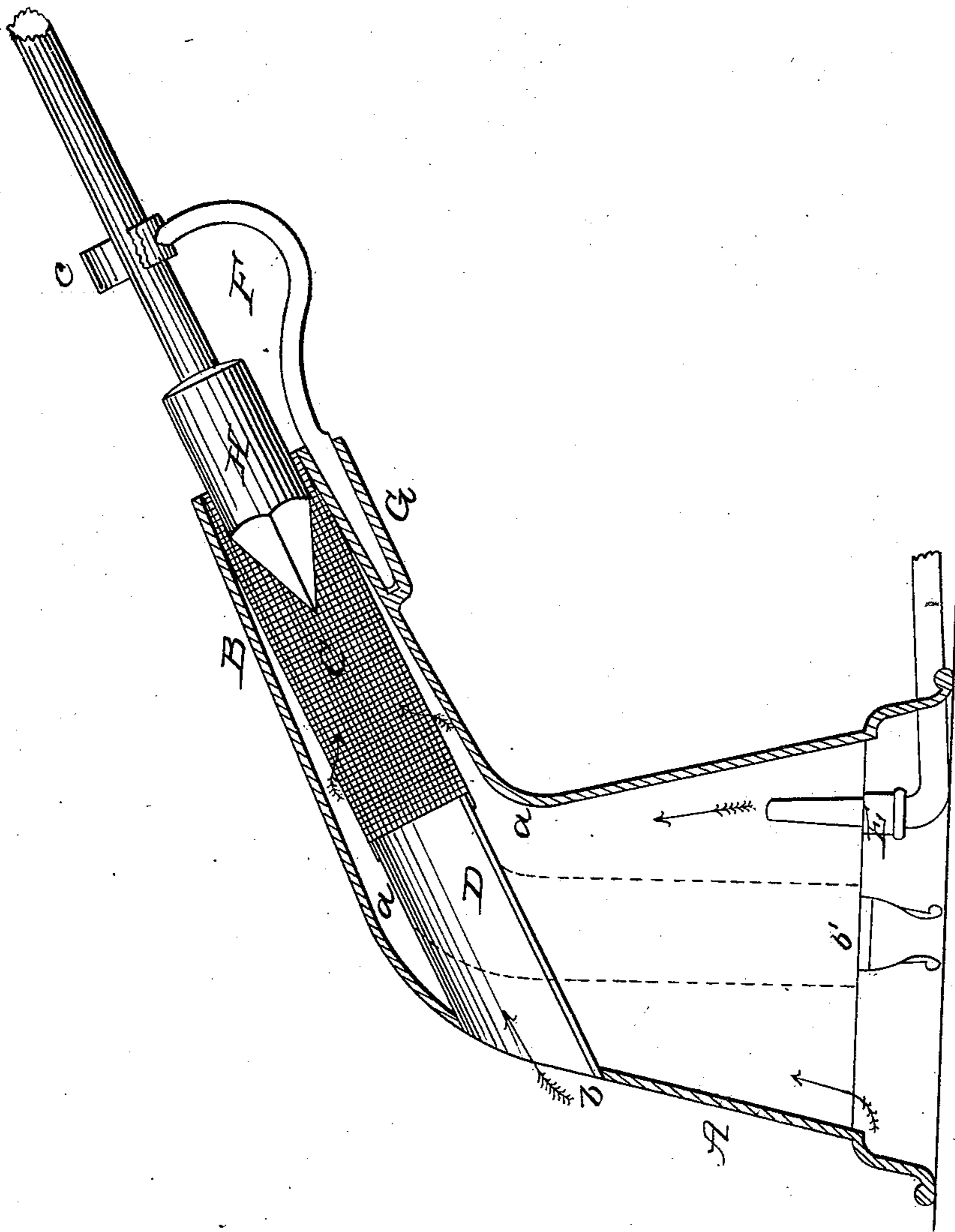


E. A. LELAND.

Gas Heater or Blow Pipe for Heating Soldering Irons.

No. 46,527.

Patented Feb. 21, 1865.



Witnesses.  
Arnos B. Swadlow  
Edw. Bartlett

Inventor.  
Edwin A. Leland

# UNITED STATES PATENT OFFICE.

EDWIN A. LELAND, OF NEW YORK, N. Y., ASSIGNOR TO RADCLIFFE B. LOCKWOOD, OF SAME PLACE.

IMPROVEMENT IN GAS-HEATERS OR BLOW-PIPES FOR HEATING SOLDERING-IRONS.

Specification forming part of Letters Patent No. 46,527, dated February 21, 1865.

*To all whom it may concern :*

Be it known that I, EDWIN A. LELAND, of the city, and county, and State of New York, have invented a certain new and useful article of manufacture, consisting of a Gas-Furnace or Blow-Pipe for Heating Soldering-Tools; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawing, making part of this specification, in which is represented a vertical longitudinal section through said article of manufacture.

The object of my invention is to furnish plumbers, tanners, and other sheet-metal workers with a cheap portable heating apparatus, which object I accomplish by making a bent hollow cone (shown by A B) with its base elevated a short distance from the ground by means of feet or legs in the manner shown, and by introducing in the horn of the cone a perforated tube, *c*, the lower end whereof is supported by the tube or pipe D, which passes through the side of the cone and is secured at *b*. The upper end of the perforated tube should make a tight joint with the end of the cone, and the pipe D should be sufficiently well secured to support the lower end of the tube. Now, if gas be introduced into the base of the cone through a burner or pipe, E, it will issue through the perforated tube out of the upper end of the cone, where it may be ignited, and where the combustion will be supported and forced by a draft of air through the blow-pipe D, developing great intensity of heat at the end of the horn and in the tube *c* around the soldering-tool H. On the under side of the horn of the cone a bracket, G, is made to receive a support, F, to receive the handle of the soldering-tool.

The tube *c* and pipe D may be secured as shown in the drawing, or the pipe *c* may be made thick enough to screw in the end of the

cone, or they may be secured by means of ring-nuts and supported by brackets made in the inside of the cone, and the pipe D, instead of passing through the side or elbow of the cone, may be curved, as shown by the red lines, and brought down to near the base of the cone, the gas being introduced on either side of it. The drawing shows the gas introduced through a burner, E, but the burner is unnecessary. An open pipe will answer the same, if not a better, purpose.

The base of the furnace or cone is raised from the floor to admit the gas-pipe and air to the outside of the tubes C and D, but the same object may be obtained by cutting holes in the cone around its base, through which the gas-pipe and air can be introduced in substantially the same manner.

By making the base of the furnace large enough and dividing it with partitions, and inserting a horn in each compartment, it may be doubled or even quadrupled, but the same general principles would still be involved, and the apparatus would fall within the scope of my invention; for I do not intend to confine my claim to the particular construction herein described, but intend it to extend to and cover all the novel features going to make up the whole invention.

Having now described my apparatus, the manner of making and using it, what I claim as my invention, and desire to secure by Letters Patent, is—

The new article of manufacture, consisting of a gas-furnace or blow-pipe, constructed substantially in the manner described, for the purpose of heating soldering-tools and for other similar purposes.

EDWIN A. LELAND.

Witnesses:

AMOS BROADNAX,  
ED. BARTLETT.