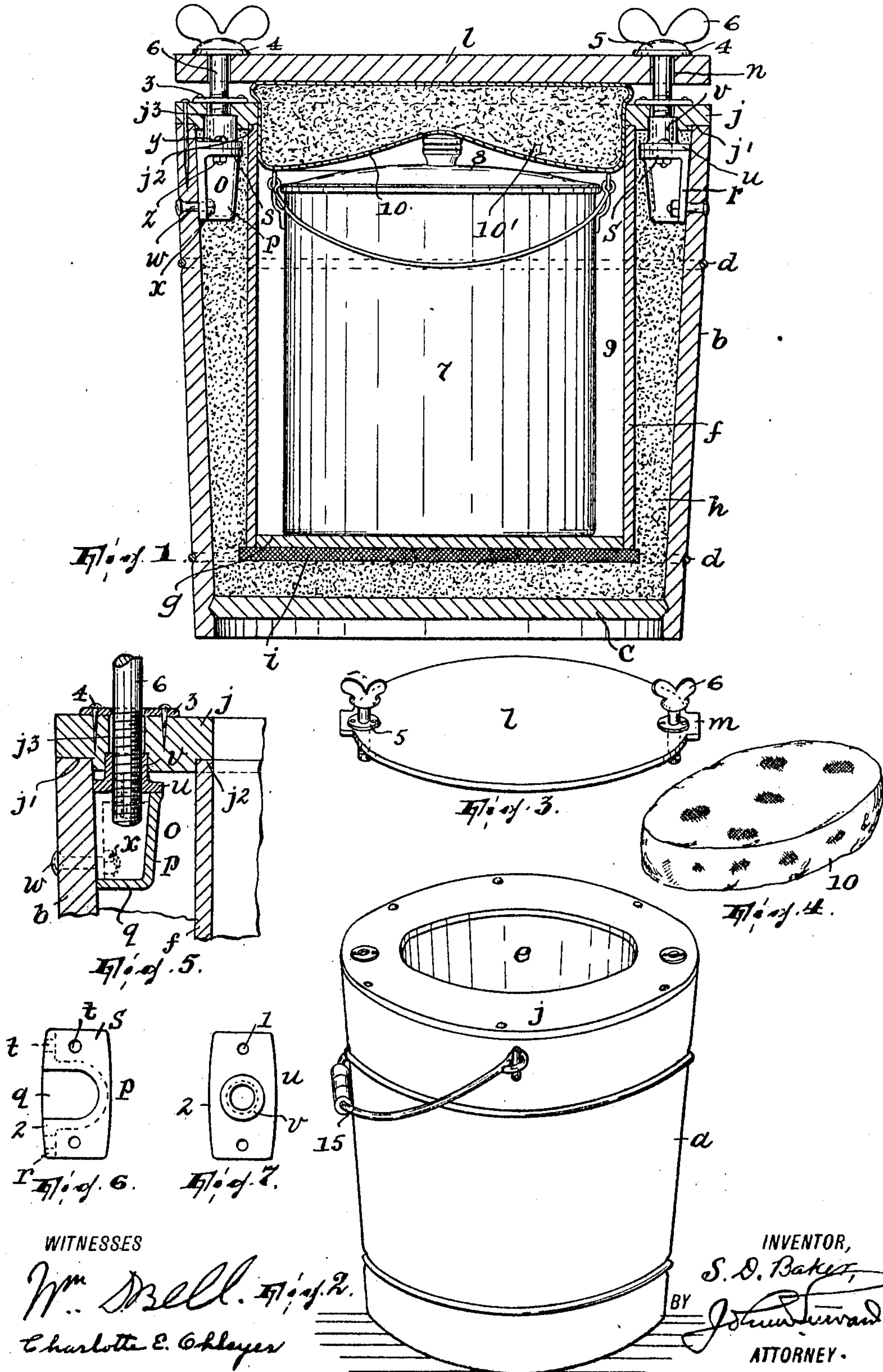


APPLICATION FILED FEB. 10, 1909.

950,589.

Patented Mar. 1, 1910.





# UNITED STATES PATENT OFFICE.

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FIRELESS COOKER.

950,589.

Specification of Letters Patent.

Patented Mar. 1, 1910.

