G. W. TODD.

ARTIFICIAL TOOTH.

APPLICATION FILED JULY 12, 1911.

1,014,348. Patented Jan. 9, 1912.

Fig. 1.

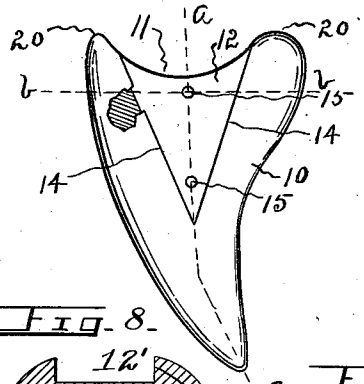

Fig. 3.

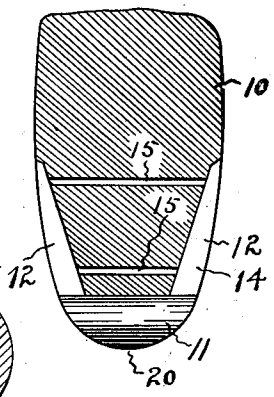

Fig. 8.

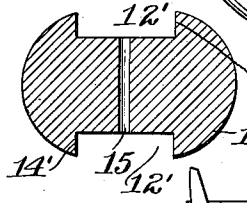

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Fig. 2.

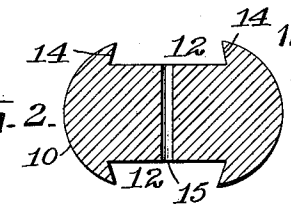


Fig. 4.

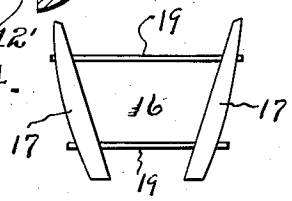
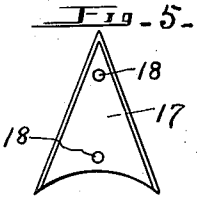


Fig. 5.



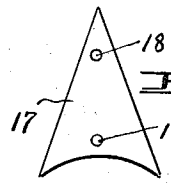


Fig. 6.

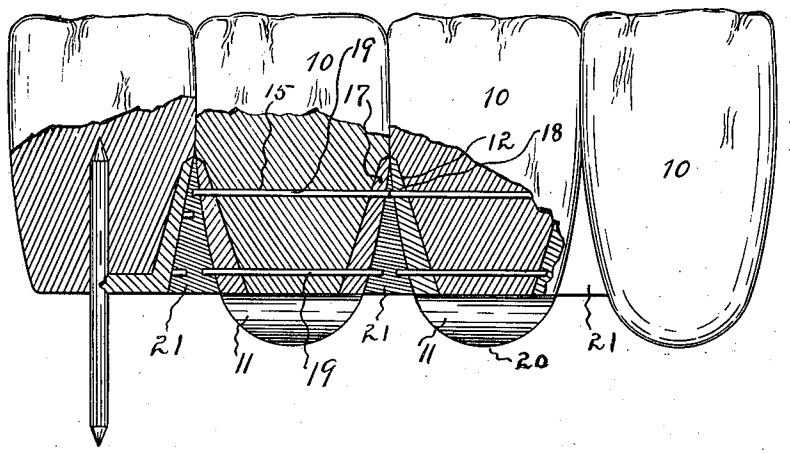


Fig. 7.

Witnesses

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ARTIFICIAL TOOTH.

1,014,348. Specification of Letters Patent. Patented Jan. 9, 1912.

Application filed July 12, 1911. Serial No. 638,083.

To all whom it may concern:

Be it known that I, GEORGE W. TODD, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Artificial Teeth, of which the following is a specification.

This invention relates to improvements in artificial teeth, for use of dentists, and has for its principal object to provide teeth so constructed that they may be used to advantage for crown or bridge work.

The invention has especial reference to a means for securing together certain teeth as described, for crown and bridge work, grooves being formed in the teeth to open upon channels formed in their bases and, incidentally, forming overhanging portions. In applicant's pending application, Serial No. 627,309, the construction of the channel with the overhanging base, and grooves opening upon the channel, is described and claimed, and therefore no claim is made thereto in the present application.

