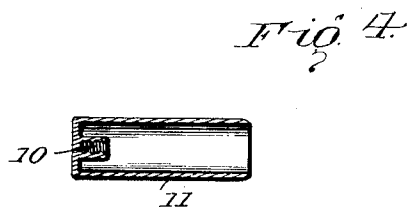
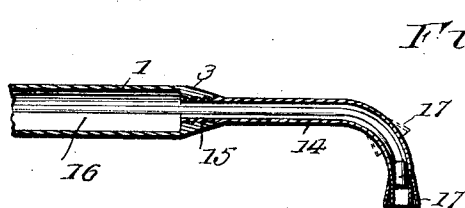
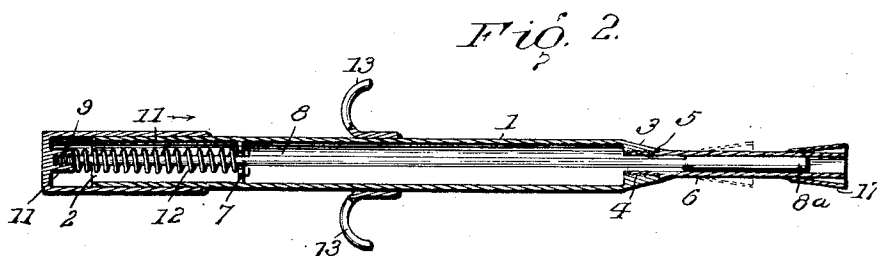
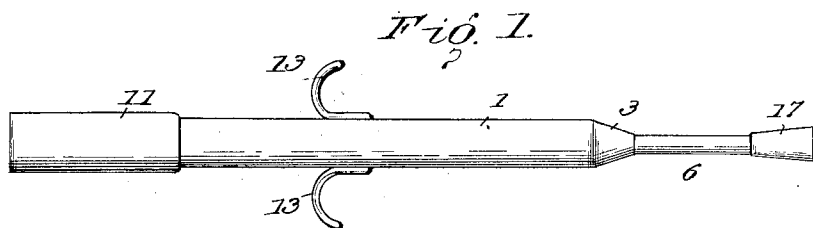


No. 829,119.

PATENTED AUG. 21, 1906.

F. X. MELLEN.
DENTAL PLUGGER.
APPLICATION FILED MAR. 12, 1906.



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DENTAL PLUGGER.

No. 829,119.

Specification of Letters Patent.

Patented Aug. 21, 1906.

Application filed March 12, 1906. Serial No. 305,515.

To all whom it may concern:

Be it known that I, FRANK X. MELLEN, a citizen of the United States of America, and a resident of Triadelphia, in the county of Morgan and State of Ohio, have invented certain new and useful Improvements in Dental Pluggers, of which the following is a specification.

This invention relates to certain new and useful improvements in dental pluggers; and it has for its objects, among others, to provide an improved dental plugger which will enable the operator to place fillings into cavities in teeth without the same coming into contact with saliva and mucous coated surfaces, thus avoiding the deleterious action of the same on the material composing the filling as well as the dentin within the cavity.

It has for a further object to provide an instrument of this character by which the material may be carried directly into the cavity and pressed to place without dropping a particle of the material.

A further object is to provide an efficient dental plugger provided with a straight tube or carrier adapted to be unscrewed and taken off and the plugger unscrewed and taken out and a plugger with a flexible stem or partially-flexible stem adapted to pass into the tube-carrier a little past the curve in the same substituted therefor and a curved tube or carrier screwed on for use in filling teeth in localities or positions where a straight tube would not answer.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation of my improved dental plugger. Fig. 2 is a substantially central longitudinal section through the same. Fig. 3 is a sectional detail showing the application of the curved tube and plugger. Fig. 4 is a substantially central longitudinal section of the cap-piece of the barrel.

Like numerals of reference indicate like parts throughout the several views.

Referring now to the details of the drawings, 1 designates the body or barrel of the device, which is open at one end, as at 2,

while the other end is formed with a preferably tapered portion 3, which is interiorly threaded, as at 4, to receive the threaded end 5 of the tube 6. Within the body or barrel 1 is a diaphragm or partition 7, forming a guide and support for the plunger 8, the rear end of which is screw-threaded, as seen at 9, to detachably screw into the inwardly-extending screw-threaded teat or projection 10 of the cap-piece 11, which is designed to telescope over the open end of the barrel 1, as seen in Fig. 2. A coiled spring 12 encircles that portion of the plunger between the partition 7 and the teat 10 and is confined between said parts so as to be compressed by the movement of the cap-piece 11 upon the barrel in the direction of the arrow. (Seen in Fig. 2.) Finger-pieces 13 are disposed on opposite sides of the exterior of the barrel, as shown, for manipulating the same in a manner which will be readily understood.

