

No. 607,211.

Patented July 12, 1898.

G. BUCHANAN.
ARTIFICIAL TOOTH.

(Application filed Dec. 17, 1897.)

(No Model.)

Fig. 1.

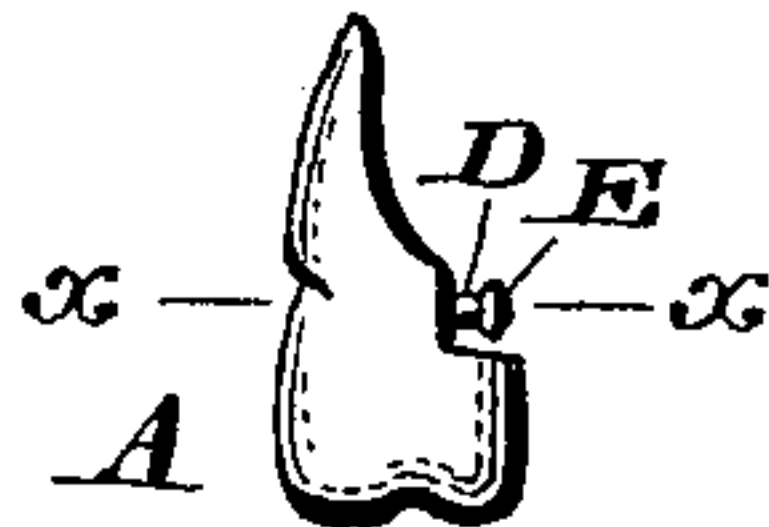


Fig. 2.

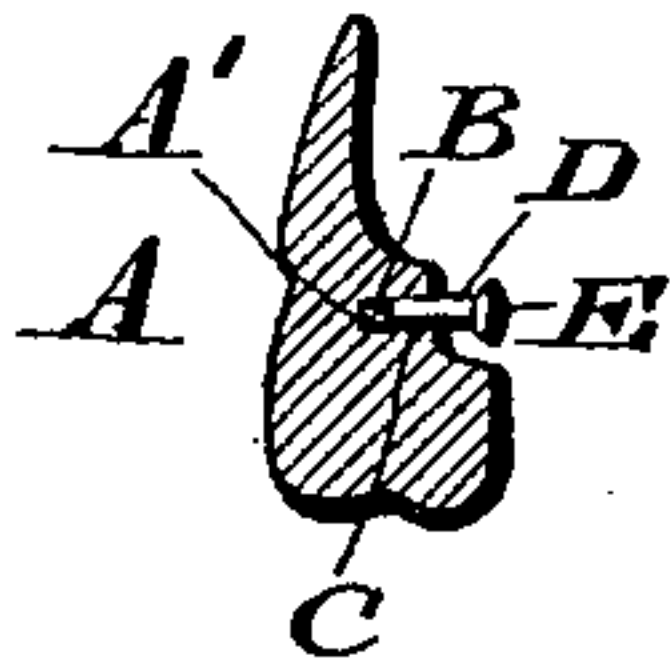


Fig. 3.

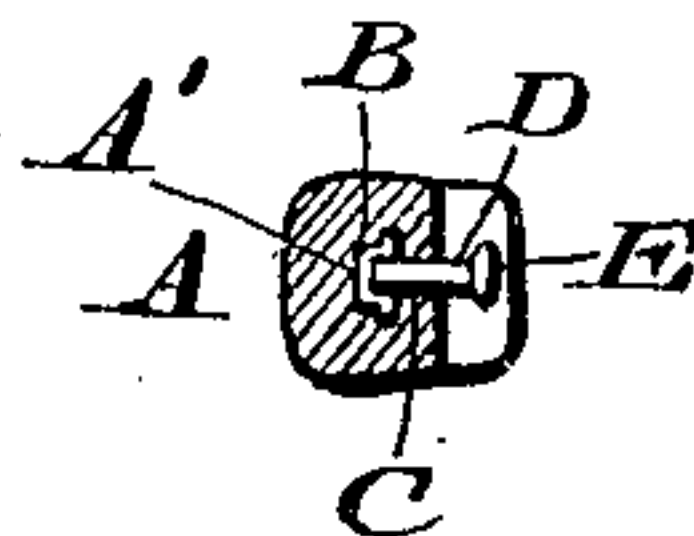


Fig. 5.

