

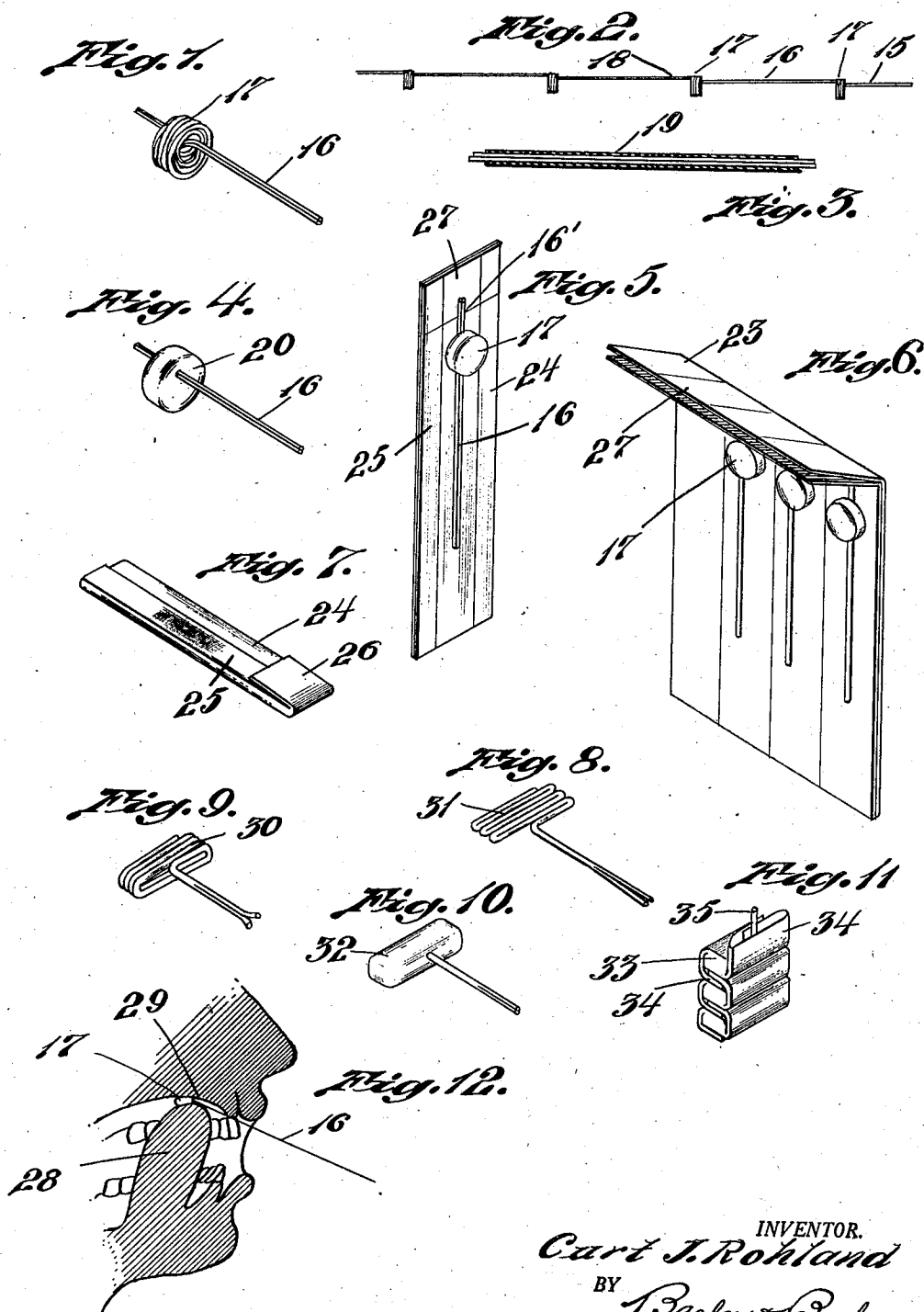
June 8, 1937.

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2,083,398

PACKAGE

Filed Feb. 6, 1934



UNITED STATES PATENT OFFICE

2,083,398

PACKAGE

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Application February 6, 1934, Serial No. 709,972

7 Claims. (Cl. 206-64)

This invention relates to a package of dental floss; and has for one of its objects the provision of such a package which will maintain the dental floss in a compact form and yet permit its ready withdrawal from the package upon pulling an end extending therefrom.

Another object of the invention is to maintain the dental floss in substantially its desired package shape until used.

