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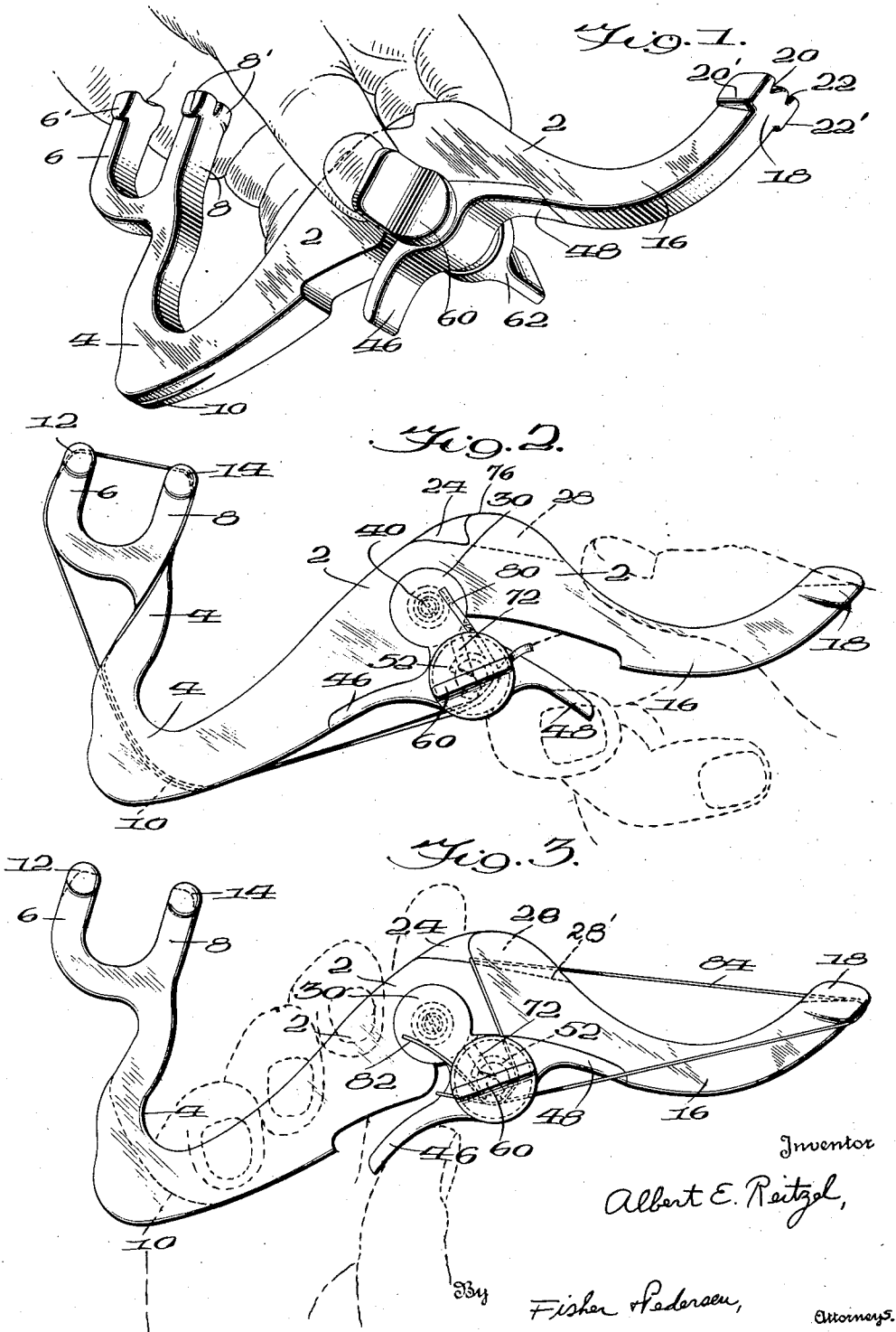
A. E. REITZEL

