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H. O. GRIMMEISEN

1,745,929

PACKAGE

Filed July 23, 1927

FIG. 1

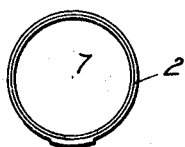


FIG. 2

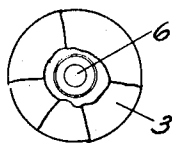


FIG. 3

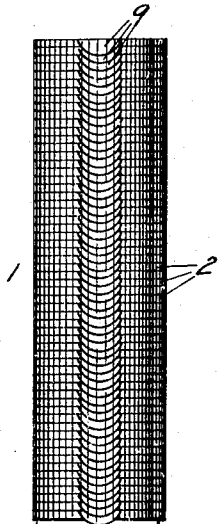


FIG. 4

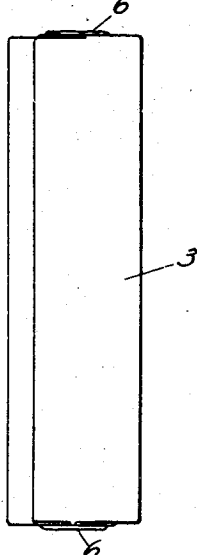


FIG. 5

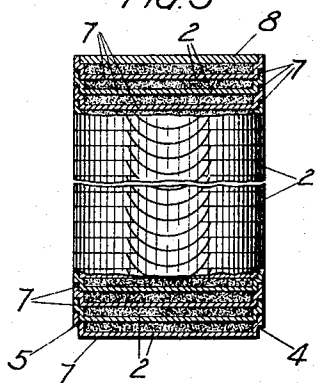


FIG. 6

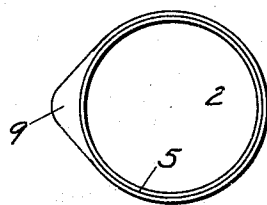
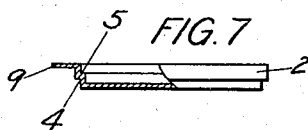


FIG. 7



INVENTOR.

Herman O. Grimmeisen,

BY

Frank A. Cutter,

ATTORNEY.

UNITED STATES PATENT OFFICE

HERMAN O. GRIMMEISEN, OF SPRINGFIELD, MASSACHUSETTS

PACKAGE

Application filed July 23, 1927. Serial No. 207,834.

My invention relates to improvements in packages and especially to those designed to contain tooth-paste or more or less similar material, and consists essentially of an air-tight cartridge made up of a plurality of shallow cover pans nested and held together by adhesive material, but capable of being individually or progressively separated, and a wrapper for said cartridge, together with such other parts and members as may be necessary or desirable in order to render the package complete and serviceable in every respect, all as hereinafter set forth.

The primary object of my invention is to produce a compact and convenient, sanitary package for containing separate and uniform quantities or portions of tooth-paste, or other soft substance or material, each portion being sufficient for one application, and wherein one container after another, after the contents thereof has been removed, serves as a cover for so much of the package as remains, such cover being torn off when the contents of the container immediately below is required.

With this package waste of the material contained therein is prevented, the package can always be kept in a condition of cleanliness, and by its use disease is prevented, and absolute sanitation secured.

Another object is to provide a package, of the character described above, which affords space for the reception of advertising matter.

The package may be made of any suitable shape in plan, but is preferably elliptical or cylindrical.

When the package is used for tooth paste, it is customary to construct the same to hold sixty portions or one month's supply of the paste.

Other objects and advantages will appear in the course of the following description.

I attain the objects and secure the advantages of my invention by the means illustrated in the accompanying drawings, in which—

Figure 1 is a top plan of the cartridge of a package which embodies a practical form of my invention; Fig. 2, a top plan of the complete package; Fig. 3, a side elevation of said cartridge; Fig. 4, a side elevation of said complete package; Fig. 5, an enlarged detail, in

partial section and with the intermediate portion broken out, illustrating in detail the construction of the cartridge; Fig. 6, an enlarged, top plan of one of the cover pans, and, Fig. 7, an enlarged, side elevation and partial section of said pan.

