

C. A. BUTTLES.

Tinners' Stoves for Heating Soldering-Irons.

No. 137,890.

Patented April 15, 1873.

Fig. 1.

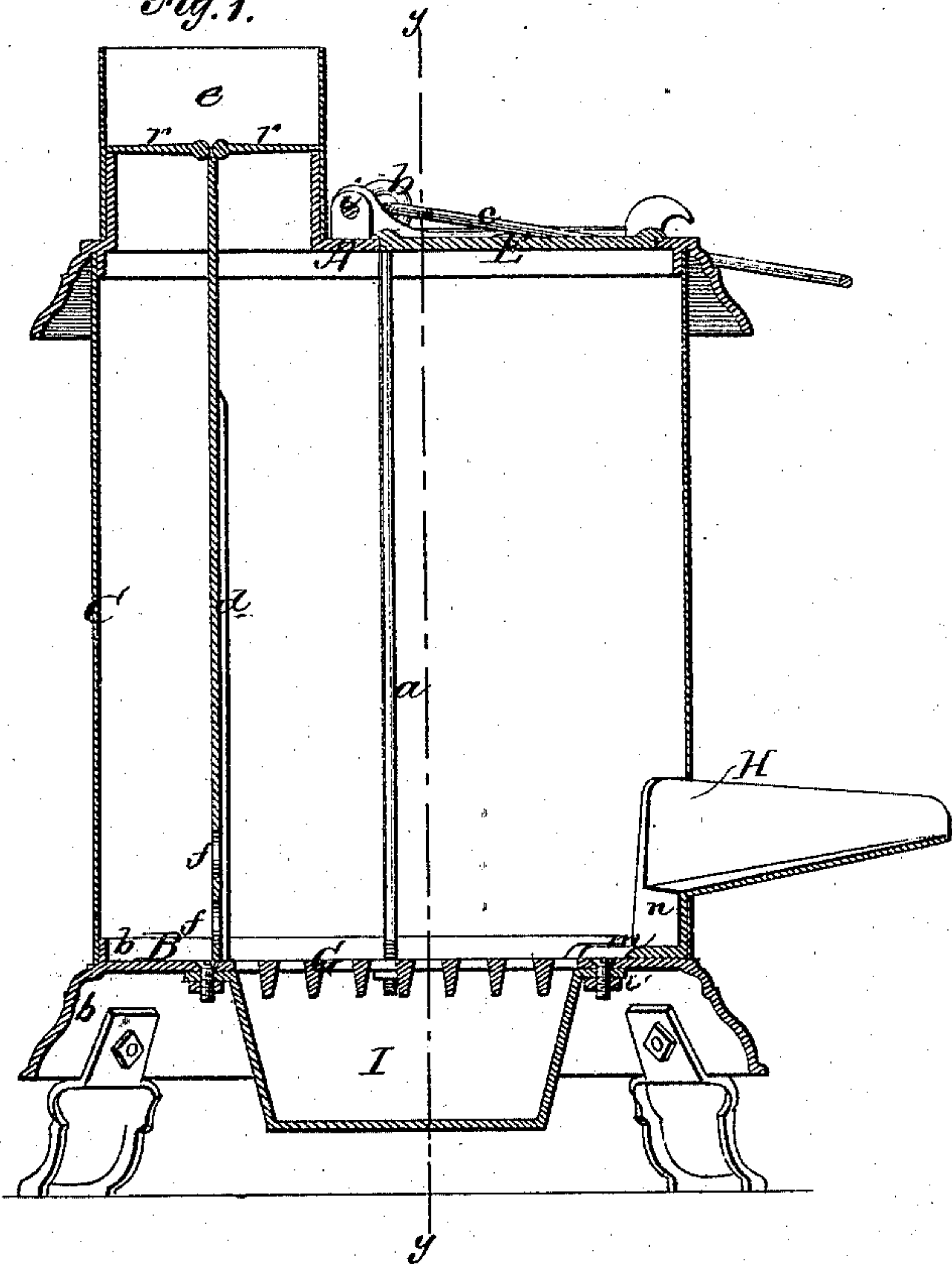


Fig. 2.