The tube or carrier 6 is straight, as seen in Fig. 2, and adapted for certain classes of work, and the plunger is correspondingly straight, its outer portion being made, preferably, larger than the other portion, as indicated at 8^a, so as to fit sufficiently tight to exclude even water from between the inner walls of the tube and the plugger or plunger, but finely polished so as to insure ease of movement.

In Fig. 3 I have shown a curved tube or carrier 14, which is provided with a screw-threaded end 15 to detachably engage in the threaded socket in the portion 3 of the barrel or body, it being understood that the threaded sockets and the threaded portions of the tubes or carriers are made to fit, so that the tubes are readily interchangeable, and it will be understood that tubes of other forms than the two herein shown may be employed, according to the character of the work to be done. When the curved tube is employed, I employ a plunger or plugger 16, having sufficient flexibility to allow it to follow the curvature of the tube, the end portion being made sufficiently large to form a tight fit to exclude moisture from between the inner walls of the tube and the plugger or plunger, but finely polished, so as to insure its moving easily.

A funnel attachment or cup 17 is movably mounted on the tube, whether straight or curved, and adapted to be moved into any

desired position and there held by frictional engagement with the tube. The tube or carrier, which is designed to be made very thin and of very hard steel, and can be made of any size from a sixteenth of an inch or less for use in putting cement into nerve-canals to a quarter of an inch in diameter or more for putting amalgam or alloy fillings into larger cavities. It is to be noted that the tubes 6 or 14 subserve the purpose of an amalgam or cement carrier.

Among the essential features of the present invention from which important advantages result may be noted the provision of space for material in the tube in front of the plunger when the same is not being operated, also the distance beyond the point of the tube the plugger may be allowed to extend when being operated. The parts may be so adjusted as to suit the most intricate operations and make the device most convenient for the purposes for which it is intended.

What I claim as new is—

1. A dental plugger comprising a barrel, a spring-actuated plunger, a tube in which said plunger is movable and a cup mounted on said tube to extend beyond the same to catch the material falling from the tube.

2. A dental plugger comprising a barrel, a spring-actuated plunger therein, and a removable tube through which said plunger is movable and a funnel-shaped cup, slidably mounted on the tube and adapted to extend beyond the end thereof.

3. A dental plugger comprising a barrel, a spring-actuated plunger therein, and a removable curved tube through which said plunger is movable and a funnel-shaped cup, slidably mounted on the tube and adapted to extend beyond the end thereof.

4. A dental plugger comprising a barrel, a spring-actuated plunger therein, and a removable curved tube through which said

plunger is movable, said plunger being flexible and having polished end portions snugly fitting the tube.

5. A dental plugger comprising a barrel having threaded socket at one end, a removable tube engaged in said socket, a plunger movable in said tube, a spring acting on said plunger and a cap-piece movably mounted over the other end of said barrel and connected with said plunger.

6. A dental plugger comprising a barrel having a threaded socket at one end, a removable tube engaged in said socket, a funnel-shaped cup on the tube and extended beyond the end thereof a plunger movable in said tube, a spring acting on said plunger a cap-piece movably mounted over the other end of said barrel and connected with said plunger, and a partition in said barrel forming a guide for said plunger and an abutment for the spring.

7. In a dental plugger, a barrel, a curved tube, a cap-piece movable over one end of said barrel, and a plunger mounted to be actuated by said cap-piece and having a flexible portion movable in said tube and a spring acting on said plunger.

8. A dental plugger provided with a carrier for the filling, and means mounted on said carrier for catching the filling material escaping from said carrier.

9. A dental plugger provided with a carrier for the cement or filling, and an adjustable device auxiliary to and adjustable on the carrier for catching the filling material escaping from the carrier.

Signed by me at Triadelphia, Ohio, this 6th day of March, 1906.

FRANK X. MELLEN.

Witnesses:

W. A. WHITAKER,
A. J. FRASH.