No. 607,231. Patented July 12, 1898.

C. E. FOSTER.

ARTIFICIAL TOOTH.

(Application filed Mar. 19, 1898.)

(No Model.)

Fig. 1.

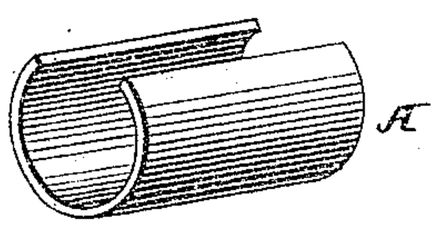


Fig. 2.

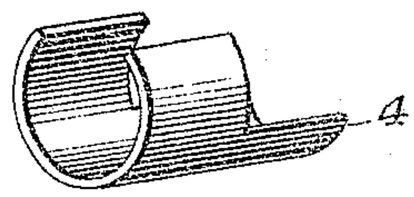


Fig. 3.

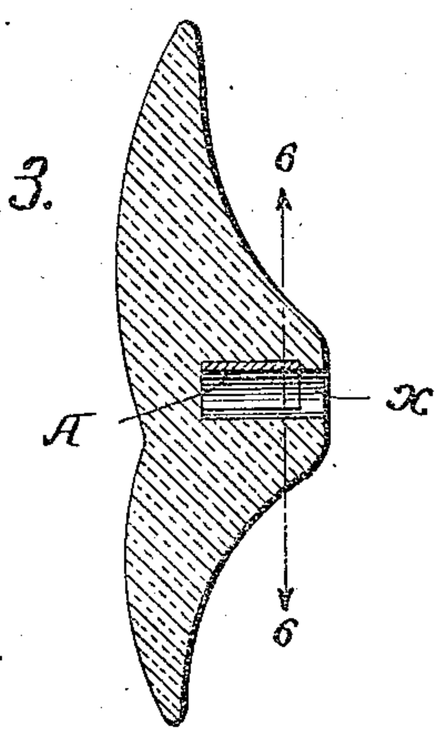


Fig. 4.

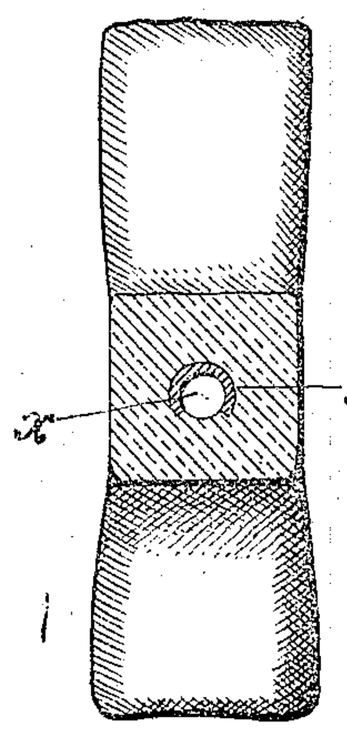


Fig. 5.

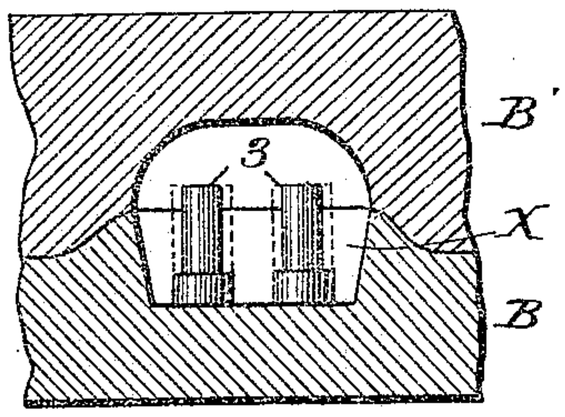
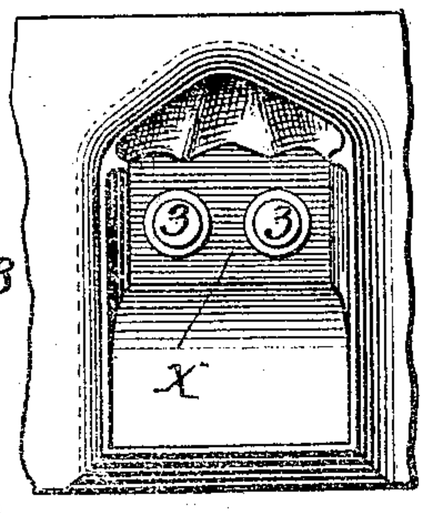


Fig. 6.



