

No. 858,790.

PATENTED JULY 2, 1907.

J. A. BREEN.
STOVE.

APPLICATION FILED APR. 12, 1907.

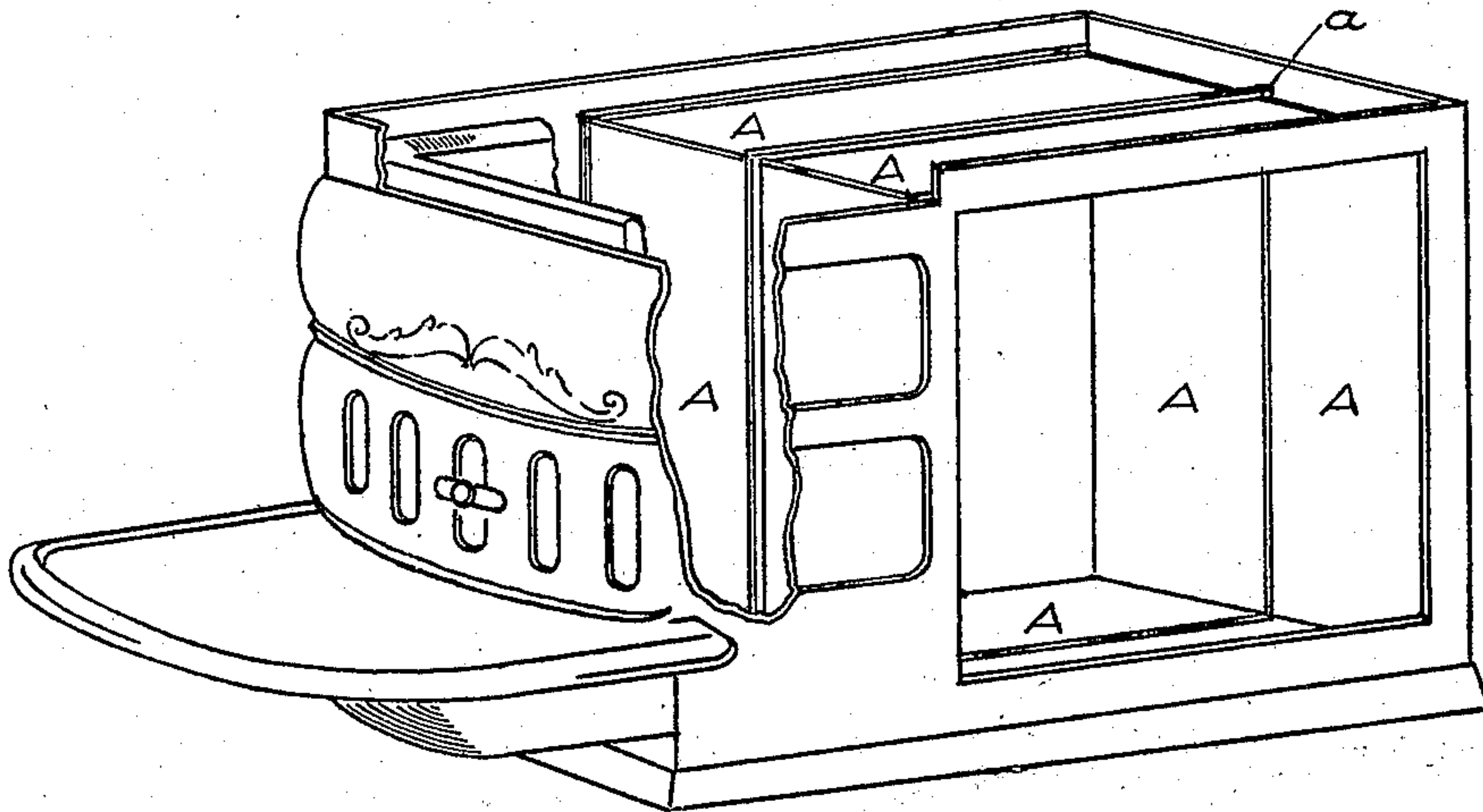


Fig. 1.

