

(No Model.)

F. O. RUEHLE & A. G. SCHMIDT.
STOVE.

No. 484,113.

Patented Oct. 11, 1892.

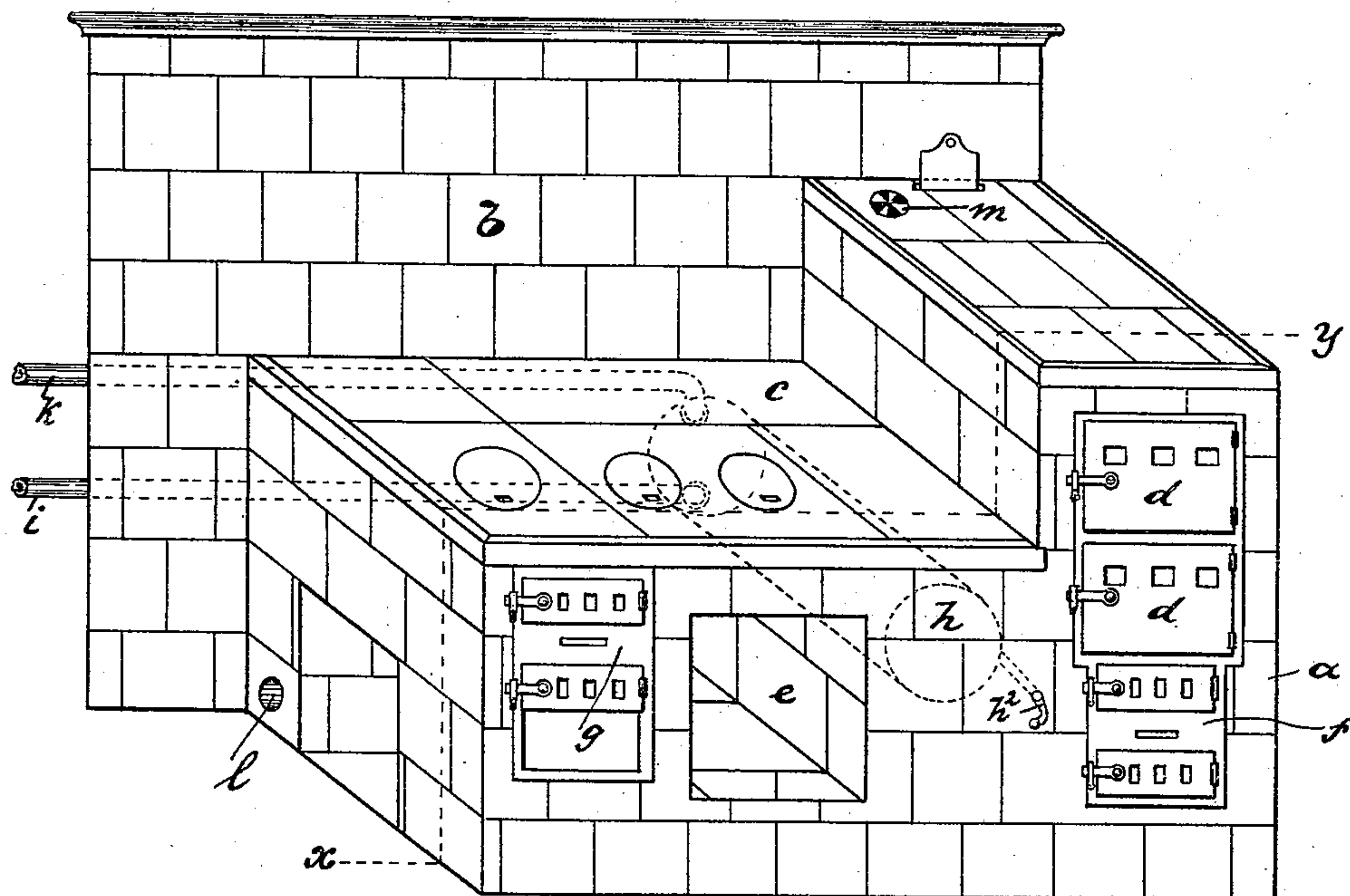


Fig. 1.

