Jan. 11, 1938. P. D. PARSONS 2,105,368

TOILET ROLL PACKAGE

Filed March 19, 1935

Fig. 1

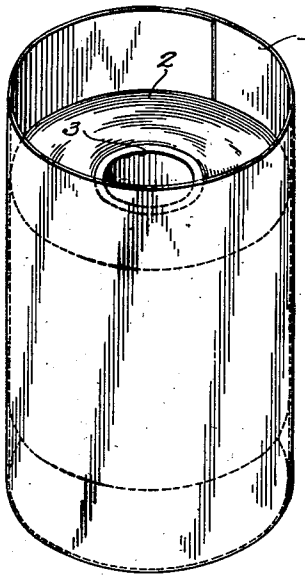


Fig. 2

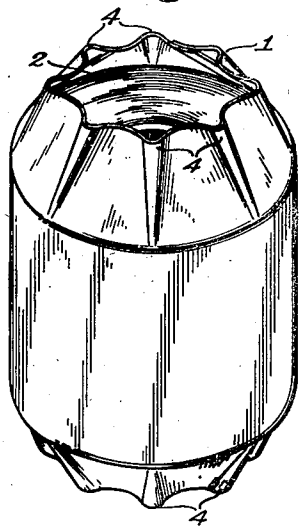


Fig. 3

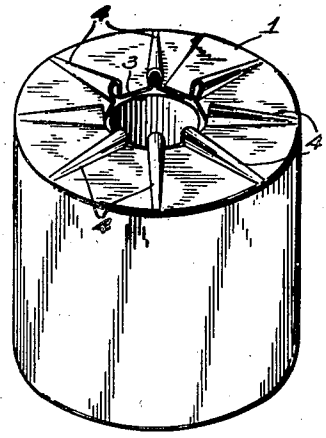


Fig. 4

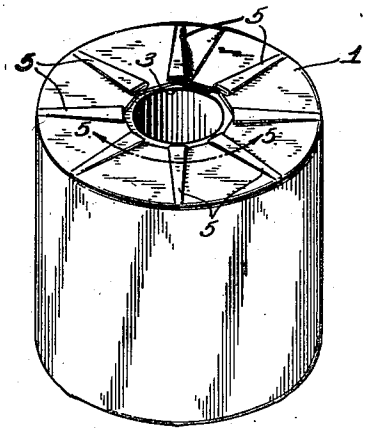


Fig. 5

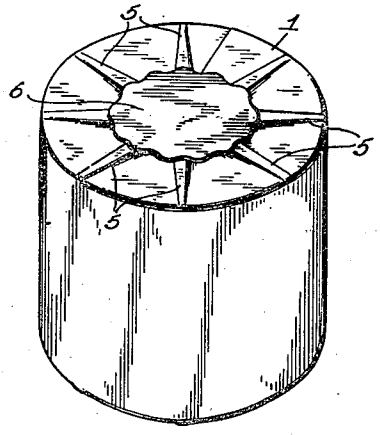
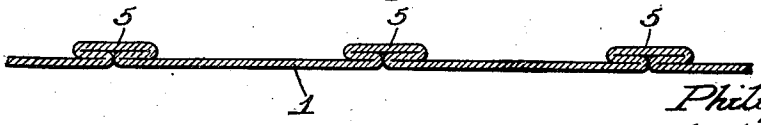


Fig. 6



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Patented Jan. 11, 1938

2,105,368

UNITED STATES PATENT OFFICE

2,105,368

TOILET ROLL PACKAGE

Philip D. Parsons, Swarthmore, Pa., assignor to Scott Paper Company, Chester, Pa., a corporation of Pennsylvania

Application March 19, 1935, Serial No. 11,878

1 Claim. (Cl. 206—59)

This invention has for its principal object the provision of an improved package for toilet and like rolls.

Considerable difficulty has been experienced in providing an efficient, sightly, and commercially practicable package for toilet rolls. Such rolls may vary appreciably in their degree of firmness and are irregular in form, and this lack of uniformity interferes with the application of the wrapper, particularly by machine operation which is essential when the package is to be produced on a commercial basis.

