(No Model.)

C. L. WAGANDT.

SOLDERING TOOL.

No. 389,726. Patented Sept. 18, 1888.

Fig 6

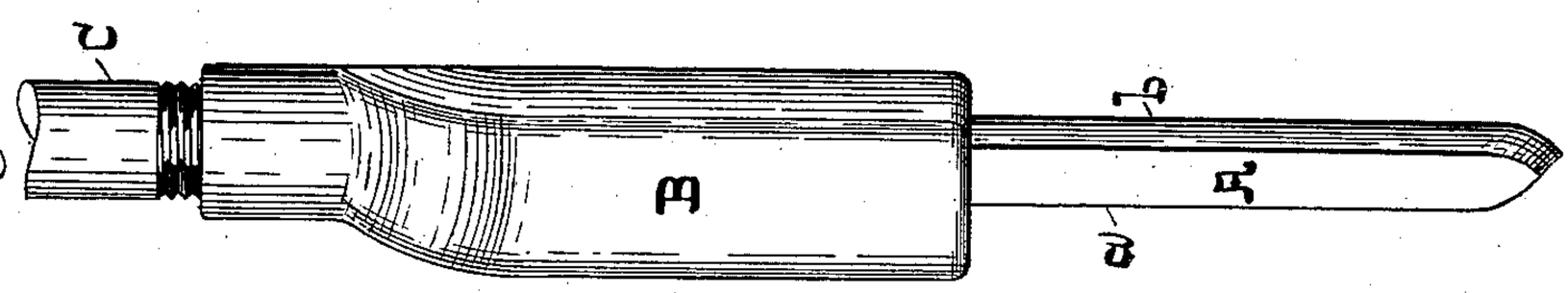


Fig 4.

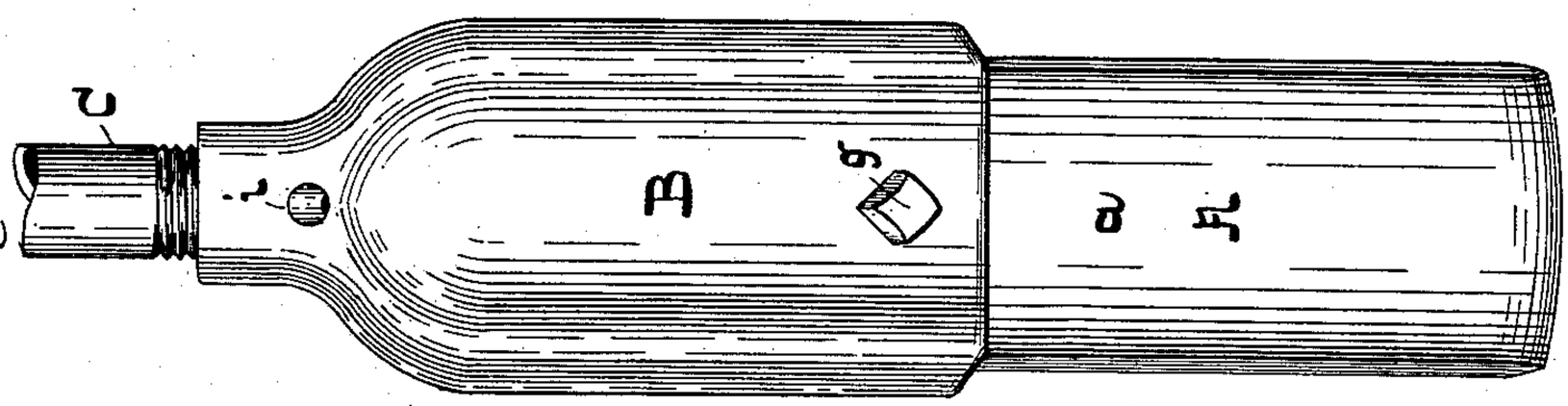


Fig 1.

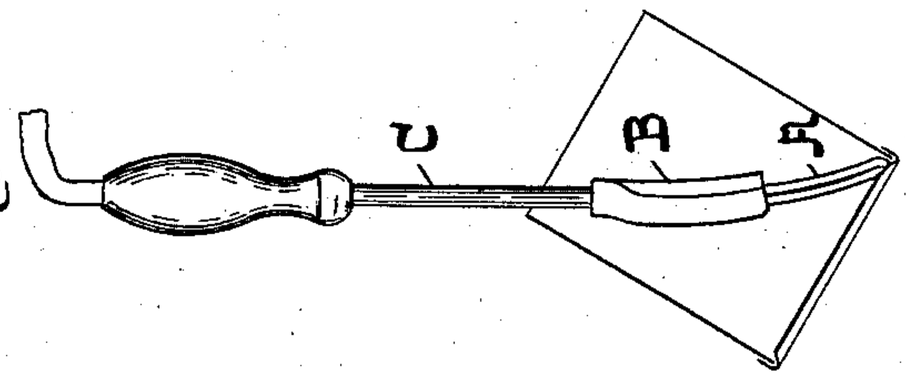


Fig 5.

