

M. MURPHY.
VALVE FOR FIRELESS COOKERS.
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1,054,599:

Patented Feb. 25, 1913.

Fig. 1

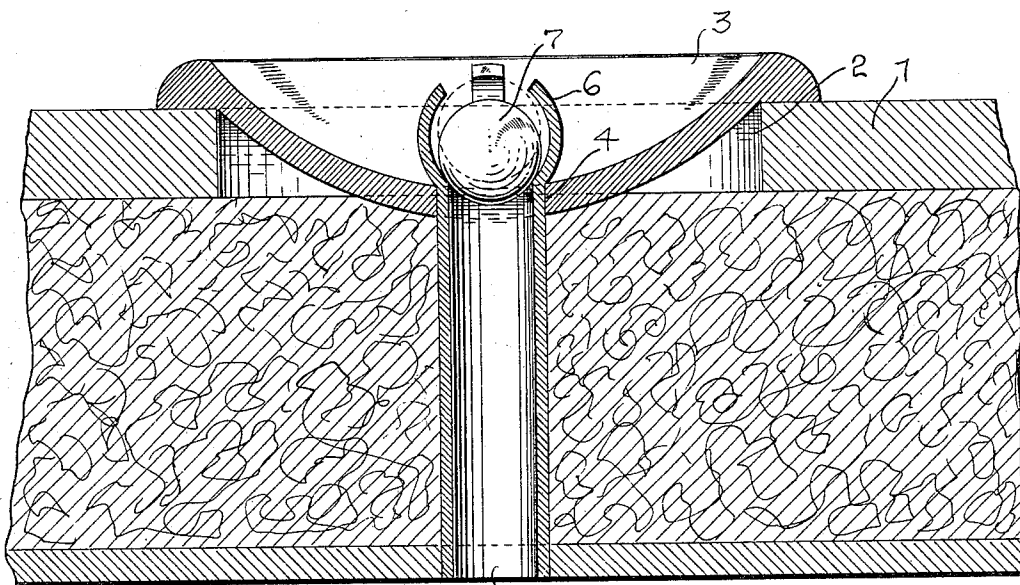


Fig. 2

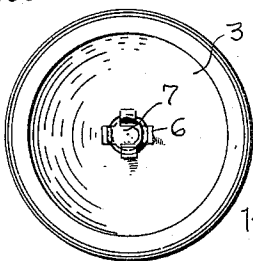


Fig. 5

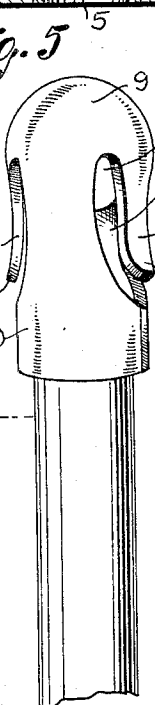


Fig. 6

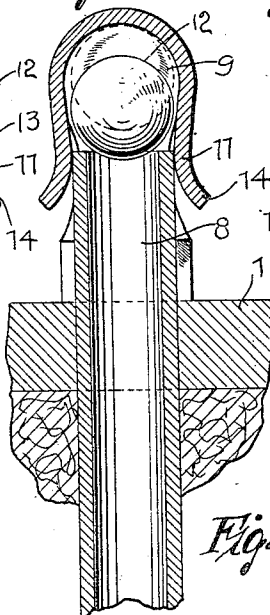


Fig. 7

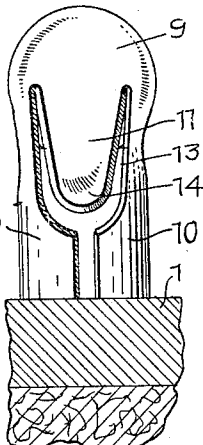


Fig. 3

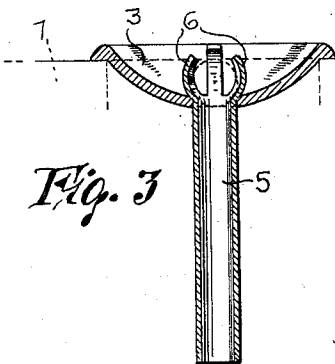
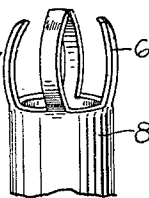


Fig. 4



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VALVE FOR FIRELESS COOKERS.

1,054,599.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MORTON MURPHY, a citizen of the United States, residing at Janesville, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Valves for Fireless Cookers, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to valves to be used in connection with fireless cookers, and the like, and has particularly for its object the production of a simple mechanism which may be easily cleaned and which will not be likely to become corroded.

Another object of this invention is the production of an efficient valve stem which is provided with means for preventing the slipping of said stem from the basin which is adapted to support the same.

Still another object of this invention is the production of a valve for a fireless cooker wherein the pressure may be retained within the cooker up to the weight of the ball used in connection with the valve.

With these and other objects in view, this invention consists of certain novel constructions, combinations, and arrangements of parts as will be hereinafter fully described and claimed.

