

(No Model.)

D. GENESE.
ARTIFICIAL TOOTH.

No. 371,054.

Patented Oct. 4, 1887.

Fig. 1.

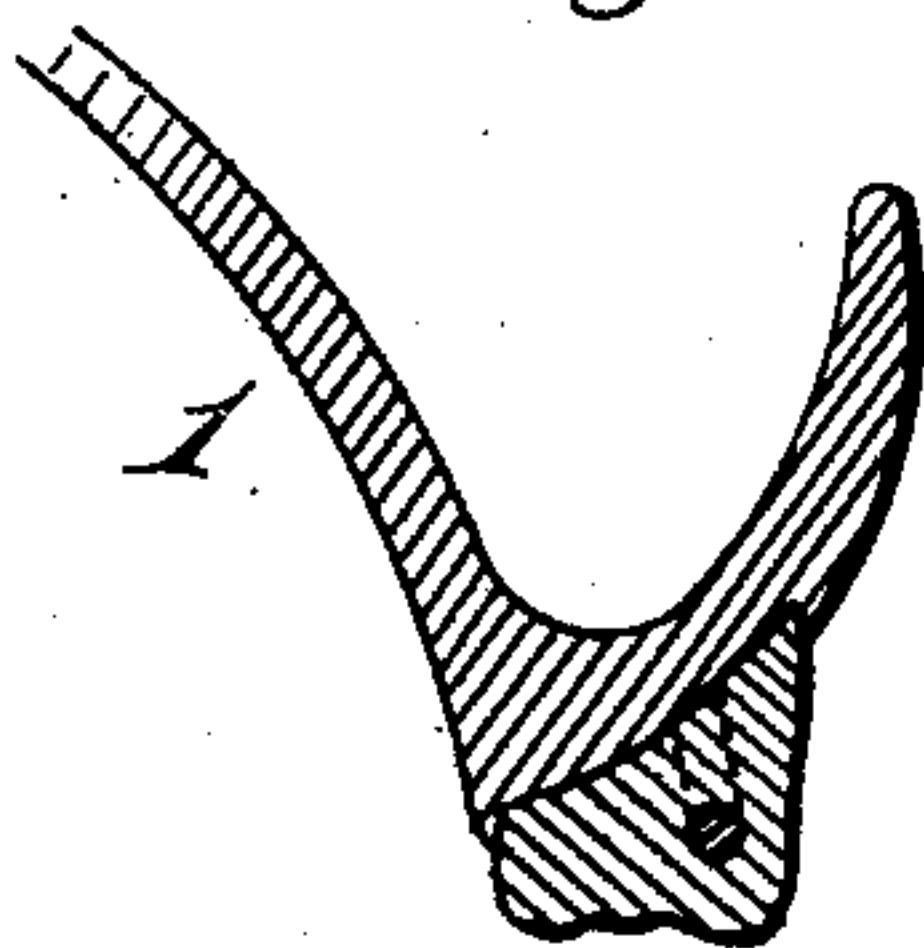


Fig. 2.

