

R. E. BURLAN.

Improvement in Dental Plates and Teeth.

No. 123,451.

Patented Feb. 6, 1872.

Fig. 1.

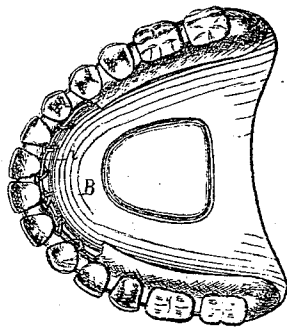


Fig. 2.

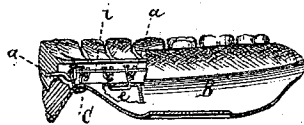
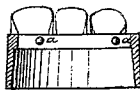


Fig. 3.



Witnesses:
G. Matheys.
Thos. H. W. Curran

Inventor:
Robert E. Burlan
PER *[Signature]*
Attorneys.

UNITED STATES PATENT OFFICE.

ROBERT E. BURLAN, OF LEWISBURG, PENNSYLVANIA.

IMPROVEMENT IN DENTAL PLATES AND TEETH.

Specification forming part of Letters Patent No. 123,451, dated February 6, 1872.

Specification describing certain Improvements in Artificial Teeth and Dental Plates, invented by ROBERT E. BURLAN, of Lewisburg, in the county of Union and State of Pennsylvania.

My invention has for its object to improve the method of attaching and mounting teeth upon a metallic base, so as to increase the strength and durability of the set. The invention likewise relates to a new dental plate; and the invention consists, first, in securing the teeth to the base plate by means of loops or stirrups passing through the latter and connecting with the pins and with a continuous wire, whereby the whole are firmly bound together. The invention consists, secondly, in the use of platinum and iridium, to form a base-plate.

Figure 1 represents a plan view of the under side of a base-plate with teeth attached accompanying my improvement, and Fig. 2 a section of the same. Fig. 3 is a face view of a "block" of teeth.

In carrying out my invention, the first step is to provide teeth, or blocks of teeth, with pins *a*, which should considerably exceed the ordinary kind in length, but are inserted in the teeth in the usual way. I next perforate the metallic plate, as at *c*, to adapt it to receive platinum-wire loops or stirrups *e*; and, placing the teeth or blocks of teeth upon the plate *B* in suitable position, I interlock the ends of said loops with the pins *a* by suitable bending of the same. The union thus formed I additionally strengthen by connecting a continuous wire, *i*, with all the loops and pins. The ends of this wire are joined to the terminal loops of the plate, and thus the teeth are bound together in the most firm and durable manner. They are now ready to receive the plastic material required to give the form and finish necessary to insure a closer resemblance to the natural gum and the smoothness indispensable to the comfort of the wearer.

I do not restrict myself to the use of any special kind or quality of material composing the plate, since many varieties may be employed with good results.

By employing teeth united to form blocks, as shown in Fig. 3, I am enabled to considerably facilitate the labor of producing the "set," as well as the cost and weight of the same, since two pins, by my method of fastening teeth, will ordinarily suffice to secure a block to the plate, so that the number of loops or stirrups may be correspondingly lessened. To form a base-plate which shall possess the qualities of thinness, firmness, and durability combined in the highest degree, I employ about five to ten per cent. of iridium with platinum, which latter, as found in the market, is as nearly pure or free from iridium as possible to make it. To perfectly unite these two metals, the platinum is first fused and the iridium then added, and, when thoroughly mixed, the mass is allowed to cool, and then worked into plates of suitable thickness, by any approved method. From professional experience I have found plates formed of this metal possess qualities which render it unequalled by any other known to me.

I do not restrict myself to the precise proportions of the ingredients specified.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The mode of fastening teeth to a base-plate by locking the pins *a* with the stirrups or loops *e* passing through the plate, and with the wire *i*, as shown and described.

2. A dental plate formed of platinum and iridium, as specified.

R. E. BURLAN.

Witnesses:

CHAS. A. PETTIT,
THOS. D. D. OURAND.