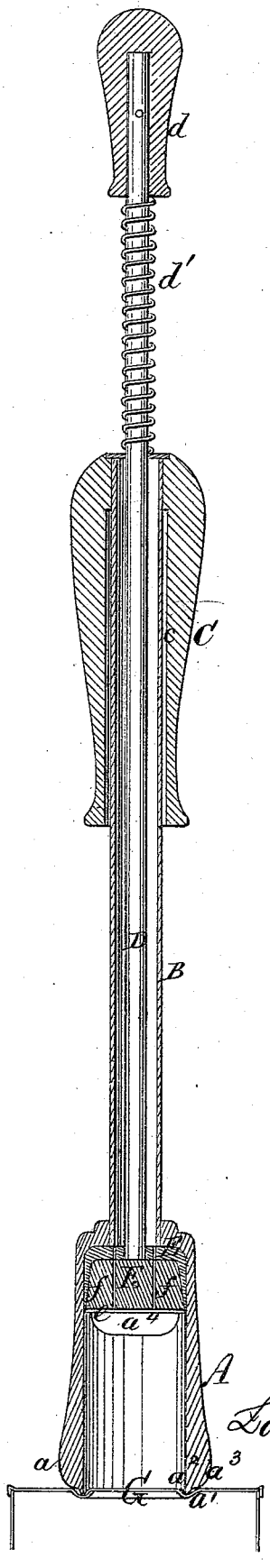
L. McMURRAY & R. J. HOLLINGSWORTH.

Improvement in Soldering-Tools.

No. 126,071. Patented April 23, 1872.



Witnesses:

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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

LOUIS McMURRAY AND ROBERT J. HOLLINGSWORTH, OF BALTIMORE, MARYLAND; SAID HOLLINGSWORTH ASSIGNS HIS RIGHT TO FRANCIS CUTTING, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN SOLDERING-TOOLS.

Specification forming part of Letters Patent No. 126,071, dated April 23, 1872.

SPECIFICATION.

We, LOUIS MCMURRAY and ROBERT J. HOLLINGSWORTH, in the city and county of Baltimore and State of Maryland, have invented certain Improvements in Soldering-Tools, of which the following is a specification:

Our invention relates to a tool by which the closing or soldering up of fruit or oyster cans is greatly facilitated and time and material economized.

The accompanying drawing shows our soldering-tool in vertical longitudinal section, showing the position of the inner parts when the tool is getting heated.

A represents a soldering-block, made of bell-shape, with a heavy rim, *a*, as heat-retainer. The soldering-surface is divided by an angular or half-round groove, a^1, and thus forms two soldering-rims, a^2 and a^3, between which the groove a^1 serves as a receptacle for the melted solder, which otherwise would be crowded out of the crease around the cap of the can and adhere to the top of it. The upper part of the soldering-block A is as thin as the strength and safety of the tool will admit, and is provided with openings a^4 for the purpose of emitting heat and keeping the said upper part cool with its contents. A hollow stem, B, is fastened to the upper part of the soldering-block A in the same axial direction, and a wooden or other non-conducting handle, C, with an air or cooling chamber, *c*, is attached to the other end of B. A rod, D, is passed through B and C, with a handle, *d*, at the upper end, and a spring, *d'*, between the handles C and *d*. The lower end of the rod D is attached to a metal cup, E, with a rim, *e*, and a piece of soapstone or other non-conducting substance, F. The rim *e* is so constructed that it projects beyond the filling F, which is provided with air-holes *f f* to allow egress for the heated air while soldering is performed. The cup E is fitted into the block A, so it may easily slide up and down. There is no material change, though perceptible if the cup E is omitted and the substance F fastened to the rod D.

The operation is as follows: The block A being heated, the rod D is pushed down until the cup E projects below the rim *a*. The cup E is then firmly set on the cap G which is to be soldered, the rim *e* fitting tightly around the cap, thereby bringing the soldering-block E in a position concentric with the cap. The soldering-block A is then moved down into the crease on top of the solder, which, being melted, is received in the groove a^1. By pressing down and turning the block A the soldering process is perfected, and by removing the said block the solder settles in the crease to the proper level. The spring *d'* serves to keep the cup E in the upper part of the block A, whereby it is kept safe from unnecessary heating and other injury.

We wish it understood that we do not confine ourselves to any special kind of metals or alloys for the construction of the soldering-block A, and that we protect the said block by a coating or plating of tin, nickel, or silver, or any other metal apt to resist the action of acids used in soldering. We also desire to have it understood that we do not claim in this patent the side-draught holes in the soldering-block; but

We claim as our invention—

1. The cap-pressing block of soap-stone or other equivalent non-conductor of heat, and provided with air holes or passages.

2. The combination of a cap-pressing block with a spring-rod passing through the hollow stem and handle of the soldering-block, for operation as set forth.

3. The combination of the internal and external stems and intermediate spring, so as to keep the pressing-block away from the heated portion of the soldering-block and above its draught hole or holes during the interval of soldering operations.

LOUIS MCMURRAY.
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Witnesses:
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