

(No Model.)

2 Sheets—Sheet 1.

W. C. SMITH.

FIRE CHAMBER FOR COOK STOVES.

No. 330,935.

Patented Nov. 24, 1885.

Fig. 1.

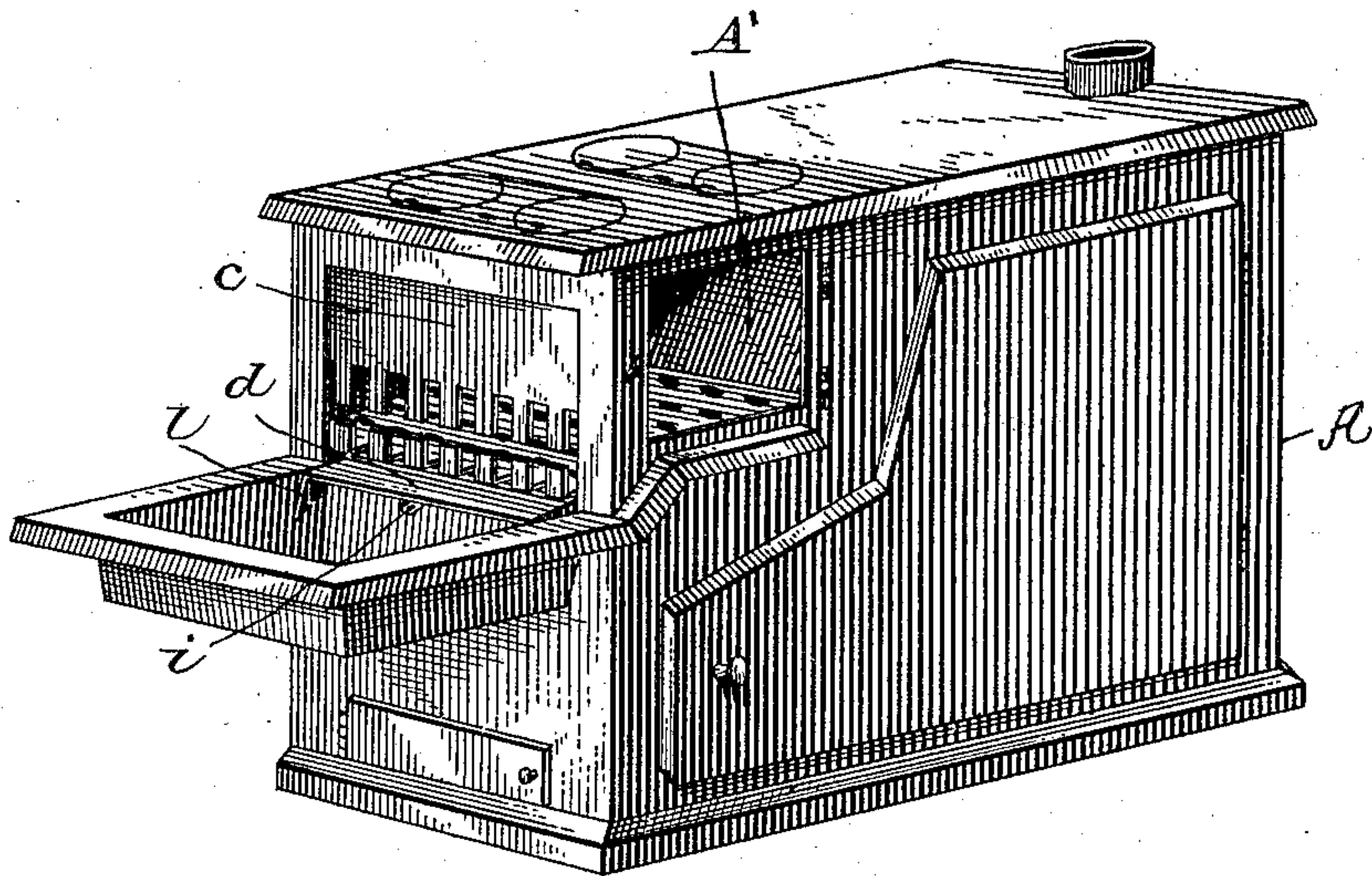


Fig. 4.

