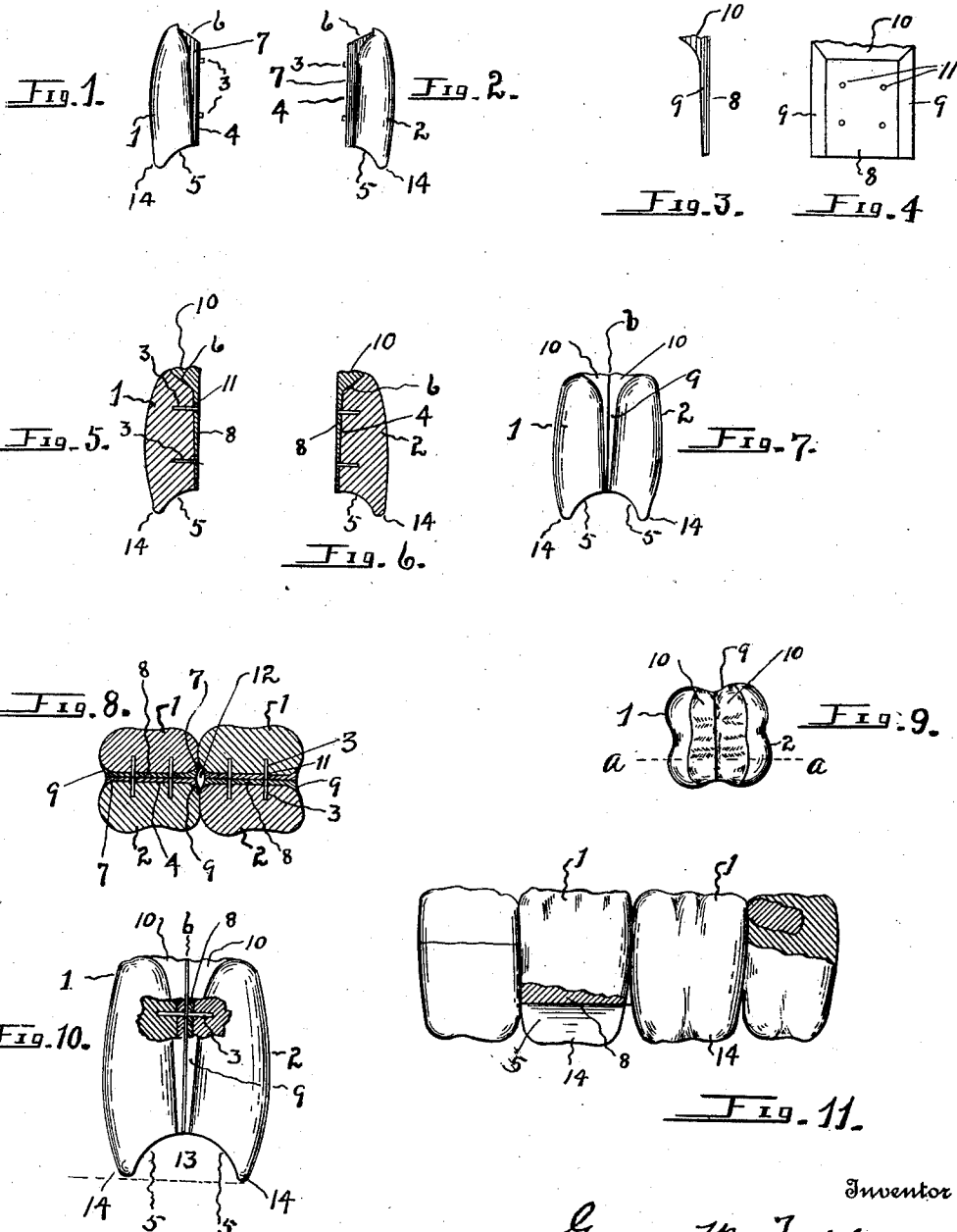


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ARTIFICIAL TOOTH.
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1,016,456.

Patented Feb. 6, 1912.



Witnesses

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GEORGE W. TODD, OF OMAHA, NEBRASKA.

ARTIFICIAL TOOTH.

1,016,456.

Specification of Letters Patent.

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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 in plate or bridge work, and has for its principal object to provide a construction whereby the teeth may be secured together conveniently and effectively, side by side, both the front and rear portions to be of porcelain or other suitable non-metallic material and substantially alike in form, to simulate natural teeth; the invention also includes a concaved recess in the base of the front and rear tooth-portions to provide, when the parts are connected, an arched bearing-wall substantially conforming to the shape of and for a seating upon the gum tissue.

