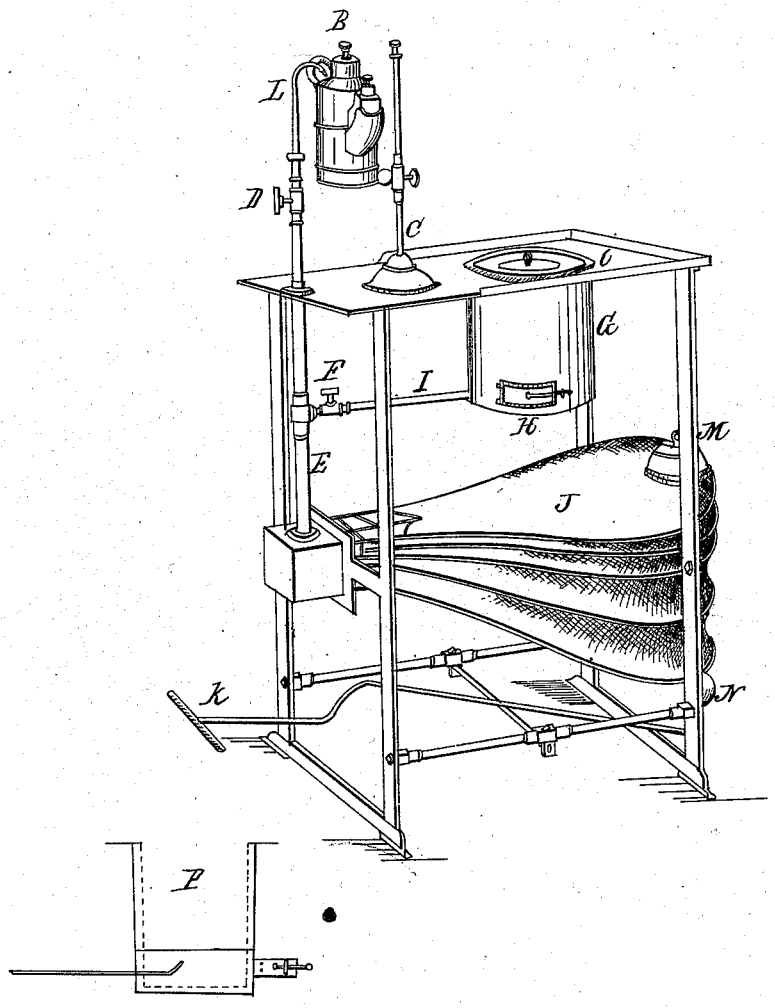
R. Somerby,

Blow Pipe.

No. 3,336. Patented Nov. 15, 1843.



UNITED STATES PATENT OFFICE.

RUFUS SOMERBY, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN TABLE BLOW-PIPES.

Specification forming part of Letters Patent No. **3,336**, dated November 15, 1843.

To all whom it may concern:

Be it known that I, RUFUS SOMERBY, of the city of Louisville, and county of Jefferson, and State of Kentucky, have invented a machine for the use of dentists, chemists, mineralogists, &c., called a "concentrated blow-pipe and furnace;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

A is a perspective view of the machine; B, lamp; C, lamp-stand; D, cock to cut the wind off from the blow-pipe; E, tube leading from the bellows to the blow-pipe; F, cock to stop the wind from the furnace; G, furnace, H, valve at the side and near the bottom of the furnace; I, pipe leading to the furnace; J, bellows; K, treadle to work the bellows; L, blow-pipe; M, weight on the bellows; N, weight suspended at the bottom of the bellows; O, cover to the furnace; P, a sectional drawing, representing the inside of the furnace, the pipe entering under the grate, with the nose turned up.

The dotted lines inside of the furnace represent the fire-clay that lines the inside of it.

The furnace and blow-pipe are used for all kinds of experiments that are made in chemical laboratories where fire is used, for smelting of ores, for testing all kinds of minerals, for jewelers, silversmiths, dentists, &c. The pipe leading from the bellows to the furnace enters the furnace under the grate, and the nose is turned up, which causes the wind to act directly under the fire, as represented in sectional drawing P. I know of no furnace constructed in this manner. The furnace is secured to the under side of the table-top. There is a hole in the top of the table the size of the furnace. The lamp-stand is movable. When used, it sits on the top of the table. On the upright rod of the lamp-stand there is a slide with a thumb-screw. To this slide there is attached a horizontal ring in which the lamp sits. The slide enables the operator to raise the lamp. The lamp having a ring attached to its bottom a little smaller than its diameter, and small enough to sit loosely in the horizontal ring attached to the slide, this enables the operator, by placing his finger to the projecting spout of the lamp, to turn the blaze of the wick under the nose of the blow-pipe or from it, increasing or diminishing the flame at pleasure. The blow-pipe turns also. The blast in the furnace and blow-pipe is produced by the bellows, which is hung under the table, as represented in the drawing A. The bellows is worked by the foot applied to the treadle K.

The blow-pipe can be used in all cases where a blow-pipe is required for dentists, mineralogists, jewelers, &c., for the finest and largest kind of work. I have one in full operation, and its power has been witnessed by a great number of persons capable of judging of its utility. More soldering can be done with this instrument in one hour than can be done in six hours by the mouth, and without fatigue to the operator.

I have never seen an outline of the instrument that I have presented for your consideration, and I have yet to learn that the bellows has ever been successfully applied to the blow-pipe for all kinds of soldering in this or any country. It has excited the admiration of all those who have witnessed its performance.

What I claim is—

The manner in which I have arranged the blow-pipe and furnace, in combination with the bellows, the whole being constructed and arranged as set forth.

R. SOMERBY.

Witnesses:
RO. TYLER,
LEVI TYLER.