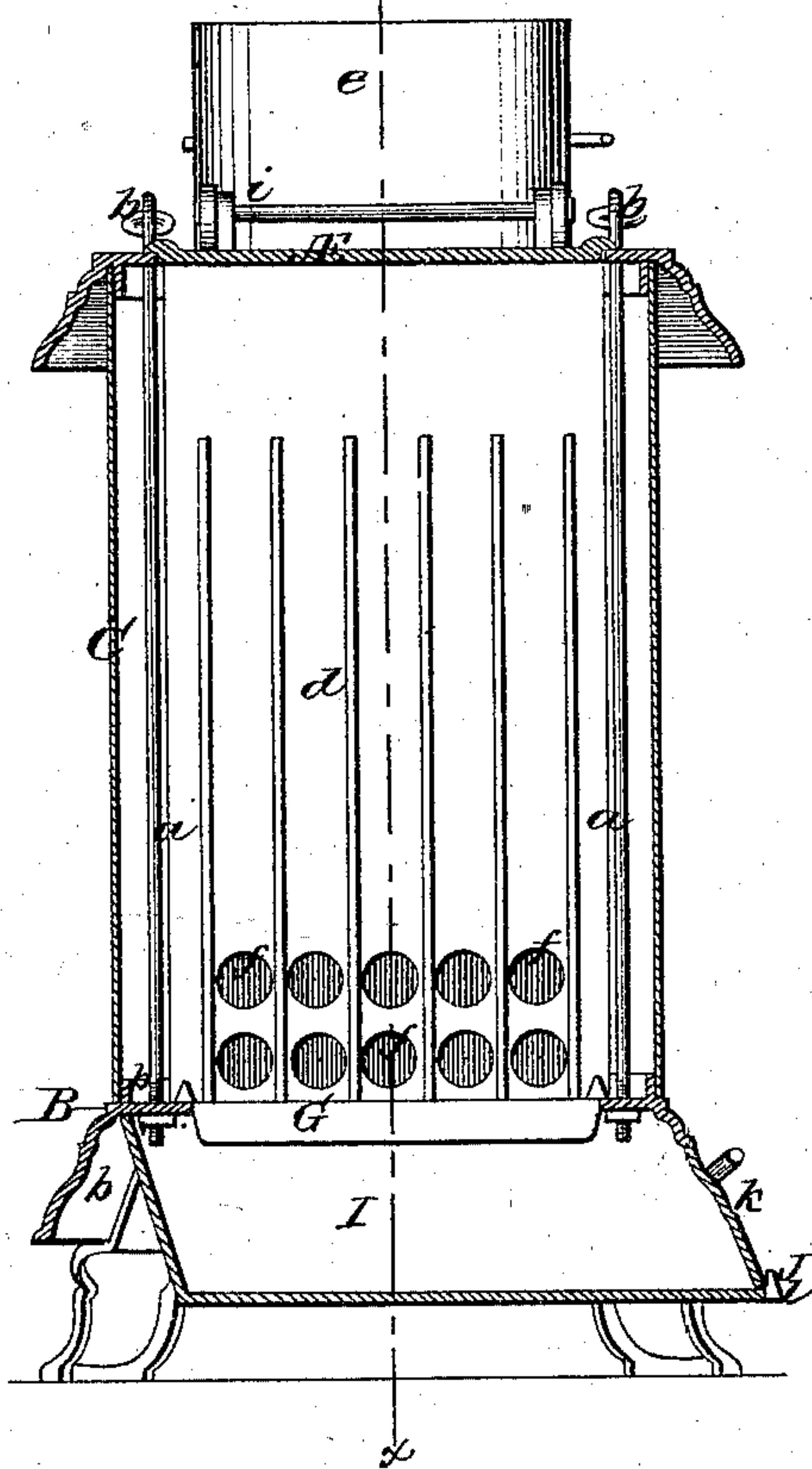
