

(No Model.)

E. H. SHERMAN.

ARTIFICIAL TOOTH.

No. 373,099.

Patented Nov. 15, 1887.

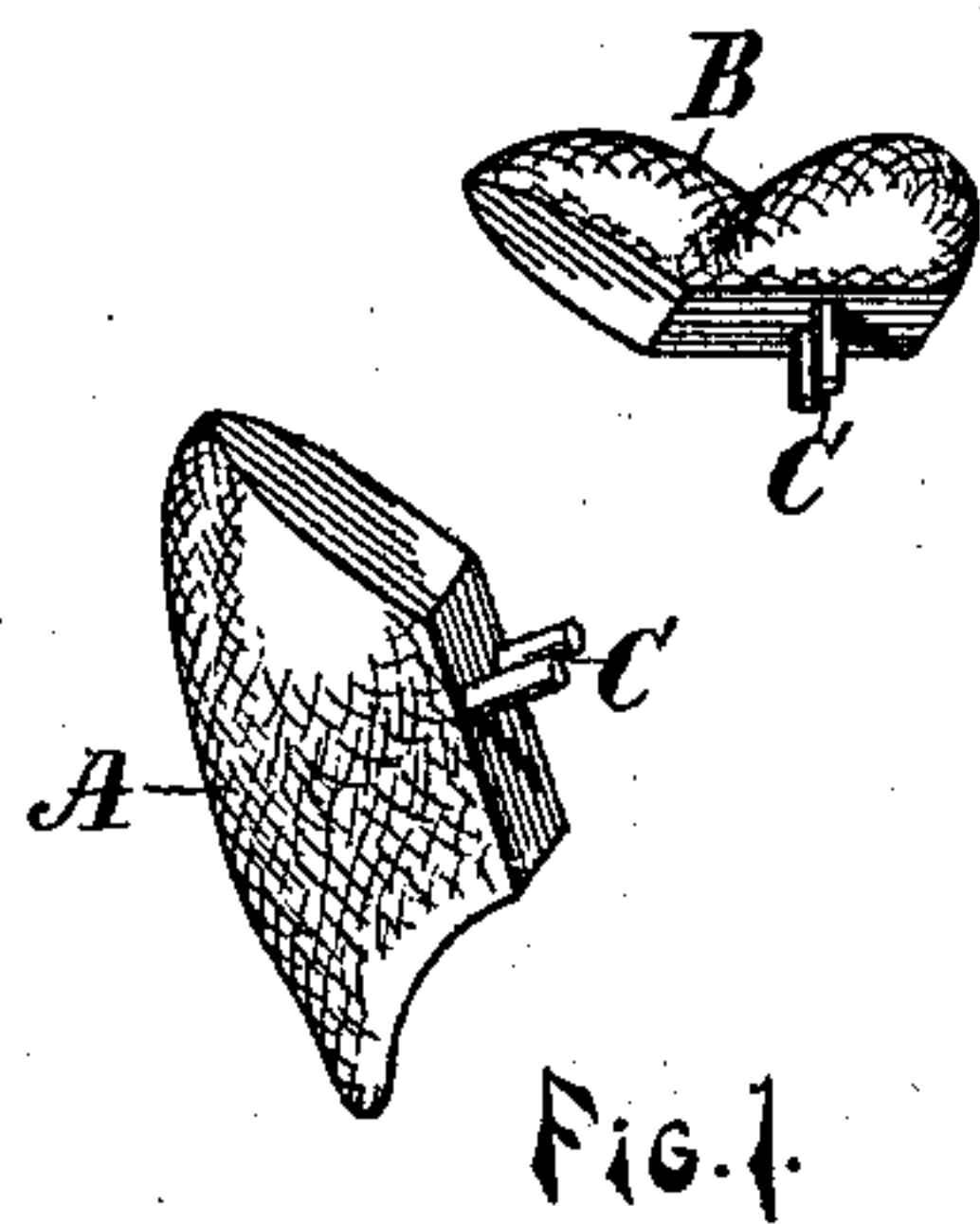


Fig. 1.

