

(No Model.)

N. J. WEIL.
STOVE.

No. 427,940.

Patented May 13, 1890.

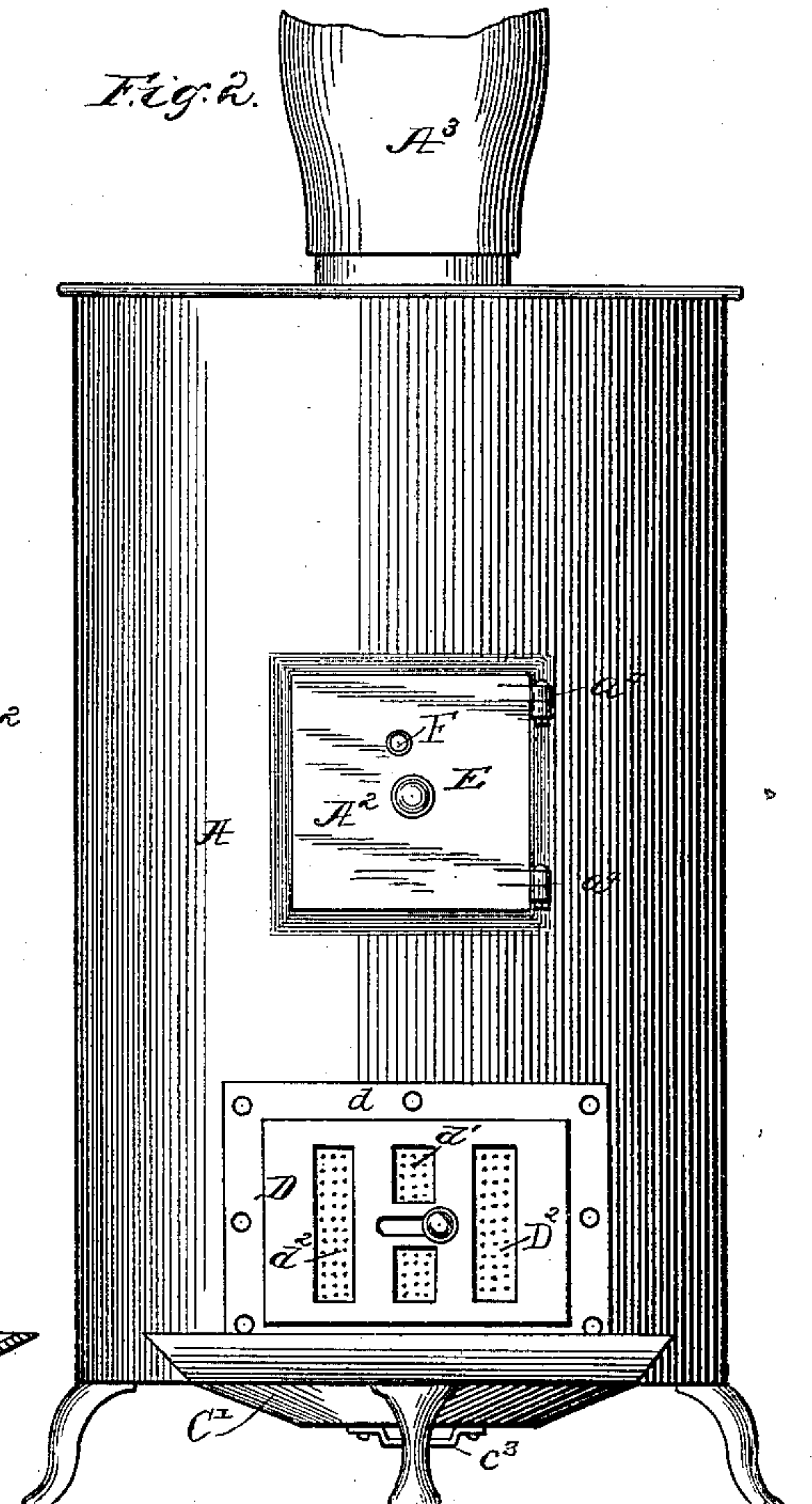
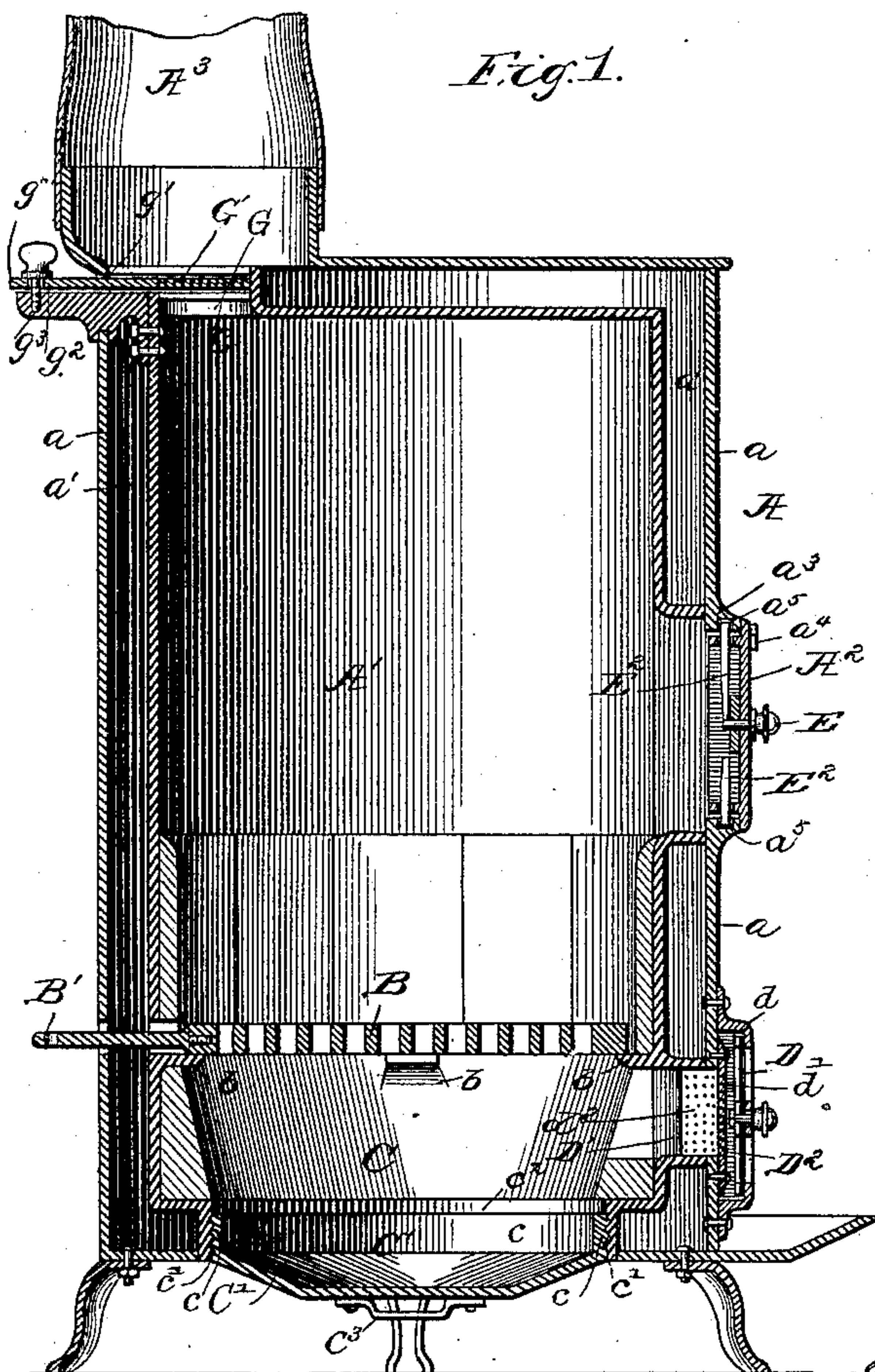
