

W. THOMPSON.  
OVEN FOR GAS OR VAPOR BURNING STOVES.  
APPLICATION FILED SEPT. 8, 1908.

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Patented Nov. 2, 1909.  
3 SHEETS—SHEET 1.

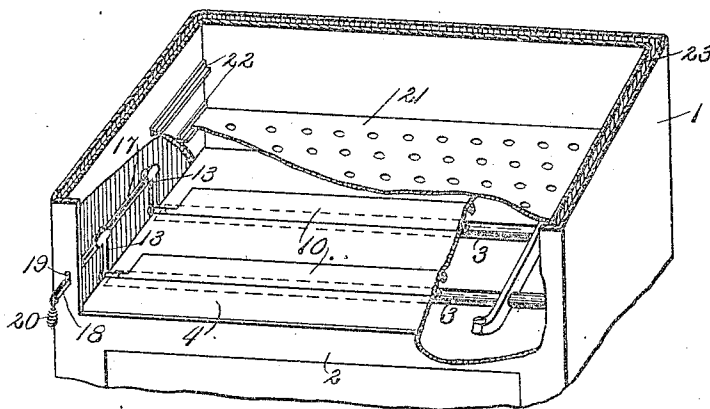


Fig. 1.

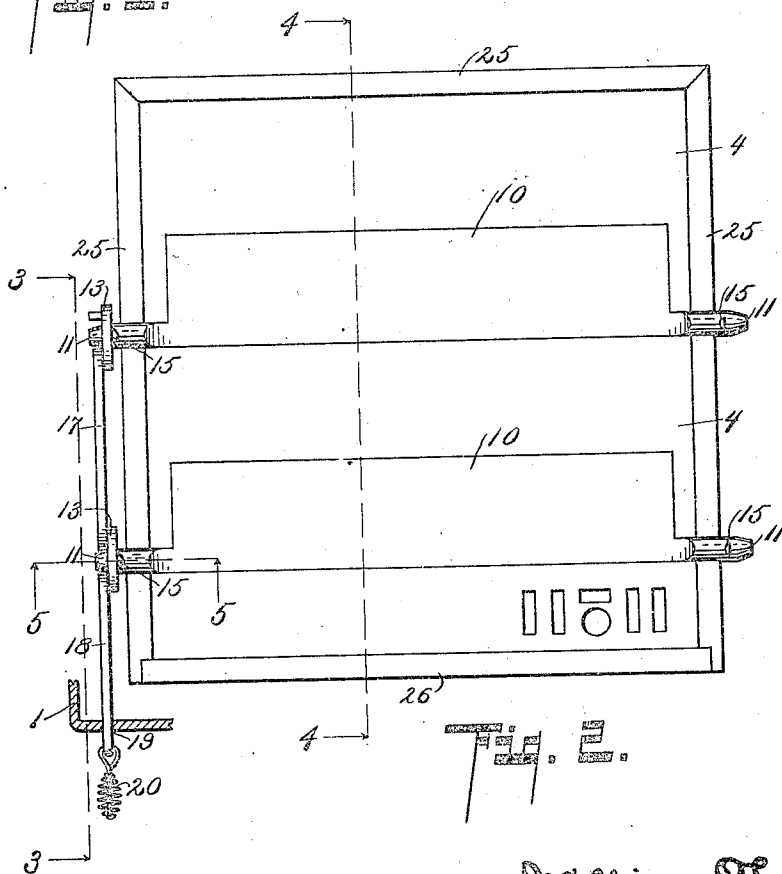


Fig. 2.

