

No. 887,391.

PATENTED MAY 12, 1908.

W. J. HALLARN.

GAS RANGE.

APPLICATION FILED MAY 16, 1906.

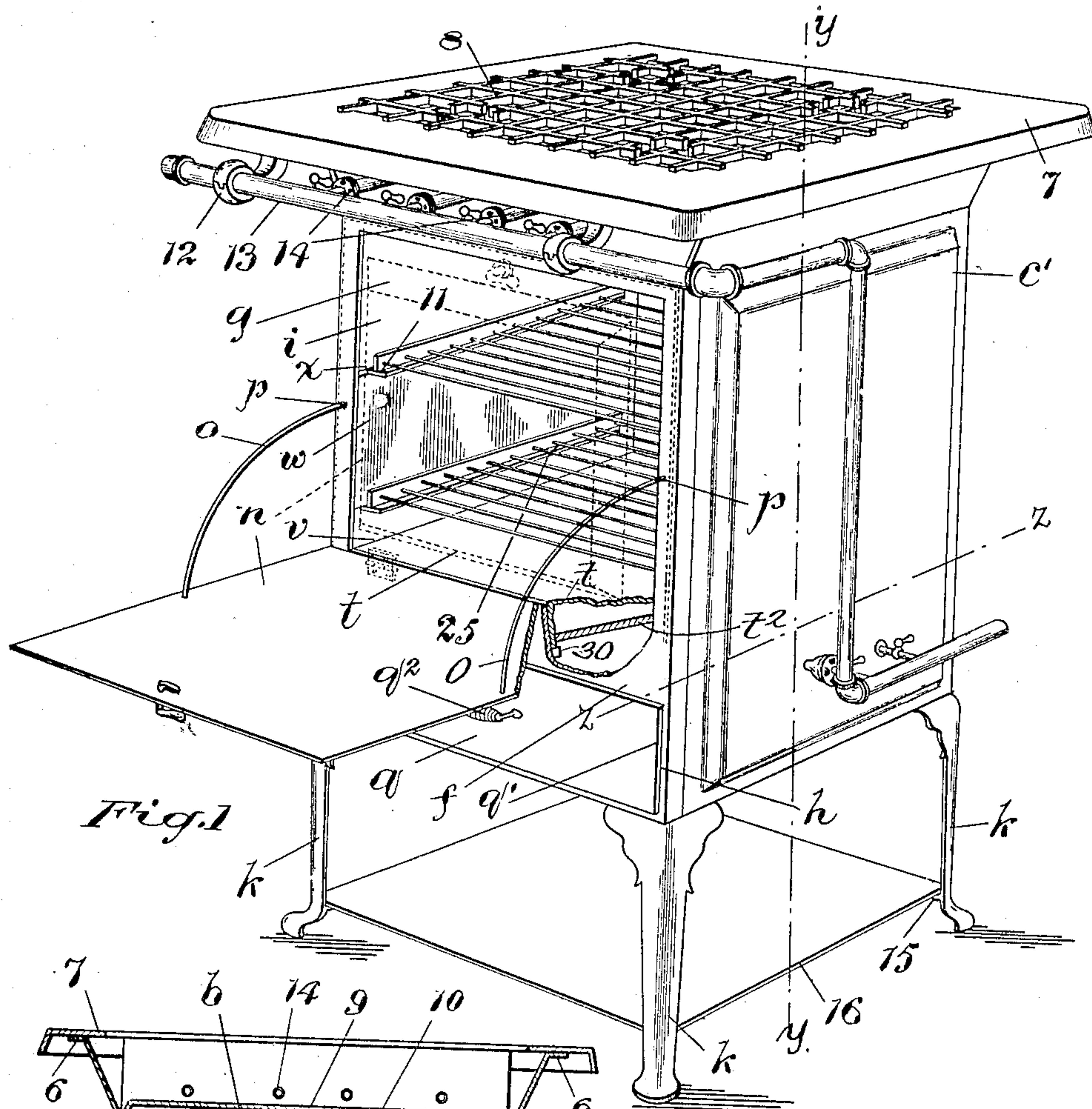


Fig. 1

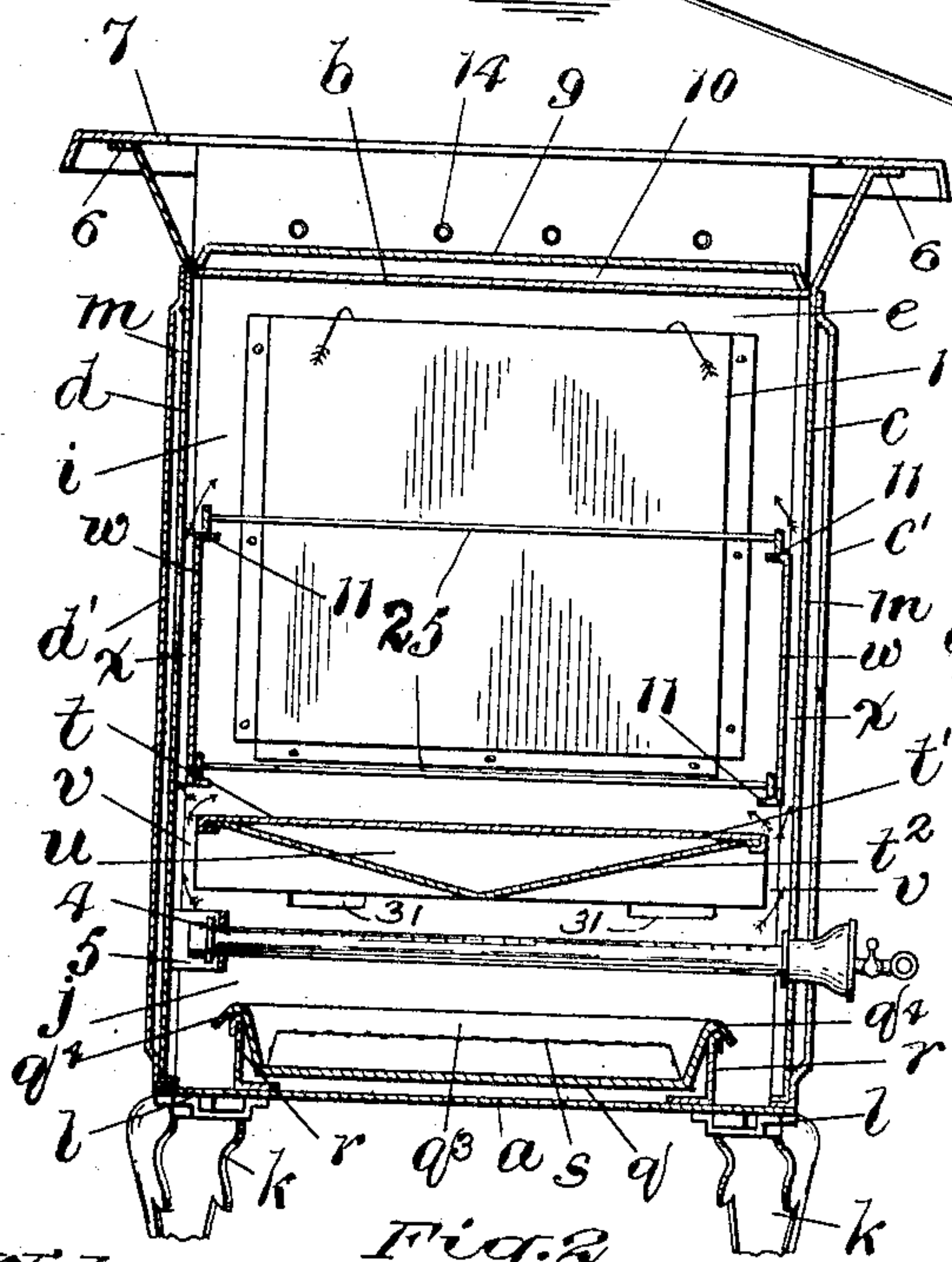


