E. RICHARDSON.

KNOCKDOWN LINING FOR OVENS, REFRIGERATORS, AND SIMILAR ARTICLES.

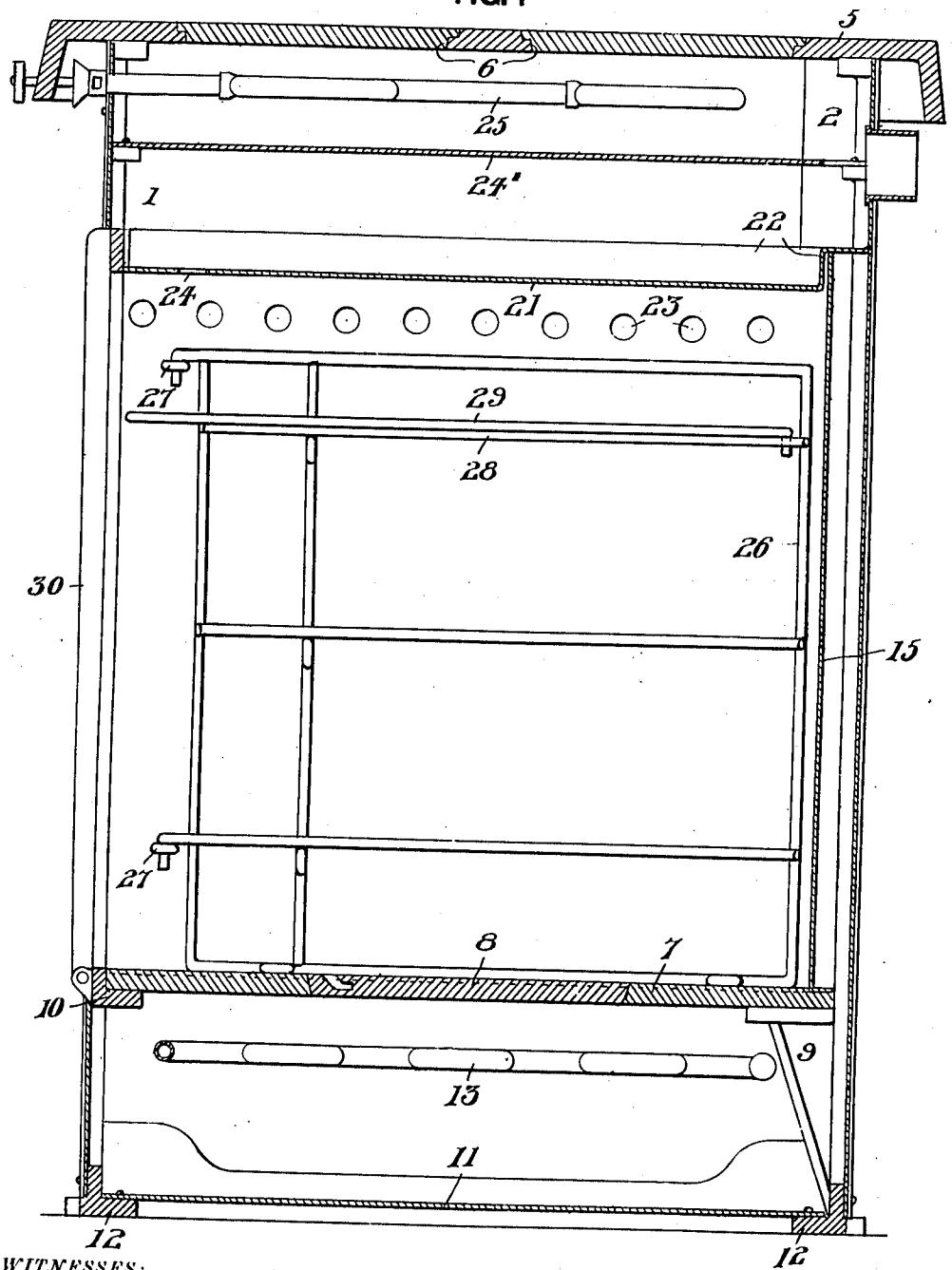
APPLICATION FILED JULY 27, 1911.

1,041,164.

Patented Oct. 15, 1912.

