

No. 854,605.

PATENTED MAY 21, 1907.

J. ROSENTHAL.

STOVE.

APPLICATION FILED JULY 15, 1905.

3 SHEETS—SHEET 1.

Fig. 1.

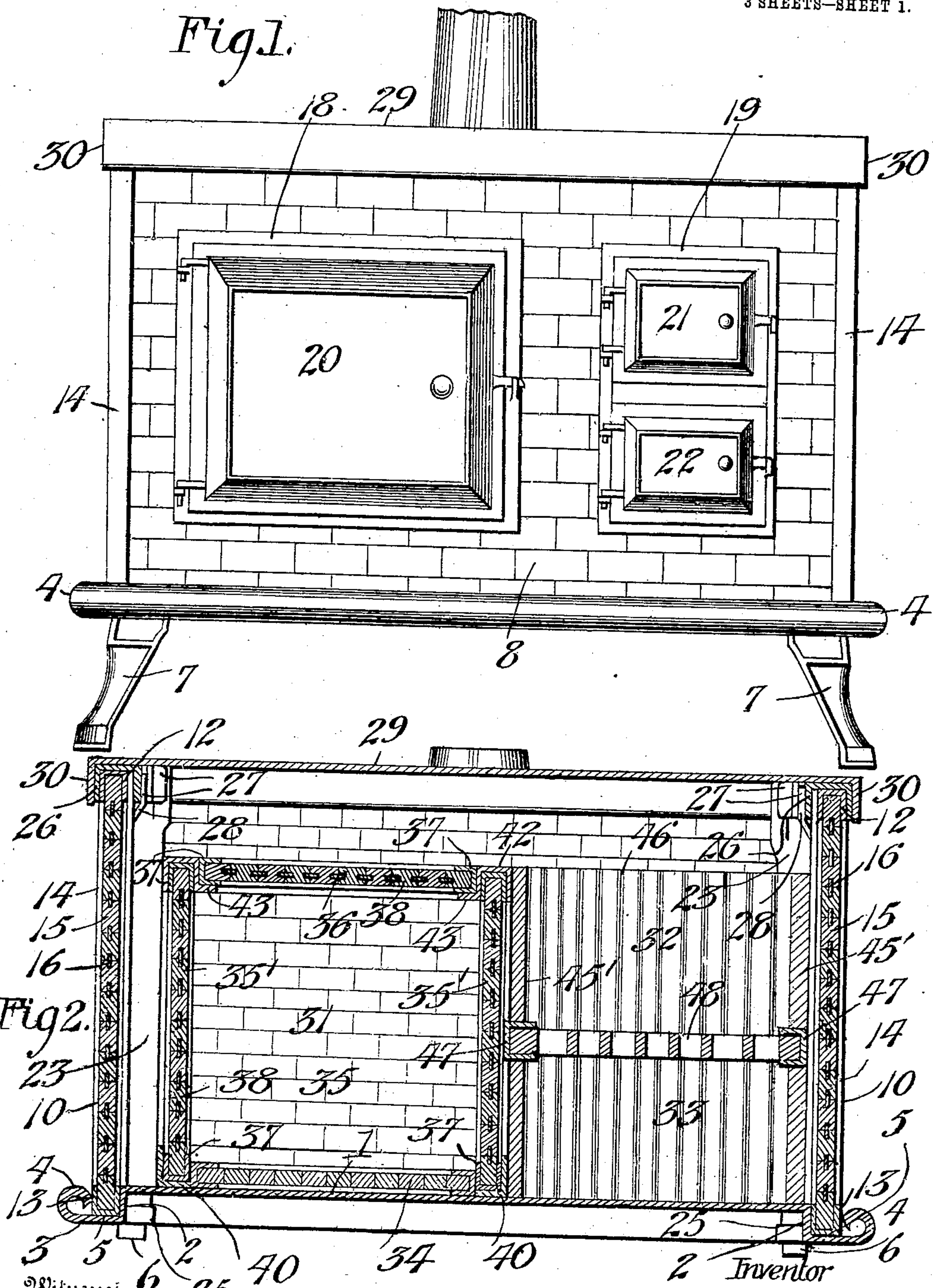


Fig. 2.