1,970,575

HOLDER FOR DENTAL FLOSS

Filed June 14, 1932

2 Sheets-Sheet 1



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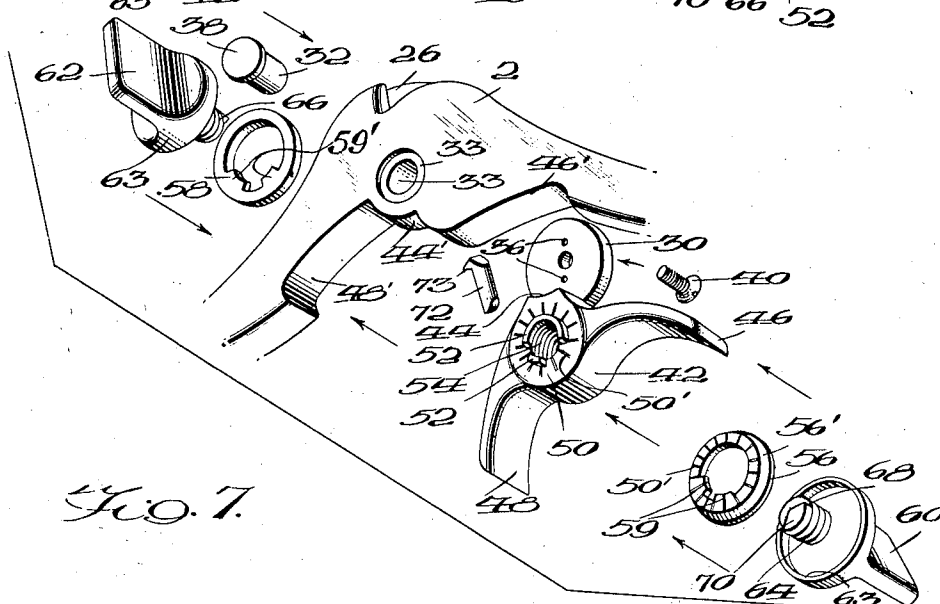
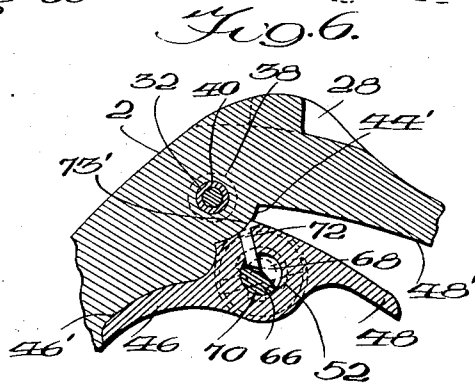
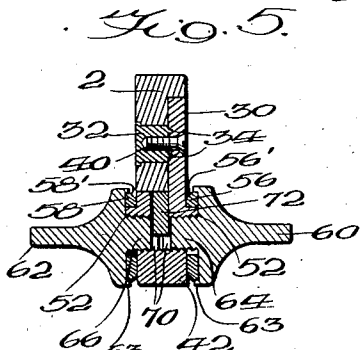
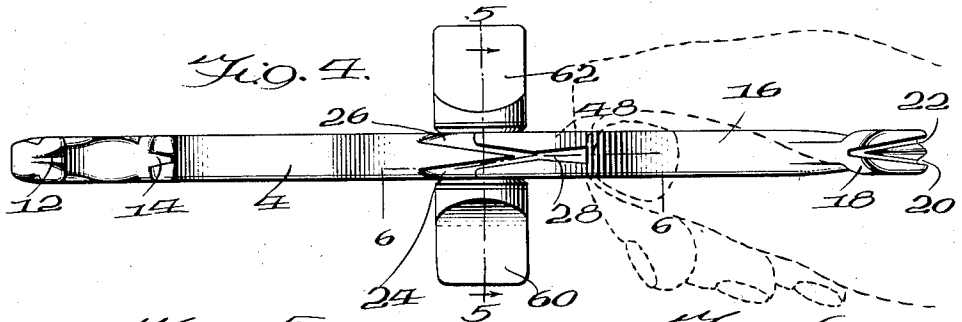
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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HOLDER FOR DENTAL FLOSS

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Application June 14, 1932, Serial No. 617,203

41 Claims. (Cl. 132—91)

This invention is a holder for dental floss.

The principal object of the invention is to provide a holder for dental floss which may be threaded up easily and quickly, and which is of a configuration so that the floss may be applied readily both to the front teeth and the back teeth. Another object of the invention is to provide a holder for permitting the floss to be easily and quickly unthreaded.

