

(No Model.)

E. HAWES.
SOLDER MELTING FURNACE.

No. 413,938.

Patented Oct. 29, 1889.

Fig. 1.

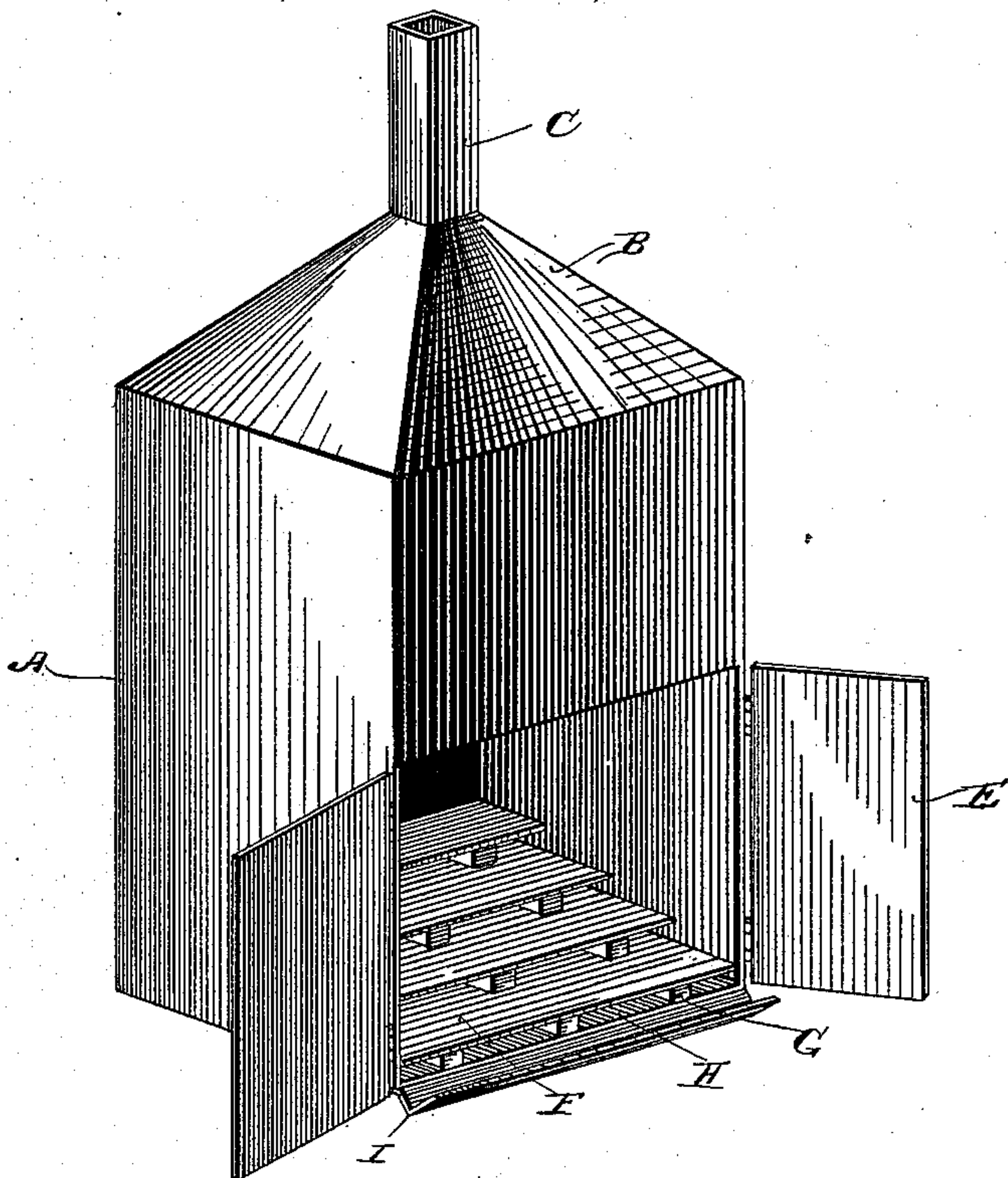


Fig. 2

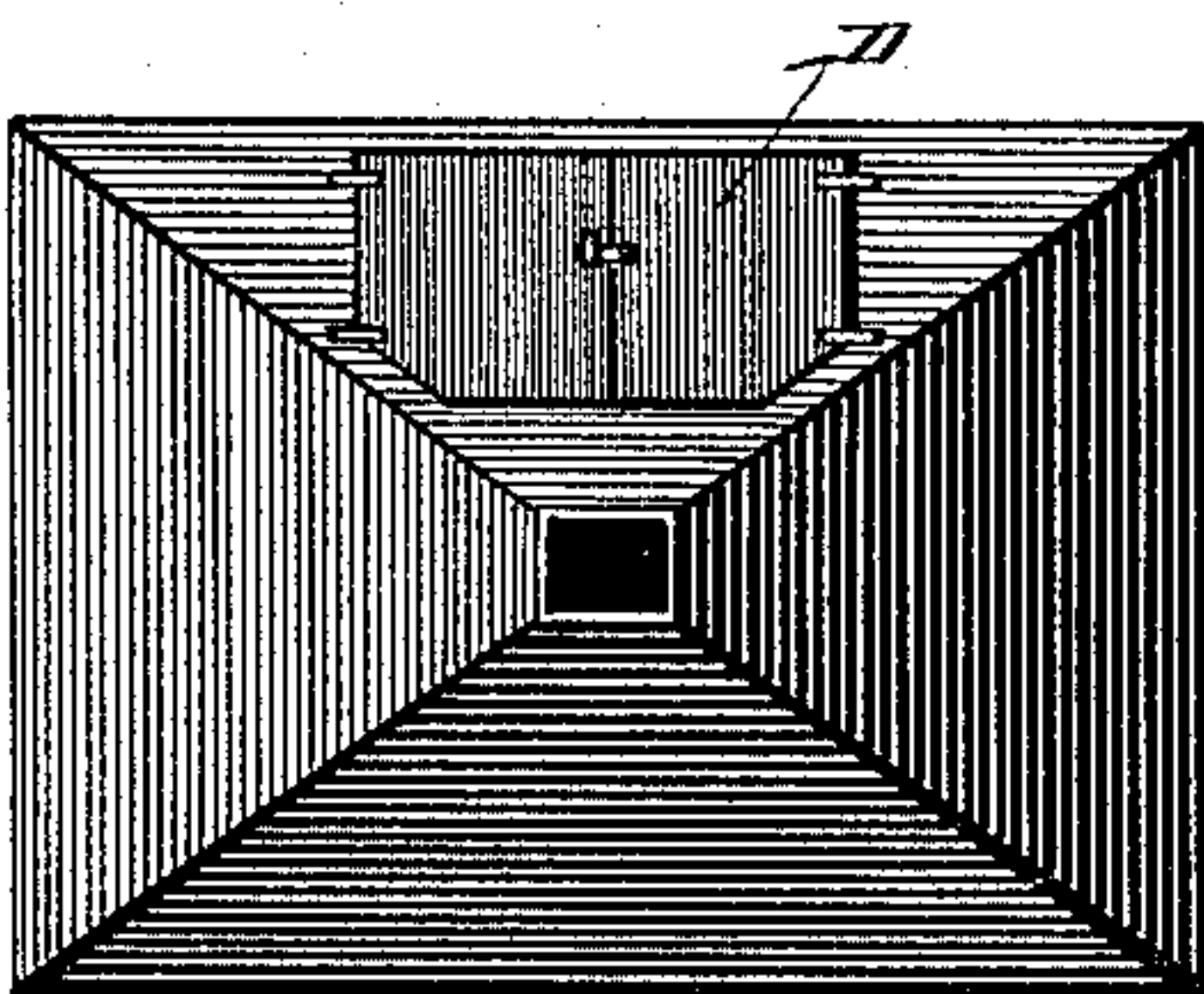
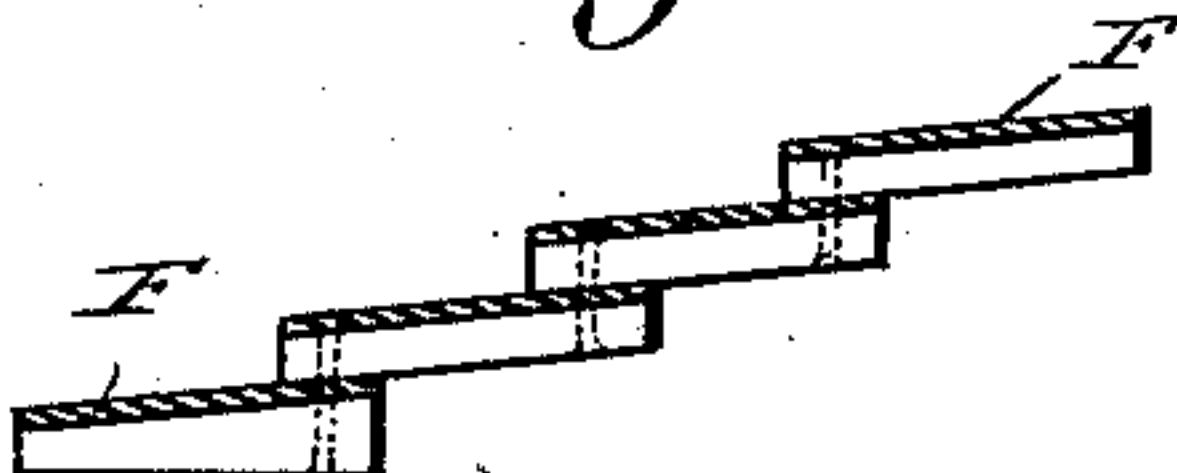