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*To all whom it may concern:*

Be it known that I, STEPHEN D. BAKER, a citizen of the United States, residing in New York city, borough of Manhattan, New York, have invented a certain new and useful Improvement in Fireless Cookers; 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, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention relates to cooking apparatus and particularly to that class of such apparatus in which the cooking is effected by confining the heat of a cooking vessel whose contents have been initially heated to the necessary degree. In apparatus of this nature, the all-important feature is the isolation of its cooking space from external cooling influences.

The principal object of my invention is, therefore, to effect a substantially perfect insulation as between the cooking space and the atmosphere.

A further object is to accomplish this result in such manner as to make the apparatus simple in construction, inexpensive to manufacture, durable and not likely to get out of order, light and compact and readily accessible for the purpose of introducing thereto and removing therefrom the cooking vessel or its contents.

The invention will be found fully illustrated in the accompanying drawings, wherein,

Figure 1 is a vertical sectional view of the apparatus in the plane of the means for securing the cover in place, such means and the cooking vessel appearing in elevation; Fig. 2 is a perspective view of the apparatus with the cover removed; Fig. 3 is a similar view of the cover; Fig. 4 a similar view of a certain insulating pad which is disposed between the cover and the cooking vessel when the apparatus is in use; Fig. 5 is a vertical sectional view of that part of the apparatus comprising one of the means for securing the cover in place, the thumb-screw appearing in elevation; and, Figs. 6 and 7 are detail views of said means.

In said drawings, *a* indicates an outer receptacle formed of wood and comprising the

cylindrical wall *b* and bottom wall *c*, the former being preferably bound by the metallic bands or hoops *d*. Within this receptacle is another wooden receptacle *e* comprising the cylindrical wall *f* and bottom wall *g*. In the space between these receptacles is placed saw-dust or wood in any suitable comminuted form, indicated by *h*, the same being packed tightly in between the bottom walls *c* and *g* of the receptacles as well as between their cylindrical walls *b* and *f*. The inner receptacle, however, preferably rests directly upon a pad *i* of some suitable heat-insulating material, preferably asbestos, which in turn rests upon the underlying saw-dust.

*j* is a wooden ring, generally flat in form but having the rabbets *j'* and *j''* at its upper edges; this ring is secured, by nails or the like, against the top edges of the cylindrical walls of receptacle *a* and *e*, its rabbets receiving said top edges of the receptacles and coöperating with the saw-dust to hold the inner receptacle in spaced relation to the outer receptacle. It has the diametrically opposite holes *j'''*.

*l* designates the cover, the same being generally circular (or otherwise conforming to the opening in ring *j*) and having the diametrically opposed integral ears *m*, being penetrated by the vertical holes *n*. In order to secure this cover in place in a simple and effective manner having in view its quick application and removal and the prevention of the escape of the saw-dust, the following means is employed: A two-part hollow casting *o* is secured in the space between the receptacles and to the receptacle *a*; one part *p* of this casting is part-cylindrical in form, open at one end and closed by the wall *q* at the other or lower end, and it has the vertical wings or flanges *r* and the horizontal top wings *s*, such wings *r* and *s* being formed with screw-holes *t*, while the other part *u* of the casting is substantially a plate having a centrally located internally threaded boss *v* projecting upwardly therefrom. Screws *w*, having nuts *x*, are passed through the wall *b* of receptacle *a* and the holes in the wings *r*, securing the part *p* of the casting firmly to the receptacle *a*; similar screws *y*, having nuts *z*, are passed through the wings *s* of part *p* and suitable holes *1* in the plate of part *u* and clamp the two parts of the casting together. In plan, the outer face of



the casting appears as a convex curve 2 shaped to the same radius as that of the inside of receptacle *a*, so that the casting will bear squarely against the inside of receptacle *a*. It will be understood that the castings are arranged diametrically opposite each other. The lower ends of the holes *j*<sup>3</sup> of the ring *j* receive the bosses *v*, which snugly fit therein and whose internal diameter is slightly less than that of the holes. Over the holes *j*<sup>3</sup> are secured the escutcheons 3; over the holes *n* in cover 7 are secured the escutcheons 4. Thumb-screws 6 are adapted to be passed through the escutcheons 3 and 4 and screwed into the bosses, their shoulders 5 binding against the escutcheons 4 and drawing the cover down.