4 SHEETS—SHEET 1.

FIG. 1



WITNESSES:

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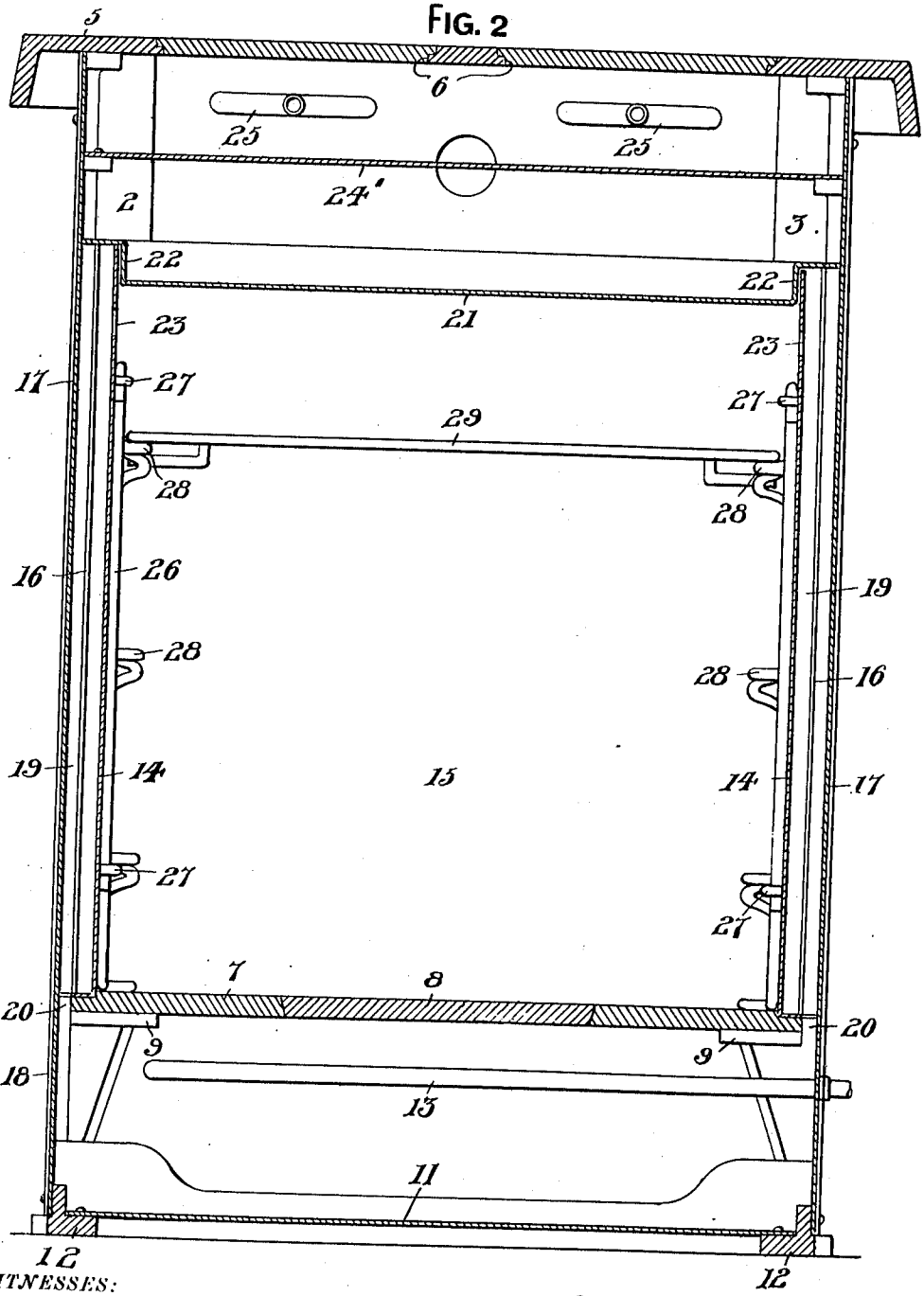
4 SHEETS—SHEET 2.

FIG. 2



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4 SHEETS—SHEET 3.

