F. A. GERCICH & J. VAUGHN.

OVEN.

APPLICATION FILED AUG. 20, 1913.

1,107,285.

Patented Aug. 18, 1914.

2 SHEETS—SHEET 1.

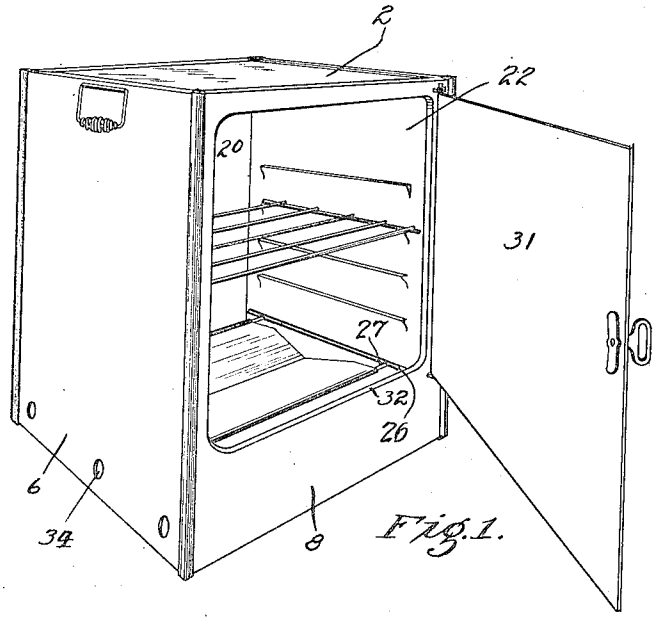


Fig. 1.

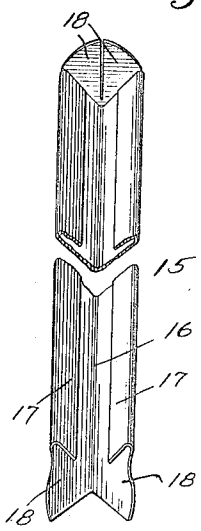


Fig. 5.

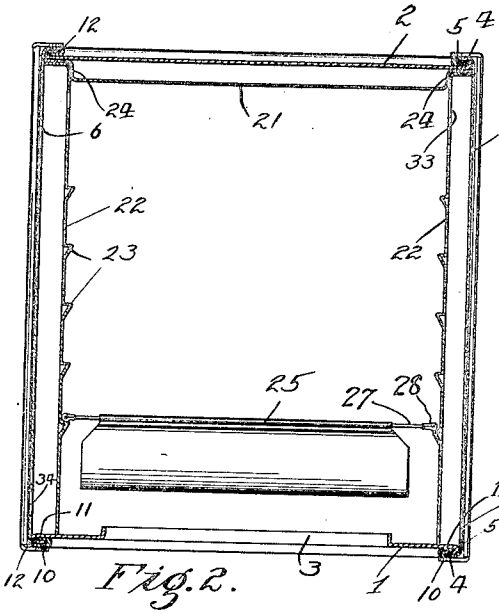
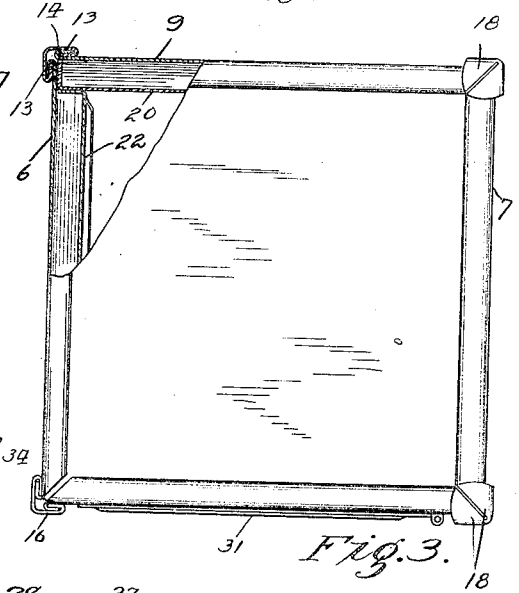


Fig. 2.



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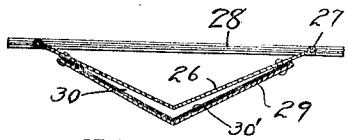

Fig. 6.

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2 SHEETS—SHEET 2.