7 designates the cooking vessel, the same being, if desired, an ordinary tin pail having a cover 8 but being of such diameter as to leave an air-space 9 between it and the inner receptacle when it is introduced into the latter; such air-space of course affords a very considerable medium of insulation.

Over the vessel 7 and resting thereon is placed a thick insulating pad of such diameter as to fit the inner receptacle snugly even when not under compression; when the cover is applied, the pad being in place on the vessel 7, the thickness and diameter of the pad are such that upon turning down the thumb-screws the pad is not only expanded so as tightly to close the mouth of the inner receptacle but assumes a more dense condition, thereby fully closing off exterior cooling influences. The pad is further squeezed between the cover and ring *j*, thereby making the seal which it forms still more hermetic. The pad consists of a suitable flexible casing 10 stuffed preferably with saw-dust 10'.

The apparatus being formed mostly of wood, even with respect to its insulating media, possesses the highest insulating qualities and is, in addition, stout and durable. The sawdust being packed solidly in between the two receptacles, and each of the latter being rabbeted into the ring *j*, to which they are firmly secured by nails or the like, there is no opportunity for the parts to work loose or acquire undue play under ordinary handling. This effect is materially augmented by the asbestos pad *i*, which is a disk of relatively stiff material and of somewhat larger diameter than the bottom of receptacle *e*, so that it affords a good, substantial base for the latter in the underlying saw-dust. When the vessel is properly arranged in the inner receptacle, substantially centrally thereof, the superposed pad keeps it firmly in this position, so that the air-space 9, which is so important a medium of insulation as above stated, is maintained at a uniform width around the vessel.

The apparatus may be assembled as fol-

lows: A layer of saw-dust is first introduced sufficient to sustain the inner receptacle slightly higher, at its top, than the top of the outer receptacle; this layer being smoothed off, the asbestos pad is placed thereon and then the inner receptacle introduced and made to rest on the pad. The castings being in position, more saw-dust is now packed tightly in between the receptacles to a level with the tops thereof, whereupon the ring *j* is applied. When the ring has been properly secured in place, the inner receptacle will have been depressed somewhat, thus packing the saw-dust underlying the inner receptacle to the necessary denser state.

A suitable bail 15 may be attached to the outer receptacle, as shown in Fig. 2.

Having thus fully described my invention, what I claim and desire to secure by Letters Patent is:

1. The combination of a hollow structure comprising an inner and an outer receptacle arranged in circumferentially spaced relation to each other, said structure having the space between said receptacles closed at the top, castings arranged in the space of said structure and secured to one of said receptacles, the inner receptacle being open at the top, a cover for the opening in the inner receptacle, and means, penetrating said structure at the top thereof, and engaging said castings, for securing the cover in place, substantially as described.

2. The combination of a hollow structure comprising an inner and an outer receptacle arranged in circumferentially spaced relation to each other, said structure having the space between said receptacles closed at the top, and the inner receptacle being open at the top, a cover for the opening in the inner receptacle, and means, comprising parts permanently secured to one of said receptacles within said space and other parts adapted to be introduced through the cover and engage said first-named parts, for securing the cover in place, substantially as described.

3. The combination of an outer receptacle, an inner receptacle arranged in the outer receptacle and spaced therefrom at substantially all points, a ring closing off the space between said receptacles at the top thereof, said ring having holes therein, a cover closing the opening in the ring and also having holes adapted to register with the holes in the ring, and means, comprising parts secured to one of said receptacles within said space and closing the openings in the ring and other parts adapted to be introduced through the cover and the ring and engage said first-named parts, for securing the cover in place, substantially as described.

4. The combination of an outer receptacle, an inner receptacle arranged in the outer receptacle and spaced therefrom at substantially all points, a ring closing off the space



between said receptacles at the top, a com-  
minuted insulating packing filling said space  
in substantially all parts thereof, an insulat-  
ing disk disposed flat against the under side  
5 of and supporting the inner receptacle and  
being itself yieldingly supported by the un-  
derlying portion of the packing, and means  
for closing the upper end of the inner recep-  
tacle, said ring and the packing holding the  
10 inner receptacle and disk in spaced relation

to the outer receptacle, substantially as de-  
scribed.

In testimony, that I claim the foregoing I  
have hereunto set my hand this fifth day of  
February, 1909.

S. D. BAKER.

Witnesses:

CHARLOTTE M. BAKER,  
HARRIET L. MITCHELL.