FIG. 3

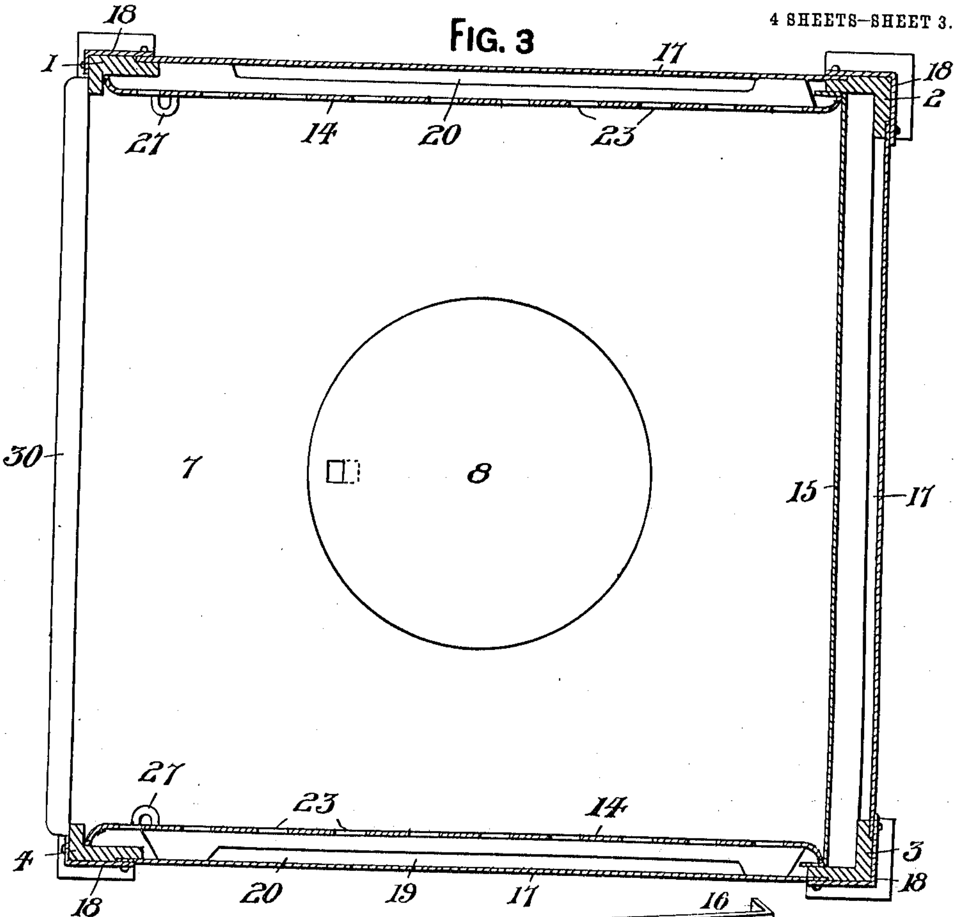
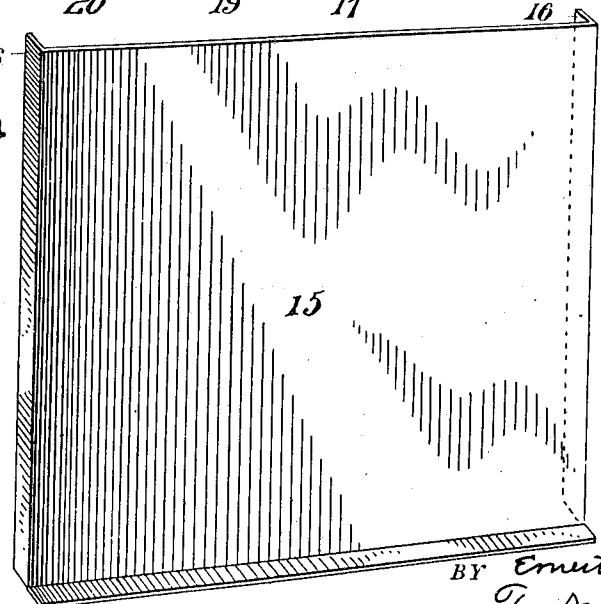


FIG. 4



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4 SHEETS—SHEET 4.