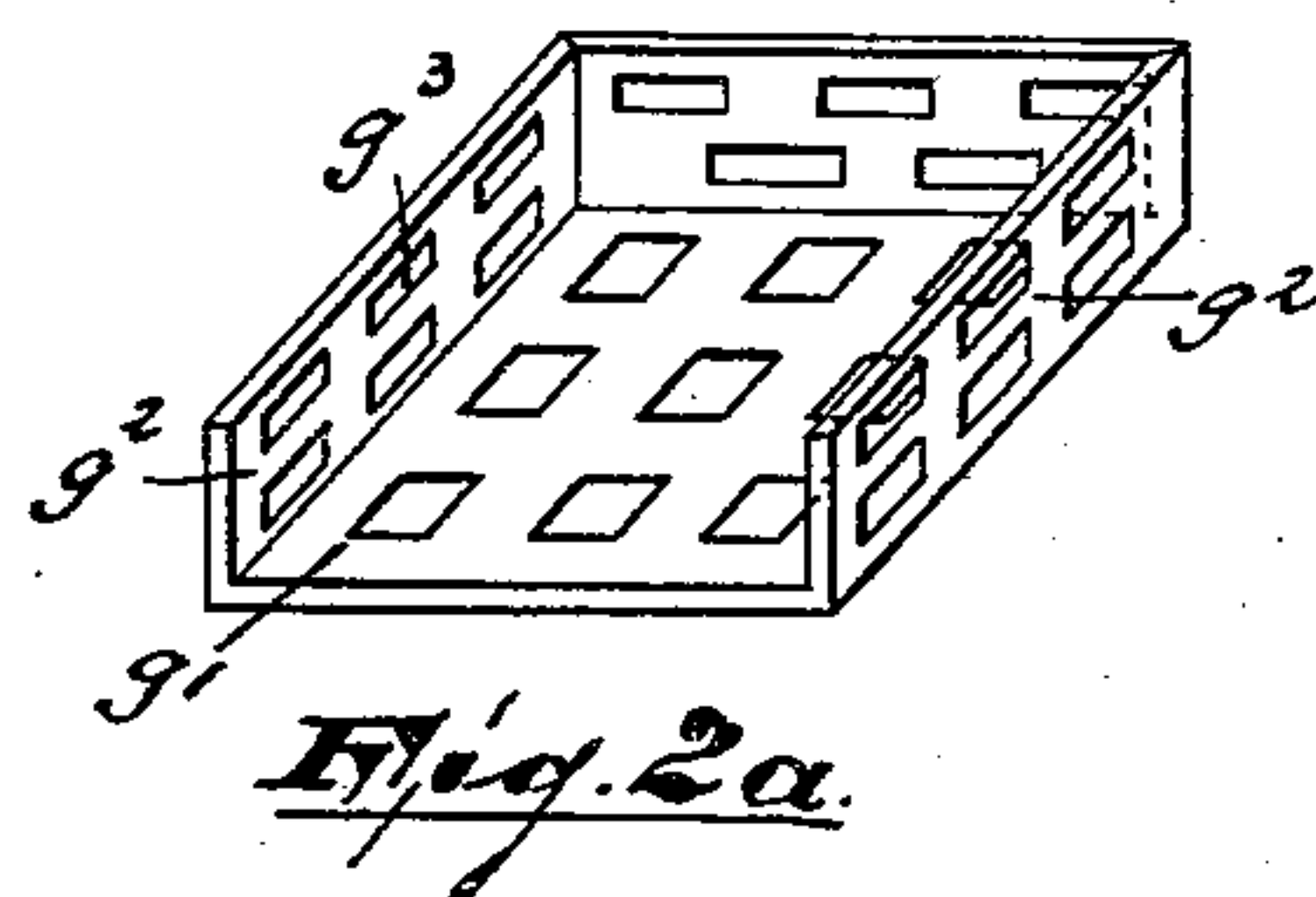


Fig. 2a.

