N. E. RICE.

STOVE LID.

APPLICATION FILED JUNE 20, 1914.

1,140,529. Patented May 25, 1915.

Fig. 1.

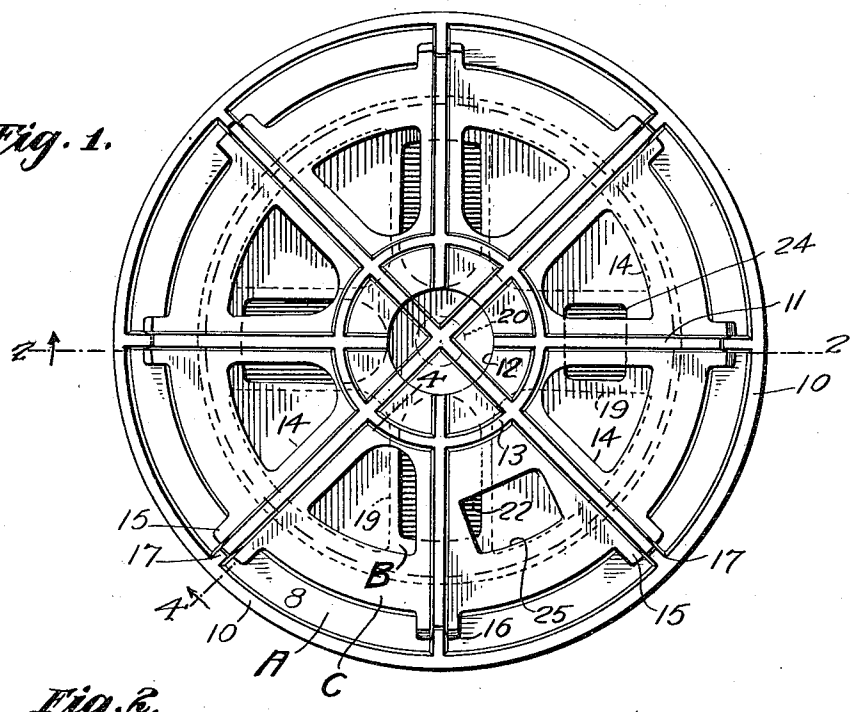


Fig. 2.

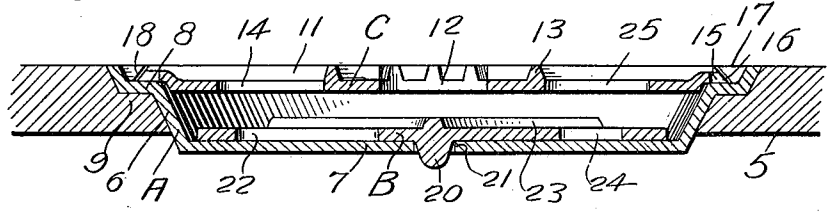


Fig. 3

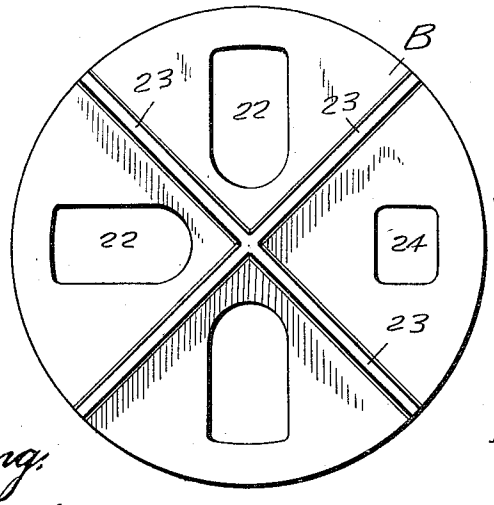
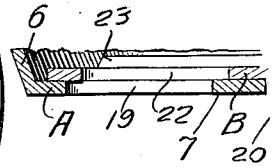


Fig. 4.



WITNESSES

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STOVE-LID.

1,140,529. Specification of Letters Patent. Patented May 25, 1915.

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To all whom it may concern:

Be it known that I, NORMAN E. RICE, a citizen of the United States, residing at Eureka, in the county of Humboldt and State of California, have invented a new and useful Improvements in Stove-Lids, of which the following is a specification.

This invention relates to stove lids, and more particularly to a lid adapted for use with wood and coal stoves or ranger of ordinary construction.

One of the principal objects of the invention is to provide a lid having means whereby the heat may be thrown into direct or indirect contact with a vessel supported on the lid.

Another object of the invention is to provide a lid of the class described, including a damper plate capable of adjustment whereby to regulate the amounts of direct heat contacting with the vessel.

A further object is to provide a stove lid having a removable top plate and damper, and means for interlocking the top plate with the lid whereby the parts may be lifted and moved about as a unit.