FIG. 5

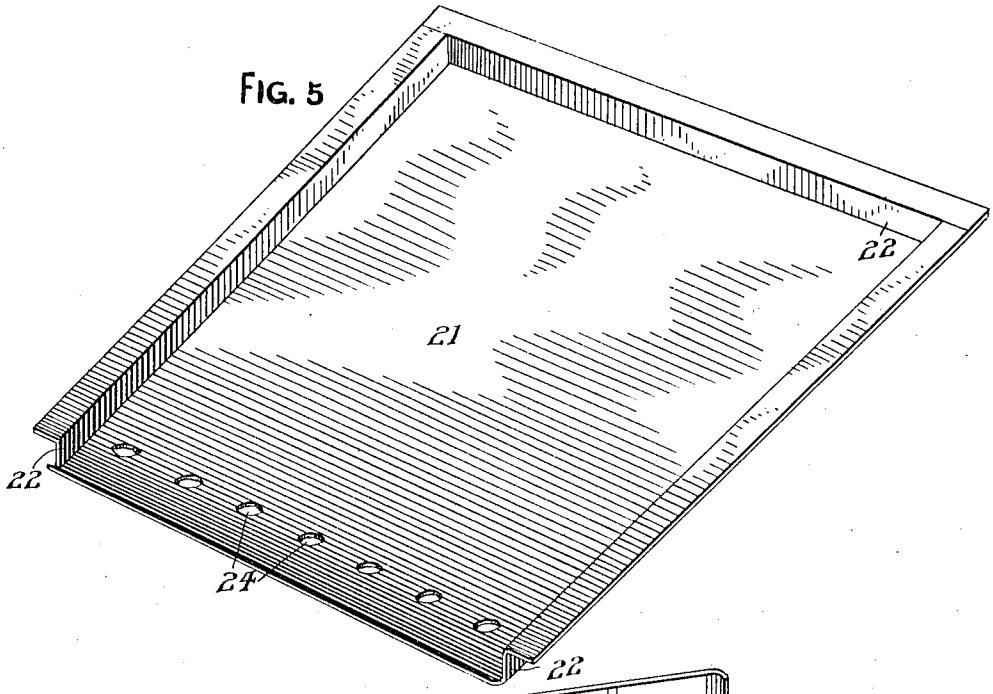
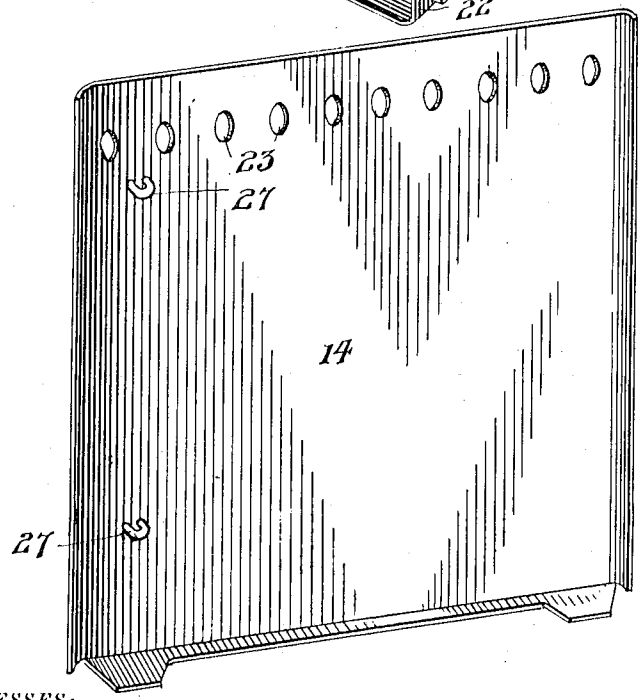


FIG. 6



WITNESSES:

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UNITED STATES PATENT OFFICE.

ERNEST RICHARDSON, OF BEAVER FALLS, PENNSYLVANIA.

KNOCKDOWN LINING FOR OVENS, REFRIGERATORS, AND SIMILAR ARTICLES.

1,041,164. Specification of Letters Patent. Patented Oct. 15, 1912.

Application filed July 27, 1911. Serial No. 640,892.

To all whom it may concern:

Be it known that I, ERNEST RICHARDSON, a citizen of the United States, residing at Beaver Falls, in the county of Beaver and State of Pennsylvania, have invented new and useful Improvements in Knockdown Linings for Ovens, Refrigerators, and Similar Articles, of which the following is a specification.

My invention relates particularly to ovens of the knockdown type but many of its elements and the combinations thereof may be employed in refrigerators and other receptacles.

It is the object of my invention to produce an oven, refrigerator, or the like in which the linings may be composed of porcelain enameled iron or steel sheets readily assembled for use or taken apart for cleaning, renewal, or other purposes.

Referring to the accompanying drawings, Figure 1 is a vertical section from front to back of a gas stove embodying my invention; Fig. 2, a vertical section at right angles to Fig. 1; Fig. 3, a horizontal section, the shelves being omitted; Fig. 4, a perspective of the back lining; Fig. 5, a perspective of the top lining viewed from above; and Fig. 6, a perspective of one of the side linings.

1, 2, 3, 4, represent vertical corner posts, on the upper ends of which rest the top plate 5 of the stove having therein the holes 6 for cooking utensils.

