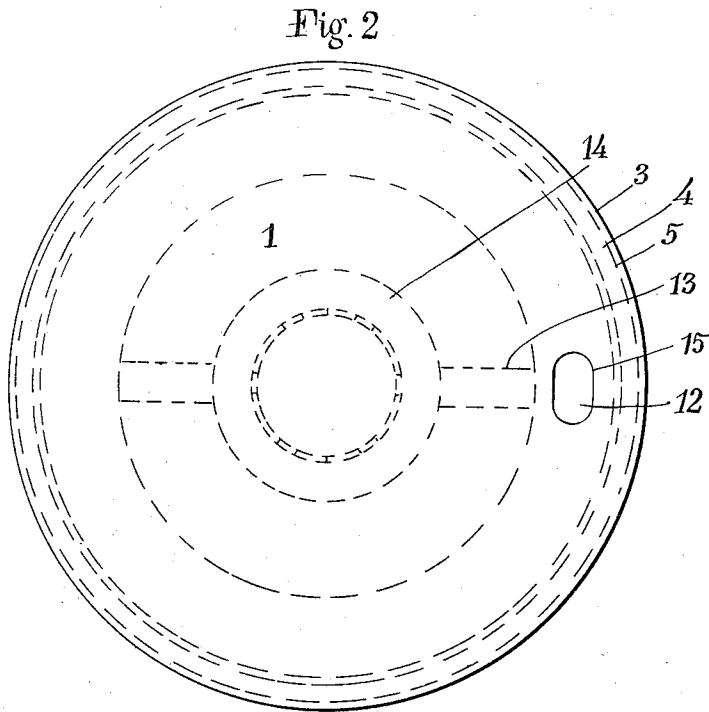
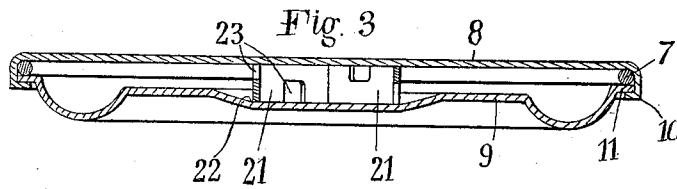
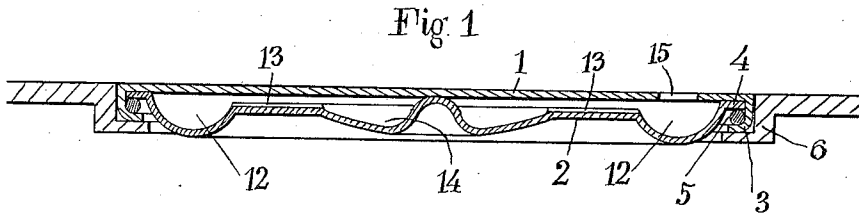


D. W. SOWERS.
STOVE LID OR COVER.
APPLICATION FILED DEC. 23, 1907.

1,060,645.

Patented May 6, 1913.

2 SHEETS—SHEET 1.



Witnesses
Joan Koenigsberg
M. Rimmann

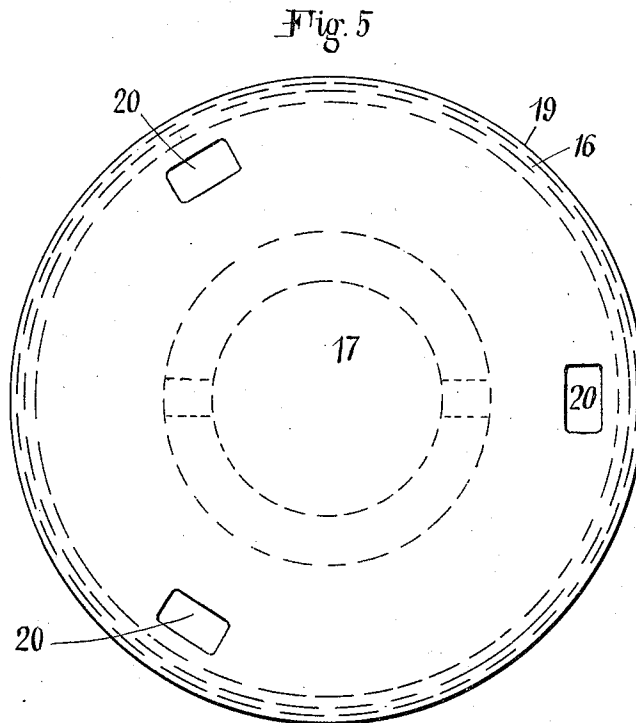
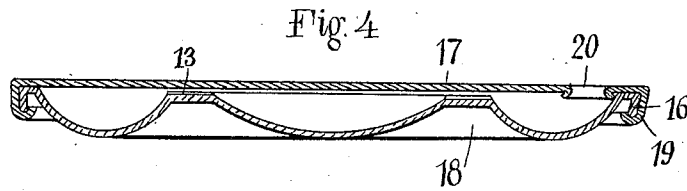
David W. Sowers, Inventor
By his Attorney
Alexander C. Proudfit.