Witnesses  
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Gertrude Tallman

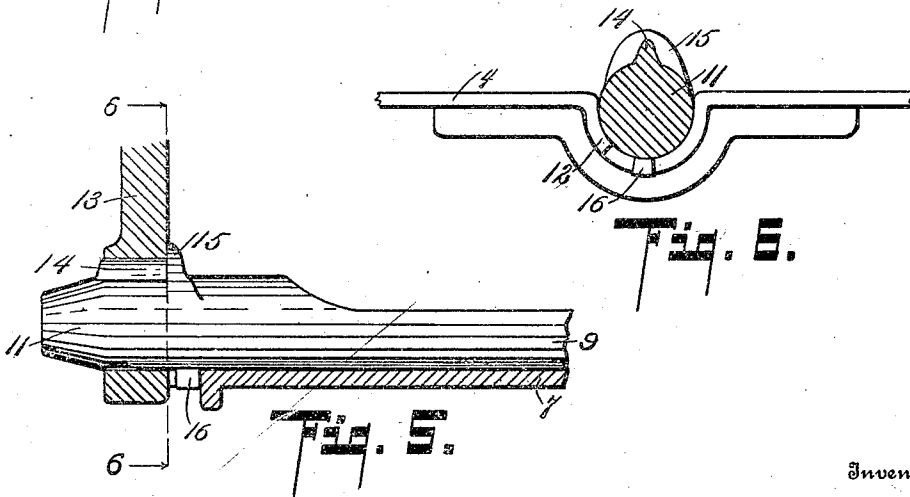
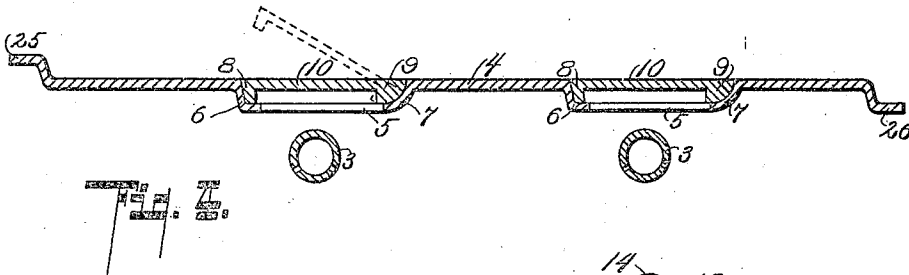
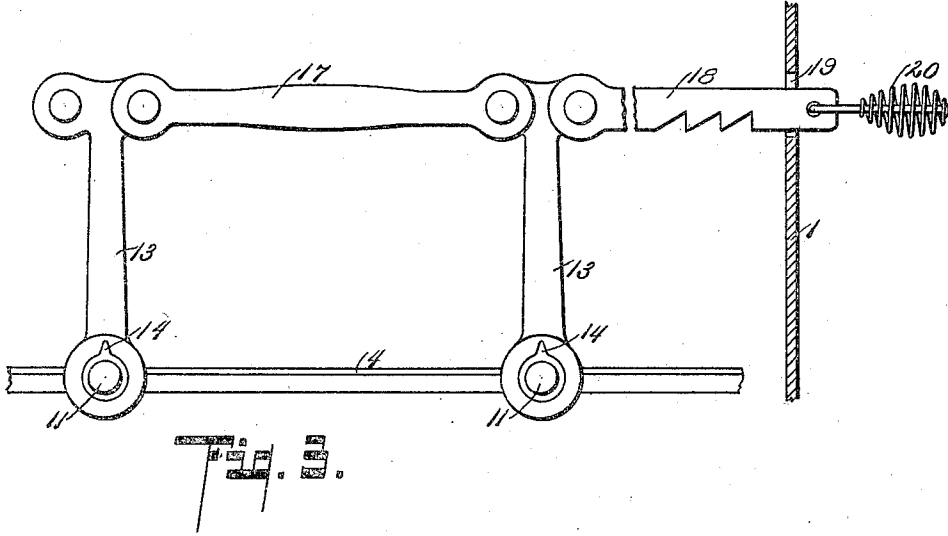
