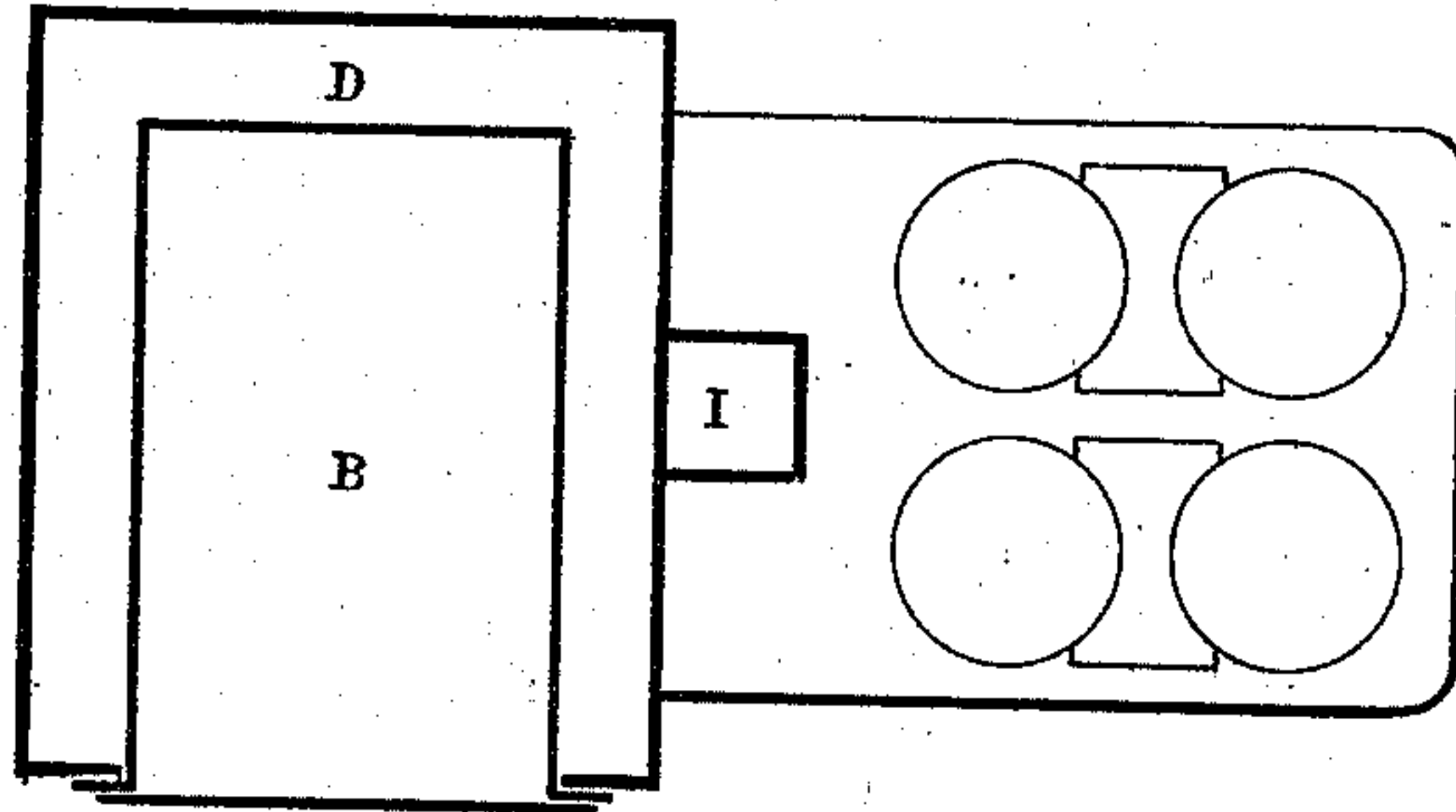


A. TITTEL.
