D. K. WOODHOUSE.

DENTAL FLOSS HOLDER.

APPLICATION FILED FEB. 17, 1915.

1,166,732.

Patented Jan. 4, 1916.

FIG. 1

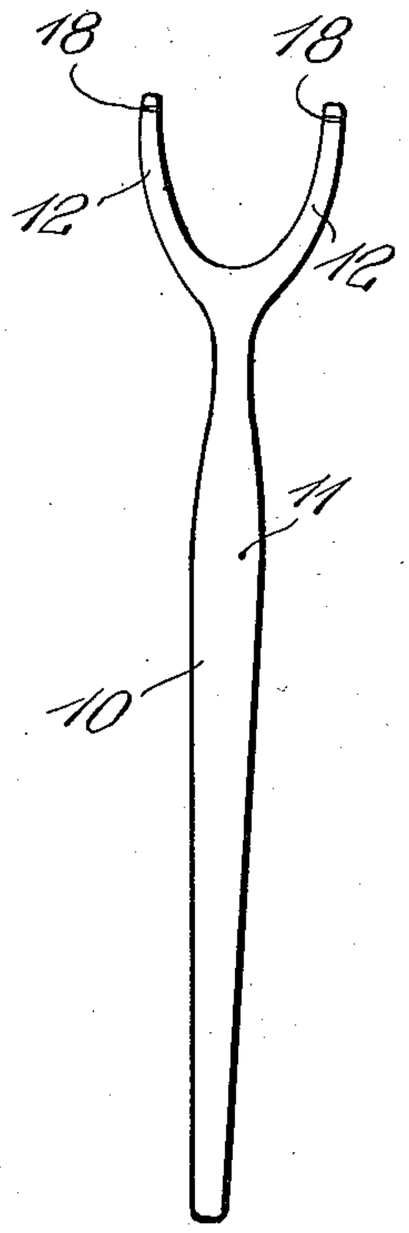

FIG. 2

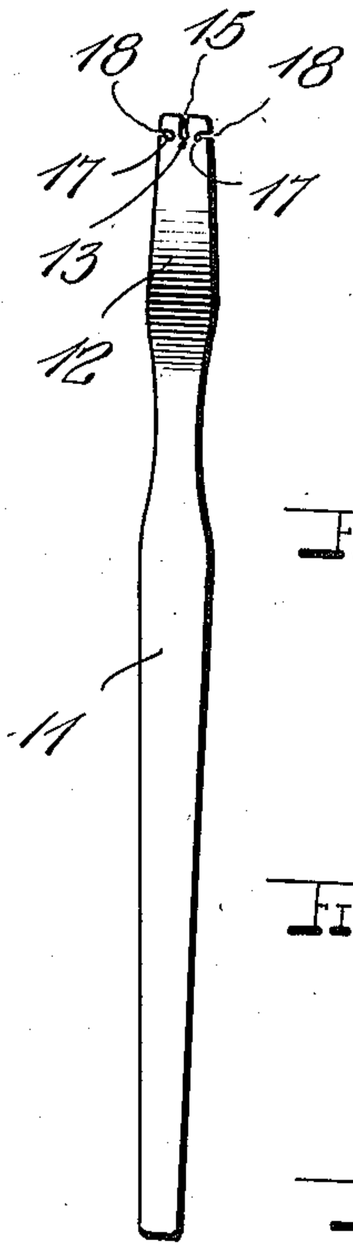

FIG. 5

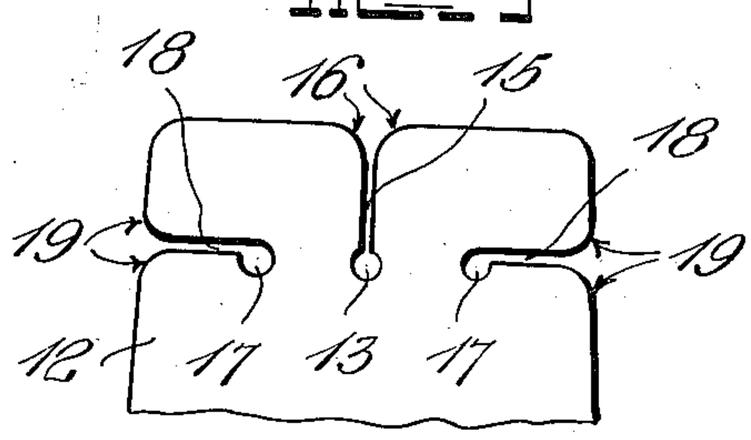

FIG. 6

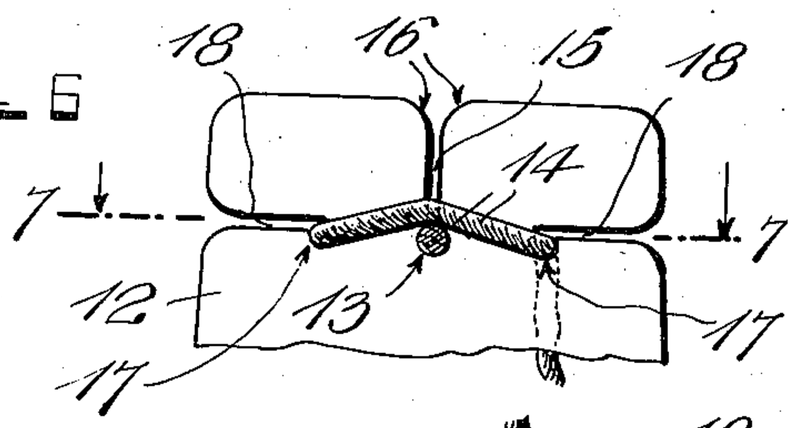

FIG. 7

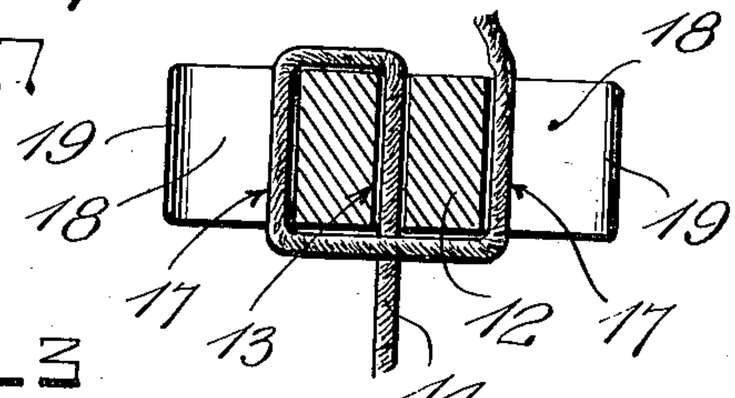

FIG. 3

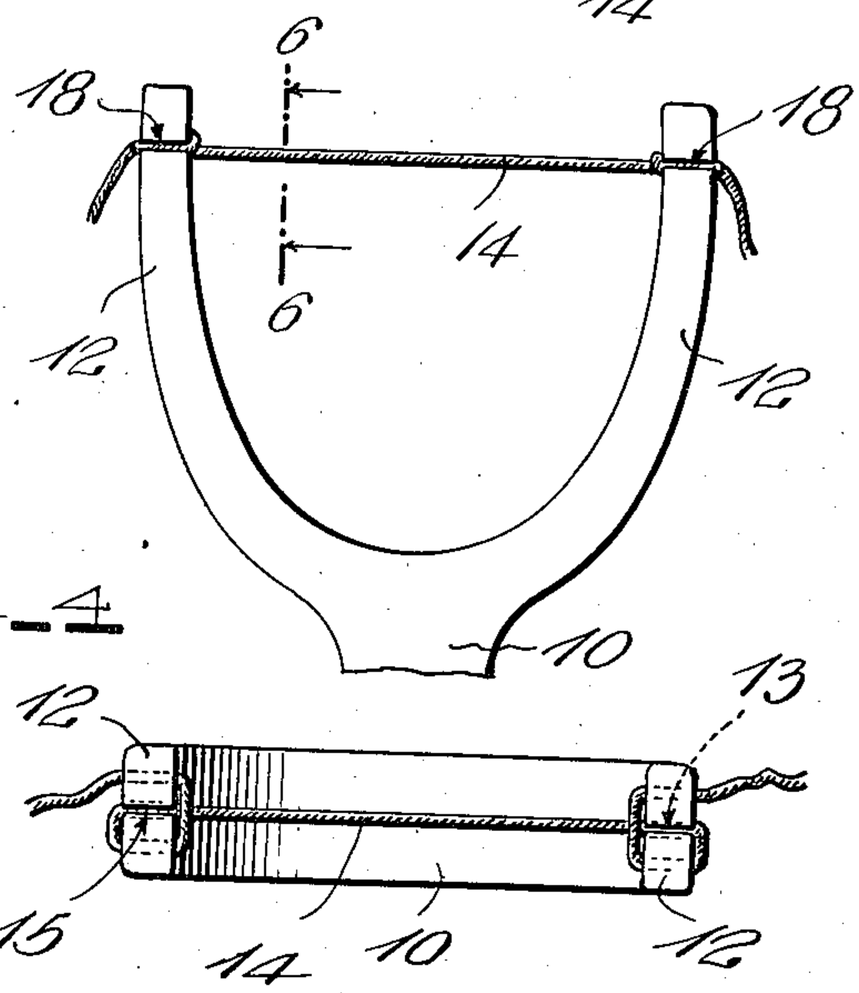

FIG. 4

WITNESSES:

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UNITED STATES PATENT OFFICE.

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DENTAL-FLOSS HOLDER.

1,166,732. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed February 17, 1915. Serial No. 8,766.

To all whom it may concern:

Be it known that I, DENIS K. WOODHOUSE, subject of the King of Great Britain, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Dental-Floss Holders, of which the following is a specification.

My invention relates to improvements in devices for removing obstructions from between the teeth, and has particular reference to such a device embodying means to hold a dental floss or the like, in a manner so that it may be readily passed between the teeth, and removed from the supporting frame, when desired.

An important object of the invention is to provide means of the above mentioned character which are simple in construction, inexpensive to manufacture, and convenient in use.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same, Figure 1 is a side elevation of a device embodying the invention, Fig. 2 is an edge elevation of the same, Fig. 3 is an enlarged side elevation of the upper end of the device, Fig. 4 is a plan view of the same, Fig. 5 is a still further enlarged fragmentary side elevation of an arm of the supporting frame, with the flexible cleaning element removed, Fig. 6 is a similar view showing the cleaning element in place thereon, and Fig. 7 is a horizontal sectional view taken on line 7—7 of Fig. 6.