The novel construction of my newly invented teeth, and the manner of practicing the invention will be fully described herein and in the appended claims, reference being made to the accompanying drawing, wherein,—

Figures 1 and 2 are side views, respectively, of front and rear, non-metallic tooth-portions provided with metallic holders or pins. Fig. 3 is a vertical, edgewise view of one of the linings employed. Fig. 4 is a side view of the lining. Figs. 5 and 6 are views in longitudinal section, respectively, of the front and rear portions of an artificial tooth, when sectioned on line *a a* of Fig. 9. Fig. 7 is a vertical, side view of the artificial tooth. Fig. 8 is a view in transverse section of two connected, artificial teeth. Fig. 9 is a plan view of an artificial tooth. Fig. 10 is a side view, partly in section, of the same; and Fig. 11 is a front or rear view, partly broken, illustrating the use of the artificial teeth in bridge work.

Referring now to the drawing for a more particular description, numerals 1 and 2 respectively indicate front and rear non-metallic tooth-portions, preferably of porcelain, having metallic holders or pins 3 projecting transversely from their inner, flat sides 4, and each having a curved base to provide a concaved recess 5, their upper ends being reduced to provide ledges 6 inclined upwardly from sides 4 toward their outer faces. Also the longitudinal edges of

sides 4 are reduced to provide facets 7 terminating at or opening upon recesses 5 and ledges 6.

At 8 are indicated metallic lining-members for mountings upon the flat sides 4 of the tooth portions, each of said linings having a comparatively thin body with terminal, outwardly-convergent side flanges 9 and an outwardly-convergent head-portion or flange 10 to respectively engage facets 7 and ledges 6; apertures 11 being also provided, within which pins 3 may engage. The lining or overlay thus provided for each tooth-portion, may be secured thereto by use of cement or other suitable means, and when thus connected, the two metallic linings may be disposed face-to-face and secured together by solder *b* to form the artificial tooth shown in Figs. 7 or 10.

The outer walls of the transversely-convergent flanges 9 of the lining-members, are of concaved form, this feature being best shown in Fig. 8, and when the teeth are disposed side-by-side an aperture 12 is formed therebetween by reason of the concaved surfaces, useful for purposes of soldering in bridge work, and since flanges 9 may have any desired width, and adequate holding-surface may be provided for the solder, to firmly connect the several teeth of a bridge or plate.

It will be noted that, after the two tooth-portions have been connected to form a complete tooth, heads 10 will rest upon ledges 6 to provide a metallic surface which will be durable for the ordinary wear of the tooth; and recesses 5 coöperate to form the concaved channel, groove or recess 13 extending between the front and rear faces to open upon the sides of the tooth, projections 14 of the porcelain parts extending well beyond the metallic middle portion, the arched form of the recess thereby providing a suitable bearing-wall for a seating upon the gum tissue.

By reason of the construction as described, the posterior as well as anterior parts of the teeth may be porcelain, which is an obvious advantage as compared with the metallic facing for the posterior parts usually employed. Also the parts of the tooth are of such form that they may be conveniently manufactured and assembled to form separate teeth, and the teeth may be conveniently and rigidly secured together side-by-side for bridge work.

What I claim as my invention is,—

1. An artificial tooth, comprising a porcelain front portion, a porcelain rear portion, each being formed with a concaved base and provided on one of its faces with a metallic lining, said front and rear portions being disposed adjacent to each other with their metallic linings in contact, their concaved bases forming a single arcuate wall.
2. An artificial tooth, comprising a front non-metallic part, a rear non-metallic part, each being reduced to provide a recess in its base and a ledge opening upon its crown; a metallic part disposed between and secured to said non-metallic parts and provided with a head in engagement with said ledges, said recesses forming an arch-shaped bearing wall extending between the front and rear non-metallic parts and opening upon the sides thereof.
3. An artificial tooth comprising a front porcelain part, a rear porcelain part, each having a substantially flat inner wall and reduced to provide a recess in its base, a ledge opening upon its crown and facets between its base and ledge at the terminals

of its flat inner wall; a metallic part disposed between the inner walls and secured to the front and rear porcelain parts and provided with a head and with flanges for engagement, respectively, with the ledges and said facets; said recesses forming an arch-shaped bearing wall extending between the front and rear porcelain parts and opening upon the sides thereof.

4. An artificial tooth, comprising adjacent front and rear non-metallic portions formed with concaved bases; a metallic portion provided with flanges, said metallic portion being disposed between and secured to said front and rear portions with its flanges engaging the sides thereof, the concaved bases forming an arch-shaped wall opening at the sides of the non-metallic portions, outwardly of said metallic portion.

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

GEORGE W. TODD.

Witnesses:

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A. F. CLARK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."