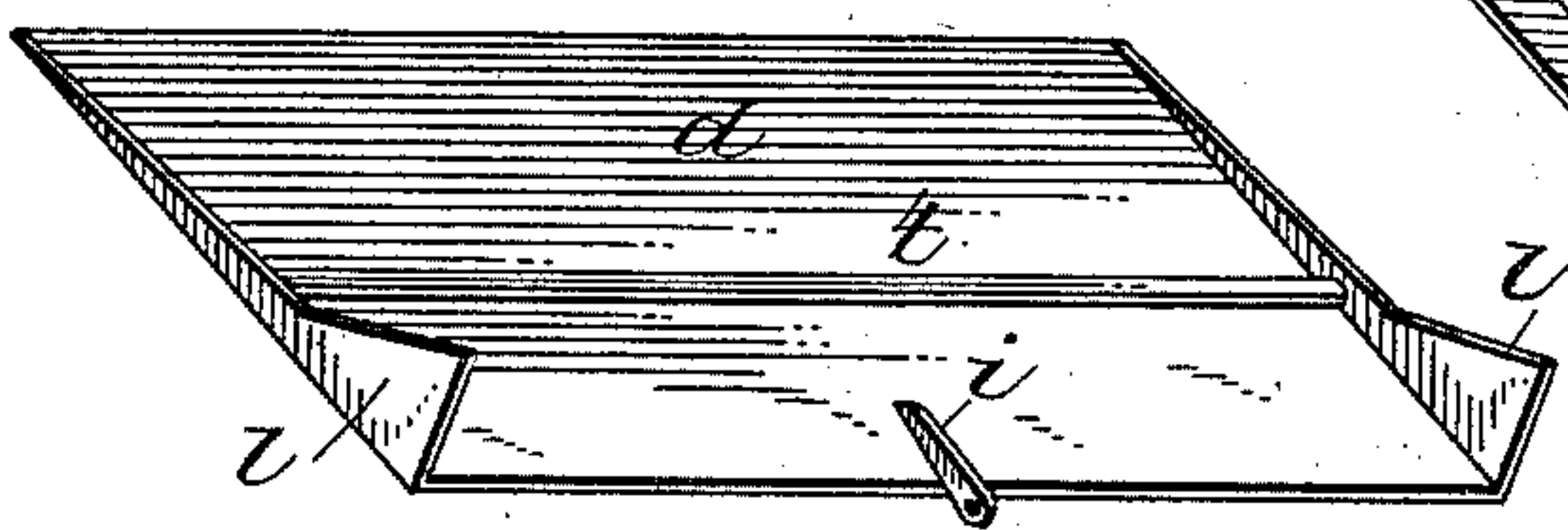


Fig. 2.