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3 SHEETS—SHEET 2.

Fig. 3.

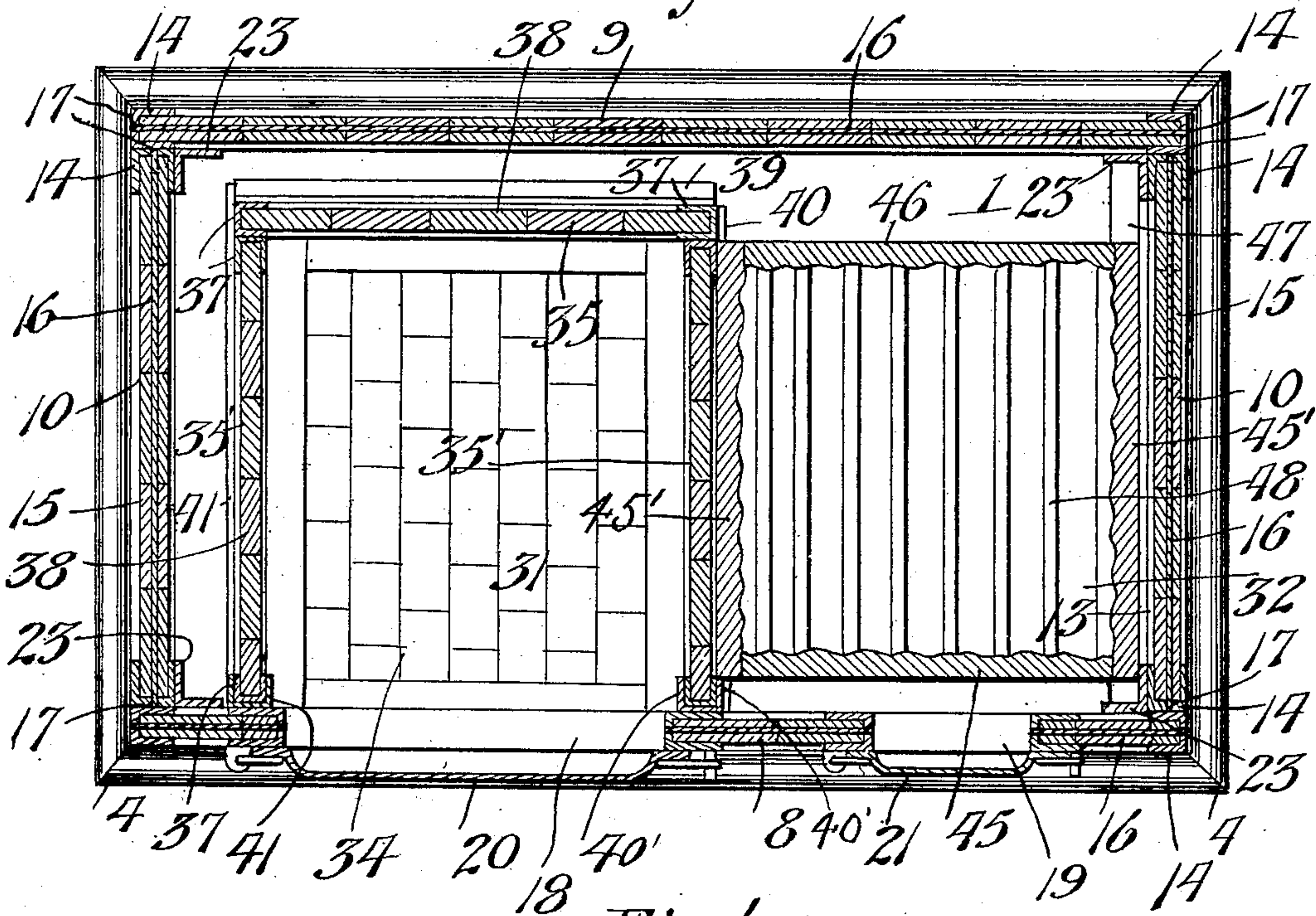
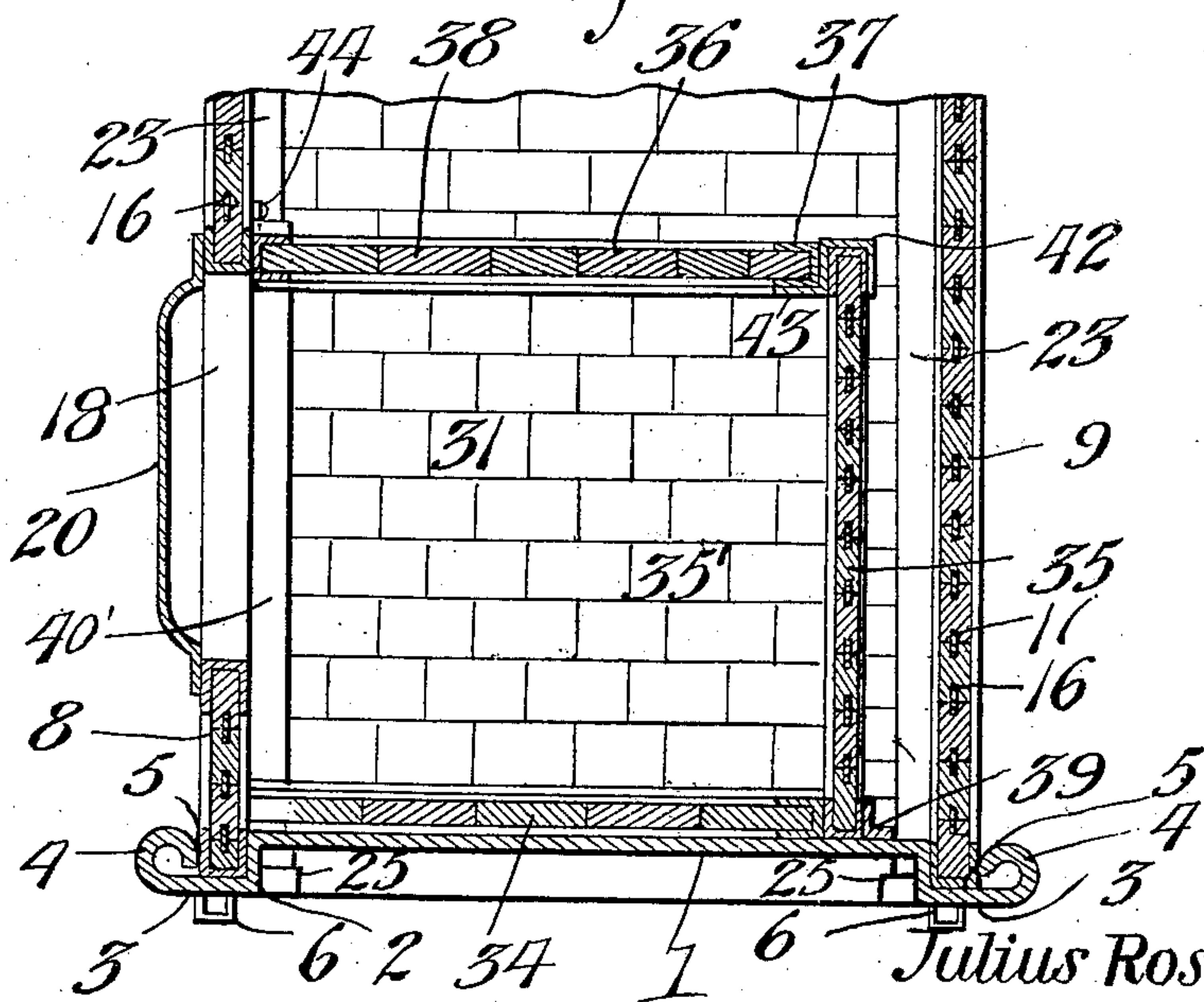


