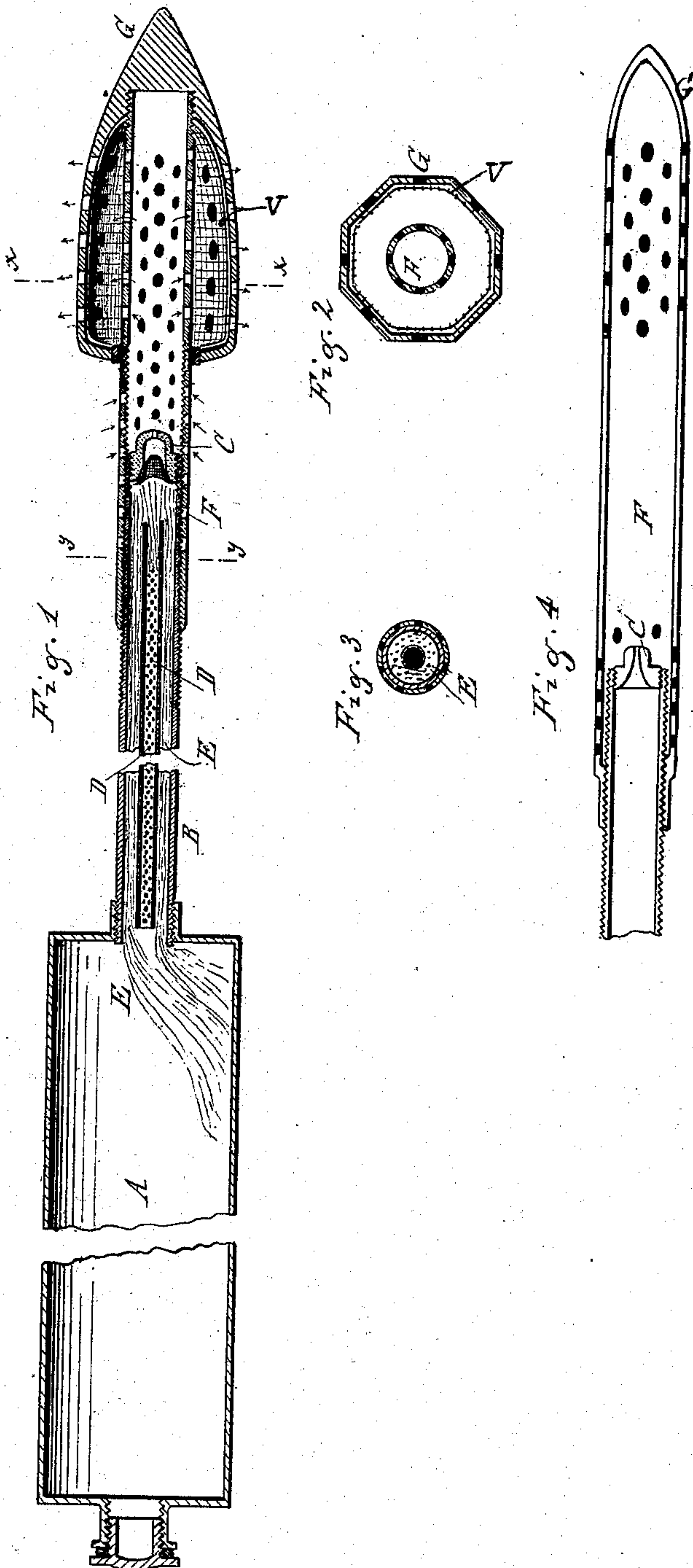


(Model.)

W. C. SMITH & B. D. JOSLIN.  
Soldering-Iron.

No. 228,000.

Patented May 25, 1880.



Attest:  
A. Barthel  
Charles H. Hull

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# UNITED STATES PATENT OFFICE.

WILLARD C. SMITH AND B. DUANE JOSLIN, OF KINDERHOOK, MICHIGAN,  
ASSIGNORS OF ONE-THIRD OF THEIR RIGHT TO RICHARD LOBDELL AND  
FLINT LOBDELL.

## SOLDERING-IRON.

SPECIFICATION forming part of Letters Patent No. 228,000, dated May 25, 1880.

Application filed March 12, 1880. (Model.)

*To all whom it may concern:*

Be it known that we, WILLARD C. SMITH and B. DUANE JOSLIN, of Kinderhook, in the county of Branch and State of Michigan, have  
5 invented an Improvement in Soldering-Irons, of which the following is a specification.

The nature of this invention relates to certain new and useful improvements in the construction of soldering-irons; and the invention consists in the peculiar construction and  
10 arrangement of parts, all as more fully hereinafter set forth.

In the drawings, Figure 1 is a longitudinal central section. Fig. 2 is a cross-section at  $x$   
15  $x$ . Fig. 3 is a cross-section at  $y y$ . Fig. 4 is a modification of Fig. 1.

In the accompanying drawings, which form a part of this specification, A represents a hollow handle, provided with a feed-pipe, B, the  
20 outer end of which is provided with a jet or burner, C. Within this feed-pipe is a small perforated pipe, D, which is surrounded by a proper wick, E.

The outer end of the feed-pipe B is externally threaded to screw into one end of the perforated cylinder or generator F, which is in  
25 turn threaded into the head G, in which is formed a recess, the walls of which are perforated, as shown, and over these perforations is placed a wire screen, V, within the recess  
30 in the head.

In practice, the parts being constructed as herein described, the handle A is filled with any suitable volatile inflammable liquid. From  
35 the handle, the liquid is carried to the jet or burner C by means of the wick and feed-pipe, where, mingling with air entering through the perforations in the generator F, it is converted

into gas or vapor, is ignited in any convenient manner, and heats the head G, the heated currents passing out through the perforations in the head.

It will be seen that the perforated pipe F can readily be adjusted on the feed-pipe B by means of the screw-threaded connection of the  
45 pipes, whereby more or less air can be admitted to the jet C, as desired, to regulate the combustion.

In Fig. 4 a modification is shown, wherein the outer end of the cylinder F is formed into  
50 a head for use in small work.

What we claim as our invention is—

1. The combination of the hollow handle A, feed-pipe B, carrying the jet C, adjustable pipe F, provided with perforations communicating directly with its interior and with the  
55 outer air, and perforated soldering-head G, substantially as described, and for the purpose set forth.

2. The combination of the hollow handle A  
60 and feed-pipe B, carrying the jet C in its outer end, the adjustable pipe F, provided with perforations communicating directly with the interior of pipe F and with the air, and the recessed and perforated head G, substantially  
65 as described, and for the purpose set forth.

3. In a soldering-iron, and in combination with the hollow handle A thereof, the feed-pipe B, jet C, perforated cylinder D, wick E, generator F, and perforated recessed head G,  
70 substantially as and for the purposes specified.

WILLARD C. SMITH.

B. DUANE JOSLIN.

Witnesses:

ALBERT FLINT,  
L. J. FLINT.