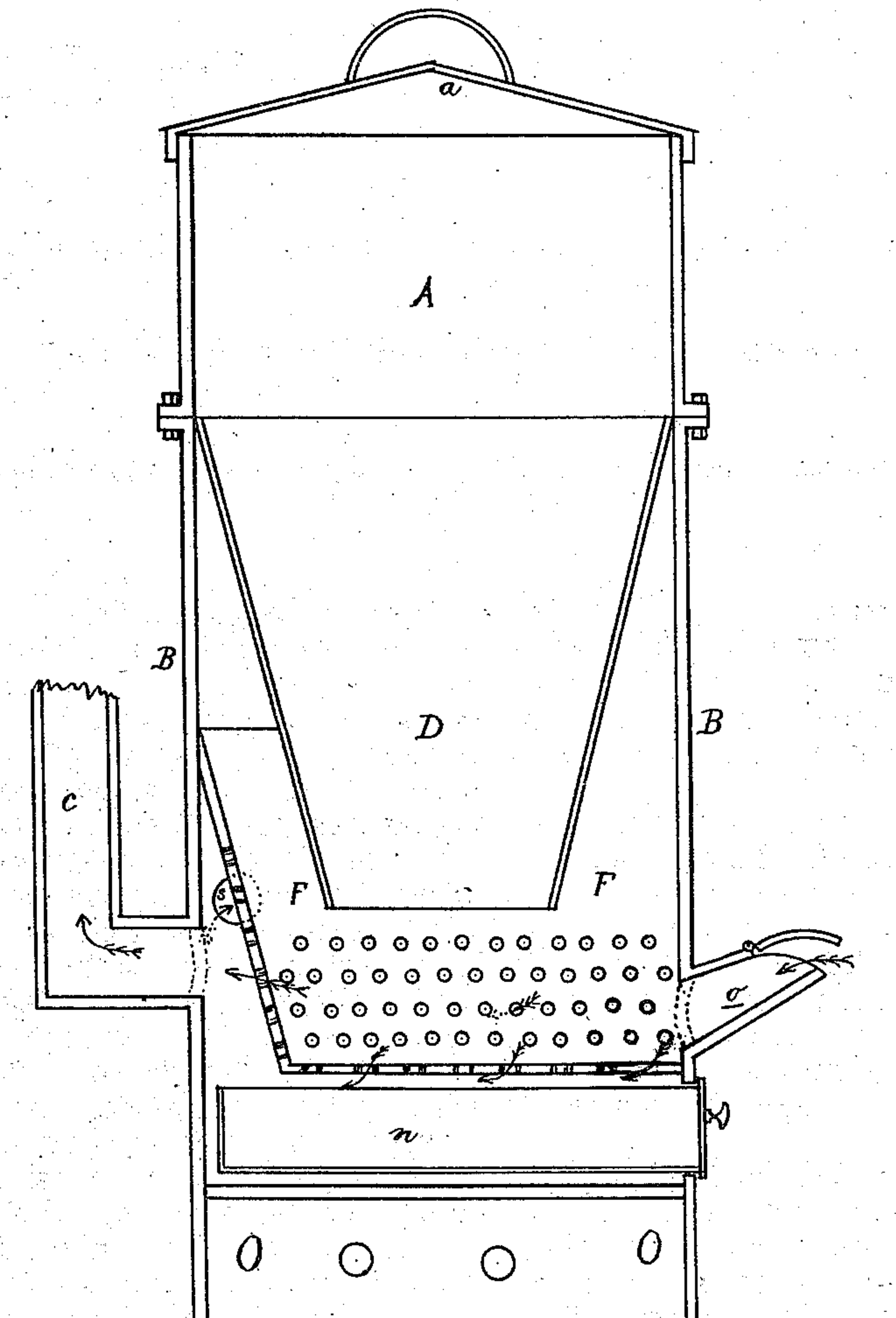


J. S. BURWELL & G. POEHNER.

Soldering-Iron Heaters.

No. 156,332.

Patented Oct. 27, 1874.



Witnesses

Thos H Hutchins

W. Lowe

Inventors

Joseph S. Burwell  
George Poehner

# UNITED STATES PATENT OFFICE.

JOSEPH S. BURWELL AND GEORGE POEHNER, OF JOLIET, ILLINOIS.

## IMPROVEMENT IN SOLDERING-IRON HEATERS.

Specification forming part of Letters Patent No. **156,332**, dated October 27, 1874; application filed March 14, 1874.

*To all whom it may concern:*

Be it known that we, JOSEPH S. BURWELL and GEORGE POEHNER, of Joliet, in Will county and State of Illinois, have invented a Tinner's Furnace, of which the following is a specification:

Our invention consists in a novel construction of a tinner's furnace for heating soldering-irons, for the purpose of economising fuel and more quickly heating the irons than in the ordinary furnace, the construction and operation of which we will proceed to explain, reference being had to the annexed drawing, making a part of this specification, which is a vertical sectional view through the center of the furnace.

B is the outer wall of the furnace proper, surmounted by the chamber A and covered by the lid *a*. D is the magazine which holds the fuel, which burns from its lower end much the same as in a base-burning stove. The magazine D extends down below the center of the furnace proper into the fire-box F, as shown, which fire-box is constructed of perforated sheets on the bottom, two sides, and back, if desired, as shown in the figure. The irons to be heated are shoved into the fire-box F through the hearth *o*, through which the draft is passed, as shown by the arrows, down through the perforations and out at the chimney *c*. *n* is an ash-pan to catch the ashes as they fall through the perforations in the grates. *s* is an opening at either side of the furnace, used as a check-draft.

These openings are closed by a slide, which may be open or closed at pleasure, as the occasion may require. The chamber A is attached to the lower part by means of bolts, as shown, and may be of any size to hold more or less fuel, as may be desired. The advantages of this construction of the furnace are that by this mode the draft passes sidewise through only the fuel that immediately surrounds the irons to be heated in a downward direction, so that the draft is confined to the very place needed, thereby causing a more intense heat than when the draft passes up through the coal from the bottom. Also, by this construction no fuel is ignited except that immediately surrounding the irons to be heated, thereby causing an immense saving in fuel; also, there being less fuel for the draft to pass through, a better draft is obtained than in any ordinary furnace.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is as follows:

In a tinner's furnace the combination of the magazine D, fire-pot F, perforated in its bottom and sides, the draft-inlet and iron support O, smoke-pipe C, and check-draft S to maintain a diving-draft through the base-burned fuel, as and for the purposes set forth.

J. S. BURWELL.  
G. POEHNER.

Witnesses:

THOS. H. HUTCHINS,  
JAS. M. CHRITTON.