Sept. 2, 1924. 1,507,446

T. E. TAYLOR

STOVE STRUCTURE

Filed Oct. 16, 1919

Fig. 1.

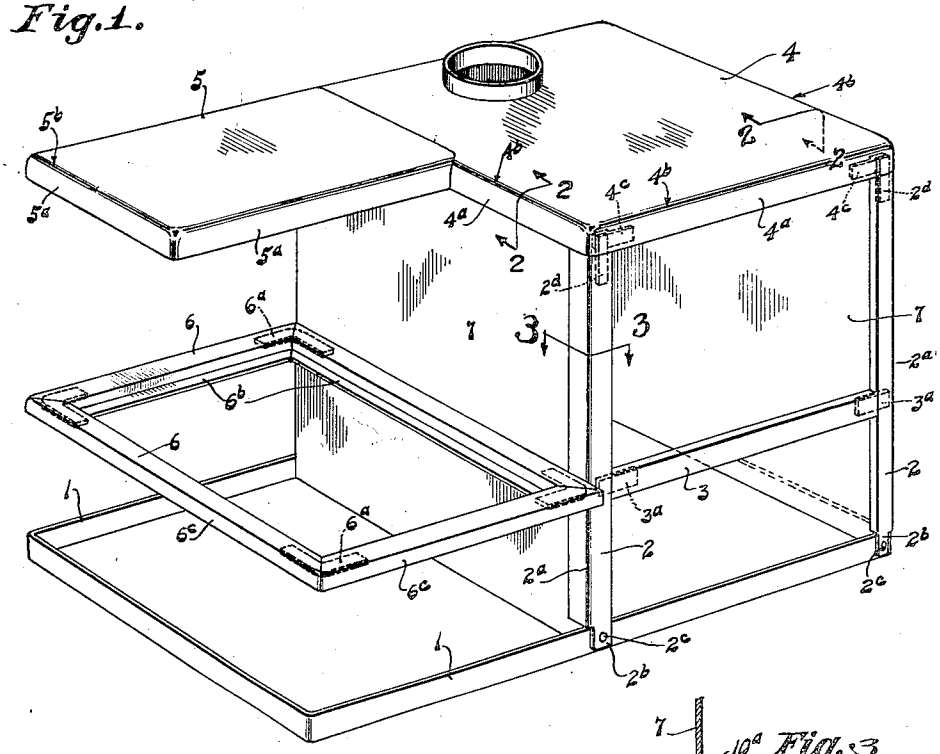


Fig. 2.

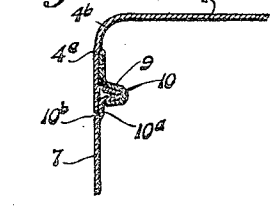


Fig. 3.

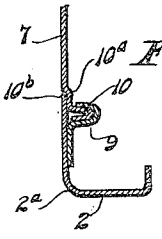


Fig. 4.

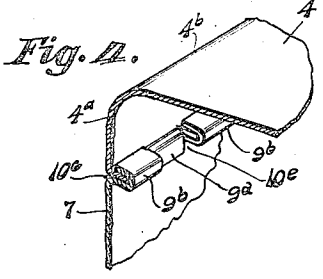
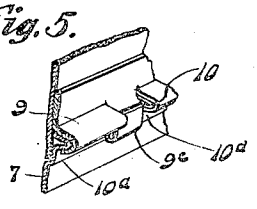


Fig. 5.



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UNITED STATES PATENT OFFICE.

THOMAS E. TAYLOR, OF MANSFIELD, OHIO, ASSIGNOR TO THE ECLIPSE STOVE COMPANY, OF MANSFIELD, OHIO, A CORPORATION OF OHIO.

STOVE STRUCTURE.

Application filed October 16, 1919. Serial No. 330,994.

To all whom it may concern:

Be it known that I, THOMAS E. TAYLOR, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Stove Structures, of which the following is a specification.

My invention relates to improvements in stove structures, and more particularly to improved means for securing and fastening the various stove parts together at their connecting edges or joints without the use of bolts or other fastening and projecting elements, and without the necessity of perforating the parts for the reception of such fastening elements.

The primary object is the provision of a generally improved stove structure of this class, and having the features mentioned; which will be exceedingly simple in construction, cheap of manufacture and efficient in use.

A further object is the provision of a generally improved stove frame, together with improved means for mounting and securing the various parts in assembled position.

A still further and very important object is the provision of an improved joint for stove structures adapted not only to secure and reinforce adjacent parts without the use of bolts or other projecting elements, but to secure the parts against relative longitudinal or lateral movement therebetween.

A still further object is the provision of improved door and cooking top frames, together with improved means for connecting and securing the same together at the corners, as well as securing the same to each other and to the stove walls.

With the above mentioned and other ends in view, the invention consists in the novel construction, arrangement and combination of parts, hereinafter described, illustrated in some of its embodiments in the accompanying drawings, and particularly pointed out in the appended claims.

Referring to the drawings, forming a part of this specification,

Fig. 1, a perspective view of the improved stove frame structure in connection with the oven top and side walls constructed connected and secured in accordance with this invention, the doors and cooking top being removed for the purpose of clearer illustration of the parts.