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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

DAVID W. SOWERS, OF BUFFALO, NEW YORK.

STOVE LID OR COVER.

1,060,645.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed December 23, 1907. Serial No. 407,811.

To all whom it may concern:

Be it known that I, DAVID W. SOWERS, a citizen of the United States, and a resident of Buffalo, in the county of Erie and State of New York, have invented certain Improvements in Stove Lids or Covers, of which the following description, in connection with the accompanying drawings, is a specification, like numerals on the drawings designating like parts.

This invention relates to stove lids or covers, and devices for similar purposes, and especially to an improved type of cover constructed of a plurality of pieces of sheet metal, preferably integral circular disks of steel, joined at their peripheries and having air spaces between the members to prevent over-heating, cracking, and distortion of the lid, and scorching or burning.

In accordance with the invention, a piece or member is provided, preferably co-extensive with the periphery of the cover and embraced by the overlapping portion of one of the cover members. This member serves to impart additional rigidity to the cover at its periphery and thus prevent distortion of the latter, and also serves to increase the thickness of the cover's edge by a predetermined amount, so that it will correspond to the ordinary depth of the shoulder or ledge with which stove tops are usually provided. During the manufacture of the lid the thickness of the cover's edge may be made to correspond with any desired type of stove top, by providing a member of a size suitable to make the cover as thick as the depth of the ledge provided in that type of stove. In accordance with another feature of the invention, the member may be used as a spacing device to determine the degree of separation of the component members of the lid.

The various features of this invention will be illustrated and described fully in the accompanying drawings and specification.

In the drawings, Figure 1 is a view in vertical diametrical section of a stove lid in the construction of which the invention has been embodied, the lid being shown in position at the top of the stove; Fig. 2 is a plan view of the lid shown in Fig. 1, but with a modified form of central dished portion and support; Fig. 3 is a view similar to Fig. 1, of a modified form of cover or lid,

illustrating also the same form of central support indicated by dotted lines in Fig. 2; and Figs. 4 and 5 are views similar to Figs. 1 and 2 respectively, of another modification.

In the embodiment of the invention selected for illustration, and described as a convenient form to enable ready and complete understanding of the improvements, and referring first to Figs. 1 and 2, the part designated by the reference numeral 1 is the upper plate of the lid, and the reference numeral 2 designates the lower plate or piece, these members being joined at their peripheries by bending the edge 3 of the upper plate over and around the edge 4 of the lower plate, this being a convenient and secure mode of uniting the two plates to form a unitary structure, although other suitable and convenient modes of joining the members may be adopted without departing from the spirit of the invention. To serve as a spacing member, in accordance with the invention, a wire 5 of suitable diameter is introduced between the peripheries of the plates 1 and 2, where it is retained in place by the overlapping rim 3 of the upper plate, and determines the thickness of the cover's rim, which will thereby be made to correspond with the depth of the ledge 6 surrounding the hole in the stove top.

Fig. 3 illustrates one convenient form of construction in which a wire may not only serve as a spacing member to give the desired depth of rim, but may also perform an important function to which reference has been made already, viz. to determine the degree of separation of the component members of the lid, being interposed between the upper and lower plates preferably near the peripheral region of the lid, where it is held in place by the rim 10 of the upper plate, the latter being bent around and under the edge 11 of the lower plate in the manner already described with reference to Figs. 1 and 2. Thus a thin wire 7 used as a spacing member for a shallow rim will result also in the production of a cover having a shallow air space, while by the use of a thick wire 7 to form a high spacing member, the edge of the lid will not only be made to conform with a greater depth of ledge, but also the result will be greater

separation of the plate members 8 and 9 so that the air space inclosed between the plates will be of a thickness adapted to resist the greater heat in the stoves having thicker tops and consequently deeper ledges.

