ABSTRACT OF THE DISCLOSURE

A container and dispenser for dental floss comprising a receptacle containing a roll or spool of the floss and provided with a closure plate formed with an outlet opening through which the floss is drawn and the cover plate is also provided with one or more slits in its edge, each slit having relatively rough or ragged edges, so that a section of the floss, emerging from the outlet opening is entered into one or the other of the slits and a pull exerted on the floss will cause its severance. The parts of the slit or slits are so positioned that the fingers cannot be injured when handling or using the device.

It is an object of the invention to provide a device of this character from which the floss can be conveniently extracted in required lengths and severed from the roll; in which the cutting or severing instrumentalities will have their elements disposed within the confines of the body of the container and the possibility of an injury from projecting elements eliminated.

With these and other objects to be hereinafter set forth in view, I have devised the arrangement of parts to be described and more particularly pointed out in the claims appended hereto.

In the accompanying drawings, wherein illustrative embodiments of the invention are disclosed:

FIG. 1 is a top plan view of a dental floss holder and dispenser embodying the present invention;

FIG. 2 is a plan view of a portion of the closure plate showing the floss-severing slit or tear therein;

FIG. 3 is an elevational view of the dispenser, looking at the corner slit and groove;

FIG. 4 is a sectional view, taken substantially on the line 4—4 of FIG. 2, looking in the direction of the arrows;

FIG. 5 shows how the dispenser is used;

FIG. 6 is a sectional view, taken substantially on the 6—6 of FIG. 1, looking in the direction of the arrows;

FIG. 7 is a perspective view of another embodiment of the invention;

FIG. 8 is an enlarged view of a portion of the closure plate of the container shown in FIG. 7, showing one of the tears or slits forming the cutting means;

FIG. 9 is a side view of a closure plate of the type embodied in the construction of FIG. 7;

FIG. 10 shows the closure plate and its attached roll support, and

FIG. 11 is a sectional view, taken substantially on the line 11—11 of FIG. 7, looking in the direction of the arrows.

Referring to the drawings, and more particularly to FIGS. 1 to 6 thereof, there is therein shown a small, compact dental floss container and dispenser which is of generally known construction. It is provided with a container body 1, which may be composed of metal, plastic or other suitable material and which is relatively shallow and houses a small, flat roll 4 of the dental floss.

The container body 1 is provided at the top with a continuous inturnd, marginal flange 2, which extends over and confines the metal closure plate 3. At one of its corners the closure plate 3 is provided with an aperture or hole 5 extending through it and constituting an outlet for the dental floss 6 which is drawn from the roll 4 that is freely rotatable within the container while the floss is being withdrawn.

Located in a diagonally opposite corner of the closure plate 3 is a notch leading to a tear or slit 11 and constituting the cutting or severance means for the floss. Co-operating with the notch 7 and the slit 11 in the corner of the container body is, a slot or groove 8. The notch 7 and the resultant slit 11 may be formed in a number of ways, one way consisting in slitting the closure plate inwardly from its edge and then twisting the parts of the plate located on the opposite sides of the slit, in opposite directions. This results in oppositely-directed wings 9 providing the entering notch 7 and a slit 11 leading from the apex of the notch. In the enlarged view of the notch 7 and the associated slit or tear 11, the rough or ragged edges of the slit 11 are shown and the roughness of these edges is a desirable factor since they serve as abrading or severing means when the floss moves into the slit or tear 11.

The manner in which the dental floss is severed from the roll is clearly shown in FIG. 5. The floss 6 is pulled through the aperture 5 to the desired length and is drawn at an angle across the upper surface of the plate 3 and entered into the notch and tear 11 coinciding recess 8. The floss is pulled down perpendicularly from horizontal for severance and by a pull exerted on it the severance will occur.

As disclosed in FIG. 8 and as heretofore mentioned, the slit or tear 11 has irregular or roughened edges 20 and as the floss is pulled through the tear 11 these edges frictionally contact with the floss and cause the severance of the same. Thus, a slight pull on the floss is all that is necessary to cause the severance of it. The edges of the notch 7, leading into the slit or tear 11 are so disposed that they lie below the surrounding marginal flange 2 and therefore the fingers are protected.

