R. C. KLECKNER.

DENTAL FLOSS HOLDER.

APPLICATION FILED JUNE 17, 1916.

1,217,779. Patented Feb. 27, 1917.

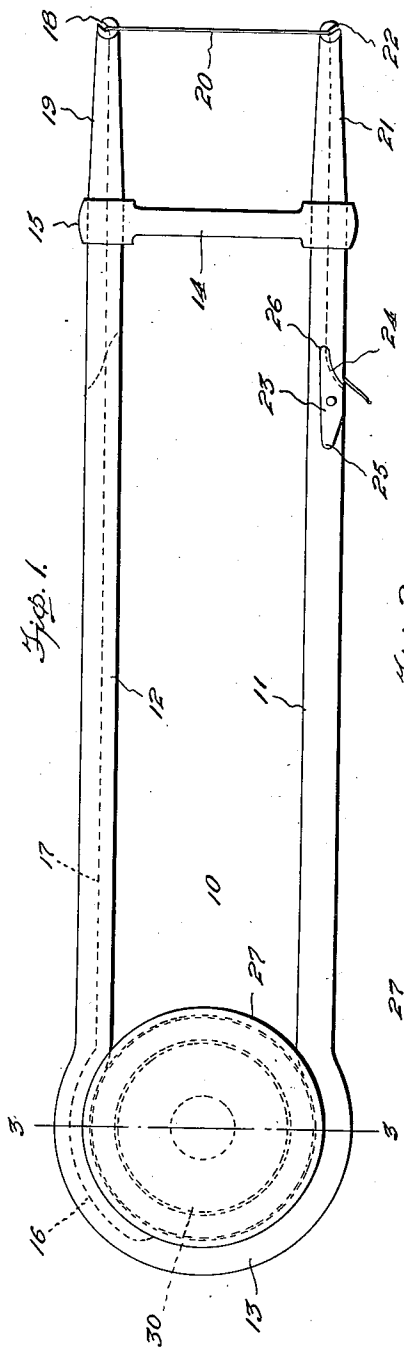

Fig. 1.

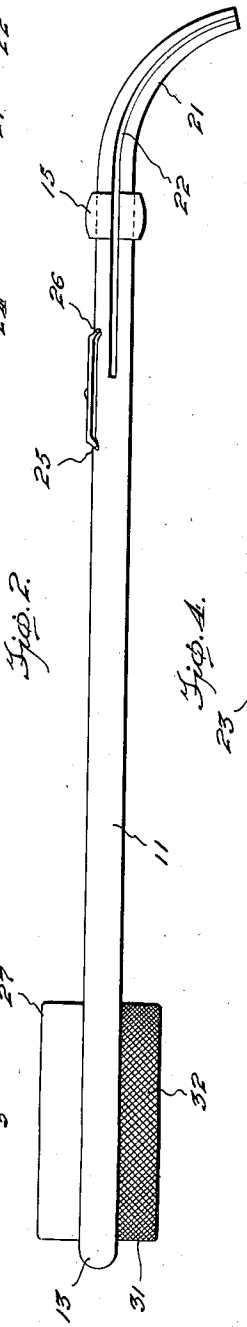

Fig. 2.

Fig. 4.

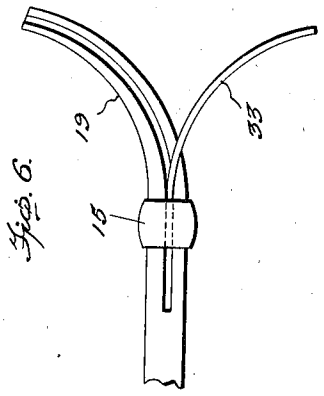

Fig. 6.

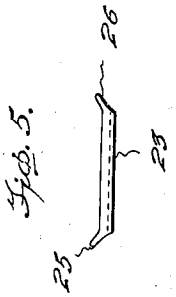

Fig. 5.

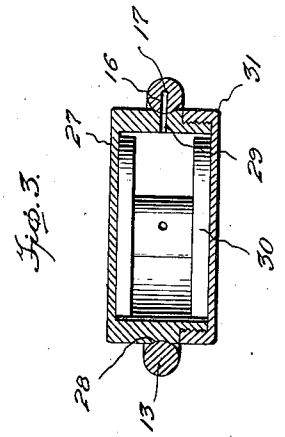

Fig. 3.

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DENTAL-FLOSS HOLDER.

1,217,779. Specification of Letters Patent. Patented Feb. 27, 1917.

Application filed June 17, 1916. Serial No. 104,310.

To all whom it may concern:

Be it known that I, ROY C. KLECKNER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain useful Improvements in Dental-Floss Holders, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to improvements in dental floss holders, one object of the invention being the provision of a device of this character which not only supports the spool or bobbin of floss, but also acts as a tool whereby the floss may be used to remove particles between the teeth, the same being so constructed and arranged as to permit of the renewal of the cleaning portion of the floss as desired.

A further object of this invention is the provision of a device of this character which will normally hold the floss in a taut position so that the same may be readily manipulated and which will also present a handled tool for properly supporting the spool, and for holding the members thereof with the floss properly presented for ready use.

A still further object of this invention is the provision of a device of this character which is simple, durable and inexpensive in construction, and which is thoroughly efficient and practical in use.

