E. J. KOCHMIT.

ARTIFICIAL TOOTH.

APPLICATION FILED NOV. 2, 1921.

1,414,475. Patented May 2, 1922.

Fig. 1

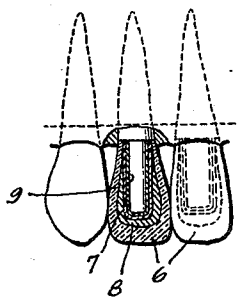


Fig. 4

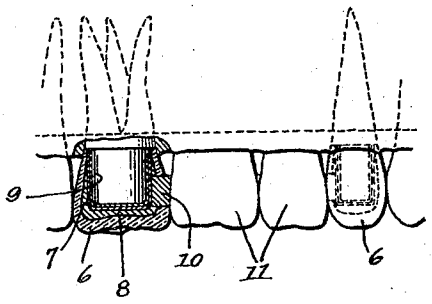


Fig. 2

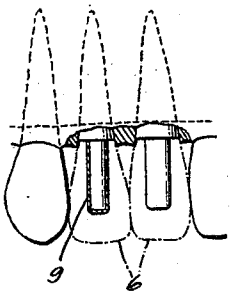


Fig. 5

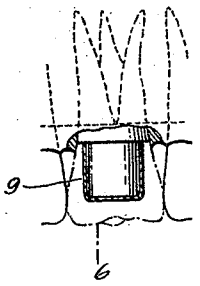


Fig. 3

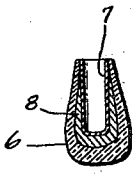
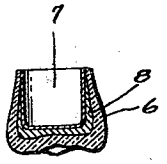


Fig. 6



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ARTIFICIAL TOOTH.

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To all whom it may concern:

Be it known that I, EDWARD J. KOCHMIT, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Artificial Teeth, of which the following is a specification.

This invention relates to artificial teeth, and particularly to crown and pivot teeth, the object being to provide an improved porcelain shell or porcelain jacket crown suitable for dental use and superior in many respects to the gold or other metal crowns in ordinary use. Porcelain is superior to gold or other metal for various reasons, one of which is that it presents a more natural appearance, and another is that it is not liable to cause inflammation. Furthermore, by means of the present invention a shell crown is provided that is interchangeable, and that can be used for a soldering abutment in bridge work. Other advantages will appear to those skilled in the profession.

Several forms of the invention are illustrated in the accompanying drawings in which Figure 1 is a front view, partly in section, of incisors constructed according to the invention. Fig. 2 is a similar view. Fig. 3 is a section of one of the shells. Fig. 4 is an elevation, partly in section, showing a molar, and also illustrating the manner of connecting a bridge. Fig. 5 is a section of a molar prepared for the shell. Fig. 6 is a section of the shell to be applied to the part shown in Fig. 5.

Referring specifically to the drawings, 6 indicates a hollow porcelain tooth, shell, or crown, which may be molded in any suitable form and in various shades of color, according to the demands of the stock, and within each shell is a tube 7 secured in the hollow thereof by suitable means, such as cement indicated at 8. This tube is made of gold or high fusing alloy, and will be of a proper size and shape to agree with the size and shape of the tooth of which it forms a part. The tube 7 is preferably closed at the end within the tooth. Fig. 3 shows a sample shell for an incisor and Fig. 6 for a molar, the tube in the latter being of correspondingly greater diameter.

A shell or crown so constructed is attached to the stump of the natural tooth by means of an inner tube 9 which, after the crown of the natural tooth has been properly prepared as shown in Fig. 2, is swaged over the stump and secured thereto by means of cement or any other suitable way. The size of the tube or attaching member 9 is such that it will fit closely within the tube 7 when the shell is applied, entering within the tube 7 of said shell when the latter is set in place, as illustrated in Fig. 1. Figs. 2 and 5 show stumps of the natural teeth provided with the tube 9 preparatory to receiving the corresponding shells. This tube or attaching member 9 will also preferably be made of gold or suitable alloy, and the shell will be fixed thereto by means of a soldering compound introduced between the two tubes 7 and 9 when the artificial tooth is set in place. A drop or two of soldering compound may be placed in the tube 7 when the parts are pressed together, and it will be understood that the telescoping tubes will be prepared or ground to a nice fit before setting.

In the event of the breakage of a shell it can be quite readily removed and a new one substituted, by fitting it on the tube 9 which is secured to the stump of the natural tooth.

Another important advantage of the present construction exists in connection with dental bridge work, and is illustrated in Fig. 4. The shell may be used as an abutment for the bridge by cutting or grinding away a part of the porcelain jacket sufficient to expose the tube in said shell or jacket, and then soldering the bridge plate 10 to the tube 7 with the end of the bridge plate within said recess as is clearly shown in Fig. 4. This figure shows a bridge extending between two of the artificial teeth described, with two teeth 11 mounted on the plate. This provides a very effective and convenient bridge connection, and eliminates bending.

It is intended that the manufacturer will make up the porcelain shells with the enclosed tube, and the dentist may then select a tooth of the proper size and color, and apply it to an attaching tube made by himself and fitted to the stump of the natural tooth and to which the shell can be applied very quickly and easily. Preferably the inner and outer tubes should be slightly tapered so as to provide a wedge fit and also to facilitate the removal of the shell in case it should be broken.

The advantages derived from this method of affixing artificial teeth will be readily recognized by the dental profession, it not only saves time and labor, but artificial teeth so affixed will present a very natural appearance in the mouth of the wearer, and they will be durable.

I claim:

1. An artificial tooth comprising a hollow vitreous crown, and telescoping tubes fitting within the same, one of the tubes being attached to the crown and the other to a natural tooth.

2. An artificial tooth comprising a hollow tube adapted to be fixed over a stump, and a porcelain shell having a metal tube secured therein and fitted upon said tube.

3. The combination with an artificial tooth having an outer vitreous shell and an inner metal tube, said shell having a recess cut therein, of a bridge plate fitting at its end in said recess and secured to said tube.

In testimony whereof, I affix my signature in presence of two witnesses.

EDWARD J. KOCHMIT.

Witnesses:

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BESSIE F. POLLAK.