Fig. 2

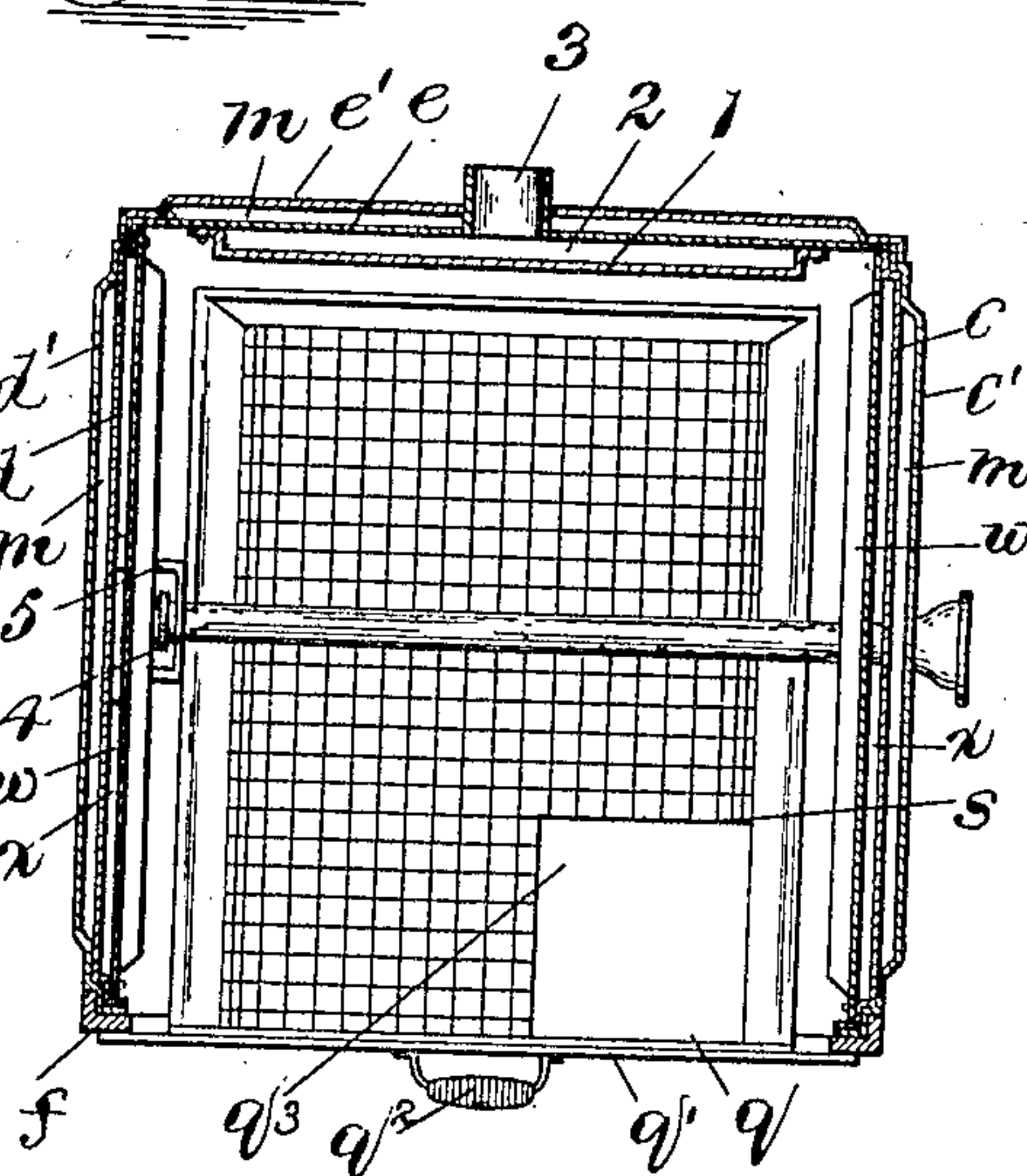


Fig. 3

Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM JOSEPH HALLARN, OF TORONTO, ONTARIO, CANADA, ASSIGNOR OF ONE-HALF TO
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GAS-RANGE.

No. 887,391.

Specification of Letters Patent.

Patented May 12, 1908.

Application filed May 16, 1906. Serial No. 317,159.

