

T. B. MAGILL.
 PROCESS OF FILLING TEETH.
 APPLICATION FILED AUG. 28, 1913.

1,118,301.

Patented Nov. 24, 1914.

Fig. I.

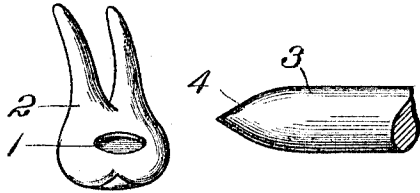


Fig. V.

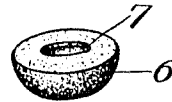


Fig. II.

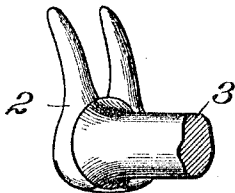


Fig. VI.

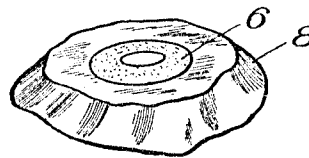


Fig. III.

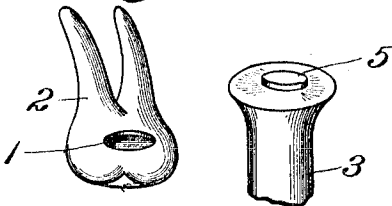


Fig. VII.

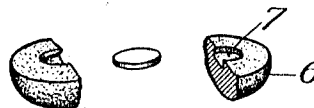


Fig. IV.

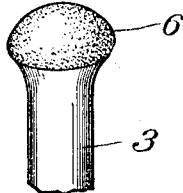
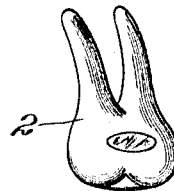


Fig. VIII.



WITNESSES:

Arthur W. Caps.
 R. F. Thomas

INVENTOR

T. B. Magill.

BY

Arthur Brown
 ATTORNEY

UNITED STATES PATENT OFFICE.

THOMAS B. MAGILL, OF KANSAS CITY, MISSOURI, ASSIGNOR TO KEETON GOLD COMPANY, OF KANSAS CITY, MISSOURI, A CORPORATION OF MISSOURI.

PROCESS OF FILLING TEETH.

1,118,301.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS B. MAGILL, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Processes of Filling Teeth; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to a process of filling teeth, and has for its principal object to provide a process whereby an inlay may be built outside of a patient's mouth, and thereby eliminate the painful and tedious process of building up a filling directly in a tooth cavity.

It is also an object of the invention to provide a process of this character consisting of forming an impression, mold and inlay without heating the various parts, except, perhaps, heating of the wax to secure the impression to a degree wherein expansion and contraction is negligible.

In order to better describe my improved process I have illustrated the steps thereof in the accompanying drawings, wherein:—

Figure I is a perspective view of a tooth having a cavity to be filled, and a piece of modeling compound with which the original impression may be taken. Fig. II shows the modeling compound as it is applied to the tooth to secure the impression. Fig. III is a view similar to Fig. I, with the impression of the cavity formed on the modeling compound. Fig. IV is a view of the piece of modeling compound in the condition illustrated in Fig. III, with a body of cement applied to the impression. Fig. V is a perspective view of the cement model after its removal from the modeling compound. Fig. VI is a perspective view of the cement model incased in reinforcement and showing the cavity of the model filled with Keeton gold. Fig. VII is a perspective view of the cement model and formed inlay, showing the model broken to release the inlay. Fig. VIII is a view of the tooth after the inlay has been set.

Referring more in detail to the process,

and to the drawings wherein the process is illustrated, in carrying out the process, a cavity 1 in a tooth 2 is prepared in the usual manner, care being taken, however, to obviate undercutting, in order that the impression, which is afterward taken, may be drawn. When the cavity is prepared, a piece of modeling compound 3, of any suitable character, is softened and its tip rolled between the fingers to form a cone 4. When the modeling compound is formed, as described, the tip is again softened until it is pliant, and then projected into the cavity in the tooth; sufficient pressure being applied to secure projection of the compound into the entire cavity and the formation of a margin about the edges thereof. When the impression has been made, the modeling compound is removed; the portion of the compound which was projected into the cavity forming an outstanding impression 5, on the end of the piece of compound, having the exact outlines of the cavity in the tooth. When the modeling compound has become sufficiently hardened, a body of cement, preferably of a quick hardening character, is placed over the end of the modeling compound to form a model 6. After the cement model has hardened the modeling compound is again softened, so that the cement model may be removed therefrom. When the model is removed from the modeling compound, a cavity 7, having the exact outlines of the cavity 1 in the tooth, is left in its face, which may then be filled with Keeton gold to form an inlay which may eventually be applied to the cavity of the tooth.

In order that gold may be applied to the model conveniently, I build up a reinforcement 8 around the model, preferably by softening the modeling compound and welding the same to and about the model, until a structure of sufficient body to strengthen the model and adapt same for convenient handling, has been formed. The cavity 7 in the cement model is then filled by placing small quantities of Keeton gold therein and pressing the material to place with ordinary plugger points; the filling operation continuing until the cavity in the model is completely filled. When the cavity is full of gold, the reinforcement is softened and removed from the model and the inlay removed from the model, preferably by split-

ting the model in order to free the gold inlay therefrom. The edges of the inlay are then treated to insure the removal of any foreign matter therefrom, inlay cement is applied to the cavity in the tooth, and the inlay inserted into the cavity. After the inlay has been inserted, its outer surface may be burnished to carry the edge of the inlay over the cement and onto the portion of the tooth that surrounds the cavity, thereby protecting the cavity and the cement by which the inlay is held in place, or the burnishing may be done before the inlay is removed from the model.

It is apparent that by the present method, an inlay is formed having the exact outlines of the cavity in the tooth, so that when the inlay has been formed and is applied to the cavity, it will fit exactly without leaving space between the surfaces of the inlay and the walls of the cavity, into which fluid of any character may enter to disintegrate the walls of the cavity.

Having thus described my invention, what I claim as new therein and desire to secure by Letters-Patent, is:—

1. The process of filling teeth consisting

of securing an impression of the cavity to be filled, making a mold from the impression, investing the mold in reinforcing material, plugging metal into said mold, removing the reinforcement and mold from the metal and applying the metal to the cavity in the tooth.

2. The process of filling teeth consisting of preparing an open cavity, securing an impression of said cavity and a portion of the surrounding tooth, applying material to the impression to form a mold of finite depth so that the upper edge conforms to the contour of the surrounding tooth, investing the mold in a reinforcing base, plugging metal into said mold and filling the same to the contour of the mold of the surrounding tooth to form an inlay, removing the base and mold from said inlay and applying the inlay to the cavity in the tooth.

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

THOMAS B. MAGILL.

Witnesses:

RETTA F. THOMAS,
LETA E. COATS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."