June 9, 1931. A. E. PECK 1,809,423

TOOTH BAND HOLDER AND CLAMP

Filed Sept. 25, 1929

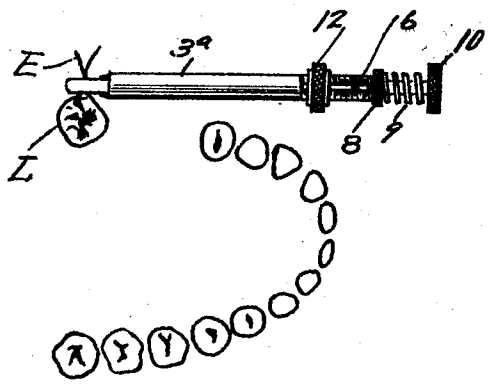


Fig. 1.

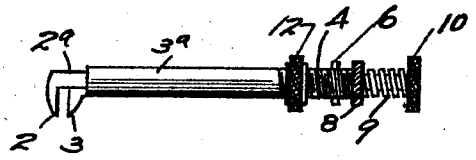


Fig. 2.

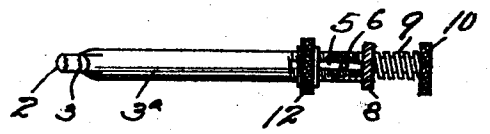


Fig. 3.

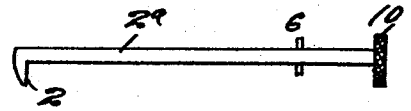


Fig. 4.

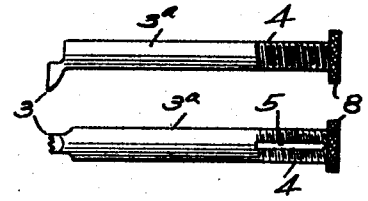


Fig. 5.

Fig. 6.

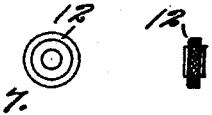


Fig. 7. Fig. 8.

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UNITED STATES PATENT OFFICE

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TOOTH BAND HOLDER AND CLAMP

Application filed September 25, 1929. Serial No. 395,060.

This invention relates to dental apparatus and more especially to a novel means for clamping and holding a metallic band in place while a wax impression is being made.

It has long been the practice for dentists to employ a thin copper strip as a loop or band held about a tooth between the fingers of one hand while the wax is pressed onto the tooth in the band by the other hand fingers.

An object of the present invention is to provide a thoroughly practical tool by which the matrix band can be quickly and easily adjusted to any tooth in the mouth, whether in front or rear.

A further object is to provide a wax band holder of simple, reliable and effective action and which is of small and compact form lending itself with great facility in this peculiar dental process, since it can be used without discomfort to the patient as it eliminates extension of fingers of each hand of the doctor into the oral cavity.

Other objects, advantages and features of construction, combination and operation, and details of parts will be made manifest in the ensuing description of the herewith illustrative embodiment; it being understood that modifications, variations and adaptations may be resorted to within the spirit, scope and principle of the invention as it is more directly claimed hereinafter, and which consists of the disclosure and its substantial equivalents.

Figure 1 is a plan of the instrument as applied.

Figure 2 is a plan of the instrument, in partially open position.

Figure 3 is a side view; showing the clamping jaws in end elevation.

Figure 4 is a plan of the isolated center-rod jaw of the device, and

Figure 5 is a plan of the detached sleeve, jaw element.

Figure 6 is a view showing the sleeve jaw endwise.

Figure 7 is an edge view of the set-nut member of the instrument, and

Figure 8 is a face elevation thereof.

The device includes a pair of opposed, parallel jaw portions 2 and 3 the former extending transversely from one end of a central rod 2^a which slidably fits in a sleeve 3^a from which the jaw portion 3 extends laterally and is adjacent to the jaw 2.

The sleeve 3^a has an externally threaded end part 4 which also is longitudinally slotted at 5 on opposite sides for the reception and play of a dead-pin 6 in the center rod. The sleeve ends in a small annular bead 8 and against this reacts a stout spring 9 whose opposite end seats on a finger button 10 fixed on the end of the rod 2^a.

The spring functions to draw the jaws 2 and 3 firmly together, and they are separated by pressure on the button against the spring action.

In practice the doctor takes a piece of copper strip which is about as wide as the selected tooth is high and makes a loop L which he approximates to be the size of the tooth circumference and closes the jaws of the device onto the lateral ends E of the strip, before the make-up is put in the mouth.

Then the instrument end holding the loop is entered into the oral cavity and the loop is pressed down and about the tooth. If it is too large or too small the button 10 is pressed lightly to relieve pressure of the jaws on the loop ends and the loop is enlarged or decreased to a good fit around the tooth. Then the spring is allowed to close the jaws 2—3 and the tool and clamped loop are drawn from the mouth and a set-nut 12 on the threaded sleeve 3^a is run outward against the dead-pin 6 and jammed so that the jaws cannot release the gripped loop or band.

A proficient practioner can turn the set-nut 12 without taking the holder from the mouth.

Having made the desired fit of the band about the tooth a piece of wax is pressed into the band to obtain the desired matrix; the band serving as a firm wall while held solidly in the jaws and enabling a freer manipulation than is possible in the old practice where the loop ends are held by the fingers of one hand while the matrix is

pressed and formed by those of the other.

The rigidity and firm attachment of the band in the jaws of the instrument permits the operator to remove the band and wax impression without danger of distortion by simply lifting the instrument with the band from the tooth.

The ease of detaching this clamp from the band in the mouth permits the band to be loosened and separated from the wax impression so that it may be removed without danger of disturbing the wax in the cavity, thus permitting the dentist to carve the desired shape.

What is claimed is:

1. A dental wax-band holder comprising a center rod part and a slotted sleeve part in which it is non-turnable and longitudinally slidable, said rod and sleeve having on coordinate ends a pair of lateral jaws to receive the part to be gripped, and a spring operative on said rod and sleeve to close the jaws, a spur projecting through the slot from the rod, and a jamming nut running on said sleeve to engage the nut and jam the effective jaws closed on an object.

2. A dental wax-band holder comprising a center rod part and a sleeve part in which it is non-turnable and longitudinally slidable, said rod and sleeve having on coordinate ends a pair of lateral jaws with parallel faces transverse to the axis of the rod to receive the part to be gripped, a spring operative on said rod and sleeve to close the jaws one on the other, and a nut threaded on one of said parts operative on the other to longitudinally shift one of the jaws as to the other and jam it on an interposed object.

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