In the accompanying drawings:—

Figure 1 is a plan view of the complete tool.

Fig. 2 is a side elevation thereof.

Fig. 3 is a cross section taken on line 3—3 of Fig. 1.

Figs. 4 and 5 are detail views of the thread fastener and cutter.

Fig. 6 is a detail view of one of the terminals and the locking means for holding the floss in the slot.

Referring to the drawings, the main carrying member 10 consists of the two terminal arms 11 and 12 which are formed integral with the clamping connecting member 13, the members 11 and 12 due to this construction having a resilient tendency to separate so that in order to hold the same in proper spaced relation the retaining bar 14 having the apertured terminals 15, is slidably mounted as indicated.

The member 12 is provided with a recess or channel 16 with the thread guiding bore or channel 17 longitudinally thereof and terminating in the slot 18 in the curved terminal 19, the slot 18 being inclined slightly so that the thread 20 will be held normally against outward movement.

The curved terminal 21 of the member 11 is provided with the slot 22 for the reception and guidance of the free end of the thread 20, while attached to the member 11 is the thread cutter and fastener 23 which as shown is provided with the cutting edge 24 and with the thread receiving hooks or terminals 25 and 26.

It will thus be seen that any movement of the retaining rod 14 toward the curved ends 19 and 21 will permit the members 11 and 12 to separate so that the thread or floss may be properly positioned before the bar is moved to assume the position as shown in Fig. 1.

Mounted in the portion 13 of the device is a casing 27 which is provided with the circumferential groove 28 for engagement with the portion 13 so that such holder may be properly clamped in the position as shown in Fig. 1 with the thread guiding hole 29 adjacent the inward end of the channel 17 of the member 12.

Mounted removably within the holder 27 is the spool 30 which is held rigidly in place by means of the removable clamping cap 31.

This cap 31 threadedly engages the casing 27 and is provided with the knurled portion 32 to permit of the release thereof and also the release of the spool 30 so that the same will freely permit the removal of the floss when it is desired to renew the portion extended between the curved ends 19 and 21 of the members 12 and 11.

The retaining bar 14 also tends to hold the holder 27 firmly clamped in the portion 13 of the device, and when the cover 31 is securely in place and the free end of the floss is fastened to the device 23, the portion of the floss suspended between the terminals of the members 11 and 12 will be taut and can be readily manipulated between the teeth so as to remove any particles.

As shown in Fig. 6, the rotatable curved wire 33 is so mounted as to coöperate with the thread receiving slot and the bar 14 to grip and hold the thread within such slot.

What I claim as new is:—

1. A dental floss holder, including a member having two spaced terminals provided

each with a thread guide, a thread holder carried by said member, and means carried by one of the terminals for securing the free end of the thread with a portion of the thread disposed between the free terminals.

2. A dental floss holder, including a member having two spaced terminals provided each with a thread guide, a thread holder carried by said member, a means carried by one of the terminals for securing the free end of the thread with a portion of the thread disposed between the free terminals, and a retaining member for holding the free ends of the terminals relatively to each other.

3. A dental floss holder, including a member having two resiliently connected and substantially parallel terminals, one of said terminals being provided throughout its length with a longitudinally disposed thread guide, the free end of the opposite terminal being provided with a slot to receive the free end of the thread, means carried by said terminal for securing the free end of the thread thereto, and a thread holder mounted at the junction of the terminals and frictionally held in place thereby.

4. A dental floss holder, including a member having two resiliently connected and substantially parallel terminals, one of said terminals being provided throughout its length with a longitudinally disposed thread guide, the free end of the opposite terminal being provided with a slot to receive the free end of the thread, means carried by said terminal for securing the free end of the thread thereto, a thread holder mounted at the junction of the terminals and frictionally held in place thereby, and a retaining member slidably mounted upon said terminals.

5. A dental floss holder, including a member having two resiliently connected and substantially parallel terminals, one of said terminals being provided throughout its length with a longitudinally disposed thread guide, the free end of the opposite terminal being provided with a slot to receive the free end of the thread, means carried by said terminal for securing the free end of the thread thereto, a thread holder mounted at the junction of the terminals and frictionally held in place thereby, said thread securing means being provided with a cutter.

6. A dental floss holder, including a member having two resiliently connected and substantially parallel terminals, one of said terminals being provided throughout its length with a longitudinally disposed thread guide, the free end of the opposite terminal being provided with a slot to receive the free end of the thread, means carried by said terminal for securing the free end of the thread thereto, a thread holder mounted at the junction of the terminals and frictionally held in place thereby, and a retaining member slidably mounted upon said terminals, said thread securing means being provided with a cutter.

7. A dental floss holder, including a member having two resiliently connected and substantially parallel terminals, one of said terminals being provided throughout its length with a longitudinally disposed thread guide, the free end of the opposite terminal being provided with a slot to receive the free end of the thread, means carried by said terminal for securing the free end of the thread thereto, a thread holder mounted at the junction of the terminals and frictionally held in place thereby, a retaining member slidably mounted upon said terminals, said thread securing means being provided with a cutter, and means disposed to coöperate with the sliding member and to fit within the slot of one of the terminals and clamp the thread.

In testimony whereof I affix my signature.

ROY CHARLES KLECKNER.