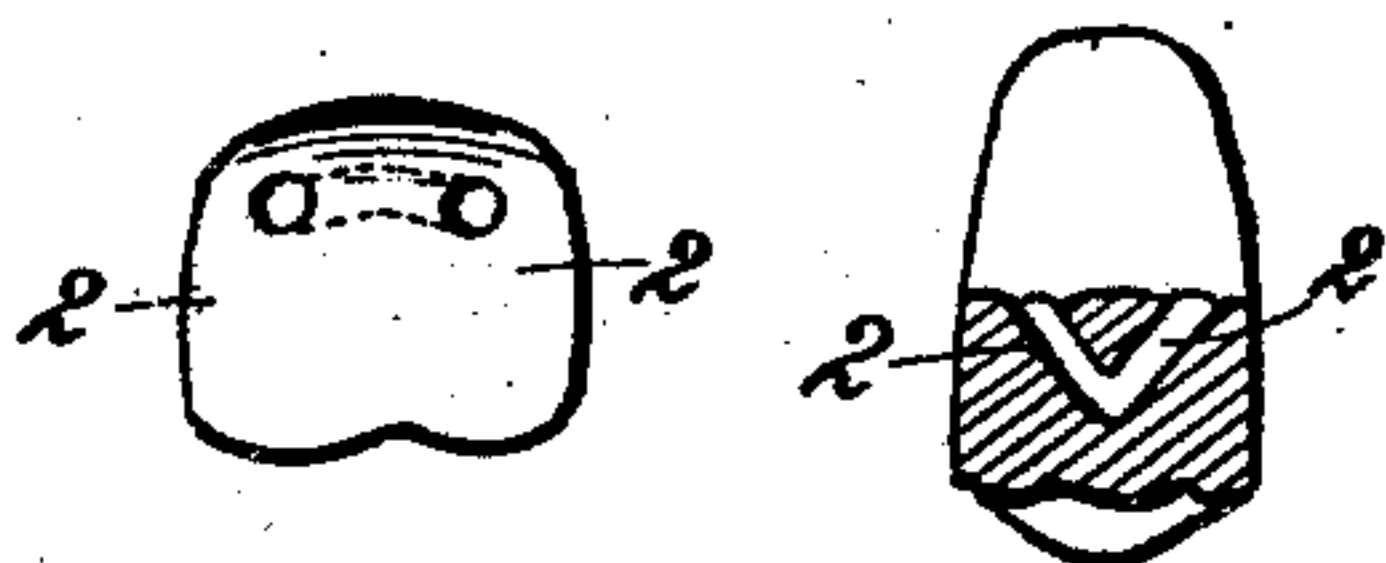


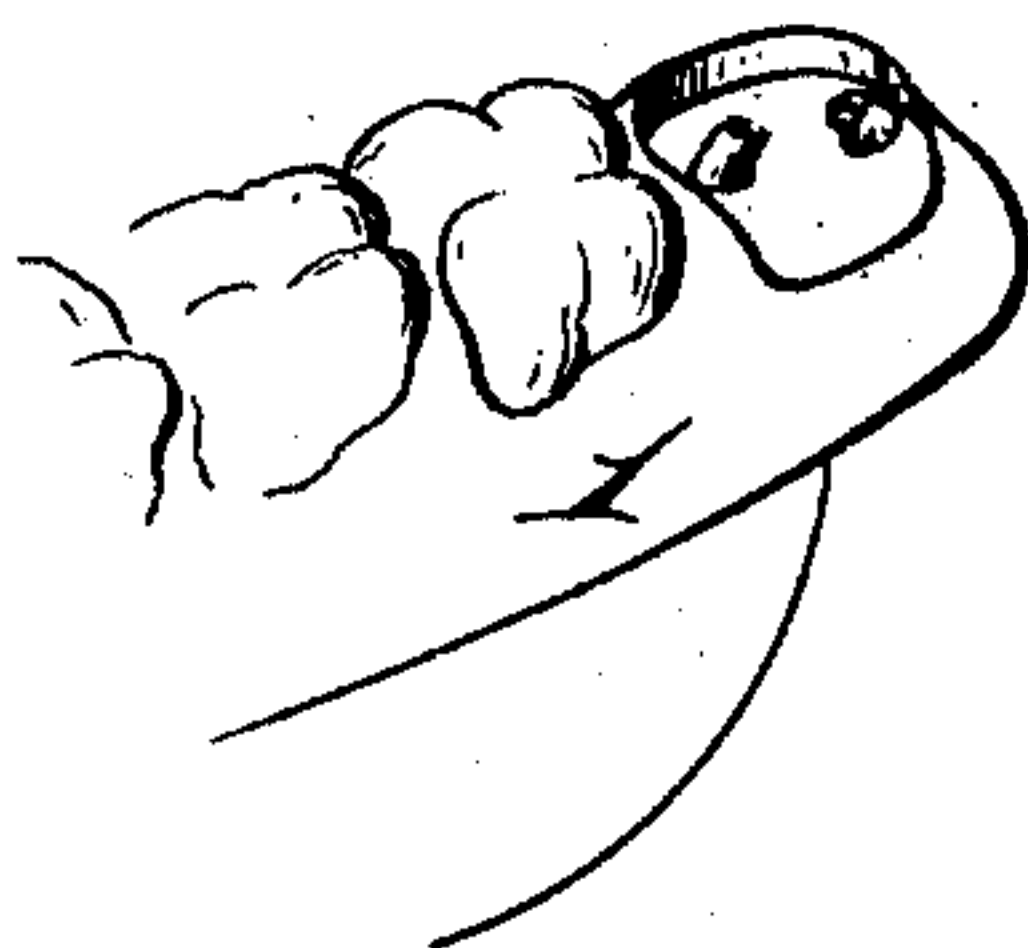
Fig. 3.



Fig. 4.



Fig. 5.



Witnesses.
Robert Everett.
H. H. McBready

Inventor.
David Genese.
By James L. Norris.
Atty.

UNITED STATES PATENT OFFICE.

DAVID GENESE, OF BALTIMORE, MARYLAND.

ARTIFICIAL TOOTH.

SPECIFICATION forming part of Letters Patent No. 371,054, dated October 4, 1887.

Application filed April 4, 1887. Serial No. 233,670. (No model.)

To all whom it may concern:

Be it known that I, DAVID GENESE, a subject of the Queen of Great Britain, residing at Baltimore, in the State of Maryland, have invented new and useful Improvements in the Manufacture of Artificial Teeth, of which the following is a specification.

