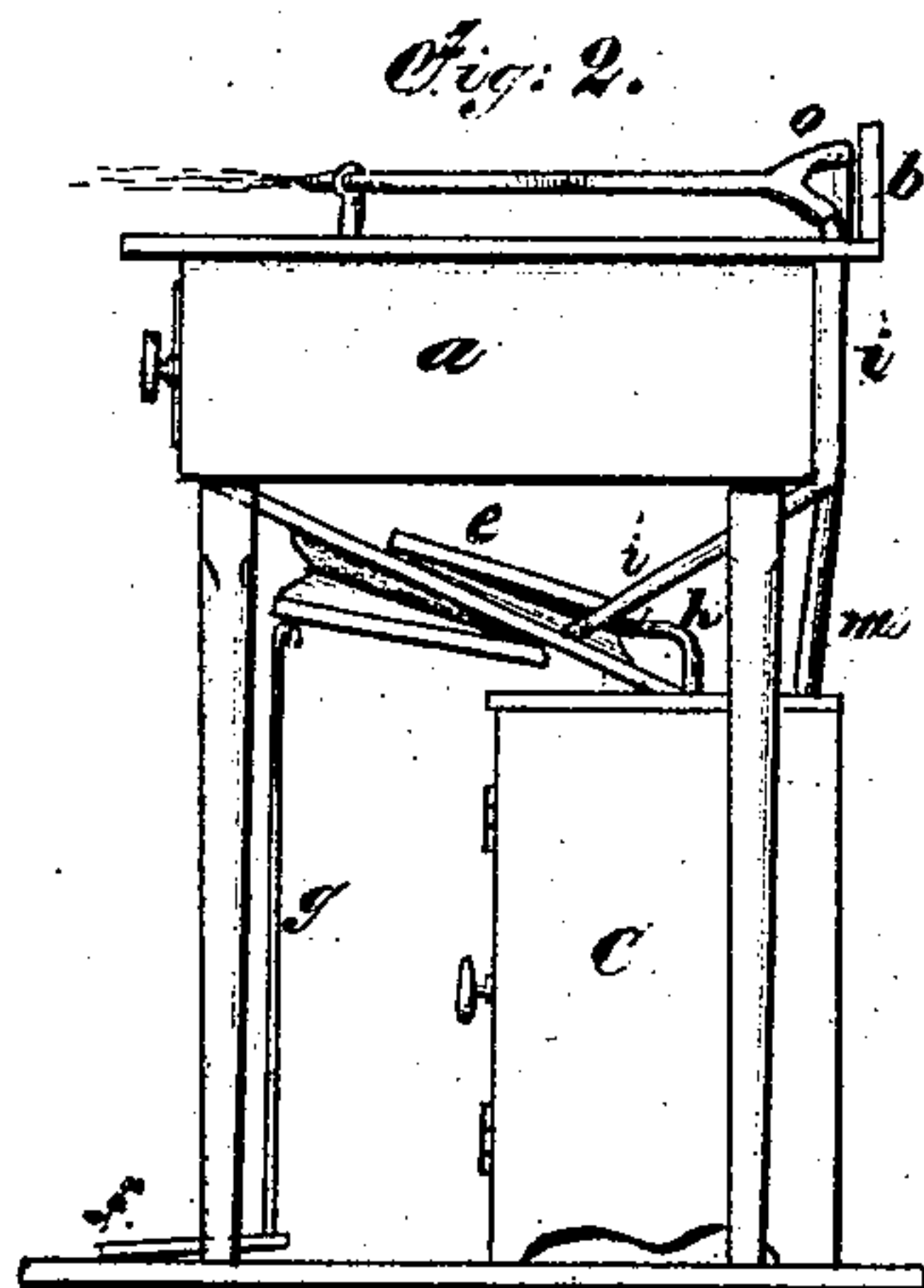
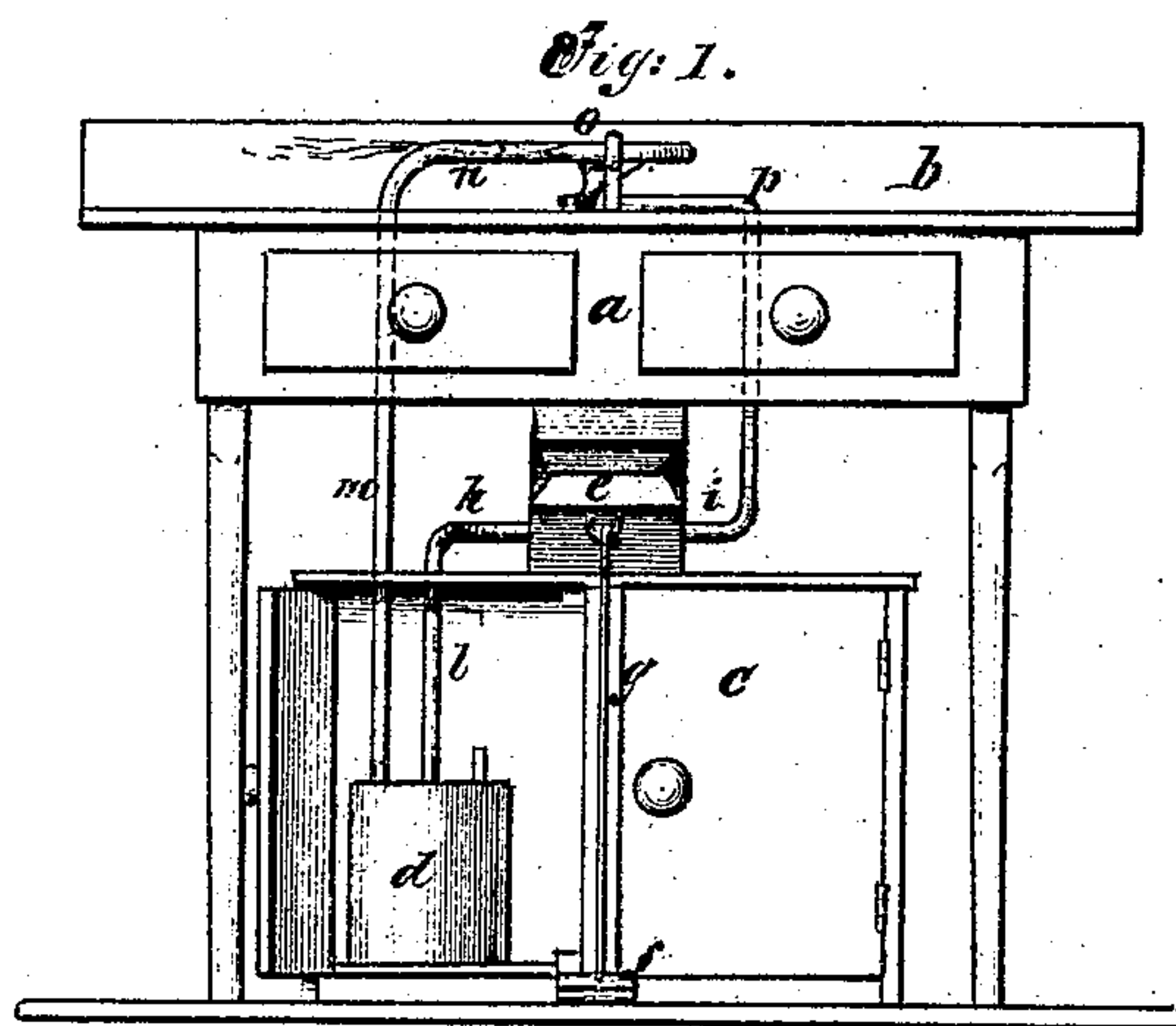