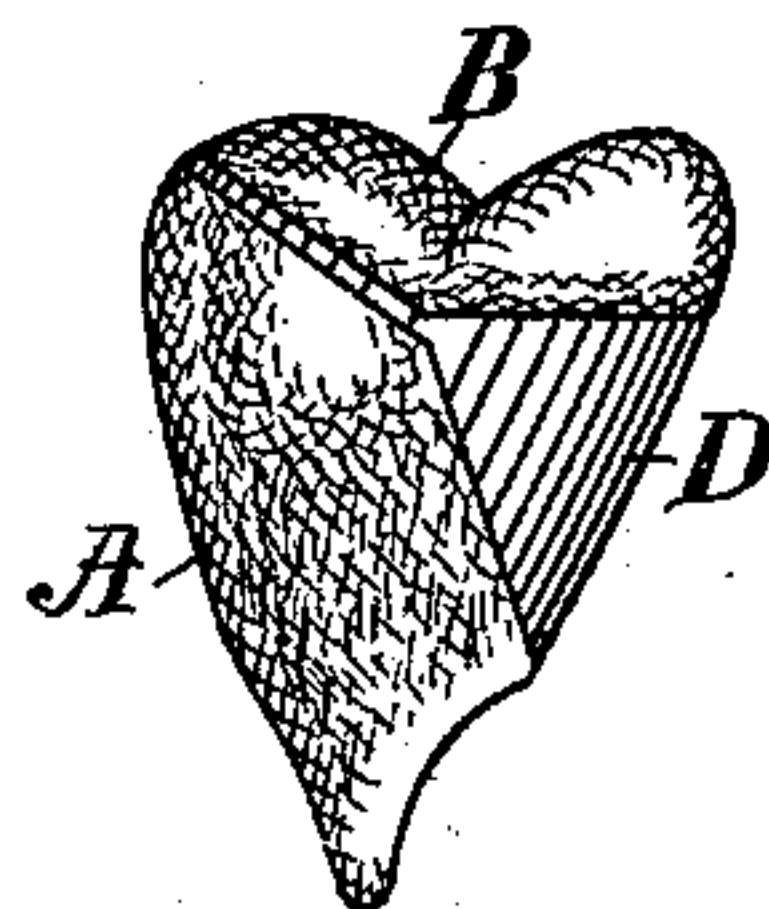


Fig. 2.

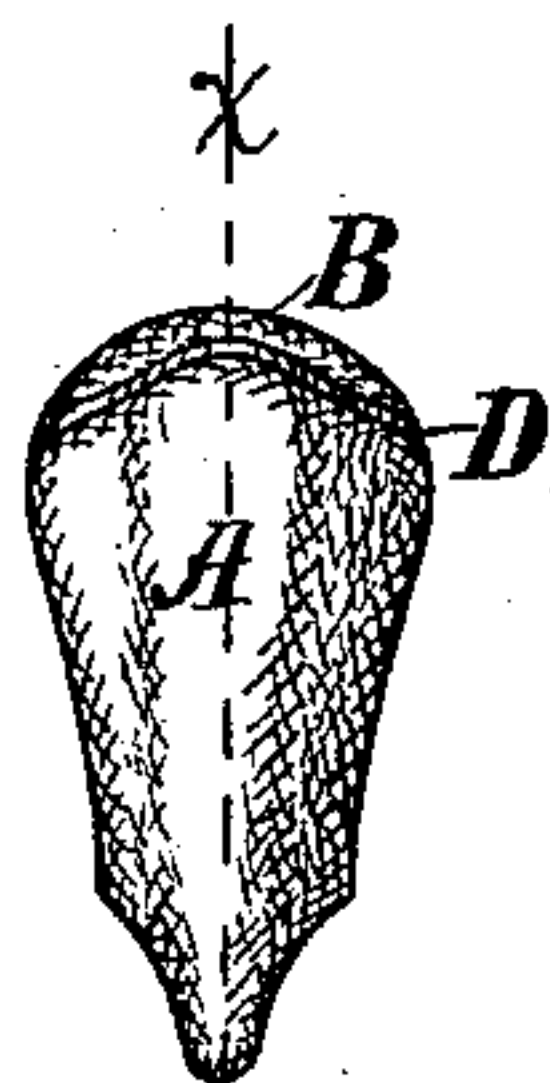


Fig. 3.