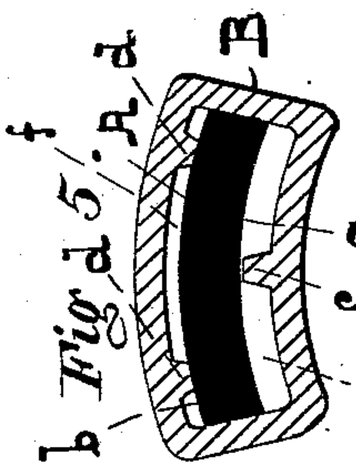


Fig 3.

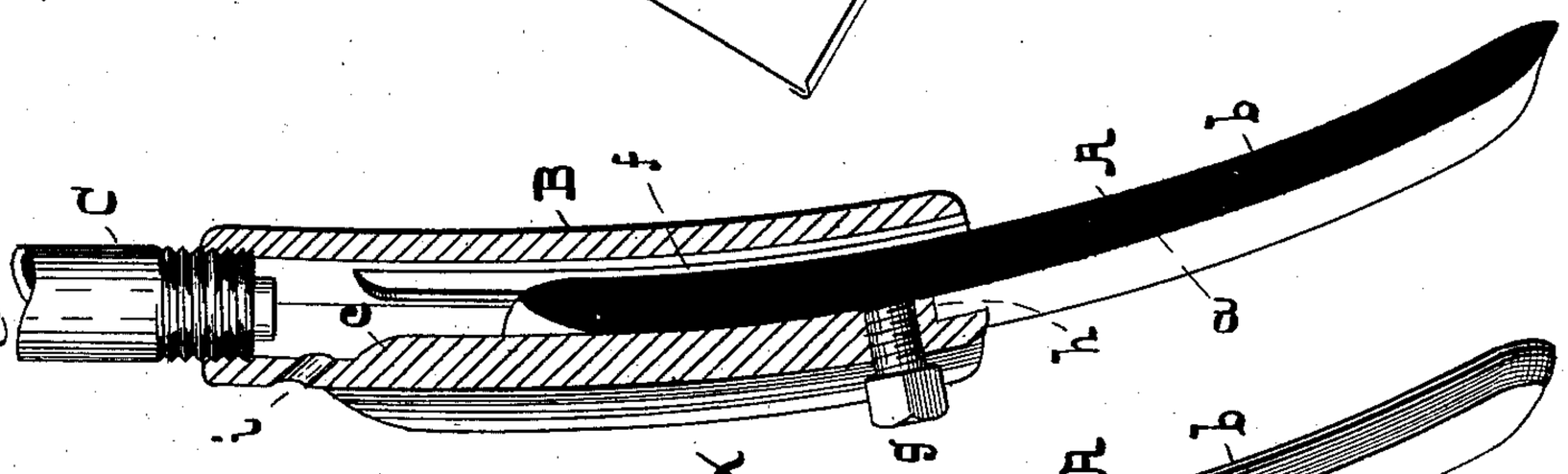
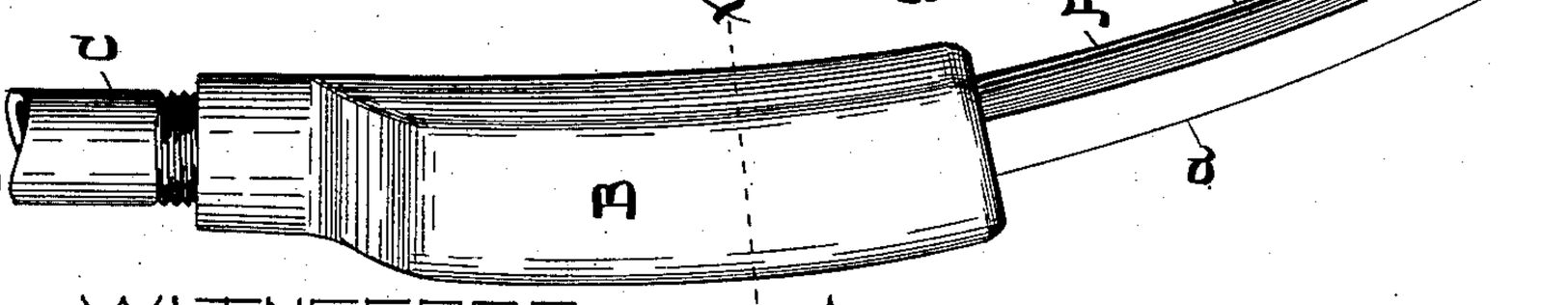


Fig 2.