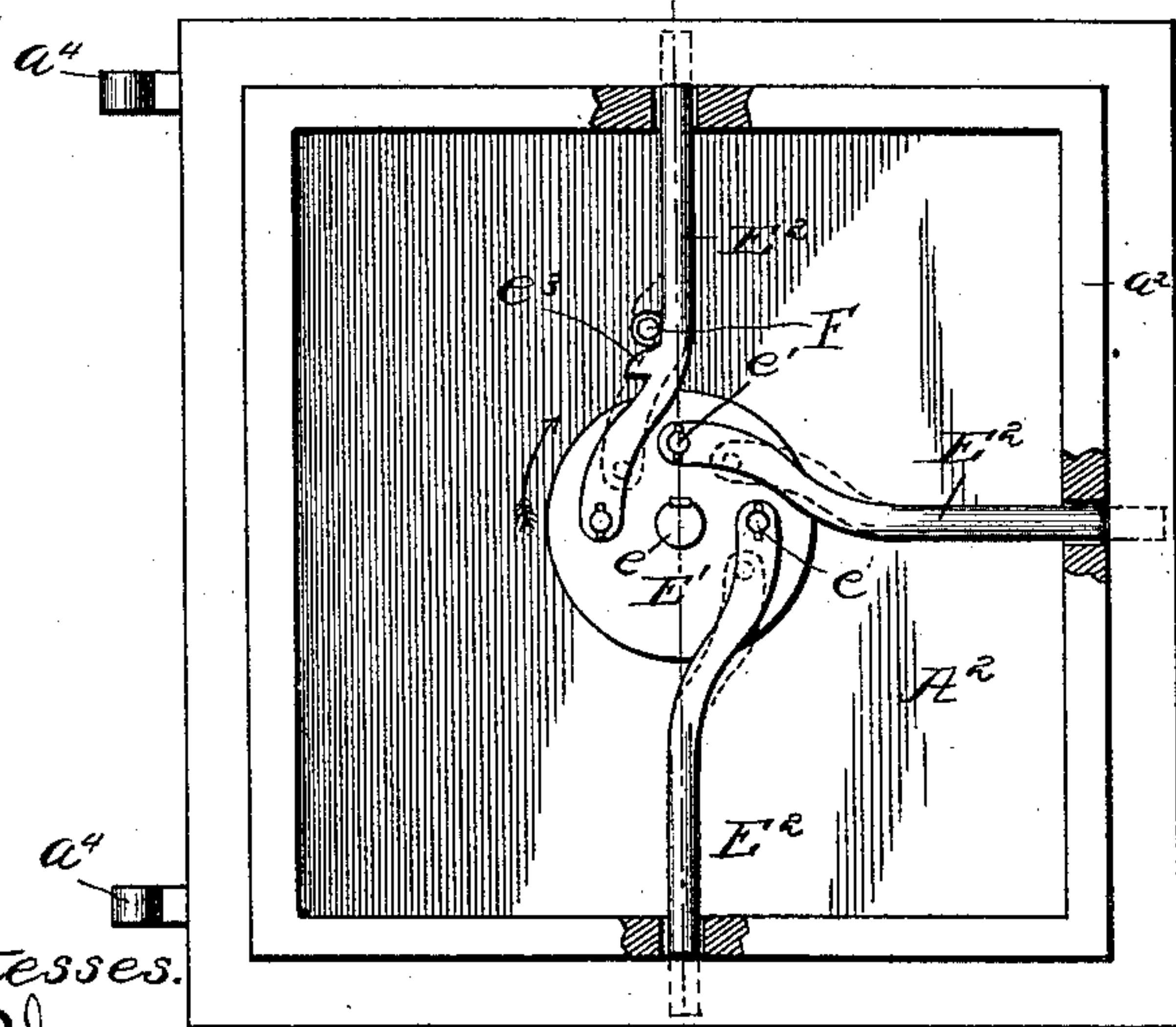
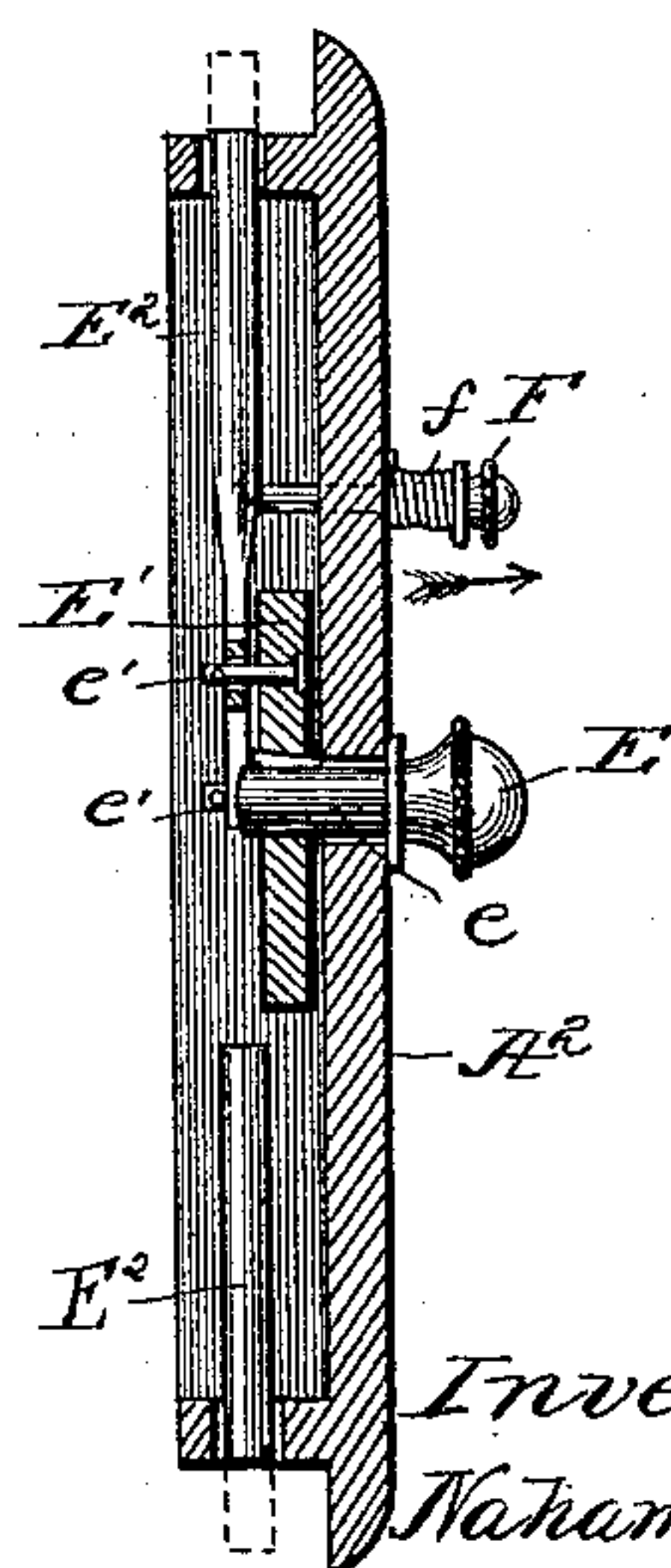