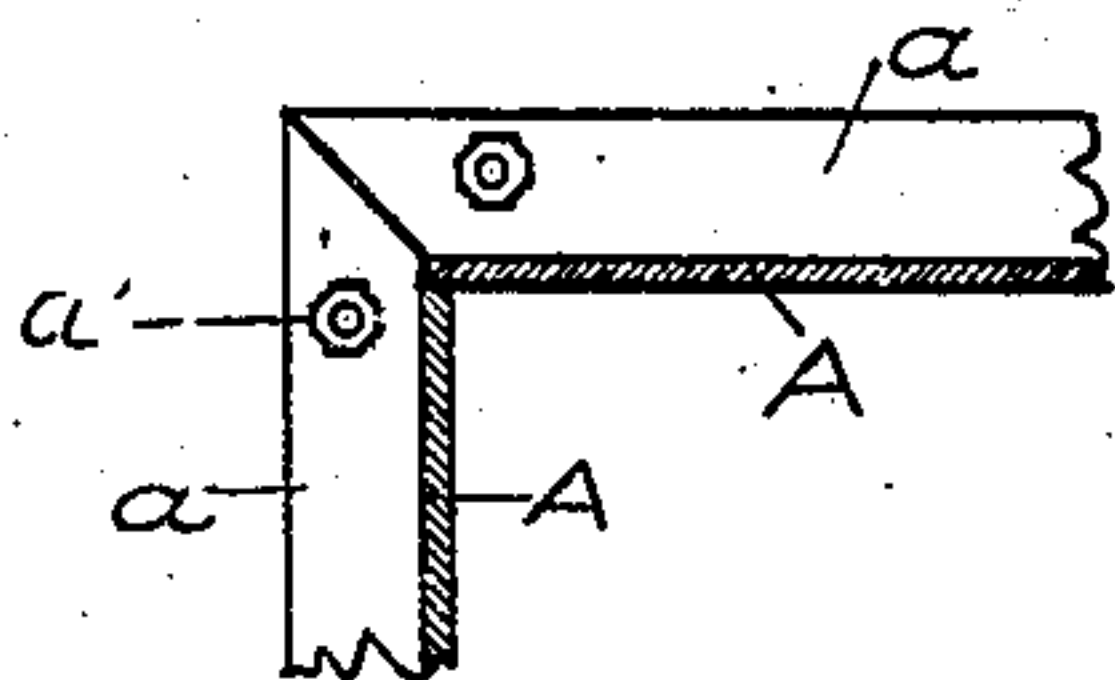


Fig. 5.

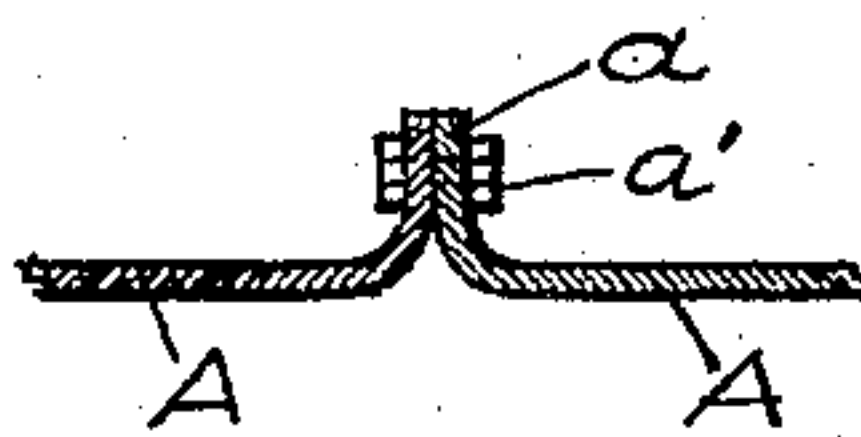


Fig. 3.



Fig. 2.



Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN A. BREEN, OF UTICA, NEW YORK, ASSIGNOR TO THE UTICA REAL ESTATE COMPANY,
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STOVE.

No. 858,790.

Specification of Letters Patent.

Patented July 2, 1907.

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To all whom it may concern:

Be it known that I, JOHN A. BREEN, a citizen of the United States, residing at Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Stoves, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improved stove, and I declare that the following is a full, clear, concise and exact description thereof, sufficient to enable one skilled in the art to make and use the same, reference being had to the accompanying drawings in which like letters and numerals refer to like parts throughout.