Cooking Stoves.

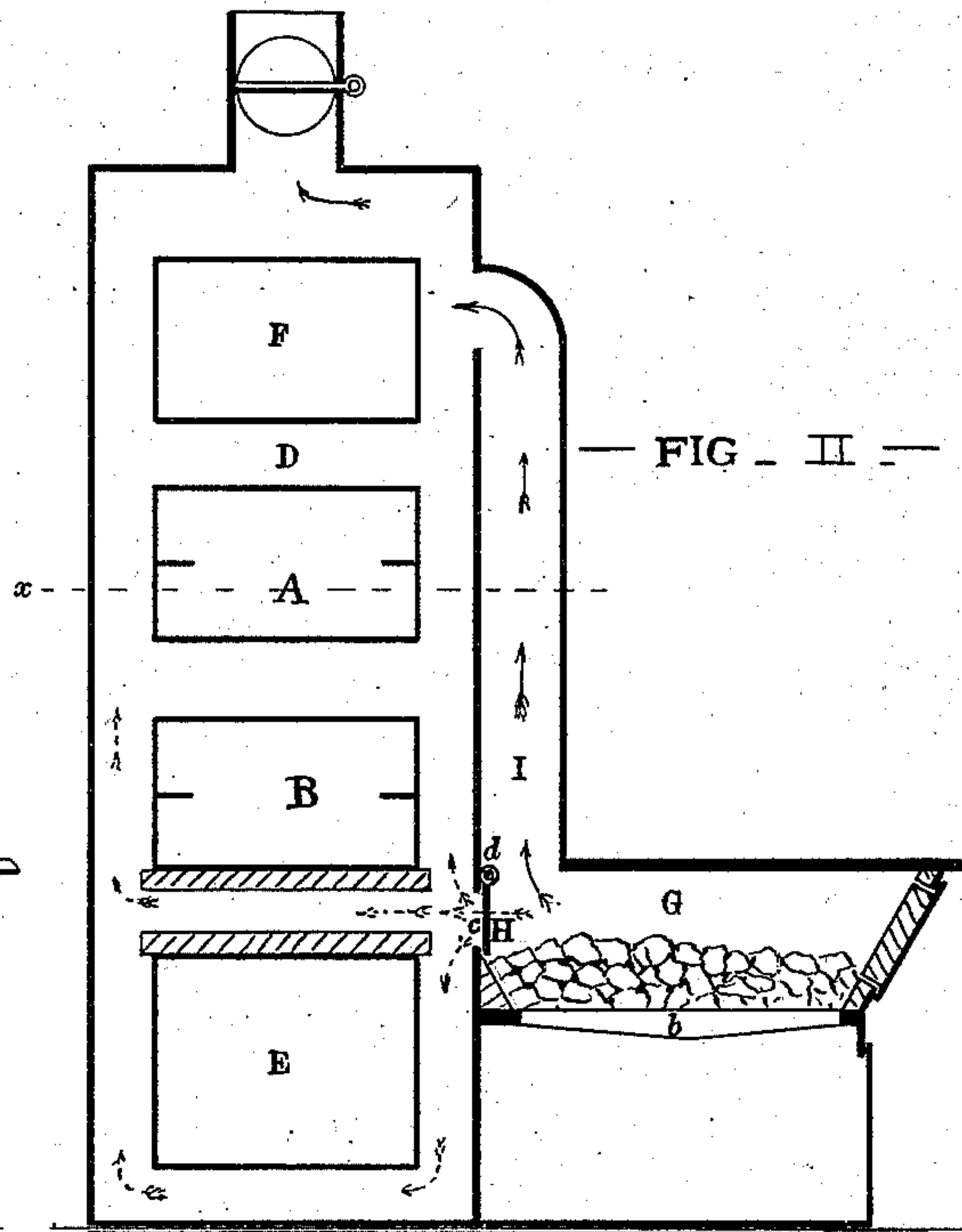