Fig. 4.



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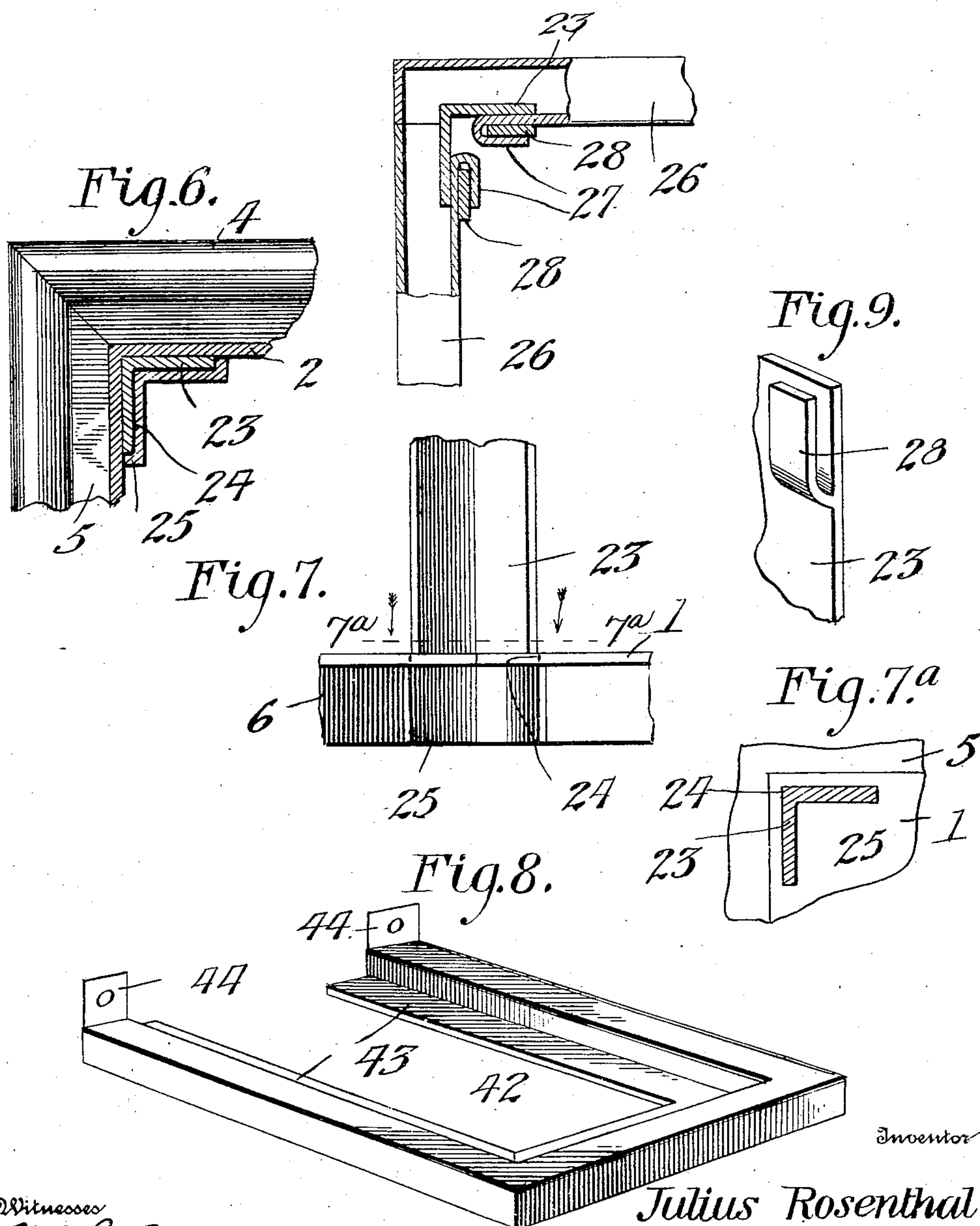
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3 SHEETS—SHEET 3.

Fig 5.



Witnesses

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UNITED STATES PATENT OFFICE.

JULIUS ROSENTHAL, OF ATLANTA, GEORGIA, ASSIGNOR OF ONE-HALF TO
MORRIS LICHTENSTEIN, OF ATLANTA, GEORGIA.

STOVE.

No. 854,605.

Specification of Letters Patent.

Patented May 21, 1907.

Application filed July 15, 1905. Serial No. 269,796.