Fig. 2, an enlarged detailed cross sectional view of the improved concealed or internally arranged flanged joint for connecting adjacent parts and taken substantially on lines 2—2 of Fig. 1.

Fig. 3, a similar view taken on line 3—3 of Fig. 1.

Fig. 4, a fragmentary perspective view of a modified form of joint, and illustrating an improved locking element for locking the parts against relative movement.

Fig. 5, a similar view of the form of joint illustrated in Figs. 2 and 3, together with the locking element therefor.

Similar numerals of reference designate like parts throughout all the figures of the drawings.

The base or leg frame 1, may be of any suitable and convenient construction, and, in the present instance, is formed by means of a suitable length of band iron bent at the corners to form the rectangular frame.

The oven door frames are preferably made up of vertical or upright members 2, having rounded or oval-shaped corners 2^a, and a channel-shaped cross or horizontal member 3, the ends of the latter being preferably secured to the web portions of the upright 2, by means of filler blocks 3^a, suitably welded thereto, and fitting in suitable notches formed in the flange portion of the upright door frame members 2. The lower ends of the uprights 2, are preferably secured to the base or leg frame 1, by means of extension lugs 2^b, secured by means of fastening elements 2^c.

The oven top 4, is provided about its marginal edges with depending flanges 4^a, and is also provided with rounded or oval-shaped corners 4^b, to correspond to the rounded corners 2^a, so that the entire stove structure will present a symmetrical appearance, as will be obvious upon reference to Fig. 1, of the drawings. The front corner portions of the oven top may be secured to the upper portions of the frame members 2 by means of filler blocks 4^c, having off-set ends overlapping the ends of vertical filler blocks 2^d, arranged in the upper portions of the uprights 2.

The shelf or canopy top 5, is likewise provided with depending flanges 5^a, and with similarly shaped rounded or oval-shaped corners 5^b.

The rectangular cooking top frame comprising under channeled frame members 6, suitably mitered at the corners and provided with angular corner tie members 5^a, fitted in and welded to the under channeled portions of the frame member, the mitered corners of the top frame being also preferably welded so as to present a solid or integral appearance.

The frame members forming the cooking top frame are provided with off-set plate receiving flanges 6^b and are provided about their outer periphery with depending flanges or skirted portions 6^c, as shown most clearly in Fig. 1, of the drawings.

Referring now to the improved concealed or internally arranged flanged joints to which this invention particularly relates, and by means of which the various stove or range wall and frame members may be secured to each other, it will be seen that one of the members is provided with a terminal flange 9, adapted to receive and overlap a second or companion terminal flange 10, formed on the opposite member. The internally arranged or extending terminal flanges 9 and 10, are preferably of approximately V or U-shape in cross section, and as a means of forming a flush or smooth joint one of the terminal flanges is preferably provided with an inset portion 10^a, provided with a shoulder 10^b, the latter corresponding in thickness or depth to the thickness of the corresponding or overlapping adjacent member, as shown most clearly in Figs. 2, 3 and 5, of the drawings. The terminal flange 9, is preferably provided by means of a separate strip or piece of metal welded or otherwise suitably secured upon the interior of one of the attaching wall or frame members, as shown, but if desired, the same may be formed integral with the member, as shown at 9^b, in Fig. 4, of the drawings, and in which instance the companion flange received by the flange 9^b, may consist of a single thickness of metal extending inwardly to receive the same, thereby dispensing with the off-set and shoulder features 10^a and 10^b, referred to in Figs. 2 and 3, of the drawings.

As a means of locking the flanges 9 and 10, or 9^b and 10^c, as the case may be, to prevent relative longitudinal or lateral movement or displacement and to consequently hold the wall or frame members in fixed assembled relation without the use of bolts, screws, or other attaching elements projecting from the exterior of the stove or range part, one of the flanges, as for example, the flange 9^a, may be provided with a cut-out tongue 9^c, adapted to be bent downwardly and to fit into a corresponding cut-out recess 10^d, in the opposite or corresponding flange, as shown most clearly in Fig. 5, or in the form shown in Fig. 4, the cut-out tongue 9^c, adapted to fit in a correspondingly formed recess 10^e.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of my invention will be readily understood.

Having thus described some of the embodiments of my invention, without having attempted to set forth all the forms in which it may be made, or all the modes of its use, what I claim and desire to secure by Letters Patent, is,—

1. In a stove structure, a wall provided with an inset portion having an internal terminal flange, an overlapping wall resting on said inset portion of the other and provided with a companion flange, and tongues and recesses transversely cut and struck out from said flanges for locking the latter against relative longitudinal movement.

2. A stove structure, comprising frame members provided with internal terminal flanges, and overlapping wall members provided with internal terminal flanges interlocking therewith, one of said wall members having a marginal inset portion receiving the marginal edge of the adjacent wall member flush therewith, said flanges being provided with internally arranged interlocking fastening elements formed within and protected by said flanges.

In testimony whereof I have affixed my signature.

THOMAS E. TAYLOR.