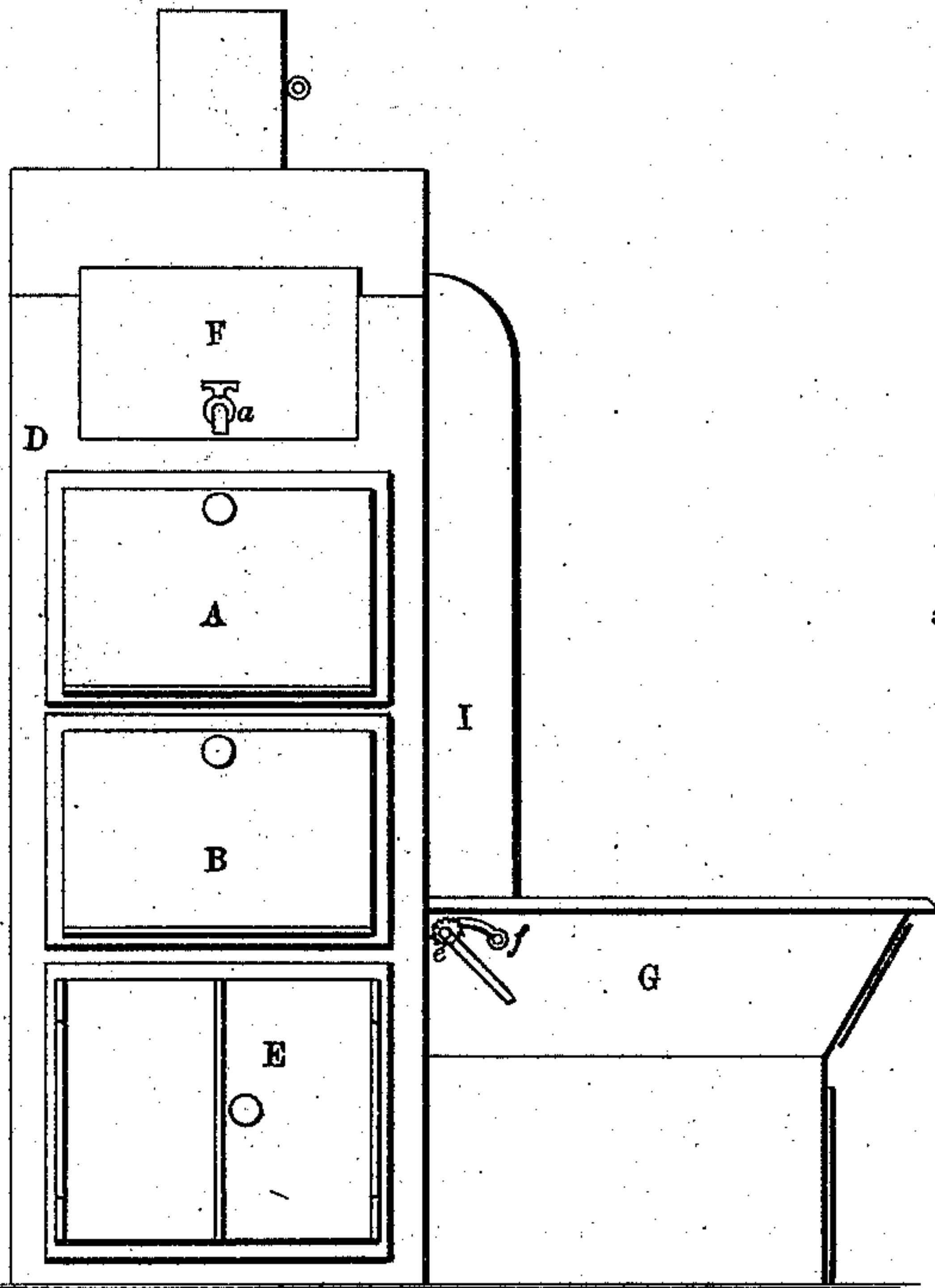
No. 152,932.