To all whom it may concern:

Be it known that I, JULIUS ROSENTHAL, a citizen of the United States of America, residing at Atlanta, in the county of Fulton and State of Georgia, have invented new and useful Improvements in Stoves, of which the following is a specification.

This invention relates to improvements in cooking and heating stoves, and has for its object to provide a construction whereby the walls of a stove may be formed of tiling, the tiles being removably mounted so as to permit the walls to be readily formed or set up and damaged tiles to be conveniently replaced.

Another object is to provide a sectional stove which may be easily set up for use or taken down and packed in close compass for storage or transportation, and in which the sections are interfittingly connected in such a manner as to form a rigid, strong and durable stove structure.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a front elevation view of a cooking stove or range constructed in accordance with the invention; Fig. 2 is a central vertical transverse section of the same; Fig. 3 is a horizontal section; Fig. 4 is a vertical front to rear section taken on a line through the center of the oven; Fig. 5 is a detail view showing in section the construction of the corner joint between the clamping strips and corner strips or standards of the main or body frame; Fig. 6 is a sectional view through one of the corners of the stove bottom and the adjacent corner strip or standard; Fig. 7 is a view in elevation looking from the interior toward the parts shown in Fig. 6; Fig. 7^a is a section on line 7^a—7^a of Fig. 7; Fig. 8 is a perspective view of the upper coupling and supporting rim of the oven frame; and Fig. 9 is a detail view of a portion of the upper end of one of the corner standards, showing the locking tongue formed thereon.

The numeral 1 in the drawings represents the bottom wall of the stove body, which is preferably composed of a cast metallic plate, and forms a common base for the ash pit, oven and flue passage in the body of the stove. This bottom plate is formed with a down-

turned marginal flange 2, at the base of which is an outwardly projecting horizontal flange 3 terminating in an upwardly extending rim 4, the flange 2 and rim 4 forming the inner and outer walls and the flange 3 the bottom wall of a groove or channel 5 adapted to receive the lower edges of the walls of the stove body, as hereinafter described. The bottom wall 1 will, of course, vary in form according to the specific shape of the stove, and is provided at its corner portion with the usual keeper sockets 6 to receive the legs on which the stove is supported.

The body wall of the stove comprises front, rear and side wall sections 8, 9 and 10, respectively. Each of these sections consists of a rectangular metal frame composed of a channeled or grooved top, bottom and end sections 12, 13 and 14 and carrying tiles 15, the tiles being arranged in longitudinal rows with the tiles of one row breaking joint with the tiles of adjacent rows in the ordinary manner, the marginal edges of the outer tiles fitting within the grooves or channels of the frame pieces. The tiles are held in assembled relation in the frame by longitudinally extending retaining plates or strips 16 engaging grooves in the longitudinal edges of the tiles, as clearly shown in Figs. 2 and 3, and fitting at their ends in openings 17 formed in the outer walls of the frame pieces. These strips 16 securely hold the tiles from displacement and may be connected to the grooved or channeled side strips or frame pieces 14 of each wall frame in any preferred manner. By withdrawing the strips 16 longitudinally from the wall frame, it will be apparent that the tiles held thereby will be released, thus permitting of the ready disconnection of a defective tile and the substitution of a new tile therefor. This construction of the frame and manner of holding the tiles therein further facilitates the application of the tiles to form the complete wall and permits of the insertion of the tiles at the point where the stove is to be set up. The front wall 8 of the body corresponds in all respects with the construction of the rear wall 9 and side walls 10, except that it is provided with grooved or channeled metallic frames 18 and 19 to form the entrances to the oven, fire pot and ash pit of the stove, said frames being held in position by the tiles and pro-

vided with suitable attachments for hinged mounting and securing the oven, fire pot and ash pit doors 20, 21 and 22 in the usual manner.