Fig. 3.



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SOLDER-MELTING FURNACE.

SPECIFICATION forming part of Letters Patent No. 413,938, dated October 29, 1889.

Application filed October 28, 1887. Serial No. 253,662. (No model.)

To all whom it may concern:

Be it known that I, ELISHA HAWES, a citizen of the United States, residing at Sacramento City, county of Sacramento, and State of California, have invented a new and useful Solder-Melting Furnace, of which the following is a specification.

My invention relates to an improvement in furnaces for melting solder from tin cans and other articles of tinware; and it consists in the peculiar construction and arrangement of devices hereinafter described and claimed.

The object of my invention is to provide a simple and cheap furnace, in which the solder can be melted from the tinware and the latter ejected immediately thereafter to avoid being burned and injured by the heat.

In the accompanying drawings, Figure 1 is a perspective view of a solder-melting furnace embodying my improvements. Fig. 2 is a top plan view of the same. Fig. 3 is a detailed transverse sectional view of the bottom of the furnace.

The furnace A is rectangular in shape and has a pyramidal roof B, from which extends a chimney or smoke-flue C. The said furnace is made of galvanized iron or other suitable sheet or plate metal, constructed in such manner as to secure the requisite strength. In the rear inclined side of the roof is an opening that is adapted to be covered by hinged doors D, and in the front side of the furnace, at the lower end thereof, are double hinged discharge-doors E.

The bottom of the furnace is formed by a series of inclined metallic strips F, arranged one above another in succession and forming steps, the said strips being riveted to transverse supporting-bars G, whereby spaces H are formed between the strips to provide for the uninterrupted entrance of air into the furnace through the bottom thereof.

Below the lower front side of the bottom of the furnace is secured an inclined trough I.

The operation of my invention is as follows: The front doors E are first closed, and the furnace is then filled, through the doors D, with cans or other articles of tinware, and paper, shavings, or other suitable fuel, the tinware and fuel being disposed in alternate layers. The fuel is ignited from the bottom of the furnace, and in burning generates sufficient heat to melt the solder from the tin, the smoke and products of combustion escaping from the flue C. The melted solder flows down the inclined strips F and drops from one strip to another until it reaches the trough. A suitable vessel or mold placed below the lower end of the trough finally receives the solder. As soon as the solder is thus collected the doors E are opened and the contents of the furnace instantly discharged, thereby preventing the tinware from becoming injured by the excessive heat.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The furnace having the doors E at one side, the bottom formed of inclined step-like strips F, with transverse supporting-bars G between them, whereby air-spaces H are formed between the strips, the trough I at the lower side of the bottom, and the pyramidal roof B, having the smoke-flue C and the doors D, substantially as described.

2. The furnace having the doors E on one side, the doors D in its top, the escape-flue, the bottom formed of a series of inclined step-like strips with air-spaces between them, and the trough at the lower side of the bottom, substantially as described.

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