No. 829,408. PATENTED AUG. 28, 1906.

W. H. LUTZ.

STOVE.

APPLICATION FILED JAN. 15, 1906.

2 SHEETS—SHEET 1.

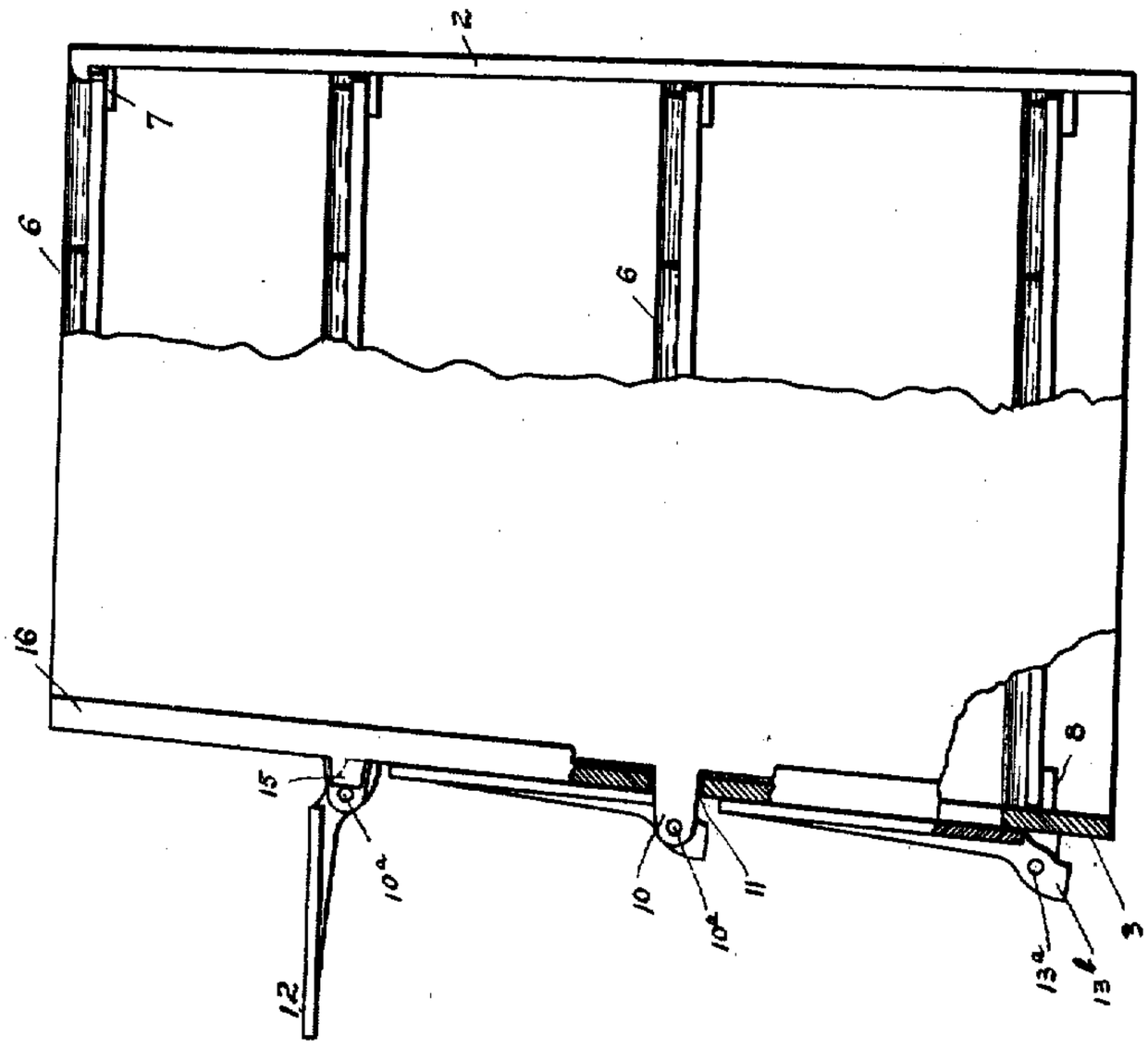

Fig. 2.