- 5 In Figs. 1 and 2 the lower plate 2 is shown as provided with a channel or torus 12, annular in form and having preferably communicating depressions 13 at diametrically
10 opposite points while the center of the lower plate has also a depression 14. Within this depression may be swaged up a boss as illustrated in Fig. 1, or a separately formed ring as shown in Fig. 2, and in Fig.
15 3 at 21, being described more in detail hereinafter, the boss or ring serving as a support for the center of the upper plate. The annular channel or torus 12, the depressions 13 and the central dished portion 14 strengthen
20 the cover as a whole, and prevent the upper plate from warping and buckling. The depressions 13 add strength to the lower plate, rigidity to the structure as a whole, and serve as channels for passage of air between
25 the central dished portion 14 and the torus 12. Preferably the upper plate will be provided with an opening 15 (see Fig. 2) to receive the usual lid lifter and to serve also for the entrance of air between the plates.
30 If several such openings are provided, as illustrated at 20 in Fig. 5, the circulation of air will be facilitated to a very important degree.

- In the modification illustrated in Figs. 4
35 and 5, the depth-determining member takes the form of a piece or pieces of metal 16 extending between the upper plate 17 and the lower plate 18, a convenient mode of constructing the member being to provide
40 the plate 18 with a peripheral excess of material corresponding approximately to the height of the cover, and to swage this edge material downward, substantially as shown in Fig. 4, to form the integral member 16
45 over which the rim 19 of the upper plate is swaged. When thus constructed, the edge portions may be left with a slight inward cant or inclination, and may be secured together in any convenient manner to complete their jointure, and as one convenient
50 method of securing solid and permanent union the rim 19 may be drawn or swaged inward and around to embrace the edge 16 and prevent displacement of the plates relatively to each other, under the action of
55 heat.

- These various formations of the jointure with different types of depth-determining members permit the use of the same tools to
60 form lids having different depths but the same diameter, for the amount of peripheral excess provided in cutting the blanks for the plates will determine the depth of their separation from each other. Blanks of the
65 same diameter can also be utilized to form

manufactured covers of somewhat different diameters as well as different depths.

Various forms of central auxiliary supporting means may be provided as for example the ring like member 21, shown in Fig. 3, to position which I have shown the wall of the central depression 14 as provided with a shoulder 22 within which the ring member or members 21 may be seated, the shoulder preventing their displacement during
70 assembling of the cover parts. Apertures 23 permit free circulation of air through the ring members.

The invention having been illustrated and described thus fully it will be understood that its embodiment is not limited to the specific materials and constructional forms illustrated; that any suitable means for securing the depth of the lid and separation of the plates may be employed without departing from the spirit of the invention; and that the latter is in general not limited except as set forth in the claims read in connection with this specification.

What I claim and desire to secure by Letters Patent is:

1. A device of the class described; comprising a level upper plate member; and a lower plate member having a locking portion and being provided with a torus and a dished center to form air containing spaces between said plates, the rim of said upper member being formed around the locking portion of said lower member; substantially as described.

2. A device of the class described; comprising an upper member and a lower member formed together at their peripheries, one of said members having a torus opening inwardly and a dished center connected by grooves, and the other member having an aperture in communication with said torus to permit entrance of outer air, said latter member having an upright, peripheral flange terminating in a seating edge, said flange being engaged with the periphery of said lower member; substantially as described.

3. A device of the class described; comprising a top member and a bottom member secured together at their edges, and having their central portions arranged at a distance from each other with an intervening space in the form of a torus near the periphery of said device, for circulation of air; said top member having a plurality of widely separated openings to give access for air to said space and to promote circulation of air therethrough.

4. A device of the class described; comprising a bottom member provided with a peripheral, integral flange inclined downwardly and inwardly relatively to the body of said member; and a top member provided with an integral downwardly directed re-

5 taining portion having a reëntrant flange at its lower extremity to form a seating edge, said downwardly extending portion embracing said flange of said bottom member and serving to hold said top and bottom members in assembled relation; substantially as described.

Signed at New York, New York, this thirtieth day of November, 1907.

DAVID W. SOWERS.

Witnesses:

ALEXANDER C. PROUDFIT,
WM. E. HOLLAND.

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