7 is the bottom plate of the oven having therein the central removable cover 8. This plate rests on the brackets 9 secured to the rear corner posts 2 and 3, and on the front rail 10 which connects the front posts 1 and 4. This bottom plate 7 is located a short distance above the bottom plate 11 of the stove which is supported by the bottom rails 12 connecting the bottoms of the posts. The burner 13 lies between the plates 7 and 11. The upper surface of the plate 7 close to its side and rear edges has recesses to receive the outwardly flanged lower ends of the side linings 14 and the rear lining 15, these recesses preventing the inward movement of the bottoms of these linings. The rear lining 15 has at each edge a forwardly turned flange 16 which rests against the inner faces of the posts 2 and 3.

The back and each side of the stove are provided with rear and side covers or plates 17 having their edges seated in recesses in the corner posts as shown on Fig. 3. Vertical corner strips 18 cover the outer faces of each of the posts and overlap the outer side of the plates 17.

The lateral edges of the side linings 14 are provided with outwardly bent flanges, the flanges at the rear edges resting against the inner faces of the flanges 16 and the flanges at the front edges resting against the inner faces of the posts 1 and 4, whereby a space 19 is left at each side of the oven between the linings 14 and the adjacent side cover 17 for the passage of the heat and products of combustion from the burner 13. The sides of the bottom plate 7 of the oven are cut away as shown at 20 so as to permit the heat and the products of combustion to pass into the spaces 19 as shown on Fig. 2. The side linings 14 and the rear lining 15 have on their upper ends the top lining or key plate 21 which has its side and rear edges provided with horizontal flanges, the side flanges fitting against the side covers 17, as shown in Fig. 2, to prevent the escape of the products of combustion between the lining 21 and the side-covers 17. The lining 21 is depressed so as to have the vertical walls 22 of the depression fit closely against the inner faces of the upper ends of the linings 14 and 15, so that the lining 21 acts as a key plate to prevent the collapse or inward movement of the side and rear linings. The upper ends of the side linings 14 are provided with a number of holes 23 and the top lining 21 is provided with a number of holes 24 which permit the passage of the products of combustion from the spaces 19 into the interior of the oven and thence upwardly into the space above the lining 21.

The space between the top plate 5 of the stove and the lining 21 is provided with a horizontal partition 24′ constituting a flue for the products of combustion entering through the holes 24. The space between the partition 24′ and the top plate 5 of the stove contains a suitable number of burners 25.

To the side linings 14 I secure the shelf supports 26 made of wire and hinged to the eyes 27. Slidable on the horizontal wires 28 of the shelf supports are the shelves 29. While the particular forms of shelves and shelf supports do not constitute a part

of the present invention I prefer to use the shelves and shelf supports shown in my companion application, Serial Number 639,637.

The front of the oven is provided with the door 30. When the door 30 is opened the shelves and shelf supports may be removed and by slightly raising the top lining 21, the side linings 14 may be swung inwardly and readily removed from the oven, whereupon the top lining 21 may also be removed. The rear lining can then be swung downwardly and taken from the oven. The bottom plate 7 may also be slightly raised and removed from the oven making the burner 7 accessible for cleaning or repairs. It will thus be seen that I provide an oven in which the interior portions may all be readily removed in case they are required to be washed, repaired, or replaced with new parts. The interior surfaces, and the outer if desired, may be coated with porcelain enamel which greatly improves their appearance and makes them more easily cleaned.

I claim—

1. In an oven, a base plate, rear and side linings supported thereon, a burner beneath the base plate, side plates spaced from the side linings to constitute flues for the burner, and a top plate on the upper ends of the linings and having flanges extending to the said side plates to form stops in the said flues, the side linings and the top-plate having holes therein to transmit the heat and products of combustion from the said flues into the oven and above the same, the said top plate having a depressed central portion with the outer walls thereof engaging the inner surfaces of the tops of the linings to prevent their inward movement.

2. In a receptacle, a base plate having the upper surface at its rear and side edges provided with recesses, rear and side linings having outwardly bent flanges seated in the recesses to prevent inward movement of the linings, a top plate having horizontal flanges resting on the top of the linings and a depressed central portion, having its vertical walls engaging the inner surfaces of the tops of the linings to prevent their inward movement, and side plates spaced from the linings and engaging the said horizontal flanges of the top plate.

Signed at Pittsburgh, Pa., this 25th day of July, A. D. 1911.

ERNEST RICHARDSON.

Witnesses:
ALICE E. DUFF,
F. N. BARBER.