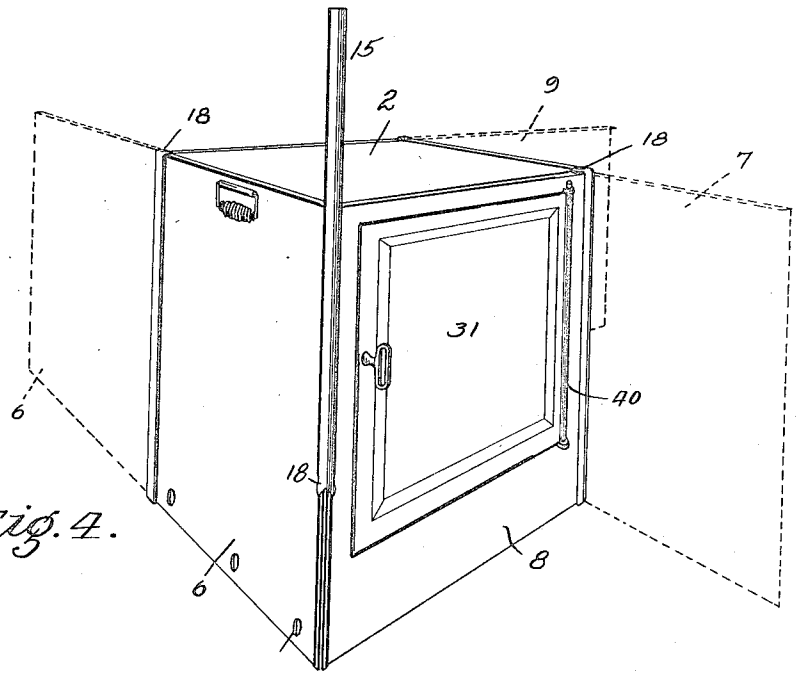


Fig. 4.

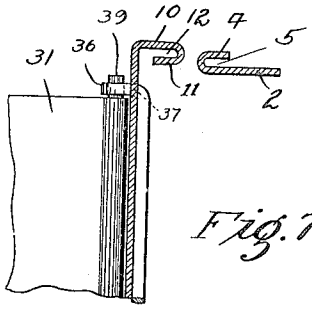


Fig. 7.

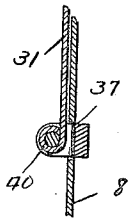
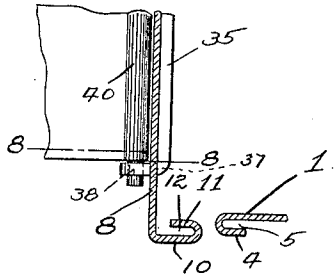


Fig. 8.



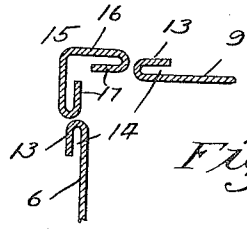


Fig. 9.

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OVEN.

1,107,285. Specification of Letters Patent. Patented Aug. 18, 1914.

Application filed August 20, 1913. Serial No. 785,763.

To all whom it may concern:

Be it known that we, FREDRICK A. GERCICH and JOSEPH VAUGHN, citizens of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Ovens, of which the following is a specification.

This invention relates to improvements in portable ovens, of the type used in connection with gas, oil and vapor stoves, and the principal object of our invention is to provide an improved method of joining the various parts thereof. As herein illustrated it will be seen that rivets, bolts and like holding means are entirely dispensed with and at the same time a structure just as rigid and substantial is secured. The construction also enables the oven to be knocked down for shipment which, in an article of this character will effect a great saving.

Other objects are to provide an improved heat deflector and improved construction of the interlining causing it to be held in place without rivets or bolts.

With these and other objects in view our invention consists in the novel construction and arrangement of parts as herein described and illustrated in the drawing forming a part of the specification, and as more particularly pointed out in the claims hereto appended. It will of course be obvious that various changes may be made in details of construction without departing from the spirit of our invention.

In the drawings:—Figure 1 is a view in perspective of our improved oven with the door open showing the general construction of the same. Fig. 2 is a transverse vertical section showing method of joining the various sections and construction of the interlining. Fig. 3 is a view in plan with portions broken away to disclose the method of locking the vertical corners. Fig. 4 is a view in perspective disclosing more in detail the manner of assembling the various parts of the oven. Fig. 5 is an enlarged view in perspective of one of the corner bars. Fig. 6 is a sectional view through the heat deflector. Fig. 7 is an enlarged broken sectional view through the front plate of the oven disclosing manner of hinging the door thereto, and method of securing the edges and those of the top and bottom plates. Fig. 8 is a view in section on line 8—8 Fig. 7. Fig. 9 is an enlarged sectional view showing the vertical seams.