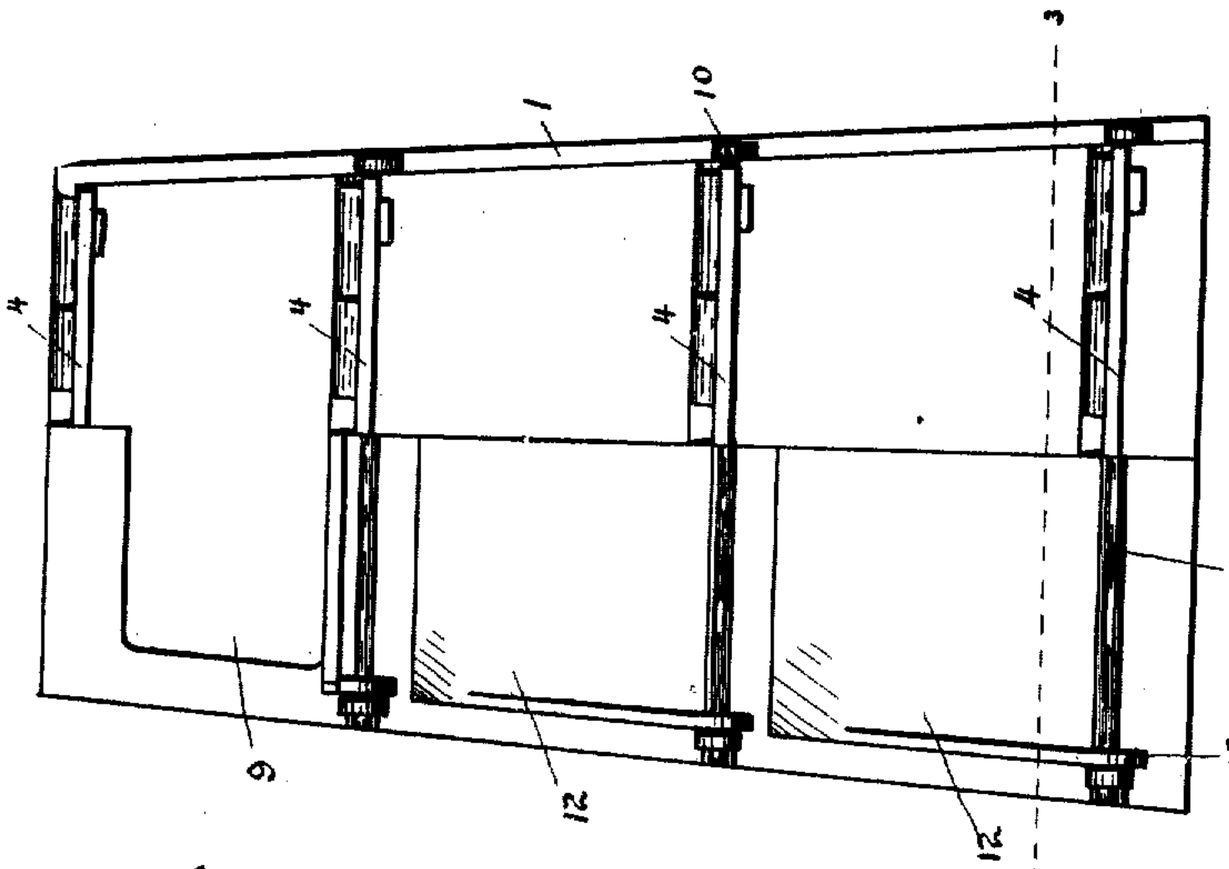

Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 5.