To all whom it may concern:

Be it known that I, WILLIAM JOSEPH HALLARN, a subject of the King of Great Britain, residing at Toronto, in the county of York, in the Province of Ontario, Canada, have invented a new and useful Improvement in Gas-Ranges, of which the following is a specification.

My invention relates to a gas heating range, the object being to provide means for rapidly heating the interior parts, by so constructing the interior that the heat developed in the bottom part of the body of the range, may be directed or caused to circulate to the best advantages.

Instead of constructing the body part of my range with single thickness of sides, I provide double sheet sides and back, the outer sheet being paneled, to provide an air space through which the heat developed may not readily escape, and also to prevent the cold outside air pressure from direct contact with the interior or heating parts.

On the inner walls of the oven section of the body part, are partition plates, and dividing the body part into the oven and a broiler section is an oven bottom, constructed slightly narrower than the interior width of the oven section, to allow a space between the inner side walls of the body part, that the heat developed from a burner in the broiler section may pass up into the oven section.

The back wall of the oven section is provided with a draft plate communicating with the flue that the heat may be caused to circulate over the said plate before escaping.

The oven bottom is formed from sheet metal and provides a flat top surface for the oven bottom, and a V-shaped bottom for the broiler top.

Formed by the flat top and the V-shaped bottom is an air space, so that the direct heat is prevented from passing to the oven bottom, where stuff placed in the oven for baking would become burned.

I provide suitable top and oven burners for heating the several parts, to which I make no special claim.

In the drawings—Figure 1 is a perspective view of the complete range; with the oven door opened; Fig. 2 is a vertical sectional view through the range on dotted lines $y-y$

Fig. 1; and Fig. 3 is a cross sectional view through the range on dotted lines $z-z$ Fig. 1.

Like letters refer to like parts throughout the specifications and drawings.

The body part of the range is made up from sheet metal plates, folded in along their adjoining edges, comprising a bottom a , top b , sides c and d , and a back e , together with a cast metal front frame f , having oven and broiler openings g and h respectively, communicating with the oven section i and the broiler section j , formed in the upper and lower parts of the body part.

The bottom a is mounted on four cast iron legs k , engaging in keepers l , adapted to maintain them in position.

Fastened to the outside faces of the sides and back of the body part, are paneled sheet metal plates c' , d' and e' respectively, adapted to form air spaces m , between their respective side and back plates.

One of the inner walls of the air spaces m , may be lined with asbestos paper, or some similar material, to aid in the prevention of the interior heat from escaping, and also to prevent the outside cold air from coming in direct contact with the side and back plates c , d and e of the body part.

Hinged to the lower edge of the oven opening g , is a drop door n , provided with side stay bars o , sliding in openings p , formed through the side edges of the front frame f .

q designates a broiler adapted to slide into the broiler section j , through the broiler opening h , formed in the bottom part of the front frame f .

The broiler consists of a front plate q' , provided with a handle q'' . Fastened to the back face of the plate q' , is a broiler pan q^3 , having flanges q^4 , formed on the sides, adapted to engage, and slide on slides r , formed on the bottom of the body part.

Carried in the broiler pan q^3 is a wire grille s , adapted to support the food stuffs, and allow the juices to drain into the pan.

t designates the oven bottom and broiler top, and is supported on flanges formed on the inner faces of the back e and front frame f respectively.

The oven bottom divides the body part into the oven and broiler sections, and is formed of sheet metal, to provide a flat top for the oven bottom, and a V-shaped bot-

tom t^2 , to form the top of the broiler section. Formed by the top t' and the bottom t^2 , is an air space or cushion u , formed to prevent the direct heat from passing through to the oven bottom, and to prevent food stuffs burning that may be placed directly on the bottom, besides it provides for a more regulated heat by passing through the air space or cushion.

The oven bottom t is made slightly narrower than the interior width of the oven section, to provide heat passages v , between the side edges and the side walls of the body part.

Fastened on the inner side walls c and d , in the oven section of the body part, are current directing plates w , extending slightly away from the side walls, to leave a space x , that the heat may be circulated up between and against the side walls.