J. B. Hyde,
Blow Pipe.

No. 107,263.

Patented Sep. 13. 1870



Witnesses:

Frederic Harvey
J. A. Goodrich

Inventor:

J. B. Hyde

United States Patent Office.

J. BURROWS HYDE, OF NEW YORK, N. Y.

Letters Patent No. 107,263, dated September 13, 1870.

IMPROVEMENT IN BLOW-PIPES.

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

I, J. BURROWS HYDE, of the city, county, and State of New York, have invented certain Improvements in Blow-pipe Tables, of which the following is a specification.

My invention relates to the construction and arrangement of an apparatus for certain mechanical, chemical, and other operations, where heating and blow-pipe manipulations are required, and consists of a working-table or bench, combined with an apparatus for carbureting atmospheric air or commercial gas, and also with a bellows or other contrivance for employing and controlling a current or currents of air in tubes, the gas, or carbureting apparatus for producing the gas, being used and further combined with a blow-pipe, or other contrivance for soldering, melting, softening, molding, boiling, or heating, as may be required. (See drawing.)

a shows the table, provided with a narrow projecting upright strip, *b*, at the back side.

c shows an inclosing case, which may be dispensed with, for the carbureter *d*.

e is the bellows, represented double in the drawing, and worked by a treadle, *f*, and intermediate connecting-rod, *g*, although any other convenient mode for producing the air-currents may be used.

This bellows or blowing apparatus is provided with two outlets for the air, *h* and *i*, from one of which, *h*, a pipe, *l*, leads to the carbureting-vessel, *d*, containing the carbureting fluid or hydrocarbon, the vapors of which, combining with the air, produces commercial gas, which escapes from the vessel *d*, by an outlet-tube, *m*, that leads to and is connected with a fixed tube, *n*, secured to the back *b* of the table.

This tube *n* has connected to it a branch or union tube, *o*, projecting therefrom.

The second bellows-tube, *i*, leads to another tube, *p*, also fixed to the table back, *b*, which tube is connected with a second branch of the union, *o*, having this, the air-tube, inside of the gas-tube, to each of which separate tubes, other or prolonging tubes, are attached, and connected with the burner or nozzle, as indicated in the drawing, and for which I prefer to use elastic tubes, one within the other, but other contrivances may be used for this purpose. I also prefer that the air-tube be inside that for the gas, and that both the gas and the air should unite as near the outlet of the burner as possible.

In using ordinary commercial gas with this apparatus, the outlet *h* of the bellows is dispensed with, and the tube *l*, to be attached to a pipe conveying that gas, which, flowing into the carbureter, will be improved in quality, and greatly economized in use.

It will be well to have in each of the tubes *i* and *l* a stop or regulating-cock, to graduate the flow of air from the blower, according to the difference of pressures required.

I claim—

1. The apparatus described, for the purposes set forth.

2. The use of a blowing contrivance, with two air-conductors, in combination with an air or gas-carbureter, and a blow-pipe or heating contrivance, as described, and for the uses set forth.

Witnesses:

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