The invention consists of the novel construction, combination and arrangement of parts, as described and claimed, and as illustrated in the drawing, wherein,—

Figure 1 is a side view, partly in section, of the artificial tooth. Fig. 2 is a transverse section of the tooth, taken on line *b*—*b* of Fig. 1. Fig. 3 is a view in longitudinal section, being a section on the irregular line *a a* of Fig. 1. Fig. 4 is a side view of an open, metallic frame employed as a holding means. Fig. 5 is a top plan view of a side plate or filler strip, and Fig. 6 is a bottom plan view of the same. Fig. 7 is a front view of a part of a bridge formed by use of the artificial teeth. Fig. 8 is a view of an artificial tooth, in transverse section, this view being somewhat similar to that illustrated by Fig. 2, to show a modified form for the side recesses.

Referring now to the drawing for a more particular description, numeral 10 indicates a body portion or tooth having a concaved channel 11 formed in its base between its front and rear faces to open upon its sides, and at 12 are indicated grooves, recesses or channels having a length less than that of the tooth, and formed in the sides of the tooth to open upon the concaved channel 11.

While recesses 12 are preferably formed to extend divergently from the base of the tooth, as clearly shown in Fig. 3, said recesses may have convergent side walls 14 of bevel shape to provide tapered forms. At 15 are indicated perforations extending through the body of the tooth to open upon recesses 12.

At 16 (Fig. 4.) is indicated a metallic frame, consisting of the bars, plates or filler-strips 17, perforated transversely, as indicated at 18, and the holding-pins 19. Strips 17 are adapted to be disposed in recesses 12 of the tooth, and being of tapered form and having side walls formed wedge-shaped in cross-section, they may fill recesses 12, substantially; and when so disposed, the outer walls of said strips will be flush with the sides of the tooth, and the strips will be seated in a manner to be practically obscured from view.

The herein described tooth is particularly adapted for use in bridge work. The broad bases of the tapered, metallic strips 17 operate to reinforce the tooth at or near its "root" end, where most needed, and they provide broad surfaces for connecting with the solder. Any suitable metal may be used for the holding pins and strips 17, and for these parts platenoid and ankrite have been used to advantage, with gold solder.

While I have shown and described two perforations in the body of the tooth to open upon recesses 12, and have described two holding-pins for connecting the filler strips, I do not limit myself to the exact number of these parts.

It will be noted that a broad, concaved channel 11 is formed in the base of the tooth, and that the front and rear portions of the tooth are so formed that they provide projections 20 extending well beyond the bottom of the channel. This is desirable so that the base will have a curved depression corresponding to the shape of the gum tissue, and may have a suitable bearing thereon, when the tooth is in use.

In operation, strips 17 are placed within recesses 12, and after the holding-pins have been inserted in recesses 15 and 18, they may project somewhat outwardly of the metallic strips for bridge work, and solder 21 is used to fill the spaces adjacent to these projections and between the metallic strips of the adjacent teeth; and the solder provides an adequate holding means for securing the teeth together.

Fig. 8 illustrates the formation of recesses

12′ in the sides of the tooth 10′, the recesses having convergent side walls 14′. The construction shown, is the same as already described, with the exception that walls 14′ are disposed at right angles to the bottom walls of the recesses; I may employ these angularly formed walls, as here illustrated, and the construction, while a modification, is not considered a departure from the invention.

Having fully explained the several parts and their uses, a further description relating to operation is not necessary.

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

1. An artificial tooth, comprising an apertured body portion formed at its base with a concaved channel between its front and rear faces to open upon its sides, and having grooves formed in its sides opening upon said concaved channel and said aperture; apertured filler-strips adapted to be seated in said grooves; and a holding-pin adapted to traverse the apertures of said body portion and said filler-strips.

2. In combination with a tooth having a perforated part and formed with a channel opening upon its bottom and two of its sides, a metallic frame adapted to engage within the perforated part and to fill the channels at the sides of the tooth.

3. An artificial tooth, comprising a body portion formed with transverse apertures and a concaved channel in its base between its front and rear faces to open upon its sides, and having grooves formed in its sides to open upon said apertures and extending convergently from and opening upon said concaved channel; apertured filler-strips adapted to be seated in said grooves, and holding-pins adapted to be disposed in the apertures of said body portion and the apertures of said filler-strips.

4. In combination with a tooth having a perforated part and formed with a channel opening upon its bottom and two of its sides, a metallic frame adapted to engage within the channels and perforated part and forming projections outwardly of said channels at the sides of the tooth.

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

GEORGE W. TODD.

Witnesses:
HIRAM A. STURGES,
LORA L. STURGES.