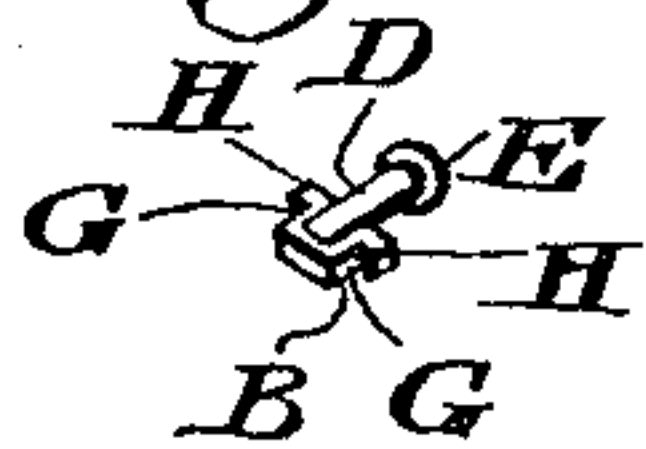
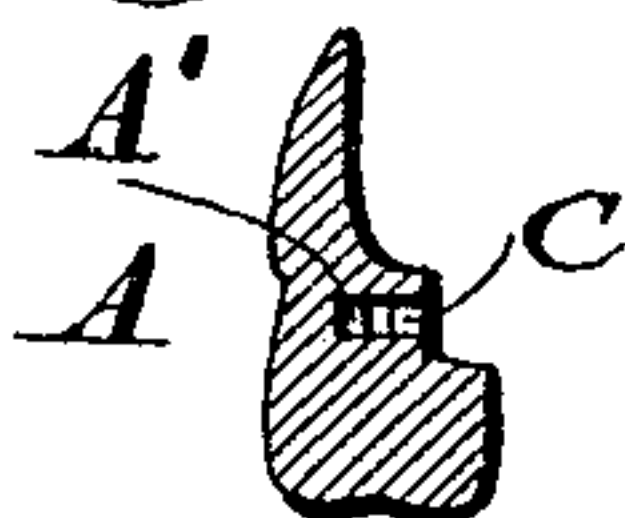


Fig. 4.



WITNESSES:

P. J. Hayes.
L. Howille.

George Buchanan INVENTOR
BY
Wiederstein & Fairbanks
ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE BUCHANAN, OF PHILADELPHIA, PENNSYLVANIA.

ARTIFICIAL TOOTH.

SPECIFICATION forming part of Letters Patent No. 607,211, dated July 12, 1898.

Application filed December 17, 1897. Serial No. 662,250. (No model.)

To all whom it may concern:

Be it known that I, GEORGE BUCHANAN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Artificial Teeth, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to novel means for firmly connecting an artificial tooth to the plate therefor, the same embodying an anchor which is interlocked in the tooth and adapted to have a pin soldered or otherwise attached thereto, said anchor consisting of a main plate, rearwardly-extending legs at the ends of said plate, and laterally-extending feet at the ends of said legs, the tooth having cavities therein to accommodate said plate, legs, and feet, whereby the anchor cannot be withdrawn from the opening or cavity in the tooth which it occupies, thus reliably retaining the anchor in position and preventing disconnection of the pin from the tooth, it being particularly noticed that said laterally-extending feet occupy cavities rearward of the cavity of the main plate and forward of the rear wall of the tooth, so shoulders are formed rearward of said feet, against which said feet solidly abut, and all the members of the anchor are entirely inclosed within the tooth. Furthermore, the anchor is formed of a piece of metal which may be easily bent to the shape required, as well as cut into a variety of lengths, according to the size of the tooth to contain an anchor.