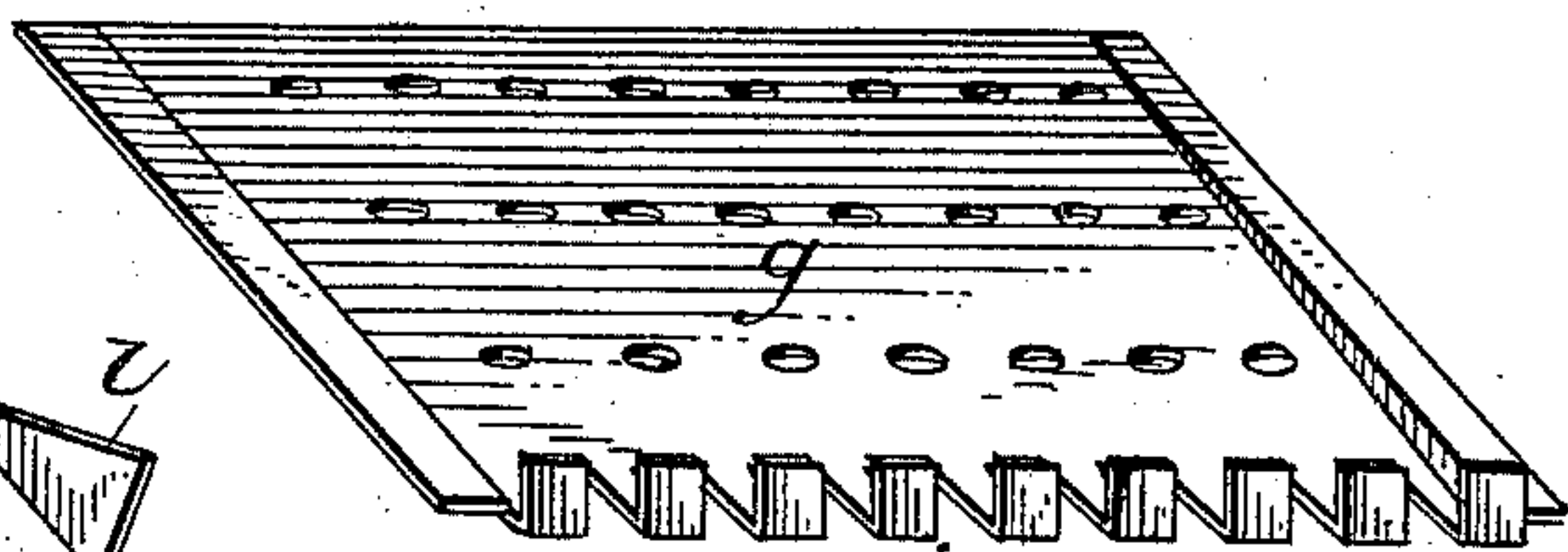


Fig. 5.

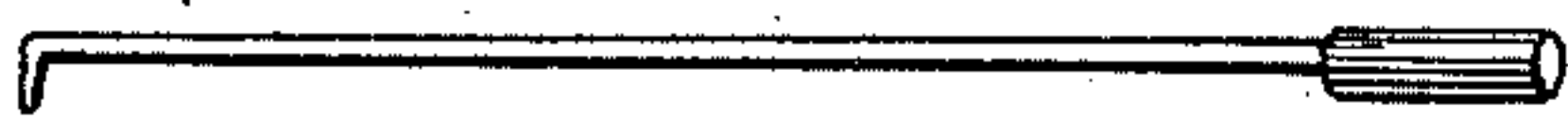
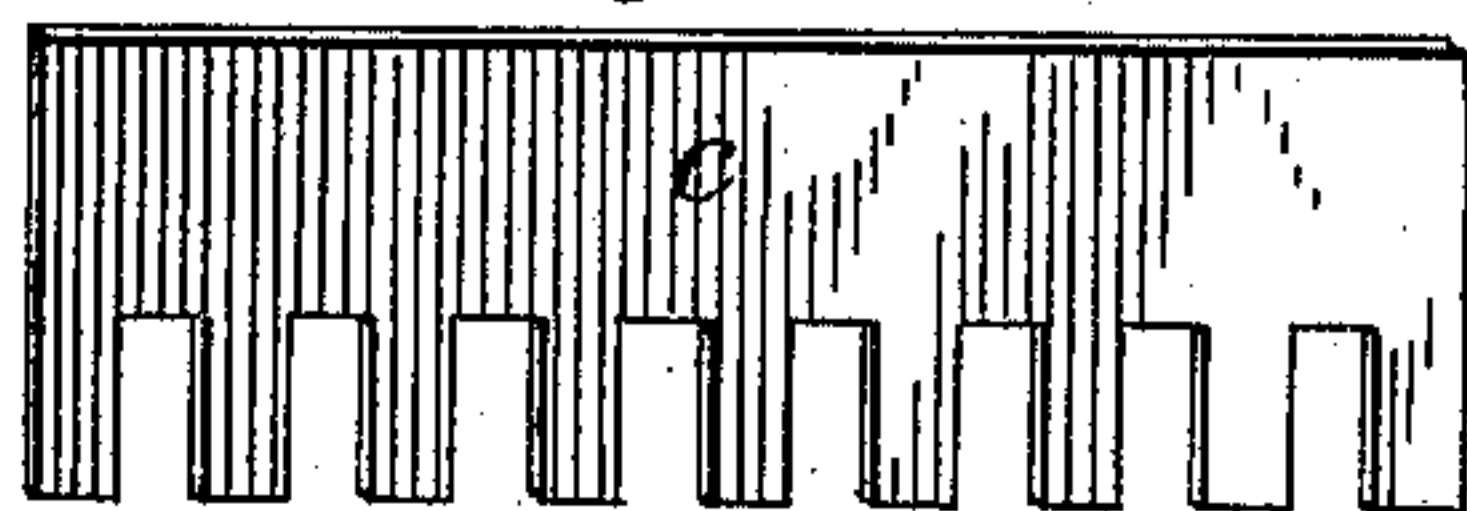


Fig. 3.



Witnesses:

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Inventor

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By *E. Everett Ellis* atty

(No Model.)

