

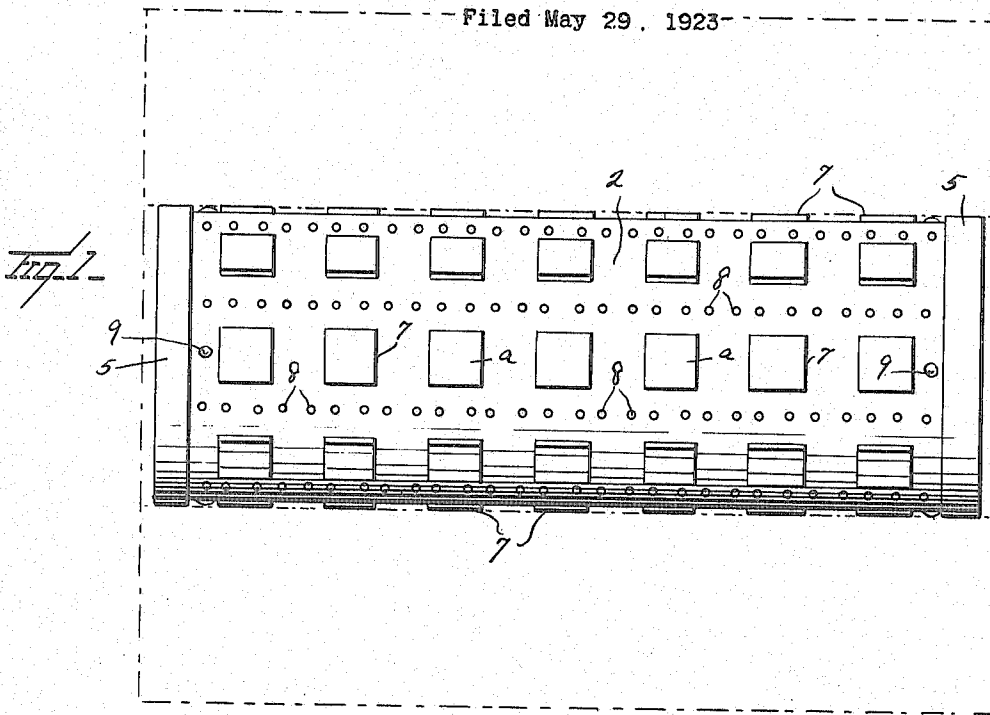
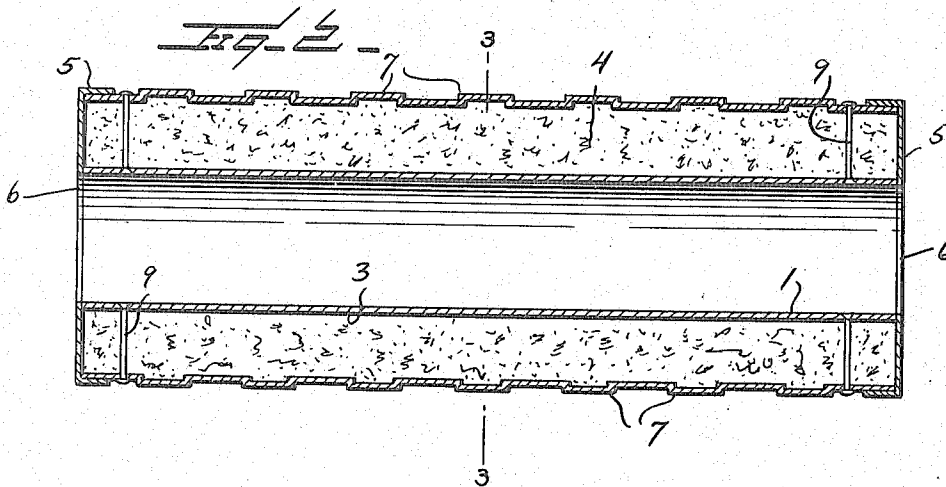
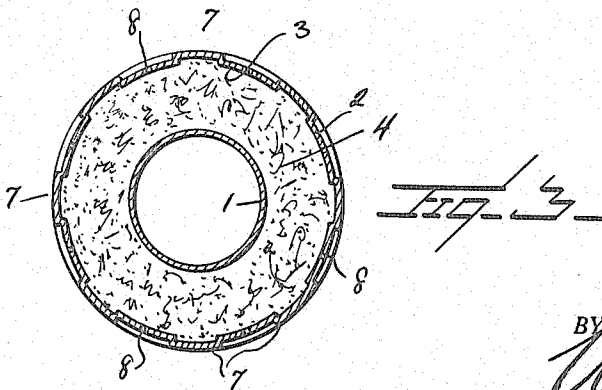
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G. J. RILEY

DIFFUSING APPLIANCE

Filed May 29, 1923



INVENTOR.

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UNITED STATES PATENT OFFICE.

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DIFFUSING APPLIANCE.

Application filed May 29, 1923. Serial No. 642,244.