A further object of the invention is to provide a floss holder of such a configuration that the movements of applying and using the floss are simple and easy, with a push and pull movement, a feature of particular importance in connection with the use of floss on the back teeth where its application is usually difficult.

Another important feature of the invention is to provide a finger or thumb operated tension control for the floss whereby a variable and controllable tension may be applied to the floss even while it is in use.

Still another object of the invention is to provide a floss holder which is so made that it can be used with equal facility by right handed and left handed persons, and also used equally well by the person whose teeth are being cleaned as by another person.

Another object is to provide a holder that can be easily taken apart and put together for cleaning it, or for replacement of parts.

With these main objects in view, the present preferred embodiment of the invention comprises a body portion having a goose neck or hook portion at one end terminating in a U-shaped stirrup for carrying the stretch of floss used for the back teeth. This goose neck is a particularly important feature in that it facilitates the application of the floss to the back teeth. The goose neck or hook curve fits around the cheek, into a corner of the mouth and then between the cheek and teeth, and permits the cleaning of the teeth on both sides of the mouth from the same side of the face, by having the lower part of the goose neck or curve extended. However, the holder can be used on either side of the face for cleaning the teeth on that side.

The body portion at the other end extends in a gentle curve, and serves to hold the floss used for the front teeth. When either end of the holder is in use in the mouth, the body portion and other end of it serve as a manipulating handle.

At approximately the middle of the body portion of the holder there are provided, on opposite sides of the holder, two thumb screws for clamping the floss. One of these is for use by

right handed persons, and the other for use by left handed persons. These two thumb screws are mounted on a pivotal mount, provided with finger or thumb pieces, so that when the floss is clamped by either thumb screw, pressure on one thumb piece or the other will cause the pivotal mount to move about its pivot, thereby exerting a controllable tension on the floss at all times, even while in use.

The floss holder is provided with suitable floss guiding grooves in the body portion, in the goose neck, and at the tips, as will appear.

Further advantages of construction and operation will appear from the following more detailed description of the present preferred embodiment of the invention, shown in the accompanying drawings in which:—

Fig. 1 is a perspective view of the floss holder in position for threading up;

Fig. 2 is a side view, showing the floss holder threaded with floss for cleaning the back teeth;

Fig. 3 is a side view, showing the floss holder threaded with floss for cleaning the front teeth;

Fig. 4 is a top plan view;

Fig. 5 is a section on the line 5—5 of Fig. 4, looking in the direction of the arrows;

Fig. 6 is a section on the line 6—6 of Fig. 4; and

Fig. 7 is an exploded perspective view of the pivoted floss clamping means and associated elements.

Referring now to these drawings, in which similar reference characters represent similar parts, the floss holder comprises a body portion 2, which at one end is extended to form a goose neck or hook 4 which terminates in a U-shaped stirrup having floss carrying arms 6 and 8. The inner arm 8 is substantially in line with the adjacent part of the goose neck 4, so that when in use part 4 near the arm 8 will be positioned to one side of the teeth, so that they will not interfere with its movement. The goose neck is provided with a groove 10 for the floss, preferably fairly deep, while the arms 6 and 8 are provided with rounded slightly flattened grooves 12 and 14 for the floss. As shown in Fig. 4, the grooves 12 and 14 may be widened somewhat, inwardly of the stirrup. The grooves 12 and 14 are deeper as well as narrower outwardly of the stirrup; thus a flat ribbon of floss can be easily threaded and will be held edgewise in the stirrup, perpendicular to the plane of the stirrup and retained in that position in use, thus facilitating entry of this floss of the ribbon type between the teeth.

The other end of the body portion 2 is provided with a gently curving extension 16, the tip 18 of which is provided with floss carrying grooves 20 and 22, which, as shown in Fig. 4, 5 diverge outwardly. These grooves 20 and 22 are relatively narrow and deep, and are shallower toward the outer end of the holder, so that flat wide floss of the ribbon type can be easily threaded into these grooves, and held therein edgewise so that the plane of the ribbon of floss is vertical, that is, is in the plane of Fig. 2. These grooves will hold the floss in this vertical edgewise position, for facilitating entry between the teeth.