2 Sheets—Sheet 2.

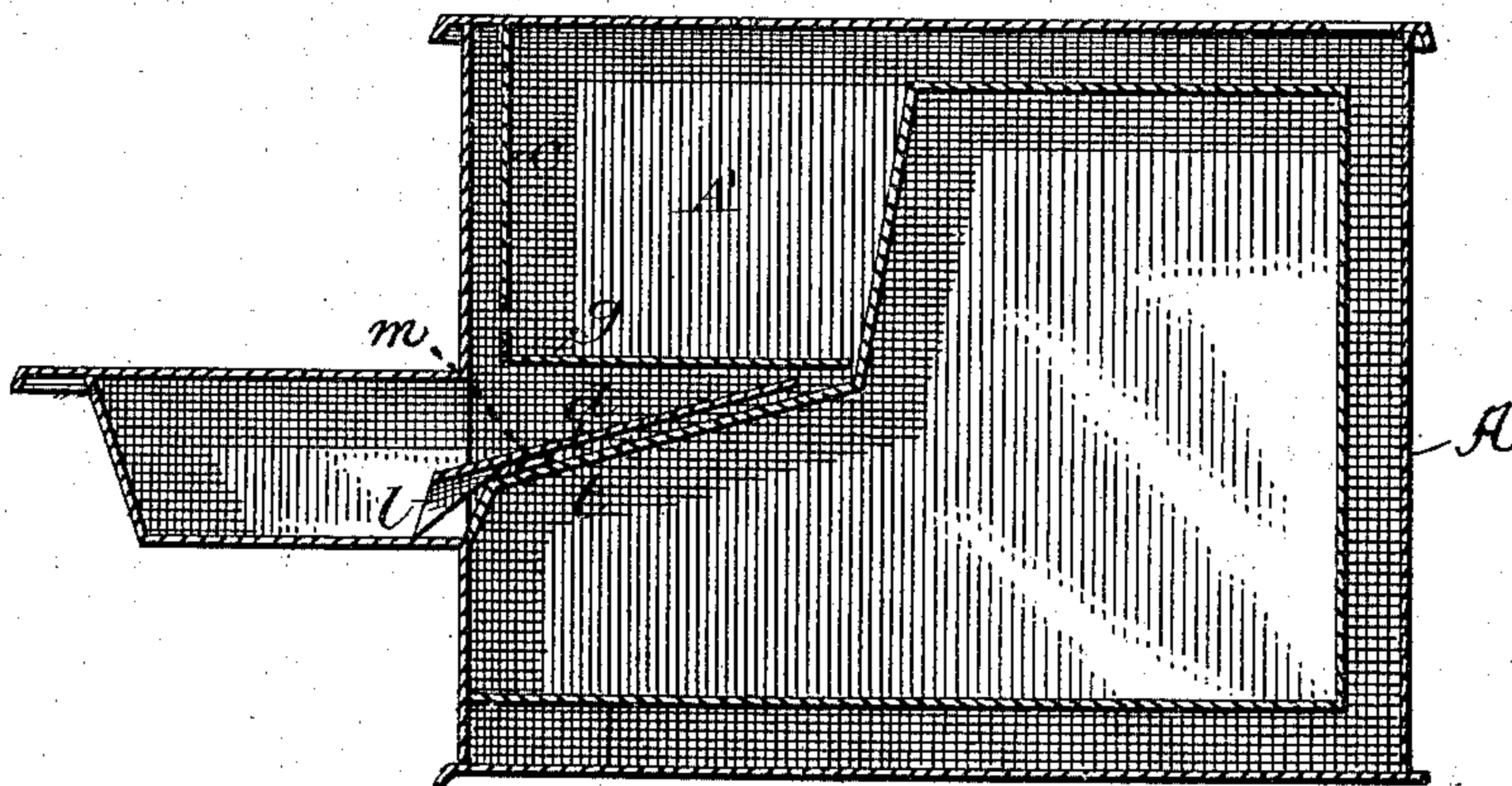
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Fig. 6.



Witnesses:

Geo E. Morgan Jr
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UNITED STATES PATENT OFFICE.

WILLIAM C. SMITH, OF WARSAW, MISSOURI.

FIRE-CHAMBER FOR COOK-STOVES.

SPECIFICATION forming part of Letters Patent No. 330,935, dated November 24, 1885.

