

Sept. 1, 1925.

1,552,082

G. J. RILEY

DIFFUSING APPLIANCE

Filed Oct. 14, 1924

Fig. 1.

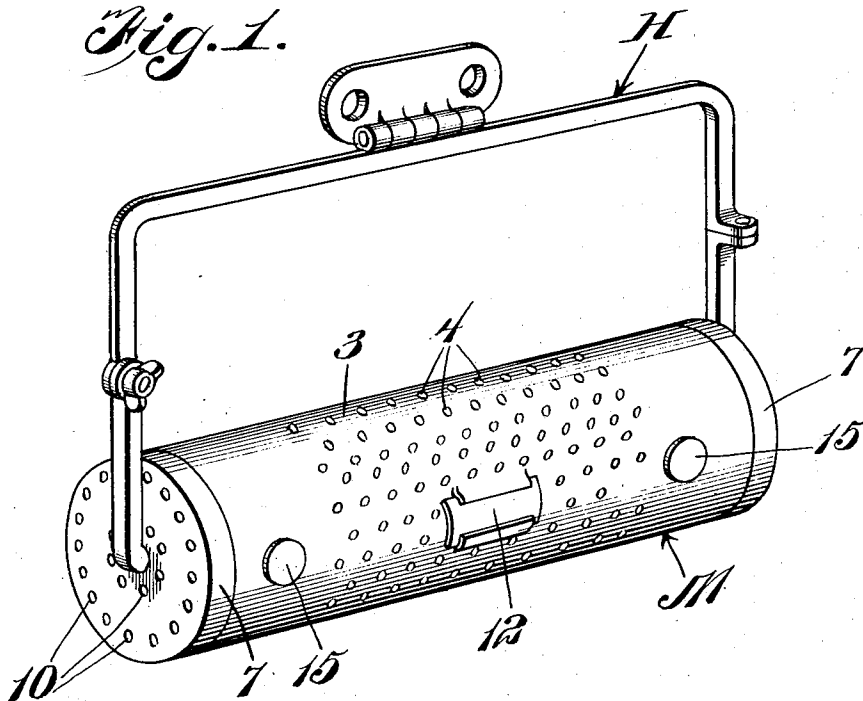
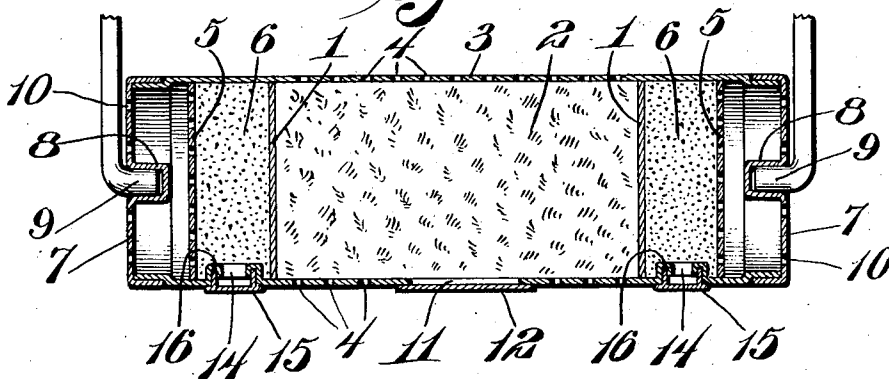


Fig. 2.



Inventor
George J. Riley
Watson E. Coleman
Atty

UNITED STATES PATENT OFFICE.

GEORGE J. RILEY, OF MANLY, IOWA, ASSIGNOR OF ONE-FOURTH TO WILBUR F. KELLER, OF MINNEAPOLIS, MINNESOTA; ONE-EIGHTH TO EDWARD C. REINDL AND ONE-EIGHTH TO M. J. MULLIN, BOTH OF MANLY, IOWA; AND ONE-EIGHTH TO FRANK J. HEDA, OF LE ROY, MINNESOTA.

DIFFUSING APPLIANCE.

Application filed October 14, 1924. Serial No. 743,628.

To all whom it may concern:

Be it known that I, GEORGE J. 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 kind adapted to contain a supply of sterilizing or deodorizing medium and which is adapted to be employed as a mandrel or roll for toilet paper, paper towels and the like.

Another object of the invention is to provide a novel and improved device of this general character embodying a tubular mandrel divided into a plurality of compartments adapted to separately contain a supply of sterilizing or deodorizing medium whereby the material disposed around or passing over the mandrel may be maintained in a highly sanitary condition.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved 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 a view in perspective illustrating a diffusing appliance constructed in accordance with an embodiment of my invention and operatively engaged with a hanger;

Figure 2 is a longitudinal sectional view taken through my improved apparatus as herein disclosed with portions of the hanger in elevation.

As disclosed in the accompanying drawings, my improved diffusing appliance com-

prises an elongated tubular mandrel M herein disclosed as cylindrical in form although I do not wish to be understood as limiting myself in this respect as it is to be understood that the mandrel may be of any cross sectional configuration as may best comply with the requirements of practice.

At a predetermined point inwardly of its opposite ends, the bore of the mandrel M is intersected by the imperforated partitions 1 providing a relatively large intermediate or central chamber 2 adapted to contain a supply of sterilizing material which may be in the form of powder, crystal, gelatin or the like but at no time liquid. The portion 3 of the mandrel constituting the peripheral wall of this intermediate or central chamber 2 is provided with the perforations or relatively minute openings 4 whereby the fumes of the sterilizing material may readily pass outwardly therethrough, and properly penetrate or impregnate the paper or other material disposed around or passing over the mandrel M.

Outwardly of each of the partitions 1 and at a predetermined point inwardly of the adjacent end of the mandrel M, the bore of the mandrel is intersected by a perforated partition 5 providing an end compartment 6 adapted to contain suitable deodorizing material which may be of any character other than liquid.

Each end of the mandrel M is closed by a cap 7 having its central portion provided with an inwardly directed socket or bearing member 8 to receive a trunnion 9 of a hanger or supporting member H and in a manner whereby the mandrel M is free to rotate. The body portion of the cap 7 is provided with the perforations or minute openings 10 so that the fumes emanating from the deodorizing material in the adjacent end compartment 5 may have desired escape to the atmosphere.

The peripheral wall 3 of the intermediate or central compartment 2 is provided with a filling opening 11 normally closed by the plate 12. The peripheral wall of each of the end compartments 5 is also provided with a filling opening 14 normally closed by the cap 15. The marginal portion of the wall defining such opening 14 being

formed with a groove 16 in which is received the flange of the cap.

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 comprising a tubular mandrel, spaced imperforated partitions within the mandrel to provide an intermediate chamber adapted to contain a

fuming material, the peripheral wall of said chamber being perforated, a perforated partition within the mandrel outwardly of each of the first named partitions to provide an end compartment adapted to contain a fuming material.

2. A diffusing appliance comprising a tubular mandrel, spaced imperforated partitions within the mandrel to provide an intermediate chamber adapted to contain a fuming material, the peripheral wall of said chamber being perforated, a perforated partition within the mandrel outwardly of each of the first named partitions to provide an end compartment adapted to contain a fuming material, the peripheral wall of each of said chambers being provided with a filling opening, and means for closing said opening.

In testimony whereof I hereunto affix my signature.

GEORGE J. RILEY.