

No. 720,401.

PATENTED FEB. 10, 1903.

L. W. BROWN.

STOVE PLATE.

APPLICATION FILED MAR. 17, 1902.

NO MODEL.

Fig. 1.

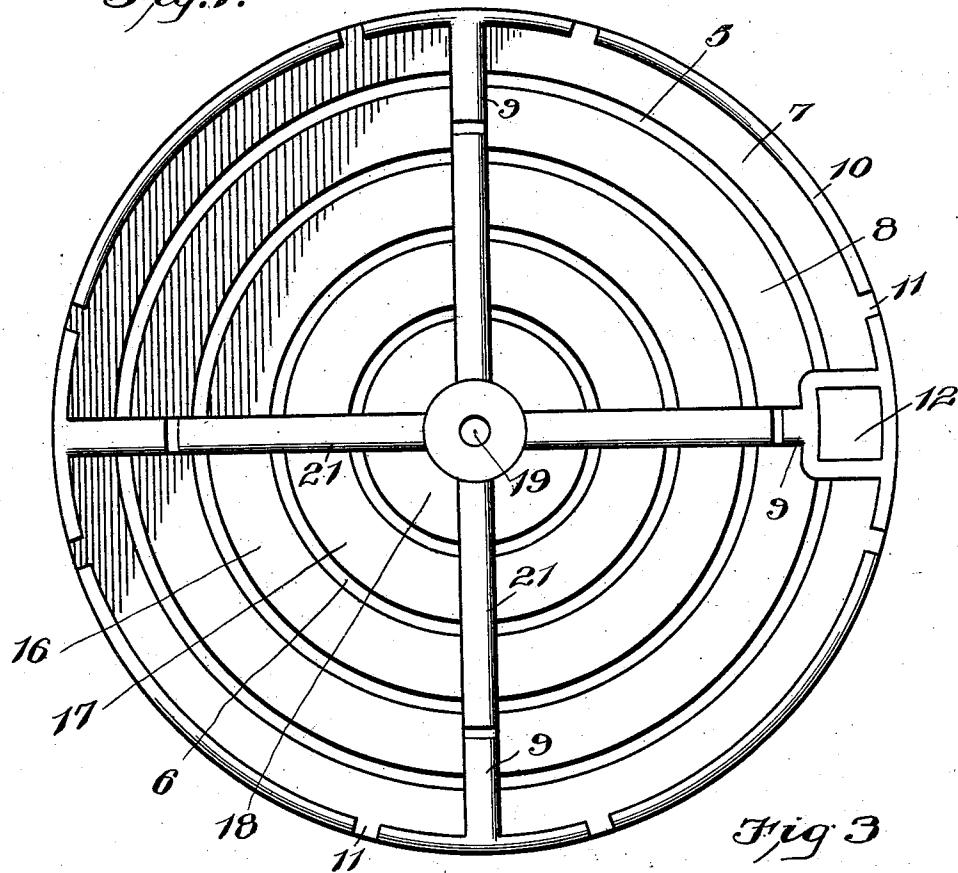
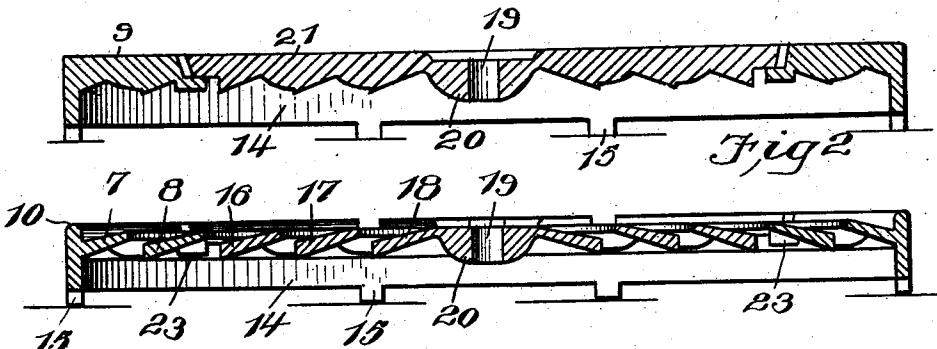


Fig. 3



Witnesses

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UNITED STATES PATENT OFFICE.

LEWIS W. BROWN, OF ST. LOUIS, MISSOURI.

STOVE-PLATE.

SPECIFICATION forming part of Letters Patent No. 720,401, dated February 10, 1903.