-WITNESSES-

Dan'l Fisher

W. C. Jennes

-INVENTOR-

Charles L. Wagandt,

by Geo. H. T. Howard,

atty.

UNITED STATES PATENT OFFICE.

CHARLES L. WAGANDT, OF BALTIMORE, MARYLAND.

SOLDERING-TOOL.

SPECIFICATION forming part of Letters Patent No. 389,726, dated September 18, 1888.

Application filed June 19, 1888. Serial No. 277,520. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. WAGANDT, of the city of Baltimore, and State of Maryland, have invented certain Improvements in Soldering-Tools, of which the following is a specification.

This invention relates to certain improvements in that class of soldering-tools which are commonly known as "floating-irons"—that is to say, tools specially adapted to the soldering of the heads and bottoms of cans from the inside of the body.

In the further description of the said invention which follows reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a view which shows the tool within a can-body, which is shown in section and as it would appear in the soldering operation. Fig. 2 is an exterior edge view of the principal parts of the tool, and Fig. 3 a central vertical section of Fig. 2. Fig. 5 is a cross-section of Fig. 2, taken on the dotted line *x x*. Fig. 4 is a side view of Fig. 2, looking in the direction indicated by the arrow. Fig. 6 illustrates a modification, hereinafter described.

Similar letters of reference indicate similar parts in all the figures.

Referring to Figs. 1 to 5, inclusive, A represents the soldering-block, which consists of a bar of copper curved in cross-section and of uniform width and thickness throughout its length, except at the extreme ends, which are sharpened to form soldering-edges. The concave face of the segmental block will hereinafter be designated by *a*, and the convex face by *b*. This block is inserted in a holder, B, of segmental cross-section, into the rear end of which is screwed a pipe, C, which serves as a handle for the tool and also as means to convey into the holder in contact with the soldering-block gas or a combination of air and gas for heating purposes.

The holder is closely in contact with the radial edges of the soldering-block, but is held from contact with the concave and convex faces of the same by means of projections *c* and *d*, whereby are formed the recesses *e* and *f*, which are of different depths, as shown in Fig. 5.

The recesses *e* at the concave side *a* of the block are made of greater depth than the one *f* at the convex side, in order that when the tool is inserted to a can through the cap-hole, as shown in Fig. 1, the flame next to the can-body may be smaller than that issuing from the other recesses and not liable to burn the can-body.

The concave wall of the holder is provided with a set-screw, *g*, by means of which the block is firmly held in place, and it is preferably arranged to pass through the projection *c*, which is formed with a boss, *h*, for the purpose, as shown in Fig. 3. A ventilating-aperture, *i*, near the rear end of the holder B admits air to the gas-flame.

It will be seen that the soldering-block, which is curved in cross-section and of uniform width and thickness, is also curved in the direction of its length, and that the inner side of this curvature corresponds with the convex face *b*. The object of this conformation is to enable a person using the tool to retain the handle in a nearly upright position while soldering in the head or bottom of a can, while the soldering-block is held in an inclined position, as shown in Fig. 1.

In having the holder to conform in shape to the soldering-block the weight of the tool is much reduced.

The soldering-block, being of uniform width and thickness throughout its length, may be formed from ordinary bar-copper without forging and kept in working condition by merely sharpening the ends when they shall have become worn.

The tool shown in Fig. 6 corresponds in all essential particulars with the one described, except that the soldering-block is straight throughout its length instead of curved.

I claim as my invention—

1. In a soldering-tool, a soldering-block curved in cross-section and of uniform width and thickness, combined with a hollow holder curved in cross-section, having projections on its inner faces, whereby are formed recesses for the escape of gas or flame, and a pipe to conduct gas to the interior of the said holder, substantially as and for the purpose specified.

2. In a soldering-tool, a soldering-block curved in cross-section, of uniform width and thickness, and bent or curved in the direction

of its length, substantially as and for the purpose specified.

3. In a soldering-tool, a soldering-block curved in cross section, of uniform width and thickness, and curved in the direction of its length, combined with a holder of similar shape and a pipe to introduce to the interior of the holder gas, or air and gas, substantially as and for the purpose specified.

4. In a soldering-tool, a soldering-block curved in cross-section, uniform in width and thickness, and curved in the direction of its length, the inner side of the said curve corresponding with the convex side of the said block, substantially as and for the purpose specified.

CHARLES L. WAGANDT.

Witnesses:
WM. T. HOWARD,
H. M. FITZHUGH.