Fig. 3.



Witnesses.
H. R. Rhein.
Louis M. V. Whitehead

Fig. 4.



Inventor:
Naham J. Weil.
By Dayton, Poole & Brown
his Attys.

UNITED STATES PATENT OFFICE.

NAHAM J. WEIL, OF CHICAGO, ILLINOIS.

STOVE.

SPECIFICATION forming part of Letters Patent No. 427,940, dated May 13, 1890.

Application filed April 6, 1888. Serial No. 269,803. (No model.)

To all whom it may concern:

Be it known that I, NAHAM J. WEIL, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a
10 part of this specification.

This invention relates to improvements in stoves, and has for its principal object a construction whereby the possibility of the surrounding wood-work taking fire from the
15 stove in case of accidents is reduced to a minimum. As ordinarily constructed, when stoves have been overturned by accident or otherwise, particularly stoves used upon railroads, burning fuel has fallen out of the stove either
20 through the ash-pit door, the door of the combustion-chamber, or, as more frequently happens, through the smoke flue or chimney, the latter being very easily disjointed or broken when the stove is overturned.

25 The invention consists in the novel devices and combination of devices herein shown, described, and more particularly pointed out in the claims.

In the drawings, Figure 1 is a central vertical
30 cal sectional view of a heating-stove embodying my invention. Fig. 2 is an outside elevation of the front of the stove. Fig. 3 is an elevation illustrating the locking-bolts upon the inside of the door of the fuel-chamber; and Fig. 4 is a vertical sectional view of the
35 latter, taken upon line 4 4 of Fig. 3.

In said drawings, A is the ordinary stove, comprising the combustion-chamber A', door A², and smoke pipe or chimney A³. The com-
40 bustion-chamber A' is surrounded by the usual metal hood or housing a, forming an air-space a' around said chamber.

B is the grate resting upon lugs b and provided with a shaking-handle B', whereby the
45 grate may be rocked or shaken.

C is the ash-chamber, and C' the movable bottom having upward extensions or flanges c on its periphery, so as to form an ash-pan. Said flanges c may be provided with screw-
50 threads c', adapted to engage similar screw-threads upon the interior periphery of the opening c² in the floor of the ash-chamber C,

whereby the said ash-pan may be removably fixed beneath the grate; but other convenient mode of attachment may be employed, if de- 55 sired.

c³ is a lug or handle upon the under side of the ash-pan C', whereby the ash-pan may be conveniently detached from the stove, when
60 desired.