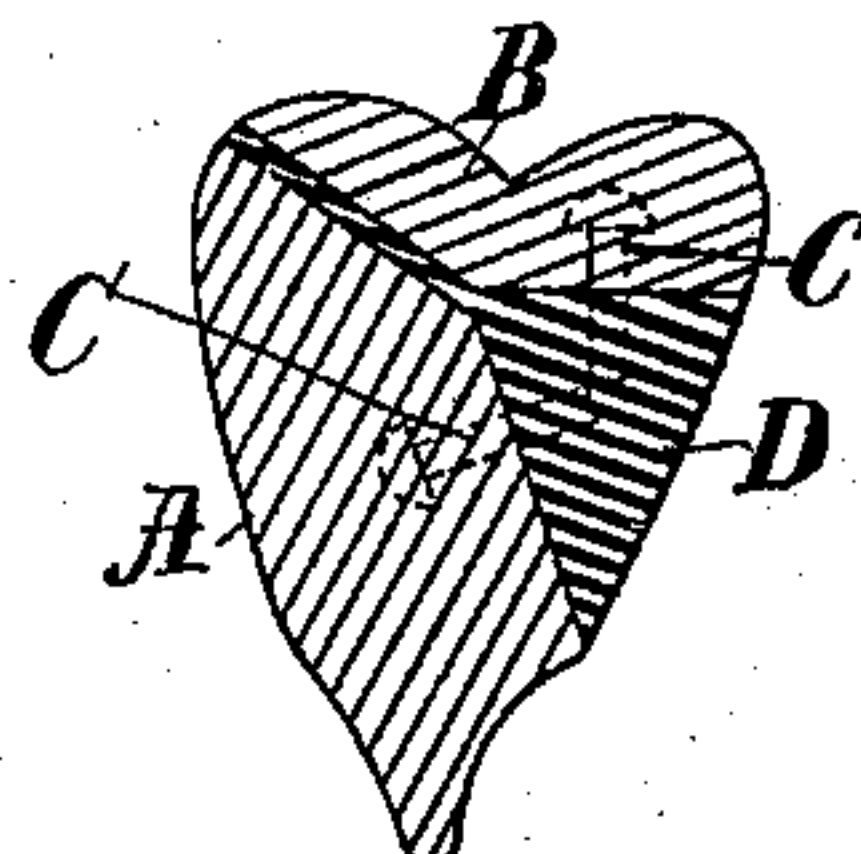


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

ELLIOTT H. SHERMAN, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR OF ONE
HALF TO JOHN B. PARKER, OF SAME PLACE.

ARTIFICIAL TOOTH.

SPECIFICATION forming part of Letters Patent No. 373,099, dated November 15, 1887.

Application filed April 4, 1887. Serial No. 233,658. (No model.)

To all whom it may concern:

Be it known that I, ELLIOTT H. SHERMAN, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented a new and useful Artificial Tooth, of which the following is a specification.

My invention relates to improvements in artificial teeth, which are usually made of porcelain and attached to a support of metal or other suitable material, which is in turn secured within the mouth in some suitable manner. Heretofore such teeth have generally consisted of a single piece of porcelain—such as are known as “plate-teeth”—and shells or facings.

Plate-teeth are solid pieces of porcelain of the size and shape of natural teeth and attached to a suitable support by means of pins projecting from their lingual or palatine surfaces. Being necessarily bulky to give strength, they permit the insertion of but little supporting material between themselves and the gums, so that they cannot be used for the so-called “bridge-work.” For the reason that the strain of mastication falls nearly or quite in the direction of the plane of the adjacent surfaces of the tooth and its support, there is great liability of breaking the pins which secure the tooth to said support. Shells or facings have no crowns or grinding-surface of their own, and are intended and adapted to be provided with the same of metal, which is integral with and a part of the backing or support. This has been necessary in order to get sufficient strength of supporting material to form a bridge that would not break under the pressure of mastication. As their name implies, they are merely an outer facing of porcelain in a single piece adapted to fasten to a tooth otherwise made of metal. These metallic crowns are more expensive than porcelain, less suitable as a grinding-surface, and do not resemble the natural teeth as does the porcelain.

The objects of my invention are to provide a tooth less liable to be separated from its support; also, so adapted that both the crown or grinding-surface and shell or outer surface may be made of porcelain, and at the same time afford room for a support sufficiently

strong to constitute a suitable bridge that will not be easily broken; also, to provide a structure, when complete, that will be materially cheaper and present a more suitable grinding-surface and more natural and pleasing appearance in the mouth.

My invention consists in providing a tooth of two separate pieces of porcelain, consisting of an outer part or facing and a crown or grinding-surface adjusted at or nearly at right angles to each other, and separately attached to a suitable support consisting of a bridge or plate of suitable material, as hereinafter more fully described.

In the accompanying drawings, Figure 1 represents the detached shell and crown of my improved tooth; Fig. 2, the same attached to a portion of a bridge or plate; Fig. 3, an elevation of the same as Fig. 2, viewed from the face of the shell; and Fig. 4, a vertical-section on the line *x x* in Fig. 3.

A is the shell and B the crown of the tooth, each being a separate piece of porcelain, and provided with the usual pins, C, or other suitable fastenings, for attaching them to the support D, which may be a plate or a bridge of any suitable material and secured within the mouth in any convenient manner.

The surface of the crown B, which is in contact with the support D, is at right angles, as near as may be, to the direction of the pressure upon said crown. Therefore there is but little tendency to break said crown or separate it from its support D. By this construction I am also able to adjust the position of the crown relative to the shell, and adapt the tooth to properly articulate with the antagonizing teeth without grinding its outer surface. I also secure within the angle formed by the described crown and shell sufficient room to form a support strong enough to constitute a suitable bridge. This support may extend between the adjacent beveled surfaces of the parts A and B, thus making a perfect joint and support for the part B. Said support may be made of other material than metal, such as celluloid, vulcanite, &c., and can be adapted to plate or bridge work, as occasion requires.

What I claim is as follows:

1. An artificial tooth consisting of a sepa-

rate outer part or facing and a crown or grinding surface, both of porcelain, adjusted substantially at right angles to each other and separately attached to a suitable support, substantially as described.

5 2. As an article of manufacture, porcelain veneers in pairs, consisting of a crown and an outer facing, each provided with means of in-

dependent attachment to a common support, and when so attached constituting, in conjunction with such support, an artificial tooth, substantially as described.

ELLIOTT H. SHERMAN.

Witnesses:

JOHN N. PARKS,
L. V. MOULTON.