Similar reference characters designate similar parts throughout the several views.

This package comprises a cartridge 1 made up of a plurality of cover pans 2, and a wrapper 3.

Each of the cover pans 2 is a shallow container or receptacle of the proper size to hold a sufficient quantity of tooth-paste for one application of the same by means of a brush to the teeth. The pan 2 has an intermediate flange or shoulder 4 around the outside, and an intermediate flange or shoulder 5 around the inside, and the exterior and interior or upper and lower parts of the pan thus set off from each other, are so proportioned relatively that the lower part of one pan is adapted to fit snugly into the upper part of another pan below, said lower part being smaller in area than said upper part. In other words, when one pan is set into another, the shoulder 4 of the upper pan rests on the upper edge of the lower pan, and the bottom of the upper pan rests on the shoulder 5 in the lower pan. The space for the tooth paste or other material in each pan 2 is that below the plane of the shoulder 5 in said pan.

The pans 2 are filled and stacked and nested, in the manner just explained, and then cemented together by any suitable means and in any suitable manner, to produce the stable and air-tight cartridge 1. The adhesive material, by means of which the pans 2 are united, must be of a character to enable said pans to be separated one from another by the application of a little force, preferably, however, said pans are made of paper treated with wax, or other material, which is adapted, when heated, to soften, and then, when cooled to fuse and stick the pans together in cartridge formation. To this end, the pans are filled and stacked on an automatic packing machine, the stack is passed through a hot iron which causes the wax on the paper to soften and the wax on one pan to unite

with the wax on the next adjacent pan or pans, and the wax is permitted to cool. The wax in cooling hardens and sets, and thus forms adhesive integuments, represented by the heavy lines 7 in Fig. 5, between immediately adjacent surfaces of the pans, which integument binds the pans together. Each integument 7 consists of a combination of the wax coverings, coatings or layers on two adjacent pan surfaces, fused and thus united into a single layer. The integuments 7 excludes the air from the interiors of the pans.

After the cartridge 1 has been formed, the wrapper 3 is applied thereto, and the ends of said wrapper are turned over the ends of said cartridge and sealed, as indicated at 6—6, when the package is complete and ready for shipment and use.

The wrapper 3 affords ample space for directions, advertising matter, etc. to be printed thereon.

The uppermost pan 2 may be left empty and covered by the top folds of the wrapper 3, when said pan serves as a cover for the cartridge, but usually a paper disc or cover plate 8 is placed on the flange 5 in said pan, and the contiguous end of the wrapper is folded over onto said disc cover and sealed.

In practice, the wrapper 3 is first removed, then the cover 8 is disengaged and removed from the uppermost pan 2. The tooth paste, assuming such constitutes the contents of the pans 2, in the uppermost pan is next scooped out with a tooth brush and used for brushing the teeth. When the paste has been removed from the uppermost pan said pan is washed beneath a faucet, and becomes the cover for the remaining portion of the cartridge 1. This empty cover pan is disengaged when it is desired to obtain the paste from the pan immediately below, and removed from the cartridge, the operation of scooping the paste out onto the brush is repeated. The pan last emptied is washed and left as a cover, as before, until it is time to remove the contents from the third pan. These operations are repeated, the pans one after another being emptied, washed and torn off and discarded, until the bottommost pan is reached, the removal of the paste from which completely depletes the package. Thus provision is made for successively and progressively removing uniform portions of paste from the cartridge, which paste, prior to such removal, is retained in an absolutely sanitary condition.