The invention has to do particularly with cook stoves and has reference to the method of constructing the oven. As stoves have heretofore been made the parts which together form the oven-box have been made of a single sheet of cast iron which has been liable under expansion or contraction to break, or to become loosened from its connected parts, necessitating extensive repairs or interfering with the perfect operation of the stove. It has also been customary to support the top-plate of the stove on this oven top by means of lugs or legs which frequently become loosened and drop out leaving the top-plate without support which warps and bends when highly heated. Various other constructions have been used for forming the oven and supporting the top thereon.

I have produced a construction which obviates these difficulties and renders the stove more durable, as well as less expensive.

In the drawings, Figure 1 is a perspective view of a part of a stove, a portion of it being broken away and showing in a general way the construction of the oven. Fig. 2 is a sectional view of two of the plates, showing one method of forming the joint; while Fig. 3 shows a modified joint. Fig. 4 is a sectional view of an oven side or top made of an integral piece formed with the ridge therein. Fig. 5 is an edge view of two plates with the edges turned up in a flange, somewhat exaggerated, indicating how the plates may be assembled at the edge of the top and the sides, for instance.

My invention includes the making of the top, sides or bottom of the oven of rolled or pressed metal sheets or of cast iron, adapted to be secured in place in the frame of the stove in any suitable or usual manner. In Fig. 1 I show the ridge formed in the top, sides and bottom of the oven as running in a front and rear plane, but it will be understood that this plane may be given any direction.

Each portion of the oven (except in this case the back and the door) consists, in one form, of plates A arranged in pairs, each pair forming one wall and having

the adjacent edges of the members in each pair curved upward. In Figs. 1 and 2 one upturned edge is shown wider than the other and lapping over the top edge of the adjacent plate. The curved edges thus united extend up far enough to form of themselves a support for the top-plate of the stove, and also means for supporting the oven on the lower portions of the stove frame and maintaining the oven and the side walls in proper relative and supported position; while also the ridge on the top forms a firm support for the top-plate of the stove, which, therefore, prevents its settling and warping under the pressure of heavy utensils and when highly heated. Plates may be thus assembled to form the top alone of the oven, or to form any of its walls, or all of the same, as may be desired or found expedient. An important feature of such construction of an oven is that it permits freedom of expansion and contraction and removes strain from the joints in the oven walls, and that the greatest strength may be secured with economy and simplicity of construction.

For the purpose of allowing for expansion and contraction, the plates are curved at their edges *a* to form a ridge, as indicated in the several figures. It is not, of course, essential that the plates should be separate, and in Fig. 4 it is seen that a single plate may be used having a ridge rolled therein. If the plates are separate they may be united at their edges by a bolt or other suitable means, as indicated by *a'* in Fig. 3.

I do not, of course, limit myself to the details of construction or as to the particular kind of joint made between the plates or where one wall joins another, as it is within the skill of the mechanic to make suitably tight joints.

In brief, the invention consists in an oven whose walls are made up of parts connected in a ridge, or walls formed of an integral member with a ridge formed therein, the said portions or walls being made of thin material so connected and formed as to provide sufficient strength with lightness of material and provision for expansion and contraction under heat, and to form interbearing supporting means between the oven and the frame and other parts of the stove.

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

1. In a stove, an oven top comprised of a plurality of parts curved at their adjacent and connected edges to form a joint adapted to support the stove top and to permit expansion and contraction of the parts forming the oven top.

2. An oven top formed of suitable plates curved from a horizontal to a vertical plane forming a ridge with a flaring base and extended upwardly and supporting the stove top.

3. An oven formed of plates having their adjacent edges curved from a horizontal to a vertical plane forming a ridge with a flaring base and extended upwardly and pro-

viding interbearing and supporting means between the oven and the adjacent construction of the stove.

4. An oven wall of rolled material formed with a transverse ridge therein, having an outwardly curved base, the
5 ridge extending outwardly to contact with the adjacent stove construction.

5. An oven top formed of rolled material formed with a transverse ridge thereon, having an outwardly curved base, the ridge extending upwardly to support the stove
10 top.

6. An oven having wall portions bent outwardly in a ridge, the walls of the said ridge flaring near the base to take up expansion and contraction in the oven walls, the

said ridge providing a support for the adjacent walls of the stove.

7. An oven construction having plates bent upwardly in a ridge, the walls of the said ridge flaring outwardly near the base and the said ridge providing a support for the adjacent walls of the stove.

In testimony whereof I affix my signature in presence of
two witnesses. 20

JOHN A. BREEN.

Witnesses:

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