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DENTAL ABSORBENT ROLL HOLDER

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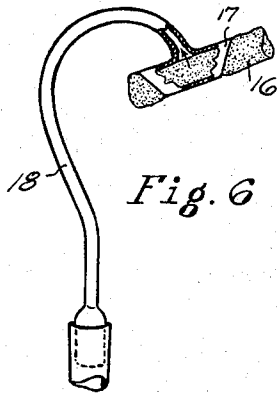


Fig. 6

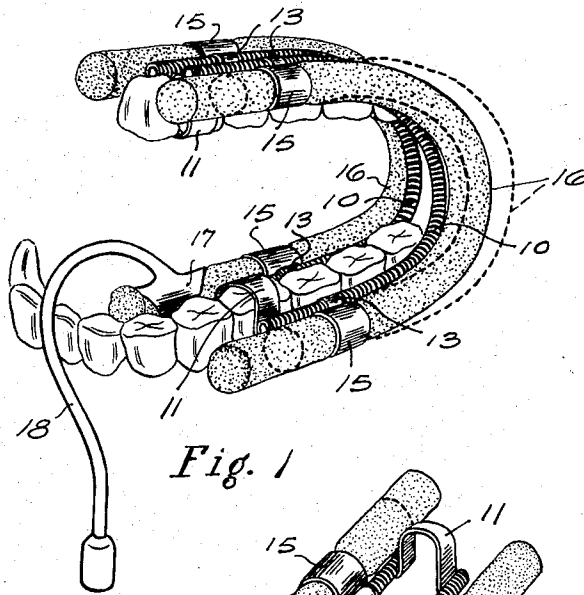


Fig. 1

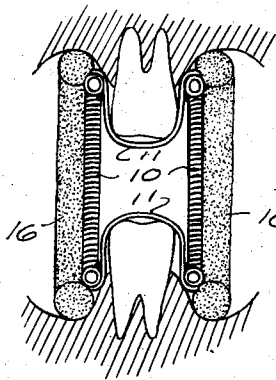


Fig. 2

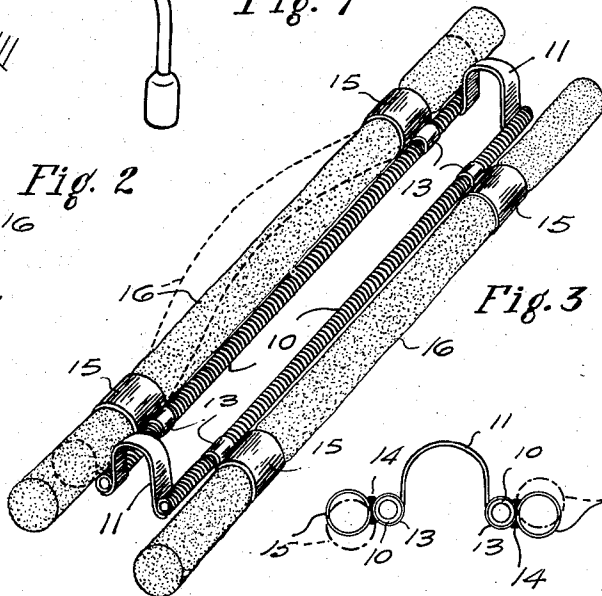


Fig. 3

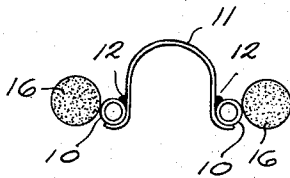


Fig. 4

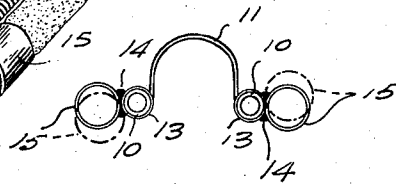


Fig. 5

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DENTAL ABSORBENT ROLL HOLDER

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6 Claims. (Cl. 32-35)

This invention relates generally to dental appliances and more particularly to improvements in dental absorbent roll holders of the type utilized for holding rolls of cotton in position during oral operations.

An important object of the present invention is to provide a holder for a pair of cotton rolls placed respectively on opposite sides of the gums at one side of the mouth and extending rearwardly along the lower gum, then doubling back upon themselves and continuing forwardly along the upper gum.

Another important object of the present invention is to provide such a holder which is flexed to U-shape preliminarily to being inserted into the mouth with the closed end thereof leading, and which is sufficiently flexible for shifting thereof as desired in the direction of its length after insertion into the mouth in the manner aforesaid.

Still another important object of the present invention is to provide an improved cotton roll holder which is simple in construction, durable, capable of economical manufacture, and adapted to be used upon patients of different size and characteristics.

Further objects and advantages of the present invention will appear more fully hereinafter, it being understood that the present invention consists in the combination, construction, location and relative arrangement of parts, all as will appear more fully hereinafter, as shown in the accompanying drawings and as finally pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is a perspective view of a device constructed in accordance with and embodying the principles of the present invention, the device being shown in position to hold cotton rolls on each side of the upper and lower teeth.

Figure 2 is a section looking into the mouth.

Figure 3 is a perspective view of the device as it appears when not in use.

Figure 4 is an end view of the device.

Figure 5 is a vertical section through an intermediate portion of the device.

Figure 6 is a perspective view showing the saliva ejector of Figure 1, part being broken away for the sake of clarity.

Referring particularly to Figure 3, the dental absorbent roll holder constructed in accordance with and embodying the principles of the present invention includes a pair of horizontally extending tightly coiled spring members 10-10 that are arranged in laterally spaced parallel relation to one another. A pair of upright bands 11-11 of inverted U-shape are located respectively at opposite ends of the holder, and corresponding end portions of the coil springs 10-10 are rigidly secured respectively to the lower end portions of the associated band 11, as by soldering 12.