Figure 1 represents a side elevation of a tooth embodying my invention. Fig. 2 represents a longitudinal section thereof. Fig. 3 represents a horizontal section thereof on line *xx*, Fig. 1. Fig. 4 represents a vertical section of the tooth in position without the anchor and pin. Fig. 5 represents a perspective view of the anchor and pin embodying my invention.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates an artificial tooth, within which is a cavity A', occupied by an anchor B, which is embedded in the tooth in the process of the formation of the same, the opening or cavity in the tooth

receiving said anchor, the latter consisting of a main transverse portion, rearwardly-extending legs at the ends of said main portion, and laterally-extending feet at the ends of said side portions.

C designates an opening in the tooth, extending rearward from the anchor B, the same being adapted to receive the shank of the pin D, a portion of which passes through the back of the tooth and is connected with the plate for said tooth, said shank being provided with the head E generally existing in such cases.

The anchor B consists of a main plate formed of a piece of platinum or other suitable metal or material, deflected to have legs G on its sides and laterally-extending feet H on the bases of said legs, the cavity in the tooth being similarly shaped.

The shank of the pin D is inserted in the opening C and soldered to the crown of the anchor and passes between the side limbs of the latter, thus firmly connecting said pin with the anchor, and consequently with the tooth, it being evident that owing to the feet H the anchor is interlocked with the tooth and prevented from being withdrawn from its position. Consequently the pins remain reliably secured to the tooth, this being more particularly due to the feet H, which being projected as cross-bars into the lateral portions of the cavity A' serve to control the anchor against outward displacement. Especially is this the case as said feet rest solidly against the shoulders J, which extend inwardly toward each other to the pin-opening and are located rearward of the cavities which receive said feet and forward of the rear wall of the tooth, the rear ends of the anchor thus being entirely covered by said shoulders and forming abutments for the feet near the rear of the tooth, where the greatest outward strain on the anchor exists. Furthermore, during the process of firing or baking the tooth the edges of the metal are not exposed, as they are embedded in the material of the tooth and so are not directly affected by the heat. Again, the anchor is formed of a flat piece or strip of metal, which may be cut into the required length and then bent into shape, and said lengths may be varied according to the size of the tooth which is to

receive the anchor. Furthermore, the anchor terminates at the shoulders J, and the opening in the tooth rearward of said shoulders does not require to be lined with the expensive metal of which the anchor is formed, as the pin E fills said opening, and it may be made of inferior metal, thus saving considerable expense in the manufacture of a tooth with an anchor of the nature stated therein.

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

1. An artificial tooth having a main cavity extending transversely therein, auxiliary rearwardly-extending cavities at the ends of said main cavity, laterally-extending cavities at the ends of said side cavities, shoulders extending inwardly toward each other and interposed between said laterally-extending cavities and the rear wall of the tooth and an opening extending rearwardly from said main cavity and aside of the rearwardly and laterally extending cavities to the back of the tooth, in combination with an anchor consisting of a strip of metal formed of a main transverse portion, rearwardly-extending legs

at the ends of said main portion and laterally-extending feet at the rear ends of said legs, the members of the anchor occupying the respective cavities in the tooth.

2. An artificial tooth having a main cavity extending transversely therein, auxiliary rearwardly-extending cavities at the sides of said main cavity, laterally-extending cavities at the end of said side cavities, shoulders extending inwardly toward each other between said laterally-extending cavities and the rear wall of the tooth and an opening extending rearwardly from said main cavity aside of said rearwardly and laterally extending cavities through the back of the tooth, in combination with an anchor, formed of a transverse plate, rearwardly-extending legs at the ends of said plate and laterally-extending feet at the rear ends of said legs, and a pin connected with the crown of said anchor and passing between said side legs and through the back of the tooth.

GEORGE BUCHANAN.

Witnesses:

JOHN A. WIEDERSHEIM,
WM. C. WIEDERSHEIM.