The body portion 2, at about the middle thereof, is provided with a floss groove 24 opening on one side of the holder; and a floss groove 26 opening on the other side of the holder; these two grooves converge and merge with a central groove 28, the outer end of which is widened, as shown in Fig. 4. Grooves 24, 26 and 28 are in the form of deep, relatively narrow, vertically disposed slots, which are deepened toward the right, as shown in Fig. 3, the deepening of 28 being shown at 28', this deepening being particularly for enabling the slots to hold round or flat floss, and in the case of flat floss, will hold it in a vertical plane, that is, in the plane of the instrument. The grooves 20, 22 and 24, 26 have been shown and described in duplicate. This is so that the floss holder can be threaded up from either side and used by right handed or left handed persons. Where the device is to be used by, say, a right handed person, grooves 22 and 26 (as well as set screw 62) can be eliminated, and conversely for a left handed user. The floss in the grooves, it is evident, is guided by the sides of the grooves. Therefore, instead of grooves, guide pins or posts could be provided, and the floss guided by such pins or posts, instead of by the sides of the grooves, if desired.

The floss holder, at approximately the middle thereof, is provided with floss clamping means and finger or thumb operated tension control means which will now be described. This assembly comprises a circular pivot plate 30 set in a recess in the body portion 2 so that its outer surface is flush with the surface of 2 as shown in Fig. 5. The pivotal mount for this pivot plate comprises a pivot pin 32, provided with two small lugs 34 which are adapted to seat in small holes 36 of the pivot plate 30. The pivot pin 32, which is provided with a retaining flange 38, passes through a suitable hole 33, provided with a shoulder 33', in the body portion 2, into engagement with the plate 30 as shown in Fig. 5, flange 38 seating against shoulder 33'. The pivot pin and pivot plate are secured together by the screw 40, which screw is at the pivotal axis of the pivot plate.

Integral with the pivot plate 30 is a hub-member 42, which is thicker than the plate 30 and is provided with a curved face 44 and curved finger or thumb pieces 46 and 48. The curved portion 44 of the hub portion 42 is adapted to bear against a similarly curved portion 44' on the holder 2; the outer edge of 44 is flush with the outer edge of 44' and finger pieces 46 and 48 are adapted to seat in correspondingly shaped cut-outs 46' and 48' in the body portion 2.

Both faces 50 of the hub 42 are provided with an interrupted flange portion 52, which interrupted flange is at the rim of a screw threaded hole 54 extending through the hub 42.

A pair of floss clamping washers 56 and 58,

which are provided with beveled edges 56' and 58' respectively, are adapted to fit around the interrupted flange 52; these washers are slightly thicker than the height of the flange and are provided with inwardly extending lug portions 59 and 59' for fitting into the interruptions in the interrupted flange 52. When the floss is clamped by these washers, the flange 52 keeps the floss out of the screw threads. The lugs 59 and 59' prevent the washers from turning. When the floss is in position, between the washer and face 50, it lies in short, straight stretches across the breaks in flange 52, and the lugs 59 or 59' press upon these short, straight stretches of floss and clamp them firmly against 50.

A pair of thumb screws 60 and 62, provided with oppositely threaded shanks 64 and 66, fit into the screw threaded hole 54. The thumb screws 60 and 62 are provided with flanges 63, which fit over the washers 56 and 58, for preventing the floss from getting in between the thumb screw and washer.

The inner ends of the two threaded shanks 64 and 66 are each cut away as at 68, leaving a projecting lug 70. When the two thumb screws are in place in the hub 42 as shown in Fig. 5, a pin 72 is dropped through a suitable hole in the hub 42, which pin goes into the cut away portions 68 on the two set screws. The pin 72 has a nib 73 for limiting its inward movement, and its head is curved, as at 73', to fit against 44', for limiting its outward movement. With such a position of the pin 72 either set screw may be turned a limited amount in either direction. The outward movement of the set screw is limited by one side wall of 70 on the set screw contacting against the locking pin 72; the inward movement of the set screw will continue until it bears tightly against the floss clamping washer. In that position, there is a slight clearance between the other side wall of 70 and the pin 72. The set screws therefore cannot readily be removed and lost, although they can be removed upon removal of the locking pin 72.

