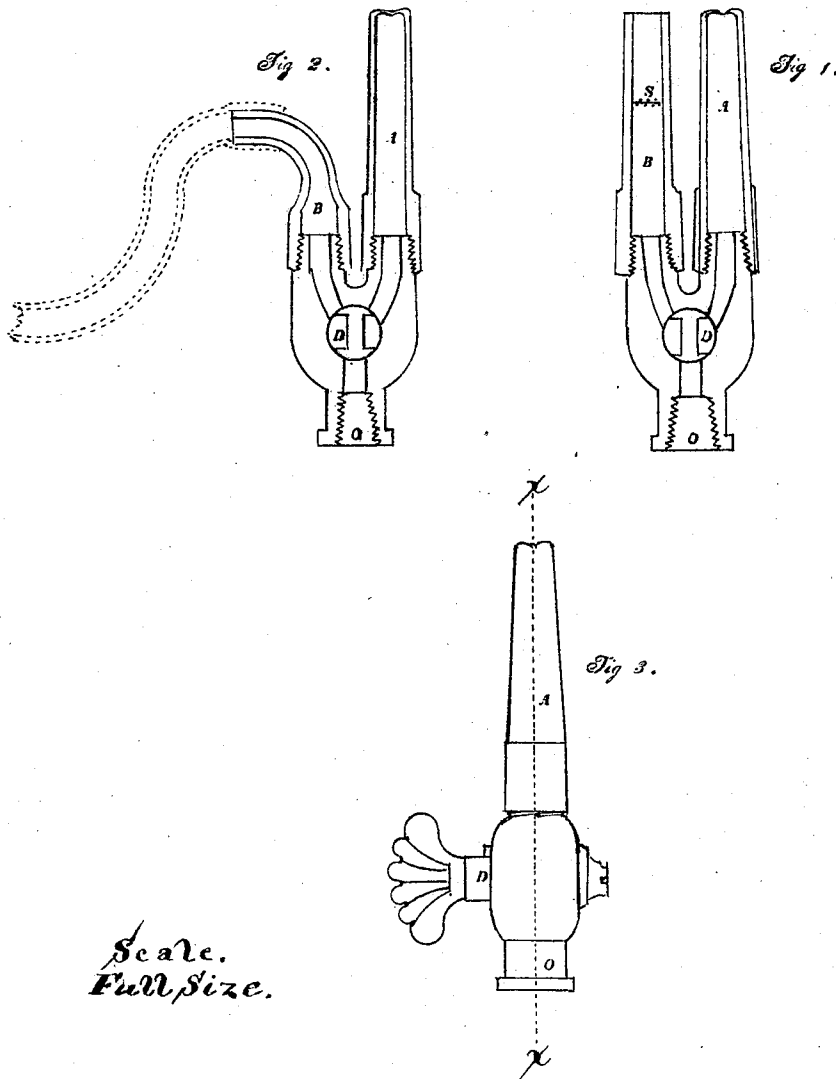


W. L. WALKER & I. M. JONES.

Improvement in Gas Cocks for Soldering.

No. 123,956.

Patented Feb. 20, 1872.



Witnessed
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UNITED STATES PATENT OFFICE.

WILLIAM L. WALKER AND IDWAL M. JONES, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO CHARLES W. FIELDS, OF SAME PLACE.

IMPROVEMENT IN GAS-COCKS FOR SOLDERING.

Specification forming part of Letters Patent No. 123,956, dated February 20, 1872.

Specification describing certain Improvements in Gas-Cocks for Soldering purposes, invented by WILLIAM L. WALKER and IDWAL M. JONES, both of the city and county of Providence and State of Rhode Island.

This invention consists mainly in combining with an ordinary gas-burner a tube, for the use of jewelers in soldering with the blow-pipe, and a cock, arranged in such a way as to obviate the necessity of removing the burner and screwing on a tube or socket whenever the blow-pipe is to be used.

Figures 1 and 2 are vertical cross-sections taken through in the direction of the line *x x*, Fig. 3, Fig. 1 showing a section of a large burner, in which a blow-pipe is used, and Fig. 2 a section of the tube used to hold a rubber tube and gas blow-pipe. Fig. 3 is a side elevation of the cock and burner.

A is a gas-burner, made in any of the usual forms. B in Fig. 1 is a tube, with an open top and a division formed of wire-gauze, *s*, near the top, intended to furnish a large flame for soldering with a blow-pipe. B in Fig. 2 is turned off to one side and reduced in size to receive a rubber tube with a blow-pipe in the end, in which gas is used to solder with, it being necessary to turn the tube with the rubber away from the upper part of the burner A, as it would otherwise get heated so hot as to destroy the rubber tube. D is a gas-cock, placed at the junction of the tubes A and B. It has a single way, the ports of which are widened a little, so that the gas may be let onto the tubes A and B at the same time, or either one shut off.

The operation is as follows: The gas being

let onto the pipe O, and the cock D set to allow it to flow through burner A, it is lighted; and when the work is ready the gas is turned onto the tube B, taking fire from the flame of the burner A, from which the gas may be shut off entirely if its light is not needed to see the work by; but when it is necessary to use the gas blow-pipe, but little gas is turned onto the tube B, Fig. 2, and the burner A is left burning to see by, as the gas blow-pipe gives very little light.

With the usual burner, the way is, when the work is ready, to shut off the gas, take the pinchers and unscrew the burner and screw on an open tube or a socket to receive the tube of the gas blow-pipe, and then relight the gas, running the risk of burning the fingers with the hot burner when the pinchers are not handy; and the wearing out of the screw-thread and leakage of gas from the continual screwing and unscrewing required, together with the great loss of time consequent upon making the changes, makes our improvement of great utility, as all these difficulties are obviated by the use of it.

Having thus described our improvement, what we claim as our invention is—

The combination of the burner A with the soldering-tube B and cock D, all constructed and arranged substantially as and for the purpose specified.

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Witnesses:

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