Still another object is to provide a lid of the class described so arranged and constructed that a vessel may be placed either in direct or indirect communication with the heat, and will be prevented from burning in either position.

A still further object of the invention is to provide a lid such as described, which will be extremely simple, durable, efficient in operation and inexpensive to manufacture.

With these and other objects in view which will become apparent as the description proceeds, the invention resides in the construction, combination and arrangement of parts, hereinafter more fully described and claimed, and illustrated in the accompanying drawing in which like characters of reference indicate like parts throughout the figures, of which—

Figure 1 represents a top plan view of a stove lid constructed in accordance with my invention. Fig. 2 represents a vertical transverse sectional view thereof taken on the plane indicated by the line 2—2 of Fig. 1. Fig. 3 represents a plan view of the damper plate, and Fig. 4 represents a fragmentary transverse vertical sectional view taken on the plane indicated by the line 4—4 of Fig. 1, the damper plate having been shifted to allow passage of heat directly therethrough.

Referring more particularly to the drawing, 5 indicates a stove top of ordinary construction and provided with the usual openings for the lids, and as shown in Fig. 2 my improved stove lid is adapted to be used with stove tops of ordinary construction, and includes a body A, comprising a side wall 6 and bottom 7; a damper plate B; and a top plate C.

The side wall 6 of the lid is circular or may be of any other preferred configuration and inclines outwardly from the bottom 7, and is provided at its upper edge with an upwardly extending overhanging flange 8 adapted to rest on the shoulder 9 formed in the lid opening of the stove top, and extending upwardly from the outer edge of flange 8 is an outer circular flange or rib 10. The side walls 6 and outer flange 10, are inclined outwardly to conform with the inclination of the edges of the lid opening in the stove top, and the outer edge of the flange 10 rests flush with the top as clearly indicated in Fig. 2, as do the ribs 11 provided on said top. Said ribs are disposed radially of the top plate, and are spaced equally apart, and extend from the outer edge of the plate to a central opening 12 provided therein, and provided on the top plate in concentric and spaced relation with opening 12 is a circular inner rib 13.

The top plate in the spaces between the radial ribs 11 and between the inner rib 13 and the outer edge of the plate is provided with a plurality of openings 14 which co-act with opening 12, for allowing heat to contact with the bottom of a vessel (not shown) supported on the lid. The diameter of the top plate is substantially equal to or may be slightly less than the diameter of the side wall 6 at its upper edge, and the plate is provided at spaced intervals with radially disposed outwardly extending lugs 15 alining with the ribs 11, and said ribs are extended to the edges of the lugs as clearly indicated in the drawing. Alternate lugs have their outer ends beveled off as indicated at 16, and flange 10 is provided at intervals with lugs 17 alternate ones of which are beveled as indicated at 18, to co-act with the outwardly beveled ends of the alternate lugs 15 whereby as indicated in Fig. 2 the top plate may be shifted so as to bring the alternate or locking lugs thereof into cor-

relation with the beveled lugs on the lid so as to interlock the plate and lid whereby they may be lifted and moved about as a unit. The lugs 17 are in the form of short ribs which normally are in alinement and form continuations of the radially disposed ribs 11 on the top plate.

The bottom 7 is flat, and is provided with a number of spaced substantially triangular openings 19, radially disposed with relation to the bottom, and a damper plate B is adapted to rest on the bottom and is provided centrally with a depending lug or pin 20, extending through an opening 21 centrally of bottom 7, whereby the damper plate may be rotated relatively to said bottom. The damper plate is also provided with a plurality of radially disposed substantially rectangular openings 22, which are of an area smaller than the area of openings 19 in the bottom, and which are of a width somewhat less than the width of the portions or web of the bottom occurring between the openings 19 therein, so that as will be readily understood the damper plate may be shifted either to bring openings 22 into registration with openings 19, or to bring openings 22 into registration with the portions disposed between openings 19, the first position allowing the heat to pass directly through the bottom and damper plate, and the latter position absolutely shutting off direct passage of the heat. Disposed at right angles to each other and diametrically with relation to the damper plate are a pair of cross ribs 23 which extend entirely across the damper plate and prevent the direct contact of a cooking vessel therewith, should the top plate be removed to allow the vessel to rest upon said damper plate. The damper plate is provided in lieu of one of the openings 22 with a stove lifter opening 24 and the top plate is also provided with a stove lifter opening 24 in lieu of one of the openings 14.

The lid may be used in its entirely assembled condition, or in a partially disassembled condition, and in the former case a cooking vessel will be supported by the radial ribs 11, the inner annular rib 13, and the outer rib or flange 10, and the heat either direct or indirect as will be hereinafter explained will pass upwardly through the openings 14 and the central opening 12, into contact with the bottom of the vessel, and as is shown the openings are so arranged that the vessel bottom will be quite uniformly heated, the heat being retained against the bottom and retarded in its escape by reason of the outer rib 10 and the inner rib 13. By shifting the damper plate B so as to bring its openings into registration with the openings provided in the bottom, it is evident that the heat from the fire box of the stove will pass directly upwardly through the openings in the bottom and the upper plate and the top plate, into direct contact with the vessel sustained upon the latter, and the vessel will hence be quickly and uniformly brought to a higher temperature.