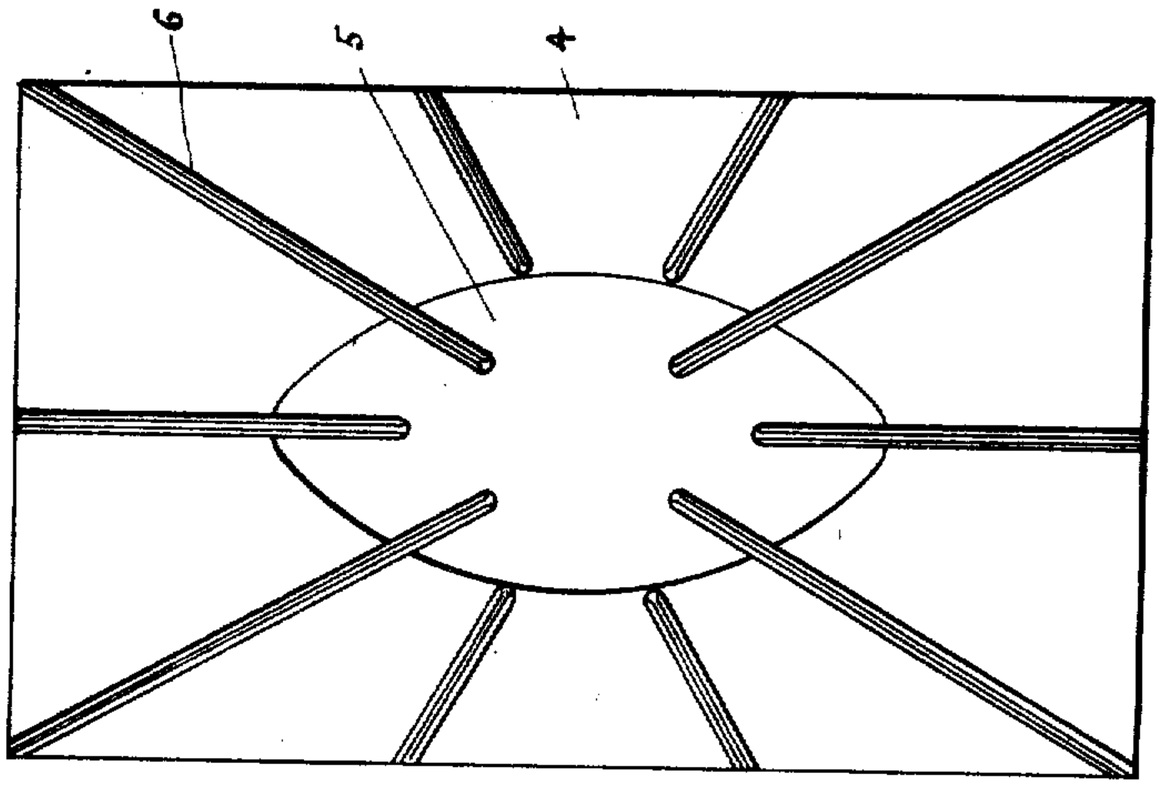

Fig. 4.

