

(No Model.)

G. EVANS.
ARTIFICIAL TOOTH CROWN.

No. 373,346.

Patented Nov. 15, 1887.

Fig: 1.



Fig: 2.

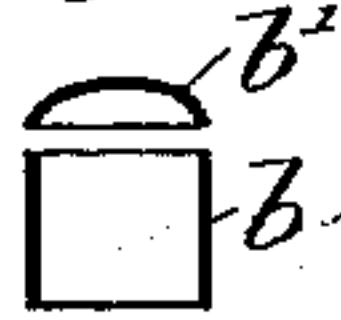


Fig: 3.



Fig: 4.



WITNESSES:

H. F. Parker.

Alfred

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INVENTOR

BY

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UNITED STATES PATENT OFFICE.

GEORGE EVANS, OF NEW YORK, N. Y.

ARTIFICIAL TOOTH-CROWN.

SPECIFICATION forming part of Letters Patent No. 373,346, dated November 15, 1887.

Application filed December 9, 1886. Serial No. 221,086. (No model.)

To all whom it may concern:

Be it known that I, GEORGE EVANS, a citizen of the United States, residing at the city, county, and State of New York, have invented a certain new and useful Improvement in Artificial Tooth-Crowns, of which the following is a specification, which will enable others skilled in the art to which my invention appertains to understand and use the same.

This invention relates to improvements in artificial crowns fitted and adapted to build upon the roots or decayed portions of teeth a grinding-surface corresponding in character and form to the natural grinding-surface of the original tooth; and to that end my invention consists in an improved shaping of platinum, gold, or other metallic cup-shaped seamless crowns to the said form, corresponding with greater accuracy to the peculiarities which characterize the tooth to be replaced than has been accomplished heretofore; and the said invention comprises, as a new article of manufacture, a seamless metallic tooth-crown having the novel characteristics herein described.

Having reference to the accompanying drawings, in which similar letters of reference represent corresponding parts, Figure 1 is a sectional view of the usual crown-blank made of one piece; Fig. 2, a similar view of the component parts of a usual crown-blank to be completed by soldering; Fig. 3, a seamless blank having its grinding-surface stamped upon it; Fig. 4, an exterior perspective view of a seamless crown completed according to my invention.

Hitherto the blanks of metal having a grinding-surface stamped thereon, as in Fig. 3, which represents a crown having a grinding-surface approximating in shape to a perfect molar tooth, have been adapted in practice to the peculiarities of the individual tooth to be covered by shaping or contouring the sides of the crown to a form approximating to the sides of a perfect tooth, and subsequently adjusting the metal to the peculiar formation of the individual tooth by bending and forcing it down in place after being put on, the origi-

nal form of the said grinding-surface being produced by means of hammering the same between a pair of dies of a construction shown in Fig. 4, which, however, fail to impart to the sides of the blank a form approaching a natural contour.

In carrying out my invention an accurate impression of the tooth to be crowned is first taken by means of pressing thereon a plastic material—such as plaster-of-paris—and dividing the same, so as to remove it from the tooth and retain in it the counterpart cavities or impressions corresponding to the surfaces of the tooth. This is allowed to harden, and from this mold is obtained an exact duplicate of the tooth in regard to form by compressing therein a plastic substance of any suitable composition of a quality which will afterward resist heat. The duplicate of the tooth thus produced is now used as a core for casting in a mold a pair of dies of metal or other suitable material and having any convenient exterior form, and by means of such dies the seamless metal crown is produced. For these dies I prefer to use Babbitt metal; or other alloy fusible at low temperature may be likewise used.

No claim is made in this application to the dies or the process of manufacture. The manner of using these dies and the dies themselves are referred to and claimed in other separate applications filed in the Patent Office, numbered, respectively, 222,634 and 230,221, and which will issue simultaneously herewith and bear corresponding dates. Therefore,

What I claim, and desire to secure by Letters Patent, is—

As an improved article of manufacture, a seamless metallic tooth-crown, substantially as herein described, having the external conformation corresponding to the cervical, middle, and occluding third of a natural tooth to which said metallic crown is to be applied or substituted for.

GEORGE EVANS.

Witnesses:

CHAS. W. FORBES,
A. CREVELING.

Corrections in Letters Patent No. 373,346.

It is hereby certified that in Letters Patent No. 373,346, granted November 15, 1887, upon the application of George Evans, of New York, New York, for an improvement in "Artificial Tooth-Crowns," errors appear in the printed specification requiring the following corrections, viz: In line 51 the word "of," following the word "dies," should read *to*, and in line 52 the word and figure "Fig. 4" should read *Fig. 3*; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 20th day of December, A. D. 1887.

[SEAL.]

D. L. HAWKINS,
Acting Secretary of the Interior.

Countersigned:

BENTON J. HALL,
Commissioner of Patents.