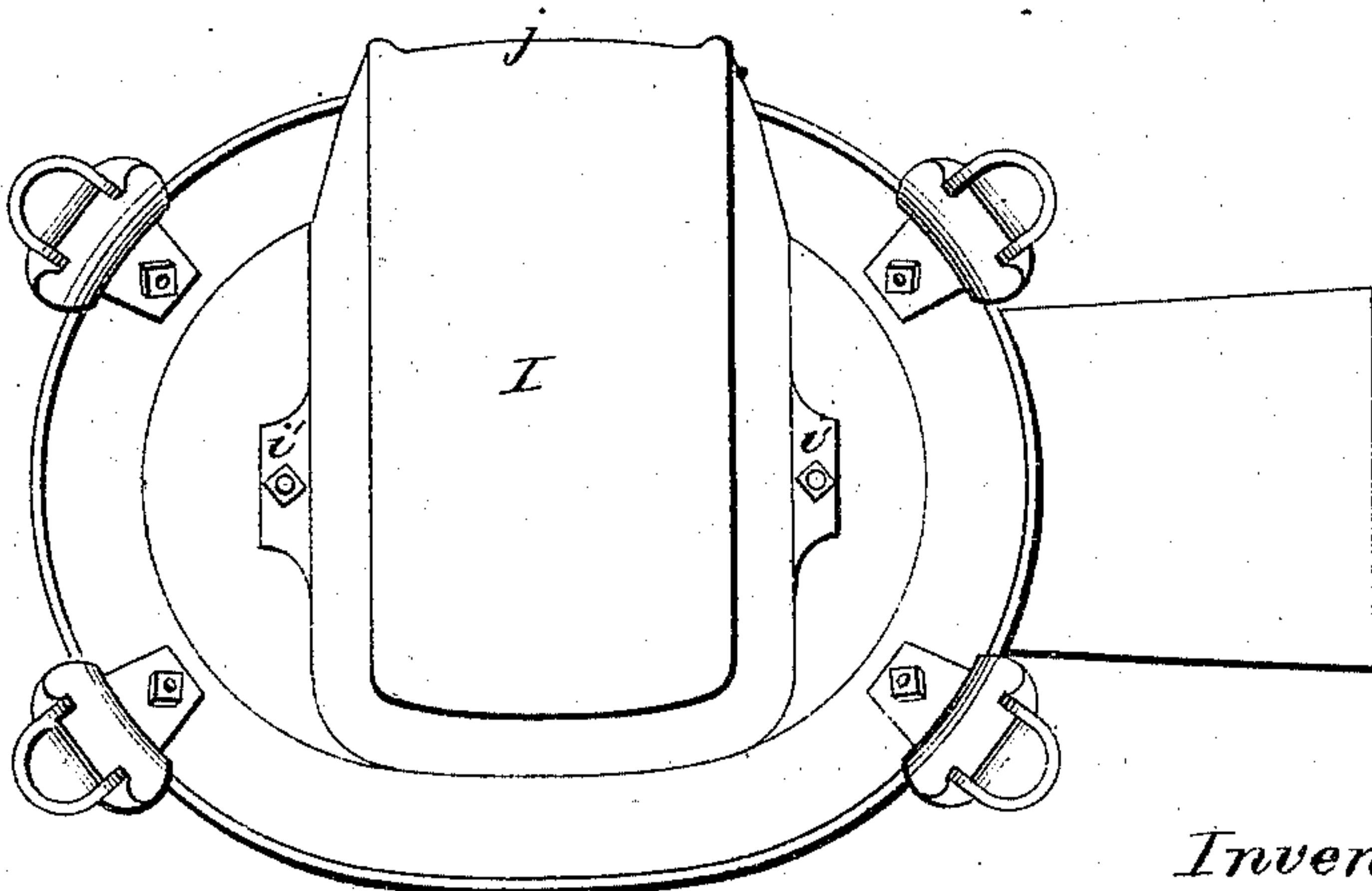