Denoting corresponding parts by the same numerals of reference, 1 is the bottom and 2 the top plate, the two being identical in construction except that the bottom is provided with an opening 3 for the entrance of the heated gas, and each is provided on its four sides with a seamed edge forming a tongue 4, and groove 5.

The sides 6 and 7, the front 8 and back wall 9, called in general the sides, are similar in construction in so far as the holding means is concerned, the top and bottom edges of each being provided with a laterally bent edge 10 continued in a recurved tongue 11 forming between the two a groove 12. The construction of these parts is such that the tongue 4 of the top and bottom enters groove 12 of the sides and tongue 11 of the sides, groove 5 of the top and bottom holding these parts together except against longitudinal movement. The various folds are made with sufficient clearance that in assembling the folds of the side plates are slid laterally into engagement with the corresponding folds of the top and bottom.

The vertical edges of each side plate are provided with recurving folds 13 forming a groove 14 adapted to receive the corner bar 15, which consists of an angularly bent strip 16, each leg of which is provided with a recurving fold 17 adapted to engage the folds 13 of the sides. This strip is placed in position by sliding from one corner and is held in by the integral bent ears 18. It will be seen that when these ears are bent over as shown in Fig. 3 the corner bars are securely held in position and these in turn lock the vertical seams, thus securing the entire device together without seaming, riveting or bolting.

An interlining is provided consisting of back plate 20, top 21 and sides 22, the latter being provided with raised projections 23 for supporting the shelves and heat deflector. The top interlining is provided with a recess 24 around the sides and back, into which the side and back plates are adapted to fit, preventing the top of the latter from moving inwardly and 21 from dropping down. The back cannot move forward owing to the overlapping of the sides 22 hence when the deflector 25 is positioned on the lower set of projections 23 the lower ends of sides 22 are also prevented from moving in-

wardly thus securing the said interlining in place.

The heat deflector consists of a V shaped plate 26 extending across the opening 3, the edges being held on rods 27, the ends of which are in turn secured in strips 28. On the under side of 26 is secured a similar shaped plate 29 having a slightly smaller angle so that an air space 30 is formed between the plates. To further prevent the undue heating of the upper plate we prefer to provide a sheet of heat insulating material 30′ between the said plates. By this construction the upper plate 26 is effectively prevented from becoming overheated. If desirable the sheet 30′ and plate 29 may be made circular in shape and of sufficient size to cover the usual gas burner.

The door 31 is hinged to plate 8 in the manner shown in detail in Figs. 7 and 8, and consists of a rectangular rod 35 having bent ends 36 which extend through holes 37 in the front 8. These ends are provided with holes 38 to receive the pin 39. The door has a sleeve 40 formed on its rear edge, which fits friction tight upon the pin 39, forming thus cheap and effective hinged support.

The oven is assembled in the manner shown in Fig. 4 by slipping the plates in from the side as shown in dotted lines. The corner pieces 15 are then slid on the vertical seams and the ears 18 bent over which secures all parts together. The interlining is then positioned as previously described, the deflector and shelves placed in position completing the oven. Thus it will be seen that we have provided an oven which effectively fulfils the objects as set forth in the beginning of this specification.

What we claim as new and wish to cover by Letters Patent is:—

1. A knockdown oven of the character described comprising a plurality of walls forming the top, bottom and sides thereof, sliding double seams connecting the horizontal edges of said walls, sliding seamed angle plates connecting the vertical edges and means for locking said angles on said vertical edges, a removable interlining comprising a recessed upper wall, side and back walls adapted to be positioned in said recess being thereby secured against lateral movement at the top, a removable deflector securing said side walls against lateral movement at the bottom, the said side walls in turn securing the back wall against lateral movement.

2. A knockdown oven of the character described comprising a plurality of walls having sliding seams at their edges, a removable inner lining for the oven and a deflector arranged at the bottom thereof, said deflector comprising a plurality of metallic layers with heat insulating material therebetween, and serving to lock the inner lining in adjusted position.

3. An oven of the character described comprising a plurality of walls having sliding seams at their edges, means for locking said seams, a removable inner lining for the oven and a deflector arranged at the bottom thereof and positioned above the entrance of the heated gases, said deflector comprising a plurality of V-shaped metallic plates with heat insulating material and air space therebetween and mounted upon a supporting frame, said frame serving to lock the inner lining in adjusted position.

In testimony whereof we affix our signatures in presence of two witnesses.

FREDRICK A. GERCICH.
JOSEPH VAUGHN.

Witnesses:
F. P. SCHROEDER,
R. M. OYARZO.