The described parts are assembled as shown in Fig. 5, the two set screws, when in position, bearing against the floss clamping washers 56 and 58. Movement of either set screw in one direction will back it away from its washer, while reverse movement will cause it to bear against the washer. The beveled faces 56' and 58' of the washers guide the floss toward the inner side of the washer. The engagement of the lugs 59 on the washers with the flanges 52 prevents rotation of the washer, which rotation is undesirable because it might tend to cut the floss and would tend to pull on the floss and keep it from entering corrugations, such as 50', preferably provided on the floss-engaging faces of 42 and the washers. Further, the locking of the washers against rotation prevents any back-pull from the floss being transmitted to the thumb screw, which back-pull would tend to unscrew the set screw.

The flange 52 keeps the floss from coming into engagement with the screw threads, which would make unthreading difficult; it also prevents possible cutting of the floss by the screw threads.

The faces 50 of the hub 42 and the faces of the washers 56 and 58 may be provided with corrugations or roughenings 50' for obtaining a better frictional grip on the floss, if necessary.

When the pivoted assembly just described is in use, it has a pivotal movement from the left hand position, shown in Fig. 2, to the right hand position, shown in Fig. 3.

The manner of use of the invention will now be described. Referring to Figs. 1 and 2, showing one way of threading the holder for use on the back teeth, and to Fig. 7, the holder is held in the left hand as shown in Fig. 1, with the thumb on plate 30, and the free end 80 of the floss held under the thumb. The floss is then passed under the loosened set screw 60 and washer 58, then through the groove 10 in the goose neck, then up to either groove 12 or 14, across to the other groove, then back through groove 10 and back under set screw 60 and washer 58 from the right, then over finger piece 48 whence the floss is drawn taut and held so by weight of floss supply or by tip of second finger of the left hand.

The set screw 60 is then tightened, the floss being held between washer 58 and face 50 of hub 42. In use by a person on his own teeth the holder is grasped between the thumb and forefinger of the right hand, the forefinger bearing on finger piece 48, causing the pivoted floss clamp to move about its pivot and so to exert a manually controllable tension, dependent on the pressure exerted as is clearly shown in Fig. 2.

The holder is then put into the mouth with the holder assuming a horizontal plane, in which position the floss can be readily applied to the back teeth and moved back and forth by a simple right and left movement of the hand. By making the distance from the floss tip 14 to approximately the point 76 about four inches, the back teeth on both sides can be cleaned without shifting the device to the opposite hand, although some prefer to shift hands. When the back teeth of a person are cleaned by another person, the device is grasped with the thumb on finger piece 48.

While the stirrup threading shown in Fig. 2 is primarily for use on the back teeth, this same threading can also be used for cleaning the front teeth. The front teeth, however, are generally cleaned by the threading shown in Fig. 3.

The device may be threaded up in other ways; for example, a simple hitch can be made, with one end of the floss, around arm 6 or 8, which hitch is facilitated by shoulders or flares 6' or 8'. The floss is then passed through the groove on the other post, then through groove 10, and the floss then is clamped under washer 58, or held by the free hand. The invention is, of course, not restricted to any particular manner of threading the floss.

The threading of the floss for cleaning the front teeth is shown in Fig. 3. With the holder held as in Fig. 1, the free end 82 of the floss is held under the left thumb. The floss may then be passed under set screw 60 and washer 56 then into groove 24, then into groove 28, then into one of the grooves, 20 or 22, preferably 20, and back to the right of and under the set screw and under the washer, and then over the thumb piece 46, as shown, whence the floss is drawn taut and held so by the weight of the floss supply or by a tip of the second or third finger of the left hand, and the set screw then tightened up. With the device held in the right hand with the right thumb against the finger piece 46, pressure against this finger piece will exert a controllable tension on both ends of the floss and thereby give the desired tension on the stretch 84 which is the active part of the floss and which can be very readily applied by a person to his upper front teeth for cleaning them or to the lower front teeth of another person. The floss is applied by a person to his lower front teeth or to upper front teeth of another person by turning the de-

vice over in the hand and exerting pressure on finger piece 46 by the forefinger.

The holder can also be threaded up for use for the front teeth by taking a hitch around the end 18, facilitated by shoulders or flares 20' and 22' and then bringing the floss through the groove 28 and 24, and under set screw and washer; instead of using the set screw, the end of the floss may be held by the fingers.