1 designates a draft plate fastened to the inner face of the back wall e of the body part, and is formed to provide a passage 2, communicating with the flue 3, formed through the back.

4 designates a tubular heating burner, extending through the side wall c , into the broiler section of the body part, the inner end being supported in a bracket 5, fastened to the inner face of the side wall d .

The heat given off from the burner 4, passes up into the oven section through the passages v , left at each side of the oven bottom t , where it divides, and a portion passes directly into the oven and a portion up through the passages x , formed by the current directing plates w . The heat circulates through the oven, and over the draft plate 1, and down through the passages 2, and out through the flue 3. By this method of directing the heat currents, a thorough circulation is effected through the interior, the currents being shown by arrows in Fig. 2.

The side plates c and d , and the back plate e , extend upwards and flare outwards from the top b , and have a flange 6 formed on their upper edges, on which is set and fastened a top 7. The top 7 is provided with the usual griddle irons 8.

9 designates a metal plate loosely set on top of the top plate b , and forms an air cushion 10, to regulate the heat passing from the top of the body part.

The upper and lower edges of the current directing plates w , are formed with inturned flanges 11, on which are supported wire shelves 25 to divide the oven section into parts.

Fastened to the front edges of the top 7, are brackets 12, adapted to carry the supply pipe 13, which extends across the front and down the side of the range.

Coupled with the pipe 13, are the top burners 14, and at the lower end through the side wall c , is coupled the burner 4.

Setting on lugs 15 formed on the inside of the legs k , is a shelf 16, adapted to hold pans etc.

Each of the burners is provided with the usual air inlets, and cut-off cock, to which I make no further mention or claim.

What I claim as new and desire to secure by Letters Patent is—

1. In a gas range, a body part formed by inner and outer side and back plates, the said outer plates being paneled to provide air spaces or cushions between the said inner and outer plates, an oven bottom dividing the said body part into oven and broiler sections, an air space formed by the top and bottom faces of the said oven bottom, a hinged door for the said oven section, and a broiler pan adapted to slide in and out of the said broiler section, substantially as described.

2. In a gas range, a body part formed by inner and outer side and back plates, the said outer plates being paneled to provide air spaces or cushions between the said inner and outer plates, an oven bottom dividing the body part into oven and broiler sections, an air space formed by a flat top face and a V-shaped bottom face of said oven bottom, passages between the side edges of the said oven bottom, and the side walls of the body part, a hinged door for said oven section, a broiler pan adapted to slide in and out of said broiler section, substantially as described.

3. In a gas range, a body part formed by inner and outer side and back plates, the said outer plates being paneled to provide air spaces or cushions between the said inner and outer plates, an oven bottom dividing said body part into oven and broiler sections, said oven bottom comprising a flat top and a V-shaped bottom, an air space formed by said flat top and V-shaped bottom, passages between the side edges of the oven bottom and side walls of body part, current directing plates fastened to the said side walls of the body part, passages formed between the said current directing plates and the said side walls, a draft plate fastened to the inner face of the back of the body part, a passage formed between the said draft plate and the back wall, said passage adapted to communicate with a flue, said flue formed through the back of said body part, substantially as described.

4. In a gas range, a body part comprising inner and outer side and back plates, the outer plates being paneled to provide air spaces or cushions between the said inner and outer plates, an oven bottom dividing the body part into oven and broiler sections, said oven bottom consisting of a flat top and a V-shaped bottom, an air space formed between the said flat top and V-shaped bottom, passages between the side edges of oven bottom and side walls of body part, current directing

plates fastened to the inner side walls of the
body part, passages formed by the said cur-
rent directing plates and the inner side walls
of the said body part, a draft plate fastened
5 to the inner face of the said back plate, a pas-
sage formed by said draft plate and the inner
back plate, said passage communicating with
the flue, said flue formed through the back
plates of body part, a hinged door for the said

oven section, and a sliding pan for the said 10
broiler section, substantially as described.

Signed at Toronto, this 24th day of April
1906.

WILLIAM JOSEPH HALLARN.

In the presence of—

M. M. SWIFT,

A. A. ADAMS.