Patented July 14, 1874.

— FIG. III. —



— FIG. I. —



— FIG. II. —

— WITNESSES —

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H. A. Daniels

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UNITED STATES PATENT OFFICE.

ALFONS TITTEL, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. **152,932**, dated July 14, 1874; application filed June 1, 1874.

To all whom it may concern:

Be it known that I, ALFONS TITTEL, of the city of Baltimore and State of Maryland, have invented certain new and useful Improvements in Cooking-Stoves, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention; reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention relates to a cooking-stove having a series of fixed and removable ovens incased within a chamber connected to the grate or fire-receptacle of the stove, and arranged in such a manner that the heated air, gases, and products of combustion pass around and among the said ovens, the passage thereto being either direct or indirect, according to the position occupied by an adjustable regulating-damper; to the adaptation of a fixed boiler or water-reservoir to the said chamber, to be heated in like manner to the ovens aforesaid; and to certain modifications in other portions of the stove proper, designed to distribute the heat effectually, and render the heated parts less liable to communicate fire to contiguous objects.

In the further description of my invention which follows, due reference must be had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a front elevation of my improved cooking-stove. Fig. 2 is a vertical section of the same, and Fig. 3 a section upon the line *x y*.

Similar letters of reference indicate similar parts in all the figures.

A and B are removable ovens, constructed of some light metallic substance, provided with doors at the front side, and adapted to rest upon suitable fixtures within the heating-chamber D. The chamber D is, preferably, made of iron, with the fixed oven E at or near the bottom thereof. F is a boiler or water-reservoir secured within the chamber D, and fitted with the cock *a* for obvious purposes. The heating-chamber can be constructed as a part of the stove proper, G, which, as in ordinary stoves, is provided with the grate *b* and doors for feeding and draft purposes, or be connected thereto by a stove-pipe. In the drawing the stove-pipe is dispensed with, the opening *c* affording

direct communication between the grate and the interior of the heating-chamber. H is an adjustable regulating-damper, pivoted at *d*, and provided with the ratchet-wheel *e* and pawl *f*, by means of which the damper can be securely held in a desired position. I is a flue leading from the stove proper to a point near the top of the heating-chamber. The object of the damper H is to close, as may be desired, either the direct opening *c* or the lower end of the flue I, the damper being secured in either position by means of the ratchet-wheel and pawl. A compromised position may be had, however, by the same means, thereby allowing the heated gases to pass to the heating-chamber by both channels. The heating-chamber is connected to the chimney by a stove-pipe, a connection for the same being situated at the top of the chamber and fitted with a damper to regulate the draft therein.

The dotted arrows designate the direction taken by the heated air and gases, the direct passage *c* being open, and the arrows in full lines that when the direct passage is closed and the flue I exposed.

It will be seen that the products of combustion have access to nearly every exterior part of the ovens, thereby heating them rapidly, and that each oven, owing to its relative distance from the opening *c*, has a temperature differing from the others. This diversity in temperature allows articles requiring different degrees of heat to be cooked at the same time, or the removal of articles during the cooking process to an atmosphere of a higher or lower temperature, as may be desirable.

As the close proximity of the bottom of the removable oven B and the top of the fixed oven E to the heated current issuing from the opening *c* would render those portions of the said ovens excessively hot, I place courses of fire-brick to protect them and to render the heat in the said ovens more uniform.

The safety of the stove as regards the communication of fire to persons and objects near to it is insured by flaring the upper portion and lining it with fire-brick, placing at the front side two courses, and at the other sides one course. By this means the conduction of heat to the apartment is also, in a measure, prevented.

The fixed oven E, being of a lower temperature than the others, can be used to keep cooked articles at a proper degree of heat for the table, and to warm plates, dishes, and the like.

When the indirect passage is used the temperature of the entire series of ovens is lowered, the upper one being the hottest; but in either case the water in the boiler F is sustained at a high temperature.

The boiler can be connected to the supply water-pipe and the flow to the boiler governed by a stop-cock.

By the ovens being removable and interchangeable the regulation of heat is further accomplished; as in case oven B is too hot it can be transferred, with its contents, to the place occupied by A, and the temperature

gradually lowered without the exposure of the contents to the air and the escape of steam or smoke to the apartment.

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

The chamber D, provided with the removable and interchangeable ovens A and B, fixed oven E, and water-reservoir F, the stove proper having the upper flaring part G, the flue I, and damper H, combined and arranged substantially as and for the purposes specified.

In testimony whereof I have hereunto signed my name in the city of Baltimore this 28th day of May, in the year of our Lord 1874.

Witnesses: ALFONS TITTEL.

A. WÜNSHE,
WM. T. HOWARD.