

(No Model.)

J. J. GRAVES.
COOKING STOVE.

No. 574,799.

Patented Jan. 5, 1897.

Fig. 1.

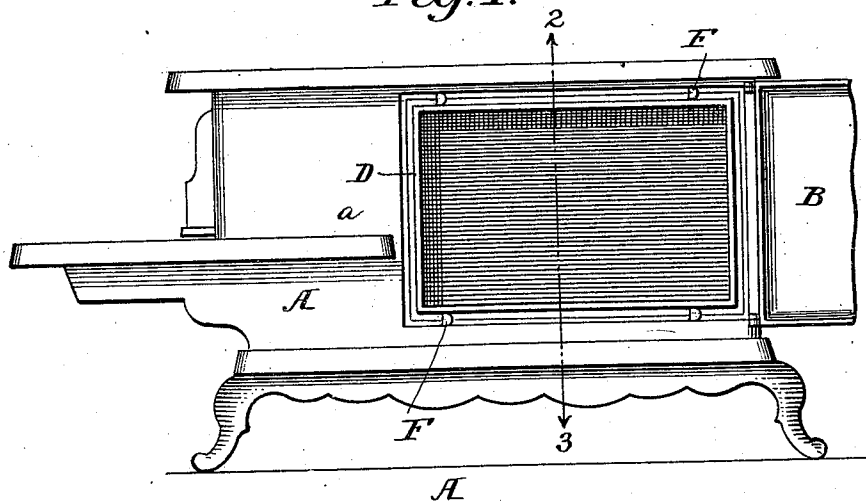


Fig. 2.

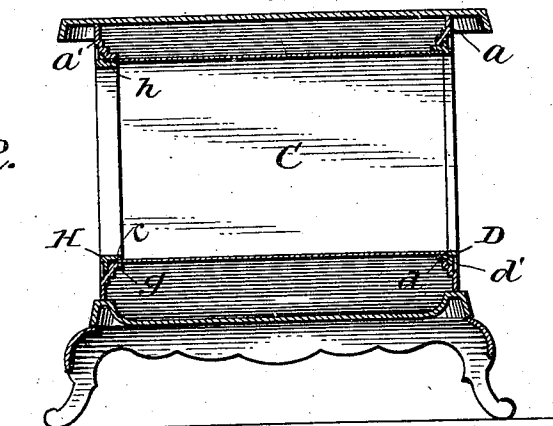
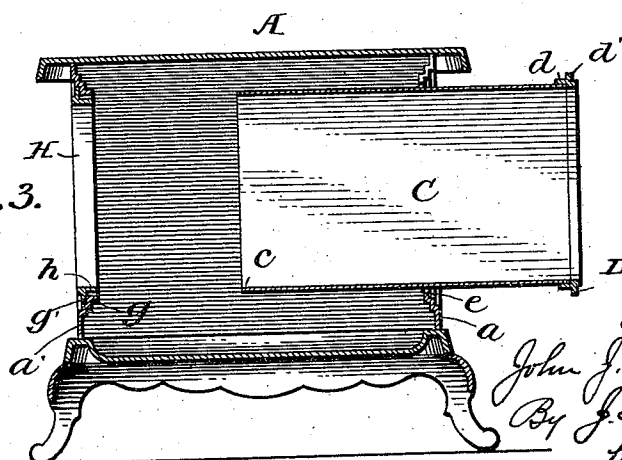


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN J. GRAVES, OF BUFFALO, NEW YORK, ASSIGNOR TO SHERMAN S. JEWETT & CO., OF SAME PLACE.

COOKING-STOVE.

SPECIFICATION forming part of Letters Patent No. 574,799, dated January 5, 1897.

Application filed August 31, 1896. Serial No. 604,448. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. GRAVES, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Cooking-Stoves, of which the following is a specification.