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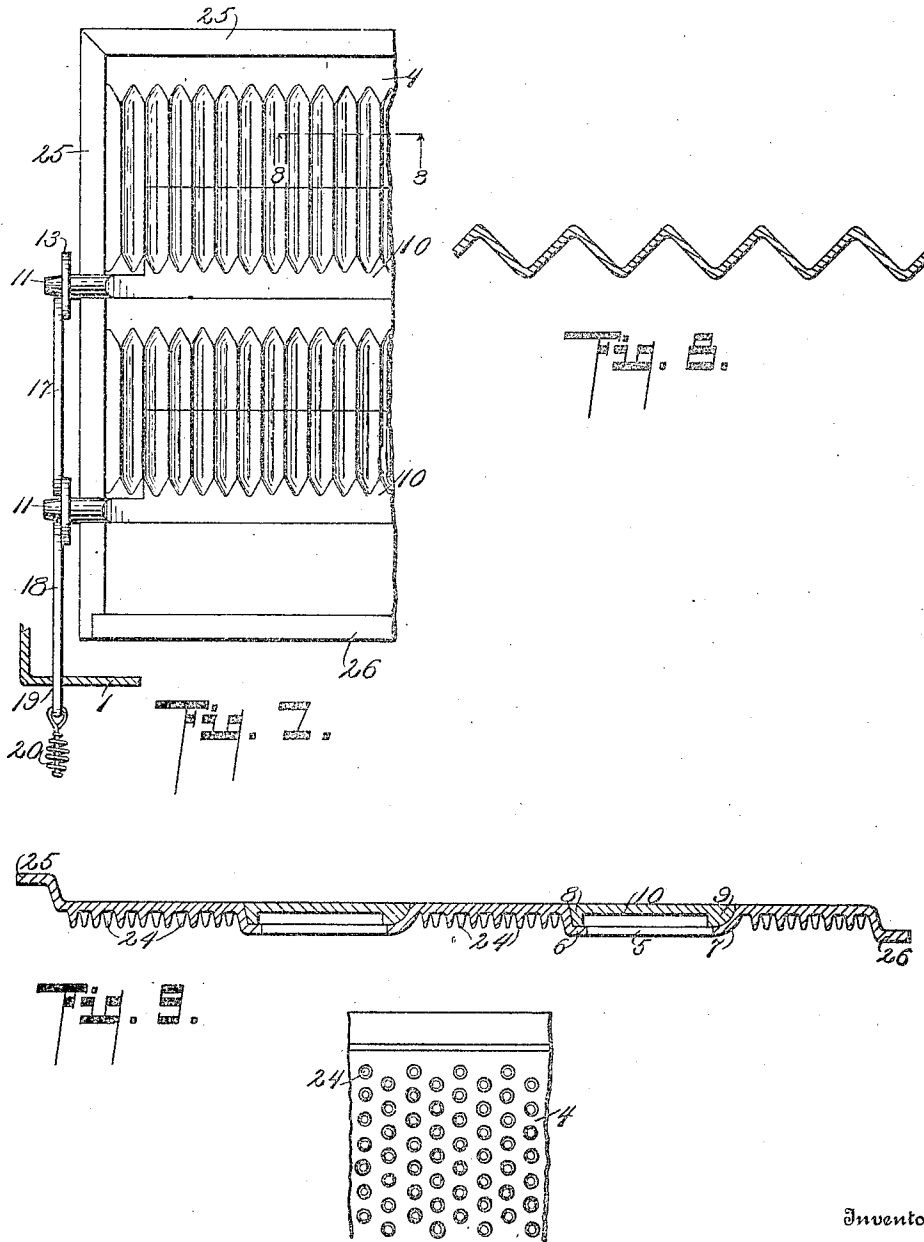
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# UNITED STATES PATENT OFFICE.