The threading shown in Fig. 2 tends to pull the pivoted floss clamp to the left while the threading of Fig. 3 tends to pull it to the right, so that the user in applying tension has the full range of movement to the opposite position for exerting tension on the floss. By reason of this finger tip or thumb control of the tension, the user acquires a definite "feel" for the floss and soon learns the proper degree of tension to apply to the floss for different parts of the mouth.

If desired, thumb screw 62 or 60 and its associated elements may be omitted, according as the device is to be used by right handed or left handed persons.

It is within the contemplation of the invention to eliminate the pivoted floss clamp and hold the ends of the floss by means of the fingers. While this is not the preferred embodiment of the invention, the improved shape of the floss holder makes this possible.

The term "finger piece" or the like, used in the claims, is intended to cover an element operable either by finger or thumb.

While the preferred embodiment of the invention has been described in some detail, it should be understood that the invention is not to be limited to these details but may be carried out in other ways as defined within the scope of the claims.

I claim as my invention:

1. A holder for dental floss, comprising a body portion provided with a goose-neck terminating in a floss-carrying, substantially U-shaped stirrup, the two arms of the stirrup, and the goose-neck, being located in substantially the same plane, the bend of the goose-neck being provided with guide means for the floss, and means on the body portion for attachment of the end of the floss.
2. A holder for dental floss, comprising a body portion provided with a goose-neck terminating in a floss-carrying, substantially U-shaped stirrup, the bend of the goose-neck being provided with guide means for the floss, and finger operated means for clamping the floss and for exerting a controllable tension thereon.
3. A holder for dental floss, comprising a body portion provided with a goose-neck terminating in a floss-carrying, substantially U-shaped stirrup, the bend of the goose-neck being provided with guide means for the floss, a pivoted clamp for clamping the floss, and finger operated means for controlling the pivotal movement of the floss clamp and the resultant tension exerted by the clamp on the floss.
4. A holder for dental floss, comprising a body portion provided at one side with a goose-neck portion, said goose-neck terminating in a floss carrying, U-shaped stirrup, the body portion, at the other side, extending outwardly in a gentle curve and terminating in a floss carrying tip.
5. A holder for dental floss, comprising a portion provided at one side with a goose-neck portion, said goose-neck terminating in a floss carrying, U-shaped stirrup, the body portion, at the other side, extending outwardly in a gentle curve

and terminating in a floss carrying tip, and floss guiding means carried by the body portion.

6. A holder for dental floss, comprising a body portion provided at one side with a goose-neck portion, said goose-neck terminating in a floss carrying, U-shaped stirrup, the body portion, at the other side, extending outwardly in a gentle curve and terminating in a floss carrying tip, the body portion being provided with a groove for the floss near the middle thereof.

7. A holder for dental floss, comprising a body portion provided at one side with a goose-neck portion, said goose-neck terminating in a floss carrying, U-shaped stirrup, the body portion, at the other side, extending outwardly in a gentle curve and terminating in a floss carrying tip, the goose-neck and the outwardly curved portion being in substantially the same plane.

8. A holder for dental floss, comprising a body portion provided at one side with a goose-neck portion, said goose-neck terminating in a floss carrying, U-shaped stirrup, the body portion, at the other side, extending outwardly in a gentle curve and terminating in a floss carrying tip, the goose-neck, the stirrup, and the outwardly curved portion being located in substantially the same plane.

9. A holder for dental floss, comprising a body portion provided at one side with a goose-neck portion, said goose-neck terminating in a floss carrying, U-shaped stirrup, the body portion, at the other side, extending outwardly in a gentle curve and terminating in a floss carrying tip, and floss securing means carried by the body portion.

10. A holder for dental floss, comprising a body portion provided at one side with a goose-neck portion, said goose-neck terminating in a floss carrying, U-shaped stirrup, the body portion, at the other side, extending outwardly in a gentle curve and terminating in a floss carrying tip, the holder being provided with floss carrying grooves through which floss is passed when in operative position at either end of the body portion, and floss securing means carried by the body portion.

11. A holder for dental floss, comprising a body portion provided at one side with a goose-neck portion, said goose-neck terminating in a floss carrying, U-shaped stirrup, the goose neck and stirrup being provided with grooves for the floss, the body portion, at the other side, extending outwardly in a gentle curve and terminating in a floss carrying tip, and floss securing means carried by the body portion.

