Specification of William Edward Newton : artificial teeth.

A.D. 1861, 3rd DECEMBER. N° 3034.

SPECIFICATION

OF

WILLIAM EDWARD NEWTON.

ARTIFICIAL TEETH.

LONDON:
PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
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1862.

A.D. 1861, *3rd December.* N° 3034.

Artificial Teeth.

LETTERS PATENT to William Edward Newton, of the Office for Patents, 66, Chancery Lane, in the County of Middlesex, Civil Engineer, for the Invention of "IMPROVEMENTS IN ARTIFICIAL TEETH."—A communication from abroad by Samuel Stockton White, of the City of Philadelphia, Pennsylvania, United States of America.

Sealed the 13th May 1862, and dated the 3rd December 1861.

PROVISIONAL SPECIFICATION left by the said William Edward Newton at the Office of the Commissioners of Patents, with his Petition, on the 3rd December 1861.

I, WILLIAM EDWARD NEWTON, of the Office for Patents, 66, Chancery Lane, in the County of Middlesex, Civil Engineer, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN ARTIFICIAL TEETH," to be as follows:—

This Invention of improvements in artificial teeth relates to an improved mode of fixing mineral teeth in the material known as vulcanite, and consists in fixing these teeth in the vulcanite by means of metal pins, having heads at those ends which project from the teeth before they are fixed in their place; by the employment of pins having heads at their outer ends the fastening will be more secure than heretofore, as the heads will prevent the pins from being drawn out of the vulcanite, except by the application of an amount of force to which they are not likely to be subjected.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said William Edward Newton in the Great Seal Patent Office on the 3rd June 1862.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, WILLIAM EDWARD NEWTON, of the Office for Patents, 66, Chancery Lane, in the County of Middlesex, Civil Engineer, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Third day of December, in the year of our Lord One thousand eight hundred and sixty-one, in the twenty-fifth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said William Edward Newton, Her special license that I, the said William Edward Newton, my executors, administrators, and assigns, or such others as I, the said William Edward Newton, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "IMPROVEMENTS IN ARTIFICIAL TEETH," being a communication from abroad, upon the condition (amongst others) that I, the said William Edward Newton, by an instrument in writing under my hand and seal, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

NOW KNOW YE, that I, the said William Edward Newton, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement, reference being had to the Drawing hereunto annexed, and to the letters and figures marked thereon (that is to say):—

This Invention of "Improvements in Artificial Teeth" relates to mineral teeth for what is known as vulcanite work.

The teeth commonly employed in such work are secured in the vulcanite setting by the aid of pins of platinum, parts of which are received in the teeth, and parts in the vulcanite. These pins, which are secured in the teeth in the manufacture of the latter, and before they come into the hands of the dentist, have been commonly made without heads at their outer ends, and the only means employed to fasten them in the vulcanite beyond the adhesion of the

vulcanite itself, has been by the dentist bending them before applying them to the setting, and the consequence has been that the pins have been very liable to tear out of the vulcanite. To obviate this difficulty, and supply the dentist with teeth which are applicable to the vulcanite without any preparation or manipulation of the pins, and which, after vulcanization, will be so firmly imbedded and fastened in the vulcanite as not to be liable to disturbance by ordinary wear, or any probable accident, is the object of the present Invention. To this end the teeth are manufactured with pins having heads at their outer ends, which, when embedded in the vulcanite, will firmly hold therein.

In the accompanying Drawing Fig. 1 is a perspective view of three gum teeth A, A, A, made with platinum pins *a*, *a*, *a*, of the usual construction; Fig. 2 is a similar view of similar teeth made with platinum pins *c*, *c*, *c*, having heads *d*, *d*, *d*, at their outer ends, according to the present Invention; Fig. 3 is a front view of the same; Fig. 4 is a transverse section on a somewhat larger scale; Fig. 5 is a perspective view of one of the pins before its insertion in the tooth, and drawn upon an enlarged scale; Fig. 6 is a transverse section of a pin illustrating a modification of the head. Similar letters of reference indicate corresponding parts where they occur in different Figures.

In the manufacture of the teeth with pins having heads at their outer ends, these heads *d*, *d*, *d*, may be of circular form projecting all round the pins, as shewn in Fig. 5, but in some cases it may be better to make them of the form shewn in Fig. 6, that is to say, that of a circle with a segment cut off, forming a straight side, the object being to avoid the protrusion of the head through the outer surface of the vulcanite; and the inner ends of the pins which are received within the teeth may also be made in the usual manner with heads, as shewn at *e*, in Figs. 4 and 5; or they may be made of any other form that will enable them to be secured in the teeth; but with this latter part of the pin the present Invention has nothing to do. To provide for the insertion of the pins in the teeth, holes are made in the moulds for the reception of the heads *d*, *d*, *d*, such holes being just large enough at the bottom for the heads *d* to fit tightly within them, and having a slight gradual enlargement toward their mouths, to allow the pins to draw out easily. Before moulding the teeth the heads of the pins are inserted in the holes, and the holes are filled up around the pin with some of the mineral composition of which the teeth are made, after which the moulding of the teeth is proceeded with in the usual manner. On the opening of the mould and removal of the teeth, the composition with which the holes in the mould were filled up comes out with the pins, and is to be cut away from the teeth and pins before the baking process. Instead of the pins being inserted in this way, they may be

placed in the teeth after the first baking or burning process (technically known as biscuiting), by drilling holes in the teeth, and inserting the pins, taking care to pack round the pins within the holes with some of the same composition of which the teeth are made. The teeth may then be subjected to the second burning process, by which they will be finished. The teeth thus made with pins having heads at their outer ends are a new article of manufacture.

Having now described this Invention of improvements in artificial teeth, and explained the manner of carrying the same into effect, as communicated to me by my foreign correspondent, I claim as the Invention secured to me by Letters Patent, as aforesaid, the manufacture of mineral teeth with pins having heads at their outer ends, as and for the purpose herein set forth.

In witness whereof, I, the said William Edward Newton, have hereunto set my hand and seal, the Second day of June, in the year of our Lord One thousand eight hundred and sixty-two.

W. E. NEWTON (L.S.)

Witness,
J. W. MOFFATT,
66, Chancery Lane.

LONDON:
Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1862.

(1 SHEET)

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FIG. 2.

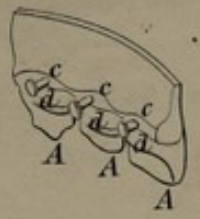


FIG. 1.

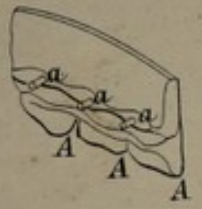


FIG. 3.

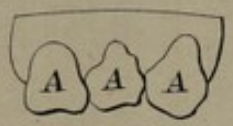


FIG. 4.

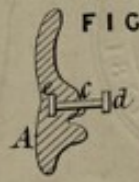


FIG. 5.

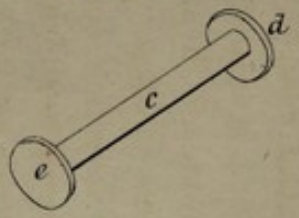
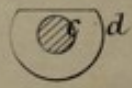


FIG. 6.



The filed drawing is partly colored.

Drawn on Stone by Malby & Sons.

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Printers to the Queen's most Excellent Majesty. 1862.