Another object of the invention is the provision of a package in which the dental floss need not be touched by the fingers to place the same in the mouth.

Another object of the invention is the provision of a package of dental floss in a form which may be made mechanically without the same being touched by human hands during the formation of the package.

Another object of the invention is the provision of a package of dental floss which may be covered with a coating of sugar or other substance, to assist in maintaining it in shape and also to make the same more palatable.

A further object of the invention is the holding and wrapping of the dental floss in its package form in such a manner that the group of strands will be retained in rolled or package arrangement and in such a way that the same may be inserted in the mouth by manipulation of the outer wrapping of the package without the strands of dental floss being touched.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawing:

Fig. 1 is a perspective view of one form of package of dental floss showing a coil of strand material with the ends of the strand extended therefrom.

Fig. 2 illustrates a plurality of coils of material as they come from the winding machine and prior to severing into the individual packages.

Fig. 3 is an enlarged view of the strands showing the covering of wax thereon.

Fig. 4 is a perspective view of the package with a coating about the coils of the strand material.

Fig. 5 is a perspective view of the strand material as mounted upon a strip of two-ply wrapping material.

Fig. 6 is a perspective view illustrating a package of several individual strands.

Fig. 7 is a perspective view of the package of Fig. 5, in folded form.

Fig. 8 is a perspective view of the different

form of laterally disposed portion of the strand which forms a group, bunch or nucleus of the package.

Fig. 9 is a perspective view of a further modification of arrangement, showing a somewhat flattened helical coil.

Fig. 10 is a perspective view of the strands such as illustrated in Figs. 8 and 9 coated with a candy covering.

Fig. 11 is a perspective view illustrating a modified form of package.

Fig. 12 is a sectional view largely diagrammatic illustrating the manner of using dental floss for cleaning the space between two of the upper teeth.

It is often found desirable to use what is known as "dental floss" for cleaning the space between teeth after eating, which is accomplished by drawing a strand of material through the teeth. These strands are usually sufficiently soft to be broken upon excessive tension, but strong enough to be drawn through and remove any foreign matter which has lodged in the space between the teeth; and in the use of such material it is usually necessary to take hold of the strand and place it between the teeth, and further, some handling is necessary in the formation of the package or put-up of the dental floss; and in order that greater sanitary conditions may be had in the formation of dental floss for use and in the handling of the same, I have provided a package of dental floss which may be assembled mechanically and in the form of a coiled body of the strand of floss in lateral disposition and close adjacency, the coil being held in position by some retaining substance such as wax, applied thereto as a covering or coating; after which the strand may be mounted in a wrapper, which wrapper may be manipulated to place the same in the mouth without the user touching the floss; and if desired, I may coat the grouping of dental floss which is to be used with a coating of sugar or the like which also assists in maintaining the same in the form desired; and the following is a more detailed description of the present embodiment of this invention illustrating the preferred means by which these advantageous results may be accomplished:

With reference to the drawing, I have shown in Fig. 2 a strand 15 which at spaced points of possibly an inch and a half, is wound into a coil 17, mechanically, which coils are joined together by uncoiled lengths 16. This strand is severed adjacent each coil, such as the point 18 to leave a long length 16 on one side and a short length 16' on the other side.

The strand may be formed of two or more plies which operate and are treated together as a single part, such as illustrated in Fig. 1, and about this double ply strand there is provided a coating of wax 19 which is applied in plastic or semi-plastic condition as the strand is wound and then hardens upon the coil to maintain the strand in the coiled condition, such as illustrated at 17.

The coil forms the body part of the package and may consist of any lateral disposition of the strands in close adjacency to form a nucleus or bunch of strands so long as this grouping 17 is in such condition that upon pulling of the longitudinally extended portion 16 or 16' of the strand, it will run free from the group and not knot or snarl, but will pull into an elongated form, finally terminating at the point where it is cut off from the next group.

The body 17 may be coated such as by dipping 20 in a suitable solution to form a covering 20 thereon, which assists in maintaining the package in its assembled formation and also makes the same more palatable. This covering 20, of course, will be sufficiently frail so that upon pulling the portion 16 of the strand there will be no undue restriction by the covering 20.

The package so formed with its nucleus or body and extending ends, is then mounted upon a strip of paper 21 by means of the wax being sufficiently adhesive to stick thereto. Another ply of the wrapper consisting of another sheet of paper 23, such as tin foil is positioned along the outside of the ply 21 and the wrapper may then be folded by turning in its edge 27 over the body 17, then turning in its edges 24, 25, and 26, as illustrated in Fig. 7. When a plurality of packages 18 of the floss 17 are mounted in a single wrapper, by turning in the edge 27 over the package 17 there is no disturbing of these packages in the subsequent folding of the wrapper 21.

