M. C. SADLER.

Cooking Stove.

No. 2,046.

Patented April 10, 1841.

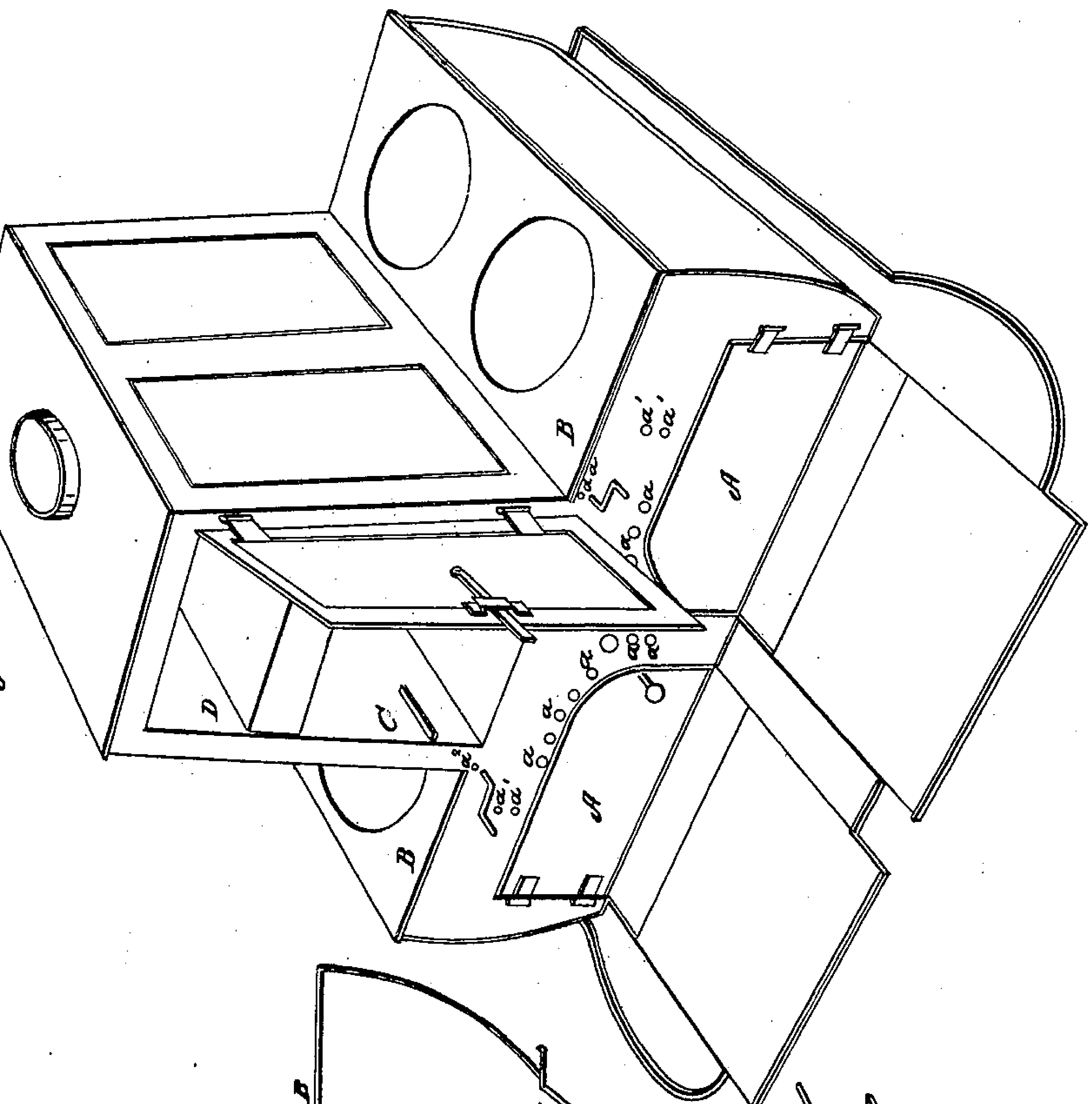

Fig: 1.

