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TOILET PAPER ROLL

Filed March 12, 1928

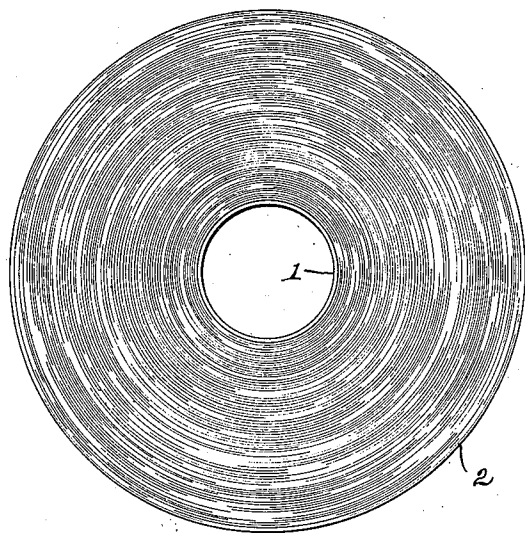


FIG. 1.

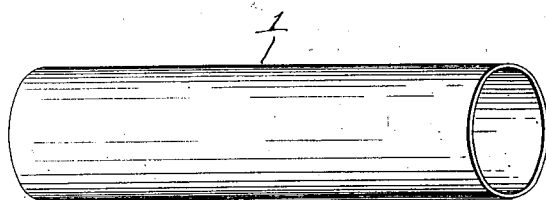


FIG. 2.

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TOILET-PAPER ROLL

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Rolls of toilet paper are usually wound upon a tube or hollow core of fibrous stock such as thick paper or cardboard and a great inconvenience and expense is incurred when through inadvertence, accident or mistake these cores are thrown into the toilet after the toilet paper has been used up, as these cores are extremely liable to lodge in the toilet waste pipe or connections, necessitating the employment of a plumber who, in many instances finds it necessary to disconnect the pipes and to often excavate in order to reach the obstruction and remove it.

It is the object of the present invention to obviate this danger of obstruction due to the throwing of these cores into the toilet and it is proposed to so form such cores and/or of such material that they will quickly disintegrate or become soluble in water and thus be quickly carried away with the flush of water.

With the above and other ends in view, the invention consists in the matters hereinafter set forth and more particularly pointed out in the appended claims, reference being had to the accompanying drawing in which

Figure 1 is an end elevation of a roll of toilet paper having a core embodying the present invention, and

Fig 2 is a perspective view of the core detached.

In the manufacture of toilet paper rolls, particularly where the paper is a thin tissue, it is necessary to provide a core upon which to wind the strip of tissue and this core must have sufficient rigidity to withstand the winding operation and also to hold the roll of paper against being crushed and distorted in shipping. These cores are usually formed of a heavy fibrous paper or cardboard which is wound and glued into tubular form, and the tissue then wound thereon. These cores because of their considerable size and because they do not readily disintegrate when soaked in water if they, by accident or otherwise get into the toilet bowl and are carried out by the flush water are very liable to lodge within the flush pipes or waste pipes leading to the sewer. In cases of such lodgement they form an ob-

struction in the pipe and the pipe then quickly fills up and it becomes necessary to, in some way, remove this obstruction. It is often necessary to disconnect the pipes and in some instances to excavate in order to reach that part of the pipe where the obstruction is located.

To obviate this trouble due to the lodgement of these paper cores, it is proposed to form such cores of a material which will quickly disintegrate and become soft and pliable when immersed in water and by breaking up into small particles which are readily diffused throughout the flush water, they pass off with the flushing. A core which is completely soluble in water quickly disintegrates when placed in the water contained in the flush bowl and should it be flushed out before it becomes dissolved in the water, it will be dissolved by succeeding flushes of water and pass off without forming an obstruction in the pipe and causing the same to become clogged so that it will be necessary to employ a plumber to remove the obstruction.

In the drawing "1" indicates this core which may be of any desired shape or construction and which is preferably formed of a material which is completely soluble in water, such as a core formed from bone gelatin, sugar, and gum arabic dissolved in water. "2" indicates the paper which is wound upon the core.

Obviously this core may be of any desired form but is preferably tubular in that a larger surface of the core is exposed to the flush water and the core will therefore be more quickly dissolved or disintegrated by the action of the water. It may, however, be found preferable to provide a solid core or one having an exterior configuration which is other than cylindrical and it is to be understood that such changes in the form of the core are contemplated, the principal feature of the invention being a core of any suitable form which is readily and completely disintegratable or dissoluble in water, and the use of any suitable material having these qualities is contemplated, such as a gelatinous substance formed from bone gela-

tin, sugar and gum arabic dissolved in water to provide a sticky fluid substance into which a suitable form may be placed to permit a coating to adhere to the surface thereof, the form withdraw and after partial
5 hardening of the coating, again inserted a sufficient number of times to form the desired thickness of material forming the tubular core. After hardening, this tubular core of material is removed from the form, and after
10 becoming thoroughly hard and dry, will have the necessary rigidity to form a core for the winding of the paper thereon but will readily dissolve in water. While I have
15 set forth a preferred material for the purpose, it will be understood that any suitable material falling within the terms of the appended claims may be used without departing from the spirit of the invention. I do
20 not therefore limit myself to the particular kind of material set forth or to the shape or construction of the core as shown.

Having thus fully described my invention what I claim is:

- 25 1. A toilet paper roll core formed of a material soluble in water.
2. A tubular core for toilet paper rolls formed of readily soluble material.
3. A toilet paper roll core of non-fibrous
30 material disintegratable in water.
4. A toilet paper roll core of gelatinous material.
5. A toilet paper roll core of non-fibrous material readily soluble in water to mix
35 therewith and pass off with the flow.

In testimony whereof I affix my signature.

JEPHTHA WADE DOTY.

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