In the drawings:—Figure 1 is a transverse section through the top of the fireless cooker showing the valve in connection therewith. Fig. 2 is a top plan view of the valve. Fig. 3 is a vertical section through the valve. Fig. 4 is a detail perspective of the upper end of the valve stem detached from the basin. Fig. 5 is a perspective of an embodiment of the valve used in connection with the present invention. Fig. 6 is a vertical section of the structure disclosed in Fig. 5. Fig. 7 is a side elevation thereof.

Referring to the accompanying drawings by numerals 1 designates the top of the fireless cooker which is provided with an opening 2 within which opening is seated a basin 3. The basin 3 is provided with centrally located aperture 4 through which passes the valve stem or body 5 which is formed in a tubular structure. The upper end of the body or stem 5 is split as illustrated in Figs. 1, 3 and 4, so as to form spaced fingers 6. These fingers 6 are bowed as illustrated so as to retain the closure ball valve 7. The

arms 6 are bowed upwardly at a point where they protrude through the aperture, and it will therefore be obvious that the bowed arms will resist any downward movement of the tubular body 5 within the fireless cooker. It will also be obvious that these bowed arms perform a two-fold function by supporting the tubular portion 5 in its place as well as acting as a pocket or shield for the valve ball 7. These arms 6 do not protrude above the top of the basin 3 and in view of this fact the arms will be shielded by the upper edge of the basin and will not be likely to come in contact with foreign objects thereby injuring the same.

The ball 7 will retain the steam within the fireless cooker to a certain pressure or according to the weight of the ball, but as soon as the pressure should rise above the weight of the ball, the ball will be raised from its seat and steam will then escape from under the ball and between the arms 6. By the use of the basin 3 steam will not pass out over the top of the fireless cooker so as to injure the material out of which the cooker is made, but all the condensed steam will fall within the basin.

In Figs. 5, 6 and 7, I have shown an embodiment of my invention wherein the tubular valve body 8 protrudes from the top of the fireless cooker and receives a cap 9. This cap 9 is provided with a pair of gripping jaws 10 which straddle the pipe or tubular body 8 and hold the cap 9 upon said body 8. The cap 9 is also provided with a pair of curved lips 11 which engage the upper end of the tubular body 8 and limit the downward movement of the cap 9 upon the body 8. Through the medium of these lips 11, it will not be necessary to adjust the cap 9 upon the tubular body 8 for these lips will act as a stop and support the cap in its correct position. A ball valve 12 is used in connection with the valve and normally rests upon the upper edge of the tubular body 8 for closing the passage therethrough. Of course, this valve may be raised within the cap 9 to the position as shown in dotted lines in Fig. 6 when the pressure within the fireless cooker should obtain the desired height and allow the escaping steam to pass out through the openings 13 formed between the lips 11 and the jaws 10. The lips 11 are curved radially outwardly at their lower ends as illustrated at 14 in Fig. 6 for facili-

tating the placing of the cap 9 upon the tubular body 8. By the use of the present structure it will be obvious that the cap may be readily removed from the body 8 thereby
5 allowing the valve to be easily cleaned provided the same should become corroded.

It will be obvious that I have produced a valve for fireless cookstove or cooker, to automatically relieve the excess steam pressure
10 in the compartment, or oven of a fireless cooker or cookstove, thereby preventing the steam or moisture from leaking out around the sides or edges of the cover of a fireless cookstove or cooker; also a valve which can
15 be adjusted to let the steam out of the compartment, or oven of a fireless cookstove, or cooker, thereby producing a dry, or practically dry heat necessary for baking and roasting; also a safety valve, which will
20 prevent the steam pressure in the compartment, or oven of a fireless cookstove, or cooker reaching a point of danger. It will be further obvious that I have produced a ventilating valve which may be applied to
25 any fireless cookstove or cooker in such a way that the cooker may be stacked conveniently without the removal of any of the parts of the ventilating valve which do not extend above the top or cover. The lower
30 end of the tube 5 extends through the cover and insulation and the end of the tube is joined or spun to the metal lining of the

cover, thereby making the joint steam and moisture tight.

What is claimed is:—

1. A valve for a fireless cooker of the class described comprising an elongated escapement tube, provided with outwardly projecting arms, said arms being bent outwardly on the arc of a circle so as to have
35 their upper ends extend inwardly, a basin engaging said escapement tube and straddling the same near the junction of said tube with said projecting arms, and said arms adapted to prevent the downward movement
40 of said escapement tube relative to said basin, and a ball valve carried between said arms and capable of having longitudinal movement relative thereto. 45

2. A valve for a fireless cooker comprising
50 an escapement tube, a basin, said escapement tube provided with a plurality of projecting arms, a ball carried by said escapement tube and larger than the circumference of said
55 escapement tube and fitted between said arms, said arms adapted to limit the downward movement of said escapement tube relative to said basin.

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

MORTON MURPHY.

Witnesses:

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