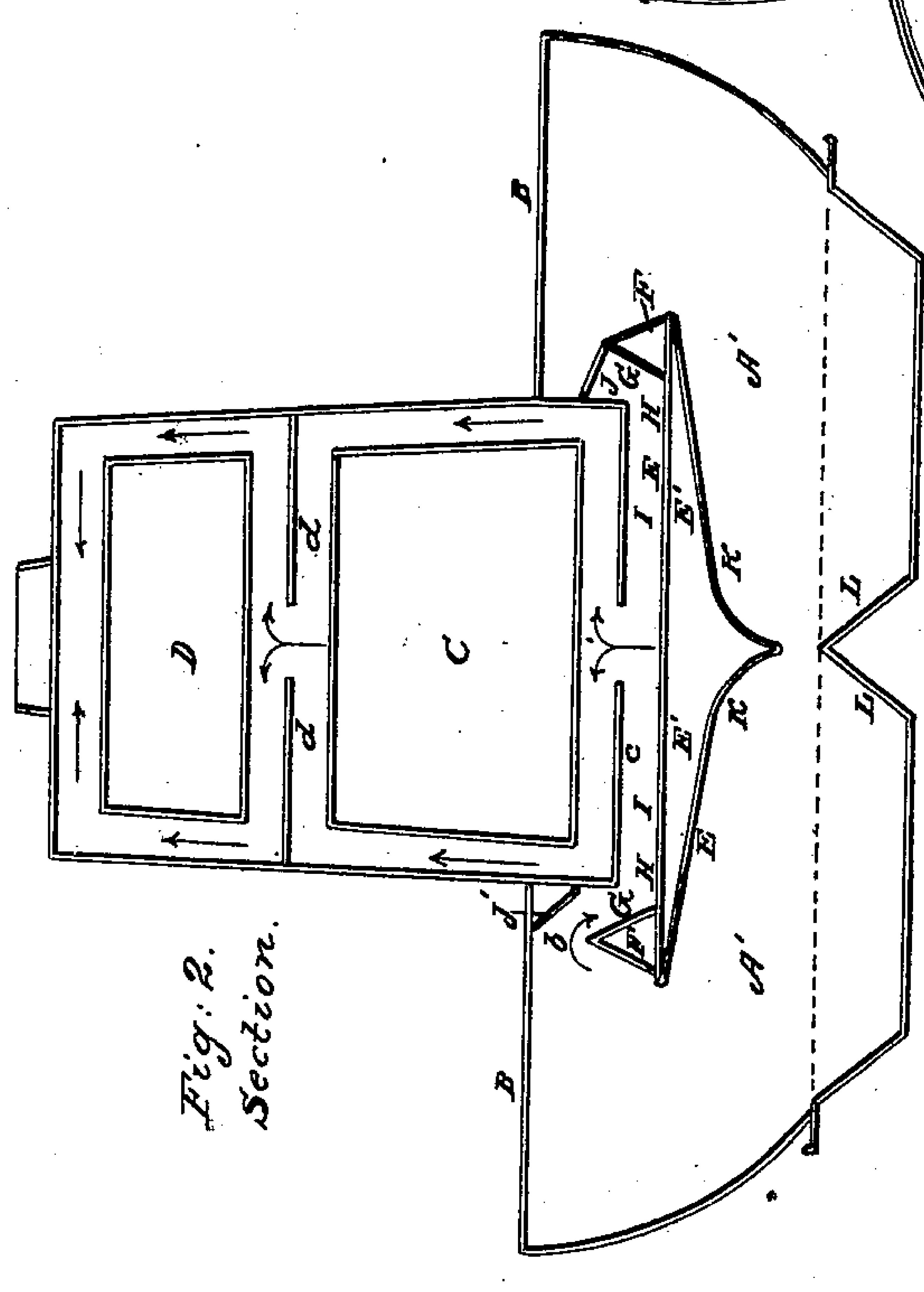

Fig: 2. Section.