Application filed March 17, 1902. Serial No. 98,624. (No model.)

To all whom it may concern:

Be it known that I, LEWIS W. BROWN, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Stove-Plates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to stove-plates, and more particularly to that class used in connection with gas or oil stoves, wherein the cooking utensils are subjected to the direct action of one or more annular flames, the object of the invention being to provide a construction wherein the flame will be spread, so that the heat will be distributed over the bottom of the utensil.

20 A further object of the invention is to provide a construction which will not be cracked by unequal expansion of the different portions thereof.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top plan view of the plate. Fig. 2 is a central transverse section through the plate. Fig. 3 is a central transverse section through the plate in the plane of one pair of spokes of the members.

Referring now to the drawings, there is shown a plate comprising two major members or parts 5 and 6, of which the member 5 comprises an outer ring 7 and an inner ring 8, said rings being concentric and being sections of hollow cones of very little altitude, so that the upper and lower faces are both slanted and the outer edge of the upper face of the inner ring 8 is slightly below the inner edge of the upper face of the outer ring 7. Furthermore, it will be noted that the outer edge portions of the rings are thicker than the inner edge portions, the outer edge of the lower face of the inner ring extending below the inner edge of the lower face of the outer ring, so that a draft passing inwardly against the under face of the outer ring will strike the outer edge of the inner ring. The two rings are held rigidly together by spokes 9, which project upwardly from the upper faces of the rings and form

rests for a cooking utensil in connection with the flange 10, which extends upwardly from the outer edge of the outer ring 7. To permit the heat to pass outwardly from under the utensil, notches 11 are formed in the flange. One of the spokes 9 is broadened at its outer portion, and through it is formed an opening 12 for engagement of an ordinary form of lid-lifter. At the outer edge of the outer ring 7 is formed also a downwardly-directed flange 14, which is, in effect, a continuation of the flange 10, and which flange 14 is provided with downwardly-directed supporting-feet.

The inner or minor member of the stove-plate consists of two concentric rings or conical sections 16 and 17, similar to the rings 7 and 8, and a central disk 18, concentric with said rings, the outer portion of the upper face of the disk being slanted, as is also the outer portion of the under face of the disk, to correspond to the different conical sections. In the central portion of the disk is a perforation 19, and the upper face of the disk directly adjacent to the perforation is flat, while from the under side of the disk and at the edge of the perforation is formed a depending flange 20. The rings and disk of the minor member are connected by radial spokes 21, which are adapted to aline with the connecting-spokes of the rings of the major member, said spokes 21 projecting slightly beyond the outer ring of the minor member for engagement in sockets 23 in the upper face of the ring 8 to support the inner or minor member, so that the several rings of the two members will have the same correlation.

When the present plate is disposed upon the stove and a cooking utensil is placed thereon, said utensil rests upon the upwardly-directed flange and spokes or ribs and is supported above the upper faces of the rings. The flame from the stove is carried over the spaces between the rings by the draft which passes from the center outwardly, and the heat rises between the rings with a comparatively even distribution.

The stove-plate is made of iron, preferably, and of cheap cast material, and were it made in a single piece would be liable to crack, owing to inequalities of heat at different points of the plate. By forming the two members

separate each may expand and contract independently of the other, so that cracking is prevented.

In practice modifications of the specific construction shown may be made, and any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

- 1. A stove-plate comprising inner and outer members loosely assembled and each comprising a plurality of connected rings separated by heat-passages extending entirely through the plate.
- 2. A stove-plate comprising inner and outer concentric members, the inner member having radiating spokes slidably engaged with the outer member.
- 3. A stove-plate comprising a plurality of conical sections mutually connected at points and separated at other points by heat-passages extending entirely through the plate, the outer lower edge of each section depending below the inner low edge of the adjacent section.

4. A stove-plate comprising a plurality of concentric conical sections separated by interspaces, the upper and lower faces of each section converging in the direction of the axis thereof.

5. A stove-plate comprising a plurality of hollow conical sections separated by interspaces and disposed concentrically with the outer and lower edge of each section below the inner and lower edge of the adjacent section, the upper and lower faces of each section converging in the direction of its axis.

6. A stove-plate comprising concentric rings separated by heat-passages extending entirely through the plate, one edge of each ring extending below the other edge of the same ring and below the adjacent edge of the next ring.

In testimony whereof I affix my signature in presence of two witnesses.

LEWIS W. BROWN.

Witnesses:

P. P. TAYLOR,
L. E. TALLEY.