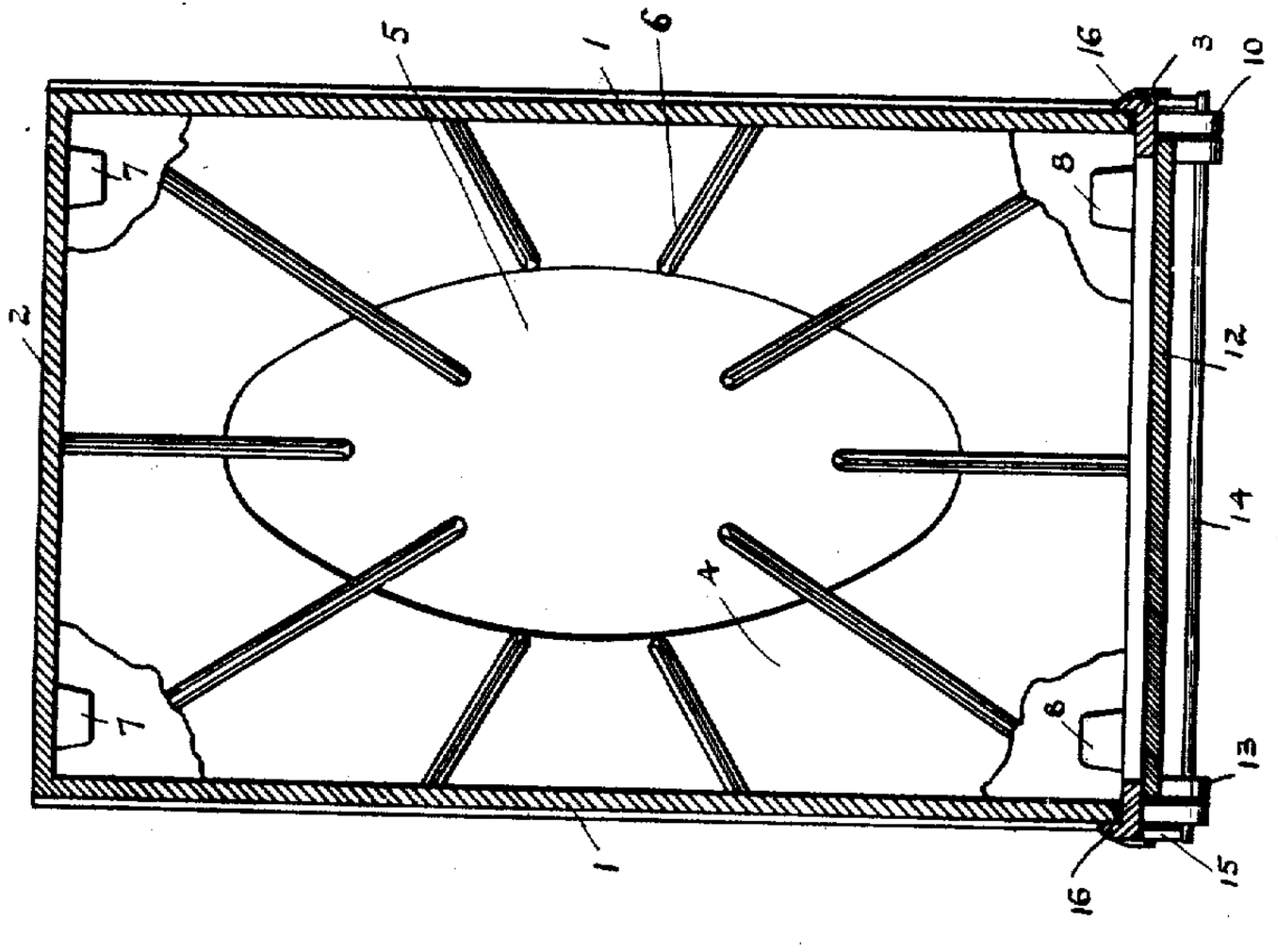

Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

WALTER H. LUTZ, OF KNOXVILLE, TENNESSEE.

STOVE.

No. 829,408. Specification of Letters Patent. Patented Aug. 28, 1906.

Application filed January 15, 1906. Serial No. 296,014.

To all whom it may concern:

Be it known that I, WALTER H. LUTZ, a citizen of the Republic of Switzerland, residing at Knoxville, in the county of Knox and State of Tennessee, have invented a new and useful Improvement in Stoves, of which the following is a specification, reference being had to the accompanying drawings.

My improvement relates particularly to ovens to which heat is imparted by the passage of products of combustion or heated gases through the oven-chamber.

My improved oven is adapted for heating various articles, and for adaptation to articles of different sizes the oven may be manufactured in different sizes.

The drawings forming a part of this application illustrate my improvement in the form of an oven designed especially for heating flat-irons.

The object of the invention is to produce an oven of such construction as will permit economy in manufacture and at the same time afford efficiency and durability.

In the accompanying drawings, Figure 1 is a sectional front elevation of the oven. Fig. 2 is a sectional elevation of the right-hand side of the oven. Fig. 3 is a horizontal section on the line 3 3 of Fig. 1. Fig. 4 is a plan of one of the shelves removed from the oven. Fig. 5 is an end elevation of said shelf.