12. A holder for dental floss, comprising a body portion provided at one side with a goose-neck portion, said goose-neck terminating in a floss carrying, U-shaped stirrup, the body portion, at the other side, extending outwardly in a gentle curve and terminating in a floss carrying tip, and floss securing means carried by the body portion, the ends of the holder and the body portion, at about the middle thereof, carrying grooves for the floss.

13. A holder for dental floss, comprising a body portion provided at one side with a goose-neck portion, said goose-neck terminating in a floss carrying, U-shaped stirrup, the body portion, at the other side, extending outwardly in a gentle curve and terminating in a floss carrying tip, and floss securing means carried by the body portion at about the middle thereof, for securing the floss ends when the floss is in operative position at either end of the floss holder.

14. A holder for dental floss, comprising a body portion provided at one side with a goose-neck

portion, said goose-neck terminating in a floss carrying, U-shaped stirrup, the body portion, at the other side extending outwardly in a gentle curve and terminating in a floss carrying tip, and floss securing means carried by the body portion, for exerting tension on the floss when in operative position.

15. A holder for dental floss, comprising a body portion provided at one side with a goose-neck portion, said goose-neck terminating in a floss carrying, U-shaped stirrup, the body portion, at the other side, extending outwardly in a gentle curve and terminating in a floss carrying tip, and pivoted, floss securing means, carried by the body portion, the pivotal movement being effected by the fingers of the user, for exerting a variable and controllable tension on the floss when in operative position.

16. A holder for dental floss, comprising a body portion provided at one side with a goose-neck portion, said goose-neck terminating in a floss carrying, U-shaped stirrup, the body portion, at the other side, extending outwardly in a gentle curve and terminating in a floss carrying tip, pivoted, floss securing means, carried by the body portion, the pivotal movement being effected by the fingers of the user, for exerting a variable and controllable tension on the floss when in operative position, the body portion, near the pivoted floss-securing means, and the goose-neck, being provided with grooves for the floss.

17. A holder for dental floss, comprising a rigid body portion terminating in a member grooved to receive the floss, and a floss securing clamp pivoted to rock back and forth with respect to the body portion, said clamp, in addition to anchoring the floss, serving to exert a controllable tension thereon.

18. A dental floss holder for use with equal facility by right-handed and left-handed persons, comprising a body provided at one side with a goose-neck portion terminating in a floss-carrying stirrup, the other side of the body extending outwardly in a gentle curve, the middle and tips of the holder being provided with floss-carrying grooves, the body being provided with a floss clamping device pivoted to the body, said clamping device having a thumb screw on each side of the body and being provided with finger engaging means for pivoting said clamping device in both directions for causing it to exert a tension on the floss at either end of the floss holder.

19. A clamp for use on a dental floss holder, comprising means for movably mounting the clamp on the holder, a finger piece cooperating with said mounting means, and floss-engaging means to one side of said mounting, whereby movement of the finger piece will exert a pull on the floss held by the floss-engaging means.

20. A clamp for use on a dental floss holder, comprising means for pivotally mounting the clamp on the holder, and floss-engaging means to one side of said pivot mounting, whereby rocking movement of the clamp about its pivot will exert a pull on the floss held by the floss-engaging means.

21. A finger operated tension control device for use on a dental floss holder, comprising means for pivotally mounting the device on a floss holder, a floss clamp to one side of the mounting, and a finger piece for causing the device to rock about its pivot and so to exert a pull on the floss.

22. A finger operated tension control device for use on a dental floss holder, comprising means

for pivotally mounting the device on the floss holder, a rotatable clamp for engaging with the floss, and means for limiting the rotational movement of said clamp.

23. A finger operated tension control device for use on a dental floss holder, comprising means for pivotally mounting the device on the floss holder, a rotatable clamp for engaging with the floss, a finger piece for controlling the pivotal movement of the device, and means for limiting the rotational movement of said clamp.

24. A finger operated tension control device for use on a dental floss holder, comprising means for pivotally mounting the device on the floss holder, a floss clamp to one side of the pivotal mounting, and oppositely extending finger-pieces, for causing the device to pivot in either direction and so to exert a pull on the floss in either direction.