By the present invention I have provided a method readily adaptable to high speed machine operation which regardless of the usual variations in the form and firmness of the roll will produce a uniform flat-ended package of extremely neat appearance in which the roll itself is embraced by a substantially sealed envelope affording effective protection against changing atmospheric conditions, light and dust.

The invention will be readily understood from the following description and by reference to the attached drawing, in which:

Figs. 1 to 5 inclusive are views in perspective illustrating successive steps in the production of the finished package, the latter being shown in Fig. 5; and

Fig. 6 is a section on the line 5—5, Fig. 4.

In the production of a package in accordance with the invention, and as shown in Fig. 1, a wrapper 1 is applied to the cylindrical surface of the roll 2, the wrapper embracing the roll and projecting beyond both the end faces of the latter as shown. Preferably the wrapper is so proportioned with respect to the length of the roll that when the projecting ends of the wrapper are folded down against the end faces of the roll, as shown in Figs. 3 and 4, the edges will lie approximately at the edge of the cylindrical opening 3 defined by the tube upon which the roll is formed, although this is not essential to the practice of the invention. Preferably, also, the other edges of the wrapper are lapped, as shown in Fig. 1, and adhesively secured together to secure the wrapper on the roll and to produce a sealed seam.

Following application to the roll of the wrapper 1 as described the projecting ends of the wrapper are pressed down against the end faces of the roll, the pressure being applied in a plurality of areas spaced, preferably uniformly, around the circumference so that a series of outstanding narrow tucks 4 are formed in the wrapper, said tucks extending radially and decreasing in height from the free edges of the wrapper toward the outer circumference of the roll, at which position the upper edges of the tucks merge with the end surface of the roll, all as shown in Figs. 2 and 3.

In a subsequent operation the outstanding tucks are crushed down against the faces of the roll by pressure applied in a direction normal to the planes of said faces to thereby produce a series of box plaits 5 of the form shown in Figs. 4 and 6 which are symmetrical with respect to the longitudinal center lines of the individual tucks. These plaits, which lie flat against the faces of the roll, present an appearance similar to spokes emanating from the centers of the end faces of the roll and decreasing in width toward the periphery of the latter.

The package is completed by adhesively securing at each end of the roll a seal 6 which overlies and closes the ends of the cylindrical opening 3 and which serves also to retain the plaits 5 in position against accidental displacement and to effectively seal the ends of the packages. It will be noted that the tucks 4 and plaits 5 are relatively narrow and are separated even at their inner ends by areas of substantial width, and these areas being exposed for contact with the labels 6 afford an extended surface apart from and between the plaits to which the label may adhere.

This method of packaging and the package itself have many desirable and improved characteristics. The method, while useful for wrapping many articles of cylindrical form, is of particular utility in the packaging of toilet rolls. As previously stated, the method is adapted to rapid machine operation so that it may be conducted on a production basis and is therefore commercially practicable. The production by this method of toilet roll packages of uniformly neat appearance is not affected by the normal lack of uniformity in the roll itself, and in fact the method is productive of finished packages of great uniformity, since the pressure applied to the ends of the roll in forming the plaits and attaching the labels tends to compact the roll and to straighten any irregularities in the end surfaces which accordingly are rendered uniformly flat. This is of importance economically in that it simplifies the packing of the individual packages in the cartons and boxes in which they are normally distributed to the dealers and avoids the requirement for over-sized cartons heretofore found necessary for accommodating rolls and roll packages of non-uniform lengths. The

flat end surfaces have a further practical value in storing the packages since they permit arrangement thereof in stable stacks of considerable height from which individual packages may be withdrawn without danger of disturbing or upsetting the remainder of the stack. Also as previously set forth, the package is effectively sealed so that the contents is received by the consumer in sanitary and undeteriorated condition.

I claim:

A toilet roll package comprising a wrapper embracing the cylindrical surface of the roll, said wrapper extending beyond an end of the roll, and said extending portion of the wrapper being folded flat against the end surface, said folded portion of the wrapper being neatly fitted to said end surface by a uniformly spaced series of substantially symmetrical narrow and widely spaced radial box plaits, and a label overlying the inner ends at least of said plaits and being adhesively secured to the exposed surfaces of the plaits and to the portions of said wrapper between the plaits, said label thereby securely retaining the said plaits in position and effectively sealing the package.

PHILIP D. PARSONS.