WILLIAM THOMPSON, OF KALAMAZOO, MICHIGAN.

OVEN FOR GAS OR VAPOR BURNING STOVES.

938,914.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed September 8, 1908. Serial No. 451,996.

*To all whom it may concern:*

Be it known that I, WILLIAM THOMPSON, a citizen of the United States, residing in the city and county of Kalamazoo, State of Michigan, have invented certain new and useful Improvements in Ovens for Gas or Vapor Burning Stoves, of which the following is a specification.

This invention relates to improvements in gas or vapor burning stoves.

The main object of this invention is to provide in a gas or vapor burning stove an improved oven which may be subjected to the direct heat from the burners, or to the radiated heat only, as desired.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawing, forming a part of this specification, in which:

Figure 1 is a detail perspective of a structure embodying the features of my invention, portions being broken away to better show the relation of the parts. Fig. 2 is a plan view of the oven bottom, a detail section of the oven being shown to illustrate the arrangement of and for the adjusting link. Fig. 3 is an enlarged detail vertical section, taken on a line corresponding to line 3—3 of Fig. 2. Fig. 4 is a vertical section, taken on a line corresponding to line 4—4 of Fig. 2, through the oven bottom. Fig. 5 is an enlarged detail taken on a line corresponding to line 5—5 of Fig. 2, showing one of the pivots for one of the oven bottom doors. Fig. 6 is a detail vertical section, taken on a line corresponding to line 6—6 of Fig. 2. Fig. 7 is a detail plan corresponding to that of Fig. 2 showing a modified construction in which the bottom of the oven has corrugations therein to increase the area subjected to the burner flames. Fig. 8 is an enlarged detail section, taken on a line corresponding to line 8—8 of Fig. 7. Fig. 9 is a vertical section through a further modification of the oven bottom, it being provided with projections on its under sur-

face to increase its heat radiating capacity. Fig. 10 is an inverted detail plan of the modification shown in Fig. 1.

In the drawings, similar reference characters refer to similar parts throughout the several views, and the sectional views are taken looking in the direction of the little arrows at the ends of the section lines.

Referring to the drawing, my improved stove has an oven 1, below which is a burner chamber 2, in which the burners 3 are located, the burners being indicated by dotted lines in Fig. 1. The bottom 4 of the oven is provided with openings 5, extending practically across the same, there being two openings in the structure illustrated. These openings are provided with downwardly and inwardly projecting flanges 6 and 7 at their edges adapted to receive the downwardly projecting flanges 8 and 9 of the doors 10. The flanges 7 of the openings are preferably curved, and the flange 9 of the doors 10 are also curved to seat therein, so that the door will bear or swing in the flange, as illustrated. The doors are also provided with a pivot 11 at each end, the pivots being in alinement with the bearing flanges 9. (See Figs. 5 and 6.) These pivots rest in suitable bearings 12 provided therefor in the oven bottom 4. (See Figs. 5 and 6.) On the pivots at one end, I arrange arms 13, the arms being provided with suitable holes to receive the pivots, the pivots having ribs 14 at one side which engage suitable notches in the arms, thereby preventing the turning of the arms on the pivots. The pivots are also provided with projections 15 to hold the arms in place. These arms are located within the space between the inner and outer walls of the oven. (See Fig. 1.) The pivots 11 are also preferably provided with lugs 16, which engage the ends of the bearings 12, thereby preventing the longitudinal movement of the doors in their bearings. The arms 13 are connected by a link 17, and to the forward arm I connect a notched link 18 which is arranged through a slot 19 in the oven wall, so that, by engaging the notches of the link in the slot, the doors may be adjustably held open. The link 18 is provided with a suitable hand piece 20, as illustrated. Above the bottom I preferably arrange a false bottom or shelf 21 on which the articles to be cooked may be placed. This shelf is prefer-

ably foraminated, as illustrated, and is adjustably supported by the shelf ledges 22, so that it can be adjusted to and from the bottom of the oven, as desired, the bottom ledge being spaced sufficiently from the bottom to permit the opening of the doors so that the heated products passing through the openings are delivered to the receptacles placed upon the shelf. However, if desired, the doors themselves may be used as rests or supports for receptacles containing the articles to be cooked or baked, the shelves or false bottom being removed. By thus arranging the openings and doors in the bottom, the heat from the burners may be turned directly into the oven,—that is, with the doors open, the hot gases pass into the oven or the doors can be closed and the heat transmitted to the oven by radiation through the bottom, and through the inner wall, the space 23 between the walls being connected to the chamber 2 to serve as a flue for the escape of the products of combustion, so that they pass around the oven when the doors are closed.