25. A finger operated tension control device for use on a dental floss holder, comprising means for pivotally mounting the device on the floss holder, a thumb screw for clamping the floss, and means for limiting the outward rotational movement of the thumb screw.

26. A finger operated tension control device for use on a dental floss holder, comprising means for pivotally mounting the device on the floss holder, a thumb screw for clamping the floss, the threaded portion of the thumb screw being cut away, and a locking pin engageable in said cut away portion.

27. A finger operated tension control device for use on a dental floss holder, comprising means for pivotally mounting the device on the floss holder, a pair of oppositely disposed thumb screws for clamping the floss, and a common means for limiting the outward rotational movement of the thumb screws.

28. A finger operated tension control device for use on a dental floss holder, comprising means for pivotally mounting the device on the floss holder, a pair of oppositely disposed thumb screws for clamping the floss, the threaded ends of the screws being partly cut-away, and a locking pin, engageable in the cut-away portions of the thumb screws, for limiting their rotational movement.

29. A finger operated tension control device for use on a dental floss holder, comprising means for pivotally mounting the device on the floss holder, a thumb screw, a washer engaged by the thumb screw, means for preventing rotational movement of the washer, and a finger piece for causing the device to move about its pivotal mounting.

30. A finger operated tension control device for use on a dental floss holder, comprising means for pivotally mounting the device on the floss holder, a pair of oppositely disposed thumb screws, the threaded portions of which are partly cut-away, a locking pin engageable with the cut-away portions of both thumb screws for limiting their rotational movement, a pair of floss-clamping washers, actuated by the thumb screws, and means for locking the washers against rotational movement.

31. In a clamping device for dental floss, in combination, a base member and a thumb screw engageable by threaded means, an interrupted flange on said base member bordering said threaded means, and a floss clamping washer positioned between the set screw and the base member, provided with an inwardly extending lug, engageable in a break in said interrupted flange.

32. A holder for dental floss, comprising a body portion having a goose-neck terminating in a U-shaped stirrup, the ends of the stirrup being provided with grooves for holding flat, ribbon floss so that the plane of the floss is perpendicular to the plane of the stirrup.

33. A holder for dental floss, comprising a body portion having a goose neck terminating in a U-shaped stirrup, the ends of the stirrup being provided with grooves for holding flat, ribbon floss in a plane perpendicular to the plane of the stirrup, the outside edge of the goose neck being provided with a groove for the floss, and a clamp, carried by the body portion, for exerting a manually controllable tension on the floss while in use.

34. A holder for dental floss, comprising a body portion having a portion extending outwardly in a gentle curve, the outer end and the body portion carrying floss guiding means for receiving and holding a flat ribbon of floss in operative position so that the plane of the floss is in the plane of said curved portion.

35. A holder for dental floss, comprising a body portion having a portion extending outwardly in a gentle curve, the outer end and the body portion carrying floss guiding means for receiving and holding a flat ribbon of floss in operative position in the plane of said curved portion and clamping means, carried by the body portion, for exerting a manually controllable tension on the floss while in use.

36. A holder for dental floss, comprising a body portion provided with a curved arm terminating in a floss-carrying, substantially U-shaped stirrup, the two arms of the stirrup, and the curved arm being located in substantially the same plane.

37. In a dental floss holder, a body portion having a curved goose-neck portion terminating in a floss holding stirrup, one arm of the stirrup being substantially in line with the outer portion of the goose neck.

38. In a dental floss holder, a body portion merging toward one end into a reversely bent portion terminating in a floss-holding stirrup, the reversely bent portion, and the two arms of the stirrup, being located in substantially the same plane.

39. In a dental floss holder, a body portion merging toward one end into a reversely bent portion terminating in a floss-holding stirrup, the reversely bent portion, and the two arms of the stirrup, being located in substantially the same plane, the inner arm of the stirrup being substantially in line with the outer part of the bent portion, while the outer arm of the stirrup is offset.

40. Floss securing means for use on a dental floss holder, comprising a finger operated, floss engaging clamp provided with a threaded shank, and means cooperating with said threaded shank for limiting its rotary movement in either direction.

41. Floss securing means for use on a dental floss holder, comprising a finger operated, floss engaging clamp provided with a threaded shank, part of the shank being cut away to form side walls, and a pin adapted to engage with one side wall for limiting the rotary movement of the clamp.

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