

W. D. BROOKS.
Soldering Apparatus.

No. 131,656.

Patented Sep. 24, 1872.

Fig. 1.

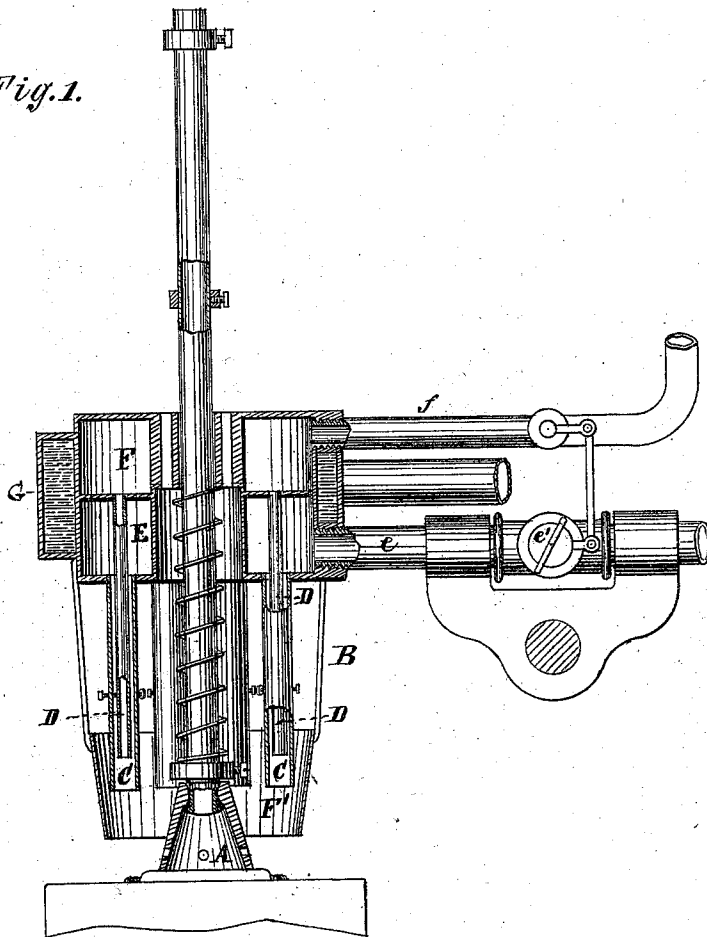
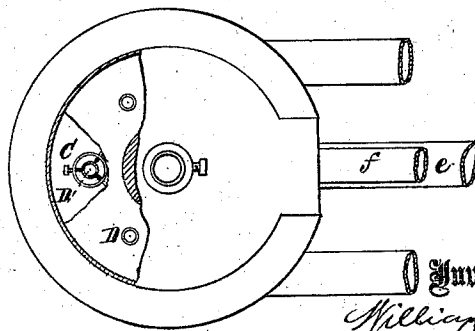


Fig. 2.



Witnesses:
G. S. Matthews.
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PER [Signature] Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM D. BROOKS, OF BALTIMORE, MARYLAND, ASSIGNOR TO MARY C. BROOKS AND GEORGE D. BROOKS, OF SAME PLACE.

IMPROVEMENT IN SOLDERING APPARATUS.

Specification forming part of Letters Patent No. 131,656, dated September 24, 1872.

To all whom it may concern:

Be it known that I, WILLIAM D. BROOKS, of Baltimore, in the county of Baltimore and State of Maryland, have invented a Soldering Apparatus, of which the following is a specification:

My invention consists, first, in an improved form and construction of soldering-iron so far as relates to the tubes and chambers which hold and convey the air and gas to the point where they are expected to afford the flame; second, in combining a water-chamber with burners to absorb the rising heat and carry it off; third, in providing the cap-holder with a tubular stack to discharge gas from can; fourth, in using a swiveled thimble for a cap-holder, which has also end play on a joint to enable it to adjust itself accurately on cap of can.

In the drawing, Figure 1 is a central vertical section; Fig. 2, a top view with parts broken out.

A represents a thimble or bell-mouthed holder, which may be apertured at the sides, which maintains the cap in position, and which is loosely swiveled on a tube or stack. This has the effect of a double or universal joint that enables the thimble to accommodate its lower edge to the surface of cap, whether the latter be exactly horizontal or not, while the tube admits the ready escape of air and gas from the can. B is a soldering-iron, formed of a series of pendent tubes, C D, the latter within the former, but not extending to the end thereof. These tubes C D respectively pro-

ceed from a gas-chamber, E, and an air-chamber, F. *e f* are pipes which supply the required gas and air under pressure, and *e'* is a gas-cock. F' is a surrounding shield or non-conductor for preventing the escape of flame and heat in a lateral direction.

I am aware that a blow-pipe has been used in the process of soldering, and held stationary while a sheet-metal can was revolved thereunder; and therefore I do not desire to claim, broadly, the application of a blow-pipe to soldering.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The air and gas chambers E F, provided with the series of tubes C D, pendent in a circle thereunder, and arranged one within another over the can, as and for the purpose described.
2. The thimble A, swiveled or jointed to the stack to give it end play, for the purpose set forth.
3. The shield F, arranged about the tubes C D, as and for the purpose described.
4. The annular water-chamber G, arranged around the chamber E F, as and for the purpose described.

To the above specification of my invention I have signed my hand this 25th day of May, A. D. 1872.

WM. D. BROOKS.

Witnesses:

SOLON C. KEMON,
JAMES H. GRIDLEY.