In order to facilitate the removal of the cover pans 2 from the cartridge 1, each of said pans may be provided on one side at the top with a tab 9. The tabs 9 are folded down alongside of the pans 2 when said pans are formed into the cartridge 1, as clearly shown in Figs. 1, 3, and 5, then, as each pan is to be detached from the cartridge, the tab with which said pan is provided is turned upwardly and outwardly into an approxi-

mately horizontal position, as shown in Figs. 6 and 7, and so disposed serves as a ready and convenient handle to be grasped between the thumb and finger for the forcible removal of the pan.

More or less change in the shape, size, construction, and arrangement of some or all of the parts of this package, in addition to those hereinbefore mentioned, may be made, without departing from the spirit of my invention, or exceeding the scope of what is claimed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A package, of the class described, comprising a cartridge made up of stacked shallow pans having upwardly extending sides which are offset outwardly intermediate of their top and bottom edges for interengagement and nesting purposes, each of said pans containing a removable substance, and all being held together with adhesive material between the joints, but adapted to be progressively removed by rupturing said adhesive material at said joints between any two pans, said adhesive material rendering said cartridge air-tight, and a wrapper completely inclosing said cartridge and adapted to be removed therefrom.

2. As an improved article of manufacture, a package, of the class described, comprising a plurality of stacked shallow pans having upwardly extending sides which are offset outwardly intermediate of their top and bottom edges for interengagement and nesting purposes, each of said pans containing a removable substance, and all held together with adhesive material between their joints to form a unitary package which is air-tight, and wherein each pan, except the bottommost one, serves as a cover after the substance therein is removed, and is adapted to be torn off to expose the substance in the pan below, by rupturing said adhesive material at said joints between the two pans, and a cover plate receivable in the offset part of the uppermost pan, to be removed to afford access to the contents of said uppermost pan.

3. As an improved article of manufacture, a package, of the class described, comprising a plurality of stacked shallow pans having upwardly extending sides which are offset outwardly intermediate of their top and bottom edges for interengagement and nesting purposes, each of said pans containing a removable substance, and all being held together with adhesive material between their joints to form an air-tight cartridge, and wherein each pan, except the bottommost one, serves as a cover after the substance therein is removed, and is adapted to be torn off to expose the substance in the pan below, by rupturing said adhesive material at said joints between the two pans, a removable cover plate receivable in the offset part of the uppermost pan, and a removable wrapper

inclosing said cartridge and having its ends closed over said cover plate and under the bottommost pan.

4. As an improved article of manufacture, a package, of the class described, comprising a plurality of stacked shallow pans held together with adhesive material between their joints, and wherein each pan, except the last one, serves as the cover for the pan below, after the substance in said pan is removed, and is adapted to be torn off to expose the substance in the pan below, by rupturing said adhesive material at the joints between the two pans, said pans having tabs to facilitate the separation and removal of the same from the stack.

5. As an improved article of manufacture, a cartridge, of the class described, comprising a plurality of shallow pans adapted to be stacked and held together with adhesive material in cartridge formation, each pan containing a removable substance and each except the last one, serving as the cover of the cartridge, after the contents has been removed, and adapted to be torn off to expose the contents of the pan below, said pans having tabs to facilitate separation and removal of the same from said cartridge, and a removable wrapper inclosing said cartridge, said tabs being turned down against the side of the cartridge while the wrapper is in place.

6. In a package, of the class described, a plurality of stacked shallow pans having upwardly extending sides which are offset outwardly intermediate of their top and bottom edges for interengagement and nesting purposes, and adhesive material between the contiguous parts of said pans, which material is capable of being ruptured to enable one pan after another to be disengaged from the pan below.

7. As an improved article of manufacture, a package of the class described comprising in combination, a plurality of shallow pans disposed in stacked relation, each of said pans containing a removable substance and being provided with an upwardly extending offset rim for receiving the lower side of the pan next above whereby the pans are in contact with one another and each pan above the lowermost one serves as a cover for the pan next below, said pans being secured together by an adhesive to provide a unitary package which is substantially air tight whereby by rupturing said adhesive a pan may be removed from a pan therebelow to expose said substance therein.

HERMAN O. GRIMMEISEN.