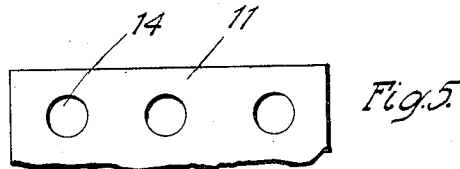
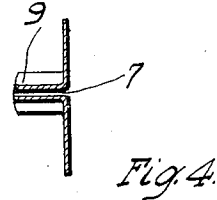
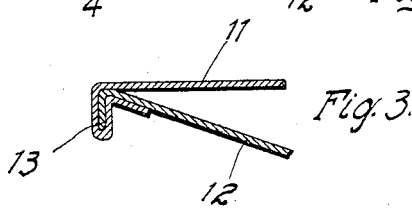
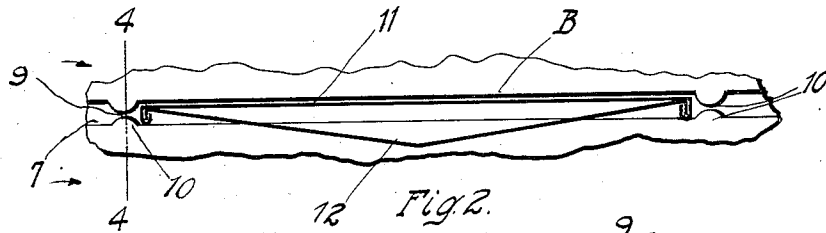
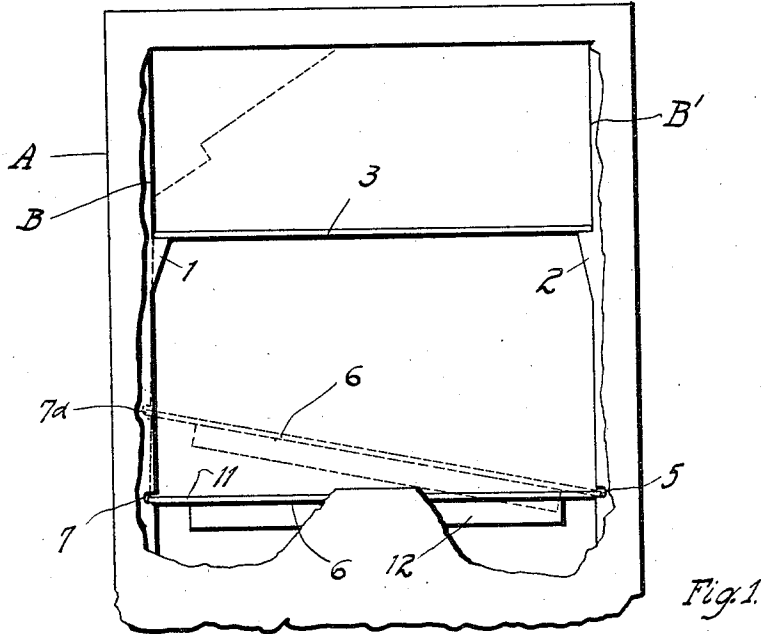


J. S. SHERMAN.
DEFLECTOR FOR OVENS.
APPLICATION FILED FEB. 29, 1912.

1,046,873.

Patented Dec. 10, 1912.



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DEFLECTOR FOR OVENS.

1,046,873.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed February 29, 1912. Serial No. 680,763.

To all whom it may concern:

Be it known that I, JOHN S. SHERMAN, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented certain new and useful Improvements in Deflectors for Ovens, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to deflectors for ovens and has for its object a novel construction of the oven lining and the deflector, whereby the deflector may be hung in the oven at the desired point. In ovens which are manufactured for sale without an accompanying heater, it is very necessary that the construction utilize as little metal as possible and be done with as few steps as possible, in order to be economical and afford an oven which can be put upon the market in competition with other ovens. To this end I have devised the hereinafter described construction, which eliminates several of the steps in manufacture and is economical in the use of material.

In the drawings:—Figure 1, is a front elevation of an oven broken away to show the lining and the deflector suspended thereon. Fig. 2, is a cross section of the deflector, showing it in position with respect to the lining. Fig. 3, is a sectional detail of the deflector. Fig. 4, is a sectional detail of the oven lining taken on the line 4—4 of Fig. 2. Fig. 5, is a detail of the end of the upper deflector plate.