Mounted upon each coil spring 10, intermediate the bands 11-11, are a pair of cotton roll retaining elements each of which comprises a pivot ring 13 that is

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slidably turnably fitted upon the coil spring and frictionally secured in place. Disposed in side abutting relation to the pivot ring 13 and rigidly secured to the latter, as by soldering 14, is a retainer ring 15.

In the use of the holder, a cotton roll, designated 16, is threaded through each pair of retainer rings 15. Then one end portion of the holder is manually turned upwardly and over the opposite end portion to make the holder U-shaped and to position the bands 11-11 approximately one over the other. Now the holder is inserted into the patient's mouth with the closed end thereof leading, whereupon it is suitably arranged on one side of the mouth between the upper and lower jaws.

Referring particularly to Figures 1 and 2, when the holder is suitably arranged, one of the coil springs 10 is interposed between the cheek and the gums next to the cheek, while the other coil spring 10 is located on the side of the gums remote from the cheek. These coil springs extend generally parallel to one another rearwardly along the lower gum and then upwardly and forwardly along the upper gum. The bands 11-11 respectively cross over the lower and upper teeth, as shown.

The cotton roll retaining elements may be shifted fore and aft upon the coil springs 10-10 and turned about the same, as desired, to aid in suitably positioning the cotton rolls 16-16. In addition, the latter may be suitably adjusted without disturbing the cotton roll retaining elements, simply by pulling each cotton roll end more or less through its retainer ring, as desired.

The holder may be shifted about the mouth in the direction of its length so as to selectively make the lower jaw engaging portion thereof longer or shorter than the upper jaw engaging portion thereof, in consequence of which, in the event that a band 11 is in the dentist's way, the same may be moved forwardly or rearwardly, out of the way.

Preferably, the inlet end 17 of a goose neck saliva ejector 18 is fitted over the fore end portion of the inner cotton roll 16, as shown. By reason of its inherent resiliency, the holder operates as a mouth prop, aiding the patient in keeping his mouth open. When removed from the patient's mouth and released, the holder automatically springs back to the initial condition thereof shown in Figure 3. The holder may be used on either side of the mouth with equal facility, and upon patients of different sizes and shapes.

It will be understood, of course, that the present invention as hereinbefore described and as shown in the accompanying drawings is susceptible of various changes and modifications which may be made from time to time without departing from the general principles or real spirit of the invention, and accordingly it is intended to claim the same broadly, as well as specifically, as indicated by the appended claims.

What is claimed as new and useful is:

1. A cotton roll holder for dental use comprising a pair of elongated members positioned in laterally spaced generally parallel relation to one another, a pair of bands each interconnecting corresponding end portions of said members, and a plurality of cotton roll retaining elements secured to each of said members and extending laterally therefrom, said members being flexible whereby one end portion of said holder may be manually turned back upon the opposite end portion to thereby position said bands approximately opposite one another, and said members being resilient for automatically returning to their initial condition when released.

2. A cotton roll holder for dental use as defined in claim 1 wherein the bands are bowed out of the plane of the elongated members for crossing over the crown

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of a tooth and extending along the two sides toward the gums, and the cotton roll retaining elements include rings mounted for pivotal movement about said elongated members and adapted for having the cotton rolls threaded therethrough.

3. A cotton roll holder for dental use as defined in claim 1 wherein the bands are of U-shape for crossing over the crown of a tooth and extending along the tooth sides toward the gums, corresponding end portions of the elongated members are rigidly secured respectively to the opposite end portions of the associated one of said bands, and the cotton roll retaining elements include rings adapted for having the cotton rolls threaded therethrough and mounted for pivotal movement about said elongated members and shifting movement between said bands.

4. A cotton roll holder for dental use as defined in claim 1 wherein the bands are of U-shape for crossing over the crown of a tooth and extending along the tooth sides toward the gums, corresponding end portions of the elongated members are rigidly secured respectively to the opposite end portions of the associated one of said bands, and each of the cotton roll retaining elements includes a pivot ring slidably turnably fitted over the associated elongated member and frictionally secured against movement relative thereto, and a retainer ring carried by said pivot ring for movement therewith and adapted for having a cotton roll threaded there-through.

5. A cotton roll holder for dental use as defined in claim 1 wherein the elongated members are tight coil springs, the bands are of U-shape for crossing over the crown of a tooth and extending along the tooth sides toward the gum, corresponding end portions of the elongated members are rigidly secured respectively to the

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opposite end portions of the associated one of said bands, and each of the cotton roll retaining elements includes a pivot ring slidably turnably fitted over the associated elongated member and frictionally secured against movement relative thereto, and a retainer ring carried by said pivot ring for movement therewith and adapted for having a cotton roll threaded therethrough.

6. In a dental appliance of the character described, the combination comprising a pair of elongated tight coil springs positioned in laterally spaced generally parallel relation to one another, a pair of narrow bands disposed respectively at opposite ends of said appliance, said bands being of U-shape for crossing over the crown of a tooth and extending along the tooth sides toward the gum, and corresponding end portions of the coil springs being rigidly secured respectively to the opposite end portions of the associated one of said bands, a pair of cotton roll retaining elements mounted upon each of said coil springs between said bands in axially spaced relation to one another each including a narrow pivot ring slidably turnably fitted over the coil spring and frictionally secured against movement relative thereto, and a narrow retainer ring carried by said pivot ring for movement therewith, and a pair of elongated cotton rolls each threaded through a pair of said retainer rings and shiftably secured thereby in generally parallel relation to said coil springs.

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