Fig. 3.



Witnesses.  
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D. H. Ellsworth

Inventor:  
C. A. Buttles.  
by his Atty.  
Hill & Ellsworth.

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Fig. 4.

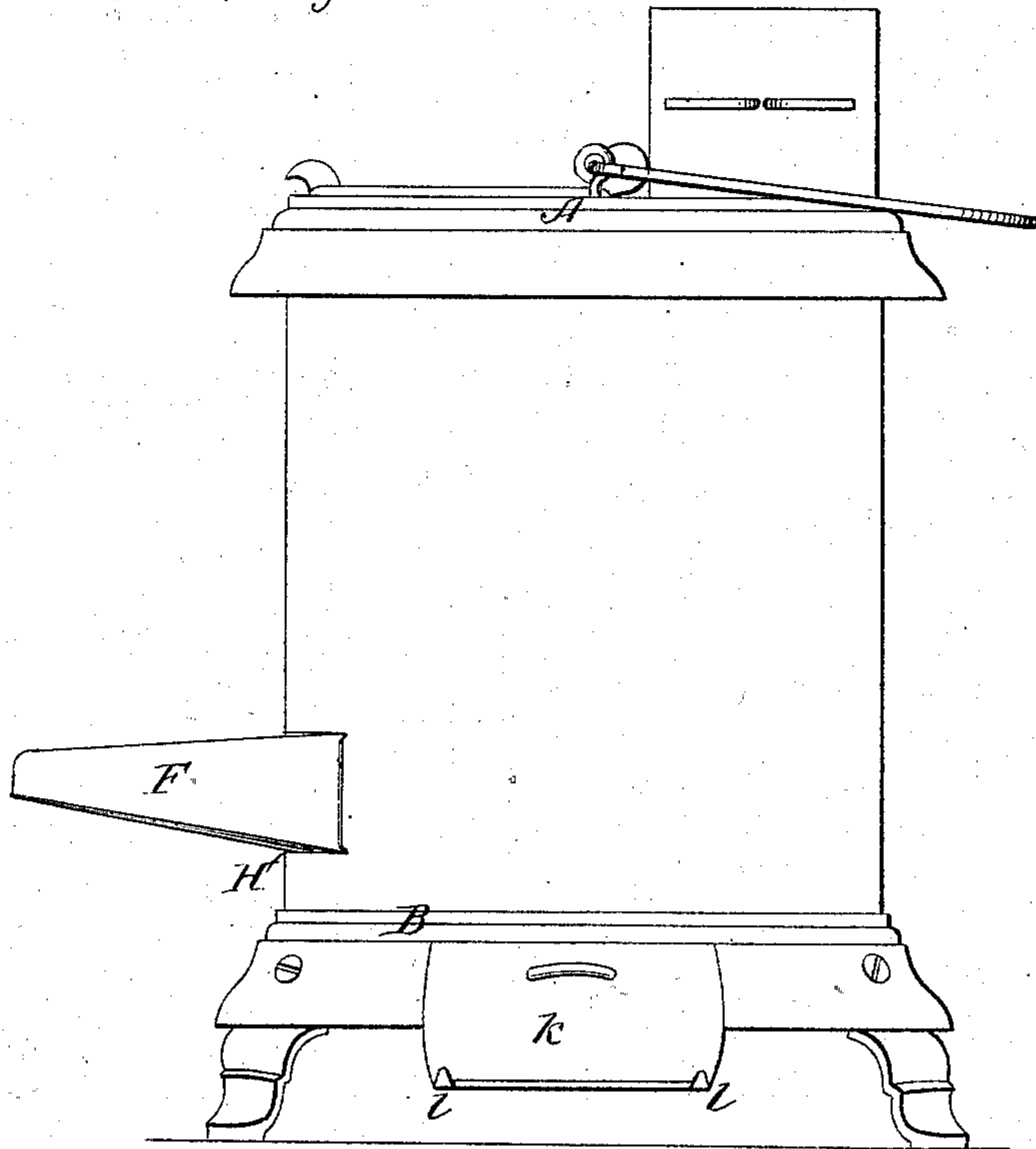
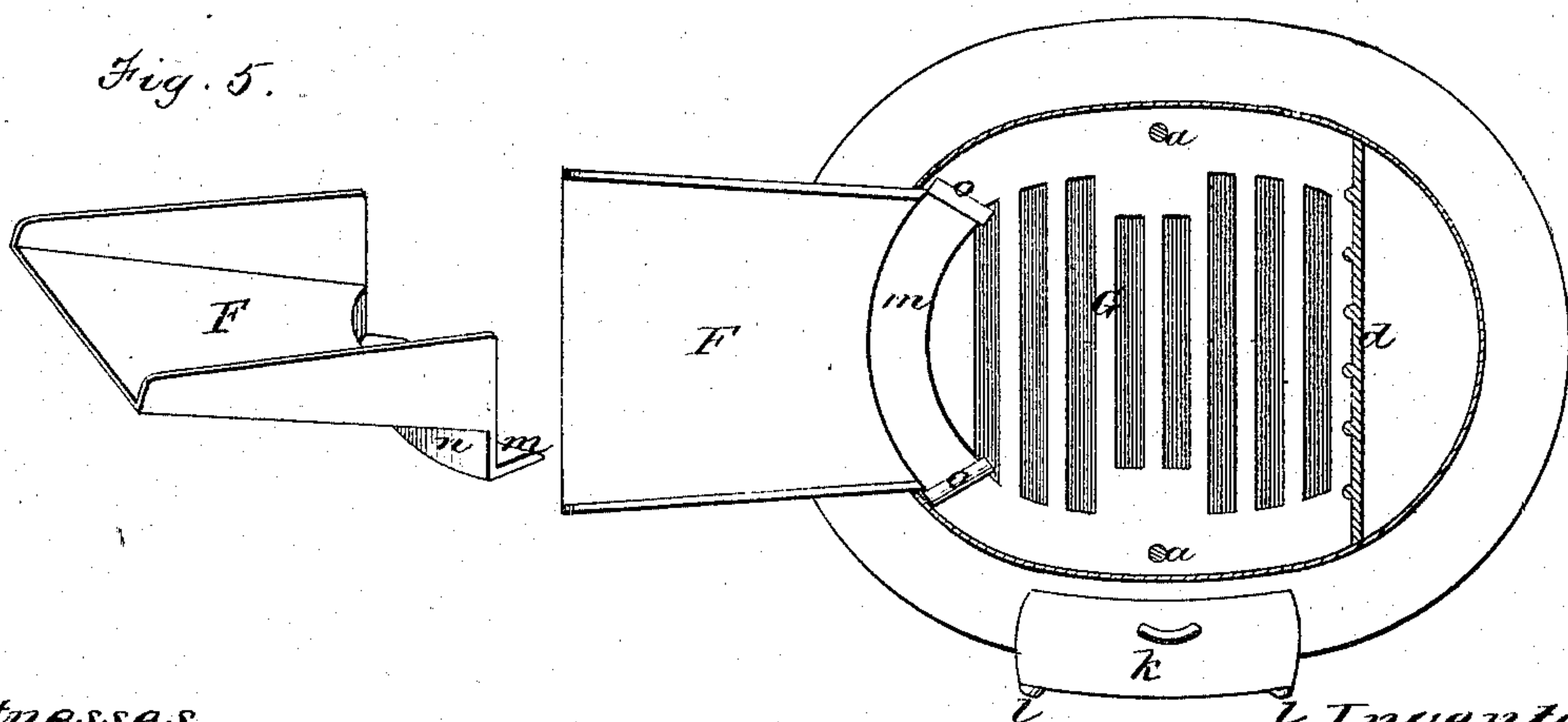


