July 16, 1940. G. SUMMERBELL 2,207,953

DENTAL FLOSS HOLDER

Filed Feb. 6, 1939

Fig. 1

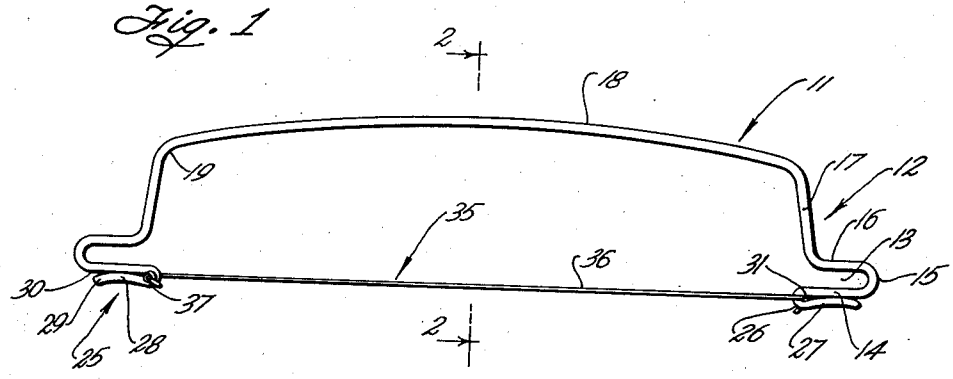


Fig. 2

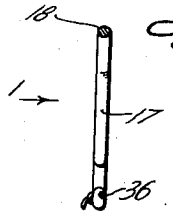
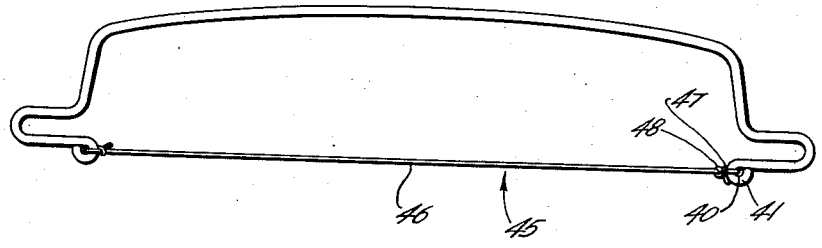


Fig. 3



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DENTAL FLOSS HOLDER

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4 Claims. (Cl. 132—91)

My invention relates to an inexpensive resilient holder for dental floss preferably formed of wire bent to form handles or finger grips at each end so that the device is reversible in use. The holder has a sufficient bow or bend from the handle ends to develop the resiliency and leave a sufficient space so that the floss can be worked readily between the teeth. Another feature of my invention resides in bending the wire at the ends with a U shaped bend in the plane of the bow to form the finger grips and this also adds to the resiliency giving an outward tension on the floss, the floss being secured to one of the arms of the U shaped finger grip. A further detail feature of my invention is in the construction of the gripper for the end of the floss. In one form the wire is bent to form a jaw adjacent one arm of the U shaped finger grip end, this jaw being resilient so that the floss may be pulled inwardly from the U portion of the bend of the finger grip and the end of the jaw and fit in a slightly open eye at the base of the jaw. The floss preferably has a knot formed therein so that the knot pulls against one side of the eye preventing the floss pulling completely through the eye of the jaw, both ends of the floss being secured in the same manner by having knots therein.

In another form of my construction the eye is formed at the inner end of the U shaped finger grip portion of the device by a curl of the wire and the floss is tied to such eye, there being a similar connection at both ends of the holder.

My invention is illustrated in connection with the accompanying drawing, in which:

Fig. 1 is a side elevation of one form of my invention taken in the direction of the arrow 1 of Fig. 2.

Fig. 2 is a vertical section on the line 2—2 of Fig. 1 in the direction of the arrows.

Fig. 3 is an elevation similar to Fig. 1 showing a modified form of attaching eye for the floss.

In the construction of Figs. 1 and 2 the holder 11 is provided with two similar end structures 12 each of which has a U shaped finger grip or handle end 13. The holder is made of wire so that the finger grip may be considered as having a lower arm 14, a reverse bend 15 and an upper arm 16 from which there is an upwardly and inwardly sloping spacing section 17 of the wire. These two spacing sections are connected by a bow or arched portion of the wire 18, there being a curved corner 19 between the spacing section 17 and the bow.

The jaw construction 25 utilizes the arm 14 of the handle, the wire having a reverse bend 26 and a resilient jaw 27, this jaw having an inwardly curved portion 28 adapted to contact the arm 14, the outer or tip end 29 being flared, leaving a slight space 30 between this outer end and the arm 14. There is thus formed an eye 31 adjacent the reverse bend 26 and the adjacent portions of the jaw 27 and the arm 14.

The dental floss 35 has a stretched section 36 extending between the jaws and through the eyes 31 where the end portions of the floss each have a knot 37, the knot being of sufficient size to catch at the eye 31 and prevent the floss being drawn out of the eye. The knots if desired may be formed before the floss is adjusted in position and such floss when drawn into the space 30 and wedged against the outwardly curled portion 29 bends this portion and the center part 28 slightly outwardly in reference to the arm 14, thus slipping into position in the eye 31 and the knot becoming caught on one side of the eye. The holder however has sufficient resiliency so that the two ends may be bent or forced slightly together in order to facilitate tying the knot in the floss and after one end is fitted, fitting the other end of the floss in position.

In the construction of Fig. 3 the bow portion and finger grip ends are made the same as shown in Figs. 1 and 2, however in this case an eye 40 is constructed by providing a circular bend 41 of the end portion of the wire. In this case the floss 45 has the central portion 46 stretched between the finger grip ends and has a loop 47 extending through the eye, such loop being formed by having a knot 48 which may be a slip knot on the floss, thus forming a bight or eye on the end of the floss.

Various changes may be made in the details of the construction without departing from the spirit or scope of the invention as defined by the appended claims.

I claim:

1. A device as described comprising in combination a holder element formed of a single strip of wire having at least one finger grip end formed by a U shaped bend of the wire with the reverse bend portion extending outwardly, such finger grip having a lower and an upper arm, means forming an attaching eye for the floss connected to the finger grip end and to the other end of the holder and an arched bow extending between the upper arm of the finger grip end and the attaching means for the floss at the other end of the holder, there being a spacing section of wire connecting the upper arm of the finger grip to

the bow, the U shaped bend of the finger grip end, the spacing section and the bow being in the same plane.

2. A device as described and claimed in claim 1, the means forming the attaching eye for the floss having a jaw construction in which the lower arm of the finger grip is operative with one jaw, the inner end of such arm having a reverse bend with an outer jaw extending towards the reverse bend of the U shaped finger grip, such latter jaw being resilient and displaceable for inserting the strand of the floss between the two jaws forming the said eye.

3. In a device as described, a holder element formed of a single strip of wire having an arched or bow shaped section with spacing portions extending therefrom at substantially an obtuse angle, finger grip portions formed with an outwardly extending U bend and having an upper and a lower arm, the upper arm being connected to the spacing section and the lower arm being parallel to the upper arm and means forming an attaching eye at the inner end of the lower arm for securing a strand of floss, the said bow, spacing sections and the U shaped finger grips and the eye all being in the same plane.

4. In a device as described and claimed in claim 3, the means forming the eye including a resilient jaw connected to each of the lower arms of the finger grip by a reverse bend and a strand of floss having a knot adjacent each end, the strand being insertable between the resilient jaw and the lower arm of the finger grip, the knot engaging adjacent the said reverse bend of the resilient jaw.

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