5 The body walls 8, 9 and 10 fit at their lower edges in the receiving channel or groove 5 of the bottom 1 and are held from outward movement by the rim 4. The walls are sustained at the corners of the stove body by
10 vertical corner pieces or standards 23, each of which is of L-form, as shown clearly in Figs. 5, 6, 7, and 7^a to provide flanges lying at right angles to each other and adapted to lap over the end pieces 14 of the adjoining
15 walls and hold the same from inward movement. The lower ends of the standards or corner pieces 23 fit within L-shaped slots 24 formed in the corner portions of the bottom 1 and projecting beneath the body of the bot-
20 tom and detachably engaging keepers 25 formed or provided upon the depending flange 2, this construction permitting said corner pieces or standards to be lifted out of engagement with the bottom wall whenever
25 it is desired to take down the stove or disassemble the parts thereof for storage or transportation.

The walls 8, 9 and 10 are connected and held in assembled relation at their upper
30 ends by channeled clamping or coupling pieces 26 which are equal in number to said walls and embrace the respective upper frame pieces 12 thereof. Each coupling or clamping piece 26 is provided at its ends with
35 rearwardly bent hooks 27 adapted to slidably engage tongues 28 on the vertical corner pieces or standards 23, said hooks being preferably formed by slitting the end of the clamping piece at the point of junction of its
40 inner flange with its top flange or body portion and bending back the extremity of the inner flange. This is the construction employed when the coupling or clamping members are formed of sheet metal, but said mem-
45 bers may be cast, if desired, with the hooks as integral parts thereof. After the walls 8, 9 and 10 have been placed in position, the coupling or clamping members 26 are forced downward thereon so as to tightly engage or
50 embrace the upper frame pieces 12 thereof and to bring the hooks 27 into engagement with the tongues 28 on the corner pieces or standards 23, whereupon the upper portions of said walls will be held securely from move-
55 ment and yet will be detachably connected to facilitate their removal when it is desired to take down the stove. The top plate or wall 29 of the stove rests upon the upper ends of the corner pieces or standards 23 and is
60 provided with a downturned marginal flange 30 to frictionally engage the outer flanges of the coupling or clamping pieces 26, the top when applied thus reinforcing and staying the fastening connections at the upper ends
65 of the body walls. The top may be provided

with any desired number of fuel or pot holes in accordance with any of the accepted designs.

The interior of the stove body is divided or partitioned to form an oven chamber 31, a
70 fire pot 32 and ash pit 33. The oven chamber is formed by a bottom wall 34, a rear wall 35, side walls 35' and a top wall 36, each of which walls is formed of a rectangular chan-
75 nelled frame 37 and a contained body of tiles 38. These tiles may be cemented or otherwise secured together, or detachably fastened in the frame in the manner shown and described with relation to the body walls 8,
80 9 and 10. The front wall of the oven is, of course, formed by the adjacent portion of the front wall 8 of the stove body, and said oven is accessible through the opening in the frame 18 and closed by the door 20. The
85 bottom wall 34 of the oven rests upon the bottom 1 of the stove body and is held from movement in either direction by the wall 8 and the walls 35 and 35', which latter are, re-
90 spectively, held in position at their lower edges by a retaining strip or flange 39 and retaining strips or flanges 40 and 41 carried by the bottom 1. The front edges of the side
95 walls 35' may also be stayed and braced by fitting them within channeled retaining strips 40' fixed to the front wall 8 of the stove body. The walls 35 and 35' are con-
100 nected and held in assembled relation at their upper ends by a three-sided clamping and supporting rim 42 which is grooved or channeled to form a clasp to fit down upon
105 the upper edges of said walls, as clearly shown in Fig. 2, and is provided with an inwardly extending flange 43 forming a seat support for the upper wall 36. The tiled
110 walls of the oven give a desired ornamental finish thereto, and in practice these tiles may be formed of some suitable plastic material which will freely conduct heat so that the interior of the oven may be heated by radiation from the fire pot, ash pit and surround-
115 ing flue in the body of the stove. The mode of supporting the walls of the oven in position also permits of their ready detachment when it is desired to take down the stove, and their ready assemblage in setting up the
120 stove. The forward ends of the sides of the rim 42 are provided with apertured tongues 44 which may be secured by screws or other suitable fastenings to some suitable portion of the frame of the wall 8 to hold said rim in
125 position. The fire pot 32 and ash pit 33 are formed by front, side and rear walls 45, 45' and 46 respectively, of fire brick or clay suitably cemented, or otherwise secured together. The side walls 45' are composed of upper and
130 lower sections spaced to admit between them channeled guides 47 secured, respectively, to the inner side wall 35' of the oven and the adjacent side wall 10 of the stove body to receive the grate 48, the grate slidably engag-

ing said guides so that it may be applied and removed by sliding it in and out through the opening in the frame 19. If desired, however, the guide member 47 may be secured to the adjacent rear corner strips or standards 23.