A is the oven and B is the lining at one side of the interior of the oven. B' is the lining at the other side. These linings are made of thin flexible sheet metal that is stamped to form brackets 1 and 2, which are adapted to hold the grate 3. The lining B', is stamped to form a groove 5 in which the deflector 6 may be inserted. A groove 7 is stamped in the lining B, opposite the groove 5. This groove 7 is divided off by set-out portions or stops 9 and 10. These set-out portions or stops are stamped from both the top and bottom of the groove and are spaced along the groove a distance just a little greater than the width of the deflector. I stamp the groove clear across the sheet in order to prevent the metal gathering and

tearing as would otherwise be the case, if the groove was stamped only the length intended to be utilized. The groove and set-out portions of the grooves are stamped all in one operation.

The deflector 6 comprises an upper sheet of metal 11 that is flat except at the edges and a lower sheet of metal 12 that is bent into a broad V-shape. The upper sheet 11 is folded over the under sheet 12 as shown in Fig. 3 and it is then bent down to right angular position with respect to flat portion of the sheet 11 forming a bead 13 which will readily slip into the groove 7. The lower sheet 12 is shorter than the upper sheet 11 leaving extended ends, as will be noted in Fig. 1. The extended ends of the upper deflector plate 11 are perforated as at 14 (Fig. 5) to allow the heated air to rise there-through.

In inserting the deflector 6 in place, I pull the lining B upward, as shown in the dotted lines of Fig. 1, and bend it over so as to allow the groove 7 to be pulled up to the point 7^a which is the place where the arc, described by the swinging of the deflector 6 on the groove 5 as a center, intersects the plane that the lining ordinarily occupies. This allows the insertion of the deflector 6 in the groove 7 and when the lining is pushed back in place the deflector 6 is held tightly in the lining and cannot be lifted up and down without again lifting the lining to the point where the deflector was inserted in the groove 7. The deflector is held from sidewise movement by reason of the aforementioned set-out portions or stops 9 and 10.

From the above, it is seen that the deflector is held firmly in place without the use of rods or holes in the lining, or any other fastening means and that all that is required is the one stamping operation by which the groove and set-out portions are stamped in the lining. The oven linings B and B' are both held in place in the oven by the deflector and the grate 3 without further fastening means.

What I claim is:—

1. The combination with an oven, of an oven lining stamped with a groove therein, a second oven lining located opposite said first mentioned oven lining and slidable with respect to the oven wall, the said second mentioned oven lining being stamped with a

groove opposite said first mentioned groove and having set out portions in the wall of the groove and a deflector having portions adapted to be inserted in the said grooves
5 and between the set out portions of the second mentioned oven lining by sliding said slidable lining temporarily out of its normal position, the said deflector being held in position and from lateral displacement by
10 the set out portions in the slidable lining when the same has been replaced to its normal position, substantially as described.

2. The combination with an oven, of an oven lining stamped with a groove therein,
15 a flexible second oven lining located opposite said first mentioned oven lining and loosely engaging the side of the oven, the said second lining being stamped with a groove opposite said first mentioned groove and having
20 set-out portions in the walls of the groove and a deflector comprising a lower V shaped sheet of metal and an upper sheet of metal holding said V shaped sheet and extending beyond the same at the
25 ends, the said flexible second oven lining being adapted to slide out of place to allow the insertion of one of the extended portions of

the deflector between the set-out portions in the groove of the second oven lining, after the other extended portion of the deflector
30 has already been inserted in the groove of the first mentioned oven lining, substantially as described.

3. The combination with an oven, of an oven lining having a groove therein, a second lining located opposite said first mentioned oven lining and slidable with respect
35 to the oven wall, the said second lining having a groove opposite said first mentioned groove provided with stops and a deflector having portions adapted to be inserted in the said grooves and between the stops when
40 the slidable lining is displaced from its normal position by sliding and adapted to be held from lateral displacement by the said
45 stops and in position when the said slidable lining is replaced, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

JOHN S. SHERMAN.

Witnesses:

STUART C. BARNES,
LOTTA LEE BRAY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."