My invention relates to the manufacture of artificial teeth and the manner of attaching them to the dentures upon which they are mounted, whether the same be rubber, celluloid, or mineral plate dentures.

It is the purpose of my invention to improve the construction of porcelain teeth in such manner that the usual platinum pins by which a connection is made with the dentures may be entirely dispensed with, a connection effected by means of the rubber or other material from which the plate is constructed giving a tenacious, strong, and durable attachment, adding materially to the beauty of the work, avoiding the cracking and splitting of the teeth, so frequently experienced in the use of the ordinary metallic pin attachment, and giving a solid foundation or base for the support of the tooth on the plate, no space being left for food or secretions to enter between the teeth or between the latter and the pins.

My invention consists in the several novel features of construction and combinations of parts hereinafter fully set forth, and definitely pointed out in the claims.

In the accompanying drawings, Figure 1 is a sectional view of a portion of the denture, showing one form in which my invention is applied. Fig. 2 is a detail view of two forms of tooth, a "short-bite" and "long-bite" tooth, respectively, showing the form of construction. Fig. 3 is a detail view of a modified construction. Fig. 4 is a detail view of a slight modification of the construction shown in Fig. 3. Fig. 5 is a partial perspective of Fig. 1, showing the seat for a tooth which has been broken from the rubber.

In the said drawings, the reference-numeral 1 denotes the denture, constructed of rubber, celluloid, or other material. Heretofore the teeth have been mounted upon and connected to said dentures by means of pins, usually made of platinum or other non-oxidating metal, a portion of said pin being buried in the por-

celain of the tooth and a part projecting from the tooth being embedded in the rubber of the denture. Experience has shown, however, that where metal and porcelain are used in combination there is no union between the two, and when the teeth are mounted the metallic pins act as so many fulcrum-points at the weakest portion of the tooth, causing frequent fracture through the crown. I construct the teeth, therefore, with apertures 2, formed at an angle and meeting or intersecting in the center of the thickest portion of the face of the tooth. These apertures or orifices both extend longitudinally in the tooth—that is, in the direction of the length of the tooth—and their lower meeting portions are within the tooth. The angle at which these apertures lie relatively to each other is preferably an obtuse angle, but may be varied as deemed necessary without departing from my invention. When placed in the mold and in screwing up the flask, the crown of the tooth presents practically a flat surface without grooves, and the diverging cavities permit the rubber of the denture to enter and unite within the body of the tooth, forming a strong, tenacious, and permanently durable fastening. This method of mounting also gives a comparatively large surface contact between the tooth and the rubber without leverage, as shown in Fig. 5, which represents a portion of the denture from which a tooth has been removed.

It has been found in practice that the rubber when vulcanized will shrink away from the metallic pins, and this introduces an element of trouble, especially in the case of short-bite teeth, as in the process of mastication a continued movement of the tooth takes place, and sooner or later it breaks off. This difficulty is wholly avoided by my invention, since the contraction of the rubber in the diverging cavities of the teeth adds to the strength of the attachment by drawing the tooth and the denture closer together, and insuring its solid foundation on the rubber, at the same time leaving no space for the food to enter between the teeth and plate. By this construction, also, a larger surface of mineral can be used in mounting a denture where the articulation is very close, and adding to the beauty of appearance, since the surface of the tooth does

not need grinding to enable the dentist to mount it. It also enables a full denture to be made of mineral teeth, which would otherwise have to be constructed of rubber.

5 In combination with the diverging grooves 2, running into the labial portion of the tooth, a groove, 3, may be carried in horseshoe form from aperture to aperture, as shown in Fig. 3; or the groove may be formed outside the lingual
10 border of the tooth, as represented at 4, Fig. 4. These forms of construction give the strongest possible attachment to a rubber or celluloid base in the case of long-bite teeth where the leverage is very great, making the denture
15 one compact mass without openings for the secretions of the mouth to enter between the porcelain and the rubber.

Having thus described my invention, what I claim is—

20 1. An artificial tooth having two converging orifices, both extending from the crown in the

direction of the length of the tooth and intersecting and communicating at the thickest part of the tooth, whereby the material of the denture will meet and join at the intersecting
25 ends of the orifices, substantially as described.

2. The combination, with a denture of rubber or other plastic material, of an artificial tooth having two orifices, both extending in the direction of the length of the tooth and
30 converging from the crown, said orifices intersecting and communicating at the thickest part of the tooth, and the material of the denture engaging the orifices and joined at the intersecting ends of the latter, substantially as
35 described.

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

D. GENESE.

Witnesses:

G. EVETT REARDON,
T. BEALMEAR.