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ARTIFICIAL TOOTH

SPECIFICATION forming part of Letters Patent No. 607,231, dated July 12, 1898.

Application filed March 19, 1898. Serial No. 674,539. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. FOSTER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Artificial Teeth, of which the following is a specification.

It has been common to provide artificial dentures with openings extending to the rear or labial faces and to embed in the dentures platina rings or perforated disks or plates so arranged as to receive the stems of pins made of silver or base metal which are soldered to the anchoring-pieces and thereby secured to the dentures. It is of course exceedingly desirable to reduce the amount of platina to be used in such cases, and it is also desirable to secure as extended a bearing longitudinally as possible for the pin, thereby to increase the extent of the anchorage. Further, it is desirable to secure the anchoring-piece in the denture so that it cannot pull out and so that stress upon the same will not have the effect of splitting or flaking off the porcelain at the back of the teeth. In order to secure these desirable results and obviate certain defects of prior constructions, I make the anchoring-piece in the form of a clip, as fully set forth hereinafter and as illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved anchoring-piece; Fig. 2, a modification intended to secure a more extended bearing for the pin and a better bearing in the body of the denture. Fig. 3 is a transverse section of a tooth with the anchoring-piece, Fig. 1, embedded therein. Fig. 4 is a section on the line 6 6, Fig. 5. Fig. 5 is a vertical longitudinal section of a part of a mold, illustrating the manner in which the anchoring-piece is applied in the manufacture of the tooth. Fig. 6 is a plan view of the lower mold-section.

The anchoring-piece A, Fig. 1, is made in the form of a clip from a flat strip or sheet of metal bent around to an extent exceeding a half-circle. It is necessary that the clip should exceed a half-circle, first, because with less metal it gives a longer bearing for the pin which is inserted therein and soldered thereto, and, secondly, because it is necessary in the manufacture of teeth to have some means for supporting the clip while the body is applied in the mold.

For instance, in Figs. 5 and 6, which illustrate the mold usually employed, there are shown two posts 3 3 (of which there may be any suitable number) projecting upward from the lower mold-section B, within the recess X thereof; and which posts serve to form in the body of the material which is pressed between the sections of the mold the openings *x*, extending to the rear faces thereof. By making the clips A in extent less than a complete circle, but greater than a half-circle, I am enabled with a small amount of metal to apply the clips to the posts 3 3, and they will adhere to the same, so that when the body material is inserted between the sections B B′ of the mold and pressed therein as the sections are brought together the strips will adhere to the posts and will not be displaced.

If the anchoring-pieces were made, as heretofore has sometimes been done, in the form of a tube, they would be objectionable for two reasons. In the first place the porcelain shrinks greatly and contracts in baking, and as the tube does not shrink to a proportionate extent there is a certain amount of stress upon the porcelain which tends to cause the same to crack easily under any strain; secondly, when the anchoring-piece is in the form of a tube the latter cannot be made of any extended length, so as to secure an extended longitudinal bearing for the pin, without an objectionable increase of the cost.

With the anchoring-piece made in the form of a clip consisting of a strip bent to more than a half-circle, but open at one side, the clip may be increased very materially in length, while employing the same amount of metal which would be used for making a complete tube shorter in length, and a still greater length of bearing may be secured by providing the clip with a projection 4, extending longitudinally from one end, as shown in Fig. 2, and yet without increasing the weight of metal which would necessarily be employed if the clip was in the form of a tube of shorter length.

When the clip is made in the form illustrated in Fig. 1 or Fig. 2, it is only necessary to cut a strip of sufficient width transversely and then bend the pieces severed from the strip to the form shown in the drawings.

Without limiting myself to the precise construction and arrangement of parts shown, I claim as my invention—

1. An anchoring-piece for artificial dentures consisting of a flat refractory-metal plate bent to an extent greater than a half-circle but less than a complete circle and constituting a clip, substantially as set forth.

2. The combination in an artificial denture, of a body portion of the denture of porcelain, and an anchoring-piece of platina baked therein and consisting of a strip of metal bent to an extent greater than a half-circle but less than a circle, substantially as set forth.

3. An anchoring-piece for an artificial denture consisting of a strip bent to an extent greater than a half-circle but less than a circle provided with a projection 4, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES E. FOSTER.

Witnesses:
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