which con-

tains the oil, is provided with a pump 13, having a piston-rod 14 extending through the end of the handle, the function of said pump being to force the oil with more or less pressure toward the burner-coil.

The utility and operation of the device will be apparent from the foregoing description. Oil being supplied to the reservoir, a slight pressure thereon is maintained by the pump, causing the oil to flow through the pipe 4 and coil 9 and out through the opening in the nozzle 11. The oil is ignited as it issues from the nozzle 11, and the downward direction of the flame heats the coil and vaporizes the oil contained therein, causing it to discharge in the form of vapor after the coil is heated by the flame. The flame passing down through the open lower end of the jacket 12 spreads evenly over the interior of the block, heating the latter evenly throughout.

The products of combustion escape upward through the open top of the block which surrounds the lower portion of the jacket or casing 12.

The quantity of oil supplied to the burner-coil is regulated by the pressure in the reservoir, which is controlled by the pump, as will be apparent.

I would have it understood that I reserve the right to make all such variations or modifications in the details of the device as may fall within the scope of the invention as defined in the following claim.

I claim—

A soldering-tool comprising a hollow block; an oil-supply pipe secured at one end to said block; a feed-pipe communicating with said supply-pipe, and formed into a burner-coil terminating in a depending discharge-nozzle; a jacket or casing surrounding said coil and having its lower end extending down within the block, said jacket being closed at its upper end and open at its lower end; a reservoir with which the supply-pipe communicates; and means for exerting a pressure upon the oil within the reservoir.

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

WALTER F. SOMES.

Witnesses:

CHARLES E. PRICE,
FRANK J. MORSE.