From the foregoing description, taken in connection with the accompanying drawings, the construction of the stove and mode of setting up and taking down the same will be readily understood, and it will be seen that a sectional stove is provided which is simple of construction and may be readily set up for use and taken down and packed in close compass for storage or transportation. It will also be seen that the construction permits of the effective use of tiles in the walls of the stove, and that the walls may be readily removed to permit of the detachment of a damaged tile and the substitution of a new tile therefor, thus adapting the walls to be conveniently repaired when occasion requires. The tiles may be plain or ornamental, or a combination of plain and ornamental tiles may be employed to impart a desired finish to the stove to suit the taste or fancy of the manufacturer or user. The essential features of the invention may be embodied in a cooking or heating stove of any desired shape.

A stove constructed in accordance with my invention may not only be manufactured at small cost and conveniently repaired, but in its simplest form is highly attractive and durable.

Having thus described the invention, what is claimed as new, is:—

1. A stove comprising a base, a plurality of overlapping independent tiled walls detachably connected at their lower ends with the base, corner-standards rising from the base and detachably connected thereto, said standards being of angular form to bear against the sides of the overlapping walls at the meeting edges thereof and provided with hooked locking members, channeled coupling pieces engaging the upper edges of the walls and provided with hooked locking members to interlock with the said locking members on the standards, and a top supported by the tiled walls.

2. A stove comprising a rectangular body formed of a bottom having a receiving channel, said bottom being also provided with receiving sockets, overlapping independent walls slidably fitted at their lower ends in the channel of the bottom, each of said walls comprising an open channeled frame having a body of tiles arranged therein and having their faces exposed therethrough, angular corner-standards detachably fitted at their lower ends in the sockets of the bottom and arranged to bear against the sides of the

overlapping walls at the meeting edges thereof, channeled coupling strips embracing the upper edges of the walls and having a detachable interlocking connection at the corners of the stove body with each other and with the corner-standards, and a top resting on and supported by said coupling strips and standards.

3. A stove comprising a base, a plurality of overlapping independent tiled walls, each of said walls being detachably fitted at its lower edge in the base and being complete in itself and comprising a boundary frame having a contained body of tiles arranged in rows and detachably fitted therein, corner-standards detachably connected at their lower ends with the base and bearing against the sides of the overlapping walls at the meeting edges thereof, channeled coupling members fastening the upper edges of the walls and detachably connected with the corner-standards, and a top supported upon the upper ends of said walls and the corner-standards.

4. A stove comprising a base having a receiving channel, a plurality of overlapping independent tiled walls inserted at their lower edges in said channel, each of said walls being complete in itself and comprising a boundary frame having a body of tiles detachably arranged in rows therein, corner-standards projecting upwardly from the base and removably connected at their lower ends thereto, said standards being arranged to bear against the sides of the overlapping walls at the meeting edges thereof, coupling members extending longitudinally of and engaging the upper edges of the walls and connected at their ends with the corner-standards, and a top supported upon the upper ends of said walls and corner-standards.

5. A stove comprising a base having a receiving channel, a plurality of independent overlapping tiled walls slidably fitted at their lower ends in the channel, each wall being complete in itself and comprising a boundary frame having a body of tiles arranged in rows and removably mounted therein, corner-standards slidably fitted at their lower ends in the base and bearing against the sides of the overlapping walls at the meeting edges thereof, channeled coupling pieces slidably fitted upon the upper ends of the walls and having a slidable interlocking engagement with the corner-standards, and a top supported upon the walls.

In testimony whereof, I affix my signature in presence of two witnesses.

JULIUS ROSENTHAL.

Witnesses:

WINFIELD JONES,
WALTER E. ORMOND.