

No. 767,622.

PATENTED AUG. 16, 1904.

U. ABDERHALDEN,
COOKER.

APPLICATION FILED DEC. 31, 1903.

NO MODEL.

Fig. 1

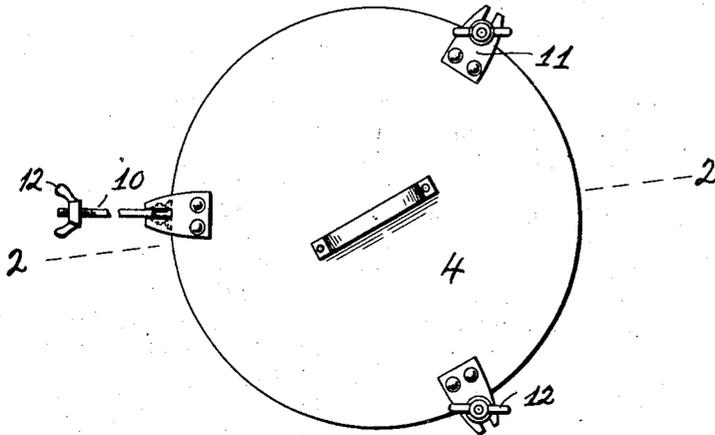
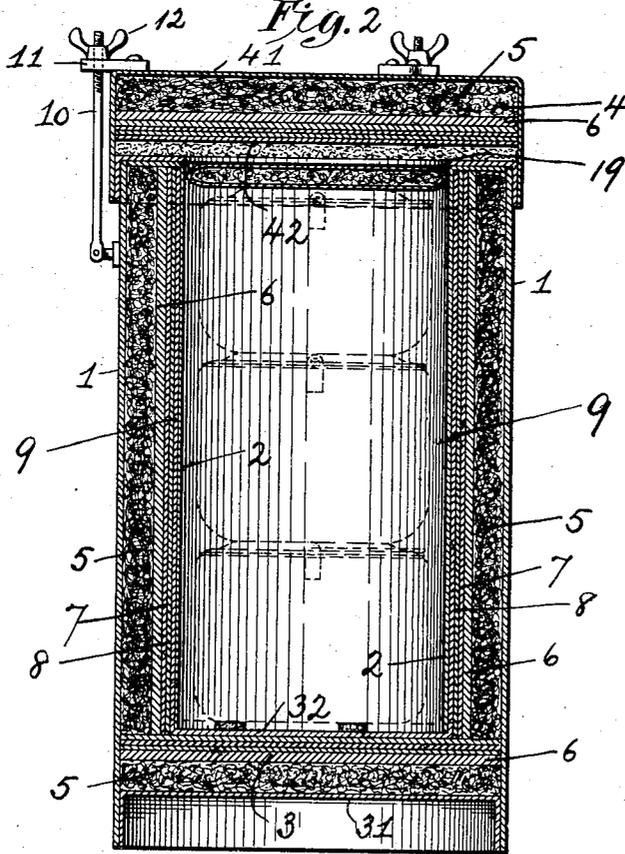


Fig. 2



Witnesses
E. J. Coe
B. J. Smith

Ulrich Abderhalden Inventor

By *His Attorney* *William R. Baird*

UNITED STATES PATENT OFFICE.

ULRICH ABDERHALDEN, OF JERSEY CITY, NEW JERSEY.

COOKER.

SPECIFICATION forming part of Letters Patent No. 767,622, dated August 16, 1904.

Application filed December 31, 1903. Serial No. 187,309. (No model.)

To all whom it may concern:

Be it known that I, ULRICH ABDERHALDEN, a citizen of Switzerland, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Cookers, of which the following is a specification.

My invention relates to cookers or heat-retaining apparatus; and its novelty consists in the construction, arrangement, and adaptation of the parts, as will be more fully hereinafter pointed out.

The apparatus to which my invention relates comprises, primarily, a hollow receptacle insulated from contact with the surrounding atmosphere by a suitable heat-non-conducting material and adapted to contain cooking vessels—for instance, pots in which have been placed materials to be cooked. These pots are heated and placed within the receptacle, which is then sealed up. The cooking operation then proceeds slowly but steadily with the heat already generated, because it is retained and not dissipated.

My invention relates more specifically to the means employed to insulate the interior of the receptacle from external influences.

In the development of my invention I first tried hair felt only, which I found would get wet from sweating. I then placed a layer of asbestos under the hair felt, which, however, did not prevent the hair felt from getting wet. I next placed a layer of wood between the asbestos and hair felt with better results; but even this did not overcome the difficulty. Then I used oil-cloth with the glazed side toward the asbestos, which was a success in as far as it kept the hair felt dry; but it was not sufficient to retain the heat, so I placed a layer of carpet-lining around this and next to this wooden boards, which not only kept the other materials in place, but also served as a further protection. In order to thoroughly protect it, I found it necessary to pack the space between the wood and outside casing with another material, for which I tried many things, including powdered charcoal, &c., and finally used the loose hair felt with wonderful success. This hair felt, with the materials arranged as above described, proved to be the

best substance to retain the heat within the cooker for a very long time, and the various layers arranged in the order given I have found will produce greatly-improved results over any other arrangement with which I am acquainted.