In the form shown in the drawings the oven is rectangular in horizontal cross-section, there being two side walls 1 1, a rear wall 2, and a front wall 3. The drawings show the walls converging from the bottom upward; but they may obviously be parallel. In the present case they are made converging to make the compartments of different sizes to conform to the sizes of a set of three flat-irons. The side and rear walls are preferably integral, as shown by the drawings; but they may be made separately and suitably joined along their meeting edges. The front wall is formed separately from the other walls and is secured to the front edges of the side walls by the mechanism employed to hinge the doors, as will be hereinafter described.

Shelves 4 4 are used to support the flat-irons or other articles to be heated. Said shelves are large enough to extend against the walls 1, 2, and 3 and have each a central opening 5 and have upon their upper surface ribs 6, to raise the flat-irons above the shelf to permit the passage of products of combustion or other heated gases through the opening 5 and between the flat-iron and the shelf. Said shelves rest on rear lugs 7, extending horizontally forward from the rear wall 2, and front lugs 8, extending horizontally rearward from the front wall 3. Said lugs are preferably placed near the side walls in order that the shelves may be supported at or near the corners. Merely for the purpose of supporting the shelves said lugs might be placed upon the side walls; but by placing them upon the rear and front walls, as described, the parts are adapted for easy and economical casting. The side walls 1 and the rear wall 2 may be integral, yet cast from a single pattern without the use of cores, and the front wall may also be cast in a simple mold without the use of cores, and the ears 10, hereinafter described, are so formed on the side walls 1 as to facilitate "drawing" from the sand.

It will be observed that the uppermost shelf constitutes the top of the oven. This is preferably placed at such elevation as to bring the upper edges of the ribs 6 to a level with the upper edges of the walls 1, 2, and 3 in order that said edges may assist in holding the article set upon the oven. Said shelf may also be used for heating a flat-iron; but the iron placed thereon will not be so completely surrounded by heat as is the case in the compartments between the shelves. Opposite each compartment or space between the shelves 4 the front wall 3 has an opening 9 for the introduction and removal of the articles to be heated in said compartments. Approximately opposite the lower portion of each of said openings each side wall 1 is provided with an ear 10, extending horizontally forward through a slot 11 in the front wall 3. Between each pair of horizontally opposite ears 10 is placed a door 12 of proper size and form to rest flatwise against the front wall and extend upward over the opening 9, located next above said pair of ears. Each such door has ears 13 adjacent the ears 10 and extending forward (when the door is closed) from the door. A shaft 14 extends through apertures 10^a in the ears 10 and apertures 13^a in the ears 13 and forms a hinge for the door, and said hinge is forward of the door when the latter is in the closed position, so that the door tends to fall rearward by its weight, and thus bear against the front wall

and need no latch or other device for holding it in the closed position.

At the outer side of each ear 10 (the side opposite the ear 13) is a lug 15, extending forward from the edge of the front wall 3 against the shaft 14. By means of the engagement thus formed between said shaft and said lug the said walls and the front wall are firmly bound to each other, and this is the only means needed for holding together the various parts of the oven. In assembling the parts the shelves 4 are put into position. Then the front wall 3 is put into position, the ears 10 going through the slots 11 and the front lugs 8 slipping beneath said shelves. Then the doors 12 are put into position and the shafts 14 pressed through the apertures 10^a and 13^a.

To adapt the doors to stand in the horizontal position after they have been opened, each ear 13 is provided with a heel 13^b of proper form to bear against the outer face of the front wall 3 when the door is in the horizontal position. To more effectually close the joints formed between the meeting edges of the side walls and the front wall against the passage of gases, a rearward-directed lip 16 may be formed along each lateral edge of the front wall, so as to extend partially over the outer face of the adjacent side wall.

As thus described the oven is complete and ready to be used for the heating of flat-irons or similar articles. The oven may be placed over one of the burners of a gas-stove, or the heated products of combustion or other heated gases may in any other manner be made to pass upward through said oven.

In the form shown in the drawings the spaces between the shelves 4 are so low as to admit only the body of a flat-iron having a removable handle. For the introduction and removal of such an iron the iron may rest upon the open door while the handle is being removed or attached, and it will be observed that the entire oven may be made without machine-work other than the drilling of the apertures 10^a and 13^a to receive the shaft 14. Even the shaft 14 needs no machine-work, for the apertures 10^a and 13^a may be of proper diameter to receive a shaft cut from wire of stock size. The walls, shelves, and doors may be formed of sheet metal instead of cast metal.

