Aug. 20, 1940. G. H. MEDART 2,211,904

PRESSURE APPLICATOR

Filed Feb. 7, 1939

Fig. 1.

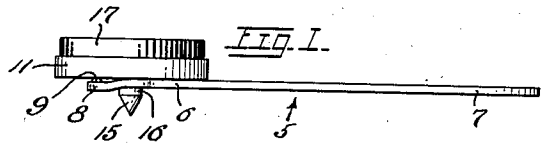


Fig. 3.

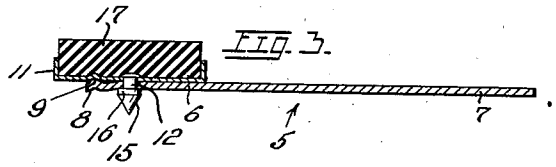
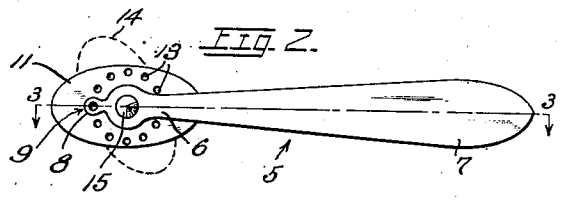


Fig. 2.



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PRESSURE APPLICATOR

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3 Claims. (Cl. 32—40)

My invention relates to pressure applicators which are useful for installing dental restoration parts, and it is especially adapted for such work as setting inlays, bridges and crowns.

The principal objects of the invention include: first, to provide a substantially improved device of the character indicated; second, to furnish means whereby heavy resilient pressures may be maintained upon dental restoration parts, during the few moments required for cementing, at exact pre-determined positions; third, to afford convenient facilities for holding back the lips and cheeks of patients while performing the restoration work; and, fourth, to secure all of these advantages in a simple, dependable, and relatively inexpensive construction.

My objects have been attained in the manner illustrated in the accompanying drawing, in which—

Figure 1 is a side elevation of the complete pressure applicator;

Figure 2 is a view of the bottom thereof, when the device is turned upside down; and

Figure 3 is a sectional elevation taken on the plane indicated by broken line 3—3 of Fig. 2.

Similar reference numerals refer to similar parts throughout the several views.

In order to install cemented dental parts in a wholly satisfactory manner, it is necessary to maintain fairly heavy resilient pressures thereon, at exact pre-determined positions, while the cement is setting. Such positions, in most cases, approximate the geometric pressure centers of the parts, with relation to the direction of the applied force. The pressures should be resilient, so as to follow up all movements which result from outward flow of excess cement. All ordinary dental patients, in biting, are capable of exerting an entirely adequate force for the purpose, by the use of my applicator.

In the embodiment of my invention which has been selected for illustration, an elongated manipulating element, which is indicated generally by arrow 5, affords; a base portion 6 near one end, for accommodating the pressure parts; a handle portion 7 at the other end, constituting a convenience for the operator and a means for holding back the lips and cheeks of patients; a resilient finger 8, extending from the base portion; and engagement means 9, on the inner side of the finger.

A bezel 11 is rotatably mounted upon element 5, at the center of base portion 6, by means of a specially formed pivot 12. The under surface of the bezel is provided with a series of spaced complementary engagement means 13, arranged in a circle which is concentric with the pivot, and these are adapted for co-operation with engagement means 9. This arrangement permits holding the bezel at various pre-determined angular positions with respect to the longitudinal axis of element 5, as suggested by dotted line 14.

Pivot 12 has a conical point 15 at its outer end; and, preferably, it is provided with a cylindrical seating surface 16, thereabove and contiguous to base 6, to adapt it for engaging other types of effective extremities when such are desired.

Within the cup of bezel 11, is a mass 17 of resilient material such as rubber, which may be retained in place by being sprung into the bezel. This mass provides a surface which cannot injure the tooth of a patient; and, by its use, strong biting pressure may be exerted upon conical point 15, or upon such other effective pivot extremities as may be seated upon surface 16.

My applicator may be utilized in various ways, which will be apparent to skilled dental operators, during the preparation and fitting of restoration work. After applying cement, the restoration part may be positioned approximately, and conical point 15 be placed against it at the exact pre-determined position. The patient may then be instructed to bite hard upon rubber mass 17, and to maintain the biting pressure. The force of the bite will be concentrated on the pre-determined pressure point of the restoration part; and the maintained heavy pressure may be made to force out all excess cement, while it still is fluid. The resilient mass will cause no discomfort to the patient while biting; and it will materially aid in the pressure follow-up, required because of the outward flow of excess cement.

It is to be remarked that, before placing the applicator in the patient's mouth, bezel 11 should be set with respect to the longitudinal axis of element 5, at the most suitable angle for performing the work. After the bite has been exerted by the patient, handle portion 7 may be moved sideways to press the patient's lips and cheek outwardly; to a point where a new engagement takes place between parts 9 and 13. The handle portion will then be retained in its new position, and this will afford maximum access for the work being done.

It will be obvious that my invention may assume various forms, which will suggest themselves to those skilled in the art. Therefore the scope of the invention is broader than that of the embodiment selected for the purposes of

this disclosure, and is limited only by the breadth of the appended claims.

I claim as my invention:

1. A device of the character described, comprising; a manipulating element affording, a base portion for pressure parts, a finger extending from the base portion, and engaging means on the finger; a pressure pad pivotally connected to said base portion, and positionable at a plurality of definite angles with respect to the longitudinal direction of said element by virtue of said engaging means; and a pressure point extending from the manipulating element in a direction opposite to that of the pressure pad, co-axial with said pivotal connection; the manipulating element, by reason of said variable positionability, being adapted to restrain the lips and cheeks of a patient exerting a biting pressure against said pad and point.

2. A device of the character described, comprising; a manipulating element affording, a base portion for pressure parts, a resilient positioning finger extending from the base portion, and engaging means on the finger; a bezel pivotally connected to said base portion, having a plurality of complementary engaging means arranged in a circular arc co-axial with said pivotal connection; a pressure point extending from the manipulating element in a direction opposite to that of the bezel, co-axial with said pivotal connection; and yieldable material confined by the bezel and affording a resilient biting surface opposed to said pressure point.

3. A device of the character described, comprising; a manipulating element affording, a base for pressure parts adjacent one end, a handle portion at the other end, a resilient positioning finger extending from the base portion, and engaging means on the finger adjacent its extremity; a bezel pivotally connected to said base portion, having a plurality of complementary engaging means arranged in a circular arc co-axial with said pivotal connection; a pressure pin extending from the manipulating element in a direction opposite to that of the bezel, co-axial with said pivotal connection; a seating surface on said pin adapted to co-operate with said base for retaining a pressure element mounted thereon; and resilient material confined by the bezel and affording a biting surface opposed to said pressure pin; the manipulating element, by reason of the variable mutual positionability of said engaging and complementary engaging means, being adapted to restrain the lips and cheeks of a patient exerting a biting pressure against said material and pin.

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