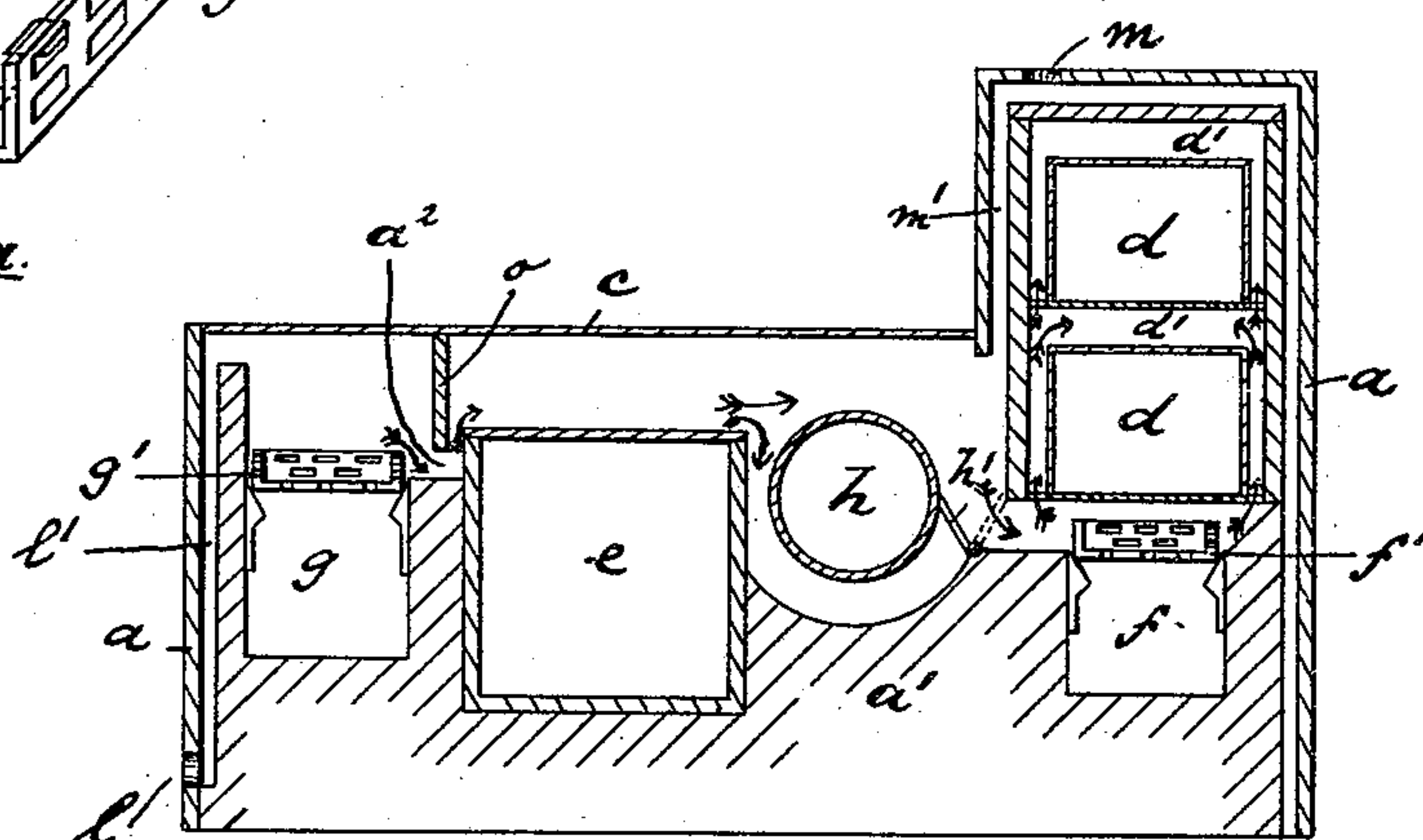


Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

FRIEDRICH OTTO RUEHLE AND ALBERT GUSTAV SCHMIDT, OF NEWARK,
NEW JERSEY, ASSIGNORS TO THE AMERICAN ART STOVE AND MANTEL
COMPANY, OF SAME PLACE.

STOVE.

SPECIFICATION forming part of Letters Patent No. 484,113, dated October 11, 1892.

Application filed April 4, 1892. Serial No. 427,595. (No model.)

To all whom it may concern:

Be it known that we, FRIEDRICH OTTO RUEHLE and ALBERT GUSTAV SCHMIDT, both subjects of the Emperor of Germany, residing in Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Stoves; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a kitchen-stove of which tiles form an important part in the construction thereof, simple and durable, of great efficiency, and neat in appearance.