I claim as my invention—

1. In a structure of the character described, the combination of side and rear walls; horizontal open shelves; a front wall detachably joined to the front edges of said side walls and having openings between said shelves; and doors extending over said openings, substantially as described.

2. In a structure of the character described, the combination of side and rear walls integral with each other; horizontal open shelves; a front wall detachably joined to the front edges of said side walls and having openings between said shelves; and doors extending over said openings, substantially as described.

3. In a structure of the character described, the combination of a rear wall; side walls having ears; horizontal open shelves; a front wall having openings between said shelves and having apertures through which said ears extend; means for retaining said ears in said apertures; and doors applied to said openings, substantially as described.

4. In a structure of the character described, the combination of a rear wall; side walls having forward-directed ears; horizontal open shelves; a front wall having openings between said shelves and having apertures through which said ears extend; doors located between said ears; and means for hinging said doors and retaining said ears in said apertures, substantially as described.

5. In a structure of the character described, the combination of a rear wall; a side wall having forward-directed ears; horizontal open shelves; a front wall having openings between said shelves and having apertures through which said ears extend and having forward-directed lugs adjacent said ears; doors located between said ears and having ears; and shafts extending through the ears on said side walls and the ears on said doors and bearing upon said lugs, substantially as described.

6. In a structure of the character described, the combination of a rear wall; side walls having forward-directed ears; horizontal open shelves; a front wall having openings between said shelves and having apertures through which said ears extend and having forward-directed lugs adjacent said ears; doors located between said ears and having ears provided with heels; and shafts extending through the ears on said side walls and the ears on said doors and bearing upon said lugs, substantially as described.

7. In a structure of the character described, the combination of side and rear walls; a front wall detachably joined to the front edges of said side walls and having openings for doors; said rear wall having forward-directed lugs and said front wall having rearward-directed lugs; open shelves resting upon said lugs; and doors extending over said openings, substantially as described.

8. In a structure of the character described, the combination of side and rear walls integral with each other; a front wall detachably joined to the front edges of said side walls and having openings for doors; said rear wall having forward-directed lugs and said front wall having rearward-directed lugs; open shelves resting upon said lugs; and doors extending over said openings, substantially as described.

9. In a structure of the character de-

scribed, the combination of a rear wall having forward-directed lugs; side walls having forward-directed ears; a front wall having rearward-directed lugs, openings for doors, and apertures for receiving said ears; means for retaining said ears in said apertures; and doors applied to said openings, substantially as described.

10. In a structure of the character described, the combination of a rear wall having forward-directed lugs; side walls having forward-directed ears; a front wall having openings for doors and having rearward-directed lugs and having apertures through which said ears extend; open shelves located between said walls; doors located between said ears; and means for hinging said doors and retaining said ears in said apertures, substantially as described.

11. In a structure of the character described, the combination of a rear wall having forward-directed lugs; side walls having forward-directed ears; a front wall having rearward-directed lugs and openings for doors and having apertures through which said ears extend and having forward-directed lugs adjacent said apertures; shelves located between said walls; doors located between said ears and having ears; and shafts extending through the ears on said side walls and the ears on said doors and bearing upon said last-mentioned lugs, substantially as described.

12. In a structure of the character described, the combination of side and rear walls; horizontal open shelves; a front wall detachably joined to the front edges of said side walls and having openings between said shelves and having lips extending over the adjacent portions of the outer faces of said side walls; and doors extending over said openings, substantially as described.

13. In a structure of the character described, the combination of a rear wall; side walls having ears; horizontal open shelves; a front wall having openings between said shelves and having lips extending over the adjacent portions of the outer faces of said side walls and having apertures through which said ears extend; means for retaining said ears in said apertures; and doors applied to said openings; substantially as described.

In testimony whereof I have signed my name, in presence of two witnesses, this 3d day of January, in the year 1906.

WALTER H. LUTZ.

Witnesses:
CYRUS KEHR,
C. A. MORSE.