By adjusting the damper plate with relation to the bottom the amount of direct heat admitted to the vessel may be regulated, so that a large or a small amount may be allowed to pass through the lid, or by shifting the damper plate so that its openings will pass beyond the openings in the bottom direct heating of the vessel will be entirely cut off, as will be readily understood, and the vessel will be heated through the medium of the hot air contained within the lid. The top plate may be unlocked and removed from the lid, and the vessel allowed to rest on the damper plate, and by the same adjustment of the latter the vessel may be subjected either to direct or indirect heat from the stove, and if desirable both the top plate and damper plate may be removed and the vessel be placed directly on the lid bottom, and when in this position the direct heat admitted to the vessel will be greater than when the damper plate is used for the reason that the openings 19 in the bottom are of a much larger area than openings 22. It will also be noted that the top plate may be used without the damper plate so as to allow a greater amount of direct heat to impinge against the vessel supported by the top plate.

From the foregoing description it appears that my stove lid is capable of extremely delicate adjustment to closely regulate the amounts of direct heat admitted to a cooking vessel, and that by manipulating the lid the vessel may be heated directly or indirectly as desired, and by reason of the ribs provided on the top plate and damper plate, the vessel will be supported out of direct contact with the heated metal forming the plates, and will thus be immune from burning.

Although I have described the preferred embodiment of my invention I may prefer to make such changes in the construction, combination and arrangement of parts thereof, as do not depart from the spirit of the invention and the scope of the appended claims.

I claim:

1. A stove lid including a body comprising outwardly inclined side walls and a horizontal bottom, an outwardly extending flange on the upper edge of the side walls, an upwardly extending inclined flange at the outer edge of the first said flange, a top plate provided with lugs adapted to engage the said first flange whereby the plate may be supported on the lid, said plate being disposed in spaced relation with the bottom, said plate provided with centrally

and with radially disposed spaced openings, radially disposed ribs provided on said top plate and extending from the outer edge thereof to the central opening, and being disposed between the radially disposed openings, an inner rib disposed concentrically and in spaced relation with the central opening and connecting the radially disposed ribs, a damper plate positioned on said bottom, said plate provided with a centrally disposed depending lug adapted to extend through an opening in the bottom, said bottom provided with a plurality of radially spaced openings, said damper plate provided with a plurality of radially disposed spaced openings of less area than the openings in the bottom, diametrically disposed ribs provided on said damper plate, and interlocking means provided on the top plate and outer flange.

2. A stove lid including a body having an upwardly extended marginal flange, a shoulder within the flange, a top plate adapted to rest on said shoulder, said top plate provided with a central and with a plurality of radially disposed spaced openings, radially disposed ribs provided on the top plate and extending from the central opening to the margin of said plate, an inner rib concentric with and disposed in spaced relation with the central opening, and interlocking means between the top plate and lid, said means including a plurality of outwardly extending lugs provided on the top plate and a plurality of inwardly extending lugs provided on the lid, said lugs adapted to be brought into engagement with each other for locking the plate on the lid.

3. A stove lid including a hollow body having a fixed bottom provided with openings, a removable top plate provided with openings and with upwardly extending ribs, and a damper plate disposed between the bottom and upper plate and movable relatively to the bottom, and provided with openings and upwardly extending ribs.

4. A stove lid comprising a hollow body having a fixed bottom, a plate forming the top of the lid, said plate being removable, means for locking the plate with the lid at will, and a damper plate positioned between the bottom and the top plates and movable relatively thereto, means for journaling the damper plate relatively to the lid, said damper plate, bottom and top plate provided with openings therein, said damper plate adapted to be adjusted for regulating passage through the openings.

5. A stove lid comprising a body portion, having a bottom provided with openings and a damper plate removably and rotatably disposed upon the bottom and provided with openings adapted to be moved into and out of registration with the openings in the bottom and further provided with a plurality of upwardly extending ribs.

6. A stove lid comprising a body portion having a bottom, a removable top disposed in spaced relation with the bottom, said top and bottom provided with openings, and a plate for regulating the draft through said openings, said plate provided with ridges adapted to receive utensils upon removal of the top.

7. A stove lid including a body portion having a bottom, a top plate, means for locking said top plate with the lid, a damper plate, means for rotatably positioning said damper plate relatively to the bottom, said damper plate being removable from the lid, said top plate and bottom and damper plate provided with openings, said damper plate adapted to be shifted for regulating the draft through the openings.

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