D is a slotted sliding damper or register movably secured to the housing a of the stove and adapted to slide in guide-pieces d upon the housing in a familiar manner.

D' is a passage leading from the ash-cham- 65 ber C to and through the housing a of the stove and registering with slotted openings d' of the sliding plate D. A guard-plate D², having relatively small holes or perforations d² therein, is interposed between said damper 70 D and the grate of the stove and is preferably secured removably to the housing a, opposite to and covering the passage D', by screws or other convenient means. It will thus be seen that by the use of the perforated guard-plate 75 D² and damper or register D any amount of suitable draft may be given to the stove, and at the same time all possibility of the burning fuel escaping from the slotted openings d' of the damper in case of accident is pre- 80 vented.

In order to prevent any fuel from escaping through the doorway in the event of the stove being accidentally overturned and the door opened, I have provided said door with a 85 locking device, as follows: E is a knob or door-handle secured upon the outer end of the stud e, which stud is revolubly secured to the door A². Said stud e projects beyond the inner face of said door and carries upon its 90 inner end the disk E'. E² E² E² are the bolts, which are pivoted at one end upon the disk E' by the pins e' and which extend in opposite directions to and through the peripheral flange a² of the door. The housing a of the 95 stove is provided with a raised portion or projection a³, surrounding the opening into the combustion-chamber, and to which raised portion the door A² is hinged, as shown at a⁴. This raised portion a³ is also provided inte- 100 riorly upon three of its surfaces with holes or recesses a⁵, sufficiently large to receive the ends of the bolts E², as illustrated. When the door is opened, the bolts will be in the position in-

indicated in Fig. 3. When the door is closed, the knob E is turned in the direction illustrated by the arrow in Fig. 3, and the bolts will then engage the holes a^5 and assume the positions illustrated in dotted lines in Figs. 1 and 4 and in dotted lines in Fig. 3, locking the door firmly to the stove.

In order to prevent the unlocking of the door readily, I provide a spring-actuated pin or plug F, one end of which plug passes through the door A^2 and engages the lug e^3 upon one of the bolts E^2 , as clearly shown in Fig. 3. The action of the spring f is such as to cause the said plug F to constantly press inward to engage said lug e^3 , and it is obvious that when such engagement exists the bolts E^2 cannot be withdrawn from the holes or recesses a^5 .

When it is desired to open the door, the plug F will be first drawn outwardly against the action of the spring f in the direction indicated by the arrow in Fig. 4 and out of engagement with the lug e^3 . The knob E will then be turned and the bolts E^2 withdrawn to within the outer edge of the flange a^2 of the door A^2 , as shown in said Fig. 3.

The outlet or passage G in the top plate of the combustion-chamber A' and leading to the chimney A^3 is covered by a perforated guard-plate G' . Said guard-plate is provided with an extension or handle g , which passes outwardly through the opening g' in the housing a and is removably secured in position by means of a thumb-screw g^2 , which passes through a slot in said handle g and screws into an extension or lug g^3 on the top plate of the combustion-chamber A' . It will thus be observed that the smoke and gases have outlet through the small perforations in

the plate G' , while at the same time said plate is securely held in position and will effectually prevent, in case of accident, the escape of any large particles of burning fuel through the passage G. When the perforations in the plate G' become clogged with soot, or whenever it is necessary to remove the plate G' , the thumb-screw g^2 is unscrewed and removed and the plate G' drawn out of the stove through the opening g' .

It will be observed that when the door A^2 is closed the burning fuel will be inclosed within the combustion-chamber in such manner that it cannot escape therefrom in the event of accident, unless, of course, the accident be the entire destruction of the stove.

I claim as my invention—

1. In a stove, a suitable ash-chamber provided with an annular opening, its interior periphery being screw-threaded, and a removable bottom plate having peripheral upward extensions or flanges to form an ash-pan, said flanges being externally screw-threaded to engage the screw-threads of the ash-chamber, substantially as described.

2. A stove-door provided with a plurality of radially-movable bolts upon the inner face of the door, adapted to engage the door-frame, said door having also a movable pin positioned to engage one of said bolts when the latter is in engagement with said frame, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

NAHAM J. WEIL.

Witnesses:

TAYLOR E. BROWN,
O. N. WILLIS.