Application filed June 21, 1884. Serial No. 135,660. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. SMITH, of the town of Warsaw, county of Benton, State of Missouri, have invented a new and Improved Fire-Chamber for Cooking Stoves and Ranges; and I do hereby declare that the following description, taken in connection with the accompanying sheet of drawings, forms a complete specification of my invention, wherein are set forth the nature and principles of my said improvements, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

This invention relates to improvements in that class of articles known as "cooking-stoves;" and it consists, substantially, in the parts as constructed and in the particular combinations thereof, to be hereinafter distinctly described, and pointed out in the claims.

The general objects of the invention will be sufficiently understood from the description hereinafter given, and with reference to the accompanying drawings, before referred to, in which—

Figure 1 represents in perspective a stove embodying my improvements, the doors of the fire-chamber being removed to more clearly indicate the disposition of parts. Fig. 2 is a detail perspective view of the perforated bottom plate for supporting the fuel in the fire-chamber, the same being constructed at its front edge with a grating, as shown. Fig. 3 represents a front view of the front plate for the fire-chamber, the same being constructed comb-like on its lower edge, the teeth of which being arranged to either coincide with those of the bottom plate or alternate therewith, as desired. Fig. 4 is an inverted perspective view of a plate of peculiar construction, the same operating in conjunction with the other parts of my apparatus to carry my invention into effect. Fig. 5 is a detail view of handle or hook by which the plate *d* is operated. Fig. 6 represents a vertical longitudinal section of stove shown in Fig. 1.

Reference being had to the several parts by the letters marked thereon, A represents a stove embodying my improvements, and A' indicates the fire-chamber, the same being located at the forward end of the stove, its

bottom being inclined upwardly, as shown, and constituting the top of the oven.

g represents a plate of cast-iron, which is located or arranged in the fire-chamber horizontally, the said plate being perforated, as shown, and formed at its front or forward edge with upwardly-turned lugs or teeth, the latter constituting, with similar teeth on the front plate, a grating by which the fuel is confined or maintained in the fire-chamber.

c represents a front plate for the fire-chamber, and is formed on its lower edge with teeth corresponding to those on the plate *g*, the function of which has been stated.

d represents a plate of cast-iron, provided at its two opposite sides or corners with wedge-shaped flanges *l l*, as shown, said flanges depending downward from the plate. Said plate is formed or provided with a cleat, *t*, on its under side, which is designed to engage a lug or projection on the oven-top, to prevent the plate from sliding forward into the ash-pit. It is also formed or provided with a perforated ear or projection, in which the hook (shown in Fig. 5) may be inserted for the purpose of drawing the plate forward when required.

Operation: By sliding the plate *d* backward into the space in which it is located the wedge-shaped flanges, by riding upon the oven-top, will raise the plate up adjacent to or in contact with the under side of the perforated plate *g*, thus closing up all entrances through which any under current of air would pass, and thereby causing the air to pass in at the front of the grate to the fire-chamber. The operation thus far explained is generally resorted to in using this device when starting a fire. When ashes have accumulated in the fire-chamber, the plate *d* is drawn forward until its cleat *t* engages the lug *m* on the oven-top, thus forming an inclined shelf, onto which the ashes fall or sift from the fire-chamber, the said ashes filling up the space thus formed between the plates *d* and *g*, and acting to shut off or obstruct the passage of air or draft through the perforated plate *g* from beneath. Upon further accumulation of ashes in the fire-chamber the plate *d* is simply shaken or vibrated, whereupon the ashes between the two plates will slide into the ash-pit in the hearth, the ashes above the plate *g* sifting down and filling the space thus made, and

securing the conditions favorable to uniform operation.

What I claim is—

1. The combination, with a cooking stove
5 having a fire-chamber provided with a perforated bottom and a front grating, and an inclined shelf beneath the fire-chamber, of a movable plate having wedge-shaped flanges depending therefrom at corresponding sides,
10 substantially as described.
2. The combination, with a cooking-stove having a fire-chamber provided with a perforated bottom and a front grating, and an inclined shelf beneath the fire-chamber having a
15 lug, of a movable plate having wedge-shaped flanges at corresponding sides, and formed

with a cleat on its under side, and a perforated extension or ear, substantially as described.

3. The combination, with a cooking-stove 20 having a fire-chamber provided with a perforated bottom and front grating, and an inclined shelf beneath said chamber having a lug and constituting the oven-top, of the movable plate *d*, constructed with the wedge-shaped side 25 flanges and the cleat *t* and perforated ear, substantially as described.

WILLIAM C. SMITH.

Witnesses:

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J. E. MORGAN, Jr.