

H. A. WOODS.
CYLINDRICAL INSULATION.
APPLICATION FILED JULY 5, 1907.

932,080.

Patented Aug. 24, 1909.

Fig. 1.

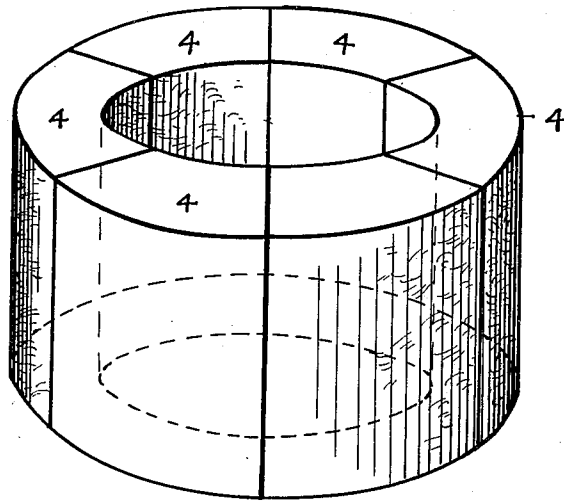
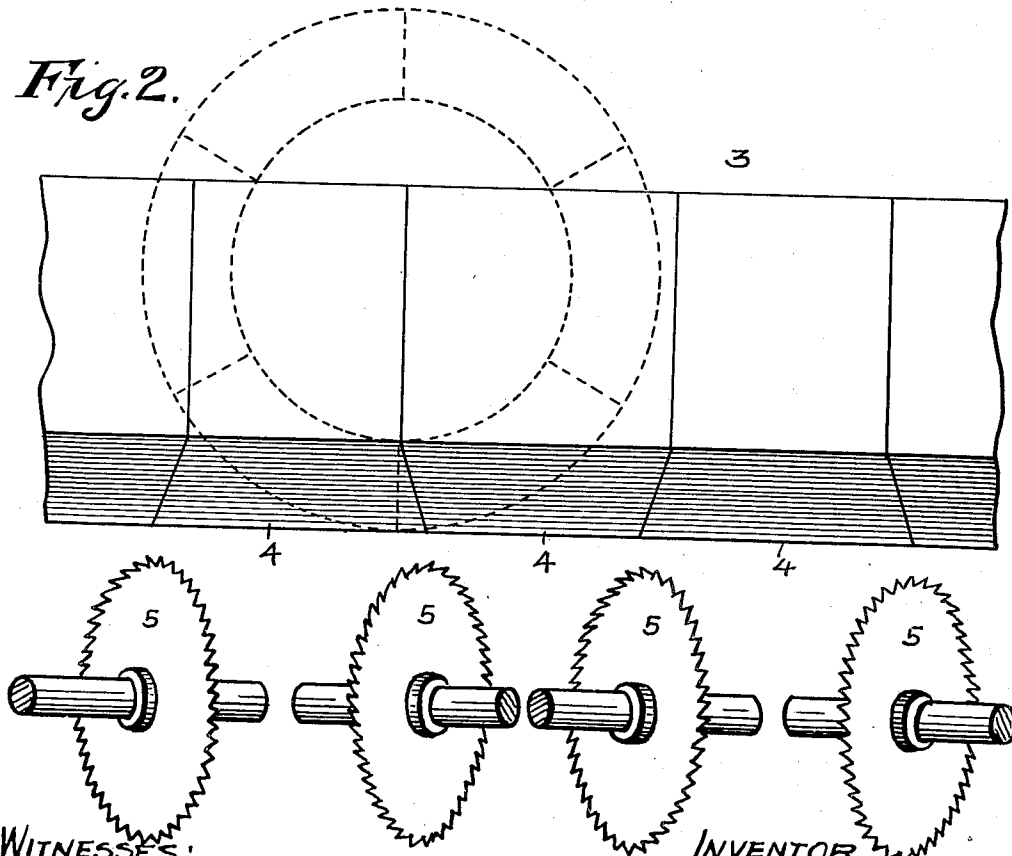


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HOMER A. WOODS, OF INDIANAPOLIS, INDIANA.

CYLINDRICAL INSULATION.

932,080.

Specification of Letters Patent.

Patented Aug. 24, 1909.

Application filed July 5, 1907. Serial No. 382,323.

To all whom it may concern:

Be it known that I, HOMER A. WOODS, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Cylindrical Insulation, of which the following is a specification.

This invention is applicable to many uses but specially relates to improvements in devices which are popularly known as "fireless cookers", in which the cooking vessel is insulated or surrounded by a wall of a material which is a poor conductor of heat. The side walls of this insulation are usually cylindrical in form and have heretofore been made by packing or filling a suitable material such as mineral wool into the space left between the sides of two concentrically placed metal drums of suitably different diameters to give the required thickness of insulation. A serious objection to this construction arises from the difficulty of getting the insulation of uniform density, and as any thin spots will cause a leakage of heat at the thin places the importance of getting walls of uniform thickness and density is apparent.

It is well known that flat "boards" of uniform density and thickness can be and are made of mineral wool and other approved insulating materials and the object of this invention is to provide cylindrical walls of insulation of similar uniformity of thickness and density and by similar, I mean that any cross sectional part of the cylindrical wall will be in density and thickness like every other cross sectional part of that wall.

Referring to the accompanying drawings, Figure 1, is a perspective view of my invention and Fig. 2, a diagram representing a flat board of insulating material from which the staves for my cylindrical walls of insulation are made with oblique saws in position to form the oblique kerfs separating the staves.

Like characters of reference indicate like parts throughout the two views.

My invention consists in first reducing

mineral wool or any good non-conductor of heat to a soft pliable pulpy condition. A layer of this of uniform density and suitable thickness, depending on the required thickness of the wall to be produced, is made and is subjected to heat under pressure until the mass has become dry and "set" in the form of a flat board capable of holding its shape during its subsequent handling and treatment. The board 3 thus produced is next cut into sections or "staves" 4, preferably by means of saws 5, in the manner as clearly illustrated in Fig. 2, wherein it will be seen that the board is cut into staves without waste of material. These staves are then assembled and bent to conform to the cylinder shown in Fig. 1 which is ready for use in the fireless cooking device in which it is designed to be used. This bending will reduce the area of the inner face of the stave and increase the area of its outer face, thereby condensing the insulation to a maximum degree at said inner surface and expanding it toward the outer surface. This variation in density and the bringing of the greatest density next to the interior of the cylinder adds to its heat retaining efficiency when used as a lining for fireless cookers.

Having thus fully described my invention what I claim as new and wish to secure by Letters Patent, is—

The process of manufacturing insulating cylinders which consists in reducing a material which is a poor conductor of heat to a soft pliable pulpy condition, then subjecting a uniform layer of that material to heat with pressure to form a flat board of uniform density, then separating the board by cuts diagonally of its sides, into staves and then bending the staves to a cylindrical shape to vary the density of the stave from inner maximum to outer minimum.

In witness whereof, I, have hereunto set my hand and seal at Indianapolis, Indiana, this 29th day of June, A. D. one thousand nine hundred and seven.

HOMER A. WOODS. [L. s.]

Witnesses:

F. W. WOERNER,
E. E. MILLER.