In the embodiment of the invention shown in FIGS. 7 to 11, the container indicated at 21 may be of the rectangular form shown, the same containing the roll 22 of floss. The floss is carried by a frame 12, provided at the top with a plate 13 serving as the closure plate for the container 20. The frame 12 includes a boss 23 for centrally supporting the roll 21 of floss.

The floss drawn from the roll passes through a centrally located hole 14 in the plate 13. At each end, the plate 13 is slightly upturned as shown at 15 and formed in each of the upturned ends 15 is the notch 7 and slit or tear 11. Below each of the notches and slits is a groove or recess 16 provided in the opposite end portions of the container body. The container body may be provided at its opposite ends with rounded projecting ribs or enlargements 17 in which the grooves or recesses are formed.

With this construction, the floss drawn from the roll and emerging out of the central hole 14 may be severed by entering it into either one of the slits. The floss thus can be moved in either direction as indicated by the arrows in FIG. 7. The provision of a cutter at each end of the closure plate 13 has certain advantages, one of which is that the device can be used with ease by both right-handed or left-handed individuals. The slots or recesses 16 in the rounded ribs 17 and the upturned ends on the closure plate and in which the tears or slits are formed, enables the floss to be severed by a pull on the floss at a relatively slight angle as distinguished from a direct downward pull on it. This is particularly advantageous when the device is mounted in a drawer where
only slight angularity of the floss during the severance is possible.

With the described devices, the severance of the floss is easily done. With the device of FIG. 7, the floss can be brought to either end of the container and drawn down into the tear thereat and a slight pull exerted on it to cause the severance. Since the severance takes place between the rough or jagged edges of the slit the cutter requires no upstanding or projecting sharp elements or blades, the slight twisting of the sides of the slit forming only confined elements which do not project above the flange 2 nor above the upper edges of the body of the container 1, and protection for the handler of the device is thus assured.

Having thus described embodiments of the invention, it is obvious that the same is not to be restricted thereto, but is broad enough to cover all structures coming within the scope of the annexed claims.

What I claim is:

1. A dental floss container having a body holding a roll of dental floss, the body having a closure plate provided with an aperture through which the floss is withdrawn from the roll, the container body having a groove and the closure plate having a notch leading from a slit coinciding as to location with the groove whereby a length of the withdrawn floss extended into the groove will be severed by its engagement with the slit.

2. A dental floss container according to claim 1, wherein the container has corners, the aperture being provided at one corner of the closure plate and the slit being provided in the opposite corner.

3. A dental floss container according to claim 2, wherein the groove in the container body is located at the corner of the container at which the slit in the cover plate is located.

4. A dental floss container according to claim 3, wherein the edges of the slit are jagged for the severance of the dental floss.

5. A dental floss container according to claim 1, wherein the closure plate has notches and accompanying slits at its opposite ends.

6. A dental floss container according to claim 5, wherein the closure plate is an elongated metal strip and has an outlet opening for the floss located between the slits.

7. A dental floss container according to claim 5, wherein the ends of the closure plate in which the slits are formed are slightly upturned.

8. A dental floss container according to claim 1, wherein the closure plate is an elongated metal strip, the opposite ends thereof being slitted inwardly, and the ends of the container behind the slitted parts of the closure plate being grooved to coincide with the slits and such ends being projections extending from the opposite sides of the container.

9. A container and dispenser for dental floss comprising, a flat, substantially square shallow container in which a roll of dental floss is housed, the container having a closure plate, a flange extending around the top of the container and confining the closure plate behind it, the plate having an opening at one of its corners through which floss is drawn from the roll, a cutter for the floss consisting of a tear in the closure plate extending inwardly from one edge thereof and having rough edges between which the floss is entered to be severed by its frictional contact with such edges, and a groove in the container in registry with the tear to thereby permit the entry of the floss into the slit.

10. A container and dispenser for dental floss comprising, a container body closed at the top by an elongated closure plate, a roll of dental floss within the container, the plate having a central hole through which the dental floss drawn from the roll emerges, each of the opposite ends of the closure plate having an inwardly directed slit constituting severance means for the floss, and each of the ends of the container being grooved behind the slits.

References Cited

UNITED STATES PATENTS

1,707,619 4/1929 King
2,340,184 1/1944 Gray 225--33
2,633,776 9/1953 Roschow 225--44 X
2,967,651 1/1961 Zechheim et al. 225--80
3,246,815 4/1966 Aronson 225--44

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U.S. Cl. X/R.
225--44, 47, 80