Jan. 13, 1942. E. C. STANGEL 2,269,698

DENTAL TOOL

Filed March 4, 1940

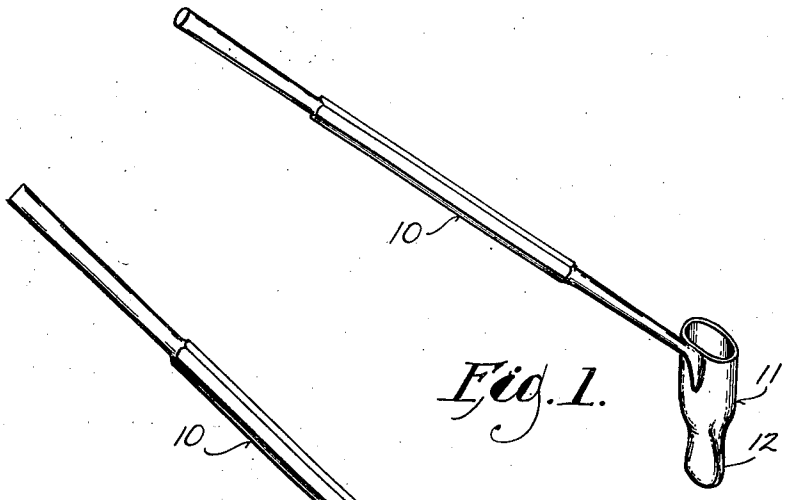


Fig. 1.

Fig. 2.

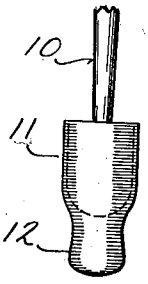


Fig. 3.

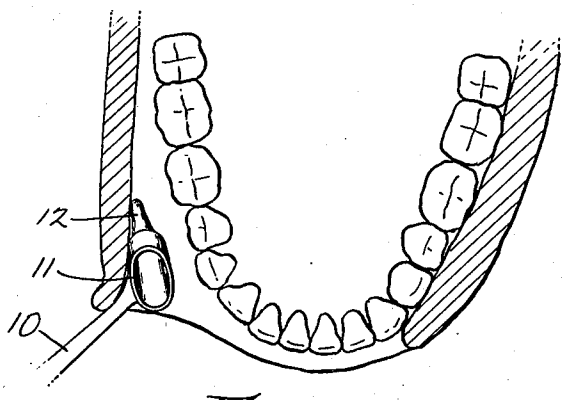


Fig. 4.

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DENTAL TOOL

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3 Claims. (Cl. 32—40)

The invention relates to a dental abrasive holding tool as distinguished from an operating tool.

The object of my invention is to provide a holding tool adopted to facilitate dental operation by holding the cheek, lips or tongue of the patient in a desired position while maintaining a supply of tooth cleaning material in a position for convenient access by an operating tool while both tools are within the mouth of the patient.

Other objects and advantages of my invention will become apparent to those skilled in the art upon an examination of the following specification and the claims appended thereto.

In the drawing:

Figure 1 is a view in perspective of my improved dental instrument.

Figure 2 is a side elevation of the instrument shown in Figure 1.

Figure 3 is a fragmentary front view of the instrument shown in Figures 1 and 2.

Figure 4 is a diagrammatic view showing the instrument disposed within the mouth of a patient in proper position for use by a dentist.

Like parts are identified by the same reference characters throughout the several views.

As best shown in Figures 1 and 2, the invention includes an elongated instrument comprising a handle 10 and a bowl or cup portion 11 which is secured to said handle in angularly disposed relation thereto, said bowl portion 11 having an integral extended portion 12 which is preferably shaped somewhat like a paddle or spatula although it is not flexible or resilient and is not used in the true sense of a spatula. The bowl or cup portion 11 and the integrally extended portion 12 are preferably made of non-corrosive metal, but other material which may be non-metallic can be used if it possesses the property of substantial rigidity. The parts are so disposed that during a dentist's use of the instrument as a retractor, as shown in Figure 4, the contents of cup 11 is easily accessible to the dentist.

The handle is attached to one side of the bowl, preferably at a short distance below its upper margin and the handle extends at an angle oblique to the axis of the bowl and its extension 12, whereby the bowl may be held substantially in an upright position with the mouth of the patient while the tool is being used as the retractor. It is common practice for a dentist to employ a motor driven polishing tool to remove stains from teeth. Such a tool requires a frequent replenishment of a supply of abrasive compound, and it has heretofore been the practice of dentists to periodically remove the tool from the patient's mouth and dip it into a supply of compound which is stored within a receptacle on an adjacent table. The invention eliminates the necessity of such periodic removal of the polishing instrument from the patient's mouth by providing an easily accessible supply of abrasive within the mouth and hence greatly expedites the operation and lessons the fatigue to which the patient is subjected.

I am aware that dental instruments comprising an elongated handle provided at one end with receptacles are known. However, none of the prior art devices with which I am familiar were intended to be, or could successfully be, adopted for use in a similar manner to my invention. The proper angular disposition of receptacle 11 and the integral spatula 12 with respect to handle 10 bears a direct correlation with the utility of the device. Further, the exterior shape of the abrasive container-retractor is also of major importance. As best shown in Figures 1 and 2, container 11 is preferably oblong in cross-section, portion 12 converging from the lower wall of the container 11 to a relatively flat finger-like portion. When the device is used as a retractor as shown in Figure 4, the walls of container 11 and side surfaces of spatula 12 combine to provide smooth sided curvilinear surfaces which will be non-injurious to the inner wall of the patient's mouth during the use.

As clearly shown in Figure 4, the handle 11 assists in the retractive function by reason of its angular disposition relative to the container and spatula portions.

So important is the angular handle and bowl disposition that if the angle were changed to a right angle it would render the device useless. The cleaning material, or paste in the bowl is of such consistency that it does not run out in spite of the fact that the bowl is always tipped when in use.

I claim:

1. A dental tool comprising a paddle-like labial retractor having a receptacle comprising a cup-shaped upwardly extending portion the body of which is flatly tubular and an elongated handle extending obliquely in an upward direction from one side of the tubular portion in a plane normal to the flat side of the paddle, said cup-shaped extension being substantially flattened in general correspondence with the paddle.

2. In a device of the character described for disposition in an oral cavity in conjunction with

a coordinately manipulated tool, a handle, a receptacle and a paddle-like receptacle extension, said receptacle being an upwardly opening cup-shaped member, said handle being disposed to extend upwardly at an acuate angle to the axis of the receptacle and paddle, the receptacle, paddle and lower portion of the handle constituting curvilinear elements cooperative for retraction of the lips and cheek from an adjacent tooth while holding the contents of the receptacle in close proximity to said tooth, and permitting the tool a position of direct alignment to the receptacle during the entire operation while said receptacle may be in any area of the oral cavity.

3. A dental tool comprising a paddle-like labial retractor having an integral and upwardly extending cup-shaped receptacle, said receptacle being oblong in cross section to provide slightly curved side wall surfaces and sharply curved end wall surfaces, and an elongated handle extending obliquely in an upward direction from one of said side walls in a plane substantially normal to one flat side of the paddle, whereby the receptacle, the paddle, and the lower portion of the handle cooperate for labial retraction while serving a double purpose of such retraction and of maintaining a supply of material in close proximity to a patient's tooth.

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