

J. D. Wyman,

Soldering Iron.

No. 87,897.

Patented Mar. 16. 1869.

Fig. 1.

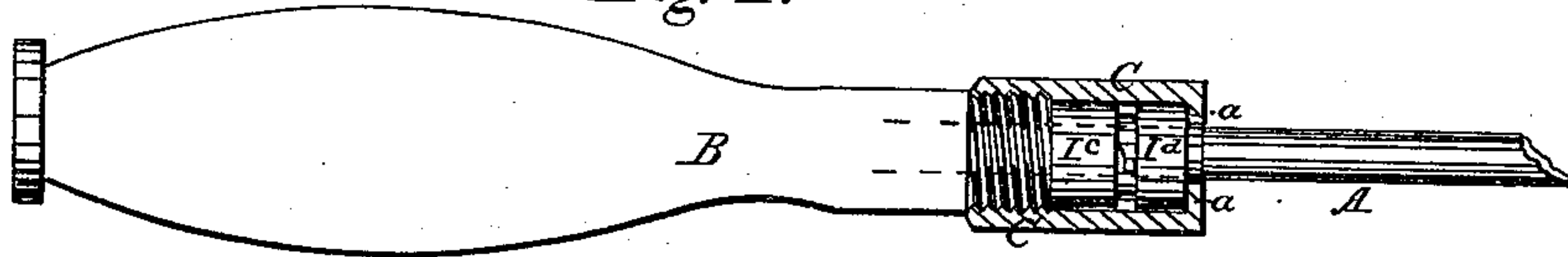


Fig. 2.

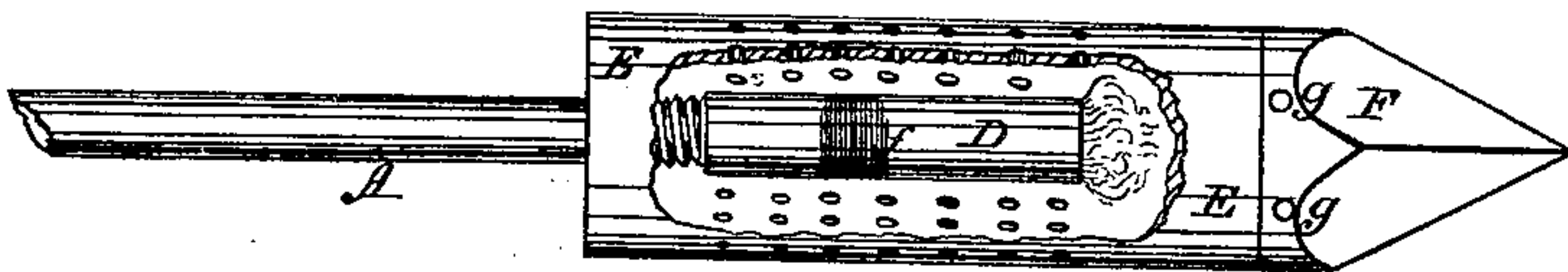
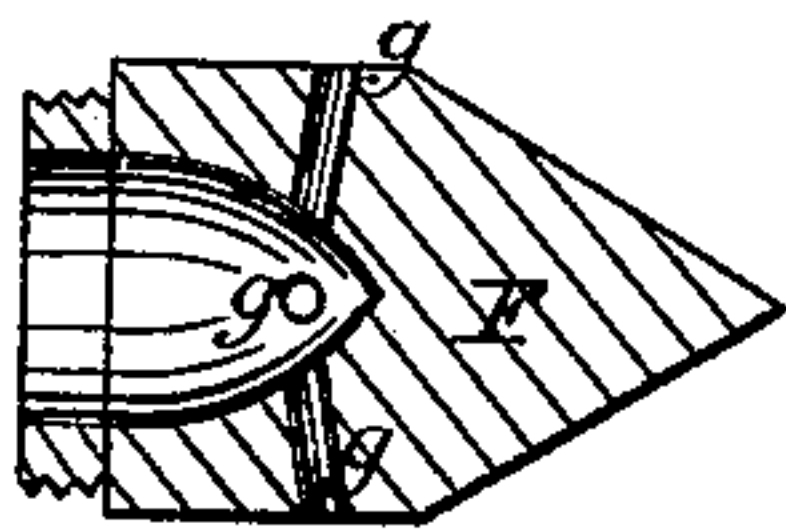


Fig. 3.



Witnesses,
L. M. Wells
Roswell Lee

Inventor,
J. Dana Wyman
by his attys.
Gardner & Hyde



J. DANA WYMAN, OF FITCHBURG, MASSACHUSETTS.

Letters Patent No. 87,897, dated March 16, 1869.

IMPROVEMENT IN SOLDERING-IRONS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, J. DANA WYMAN, of Fitchburg, Worcester county, State of Massachusetts, have invented certain new and useful Improvements in Self-Heating Soldering-Irons; and I do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the drawings—

Figure 1 is a side view, and

Figure 2, a partial sectional view of the same;

Figure 3 being a detailed view of a part.

In this invention, which relates to the self-heating soldering-iron, patented by Theodore Beardsley, February 25, 1867, and assigned to himself and J. DANA WYMAN, aforesaid, I obviate several difficulties attending the construction of the said patented soldering-iron.

The first objection in this was, that the tube A, fig 1, connecting the reservoir with the burner, became so heated, that while it did not render the handle unbearable, it rendered the oil so thin, from the heat, that it was consumed much too rapidly, from its flowing so much more readily, and consequently feeding the wick at the burner faster.

In order to obviate this, I place a non-conducting packing, I, of wood, or other convenient substance, around the tube A, between the end of the reservoir, or handle B, and the inside end of the cap C, which screws on the end of the reservoir B, and holds the tube in place, as well as stopping the end of the reservoir. This packing is made cylindrical, and fills in between the cap and the reservoir, around the tube, so that there is no contiguity of metal between them, the end of the cap, where the tube passes through, not fitting closely to the latter, but only having sufficient shoulder, *a*, to press the packing firmly against the reservoir, when screwed on in place.

In order to make a firm connection of the tube and reservoir, by means of the packing, the latter is put on in a peculiar manner, which I will now explain.

The tube A is constructed with a shoulder, *b*, on it, at the proper distance from the end of it, and on each side of this shoulder the rings of packing, *c* and *d*, are put, and when they are pressed toward the end of the reservoir, by the screwing down of the cap, instead of sliding upon the tube, they press it in place firmly, by means of the shoulder *b* being clamped rigidly between them.

The wick-regulator, shown in the afore-mentioned patent, I much improve upon, by placing a cylindrical sleeve, D, around the tube A, near the end; and in order to dampen the flame, it is only necessary to slide this sleeve, D, a little past the end of the tube A, forming the burner, and so reduce the height, or projection of the wick, necessarily diminishing the flame.

The sleeve D is roughened on the outside, at *f*, in order to give a better hold in moving it.

In order to keep up a steady flame inside the heater E, when the iron is turned point downward, which is the most convenient position when not actually in use, and it is still required to be ready, it is necessary that the point F, of copper, should also have holes for the fresh air to feed the flame. Formerly these holes were made in the cylinder E alone, it being necessary to hold the soldering-iron point upward, in order to keep up the flame. I therefore place holes, *g g*, &c., in the copper point, leading toward the flame, so that when the iron is turned point downward, there is a direct draught under the flame, and this completely obviates all difficulties in this respect.

Now, having described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

In combination with a soldering-iron, the non-conducting packing I, as shown and described.

J. DANA WYMAN.

Witnesses:

EDWARD H. HYDE,
R. F. HYDE.