G. E. Murray,

Making Teeth.

No. 6,924. Patented Dec. 4, 1849.

Fig. 1

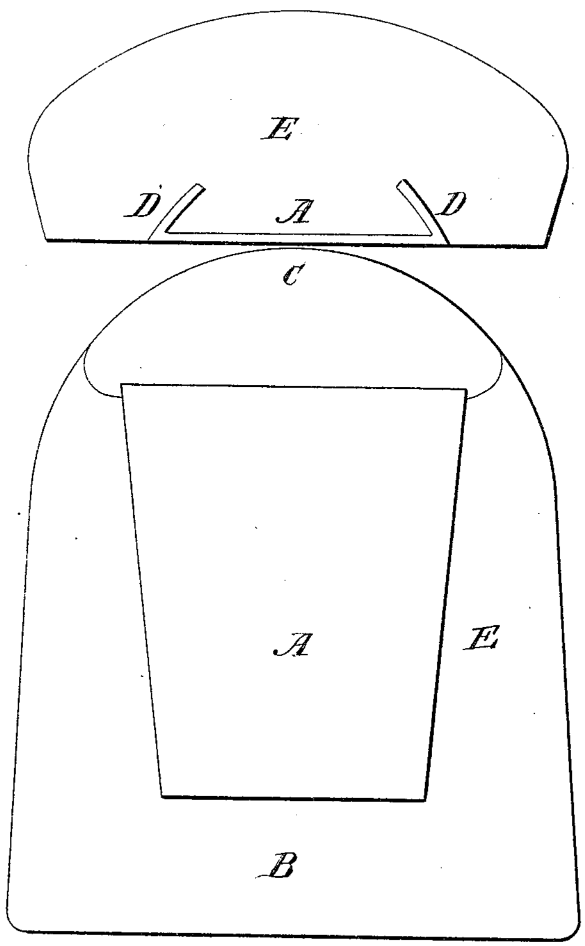

Fig. 2

Witnesses

Daniel Barnum

Chauncey Bulkley

Inventor

George E Murray

UNITED STATES PATENT OFFICE.

GEORGE E. MURRAY, OF PHILADELPHIA, PENNSYLVANIA.

ARTIFICIAL TOOTH.

Specification of Letters Patent No. 6,924, dated December 4, 1849.

To all whom it may concern:

Be it known that I, GEORGE E. MURRAY, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Artificial Teeth, and that the following is a full, clear and exact description of the principle or character which distinguishes them from all other things before known and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawing, in which an enlarged view of a tooth and plate is shown.

To place my invention in a proper light, I must state the defects and deficiencies of former modes of making artificial teeth, and connecting them with the plates, &c. on which they were fastened; and the advantages derived by my system.

The chief objects to be attained in artificial teeth are strength, durability, and a perfect adaptation to the mouth, for the purposes of articulation, which should be achieved with the least possible weight:—To effect same, or all of these objects, several modes have been devised, which experience has shown to be defective; such for instance as inserting a screw plug into the root of the tooth, or inserting pins or plugs into the side of the tooth, on to which a plate is riveted; this mode is now in most common use; but the disadvantages are manifold: if ever so well fitted, there is a space between the plate and tooth for the saliva and acids to penetrate and corrode; the fastening is at a distance above the point of the tooth, which allows a leverage, either to break the tooth, or pry off the fastening, an accident of very frequent occurrence; and if it is required to grind off a large portion of the tooth to fit it to the mouth one of the rivets may be ground out, which would render the tooth useless; again in riveting the plate to the tooth, there is danger of loosening the rivets, which can not be again securely fastened; and when the plate is fastened, it projects beyond the surface of the tooth, injures its configuration, is uncomfortable in the mouth and impedes articulation, besides adding weight to the tooth; and the cost of fitting up greatly exceeds my improved tooth.

My improvements are as follows: I form a plate of metal by turning its edges inward, as shown at (D) in the figures; the main part A being flat, and then mold the tooth on to said plate, imbedding its edges or flanges in the body of the tooth, and having the outer surface of the plate flush with the surface of the tooth; in fact, making a part of its surface: this plate is placed in the mold, with the flanges inwards towards the body of the tooth; and the porcelain paste, or other substance of which the tooth is to be made, is then filled into the mold and the plate will, by means of the flanges, become securely fastened to the tooth; several variations of the plate may be made, such for instance as having a flange project from the center thereof, or making the inner edge of the flange or flanges thick, by hammering or otherwise; they can be made at right angles to the plate, or inclined thereto; the plate may be rectangular, or of other proper shape, to suit the various cases to which it is applied and the metal of which it is composed may be platina, which I prefer, or some other metal, the tooth being porcelain, or other composition known in the manufacture of teeth, the purposes of my invention being to supply a firm brace or support connecting the tooth and plate its whole length, supporting the tooth near the point and uniting them firmly together so that no foreign substance can pass between them and saving the expense and danger of riveting them together.

Having thus fully described my improved tooth, and its mode of manufacture, what I claim therein as new, and for which I desire to secure Letters Patent, is,

An artificial tooth having a plate combined therewith, substantially in the manner and for the purposes set forth.

GEO. E. MURRAY.

Witnesses:

JOEL COOK,

J. M. RAYBOLD.