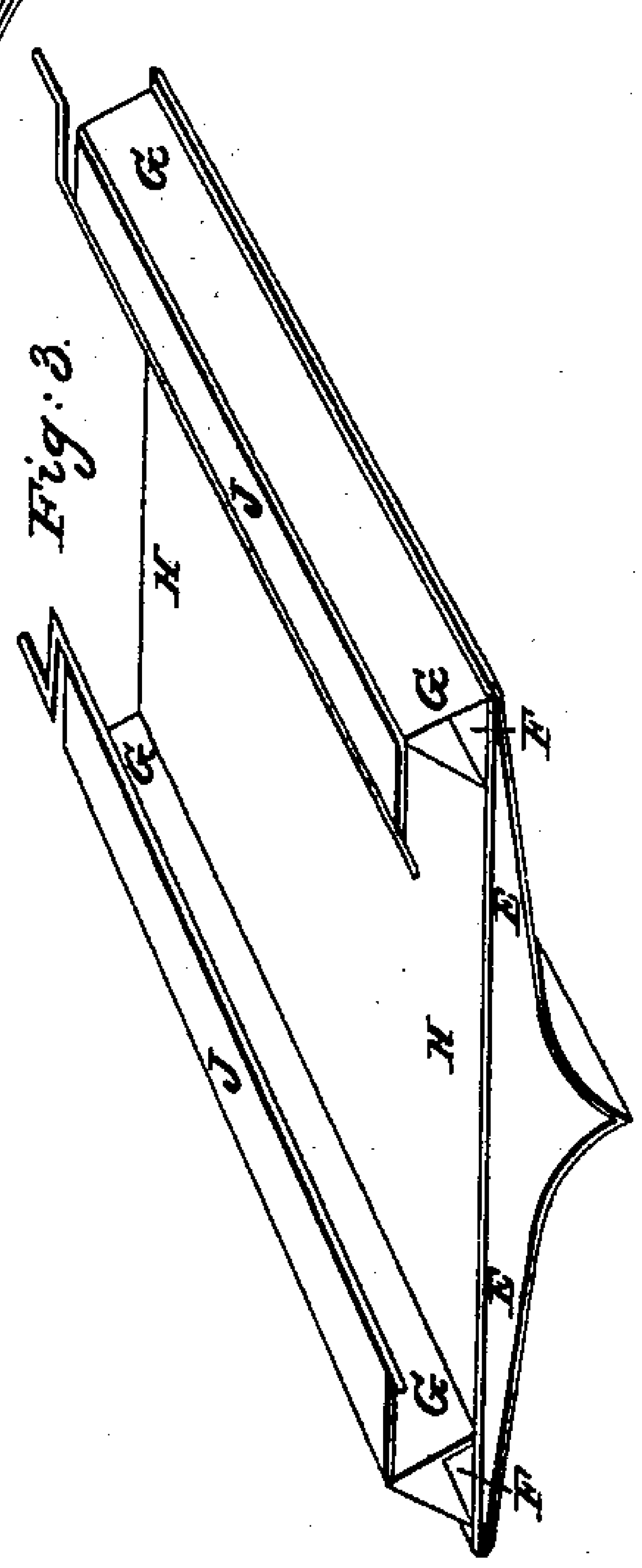

Fig: 3.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

M. C. SADLER, OF BROCKPORT, NEW YORK.

COOKING-STOVE.

Specification of Letters Patent No. 2,046, dated April 10, 1841.

To all whom it may concern:

Be it known that I, M. C. SADLER, of Brockport, in the county of Monroe and State of New York, have invented certain Improvements in Stoves for Cooking, which stove I denominate the "Log-Cabin Cooking-Stove;" and I do hereby declare that the following is a full and exact description thereof.

In the accompanying drawing Figure 1, is a perspective view of my stove; Fig. 2, a vertical cross section thereof through the middle, and Fig. 3, a perspective view of what I denominate the cold air flue, and of certain parts connected therewith.