In the drawings, Figure 1 is a top plan view of a receptacle embodying my invention, and Fig. 2 is a central vertical section of the same, the contained cooking vessels being shown in dotted outline.

In the drawings, 1 is the outer shell of the receptacle, which in the form illustrated is made in cylindrical shape and is made of galvanized iron or other suitable material. 2 is the inner shell, made of the same or similar material. The bottom 3, which is made an integral part of the receptacle, is provided with a similar outer shell 31 and inner shell 32, and the top 4, which is removable, is similarly provided with an outer shell 41 and an inner shell 42. The shells 1 and 2 are united together in any approved manner, as by soldering or riveting, to form between them an annular hollow space, and similarly there is formed a hollow space within the bottom and the top. Within these hollow spaces are arranged the different packing materials, and it is to these that I direct particular attention, for the efficiency of the device depends upon them more than upon anything else. As all of the hollow spaces are similarly packed I will only describe in detail the packing between the shells 1 and 2, it being understood that the packing in the bottom and cover is essentially the same. Next to the outer shell is placed a layer 5 of haircloth loosely felted. This haircloth is not only a good non-conductor of itself, but the air confined in the interstitial spaces between the fibers is also a good non-conductor. Next to the haircloth is a lining 6, of wood. This is a good non-conductor, and it adds rigidity to the structure and by means of its inflexibility enables the haircloth lining 5 to be tightly packed between it and the outer shell. Next to the wood lining 6 is placed a layer 7 of carpet-lining. This comprises two sheets or more of unglazed paper, with a thin layer of felting between. These layers are porous and

will absorb any moisture which may possibly exist within or be generated within the apparatus. Next and within the carpet-lining is a layer of oil-cloth 8. This is practically impervious to air and moisture and prevents their outward passage. Finally and next to the inner shell is a layer 9 of asbestos. Each of these layers of materials performs, in effect, separate functions. The asbestos 9 is practically solely a non-conductor of heat. The oil-cloth 8 is a non-conductor, in a sense, of air which radiates outward from the asbestos and also prevents the passage of moisture. The carpet-lining is a moisture-absorber, the wood is a non-conductor and adds an element of rigidity, and the haircloth in the air-space confines the air and acts with it as a non-conductor.

A closely-felted pad 9 is interposed beneath the cover in packing the receptacle, and the cover is fastened down by means of threaded hinged bolts 10, engaging with slotted ears 11, secured to the cover and provided with wing-nuts 12.

The mode of using the apparatus is as follows: The materials to be cooked are placed in pots of any approved form and size and heated by any suitable means to an extent which for any particular decoction must be determined by prior experiment. The pots while yet hot are then closed and whether one or many are placed within the receptacle and the cover tightly closed. The heat being retained within the receptacle is not wasted by radiation and slowly cooks the contents of the pots.

Having described my invention, what I claim as new is—

1. In a device of the kind described, comprising an inner and outer shell, an inner lining or packing comprising a plurality of non-conducting materials, one of which is rigid,

another is impervious to air and a third impervious to moisture.

2. In a device of the kind described, comprising an inner and outer shell, an inner lining or packing comprising a plurality of non-conducting materials, one of which is rigid, another of which is adapted to contain and confine the air, a third of which is impervious to the passage of air and a fourth of which is an absorbent of moisture.

3. In a device of the kind described, comprising an inner and outer shell, an inner lining or packing comprising a plurality of non-conducting materials, the outer one consisting of loosely-felted haircloth, a next one of stiff wood and inner layers of soft materials adapted to prevent the passage of air or moisture toward the wood.

4. In a device of the kind described, comprising an inner and outer shell, an inner lining or packing comprising a plurality of non-conducting materials, the outer one consisting of loosely-felted haircloth, a next one of stiff wood, a third one of absorbent material, a fourth one of oil-cloth and an inner one of asbestos.

5. A device of the character described, comprising an outer metallic shell, an inner layer of stiff wood forming with the outer shell a dead-air space, loosely-felted haircloth in confined air in said space, a layer of carpet-lining adjacent to and inside of the wood, a layer of oil-cloth inside of the carpet-lining, a layer of asbestos inside of the oil-cloth, and an inner shell of metal.

Witness my hand this 21st day of December, 1903, at the city of Jersey City, in the county of Hudson and State of New Jersey.

ULRICH ABDERHALDEN.

Witnesses:

A. PENCKERT,
T. ALSTER.