In the drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 10 designates a supporting frame, as a whole, embodying a handle 11 provided at its forward end with spaced arms 12, as shown. This supporting frame may be formed of any suitable material. As shown in Figs. 2 to 7 inclusive, each arm 12 is provided near its upper end and spaced from the edges thereof, (preferably equidistantly spaced), with a horizontal transverse opening 13, of a diameter corresponding substantially with the diameter of a flexible fibrous cleaning element 14, such as dental floss or the like. The horizontal transverse opening 13 leads into a transversely restricted vertical slit or passage 15, the upper ends of the walls thereof are preferably curved, as shown at 16. Formed in each arm 12, upon opposite sides of the inner horizontal transverse opening 13 are outer horizontal transverse openings 17, having substantially the same diameter as the flexible cleaning element 14. The outer openings 17 are preferably arranged in the horizontal plane of the opening 13, and are equidistantly spaced therefrom for substantial distances. Extending into the outer openings 17 are horizontal laterally contracted slots or passages 18, the outer ends of the walls thereof being preferably curved, as shown at 19.

The end of the flexible cleaning element 14 is secured to the corresponding arm 12 by first passing the same through the vertical slot or passage 15, subsequent to which it enters the horizontal opening 13. This fibrous cleaning element is of course suitably compressible to be forced through the restricted passages 15 and 18, which serve to retain it in the openings at the ends of the passages, against accidental displacement. This having been done, the free end portion of the tying element 14 is passed through one horizontal passage 18 (the passage 18 to the left in Fig. 7), into the opening 17, and then across the cleaning element 14. The end portion of the cleaning element is then passed through the other passage 18 into the remaining opening 17. By this means the flexible cleaning element is securely held to the arm 12, and may be readily removed therefrom when desired.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

Having thus described the invention, I claim—

A device of the character described, comprising a handle having its end forked for providing spaced arms, each arm being provided at its free end with a substantially centrally arranged slot extending longitudinally of the arm for a substantial distance and passing through the free end whereby a flexible element may be quickly and conveniently moved into and out of the slot, each arm being provided upon opposite sides of

the longitudinal slot with slots extending transversely of the arm and passing through the edges thereof and projecting inwardly for a substantial distance with their inner ends arranged near and spaced a substantial distance from the inner end of the longitudinal slot; and a flexible cleaning element adapted to be passed through the central longitudinal slot with its end passed across the material thereof and extending through the transverse slots; substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

DENIS K. WOODHOUSE.

Witnesses:
ROBERT A. BURTON,
ALICE M. PATTERSON.