The main or the oven door proper is not illustrated in the accompanying drawing, as its arrangement will be readily understood.

By providing the openings 5 in the oven bottom with the flanges 6 and 7, and the door 10 with the flanges 8 and 9, when closed, a practically tight joint is formed around the door. A further advantage of these flanges is that the door and the parts of the bottom about the door openings are made rigid, thereby so that they are not likely to warp or become distorted and thereby prevent the proper closing of the doors.

An oven made according to my invention can be very quickly heated and brought to a higher temperature than is possible where it is heated by radiation through the walls of the oven only. It is also adapted for use for the heating and cooking of various articles which ovens not thus equipped are not adapted for.

In the modified construction shown in Figs. 7 and 8, the bottom and portions of the doors are corrugated, the object being to increase the radiating surface.

In the modified construction shown in Figs. 9 and 10, the oven bottom is provided on its under side with projections 24, which add to its heat radiating capacity.

I preferably provide the bottom 4 with downwardly and outwardly projecting flanges 26 at its rear and side edges, and upwardly and outwardly projecting flanges 25 at its forward edge for convenience in supporting the same.

In the accompanying drawing, I have illustrated and described my improvements in this application in detail in the form preferred by me on account of structural sim-

plicity and durability thereof. I am aware, however, that they are capable of very great variations in details of construction without departing from my invention, and I desire to be understood as claiming the same specifically in the form illustrated as well as broadly.

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

1. In a stove, the combination with the burners, of an oven arranged above said burners comprising a bottom having openings located above said burners, said openings having downwardly and inwardly projecting flanges at their edges, damper-like doors for said openings having downwardly projecting flanges at their edges adapted to fit into the flanges of said openings so that when the doors are closed their upper faces are substantially flush with the bottom of the oven said doors being adapted to serve as rests when opened, means for adjusting said doors, and a foraminated false bottom or shelf arranged in a spaced relation to said bottom to permit the opening of said doors.

2. In a stove, the combination with the burners, of an oven arranged above said burners comprising a bottom having openings located above said burners, said openings having downwardly and inwardly projecting flanges at their edges, damper-like doors for said openings having downwardly projecting flanges at their edges adapted to fit into the flanges of said openings so that when the doors are closed their upper faces are substantially flush with the bottom of the oven said doors being adapted to serve as rests when opened, and means for adjusting said doors.

3. In a stove, the combination with the burners, of an oven arranged above said burners comprising a bottom having openings located above said burners, said openings having downwardly and inwardly projecting flanges at their edges, one of the flanges of each opening being curved, damper-like doors for said openings having downwardly projecting flanges at their edges adapted to fit into the flanges of said openings so that when the doors are closed their upper faces are substantially flush with the bottom of the oven said doors being adapted to serve as rests when opened, the flanges on one edge of said doors being curved to correspond to the said curved flanges of said openings and adapted to swing therein, and means for adjusting said doors.

4. In a stove, the combination with the burners, of an oven arranged above said burners comprising a bottom having openings located above said burners, damper-like doors for said openings said doors being adapted to serve as rests when open;

pivots for said doors; and means for adjusting and supporting said doors in open position.

5 5. In a stove, the combination with the burners, of an oven arranged above said burners comprising a bottom having openings located above said burners, damper-like doors for said openings said doors being adapted to serve as rests when open; means  
10 for adjusting and supporting said doors in open position; and a removable foraminated false bottom or shelf arranged in a spaced relation to said bottom to permit the opening of said doors.

15 In a stove, the combination with the

burners, of an oven arranged above said burners comprising a bottom having openings located above said burners, damper-like doors for said openings; and means for adjustably supporting said doors in an open position, said doors when open being adapted to serve as rests or supports.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

WILLIAM THOMPSON. [L.S.]

Witnesses:

W. E. DERWENT,

WM. A. STOTT