Fig. 6.



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# UNITED STATES PATENT OFFICE.

CEPHAS A. BUTTLES, OF MILWAUKEE, WISCONSIN.

## IMPROVEMENT IN TINNERS' STOVES FOR HEATING SOLDERING-IRONS.

Specification forming part of Letters Patent No. 137,890, dated April 15, 1873; application filed August 21, 1872.

*To all whom it may concern:*

Be it known that I, CEPHAS A. BUTTLES, of the city and county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Tinner's Stove for Heating Soldering-Irons; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a vertical section in line *x x* of Fig. 2. Fig. 2 is a vertical section in line *y y* of Fig. 1. Fig. 3 is a bottom plan. Fig. 4 is a side elevation. Fig. 5 is a perspective view of the hearth detached, and Fig. 6 is a horizontal section.

Similar letters of reference in the accompanying drawing indicate the same parts.

The object of this invention is to improve the tinner's stove for which Letters Patent were granted to C. A. Buttles and James Cowles, No. 65,341, dated June 4, 1867, in the following particulars, viz., first, to render the attachment of the hearth to the stove more rigid and secure, and at the same time cheaper in construction; second, to enable the attendant to keep the fire clean and bright; and, third, to enable the attendant to control the draft more effectually than heretofore. To these several ends, the invention consists, first, in a new method of constructing the hearth and attaching it to the stove; secondly, in the application of an ash-pan to the stove beneath the grate, having its entrance at the side of the stove, and in the arrangement of the grate-bars transversely to the stove, so as to be in line with the ash-pan; and, thirdly, in the employment of a double damper in place of the form heretofore employed, by which either or both of the flues can be closed, substantially as I will now proceed to describe.

