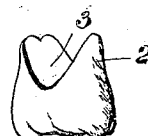
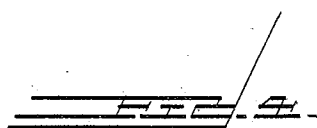
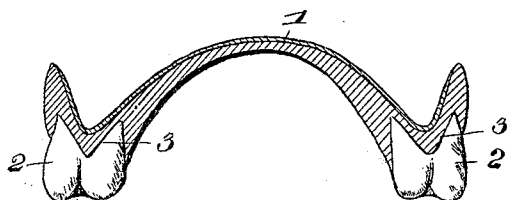
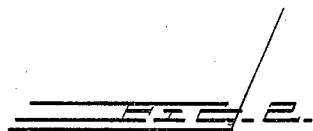
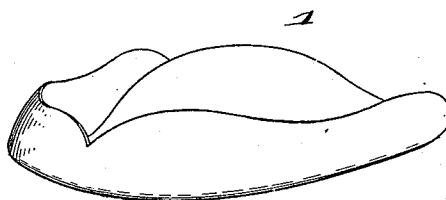
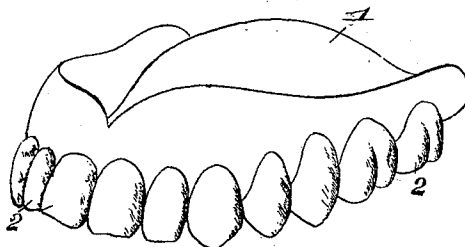
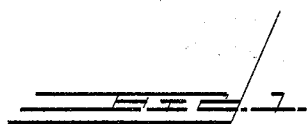


(No Model.)

A. L. & B. F. GILMER.
ARTIFICIAL TEETH.

No. 553,523.

Patented Jan. 28, 1896.



Inventors

Witnesses
W. F. Doyle
U. B. Hillyard

By their Attorneys.
Abraham L. Gilmer and Benjamin E. Gilmer
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UNITED STATES PATENT OFFICE.

ABRAHAM L. GILMER AND BENJAMIN F. GILMER, OF QUINCY, ILLINOIS.

ARTIFICIAL TEETH.

SPECIFICATION forming part of Letters Patent No. 553,523, dated January 28, 1896.

Application filed June 24, 1895. Serial No. 553,891. (No model.)

To all whom it may concern:

Be it known that we, ABRAHAM L. GILMER and BENJAMIN F. GILMER, citizens of the United States, residing at Quincy, in the county of Adams and State of Illinois, have invented new and useful Artificial Teeth, of which the following is a specification.

This invention relates to an improved method of manufacturing artificial dentures and continuous gumwork; also, in the denture *per se*.

The object of the improvement is to dispense with the cost attendant upon the manufacture of continuous gumwork, and to provide a plate which will closely resemble the natural gum and practically defy detection.

The invention consists of the novel features which hereinafter will be more fully set forth and claimed.

In the accompanying drawings, Figure 1 is a set of artificial teeth constructed in accordance with and embodying the essence of the present invention. Fig. 2 is a section thereof. Fig. 3 is a detail view of the metal backing forming the base or foundation of the denture. Fig. 4 is a view of one of the teeth.

In practicing the invention an impression of the mouth is taken in the usual manner and a mold of plaster-of-paris constructed therefrom, and from this mold are formed dies, the same consisting of die and counter-die of metal. Platinum-foil of proper gage is pressed over the metal die with fingers. A piece of rubber dam is placed across counter-die. Platinum-foil is then shaped into the required form by being swaged between the complementary parts of the dies. After being swaged the rubber dam will allow the platinum-foil to be removed on the metal die. Then invest in plaster-of-paris all of that part of platinum-foil plate that is to be covered with porcelain. After this investment has set remove the metal die. This leaves platinum-foil plate invested. Then a preparation of asbestos, plaster-of-paris and sand is mixed and poured into platinum-foil plate. When this sets break off investment. This leaves platinum-foil plate deposited on poured model, and should remain on same until artificial denture is completed. This process of

investing and swaging is to prevent platinum-foil plate from changing its form while teeth are being constructed. The teeth are now ready to be articulated. The porcelain teeth have a crotch extending inwardly from their necks, which enables the teeth to straddle and fit over the alveolar ridge. By providing the crotch an extended surface is obtained for the fusing of the teeth to the porcelain plate and to prevent teeth from being misplaced while undergoing the process of baking. These teeth, made in this form, can be articulated in porcelain body. The interstices between them are filled with porcelain body, and all of the exterior portion of platinum-foil plate or backing is covered with porcelain body and placed into a furnace and baked until the teeth, porcelain body and platinum-foil plate are fused into a substantially homogeneous mass. After this baking the portion of plate that is to represent gum tissue is treated to a coat of coloring material and returned to furnace and baked to finish. This method of work is not confined alone to this kind of a tooth. Any tooth that is on the market can be used. The teeth can be articulated in any of the usual ways. They are then invested, platinum wire soldered to the pins in teeth, then placed on platinum-foil plate, and porcelain body applied, as before stated, and proceed to finish. The results are a substantial and durable set of artificial teeth, the plate having a platinum-foil lining, which is the best for the purpose, as no other metal will stand the intense heat that is necessary to bake this kind of work, except platinum or an alloy of platinum and iridium.

Having thus described the invention, what we claim as new is—

1. The herein-described method of manufacturing or constructing artificial dentures, which consists in swaging a platinum foil plate or backing to conform to the required place of use, the investment of same, the removing of metal die from same, the pouring of preparation in same, the removing of investment from same, the leaving of same deposited on poured model, the articulating of artificial teeth in porcelain body, the baking

of an artificial denture over a poured model, substantially as set forth.

2. As an improved article of manufacture, an artificial denture having the artificial
5 teeth, a porcelain plate, and a platinum foil lining fused together, substantially as set forth.

In testimony that we claim the foregoing as

our own we have hereto affixed our signatures in the presence of two witnesses.

ABRAHAM L. GILMER.
BENJAMIN F. GILMER.

Witnesses:

ERNEST M. WOOD,
MARTIN GEISE.