In use, it is merely necessary to unfold the package, such as illustrated in Fig. 7, into such position as illustrated in Fig. 5, to then insert the body portion into the mouth, as illustrated in Fig. 12, holding it in position with the tongue 28 against the roof 29 of the mouth, and by proper manipulation of the strand 16 it may be positioned in the space between two of the teeth, which space it is desired to clean, and by drawing the strand out of the mouth it will unfold from the body, and as it comes to the end of its length will be completely out of the space between the teeth, having carried the foreign matter therein collected from its position. If desired to extend the strand before positioning it in the mouth the opposite ends 16 and 16' will be grasped and pulled for this purpose.

In Fig. 9, I have illustrated the coil as in some different shape at 30 in a somewhat flattened helical arrangement while in Figure 8, I have illustrated at 31 the strand folded in a zigzag arrangement, each of these arrangements may be coated such as 32 in the form shown in Figure 10.

A modified form of package is shown in Figure 11 consisting of a body portion 33 with the ends 34 of the wrapping folded in opposite directions and with the strand portion 35 protruding from the package. These packages may be folded together with the ends 35 interlocking so that one may be lifted from the other, and by grasping the strand end 35 which protrudes from the package, it may be lifted from the next package, and upon shaking the end 35 it may be loosened and dropped off the package and the body portion 17 inserted in the mouth without handling other

than the protruding end 35. By these arrangements, I provide a compact package which may be formed without the touching by human hands and may be placed in the mouth also without touching, if desired.

The packages are of such form that they may be made by machine operation and wrapped without touching by human hands.

The wax on the strand is of such minimum amount as to just hold the strands in assembled form, and is flavored with mint or the like so as not to be unpalatable.

The foregoing description is directed solely towards the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

I claim:

1. A package of dental floss, comprising a strand of material laterally distributed in close adjacency with reference to the longitudinal axis of the package and also disposed longitudinally of the package for a portion of its length, said strand being coated with wax to maintain it in substantially said relation, and a wrapper for said strand adhering thereto by reason of the wax covering on said strand.

2. A package of dental floss, comprising a strand of material laterally distributed in close adjacency with reference to the longitudinal axis of the package and also disposed longitudinally of the package for a portion of its length, said strand being coated with wax to maintain it in substantially said relation, and a wrapper comprising two layers of sheet material for said strand adhering thereto by reason of the wax covering on said strand.

3. A package of dental floss, comprising a strand of material laterally distributed in close adjacency with reference to the longitudinal axis of the package and also disposed longitudinally of the package for a portion of its length, said strand being coated with wax to maintain it in substantially said relation, and a wrapper comprising two layers of sheet material for said strand adhering thereto by reason of the wax covering on said strand, said outer layer of sheet material being relatively stiff.

4. A package of dental floss comprising a strand of dental floss material having a body part and an extended part, said body part being in the form of a coil consisting of a lateral disposition of said strand of floss material in close adjacency, said coil having a covering for maintaining the coil in its assembled formation, said covering being sufficiently frail so that upon pulling the extended part of the strand while holding the coiled part the latter portion will be unraveled into an elongated form.

5. A package of dental floss comprising a strand of dental floss material having a body part and an extended part, said body part being in the form of a coil consisting of a lateral disposition of said strand of floss material in close adjacency, said coil having a coating for maintaining the coil in its assembled formation, said coating being sufficiently frail so that upon pulling the extended part of the strand while holding the coiled part the latter portion will be unraveled into an elongated form.

6. A package of dental floss comprising a strand of dental floss material having a body part and an extended part, said body part being in the

5 form of a coil consisting of a lateral disposition
of said strand of floss material in close adjacency,
said coil having a wax coating for maintaining
the coil in its assembled formation, said coating
being sufficiently frail so that upon pulling the
extended part of the strand while holding the
coiled part the latter portion will be unraveled
into an elongated form.

10 7. A package of dental floss comprising a
strand of dental floss material having a body part

and an extended part, said body part being in
the form of a zigzag coil consisting of a lateral
disposition of said strand of floss material in close
adjacency, said coil having a covering for main-
taining the coil in its assembled formation, said
covering being sufficiently frail so that upon pull-
ing the extended part of the strand while hold-
ing the coiled part the latter portion will be un-
raveled into an elongated form.

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