The general form and construction of the stove are the same as described in the original patent of Buttles and Cowles above referred to, A B being the top and bottom plates; C, the body or jacket; *a a*, the screw-rods; *b*, the dead-eyes; *c*, the bail; *d*, the corrugated partition provided with holes *f f*; E, the lid, hinged at *i*; and *e*, the smoke-flue.

Instead of constructing the hearth F as heretofore, I now make it in the form represented in Fig. 5, terminating at its inner end in the curved horizontal flange *m*, connected to the outer portion by the curved vertical shoulder *n*. Two dovetail lugs or brackets, *o o*, are cast on the grate *g*, slightly inclined outward from each other, and the hearth is secured to the stove by introducing its inner end through the orifice H and inserting the flange firmly between the brackets, as represented in Fig. 6, the shoulder *n*, which is rounded to fit the shape of the stove, fitting firmly up against the jacket C, and the whole arrangement making a very rigid and secure and at the same time a very neat and inexpensive fastening.

The second part of my invention relates to the construction and arrangement of the ash-pan and grate. The bottom plate is made with a square or oblong recess, extending from the right-hand side of the stove nearly across the bottom. The ash-pan I is cast to fit under and against the bottom plate, around the sides and inner end of this orifice, and is provided with flanges *i' i'* through which to bolt it to the bottom plate. The side walls of the ash-pan at its outer end incline outward at an angle of nearly forty-five degrees, extending from a point inside of the flange *b* of the bottom plate down past the lower edge of said flange, as shown. The bottom of the ash-pan projects slightly beyond the side walls, as shown at *j*, forming a ledge for the door *k* to rest on, and two small projections, *l l*, are cast on said ledge to prevent the door from slipping off. The door, resting on the ledge, leans against the inclined ends of the walls of the ash-pan, and, being closely fitted to the opening, closes it almost air-tight. The grate G is a cast-iron plate fastened to the bottom of the stove by means of the same screws *i'* that support the ash-pan, so that when injured or worn out it can easily be taken out and another put in its place.

The grate-bars extend transversely of the stove, to facilitate the raking of the fire by an instrument introduced at the mouth of the ash-pan, so that the ashes in the stove can be easily removed and a clean bright fire kept without any inconvenience.



The transverse position of the grate-bars with relation to the opening H, where the soldering-irons are introduced, often answers the purpose of holding said irons in place and preventing them slipping in too far.

The third part of my invention relates to the construction of the damper arranged in the flue *e* and employed to regulate the draft of the stove. Heretofore a single damper was employed, the same being constructed to open either division of the flue and close the other by simply turning the damper-plate over. Sometimes, however, it is desirable to close both flues; and to accomplish all the desired purposes I now use a damper constructed in two parts, *r r'*, each of which is similar in shape to the damper described in the former patent above referred to. By turning both plates out I can close both divisions of the flue, while, by turning either plate over onto the other, I open one flue and close the other.

Having thus described my invention, what I claim as new is—

1. The hearth F, constructed and applied substantially as and for the purpose set forth.
2. In a tinner's stove having an opening for

the soldering-irons in the front, the application of the ash-pan transversely across the stove with its opening at the side thereof, substantially as and for the purposes set forth.

3. In a tinner's stove having an opening for the soldering-irons in the front and an opening for the ash-pan in the side, the grate G, having its bars arranged transversely of the stove, or in line with the opening of the ash-pan, for the purpose of supporting and holding the soldering-irons in place, and at the same time facilitating the raking of the fire, substantially as set forth.

4. The ash-pan having its ends inclined, with the ledge *j* and projections *l*, to hold the door *k* in place, substantially as and for the purposes set forth.

5. The two-plate damper *r r'*, in combination with the double flue of a tinner's stove, substantially as described, for the purposes specified.

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Witnesses:

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R. H. LAY.