To all whom it may concern:

Be it known that I, GEORGE JAMES RILEY, a citizen of the United States, residing at Manly, in the county of Worth and State of Iowa, have invented certain new and useful Improvements in Diffusing Appliances, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in diffusing appliances and it is an object of the invention to provide a novel and improved device of this general character adapted to contain a supply of sterilizing or medicating medium and which is adapted to be employed as a mandrel or roll for toilet paper.

It is also an object of the invention to provide a novel and improved device of this general character which provides means whereby toilet paper which may be effectively rolled or wrapped thereon may be thoroughly medicated or sterilized.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my diffusing appliance whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:—

Figure 1 is an elevational view of a diffusing appliance constructed in accordance with an embodiment of my invention, an associated paper roll being diagrammatically indicated by dotted lines;

Figure 2 is a longitudinal sectional view taken through the appliance as herein disclosed;

Figure 3 is a sectional view taken substantially on the line 3—3 of Figure 2.

As herein disclosed my improved diffusing appliance comprises a member 1 of desired length and which extends axially through an outer tubular member 2, said members 1 and 2 being substantially co-extensive in length with the interior diameter

of the outer member 2 greater than the maximum diameter of the member 1 whereby, when said members 1 and 2 are in assembled relation, an intervening space 3 is provided which is adapted to contain a filler 4 of a medicating or sterilizing character. The filler 4 may be in the form of powder, crystal, gelatin or the like but at no time liquid.

The member 1 is also preferably tubular so that when paper or the like is rolled about the assembled container, the same may be readily engaged with a holder of a type now generally in use. Associated with the opposite end portions of the assembled members 1 and 2 are the caps 5 herein disclosed as of a slip type, said caps 5 having central openings 6 registering with the ends of the member 1 but having imperforate portions bridging the space between said members 1 and 2 at the ends thereof. The periphery of the member 2 is provided with the protuberances 7 pressed or otherwise formed, said protuberances being of substantially the same diameter and of the same height or altitude. The outer faces α of the protuberances 7 are flat.

Between the protuberances 7 the wall of the member 2 is provided with the perforations or relatively minute openings 8 whereby the fumes of the filler 4 may readily pass into the spaces between the protuberances 7 and properly penetrate and impregnate the paper rolled around the assembled container or more particularly the outer member 2.

In practice it is preferred that the container be of a length less than the width of the paper rolled thereon so that the ends of said container are arranged slightly inwardly of the opposite sides of the roll.

At all times, though not essential, I find it of advantage to connect the adjacent end portions of the applied members 1 and 2 with the spacing elements 9 whereby it will be positively assured that the members 1 and 2 will be maintained in substantially fixed spaced relation.

While I have herein disclosed the members 1 and 2 as cylindrical in cross section it is to be understood that they may be otherwise formed if desired.

From the foregoing description it is thought to be obvious that a diffusing appliance constructed in accordance with my invention is particularly well adapted for use

by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:—

1. A diffusing appliance adapted to serve as a mandrel for a paper roll or the like comprising two members one disposed within the other and spaced therefrom, a filler of fuming material within such space, the peripheral wall of the outer member being perforated and also provided with protuberances.

2. A diffusing appliance adapted to serve as a mandrel for a paper roll or the like comprising two members one disposed within the other and spaced therefrom, a filler of fuming material within such space, the peripheral wall of the outer member being perforated and also provided with protuberances, said protuberances being of substantially the same altitude.

3. A diffusing appliance adapted to serve as a mandrel for a paper roll or the like comprising two members one disposed within the other and spaced therefrom, a filler of fuming material within such space, the peripheral wall of the outer member being perforated and also provided with protuberances, said protuberances being of substantially the same dimensions.

4. A diffusing appliance adapted to serve as a mandrel for a paper roll or the like comprising two members one disposed within the other and spaced therefrom, a filler of fuming material within such space, the peripheral wall of the outer member being perforated and also provided with protuberances,

said protuberances being of substantially the same altitude, the outer faces of the protuberances being substantially flat and imperforate.

5. A diffusing appliance adapted to serve as a mandrel for a paper roll or the like comprising two members one disposed within the other and spaced therefrom, a filler of fuming material within such space, the peripheral wall of the outer member being perforated and also provided with protuberances, said protuberances being of substantially the same altitude, said protuberances being imperforate.

6. A diffusing appliance adapted to serve as a mandrel for a paper roll or the like comprising two members one disposed within the other and spaced therefrom, a filler of fuming material within such space, the peripheral wall of the outer member being perforated and also provided with protuberances, and caps engaged with the opposite ends of the outer member and closing the space between said outer member and inner member.

7. A diffusing appliance adapted to serve as a mandrel for a paper roll or the like comprising two members one disposed within the other and spaced therefrom, a filler of fuming material within such space, the peripheral wall of the outer member being perforated and also provided with protuberances, said inner member being tubular.

8. A diffusing appliance adapted to serve as a mandrel for a paper roll or the like comprising two members one disposed within the other and spaced therefrom, a filler of fuming material within such space, the peripheral wall of the outer member being perforated and also provided with protuberances, and means coacting with said members for maintaining the same in substantially a fixed relation.

In testimony whereof I hereunto affix my signature.

GEORGE J. RILEY.