In this stove I make a double fire chamber, either or both of which chambers may be used, according to the quantity which it is desired to cook. A, A, Fig. 1, are the two doors of these chambers, and A′, A′, Fig. 2, their interiors. B, B, are their top plates which are perforated for the reception of cooking utensils; above these fire chambers I construct two ovens C, and D, one of them immediately above the other, and these I surround by flues on four of their sides, as seen in Fig. 2. Within the fire chambers, and immediately beneath the ovens, I place the cold air flue E, E, which defends the lower oven plate from the fire, while it is itself protected therefrom so as to prevent its being burnt out, by allowing a free passage into and through it of the cool air of the room.

E′, E′, is the flue space of the cold air flue into which air is admitted, through holes *a*, *a*, *a*, in the front and back plates of the stove.

F, F, are hollow spaces in the valves or damper seats G, G, and into these spaces air is allowed to enter either through holes in the upper plate H, H, of the cold air flue, or through holes *a′*, *a′*, in the front and back plates of the stove, these holes being opposite to the spaces F, F; the air thus admitted will protect the seats from injury by the action of the fire.

I, I, is a flue space formed by the upper plate E, E, of the cold air flue, and the lower plate *c*, *c*, of the lower oven flue, and through this flue space I, I, the heated air from the fire, or fires, must pass, in its way to the oven flues, as shown by the arrow *b*.

J, J′, are valves, or dampers, which govern the passages from the fire chambers, into the oven flues. These dampers, the plates which compose their seats, and those which inclose the cold air flues extend from the front to the back plates of the stove against which the dampers fit, so as to rise and fall, and the stationary plates passing into grooves prepared to receive them. The damper J′, Fig. 2, is shown as open, and forming, with the side plate of the oven, and the top plate of the fire chamber, a triangular space, somewhat resembling that at F, in the valve seats. When the damper is in this position, said space is made to constitute a cold air flue, by perforations *a²*, in the front and back plates leading into this space, and the dampers are thus effectually protected from that injury from the fire to which they are subjected without such provision. When one of the dampers, J, is closed, the whole draft from the fire will be conducted to the oven flues through the opposite damper space. When but little cooking is to be done fire should be made in one of the fire chambers only, and the damper of the opposite chamber should be closed.

The lower plate K, K, of the cold air flue is curved in the manner shown in Fig. 2, and a ridge, or elevation, is formed along the lower plate of the stove, as shown at L, L, to constitute a division between the two chambers, while there is still a free communication from one to the other.

The lower flue plates *c*, *c*, of each of the ovens, I denominate guard plates, and each of these is separated into two parts along their middles, said separation extending from front to back, in such manner as to direct the draft on to the middle of each of the lower oven plates, whence it passes freely around on each side of the ovens, as shown by the arrows, there not being any descending draft in any part of these flues. The ovens are both thus surrounded by heated air, and articles may be baked in each in a very perfect manner; I, in general, construct the lower oven with plates of cast iron, and the upper of sheet iron, and find that when so made the heat in each is nearly equal. The openings made into the oven flues by the raising of the dampers J, J, are nearly as high up as the top portions of the boilers, by which arrangement the boilers are completely exposed to the full action of the heat before it passes into the oven flues.

Having fully described the manner in which I construct and arrange the respective parts of my stove, and explained the opera-

tion thereof I do hereby declare that I do not claim to be the first to have constructed a cooking stove with two fire places, or chambers of combustion, in either, or both of which fires might be made, this having before been done, but not under an arrangement and combination of parts similar to that adopted by me; but

What I do claim in the above described stove, and desire to secure by Letters Patent, is—

1. The manner of constructing and of placing the cold air flue between the chambers of combustion and the ovens situated above and between said fire chambers, as herein set forth.

2. I claim, likewise, the making of the valve seats hollow, and the admitting of air into them, in the manner, and for the purpose described; and also the protecting of the dampers by constituting the spaces formed by them when opened, into cold air flues, in the manner set forth.

3. I also claim the manner of arranging the oven flues as described; that is to say, the dividing the bottom flue plates which I generally denominate the guard plates, into two parts so as to cause the heated air to enter the flues along the middles of the bottom oven plates, and to ascend on each side of the ovens, as herein fully made known, the whole being constructed and arranged substantially as described.

M. C. SADLER.

Witnesses:
B. R. Morsell,
Owen McCue.