The invention consists in the improved kitchen-stove, the arrangements of the firing-places and smoke consumers, and in the combination and arrangements of the various parts thereof, substantially as will be herein-after more fully described, and finally embodied in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several views, Figure 1 is a perspective view of the improved kitchen-stove. Fig. 2 is a sectional view on line $x y$, Fig. 1; and Fig. 2^a is a perspective view of one of the grates.

In said drawings, a represents the stove with mantel b and top c . The stove, as well as the mantel, is built of tiles and surrounds the foundation a' . In said stove are arranged the ovens d and surrounding chamber d' , and underneath the fireplace f , with grate f' . At the other end of the stove is arranged another fireplace g , (with grate g'), and between the two fireplaces the dish-oven e , hot-water tank h , and damper h' . Between the fireplace g and the dish-oven e and secured to the top c is arranged an iron plate o , projecting downwardly into a recess a^2 , which acts as a smoke-consumer, being heated by the flames from said fireplace. Each grate is provided with upwardly-extending flanges g^2 , having slots g^3 , (preferably horizontal,) which perforated flanges partially

serve as smoke-consumers. Between the fireplace g and the side wall of the stove a is arranged a channel l' , connected through an inlet l with the outer atmosphere. Said inlet l is provided with a suitable ventilator. (Not shown in the drawings.) Between the oven d (or, better, between the wall of the surrounding chamber d') and the outer walls of the stove a is arranged a chamber m' , provided with a ventilator m . The hot-water tank h is situated between the dish-oven e and the ovens d and is connected through pipes K and i with the cold and warm water supply, respectively. Both pipes are so arranged that the larger portion of them is inclosed in the stove or its mantel, whereby the said pipes are always kept warm. The damper h' is arranged so that it may, by turning the handle h^2 , shut off the communication between the fireplaces f and g , thus allowing each of the said fireplaces to be used independently of the other.

In operation, when a fire is made in the grate of fireplace g the flames and smoke will pass over and through the perforated flanges g^2 of the grate, thus heating said flanges, whereby part of the smoke will be consumed. The remainder of the smoke is compelled to pass over and under the plate o , which also becomes heated, and thereby acts as an additional smoke-consumer. The heat and such portion of the smoke that remains unconsumed pass over the top of the dish-oven e and over and around the hot-water tank h and from there into the chamber d' , surrounding the ovens d , and finally into the chimney.

If it is desired to use only the ovens d , the damper h' is thrown over so as to rest against the wall of the chamber d' , as shown in dotted lines in Fig. 2, and the fire is built in the fireplace f .

Should the tiled surface of the stove become too warm, the ventilator at l is opened, thus allowing the cold air to pass through said ventilator into the chamber l' , from there over the fireplace g , and along over the dish-oven and water-tank into the outer chamber or channel m' . As will be manifest, the said air (in its described passage) when leaving the ventilator m has become heated. A con-

nection can easily be attached to said ventilator *m* and piped off to other rooms in any desired manner, thus combining with the ordinary kitchen-stove valuable means for heating the various rooms in other parts of the house.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

10 1. A kitchen-stove combining therein two fireplaces, a grate arranged in each of said fireplaces and provided with upwardly-extending perforated flanges, and a damper between said fireplaces and adapted to make
15 each of said fireplaces independent of the other, substantially as described and set forth.

2. A kitchen-stove having two fireplaces and provided with a vertical plate adjacent to one of said fireplaces, depending from the
20 top of the stove and terminating in about the plane of the grate in said fireplace.

3. A kitchen-stove combining therein two fireplaces, a grate arranged in each of said fireplaces and provided with upwardly-extending perforated flanges, a hot-water tank

arranged between said fireplaces, a damper so arranged as to make each of said fireplaces independent of the other, and a downwardly-extending iron plate serving as a smoke-consumer, all said parts being arranged to operate substantially as described and set forth. 30

4. In a kitchen-stove, the combination, with the ovens and fireplaces, of grates arranged in said fireplaces and provided with upwardly-extending perforated flanges, cold-air
35 chambers *l'* and *m'*, arranged in said stove and connected with the outer atmosphere through ventilators *l* and *m*, and a damper arranged between said fireplaces and chambers, all said parts being arranged substantially as
40 described, and for the purposes set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 26th day of March, 1892.

FRIEDRICH OTTO RUEHLE.
ALBERT GUSTAV SCHMIDT.

Witnesses:

ALFRED GARTNER,
WM. D. BELL.