In the manufacture of cooking-stoves having steel ovens much difficulty has been experienced in so connecting the ends of the steel plates which constitute the oven with the sides of the stove as to form an air-tight connection and at the same time leave sufficient space between the ends of the oven-plates and the sides of the stove to allow for the expansion of the parts when they become highly heated. As an air-tight joint at the places referred to is necessary, the parts have heretofore usually been united so closely that when the oven is heated its plates buckle—a serious objection.

My invention has for its object to so construct a stove that the ends of the oven are connected with the stove by air-tight joints which at the same time are so formed as to allow free expansion and contraction of the oven without strain to the oven-plates or impairment of the joint.

The invention is illustrated in the accompanying drawings, wherein—

Figure 1 is an elevation of a cooking-stove embodying my invention, the oven-door being open and partly broken away. Figs. 2 and 3 are transverse sections on the line 2 3, Fig. 1, Fig. 2 showing the oven secured in place and Fig. 3 representing the oven being inserted into place.

In the drawings, A represents the stove-body, which may be of any usual or preferred construction and shape, the opposite side plates being designated *a* and *a'* and having openings through which access may be had to the oven on either side of the stove. To these side-plates are secured the oven-doors B, which close these openings, as usual.

C represents the oven, which is preferably constructed of sheet-steel and is of a size and shape to suit the style of stove of which it forms a part. I prefer that the oven should be easily removable, in order that it may be

bodily taken out, allowing free access to the flues, and replaced.

One end of the oven is securely attached to a frame D, preferably made of cast-iron, which in outline corresponds with the end of the oven. This frame has a flange *d*, which telescopes with the end of the oven and to which it is riveted or otherwise secured. It also has a flange *d'*, which fits in a recess *e*, formed therefor in the side stove-plate *a*. The oven is held in place by bolts or turn-buckles F.

The side stove-plate *a'* is provided on its inner side with a flange *g*, corresponding in shape with the end of the oven and surrounding the oven-opening through the side plate. This flange is so shaped as to form a recess *g'*, surrounding the oven-opening and upon the outside of the plate *a'*. A frame H, preferably of cast-iron, is made to fit this recess *g'*, and is formed with an inward-projecting flange *h*, which when the frame is in place in the recess is parallel with the flange *g* at a short distance inside thereof. The end of the oven opposite the flange *d* extends into the space between the two flanges *g* and *h*, where it is confined, so that there is formed at this end of the oven a double joint, and which is made so close as to be practically air-tight.

It will be observed that there is a space between the end *c* of the oven and the frame H, such space being sufficient to permit the oven to expand when heated without coming into endwise engagement with the frame. This arrangement permits the necessary expansion and contraction of the oven without causing any buckling of the metal of which it is formed or impairment of the joints at its ends.

In making the stove the oven, having the frame D secured to one end, is slid endwise into place, as represented in Fig. 3. The free end *c* is directed so that it telescopes with the flange *g* on the inside of the stove-plate *a'*. The oven is then secured in place by the holding devices F, after which the frame H is put in place and secured. It will thus be seen that by the construction which I have illustrated and described the stove is easily assembled and the disadvantages attendant

upon the use of sheet-steel ovens are overcome.

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

1. A cooking-stove comprising the plates *a*, *a'*, having openings through them into the space for the oven, the plate *a'* being provided with an internally-projecting flange shaped to fit closely around one end of the oven, an oven, and a frame adapted to fit the opening in the stove-plate *a'* and to be secured in place, and provided with an inward-projecting flange adapted to fit closely inside the end of the oven, substantially as set forth.

2. The combination in a cooking-stove, of

the stove-plates, *a* and *a'*, formed with openings through them for the oven, the latter plate being provided on its inner side with a flange *g*, surrounding the oven-opening, the oven, the frame *D* secured to one end of the oven, and adapted to be secured to the stove-plate *a*, and the frame *H*, adapted to be secured to the stove-plate *a'*, and provided with a flange which, when the frame is in place, is parallel with the flange *g*, the end of the oven occupying the space between the said flanges, *g* and *h*, substantially as set forth.

JOHN J. GRAVES.

Witnesses:

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ROBERT H. MONTGOMERY.