R. J. McVICKER.

INTERCHANGEABLE TOOTH.

APPLICATION FILED FEB. 21, 1921.

1,407,557. Patented Feb. 21, 1922.

Fig. 3.

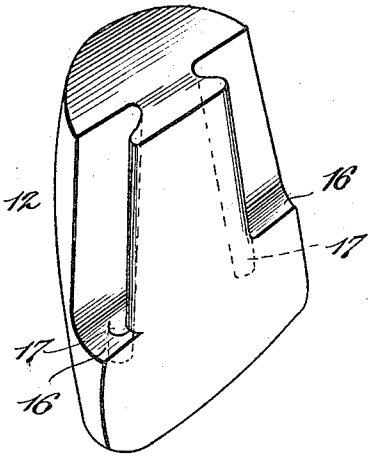


Fig. 2.

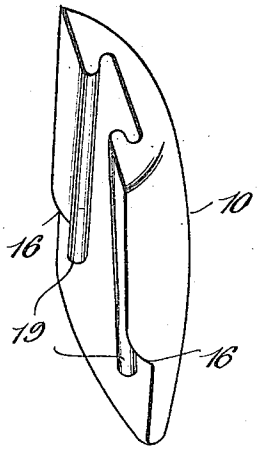
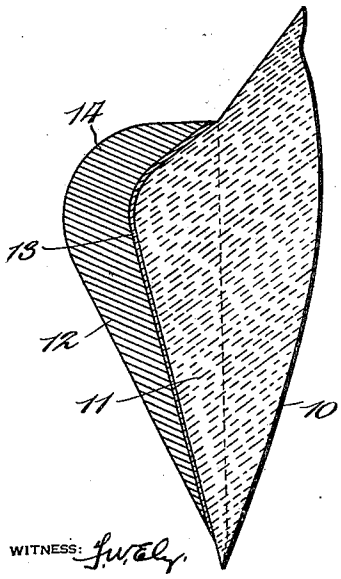


Fig. 1.



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INTERCHANGEABLE TOOTH.

1,407,557. Specification of Letters Patent. Patented Feb. 21, 1922.

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To all whom it may concern:

Be it known that I, ROBERT J. McVICKER, citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented new and useful Improvements in Interchangeable Teeth, of which the following is a specification.

This invention relates to interchangeable teeth and one of the principal objects is to produce a false tooth and backing therefore which shall be so constructed and coact in such manner that if the tooth is "chipped" or otherwise injured after being placed, it may be readily removed and a new tooth substituted without the necessity of removing the entire bridge or backing.

Another object is to produce a device of this nature which shall be simple of construction, and highly efficient for the purpose for which it is designed.

Another object is to construct a device of this nature which shall obviate the use of pins and other like members, by substituting a tenon which tends to strengthen the tooth.

With these and other objects in view which will be more apparent as the specification proceeds, the invention resides in certain novel construction, the essential elements of which are hereinafter fully described, are particularly pointed out in the appended claims, and are illustrated in the accompanying drawing, in which:

Figure 1 is a vertical sectional view of the preferred form of tooth and backing assembled.

Figure 2 is a perspective view of a second form of tooth.

Figure 3 is a vertical sectional view of the tooth shown in Figure 4 assembled with its backing.

Like characters of reference refer to like parts in all views.

Referring to the drawing in detail, 10 represents an artificial tooth, preferably of porcelain, provided at its rear side with a dovetail tenon 11, which extends considerably in rear of the body portion at the neck of the tooth and gradually approaches the body portion into which it "fades" or blends near the cutting edge. The tenon 11 is also considerably broader toward the cutting edge than at the neck of the tooth which permits its free movement into and out of the backing now to be described.

The backing for the form of tooth above described is shown at 12 and is made of a thin sheet of gold or other metal 13 which is formed over the dovetail tenon and extends below the tooth or facing 10 to form the cutting edge of the tooth. This sheet after being properly formed to the tooth of facing is then provided with suitable metal or other reinforcement 14 which is suitably formed for the special needs of the particular case as is well understood in the art. In this way, the dentist is enabled to form his own backing, it being necessary to procure only the desired tooth 10 from the manufacturer. Or if desired, the backing can be purchased from the manufacturer. During the application of the material 14 the porcelain tooth 10 is of course removed. After the bridge 13—14 is set in the mouth of the patient, the tooth 10 is slipped into its seat and cemented there as will be understood by those skilled in the art. Should the tooth 10 be thereafter chipped or cracked, it can be readily removed from the bridge 13—14 by grinding or in any other desirable manner, and after the dovetail slot in the bridge is cleaned, a new tooth may be substituted without the necessity of removing the bridge.

The flanges of the tenon are formed with a curved undercut at 15, and extend from the neck of the tooth only part way to the cutting edge, so that shoulders 16 are formed at the sides. The undercut portions 15 extend down to form curved seats 17. The backing for this form of tooth will have co-acting shoulders 16 and will have lugs 19 to fit into the seats 17. It will be seen that this form is a variation of the previously described form and that the tooth may be as readily interchanged in this case as in the first form.

While I have described what is deemed to be the most desirable embodiment of my invention, it is obvious that many of the details may be varied without in any way departing from the spirit of my invention, and I therefore do not limit myself to the exact details of construction herein set forth nor to anything less than the whole of my invention limited only by the appended claims.

What is claimed as new is:—

1. An interchangeable tooth comprising a facing portion, and a dovetail tenon integral with the rear portion of the tooth

and having its rear face sloping from the neck of the tooth toward the cutting edge of the tooth and narrower at the neck of the tooth than it is toward the cutting edge thereof, the undercuts of said tenon being curved and extended to form cup-like seats, and said tooth being provided with shoulders adjacent to said seats.

2. In a device of the class described, the combination of a backing provided with flanges extending from the neck to a point intermediate the ends of the backing and having terminal lugs, and provided with shoulders adjacent to said lugs; and a tooth having a tenon formed so as to fit snugly into the space defined by said flanges and having cup-like seats formed in it adjacent to said tenon for receiving said lugs and having shoulders to co-act with the aforesaid shoulders of said backing.

In testimony whereof I have affixed my signature.

ROBERT J. McVICKER.